1. Staff Review Committee Agenda 01-14-26

    Documents:

    STAFF_REVIEW_AGENDA_011426.PDF

2. 25-001: Jones Farm Subdivision

    Documents:

    25_001_APPLICATION_SRC.PDF
    25_001_STORMWATER_SRC.PDF
    25_001_PLAN_SET_SRC.PDF

3. 25-060: Molnlycke Site Plan Amendment

    Documents:

    25_060_APPLICATION_SRC.PDF
    25_060_PLAN_SET_SRC.PDF

4. 25-037: Garnet Ridge Subdivision - Workshop

    Documents:

    25_037_WAIVER_REQUESTS_SRC.PDF
    35_037_PLAN_SET_SRC.PDF

5. 25-057: Ten Two LLC Subdivision

    Documents:

    25_057_APPLICATION_PLAN_SET_SRC.PDF

Town of Brunswick, Maine

Department of Planning & Development
85 UNION STREET, BRUNSWICK, ME 04011

STAFF REVIEW COMMITTEE AGENDA
Brunswick Town Hall
85 Union Street – Council Chambers
Wednesday, January 14, 2026 @ 10:00 A.M.

There is an opportunity to attend this meeting in person or view the meeting via Zoom, TV 3, or live stream.

How to watch and comment via Zoom:

The link to view or listen to the meeting on Zoom: https://www.brunswickme.org/313/Brunswick-Cable-TV3

How to watch via TV3 or Live Stream:

The link to view or listen to the meeting on TV3 (Channel 3 on Comcast) or via live stream from the Town's website: http://tv3hd.brunswickme.org/CablecastPublicSite/watch/1?channel=1

All votes to be taken via roll call.

The public may provide written comment via email (mjames@brunswickme.gov) prior to the meeting, OR they may provide live comment at the meeting via Zoom or in person.

1. **Case No. 25-001 – Jones Farm Estates:** The Staff Review Committee will review and make a recommendation to the Planning Board on a **Major Development Review Final Plan** application submitted by Belanger Engineering on behalf of Bob Walton of Labbe Construction and the property owner, Jones Farm Estates, LLC, for a phased 13-lot subdivision on a new dead end road. The subject property is located on Lisbon Road (Map 1, Lot 70) and within the **Rural Farm and Forest (RF) Zoning District**.

2. **Case No. 25-060 – Molnlycke Health Care:** The Staff Review Committee will review and make a recommendation to the Planning Board on a **Major Development Review Final Plan** application submitted by SMRT Architects and Engineers on behalf of the property owner, Molnlycke Manufacturing US, LLC, for an approximately 78,000 square foot addition to the existing facility, with expanded parking, pedestrian and vehicle circulation, stormwater management systems, and utilities. The subject property is located at 192 Admiral Fitch Avenue (Map 40, Lots 294 and 294-1) and within the **Growth Mixed-Use 7 (GM7) Zoning District** as of December 31, 2025.

3. **Case No. 25-037 – Garnet Ridge Subdivision:** The Staff Review Committee will hold a **WORKSHOP** to review a **Waiver Request** submitted by Terradyn Consultants, LLC, on behalf of the property owners, Alex and Stefanie Hallett, to exceed the minimum permitted length of a dead-end road and the maximum number of housing units served by a dead-end road. The proposed development consists of a 13-lot open space subdivision with the ability to support 8 new single-family homes and 4 new duplexes on a new 1,725 LF dead-end road. The subject property is located at 119 Moody Road (Map 14 Lot 13A; Map 10 Lots 4 & 5; Map 9 Lot 10) and within the **Rural Farm and Forest (RF) Zoning District,** and the **Shoreland Protection Overlay (SPO), Shoreland**

Protection Overlay – Stream Protection (SPO-SP), Shoreland Protection Overlay – Resource Protection (SPO-RP), Wildlife Protection Overlay (WPO), and **Aquifer Protection Overlay 3 (APO 3) Subdistricts**.

4. **Case No. 25-057 – Ten Two LLC Subdivision – Major Development Review Sketch Plan:** The Staff Review Committee will review and make a recommendation to the Planning Board on a **Major Development Review Sketch Plan** application submitted by Little River Land Survey on behalf of the property owner, Ten Two, LLC, for a three-lot subdivision. The subject property is located on Moody Road (Map 10, Lot 10) and within the **Rural Farm and Forest (RF) Zoning District,** and the **Shoreland Protection Overlay (SPO), the Shoreland Protection Overlay – Stream Protection (SPO-SP),** and **Aquifer Protection Overlay 3 (APO 3) Subdistricts**.

5. **Adjourn**

BELANGER ENGINEERING
CONSULTING ENGINEERS

Major Development Review
Sketch Plan and Final Plan Applications

Owner: Jones Farm Estate LLC
Jones Farm Subdivision
Brunswick, Maine

January 2, 2026

13 Lot Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine
Town of Brunswick Tax Map 1 Lot 70

BY: **Belanger Engineering**
63 Second Avenue
Augusta, Maine 04330
207-622-1462

FOR: **Bob Walton**
Ray Labbe and Sons
4 Highland Road
Brunswick, Maine 04011

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BELANGER ENGINEERING
CONSULTING ENGINEERS

January 2, 2026
Julie Erdman – Director of Planning and Development
Town of Brunswick
Municipal Building
28 Federal Street
Brunswick, Maine 04011
207-725-6660 ext.4022
jerdman@brunswickme.org

Taylor Burdin (Codes Enforcement Officer) tburdin@brunswickme.org
Mike Pindell (Codes Enforcement Officer) mpindell@brunswickme.org

RE: Jones Farm Estate LLC.
0 Lisbon Road
Tax Map 1 Lot 70
Sketch and Final Plan Development Review Application
Updated with Staff and Planning Board Comments

Dear Ms. Erdman;

Enclosed please find a updated development review application for the new residential subdivision project on Lisbon Road in Brunswick. The property is shown Town of Brunswick Tax Map 1 Lot 70. Approximately 32.5 acres will be developed into 13 single family residential house lots and 1 open space parcel supporting the development. On behalf of Jones Farm Estate LLC, we have enclosed their application form and attachments.

A project went through a staff and Planning Board review in November 2025. Staff also recently reviewed the project in July 2025. As a result of the comments, the plans have been revised to eliminate the stream crossing which reduced the length of the road to 1100'. A waiver is not required for this development for road length.

The project has been reviewed and approved by Maine DEP. Approval Orders are included in this submittal. The reduced road length reduced the permit thresholds to a DEP stormwater permit by rule because road impervious areas are below one acre.

Sketch and Final application fees of $300 and $300 per lot were paid by the developer. The developer submitted a check for $7800 for their Sketch and Final Plan Subdivision Application Fees. The recreation fees are estimated to be $1,963 X 13 = $25,519. The recreation fees are proposed to be paid prior to construction.

Sean Pierce, PLS of Colliers Engineering have prepared a updated draft final lot stamped subdivision plan for recording. See plan set.

The lots will be accessed by a new main access road, 20' wide, Jones Farm Road which is approximately 1100', includes a hammerhead turnaround at the end of the road. The side road, Hay Stack Lane, will be 20' wide "driveway" and serves 2 single family lots. The access roads create 0.88 acres of impervious area and 2.29 acres of developed area for this project. The roads will be private when complete. Lots will be served by on lot well and septic systems. No public water or sewer is available in the area.

Jones Farm Estate LLC Project Facts:

Client: Bob Walton, Labbe Construction, bob@raylabbeandsons.com, 207-725-7336
Business Address: 4 Highland Road, Brunswick, Maine 04011
Parcel Number 1-70
Parcel Owner: Jones Farm Estates LLC.
Land Area: 79.44 acres (RECORDS)
Area to be developed: 32.50 Acres
Site Address: 0 Lisbon Road, Brunswick
Zone: RF – Rural Farm and Forest (pg2-8)

Surveyor – Sean Pierce, PLS, sean.pierce@collierseng.com, 978-729-7110 mobile
Wetlands are shown on the plans.

Table 4.2.4 Rural area dimensional and Density Standards
Zone: RF – Rural Farm and Forest (pg2-8)
Min. Lot Area: Residential = 2 ac.
Maximum Density 1 dwelling unit per 2 ac.
Minimum Lot Width = 150'
Minimum Front Setback = 25'
Minimum Rear Setback = 30'
Minimum Side Setbacks = 30'
Max. Impervious Surface coverage (% lot area) = 20%
Max. Building Height = 40'
Max. Building footprint per structure = 10,000 s.f.

Open Space Developments:

Open Space Developments in RF Zone: Table 4.2.5.C(5) Brunswick Zoning Ordinance.
Protected Open Area: 45% Gross Area = 14.63 Acres minimum.
Proposed Open Space Area: 18.28 Acres

Lot Area, min. N/A (s.f.) *

*septic and wells min. setback from property line = 15'

Lot Width, min. (feet) = 75'

Front Setback, min. (feet) = n/a (25’ shown on subdivision plans)

Rear Setback, min. (feet) = 20' min. (shown on subdivision plans)

Side Setback, min. (feet) = 10' min. (shown on subdivision plans)

Impervious Surface Coverage, max. (% lot area) = N/A

Density Bonus: See subsection 4.2.5.E of Brunswick Zoning Ordinance.

Density: Net Site Area = 26.75 Acres

Density Calculation: 26.75 Acres / 2 Acres/dwelling unit = 13 dwelling units.

Should you have questions, please call.

Very truly yours,

Christopher S. Belanger, P.E.
Enclosures

cc: Bob Walton, Owner / Developer

Town of Brunswick, Maine

INCORPORATED 1739

DEPARTMENT OF PLANNING AND DEVELOPMENT

85 UNION STREET

BRUNSWICK, MAINE 04011-1583

TELEPHONE 207-725-6660

FAX 207-725-6663

BRUNSWICK PLANNING BOARD
DEVELOPMENT REVIEW PACKET

This Packet Includes:

I. Summary of Development Review Applicability and Process
II. Minor Development Review Application Form
III. Sketch Plan Major Development Review Application Form
IV. Final Plan Major Development Review Application Form
V. Streamlined Final Plan Review Application Form

Note that this review process summary and the submission checklist are provided only as a ready reference for your convenience. For a complete reading of the provisions governing development review in Brunswick, the applicant must refer to the Brunswick Zoning Ordinance, copies of, which are available for a fee from the Department of Planning and Development.

PURPOSE

The purpose of Development Review for site plans and subdivisions is to ensure that the development of land occurs in a manner that conforms to the Brunswick Zoning Ordinance (Zoning Ordinance) and reasonably protects public facilities, the natural environment and neighboring uses. Development review includes subdivision and site plan reviews. Applicants are advised that a building, electrical or plumbing permit may be required in addition to Development Review. For further information, contact the Town Planner, Department of Planning and Development at 207-725-6660.

DEVELOPMENT REVIEW CATEGORIES AND THRESHOLDS

Development review applications are classified into "Minor", "Major" and "Streamlined Major" review. Major Reviews are conducted by the Planning Board, and Minor Reviews are conducted by the Staff Review Committee. **Development review thresholds and procedures are detailed in Section 5.2.9 of the Brunswick Zoning Ordinance.** Briefly;

Minor Plan: For developments of lesser scale, the plan includes the final drawings on which the applicant's subdivision or site plan is presented to the Staff Review Committee for approval and which, if approved, would be recorded at the Cumberland County Registry of Deeds.

Major Review Components:

> **Sketch Plan:** Includes conceptual maps, renderings and supportive data describing the project proposed by the applicant for initial Staff Review Committee review and recommendation to the Planning Board, followed by the review and action by the Planning Board.
>
> **Final Plan:** Includes the final drawings on which the applicant's subdivision or site plan is first presented to the Staff Review Committee for review and recommendation to the Planning Board, followed by review and action by the Planning Board.

Streamlined Major Plan: If the proposed development is located within the Brunswick Growth Area, as delineated on the Town's Official Zoning Map, an applicant has the option to submit a Streamlined Major Plan for Planning Board review and approval. A staff-level pre-application meeting is required prior to the application being submitted.

REVIEW PROCESS AND TIMEFRAME

Development Review shall be conducted in accordance with the Development Review Time and Processing Requirements in Table 5.2.9.I of the Zoning Ordinance and provided below. All time limits are expressed in calendar days. In cases where the date prescribed in this Table is a legal holiday, all deadlines shall apply to the previous working day.

Table 5.2.9.I: Development Review Time and Processing Requirements			
Timing	**Minor Development Review (Staff Review Committee)**	**Standard Major Development Review (Planning Board)**	**Streamlined Major Development Review (Planning Board)**
No less than 21 days prior to Review Authority Meeting		Deadline for filing one (1) copy of application for Planning Board consideration.	No less than 21 days prior to Planning Board consideration, applicant shall meet with Department staff to discuss application.
No less than 14 days prior to Review Authority meeting	Deadline for filing one (1) copy of application for Staff Review Committee consideration. Staff confirms that application is complete within three (3) working days and completes abutter notification in accordance with Subsection 5.1.3.B(1). The applicant then supplies 12 copies of all application materials and one (1) electronic copy.	Within five (5) working days, staff confirms that application is complete and all owners of property per Subsection 5.1.3.B(1) are notified of the Staff Review Committee and Planning Board meetings. The applicant then supplies 12 copies of all application materials and one (1) electronic copy for Staff Review Committee distribution.	Deadline for filing one (1) copy of application for Planning Board consideration.[1] Staff confirms that application is complete and all owners of property per Subsection 5.1.3.B(1) are notified of the Staff Review Committee and Planning Board meetings. The applicant then supplies 12 copies of all application materials and one (1) electronic copy for Staff Review Committee distribution.
No less than seven (7) days prior to Review Authority meeting		The application shall be brought before the Staff Review Committee for comments and recommendation. Within five (5) days following the Staff Review Committee meeting, the applicant shall supply nine (9) copies of the revised plans and one (1) electronic version for distribution to Planning Board. If a Public Hearing is required, the first of two (2) required notices shall appear in a newspaper of general circulation no less than seven (7) days prior to the hearing.	The application shall be brought before the Staff Review Committee for comments and recommendation. Within five (5) days following the Staff Review Committee meeting, the applicant shall supply nine (9) copies of the revised plans and one (1) electronic version for distribution to Planning Board. If a Public Hearing is required, the first of two (2) required notices shall appear in a newspaper of general circulation no less than seven (7) days prior to the hearing.
No less than three (3) days prior to Review Authority meeting	The Director shall issue preliminary Findings of Fact based on Subsection 5.2.9.O and shall issue a draft set of conditions of approval, if any. This material shall be mailed, emailed, faxed, or hand delivered to the Staff Review Committee and the applicant.	The Director shall issue preliminary Findings of Fact based on Subsection 5.2.9.O and shall issue a draft set of conditions of approval, if any. This material shall be mailed, emailed, faxed, or hand delivered to the Planning Board and the applicant.	The Director shall issue preliminary Findings of Fact based on Subsection 5.2.9.O and shall issue a draft set of conditions of approval, if any. This material shall be mailed, emailed, faxed or hand delivered to the Planning Board and the applicant.
No more than seven (7) days after decision by Review Authority	The Staff Review Committee shall transmit its written decision and Findings of Fact to the applicant.		

Table 5.2.9.I: Development Review Time and Processing Requirements			
Timing	**Minor Development Review (Staff Review Committee)**	**Standard Major Development Review (Planning Board)**	**Streamlined Major Development Review (Planning Board)**
No more than 30 days after decision by Review Authority if Public Hearing held, or no more than 60 days if no public hearing is held.		The Planning Board shall transmit its written decision and Findings of Fact to the applicant.	The Planning Board shall transmit its written decision and Findings of Fact to the applicant.
No more than 30 days after application is deemed complete by staff.	The Review Authority shall consider an application unless postponement is requested or agreed to by applicant.		
NOTES: 1. If application lacks any required submittal materials, the streamlined process shall be terminated and the application shall revert back to the Major Development Review process.			

Flowcharts illustrating specific review procedures for each development review category are attached.

APPLICABLE FEES

Application Fees

The following application fees shall be paid for any project undergoing development review. For projects that meet the public hearing threshold or projects for which the Planning Board schedules a public hearing an additional $250.00 fee will be assessed to cover the costs of advertising.

Minor Development Review:

- $200.00

Major Subdivision:

SKETCH PLAN: $125 per lot proposed
FINAL PLAN: $175 per lot proposed

Major Site Plan:

SKETCH PLAN:

- For projects with new building construction of more than 2,500 square feet the cost equals the total amount of square footage for all buildings multiplied by $0.05.
- For all other developments the fee is $200.00.

FINAL PLAN:

- For projects with new building construction of more than 2,500 square feet the cost equals the total amount of square footage for all buildings multiplied by $0.12.
- For all other developments the fee is $200.00.

Impact Fees

Impact fees may apply depending upon the type of proposed development and will be determined during the development review process.

DEVELOPMENT REVIEW
APPLICATION

1. Development Review application type (refer to **Appendix D**):

- [ ] **Minor Development Review**
- [x] Major Development Review: **Sketch Plan**
- [x] Major Development Review: **Final Plan**
- [ ] Major Development Review: **Streamlined Final Plan**

2. Project Name: Jones Farm Subdivision Project

3. Project Applicant

Name:	Bob Walton President - Ray Labbe and Sons, Inc.
Address:	4 Highland Road,
	Brunswick, Maine 04011
Phone Number:	207-725-7336
Email:	bob@raylabbeandsons.com

4. Project Owner (if different than applicant)

Name:	Jones Farm Estates LLC. (owned by applicant)
Address:	0 Lisbon Road (site address)
	Brunswick, Maine 04011
Phone Number:	same as applicant
Email:	same as applicant

5. Authorized Representative

Name:	Chris Belanger, P.E. - Belanger Engineering
Address:	63 Second Avenue
	Augusta, Maine 04330
Phone Number:	207-622-1462
Email:	cbelanger@roadrunner.com

6. List of Design Consultants. Indicate the registration number, address and phone number, email for any additional project engineers, surveyors, architects, landscape architects or planners:

1. Chris Belanger, P.E. # 9098, Belanger Engineering, 63 Second Ave, Augusta, ME 207-622-1462.
2. Sean Pierce, PLS, Colliers Engineering, sean.pierce@collierseng.com, 877-627-3772
3. _____

7. Physical location of property: 0 Lisbon Road, Brunswick, Maine

8. Lot Size: 79.44 Acres. Approximately 32 acres is being developed.

9. Zoning District: RF - Rural Farm and Forest

10. Overlay Zoning District(s): N/A

11. Indicate the interest of the applicant in the property and abutting property. For example, is the applicant the owner of the property and abutting property? If not, who owns the property subject to this application?

The applicant also owns the adjacent properties. Ray Labbe and Sons owns the gravel pit and pit road on the southern side of the site. Ray Labbe also owns the northerly parcel adjacent to the subdivision. Ray Labbe and Sons, Inc. owns the property subject to this application under the entity Jones Farm Estate LLC.

12. Assessor's Tax Map 1 Lot Number 70 of subject property.

13. Brief description of proposed use/subdivision:

New 13 Lot Residential Subdivision.

14. Describe specific physical improvements to be done:

Construct new road (street) and utilities to support 13 lot residential open space development.

Owner Signature:

Robert J Walton

Applicant Signature (*if different*):

Christopher Belanger

Chris Belanger - "Agent" Signature - See letter of Authorization

DEVELOPMENT REVIEW APPLICATION REQUIREMENTS

The submission requirements contained in **Appendix D** of the Brunswick Zoning Ordinance (attached in checklist format for each application category) shall apply to all Minor Development, Major Development, and Streamlined Major Development Review unless a waiver is granted. Proposed development applications shall be submitted to the Director of Planning and Development.

For each item listed in Appendix D the applicant shall either submit the requested information or request a waiver from the information requirement pursuant to Subsection 5.2.9.M of the Zoning Ordinance.

REQUIREMENTS FOR SKETCH PLAN APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Sketch Plan
General	Application form and fee	X
	Name of development	X
	Existing zoning district and overlay designations	X
	Location map	X
	Location of features, natural and artificial, such as water bodies, wetlands, streams, important habitats, vegetation, railroads, ditches and buildings	X
	Documentation of Right, Title and Interest	X
	Draft performance guarantee or conditional agreement	X
Survey, Topography, & Existing Conditions	Scale, date, north point, and area	X
	Existing easements associated with the development	X
	Existing locations of sidewalks	X
	Approximate locations of dedicated public open space, areas protected by conservation easements and recreation areas	X
	When applicable, a table indicating the maximum number of lots permitted based upon the applicable dimensional requirements, the number of lots proposed, and the number of lots permitted to be further subdivided.	X
Proposed Development Plan	Number of lots if a subdivision	X

REQUIREMENTS FOR FINAL PLAN, STREAMLINED REVIEW & MINOR REVIEW APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Final Plan	Streamlined	Minor
General	Application form and fee	X	--	--
	Name of development	X	--	--
	Existing zoning district and overlay designations	X	--	--
	Location map	X	--	--
	Names of current owner(s) of subject parcel and abutting parcels	X	--	--
	Names of engineer and surveyor; and professional registration numbers of those who prepared the plan	X	--	--
	Location of features, natural and artificial, such as water bodies, wetlands, streams, important habitats, vegetation, railroads, ditches and buildings	X	--	--
	Documentation of Right, Title and Interest	X	--	--
	Drafts of legal documents appropriate to the application, including: deeds, easements, conservation easements, deed restrictions or covenants, home/property owners association declarations and by-laws, and such other agreements or documents as are necessary to show the manner in which common areas will be owned, maintained, and protected	P P	-- --	-- --
	Draft performance guarantee or conditional agreement	P	--	--
Survey, Topography, & Existing Conditions	Scale, date, north point, and area	X	--	--
	A survey submitted (stamped for final plan submittal) by a professional surveyor with a current license by the State of Maine Board of Licensure for Professional Surveyors	X	--	--
	Boundaries of all lots and tracts with accurate distances and bearings, locations of all permanent monuments property identified as existing or proposed	X	--	--
	Existing easements associated with the development	X	--	--
	Location of existing utilities; water, sewer, electrical lines, and profiles of underground facilities	X	--	--
Survey, Topography, & Existing Conditions	Existing location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability	X	--	--
	Topography with contour intervals of not more than two (2) feet	X	--	--
	A Medium Intensity Soil Survey, available from the Cumberland County Soil and water Conservation District,. The Planning Board may require a Class A (high intensity) Soil Survey, prepared in accordance with the standards of the Maine Association of Professional Soil Scientists, if issues of water quality, wetlands or other natural constraints are noted.	X X	-- --	-- --
	Existing locations of sidewalks	--	--	--
	A delineation of wetlands, floodplains, important habitats, and other environmentally sensitive areas	X	--	--
	Approximate locations of dedicated public open space, areas protected by conservation easements and recreation areas	X	--	--

REQUIREMENTS FOR FINAL PLAN, STREAMLINED REVIEW & MINOR REVIEW APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Final Plan	Streamlined	Minor
Infrastructure - Proposed	Name, location, width of paving and rights-of-way, profile, cross-section dimensions, curve radii of existing and proposed streets; profiles of center-lines of proposed streets, at a horizontal scale of one (1) inch = 50 feet and vertical scale of one (1) = five (5) feet, with all evaluations referred to in U.S.G.S. datum	X X	-- --	-- --
	Proposed easements associated with the development	X	--	--
	Kind, location, profile and cross-section of all proposed drainage facilities, both within and connections to the proposed development, and a storm-water management plan in accordance with Section	X	--	--
	Location of proposed utilities; water, sewer, electrical lines, and profiles of underground facilities. Tentative locations of private wells.	X	--	--
	Proposed location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability	X	--	--
	Proposed locations, widths and profiles of sidewalks	N/A	--	--
	Locations and dimensions of proposed vehicular and bicycle parking areas, including proposed shared parking arrangement if applicable.	N/A	--	--
Infrastructure - Proposed	Grading, erosion control, and landscaping plan; proposed finished grades, slopes, swells, and ground cover or other means of stabilization	X	--	--
	Storm water management plan for the proposed project prepared by a professional engineer	X	--	--
	The size and proposed location of water supply and sewage disposal systems	X	--	--
	Where a septic system is to be used, evidence of soil suitability	X	--	--
	A statement from the General Manager of the Brunswick Sewer District as to conditions under which the Sewer District will provide public sewer and approval of the proposed sanitary sewer infrastructure	N/A	--	--
	A statement from the Fire Chief recommending the number, size and location of hydrants, available pressure levels, road layout and street and project name, and any other fire protection measures to be taken	N/A	--	--
	A statement from the General Manager of the Brunswick and Topsham Water District as to conditions under which public water will be provided and approval of the proposed water distribution infrastructure	N/A	--	--
Proposed Development Plan	Lighting plan showing details of all proposed lighting and the location of that lighting in relation to the site	W	--	--
	Reference to special conditions stipulated by the Review Authority	P	--	--
	Proposed ownership and approximate location and dimensions of open spaces for conservation and recreation. Dedicated public open specs, areas protected by conservation easements, and existing and proposed open spaces or recreation areas and potential connectivity to adjoining open space.	X X	-- --	-- --
	When applicable, a table indicating the maximum number of lots permitted based upon the applicable dimensional requirements, the number of lots proposed, and the number of lots permitted to be further subdivided.	X	--	--
	Building envelopes showing acceptable locations for principal and accessory structures, setbacks and impervious coverage	X	--	--

REQUIREMENTS FOR FINAL PLAN, STREAMLINED REVIEW & MINOR REVIEW APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Final Plan	Streamlined	Minor
Proposed Development Plan	Disclosure of any required permits or, if a permit has already been granted, a copy of that permit	X	--	--
	A statement from the General Manager of the Brunswick and Topsham Water District regarding the proposed development if located within an Aquifer Protection Zone	N/A	--	--
	A plan of all new construction, expansion and/or redevelopment of existing facilities, including type, size, footprint, floor layout, setback, elevation of first floor slab, storage and loading areas	N/A	--	--
	An elevation view of all sides of each building proposed indicating height, color, bulk, surface treatment, signage and other features as may be required by specific design standards	N/A	--	--
	A circulation plan describing all pedestrian and vehicle traffic flow on surrounding road systems	X	--	--
	A site landscaping plan indicating grade change, vegetation to be preserved, new plantings used to stabilize areas of cut and fill, screening, the size, locations and purpose and type of vegetation	X	--	--
	Number of lots if a subdivision	X	--	--
	A plan showing all ten (10) inch caliper trees to be removed as a result of the development proposal	W	--	--
	All applicable materials necessary for the Review Authority to review the proposal in accordance with the criteria of Chapter 5.	P	--	--
	Any additional studies required by the Review Authority	P	--	--

FINANCIAL CAPACITY EXPLAINED

Applicants shall demonstrate compliance with the following:

A. **General Standard:**

The applicant shall have financial capacity to design, construct, operate, and maintain the development. Evidence of financial capacity must be provided prior to a decision on an application, except that the applicable review authority may defer a final finding on financial capacity by placing a condition on an approval that requires the applicant to provide final evidence of financial capacity satisfactory to the Director of Planning and Development before the issuance of any building permit.

B. **Specific Standard:**

(1) The applicant must show that they have right, title, or interest in the development parcel.

(2) The application for approval of a proposed development must include evidence that affirmatively demonstrates that the developer has the financial capacity to design, construct, operate, and maintain the proposed development, except in cases in which the review authority defers a final determination as set forth in Section (A) above. Evidence of financial capacity must include, but is not limited to, the following information:

a. Cost estimates. Accurate and complete estimates of the development, including all proposed phases. The itemization of major costs may include but is not limited to, the cost of the following activities: land purchase, erosion control, roads, sewers, structures, water supply, utilities, pollution abatement, landscaping, and restoration of the site, if applicable.

b. Time schedule. The time schedule for construction of all phases proposed.

c. Evidence of Funds. Evidence such as the following:

i. Letter of commitment or intent to fund. A letter from a financial institution, governmental agency, or other funding source indication a commitment to provide to the applicant a specified amount of funds and the uses for which the funds may be utilized. In cases where funding is required but her can be no commitment of money until approvals are received, an applicant may submit a letter of "intent to fund' from an appropriate funding institution indicating the amount of funds intended to be provided to the applicant and the specified uses for which the funds are intended.

In cases where one or more entities are part of the applicant's business structure, evidence must be submitted describing the applicant's business structure and demonstrating that the proposed financing is clearly linked from the financing institution to the applicant.

ii. Self-financing

(A) The most recent corporate annual report or financial statements indicating availability of sufficient funds to finance the development together with material

explaining the report, and evidence that funds have been set aside for the proposed development. The financial information in any annual report and any financial statement should be audited, or an explanation provided why audited reports are not available.

(B) Copies of bank statements of accounts held by the applicant or other evidence indicating that funds are available and have been set aside for the proposed development.

iii. Government agency

(A) Evidence that funds to complete the development have been included in an approved budget and that grant money or other funds have been obtained to cover the development costs.

(B) In cases where funding is required but there can be no commitment of money until approvals are received, a detailed plan outlining how funds for the development will be obtained and evidence that legal authority exists to implement the plan.

iv. Non-profit organization

(A) Evidence that funds to complete the development have been included in an approved budget and that grant money or other funds have been obtained to cover the development costs.

(B) In cases where funding is required but there can be no commitment of money until approvals are received, a detailed plan outlining how funds for the development will be obtained, including projections for and status of any fund raising.

d. Phased Development. In cases of phased development or long-term construction projects, the department may find that the applicant has demonstrated adequate financial capacity to comply with department requirements provided (a) the applicant has demonstrated financial capacity for a separate first phase, and (b) the permit is conditioned to require that evidence of financial capacity adequate for review and approval be submitted to the Department prior to construction of each subsequent phase. Construction of each subsequent phase may not begin prior to approval of financial capacity for that phase.

e. If the applicant is an entity registered with the Secretary of State of any state, provide a Certificate of Good Standing or other evidence of existence and good standing satisfactory to the Planning Board.

Appendix D - Summary of Application Requirements

TABLE D.1		Sketch Plan	Final Plan	Streamlined	Common Development Plan	Conditional Use or Special Permit
General	Application form and fee	X	X	X	X	X
	Name of development	X	X	X	X	X
	Existing zoning district and overlay designations	X	X	X	X	X
	Location map	X	X	X	X	X
	Names of current owner(s) of subject parcel and abutting parcels		X	X	X	X
	Names of engineer and surveyor; and professional registration numbers of those who prepared the plan		X	X	X	X
	Location of features, natural and artificial, such as water bodies, wetlands, streams, important habitats, vegetation, railroads, ditches and buildings	X	X	X	X	X
	Documentation of Right, Title and Interest	X	X	X	X	X
	Drafts of legal documents appropriate to the application, including: deeds, easements, conservation easements, deed restrictions or covenants, home/property owners association declarations and by-laws, and such other agreements or documents as are necessary to show the manner in which common areas will be owned, maintained, and protected		X	X	X	X
Survey, Topography, & Existing Conditions	Scale, date, north point, and area	X	X	X	X	X
	A survey submitted (stamped for final plan submittal) by a professional surveyor with a current license by the State of Maine Board of Licensure for Professional Surveyors		X	X	X	X
	Boundaries of all lots and tracts with accurate distances and bearings, locations of all permanent monuments property identified as existing or proposed		X	X	X	
	Existing easements associated with the development	X	X	X	X	X
	Location of existing utilities; water, sewer, electrical lines, and profiles of underground facilities		X	X	X	
Survey, Topography, & Existing Conditions	Existing location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability		X	X	X	
	Topography with contour intervals of not more than two (2) feet		X	X	X	
	A Medium Intensity Soil Survey, available from the Cumberland County Soil and water Conservation District,. The Planning Board may require a Class A (high intensity) Soil Survey, prepared in accordance with the standards of the Maine Association of Professional Soil Scientists, if issues of water quality, wetlands or other natural constraints are noted.		X	X	X	
	Existing locations of sidewalks	X	X	X	X	

TABLE D.1		Sketch Plan	Final Plan	Streamlined	Common Development Plan	Conditional Use or Special Permit
	A delineation of wetlands, floodplains, important habitats, and other environmentally sensitive areas		X	X	X	
	Approximate locations of dedicated public open space, areas protected by conservation easements and recreation areas	X	X	X	X	
Infrastructure - Proposed	Name, location, width of paving and rights-of-way, profile, cross-section dimensions, curve radii of existing and proposed streets; profiles of center-lines of proposed streets, at a horizontal scale of one (1) inch = 50 feet and vertical scale of one (1) = five (5) feet, with all evaluations referred to in U.S.G.S. datum		X	X	X	
	Proposed easements associated with the development		X	X	X	X
	Kind, location, profile and cross-section of all proposed drainage facilities, both within and connections to the proposed development, and a storm-water management plan in accordance with Section		X	X	X	
	Location of proposed utilities; water, sewer, electrical lines, and profiles of underground facilities. Tentative locations of private wells.		X	X	X	
	Proposed location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability		X	X	X	
	Proposed locations, widths and profiles of sidewalks		X	X	X	
	Locations and dimensions of proposed vehicular and bicycle parking areas, including proposed shared parking arrangement if applicable.		X	X	X	X
Infrastructure - Proposed	Grading, erosion control, and landscaping plan; proposed finished grades, slopes, swells, and ground cover or other means of stabilization		X	X	X	
	Storm water management plan for the proposed project prepared by a professional engineer		X	X	X	
	The size and proposed location of water supply and sewage disposal systems		X	X	X	
	Where a septic system is to be used, evidence of soil suitability		X	X	X	X
	A statement from the General Manager of the Brunswick Sewer District as to conditions under which the Sewer District will provide public sewer and approval of the proposed sanitary sewer infrastructure		X	X	X	X
	A statement from the Fire Chief recommending the number, size and location of hydrants, available pressure levels, road layout and street and project name, and any other fire protection measures to be taken		X	X	X	X

TABLE D.1		Sketch Plan	Final Plan	Streamlined	Common Development Plan	Conditional Use or Special Permit
	A statement from the General Manager of the Brunswick and Topsham Water District as to conditions under which public water will be provided and approval of the proposed water distribution infrastructure		X	X	X	X
Proposed Development Plan	Lighting plan showing details of all proposed lighting and the location of that lighting in relation to the site		X	X	X	
	Reference to special conditions stipulated by the Review Authority		X	X	X	X
	Proposed ownership and approximate location and dimensions of open spaces for conservation and recreation. Dedicated public open specs, areas protected by conservation easements, and existing and proposed open spaces or recreation areas and potential connectivity to adjoining open space.		X	X	X	
	When applicable, a table indicating the maximum number of lots permitted based upon the applicable dimensional requirements, the number of lots proposed, and the number of lots permitted to be further subdivided.	X	X	X	X	X
	Building envelopes showing acceptable locations for principal and accessory structures, setbacks and impervious coverage		X	X	X	
Proposed Development Plan	Disclosure of any required permits or, if a permit has already been granted, a copy of that permit		X	X	X	X
	A statement from the General Manager of the Brunswick and Topsham Water District regarding the proposed development if located within an Aquifer Protection Zone		X	X	X	X
	A plan of all new construction, expansion and/or redevelopment of existing facilities, including type, size, footprint, floor layout, setback, elevation of first floor slab, storage and loading areas		X	X	X	X
	An elevation view of all sides of each building proposed indicating height, color, bulk, surface treatment, signage and other features as may be required by specific design standards		X	X	X	
	A circulation plan describing all pedestrian and vehicle traffic flow on surrounding road systems		X	X	X	
	A site landscaping plan indicating grade change, vegetation to be preserved, new plantings used to stabilize areas of cut and fill, screening, the size, locations and purpose and type of vegetation		X	X	X	X
	Number of lots if a subdivision	X	X	X	X	X
	A plan showing all ten (10) inch caliper trees to be removed as a result of the development proposal		X	X	X	
	All applicable materials necessary for the Review Authority to review the proposal in accordance with the criteria of Chapter 5.		X	X	X	X
	Any additional studies required by the Review Authority		X	X	X	X

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that RAY LABBE & SONS, INC., a Maine corporation with a principal place of business in Brunswick, Maine ("Grantor"), for consideration paid, does hereby grant to JONES FARM, LLC, a Maine limited liability company with a mailing address of 4 Highland Road, Brunswick, Maine 04011 ("Grantee"), with Quitclaim Covenant, the real property in the Town of Brunswick, County of Cumberland, and State of Maine more particularly described on the attached EXHIBIT A.

IN WITNESS WHEREOF, the said Ray Labbe & Sons, Inc. has caused this instrument to be signed by Peter L. Labbe, its President, thereunto duly authorized, this 28th day of December, 2006.

WITNESS:

RAY LABBE & SONS, INC.

Peter L. Labbe, President

STATE OF MAINE
CUMBERLAND, ss.

December 28, 2006

Then personally appeared the above named Peter L. Labbe, President of Ray Labbe & Sons, Inc., and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said corporation.

Before me,

Attorney at Law/Notary Public
Printed Name: Jude A. Cluff-Graham

SEAL

JUDE A. CLUFF-GRAHAM
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES OCTOBER 27, 2013

EXHIBIT A

Lisbon Road, Brunswick

A certain parcel of land, with any improvements thereon, on the easterly side of Lisbon Road in the Town of Brunswick, County of Cumberland, and State of Maine (the "Premises"), said Premises being more particularly described as follows:

BEGINNING on the assumed right-of-way line of said Lisbon Road at the most southerly corner of the Jones Cemetery as described in a deed recorded at the Cumberland County Registry of Deeds in Book 111, Page 332;

THENCE N 57° 44' 43" E along said Cemetery a distance of 214.50 feet to the most easterly corner of said parcel, and the most southerly corner of a parcel extending said Cemetery described in a deed recorded at said Registry in Book 286, Page 445;

THENCE N 56° 37' 03" E along said Cemetery extension a distance of 184.14 feet to the most easterly corner of said extension;

THENCE N 37° 28' 50" W along the end of said Cemetery extension a distance of 71.87 feet to the most northerly corner thereof at remaining land of Ray Labbe & Sons, Inc.;

THENCE N 58° 18' 01" E along said remaining land of Ray Labbe & Sons, Inc. a distance of 625.17 feet to the southwesterly line of land now or formerly of Town of Brunswick;

THENCE S 72° 40' 46" E along said Town land a distance of 1467.19 feet to a survey pin set at other remaining land of Ray Labbe & Sons, Inc.;

THENCE S 13° 26' 28" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 1239.48 feet to a point;

THENCE S 55° 53' 16" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 749.38 feet to a point;

THENCE N 38° 28' 40" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 18.10 feet to the northeasterly prolongation of the northwesterly line of land now or formerly of the Spruce Pond Homeowners Association;

THENCE S 67° 04' 13" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 6.22 feet to the most northerly corner of said land of the Spruce Pond Homeowners Association;

THENCE S 67° 04' 13" W along said land of the Spruce Pond Homeowners Association a distance of 1065.51 feet to said line of said Lisbon Road;

THENCE N 03° 50' 35" E along said road line a distance of 202.43 feet to an angle point;

THENCE N 02° 11' 36" E along said road line a distance of 443.83 feet to an angle point;

THENCE N 02° 15' 10" W along said road line a distance of 207.72 feet to an angle point;

THENCE N 11° 44' 58" W along said road line a distance of 187.41 feet to an angle point;

THENCE N 14° 36' 19" W along said road line a distance of 181.71 feet to an angle point;

THENCE N 21° 23' 31" W along said road line a distance of 700.56 feet to the POINT OF BEGINNING.

Containing 79.43 acres, more or less. All survey pins set are 5/8" rebar with an aluminum cap bearing the name Martinson and PLS 2137.

Being a portion of the premises conveyed from Lewiston Crushed Stone Co., Inc. to the Grantor herein by Warranty Deed dated July 16, 1984, recorded at the Cumberland County Registry of Deeds in Book 9171, Page 148.

RESERVING to Grantor a nonexclusive easement to use any roadway constructed on the Premises for access to Grantor's remaining land located southerly and easterly of the Premises (the "Grantor's Remaining Property"), with any construction by Grantee of any such roadway to include a curb cut at a location suitable for such access to Grantor's Remaining Property, provided that Grantor shall be responsible for obtaining all necessary permits and approvals required for such curb cut, and provided further that this easement shall only be over and across such roadway as may exist from time to time, and this easement shall not be construed to prevent Grantee from altering and/or relocating any such roadway. Said nonexclusive easement to include the right of Grantor to construct and maintain its own roadway from said curb cut to Grantor's Remaining Property. If Grantor shall desire to use the Premises for access to Grantor's Remaining Property at any time before Grantee shall construct a roadway on the Premises, then Grantor shall have the right to construct and maintain a private roadway on the Premises (at the sole cost and expense of Grantor), subject to the prior written approval of Grantee, which approval shall not be unreasonably withheld, conditioned, or delayed. Said right of Grantor shall include the right to grade, excavate and fill a 50-foot wide strip on the Premises, and the right to construct, maintain, repair, and replace a roadway, curbing, sidewalks and other paved surfaces within such 50-foot wide strip; provided, however, that any construction or maintenance by

Grantor on the Premises shall be at the sole risk and expense of Grantor and shall be in compliance with all laws, ordinances and regulations pertaining thereto. Grantee shall have the right to use any such private roadway so constructed by Grantor, provided that Grantee reimburses Grantor for fifty percent (50%) of the costs incurred by Grantor in constructing that portion of such private roadway to be used by Grantee. The aforementioned reimbursement obligation of Grantee shall automatically terminate at such time as any roadway so constructed by Grantor is established as a public way. Nothing contained herein shall be deemed a gift or dedication of any portion of the Premises to the general public or for the general public or for any public purpose whatsoever.

ALSO RESERVING to Grantor the right to install and maintain on the Premises utility services for Grantor's Remaining Property, including facilities necessary for the transmission of electricity, gas, telephone communications, cable television, sewerage, water or similar services which are currently or may in the future become available; provided, however, that the location of any such utility services shall be subject to the prior written approval of Grantee, which approval shall not be unreasonably withheld, conditioned, or delayed.

P:\acalcagni\Labbe\deed3.doc

Received
Recorded Register of Deeds
Jan 05,2007 02:46:27P
Cumberland County
Pamela E. Lovley

DLN: 1002140137894

QUITCLAIM DEED WITH COVENANT

MAINE REAL ESTATE TAX-Paid

Jones Farm, LLC, a Maine limited liability company with a principal place of business situated in Bowdoin, County of Sagadahoc and State of Maine, for consideration paid, grants to **Jones Farm Estate LLC**, a Maine limited liability company with a principal place of business situated in Brunswick, County of Cumberland and State of Maine, with **quitclaim covenant**, a certain lot or parcel of land with any buildings thereon, situated in Brunswick, County of Cumberland and State of Maine, more fully described in Exhibit A, attached hereto.

MEANING AND INTENDING to convey and hereby also conveying the premises set forth in Deed from Ray Labbe & Sons, Inc., to Jones Farm, LLC, dated December 28, 2006, and recorded in Book 24731, Page 290.

WITNESS my hand and seal this 30th day of March , 2021.

Signed, Sealed and Delivered in presence of:

Jones Farm, LLC

Paul Labbe 4

WITNESS

Paul Labbe, Member

WITNESS

Peter Labbe, Member

STATE OF MAINE
CUMBERLAND COUNTY, ss.

March 30, 2021

Then personally appeared the above-names Paul Labbe, Member, and Peter Labbe, Member, and acknowledged the foregoing instrument to be their free act and deed in their said capacity and the free act and deed of said limited liability company.

Before me,

Attorney at Law / Notary Public

Angel H. Broadwater, Esq.
Maine Bar #9486

EXHIBIT A

A certain parcel of land, with any improvements thereon, on the easterly side of Lisbon Road in the Town of Brunswick, County of Cumberland, and State of Maine (the "Premises"), said Premises being more particularly described as follows:

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THENCE N 37° 28' 50" W along the end of said Cemetery extension a distance of 71.87 feet to the most northerly corner thereof at remaining land of Ray Labbe & Sons, Inc.;

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THENCE S 72° 40' 46" E along said Town land a distance of 1467.19 feet to a survey pin set at other remaining land of Ray Labbe & Sons, Inc.;

THENCE S 13° 26' 28" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 1239.48 feet to a point;

THENCE S 55° 53' 16" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 749.38 feet to a point;

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THENCE S 67° 04'13" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 6.22 feet to the most northerly corner of said land of the Spruce Pond Homeowners Association;

DOC :22893 BK:38007 PG:236
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
04/01/2021, 08:04:45A
Register of Deeds Nancy A. Lane E-RECORDED

THENCE S 67° 04' 13" W along said land of the Spruce Pond Homeowners Association a distance of 1065.51 feet to said line of said Lisbon Road;

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Containing 79.43 acres, more or less. All survey pins set are 5/8" rebar with an aluminum cap bearing the name Martinson and PLS 2137.

Ray Labbe & Sons, Inc.
4 Highland Road, Brunswick, ME 04011 Tel : 207-725-7336 Fax : 207-725-0796

January 30, 2023

Christopher Belanger, P.E.
Belanger Engineering
63 Second Avenue
Augusta, ME 04330

RE: ~~Town and State Permitting~~
0 Lisbon Road
Jones Farm Development
Brunswick, Maine

Dear Chris,

This letter will serve as authorization for Belanger Engineering to act as agent for Robert Walton, President of Ray Labbe and Sons, Inc. and Jones Farm Estates, LLC with regard to various land use permitting requirements for the Jones Farm Subdivision Project located at 0 Lisbon Road in Brunswick. This will include any submissions to the DEP, DOT, EPA, ACOE and the Town.

Very Truly Yours,

Robert J. Walton

MAINE
Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Mon Nov 18 2024 11:10:32. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
JONES FARM ESTATE LLC	20217965DC	LIMITED LIABILITY COMPANY	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
03/11/2021	N/A	MAINE

Other Names **(A=Assumed ; F=Former)**

NONE

Principal Home Office Address

Physical	Mailing
4 HIGHLAND ROAD	4 HIGHLAND ROAD
BRUNSWICK, ME 04011	BRUNSWICK, ME 04011

Clerk/Registered Agent

Physical	Mailing
AARON P. BURNS 2 MONUMENT SQUARE, SUITE 108	AARON P. BURNS PO BOX 108
PORTLAND, ME 04101	PORTLAND, ME 04112-0108

New Search

Click on a link to obtain additional information.

List of Filings View list of filings

Obtain additional information:

Bath Savings Institution

Since 1852

June 17, 2025

Robert J. Walton
Ryan W. Carrigan
Bruce A. Edgecomb
Jones Farm Estate LLC
4 Highland Road
Brunswick, ME 04011

Dear Sirs:

Pursuant to our recent discussion, Bath Savings Institution (the Lender or Bank) has approved your request for commercial financing. This approval is made under the following terms and conditions:

BORROWER:	Jones Farm Estate LLC
AMOUNT:	A Draw-Down Line of Credit in an amount up to $1,100,141.
PURPOSE:	Refinance existing Bath Savings Institution loan no. 72057 and provide additional funds to complete infrastructure for the Jones Farm Residential Subdivision located on Lisbon Road in Brunswick, Maine.
RATE:	The interest rate shall daily based on Prime (Wall Street Journal – Money Rate Section) plus a margin of one percent (1.000%).
FEES:	Bath Savings Institution shall be paid a fee in the amount of $6,000.
TERM:	The term of the loan shall be twenty-four (24) months.
PAYMENT SCHEDULE:	Monthly interest payments shall be due starting one month from the loan closing date. All unpaid principal and accrued interest shall be due at maturity.
SECURITY:	Collateral for this loan shall be a valid first mortgage and UCC-1 financing statement securing a thirteen (13) lot subdivision located on Lisbon Road in Brunswick, Maine.

GUARANTY: Robert J. Walton, Ryan W. Carrigan and Bruce A. Edgecomb shall personally guaranty this loan. Additionally, the corporate guaranty of Ray Labbe & Sons, Inc. shall be required. All guarantees shall be joint and several.

CONDITIONS:

- Bath Savings Institution shall order an 'as complete' appraisal for the project to determine the combined value of land and infrastructure. Loan approval shall be limited to seventy-five percent (75.000%) of the value as determined by the Bank ordered appraisal or $1,100,141.00; whichever is lower.
- Receipt and satisfactory review of all plans, specs, approvals and budget prior to loan closing.
- A corresponding letter of credit will be issued to the Town of Brunswick in the amount of $983,341.
- Receipt and satisfactory review of approval from the Town of Brunswick they agree to release the remaining letter of credit in the event the Borrower does not pursue development of Phase 2 of the subdivision project.
- Advances limited to the cost of the infrastructure will be provided following satisfactory review of invoicing and corresponding reduction of the letter of credit held by the Town of Brunswick. Any remaining contingency funds will not be released without prior Bank approval.
- The maximum advance allowed for phase 1 will be limited to $500,107.
- Upon sale of each lot, one hundred percent (100.00%) of the net loan proceeds will be applied to reduce the principal balance on the line of credit. Once the balance on the construction line has been fully paid down, additional net proceeds shall be deposited into a Bank controlled escrow savings account to be used towards Phase 2 of the project. If Borrower decides not to move forward with Phase 2, funds will be released to the Borrower upon the surrender of the letter of credit from the Town of Brunswick.
- Financing is subject to any additional documentation or requirements as deemed necessary by the lender or lender's counsel.
- Borrower will establish and maintain its primary operating accounts with Bath Savings Institution for the life of the loan.

ADDITIONAL REQUIREMENTS: Borrower shall provide evidence of its organization, existence, legal good standing and authority to enter into this transaction as may be required by the Bank:

a. Evidence of Authority to Borrow (Resolution; Certificates)

LATE FEE: A late fee equal to five (5.00%) percent shall be charged on any payment more than ten (10) days late.

PREPAYMENT PENALTY: There will be no prepayment penalty assessed if the Borrower partially or fully prepays the loan due to accelerated amortization or sale of the property.

DISBURSEMENTS: Disbursements shall be made to the Borrower at closing.

ENVIRONMENTAL MATTERS:

Satisfactory results of an Environmental Questionnaire and environmental records check of the Jones Farm Residential Subdivision located in Brunswick, Maine are required prior to closing. Borrower shall execute an Indemnity Agreement in favour of Lender with regard to all environment matters.

INSURANCE:

Prior to closing, Borrower shall obtain and maintain all insurance policies as the Bank may require, including:

> Comprehensive General Liability Insurance – including contractual liability coverage, completed operations coverage, broad form property damage endorsement and protective liability coverage. Builders Risk Insurance–required during the construction phase of the loan.

The Lender shall be named as a lender's loss payee of any insurance proceeds payable on a claim. Borrower shall further provide Lender assurance that the insurer will notify Lender by thirty (30) days prior written notice if any policy or any provision thereof or any rider thereto is cancelled, not renewed, or materially changed. Such notice of a material change shall include either the change itself, or a summary of the change in which case the change itself shall be provide to Lender within thirty (30) days.

TITLE INSURANCE:

Borrower shall provide Lender, at least three (3) days prior to closing, with a mortgagee's title insurance binder or interim report of a title insurer acceptable to Lender in the face amount of $1,100,141.00 on the mortgaged property. Such title insurance binder or interim report shall contain a description of the property satisfactory to the Bank's counsel and shall commit the title insurer to issue a policy in A.L.T.A form insuring the mortgage of Lender to be valid first lien on the property and improvements thereon, free and clear of all liens and encumbrances except those to which Lender has consented and without a survey or mechanics lien exception.

SECONDARY ENCUMBRANCES:

Borrower agrees that there shall be no additional financing of the property securing the loan during the term of the loan without Lender's written consent.

SUBORDINATION OF LEASES:

Any leases entered into between Borrower and any lessee with respect to all or any portion of the mortgaged property shall be subject to all of Lender's rights, and in addition, shall provide that Lender may succeed to the interest of Borrower under the lease.

PERMITS, APPROVALS AND COMPLIANCE:

Borrower shall provide to Lender or Lender's counsel at or prior to closing copies of all federal, state and municipal permits, approval and other regulatory and administrative permissions required by law. Borrower shall also provide to Lender or Lender's counsel all opinions of counsel and other documents requested by Lender or Lender's counsel in these regards.

FINANCIAL STATEMENTS:

Annually, the Borrower and Guarantors shall furnish financial statements and such other evidence of Borrower's worth and income as the Bank shall require. Said figures are to be prepared in a manner suitable to the Bank and submitted to the Bank within one hundred twenty (120) days after the close of the Borrower's fiscal year.

Borrower shall bear all expenses incurred in connection with the loan including, but not limited to, attorney's and/or appraiser's fees.

Borrower shall confirm, by documents satisfactory to the Bank, the existence of all leases, insurances and other collateral reserved or taken by the Bank.

Any business conducted by Borrower shall have all requisite licenses, permits and approvals to operate, including proper zoning.

No significant air or water pollution shall be permitted from any business of Borrower in or to which Bank has a lien interest.

No liens or attachments whether or not superior to the lien of the Bank shall be placed or arise on the collateral other than those specifically approved in writing by the Bank. The property mortgaged to Bank shall be kept in good repair, and all taxes and assessments thereon shall be paid when due.

No commitment to loan given by the Bank to Borrower shall be assignable by the Borrower.

DEPOSIT RELATIONSHIP:

The principal deposit account of the Borrower and business shall be maintained with Bath Savings Institution for the term of the loan.

Any commitment given by the Bank to the Borrower shall expire if the commitment is not accepted by the Borrower in writing within twenty (20) days of the date of this letter. The loan is expected to close within sixty (60) days of the date of this letter. It is anticipated that the closing will occur on or before August 3, 2025. Any extension to the above must be in writing from the Bank.

The parties to this agreement agree that this commitment shall survive the loan closing contemplated hereunder and that each of the obligations and undertaking of the Borrower shall be continuing and shall not cease until the entire loan, together with interest and fees, is paid in full.

The provisions of this agreement cannot be waived or modified unless such waiver or modification is issued in writing and signed by the parties to this agreement.

You are hereby notified, pursuant to 10 M.R.S.A. Section 1146(2) (1991), that no oral discussions or representations by the Lender will constitute a promise, contract or agreement to lend money, extend credit, forbear from collection of a debt or make any other accommodation for the repayment of a debt, and that in the event any such promise, contract or agreement is ultimately reached between you and the Lender, such promise, contract or agreement to be effective or enforceable against the Lender, and in order for an action to be maintained, must be both (a) in writing; and (b) signed by the Lender.

Borrower shall execute such further documents to secure the loan as counsel for the Bank shall determine are necessary or advisable in the interest of the Bank.

If the foregoing is satisfactory for your needs, please sign a copy of this letter and return it to the Bank. Should you have any questions or comments, please do not hesitate to call.

BATH SAVINGS INSTITUTION

By: _____
Justin Dionne
Its: Vice President

Seen and Agreed to:
JONES FARM ESTATE LLC

By: _____ 6/17/25
Robert J. Walton — Date
Its: Manager

By: _____ 6/17/25
Ryan W. Carrigan — Date
Its: Manager

By: _____ 6-17-25
Bruce A. Edgecomb — Date
Its: Manager

As Guarantor:
RAY LABBE & SONS, INC.

By: _____ 6/17/25
Robert J. Walton — Date
Its: President

By: _____ 6/17/25
Ryan W. Carrigan — Date
Its: Vice President & Secretary

By: _____ 6-17-25
Bruce A. Edgecomb — Date
Its: Treasurer

_____ 6/17/25
Robert J. Walton, Individually — Date

_____ 6/17/25
Ryan W. Carrigan, Individually — Date

_____ 6-17-25
Bruce A. Edgecomb, Individually — Date

Ray Labbe & Sons, Inc.
4 Highland Road, Brunswick, ME 04011 Tel : 207-725-7336 Fax : 207-725-0796

January 5, 2026

Jones Farm Estates LLC
Att: Robert J. Walton

Re: Site Work Proposal for Construction of Jones Farm Road & Hay Stack Lane; Plans Dated 1-2-2026

Below is our proposed scope of work and price quote for the above referenced project. This quote is specific to the itemized scope only. Any additional work required not listed below is to be considered an extra to the proposed contract.

- DigSafe
- Engineering and survey fees
- Layout and grade control
- Temporary facilities
- Installation and maintenance of erosion control measures
- Tree clearing
- Stumping, grubbing and stripping
- Common cuts and fills
- Installation of underground utilities (phone, cable, power)
- Installation of street light per plan
- Install culverts and storm drains per plan
- Install stone inlets and outlets on culverts per plan
- Install 4' dia. catch basins per plan
- Construct filtration pond and drainage devices within per plan
- 4" of screened loam on all disturbed & constructed pond areas
- Install Mirafi 600x geotextile fabric on road subgrade
- MDOT type "D" subbase gravel per plan
- MDOT type "A" base gravel per plan
- 3" of reclaimed asphalt for final road surface treatment
- Install paved apron with bump out for garbage collection area per plan
- Install gravel bump out and Mailbox Pedestal per plan
- 4" of screened loam in ditch lines
- Rake, seed and install jute mesh as required on newly loamed areas
- Entrance landscaping/tree buffer
- Install traffic signage per plan

The above scope of work completed for the lump sum of: **$675,350.00**
(Six Hundred Seventy-Five Thousand Three Hundred Fifty Dollars and No Cents)

<Continued on Page 2>

Jones Farm Estates LLC
Att: Robert J. Walton

Re: Site Work Proposal for Construction of Jones Farm Road & Hay Stack Lane; Plans Dated 1-2-2026

Exclusions: Permits, Testing, Ledge Removal, Unsuitable Soils, Individual Driveway Aprons or Culverts for House Lots, Maintenance or Guarantee of Seeded Areas, Paving of Entire Road, Curbing(bituminous, granite or slipform concrete)

James Martin
Project Manager/Estimator

TERMS: A 25% deposit is required with full balance due upon completion. The quoted price is valid for 30 days from date specified above. There will be a **LATE CHARGE** of 1.5% per month (an **ANNUAL PERCENTAGE RATE OF 18%**) applied to any balance which remains unpaid thirty days or more past completion date. Ray Labbe & Sons, Inc. shall be entitled to recover all costs incurred with the enforcement of this contract, including but not limited to reasonable attorney fees and waive any presentment, demand, protest, and any other notice from Ray Labbe & Sons, Inc. regarding this guarantee or payment. All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are full covered by Workman's Compensation Insurance.

Acceptance of Proposal - The above prices, specifications and conditions are satisfactory and hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Date of Acceptance: _____ Signature: _____

April 17, 2025

Jones Farm Development
4 Highland Road
Brunswick, ME 04011

RE: Permission to Access Fire Standpipe - Located on Spruce Pond HOA Common Grounds

To Whom It May Concern:

This letter serves as formal permission granted by the Spruce Pond Homeowners Association (HOA) to the Brunswick Fire Department for the purpose of accessing the fire standpipe located on the Spruce Pond HOA common grounds.

It is understood that this access is required for the necessary testing and/or utilization of the fire standpipe system during the development and future support of the Jones Farm project.

The following conditions apply to this permission:

- **Access Limitations:** Access to the fire stand pipe shall be limited to authorized personnel from the Brunswick Fire Department or their designated contractors.
- **Notification:** Jones Farm Development shall provide the Spruce Pond HOA with reasonable advance notification, at least 48 hours prior to any planned access, except in cases of emergency. Emergency access is of course allowed without notification.
- **Restoration:** Jones Farm Development shall be responsible for restoring the common grounds to their original condition following any access or utilization of the fire standpipe that results in damage to surrounding areas.
- **Adherence to regulations:** All actions taken regarding the fire standpipe must adhere to all applicable local, state, and federal regulations.
- **Contact Information:** Jones Farm Development shall provide the Spruce Pond HOA at P.O. Box 597 Brunswick, ME 04011 with a designated point of contact for all matters related to this access.

The Spruce Pond HOA appreciates Jones Farm Development's cooperation in ensuring the safety and efficiency of the fire suppression system.

Please acknowledge receipt and acceptance of these terms by signing and returning a copy of this letter.

Sincerely,

Joseph Madsen
President
Spruce Pond Homeowners Association

The above conditions are accepted.

Robert J Walton
ROBERT J. WALTON
JONES FARM ESTATE, LLC
4/21/25

DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS AND RESERVATION OF RIGHTS AFFECTING THE SUBDIVISION CALLED JONES FARM ESTATES IN THE TOWN OF BRUNSWICK, COUNTY OF CUMBERLAND, AND STATE OF MAINE

THIS DECLARATION, dated this _____ day of _____, 2026, by **Jones Farm Estate LLC**, a Maine limited liability company with an address of 4 Highland Road, Brunswick, Maine 04011 (hereinafter referred to as "Declarant")

W I T N E S S E T H

WHEREAS Declarant owns a certain parcel of land situated in the Town of Brunswick, County of Cumberland, and State of Maine described in a deed from Jones Farm, LLC to Jones Farm Estate LLC dated March 30, 2021, recorded in the Cumberland County Registry of Deeds in Book 38007, Page 291; and

WHEREAS said parcel of land is depicted on a certain First Amended Subdivision Plan of Jomes Farm Estates approved by the Town of Brunswick Planning Board on _____ and recorded in the Cumberland County Registry of Deeds on _____ in Plan Book ____, Pages _____ (hereinafter the "Plan"); and

WHEREAS, Declarant proposes to sell lots in the subdivision depicted on said Plan; and

WHEREAS, said Plan depicts residential Lots 1 - 13 (hereinafter the "Lots") with Jones Farm Road running through Lots 1-6, 9-10 & 13 on the Plan and Hay Stack Lane running along Lots 6-8 & 10-12, along with other easements, and open space, the "Subdivision"; and

WHEREAS, said Plan depicts Lot 14 which is designated for common use of the Lot Owners (defined below) as Open Space and for such other purposes as set forth in this Declaration; and

WHEREAS, the Declarant intends to establish an association which shall own the Open Space and roads in the Subdivision and shall have such other rights and responsibilities as are set forth herein, which shall be called the Jones Farm Estates Owners' Association, or similar name (the "Association"), which shall be incorporated as a Maine non-profit corporation pursuant to Title 13-B of the Maine Revised Statutes; and

WHEREAS, Declarant, believes it is necessary and appropriate to ensure to the extent possible that all purchasers of Lots in the Subdivision will be able to use and enjoy their property in accordance with a plan that harmoniously integrates the rights and obligations of Declarant, each Lot Owner, and the Association; and

WHEREAS, in order to implement said plan of harmonious integration, Declarant does hereby subject the Subdivision, to certain provisions restrictions, reservations, servitudes, covenants, agreements and easements as hereinafter set forth; and

WHEREAS, Declarant desires that all owners of Lots in the Subdivision, their heirs, successors and assigns, (hereinafter referred to as "Owners") shall have the benefit of certain common rights and certain protective covenants and restrictions to be incorporated by reference hereto in each deed conveying any interest in the Subdivision.

NOW THEREFORE, Declarant hereby declares that all property in the Subdivision now owned by Declarant shall be held and conveyed subject to the terms of this Declaration, and further that all of the restrictions, reservations, covenants, and easements described or referenced herein shall inure to the benefit of and be binding upon Declarant, the Owners of all Lots, the Association, and their heirs, successors and assigns, provided, however, that Declarant shall be under no obligation to enforce the terms hereof.

ARTICLE I

PROTECTIVE COVENANTS AND RESTRICITONS

Each Lot conveyed in the Subdivision, all Open Space, and so long as Declarant owns it, Jones Farm Road and Hay Stack Lane, shall be conveyed, owned, held, occupied and subject to the terms hereof including, without limitation, covenants and restrictions contained in this Article I, which covenants and restrictions shall run with the land and be binding upon Declarant, all Owners, the Association, any future associations relating in any way to the Subdivision and their respective heirs, successors and assigns with the same force and effect as if each such covenant and restriction were recited in full in each and every deed or other conveyance of each such Lot or any Open Space. The purchase of any Lot, or the entering into occupancy of any Lot in the Subdivision shall be deemed to signify that each Owner and occupant has accepted and ratified the terms hereof and that each Owner has accepted and ratified the terms of the Association's By-Laws, as they may be amended from time to time. The covenants and restrictions are as follows:

1.1 Leasing

No dwelling unit shall be leased for terms shorter than thirty (30) days in length. Without limitation of the foregoing, no dwelling unit shall be leased or listed with any short-term rental company, including, without limitation, Airbnb or VRBO or similar services.

Any Owner leasing the Owner's Lot or all or part of a dwelling thereon to a third party shall be responsible for all violations of the Declaration, Bylaws, or other rules or regulations pertaining to the subdivision by the Owner's Tenant. Any leases must be in writing and a copy of the lease must be provided to the Association. Any lessee of a Lot shall be bound by the protective covenants contained herein, and the rules and regulations of the Association.

1.2 Single Family Residential Use Only.

All buildings on all Lots, except accessory structures, shall be for single family residential use only, except for the limited use of up to one (1) home occupation per dwelling, which home occupation shall be operated in a manner consistent with all municipal codes and ordinances. There shall be no more than one (1) dwelling erected or maintained per Lot. This paragraph constitutes

a restrictive covenant and deed restriction between private parties that imposes greater restrictions than provided in 14 M.R.S. § 4364-A.

Without limitation of the foregoing, no recreational vehicle, camper, or other temporary structure may be used for overnight accommodations on any Lot.

1.3 Architectural Review

The Association shall have an Architectural Design Review Committee (the "ADRC") which shall perform the functions delegated to it under and pursuant to certain "Architectural Design Review Standards and Guidelines" that may be adopted by the ARDC from time to time. Prior to the initial sale of all of the Lots in the Subdivision, the Committee shall be comprised of members appointed by the Declarant. Following the initial sale of all of the Lots and continuing until the completion of initial construction on all Lots, the three members shall consist of one representative of the Declarant, an appointee of the Declarant, and an Owner who shall be appointed by the Association. Commencing as of the time of the first annual meeting of the Association next following the completion of initial construction on all Lots in the Subdivision, all members of the ADRC shall be appointed by the Association. All construction on or modifications to Lots or the structures thereon shall conform to the Architectural Design Review Standards and Guidelines as interpreted by the ADRC.

1.4 Residences and Structures

All residences constructed on a Lot shall be "stick built" and no modular or pre-made or framed houses shall be permitted. All residences shall be designed under a "Farm House" theme. No manufactured or mobile homes shall be permitted, whether or not attached to a foundation and/or utilities. All residences constructed on a Lot shall contain a minimum of 1,200 sf of living space. All residences shall have attached vehicle storage suitable for two (2) cars. Additional (detached) vehicle storage shall be permissible, provided that the minimum attached vehicles storage requirement is also met. All residences constructed on a Lot shall be constructed upon a frost-protected foundation of at least four (4) feet. No residence shall be constructed on a "slab" or other similar foundation or footing. All Lots and buildings, landscaping and grass lawns thereon shall be regularly maintained and kept in good repair.

Prior to the commencement of the construction of any structure whatsoever, or the clearing or excavation of land, the Lot Owner shall submit the plans and specifications of said structure to the ADRC for approval, including detailed grading and landscaping plans. All approvals or denials by the ADRC shall be by majority vote, shall be in writing and made within fourteen (14) days of the ADRC's receipt of all materials required to be submitted by the Lot Owner. The ADRC shall approve submitted plans only if it determines, in its sole discretion, that construction in accordance with said plans complies with the Architectural Design Review Standards and Guidelines and will not be detrimental to the Subdivision and that the proposed construction is consistent with all approvals of the Plan by the Town of Brunswick, including any conditions thereof.

Other than single family residences and/or permitted accessory dwelling units, no buildings or structures of any nature or description shall be erected or maintained on any Lot, provided

however, that nothing in this Paragraph shall be construed to prevent the construction of a tasteful storage shed, pergola, detached garage, or in-ground swimming pool if the same had been approved by the Town of Brunswick. No above-ground swimming pools shall be erected or constructed on any Lot. Any permitted in-ground swimming pool shall be constructed in the rear of the residence. No enclosure fencing of any kind shall be permitted in the front of any residential structure on any Lot except for invisible pet containment systems, provided that decorative wood or composite (but not chain link or metal) fencing erected for purposes other than containment or exclusion shall be permissible. Any fencing erected in the rear of the residence including, if applicable, required fencing surrounding any permitted in-ground pool, shall be of a material that contributes to the overall aesthetic of the construction, as determined by the ADRC.

1.5 **Wood**

Cut wood shall be stacked in fireplace lengths neatly behind or on the side of the residence.

1.6 **Surface Water**

No Owner of a Lot, his agents, contractors or employees shall alter the natural flow of surface water on any Lot in a way which would materially alter the natural flow of such water across any other Lot, Jones Farm Road, Hay Stack Lane, the Open Space, or the property of any abutter unless such alterations are approved by the Owners of the Lots or property affected. This paragraph shall not be construed to prevent the Declarant's construction, improvement, alteration, or maintenance of drainage or other easements shown on the Plan or necessary for the use and enjoyment of the Lots by all Owners. This paragraph shall not be construed to prevent construction of residences within legal building envelopes and setbacks.

1.7 **Compliance with Governmental Orders**

All construction activities, including the siting of buildings, shall in accordance with all local and state laws, codes, ordinances and regulations.

1.8 **Vehicles, Boats and Trailers**

No house trailer, business or commercial vehicle or vehicles of a similar nature shall be maintained or permitted to remain on any Lot unless screened from view from Jones Farm Road, Hay Stack Lane, and all other Lots in the Subdivision except a passenger business vehicle normally used by a Lot Owner in his or her occupation. No tractor trailers or commercial vehicles shall be parked or kept on any Lots. A maximum of one (1) boat may be seasonally stored on a Lot, provided the same is screened from view from Jones Farm Road, Hay Stack Lane and all other Lots in the Subdivision.

1.9 **Siding**

No dwelling or other building erected on any Lot shall be covered with tar paper, asphalt siding or corrugated metal siding but shall be covered with a natural wood, stone, brick, or vinyl shakes or composite siding.

1.10 **Trash/Outside Storage/Yard Maintenance.**

Trash, garbage and other waste shall be kept in sanitary, covered containers. Such containers shall not be visible from Jones Farm Road or Hay Stack Lane or from any other Lot, except for limited periods coincident with trash collection. On collection day, all containers will be picked up and put away by the end of the day designated for trash collection. No Lot Owner shall keep, maintain, or store rubbish, unregistered automobiles, white goods, used construction materials or similar items in their yards, but rather shall keep such items stored in a garage or storage shed out of view from Jones Farm Road, Hay Stack Lane and all other Lots.

The Association may enter into an exclusive agreement with one or more reputable waste management companies to provide waste removal services to all Owners of the association. All Owners shall be assessed a pro-rata share of the cost of such services, whether or not that Owner utilizes that service.

Lot Owners shall cut their grass regularly so that it does not exceed 9" in height and shall maintain their Lot and any improvements thereon in good and well-maintained condition acceptable to the Association. Without limitation of the foregoing, no brush, debris, or leaf piles may be left in view of the common roads or other lots for any extended period of time.

Lighted holiday and other nighttime displays shall be modest, tasteful and not attract traffic from outside of the subdivision nor shall such displays be used for the expression of political opinions. Lighted holiday and other nighttime displays shall not include a soundtrack or amplified sound of any kind.

1.11 **Antennae/Satellite Dishes**

No radio antennae or communications towers or masts of any kind shall be installed, constructed, or used on any Lot or structure, except that radio antennae are permitted if they are screened from view from Jones Farm Road and Hay Stack Lane and all other Lots and are set back in compliance with applicable Town ordinances at the time of construction of the dish or antennae. Roof mounted satellite dishes used in connection with consumer satellite television services and/or solar panel arrays shall be permitted, but no ground mounted or commercial satellite dishes or solar panels or arrays shall be erected on any Lot.

1.12 **Chimneys**

Any fireplace or chimney located on the exterior of the house shall be of brick or stone construction or the same siding material as the dwelling unit. No cinder block or metal chimneys shall be allowed on the exterior of any dwelling or structure.

1.13 **Signs**

No sign of any nature or description shall or may be displayed or placed on any part of any Lot except for a "For Sale" sign referring only to the Lot or residence on which it is placed. Nothing

herein shall be construed to prevent Declarant from erecting signs to identify the Subdivision or promoting sales of Lots. An Owner may erect a sign on their Lot not exceeding two (2) square feet erected to identify their name.

1.14 Time for Construction

All construction work on a Lot must be performed diligently with reputable contractors and must be completed within one (1) year from the closing on the acquisition of the Lot, except for good cause shown to the satisfaction of the Association. No structure other than a dwelling may be constructed before the main dwelling itself. All disturbed areas not built upon shall be loamed, seeded and appropriately landscaped, or, in the case of driveways, a finished gravel surface or reclaimed asphalt surface, paved or finished with pavers, at the close of construction and in all events within nine (9) months of substantial completion of the dwelling as evidenced by the issuance of a certificate of occupancy. Proper erosion control shall be observed at all times by all Owners and their contractors. All erosion damage shall be promptly repaired at the Lot Owner's sole expense. No prohibitions contained herein shall be construed to prevent the use of trailers, vehicles or other temporary construction related structures during the period of actual construction.

During the period of Declarant control, the Declarant may extend construction times in its sole discretion.

1.15 Pesticide Use in SPO Prohibited.

The use of pesticides in the Stream Protection (SPO) Zone, as depicted on the Plan, is prohibited unless a special exception applies under the Town of Brunswick Code of Ordinances, or Maine Law, or the Town of Brunswick provides a written waiver of such prohibitions, but only on the conditions and for such duration as specified in the written waiver.

1.16 Separate Provisions

Each and every provision contained herein shall be considered to be independent and separate, and in the event that any one (1) or more such provisions shall for any reason be held to be invalid or unenforceable, the remainder hereof shall, nevertheless, remain in full force and effect.

1.17 Amendment

The provisions of Article I hereof may from time-to-time be amended by a vote or by written approval of two-thirds (2/3) of the Lot Owners of record, provided however that (a) the written consent of the Declarant shall be required for any such amendment to become valid and binding unless and until Declarant has sold all Lots in the Subdivision and retains no interest in any Lot, and (b) all such changes must be consistent with the Plan and the terms and conditions of approval of the Subdivision by the Town of Brunswick. Any such amendments shall become effective upon recording of the Amendment together with an affidavit executed under oath certifying the vote of the Lot Owners of record and the persons who cast affirmative votes to amend.

1.18 **Enforcement**

As set forth in the preamble above, the provisions of this Declaration have been adopted for the benefit of the Owners of Lots shown on the Plan and the Declarant, to ensure a harmonious environment enjoyed by all Lot Owners. Therefore, each and every violation of any covenant, restriction or reservation in this Declaration is hereby declared a nuisance which may be remedied or enjoined by an appropriate legal proceeding brought by a Lot Owner, the Declarant or the Association. If any Owner shall attempt to violate or permit any violation of any of the covenants, restrictions or reservations described above or hereinafter referred to, Declarant, (its successors and assigns), the Association or any Owner may, but is not obligated to, commence proceedings at law or equity either to recover compensation and damages, or to seek discontinuance of such attempts or violations, or both. The Association is entitled to seek injunctive relief to enforce its rules, regulations, and the provisions of this Declaration. Such relief may include, but is not limited to restoration of trees and vegetation at the Lot Owner's expense, and/or the removal of unauthorized structures or changes to existing structures.

If a final judgment is rendered against an Owner on account of said Owner's violation hereof, the Owner shall pay all reasonable costs of enforcement, including reasonable attorney's fees, incurred in prosecution of said claim, which shall be included in the judgment. Conversely, if any action is found by a court to have been frivolously brought or maintained, the plaintiff(s) shall pay all reasonable costs of defense, including reasonable attorney's fees of defendant(s). Proceedings may be maintained against any one (1) violator of any provision of this Declaration irrespective of the waiver of any prior violation or attempted violation by the same or other Owners. The failure to enforce any of the provisions of this Declaration on any one (1) occasion shall in no way be deemed to be a waiver of rights to do so thereafter as the original or any other breach by any person or Owner. By acceptance of a deed to a parcel subject to the provisions of this Declaration, an Owner covenants and agrees to abide by such provisions.

The Association shall have the power to assess common maintenance charges against each Lot from time to time to fund the expenses of the Association including, without limitation, snow plowing the common roads, the maintenance of the common roads, the maintenance of any drainage installations and/or the Open Space, costs for insurance policies and premiums and the fees, costs, recording fees and charges associated with any amendments to the Bylaws of the Association, this Declaration or other matters, plus a reasonable reserve for future expenses and the fees of any attorney retained by the Association to advise the Association, or to enforce the rights of the Association, subject to the right to recoup said fees from Owners who caused the Association to incur such fees by violation of the rules and regulations of the Association. Such assessments shall be in such amounts as may be determined by the Association from time to time at its annual meeting or a special meeting called for that purpose. The manner and procedure for such assessments shall be governed by the Bylaws of the Association. The Association shall have the power to levy fines to the extent that such powers are granted or provided in the Bylaws.

Any assessments which are unpaid for more than thirty (30) days as of the date of assessment shall bear interest at greater of the post judgment interest rate specified under 14 M.R.S.

§ 1602-C (or any successor statute thereto), and 9% per annum. Interest may be waived by the Association in its discretion.

The Association has a lien on a Lot for any assessment levied against that Lot or fines imposed against the Lot owner from the time the assessment or fine becomes due. The Association's lien may be foreclosed in like manner as a mortgage on real estate. If an assessment is payable in installments, the full amount of the assessment is a lien from the time the first installment thereof becomes due.

A lien under this section is prior to all other liens and encumbrances on a unit except: (1) liens and encumbrances recorded before the recordation of this Declaration; (2) a first mortgage recorded before or after the date on which the assessment sought to be enforced becomes delinquent; and (3) liens for real estate taxes against the Lot having priority under Maine law. This subsection does not affect the priority of mechanics' or materialmen's liens, or the priority of liens for other assessments made by the Association. The lien under this section is not subject to the provisions of Title 14, section 4651 and Title 18-C, sections 2-401 through 2-405 of the Maine Revised Statutes, as those statutes or their equivalents may be amended or modified from time to time.

A lien for unpaid assessments is extinguished unless proceedings to enforce the lien are instituted within six (6) years after the full amount of the assessments becomes due.

This section does not prohibit actions to recover sums for which this section creates a lien, or to prohibit the Association from accepting a deed in lieu of foreclosure.

A judgment or decree in any action or suit brought under this section shall include costs and reasonable attorney's fees for the prevailing party.

The Association shall furnish to a Lot owner upon written request a statement setting forth the amount of unpaid assessments currently levied against the Lot. The statement shall be furnished within 10 business days after receipt of the request and is binding on the Association and every other Lot owner.

At the sole option of the Association, disputes arising under this Declaration between an Owner and the Association which is outside the small claims jurisdiction of the Maine District Court shall be submitted to binding arbitration under the Maine Uniform Arbitration Act, 14 M.R.S. §§ 5927, *et seq*. and any award granted thereunder may be enforced in any court of competent jurisdiction. The Association may provide for a binding arbitration process in the Bylaws.

1.19 **Jones Farm Road and Hay Stack Lane.**

(a) Until such time as Jones Farm Road and Hay Stack Lane ("Roads") are conveyed to the Association, title to the Roads shall remain with the Declarant, which Declarant hereby reserves for itself, its heirs, successors and assigns. Declarant's title shall be subject to nonexclusive easements of access conveyed to each Lot Owner in the Subdivision, to the rights of ingress and egress of Declarant and the Owners of all Lots in the Subdivision, and to such utility easements as Declarant may grant.

(b) Until such time as the Association takes title to the Roads, the Declarant shall be responsible for all costs of maintenance and improvements of the Roads. No individual Lot Owner may make individual improvements to the Roads without the written consent of Declarant or the Association at such time as the Association becomes the owner of the Roads. In the event any Owner of a Lot in the Subdivision does incur any cost or expense, improvements, upkeep or repair of the Roads without the written consent of the Declarant or the Association said lot Owner shall defend, indemnify and hold Declarant or the Association harmless from all claims, losses, causes of action, and damages, including liens and attachments.

(c) The following road maintenance Program shall be followed by the Association and the Declarant. The Association shall assess all Lot Owners a pro-rata share of the cost of road maintenance and improvements, including, without limitation repaving, replacement, the installation and maintenance of culverts, and such other requirements as may be imposed for the maintenance of a private way by a governmental entity with jurisdiction. The Association will budget and assess not less than $10,000 a year starting in 2026, plus compounded annual increases of 5% for its road maintenance program

i. Annual grading and top dressing with crushed gravel, shoulder and ditch maintenance;

Model Grading Specifications (to be implemented to the extent practical)

- All travel lanes on gravel roads will be graded with a cross-slope of $^1/_2$"-per-foot of lane width from centerline to shoulder (i.e. a 10 ft lane will have a crown of 5"). Shoulders will be lower and graded at a slightly steeper cross-slope to provide positive drainage toward the ditch.
- If possible, all slopes will be no steeper than 2:1 (horizontal to vertical) and all backslopes will be no steeper than 1:1.
- WHERE FEASIBLE, the depth of ditch should be at least 12" below the *bottom* of the roadway base gravel. If the depth of base gravel is unknown, then the ditch should be a minimum of 18" below the shoulder elevation. Care should be given to avoid excessively deep ditches which could create safety and liability concerns to motorists and/or pedestrians, especially with steep side slopes.
- All ditches will be shaped with no hard transitions in slopes. All potholes shall be undercut and not simply filled.
- No gravel or sod berm or windrow will be left in-between the road and the ditch slope.
- Prior to any grading, the Contractor will call the Dig-Safe toll-free number 1-888-DIG SAFE (344-7233) to protect against possible damage. The 72-hour waiting period will be adhered to in ALL CASES, except emergencies.

- All work will be protected by proper work zone devices and procedures. The standards presented in the latest edition of Part IV of the Manual on Uniform Traffic Control Devices (MUTCD) will serve as minimum standards.
- All culverts or obstructions will be flagged or marked prior to grading to ensure no damage to the culverts or equipment.
- All "ditch spoils" will be properly disposed of by the operator. If possible, an easement will be obtained to dump excavated material onto private property.
- All work will be performed under the direction of the Road Commissioner.
- Any inconvenience to residents or adjacent driveways shall be avoided by prior notification.
- All culverts, geotextiles and erosion control materials will be approved of and/or bought by the Road Commissioner prior to placement.
- If regraveling a road, the "old" road surface will be crowned prior to any new gravel placement.
- All subbase gravel will meet standard MDOT Subbase Gravel specs for Type D. Maximum lifts of 9" will be placed and thoroughly compacted to 95% maximum density and shaped with the proper crown. Samples of all gravel may be obtained by the Town at any time to ensure quality and for periodic testing.
- All surface gravel should be a "tighter" consistency than the subbase gravel by containing more "fines" and meet the following gradation:

Sieve Size	% Passing by Weight
2"	95 - 100%
$^1/_2$"	30-65%
#200	5-10%

- The gravel shall be properly shaped and compacted during placement. If the surface gravel is to be paved, then the gradation must be "cleaner" than the above spec and meet MDOT Standard Spec. 703.06 (a) - Type A.
- All unstable ditches and slopes will be properly protected against erosion according to current best management practices. Timely protection and proper materials will be primary considerations to proper erosion control

iii. Inspect culverts on an annual basis.

- One method to account for all culverts is to maintain an inventory of culverts and under-drains and use a checklist from this inventory to account for culverts during inspections. Inspect culverts often, especially in the spring and autumn, and after storm events, checking them for signs of corrosion, joint separation, bottom sag, pipe blockage, piping, fill settling, cavitation of fill (sinkhole), sediment buildup within the culvert, effectiveness of the present inlet/outlet inverts, etc. Check inlet and outlet channels for signs of scour, degradation, debris, channel blockage, diversion of flow, bank and other erosion, flooding, etc.

- Practice preventive maintenance to avoid clogging of pipes and other situations which may damage the culvert or diminish its design function. If a culvert is plugged with sediment, flush it from the outlet end with a high pressure water hose. Take measures to reduce downstream sedimentation and clean debris and sediment from the outlet ditch afterwards.

- When replacing damaged culverts which handle the flow adequately, use the same size and shape of pipe, unless otherwise recommended ion this report. Changing these criteria may adversely effect the established stability of the ditch, stream, and/or roadway.

iv. Open swales and ditches shall be inspected twice per year (in spring and fall) to assure that debris and/or sediments do not reduce the effectiveness of the system. Debris and sediments shall be removed at that time. Any sign of erosion or blockage shall be immediately repaired to assure a vigorous growth of vegetation for the stability of the ditches and slopes proper function. Maintenance shall include, but not be limited to, mowing, trimming and removal vegetation in the ditches and slopes as required in order to prevent vegetation from blocking or diverting storm flows, replacement of riprap channel lining to prevent scour of the channel invert, removing vegetation and debris from the culverts.

Vegetated ditches should be mowed annually. Larger brush or trees must not be allowed to become established in the channel. Any areas where the vegetation fails will be subject to erosion and should be reseeded and mulched immediately.

Riprap ditches and aprons where stone is displaced should be replaced and chinked to assure stability. With time, additional riprap may be added. Vegetation growing through riprap should be removed on an annual basis.

v. The Association shall provide a Private Road Inspection Report to the Town of Brunswick Engineering Department annually in form reasonable acceptable to the Town at the expense of the Association and the Owners.

1.20 **Animals**

a. **No Livestock.** Livestock, i.e., cows, cattle, sheep, goats, horses, and swine, is not permitted in the Subdivision, except as set forth below.

b. **Domestic Animals.** A reasonable number of traditional domestic companion animals, i.e., dogs and cats, may be kept on a Lot. Dogs shall be kept in a fenced enclosure when not on a leash with a responsible person. Dog feces shall be promptly cleaned up properly disposed of. Dogs shall not be left outdoors from sunset to sunrise and shall not be permitted to bark or howl in a manner that unreasonably disturbs other Lot owners. No wolf hybrids are permitted.

c. **Chickens.** Roosters shall not be permitted. A reasonable number of laying hens may be kept on a Lot for egg production and to be raised as food for the Owner's household provided that the Owner of the Lot is responsible for keeping laying hens within the Owner's Lot and for maintaining appropriate rodent and pest controls. The Owner shall be responsible to keep all chicken coops clean and sanitary. Feces and carcasses shall be appropriately disposed of. The Association may regulate, suspend or terminate a Lot Owner's privilege to maintain chickens on a Lot if the laying hens are found to attract pests, rats, mice or other vermin to other Lots or the common elements of the Subdivision. Lot owners shall at all times comply with the Town of Brunswick ordinances with respect to poultry. Butchering of chickens shall be done only in an enclosed area that is not visible from another Lot, the Open Space, and the Roads.

d. **Rabbits.** A reasonable number of rabbits may be kept on a Lot to be raised as food for the Owner's household provided that the Owner of the Lot is responsible for keeping the rabbits within the Owner's Lot and for maintaining appropriate rodent and pest control. The Owner shall be responsible for keeping all rabbit shelters clean and sanitary. Rabbit feces and carcasses shall be appropriately disposed of. The Association may regulate, suspend or terminate a Lot Owner's privilege to maintain rabbits on a Lot if the rabbits are found to attract pests, rats, mice or other vermin to other Lots or the common elements of the Subdivision. Butchering of rabbits shall be done only in an enclosed area that is not visible from another Lot, the Open Space, and the Roads.

e. Other animals. The Association may allow an Owner to maintain a reasonable number of other small animals to be raised as food for the members of an Owner's household provided that: (i) the Owner is responsible for keeping such animals within the Owner's Lot and for maintaining appropriate rodent and pest control; (ii) all enclosures and shelters shall be maintained in a clean and sanitary condition; (iii) such animals shall not disturb other the residents of other Lots; (iv) such animals are traditionally raised for egg production or to be consumed as food in the State of Maine and are similar in size to the animals permitted under this Declaration; (v) feces and carcasses shall be appropriately disposed of; and (iv) butchering shall occur only in an enclosed area that is not visible from another Lot, the Open Space, and the Roads. The Association may regulate, suspend or terminate a Lot Owner's privilege to maintain such animals on a Lot if such animals are found to attract pests, rats, mice or other vermin to other Lots or the common elements of the Subdivision.

f. Total number of animals. The aggregate number of animals maintained on a Lot shall be reasonable and not disturb other Owners, create offensive odors or noise otherwise cause a nuisance. The Association may regulate and restrict the total number of animals that are allowed on a Lot. All Lot Owners are subject to the Association's regulations and any prior use which is not in conformity with such regulations must be brought into compliance within thirty (30) days of the promulgation of any such regulation, or such time as the Association may allow, not to exceed ninety (90) days.

g. Breeding and Boarding of Companion Animals. The breeding or boarding of companion animals (i.e. dogs and cats) is not permitted in the Subdivision. No animals shall be bred in the Subdivision except for small animals being raised as food for the Owner's household. Breeding and/or raising animals for sale is not permitted.

1.21 **Variance**

No variance shall be sought for modification of Town of Brunswick code standards for front, rear or side yard setbacks for of with respect to any Lot boundary abutting land owned by neighboring property owners without the prior written consent of the Association and the said neighboring property owners.

1.22 **No Further Division of Lots**

There shall be no further subdivision of any Lot, nor shall any Lot lines be changes except by prior written approval of the Association, subject also to all required governmental approvals. Provided, however, that this provision shall not apply to the Declarant during the period of Declarant control.

1.23 **Tree Removal & Maintenance.**

The Subdivision is intended to be kept in as natural state as possible while allowing the construction of homes and accessory structures.

No cutting, trimming or removal of trees and vegetation is permitted within the areas of the Subdivision located in the SPO Zone except as authorized by the Town of Brunswick Arborist in accordance with the ordinances of the Town of Brunswick. Except in an emergency, the Association will be provided with notice at least seven (7) days in advance before work begins. In an emergency, the Association will be provided with reasonably contemporaneous notice that is appropriate under the circumstances. The Association may require the replanting of one or more trees that are a species native to the surrounding area for every tree removed, if appropriate. Outside of the SPO Zone, removal and/or clearing of trees and vegetation from a Lot, including, without limitation clear cutting, is prohibited, except as follows:

(a) Tree and vegetative clearing is allowed to the limited extent necessary for the construction of residences and accessory structures and systems on a Lot pursuant to a design approved by the ARDC or the Declarant during the period of declarant control.

(b) Except in an emergency, the Association must provide approval before the cutting and removal of trees that are dead, dying, or otherwise create a hazardous situation, or create a risk of property damage. Approval or emergency action must be based on the written recommendation of a licensed forester, arborist, botanist, or another qualified professional and such work must be performed in accordance with Town of Brunswick ordinances. The Association may require the replanting of one or more trees that are a species native to the surrounding area for every tree removed.

(c) Removal of trees and vegetation is allowed to the extent required for the installation of a septic system with seven (7) days advance notice to the Association. The Association may require a Lot Owner to replant one or more trees that are a species native to the surrounding area for every tree removed.

(d) Routine maintenance activities such as pruning, trimming, brush and down timber removal is permitted in accordance with accepted management practices.

The Association is authorized to make additional rules and regulations regarding the cutting and/or removal of trees and vegetation that are no less strict than the restrictions set forth in this section.

ARTICLE II
OPEN SPACE

2.1 Creation of Open Space.

Upon the initial sale of all Lots in the Subdivision or sooner, at the Declarant's option, such Open Space shall be conveyed to the Association, which shall accept title to the Open Space. As members of the Association, Lot Owners shall have the right to the use such Open Space, subject to regulation by the Association, in common with the other Lot Owners for recreational purposes only, including hiking, fishing, walking, running or jogging, cross-country skiing, snowshoeing, birding or nature watching and similar uses, as provided in the Plan, subject to the peaceful enjoyment by other lot Owners of their Lots, the rights of all lot Owners to have access to and enjoyment of the Open Space areas, and the terms hereof. Subject to the Plan, no Lot Owner or any other person or entity shall erect any structures in or on any Open Space, store or leave any property or belongings in or on the Open Space, create any nuisance on any Open Space, interfere with or disturb stormwater facilities or buffers in the Open Space, interfere with or distub utility infrastructure, or disturb in any way the condition, terrain or ecology of any Open Space. The Association may adopt rules and regulations regarding the Open Space that are not inconsistent with the terms hereof; all rules and regulations so adopted shall also be consistent with and not in violation of applicable Federal, State and local ordinances and/or provisions that apply to the Subdivision. The right of the Lot Owners to use the Open Space as set forth herein is a real covenant which runs with, and benefits the Lots, and burdens the Open Space.

Notwithstanding the foregoing, the Association shall have the right to install stormwater mitigation systems and structures within the Open Space as may be recommended by an engineer, or as may be required by a governmental entity due to changes in condition within the Subdivision, subject to the approval of the Town of Brunswick. The Association shall have the authority to

make assessments against the Lot Owners as may be required to build, install and maintain such systems and structures.

The Declarant, during the period of Declarant control, and the Association shall have the authority to grant easements to public utility companies for the purpose of provide services to the Lots.

ARTICLE III
EASEMENTS

3.1 Types of Easements.

All Lots in the Subdivision and the Roads shall be conveyed subject to the herein referenced easements, including:

A. **Utility Easements.** Utilities shall include, without limitation, electrical power, telephone, cable television, shall be granted to the appropriate utility companies. Declarant may, by easement deeds, grant utility companies easements over, across, and under the Roads, and the Open Spaces as may be necessary to the furnishing of utilities. Declarant reserves the right to make such Easement grants without the consent of any Lot Owner, the Association, or any other entity.

B. **Access Easements**. All Lots in the Subdivision are benefitted by an easement of access, ingress and egress to their Lots over and across the Roads, without limitation, for passage of motor vehicles

3.2 Scope of Easements.

In addition to any rights granted to Declarant, all conveyances of Lots in the Subdivision shall be and hereby are subject to the following rights of the Declarant which shall supplement any other rights of record:

A. To install, relocate, modify, repair and maintain improvements incidental to any subject easement, including without limitation removal of vegetation and excavation. Such improvements shall be installed and maintained in the most attractive fashion reasonably practicable, and every reasonable effort shall be made to restore any such area to original condition following a disturbance of an easement area incident to a permitted activity. Such restoration shall be conducted in a timely and workmanlike manner entirely at the expense of the burdened party.

B. To grant such easements to others as Declarant deems appropriate for the well being of the Subdivision without the consent of any Lot Owners or other person.

ARTICLE IV
NON-PROFIT CORPORATION

4.1. Jones Farm Estates Owners' Association

Each Owner of a Lot in the Subdivision shall by virtue of, and during, ownership of a Lot automatically become a member of the Association, which is a Maine non-profit corporation which has been established expressly for the purposes of: (a) owning the Open Space in the Subdivision, (b) maintaining the Roads when the Declarant transfers title of the Roads to the Association, (c) enforcing the covenants contained herein, (d) appointing members to the ADRC as provided for herein, (e) to maintain open space depicted on the Plan that is subject which may include the maintenance of stormwater treatment buffers serving the Subdivision and shown on the Plan, and the installation and maintenance of such stormwater mitigation systems as may be later required by changes in conditions, or requirements of a governmental entity.

The Association shall be named Jones Farm Estates Owners' Association or similar name in the Declarant's discretion. Each member and their invitees shall at all times comply with the rules, regulations and bylaws of said Association and be subject to enforcement procedures promulgated by the said Association from time to time (whether before or after any alleged violations).

Each Lot shall have one (1) vote in Association business. In the event that more than one party shall own a Lot, each such party shall appear in the corporation clerk's or secretary's records as a member but only one such party may exercise voting rights at meetings of the Association as an Owner. If any person shall own more than one Lot, said person shall be counted an equal number of times to the number of Lots owned in determining a quorum or a vote. The meeting of the Association will be held annually on the second Saturday of January or at such other time as the Association shall determine for the purposes of electing officers and members of the ADRC and determining any budget necessary or appropriate for the ownership of the Open Space and funding of the Association's maintenance obligations. Notice of said meeting will be sent to each Lot Owner in accordance with the bylaws of the Association by the officers of the Association.

To the maximum extent allowed by Maine law, notices of meetings of the Association may be provided via electronic mail to the Owners, and each Owner shall be obligated to provide the Secretary of the Association with an electronic mail address to which the Association may provide all notices required or allowed by Maine law.

To the extent provided in the Bylaws, Owners may participate in meetings of the Association by means of telephone conference call, or videoconference service.

The Association shall be organized at the sole expense of Declarant, which shall, until the Association is formed, be solely responsible for performing all obligations of the Association. The Association shall maintain such policies of liability and/or casualty insurance as its members and directors may deem reasonably appropriate, taking into consideration standard coverages obtained by similar owners' associations in the geographic area. Other provisions pertaining to the operation of the Association shall be set forth in its Bylaws.

ARTICLE V
DURATION

All of the covenants, reservations and other restrictions set forth herein, shall run with the land, be binding upon and inure to the benefit of the Owners and occupants of Lots, the Association and the Declarant, together with their heirs, successors and assigns.

ARTICLE VI
DECLARANT'S RIGHTS

All property, easements and other rights to be conveyed by Declarant to the Association and the individual Lot Owners as described herein are conveyed subject to the following reservation of rights running in favor of Declarant, its successors and assigns:

4.1 Until the initial sale by Declarant of each and every Lot in the Subdivision, Declarant, its successors and assigns, may without the consent of the Association or any Lot Owner:

A. Modify any Lot not previously conveyed by Declarant and the parcels depicted on the Plan as "Open Space" according to the requirements of applicable laws pertaining to zoning and modification of approved or pending subdivisions, which modification shall be recorded in the Cumberland County Registry of Deeds.

B. Have full benefit of any property or rights incident to membership in the Association, including without limitation, connections with and use of utilities and use of the Roads and all easements.

C. Operate Lot sales promotional efforts, erect signs and operate a sales office, if deemed appropriate in the sole judgment of Declarant.

D. Grant such easements, licenses, and other rights to such persons as the Declarant deems appropriate, including for access, utilities, and other purposes consistent with the use and enjoyment of the Subdivision by Declarant or Lot Owners.

E. Enter into an exclusive development contract with a building contractor to be designated by the Declarant for the construction of residences on the Lots. The Declarant shall not be subject to ARDC review for new construction on Lots owned by the Declarant.

The terms of this Article VI shall control any other terms hereof or of the Bylaws of the Association in the event of ambiguity or conflicting provisions.

Notwithstanding anything else in this Declaration to the contrary under no circumstances may this Declaration be amended without Declarant's prior signed written consent prior to initial sale by Declarant of each and every Lot in the Subdivision.

Jones Farm Estate LLC

_____
Witness

By: _____
Robert Walton
Its: Manager

STATE OF MAINE
Cumberland, ss.

_____, 2026

Personally appeared the above-named Robert Walton in his capacity as Manager of Jones Farm Estate LLC and acknowledged the foregoing instrument to be his free acts and deed in his said capacity and the free act and deed of the said Jones Farm Estate LLC.

Before me,

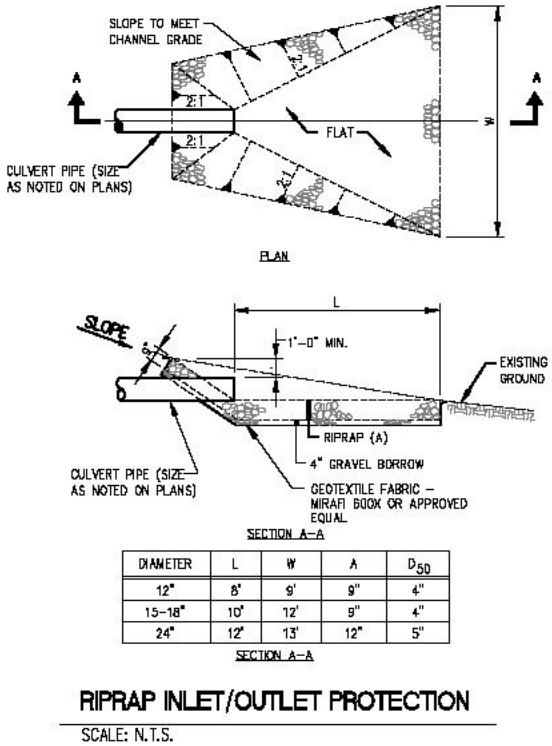
_____
Notary Public/Attorney at Law

_____
Typed or Printed Name

DRAFT

Road Maintenance Narrative

The recommendations above are based on generally accepted roadway construction practices, and a detailed design analysis was not undertaken as it was not included in our proposal, per clients wish to minimize expenses. That service can be provided if desired by the client, and we recommend that such an analysis is undertaken prior to implementation of these measures.



DIAMETER	L	W	A	D_{50}
12"	8'	9'	9"	4"
15–18"	10'	12'	9"	4"
24"	12'	13'	12"	5"

SECTION A–A

RIPRAP INLET/OUTLET PROTECTION

SCALE: N.T.S.

IV. Maintenance Program

a. Annual grading and top dressing with crushed gravel, shoulder and ditch maintenance;

Model Grading Specifications (Implemented to the extent ptactical)

- All travel lanes on gravel roads will be graded with a cross-slope of ½"-per-foot of lane width from centerline to shoulder (i.e. a 10 ft lane will have a crown of 5"). Shoulders will be lower and graded at a slightly steeper cross-slope to provide positive drainage toward the ditch.
- If possible, all slopes will be no steeper than 2:1 (horizontal to vertical) and all backslopes will be no steeper than 1:1.
- WHERE FEASIBLE, the depth of ditch should be at least 12" below the *bottom* of the roadway base gravel. If the depth of base gravel is unknown, then the ditch should be a minimum of 18" below the shoulder elevation. Care should be given to avoid excessively deep ditches which could create safety and liability concerns to motorists and/or pedestrians, especially with steep side slopes.

- All ditches will be shaped with no hard transitions in slopes. All potholes shall be undercut and not simply filled.
- No gravel or sod berm or windrow will be left in-between the road and the ditch slope.
- Prior to any grading, the Contractor will call the Dig-Safe toll-free number 1-888-DIG SAFE (344-7233) to protect against possible damage. The 72-hour waiting period will be adhered to in ALL CASES, except emergencies.
- All work will be protected by proper work zone devices and procedures. The standards presented in the latest edition of Part IV of the Manual on Uniform Traffic Control Devices (MUTCD) will serve as minimum standards.
- All culverts or obstructions will be flagged or marked prior to grading to ensure no damage to the culverts or equipment.
- All "ditch spoils" will be properly disposed of by the operator. If possible, an easement will be obtained to dump excavated material onto private property.
- All work will be performed under the direction of the Road Commissioner.
- Any inconvenience to residents or adjacent driveways shall be avoided by prior notification.
- All culverts, geotextiles and erosion control materials will be approved of and/or bought by the Road Commissioner prior to placement.
- If regraveling a road, the "old" road surface will be crowned prior to any new gravel placement.
- All subbase gravel will meet standard MDOT Subbase Gravel specs for Type D. Maximum lifts of 9" will be placed and thoroughly compacted to 95% maximum density and shaped with the proper crown. Samples of all gravel may be obtained by the Town at any time to ensure quality and for periodic testing.
- All surface gravel should be a "tighter" consistency than the subbase gravel by containing more "fines" and meet the following gradation:

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- The gravel shall be properly shaped and compacted during placement. If the surface gravel is to be paved, then the gradation must be "cleaner" than the above spec and meet MDOT Standard Spec. 703.06 (a) - Type A.
- All unstable ditches and slopes will be properly protected against erosion according to current best management practices. Timely protection and proper materials will be primary considerations to proper erosion control

b. Inspect culverts on an annual basis.

One method to account for all culverts is to maintain an inventory of culverts and under-drains and use a checklist from this inventory to account for culverts during inspections. Inspect culverts often, especially in the spring and autumn, and after storm events, checking them for signs of corrosion, joint separation, bottom sag, pipe blockage, piping, fill settling, cavitation of fill (sinkhole), sediment buildup within the culvert, effectiveness of the present inlet/outlet inverts, etc. Check inlet and outlet channels for signs of scour, degradation, debris, channel blockage, diversion of flow, bank and other erosion, flooding, etc.

Practice preventive maintenance to avoid clogging of pipes and other situations which may damage the culvert or diminish its design function. If a culvert is plugged with sediment, flush it from the outlet end with a high pressure water hose. Take measures to reduce downstream sedimentation and clean debris and sediment from the outlet ditch afterwards.

When replacing damaged culverts which handle the flow adequately, use the same size and shape of pipe, unless otherwise recommended ion this report. Changing these criteria may adversely effect the established stability of the ditch, stream, and/or roadway.

c. Open swales and ditches shall be inspected twice per year (in spring and fall) to assure that debris and/or sediments do not reduce the effectiveness of the system. Debris and sediments shall be removed at that time. Any sign of erosion or blockage shall be immediately repaired to assure a vigorous growth of vegetation for the stability of the ditches and slopes proper function. Maintenance shall include, but not be limited to, mowing, trimming and removal vegetation in the ditches and slopes as required in order to prevent vegetation from blocking or diverting storm flows, replacement of riprap channel lining to prevent scour of the channel invert, removing vegetation and debris from the culverts.

Vegetated ditches should be mowed annually. Larger brush or trees must not be allowed to become established in the channel. Any areas where the vegetation fails will be subject to erosion and should be reseeded and mulched immediately.

Riprap ditches and aprons where stone is displaced should be replaced and chinked to assure stability. With time, additional riprap may be added. Vegetation growing through riprap should be removed on an annual basis.

Sample Inspection Report:

Jones Farm Subdivision Project

Private Road INSPECTION REPORT

NAME: _____ SIGNATURE: _____

TITLE: _____ COMPANY: _____

DATE: _____

OBSERVATIONS:

BMP	Defects	Location(s)	Repair/Action Needed	Date/Action taken
Ditches	Yes/no			
Road Crown	Yes/no			
Shoulders	Yes/no			
Culverts	Yes/no			
Rip Rap Aprons	Yes/no			
	Yes/no			
	Yes/no			
	Yes/no			

Estimated Annual Road Maintenance Costs

Road Maintenance. Costs are dependent on amount of traffic the road receives, how much winter plowing is done, and mother nature, particularly when it comes to freeze/thaw cycles and winter rain. The current cost to grade the subdivision would be approximately $4,500.00 each time it is graded. The cost for a load of gravel would be approximately $500/load or $32.00/cy.

Snow Plowing. A snow plowing budget depends on mother nature. Typically plowing costs $150.00 every time the subdivision is plowed. If the subdivision is plowed twice in one storm, that equals $300.00 for that storm.
Plowing costs could be approximately $300 per storm with an average 16 storms per year. The annual budget for snow plowing is estimated to be approximately $5000 per year.

Road Maintenance and Snow Plowing Costs for the subdivision is estimated to be $10,000 per year.

Property Card: **0 LISBON RD**

Town of Brunswick, ME

Parcel Information	
Parcel ID: 1-70	**Map:** 001
Vision ID: 100354	**Lot:** 070
Owner: JONES FARM ESTATE LLC	**Sub:** 000
Co-Owner:	**Type:** 000
Mailing Address: 4 HIGHLAND RD	**Use Description:** Res Land Buildable
BRUNSWICK, ME 04011	**Land Area in Acres:** 79.44

Sale History	Assessed Value
Book/Page: 38007/234	**Land:** $209,200
Sale Date: 3/30/2021	**Buildings:** $0
Sale Price: $325,000	**Total:** $209,200

Building Photograph

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

Property Location 0 LISBON RD | Map ID 001/ / 070/000 000/ | TIF District | State Use 1300
Vision ID 100354 | Account # 001070000000 | Bldg # 1 | Sec # 1 of 1 | Card # 1 of 1 | Print Date 10/19/2021 8:34:07 P

CURRENT OWNER(S)	TOPO	UTILITIES	STREET	LOCATION
JONES FARM ESTATE LLC				3

4 HIGHLAND RD

BRUNSWICK ME 04011

SUPPLEMENTAL DATA

Alt Prcl ID	001-070-000-000	Park ID	
Business	5	Number of	
Vacant Uni	1	File TG Da	
Special Co		Status	
Mobile Ho		Subdivisio	JONES FARM
Moho Seri			
GIS ID	1-70	Assoc Pid#	

CURRENT ASSESSMENT

Description	Code	Assessed	Assessed
RES LAND	1300	209,200	209,200
		Total	209,200	209,200

3203

Brunswick maine

VISION

RECORD OF OWNERSHIP

RECORD OF OWNERSHIP	BOOK/PAGE		SALE DATE	Q/U	V/I	SALE PRICE	VC
JONES FARM ESTATE LLC	38007	234	03-30-2021	Q	V	325,000	00
JONES FARM LLC	24731	0290	12-28-2006	U	I	0	1A

PREVIOUS ASSESSMENTS (HISTORY)

Year	Code	Assessed	Year	Code	Assessed V	Year	Code	Assessed
2021	1300	209,200	2020	1300	209,200	2019	1300	209,200
	Total	209200		Total	209200		Total	209200

EXEMPTIONS

Year	Code	Description	Amount
		Total	0.00

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm Int

This signature acknowledges a visit by a Data Collector or Assessor

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	0
Appraised Xf (B) Value (Bldg)	0
Appraised Ob (B) Value (Bldg)	0
Appraised Land Value (Bldg)	209,200
Special Land Value	0
Total Appraised Parcel Value	209,200
Valuation Method	C
Exemptions	0.00
Taxable Value	209,200

ASSESSING NEIGHBORHOOD

Nbhd	Nbhd Name	B	Tracing	Batch
0001				

NOTES

2007-SPLIT FR LOT 6
4-16 VACANT
2009 SPLIT OUT LOTS 71-112
OPEN SPACE FOR SUBDIVISION
2014-NO LONGER AN APPROVED SUBDIVISION
EXPIRED 4/29/2013, COMBINED INTO THIS LT
SEE PROPERTY NOTES

BUILDING PERMIT RECORD

Type	Description	Proj. Desc.	Cost	% Comp	Issue Date	Insp Date	Date Comp

VISIT / CHANGE HISTORY

Date	Id	Type	Is	Cd	Purpose/Result
07-01-2021	AB	NVC	DS	A1	Owner/Deed Change
04-28-2016	DR	VC	EO	L1	Land Change

LAND LINE VALUATION SECTION

B	Use Code	Description	Zone	Land Type	Land Units		Unit Price	Size Adj	Site Index	Cond.	Nbhd.	Nbhd. Adj	Notes	Location Adjustment	Adj Unit P	Land Value
1	1300	Res Land Builda			1.000	AC	50,000	1.00000	1	1.00	40	0.850		1.0000		42,500
1	1300	Res Land Builda			78.440	AC	5,000	1.00000	0	0.50	40	0.850	EXCESS/WET	1.0000		166,700
		Total Card Land Units			79.440	AC	Parcel Total Land Area			79.4400					Total Land Value	209,200

Property Location 0 LISBON RD | Map ID 001/ / 070/000 000/ | TIF District | State Use 1300
Vision ID 100354 | Account # 001070000000 | Bldg # 1 | Sec # 1 of 1 | Card # 1 of 1 | Print Date 10/19/2021 8:34:07 P

CONSTRUCTION DETAIL

Element	Cd	Description
Style:	99	Vacant Land
Model	00	Vacant
Grade:		
Stories:		
Occupancy		
Exterior Wall 1		
Exterior Wall 2		
Roof Structure:		
Roof Cover		
Interior Wall 1		
Interior Wall 2		
Interior Flr 1		
Interior Flr 2		
Heat Fuel		
Heat Type:		
AC Type:		
Total Bedrooms		
Total Bthrms:		
Total Half Baths		
Total Xtra Fixtrs		
Total Rooms:		
Bath Style:		
Kitchen Style:		
Cabinets		
Cabinet Finish		
MHD		
MHP		

CONSTRUCTION DETAIL (CONTINUED)

Element	Cd	Description

CONDO DATA

Parcel Id		C		Owne	
		B		S	

Adjust Type	Code	Description	Factor%
Condo Flr			
Condo Unit			

COST / MARKET VALUATION

Building Value New	
Year Built	
Effective Year Built	
Depreciation Code	
Remodel Rating	
Year Remodeled	
Depreciation %	
Functional Obsol	
External Obsol	
Trend Factor	1
Condition	
Condition %	
Percent Good	
RCNLD	
Dep % Ovr	
Dep Ovr Comment	
Misc Imp Ovr	
Misc Imp Ovr Comment	
Cost to Cure Ovr	
Cost to Cure Ovr Comment	

No Sketch

OUTBUILDINGS & EXTRA FEATURES

Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Gd	Grade	Grade Adj.	Appr. Value

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
	Ttl Gross Liv / Lease Area	0	0	0		0

0 foot Abutters List Report

Brunswick, ME
November 21, 2022

Subject Property:

Parcel Number:	1-70	Mailing Address:	JONES FARM ESTATE LLC
CAMA Number:	1-70		4 HIGHLAND RD
Property Address:	0 LISBON RD		BRUNSWICK, ME 04011

Abutters:

Parcel Number:	1-11	Mailing Address:	JONES CEMETERY
CAMA Number:	1-11		LISBON RD
Property Address:	158 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-6	Mailing Address:	RAYMOND, ALISA
CAMA Number:	1-6-1		40 LISBON RD
Property Address:	40 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-6	Mailing Address:	RBB LLC
CAMA Number:	1-6-2		4 HIGHLAND RD
Property Address:	0 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-6	Mailing Address:	MILLER, CAMDEN & MIKAYLA
CAMA Number:	1-6-3		44 LISBON RD
Property Address:	44 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-6	Mailing Address:	LABBE, MICHAEL & KATHRYN
CAMA Number:	1-6-4		46 LISBON RD
Property Address:	46 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-69	Mailing Address:	LABBE, PAUL
CAMA Number:	1-69		PO BOX 1067
Property Address:	23 MISTY WAY		BRUNSWICK, ME 04011
Parcel Number:	1-69A	Mailing Address:	LABBE, PETER
CAMA Number:	1-69A		33 PATRIOT DR
Property Address:	0 MISTY WAY		BRUNSWICK, ME 04011
Parcel Number:	1-9	Mailing Address:	BRUNSWICK, TOWN OF
CAMA Number:	1-9		85 UNION ST
Property Address:	49 GRAHAM RD		BRUNSWICK, ME 04011

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Brunswick Ordinance Standards Chapter 4 – Property Development Standards:

Portions of the Brunswick Zoning Ordinance is shown below. Refer to Brunswick Zoning Ordinance for full text of specific standards. We have replied to each applicable section as shown below.

4.1 Applicability of Property Development Standards

The property is a residential subdivision project. The project is an Open Space Development located in the RF Zone. The applicant is proposing to create 13 new residential house lots for sale. The proposed roads are intended be private roads. The properties will be served by on lot septic and wells.

4.2 Dimension and Density Standards

The total parcel area is approximately 79.44 acres. The proposed project area is 32.50 Acres. The existing Labbe Pit and Pit Road will remain on portions of the property not in the proposed project.

Net Site Area:	Total Area in Project:		32.50 Acres
	Deductions:		
	-Steep Slopes (>25% & 5000 s.f.)	=	-1.32 Acres
	-Any Wetlands and Stream	=	-3.55 Acres
	-Any water body	=	-0 s.f.
	-Existing / Proposed Streets	=	-0.88 Acres
	Net Site Area:	=	26.75 Acre

Open Space Developments in RF Zone: Table 4.2.5.C(5) Brunswick Zoning Ordinance.

Protected Open Area: 45% Gross Area = 14.63 Acres minimum.
Proposed Open Space Area: 18.28 Acres
Lot Area, min. N/A (s.f.) *
*septic and wells min. setback from property line = 15'
Lot Width, min. (feet) = 75'
Front Setback, min. (feet) = 25’ Proposed
Rear Setback, min. (feet) = 20' Proposed
Side Setback, min. (feet) = 10' Proposed
Impervious Surface Coverage, max. (% lot area) = N/A
Density Bonus: See subsection 4.2.5.E of Brunswick Zoning Ordinance.

Density: Net Site Area = 26.75 Acres
Density Calculation: 26.75 Acres / 2 Acres/dwelling unit = 13 dwelling units.

4.3 Natural and Historic Areas

4.3.1 Mapping of Natural and Historic Areas Requirements

The proposed project is residential single-family house lots. The existing conditions have been mapped and located. The project creates 18.28 acres of open space which will preserve the existing and natural features of the site. A stream and wetland are located in the open space area shown on the plan sheet C1. The stream drains a pond crossing Lisbon Road through the site, heading toward the Androscoggin River. These areas will not be impacted by this development.

4.3.2 Pollution

The project is residential in nature and will not result in undue water or air pollution. Individual septic systems are planned for the lots. Septic systems shall be built in accordance with the Maine State Plumbing Code, and meet all applicable local, state and federal requirements.

4.3.3 Protection of Natural Vegetation

The proposed development maximizes the preservation of natural landscape features, does not occur within or cause harm to land not suitable for development, and will not have an undue adverse effect on the area's scenic or natural beauty. The project creates 18.28 acres of open space which will preserve the existing and natural features of the site.

4.3.4 Protection of Significant Plant and Animal Habitat

The proposed development will not have an undue adverse effect on important plant and animal habitats identified by the Maine Department of Inland Fisheries and Wildlife or Town of Brunswick, or on rare and irreplaceable natural areas, such as rare and exemplary natural communities and rare plant habitat as identified by the Maine Natural Areas Program.

Maine Natural Areas program was contacted in 2025 and found there are no rare botanical features documented specifically within the project area.

4.3.5 Steep Slopes

There are some steep slope areas (>25% and 5,000 s.f.) that may occur within the ravine and wetland areas. These areas will remain and is not proposed to be developed.

4.3.6 Erosion and Sedimentation

The plans included erosion control notes and details to help minimize the potential for erosion during and after development. Erosion Control measures shall be constructed in accordance with the Maine Department of Environmental protection's Best Management Practices and shall not cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy situation results.

4.3.7 Groundwater

Developments shall not, alone or in conjunction with existing activities, have an undue adverse effect on the quality of quantity of groundwater.

4.4 Flood Hazard Areas

The area being developed is not located within a 100-year flood zone. See enclosed map.

4.5 Basic and Municipal Services

4.5.1 Sewage Disposal

Individual septic systems are planned for the lots. Septic systems shall be built in accordance with the Maine State Plumbing Code, and meet all applicable local, state and federal requirements. Two suitable test pits have been located on each lot to demonstrate the soil suitability. Main-Land Development Consultants, Inc. completed a wastewater disposal feasibility and nitrate assessment for the project in March 2025.

4.5.2 Water Supply and Quality

The proposed development will be served by water supplied by individual wells. Sufficient water supply is available to serve this subdivision. Main-Land Development Consultants, Inc. completed a well study in the area using data from the Maine Geological Survey (MGS). Approximately 23 existing wells were found near the project area. The wells mapped by the MGS range from about 84 to 500 feet in depth, and reported yields range from about 1.5 to 50 gpm; the average of the reported yields is approximately 16 gpm.

Based on the above information regarding existing bedrock water supply wells in the area, the bedrock aquifer is likely to have adequate capacity to supply potable water to meet domestic demand without resulting in adverse on- or off-site influences such as excessive drawdown.

4.5.3 Solid Waste Disposal

The current proposal includes 13 lots. We have created a paved area at the intersection of Lisbon Road and Jones Farm Road so lot owners can drop off trash and recycling for trash pickup by the Town.

Solid Waste Generation:

Solid waste generation estimates for the 13-lot residential development is:

Household Solid Waste:

Household Solid Waste is estimated to be 1.95 cubic yards (CY) per week for 13 lots. It is estimated that the household solid waste generates 14.3 tons of solid waste per year. (Assumed @ 0.15 CY per week / unit. Assumed 1.1 tons / household / year).

Construction Debris:

It is estimated that the 13 residences of the Jones Farm Subdivision will generate 13 tons of construction debris while the lots are being constructed. Thirteen (13) houses are estimated to generate 40 cubic yards per house or 520 cubic yards (CY). (Assumed 1 ton of construction debris per lot).

Stumps:

It is estimated that Stumps and Grubbing's for the roadways is estimated to be 3,150 cubic yards (CY). These stumps will be stockpiled in the adjacent pit operated by Ray Labbe and Sons, and ground into a recycled product to be used for erosion control and landscaping.

4.5.4 Stormwater Management

A. General Standard

Developments shall be designed to minimize the total area of impervious surface on the development site and shall incorporate stormwater management measures to minimize runoff volume and rate, as well as pollutant and nutrient loadings, from the site.

B. Specific Standards: Applicability

(1) Single and two-family dwelling units are exempt from the standards of this Subsection provided appropriate measures are taken that prevent unreasonable soil erosion and sedimentation beyond the site or into a wetland or water body.

(2) Any project that requires a Stormwater Management Law permit, other than a stormwater Permit by Rule (PBR) in accordance with Rules adopted pursuant to Title 38, M.R.S., Section 420-D, as amended, shall be deemed to have met the requirements of this Subsection.

(3) Developments not requiring a Stormwater Management Law Permit pursuant to Title 38 M.R.S. Section 420-D, as amended and not otherwise exempt from the requirements of this Subsection shall meet the standards set forth in Subsection 4.5.4.C below.

(4) Activities associated with stabilizing soil erosion, preventing sedimentation from developed land, or reconstruction of existing developed land shall be considered maintenance activity and do not require Development Review.

(5) All land areas that are stripped, graded, grubbed, filled, bulldozed or excavated at any time or removal of vegetation for, or construction of, a development shall be considered "disturbed area". Disturbed area does not include maintenance activities. A land area on which the cutting of trees, without grubbing, stump removal or exposure of soil has taken place is not considered disturbed area.

(6) Disturbed area that results in compacted soil and sparse vegetation; and lawn areas that are cut more than twice annually shall be considered "developed area".

(7) For the purposes of Stormwater Management, disturbed area that results in low permeability material that is highly resistant to infiltration by water, such as asphalt, concrete, or rooftop, and areas such as gravel roads and unpaved parking areas that will be compacted through design or use to reduce their permeability shall be considered "impervious area".

(8) Existing impervious area that is required for any additional off-street parking facilities or on-site vehicle traffic circulation for a proposed use; and new principal and accessory structures or additions over existing impervious area shall be considered "redeveloped impervious area".

The subdivision roads require treatment. The single family lots are exempt from treatment for this development. The project triggers a DEP stormwater permit by rule review. See executive summary below. Refer to the full stormwater report and DEP application completed under separate cover. Maine DEP has approved the project and a copy of the DEP approval order is attached. However, the roads were reduced which reduced the permit threshold to permit by rule. A permit by rule will be submitted if required.

C. Specific Standards: Stormwater Runoff Quality Standards

D. Specific Standards: Stormwater Runoff Quantity Standards

Belanger Engineering is preparing a Maine Stormwater Law Permit by rule application for the Jones Farm residential subdivision project located on Lisbon Road in Brunswick, Maine. The project parcel is approximately 32.50 acres in size and is proposed to be subdivided into 13 residential parcels. The property is located on Town of Brunswick Tax Map 1 Lot 70. Jones Farm Development LLC owns the property.

The units will be accessed by a new main access road, 20' wide, Jones Farm Road which is approximately 1100', includes a hammerhead turnaround at the end of the road. The side road, Hay Stack Lane, will be 20' wide and serves 4 single family lots. The access roads create 0.88 acres of impervious area and 2.29 acres of developed area for this project. The roads will be private when complete.

The residential single-family house lots are not required to be treated but are included in the HydroCAD stormwater calculations as required by stormwater law development. We have assumed each lot will have 0.10 acres of impervious area and 0.25 acres of developed area in the calculations. The lot development creates 1.30 acres of impervious area and 3.25 acres of developed area.

The proposed filter pond will treat road stormwater prior to discharge to a wetland area or before it leaves the site as required by Maine DEP. The Jones farm project is a 13-lot residential development. The treatment device treats the road as required by the stormwater law development. In this case the roads qualify as a linear portion of the project. The road is required to meet the 75% impervious area capture and 50% developed area capture standard. The project captures and treats 77% of the road impervious area and 78% of the road new developed area which exceeds the 75%/50% capture standards required by the Maine DEP.

The Basic Standards will be met with the proposed erosion control plans and stabilization details provided on the construction plan set.

The above analysis points are located where the project crosses the property line (Reaches 1R, 2R, 3R, 4R, and 5R). At this point we compared pre and post development peak flow rates. The results, shown above, indicate the proposed expansion keeps peak flows below pre-development levels as required. Reach 1R is located in a large ravine and has the capacity to handle pre development flows without causing flooding of downstream properties. Proposed peak flows have been reduced by constructing culverts along the new road areas and sending the proposed paved areas to the buffers and a filter pond for treatment and storage. Other non-treatment areas will drain to wooded buffer open space areas established adjacent to the road and lots.

As the results indicate, the post development peak flows stay below the pre-development peak flow for the 2, 10, and 25 year storms as required. The proposed culverts and structures have the capacity to control flow from the 25 year storm which exceeds the Flooding Standard requirement. As a result, the project does not significantly impact downstream structures or properties. Further this property abuts the Androscoggin River. Considering the close proximity to the Androscoggin River, additional stormwater quantity measures should not be necessary for this development.

We submit that the project meets the Basic and General standards as outlined in the Maine DEP Chapter 500 Stormwater Rules. The Flooding standard is also met per the Town of Brunswick stormwater standards. We submit that the General Standards has

been met or exceeded with the development as required to meet the minimum Town Standards.

4.6 Landscaping Requirements

4.6.1 General Standard

Portions of the site will remain in their natural state as open space, therefore preserving as much of the scenic and natural beauty of the area as possible. The project is located in the Rural Farm Zone and the project is a residential subdivision.

4.6.3 Specific Standards: Street Trees

The project is not located in the Growth District. This section is not applicable to this project.

4.6.4 Specific Standards: Buffers

The project is a residential subdivision. The use is compatible with other residential uses in the area. Open space areas provide lot buffering for the project. The developer also owns the Labbe pit adjacent to the project. The developer will retain a buffer along the Labbe Pit Road. In our opinion, we don't believe additional buffers beyond those proposed is required for this project.

4.6.5 Specific Standards: Parking Lot and Entrance Landscaping

Proposed and expanded parking lots, and associated entrances from a right of way, shall be landscaped in accordance with Subsection 4.9.3B.

This project is a residential subdivision, no parking lots are being proposed for this project. The section is not applicable to this development.

4.6.6 Specific Standards: Landscaping Maintenance

All required landscaping shall be maintained pursuant to Subsection 4.15.2. No specific landscaping is proposed for this project. The section is not applicable to this development.

4.7 Residential Recreation Requirements

4.7.1 General Standard

The development creates 13 new residential house lots and dwelling units. The developer will pay the recreation facilities impact fee or reserve land for recreational use to avoid the creation of additional burdens on the Town's ability to provide recreational services.

4.7.2 Specific Standards

A. Applicability

The development creates 13 new residential house lots and dwelling units.

B. Recreation Facilities Impact Fee

The recreation facilities impact fee shall be calculated and administered in accordance with the "Recreation Facilities Impact Fee Methodology, as amended" separately adopted by the Brunswick Town Council and attached in Appendix F.

C. Reservation of Recreation Area

D. Improvement of Recreation Area
E. Ownership and Maintenance of Reserved Recreation Area
F. Refund of Recreation Facilities Impact Fees

4.8 Circulation and Access

Two private roads and one driveway will be constructed to provide access to the 13 new single family residential lots. The lots will be accessed by a new gravel main access road, 20' wide, Jones Farm Road which is approximately 1100', includes a hammerhead turnaround at the end of the road. The side road, Hay Stack Lane, will be gravel, 20' wide, and serves 2 single family lots. The driveway is approximately 650' long and includes a hammerhead turnaround at the end of the road.

4.8.1 Street Standards
A. General Standard
B. Specific Standards: Development of New Streets
C. Specific Standards: Street Design and Dedication Standards

Jones Farm Road will be a private gravel road 20' wide. Hay Stack Lane will be a private gravel driveway 20' wide. The roadway design will follow the private street and driveway standards contained in Chapter 14 of the Brunswick Municipal Code of Ordinances.

D. Specific Standards: Interconnectedness

The street design does allow for future extensions as required in D.1. The developer has no plans to expand the residential subdivision. Turn arounds are provided at the end of the dead-end private roads.

E. Specific Standards: Sidewalks

Sidewalks are not required as described in Section E.(1).c

F. Specific Standards: Traffic and Street Impact

(1) The new development will not cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of existing or proposed highways or public roads. Traffic generated by the development shall maintain the level of service within 200 feet of any existing and proposed curb cut.

The proposed road connection is located opposite of the Madeline Drive intersection off Lisbon Road. Sight distance is adequate in both directions at these this intersection.

(2) The applicant is responsible for assessing the impact of the proposed development on street systems, and shall be responsible for any associated improvements. If the Review Authority deems it necessary, the applicant shall undertake to improve, repair or reconstruct such street systems. If this is required by the Review Authority, the applicant shall be responsible only for the degree of improvement necessary to mitigate the impact of the proposed development.

The proposed project is a 13-lot residential subdivision project. The project will generate 1 peak hour trip per lot. The proposed project will create approximately 13 peak hour trips and 130 average daily trips. The project does not trigger a DOT permit review.

(3) If the development involves a subdivision that crosses municipal boundaries, the proposed subdivision will not cause unreasonable traffic congestion or unsafe conditions with respect to the use of existing public ways in the adjoining municipality in which part of the subdivision is located.

The proposed project connects to an existing intersection. Traffic trips will not cause unreasonable impacts on the public road systems. The project will not cause unreasonable traffic congestion or unsafe conditions on the road system (Lisbon Road).

G. Private Road Requirements for Subdivisions

4.8.2 Curb Cuts and Street Access

The distance between curb cuts will not be changed. The proposed entrance is located opposite an existing intersection at Madeline Drive.

4.8.3 Pedestrian and Bicycle Access

We would expect pedestrians and bicycle access to use the roads created with the development to access Lisbon Road and other public access ways. The dead end roads will eliminate cut through traffic and will reduce speed.

4.8.4 Access for Persons with Disabilities

The development roads meet Town of Brunswick design standards. Persons with disabilities can access the parcels by vehicle. On lot access will be per owner preferences. The developments will comply with the American with disabilities act as required.

4.8.5 Shoreline Access

Not applicable to this development. There is no shoreline access with this project.

4.9 Parking and Loading

4.9.1 Minimum and Maximum Vehicle Parking Requirements

4.9.2 Minimum Bicycle Parking Requirements

4.9.3 Design, Construction and Maintenance of Parking Areas

4.9.4 Parking Alternatives

4.9.5 Minimum Off-Street Loading Requirements

This section is not applicable to this development. No parking and loading areas are proposed with this residential development. Parking is available on each lot per owner preferences.

4.10 Lighting

Outdoor Lighting shall not adversely impact road safety or adjacent properties and uses. We intend to match the existing lighting along Lisbon Road which are LED's attached to the power poles. We anticipate re-locating an existing pole and will re-set with new light fixture.

4.11 Architectural Compatibility

This section is not applicable to this development. The project is a residential subdivision.

4.12 Neighborhood Protection Standards

The development is a single family residential development which is compatible with existing neighboring single or two-family dwellings.

4.13 Signs

This section is not applicable to this development. The development is not proposing a sign for the residential subdivision.

4.14 Performance Standards

4.14.1 Operation of Uses and Development

A. General Standard

B. Specific Standard: General

C. Specific Standard: Noise

D. Specific Standard: Smoke and Particulate Matter

E. Specific Standard: Dust and Fumes

F. Specific Standard: Odors

G. Specific Standard: Vibrations

H. Specific Standard: Unlicensed Motor Vehicles

I. Specific Standard: Motor Vehicle and Watercraft parking in required setbacks

J. Specific Standard: Lighting and Glare.

(1) All installed outdoor lighting shall be operated to comply with Section 4.10 (Outdoor Lighting).

(2) Buildings materials, including solar panels, with high light-reflective qualities shall not be used in the construction of buildings in such a manner that reflected sunlight will throw intense glare to surrounding areas.

The proposed residential subdivision project is not expected to create unreasonable noise, dust, odors, or vibrations after road construction is complete. Construction operations will be completed between 7 am and 7 pm as required. Lot owners will be required to adhere to the storing of vehicles on site as described in Section H and I.

4.15 Site Features Maintenance

4.15.1 General Standard

The Planning Board shall advise the applicant that site features constructed or installed as required by a development approval must be maintained in good repair, and replaced if damaged or destroyed, or in the case of living materials, if they die or are effectively destroyed after installation.

4.15.2 Specific Standard: Landscape Maintenance

4.15.3 Specific Standard: Sign Maintenance

4.15.4 Specific Standard: Parking Area Maintenance

4.15.5 Specific Standards: Outdoor Lighting Maintenance

We will follow staff and PB requirements.

4.16 Financial and Technical Capacity

4.16.1 General Standard.

The applicant has adequate financial and technical capacity to meet the standards of the proposed development.

4.16.2 Specific Standards:

A. The applicant must show that they have right, title, or interest in the development parcel.

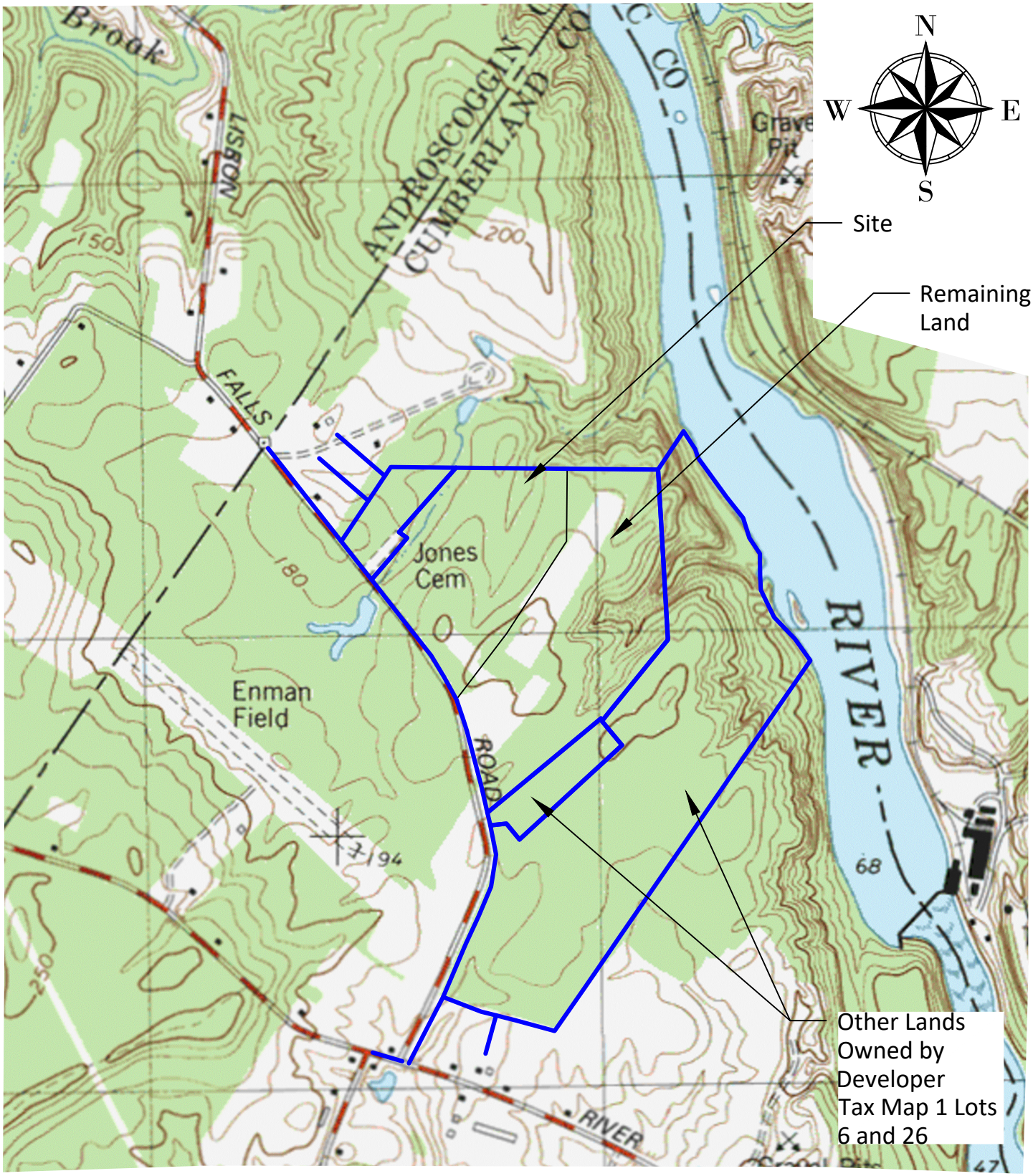
The developer owns the parcel. See enclosed deed.

B. The applicant must show documentation from an independent third-party as to applicants' financial capacity.

The developer will obtain pricing for the roads being developed with this project. Based on this cost estimate, an appropriate financial capacity statement will be provided from an independent third-party as required.

4.17 Administrative Adjustments / Alternative Equivalent Compliance

This section is not applicable to this development.



BELANGER ENGINEERING
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0 500 1000
1 inch = 1000 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

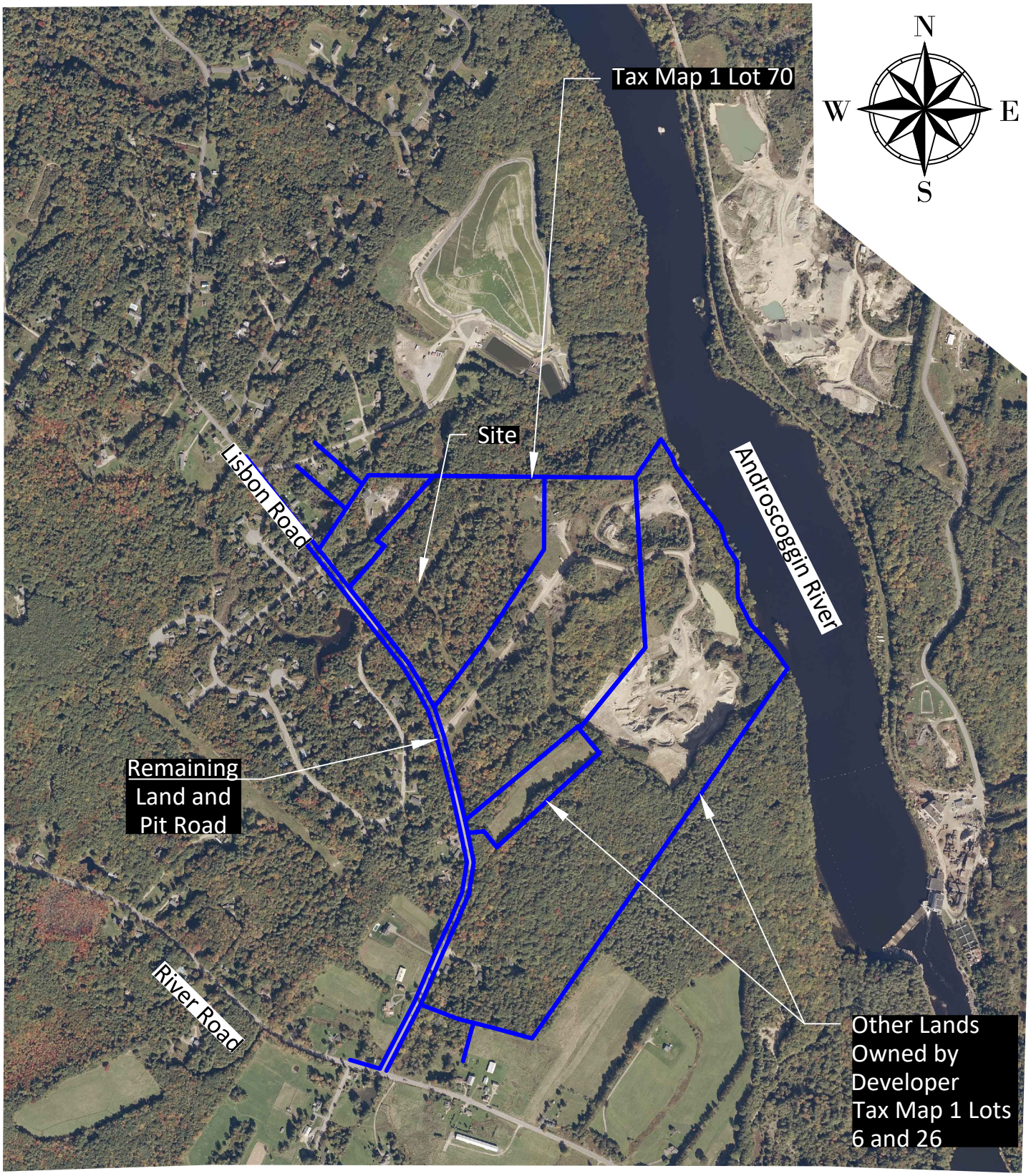
Title:
USGS Map Overlay
Brunswick 7.5' Quad.

Scale: 1"= 1000'

Date: 1-2-2026

Project #: 162

Figure #:
1



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 500 1000

1 inch = 1000 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

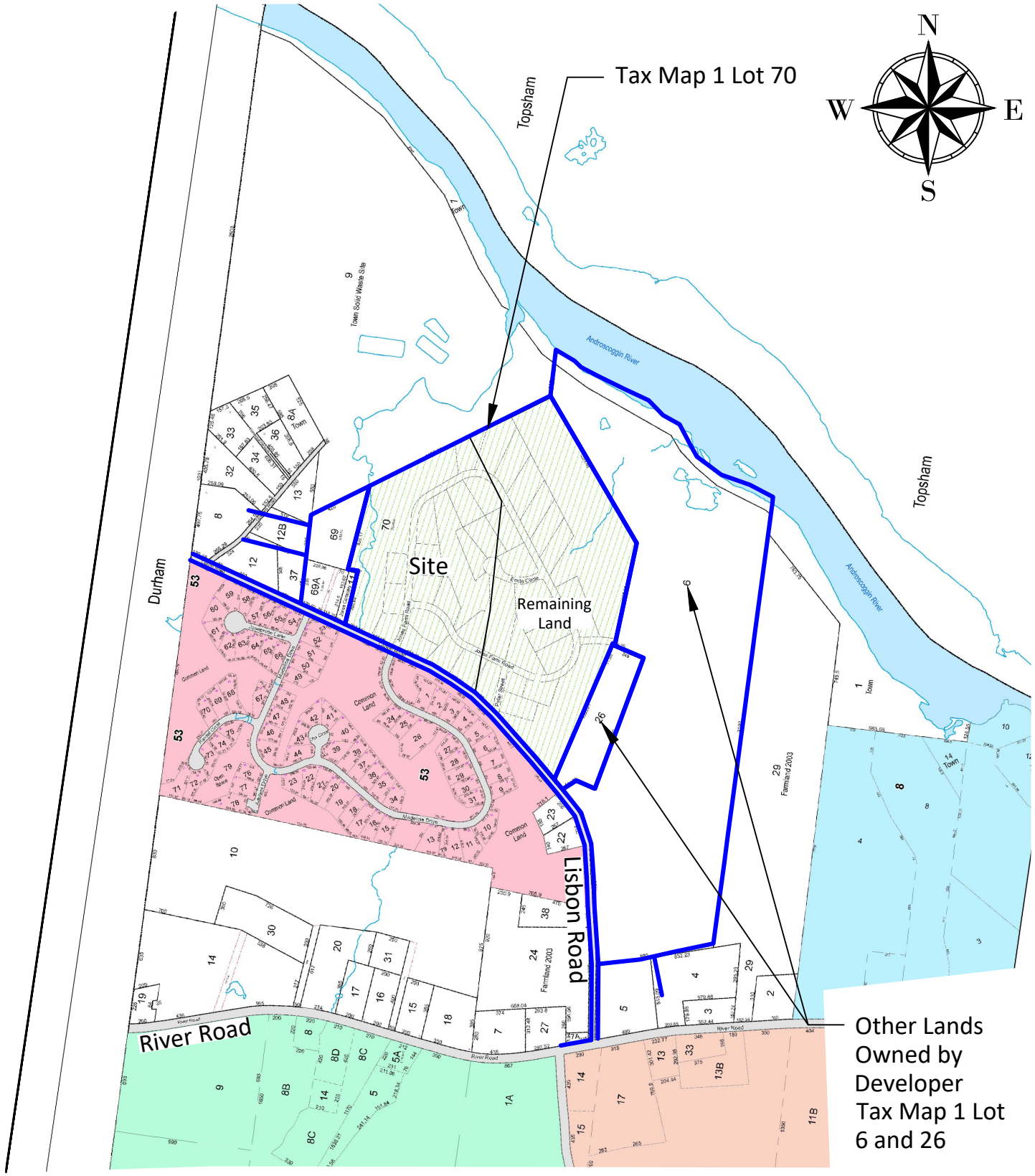
Scale: 1"= 1000'

Date: 1-2-2026

Project #: 162

Title:
Aerial Map Overlay

Figure #:
2



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 500 1000
1 inch = 1000 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

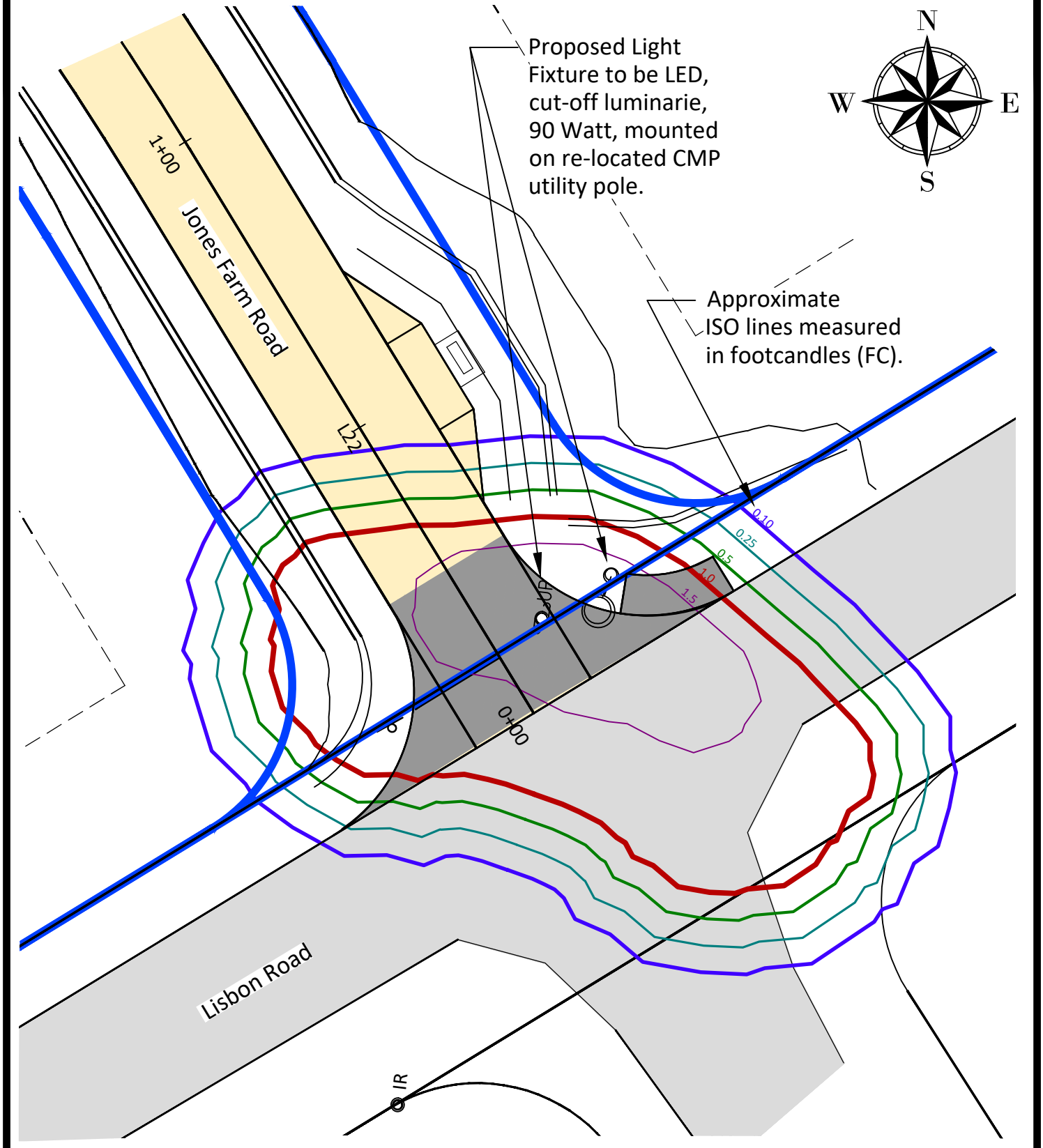
Title:
Brunswick Tax Map 1 Overlay
Locus: Tax Map 1 Lot 70

Scale: 1"= 1000'

Date: 1-2-2026

Project #: 162

Figure #:
3



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 20 40
1 inch = 40 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

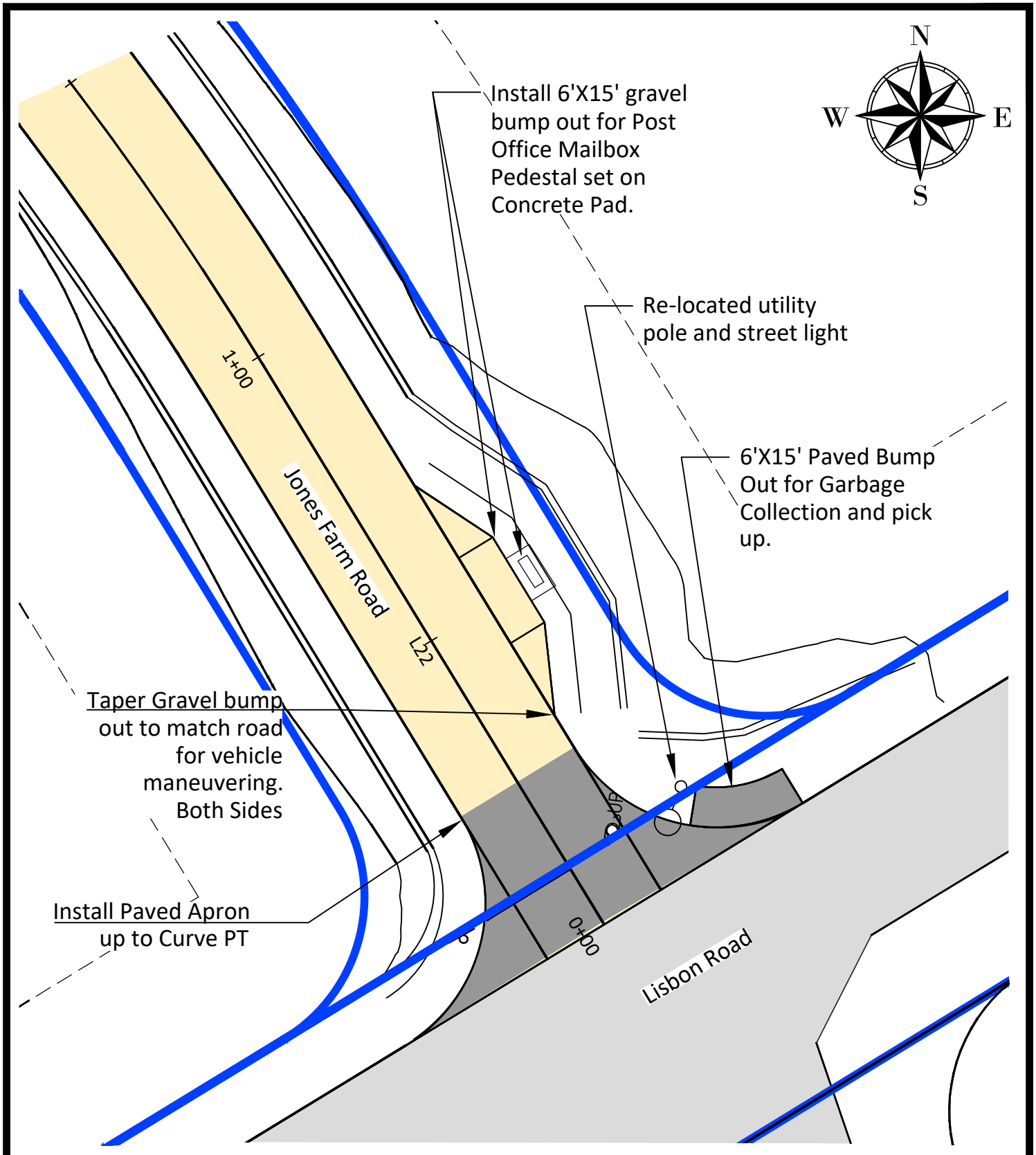
Title:
Lighting Photometric Plan
Proposed Street Light
at Lisbon Road intersection

Scale: 1"= 20'

Date: 1-2-2026

Project #: 162

Figure #:
8



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 20 40
1 inch = 40 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

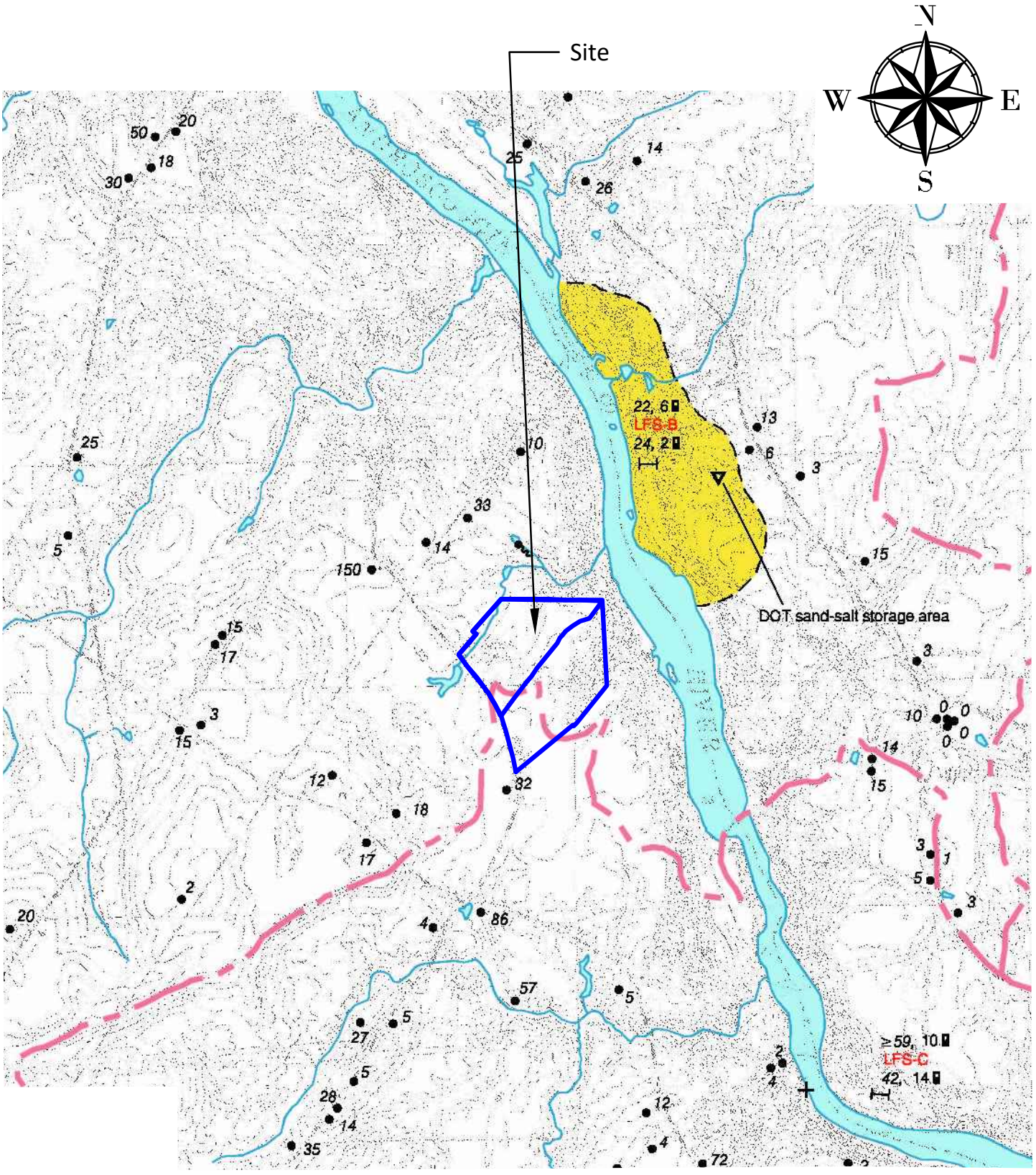
Title:
Post Office mailbox pedestal and turnout plan

Scale: 1"= 20'

Date: 1-2-2026

Project #: 162

Figure #:
9



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 1000 2000

1 inch = 2000 ft.

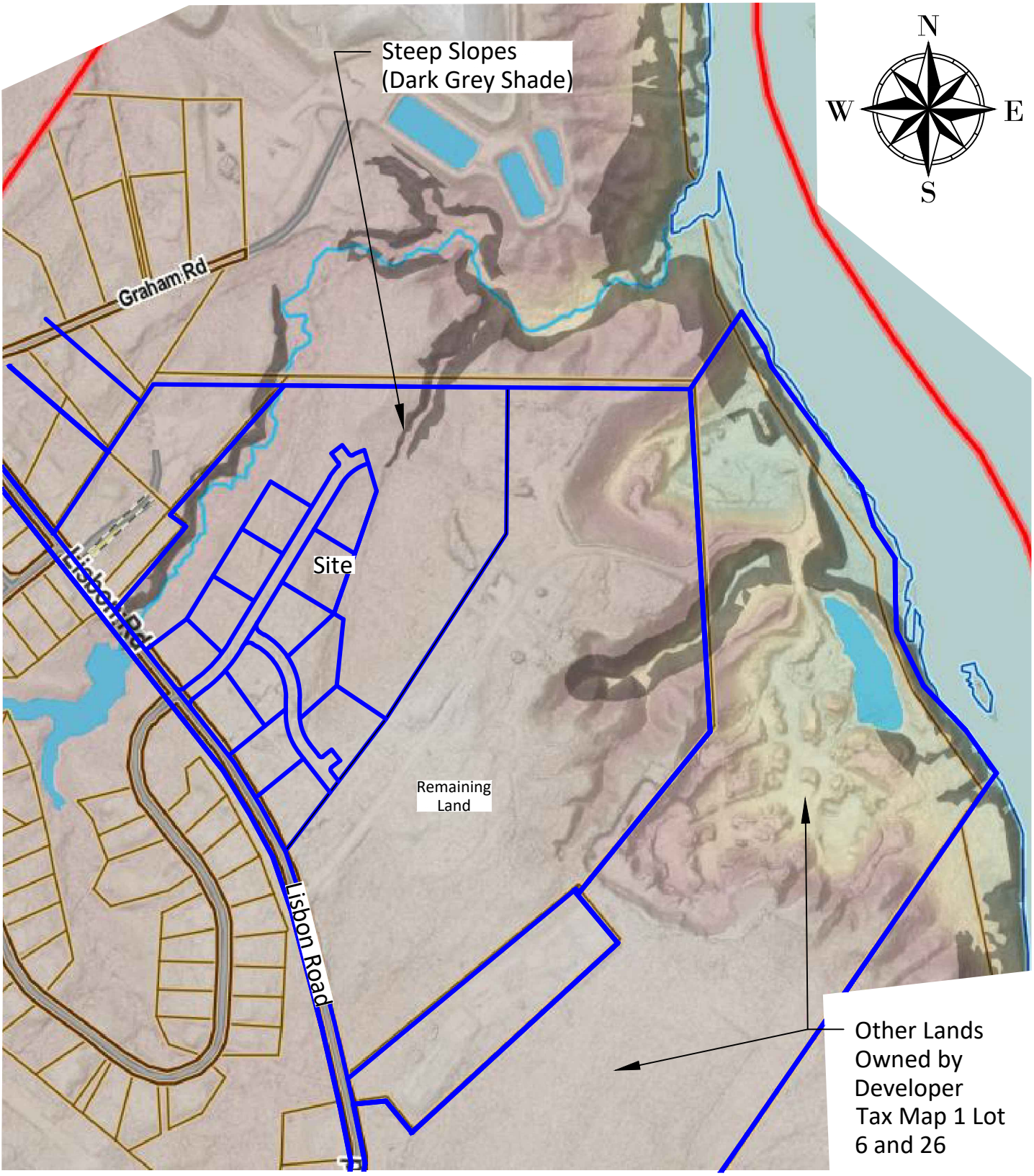
Prepared For:
Jones Farm Estates, 0 Lisbon Road Brunswick, Maine

Title:
Sand and Gravel Acquifer Map
Lisbon Falls South 7.5' Quadrangle

Scale: 1"= 2000'

Date: September 1, 2024 Project #: 162

Figure #:
10



BELANGER ENGINEERING
CONSULTING ENGINEERS

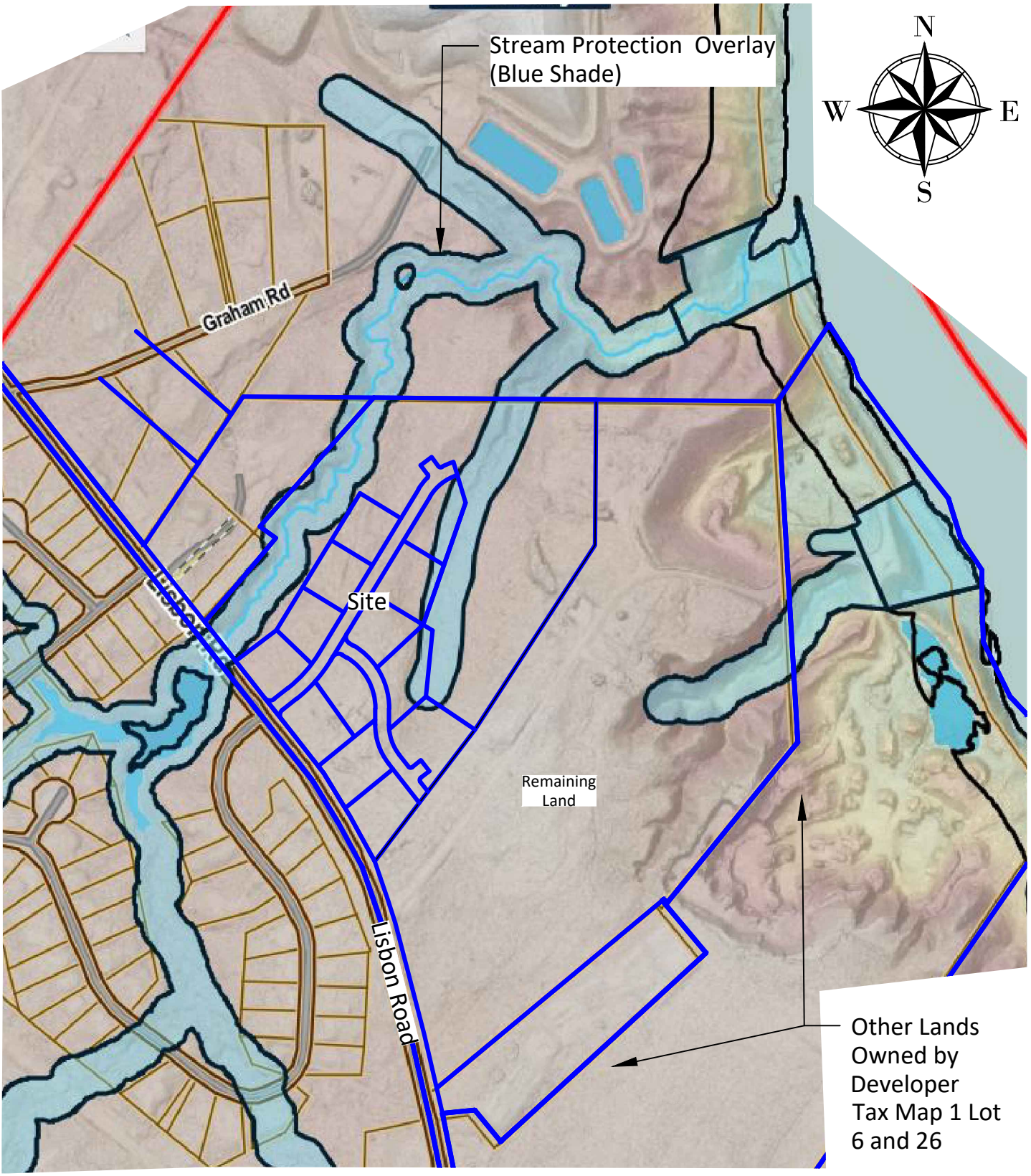
0 250 500
1 inch = 500 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

Title:
Brunswick GIS
Steep Slopes Overlay
Locus: Tax Map 1 Lot 70

Scale: 1"= 500'
Date: 1-2-2026
Project #: 162

Figure #:
11



BELANGER ENGINEERING
CONSULTING ENGINEERS

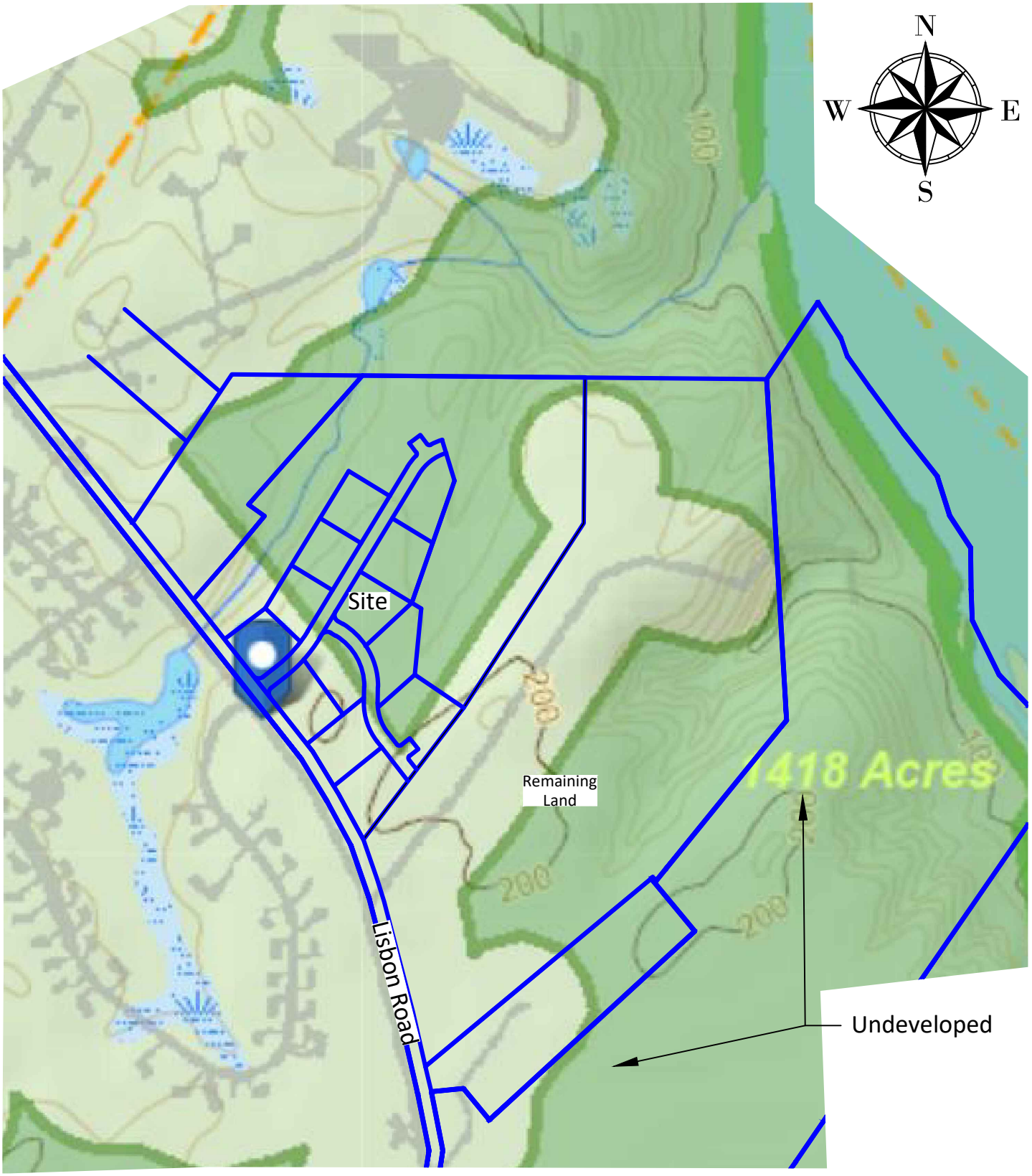
0 250 500
1 inch = 500 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

Scale: 1"= 500'
Date: 1-2-2026
Project #: 162

Title:
Brunswick GIS
Stream Protect District Overlay
Locus: Tax Map 1 Lot 70

Figure #:
12



BELANGER ENGINEERING
CONSULTING ENGINEERS

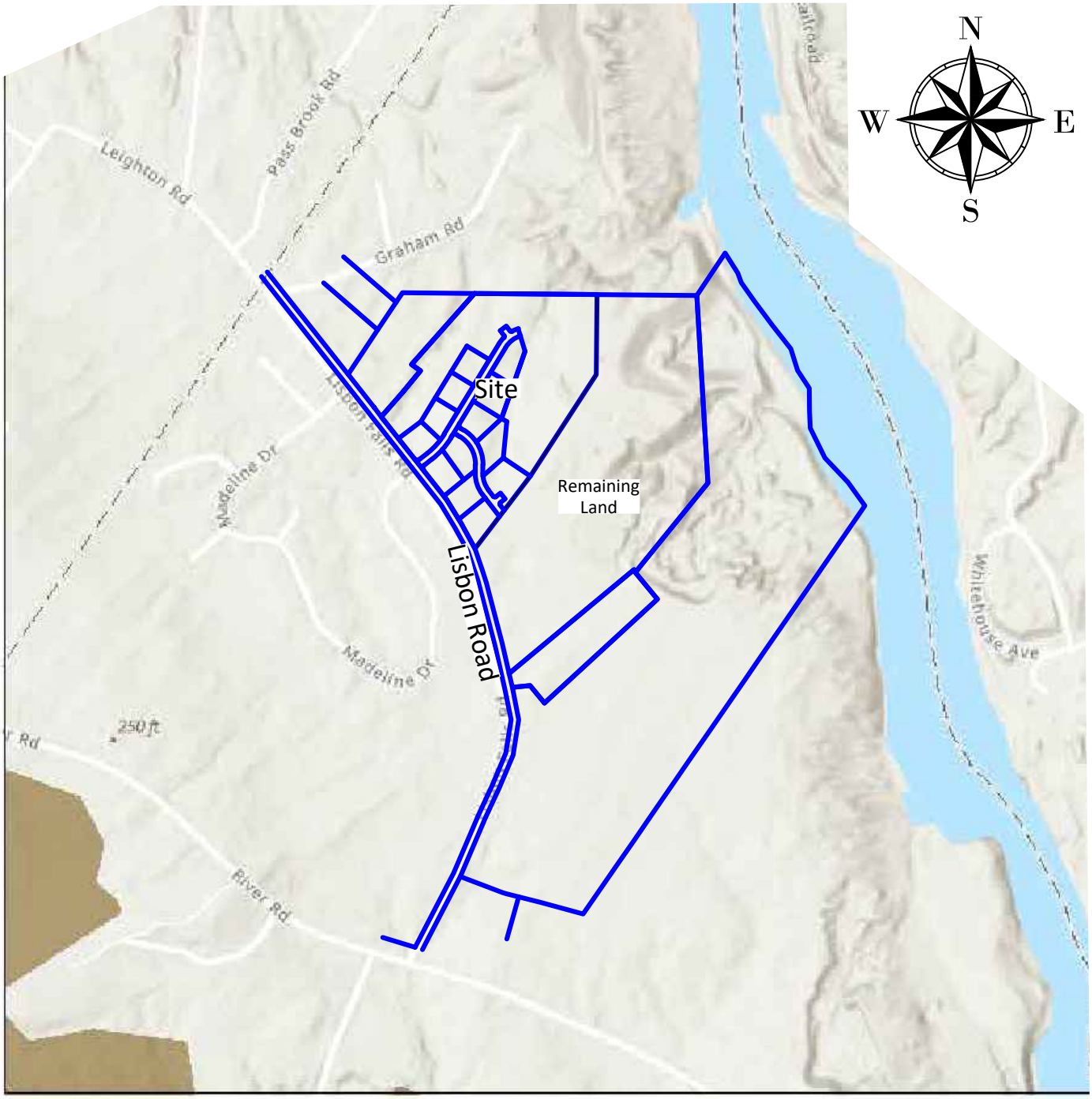
0 250 500
1 inch = 500 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

Scale: 1"= 500'
Date: 1-2-2026
Project #: 162

Title:
Brunswick GIS
Undeveloped Habitat Overlay
Locus: Tax Map 1 Lot 70

Figure #:
13



BELANGER ENGINEERING
CONSULTING ENGINEERS

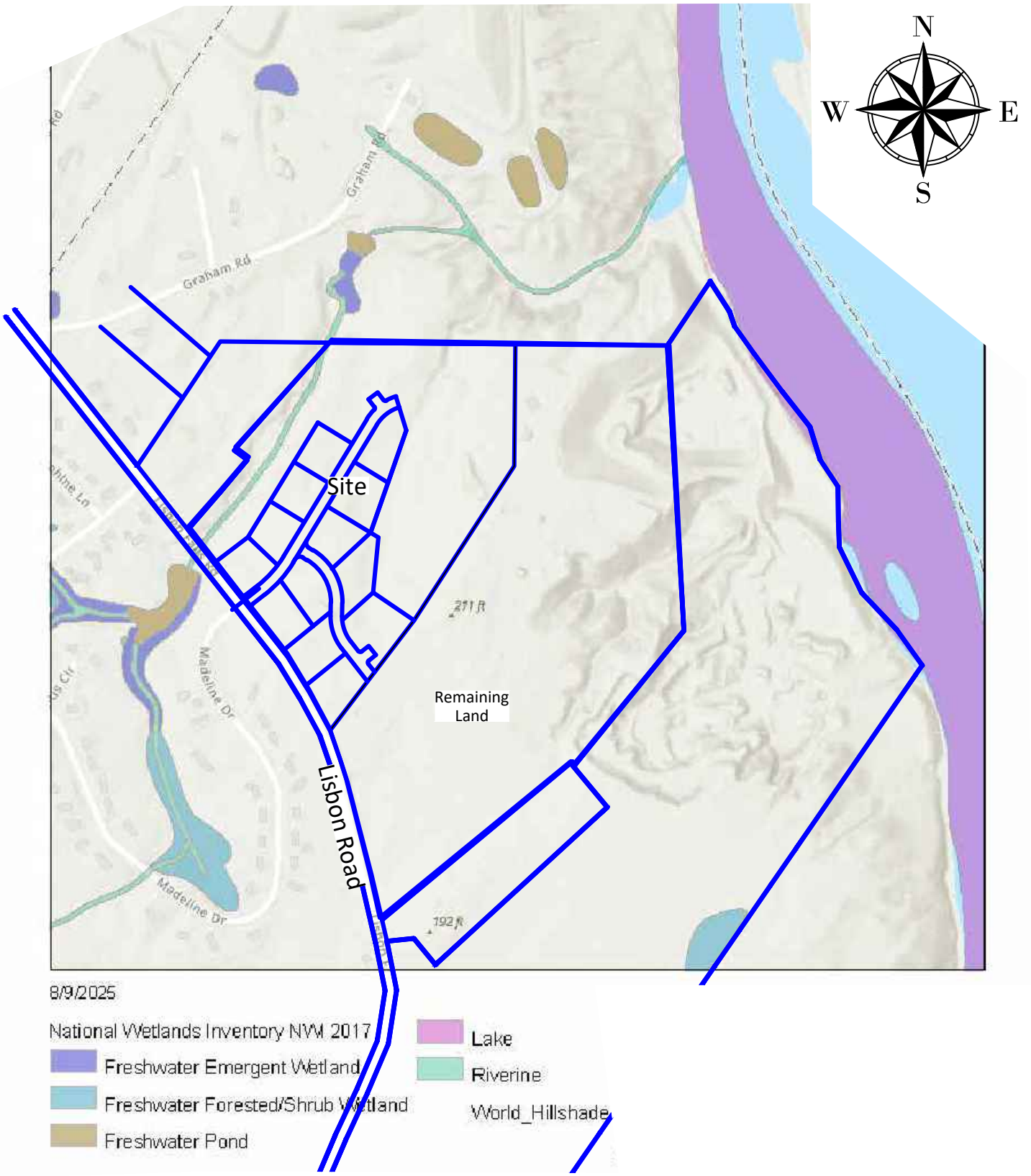
0 500 1000
1 inch = 1000 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

Scale: 1"= 1000'
Date: 1-2-2026
Project #: 162

Title:
Brunswick GIS
Wildlife Protection Overlay
Locus: Tax Map 1 Lot 70

Figure #:
14



BELANGER ENGINEERING
CONSULTING ENGINEERS

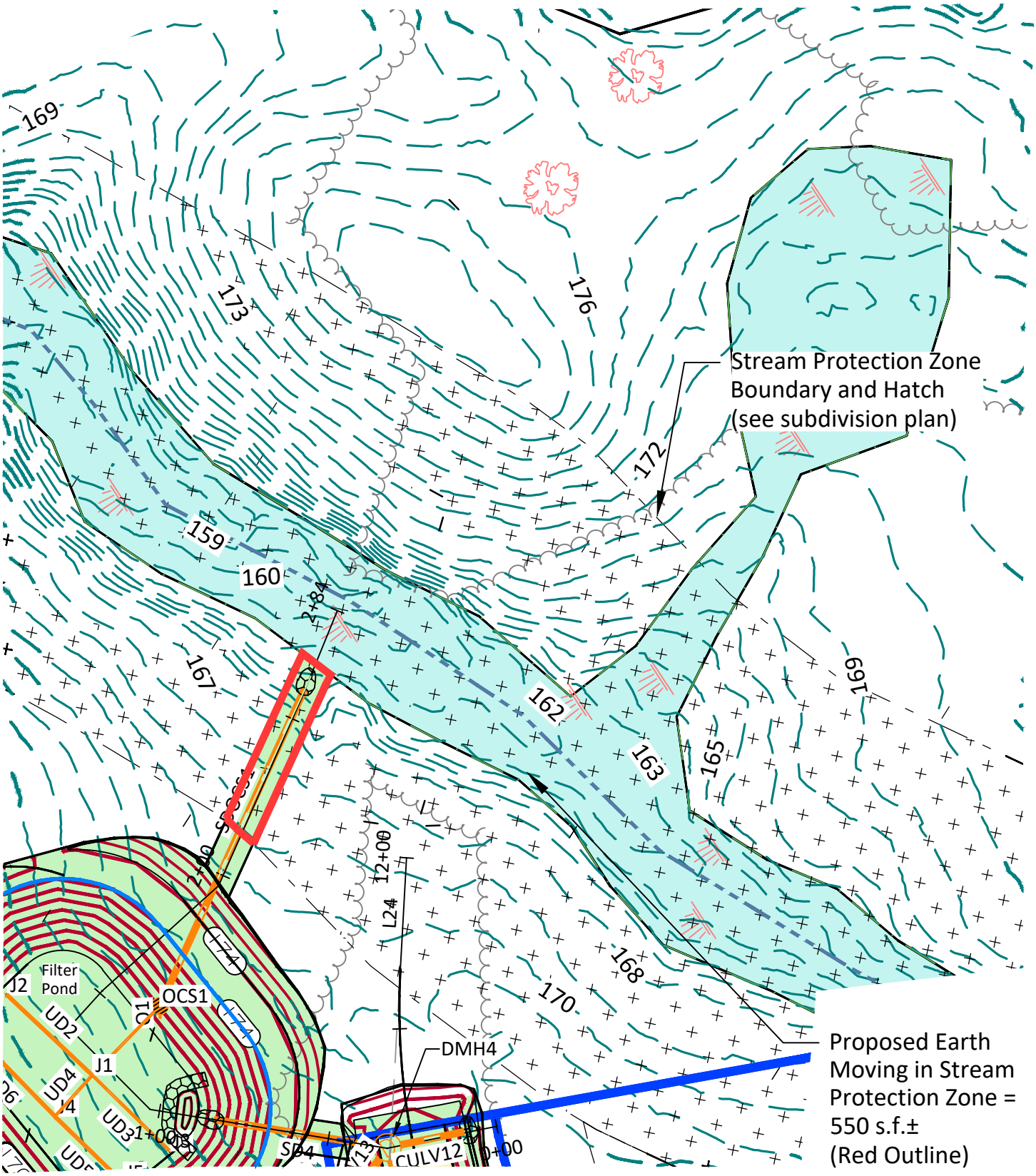
0 300 600
1 inch = 600 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

Title:
Brunswick GIS
National Wetlands Inventory Overlay
Locus: Tax Map 1 Lot 70

Scale: 1"= 600'
Date: 1-2-2026
Project #: 162

Figure #:
15



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 20 40
1 inch = 40 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

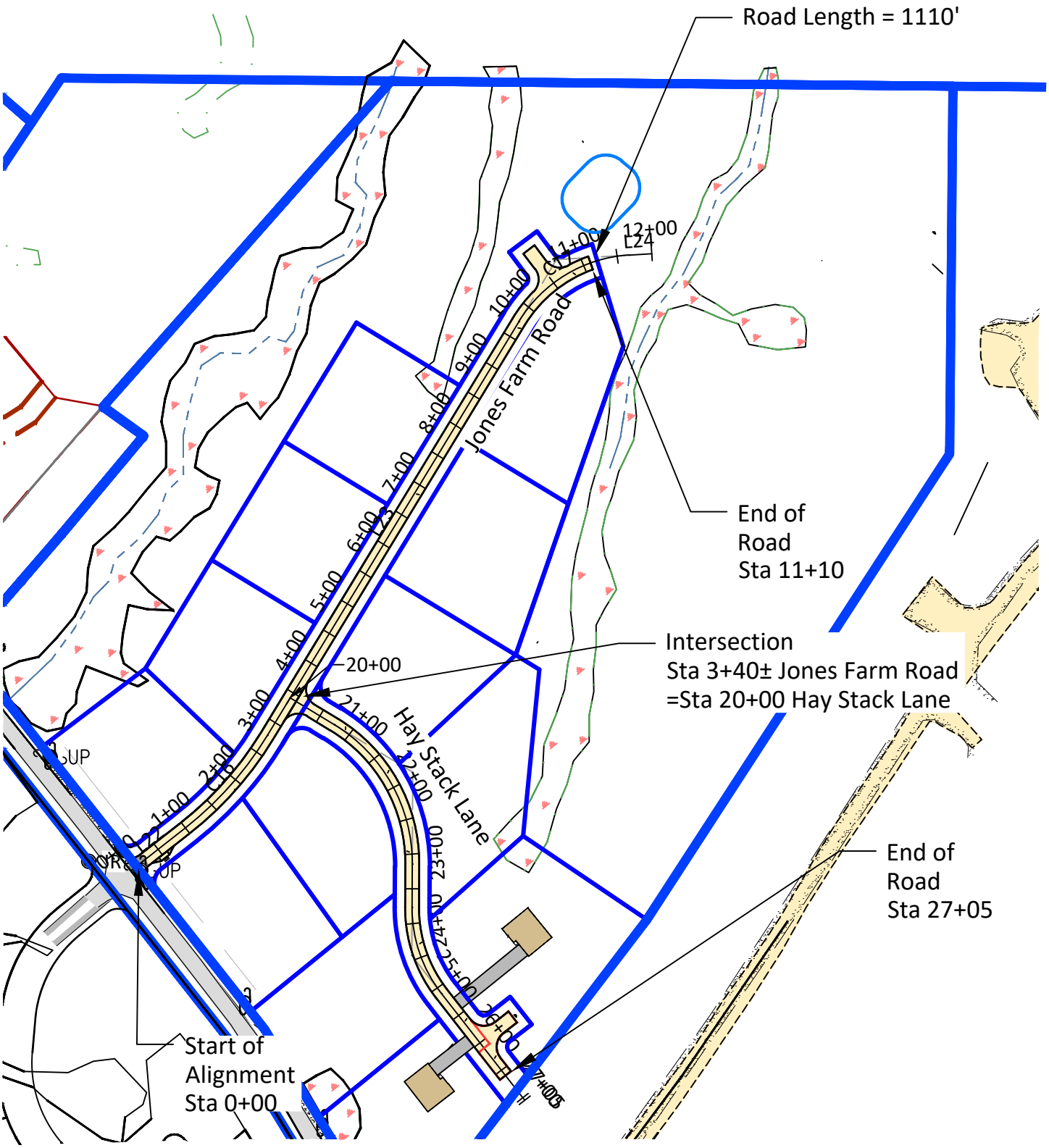
Title:
Proposed Earth Moving
In Stream Protection Zone

Scale: 1"= 40'

Date: 1-2-2026

Project #: 162

Figure #:
16



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 20 40
1 inch = 40 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

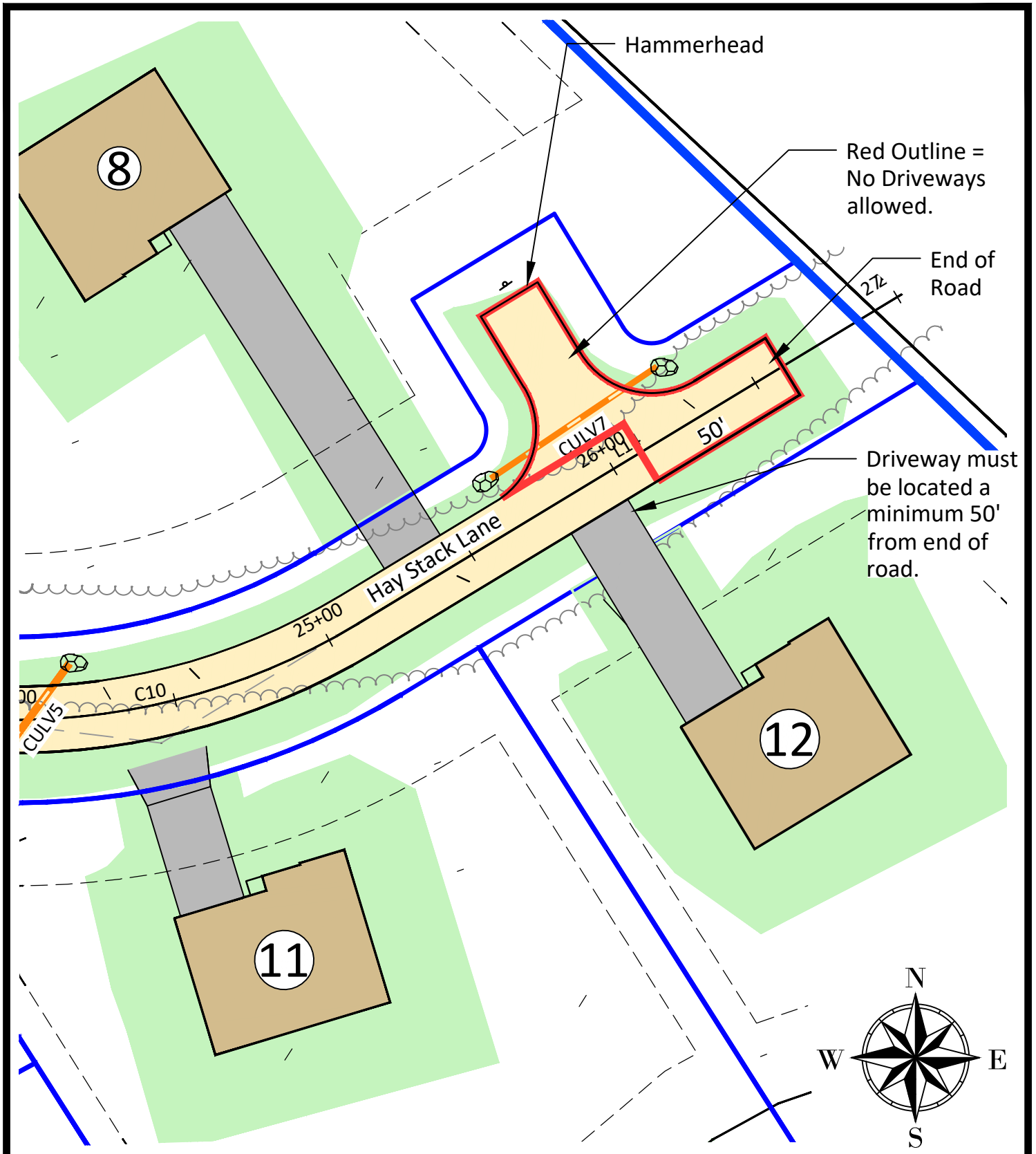
Title:
Proposed Dead End Road
Calculations

Scale: 1"= 40'

Date: 1-2-2026

Project #: 162

Figure #:
17



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 20 40
1 inch = 40 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

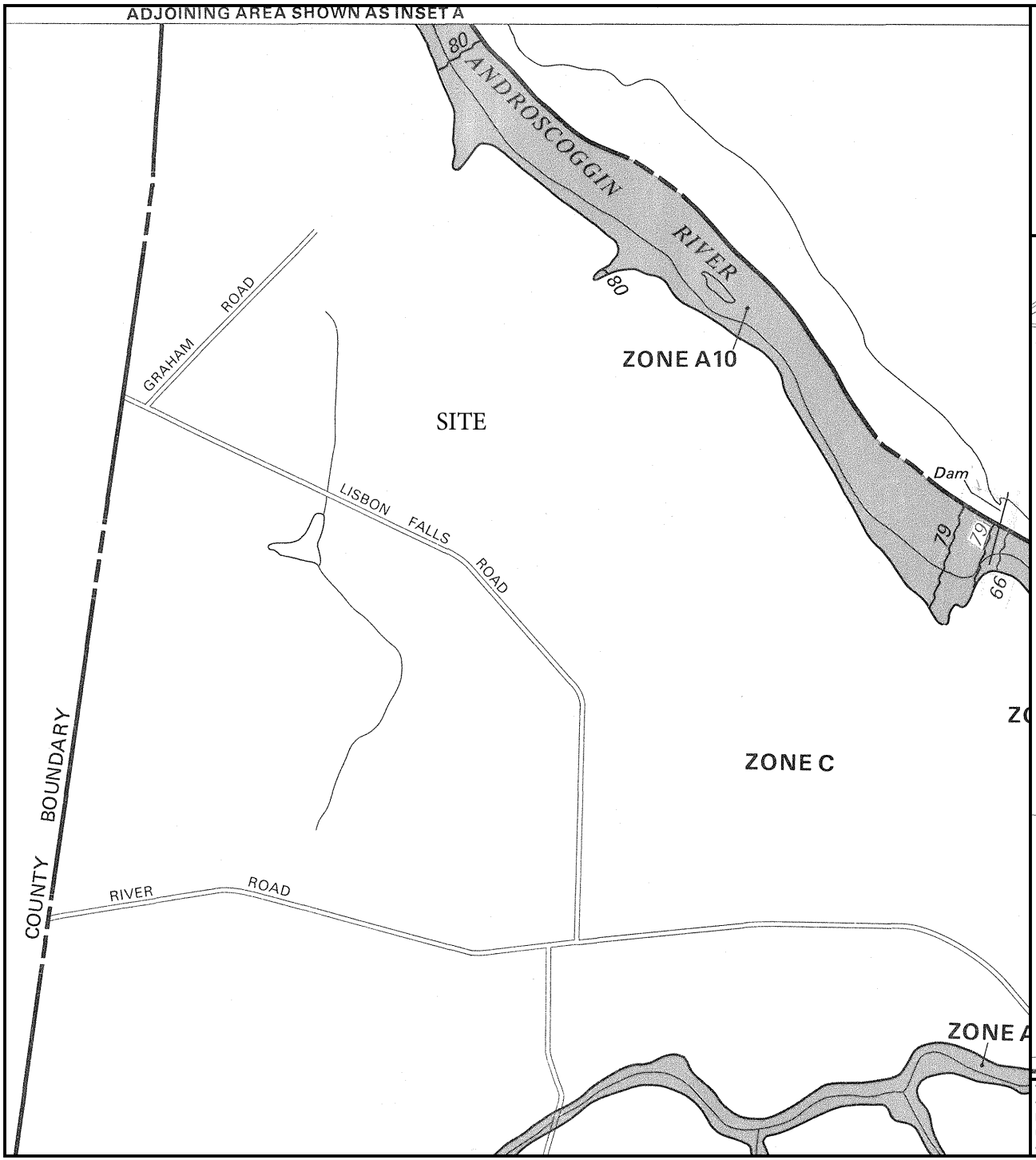
Title:
Driveway and Turnaround Sketch

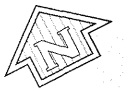
Scale: 1"= 40'

Date: 1-2-2026

Project #: 162

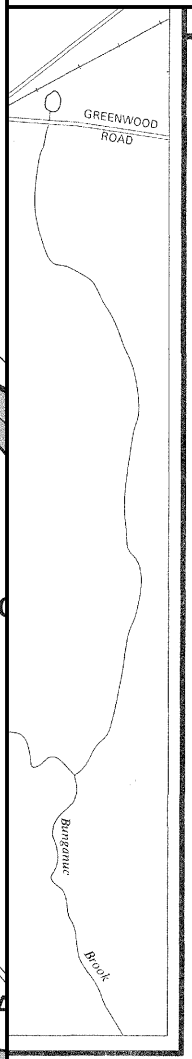
Figure #:
18





APPROXIMATE SCALE

1000 0 1000 FEET



NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TOWN OF
BRUNSWICK, MAINE
CUMBERLAND COUNTY

PANEL 10 OF 35
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230042 0010 B

EFFECTIVE DATE:
JANUARY 3, 1986

Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at https://msc.fema.gov.

Site Photos – Taken September 27, 2022

Standing at the Pit Road entrance looking left (Southwest)

Standing at the Pit Road entrance looking right (Northeast)

Pit Road and Gate

Pit Road

Approximate Entrance

Site Photos

Lisbon Road at Culvert Crossing

Lisbon Road at Pond Culvert Crossing

Off Site House

Madeline Drive

Existing Road across from Proposed Intersection (Madeline Drive)

Existing pond above site draining across Lisbon Road

Culvert Crossing Lisbon Road at Pond Outlet

Single-Family Detached Housing
(210)

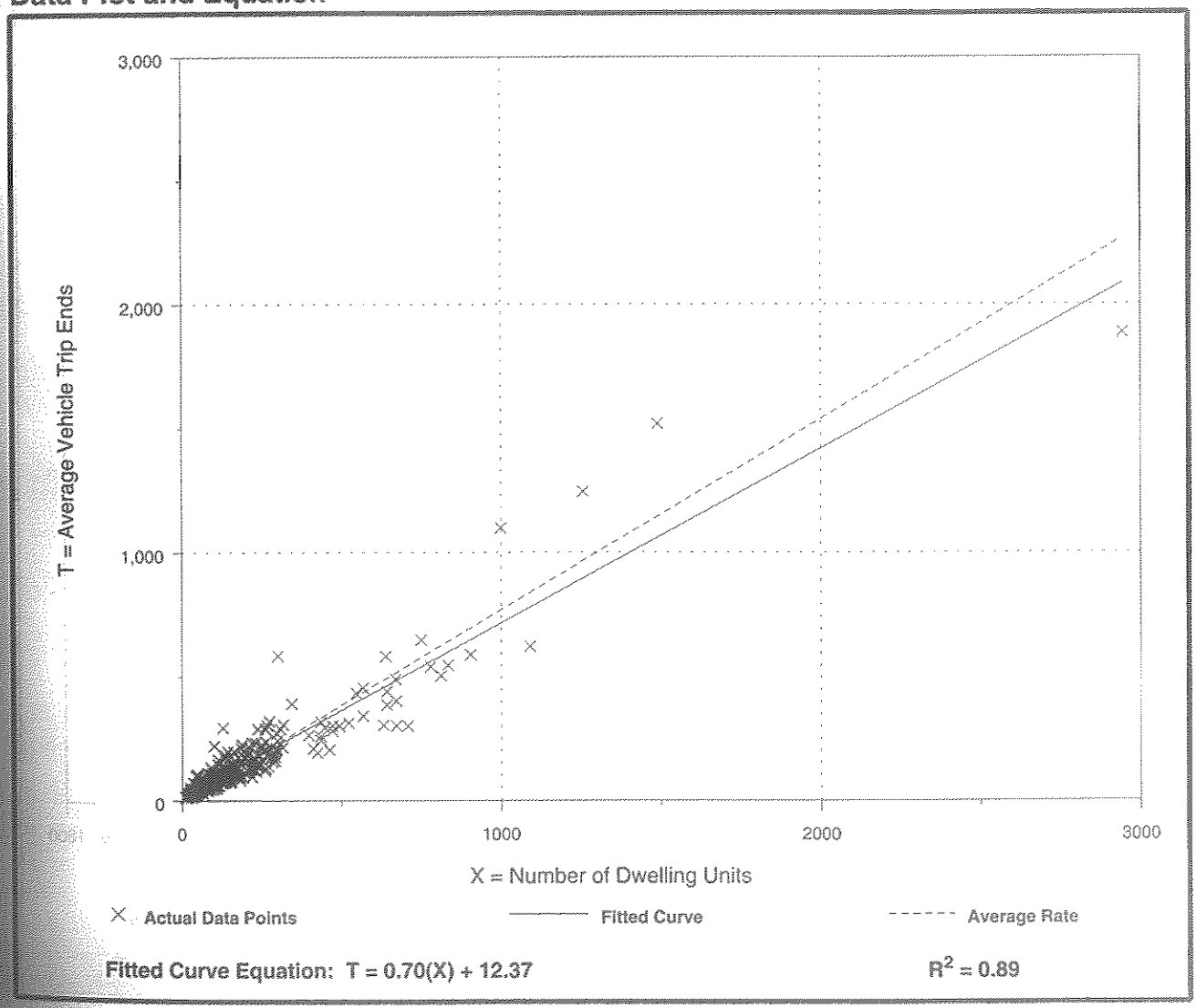
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
A.M. Peak Hour of Generator

Number of Studies: 341
Avg. Number of Dwelling Units: 181
Directional Distribution: 26% entering, 74% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.77	0.33 - 2.27	0.91

Data Plot and Equation



Fitted Curve Equation: T = 0.70(X) + 12.37

R^2 = 0.89

Single-Family Detached Housing
(210)

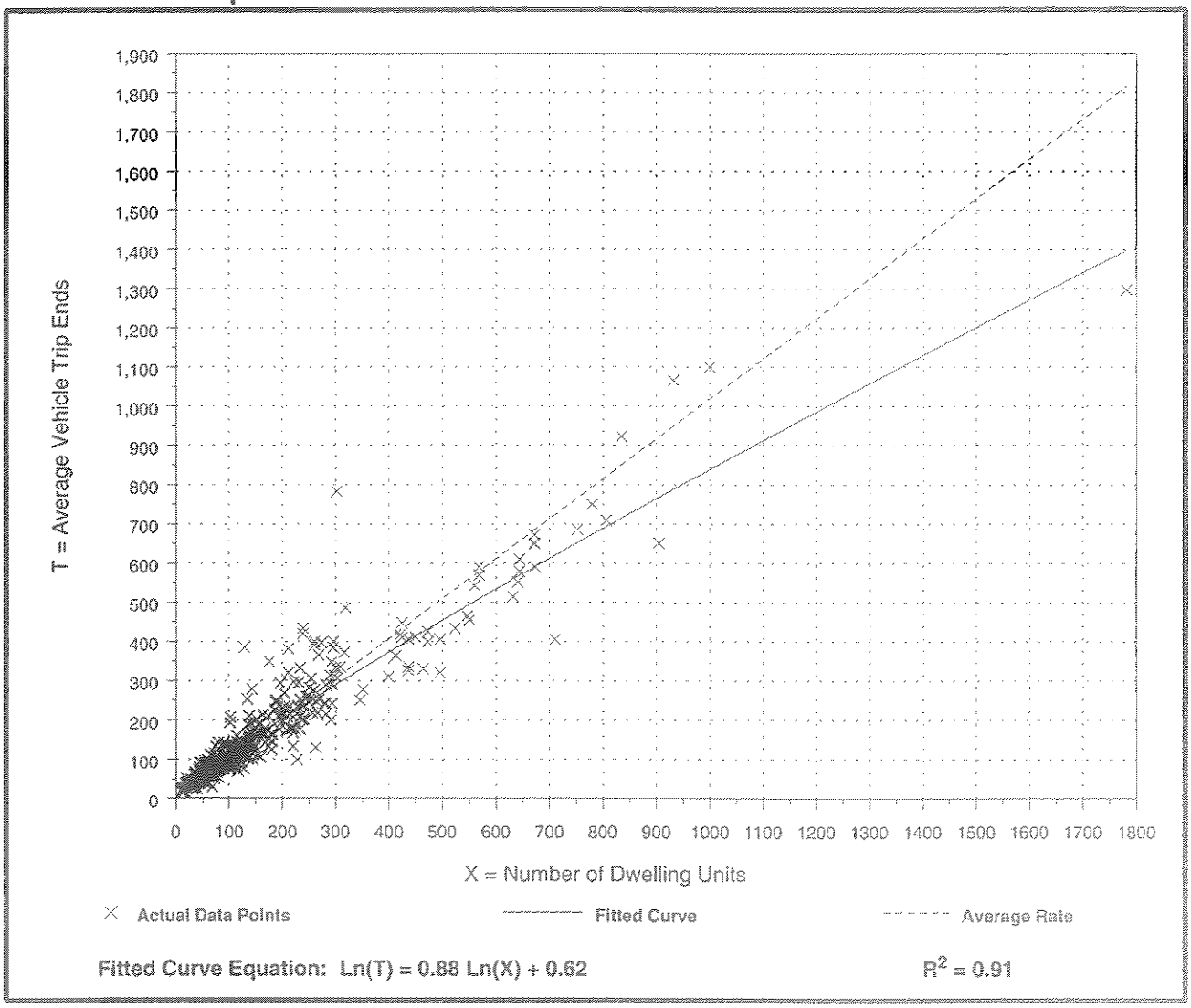
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
P.M. Peak Hour of Generator

Number of Studies: 360
Avg. Number of Dwelling Units: 174
Directional Distribution: 64% entering, 36% exiting

Trip Generation per Dwelling Unit

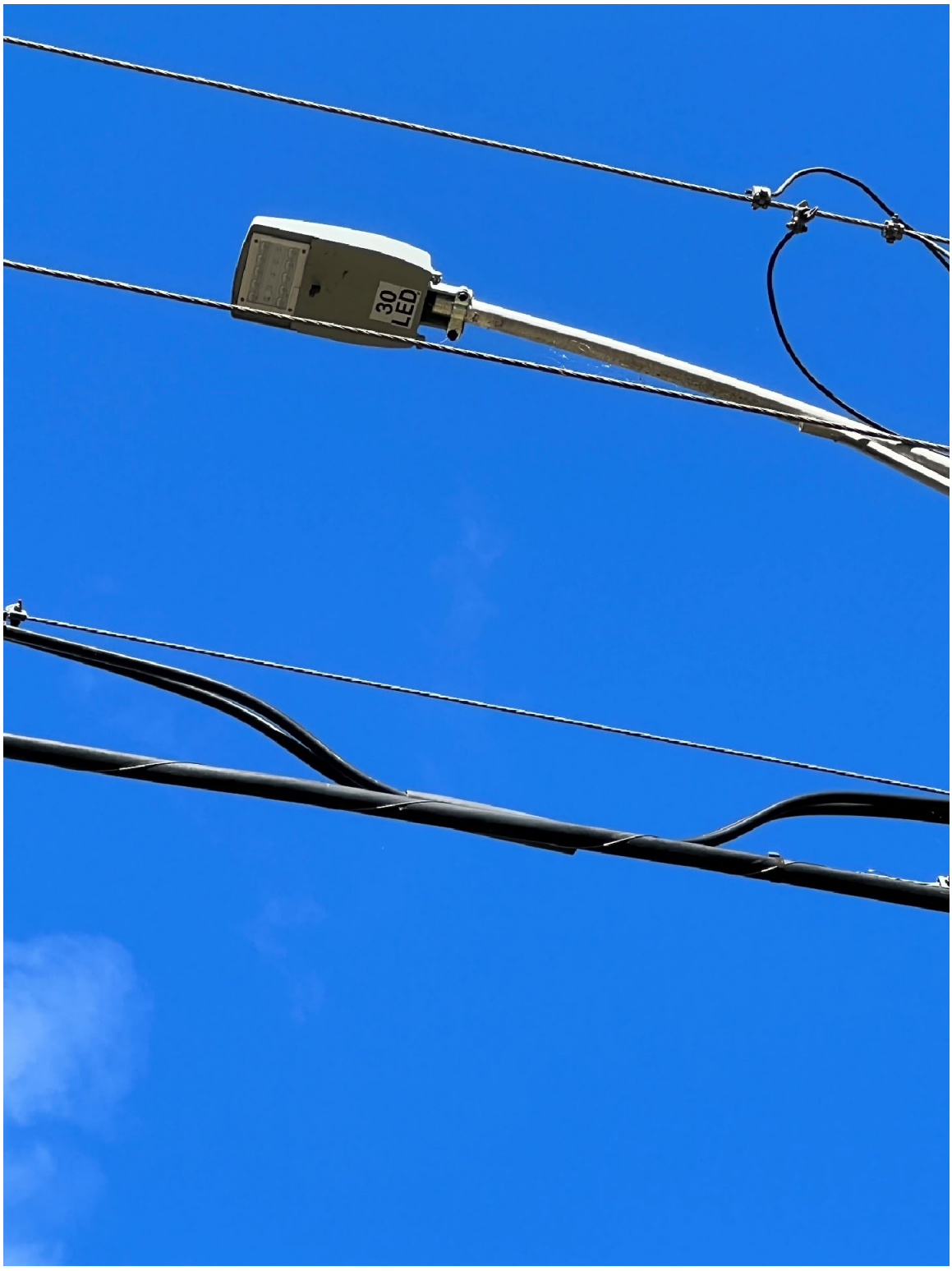
Average Rate	Range of Rates	Standard Deviation
1.02	0.42 - 2.98	1.05

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.88 Ln(X) + 0.62 $R^2 = 0.91$

Typical Street Light on Lisbon Road



Existing LED Light Fixture on Lisbon Road

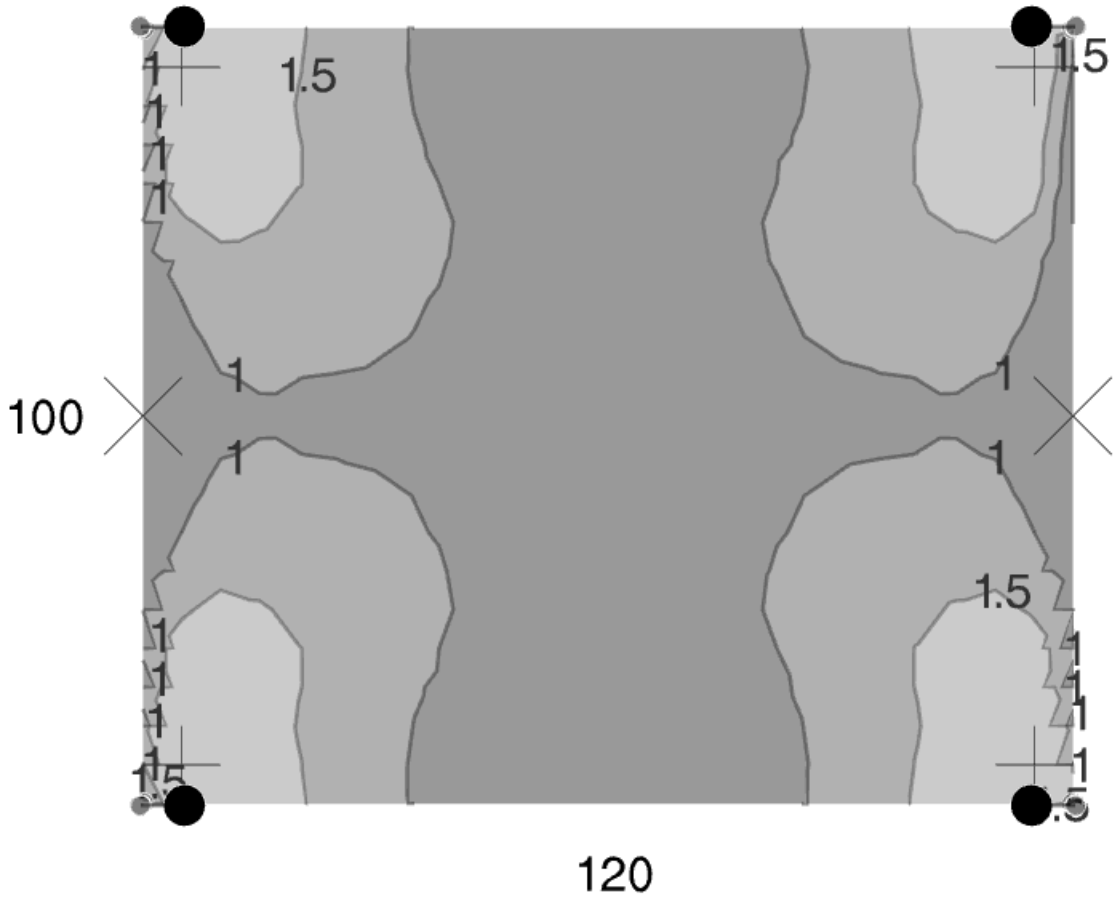
URB-XXX-XX-18L-90-4K7-4W.ies

BEACON
*URB-XXX-XX-18L-90-4K7-4W
*Urban Decorative Fixture,
Single (Arm)

Luminaire Watts	82	W
Ballast/Driver Factor	1.00	
Light Loss Factor	1.00	
Total Proration Factor	1.00	
Luminaire Lumens	7117	lms

120 x 100 ft

19 ft



Min: 0.52 fc
Max/Avg: 2.1

Avg: 1.1 fc
Avg/Min: 2.1

Max: 2.2 fc
Max/Min: 4.3

© 2020-2025 Lighting Analysts, Inc.

cbelanger@roadrunner.com

From: Wood, Andrew J <Andrew.J.Wood@maine.gov>
Sent: Thursday, April 10, 2025 2:09 PM
To: cbelanger@roadrunner.com
Subject: RE: Jones Farm, 0 Lisbon Road, Brunswick, Maine Review Update
Attachments: Project Map_ERid8897_ERVerID10388.pdf; MDIFWResponse_ERid8897_ERVerID10388-FINAL.pdf

Chris,

Thanks for your inquiry. Please see the attached review letter and map.

As we discussed today, I do not intend to reply to a duplicate inquiry submitted for this project on Jan 28, 2025 (MDIFW #8897-10289)

My contact info is below in the signature line for your future reference. We encourage folks to still submit inquiries to the IFWEnvironmentalreview@maine.gov email, but you are welcome to reach out to me directly as needed.

Best,

Andrew Wood
Environmental Review Coordinator | Senior Resource Biologist
Environmental Review Program
Maine Department of Inland Fisheries and Wildlife
353 Water Street, 41 State House Station
Augusta, Maine 04333-0041
Cell: (207) 441-9854
www.mefishwildlife.com

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

ERID# 8897-10388

From: cbelanger@roadrunner.com <cbelanger@roadrunner.com>
Sent: Tuesday, March 4, 2025 6:09 AM
To: IFW Environmental Review <IFWEnvironmentalreview@maine.gov>
Subject: Jones Farm, 0 Lisbon Road, Brunswick, Maine Review Update

EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To who it may concern.

We are looking for updated review letters for this project as requested by the Town. We have included previous letters issued for the site in the narrative.

Please reply so I know you got it.

Chris

BELANGER ENGINEERING
Civil and Environmental Consulting Engineers
Christopher S. Belanger, P.E.
63 Second Avenue, Augusta, Maine 04330
Phone: 207-622-1462
Email: cbelanger@roadrunner.com
Email: chris@belangerengineeringmaine.com (website email)
Web Site: belangerengineeringmaine.com

JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
353 WATER STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JUDITH CAMUSO
COMMISSIONER

April 10, 2025

Christopher S. Belanger
Belanger Engineering
63 Second Ave
Augusta, ME 04330

RE: Information Request - 0 Lisbon Road, Subdivision, Brunswick Project ID 8897-10388

Dear Chris:

Per your request received on March 4, 2025, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information sources for known locations of Endangered, Threatened, and Special Concern (Rare) species; designated Essential and Significant Wildlife Habitats; inland fisheries and aquatic habitats; and other protected natural resource concerns within the vicinity of the ***0 Lisbon Road, Subdivision, Brunswick*** project, pursuant to MDIFW's authority. MDIFW understands the project proposes a 13-lot subdivision and presumes that tree clearing and/or trimming would occur.

Our Department has not mapped any Essential Habitats that would be affected by this project.

ENDANGERED, THREATENED, AND SPECIAL CONCERN SPECIES

Bat Species
Of the eight species of bats that occur in Maine, four species are afforded protection under Maines Endangered Species Act (MESA, 12 M.R.S 12801 et. seq.): little brown bat (State Endangered), northern long-eared bat (State Endangered), eastern small-footed bat (State Threatened), and tri-colored bat (State Threatened). The four remaining bat species are designated as Species of Special Concern: big brown bat, red bat, hoary bat, and silver-haired bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during spring/fall migration, the summer breeding season, and/or for overwintering. However, our Department does not anticipate significant impacts to any of the bat species as a result of this project.

SIGNIFICANT WILDLIFE HABITAT

Significant Vernal Pools
At this time MDIFW Significant Wildlife Habitat maps indicate no known presence of Significant Vernal Pools (SVPs) in the project search area. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. SVPs are not included on MDIFW maps until project areas have been surveyed using approved methods and the survey results confirmed. Therefore, their absence from resource maps is not necessarily indicative of an absence on the ground. Based on materials submitted to MDIFW, it appears a wetland delineation has occurred; if any potential vernal pools were identified during the delineation, we recommend these pools be surveyed for vernal pool significance. Once surveys are completed, survey forms should be

submitted to our Department for review well before the submission of any necessary permits. MDIFW will need to review and verify any vernal pool data prior to final determination of significance.

AQUATIC RESOURCES

Fish Habitat

We recommend that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by many fish species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis and undersized crossings may inhibit these functions. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e., natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fisheries and aquatic habitat. In addition, we recommend that any necessary instream work occur between July 15 and October 1.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance, we recommend additional consultation with the municipality, and other state resource and regulatory agencies including the Maine Natural Areas Program and the Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance. For information on federally listed species, contact the U.S. Fish and Wildlife Service's Maine Field Office (207-469-7300, mainefieldoffice@fws.gov).

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

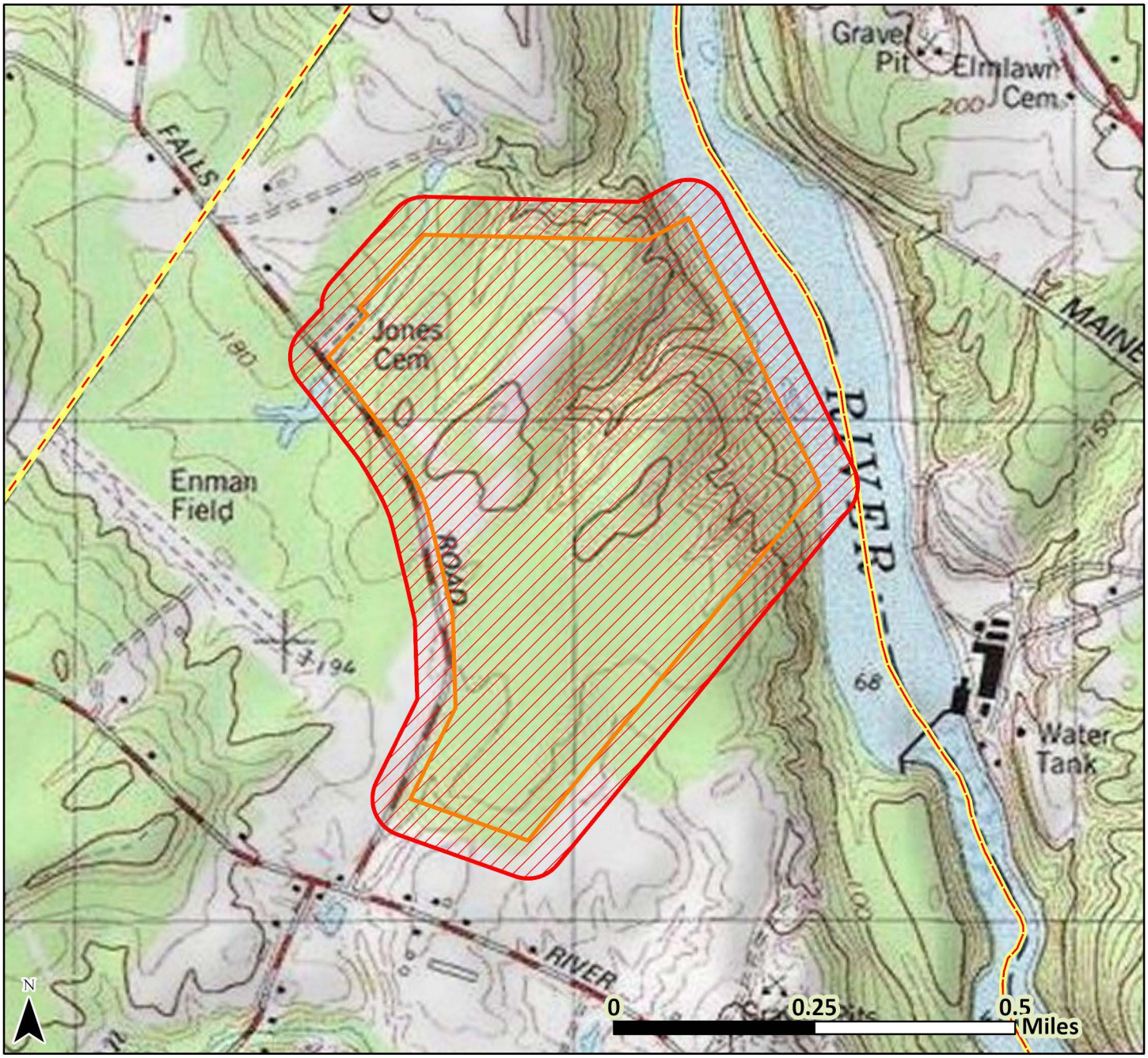
Best regards,

Andrew Wood
Environmental Review Coordinator

Maine Department of Inland Fisheries and Wildlife
Project Area Review of Fish and Wildlife Observations and Priority Habitats

0 Lisbon Road, Subdivision, Brunswick

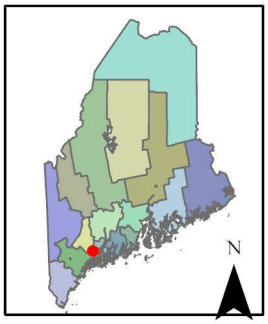
Project ID 8897, Version ID 10388



Legend only lists resources visible in the map; see response letter for all resources that were evaluated.

- County Boundary
- Township Boundary
- Project Footprint
- Search Area

Date: 3/13/2025
UTM Zone 19N, NAD83



This map contains sensitive information - do not distribute it beyond the project applicant, consultant, or the permitting agency.

SECTION 8

HISTORIC SITES

BELANGER ENGINEERING
CONSULTING ENGINEERS

RECEIVED
JAN 28 2025
By 0164-25

January 28, 2025
Mr. Kirk Mohney, Director and State Historic Preservation Officer
Maine Historic Preservation Commission
65 State Street Station
Augusta, Maine 04333-0065
Email: Kirk.mohney@maine.gov
Phone: 207-287-3811

RE: Property Assessment Historic and Arch
Jones Farm Estate LLC, Site & Subdivision Plan Approval
DEP # L-15993-NJ-C-N
0 Lisbon Road, Tax Map 1 Lot 70, Brunswick, Maine

Dear Mr. Mohney;

Jones Farm Estate LLC is proposing a 13-lot residential subdivision project in Brunswick, Maine. The project is located at 0 Lisbon Road. The project is adjacent to Labbe's gravel pit and pit road. Bob Walton is the owner of Labbe Construction and owns the land to be developed.

In 2006, the Maine Historic Preservation Commission (MHPC) was contacted to determine the presence of mapped structures or archaeological sites of historic significance. Mr. Earle Shettleworth and the MHPC found no significant architectural or archeological sites was uncovered on the property. See original letter attached.

We are requesting an updated Historic review letter for the project to verify that no significant architectural or archeological sites existing within the project area. Should you have questions, please call.

Very truly yours,

Christopher S. Belanger, P.E.
Enclosures

cc: Bob Walton, Jones Farm Estate LLC

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney 2/20/25
State Historic Preservation Officer Date
Maine Historic Preservation Commission

cbelanger@roadrunner.com

From: cbelanger@roadrunner.com
Sent: Tuesday, January 28, 2025 8:05 AM
To: Kirk Mohney (kirk.mohney@maine.gov)
Subject: Jones Farm Estate LLC - 13 Lot Residential Subdivision

Hey Kirk

We are hoping to get an updated historic letter for the Jones Farm Subdivision project in Brunswick. The project is located at 0 Lisbon Road, Brunswick. Tax Map 1 Lot 70. The letter and plans are in the link below.

https://www.dropbox.com/scl/fo/3gcwxtweymcpyfif15ifp/AIp10rLXLaJZ-phaEpySjI0?rlkey=xl66w80fsdlxzumdfka8h1aqw&dl=0

If you require more information, let me know.

Chris

BELANGER ENGINEERING
Civil and Environmental Consulting Engineers
Christopher S. Belanger, P.E.
63 Second Avenue, Augusta, Maine 04330
Phone: 207-622-1462
Email: cbelanger@roadrunner.com
Email: chris@belangerengineeringmaine.com (website email)
Web Site: belangerengineeringmaine.com

BELANGER ENGINEERING
CONSULTING ENGINEERS

January 28, 2025
Mr. Kirk Mohney, Director and State Historic Preservation Officer
Maine Historic Preservation Commission
65 State Street Station
Augusta, Maine 04333-0065
Email: Kirk.mohney@maine.gov
Phone: 207-287-3811

RE: Property Assessment Historic and Arch
Jones Farm Estate LLC, Site & Subdivision Plan Approval
DEP # L-15993-NJ-C-N
0 Lisbon Road, Tax Map 1 Lot 70, Brunswick, Maine

Dear Mr. Mohney;

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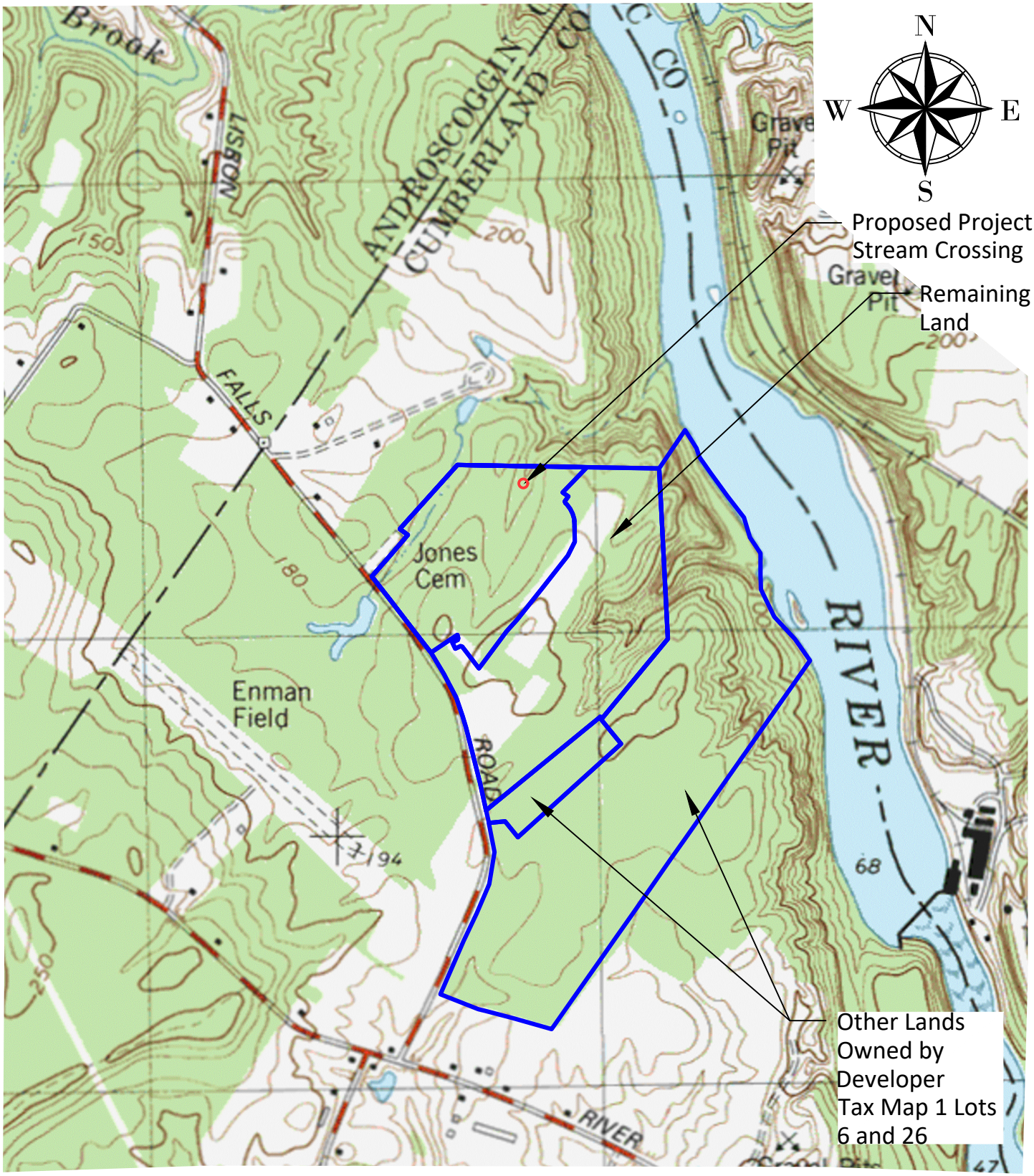
Very truly yours,

Christopher S. Belanger, P.E.
Enclosures

cc: Bob Walton, Jones Farm Estate LLC



BELANGER ENGINEERING
CONSULTING ENGINEERS

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

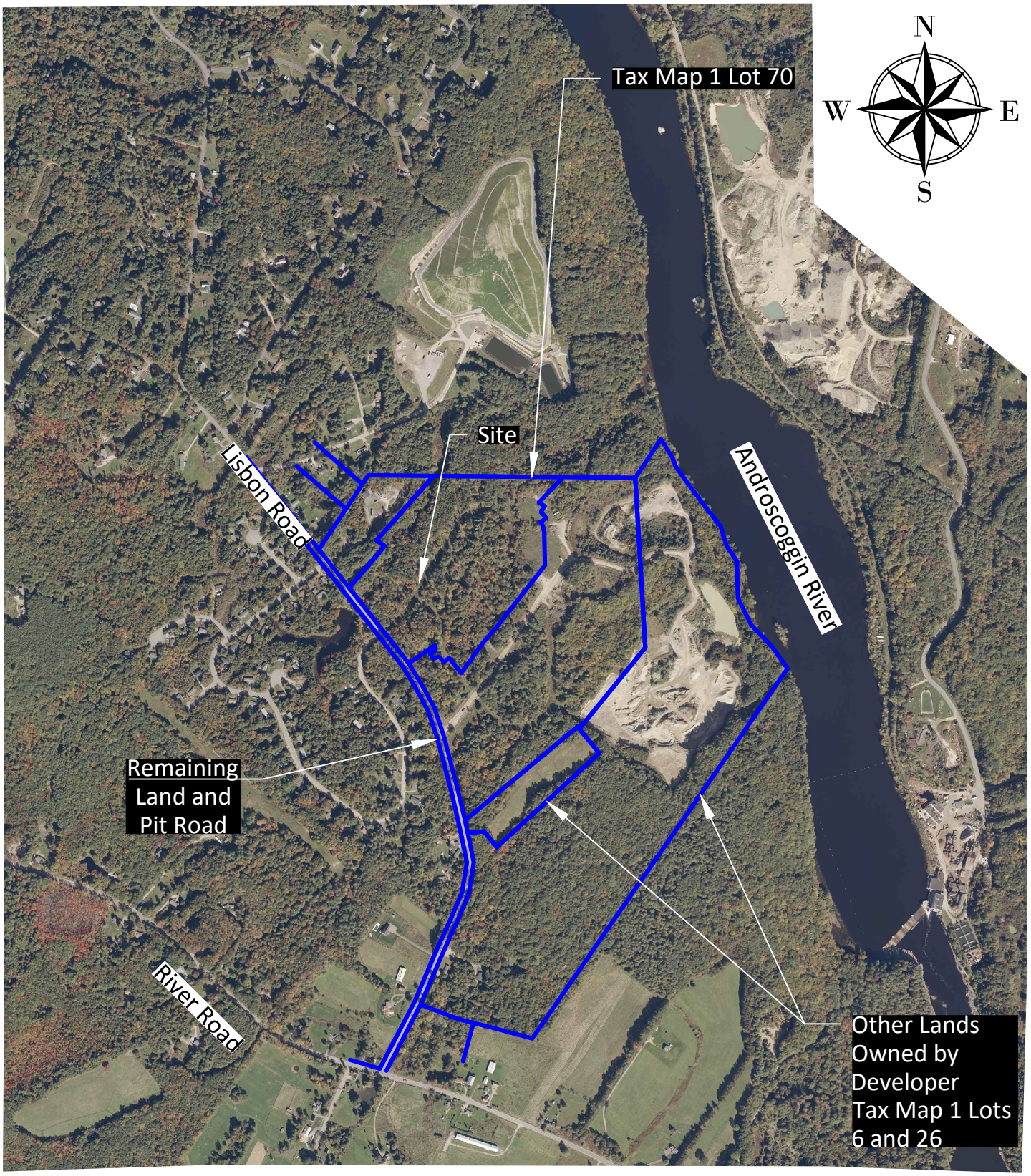
Title:
USGS Map Overlay
Brunswick 7.5' Quad.

Scale: 1"= 1000'

Date: 11-26-2024

Project #: 162

Figure #:
1



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 500 1000

1 inch = 1000 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

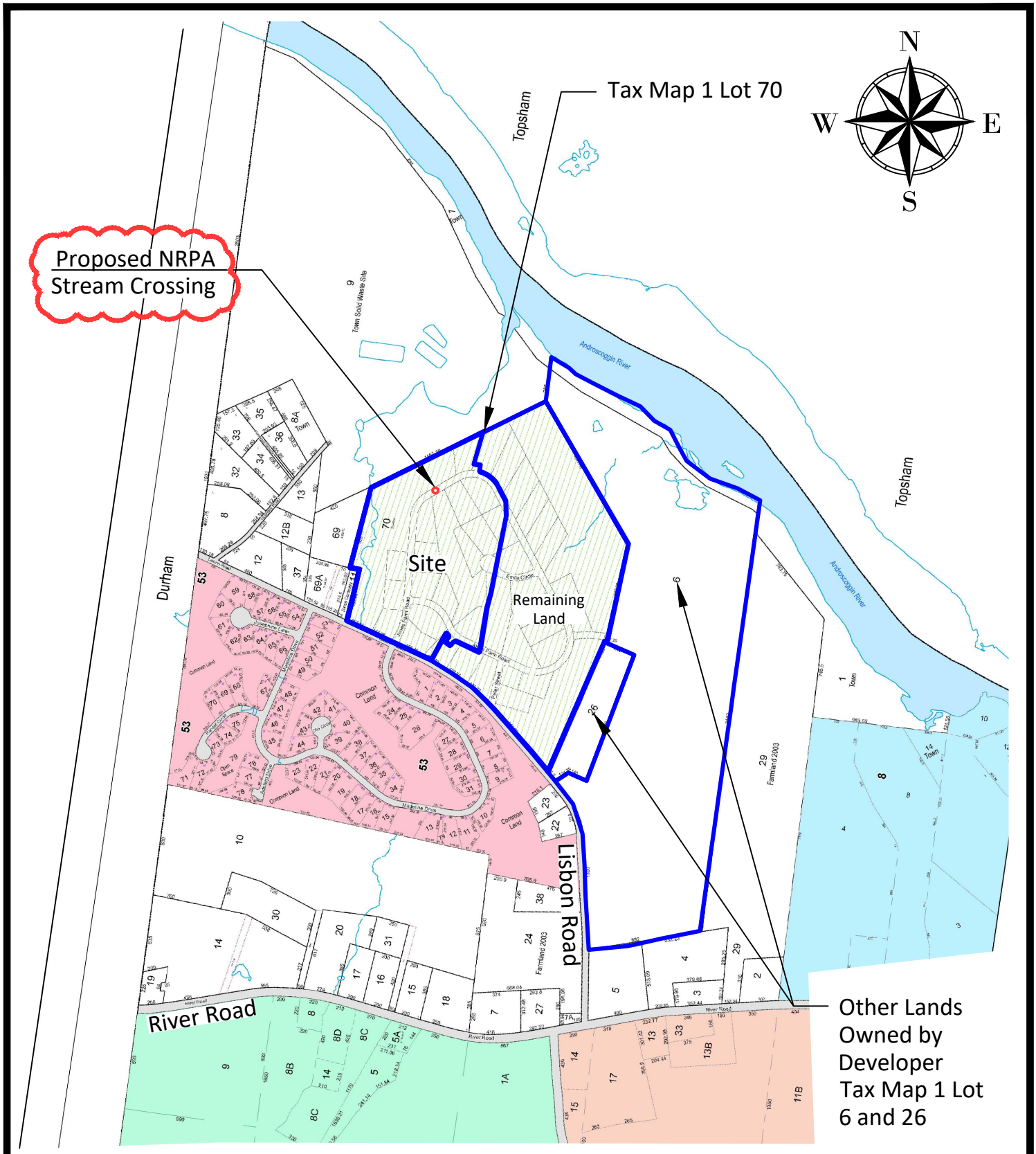
Title:
Aerial Map Overlay

Scale: 1"= 1000'

Date: 11-26-2024

Project #: 162

Figure #:
2



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 500 1000

1 inch = 1000 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

Title:
Brunswick Tax Map 1 Overlay
Locus: Tax Map 1 Lot 70

Scale: 1"= 1000'

Date: 11-26-2024

Project #: 162

Figure #:
3

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

June 23, 2025

Chris Belanger
Belanger Engineering
63 Second Avenue
Augusta, ME 04330

Via email: cbelanger@roadrunner.com

Re: Rare and exemplary botanical features in proximity to: #162, Jones Farm Subdivision, Lisbon Falls Road, Map 1 Lot 70Brunswick, Maine

Dear Chris Belanger:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received June 19, 2025 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Brunswick, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-8044
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

Rare and Exemplary Botanical Features within 4 miles of
Project: #162, Jones Farm Subdivision, Lisbon Falls Road, Map 1 Lot 70, Brunswick, ME

Common Name	State	State	Global	Date Last	Occurrence	Habitat
Adder's Tongue Fern						
	E	S1	G4	1905-08-10	7	Non-tidal rivershore (non-forested, seasonally wet),Open wetland, not coastal nor rivershore (non-forested, wetland),Old field/roadside (non-
Climbing Hempweed						
	PE	SH	G5	1916-08	1	Dry barrens (partly forested, upland),Open wetland, not coastal nor rivershore (non-forested, wetland)
Clothed Sedge						
	E	S1	G5	1898-06-15	1	Dry barrens (partly forested, upland)
	E	S1	G5	2001-06-01	6	Dry barrens (partly forested, upland)
Dry Land Sedge						
	SC	S2	G5	2001-06-01	12	Old field/roadside (non-forested, wetland or upland)
	SC	S2	G5	2007-10-14	13	Old field/roadside (non-forested, wetland or upland)
Foxtail Bog-clubmoss						
	E	S1	G5	2000-11-29	2	
Great Blue Lobelia						
	PE	SX	G5	1900	2	Forested wetland,Non-tidal rivershore (non-forested, seasonally wet)

Mountain Honeysuckle					
	E	S2	G5	1933-09	4	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Narrow-leaf Arrowhead					
	SC	S2	G4G5	2000-09-14	1	
Red Maple Swamp					
		S5	G3G5	2015-07-15	19	
Sassafras					
	SC	S2	G5	1906	10	Hardwood to mixed forest (forest, upland),Old field/roadside (non-forested, wetland or upland)
Screwstem					
	T	S1	G5T3T5	2001-09-30	16	
Showy Lady's-slipper					
	SC	S3	G4G5	1907-07-09	38	Forested wetland,Open wetland, not coastal nor rivershore (non-forested, wetland)
Silver Maple Floodplain Forest					
		S3	GNR	2011-07-07	39	
Streamshore Ecosystem					
		S4	GNR	2015-07-15	32	

Unicorn Root						
	E	S1	G5	1884	1	Dry barrens (partly forested, upland)

Date Exported: 6/23/2025

Conservation Status Ranks

State and Global Ranks: This ranking system facilitates a quick assessment of a species' or habitat type's rarity and is the primary tool used to develop conservation, protection, and restoration priorities for individual species and natural habitat types. Each species or habitat is assigned both a state (S) and global (G) rank on a scale of critically imperiled (1) to secure (5). Factors such as range extent, the number of occurrences, intensity of threats, etc., contribute to the assignment of state and global ranks. The definitions for state and global ranks are comparable but applied at different geographic scales; something that is state imperiled may be globally secure.

The information supporting these ranks is developed and maintained by the Maine Natural Areas Program (state ranks) and NatureServe (global ranks).

Rank	Definition
S1 **G1**	**Critically Imperiled** – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
S2 **G2**	**Imperiled** – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S3 **G3**	**Vulnerable** – At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
S4 **G4**	**Apparently Secure** – At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
S5 **G5**	**Secure** – At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
SX **GX**	**Presumed Extinct** – Not located despite intensive searches and virtually no likelihood of rediscovery.
SH **GH**	**Possibly Extinct** – Known from only historical occurrences but still some hope of rediscovery.
S#S# **G#G#**	**Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem.
SU **GU**	**Unrankable** – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
GNR **SNR**	**Unranked** – Global or subnational conservation status not yet assessed.
SNA **GNA**	**Not Applicable** – A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities (e.g., non-native species or ecosystems.
Qualifier	**Definition**
S#? **G#?**	**Inexact Numeric Rank** – Denotes inexact numeric rank.
Q	**Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable. The "Q" modifier is only used at a global level.
T#	**Infraspecific Taxon (trinomial)** – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank.

State Status: Endangered and Threatened are legal status designations authorized by statute. Please refer to MRSA Title 12, §544 and §544-B.

Status	Definition
E	**Endangered** – Any native plant species in danger of extinction throughout all or a significant portion of its range within the State or Federally listed as Endangered.
T	**Threatened** – Any native plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range in the State or Federally listed as Threatened.
SC	**Special Concern** – A native plant species that is rare in the State, but not rare enough to be considered Threatened or Endangered.
PE	**Potentially Extirpated** – A native plant species that has not been documented in the State in over 20 years, or loss of the last known occurrence.

Element Occurrence (EO) Ranks: Quality assessments that designate viability of a population or integrity of habitat. These ranks are based on size, condition, and landscape context. Range ranks (e.g., AB, BC) and uncertainty ranks (e.g., B?) are allowed. The Maine Natural Areas Program tracks all occurrences of rare plants and natural communities/ecosystems (S1-S3) as well as exemplary common natural community types (S4-S5 with EO ranks A/B).

Rank	Definition
A	**Excellent** – Excellent estimated viability/ecological integrity.
B	**Good** – Good estimated viability/ecological integrity.
C	**Fair** – Fair estimated viability/ecological integrity.
D	**Poor** – Poor estimated viability/ecological integrity.
E	**Extant** – Verified extant, but viability/ecological integrity not assessed.
H	**Historical** – Lack of field information within past 20 years verifying continued existence of the occurrence, but not enough to document extirpation.
X	**Extirpated** – Documented loss of population/destruction of habitat.
U	**Unrankable** – Occurrence unable to be ranked due to lack of sufficient information (e.g., possible mistaken identification).
NR	**Not Ranked** – An occurrence rank has not been assigned.

Visit the Maine Natural Areas Program website for more information
http://www.maine.gov/dacf/mnap

SECTION 16

WATER SUPPLY

Groundwater Supply – Proposed Brunswick Subdivision off Lisbon Road

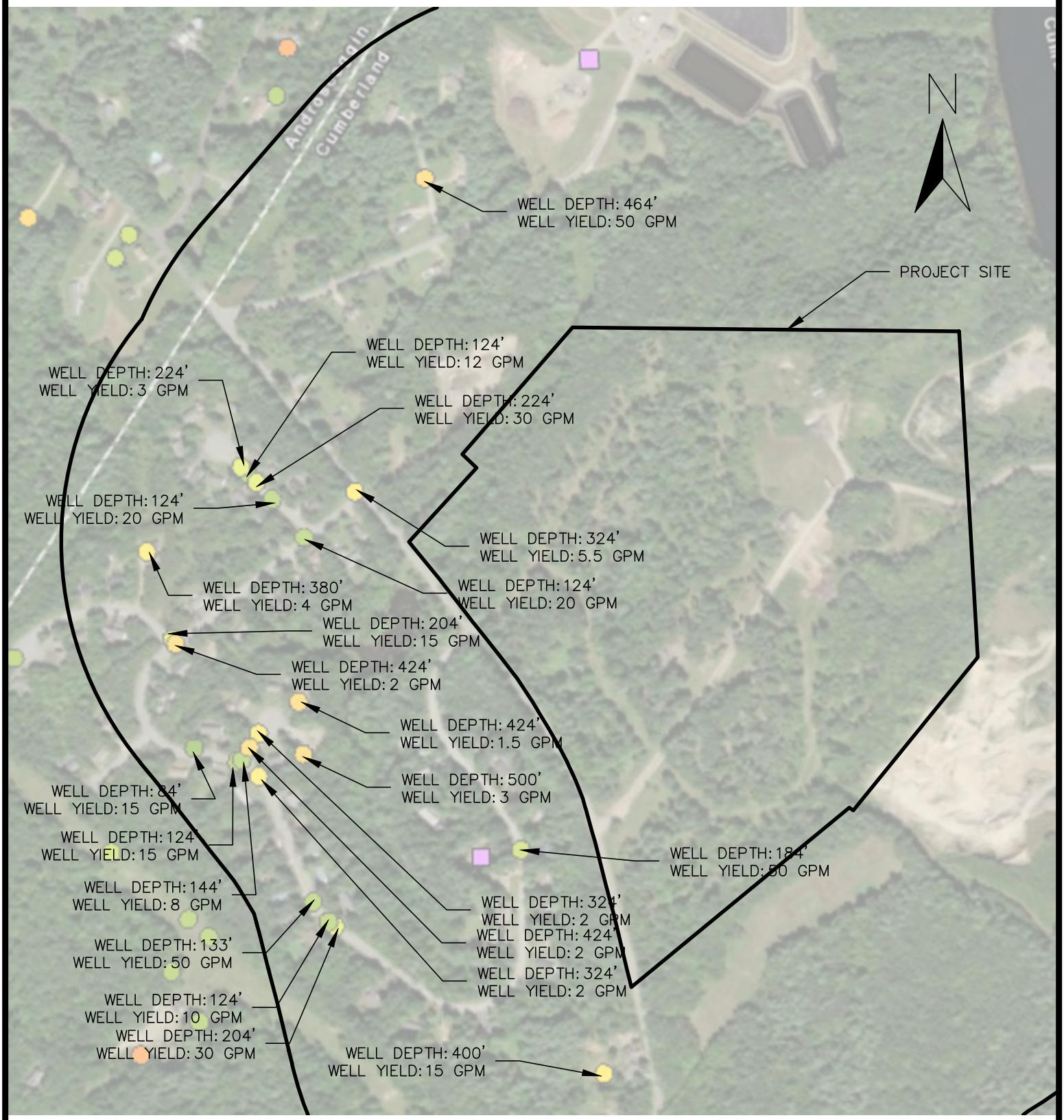
Water Supply Method and Adequacy

The proposed development will be served by private wells for water supply. Wells will be drilled into the underlying bedrock aquifer, which is mapped as Silurian/Ordovician-aged plagioclase-quartz-biotite granofels and gneiss of the Vassalboro Group.

Information provided on Maine Geological Survey (MGS) maps relative to existing bedrock water supply wells in the area indicates that twenty-three wells are located within an approximately 0.25 mile-radius of the project site for which well information is available. The wells mapped by the MGS range from about 84 to 500 feet in depth, and reported yields range from about 1.5 to 50 gpm; the average of the reported yields is approximately 16 gpm. See the attached well data map for this supporting information.

Based on the above information regarding existing bedrock water supply wells in the area, the bedrock aquifer is likely to have adequate capacity to supply potable water to meet domestic demand without resulting in adverse on- or off-site influences such as excessive drawdown.

Scott R. Dixon, CG #GE435
2025-03-20



NOT FOR CONSTRUCTION

PROJECT:
PROPOSED SUBDIVISION
LISBON ROAD, BRUNSWICK, MAINE

DRAWING:
MGS WELL DATA MAP
SCALE: 1" = 500'

MLDC NO.	25-050
PROJ. MGR:	SRD
DRAWN BY:	HRD
CHECKED BY:	SRD
REVISION NO.	N/A
ISSUE DATE:	2025-02-14
ISSUED FOR:	REVIEW

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Response to Town Comment
Re: Groundwater Quality
Proposed Subdivision
Lisbon Road, Brunswick, Maine

Prepared for: Mr. Walton C/O Belanger Engineering

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January 05, 2025

Mr. Robert Walton
c/o Belanger Engineering
63 Second Avenue, Augusta, Maine 04330
Attention: Mr. Chris Belanger, P.E.

Subject: Main-Land Response to Town Comment
Regarding Potential Groundwater Impacts from Closed Graham Road Landfill
Proposed Subdivision off Lisbon Road, Brunswick, Maine

Dear Bob and Chris,

It is understood that you recently presented the subject project to the Town of Brunswick Planning Board as part of the Local subdivision review and approval process. Main-Land had previously provided input for your application on aspects of the project related to private water supply and subsurface wastewater disposal. The Town provided a comment related to project groundwater quality with respect to a landfill located north of the project site. Main-Land is pleased to submit the following response to that Town comment.

Review of Existing Information

The landfill in question is the so-called Graham Road Landfill; this is currently a closed landfill administered by the Town. The Town made available an Annual Report from 2024 compiled by Woodard & Curran which includes descriptions of monitoring wells installed around the landfill to monitor groundwater quality.

The attached *Location Sketch* by Main-Land depicts the subject project site and its location south-southwest of the Graham Road Landfill. The Sketch also depicts the groundwater monitoring well for the landfill which has bearing on the subject project site, i.e., a well located between the subject site and the landfill itself. Specifically, attention is called to groundwater monitoring well "MW-L1" which is located on the landfill's southern side directly between the closed landfill area and the project site. It is noted that the northern boundary line of the subject project site lies approximately 650 feet south of this well.

The narrative for the 2024 Annual Report (Section 2 of page 2-1 of that report) states that "Monitoring Well MW-L1 is an *upgradient well* that provides *background water quality to the south of the landfill*" (emphasis added by Main-Land). The key pieces of information in this brief description are:

- *upgradient* describes the hydraulic location of MW-L1 in terms of groundwater flow direction, with upgradient indicating that groundwater flows from the area of higher groundwater elevation at the well, toward lower groundwater elevations at the landfill, and ultimately toward the Androscoggin River which is the regional hydraulic "low" or "sink" to which groundwater must flow.

- *Background water quality to the south of the landfill* further describes the upgradient nature of MW-L1 in that sampling of this well provides data on groundwater prior to its flow into and beneath the landfill site.

(Note: a copy of the first five pages of the 2024 Annual Report are attached should the Reviewer want to read the accompanying context for this description of MW-L1)

Based on this description and a review of groundwater elevations measured at MW-L1 and other landfill monitoring wells, groundwater flows beneath the landfill from west to east and cannot flow south-southwestward toward the subject project site. This general direction of groundwater flow is depicted on the Sketch using a blue arrow.

To further support the physical fact that groundwater cannot flow from beneath the landfill toward the subject project site (or other existing residential developments south and southwest of the landfill), the Annual Report states that MW-L1 is no longer monitored for chemical parameters (so-called "detection monitoring"), but only undergoes groundwater "assessment monitoring" whereby characteristic parameters such as temperature, dissolved oxygen, etc. are measured. This clearly indicates that groundwater quality to the south and southwest of the landfill has been deemed by the Maine DEP and the Town's consultants to be ***not at risk*** with respect to the closed landfill.

Main-Land appreciates the opportunity to provide input for this project, and we look forward to providing future input as needed.

Sincerely,
Main-Land Development Consultants, Inc.

Scott R. Dixon, P.E., C.G., L.S.E.
Senior Chief Environmental Scientist and GeoEngineer

Attachments: *Location Sketch*
Copy of Initial Five Pages of 2024 Annual Report, including title and TOC pages

References: Woodard & Curran, *Graham Road Landfill – 2024 WQM Annual Report*, for the Town of Brunswick, dated April 2025.

1PLN-SKETCH.dwg - PLOTTED ON 1/2/2026 3:57 PM BY SAM MITCHELL

300 0 150 300

(IN FEET)

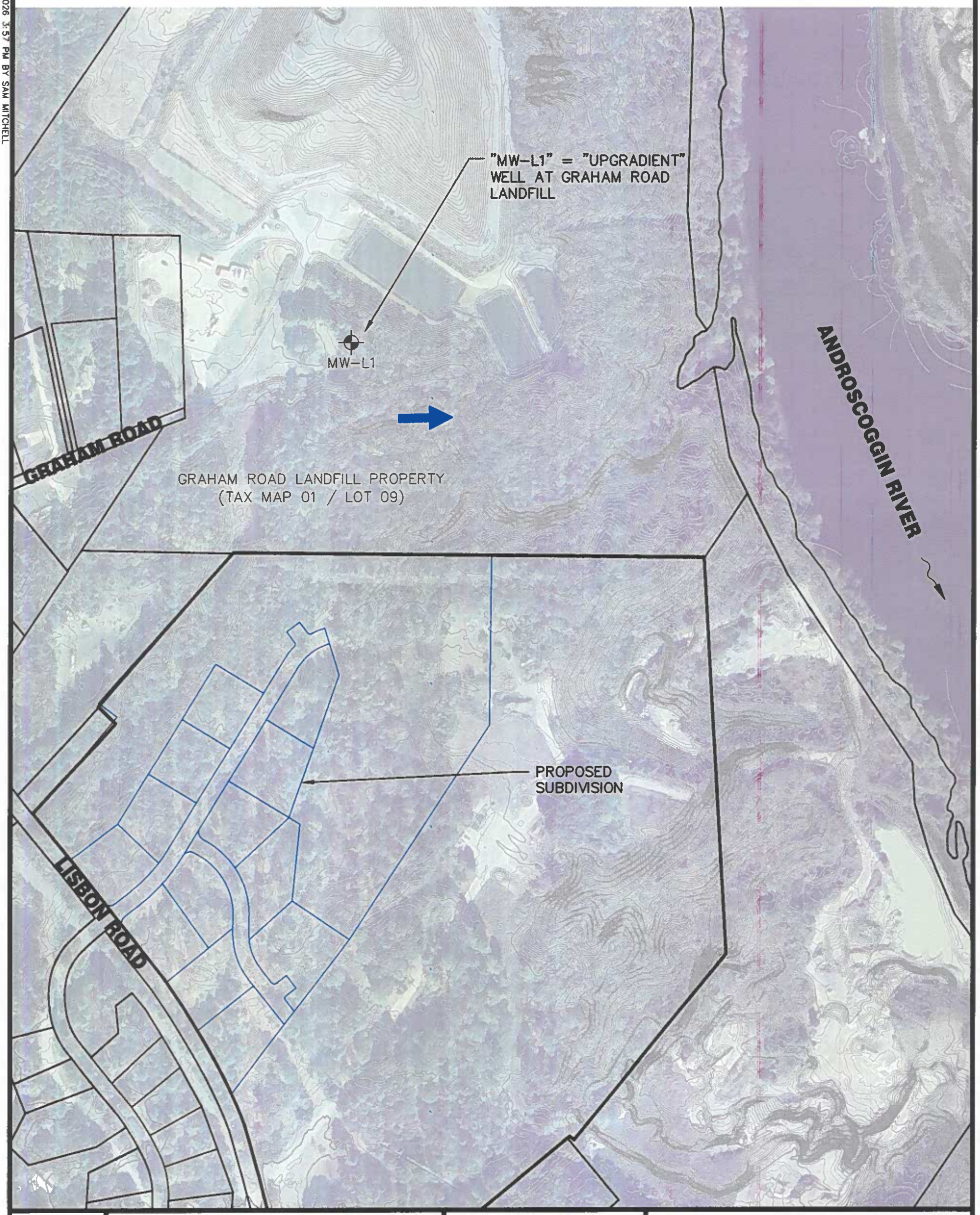
1 INCH = 300 FT

LEGEND

MW-L1 — EXISTING LANDFILL GROUNDWATER MONITORING WELL

GENERAL INTERPRETED GROUNDWATER FLOW DIRECTION

N



LOCATION SKETCH

1 OF 1

PROJECT

PROPOSED BRUNSWICK SUBDIVSION

LISBON ROAD, BRUNSWICK, ME

MADE FOR

BELANGER ENGINEERING

63 SECOND AVENUE, AUGUSTA, ME

MLDC NO.	25-050
PROJ. MGR:	SRD
DRAWN BY:	SJM
CHECKED BY:	SRD
REVISION NO.	N/A
ISSUE DATE:	2026-01-05
ISSUED FOR:	REVIEW

NOT FOR CONSTRUCTION

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Woodard & Curran

GRAHAM ROAD LANDFILL, BRUNSWICK

2024

ANNUAL REPORT

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Portland, ME 04101
800.426.4262

woodardcurran.com

0232348.28
Brunswick, ME
April 2025

Woodard & Curran

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Appendix B: Field Parameter Data Sheets, laboratory Analytical Results, & Chain of Custody
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1. INTRODUCTION

This Annual Report of the Graham Road Landfill, Brunswick, Maine, is provided to the Maine Department of Environmental Protection (MaineDEP) to fulfill the requirements of Solid Waste Regulation 06-096 C.M.R. Chapters 401.6 Post-Closure Monitoring and Maintenance, 405.3 (C) Reporting Requirements for water quality monitoring, and conditions of the Solid Waste Closure License #S-008458-WN-AC-N.

2. GROUNDWATER MONITORING

Woodard & Curran evaluates the results of the Water Quality Monitoring Program (WQMP) at the Graham Road Landfill in Brunswick, Maine. The purpose of the WQMP is to detect and monitor the effects that the closed landfill may have on the surrounding environment, specifically groundwater quality. The WQMP includes MaineDEP Assessment Monitoring at all 11 monitoring locations (MW-3D, MW-3S, MW-4SR, MW-4D, MW-L2S, MW-L2D, MW-L1, MW-L3, MW-5, MW-6, and MW-7) and 1 leachate sample location (LS-01) at the Graham Road Landfill site. Monitoring well MW-L1 is an upgradient well that provides background water quality to the south of the landfill, and MW-L2S and MW-L2D are upgradient wells that provide background water quality in the shallow and deep bedrock fracture systems on the north side of the Landfill.

Two monitoring wells along the west side of the Landfill, MW-2S, and MW-2D, were decommissioned in June of 1998, prior to construction of Phase 3 in 1998; these wells were replaced by MW-L2S and MW-L2D. Monitoring well MW-4S, which was replaced by MW-4SR in 1999, was properly abandoned in October of 2004, and MW-1 was also decommissioned in October of 2004 to facilitate the construction of the wood waste processing facility. In the spring of 2021, the sampling location DW was eliminated with the demolition of the scale house as part of the landfill's closing. A site plan of the Graham Road Landfill showing all the monitoring locations is included in Appendix A of this Report.

Water quality monitoring is conducted at the Graham Road Landfill two times per year. The current monitoring schedule requires sampling events in the spring (March-April), fall (October-November), and a mercury sample taken on a rotating schedule. In 2024, the spring sampling events occurred on April 29th and 30th as well as May 13th, and the fall sampling events occurred into the winter season on December 19th and 20th as well as January 2nd due to non-conformances during lab analysis. The annual mercury sample was collected during the December 20th event. The laboratory results for 2024 were submitted electronically to the MaineDEP following each sampling event. Copies of the 2024 laboratory reports are provided in Appendix B of this Report.

2.1 Summary of Past Reports

Annual and/or semi-annual reports have been issued for the Town of Brunswick Graham Road Landfill WQMP since 1993. The original Statistical Analysis Report (May 14, 1993) identified several parameters that indicated increasing trends in wells downgradient from the Phase 1 landfill. The organic parameter results indicated that low concentrations of several chlorinated compounds were detected in these downgradient wells. The original report recommended increasing the analytical parameters at seven monitoring locations to the MaineDEP Assessment Monitoring parameter suite. Two of the upgradient wells (MW-L2S and MW-L2D) and the domestic well (DW) were also added to the list of assessment monitoring wells in 1993 for comparison purposes. In 1996, low-flow sampling methodologies were implemented at the site; no noticeable changes in parameter concentrations were attributed to this change.

In August of 2011, as permitted by MaineDEP Solid Waste Management Rules (SWMR Ch. 405), a comprehensive evaluation was conducted on the results of water quality monitoring since 2001. The MaineDEP approved the recommendations that several parameters be eliminated from the analysis requirements for the facility. In July of 2012, the MaineDEP requested that Methane be added to the WQMP for two years, in exchange for the elimination of additional parameters. In February of 2015, the MaineDEP requested an extension of Methane sampling, in exchange for a reduction in sampling frequency from three to two times per year (to occur in the spring and fall).

Upon review of the 2013 Water Quality Monitoring Annual Report, the MaineDEP requested in April of 2014 that the following wells be removed from the list of detection monitoring wells and added to the list of assessment monitoring wells: MW-L1, MW-L3, MW-5, MW-6, and MW-7. Assessment monitoring is currently conducted at all active monitoring wells.

Upon review of the 2016 Water Quality Monitoring Annual Report, the MaineDEP recommended that VOC analysis be eliminated from all groundwater monitoring locations except MW-3S, MW-3D, and MW-4SR; the MaineDEP also recommended that zinc be eliminated from the sampling requirements for several monitoring wells (MW-6, MW-7, MW-L1, and MW-L3). On September 26, 2017, the MaineDEP approved the request to discontinue zinc sampling from the remaining two groundwater monitoring wells (MW-5 and MW-3D), such that zinc has been eliminated from the sampling requirements for all groundwater monitoring wells. These revisions to the WQMP were implemented during the 2018 sampling events.

Upon review of the 2018 Water Quality Monitoring Annual Report, the MaineDEP recommended that methane monitoring be discontinued at DW, MW-5, MW-7, and MW-L1. This change was implemented during the 2020 sampling period and a revised WQMP was issued on August 31, 2020. Additionally, as recommended by Matt Hight in May of 2020, the WQMP was revised to specify that the mercury sample be collected in alternating calendar quarters moving forward, such that samples will be obtained in all four calendar quarters over the period of four years.

2.2 Sample Collection

Sampling for the WQMP at the Graham Road Landfill occurred in April, May, and December of 2024 and into January 2025. Groundwater samples were collected by personnel from SGS North America (SGS), formerly Katahdin Analytical Services, during all sampling rounds in 2024. The spring samples were analyzed by Katahdin Analytical Services in Scarborough, Maine, a Maine Bureau of Health-approved laboratory. The fall samples were analyzed by SGS in Orlando, Florida. The complete laboratory analytical results for the 2024 sampling events were submitted electronically to the MaineDEP in EDD format. Copies of the 2024 laboratory reports are provided in Appendix B of this Report for your reference.

Groundwater samples are collected using U.S. Environmental Protection Agency (USEPA) standard procedures. Low-flow or minimum-stress collection methodologies are employed to collect groundwater samples. The low-flow purge procedure emphasizes low pumping rates and negligible water level draw down to collect samples with minimal alterations in water chemistry. Bladder pumps are used at the monitoring wells that have deeper groundwater depths, and a peristaltic pump is used to collect groundwater samples at locations with shallower groundwater depths. Each of the wells has its own unique screen depth and recharge rate; therefore, each well is set up and pumped on an individual basis. Detailed records of purge rates, water levels during purge, and field parameters are recorded for each monitoring well on field data sheets. These records document the sampling procedures and conditions for each sampling event.

Monitoring well DW was decommissioned in 2022. MW-5 is difficult to sample due to the little available groundwater in the well and slow recharge. Historically, there has been only two to six feet of groundwater in MW-5 and the recharge has been very slow. The method used to sample MW-5 consists of recording one set of field parameters then collecting a groundwater sample. Once the sample is collected, another set of field parameters is recorded. Monitoring well MW-7 is sampled following low-flow procedures with dedicated polyethylene tubing and a peristaltic pump. The water level drawdown is difficult to stabilize at MW-7 and, therefore, the pump is turned off after one set of field parameters are recorded; the well is then allowed to recharge prior to collecting the sample. Once the sample is collected, another set of field

SECTION 17

WASTEWATER DISPOSAL

Updated
Wastewater Disposal Feasibility and Nitrate Assessment
Proposed Subdivision
Lisbon Road, Brunswick, Maine

Prepared for: Mr. Walton C/O Belanger Engineering

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March 20, 2025
Updated January 05, 2026

Mr. Robert Walton
c/o Belanger Engineering
63 Second Avenue, Augusta, Maine 04330
Attention: Mr. Chris Belanger, P.E.

Subject: **Updated** Subsurface Wastewater Disposal Feasibility and Concepting
and Nitrate-Nitrogen Impact Assessment
Proposed Subdivision
Lisbon Road, Brunswick, Maine

Dear Bob and Chris,

In conjunction with Maine DEP SLODA and Local permitting requirements which you are pursuing on Mr. Walton's behalf, Main-Land is pleased to submit the following septic feasibility and nitrate-nitrogen impact assessment for the proposed project. **Please note that this assessment has been updated from the original one dated 3/20/25 for changes in subdivision lot layout which resulted in new lots and/or new concept leachfield locations.**

Subsurface Wastewater Disposal Feasibility

The purpose of the on-site soils investigation conducted for the subject parcel was to confirm that soils suitable for on-site subsurface wastewater disposal exist within the proposed lots. The investigation included observations of natural features such as slopes and wetter areas, as well as site features including property lines, ditches, existing grading, and details of neighboring lots.

Main-Land investigated feasible leachfield locations on the proposed original and reconfigured lots using hand-auger test borings to approximately 1.5' to 4', sufficient to determine suitability according to the current standards of the ***Maine Subsurface Wastewater Disposal Rules*** (hereinafter the Rules). Please see the attached Drawing E1.0 – *Updated Concept Leachfield Locations,* with test boring and locations as well as concepted leachfield footprints, locations, and orientations. Logs of the test borings are provided in Appendix A. These logs include applicable ones from 2025 (labeled "TB-2", for instance) and new ones for updated lots and/or leachfield layouts (labeled "TB-2B", for instance).

Soil conditions are summarized on the attached soil logs. Soil conditions are generally consistent with fine sandy loams, silt loams, and fine sand. The limiting factors were encountered at depths ranging from about 11" to 45" represented by mottling associated with the seasonal high groundwater level. The gradation of the sandy loam glacial tills, the silt loam glaciolacustrine deposits, and fine sand stratified glacial drifts classifies as Soil Profiles 2, 3, 4, 5, or 8 per the Rules. The soil conditions meet the current

standards of the Rules for wastewater disposal. The ground surface slopes ranging from about 2% to 14% in the areas investigated also meet Rules standards.

For a proposed 4-bedroom house, the sizes of concepted leachfield footprints with the use of Eljen in-drain leachfield units are summarized in the following table:

SOIL PROFILE	CONCEPT NUMBER OF ELJEN UNITS	CONCEPT LEACHFIELD SIZE
4, 5	20 (configured as 2 rows of 10 units/row)	8' x 40'
2, 3	27 (configured as 3 rows of 9 units/row)	13' x 36'
8	33 (configured as 3 rows of 11 units/row)	13' x 44'

Attached in Appendix A also please find a wastewater disposal field cross section representative of general site soil conditions.

In summary, in the areas investigated, **the proposed previous and updated subdivision lots do contain soil conditions suitable for on-site domestic wastewater disposal.** Some Code setbacks which might apply to the locations investigated include the leachfield needing to be at least 20' from a below-grade house foundation, 100-feet from a new well, and 10' from any property boundaries.

Nitrate Assessment

The majority of the concept leachfields serving the proposed development are considered exempt from a nitrate-nitrogen assessment. This is because they are either oriented such that subsurface wastewater flow will be toward the interior of the project site in the direction of topographic and inferred groundwater gradients, or they are oriented toward a groundwater divide which precludes further migration toward an exterior property boundary (i.e., Lots #1, 2, 3, and 13 at northwestern side of site which slope toward a ravine). Based on this, nitrate-nitrogen impact assessments have not been made for these leachfields as flow from them is not directly toward and is not anticipated to impact a downgradient property boundary.

For this updated assessment, there was only one new conceptual leachfield location identified for its potential to flow toward the subject project's property boundary. This conceptual leachfield location is identified by its associated soil test boring and lot designations: TB-3B (southern Lot #11).

Main-Land performed a nitrate-nitrogen attenuation analysis for soil conditions at this lot based on the Baetsle equation for modeling migration of a substance (nitrate) dissolved in groundwater through porous media. This approach allows an estimate of nitrate plume concentrations relative to time, distance, and initial concentration from a constant point source. Ultimately, this approach allows an estimate of the distribution of steady state plume concentrations downgradient from the constant point source (leachfield).

As an example, conceptual leachfield area TB-3B will be used to show input parameters for the Baetsle equation which include the following:

Main-Land estimated hydraulic conductivity (k) of the mapped Belgrade soils based on the average of k values provided in the USDA SCS *Soil Survey of Cumberland County Area, Maine*. The average k value over the upper 65 inches of Belgrade soil is approximately 1 feet/day. Main-Land also performed grain size analyses on samples collected in the field in order to provide another estimate of k (approximately 1 feet/day).

Based on soil type and estimated in-situ density, the average effective porosity, n, of 0.38 has been assigned. Based on Main-Land's review of provided topographic site plan, soil logs, and observations during our field visit, the gradient of the seasonal high groundwater surface at area TB-3 is approximately 2%. Based on this, the groundwater seepage velocity, v, is found as:

$V = ki/n = (1 \text{ ft/day})(0.02)/0.38 = 0.05 \text{ ft/day}$

This velocity is used to determine dispersion coefficients for the x, y, and z directions downgradient of the leachfield used in the Baetsle analysis.

For TB-3B, with the concept leachfield oriented as shown on Drawing E1.0 and groundwater migration southward, the nearest downgradient property boundary is approximately 250 feet to the south. The steady state (after about 10 years of flow time) nitrate concentration at that boundary is approximately 1.8 mg/l.

Placement of the above leachfield as shown on the Drawing provides enough distance to a downgradient property boundary such that the nitrate is attenuated and the 10mg/l threshold is not exceeded. As noted above, the other concept leachfield locations either drain toward the interior of the project site or drain toward surface drainage divides beyond which nitrate migration would not occur.

A summary of the Baetsle analyses conducted for the concepted leachfield area is provided in Table 1 below.

Table 1. Summary of Nitrate attenuation calculations using the Baetsle equation.

Conceptual Leachfield Site	Estimated Ksat Value	Estimated Nitrate Concentration at Property Boundary	Estimated Distance to 10 mg/l Nitrate Isocon Downgradient from Leachfield**
TB-3B (southern lot)	1 ft/day	1.78 mg/l at 250'	168'

**Please see Drawing E1.0 for estimated shape and length of the 10 mg/l plumes downgradient of the TB-3B concept leachfield area.

This analysis was made assuming an initial nitrate concentration of 40 mg/l in wastewater, with no dilution by coincident rainwater.

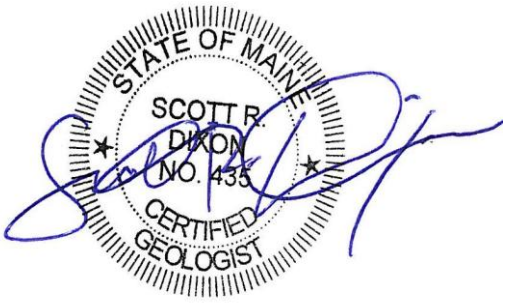
Selected Baetsle analysis printouts (Note: for both the 10 mg/l distance and the concentration at the property line) for the estimated nitrate plume concentrations at the TB-3B area are attached in Appendix B.

In summary, for the concept leachfield location evaluated, the estimated nitrate concentration does not exceed approximately 2 mg/l at the nearest downgradient property boundary, which is less than and

meets the 10 mg/l threshold set by State subdivision regulations. The analyses indicate that the steady state nitrate concentration in soils downgradient of the leachfield is reached after approximately 10 years.

Main-Land appreciates the opportunity to provide environmental consulting services for this project, and we look forward to providing future input as needed.

Sincerely,
Main-Land Development Consultants, Inc.



Scott R. Dixon, P.E., C.G., L.S.E.
Senior Chief Environmental Scientist and GeoEngineer

Attachments:

Drawing E1.0 – *Updated Concept Leachfield Locations*

Appendix A: Updated Preliminary Soil Logs
Generalized Disposal Area Cross Section

Appendix B: Laboratory Grain Size Analyses
Kozeny-Carmen permeability, K estimates
Baetsle nitrate attenuation analysis printouts for the TB-3B area

References

Chang, Tan-yueh "Philip", et. al., *Utilizing Baetsle's Equation to Model the Fate and Transport of MTBE in Groundwater*, Proceedings of the Petroleum Hydrocarbons and Organic Chemicals in Ground Water Prevention, Detection, and Remediation Conference, 1998, Houston, Texas.

Domenico, Patrick A., and Schwartz, Franklin W., 1990, Physical and Chemical Hydrogeology, John Wiley & Sons, Inc. publisher, New York City, New York, pp. 24-27

United States Dept. of Agriculture, Soil Conservation Service, Issued August 1974, *Soil Survey of Cumberland County Area, Maine*

1PLN-SKETCH.dwg - PLOTTED ON 1/5/2026 4:33 PM BY JOSH M. LINDEMAN

300 0 150 300

(IN FEET)

1 INCH = 300 FT

N

TB-6B
LOT 13
LOT 4
TB-8
TB-5B
LOT 5
LOT 3
TB-7
TB-4B
LOT 2
TB-6
LOT 6
TB-11
LOT 1
LOT 7
180
TB-13
TB-5
LOT 10
LOT 8
TB-12
LOT 9
190
TB-1B
LOT 11
TB-3B
200
LOT 12
TB-2B

LEGEND

APPROXIMATE SIZE AND LOCATION OF 4-BEDROOM CONCEPT LEACHFIELD TO SERVE LOT

TB-2 — SOIL TEST BORING/PIT SUBSURFACE SOIL EXPLORATION LOCATION BY MAIN-LAND ON 2/20/2025 AND 3/4/25

TB-2B — SOIL TEST BORING/PIT SUBSURFACE SOIL EXPLORATION LOCATION BY MAIN-LAND ON 12/31/25

EXTENT OF ESTIMATED 10 MG/L NITRATE PLUME DOWNGRADIENT OF CONCEPT LEACHFIELD

E1.0

1 OF 1

PROJECT
UPDATED CONCEPT LEACHFEILD LOCATIONS BRUNSWICK SUBDIVSION
LISBON ROAD, BRUNSWICK, ME

MADE FOR
BELANGER ENGINEERING
63 SECOND AVENUE, AUGUSTA, ME

MLDC NO.	25-050
PROJ. MGR:	SRD
DRAWN BY:	DRP
CHECKED BY:	SRD
REVISION NO.	N/A
ISSUE DATE:	2026-01-05
ISSUED FOR:	PB SUBMITTAL

NOT FOR CONSTRUCTION

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
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APPENDIX A

Preliminary Soil Logs (Original and New)

Generalized Disposal Area Cross Section

Updated 1/5/26 for locations which are no longer applicable (N/A)

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
PROPOSED BRUNSWICK SUBDIVISION	MR. WALTON C/O BELANGER ENGRG.	BRUNSWICK, ME

Exploration Symbol # TP-1 (N/A) ■ Test Pit ☐ Boring ☐ Probe

0 " Organic horizon thickness — Ground surface elev. 174'±

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Dense Fill	Dense and Firm	Dark Brown	None
Medium to Fine Sand	Very Friable	Yellowish Brown	
		Light Yellowish Brown to Grayish Brown	Few, Faint

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
5	C	2.5	45 "	☐	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric — Hydrologic Soil Group:

Exploration Symbol # TB-2 (N/A) ☐ Test Pit ■ Boring ☐ Probe

1 " Organic horizon thickness — Ground surface elev. 170'±

40 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Fine Sandy Loam	Very Friable	Dark Brown	None
Silt Loam		Olive Brown	Few, Faint
		Grayish Brown to Gray	
	Firm		

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
8	D	7	13 "	☐	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric — Hydrologic Soil Group:

Exploration Symbol # TB-3 (N/A) ☐ Test Pit ■ Boring ☐ Probe

2 " Organic horizon thickness — Ground surface elev. 180'±

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Loamy Fine Sand	Very Friable	Dark Brown	None
		Brown	
		Light Brown	
Medium to Fine Sand		Light Grayish Brown	Few, Faint

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
5	C	3	30 "	☐	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric — Hydrologic Soil Group:

Exploration Symbol # TB-4 (N/A) ☐ Test Pit ■ Boring ☐ Probe

1 " Organic horizon thickness — Ground surface elev. 196'±

36 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Fine Sandy Loam	Very Friable	Brown	None
		Olive Brown	
		Grayish Brown	Few, Faint
	Firm		

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
2	C	12	29 "	☐	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric — Hydrologic Soil Group:

INVESTIGATOR INFORMATION AND SIGNATURE

Signature	Date
Scott R. Dixon	3/20/2025
Name Printed: SCOTT R. DIXON	Cert/Lic/Reg. #: LSE 406

Title: ■ Licensed Site Evaluator ☐ Certified Soil Scientist ■ Certified Geologist ■ Professional Engineer

STATE OF MAINE — SCOTT R. DIXON LSE 406 — SITE EVALUATOR

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
PROPOSED BRUNSWICK SUBDIVISION	MR. WALTON C/O BELANGER ENGRG.	BRUNSWICK, ME

Exploration Symbol # TB-5 ☐ Test Pit ■ Boring ☐ Probe

1 " Organic horizon thickness Ground surface elev. 182'±

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0–10	Silt Loam	Friable	Brown	None
10–20				Few, Faint
20–30			Grayish Brown	
30–60			Gray	

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
8	D	12	14 "	☐	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group:

Exploration Symbol # TB-6 ☐ Test Pit ■ Boring ☐ Probe

1 " Organic horizon thickness Ground surface elev. 186'±

30 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0–10	Loamy Fine Sand	Very Friable	Brown	None to 30"
10–20			Yellowish Brown	
20–30	Medium to Fine Sand	Firm		
30–60			Light Yellowish Brown	

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
5	C	7.5	30 "	☐	■	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group:

Exploration Symbol # TB-7 ☐ Test Pit ■ Boring ☐ Probe

0 " Organic horizon thickness Ground surface elev. 178'±

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0–10	Silt Loam	Friable	Brown	None
10–20			Grayish Brown	Few, Faint
20–30			Gray	
30–60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
8	D	8	12 "	■	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group:

Exploration Symbol # TB-8 ☐ Test Pit ■ Boring ☐ Probe

2 " Organic horizon thickness Ground surface elev. 172'±

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0–10	Silt Loam	Friable	Dark Brown	None
10–20			Olive	
20–30			Grayish Brown	Few, Faint
30–60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
8	D	3.5	11 "	■	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group:

INVESTIGATOR INFORMATION AND SIGNATURE

Signature	Date
Scott R. Dixon	3/20/2025
Name Printed: SCOTT R. DIXON	Cert/Lic/Reg. #: LSE 406

Title: ■ Licensed Site Evaluator ☐ Certified Soil Scientist ■ Certified Geologist ■ Professional Engineer

STATE OF MAINE SCOTT R. DIXON LSE 406 SITE EVALUATOR

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
PROPOSED BRUNSWICK SUBDIVISION	MR. WALTON C/O BELANGER ENGRG.	BRUNSWICK, ME

Exploration Symbol # TB-9 (N/A) ☐ Test Pit ■ Boring ☐ Probe

1 " Organic horizon thickness Ground surface elev. 180'±

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Silt Loam	Friable	Brown	None
		Grayish Brown to Gray	Common, Distinct

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
8	D	10	12 "	■	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group:

Exploration Symbol # TB-10 (N/A) ☐ Test Pit ■ Boring ☐ Probe

1 " Organic horizon thickness Ground surface elev. 178'±

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Silt Loam	Friable	Dark Brown	None
		Brown	
		Grayish Brown	Few, Faint

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
8	C	7.5	15 "	■	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group:

Exploration Symbol # TB-11 ☐ Test Pit ■ Boring ☐ Probe

1 " Organic horizon thickness Ground surface elev. 176'±

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Silt Loam	Friable	Brown	None
		Grayish Brown	Few, Faint
		Gray	Common, Distinct

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
8	D	10.5	11 "	■	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group:

Exploration Symbol # TB-12 ☐ Test Pit ■ Boring ☐ Probe

0 " Organic horizon thickness Ground surface elev. 190'±

33 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Fine Sandy Loam	Friable	Dark Brown	None
		Brown	
		Yellowish Brown	
	Firm		Few, Faint

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile	Condition	Slope: Percent	Limiting Factor: Depth	Groundwater	Restrictive Layer	Bedrock
5	C	5	29 "	■	☐	☐

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group:

INVESTIGATOR INFORMATION AND SIGNATURE

Signature	Date
Scott R. Dixon	3/20/2025
Name Printed: SCOTT R. DIXON	Cert/Lic/Reg. #: LSE 406

Title: ■ Licensed Site Evaluator ☐ Certified Soil Scientist ■ Certified Geologist ■ Professional Engineer

STATE OF MAINE SCOTT R. DIXON LSE 406 SOIL EVALUATOR

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
PROPOSED BRUNSWICK SUBDIVISION	MR. WALTON C/O BELANGER ENGRG.	BRUNSWICK, ME

Exploration Symbol # TB-13 ☐ Test Pit ■ Boring ☐ Probe

1 " Organic horizon thickness Ground surface elev. 192'±

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Fine Sandy Loam	Very Friable	Dark Brown	None
		Brown	
	Firm		Few, Faint

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
Profile: 2 Condition: C	Percent: 14	Depth: 29 "	■ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric

Hydrologic Soil Group:

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
Profile: Condition:	Percent:	Depth: "	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric

Hydrologic Soil Group:

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
Profile: Condition:	Percent:	Depth: "	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric

Hydrologic Soil Group:

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
Profile: Condition:	Percent:	Depth: "	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric

Hydrologic Soil Group:

INVESTIGATOR INFORMATION AND SIGNATURE

Signature	Date
Scott R. Dixon	3/20/2025
Name Printed: SCOTT R. DIXON	Cert/Lic/Reg. #: LSE 406

Title: ■ Licensed Site Evaluator ☐ Certified Soil Scientist ■ Certified Geologist ■ Professional Engineer

STATE OF MAINE SCOTT R. DIXON LSE 406 SITE EVALUATOR

FORM F Rev. 07/11a

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DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
PROPOSED BRUNSWICK SUBDIVISION	MR. WALTON C/O BELANGER ENGRG.	BRUNSWICK, ME.

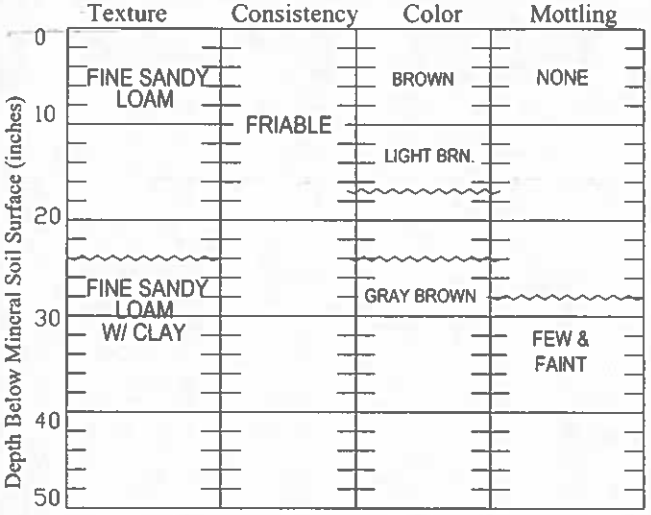
Exploration Symbol # TP-1B

Test Pit ■ Boring Probe

2" Organic horizon thickness

Ground surface elev. 193' ±

38 " Depth of exploration or to refusal



Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	Groundwater / Restrictive Layer / Bedrock
3 (Profile) · C (Condition)	Percent	28 " (Depth)	■

Soil Series/Phase Name: - -

■ Hydric ■ Non-hydric

Hydrologic - - (Soil Group)

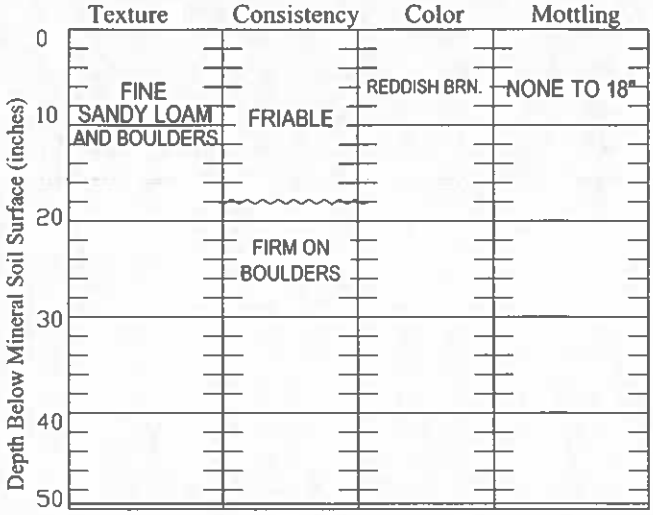
Exploration Symbol # TB-2B

Test Pit ■ Boring Probe

2" Organic horizon thickness

Ground surface elev. 198' ±

18 " Depth of exploration or to refusal



Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	Groundwater / Restrictive Layer / Bedrock
3 (Profile) · C (Condition)	Percent	18 " (Depth)	■

Soil Series/Phase Name: - -

■ Hydric ■ Non-hydric

Hydrologic - - (Soil Group)

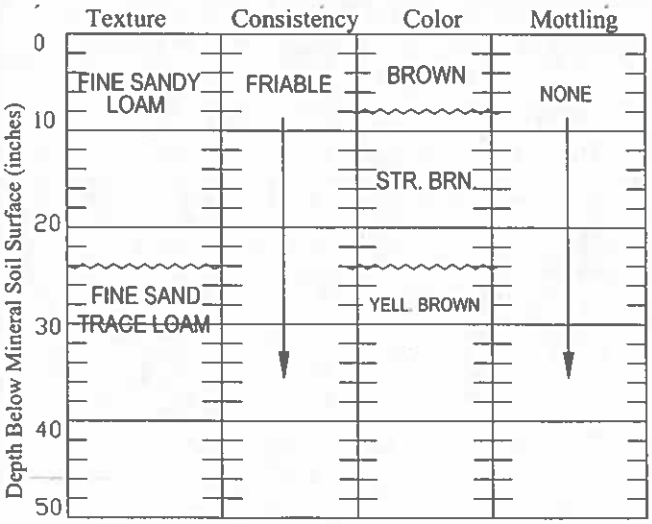
Exploration Symbol # TB-3B

Test Pit ■ Boring Probe

2" Organic horizon thickness

Ground surface elev. 196' ±

36 " Depth of exploration or to refusal



Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	Groundwater / Restrictive Layer / Bedrock
4 (Profile) · C (Condition)	Percent	>36 " (Depth)	■

Soil Series/Phase Name: - -

■ Hydric ■ Non-hydric

Hydrologic - - (Soil Group)

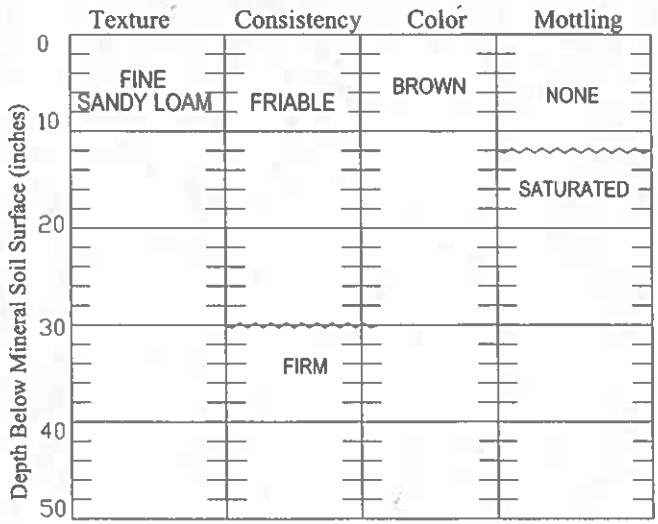
Exploration Symbol # TB-4B

Test Pit ■ Boring Probe

3" Organic horizon thickness

Ground surface elev. 178' ±

30 " Depth of exploration or to refusal



Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	Groundwater / Restrictive Layer / Bedrock
3 (Profile) · D (Condition)	Percent	12 " (Depth)	■

Soil Series/Phase Name: - -

■ Hydric ■ Non-hydric

Hydrologic (Soil Group)

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Scott R.	Date: 1/5/26
Name Printed: SCOTT R. DIXON	Cert/Lic/Reg. #: SE #406

Title: ■ Licensed Site Evaluator ■ Certified Soil Scientist ■ Certified Geologist ■ Professional Engineer

STATE OF MAINE
SCOTT R. DIXON
LSE 406
SITE EVALUATOR
affix professional seal

FORM F Rev. 07/11c

SOIL PROFILE/CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
PROPOSED BRUNSWICK SUBDIVISION	MR. WALTON C/O BELANGER ENGRG.	BRUNSWICK, ME.

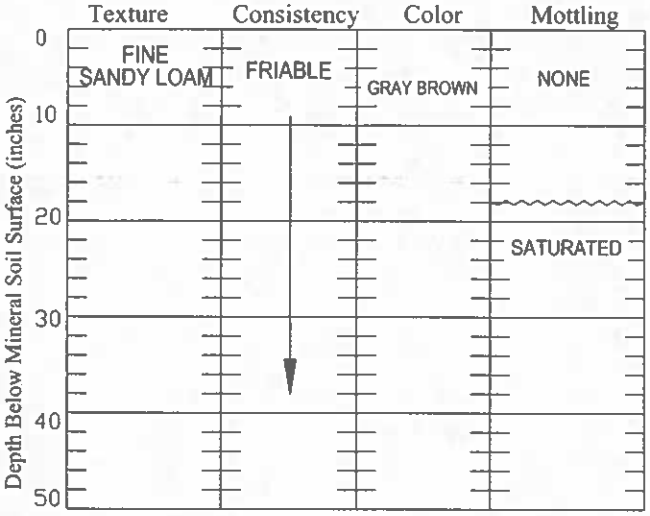
Exploration Symbol # TP-5B

Test Pit ■ Boring Probe

2" Organic horizon thickness

Ground surface elev. 184'±

38" Depth of exploration or to refusal



Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 (Profile) . C (Condition)	___ Percent	. 18 " Depth	■ Groundwater ■ Restrictive Layer ■ Bedrock
Soil Series/Phase Name: --		■ Hydric ■ Non-hydric	Hydrologic . -- . Soil Group

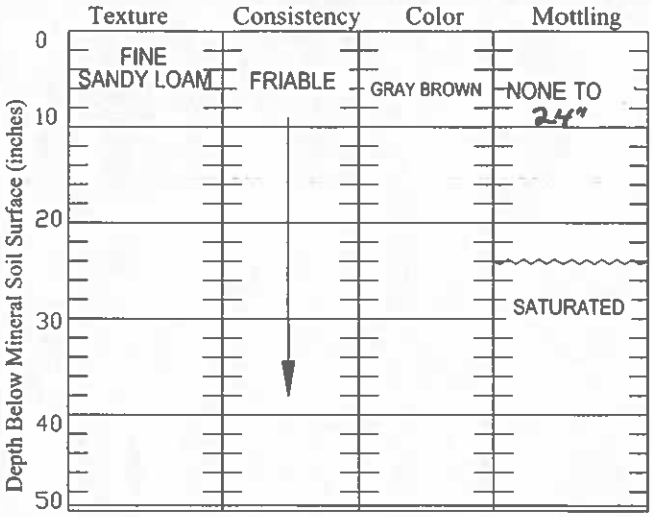
Exploration Symbol # TB-6B

Test Pit ■ Boring Probe

2" Organic horizon thickness

Ground surface elev. 178'±

18" Depth of exploration or to refusal



Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 (Profile) . C (Condition)	___ Percent	. 24 " Depth	■ Groundwater ■ Restrictive Layer ■ Bedrock
Soil Series/Phase Name: --		■ Hydric ■ Non-hydric	Hydrologic . -- . Soil Group

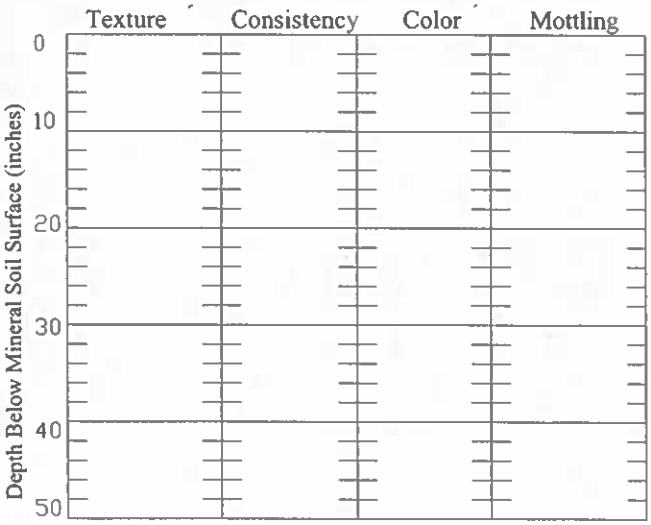
Exploration Symbol # _____

Test Pit Boring Probe

_____" Organic horizon thickness

Ground surface elev. _____

_____" Depth of exploration or to refusal



Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
Profile . Condition	___ Percent	. ___ " Depth	Groundwater Restrictive Layer Bedrock
Soil Series/Phase Name: --		Hydric Non-hydric	Hydrologic . -- . Soil Group

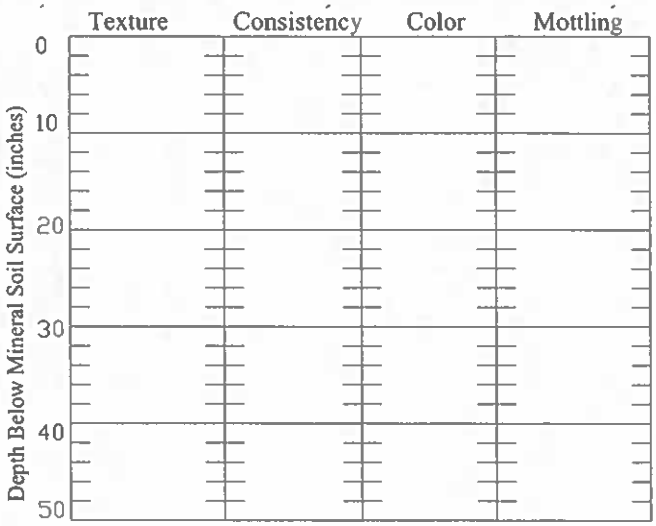
Exploration Symbol # _____

Test Pit Boring Probe

_____" Organic horizon thickness

Ground surface elev. _____

_____" Depth of exploration or to refusal



Soil Details by S.E. ▸▸ S.S. ▸▸

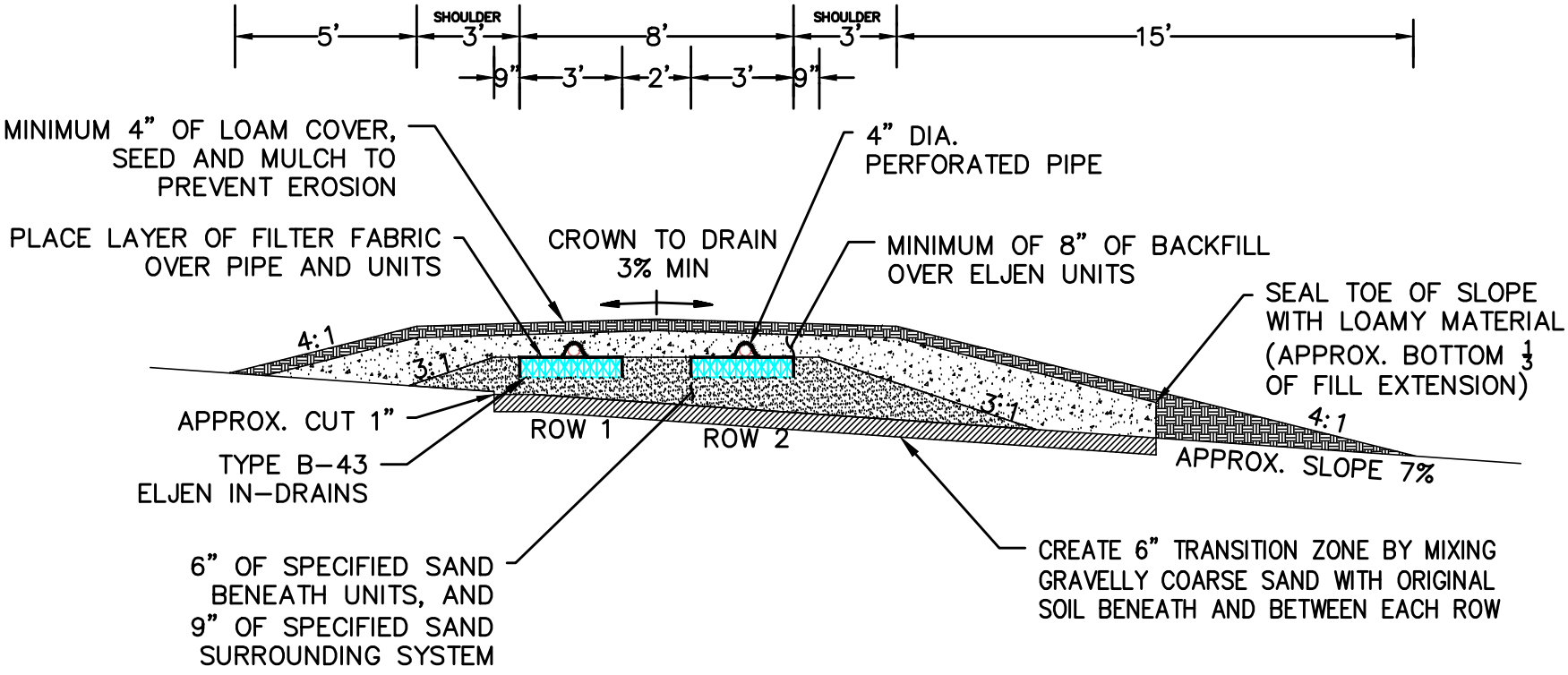
Soil Classification	Slope	Limiting Factor	
Profile . Condition	___ Percent	. ___ " Depth	Groundwater Restrictive Layer Bedrock
Soil Series/Phase Name: --		Hydric Non-hydric	Hydrologic . -- . Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Scott R. Dixon	Date: 1/5/26
Name Printed: SCOTT R. DIXON	Cert/Lic/Reg. #: SE #406

Title: ■ Licensed Site Evaluator Certified Soil Scientist ■ Certified Geologist ■ Professional Engineer

STATE OF MAINE
SCOTT R. DIXON
LSE 406
SITE EVALUATOR
affix professional seal



NOTE:
SPECIFIED SAND: THE SYSTEM MUST BE INSTALLED USING A MEDIUM TO COARSE SAND WITH AN EFFECTIVE SIZE OF 0.25 TO 2.0MM, NO GREATER THAN 10% PASSING A #100 SIEVE AND 5% PASSING A #200 SIEVE, AND NO PARTICLES LARGER THAN 0.375"; OR MATERIALS MEETING THE ASTM C33 SPECIFICATION WITH LESS THAN 10% PASSING A #200 SIEVE. WASHED CONCRETE SAND EASILY MEETS THE ABOVE SPECIFICATION AND IS A RELIABLE CHOICE. SUITABILITY OF BANK RUN SAND MUST BE VERIFIED.

DEPTH OF FILL (UPSLOPE): 24"±
DEPTH OF FILL (DOWNSLOPE): 32"±

NOTE: BACKFILL MEANS GRAVELLY COARSE SAND

GENERALIZED DISPOSAL AREA CROSS SECTION

DRAWN BY: HRD
CHECKED BY: SRD

DESIGN COMPLETED FOR:
BELANGER ENGINEERING

LOCATION: PROPOSED SUBDIVISION
LISBON STREET
BRUNSWICK, ME

SCALE 1"=5'

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

APPENDIX B

Laboratory Grain Size Analyses

Kozeny-Carmen permeability, K estimates

Baetsle nitrate attenuation analysis printouts for the TB-3B area

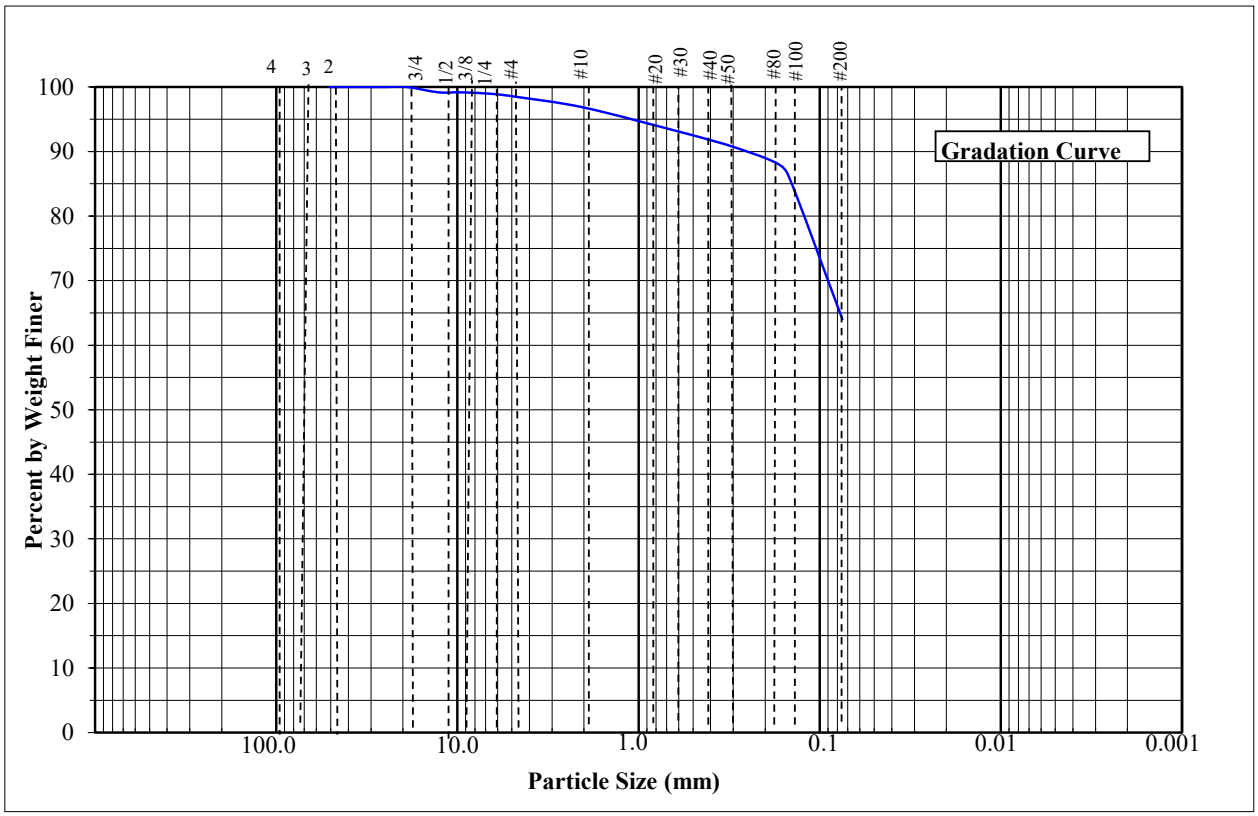
Main-Land Development Consultants, INC.
P.O. BOX Q LIVERMORE FALLS, ME 04254
TEL: (207) 897-6752/FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

GRAIN SIZE ANALYSIS - ASTM D422

PROJECT NAME:	Proposed Brunswick Subd.	PROJECT #:	25-050
CLIENT:	Mr. Walton/Belanger Engrg.	MAIN-LAND SAMPLE:	S1
M-L SOIL DES:		INTENDED USE:	Gradation
SOURCE:	Adjacent to TB-3	SPECIFICATION:	N/A
DATE:	February 17, 2025	TECHNICIAN:	JLD

DATA

PARTICLE SIZE mm		% BY WT FINER	STRUCTURAL FILL SPECIFICATION	COMMENTS
50.80	(2 in)	100.0	N/A	N/A
38.10	(1-1/2 in)	100.0		
25.40	(1 in)	100.0		
19.05	(3/4 in)	100.0		
12.70	(1/2 in)	99.2		
9.53	(3/8 in)	99.2		
6.35	(1/4 in)	98.9		
4.75	(No. 4)	98.5		
2.00	(No. 10)	96.8		
0.60	(No. 30)	93.1		
0.43	(No. 40)	92.0		
0.30	(No. 50)	90.7		
0.18	(No. 80)	88.4		
0.15	(No. 100)	86.5		
0.075	(No. 200)	64.0		



REMARKS:

Reviewed: Scott R. Dixon, P.E.
Date: 3/17/25

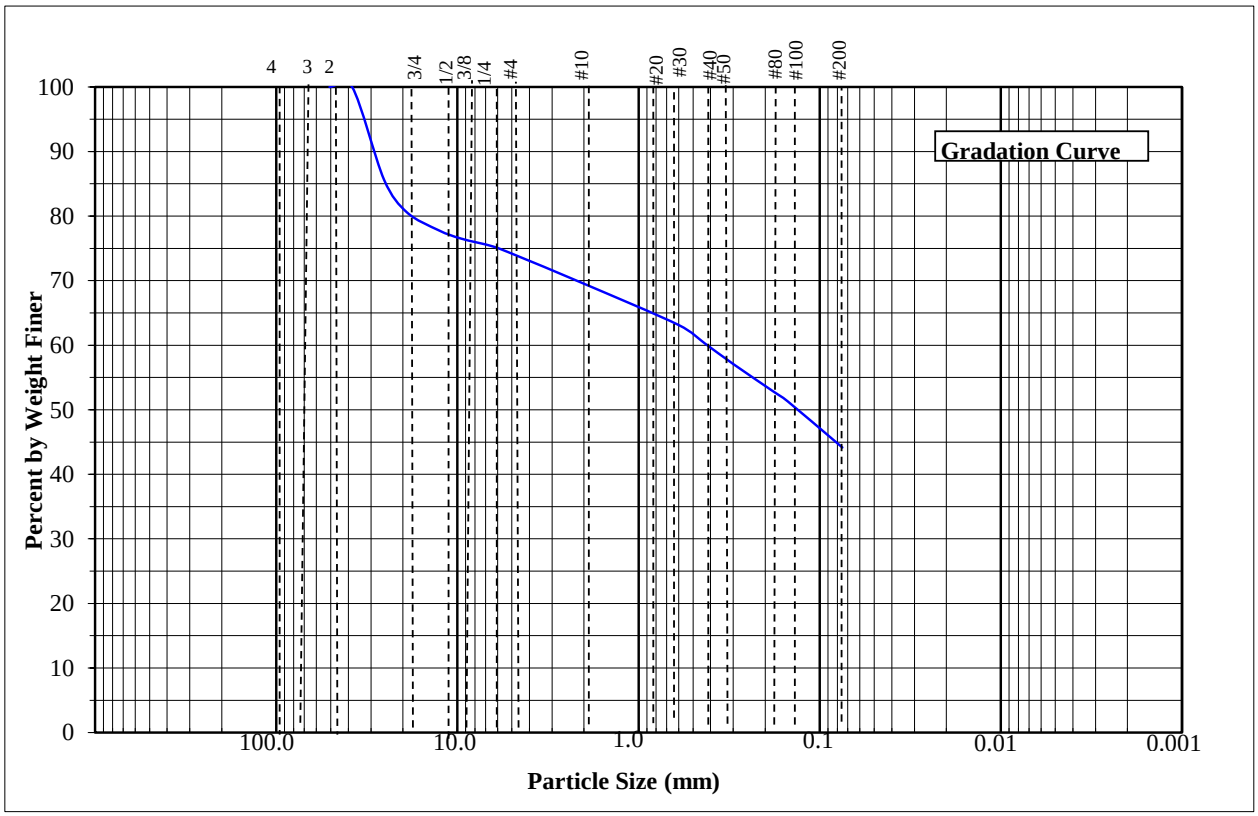
Main-Land Development Consultants, INC.
P.O. BOX Q LIVERMORE FALLS, ME 04254
TEL: (207) 897-6752/FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

GRAIN SIZE ANALYSIS - ASTM D422

PROJECT NAME:	Proposed Brunswick Subd.	PROJECT #:	25-050
CLIENT:	Mr. Walton/Belanger Engrg.	MAIN-LAND SAMPLE:	(TP-2)
M-L SOIL DES:		INTENDED USE:	Gradation
SOURCE:	Adjacent to TB-4	SPECIFICATION:	N/A
DATE:	February 17, 2025	TECHNICIAN:	JLD

DATA

PARTICLE SIZE mm		% BY WT FINER	STRUCTURAL FILL SPECIFICATION	COMMENTS
50.80	(2 in)	100.0	N/A	N/A
38.10	(1-1/2 in)	100.0		
25.40	(1 in)	85.6		
19.05	(3/4 in)	80.6		
12.70	(1/2 in)	77.8		
9.53	(3/8 in)	76.5		
6.35	(1/4 in)	75.3		
4.75	(No. 4)	73.9		
2.00	(No. 10)	69.5		
0.60	(No. 30)	63.1		
0.43	(No. 40)	60.3		
0.30	(No. 50)	57.1		
0.18	(No. 80)	52.8		
0.15	(No. 100)	51.3		
0.075	(No. 200)	44.2		



REMARKS:

Reviewed: Scott R. Dixon, P.E.
Date: 3/17/25

Brunswick adjacent to TB-3

Sieve Sizes			Gradation Results		
Sieve size metric	U.S. Standard Sieve No.	D_{ave} cm	% Pass	Fi	Fi/D_{ave}
10	4		100		
7.5	3	8.407395	100	0	0
5	2	5.880468	100	0	0
3.75	1.5	4.206612	100	0	0
2.5	1	2.942273	100	0	0
1.9	3/4	2.121418	100	0	0
1.25	1/2	1.480055	99.17	0.83	0.56079
0.95	3/8	1.061444	99.16	0.01	0.009421
0.63	1/4	0.74406	98.92	0.24	0.322555
0.475	#4	0.532803	98.5	0.42	0.788285
0.2	#10	0.284117	96.81	1.69	5.948256
0.085	#20	0.120398	94	2.81	23.3392
0.0425	#40	0.056413	92	2	35.45303
0.018	#80	0.025572	88.44	3.56	139.2175
0.0106	#140	0.013188	73	15.44	1170.739
0.0075	#200	0.008667	64.04	8.96	1033.768
0.00325	hyd #1	0.004582	0	64.04	13975.13
0.00207	Hyd#2	0.002499		0	0
0.0012	Hyd#3	0.001506		0	0
0.00085	hyd#4	0.000984		0	0
0.0006	hyd#5	0.000696		0	0
0.0003	hyd#6	0.0004		0	0
0.00012	hyd#7	0.000175	0	64.04	34841.21

D_o est (cm)
0.0007

Sum= 51226.49
porosity, n= 0.38
void ratio, e= 0.612903

Shape Factor							
Shape	SF						
Spherical	6	k=	0.0003001	cm/sec	k=	0.850656	feet/day
Rounded	6.1	k=	0.0002903	cm/sec	k=	0.822994	feet/day
Worn	6.4	k=	0.0002638	cm/sec	k=	0.747646	feet/day
Sharp	7.4	k=	0.0001973	cm/sec	k=	0.559233	feet/day
Angular	7.7	k=	0.0001822	cm/sec	k=	0.516505	feet/day

Brunswick, sample adjacent to TB-4

Sieve Sizes			Gradation Results		
Sieve size metric	U.S. Standard Sieve No.	D_{ave} cm	% Pass	Fi	Fi/D_{ave}
10	4		100		
7.5	3	8.407395	100	0	0
5	2	5.880468	100	0	0
3.75	1.5	4.206612	100	0	0
2.5	1	2.942273	85.6	14.4	4.894176
1.9	3/4	2.121418	80.6	5	2.356915
1.25	1/2	1.480055	77.8	2.8	1.891821
0.95	3/8	1.061444	76.5	1.3	1.224746
0.63	1/4	0.74406	75.3	1.2	1.612773
0.475	#4	0.532803	73.9	1.4	2.627615
0.2	#10	0.284117	69.5	4.4	15.48658
0.085	#20	0.120398	65	4.5	37.37594
0.0425	#40	0.056413	60.3	4.7	83.31462
0.018	#80	0.025572	52.8	7.5	293.2952
0.0106	#140	0.013188	47	5.8	439.7855
0.0075	#200	0.008667	44.2	2.8	323.0524
0.00325	hyd #1	0.004582	0	44.2	9645.548
0.00207	Hyd#2	0.002499		0	0
0.0012	Hyd#3	0.001506		0	0
0.00085	hyd#4	0.000984		0	0
0.0006	hyd#5	0.000696		0	0
0.0003	hyd#6	0.0004		0	0
0.00012	hyd#7	0.000175	0	44.2	26357.09

D_o est (cm)
0.0006

Sum= 37209.56
porosity, n= 0.38
void ratio, e= 0.612903

Shape Factor							
Shape	SF						
Spherical	6	k=	0.0005688	cm/sec	k=	1.612255	feet/day
Rounded	6.1	k=	0.0005503	cm/sec	k=	1.559828	feet/day
Worn	6.4	k=	0.0004999	cm/sec	k=	1.417021	feet/day
Sharp	7.4	k=	0.0003739	cm/sec	k=	1.05992	feet/day
Angular	7.7	k=	0.0003453	cm/sec	k=	0.978937	feet/day

Spreadsheet for Nitrate attenuation after Baetsle and Chang: Leachfld. at TB-3B (southern lot #11) - 10mg/l isogra

Brunswick Subdivision

$$C(x,y,z,t) = [CoVo/8(\pi t)^{1.5}((DxDyDz)^{.5}] \; e[-((x-vt)^2/4Dxt)-(y^2/4Dyt)-(z^2/4Dzt)]$$

Co = nitrate initial concetration
Vo = daily volume
T = time in days
Dxyt = Dispersion coefficient in x,y,z directions
x = distance of interest from source, parallel to g.w. flow
v = g.w. velocity

n = porosity	0.38					
D = av						
ax = dispersivity in x direction = $(0.83)\{(\log_{10}(Lp)\}^{2.414}$						
Lp = vt						
k=hydr. Cond	1	ft/day				
i=gradient	0.02	ft/ft	from site plan			
Variables:						
g.w. velocity	0.05	ft/day				
time	3650	days				
x, from source	168	feet		10.01277 mg/l	AFTER	10.0 years
y, from source cl	0	feet				
z, from source cl	1.5	feet				
Volume	360	gal/day	48.1283422	cubic feet		
Lp, plume length						
to center of mass	192.1052632	feet				
ax	10.7690079					
ay	3.5896693					
az	0.538450395					
Dx	0.566789889					
Dy	0.188929963					
Dz	0.028339494					
Initial concen	40					

Spreadsheet for Nitrate attenuation after Baetsle and Chang: Leachfld. at TB-3B (southern lot #11) - 10mg/l isogra

Brunswick Subdivision

$$C(x,y,z,t) = [CoVo/8(\pi t)^{1.5}((DxDyDz)^{.5}] \, e[-((x-vt)^2/4Dxt)-(y^2/4Dyt)-(z^2/4Dzt)]$$

Co = nitrate initial concetration
Vo = daily volume
T = time in days
Dxyt = Dispersion coefficient in x,y,z directions
x = distance of interest from source, parallel to g.w. flow
v = g.w. velocity

n = porosity	0.38					
D = av						
ax = dispersivity in x direction = $(0.83)[(\log_{10}(Lp)]^{2.414}$						
Lp = vt						
k=hydr. Cond	1	ft/day				
i=gradient	0.02	ft/ft	from site plan			
Variables:						
g.w. velocity	0.05	ft/day				
time	3650	days				
x, from source	250	feet		1.78049 mg/l	AFTER	10.0 years
y, from source cl	0	feet				
z, from source cl	1.5	feet				
Volume	360	gal/day	48.1283422 cubic feet			
Lp, plume length						
to center of mass	192.1052632	feet				
ax	10.7690079					
ay	3.5896693					
az	0.538450395					
Dx	0.566789889					
Dy	0.188929963					
Dz	0.028339494					
Initial concen	40					

To: Colliers Engineering
41 Church Road
Brunswick, ME 04011

Date: November 30, 2022

From: Alexander A. Finamore, CWS, LSE
Mainely Soils, LLC

Re: Jones Farm Estates, Brunswick, ME – Wetland Delineation Memorandum

---

At the request of Colliers Engineering (the "Client"), Mainely Soils conducted on-site wetland and waterbody delineations on a portion of three parcels, approximately 2.24, 3.82 and 34 acres in size located on Lisbon Road in Brunswick, Maine. These field investigations were performed to provide baseline environmental data to inform the client of potential development/use of the site. The natural resources assessments described in this memorandum were completed in November of 2022. In addition to describing the identified resources this report describes the existing conditions within the study area, and the methodologies employed for the assessments.

PROJECT DESCRIPTION

The project site is located within the Rural Farm and Forest District along the Lisbon Road corridor in the Town of Brunswick. The site is currently occupied by a residential dwelling in the northeastern extent of the site and vacant forested land comprising the rest of the site. Surrounding land use of the site is residential to the south and west, municipal land to the north, and an aggregate pit to the east. Proposed use of the site is to develop residential houselots. Access to the site is currently from Lisbon Road to the southwest. In total, the wetland and waterbody delineation survey area encompassed approximately 40 acres, identified by the Town of Brunswick as Tax Map 1, Lots 69, 69A, and 70.

SITE DESCRIPTION

The Study Area occurs in the Southern Coastal biophysical region of Maine (McMahon, 1990). The Southern Coastal biophysical region is characterized by relatively flat terrain, with elevations generally ranging up to 100 feet above sea level. Bedrock is frequently exposed and covered by thin glacial deposits. Along the immediate coast, soils are generally deep sands (where beaches occur) or shallow sandy loams that are well to excessively drained. Extensive coarse-grained glaciomarine deposits occur in the central portion of the South Coastal Region and along its western margin. The survey area is located within the Lower Androscoggin watershed (Hydrologic Unit Classification (HUC) 8 identification 01040002).

The Natural Resource Conservation Service soil survey mapping identifies native soils at the site as being formed primarily in wind or water deposited material having a high content of silt and very fine sand. They are on lake plains and low benches on uplands (Hartland, Nicholville, and Suffield series). In the central portion of the site, the soils were formed within lodgment till on hills, drumlins, till plains, and ground moraines (Paxton series). (Web Soil Survey, 2022).

Study Methodology

Mainely Soils conducted wetland delineation field work within the survey area in November of 2022. The boundary of wetlands were delineated in accordance with the Army Corps of Engineers 1987 Wetland Delineation Manual (1987 Manual) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0) (Regional Supplement, 2012). All wetland delineations were conducted using the Routine Determination Methods, which requires that a wetland contain a dominance of hydrophytic vegetation, hydric soils, and evidence of hydrology in order to be considered a wetland. Wetland boundaries were located and recorded in the field

using a Trimble® GPS unit capable of sub meter accuracy, post processed, and transferred and incorporated onto project mapping.

Six distinct wetland areas were delineated throughout the study area. Additional field notes were also taken to record the classification of each wetland in accordance with the Classification of Wetlands and Deepwater Habitats of the United States, general site characteristics, unique qualities observed during the site assessment, and other considerations relevant to investigation findings and the future completion of a wetlands functions and values assessment in accordance with the Highway Methodology Workbook: Supplement. Representative photographs of each wetland were taken, field sketches were labeled of the wetland boundary on an aerial photograph-based map, and notes were recorded on the flagging sequence for each wetland.

Mainely Soils also surveyed the site for streams, in accordance with the State of Maine Natural Resources Protection Act stream criteria and definitions. Two streams were delineated within the study area.

Study Results

Using the methodologies described above, a wetland delineation was performed on November 15, 2022. A description of the identified resources follows. Supporting attachments include Representative Photographs (Attachment 1). Wetland Delineation Data Forms can be provided upon request.

Wetlands at the project site consisted of six distinct features. Five of the wetlands (Wetlands A, B, D, E, and F) were seasonally saturated palustrine forested wetlands found in shallow narrow drainages. Dominant wetland vegetation within the consisted of red maple (*Acer rubrum*), yellow birch (*Betula alleghaniensis*), balsam fir (*Abies balsamea*), white pine (*Pinus strobus*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), sensitive fern (*Onoclea sensibilis*), fringed sedge (*Carex crinita*), and goldthread (*Coptis trifolia*). The soils within the wetland generally had a thin, dark mucky surface overlaying a depleted sandy loam substratum meeting hydric soil criteria A1: Depleted Below Dark Surface. Evidence of wetland hydrology included saturation to the mineral soil surface, water stained leaves, drainage patterns, and buttressed tree roots at the time of field investigations.

Wetland C was a forested floodplain wetland associated with stream S2 draining in a northerly direction in the central portion of the study area. Dominant vegetation included red maple, yellow birch, eastern hemlock (*Tsuga canadensis*), balsam fir, speckled alder (*Alnus incana*), winterberry (*Ilex verticillata*), rough stemmed goldenrod (*Solidago rugosa*), and fringed sedge, The soils within the wetland generally had a thin, dark mucky surface overlaying a depleted sandy loam substratum meeting hydric soil criteria A1: Depleted Below Dark Surface. Evidence of wetland hydrology included saturation to the mineral soil surface, water stained leaves, drainage patterns, and buttressed tree roots at the time of field investigations.

One intermittent stream and one perennial stream were delineated within the Study Area. Stream S1 was an intermittent stream flowing in a northerly direction within Wetland A. The stream was approximately 2-3 feet wide with approximately 2 inches of flowing water and a silt/sand substrate and 1 foot inch vertical banks. Stream S1 originated within Wetland A onsite and flowed offsite to the north towards the Androscoggin River..

Stream S2 was a perennial stream flowing in a northerly direction, approximately 4-5 feet wide with 5 inches of flowing water, a sandy substrate and 12 inch vertical banks. Stream S2 originated offsite to the south and flowed into the Androscoggin River to the north1.

Summary

The information contained in this memorandum was collected in order to provide detailed, on-site information regarding wetland and waterbody resources. This information is intended to be used for project planning purposes and to support

permitting needs. Five wetlands were delineated on the site and were identified as Wetlands A, B, C, D, E and F. The wetland features were located within sandy loam soils in depressional swales. The wetlands generally exhibited seasonally saturated/flooded hydroperiods, and provided groundwater discharge, floodflow alteration, wildlife habitat, and stormwater/water quality maintenance functions. Two streams were identified on the site.

Wetlands are regulated by the U.S. Army Corps of Engineers under the federal Clean Water Act, and by the Maine Department of Environmental Protection under the Maine Natural Resources Protection Act (NRPA). The State of Maine further differentiates wetlands under NRPA by regulating certain wetlands as "wetlands of special significance" (WOSS). Wetlands within 25 feet of both streams may be considered WOSS's. Impacts to wetlands resulting from proposed project development require that permits first be obtained from the MDEP and the USACE before proceeding with construction, and where applicable, municipal governing bodies. Consultation with these agencies early in the project design process is encouraged.

Wetlands within the survey area may be further regulated under municipal ordinances, such as Shoreland Zone, Site Plan Review, or other local ordinances.

References:

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe.1979. Classification of Wetlands and Deepwater Habitat in the United States. U.S. Fish and Wildlife Service. FWS/OBD-79/31 103pp.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

U.S. Army Corps of Engineers (USACE). 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. ERDC/EL TR-12-01. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Schlawin, J. Cutko, A. Maine Natural Areas Program. 2014. A Conservation Vision for Maine Using Ecological Systems.

Web Soil Survey. 2022. U.S. Department of Agriculture – Natural Resources Conservation Service. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Attachments:

1. Representative Site Photographs

Attachment 1

Representative Site Photographs

Photo 1: View looking southerly within Wetland A from flag 13

Photo 2: View looking easterly at Wetland A from flag 74

Photo 3: View looking westerly across Wetland B from flag 5

Photo 4: View looking westerly across Wetland B from flag 16

Photo 5: View looking westerly across Wetland C from flag 20

Photo 6: View looking southerly within Wetland C from flag 28

Photo 7: View looking southerly across Wetland D from flag 3

Photo 8: View looking northerly across Wetland D from flag 9 along Lisbon Road

Photo 9: View looking westerly within Wetland E near flag 5

Photo 10: View looking southerly within Wetland F near flag 2

Photo 11: View looking upstream along Stream S1

Photo 12: View looking downstream along Stream S1

Photo 13: View looking upstream along Stream S2

Photo 14: View looking downstream along Stream S2

cbelanger@roadrunner.com

From: DEP, DLRR Admin Support <DLRRAdminSupport.DEP@maine.gov>
Sent: Monday, December 23, 2024 3:15 PM
To: bob@raylabbeandsons.com
Cc: Stehr, April A; cbelanger; IFW Environmental Review; jlusk@brunswickme.org
Subject: Stormwater permit, # L-15993-NJ-C-N located in Brunswick - Jones Farm Estate LLC
Attachments: Jones_Farm_Estates_LLC_L15993CN.pdf

Hello,

Attached to this email you will find a signed copy of your Stormwater permit, # L-15993-NJ-C-N located in Brunswick from the Bureau of Land Resources, Maine Department of Environmental Protection. Please take a few minutes to review your permit carefully. You will note that the permit includes a description of your project, findings of fact that relate to the approval criteria the Department used in evaluating your project, and conditions that are based on those findings and the particulars of your project. Please read your permit carefully, paying particular attention to the conditions of the approval. The Department reviews every application thoroughly and strives to formulate reasonable conditions of approval within the context of the Department's environmental laws. At the end of the document, you'll find an information sheet describing the Department's appeal procedures.

This electronic version of your permit is an Adobe Acrobat .pdf file. If you don't have the Adobe Acrobat Reader on your computer, you can click on this link to download the free reader.
http://www.adobe.com/products/acrobat/readstep2.html

If you have any questions about the permit or thoughts on how the Department processed this application please get in touch with your project manager April Stehr directly. She can be reached at (207) 446-6117 or at April.A.Stehr@maine.gov.

Thank you!

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

JONES FARM ESTATE LLC	) STORMWATER MANAGEMENT LAW
Brunswick, Cumberland County	)
JONES FARM RESIDENTIAL SUBDIVISION	)
L-15993-NJ-C-N (Approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. § 420-D, and Chapters 500 and 502 (06-096 C.M.R. ch. 500 and 502, last amended August 12, 2015) of the Department's Regulations, the Department of Environmental Protection (Department) has considered the application of JONES FARM ESTATE LLC (applicant) with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History: In Department Order #L-15993-80-A-N, dated July 27, 1989, the Department approved the operation of a 13-acre gravel extraction facility on a 178-acre parcel of land. In Department Order #L-15993-L3-B-N, dated February 6, 2008, the Department approved the development of a 36-lot residential subdivision. The project was not constructed and the license expired. The applicant purchased the property in 2021. The project site is located on the east side of Lisbon Falls Road in the Town of Brunswick.

B. Summary: The applicant proposes to construct a stormwater management system for a 13-lot, single-family-home subdivision and one lot to be retained by the owner. The subdivision will result in approximately 1.07 acres of impervious area and 2.92 acres of developed area. The project is indicated on a set of plans the first of which is entitled "Jones Farm Residential Subdivision Project, 13 Residential Lots, Lisbon Road, Brunswick, Maine, 3-24-2023, Planning Board and DEP Submission Set," prepared by Belanger Engineering, and dated March 24, 2023, with a latest revision date on any of the sheets of November 26, 2024. The project site is located off of Lisbon Road in the Town of Brunswick.

The applicant is also proposing to alter 3,524 square feet of forested freshwater wetland to construct one driveway and a stream crossing, which is exempt from Department review pursuant to the Natural Resources Protection Act (NRPA), 38 M.R.S. § 480-Q(17). Additionally, the applicant submitted a NRPA Permit by Rule Notification Form (PBR #81313) pursuant to Chapter 305 Permit by Rule Standards Section 10 (06-096 Ch. 305, § 10, last amended June 8, 2012) for stream crossings which was accepted by the Department on December 18, 2024.

The applicant submitted a Notice of Intent (NOI# 77260) to comply with the standards and requirements of the Maine Construction General Permit which was accepted by the Department on July 10, 2023.

C. Current Use of the Site: The project parcel is approximately 171 acres in size and has undeveloped woodland and a gravel pit facility with associated roadway and stockpiles. The parcel is identified as Lots 70, 6, and 26 on Map 1 of the Town of Brunswick's tax maps. The proposed project site is primarily undeveloped woodland on Lot 70.

D. Public Comment: The Department received comments on the application from an abutter regarding potential adverse effects to the Androscoggin River watershed as a result of the proposed project. The Department's review of the proposed stormwater management system is summarized in Findings 2(A) and 2(B). The abutter is also concerned that the project will unreasonably affect public safety, traffic, and rural character and cause greenhouse gas emissions from construction; these aspects will be filed with the record, but this information does not pertain to the criteria for obtaining a permit under the Stormwater Management Law and thus could not be considered in the Department's analysis of whether the applicant's permit application should be approved.

The interested person further requested that the Board of Environmental Protection (Board) take jurisdiction over the review of the proposed project. Based upon the information submitted by the interested person and pursuant to the Department's Chapter 2, Rule Concerning the Processing of Applications and Other Administrative Matters (06-096 CMR 2, effective August 1, 1994 and last revised June 9, 2018) and the criteria set forth in 38 M.R.S. § 341-D(2) and in Chapter 2, §17(C) (last amended June 9, 2018), the Department determined in a letter, dated August 17, 2023, that the criteria for Board assumption of jurisdiction of the application were not met and recommended that the Board exercise its discretion to not assume jurisdiction over the processing of the application. Subsequently, the Department did not receive any further comments from the interested person in regard to the proposed project.

2. STORMWATER STANDARDS:

The proposed project includes approximately 2.92 acres of developed area of which 1.07 acres is impervious area. It lies within the watershed of tributaries to the Androscoggin River. The applicant submitted a stormwater management plan based on the Basic and General Standards contained in Department Rules, Chapter 500. The proposed stormwater management system consists of one grassed underdrained soil filter and one wooded stormwater treatment buffer.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine

Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of, the Bureau of Land Resources (BLR).

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. This plan was reviewed by, and revised in response to the comments of, BLR. The applicant will be responsible for the maintenance of all common facilities including the stormwater management system.

Storm sewer grit and sediment materials removed from stormwater control structures during maintenance activities must be disposed of in compliance with the Maine Solid Waste Management Rules.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on BLR's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500(4)(B) provided that grit and sediment materials removed from the stormwater management structures during maintenance activities are disposed of in compliance with Maine Solid Waste Management Rules.

B. General Standards: The applicant's stormwater management plan includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. This mitigation is being achieved by using Best Management Practices.

The proposed project meets the definition of "a linear portion of a project" and is required to treat no less than 75% of the impervious area and 50% of the developed area per Chapter 500, § 4(C)(5)(c). The proposed project will control runoff from no less than 78% of the linear impervious area and no less than 72% of the linear developed area.

The forested, no disturbance stormwater buffer on lot 7 will be protected from alteration through the execution of a deed restriction. The applicant proposes to use the deed restriction language contained in Appendix G of Chapter 500.

Prior to the start of construction, the location of the forested buffer on lot 7 must be permanently marked on the ground.

The deed for each lot that contains any portion of the designated buffer must contain deed restrictions relative to the buffer and have attached to it a plot plan for the lot, drawn to scale, that specifies the location of the buffer on the lot. The applicant shall execute and record all required deed restrictions, including the appropriate buffer deed restrictions, within 60 days of the date of this Order unless the deed restriction is to be placed on a subdivision lot. In that situation, the applicant shall execute and record the required deed restriction prior to the start of construction on the lot. The applicant shall submit a copy of the recorded deed restriction, including individual lot plot plans, to the BLR within 60 days of its recording.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to comments from, BLR. After a final review, BLR commented that the proposed stormwater management system is designed in accordance with the Chapter 500 General Standards and recommended that the applicant's design engineer or other qualified professional oversee the construction of the grassed underdrained soil filter to ensure that it is installed in accordance with the details and notes specified on the approved plans.

Within 30 days from completion of the entire system or if the project takes more than one year to complete, at least once per year, the applicant must submit a log of inspection reports detailing the items inspected, photographs taken, and the dates of each inspection to the BLR for review.

Within six months of completion of the development, the applicant must submit as-built drawings for the stormwater control structures, including the stormwater BMPs, to BLR.

Based on the stormwater system's design and BLR's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 Basic and General Standards provided that as-built plans are submitted to the BLR for review; and construction of the stormwater management structures is overseen, documented, recorded, and submitted; all as described above.

The Department further finds that the proposed project will meet the Chapter 500 standards for discharge to wetlands.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. § 420-D and Chapter 500 of the Department's Regulations:

A. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 Basic Standards for: (1) erosion and sediment control; (2) inspection and maintenance; (3) housekeeping; and (4) grading and construction activity provided that grit and sediment materials removed from the stormwater management structures during maintenance activities are disposed of in compliance with Maine Solid Waste Management Rules, as outlined in Finding 2(A).

B. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards provided that as-built drawings for the stormwater management system are submitted to the BLR, deed restrictions are recorded and submitted, stormwater management buffers are marked on the ground prior to the start of construction and stormwater construction oversight, inspections, and reports are completed, as outlined in Finding 2(B).

C. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 standards for discharge to wetlands.

THEREFORE, the Department APPROVES the above noted application of JONES FARM ESTATE LLC to construct a stormwater management system as described above in Brunswick, Maine, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.

2. In addition to any specific erosion control measures described in this order, the applicant shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

4. The applicant shall include in all conveyances of subdivision lots deed restrictions making the conveyance subject to all terms and conditions of this Department Order, particularly those conditions related to maintenance of the stormwater management system. These terms and conditions may be incorporated by specific and prominent reference to the permit in the deed. All conveyances required by this approval to contain restrictions shall include in the restrictions the requirement that any subsequent conveyance shall specifically include the same restrictions.

5. The applicant shall execute and record all required deed restrictions, including the appropriate buffer deed restrictions, within 60 days of the date of this Order unless the deed restriction is to be placed on a subdivision lot. In that situation, the applicant shall execute and record the required deed restriction prior to the start of construction on the lot. The applicant shall submit a copy of the recorded deed restriction, including individual lot plot plans, to the BLR within 60 days of its recording.

6. Storm sewer grit and sediment materials removed from stormwater control structures shall be disposed of in compliance with the Maine Solid Waste Management Rules.

7. Prior to the start of construction, the location of forested buffer on individual lots shall be permanently marked on the ground.

8. The applicant shall retain the design engineer or other qualified professional to oversee the construction of the stormwater management structures according to the details and notes specified on the approved plans.

9. Within 30 days of completion of the entire system or if the project takes more than one year to complete, at least once per year, the applicant shall submit a log of inspection reports detailing the items inspected, photographs taken, and dates of each inspection to the BLR for review.

10. The applicant shall submit copies of as-built drawings for the stormwater management system within six months of completion of construction to the BLR for review.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 21ST DAY OF DECEMBER, 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

For: Melanie Loyzim, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

AAS/L15993CN/ATS91189

STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

(1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the permittee. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S. §420-D(8) and is subject to penalties under 38 M.R.S. §349.

(2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.

(3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.

(4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.

(5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

(6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the permittee, and the permittee and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

(7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department. If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity.

(8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.

(a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.

(b) All aspects of the stormwater control system are operating as approved, have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.

(c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.

(d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.

(e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.

(9) Transfer of property subject to the license. If any portion of the property subject to the license containing areas of flow or areas that are flooded are transferred to a new property owner, restrictive covenants protecting these areas must be included in any deeds or leases, and recorded at the appropriate county registry of deeds. Also, in all transfers of such areas and areas containing parts of the stormwater management system, deed restrictions must be included making the property transfer subject to all applicable terms and conditions of the permit. These terms and conditions must be incorporated by specific and prominent reference to the permit in the deed. All transfers must include in the restrictions the requirement that any subsequent transfer must specifically include the same restrictions unless their removal or modification is approved by the Department. These restrictions must be written to be enforceable by the Department and must reference the permit number.

(10) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

DEP INFORMATION SHEET

Appeals to the Board of Environmental Protection

Date: November 2024 Contact: Clerk.BEP@maine.gov or (207) 314-1458

SUMMARY

This document provides information regarding a person's rights and obligations in filing an administrative or judicial appeal of: (1) a final license decision made by the Commissioner of the Department of Environmental Protection ("DEP"); or (2) an insurance claim-related decision ("Clean-up and Response Fund decision") made by the Commissioner or the Office of State Fire Marshal pursuant to 38 M.R.S. § 568-A.

Except as explained below, there are two methods available to an aggrieved person seeking to appeal a license decision made by the Commissioner or a Clean-up and Response Fund decision: (1) an administrative appeal before the Board of Environmental Protection ("Board"); or (2) a judicial appeal before Maine's Superior Court. An aggrieved person seeking review of a license decision or Clean-up and Response Fund decision made by the Board may seek judicial review in Maine's Superior Court.

An appeal of a license decision made by the DEP Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)), a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)), or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

A person filing an appeal with the Board should review the applicable rules and statutes, including the DEP's Chapter 2 rule, *Processing of Applications and Other Administrative Matters* (06-096 C.M.R. ch. 2); Organization and Powers, 38 M.R.S. §§ 341-D(4) and 346; and the Maine Administrative Procedure Act, 5 M.R.S. § 11001.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

Within 30 calendar days of the date of: (1) a final license decision of the Commissioner; or (2) a Clean-up and Response Fund decision, an aggrieved person may appeal to the Board for review of that decision. "Aggrieved person" means any person whom the Board determines may suffer a particularized injury as a result of a Commissioner's license decision or a Clean-up and Response Fund decision. A complete appeal must be received by the Board no later than 5:00 p.m. on the 30th calendar day of the decision being appealed. With limited exception, untimely appeals will be dismissed.

HOW TO SUBMIT AN APPEAL TO THE BOARD

An appeal to the Board may be submitted via postal mail or electronic mail (e-mail) and must contain all signatures and required appeal contents. An electronic filing must contain the scanned original signature of the appellant(s). The appeal documents must be sent to the following address.

Chair, Board of Environmental Protection
c/o Board Clerk
17 State House Station
Augusta, ME 04333-0017
Clerk.BEP@maine.gov

The DEP may also request the submittal of the original signed paper appeal documents when the appeal is filed electronically. The risk of material not being received in a timely manner is on the sender, regardless of the method used.

At the time an appeal is filed with the Board, the appellant must send a copy of the appeal to: (1) the Commissioner of the DEP (Maine Department of Environmental Protection, 17 State House Station, Augusta, Maine 04333-0017); (2) the licensee, if the appellant is not the licensee; and (3) if a hearing was held on the application, any intervenors in that hearing proceeding. For appeals of Clean-up and Response Fund decisions made by the State Fire Marshal, the appellant must also send a copy of the appeal to the State Fire Marshal. **Please contact the Board Clerk at clerk.bep@maine.gov or DEP staff at 207-287-7688 with questions or for contact information regarding a specific license or Clean-up and Response Fund decision.**

REQUIRED APPEAL CONTENTS

A written appeal must contain the information specified in Chapter 2, section 23(B) or section 24(B), as applicable, at the time the appeal is submitted. **Please carefully review these sections of Chapter 2**, which is available online at https://www.maine.gov/sos/cec/rules/06/chaps06.htm, or contact the Board Clerk to obtain a copy of the rule. Failure to comply with the content of appeal requirements may result in the appeal being dismissed pursuant to Chapter 2, section 23(C) or section 24(C).

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with the administrative record.* Generally, the record on which the Board decides an appeal is limited to the record prepared by the agency in its review of the application, any supplemental evidence admitted to the record by the Board Chair and, if a hearing is held on the appeal, additional evidence admitted during the hearing. A person who seeks to appeal a decision to the Board is encouraged to contact the DEP (or State Fire Marshal for Clean-up and Response Fund decisions made by that agency) to inspect the record before filing an appeal.

2. *Be familiar with the applicable rules and laws.* An appellant is required to identify the licensing criterion or standard the appellant believes was not satisfied in issuing the decision, the bases of the objections or challenges, and the remedy sought. Prior to filing an appeal, review the decision being appealed to identify the rules and laws that are applicable to the decision. An appellant may contact the DEP or Board staff with any questions regarding the applicable rules and laws or the appeal procedure generally.

3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a separate stay of the decision is requested and granted (*see* Chapter 2, section 23(M)), the licensee may proceed with an approved project pending the outcome of the appeal. Any activity initiated in accordance with the approved license during the pendency of the appeal comes with the risk of not knowing the outcome of the appeal, including the possibility that the decision may be reversed or modified by the Board.

4. *Alternative dispute resolution.* If the appeal participants agree to use mediation or another form of alternative dispute resolution ("ADR") to resolve the appeal and so notify the Board, the Board will not hear the matter until the conclusion of that effort, provided the participants engaged in the alternative dispute resolution demonstrate satisfactory progress toward resolving the issues. *See* Chapter 2, section 23(H) or contact the Board Executive Analyst (contact information below) for more information on the ADR provision.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will acknowledge receipt of each appeal and develop a service list of appeal participants and any interested persons for use in the appeal proceeding. Electronic mail (e-mail) is the preferred method of communication during an appeal proceeding; however, the Board reserves the right to require paper copies of all filings. Once the Board Chair rules on the admissibility of all proposed supplemental evidence, the licensee (if the licensee is not the appellant) may respond to the merits of the appeal. Instructions specific to each appeal will be provided in correspondence from the Board Executive Analyst or Board Chair. Generally, once all filings in an appeal proceeding are complete, the DEP staff will assemble a packet of materials for the Board (Board packet), including a staff recommendation in the form of a proposed Board Order. Once available, appeal participants will receive a copy of the Board packet and an agenda with the meeting location and start time. Once finalized, the meeting agenda will be posted on the Board's webpage https://www.maine.gov/dep/bep/index.html. Appeals will be considered based on the administrative record on appeal and oral argument at a regular meeting of the Board. *See* Chapter 2, Section 23(I). The Board may affirm all or part of the decision under appeal; affirm all or part of the decision under appeal with modifications, or new or additional conditions; order a hearing to be held as expeditiously as possible; reverse the decision under appeal; or remand the decision to the Commissioner or State Fire Marshal, as applicable, for further proceedings.

II. JUDICIAL APPEALS

The filing of an appeal with the Board is not a prerequisite for the filing of a judicial appeal. Maine law generally allows aggrieved persons to appeal final license decisions to Maine's Superior Court (*see* 38 M.R.S. § 346(1); Chapter 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A judicial appeal by a party to the underlying proceeding must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other aggrieved person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. *See* 38 M.R.S. § 346(4), the Maine Administrative Procedure Act, statutes governing a particular license decision, and the Maine Rules of Civil Procedure for substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal procedure, for administrative appeals contact the Board Clerk at clerk.bep@maine.gov or 207-287-2811 or the Board Executive Analyst at bill.hinkel@maine.gov or 207-314-1458, or for judicial appeals contact the court clerk's office in which the appeal will be filed.

Note: This information sheet, in conjunction with a review of the statutory and rule provisions referred to herein, is provided to help a person to understand their rights and obligations in filing an administrative or judicial appeal, and to comply with notice requirements of the Maine Administrative Procedure Act, 5 M.R.S. § 9061. This information sheet is not intended to supplant the parties' obligations to review and comply with all statutes and rules applicable to an appeal and insofar as there is any inconsistency between the information in this document and the applicable statutes and rules, the relevant statutes and rules apply.

STAFF REVIEW COMMITTEE AGENDA
Brunswick Town Hall - Room 206
85 Union Street
WEDNESDAY, JULY 12th, 2023 @ 10:00 A.M.

There is an opportunity to attend this meeting in person or via Zoom

How to watch and comment via Zoom:
Please use the link below to join the webinar:
https://us02web.zoom.us/j/83653133726?pwd=d0VHOWFyQU5zMUd3a0pnUjk0eHNIZz09
Passcode: 6K080X
Or **One tap mobile:**
US: +13017158592,88452558965#,,,,*442223# or +13092053325,,88452558965#,,,,*442223#
Or **Telephone**:
Dial (for higher quality, dial a number based on your current location):
US: +1 301 715 8592 or +1 309 205 3325 or +1 312 626 6799 or +1 646 876 9923 or +1 646 931 3860 or +1 719 359 4580 or +1 253 215 8782 or +1 346 248 7799 or +1 386 347 5053 or +1 564 217 2000 or +1 669 444 9171 or +1 669 900 6833
Webinar ID: 836 5313 3726
Passcode: 570173
International numbers available: https://us02web.zoom.us/u/kd9fvy59KV

All votes to be taken via roll call.

The public may provide comment via email (fmaloney@brunswickme.org) prior to the meeting, OR they may provide live comment at the meeting via Zoom or in person.

1. **Case No. 23-030 – 305 Bath Rd – Multifamily Site Amendment:** The Staff Review Committee will review and provide a recommendation to the Planning Board for a **Major Development Review Final Plan** application submitted by A.R. Building Company for a multi-family residential development and site plan modification for case #22-009. The subject property is located at 305 Bath Rd (Map 45, Lot 34) and 0 Bath Road (Map 45 Lots 2C) and within the **Growth Mixed Use 1 (GM1) Zoning District** and **Growth Industrial (GI) Zoning District**.

2. **Case No. 23-032 – 0 Lisbon Rd – Jones Farm Subdivision:** The Staff Review Committee will review and provide a recommendation to the Planning Board for a **Major Development Review Subdivision Sketch Plan** application submitted by Belanger Engineering, on behalf of the property owner, Bob Walton (Ray Labbe & Sons), for a 13-lot residential subdivision. The subject property is located at 0 Lisbon Rd (Map 1, Lot 70) and within the **Rural Farm and Forest (RF) Zoning District**.

3. **Other Business**

Town of Brunswick, Maine
DEPARTMENT OF PLANNING & CODES
85 UNION STREET, BRUNSWICK, ME 04011

Planning Board Meeting Agenda
Brunswick Town Hall
85 Union Street – Council Chambers
Tuesday, August 8th, 2023 @ 6:00 PM

There is an opportunity to attend this meeting in person or view the meeting via Zoom, TV 3, or live stream.

How to watch and comment via Zoom:

https://www.brunswickme.org/313/Brunswick-Cable-TV3

Comments are allowed during the public comment period, during public hearings, and on other items and matters at the discretion of the Planning Board Chair or Vice Chair.

How to watch via TV3 or Live Stream:

The link to view or listen to the meeting on TV3 (Channel 3 on Comcast) or via live stream from the Town's website: http://tv3hd.brunswickme.org/CablecastPublicSite/watch/1?channel=1

All Votes to be Taken Via Roll Call

The public may provide comment via email (nthomsen@brunswickme.org) prior to the meeting OR they may provide live comment at the meeting via Zoom or in person.

1. **Case No. 23-022 – 38 East Marginal Rd – Recreational Dock:** The Planning Board will review and act on a **Major Development Review Sketch Plan** application submitted by Atlantic Environmental, LLC on behalf of the property owners, Wynn Segall and Anna Jenefsky, for a recreational dock. The property is located at 38 East Marginal Rd (Map MP1, Lot 11) and within the **Rural Protection Stormwater Overlay (RPSMO), Shoreland Protection Overlay (SPO), Shoreland Protection Overlay Resource Protection (2 Acres, 20% Steep Slope) (SPO-RP), and Special Flood Hazard Area** overlays.

2. **Case No. 23-024 – 305 Bath Rd – Multifamily Site Amendment:** The Planning Board will review and act on a **Major Development Review Final Plan** application submitted by A.R. Building Company for a multi-family residential development and site plan modification for case #22-009. The subject property is located at 305 Bath Rd (Map 45, Lot 34) and 0 Bath Road (Map 45 Lots 2C) and within the **Growth Mixed Use 1 (GM1) Zoning District** and **Growth Industrial (GI) Zoning District**.

3. **Case No. 23-029 – 0 Adams Rd – Solar Array:** The Planning Board will review and act on a **Condition Use Permit** application submitted by Thomas Moore for a twenty-four (24) -panel ground-mounted solar array. The subject property is located at 0 Adams Rd (Map 43 Lot 29) and within the **Rural Protection 1 (RP1) Zoning District** and **Rural Protection Stormwater Management Overlay (RPSMO)**, **Shoreland Protection Overlay (SPO)**, **Shoreland Protection Overlay Recourse Protection (SPO-RP 2 Acre, 20% Steep Slope)**, **Shoreland Protection Overlay**

This agenda is mailed to owners of property within 200 feet of proposed development sites and 300 feet for Conditional Use or Special Use Permits. Please call the Brunswick Department of Planning and Development (725-6660) with questions or comments. Individuals needing auxiliary aids for effective communications please call 725-6659 or TDD 725-5521. This meeting will be televised.

Resource Protection (SPO-RP FEMA 100 Floor [Tidal River]), **Shoreland Protection Stream Protection Subdistrict (SPO-SP),** and **Special Flood Hazard (FEMA) overlays**.

4. **Case No. 23-032 – 0 Lisbon Rd – Jones Farm Subdivision:** The Planning Board will review and act on a **Major Development Review Subdivision Sketch Plan** application submitted by Belanger Engineering, on behalf of the property owner, Bob Walton (Ray Labbe & Sons), for a 13-lot residential subdivision. The subject property is located at 0 Lisbon Rd (Map 1, Lot 70) and within the **Rural Farm and Forest (RF) Zoning District**.

5. **Case No. 23-034 – 410 River Road – Androscoggin River Crossing Water Main Project II – Sketch:** The Planning Board will review and act on a **Major Development Review Sketch** application submitted by Wright-Pierce, on behalf of the Brunswick/Topsham Water District, to install a transmission water main underneath the Androscoggin River. The subject property is located at 410 River Road (Map 15 Lot 36) and within the **Rural Farm and Forest (RF) Zoning District** and within the **Special Flood Hazard Area (FEMA), Shoreland Protection Overlay (SPO), Shoreland Protection Overlay – Stream Protection Subdistrict (SPO-SP), FEMA 100 Flood [Tidal-River] (SPO-RP), Shoreland Protection Overlay – Rural Protection 2 Acre, 20% Steep Slope (SPO-RP),** and the **Aquifer Protection 1 (APO 1)** overlay zones**.**

6. **Case No. 23-034 – 410 River Road – Androscoggin River Crossing Water Main Project II – Final:** The Planning Board will review and act on a **Major Development Review Final** application submitted by Wright-Pierce, on behalf of the Brunswick/Topsham Water District, to install a transmission water main underneath the Androscoggin River. The subject property is located at 410 River Road (Map 15 Lot 36) and within the **Rural Farm and Forest (RF) Zoning District** and within the **Special Flood Hazard Area (FEMA), Shoreland Protection Overlay (SPO), Shoreland Protection Overlay – Stream Protection Subdistrict (SPO-SP), FEMA 100 Flood [Tidal-River] (SPO-RP), Shoreland Protection Overlay – Rural Protection 2 Acre, 20% Steep Slope (SPO-RP),** and the **Aquifer Protection 1 (APO 1)** overlay zones**.**

7. **Case No. 23-015 – 125 Howards Pt Ln – Howard's Point Subdivision:** The Planning Board will review and act on a **Major Development Review Subdivision Final Plan** application submitted by Sitelines, PA on behalf of the property owners, Lisa Evans and Jeffrey Smith for a residential subdivision/ lot split. The subject property is located at 125 Howards Pt Ln (Map 43, Lot 10) within the **Rural Protection 1 (RP1) Zoning District** and within the **Special Flood Hazard Area (FEMA), SPO (Shoreland Protection Overlay), SPO-RP (FEMA 100 Flood [Tidal-River]), SPO-RP (2 Acre, 20% Steep Slope),** and **Rural Protection Stormwater Management Overlay (RPSMO)** overlays**.**

8. **Case No. 23-028 – 0 Pennell Way Map Amendment – SPO-SP:** The Planning Board will host a **PUBLIC HEARING** to review and act on a zoning map change for 0 Pennell Way (Map 32, Lot 46) regarding an SPO-SP (Shoreland Protection Overlay – Stream Protection Sub-District) overlay.

9. **Case No. 23-037 – 74 Neptune Dr – Zoning Change Request Workshop:** The Planning Board will host a **PUBLIC HEARING** to review and act feedback on a zoning change request for 74 Neptune Dr (Map 40, Lot 751) from Growth Residential 1 (GR1) to Growth Mixed-Use 7 (GM7).

10. **Case No. 23-038 – Uses in Growth Residential 1 (GR1) – Zoning Ordinance Text Amendment Workshop:** The Planning Board will host a **PUBLIC HEARING** to review and act on a zoning ordinance text amendment to permit offices in the Growth Residential 1 (GR1) zoning district.

11. **Case No. 23-039 – Contract Zoning – Zoning Ordinance Text Amendment:** The Planning Board will host a **PUBLIC HEARING** to review and act on a zoning ordinance text amendment submitted by the Town of Brunswick to add an option for contract zoning into the ordinance.

12. **Case No. 23-040 – 125 Church Rd Map Amendment – SPO-SP**: The Planning Board will host a **WORKSHOP** to review and provide feedback on a zoning map change for 125 Church Rd (Map U32, Lot 2) regarding an SPO-SP (Shoreland Protection Overlay – Stream Protection Sub-District) overlay.

13. **Other Business**

14. **Adjourn**

4. **Adjourn**

Town of Brunswick

PLANNING & CODES

Committee:	**Staff Review Committee**		
Date of Meeting:	July 16, 2025	**Time:**	10:00 AM
Minutes Prepared By:	Susan Karnes, Administrative Floater	**Location:**	Town Hall, Council Chambers / Zoom

1. Purpose of Meeting *(Weekly meeting, Training, Workshop, etc.…)*

Weekly meeting

2. Attendance	
Staff:	Julie Erdman, Planning & Development Director Ryan Leighton, Director of Public Works Matthew James, Land Use Planner Jimmy Dealaman, Principal Planner Sally Costello, Director of Economic Development Chrissy Adamowicz, Project Manager, Economic Development Taylor Burdin, Code Enforcement Officer/Zoning Administrator Trey Crews, Town Engineer Josh Shean, Deputy Fire Chief Taylor Burns, Town Assessor Paul Hansen, Patrol Commander
Non-SRC Staff:	
Applicants:	Christopher S. Belanger, P.E., Belanger Engineering
Public:	

3. Meeting Agenda

<u>Case No. 25-001 – Jones Farm Estates</u>: The Staff Review Committee will review and make a recommendation to the Planning Board on a Major Development Review Sketch/Final Plan application submitted by Belanger Engineering on behalf of Bob Walton of Labbe Construction and the property owner, Jones Farm Estates, LLC, for a phased 13-lot subdivision. The subject property is located on Lisbon Road (Map 1, Lot 70) and within the Rural Farm and Forest (RF) Zoning District.

4. Discussion, Decisions, Issues

Christopher Belanger: Hi, my name is Chris Belanger, I was late. I had no idea I was on today's agenda, and I think that was my bad. It's a 13-lot subdivision off of Lisbon Road Jones Farm Estates, LLC is putting it together. Bob Walton is the owner. The 13 lots we built in two phases. Approximately 650 feet of road will be built in phase one. We'll have a temporary turnaround on lot five for that access until the road is extended across the street to serve the rest of the lots.

We have obtained EP permit for this project. We were back over a sketch probably a year and a half ago, so it was quite a while. So now that we've obtained our permits and updated our soils and

information, we submitted it back to the town. So, I'll answer any questions you might have if you have any.

Paul Hansen: No questions.

Ryan Leighton: Just confirming the intent is for this to remain a private road. **Christopher:** Yes. It'd be 20 feet wide, a private road. It'd be gravel. There'll be a section that'll be paved, crossing the stream so we can get our drainage to the pump. **Ryan:** We'll just want to work out the agreement when there's a homeowner's association for trash pickup, if you want the trash truck to go down that road. Otherwise, they'll need to bring trash and recycling out to Lisbon Road. **Christopher:** Okay.

Chrissy Adamowicz: No questions.

Sally Costello: Hi. I just have a quick question about whether or not you've kind of thought through the price points of these just getting to the affordability. Are they market rate? **Christopher:** I assume they are market rate. I haven't talked to the owner about that at all, as far as affordability goes. He wanted in traditional single-family lots. **Sally:** Okay. You're under the threshold for the inclusionary zoning, but I just was curious if you had a price point. Thank you. **Christopher:** I can ask. I don't know off the top of head. **Sally:** Okay. Thank you.

Taylor Burns: I just have a couple comments. One, I see the secondary road that comes off of the proposed Jones Farm Road. You have listed the proposed name listed as Eagle Ridge Drive. We do have another name, what was it? Eagle Brook Lane in town. So that might be a little conflicting, so we might want to think about another name option for that.

And then my question is do you have an idea of where mailboxes would be located. **Christopher:** Traditionally right off the driveways? We can kind of show the driveways if you'd like. I was kind of letting the developers or the owners dictate where they want to put it on the right or the left side. **Taylor:** We may just want to talk with the post office too, because if this is going to be a private road, I don't know that they'll be going down the road to deliver mail. It might have to be up at the Lisbon Road point. **Christopher:** Okay. In a box or some sort, something like that. **Taylor:** Yep. In a box. So then just at that point, just making sure people have enough access to pull off to the side to for deliveries and to pick up. **Christopher:** Yeah. A turnout with a box, something like that. Yep. If we have to do it. Okay. **Taylor:** And other than that, I'm good.

Trey Crews: A couple of minor comments. First thanks for including the calculations on the 50 and a hundred-year storm and meeting them even though you weren't required to. That's nice that you included it already. I like that you're including a streetlight at the intersection. Technically your dead-end drive goes over 1500 feet, so you should be asking for a waiver from the 1500 max, which I am in support of. You're close enough. I don't have an issue with going over. I don't know if Fire has any thoughts on that either.

And Ryan mentioned earlier the homeowner's agreement. Because it's a gravel drive, you're required to provide that agreement and record it, and that should cover maintenance of the road and including contributing cost. And I'll need you to provide an estimate on quantities and estimated price of all the road and stormwater improvements for a performance guarantee. And I believe that's all my comments.

Jimmy Dealaman: Chris, I just had one question. At this point, does so will each lot have its own well and septic system? **Christopher:** Yes, sir. **Jimmy:** Okay. Have you guys already confirmed that the water quality is acceptable? Is that included? **Christopher:** We got a well study done and

we got some test bits out there for septic suitability. And it's included in the packet, I believe. **Jimmy:** Okay, great. That's all my comments for now. Thanks.

Matthew James: Alright. I have a couple comments. I think they're largely kind of administrative ones. Sorry, I'm trying to find my notes here. Here we go. The application form has not been signed by the applicant or property owner yet, so that will need to be done. It looks like you've submitted the deed for Jones Farm, LLC, but not Jones Farm Estate, LLC. So, we will need book and page 3 8 0 0 7 2 3 4. I don't think I saw that one in there. And there was a transfer. And that would be in line with the applications and everything, all your documentation is for Jones Farm State, LLC. I believe the covenants might need to be reviewed by the town attorney, so we will need a, or we would like a Word document version of the covenants so that she can make edits to that and get it back to you.

You have not submitted, I think you requested a waiver for the lighting plan. I can't say for certain, but we have some board members that are concerned with lighting. So, they might want to see more details on that because you're asking for sketch final you might not really have as much of an opportunity to get feedback from the board and do anything about it. It might be worth just doing a small lighting plan for that streetlight at the intersection. Were you planning on including lighting anywhere else along the road? **Christopher:** I was not planning on it. **Matthew:** Yeah. So, it might be easy enough to just do a small lighting plan for that one fixture. **Christopher:** Okay.

Matthew: This is more of a question for Trey actually, but lots 12, 13 and 8 are on hammerheads for the turnarounds. Eight's driveway, lot eight's driveway is coming off opposite from the part of the hammerhead. Is that allowed? **Trey**: I'm sorry, can you repeat your question while I pull this back up? **Matthew:** Lot eight has a driveway coming off. I believe that's a driveway coming off the hammer head there. Although I'm not exactly sure what it is. **Christopher:** It's supposed to be a driveway. A theoretical driveway where you could put it, I guess. **Trey**: Yeah, that's fine. I like it where it's lined up like that. Also, if you could go ahead and put no parking fire lane signs in your turnaround just so people know not to park in those or store trash and similar.

Matthew: And on lot 13, it might be worth putting a note that the access has to come from the road and not the turnaround area. **Trey**: Yeah, that's correct. By ordinance, you're not allowed to put your driveway on the turnaround itself. It needs to be, I think, 50 feet offset. **Matthew:** Yeah. So that would be a little bit away from that. And it would probably be good to just have a note on the plan saying that the future homeowner isn't allowed to put a driveway there. **Christopher:** For lot 12 now? **Matthew:** Lot 13, I think. Yeah. My one other comment is that we're trying to do this on every project, for your mulch when you're doing erosion control. We do not want to see asphalt tackifiers. So, if you could remove that from the erosion control plans. I don't know how many times it appears on the plan, but I did see it at least once.

We have one member of the board that had comments but is not here today. Ashley, she's our environmental planner. She's planning on getting comments to you by the end of the week, and I'll email those over to you. So, she might have additional comments. Otherwise, that's it for me.

Julie Erdman: Hi Chris. I wanted to mention the town engineer had brought up getting a cost estimate for the road improvements and storm water. We would also need a draft performance guarantee. So whatever method you intend to use, whether it be a letter of credit or escrow or bond or whatever, we would need a draft of that to go to planning board.

Christopher: We did do a draft. It's on pages 25 to 29. **Julie:** Perfect. Thank you. I missed it. **Christopher:** That's basically the Bath Institution letter of credit that does have the project cost, but we can get you a cost estimate as well. **Julie:** Terrific. Okay. And then I saw the financial capacity letter, but I didn't see the cost breakdown for the project. Was that in there? **Christopher:** On page

25. It looks like the amount was 1.1 million, if that's what you're asking for. **Julie:** Right. That's part of the financial capacity letter, but do you have an actual cost breakdown for the project? **Christopher:** I can get it from Labbe. They did it. **Julie:** Okay. That would be great. And then I was wondering if you intend to have, or the applicant if they intend to have any signage along Lisbon Road, you know, just like a sign showing the subdivision name or something. **Christopher:** I can ask the owner if he wants to do something like that under a separate approval type of thing. But he hasn't mentioned it and I'll find out, I'll ask. **Julie:** Okay. I'm just thinking if that was something they wanted to do, it could be included normally you know, we would have that as part of the site plan. You might want to do some plantings around it, that kind of thing. **Christopher:** Okay. Let me check with him.

Julie: My last question is. The open space, were these easements/the easement intended to be held by the town? **Christopher:** Well, I think the lot would be owned by the owners and with an easement to the town. **Julie:** Okay. If that is so we would want to send this to the conservation commission then for their review for the town to accept the easement. So that'll be something we'll need to schedule before it goes to planning board as well. **Christopher:** Okay. Now would. Put me on an agenda or do I need to submit something? **Julie:** Yes. I'll find out when that'll go and we'll be in touch with you and let you know when you'll be on the agenda. And that's all I've got.

Taylor Burdin: And I only had one nitpicky thing on page 47 of your application narrative under the Dimensional in density standards under max Impervious surface required for open space developments for rf, you have 80% and that should be not applicable. And that's it. Okay. Thank you. Mm-hmm.

Josh Shean: And I'm all set. I think Trey covered most of the things I might have had concerns with. So we're all set.

Matthew James: Alright, great. Do we have any public comment? Nobody's attending. Alright. Thank you, Chris, for being able to make it. I'm glad you were able to be here. **Christopher:** I apologize for being late. **Matthew:** That's all right. Do you have any other questions for us? **Christopher:** I do not. Will there be a list of these questions? I wrote down as much as I could recall here, but is there a list I could get? **Matthew:** We will be taking minutes of the meeting. Perfect. And everything is transcribed in SRC minutes, so it should all be on there. I don't know exactly when those will be done. It's usually within a week. But if you have specific things you're wondering about, feel free to ask me and I can get them to you. **Christopher:** Great. Great. I think I got most of it, but I just want to make sure we catch it all. Yep, yep. **Trey:** The recording of the meeting is also on the website posted shortly after this. **Christopher:** Okay, good. Thank you. Yep. **Matthew:** Alright. If that's everything then I'd like to do a motion. We'll have to do a motion to send this to planning board as sketch final. Do we want to have any discussion about doing so?

Trey Crews: A motion to send to planning board as sketch and final second. *(Taylor Burns seconded)*

Julie Erdman: Now, if anyone has any discussion.

Trey Crews: Move to vote.

Matthew James: All right. Yeah, we'll take a vote to move that to sketch final to the planning board then. All in favor? I think probably start over. Overall roll, roll call.

Start with Ryan Leighton. Yes. It looks like Paul is no longer here with us, so we'll move into the room with Chrissy. I don't get a vote. Sally Costello: Yes. Taylor Burns: Yes. Trey Crews: Yes. Jimmy

Dealaman: I'm not a voting member, Julie Erdman: Yes. Taylor Burdin: Yep. Josh Sheahan: Yes. Alright. That is unanimous of the members here.

Alright. And with that I would like to adjourn the meeting.

2025 SRC PACKET – Jones Farm Subdivision

- Please note the distances of all setbacks on the proposed plan sets in accordance to Brunswick's zoning ordinances on plan sets. Confirm with Town Zoning Administrator that applicant's maps are correct and that placement of structures adheres to zoning requirements.

- **(PG 3)** applicant notes the DEP approved their permit request. Please provide a copy of their approval/stipulations noted in their response

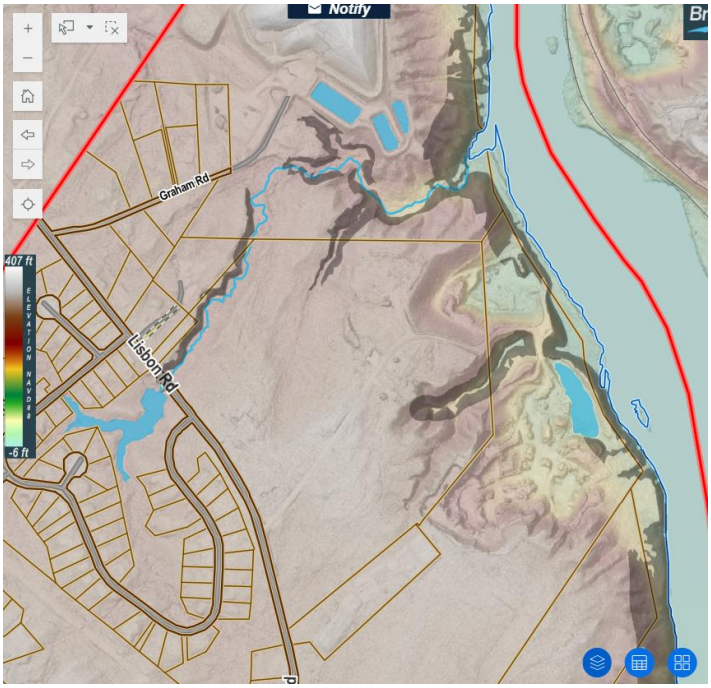
- **(PG 4, pg 118)** Applicant states on pg 4 "*The access roads create 1.07 acres of impervious area and 2.79 acres of developed area for this project. The roads will be private when complete*," while on pg 118, under the stormwater narrative, the applicant states "*The side road, Eagle Ridge Drive, will be 20' wide and serves 2-3 single family lots. The access roads create 1.07 acres of impervious area and 2.92 acres of developed area for this project.*" Please make sure numbers are consistent across the application.

- **(PG 5, PG 49)** Net site area calculated on pg 5 notes 26.03 acres while net site area on pg 49 says 26.11 acres. Please make sure numbers are consistent across the application.

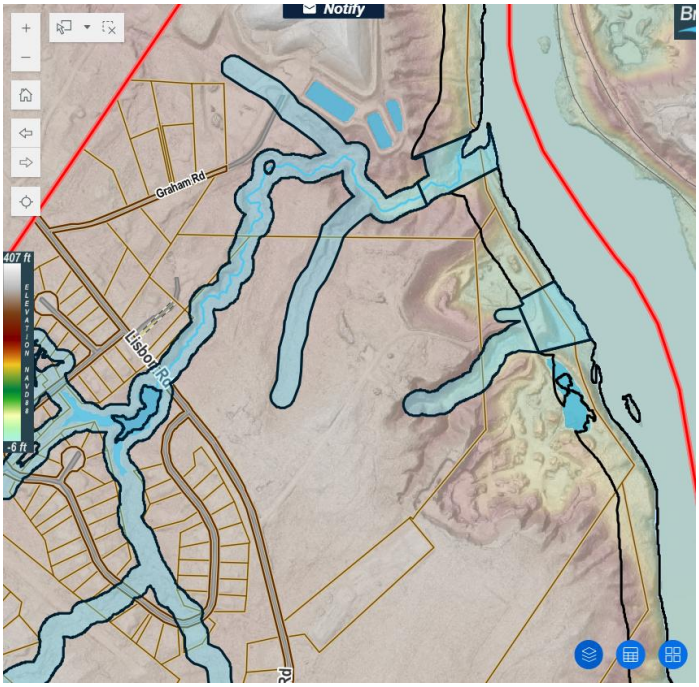
- **(PG 169 | PLAN SET, re: post construction revegetation)**
  - **(Point 2)** Confirm w/ Town arborist appropriate, native species for grass, shrubs, and trees proposed for revegetation purposes).
  - **(Point 3)** To minimize pollution to ground water, staff recommends avoiding use of asphalt-based hydro mulch/photodegradable netting; natural alternatives are preferred in ecologically sensitive areas.

- **(PG 33) DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS AND RESERVATION OF RIGHTS AFFECTING THE SUBDIVISION CALLED JONES FARM ESTATES IN THE TOWN OF BRUNSWICK, COUNTY OF CUMBERLAND, AND STATE OF MAINE**
  - **(pg 40, 1.19 – Animals)** Please ensure that HOA laws are in agreement with State laws (specifically those related to the right to food). Bee keeping, apiaries, or keeping chickens should not be prohibited.
  - **(pg 41, 2.1 – Creation of Open Space)** Under this subsection, applicant states *"Jones Farm Estates is a subdivision approved under the Town of Brunswick Zoning Ordinance. The Open Space in the Subdivision as shown on the Plan shall initially be retained by the Declarant subject to the terms & conditions set forth herein & on the Plan. Upon the initial sale of all Lots in the Subdivision or sooner, at the Declarant's option, such Open Space shall be conveyed to the Owners' Association, which shall accept title to the Open Space. Each Lot Owner shall have the right to the use such Open Space in common with the other Lot Owners for recreational purposes only, including hiking, walking, running or jogging, cross-country skiing, snowshoeing, birding or nature watching & similar uses, as provided in the Plan, subject to the peaceful enjoyment by other lot Owners of their Lots, the rights of all lot Owners to have access to & enjoyment of the Open Space areas, and the terms hereof. Subject to the Plan, no Lot Owner or any other person or entity shall erect any structures in or on any Open Space, store or leave any property or belongings in or on the Open Space, create any nuisance on any Open Space, or disturb in any way the condition, terrain or ecology of any Open Space. The Owners' Association may adopt rules and regulations regarding the Open Space during any period that the Open Space is owned by the Owners' Association that are not inconsistent with the terms hereof; all rules & regulations so adopted shall also be consistent with & not in violation of applicable Federal, State & local ordinances and/or provisions that apply to the Subdivision."*
    - Should the applicant seek to have the Conservation Commission review their proposal for open space, 1) this referral/request to review must come from the Planning Board, and 2) the Commission will require proof of surveying for wildlife and vegetation (letters from agencies will not suffice; applicant must have surveys designed in accordance with IFW and MNAP and submit these results for their review to these agencies) as well as provide a copy of the wetland delineation report that includes proof of significant vernal pool surveys conducted during the appropriate timeframe. Once these surveys are completed, I would also like to review the results.
    - **Clarification is requested as to whether the applicant intends to dedicate the open space as a conservation easement**

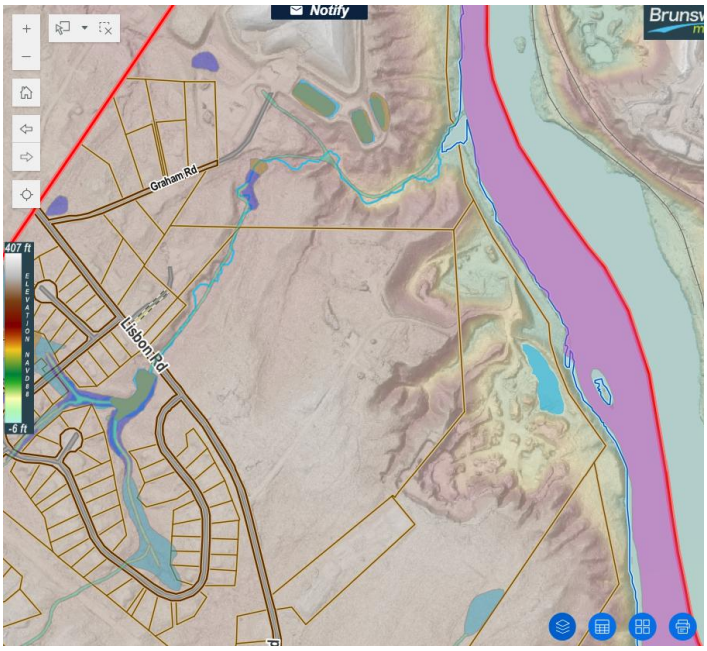
- **(PG 50 | 4.3 – Natural and Historic Areas | 4.3.1 Mapping of Natural and Historic Areas Requirements)**
  - Applicant states "*The proposed project is residential single-family house lots. The existing conditions have been mapped and located. The project creates 16.65 acres of open space which will preserve the existing and natural features of the site. A stream and wetland are located in open space easement A shown on the plan sheet C1. The stream drains a pond crossing Lisbon Road through the site, heading toward the Androscoggin River. These areas will not be impacted by this development. The project also creates open spaces easement B which includes forested wetlands and forested areas.*" Applicant should consider including maps from BWH and Town GIS system (copied and pasted below) so that the full extent of the impact on surrounding habitat may be well understood and considered.



Town | SPO-RP Steep Slopes *(dark grey shaded)*

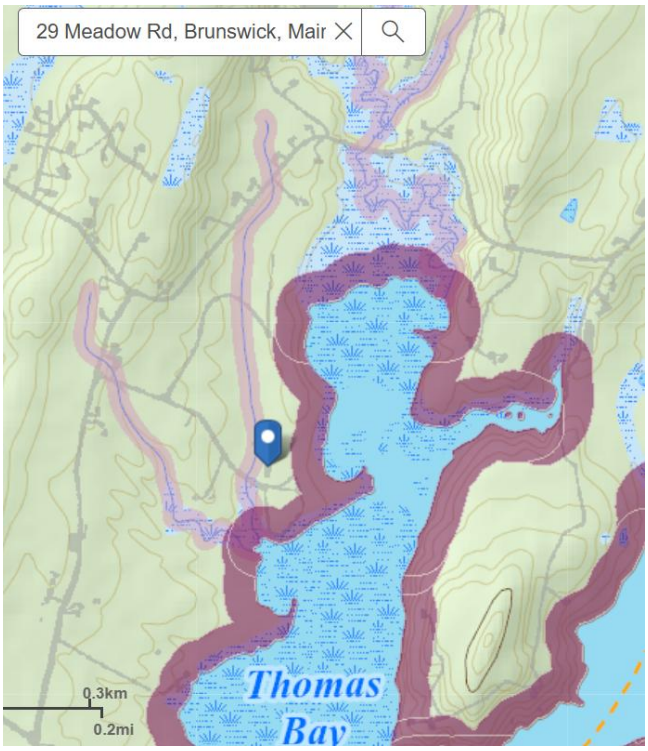


Town | Shoreland Protection Subdistrict, SPO-SP *(blue fill, black line)*

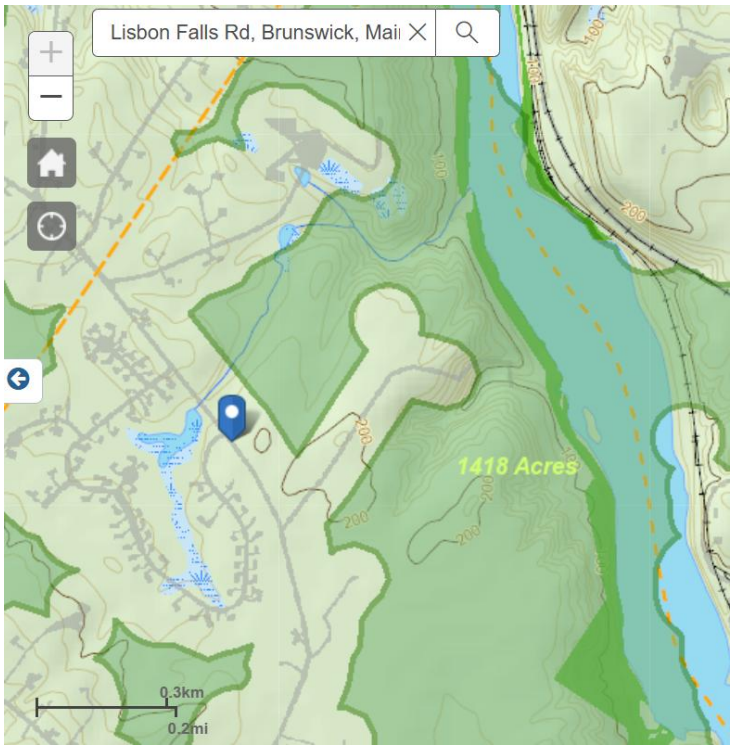


2017 National Wetlands Inventory, NWI 2017 *(green fill)*

BWH National Wetlands Inventory *(blue grass graphics)*



BWH Aquatic Species and Habitats Maps
(magenta) Great Ponds, Rivers, and Coastal Buffer, 250ft
(light pink) Riparian Buffer | Stream Buffer, 75ft



BWH | Conservation and Connectivity Planning Resources
(green) Undeveloped Habitat Blocks

- **(PG 50 | 4.3 – Natural and Historic Areas)**
  - **(4.3.1 Mapping of Natural and Historic Areas Requirements)**
    - **Applicant has not provided sufficient documentation regarding their wetland delineation.** The applicant must provide a detailed report summarizing their efforts to conduct a wetland delineation; in this report please include/address wetland characteristics, overview of methods, summary of composition of wetland types, dominant soil and vegetation characteristics, associated location data, overview of sensitive plant species listed, interpretation of data collected, updated regulatory assessment of survey data as it impacts the proposed project, etc.
    - **A significant vernal pool survey should also be included** (test for significance of vernal pools identified must be done within the ecologically appropriate timeframe, as determined by the State).

  - **(4.3.4 Protection of Significant Plant and Animal Habitat)** Applicant states *"The proposed development will not have an undue adverse effect on important plant and animal habitats identified by the Maine Department of Inland Fisheries and Wildlife or Town of Brunswick, or on rare and irreplaceable natural areas, such as rare and exemplary natural communities and rare plant habitat as identified by the Maine Natural Areas Program. Maine Natural Areas program was contacted in 2006 during the original subdivision and found there are no rare botanical features documented specifically within the project area."*
    - **Staff requests updated letter from MNAP from current year.** Concerning the applicant's 2006 communications with MNAP, screenshots of said correspondence are provided below. Within the 2006 letter, MNAP states they have not surveyed the area and therefore cannot state with certainty that there is no significant plant habitat in the area; however, in their 2006 letter they did provide a list of plants documented within a 4-mile radius of the proposed property (a likely indicator some may exist within the proposed construction area). A qualified biologist should be contracted to perform a plant survey, and the results sent to MNAP for review.
    - **Please note, if the applicant intends to request review of proposed Open Space by Town Conservation Commission, the Commission will likely request updated letters with relevant agencies (at minimum)**; should the applicant wish to dedicate open space as a conservation easement, the Commission will want to see to see updated surveys for significant plant & animal habitat, wildlife surveys, and updated wetland delineation/vernal pool survey.

- (continued – below are screenshots from 2006 MNAP letter, included in 2023 Sketch SRC application)

Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed subdivision, Jones Farm, Brunsw

Scientific Name / Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status
Aletris farinosa Unicorn Root		SX	G5	PE
Bartonia paniculata Screwstem		S1	G5	T
Bidens eatonii Eaton's Bur-marigold		S2	G2	T
Carex vestita Clothed Sedge		S1	G5	E
Chenopodium berlandieri Bosc's Goosefoot		S1?	G5T3T5	SC
Cypripedium reginae Showy Lady's-slipper		S3	G4	T
Lobelia siphilitica Great Blue Lobelia		SX	G5	PE
Lonicera dioica Mountain Honeysuckle		S1?	G5	E

87 3/20/2006

Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed subdivision, Jones Farm, Brunswi

Scientific Name / Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status
Mikania scandens Climbing Hempweed		SH	G5	PE
Ophioglossum pusillum Adder's Tongue Fern		S1?	G5	SC
Sagittaria filiformis Narrow-leaf Arrowhead		S2	G4G5	SC
Sassafras albidum Sassafras		S2	G5	SC
Sisyrinchium mucronatum Michaux's Blue-eyed-grass		S3	G5	SC
Streamshore ecosystem Streamshore Ecosystem		S4	GNR	

- (also included in the 2023 Sketch SRC packet, screen shots from 2007 Pine Tree Engineering Letter RE: MNAP letter)

August 27, 2007

Robert L. Prue
Pine Tree Engineering, Inc.
53 Front Street
Bath, ME
04530

Project: **Maine Natural Areas Program Survey**
Jones Farm Subdivision
Brunswick, ME

Rob,

As requested we have reviewed the Rare or Exemplary Botanical Features listing resulting from the Maine Natural Areas Program (MNAP) letter from your office. We understand the identified botanical features listed were not documented on-site, however are known to occur in the vicinity of the proposed Jones Farm Subdivision. Without further field surveys, the following are based on comparisons between the MNAP listing and habitats present at the site with potential suitability for these species to survive.

Generally, the Jones Farm Subdivision Property has an active borrow pit, staging areas and access roads with surrounding forested areas. The site has a number of very steep ravines associated with streams draining toward the Androscoggin River. The freshwater (palustrine) wetlands are predominantly forested (PFO) with some scrub-shrub (PSS) areas present in the gently sloping portions of the site. The borrow areas are mainly found along the Androscoggin River terrace.

Rare, threatened or endangered (RTE) species were not documented during the wetland delineation field efforts. However, the MNAP listing was only reviewed after those efforts were completed. The following thirteen plant species occurred on the MNAP listing and considered for occurrence at the Jones Farm Subdivision:

Aletris farinosa (SX). Unlikely to occur. Typically occur in sandy moist to dry open woods, (not shade tolerant), pond margins and waste places especially along seashores in Maine. Possibly extirpated in Maine.

Bartonia paniculata (S1). Unlikely to occur. Typically occur in peat and wet sands of coastal, non-tidal and non-forested wetlands. Critically-Imperiled in Maine resulting from extreme rarity or vulnerability to extirpation. The site would be considered at the limit of the plants hardiness range.

Bidens eatonii (S2). Unlikely to occur. Typically occur in estuaries along tidal shores. Only a few occurrences documented in New England.

Carex vestita (S1). Possibility to occur. Typically found in dry sandy (semi-open) deciduous woods, roadsides, waste places and power lines. Rare in Maine due to northern portion of its hardiness range.

Chenopodium berlandieri (SC). Possibility for occurrence although very species specific. Typically, found in saline habitats and sandy waste places along the coast.

Cypripedium reginae (T). Unlikely. Occurs in deciduous swamps, cedar (*Thuja*) swamps, calcareous bog and wet slopes.

Lobelia siphilitica () Possibility for occurrence. Typically, occurs in wooded swamps and wet meadows.

Lonicera dioica (S1?). Unlikely for occurrence. Occurs in dry open woods of hardwoods or mixed forests, thickets and rocky banks. Critically-Imperiled due to extreme rarity and vulnerability of extirpation. The Jones Farm site is at the northern edge of its hardiness range.

Mikania scandens (SH). Unlikely to occur. Typically found in wooded swamps, stream-banks climbing on shrubs, open wetlands not coastal or river shores. Not documented or known to currently exist in Maine over the past 20 years.

Ophioglossum pusillum (S1?). Possibility to occur. Typically, living in open moist meadows, wet acidic swales, old pastures and bogs. The species does not occur in coastal or river shores.

Sagittaria filiformis (S2). Unlikely to occur. Known to thrive in shallow, swift waters or deep streams. However, typically found in shallow waters of slow moving streams.

Sassafras albidum (S2). Possibility for occurrence. Typically found in woods, roadsides and old fields. In Maine, known to occur in the under story in mixed oak, maple and pine uplands where the forests are open. Rare.

Sisyrinchium mucronatum (S2). Possibility for occurrence. Typically, occurs in fields, roadsides and waste places with full sun.

This summary provides the most "probable" of the rare plants listed to occur at the site. The described generalized habitats of these species are based on references found in the *Flora of The Northeast*, by Magee & Ahles, *Rare Plant Fact Sheets*, from MNAP-MDOC and the USDA *NRCS Plants Data Base*. These typical habitats were then correlated to site-specific habitats at the proposed Jones Farm Subdivision. Some of the plant species listed, typically occur along coastal environments rather than the inland location for the proposed project. However, a few of these species can occur in "sandy" landscapes as found in areas of the site and identified with the "possibility for occurrence". Please contact our office with any questions you may have regarding this summary.

Natural resources correspondence letters end without any follow up to MNAP – if the applicant is proposing a conservation easement component, MNAP should be contacted and assistance in constructing an appropriate survey of botanical features should be conducted. This is also true to wildlife surveys, wetlands, and vernal pools.

- **(PG 83-85 | 2025 correspondence with IFW RE: Significant Vernal Pools)** Letter from IFW included within the final application states *"At this time MDIFW Significant Wildlife Habitat maps indicate no known presence of Significant Vernal Pools (SVPs) in the project search area. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. SVPs are not included on MDIFW maps until project areas have been surveyed using approved methods and the survey results confirmed. Therefore, their absence from resource maps is not necessarily indicative of an absence on the ground. Based on materials submitted to MDIFW, it appears a wetland delineation has occurred; if any potential vernal pools were identified during the delineation, we recommend these pools be surveyed for vernal pool significance. Once surveys are completed, survey forms should be submitted to our Department for review well before the submission of any necessary permits. MDIFW will need to review/verify vernal pool data prior to determination of significance."*
    - Please refer to prior comment requesting an updated wetland delineation report that includes a survey for significant vernal pools. If vernal pools are found to exist on the property, applicant must demonstrate plans to mitigate or avoid impacts, especially for any determined to be significant. Please submit vernal pool surveys for review by IFW once completed.

- **(pg 128 | Jones Farm Property Maintenance – Inspections during construction and post construction)**
    - Applicant should seek final approval of stormwater maintenance plan during/post construction, as well as HOA maintenance contract, should be reviewed and approval by Town engineer, Trey Crews before proceeding with construction. Records should be kept / available upon request.

Stormwater Narrative
Jones Farm
0 Lisbon Road, Brunswick, Maine

Belanger Engineering is preparing a Maine Stormwater Law Permit by Rule application for the Jones Farm residential subdivision project located on Lisbon Road in Brunswick, Maine. The project parcel is approximately 32.50 acres in size and is proposed to be subdivided into 13 residential parcels. The property is located on Town of Brunswick Tax Map 1 Lot 70. Jones Farm Estate LLC owns the property.

The house lots will be accessed by a new main access road, 20' wide, Jones Farm Road which is approximately 1000', includes a hammerhead turnaround at the end of the road. The side road, Hay Stack Lane, will be 20' wide and serves 2-3 single family lots. The access roads create 0.88 acres of impervious area and 2.29 acres of developed area for this project. The roads will be private when complete.

The residential single-family house lots are not required to be treated but are included in the HydroCAD stormwater calculations. We have assumed each lot will have 0.10 acres of impervious area and 0.25 acres of developed area in the calculations. The lot development creates 1.30 acres of impervious area and 3.25 acres of developed area.

DEP Jurisdiction: The proposed project includes the development of 0.88 acres of road impervious area and the creation of 2.29 acres of road developed area. The project does not trigger the DEP Site Law for the development of 13 house lots on a parcel more than 30 acres. The project is not within an urban impaired stream or a severely blooming lake. This project triggers the Stormwater Law Permit by Rule for the creation of less than 1 acre of road impervious area. As a result, the Basic Standards only apply to this project. See Section 4A of the Chapter 500 Rules, pages 4&5. The Town of Brunswick will also require the Flooding Standard be met. The Town code requires a minimum sliding scale quality treatment. Table 4.5.4.C requires 70% impervious capture and 60% developed area capture for this project. Flooding and water quality calculations have been included in the report.

Basic Standards
1. Erosion and sedimentation control plan – See Appendix A of Chapter 500 Rules
2. Inspection and Maintenance Plan – See Appendix A and B of Chapter 500 Rules
3. Housekeeping – See Appendix C of the Chapter 500 Rules

General Standards – Town Water Quality
1. Narrative
2. Drainage Plans
3. Calculations
4. Details, designs, and specifications for Wet Ponds, Filter Ponds, and Buffers.

Flooding Standards – Town Review Standards
1. Stormwater Management System must detain, retain, or result in infiltration of stormwater for the 2, 10, 25 storms such that the peak flows do not exceed "pre-development" conditions.

Existing Conditions

Ray Labbe and Sons currently own 79.44 acres along Lisbon Road in Brunswick. The property includes and existing gravel pit and construction access. The developer wants to keep and maintain the pit areas. Approximately 32.50 acres is located adjacent to Pit Road and is proposed to be developed. Jones Farm is a previously approved subdivision that was never built and has since expired. The roads were cut post approvals but no further development moved forward at the time. The tax maps still show the old approved lot lines.

Wetlands and existing topography are shown on the pre-development and existing conditions plan. The remaining site areas are currently wooded. The watershed pre development existing conditions are listed in the chart below.

Pre-Development Watershed Areas										
Subarea	Total Area	Total Area	Existing Impervious Off Site	Existing Impervious On Site	Existing Lawn Off Site	Existing Lawn On Site	Existing Pit PSG	Existing Woods B	Existing Woods C	Existing Woods D
	S.F.	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres
1S	890665	20.45	0	0	0	0	4.12	3.94	11.49	0.90
2S	832099	19.10	0.46	0.3	0.46	0.3	1.91	0.94	12.71	2.02
3S	1223438	28.09	0	0.38	0	0.38	0.00	8.88	17.49	0.96
4S	239386	5.50	0	0.38	0	0.38	3.64	0.25	0.85	0.00
5S	654490	15.03	0.28	0.29	0.28	0.29	0.00	1.85	7.52	4.52
Totals		88.16	0.74	1.35	0.74	1.35	9.67	15.86	50.05	8.40

These watersheds and subcatchment drainage areas are defined in the Stormwater Model as shown on the HydroCAD diagrams. Full-size drainage plans and stormwater calculations for the pre and post developed site conditions are included with this report. Refer to the HydroCAD diagrams, calculations, report and drainage plans for modeling assumptions, subcatchments, flowpaths, drainage reaches, etc. Road and Lot areas are included in the quantity calculations. The lot development areas for this project are not required to be treated per Maine DEP stormwater law rules as it does not trigger the Maine DEP site Law.

This project roads are required to meet Basic Standards of Maine DEP Chapter 500 Stormwater Rules. A Maine DEP permit by rule is required for this project for the creation of less than 1 acre of impervious area. The Town of Brunswick requires the flooding standards be maintained so it is included with this report. The Town also requires a sliding scale water quality standard which requires capture and treatment of 70% of the site impervious area and 60% of the site developed area. The Maine DEP permit by rule does not require the flooding or General standards be met. However, the project was designed to meet the Maine DEP General Standards and Flooding standards which meets or exceeds the standards required by the Town of Brunswick.

Runoff calculations were performed for the 2-year, 10 year and 25 year storm events in accordance with Town requirements for Flooding Standards. Results of the calculations are shown in the Summary Tables submitted with this report. Complete HydroCAD reports were generated for the 2-year, 10-year, and 25-year storm events with summary descriptions of all nodes and subcatchments, etc.

The Post Development conditions evaluate the “new” changes resulting from the project development and maintains the existing pre development runoff peak flow rates at property boundaries.

Portions of the pit and property areas abut the Androscoggin River. A couple of reaches pass through the boundary and discharge to the Androscoggin River approximately 1200' downstream. All runoff from the site eventually drains to the Northeast (Reach 1R and 2R) through on site forested wetlands. Reaches 3R, 4R, and 5R are other portions of the property that are not being developed at this time. Runoff eventually reaches a no name stream and discharges into the Androscoggin River. The Androscoggin River discharges directly into the ocean. We used the S. C. S. method for computing peak runoff rates. All supporting data and calculations are submitted with this report.

Proposed Conditions

The units will be accessed by a new main access road, 20' wide, Jones Farm Road which is approximately 1110', includes a hammerhead turnaround at the end of the road. The side road, Hay Stack Lane, will be 20' wide and serves 4 single family lots. The access roads create 0.88 acres of impervious area and 2.29 acres of developed area for this project. The roads will be private when complete.

The residential single-family house lots are not required to be treated but are included in the HydroCAD stormwater calculations as required by stormwater law development. We have assumed each lot will have 0.10 acres of impervious area and 0.25 acres of developed area in the calculations. The lot development creates 1.30 acres of impervious area and 3.25 acres of developed area.

This report, calculations and supporting plans supporting the development expansion is attached.

Project Location: The project is located off Lisbon Road in Brunswick, Maine.

Surface water on or abutting the site: Stormwater from the site flows through on site wetlands and discharges into the Androscoggin River through a stream.

Alterations to Land Cover: The drainage study is conducted on the watersheds 88 acres draining through the property. The existing ground cover is 93% woods, meadow, 4% impervious, and 3% lawn. The proposed ground cover will result in approximately: 8% impervious, 12% lawn, and 80% meadow and woods. Single family residential houses will be developed.

Downstream ponds and Lakes: Stormwater from the site is predominately stored on site within the wetland areas, pond storage areas, and natural forest buffer and conservation areas. All runoff from the site eventually drains to the Androscoggin River. The Androscoggin River discharges directly into the ocean. Enclosed is a U.S.G.S. Map showing the site location.

Historic Flooding: No portion of the area being developed is located within the 100 year flood zone. A copy of the FEMA map with the site location is included.

Alterations to natural drainage ways: Natural drainage ways will not be altered as a result of the proposed development. Culverts will be installed to maintain current drainage flow patterns.

Post-Development Watershed Areas							
			Exempt	**Exempt**	**Exempt**	**Exempt**	Existing
			Off Site	**Off Site**	**On Site**	**On Site**	Woods/Field
			Existing	Existing	Existing	Existing	Undeveloped
	Total	Total	Impervious	Lawn	Impervious	Lawn	Total
Subarea	Area	Area	to	to	to	to	to
			remain	remain	remain	remain	remain
	sf	acres	acres	acres	acres	acres	acres
1S	828696	19.02	0	0	0	0	17.97
2S	492456	11.31	0.17	0.17	0	0	9.79
3S	1223437	28.09	0	0	0.38	0.38	27.33
4S	239423	5.50	0	0	0.38	0.38	4.74
5S	654490	15.03	0.28	0.28	0.29	0.29	13.89
6S	247820	5.69	0.29	0.29	0.3	0.3	3.84
7S	35553	0.82	0	0	0	0	0.14
8S	6869	0.16	0	0		0	0.00
9S	22631	0.52	0	0		0	0.32
10	47780	1.10	0	0		0	0.40
11	14378	0.33	0	0		0	0.00
12	26596	0.61	0	0		0	0.04
50							
51							
52							
53							
54							
Totals	3840129	88.16	0.74	0.74	1.35	1.35	78.44
		✓					

General Standard Calculations:

Several BMP's are being utilized to treat road impervious and developed areas as far as practical. The general standard calculations are attached which exceed the Town standards. The subdivision roads classify as a "linear portion of the project" which requires it meet the 75% and 50% capture general standard. Its is noted the Town standard is 70% and 60% capture standards.

A filter pond provides treatment for the road project areas shown below.

The treatment summary and general standard calculation is shown below:

In 2003, a class A high intensity soil survey was completed for the project by Devine Tarbell & Associates, INC. This plan can be used for buffer and filter pond verification. The high intensity soils map is enclosed for review. Portions of the map are included for information. In addition, the test pit logs are included in the report. This information should provide sufficient buffer and pond soil conditions.

Filter Pond – Pond 10P
BMP 7.1 – Grassed Underdrained Soil Filter

One Filter Pond (Pond 10P) will be developed to support the project. The pond has been sized to store 1" X the watershed impervious area and 0.4" X the watershed disturbed area. An outlet control structure and spillway has been implemented in the pond to provide emergency overflow as required. The outlet control structure will also be the gravel filter drain outlet. Runoff will discharge to the adjacent wetland and stream.

Jones Farm					
Grassed Underdrained Soil Filter Pond Design Criteria - Hydrocad Pond 10P					
	acres	s.f.			
Impervious Area Draining to Pond	0.68	29620.8			
Lawn Area draining to Pond	1.11	48352			
Total Area	**1.79**	Acres	< 2.5 ac.	✓	
Minimum Treatment Volume	1" X Impervious Area + 0.4" X Lawn			**4054**	c.f.
Pond Storage Volume Provided				**5257**	✓
Minimum Pond Surface Area	5% Impervious Area + 2% Lawn			**2448**	s.f.
Pond Surface Area Provided	< 3000 s.f.			**3000**	✓
Pre-Treatment	Sanded Area (acres)		0.54	acres	
	10 storms per year				
	500 lbs per acre-storm				
	90 lbs/c.f.				
	Annual Sediment Loa		30.00	c.f.	

Zero Treatment

Portions of the road that cannot be practically captured and treated will drain toward road ditches and wetlands as required. The first 250' of Jones Farm Road will drain toward Lisbon Road and will discharge into the existing road ditch. Approximately 0.20 acres of impervious area and 0.50 acres of developed area cannot be practically captured and treated.

General Standard Calculation – Road Linear Development

As stated, the project creates 0.88 acres of road impervious area and 2.29 acres of road developed area. The proposed pond provides road treatment for 0.68 acres of impervious area and 1.79 acres of developed area. As a result, the project captures 77% of the road impervious area and 78% of the road developed area which exceeds the 75% Impervious and 50% "linear portion of a project" DEP standards. The project also meets the Town of Brunswick Sliding Scale of 70% and 60% capture standards. The calculation is shown below.

Post-Development Watershed Areas Road Development						
	Linear 75%			Linear 50%		
	Road	Road	Road	Road	Road	
	New	New	New	New	New	Treatment
	Impervious	Impervious	Lawn	Developed	Developed	BMP
Subarea	Area	Area		Area	Area	
		Treated			Treated	
	acres	acres	acres	acres	acres	
1S	0.01	0	0.04	0.05	0	Zero Treatment
2S	0.12	0	0.16	0.28	0	Zero Treatment
3S	0	0	0	0	0	No Changes
4S	0	0	0	0	0	No Changes
5S	0	0	0	0	0	No Changes
6S	0.07	0	0.1	0.17	0	Zero Treatment
7S	0.08	0.08	0.1	0.18	0.18	Filter Pond 10P
8S	0.09	0.09	0.07	0.16	0.16	Filter Pond 10P
9S	0.09	0.09	0.11	0.2	0.2	Filter Pond 10P
10	0.19	0.19	0.26	0.45	0.45	Filter Pond 10P
11	0.1	0.1	0.13	0.23	0.23	Filter Pond 10P
12	0.13	0.13	0.44	0.57	0.57	Filter Pond 10P
Totals	0.88	0.68	1.41	2.29	1.79	
	>75%	77%	✓	>50%	78%	✓

Flooding Standard

Modeling assumptions: The flooding standard is required with this development. The Town of Brunswick requires the flooding standard be met. Maine DEP does not require the flooding standard be met for this project. To meet the Town Ordinance Standards, we have modeled the watershed areas to demonstrate that the ponds, reaches, and outlets have the required storage volume and capacity to pass the 25 year storm event without flooding the pond embankments. The "HydroCad" computer program was used to determine the peak storm water runoff for the pre- and post-development conditions. HydroCad is a storm water modeling system, which utilizes the TR-20 method developed by the Soil Conservation Service (SCS).

The design assumptions used for this project are:

Design storm: 24 hour, Type III rainfall distribution.

Rainfall: 24 hour precipitation values from U.S. Weather Bureau Technical Release No. 40:

2 year storm = 3.1 inches
10 year storm = 4.6 inches
25 year storm = 5.8 inches
50 year storm = 6.9 inches
100 year storm = 8.1 inches

Site specific parameters for the project are listed below:

Soils: Soils information to determine the hydrologic soil group for the site, are derived from the Soil Survey of Cumberland County by the United States Department of Agriculture Soil Conservation Service. A High Intensity Soil Survey was completed in 2008 to verify soil conditions on site. The soils and hydrologic group are listed below:

Soil Classification	Hydrologic Group
Allagash - AlA	"B"
Lamoine (LaA, LaB, LaC, LaD	"C/D"
Madawaska (MaA, MaB, MaC	"B"
Nicholville (NiA, NiB, NiC, NiD	"B"
Pits Dump (PDA)	"x"
Pits Sand and Gravel (PSG)	"x"
Roundabout (RoA, RoB)	"B/D"
Scantic (ScA, ScB)	"D"
Skerry (SKB)	"C/D"
Swanton (SwA, SwB)	"B/D"
Udorthents (UdA)	"x"

Ground Cover:

Pre-& Post Development: The watershed ground cover is modeled as woods, grass, brush/weed, erosion control mix, and impervious.

Cover Description	Curve Number:
Impervious	98
Woods	30, 70, 77
Lawn	39, 74, 77
Erosion Control Mix (ECM)	30

The Hydrocad models pre and post development conditions at the property boundary. See Reaches 1R, 2R, 3R, 4R, and 5R are points were on site wetlands cross the property line. All of the proposed impacts from the project site drains to these outlets. The hydrocad pre and post summaries are provided below.

PRE- & POST-DEVELOPMENT HYDROLOGIC RESULTS

The results indicate the project maintains the "pre-development" peak flow conditions for the project.

The reach routing information is described below:

FLOODING STANDARD RESULTS Reach 1R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	1.85	1.81	-2%
10 YEAR	8.17	7.83	-4%
25 YEAR	15.2	14.47	-5%
50 YEAR	22.58	24.12	6%
100 YEAR	31.33	33.12	5%

Reach 1R is a wetland finger draining along a drainage swale / ravine area about 20' deep. The results shown above demonstrate the pre development peak flow is being met for the 2, 10, and 25 year storms as required.

FLOODING STANDARD RESULTS Reach 2R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	5.24	3.16	-66%
10 YEAR	15.39	8.24	-87%
25 YEAR	25.1	13.09	-92%
50 YEAR	34.71	17.89	-94%
100 YEAR	45.73	23.38	-96%

Reach 2R models the existing stream located adjacent to the development. The results shown above demonstrate the pre development peak flow is being met for all storms modeled.

FLOODING STANDARD RESULTS Reach 3R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	6.05	6.05	0%
10 YEAR	17.47	17.47	0%
25 YEAR	28.55	28.55	0%
50 YEAR	39.56	39.56	0%
100 YEAR	52.2	52.2	0%

The watershed associated with Reach 3R is not being develop at this time. No changes occurred in this watershed.

FLOODING STANDARD RESULTS Reach 4R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	0.02	0.02	0%
10 YEAR	0.32	0.32	0%
25 YEAR	0.98	0.98	0%
50 YEAR	1.88	1.88	0%
100 YEAR	3.11	3.11	0%

Reach 4R is the point where the flow crosses the property line. The hydrocad calculations confirm the pre development flows are being met at this location as shown above.

FLOODING STANDARD RESULTS Reach 5R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	3.94	3.94	0%
10 YEAR	9.56	9.56	0%
25 YEAR	14.73	14.73	0%
50 YEAR	19.77	19.77	0%
100 YEAR	25.46	25.46	0%

The watershed associated with Reach 5R is not being developed at this time. No changes occurred in this watershed.

CONCLUSIONS:

The above analysis points are located where the project crosses the property line (Reaches 1R, 2R, 3R, 4R, and 5R). At this point we compared pre and post development peak flow rates. The results, shown above, indicate the proposed expansion keeps peak flows below pre-development levels as required. Reach 1R is located in a large ravine and has the capacity to handle pre development flows without causing flooding of downstream properties. Proposed peak flows have been reduced by constructing culverts along the new road areas and sending the proposed paved areas to the filter pond for treatment and storage. Other non-treatment areas will drain to wooded buffer open space areas established adjacent to the road and lots.

As the results indicate, the post development peak flows stay below the pre-development peak flow for the 2, 10, and 25 year storms as required. The proposed culverts and structures have the capacity to control flow from the 25 year storm which exceeds the Flooding Standard requirement. As a result, the project does not significantly impact downstream structures or properties. Further this property abuts the Androscoggin River. Considering the close proximity to the Androscoggin River, additional stormwater quantity measures should not be necessary for this development. We submit that the Flooding Standard has been met or exceeded with this development.

The proposed filter pond will treat stormwater prior to discharge to a wetland area or before it leaves the site as required by Maine DEP. The Jones farm project is a 13 lot residential development. The treatment devices treat the road as required by the stormwater law development. In this case the roads would qualify as a linear portion of the project. The road is not required to meet the 75% impervious area capture and 50% developed area capture standard. The project captures and treats 77% of the road impervious area and 78% of the road new developed area which exceeds the 75%/50% capture standards required by the Maine DEP.

The Basic Standards will be met with the proposed erosion control plans and stabilization details provided on the construction plan set.

We submit that the project meets the Basic and General standards as outlined in the Maine DEP Chapter 500 Stormwater Rules. The Flooding standard is also met per the Town of Brunswick stormwater standards.

We submit that the General Standards has been met or exceeded with the development as required to meet the minimum Town Standards.

Jones Farm Property Maintenance:

PART 1: RESPONSIBILITY FOR MAINTENANCE

Jones Farm HOA or Jones Farm Estate LLC will be responsible for maintenance of the stormwater system.

PART 2: INSPECTIONS – During Construction and Post Construction

- Detention Facilities: Wet Ponds, Filter Ponds, etc.
  Embankment inspection and maintenance
  Spillway maintenance
  Outlet Structure sump cleaning and maintenance
  Sediment removal and disposal

- Detention Facilities: Stoned Bermed Level Spreaders at Buffer Outlets
  Debris removal from stone storage area (leaves, branches, trash, etc.)
  Sediment removal and disposal

- Ditches, Swales, or other open stormwater channels
  Embankment inspection and maintenance
  Channel inspection
  Sediment removal and disposal

- Culverts, catch basins, stormwater control structures
  Embankment inspection and maintenance
  Inlet and Outlet inspection
  Debris removal and disposal

The owners representative will inspect the buffers, swales, channels, stormwater structures to determine if the soil blockage or impaired capacity to pass flow exists. Inspections will be performed on a monthly basis from March to November, and quarterly during the remainder of the year. A record of inspections and maintenance or corrective measures shall be kept by the owner / maintenance personnel (see part 4).

PART 3: MAINTENANCE AND CLEANING

The owner representative will regularly inspect for sediment accumulation, obstructions, debris, and other potential causes for operational difficulty in the conveyance and detention system as described in Part 2. Immediate action shall be taken to remedy detrimental obstructions. This may include replacing the filter pond and roof driplines filter beds as necessary to allow infiltration and treatment to occur.

Cleaning out of catch basins, culvert cleaning, and other means necessary to ensure the stormwater system is maintained. Some additional measures (but not limited to) are shown below:

- Under drained filter Maintenance:
    Soil Filter Inspection
    Soil Filter replacement
    Outlet Structure sump cleaning and maintenance
    Sediment removal and disposal
    Mowing
    Harvesting and Weeding

The owner will regularly inspect the soil filter after every major storm event in the first few months to ensure proper function. There after the filter should be inspected bi-annually to ensure that it is draining within 24 hours. The top several inches of the filter shall be replaced with fresh material when water ponds on the surface of the bed for more than 72 hours. Sediment shall be removed from the filter bed annually. The bed shall be hand raked and re-seeded as necessary. The removed sediment shall be hauled off site and disposed of in a stabilized area. Mowing of the filter area shall be limited to 2 times per year to maintain grass heights to less than 12". Weeding and pruning of growth within the filter zone will be completed as necessary.

- Detention Facilities: Stoned Bermed Level Spreaders at Buffer Outlets

A mandatory scheduled maintenance will be performed every four weeks for a period of one hundred and twenty (120) days and will begin after satisfactory completion and acceptance of landscape construction. Ongoing maintenance will be required as necessary.

- Paved Roadway Areas:

All sand, salt, etc. accumulated when sweeping the road areas, shall be trucked off-site for disposal. The road shall be swept annually in the spring.

- Catch Basins, Culverts, Pipe inlets/outlets, Pond outlets, and swales:

Culverts shall be cleaned of sediment and debris as required when flow is blocked or impaired. The roads shall be swept annually in the spring to minimize sediment build up in road ditches. Check culvert and pipe outlets for erosion and make repairs as required. Re-seed or armor with riprap as conditions require.

PART 4: RECORD KEEPING

The owner will maintain inspection records, with recordings of condition of basins, and pipes and annotation of substantial precipitation events or mitigating circumstances in the intervening time for trending to develop the anticipated preventive maintenance schedule.

PART 5: MAINTENANCE CONTRACT

Should proprietary devices be utilized, a maintenance contract will be established with the manufacturer for regular maintenance and cleaning of the device.

PART 6: RE-CERTIFICATION

The owner shall submit a certification to Maine DEP within three months of the expiration of each five year interval from the date of issuance of the permit. The owner shall submit the maintenance log which identifies inspections completed, erosion problems found, when corrective action was taken, and who completed the work. The certification will include a statement indicating that the stormwater system is working and is being maintained in working condition in accordance with the permit requirements.

Maintenance Log Sheet

Jones Farm Residential Subdivision

Name	Maintenance Task Completed	Date

Maine DEP Chapter 500 Appendix C. Housekeeping – Updated 2026

These performance standards apply to all projects.

1. Spill prevention. Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at http://www.maine.gov/dep/spills/emergspillresp/

2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

See Appendix D for license by rule standards for infiltration of stormwater.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. Fugitive sediment and dust. Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the Natural Resources Protection Act.

4. Debris and other materials. Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. Excavation de-watering. Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.
NOTE: Dewatering controls are discussed in the "Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection."

6. Authorized Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:
(a) Discharges from firefighting activity;
(b) Fire hydrant flushings;
(c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
(d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);
(e) Routine external building washdown, not including surface paint removal, that does not involve detergents;
(f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
(g) Uncontaminated air conditioning or compressor condensate;
(h) Uncontaminated groundwater or spring water;
(i) Foundation or footer drain-water where flows are not contaminated;
(j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));
(k) Potable water sources including waterline flushings; and
(l) Landscape irrigation.

7. Unauthorized non-stormwater discharges. The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non_stormwater, other than those discharges in compliance with Appendix C (6). Specifically, the Department's approval does not authorize discharges of the following:
(a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
(b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
(c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
(d) Toxic or hazardous substances from a spill or other release.
(8) Additional requirements. Additional requirements may be applied on a site-specific basis.

Jones Farm Residential Subdivision, Lisbon Road, Brunswick, Maine
Post Construction Inspection form for Grassed Underdrained Filter Pond

Pond Name / Number or Description: Pond 10P

General Information

Site Name: Jones Farm Subdivision Date:

Owner: Jones Farm Estates LLC Inspected By:

Retained 3PI: Last Rain Date: Amount:

Reason for Inspection

Rain Event	Monthly	Quarterly	Bi-Annual

Basin Existing Condition and Basin Description Photos

Inspection Details	**Yes / No**	**Comments:**
Is the pond free from trash, debris, or waste?		
Is the pond banks stable with vegetation established?		
Any erosion found on the pond banks?		
Have repaired been made? List Date and By whom.		
** Has the pond been mowed?		See Comments **
Does the pond drain within 24-48 hours?		
*** Is sediment built up within the pond bottom?		
Is the filter working and functioning as intended?		
* Does the filter require replacment?		
Filter media replacement note date and who completed work		
Are the outlet structure inlets free from debris and working?		
Has the outlet structure been cleaned and maintained? When?		
Is the emergency spillway stable, working, and free of debris?		
Is the pond outlet stable and functioning?		
Level spreader functioning propertly or filled with sediment?		
Is erosion occuring downslope of the pond outlet?		
Is the pond functioning as intended?		

Additional Comments:

* The top several inches of the filter can be replaced with fresh material if water is ponding for more than 72 hours, or the basin can be rototilled, seeded and mulched. Once the filter is mature, adding new material (a 1 inch to 2 inche cover of muture compost) can compensate for subsidence

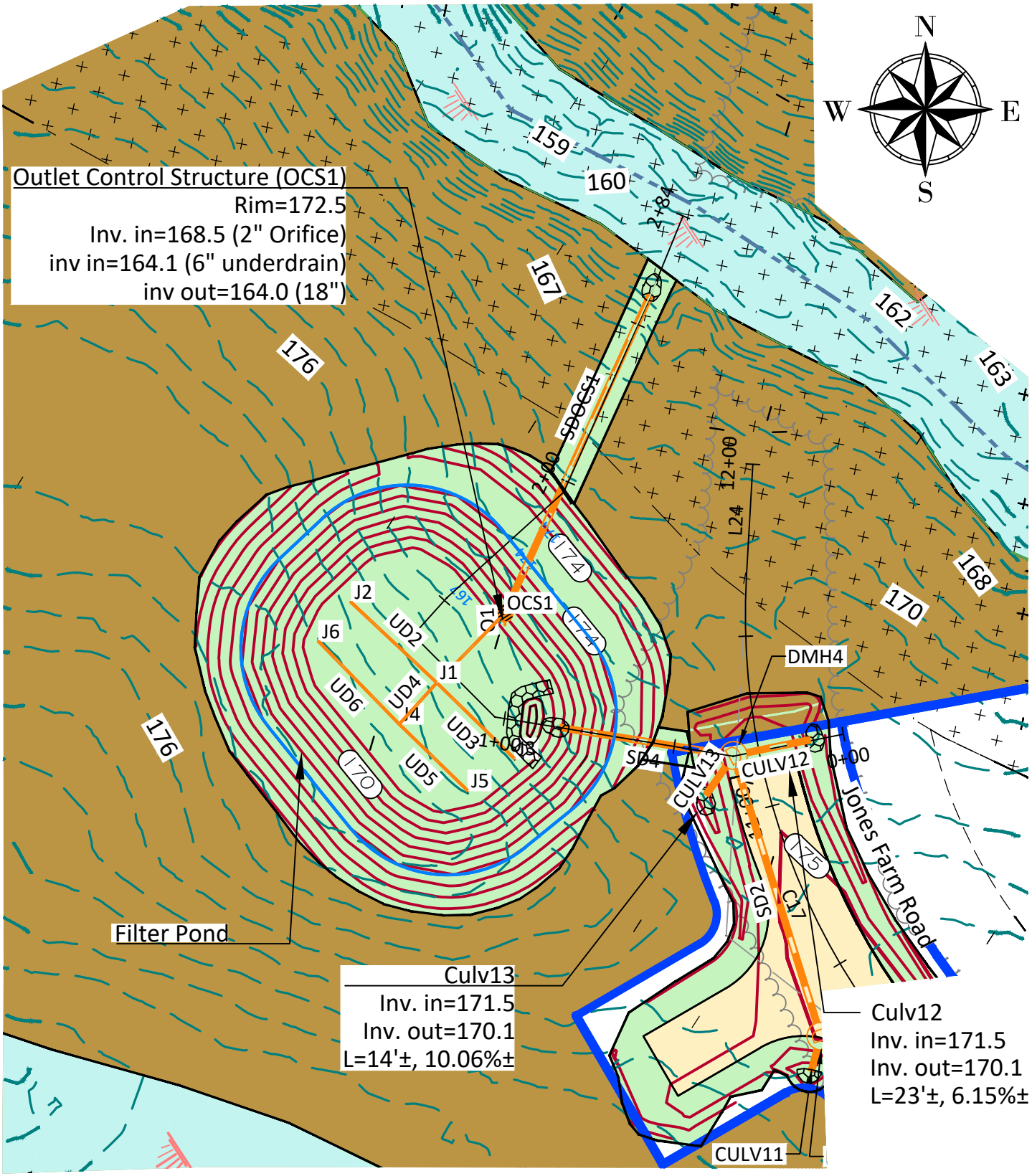
** If mowing is desired, only hand-held string trimmers or push-mowers are allowed on the filter (no tractor) and the grass bed should be mowed no more than 2 times per growing season to maintain grass heights of no less than 6 inches.

*** Sediment and plant debris should be removed from the pre-treatment structure at least annually

Fertilization of the underdrained filter should be avoided unless absolutely necessary to establish vegetation

Harvesting, Weeding, and prunning of excessive growth should be done occasionally.

Weeding to control unwanted or invasive plants may also be necessary.



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0 20 40
1 inch = 40 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

Title:
Stormwater Filter Pond 10P

Scale: 1"= 40'

Date: 1-2-2026

Project #: 162

Figure #:
5

Town Staff Response #1

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October 20, 2025
Julie Erdman – Director of Planning and Development
Town of Brunswick
Municipal Building
28 Federal Street
Brunswick, Maine 04011
207-725-6660 ext.4022
jerdman@brunswickme.org

Taylor Burdin (Codes Enforcement Officer) tburdin@brunswickme.org
Mike Pindell (Codes Enforcement Officer) mpindell@brunswickme.org

RE: Jones Farm Estate LLC.
0 Lisbon Road
Tax Map 1 Lot 70
Staff Comments Response 1 Revised October 20, 2025.

Dear Ms. Erdman;

Enclosed please find the response to Staff Review comments on July 16, 2025 for the Jones Farm Subdivision Project. The SRC minutes and written narratives are attached. Our response summary to comments made in Blue below.

1. **The owner has specified a new street name for the second road. Hay Stack Lane was submitted and approved.**
2. **We are proposing one light at the Jones Farm and Lisbon Road Intersection. A CMP pole needs to be re-located and intend to attach onto the re-located pole. Does Brunswick have a standard light fixture on CMP pole style light fixture? We have provided a photo of the existing LED fixture used on Lisbon Road. We used a similar fixture to estimate the footcandle ISO lines shown in Figure 8.**
3. **We will install a couple of paved/gravel bump outs. One for Garbage Collection at the intersection and one for Post Office Mailbox Pedestal. As suggested the entrance will be paved up to the right of way. See Figure 9.**
4. **The most current deed is attached as requested.**
5. **The word doc of the declaration was provided via email. The language is included in the submittal narrative.**
6. **There will be no project sign. A temporary sign may be utilized.**
7. **The owner has provided an itemized construction cost as requested.**
8. **The application has been updated and signed.**
9. **The Plan erosion control notes have been updated to remove asphalt tackifiers.**

10. **The open space area will be controlled by Developer, (or HOA) with open space set aside and conserved as required. See HOA documents submitted. We are submitting a subdivision plan showing the open space areas being set aside.**
11. **Based on staff comments, we are formerly requesting a waiver of the 1500' max road length standard. The proposed road is approximately 1640'. The added length was required to cross the stream to access the back side of the property. The Town Engineer indicated they were o.k. with the added road length and would support a waiver.**
12. **Road and Stormwater Maintenance and Costs will be completed by HOA as required for Private Roads. We have provided the road and storm maintenance narratives that will be included in the HOA as required. Annual costs for road re-grading and Gravel placement are estimated to be $4000-6000 per season. Plowing costs are approximately $300 per storm. An average storm frequency of 16 storms per year would require a budget of approximately $5000 per year.**
13. **We have added a note to the plans indicating lots 12 and 13 driveways cannot be located off the turn around. We have added a note to the plans requiring a sign be installed at the turnarounds stating "No parking and No dumping" on turn around.**
14. **We have updated the open space notes changing max impervious to N/A as suggested.**

The following responds to written staff comments by Ashley Charleson. Our responses are in Blue.

2025 SRC PACKET – Jones Farm Subdivision

- Please note the distances of all setbacks on the proposed plan sets in accordance to Brunswick's zoning ordinances on plan sets. Confirm with Town Zoning Administrator that applicant's maps are correct and that placement of structures adheres to zoning requirements.

  The open space Subdivision plan shows and notes a 25' front setback, 20' rear setback, and 10' minimum side setbacks. The Civil plans were updated to show and label the setback lines.

- **(PG 3)** applicant notes the DEP approved their permit request. Please provide a copy of their approval/stipulations noted in their response

  The DEP approval order is included in the Submittal Narrative

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- **(PG 4, pg 118)** Applicant states on pg 4 "*The access roads create 1.07 acres of impervious area and 2.79 acres of developed area for this project. The roads will be private when complete*," while on pg 118, under the stormwater narrative, the applicant states "*The side road, Eagle Ridge Drive, will be 20' wide and serves 2-3 single family lots. The access roads create 1.07 acres of impervious area and 2.92 acres of developed area for this project.*" Please make sure numbers are consistent across the application.

  The narrative has been updated to be consistent. The access road creates 1.07 acres of impervious area and 2.92 acres of developed area.

- **(PG 5, PG 49)** Net site area calculated on pg 5 notes 26.03 acres while net site area on pg 49 says 26.11 acres. Please make sure numbers are consistent across the application.
  We have updated the cover letter to match the plans and narrative. Net site area is 26.11 acres.

- **(PG 169 | PLAN SET, re: post construction revegetation)**
  - **(Point 2)** Confirm w/ Town arborist appropriate, native species for grass, shrubs, and trees proposed for revegetation purposes).

    o.k. will check in with Town arborist.

  - **(Point 3)** To minimize pollution to ground water, staff recommends avoiding use of asphalt-based hydro mulch/photodegradable netting; natural alternatives are preferred in ecologically sensitive areas.

    We have removed the references to asphalt-based hydro mulch/photodegradable netting in the erosion control notes.

- **(PG 33) DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS AND RESERVATION OF RIGHTS AFFECTING THE SUBDIVISION CALLED JONES FARM ESTATES IN THE TOWN OF BRUNSWICK, COUNTY OF CUMBERLAND, AND STATE OF MAINE**
  - **(pg 40, 1.19 – Animals)** Please ensure that HOA laws are in agreement with State laws (specifically those related to the right to food). Bee keeping, apiaries, or keeping chickens should not be prohibited.

    The attorney has updated the language as suggested.

- **(pg 41, 2.1 – Creation of Open Space)** Under this subsection, applicant states *"Jones Farm Estates is a subdivision approved under the Town of Brunswick Zoning Ordinance. The Open Space in the Subdivision as shown on the Plan shall initially be retained by the Declarant subject to the terms & conditions set forth herein & on the Plan. Upon the initial sale of all Lots in the Subdivision or sooner, at the Declarant's option, such Open Space shall be conveyed to the Owners' Association, which shall accept title to the Open Space. Each Lot Owner shall have the right to the use such Open Space in common with the other Lot Owners for recreational purposes only, including hiking, walking, running or jogging, cross-country skiing, snowshoeing, birding or nature watching & similar uses, as provided in the Plan, subject to the peaceful enjoyment by other lot Owners of their Lots, the rights of*
  all lot Owners to have access to & enjoyment of the Open Space areas, and the terms hereof. Subject to the Plan, no Lot Owner or any other person or entity shall erect any structures in or on any Open Space, store or leave any property or belongings in or on the Open Space, create any nuisance on any Open Space, or disturb in any way the condition, terrain or ecology of any Open Space.
  The Owners' Association may adopt rules and regulations regarding the Open Space during any period that the Open Space is owned by the Owners' Association that are not inconsistent with the terms hereof; all rules & regulations so adopted shall also be consistent with & not in violation of applicable Federal, State & local ordinances and/or provisions that apply to the Subdivision."
  - Should the applicant seek to have the Conservation Commission review their proposal for open space,
    1) this referral/request to review must come from the Planning Board, and 2) the Commission will require proof of surveying for wildlife and vegetation (letters from agencies will not suffice; applicant must have surveys designed in
    accordance with IFW and MNAP and submit these results for their review to these agencies) as well as provide a copy of the wetland delineation report that includes proof of significant vernal pool surveys conducted during the appropriate timeframe. Once these surveys are completed, I would also like to review the results.

- **Clarification is requested as to whether the applicant intends to dedicate the open space as a conservation easement**
  The open space is intended to be controlled by Developer, (or HOA) with restrictions noted as required.

- **(PG 50 | 4.3 – Natural and Historic Areas | 4.3.1 Mapping of Natural and Historic Areas Requirements)**
  - Applicant states "*The proposed project is residential single-family house lots. The existing conditions have been mapped and located. The project creates 16.65 acres of open space which will preserve the existing and natural features of the site. A stream and wetland are located in open space easement A shown on the plan sheet C1. The stream drains a pond crossing Lisbon Road through the site, heading toward the Androscoggin River. These areas will not be impacted by this development. The project also creates open spaces easement B which includes forested wetlands and forested areas.*" Applicant should consider including maps from BWH and Town GIS system (copied and pasted below) so that the full extent of the impact on surrounding habitat may be well understood and considered.

    We have overlayed the site on the maps provided as suggested.

- **(PG 50 | 4.3 – Natural and Historic Areas)**
  - **(4.3.1 Mapping of Natural and Historic Areas Requirements)**
    - **Applicant has not provided sufficient documentation regarding their wetland delineation.** The applicant must provide a detailed report summarizing their efforts to conduct a wetland delineation; in this report please include/address wetland characteristics, overview of methods, summary of composition of wetland types, dominant soil and vegetation characteristics, associated location data, overview of sensitive plant species listed, interpretation of data collected, updated regulatory assessment of survey data as it impacts the proposed project, etc.

      Note attached is Mainely Soils's wetland report prepared in November 2022. The report does not mention any "potential vernal pools on site". We have asked them to review and update the wetland study to confirm no vernal pools existing within the project area.

- **A significant vernal pool survey should also be included** (test for significance of vernal pools identified must be done within the ecologically appropriate timeframe, as determined by the State).

  The wetland report did not mention any potential on site areas that could be a potential vernal pool. We have asked Mainely Soils to review and update the wetland study to confirm no vernal pools existing within the project area.

- **(4.3.4 Protection of Significant Plant and Animal Habitat)** Applicant states *"The proposed development will not have an undue adverse effect on important plant and animal habitats identified by the Maine Department of Inland Fisheries and Wildlife or Town of Brunswick, or on rare and irreplaceable natural areas, such as rare and exemplary natural communities and rare plant habitat as identified by the Maine Natural Areas Program. Maine Natural Areas program was contacted in 2006 during the original subdivision and found there are no rare botanical features documented specifically within the project area."*
  - **Staff requests updated letter from MNAP from current year.** Concerning the applicant's 2006 communications with MNAP, screenshots of said correspondence are provided below. Within the 2006 letter, MNAP states they have not surveyed the area and therefore cannot state with certainty that there is no significant plant habitat in the area; however, in their 2006 letter they did provide a list of plants documented within a 4-mile radius of the proposed property (a likely indicator some may exist within the proposed construction area). A qualified biologist should be contracted to perform a plant survey, and the results sent to MNAP for review.

    An updated letter was obtained by MNAP in 2025. See letter enclosed. We have asked Mainely Soils to review and complete a plant survey within the project area. We will ask that the completion of the plant survey be a condition of approval.

- **Please note, if the applicant intends to request review of proposed Open Space by Town Conservation Commission, the Commission will likely request updated letters with relevant agencies (at minimum)**; should the applicant wish to dedicate open space as a conservation easement, the Commission will want to see to see updated surveys for significant plant & animal habitat, wildlife surveys, and updated wetland delineation/vernal pool survey.
  We have asked Mainely Soils to review and update the wetland study to confirm no vernal pools existing within the project area.

- **(PG 83-85 | 2025 correspondence with IFW RE: Significant Vernal Pools)** Letter from IFW included within the final application states *"At this time MDIFW Significant Wildlife Habitat maps indicate no known presence of Significant Vernal Pools (SVPs) in the project search area. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. SVPs are not included on MDIFW maps until project areas have been surveyed using approved methods and the survey results confirmed. Therefore, their absence from resource maps is not necessarily indicative of an absence on the ground. Based on materials submitted to MDIFW, it appears a wetland delineation*
  has occurred; if any potential vernal pools were identified during the delineation, we recommend these pools be surveyed for vernal pool significance. Once surveys are completed, survey forms should be submitted to our Department for review well before the submission of any necessary permits. MDIFW will need to review/verify vernal pool data prior to determination of significance."
  - Please refer to prior comment requesting an updated wetland delineation report that includes a survey for significant vernal pools. If vernal pools are found to exist on the property, applicant must demonstrate plans to mitigate or avoid impacts, especially for any determined to be significant. Please submit vernal pool surveys for review by IFW once completed.
    We have asked Mainely Soils to review and update the wetland study to confirm no vernal pools existing within the project area. We submitted requests to Maine Fish and Wildlife and they found no mapped essential habitats that would affect the project. See updated letters, obtained in 2025, are attached.

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- **(pg 128 | Jones Farm Property Maintenance – Inspections during construction and post construction)**
    - Applicant should seek final approval of stormwater maintenance plan during/post construction, as well as HOA maintenance contract, should be reviewed and approval by Town engineer, Trey Crews before proceeding with construction. Records should be kept / available upon request.

      We have submitted the road and stormwater maintenance information to Mr. Crews. We have referenced the road and stormwater maintenance language into the HOA documents and have submitted them for review. We will confirm the road and maintenance plan with Mr. Crews prior to proceeding with construction.

Should you have questions, please call.

Very truly yours,

Christopher S. Belanger, P.E.
Enclosures

cc: Bob Walton, Owner / Developer

STATE OF MAINE
CHRISTOPHER S. BELANGER
9098
LICENSED PROFESSIONAL ENGINEER

Town of Brunswick

PLANNING & CODES

Committee:	**Staff Review Committee**		
Date of Meeting:	July 16, 2025	**Time:**	10:00 AM
Minutes Prepared By:	Susan Karnes, Administrative Floater	**Location:**	Town Hall, Council Chambers / Zoom

1. Purpose of Meeting *(Weekly meeting, Training, Workshop, etc.…)*

Weekly meeting

2. Attendance	
Staff:	Julie Erdman, Planning & Development Director Ryan Leighton, Director of Public Works Matthew James, Land Use Planner Jimmy Dealaman, Principal Planner Sally Costello, Director of Economic Development Chrissy Adamowicz, Project Manager, Economic Development Taylor Burdin, Code Enforcement Officer/Zoning Administrator Trey Crews, Town Engineer Josh Shean, Deputy Fire Chief Taylor Burns, Town Assessor Paul Hansen, Patrol Commander
Non-SRC Staff:	
Applicants:	Christopher S. Belanger, P.E., Belanger Engineering
Public:	

3. Meeting Agenda

<u>Case No. 25-001 – Jones Farm Estates</u>: The Staff Review Committee will review and make a recommendation to the Planning Board on a Major Development Review Sketch/Final Plan application submitted by Belanger Engineering on behalf of Bob Walton of Labbe Construction and the property owner, Jones Farm Estates, LLC, for a phased 13-lot subdivision. The subject property is located on Lisbon Road (Map 1, Lot 70) and within the Rural Farm and Forest (RF) Zoning District.

4. Discussion, Decisions, Issues

Christopher Belanger: Hi, my name is Chris Belanger, I was late. I had no idea I was on today's agenda, and I think that was my bad. It's a 13-lot subdivision off of Lisbon Road Jones Farm Estates, LLC is putting it together. Bob Walton is the owner. The 13 lots we built in two phases. Approximately 650 feet of road will be built in phase one. We'll have a temporary turnaround on lot five for that access until the road is extended across the street to serve the rest of the lots.

We have obtained EP permit for this project. We were back over a sketch probably a year and a half ago, so it was quite a while. So now that we've obtained our permits and updated our soils and

information, we submitted it back to the town. So, I'll answer any questions you might have if you have any.

Paul Hansen: No questions.

Ryan Leighton: Just confirming the intent is for this to remain a private road. **Christopher:** Yes. It'd be 20 feet wide, a private road. It'd be gravel. There'll be a section that'll be paved, crossing the stream so we can get our drainage to the pump. **Ryan:** We'll just want to work out the agreement when there's a homeowner's association for trash pickup, if you want the trash truck to go down that road. Otherwise, they'll need to bring trash and recycling out to Lisbon Road. **Christopher:** Okay.

Chrissy Adamowicz: No questions.

Sally Costello: Hi. I just have a quick question about whether or not you've kind of thought through the price points of these just getting to the affordability. Are they market rate? **Christopher:** I assume they are market rate. I haven't talked to the owner about that at all, as far as affordability goes. He wanted in traditional single-family lots. **Sally:** Okay. You're under the threshold for the inclusionary zoning, but I just was curious if you had a price point. Thank you. **Christopher:** I can ask. I don't know off the top of head. **Sally:** Okay. Thank you.

Taylor Burns: I just have a couple comments. One, I see the secondary road that comes off of the proposed Jones Farm Road. You have listed the proposed name listed as Eagle Ridge Drive. We do have another name, what was it? Eagle Brook Lane in town. So that might be a little conflicting, so we might want to think about another name option for that.

And then my question is do you have an idea of where mailboxes would be located. **Christopher:** Traditionally right off the driveways? We can kind of show the driveways if you'd like. I was kind of letting the developers or the owners dictate where they want to put it on the right or the left side. **Taylor:** We may just want to talk with the post office too, because if this is going to be a private road, I don't know that they'll be going down the road to deliver mail. It might have to be up at the Lisbon Road point. **Christopher:** Okay. In a box or some sort, something like that. **Taylor:** Yep. In a box. So then just at that point, just making sure people have enough access to pull off to the side to for deliveries and to pick up. **Christopher:** Yeah. A turnout with a box, something like that. Yep. If we have to do it. Okay. **Taylor:** And other than that, I'm good.

Trey Crews: A couple of minor comments. First thanks for including the calculations on the 50 and a hundred-year storm and meeting them even though you weren't required to. That's nice that you included it already. I like that you're including a streetlight at the intersection. Technically your dead-end drive goes over 1500 feet, so you should be asking for a waiver from the 1500 max, which I am in support of. You're close enough. I don't have an issue with going over. I don't know if Fire has any thoughts on that either.

And Ryan mentioned earlier the homeowner's agreement. Because it's a gravel drive, you're required to provide that agreement and record it, and that should cover maintenance of the road and including contributing cost. And I'll need you to provide an estimate on quantities and estimated price of all the road and stormwater improvements for a performance guarantee. And I believe that's all my comments.

Jimmy Dealaman: Chris, I just had one question. At this point, does so will each lot have its own well and septic system? **Christopher:** Yes, sir. **Jimmy:** Okay. Have you guys already confirmed that the water quality is acceptable? Is that included? **Christopher:** We got a well study done and

we got some test bits out there for septic suitability. And it's included in the packet, I believe. **Jimmy:** Okay, great. That's all my comments for now. Thanks.

Matthew James: Alright. I have a couple comments. I think they're largely kind of administrative ones. Sorry, I'm trying to find my notes here. Here we go. The application form has not been signed by the applicant or property owner yet, so that will need to be done. It looks like you've submitted the deed for Jones Farm, LLC, but not Jones Farm Estate, LLC. So, we will need book and page 3 8 0 0 7 2 3 4. I don't think I saw that one in there. And there was a transfer. And that would be in line with the applications and everything, all your documentation is for Jones Farm State, LLC. I believe the covenants might need to be reviewed by the town attorney, so we will need a, or we would like a Word document version of the covenants so that she can make edits to that and get it back to you.

You have not submitted, I think you requested a waiver for the lighting plan. I can't say for certain, but we have some board members that are concerned with lighting. So, they might want to see more details on that because you're asking for sketch final you might not really have as much of an opportunity to get feedback from the board and do anything about it. It might be worth just doing a small lighting plan for that streetlight at the intersection. Were you planning on including lighting anywhere else along the road? **Christopher:** I was not planning on it. **Matthew:** Yeah. So, it might be easy enough to just do a small lighting plan for that one fixture. **Christopher:** Okay.

Matthew: This is more of a question for Trey actually, but lots 12, 13 and 8 are on hammerheads for the turnarounds. Eight's driveway, lot eight's driveway is coming off opposite from the part of the hammerhead. Is that allowed? **Trey**: I'm sorry, can you repeat your question while I pull this back up? **Matthew:** Lot eight has a driveway coming off. I believe that's a driveway coming off the hammer head there. Although I'm not exactly sure what it is. **Christopher:** It's supposed to be a driveway. A theoretical driveway where you could put it, I guess. **Trey**: Yeah, that's fine. I like it where it's lined up like that. Also, if you could go ahead and put no parking fire lane signs in your turnaround just so people know not to park in those or store trash and similar.

Matthew: And on lot 13, it might be worth putting a note that the access has to come from the road and not the turnaround area. **Trey**: Yeah, that's correct. By ordinance, you're not allowed to put your driveway on the turnaround itself. It needs to be, I think, 50 feet offset. **Matthew:** Yeah. So that would be a little bit away from that. And it would probably be good to just have a note on the plan saying that the future homeowner isn't allowed to put a driveway there. **Christopher:** For lot 12 now? **Matthew:** Lot 13, I think. Yeah. My one other comment is that we're trying to do this on every project, for your mulch when you're doing erosion control. We do not want to see asphalt tackifiers. So, if you could remove that from the erosion control plans. I don't know how many times it appears on the plan, but I did see it at least once.

We have one member of the board that had comments but is not here today. Ashley, she's our environmental planner. She's planning on getting comments to you by the end of the week, and I'll email those over to you. So, she might have additional comments. Otherwise, that's it for me.

Julie Erdman: Hi Chris. I wanted to mention the town engineer had brought up getting a cost estimate for the road improvements and storm water. We would also need a draft performance guarantee. So whatever method you intend to use, whether it be a letter of credit or escrow or bond or whatever, we would need a draft of that to go to planning board.

Christopher: We did do a draft. It's on pages 25 to 29. **Julie:** Perfect. Thank you. I missed it. **Christopher:** That's basically the Bath Institution letter of credit that does have the project cost, but we can get you a cost estimate as well. **Julie:** Terrific. Okay. And then I saw the financial capacity letter, but I didn't see the cost breakdown for the project. Was that in there? **Christopher:** On page

25. It looks like the amount was 1.1 million, if that's what you're asking for. **Julie:** Right. That's part of the financial capacity letter, but do you have an actual cost breakdown for the project? **Christopher:** I can get it from Labbe. They did it. **Julie:** Okay. That would be great. And then I was wondering if you intend to have, or the applicant if they intend to have any signage along Lisbon Road, you know, just like a sign showing the subdivision name or something. **Christopher:** I can ask the owner if he wants to do something like that under a separate approval type of thing. But he hasn't mentioned it and I'll find out, I'll ask. **Julie:** Okay. I'm just thinking if that was something they wanted to do, it could be included normally you know, we would have that as part of the site plan. You might want to do some plantings around it, that kind of thing. **Christopher:** Okay. Let me check with him.

Julie: My last question is. The open space, were these easements/the easement intended to be held by the town? **Christopher:** Well, I think the lot would be owned by the owners and with an easement to the town. **Julie:** Okay. If that is so we would want to send this to the conservation commission then for their review for the town to accept the easement. So that'll be something we'll need to schedule before it goes to planning board as well. **Christopher:** Okay. Now would. Put me on an agenda or do I need to submit something? **Julie:** Yes. I'll find out when that'll go and we'll be in touch with you and let you know when you'll be on the agenda. And that's all I've got.

Taylor Burdin: And I only had one nitpicky thing on page 47 of your application narrative under the Dimensional in density standards under max Impervious surface required for open space developments for rf, you have 80% and that should be not applicable. And that's it. Okay. Thank you. Mm-hmm.

Josh Shean: And I'm all set. I think Trey covered most of the things I might have had concerns with. So we're all set.

Matthew James: Alright, great. Do we have any public comment? Nobody's attending. Alright. Thank you, Chris, for being able to make it. I'm glad you were able to be here. **Christopher:** I apologize for being late. **Matthew:** That's all right. Do you have any other questions for us? **Christopher:** I do not. Will there be a list of these questions? I wrote down as much as I could recall here, but is there a list I could get? **Matthew:** We will be taking minutes of the meeting. Perfect. And everything is transcribed in SRC minutes, so it should all be on there. I don't know exactly when those will be done. It's usually within a week. But if you have specific things you're wondering about, feel free to ask me and I can get them to you. **Christopher:** Great. Great. I think I got most of it, but I just want to make sure we catch it all. Yep, yep. **Trey:** The recording of the meeting is also on the website posted shortly after this. **Christopher:** Okay, good. Thank you. Yep. **Matthew:** Alright. If that's everything then I'd like to do a motion. We'll have to do a motion to send this to planning board as sketch final. Do we want to have any discussion about doing so?

Trey Crews: A motion to send to planning board as sketch and final second. *(Taylor Burns seconded)*

Julie Erdman: Now, if anyone has any discussion.

Trey Crews: Move to vote.

Matthew James: All right. Yeah, we'll take a vote to move that to sketch final to the planning board then. All in favor? I think probably start over. Overall roll, roll call.

Start with Ryan Leighton. Yes. It looks like Paul is no longer here with us, so we'll move into the room with Chrissy. I don't get a vote. Sally Costello: Yes. Taylor Burns: Yes. Trey Crews: Yes. Jimmy

Dealaman: I'm not a voting member, Julie Erdman: Yes. Taylor Burdin: Yep. Josh Sheahan: Yes. Alright. That is unanimous of the members here.

Alright. And with that I would like to adjourn the meeting.

2025 SRC PACKET – Jones Farm Subdivision

- Please note the distances of all setbacks on the proposed plan sets in accordance to Brunswick's zoning ordinances on plan sets. Confirm with Town Zoning Administrator that applicant's maps are correct and that placement of structures adheres to zoning requirements.

- **(PG 3)** applicant notes the DEP approved their permit request. Please provide a copy of their approval/stipulations noted in their response

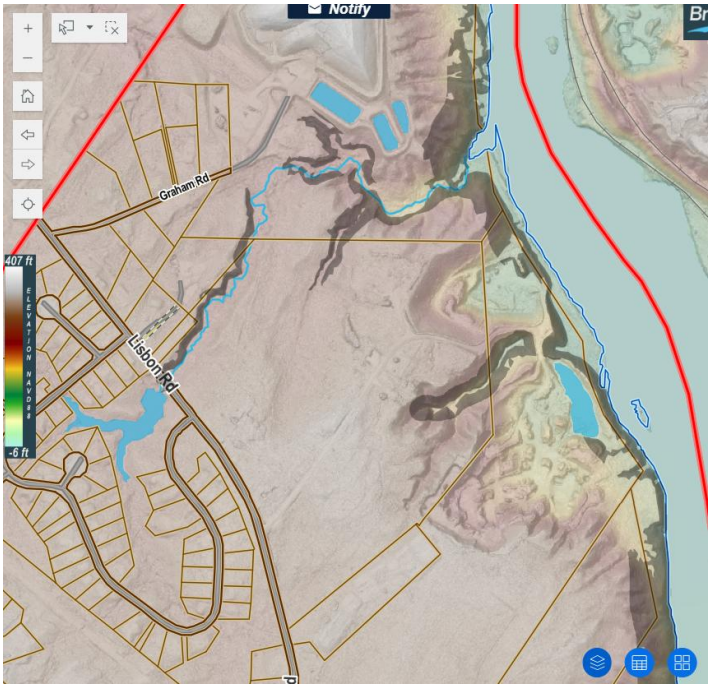
- **(PG 4, pg 118)** Applicant states on pg 4 "*The access roads create 1.07 acres of impervious area and 2.79 acres of developed area for this project. The roads will be private when complete*," while on pg 118, under the stormwater narrative, the applicant states "*The side road, Eagle Ridge Drive, will be 20' wide and serves 2-3 single family lots. The access roads create 1.07 acres of impervious area and 2.92 acres of developed area for this project.*" Please make sure numbers are consistent across the application.

- **(PG 5, PG 49)** Net site area calculated on pg 5 notes 26.03 acres while net site area on pg 49 says 26.11 acres. Please make sure numbers are consistent across the application.

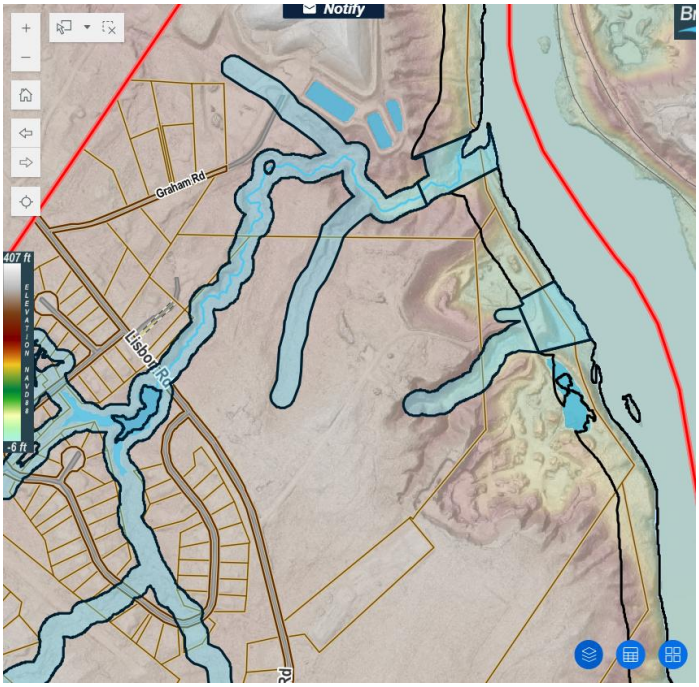
- **(PG 169 | PLAN SET, re: post construction revegetation)**
  - **(Point 2)** Confirm w/ Town arborist appropriate, native species for grass, shrubs, and trees proposed for revegetation purposes).
  - **(Point 3)** To minimize pollution to ground water, staff recommends avoiding use of asphalt-based hydro mulch/photodegradable netting; natural alternatives are preferred in ecologically sensitive areas.

- **(PG 33) DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS AND RESERVATION OF RIGHTS AFFECTING THE SUBDIVISION CALLED JONES FARM ESTATES IN THE TOWN OF BRUNSWICK, COUNTY OF CUMBERLAND, AND STATE OF MAINE**
  - **(pg 40, 1.19 – Animals)** Please ensure that HOA laws are in agreement with State laws (specifically those related to the right to food). Bee keeping, apiaries, or keeping chickens should not be prohibited.
  - **(pg 41, 2.1 – Creation of Open Space)** Under this subsection, applicant states *"Jones Farm Estates is a subdivision approved under the Town of Brunswick Zoning Ordinance. The Open Space in the Subdivision as shown on the Plan shall initially be retained by the Declarant subject to the terms & conditions set forth herein & on the Plan. Upon the initial sale of all Lots in the Subdivision or sooner, at the Declarant's option, such Open Space shall be conveyed to the Owners' Association, which shall accept title to the Open Space. Each Lot Owner shall have the right to the use such Open Space in common with the other Lot Owners for recreational purposes only, including hiking, walking, running or jogging, cross-country skiing, snowshoeing, birding or nature watching & similar uses, as provided in the Plan, subject to the peaceful enjoyment by other lot Owners of their Lots, the rights of all lot Owners to have access to & enjoyment of the Open Space areas, and the terms hereof. Subject to the Plan, no Lot Owner or any other person or entity shall erect any structures in or on any Open Space, store or leave any property or belongings in or on the Open Space, create any nuisance on any Open Space, or disturb in any way the condition, terrain or ecology of any Open Space. The Owners' Association may adopt rules and regulations regarding the Open Space during any period that the Open Space is owned by the Owners' Association that are not inconsistent with the terms hereof; all rules & regulations so adopted shall also be consistent with & not in violation of applicable Federal, State & local ordinances and/or provisions that apply to the Subdivision."*
    - Should the applicant seek to have the Conservation Commission review their proposal for open space, 1) this referral/request to review must come from the Planning Board, and 2) the Commission will require proof of surveying for wildlife and vegetation (letters from agencies will not suffice; applicant must have surveys designed in accordance with IFW and MNAP and submit these results for their review to these agencies) as well as provide a copy of the wetland delineation report that includes proof of significant vernal pool surveys conducted during the appropriate timeframe. Once these surveys are completed, I would also like to review the results.
    - **Clarification is requested as to whether the applicant intends to dedicate the open space as a conservation easement**

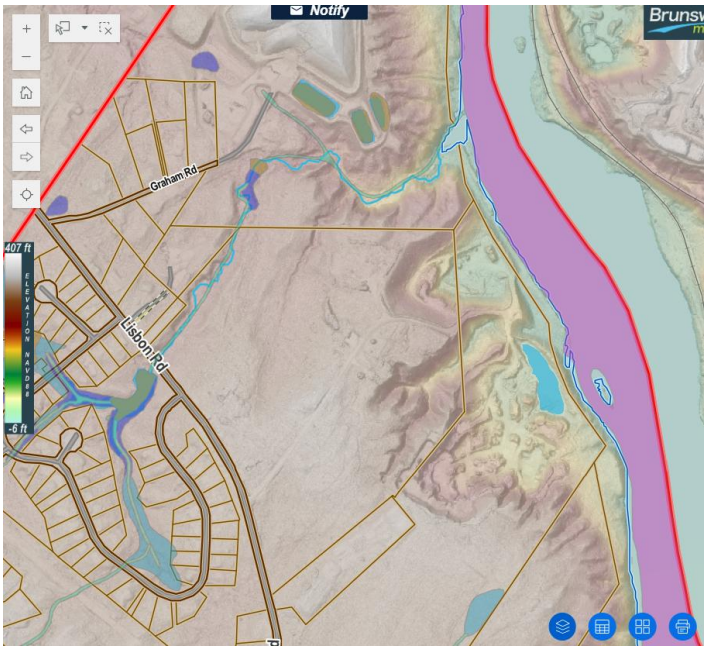
- **(PG 50 | 4.3 – Natural and Historic Areas | 4.3.1 Mapping of Natural and Historic Areas Requirements)**
  - Applicant states "*The proposed project is residential single-family house lots. The existing conditions have been mapped and located. The project creates 16.65 acres of open space which will preserve the existing and natural features of the site. A stream and wetland are located in open space easement A shown on the plan sheet C1. The stream drains a pond crossing Lisbon Road through the site, heading toward the Androscoggin River. These areas will not be impacted by this development. The project also creates open spaces easement B which includes forested wetlands and forested areas.*" Applicant should consider including maps from BWH and Town GIS system (copied and pasted below) so that the full extent of the impact on surrounding habitat may be well understood and considered.



Town | SPO-RP Steep Slopes *(dark grey shaded)*

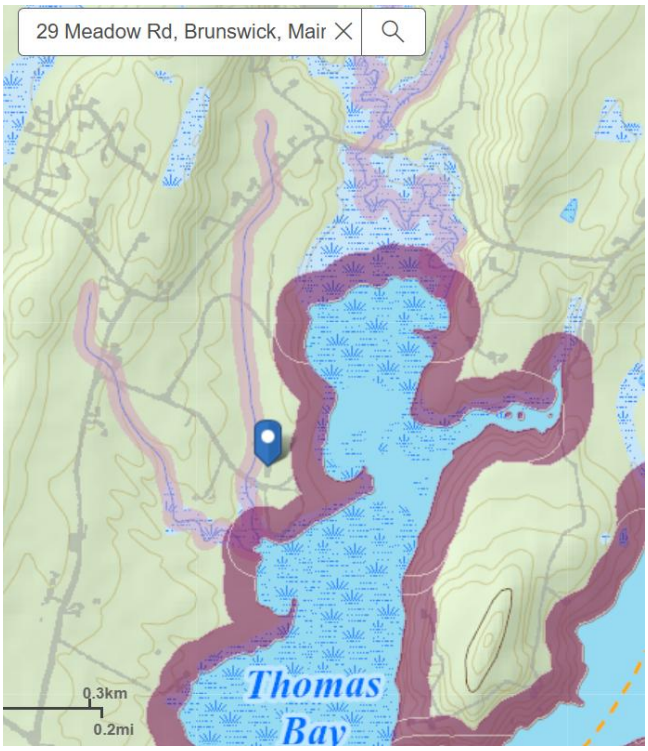


Town | Shoreland Protection Subdistrict, SPO-SP *(blue fill, black line)*

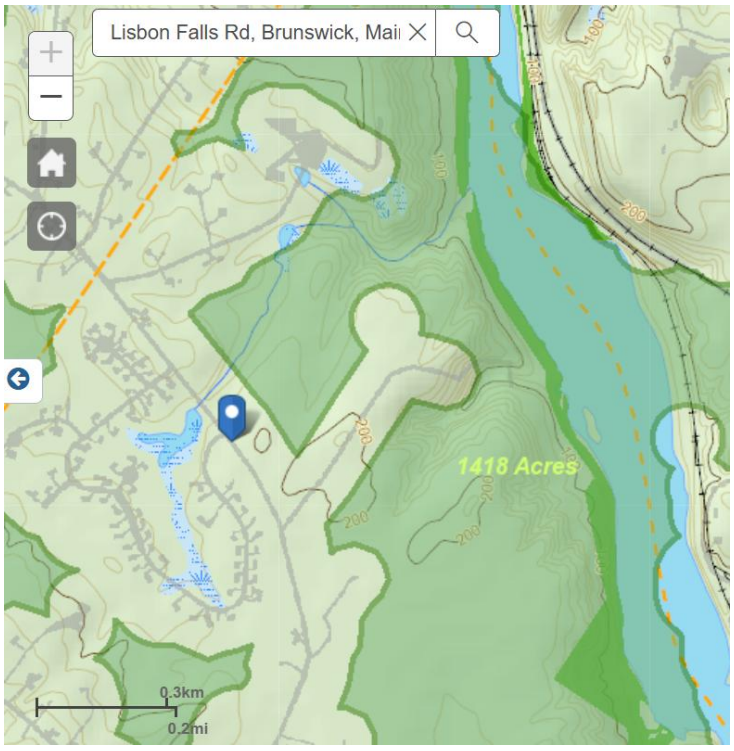


2017 National Wetlands Inventory, NWI 2017 *(green fill)*

BWH National Wetlands Inventory *(blue grass graphics)*



BWH Aquatic Species and Habitats Maps
(magenta) Great Ponds, Rivers, and Coastal Buffer, 250ft
(light pink) Riparian Buffer | Stream Buffer, 75ft



BWH | Conservation and Connectivity Planning Resources
(green) Undeveloped Habitat Blocks

- **(PG 50 | 4.3 – Natural and Historic Areas)**
  - **(4.3.1 Mapping of Natural and Historic Areas Requirements)**
    - **Applicant has not provided sufficient documentation regarding their wetland delineation.** The applicant must provide a detailed report summarizing their efforts to conduct a wetland delineation; in this report please include/address wetland characteristics, overview of methods, summary of composition of wetland types, dominant soil and vegetation characteristics, associated location data, overview of sensitive plant species listed, interpretation of data collected, updated regulatory assessment of survey data as it impacts the proposed project, etc.
    - **A significant vernal pool survey should also be included** (test for significance of vernal pools identified must be done within the ecologically appropriate timeframe, as determined by the State).

  - **(4.3.4 Protection of Significant Plant and Animal Habitat)** Applicant states *"The proposed development will not have an undue adverse effect on important plant and animal habitats identified by the Maine Department of Inland Fisheries and Wildlife or Town of Brunswick, or on rare and irreplaceable natural areas, such as rare and exemplary natural communities and rare plant habitat as identified by the Maine Natural Areas Program. Maine Natural Areas program was contacted in 2006 during the original subdivision and found there are no rare botanical features documented specifically within the project area."*
    - **Staff requests updated letter from MNAP from current year.** Concerning the applicant's 2006 communications with MNAP, screenshots of said correspondence are provided below. Within the 2006 letter, MNAP states they have not surveyed the area and therefore cannot state with certainty that there is no significant plant habitat in the area; however, in their 2006 letter they did provide a list of plants documented within a 4-mile radius of the proposed property (a likely indicator some may exist within the proposed construction area). A qualified biologist should be contracted to perform a plant survey, and the results sent to MNAP for review.
    - **Please note, if the applicant intends to request review of proposed Open Space by Town Conservation Commission, the Commission will likely request updated letters with relevant agencies (at minimum)**; should the applicant wish to dedicate open space as a conservation easement, the Commission will want to see to see updated surveys for significant plant & animal habitat, wildlife surveys, and updated wetland delineation/vernal pool survey.

- (continued – below are screenshots from 2006 MNAP letter, included in 2023 Sketch SRC application)

Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed subdivision, Jones Farm, Brunsw

Scientific Name / Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status
Aletris farinosa Unicorn Root		SX	G5	PE
Bartonia paniculata Screwstem		S1	G5	T
Bidens eatonii Eaton's Bur-marigold		S2	G2	T
Carex vestita Clothed Sedge		S1	G5	E
Chenopodium berlandieri Bosc's Goosefoot		S1?	G5T3T5	SC
Cypripedium reginae Showy Lady's-slipper		S3	G4	T
Lobelia siphilitica Great Blue Lobelia		SX	G5	PE
Lonicera dioica Mountain Honeysuckle		S1?	G5	E

87 3/20/2006

Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed subdivision, Jones Farm, Brunswi

Scientific Name / Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status
Mikania scandens Climbing Hempweed		SH	G5	PE
Ophioglossum pusillum Adder's Tongue Fern		S1?	G5	SC
Sagittaria filiformis Narrow-leaf Arrowhead		S2	G4G5	SC
Sassafras albidum Sassafras		S2	G5	SC
Sisyrinchium mucronatum Michaux's Blue-eyed-grass		S3	G5	SC
Streamshore ecosystem Streamshore Ecosystem		S4	GNR	

- (also included in the 2023 Sketch SRC packet, screen shots from 2007 Pine Tree Engineering Letter RE: MNAP letter)

August 27, 2007

Robert L. Prue
Pine Tree Engineering, Inc.
53 Front Street
Bath, ME
04530

Project: **Maine Natural Areas Program Survey**
Jones Farm Subdivision
Brunswick, ME

Rob,

As requested we have reviewed the Rare or Exemplary Botanical Features listing resulting from the Maine Natural Areas Program (MNAP) letter from your office. We understand the identified botanical features listed were not documented on-site, however are known to occur in the vicinity of the proposed Jones Farm Subdivision. Without further field surveys, the following are based on comparisons between the MNAP listing and habitats present at the site with potential suitability for these species to survive.

Generally, the Jones Farm Subdivision Property has an active borrow pit, staging areas and access roads with surrounding forested areas. The site has a number of very steep ravines associated with streams draining toward the Androscoggin River. The freshwater (palustrine) wetlands are predominantly forested (PFO) with some scrub-shrub (PSS) areas present in the gently sloping portions of the site. The borrow areas are mainly found along the Androscoggin River terrace.

Rare, threatened or endangered (RTE) species were not documented during the wetland delineation field efforts. However, the MNAP listing was only reviewed after those efforts were completed. The following thirteen plant species occurred on the MNAP listing and considered for occurrence at the Jones Farm Subdivision:

Aletris farinosa (SX). Unlikely to occur. Typically occur in sandy moist to dry open woods, (not shade tolerant), pond margins and waste places especially along seashores in Maine. Possibly extirpated in Maine.

Bartonia paniculata (S1). Unlikely to occur. Typically occur in peat and wet sands of coastal, non-tidal and non-forested wetlands. Critically-Imperiled in Maine resulting from extreme rarity or vulnerability to extirpation. The site would be considered at the limit of the plants hardiness range.

Bidens eatonii (S2). Unlikely to occur. Typically occur in estuaries along tidal shores. Only a few occurrences documented in New England.

Carex vestita (S1). Possibility to occur. Typically found in dry sandy (semi-open) deciduous woods, roadsides, waste places and power lines. Rare in Maine due to northern portion of its hardiness range.

Chenopodium berlandieri (SC). Possibility for occurrence although very species specific. Typically, found in saline habitats and sandy waste places along the coast.

Cypripedium reginae (T). Unlikely. Occurs in deciduous swamps, cedar (*Thuja*) swamps, calcareous bog and wet slopes.

Lobelia siphilitica () Possibility for occurrence. Typically, occurs in wooded swamps and wet meadows.

Lonicera dioica (S1?). Unlikely for occurrence. Occurs in dry open woods of hardwoods or mixed forests, thickets and rocky banks. Critically-Imperiled due to extreme rarity and vulnerability of extirpation. The Jones Farm site is at the northern edge of its hardiness range.

Mikania scandens (SH). Unlikely to occur. Typically found in wooded swamps, stream-banks climbing on shrubs, open wetlands not coastal or river shores. Not documented or known to currently exist in Maine over the past 20 years.

Ophioglossum pusillum (S1?). Possibility to occur. Typically, living in open moist meadows, wet acidic swales, old pastures and bogs. The species does not occur in coastal or river shores.

Sagittaria filiformis (S2). Unlikely to occur. Known to thrive in shallow, swift waters or deep streams. However, typically found in shallow waters of slow moving streams.

Sassafras albidum (S2). Possibility for occurrence. Typically found in woods, roadsides and old fields. In Maine, known to occur in the under story in mixed oak, maple and pine uplands where the forests are open. Rare.

Sisyrinchium mucronatum (S2). Possibility for occurrence. Typically, occurs in fields, roadsides and waste places with full sun.

This summary provides the most "probable" of the rare plants listed to occur at the site. The described generalized habitats of these species are based on references found in the *Flora of The Northeast*, by Magee & Ahles, *Rare Plant Fact Sheets*, from MNAP-MDOC and the USDA *NRCS Plants Data Base*. These typical habitats were then correlated to site-specific habitats at the proposed Jones Farm Subdivision. Some of the plant species listed, typically occur along coastal environments rather than the inland location for the proposed project. However, a few of these species can occur in "sandy" landscapes as found in areas of the site and identified with the "possibility for occurrence". Please contact our office with any questions you may have regarding this summary.

Natural resources correspondence letters end without any follow up to MNAP – if the applicant is proposing a conservation easement component, MNAP should be contacted and assistance in constructing an appropriate survey of botanical features should be conducted. This is also true to wildlife surveys, wetlands, and vernal pools.

- **(PG 83-85 | 2025 correspondence with IFW RE: Significant Vernal Pools)** Letter from IFW included within the final application states *"At this time MDIFW Significant Wildlife Habitat maps indicate no known presence of Significant Vernal Pools (SVPs) in the project search area. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. SVPs are not included on MDIFW maps until project areas have been surveyed using approved methods and the survey results confirmed. Therefore, their absence from resource maps is not necessarily indicative of an absence on the ground. Based on materials submitted to MDIFW, it appears a wetland delineation has occurred; if any potential vernal pools were identified during the delineation, we recommend these pools be surveyed for vernal pool significance. Once surveys are completed, survey forms should be submitted to our Department for review well before the submission of any necessary permits. MDIFW will need to review/verify vernal pool data prior to determination of significance."*
    - Please refer to prior comment requesting an updated wetland delineation report that includes a survey for significant vernal pools. If vernal pools are found to exist on the property, applicant must demonstrate plans to mitigate or avoid impacts, especially for any determined to be significant. Please submit vernal pool surveys for review by IFW once completed.

- **(pg 128 | Jones Farm Property Maintenance – Inspections during construction and post construction)**
    - Applicant should seek final approval of stormwater maintenance plan during/post construction, as well as HOA maintenance contract, should be reviewed and approval by Town engineer, Trey Crews before proceeding with construction. Records should be kept / available upon request.

BELANGER ENGINEERING
CONSULTING ENGINEERS

November 20, 2025
Matthew James, (Land Use Planner)
Town of Brunswick
Municipal Building
28 Federal Street
Brunswick, Maine 04011
Phone: 207-721-4020

Julie Erdman – (Director of Planning and Development) jerdman@brunswickme.org
Matthew James, (Land Use Planner) mjames@brunswickme.gov
Taylor Burdin (Codes Enforcement Officer) tburdin@brunswickme.org
Mike Pindell (Codes Enforcement Officer) mpindell@brunswickme.org

RE: Jones Farm Estate LLC.
0 Lisbon Road
Tax Map 1 Lot 70
Town Response #2 – Waiver Request Form and Fee

Dear Mr. James;

Enclosed please find the waiver request form and development review application signed by the Owner as requested. We are submitting the $200 application fee as required. In addition, we are providing Figure 16 which shows the proposed earth moving in the Stream Protection Zone. The proposed stream crossing and pond out requires approximately 10,688 s.f. of earth moving in the stream protection zone.

Also note we updated the electronic version of the submission. We replaced the signature page on Page 9. We are emailing the updated submittal narrative with this response.

Should you have questions, please call.

Very truly yours,

Christopher S. Belanger, P.E.
Enclosures

cc: Bob Walton, Owner / Developer

BELANGER ENGINEERING
CONSULTING ENGINEERS

January 2, 2026
Matthew James, (Land Use Planner)
Town of Brunswick
Municipal Building
28 Federal Street
Brunswick, Maine 04011
Phone: 207-721-4020

Julie Erdman – (Director of Planning and Development) jerdman@brunswickme.org
Matthew James, (Land Use Planner) mjames@brunswickme.gov
Taylor Burdin (Codes Enforcement Officer) tburdin@brunswickme.org
Mike Pindell (Codes Enforcement Officer) mpindell@brunswickme.org

RE: Jones Farm Estate LLC.
0 Lisbon Road
Tax Map 1 Lot 70
Town Response #3 – Planning Board and Staff Comments response

Dear Mr. James;

Enclosed please find the response to comments and issued raised by the Planning Board and Staff at the Planning Board. We are responding to items listed in Julie Erdman's email dated December 3, 2025. Ms. Erdman's original text is in italics. The responses are in blue.

I have written out bulleted notes form the last week's Planning Board meeting below for your reference. Regarding the waiver, the Planning Board could say that they feel it is unnecessary to impact the stream and wetlands to get the three additional lots. There were a couple of them that spoke out about the length. The street standard waiver is a hot button topic right now, and as you noticed in the meeting the public is pushing back on the issuance of waivers.

We have reduced the road length to 1100' which is below the 1500' threshold. As such we do not require a waiver from the street standards. We have re-configured the lots to avoid crossing the stream. We still have 13 residential lots proposed and one separate open space parcel.

I had not realized the intent to combine lots 11,12 & 13 with the open space lots. To qualify for the open space dimensional standards, the open space needs to be permanently conserved through an easement or covenant, and it needs to be owned in

common by all residents or by a third party, not by one or two residents. If the trigger for SLODA is the 15 total lots (including the two conservation parcels), I would recommend reducing the number of lots if you wish to avoid site law. Ultimately, I would recommend moving forward with all the lots prior to the stream as a Phase I and waiting to take up a potential Phase II. This would allow you skip site law, provide time to conduct a vernal pool study for Phase II (assuming those are the only lots PB is concerned about) and it would mean no waiver is required for the street length at this time – all of these are hurdles between you and project approval. Please let me know if you have any questions.

We have re-configured the lots to avoid crossing the stream. We still have 13 residential lots proposed and one separate open space parcel. The project will not trigger DEP subdivision site law.

Notes on Jones Farm:

- *The streetlight provided should conform with the Town's policy (see attached)*

We are happy to conform to the Town's policy. Do you happen to have a catalog cut of the fixture we should use. The policy does not provide one.

- *Add note that non-asphalt tackifiers will be used*

We updated the Erosion Control Notes as requested. We are not aware of other areas where this should be changed.

- *Water potability test recommended - per Bob's request, I am looking into whether the Town has any monitoring records or groundwater reports*

We have provided the Landfill information to Mainland and they have provided a response. The response is attached.

- *Town Attorney to review HOA docs and easement docs if there is an easement*

We are submitting updated HOA docs and separate open space parcel. The parcel will be in conservation (no cutting or building) as part of HOA documents.

- *Add a note to HOA docs or deeds that there is no vegetation cutting in SPO*

We have added notes on the site plans as well the subdivision plan as requested.

- *Vernal pool survey must be completed. I have asked Planner Charleson to identify where she thinks a Vernal Pool could be located so as to be sure you could avoid any possible pools in Phase I. My only thought on a potential site is lot 11.*

  We have re-configured the lots to avoid crossing the stream. We still have 13 residential lots proposed and one separate open space parcel. The wetland area next to old lot 11 will be part of the open space now and will not be impacted. We will confirm vernal pool study in spring. With the revisions made the potential vernal pool will not be impacted.

- *Wetland Delineation photos depict Wetlands A-F as well as streams 1 & 2 but there is no map that tells which is which, please provide. In addition - please review Planner Charleson's notes as she requested more specific information in the wetland delineation such as: wetland characteristics, overview of methods, summary of composition of wetland types, dominant soil and vegetation characteristics, associated location data, overview of sensitive plant species listed, interpretation of data collected, updated regulatory assessment of survey data as it impacts the proposed project, etc.*

  We are in contact with Mainley Soils and will try obtain a key map as requested when the Vernal Pool Study is completed.

- *Add road maintenance, breakdown of culvert lifespan and repair costs to the HOA docs*

  We are no longer crossing the stream or installing a culvert. This is not applicable. Generally, the cost to replace one of these other road culverts today would be about $3,500. If properly maintained, they should last 40-50 years. Regarding road maintenance, annually it should be approximately $10,000, which includes snow plowing and grading. Planning for a 5% increase each year should be considered for road maintenance.

- *Add note to plan that subdivision roads will remain private*

  Private Road notes were added to the subdivision plan as suggested.

- *Recommend note about no pesticide use in SPO in covenant docs – language coming to that effect*

  The HOA docs have been updated as requested.

- *Need updated commitment letter from Bath Savings*

  The proposed road and infrastructure has been reduced. An updated letter from the bank is being prepared. The updated cost estimate is attached.

- *The Board asked for clarification on the meadow mix and what is in it*

  Usually, the site contractor provides the road seed mix through their supplier. We found this seed mix on google. We assume this is similar. If there is a specific call out on the plans, please provide a reference so we can refer to the erosion control plan notes.

  Northeast roadside conservation seed mixes typically blend native grasses and wildflowers for erosion control, habitat, and low maintenance, featuring species like **Virginia Wild Rye**, **Little Bluestem**, **Switchgrass**, **Red Fescue**, **Partridge Pea**, **Black-Eyed Susan**, **Butterfly Milkweed**, and **Purple Coneflower**, providing diverse cover for dry to moist sites and supporting pollinators. Specific mixes vary by site conditions (dry vs. wet) and project goals, with some including shrubs or focusing on quick cover.

- *The Board asked that you look at relocating the drive for lot 11 so as not to impact the wetland*

  We have removed the lots on the other side of the stream. We are no longer impacting the wetland. This is no longer applicable.

- The Town Engineer has requested a condition of approval that lots 1 & 9 gain access off Jones Farm Rd not Lisbon Rd. Rather than a condition, I would like to see a note on the plan to this effect. FYI, no driveway permits will be granted off Lisbon Road

  We added the suggested notes on the subdivision plans.

BELANGER ENGINEERING
CONSULTING ENGINEERS

Should you have questions, please call.

Very truly yours,

Christopher S. Belanger, P.E.
Enclosures

cc: Bob Walton, Owner / Developer

Jones Farm
Maine DEP Stormwater Law Permit by Rule Application and Stormwater Report

38 M.R.S.A. § 420-D

January 2, 2026

13 Lot Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine
Town of Brunswick Tax Map 1 Lot 70

BY: **Belanger Engineering**
63 Second Avenue
Augusta, Maine 04330
207-622-1462

FOR: **Bob Walton**
Ray Labbe and Sons
4 Highland Road
Brunswick, Maine 04011

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RESOURCES

FOR DEP USE
L-_____
ATS# _____
FEES PAID _____
DATE RECEIVED _____

Stormwater Application Form

PLEASE TYPE OR PRINT IN INK

This application is for (Check the one that applies):	☑ **New application** ☐ **Amendment**		
1. Name of Applicant:	Jones Farm Estates LLC	**5. Name of Agent:**	Belanger Engineering
2. Applicant's Mailing Address:	4 Highland Road Brunswick, Maine 04011	**6. Agent's Mailing Address:**	63 Second Avenue Augusta, Maine 04330
3. Applicant's Phone #:	207-725-7336	**7. Agent's Phone #:**	207-622-1462
4. Email address (REQUIRED-license will be sent via email:	Bob Walton bob@raylabbeandsons.com	**8.E-mail address (REQUIRED-license will be sent via email**	Chris Belanger cbelanger@roadrunner.com
9. Location of Project: (Road, Street, Rt.#)	0 Lisbon Road Brunswick, Maine	**10. Town:**	Brunswick
		11. County:	Cumberland
12. Type of Direct Watershed: (Check all that apply)	☐ Lake not most at risk ☐ Lake most at risk ☐ Lake most at risk, severely blooming ◪ River, stream or brook ☐ Urban impaired stream ◪ Freshwater wetland ☐ Coastal wetland ☐ Wellhead of public water supply	**13. Amount of Disturbed Area:**	Total Amt.= 2.29 acres
		14. Amount of Developed Area: Access Roads	◪ 1 or more acres, but less than 5 acres ☐ 5 acres or more Total Amt.= 2.29 acres
		15. Amount of Impervious Area:	☐ less than 20,000 sq. ft. ◪ 20,000 sq. ft. to 1 acre ☐ 1 to 3 acres ☐ 3 or more acres 0.88 Acres Total Amount of Impervious Acres =
16. Applicable Standards: (Check all that apply)	☐ Stormwater PBR ◪ Basic standards ◪ General standards: BMP ☐ General standards: phosphorus ☐ Flooding standard ☐ Urban impaired stream standards ☐ Other:_____	**17. Type of Stormwater Control:** Filter Pond	☐ Vegetative (e.g. buffers) ◪ Structural (e.g. underdrained filters, ponds, infiltration structures)

18. Exceptions &/or Waivers Requested:	**BMP Standards▼**	**Urban impaired stream standard▼**	**Flooding Standard▼**
	☐ Pretreatment measures ☐ Discharge to ocean/major river segment ◪ Linear portion of project ☐ Utility corridor ☐ Redevelopment	☐ Developed area not landscaped or impervious ☐ Redevelopment	◪ Discharge to ocean/major river segment ☐ Insignificant increase in peak flow

19. Proposed Start Date and Brief Project Description:	Start Summer 2024. Construct Road for 13 Single Family Lots on 34.04 Acres				
20. Size of Lot or Parcel:	☐____ sq. ft., or	☐ 79.44 acres	**UTM Easting:**		**UTM Northing:**
21. Title, Right or Interest:	◪ own	☐ lease	☐ purchase option	☐ written agreement	
22. Deed Reference Numbers:	Book#: 38007	Page: 234	**24. Map and Lot Numbers:**	Map #: 1	Lot #: 70
23. DEP Staff Previously Contacted:	April Stehr	**25. Project started prior to application?**	☐ Yes ◪ No	**Completed?**	☐ Yes ◪ No

SIGNATURES / CERTIFICATIONS ON PAGE 2

26. Resubmission of Application?	❑ Yes➔ ❑ No	**If yes, previous application #**	L-15993-NI-C-N	**Previous project manager:**	April Stehr
27. Written Notice of Violation?	❑ Yes➔ ❑ No	**If yes, name of DEP enforcement staff involved:**			
28. Detailed Directions to the Project Site:	0 Lisbon Road, Brunswick, Maine				

29. Stormwater Permit by Rule Submissions▼	**30. Stormwater Application Submissions▼**	
❑ *This form (including signature page)*	❑ This form (including signature page)	❑ Professional & Notice Certification
❑ *Fee*	❑ Fee	❑ Basic standards submissions
❑ *Topographic Map*	❑ Proof of title, right or interest	❑ General standards submissions
❑ *Plan or Drawing*	❑ Certificate of good standing (if applicable)	❑ Flooding standard submissions
❑ *Photos of Area*	❑ Photos of Area	❑ Other standard submissions
	❑ Copy of Public Notice	❑ Compensation Fee (if required)

31. FEES, Amount Enclosed:	$331.00
Does the agent have an interest in the project? If yes, what is the interest?: ❑ *Yes➔* ■ *No*	

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

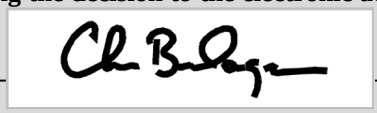
By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following:

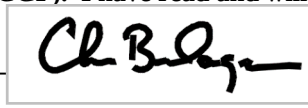
CERTIFICATIONS/ SIGNATURES

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.

Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by

E-mailing the decision to the electronic address located on the front page of this application (see #4 for the applicant and #9 for the agent.6

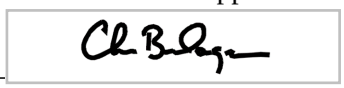
Signed:_  **Title**"Agent" **Date:**01-02-2026

Notice of Intent to Comply with Maine Construction General Permit	**With this Stormwater Law application form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit (MCGP). I have read and will comply with all of the MCGP standards.** **Signed**  **Date:**01-02-2026

NOTE: If a Notice of Intent is required, you must file a Notice of Termination (attached as Form G) within 20 days of completing permanent stabilization of the project site.

ADDITIONAL SIGNATURES/CERTIFICATIONS

The person responsible for preparing this application and/or attaching pertinent site and design information hereto, by signing below, certifies that the application for stormwater approval is complete and accurate to the best of his/her knowledge.

Signature: _____ 

Name (print): Chris Belanger

Date: 1-2-2026

Re/Cert/Lic No: _____

Engineer 9098

Geologist _____

Soil Scientist _____

Land Surveyor _____

Site Evaluator _____

Active Member of the Maine Bar _____

Professional Landscape Architect _____

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Mon Jun 26 2023 09:58:25. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
RAY LABBE & SONS, INC.	20190622 D	BUSINESS CORPORATION	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
02/01/2019	N/A	MAINE

Other Names	(A=Assumed ; F=Former)
RLS ACQUISITION, INC.	F

Clerk/Registered Agent

AARON P. BURNS
P.O. BOX 108
PORTLAND, ME 04112

New Search

Click on a link to obtain additional information.

List of Filings	View list of filings	
Obtain additional information:		
Additional Addresses	Plain Copy	Certified copy
Certificate of Existence (more info)	Short Form without amendments ($30.00)	Long Form with amendments ($30.00)

You will need Adobe Acrobat version 3.0 or higher in order to view PDF files.
If you encounter problems, visit the troubleshooting page.

If you encounter technical difficulties while using these services, please contact the Webmaster. If you are unable to find the information you need through the resources provided on this web site, please contact the Division of Corporations, UCC & Commissions Reporting and Information

Ray Labbe & Sons, Inc.
4 Highland Road, Brunswick, ME 04011 Tel : 207-725-7336 Fax : 207-725-0796

January 30, 2023

Christopher Belanger, P.E.
Belanger Engineering
63 Second Avenue
Augusta, ME 04330

RE: ~~Town and State Permitting~~
0 Lisbon Road
Jones Farm Development
Brunswick, Maine

Dear Chris,

This letter will serve as authorization for Belanger Engineering to act as agent for Robert Walton, President of Ray Labbe and Sons, Inc. and Jones Farm Estates, LLC with regard to various land use permitting requirements for the Jones Farm Subdivision Project located at 0 Lisbon Road in Brunswick. This will include any submissions to the DEP, DOT, EPA, ACOE and the Town.

Very Truly Yours,

Robert J. Walton

125 foot Abutters List Report

Brunswick, ME
November 21, 2022

Subject Property:

Parcel Number:	1-70	Mailing Address:	JONES FARM ESTATE LLC
CAMA Number:	1-70		4 HIGHLAND RD
Property Address:	0 LISBON RD		BRUNSWICK, ME 04011

Abutters:

Parcel Number:	1-11	Mailing Address:	JONES CEMETERY
CAMA Number:	1-11		LISBON RD
Property Address:	158 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-23	Mailing Address:	FAGAN, JAMES R & AMY B JT
CAMA Number:	1-23		71 LISBON RD
Property Address:	71 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-6	Mailing Address:	RAYMOND, ALISA
CAMA Number:	1-6-1		40 LISBON RD
Property Address:	40 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-6	Mailing Address:	RBB LLC
CAMA Number:	1-6-2		4 HIGHLAND RD
Property Address:	0 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-6	Mailing Address:	MILLER, CAMDEN & MIKAYLA
CAMA Number:	1-6-3		44 LISBON RD
Property Address:	44 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-6	Mailing Address:	LABBE, MICHAEL & KATHRYN
CAMA Number:	1-6-4		46 LISBON RD
Property Address:	46 LISBON RD		BRUNSWICK, ME 04011
Parcel Number:	1-69	Mailing Address:	LABBE, PAUL
CAMA Number:	1-69		PO BOX 1067
Property Address:	23 MISTY WAY		BRUNSWICK, ME 04011
Parcel Number:	1-69A	Mailing Address:	LABBE, PETER
CAMA Number:	1-69A		33 PATRIOT DR
Property Address:	0 MISTY WAY		BRUNSWICK, ME 04011
Parcel Number:	1-9	Mailing Address:	BRUNSWICK, TOWN OF
CAMA Number:	1-9		85 UNION ST
Property Address:	49 GRAHAM RD		BRUNSWICK, ME 04011
Parcel Number:	53-1	Mailing Address:	MERRILL, ANTONE S
CAMA Number:	53-1		2 MADELINE DR
Property Address:	2 MADELINE DR		BRUNSWICK, ME 04011

125 foot Abutters List Report

Brunswick, ME
November 21, 2022

Parcel Number:	53-2	Mailing Address:	LABBE, KELLY A
CAMA Number:	53-2		4 MADELINE DR
Property Address:	4 MADELINE DR		BRUNSWICK, ME 04011
Parcel Number:	53-3	Mailing Address:	CROCKER, MICHAEL JR
CAMA Number:	53-3		6 MADELINE DR
Property Address:	6 MADELINE DR		BRUNSWICK, ME 04011
Parcel Number:	53-4	Mailing Address:	GOSSELIN, DANIEL J & DIANA L JT
CAMA Number:	53-4		8 MADELINE DR
Property Address:	8 MADELINE DR		BRUNSWICK, ME 04011
Parcel Number:	53-5	Mailing Address:	HAYCOCK, WALTER C & THERESA M JT
CAMA Number:	53-5		
Property Address:	10 MADELINE DR		10 MADELINE DR
			BRUNSWICK, ME 04011
Parcel Number:	53-53	Mailing Address:	PARKER, CHRISTOPHER & ASHLEY JT
CAMA Number:	53-53		71 MADELINE DR
Property Address:	71 MADELINE DR		BRUNSWICK, ME 04011
Parcel Number:	53-6	Mailing Address:	MACLEAN, IAN A
CAMA Number:	53-6		12 MADELINE DR
Property Address:	12 MADELINE DR		BRUNSWICK, ME 04011

Stormwater Narrative
Jones Farm
0 Lisbon Road, Brunswick, Maine

Belanger Engineering is preparing a Maine Stormwater Law Permit by Rule application for the Jones Farm residential subdivision project located on Lisbon Road in Brunswick, Maine. The project parcel is approximately 32.50 acres in size and is proposed to be subdivided into 13 residential parcels. The property is located on Town of Brunswick Tax Map 1 Lot 70. Jones Farm Estate LLC owns the property.

The house lots will be accessed by a new main access road, 20' wide, Jones Farm Road which is approximately 1000', includes a hammerhead turnaround at the end of the road. The side road, Hay Stack Lane, will be 20' wide and serves 2-3 single family lots. The access roads create 0.88 acres of impervious area and 2.29 acres of developed area for this project. The roads will be private when complete.

The residential single-family house lots are not required to be treated but are included in the HydroCAD stormwater calculations. We have assumed each lot will have 0.10 acres of impervious area and 0.25 acres of developed area in the calculations. The lot development creates 1.30 acres of impervious area and 3.25 acres of developed area.

DEP Jurisdiction: The proposed project includes the development of 0.88 acres of road impervious area and the creation of 2.29 acres of road developed area. The project does not trigger the DEP Site Law for the development of 13 house lots on a parcel more than 30 acres. The project is not within an urban impaired stream or a severely blooming lake. This project triggers the Stormwater Law Permit by Rule for the creation of less than 1 acre of road impervious area. As a result, the Basic Standards only apply to this project. See Section 4A of the Chapter 500 Rules, pages 4&5. The Town of Brunswick will also require the Flooding Standard be met. The Town code requires a minimum sliding scale quality treatment. Table 4.5.4.C requires 70% impervious capture and 60% developed area capture for this project. Flooding and water quality calculations have been included in the report.

Basic Standards
1. Erosion and sedimentation control plan – See Appendix A of Chapter 500 Rules
2. Inspection and Maintenance Plan – See Appendix A and B of Chapter 500 Rules
3. Housekeeping – See Appendix C of the Chapter 500 Rules

General Standards – Town Water Quality
1. Narrative
2. Drainage Plans
3. Calculations
4. Details, designs, and specifications for Wet Ponds, Filter Ponds, and Buffers.

Flooding Standards – Town Review Standards
1. Stormwater Management System must detain, retain, or result in infiltration of stormwater for the 2, 10, 25 storms such that the peak flows do not exceed "pre-development" conditions.

Existing Conditions

Ray Labbe and Sons currently own 79.44 acres along Lisbon Road in Brunswick. The property includes and existing gravel pit and construction access. The developer wants to keep and maintain the pit areas. Approximately 32.50 acres is located adjacent to Pit Road and is proposed to be developed. Jones Farm is a previously approved subdivision that was never built and has since expired. The roads were cut post approvals but no further development moved forward at the time. The tax maps still show the old approved lot lines.

Wetlands and existing topography are shown on the pre-development and existing conditions plan. The remaining site areas are currently wooded. The watershed pre development existing conditions are listed in the chart below.

Pre-Development Watershed Areas										
Subarea	Total Area	Total Area	Existing Impervious Off Site	Existing Impervious On Site	Existing Lawn Off Site	Existing Lawn On Site	Existing Pit PSG	Existing Woods B	Existing Woods C	Existing Woods D
	S.F.	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres
1S	890665	20.45	0	0	0	0	4.12	3.94	11.49	0.90
2S	832099	19.10	0.46	0.3	0.46	0.3	1.91	0.94	12.71	2.02
3S	1223438	28.09	0	0.38	0	0.38	0.00	8.88	17.49	0.96
4S	239386	5.50	0	0.38	0	0.38	3.64	0.25	0.85	0.00
5S	654490	15.03	0.28	0.29	0.28	0.29	0.00	1.85	7.52	4.52
Totals		88.16	0.74	1.35	0.74	1.35	9.67	15.86	50.05	8.40

These watersheds and subcatchment drainage areas are defined in the Stormwater Model as shown on the HydroCAD diagrams. Full-size drainage plans and stormwater calculations for the pre and post developed site conditions are included with this report. Refer to the HydroCAD diagrams, calculations, report and drainage plans for modeling assumptions, subcatchments, flowpaths, drainage reaches, etc. Road and Lot areas are included in the quantity calculations. The lot development areas for this project are not required to be treated per Maine DEP stormwater law rules as it does not trigger the Maine DEP site Law.

This project roads are required to meet Basic Standards of Maine DEP Chapter 500 Stormwater Rules. A Maine DEP permit by rule is required for this project for the creation of less than 1 acre of impervious area. The Town of Brunswick requires the flooding standards be maintained so it is included with this report. The Town also requires a sliding scale water quality standard which requires capture and treatment of 70% of the site impervious area and 60% of the site developed area. The Maine DEP permit by rule does not require the flooding or General standards be met. However, the project was designed to meet the Maine DEP General Standards and Flooding standards which meets or exceeds the standards required by the Town of Brunswick.

Runoff calculations were performed for the 2-year, 10 year and 25 year storm events in accordance with Town requirements for Flooding Standards. Results of the calculations are shown in the Summary Tables submitted with this report. Complete HydroCAD reports were generated for the 2-year, 10-year, and 25-year storm events with summary descriptions of all nodes and subcatchments, etc.

The Post Development conditions evaluate the “new” changes resulting from the project development and maintains the existing pre development runoff peak flow rates at property boundaries.

Portions of the pit and property areas abut the Androscoggin River. A couple of reaches pass through the boundary and discharge to the Androscoggin River approximately 1200' downstream. All runoff from the site eventually drains to the Northeast (Reach 1R and 2R) through on site forested wetlands. Reaches 3R, 4R, and 5R are other portions of the property that are not being developed at this time. Runoff eventually reaches a no name stream and discharges into the Androscoggin River. The Androscoggin River discharges directly into the ocean. We used the S. C. S. method for computing peak runoff rates. All supporting data and calculations are submitted with this report.

Proposed Conditions

The units will be accessed by a new main access road, 20' wide, Jones Farm Road which is approximately 1110', includes a hammerhead turnaround at the end of the road. The side road, Hay Stack Lane, will be 20' wide and serves 4 single family lots. The access roads create 0.88 acres of impervious area and 2.29 acres of developed area for this project. The roads will be private when complete.

The residential single-family house lots are not required to be treated but are included in the HydroCAD stormwater calculations as required by stormwater law development. We have assumed each lot will have 0.10 acres of impervious area and 0.25 acres of developed area in the calculations. The lot development creates 1.30 acres of impervious area and 3.25 acres of developed area.

This report, calculations and supporting plans supporting the development expansion is attached.

Project Location: The project is located off Lisbon Road in Brunswick, Maine.

Surface water on or abutting the site: Stormwater from the site flows through on site wetlands and discharges into the Androscoggin River through a stream.

Alterations to Land Cover: The drainage study is conducted on the watersheds 88 acres draining through the property. The existing ground cover is 93% woods, meadow, 4% impervious, and 3% lawn. The proposed ground cover will result in approximately: 8% impervious, 12% lawn, and 80% meadow and woods. Single family residential houses will be developed.

Downstream ponds and Lakes: Stormwater from the site is predominately stored on site within the wetland areas, pond storage areas, and natural forest buffer and conservation areas. All runoff from the site eventually drains to the Androscoggin River. The Androscoggin River discharges directly into the ocean. Enclosed is a U.S.G.S. Map showing the site location.

Historic Flooding: No portion of the area being developed is located within the 100 year flood zone. A copy of the FEMA map with the site location is included.

Alterations to natural drainage ways: Natural drainage ways will not be altered as a result of the proposed development. Culverts will be installed to maintain current drainage flow patterns.

Post-Development Watershed Areas							
			Exempt	**Exempt**	**Exempt**	**Exempt**	Existing
			Off Site	**Off Site**	**On Site**	**On Site**	Woods/Field
			Existing	Existing	Existing	Existing	Undeveloped
	Total	Total	Impervious	Lawn	Impervious	Lawn	Total
Subarea	Area	Area	to	to	to	to	to
			remain	remain	remain	remain	remain
	sf	acres	acres	acres	acres	acres	acres
1S	828696	19.02	0	0	0	0	17.97
2S	492456	11.31	0.17	0.17	0	0	9.79
3S	1223437	28.09	0	0	0.38	0.38	27.33
4S	239423	5.50	0	0	0.38	0.38	4.74
5S	654490	15.03	0.28	0.28	0.29	0.29	13.89
6S	247820	5.69	0.29	0.29	0.3	0.3	3.84
7S	35553	0.82	0	0	0	0	0.14
8S	6869	0.16	0	0		0	0.00
9S	22631	0.52	0	0		0	0.32
10	47780	1.10	0	0		0	0.40
11	14378	0.33	0	0		0	0.00
12	26596	0.61	0	0		0	0.04
50							
51							
52							
53							
54							
Totals	3840129	88.16	0.74	0.74	1.35	1.35	78.44
		✓					

General Standard Calculations:

Several BMP's are being utilized to treat road impervious and developed areas as far as practical. The general standard calculations are attached which exceed the Town standards. The subdivision roads classify as a "linear portion of the project" which requires it meet the 75% and 50% capture general standard. Its is noted the Town standard is 70% and 60% capture standards.

A filter pond provides treatment for the road project areas shown below.

The treatment summary and general standard calculation is shown below:

In 2003, a class A high intensity soil survey was completed for the project by Devine Tarbell & Associates, INC. This plan can be used for buffer and filter pond verification. The high intensity soils map is enclosed for review. Portions of the map are included for information. In addition, the test pit logs are included in the report. This information should provide sufficient buffer and pond soil conditions.

Filter Pond – Pond 10P
BMP 7.1 – Grassed Underdrained Soil Filter

One Filter Pond (Pond 10P) will be developed to support the project. The pond has been sized to store 1" X the watershed impervious area and 0.4" X the watershed disturbed area. An outlet control structure and spillway has been implemented in the pond to provide emergency overflow as required. The outlet control structure will also be the gravel filter drain outlet. Runoff will discharge to the adjacent wetland and stream.

Jones Farm					
Grassed Underdrained Soil Filter Pond Design Criteria - Hydrocad Pond 10P					
	acres	s.f.			
Impervious Area Draining to Pond	0.68	29620.8			
Lawn Area draining to Pond	1.11	48352			
Total Area	**1.79**	Acres	< 2.5 ac.	✓	
Minimum Treatment Volume	1" X Impervious Area + 0.4" X Lawn			**4054**	c.f.
Pond Storage Volume Provided				**5257**	✓
Minimum Pond Surface Area	5% Impervious Area + 2% Lawn			**2448**	s.f.
Pond Surface Area Provided	< 3000 s.f.			**3000**	✓
Pre-Treatment	Sanded Area (acres)		0.54	acres	
	10 storms per year				
	500 lbs per acre-storm				
	90 lbs/c.f.				
	Annual Sediment Loa		30.00	c.f.	

Zero Treatment

Portions of the road that cannot be practically captured and treated will drain toward road ditches and wetlands as required. The first 250' of Jones Farm Road will drain toward Lisbon Road and will discharge into the existing road ditch. Approximately 0.20 acres of impervious area and 0.50 acres of developed area cannot be practically captured and treated.

General Standard Calculation – Road Linear Development

As stated, the project creates 0.88 acres of road impervious area and 2.29 acres of road developed area. The proposed pond provides road treatment for 0.68 acres of impervious area and 1.79 acres of developed area. As a result, the project captures 77% of the road impervious area and 78% of the road developed area which exceeds the 75% Impervious and 50% "linear portion of a project" DEP standards. The project also meets the Town of Brunswick Sliding Scale of 70% and 60% capture standards. The calculation is shown below.

Post-Development Watershed Areas Road Development						
	Linear 75%			Linear 50%		
	Road	**Road**	**Road**	**Road**	**Road**	
	New	New	New	New	New	Treatment
	Impervious	Impervious	Lawn	Developed	Developed	BMP
Subarea	Area	Area		Area	Area	
		Treated			Treated	
	acres	acres	acres	acres	acres	
1S	0.01	0	0.04	0.05	0	Zero Treatment
2S	0.12	0	0.16	0.28	0	Zero Treatment
3S	0	0	0	0	0	No Changes
4S	0	0	0	0	0	No Changes
5S	0	0	0	0	0	No Changes
6S	0.07	0	0.1	0.17	0	Zero Treatment
7S	0.08	0.08	0.1	0.18	0.18	Filter Pond 10P
8S	0.09	0.09	0.07	0.16	0.16	Filter Pond 10P
9S	0.09	0.09	0.11	0.2	0.2	Filter Pond 10P
10	0.19	0.19	0.26	0.45	0.45	Filter Pond 10P
11	0.1	0.1	0.13	0.23	0.23	Filter Pond 10P
12	0.13	0.13	0.44	0.57	0.57	Filter Pond 10P
Totals	0.88	0.68	1.41	2.29	1.79	
	>75%	77%	✓	>50%	78%	✓

Flooding Standard

Modeling assumptions: The flooding standard is required with this development. The Town of Brunswick requires the flooding standard be met. Maine DEP does not require the flooding standard be met for this project. To meet the Town Ordinance Standards, we have modeled the watershed areas to demonstrate that the ponds, reaches, and outlets have the required storage volume and capacity to pass the 25 year storm event without flooding the pond embankments. The "HydroCad" computer program was used to determine the peak storm water runoff for the pre- and post-development conditions. HydroCad is a storm water modeling system, which utilizes the TR-20 method developed by the Soil Conservation Service (SCS).

The design assumptions used for this project are:

Design storm: 24 hour, Type III rainfall distribution.

Rainfall: 24 hour precipitation values from U.S. Weather Bureau Technical Release No. 40:

2 year storm = 3.1 inches
10 year storm = 4.6 inches
25 year storm = 5.8 inches
50 year storm = 6.9 inches
100 year storm = 8.1 inches

Site specific parameters for the project are listed below:

Soils: Soils information to determine the hydrologic soil group for the site, are derived from the Soil Survey of Cumberland County by the United States Department of Agriculture Soil Conservation Service. A High Intensity Soil Survey was completed in 2008 to verify soil conditions on site. The soils and hydrologic group are listed below:

Soil Classification	Hydrologic Group
Allagash - AlA	"B"
Lamoine (LaA, LaB, LaC, LaD	"C/D"
Madawaska (MaA, MaB, MaC	"B"
Nicholville (NiA, NiB, NiC, NiD	"B"
Pits Dump (PDA)	"x"
Pits Sand and Gravel (PSG)	"x"
Roundabout (RoA, RoB)	"B/D"
Scantic (ScA, ScB)	"D"
Skerry (SKB)	"C/D"
Swanton (SwA, SwB)	"B/D"
Udorthents (UdA)	"x"

Ground Cover:

Pre-& Post Development: The watershed ground cover is modeled as woods, grass, brush/weed, erosion control mix, and impervious.

Cover Description	Curve Number:
Impervious	98
Woods	30, 70, 77
Lawn	39, 74, 77
Erosion Control Mix (ECM)	30

The Hydrocad models pre and post development conditions at the property boundary. See Reaches 1R, 2R, 3R, 4R, and 5R are points were on site wetlands cross the property line. All of the proposed impacts from the project site drains to these outlets. The hydrocad pre and post summaries are provided below.

PRE- & POST-DEVELOPMENT HYDROLOGIC RESULTS

The results indicate the project maintains the "pre-development" peak flow conditions for the project.

The reach routing information is described below:

FLOODING STANDARD RESULTS Reach 1R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	1.85	1.81	-2%
10 YEAR	8.17	7.83	-4%
25 YEAR	15.2	14.47	-5%
50 YEAR	22.58	24.12	6%
100 YEAR	31.33	33.12	5%

Reach 1R is a wetland finger draining along a drainage swale / ravine area about 20' deep. The results shown above demonstrate the pre development peak flow is being met for the 2, 10, and 25 year storms as required.

FLOODING STANDARD RESULTS Reach 2R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	5.24	3.16	-66%
10 YEAR	15.39	8.24	-87%
25 YEAR	25.1	13.09	-92%
50 YEAR	34.71	17.89	-94%
100 YEAR	45.73	23.38	-96%

Reach 2R models the existing stream located adjacent to the development. The results shown above demonstrate the pre development peak flow is being met for all storms modeled.

FLOODING STANDARD RESULTS Reach 3R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	6.05	6.05	0%
10 YEAR	17.47	17.47	0%
25 YEAR	28.55	28.55	0%
50 YEAR	39.56	39.56	0%
100 YEAR	52.2	52.2	0%

The watershed associated with Reach 3R is not being develop at this time. No changes occurred in this watershed.

FLOODING STANDARD RESULTS Reach 4R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	0.02	0.02	0%
10 YEAR	0.32	0.32	0%
25 YEAR	0.98	0.98	0%
50 YEAR	1.88	1.88	0%
100 YEAR	3.11	3.11	0%

Reach 4R is the point where the flow crosses the property line. The hydrocad calculations confirm the pre development flows are being met at this location as shown above.

FLOODING STANDARD RESULTS Reach 5R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	3.94	3.94	0%
10 YEAR	9.56	9.56	0%
25 YEAR	14.73	14.73	0%
50 YEAR	19.77	19.77	0%
100 YEAR	25.46	25.46	0%

The watershed associated with Reach 5R is not being developed at this time. No changes occurred in this watershed.

CONCLUSIONS:

The above analysis points are located where the project crosses the property line (Reaches 1R, 2R, 3R, 4R, and 5R). At this point we compared pre and post development peak flow rates. The results, shown above, indicate the proposed expansion keeps peak flows below pre-development levels as required. Reach 1R is located in a large ravine and has the capacity to handle pre development flows without causing flooding of downstream properties. Proposed peak flows have been reduced by constructing culverts along the new road areas and sending the proposed paved areas to the filter pond for treatment and storage. Other non-treatment areas will drain to wooded buffer open space areas established adjacent to the road and lots.

As the results indicate, the post development peak flows stay below the pre-development peak flow for the 2, 10, and 25 year storms as required. The proposed culverts and structures have the capacity to control flow from the 25 year storm which exceeds the Flooding Standard requirement. As a result, the project does not significantly impact downstream structures or properties. Further this property abuts the Androscoggin River. Considering the close proximity to the Androscoggin River, additional stormwater quantity measures should not be necessary for this development. We submit that the Flooding Standard has been met or exceeded with this development.

The proposed filter pond will treat stormwater prior to discharge to a wetland area or before it leaves the site as required by Maine DEP. The Jones farm project is a 13 lot residential development. The treatment devices treat the road as required by the stormwater law development. In this case the roads would qualify as a linear portion of the project. The road is not required to meet the 75% impervious area capture and 50% developed area capture standard. The project captures and treats 77% of the road impervious area and 78% of the road new developed area which exceeds the 75%/50% capture standards required by the Maine DEP.

The Basic Standards will be met with the proposed erosion control plans and stabilization details provided on the construction plan set.

We submit that the project meets the Basic and General standards as outlined in the Maine DEP Chapter 500 Stormwater Rules. The Flooding standard is also met per the Town of Brunswick stormwater standards.

We submit that the General Standards has been met or exceeded with the development as required to meet the minimum Town Standards.

Jones Farm Property Maintenance:

PART 1: RESPONSIBILITY FOR MAINTENANCE

Jones Farm HOA or Jones Farm Estate LLC will be responsible for maintenance of the stormwater system.

PART 2: INSPECTIONS – During Construction and Post Construction

- Detention Facilities: Wet Ponds, Filter Ponds, etc.
  Embankment inspection and maintenance
  Spillway maintenance
  Outlet Structure sump cleaning and maintenance
  Sediment removal and disposal

- Detention Facilities: Stoned Bermed Level Spreaders at Buffer Outlets
  Debris removal from stone storage area (leaves, branches, trash, etc.)
  Sediment removal and disposal

- Ditches, Swales, or other open stormwater channels
  Embankment inspection and maintenance
  Channel inspection
  Sediment removal and disposal

- Culverts, catch basins, stormwater control structures
  Embankment inspection and maintenance
  Inlet and Outlet inspection
  Debris removal and disposal

The owners representative will inspect the buffers, swales, channels, stormwater structures to determine if the soil blockage or impaired capacity to pass flow exists. Inspections will be performed on a monthly basis from March to November, and quarterly during the remainder of the year. A record of inspections and maintenance or corrective measures shall be kept by the owner / maintenance personnel (see part 4).

PART 3: MAINTENANCE AND CLEANING

The owner representative will regularly inspect for sediment accumulation, obstructions, debris, and other potential causes for operational difficulty in the conveyance and detention system as described in Part 2. Immediate action shall be taken to remedy detrimental obstructions. This may include replacing the filter pond and roof driplines filter beds as necessary to allow infiltration and treatment to occur.

Cleaning out of catch basins, culvert cleaning, and other means necessary to ensure the stormwater system is maintained. Some additional measures (but not limited to) are shown below:

- Under drained filter Maintenance:
    Soil Filter Inspection
    Soil Filter replacement
    Outlet Structure sump cleaning and maintenance
    Sediment removal and disposal
    Mowing
    Harvesting and Weeding

The owner will regularly inspect the soil filter after every major storm event in the first few months to ensure proper function. There after the filter should be inspected bi-annually to ensure that it is draining within 24 hours. The top several inches of the filter shall be replaced with fresh material when water ponds on the surface of the bed for more than 72 hours. Sediment shall be removed from the filter bed annually. The bed shall be hand raked and re-seeded as necessary. The removed sediment shall be hauled off site and disposed of in a stabilized area. Mowing of the filter area shall be limited to 2 times per year to maintain grass heights to less than 12". Weeding and pruning of growth within the filter zone will be completed as necessary.

- Detention Facilities: Stoned Bermed Level Spreaders at Buffer Outlets

A mandatory scheduled maintenance will be performed every four weeks for a period of one hundred and twenty (120) days and will begin after satisfactory completion and acceptance of landscape construction. Ongoing maintenance will be required as necessary.

- Paved Roadway Areas:

All sand, salt, etc. accumulated when sweeping the road areas, shall be trucked off-site for disposal. The road shall be swept annually in the spring.

- Catch Basins, Culverts, Pipe inlets/outlets, Pond outlets, and swales:

Culverts shall be cleaned of sediment and debris as required when flow is blocked or impaired. The roads shall be swept annually in the spring to minimize sediment build up in road ditches. Check culvert and pipe outlets for erosion and make repairs as required. Re-seed or armor with riprap as conditions require.

PART 4: RECORD KEEPING

The owner will maintain inspection records, with recordings of condition of basins, and pipes and annotation of substantial precipitation events or mitigating circumstances in the intervening time for trending to develop the anticipated preventive maintenance schedule.

PART 5: MAINTENANCE CONTRACT

Should proprietary devices be utilized, a maintenance contract will be established with the manufacturer for regular maintenance and cleaning of the device.

PART 6: RE-CERTIFICATION

The owner shall submit a certification to Maine DEP within three months of the expiration of each five year interval from the date of issuance of the permit. The owner shall submit the maintenance log which identifies inspections completed, erosion problems found, when corrective action was taken, and who completed the work. The certification will include a statement indicating that the stormwater system is working and is being maintained in working condition in accordance with the permit requirements.

Maintenance Log Sheet

Jones Farm Residential Subdivision

Name	Maintenance Task Completed	Date

Maine DEP Chapter 500 Appendix C. Housekeeping – Updated 2026

These performance standards apply to all projects.

1. Spill prevention. Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at http://www.maine.gov/dep/spills/emergspillresp/

2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

See Appendix D for license by rule standards for infiltration of stormwater.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. Fugitive sediment and dust. Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the Natural Resources Protection Act.

4. Debris and other materials. Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. Excavation de-watering. Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.
NOTE: Dewatering controls are discussed in the "Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection."

6. Authorized Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:
(a) Discharges from firefighting activity;
(b) Fire hydrant flushings;
(c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
(d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);
(e) Routine external building washdown, not including surface paint removal, that does not involve detergents;
(f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
(g) Uncontaminated air conditioning or compressor condensate;
(h) Uncontaminated groundwater or spring water;
(i) Foundation or footer drain-water where flows are not contaminated;
(j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));
(k) Potable water sources including waterline flushings; and
(l) Landscape irrigation.

7. Unauthorized non-stormwater discharges. The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non_stormwater, other than those discharges in compliance with Appendix C (6). Specifically, the Department's approval does not authorize discharges of the following:
(a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
(b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
(c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
(d) Toxic or hazardous substances from a spill or other release.
(8) Additional requirements. Additional requirements may be applied on a site-specific basis.

Jones Farm Residential Subdivision, Lisbon Road, Brunswick, Maine
Post Construction Inspection form for Grassed Underdrained Filter Pond

Pond Name / Number or Description: Pond 10P

General Information

Site Name: Jones Farm Subdivision Date:

Owner: Jones Farm Estates LLC Inspected By:

Retained 3PI: Last Rain Date: Amount:

Reason for Inspection	Rain Event	Monthly	Quarterly	Bi-Annual

Basin Existing Condition and Basin Description

Photos

Inspection Details	**Yes / No**	**Comments:**
Is the pond free from trash, debris, or waste?		
Is the pond banks stable with vegetation established?		
Any erosion found on the pond banks?		
Have repaired been made? List Date and By whom.		
** Has the pond been mowed?		See Comments **
Does the pond drain within 24-48 hours?		
*** Is sediment built up within the pond bottom?		
Is the filter working and functioning as intended?		
* Does the filter require replacment?		
Filter media replacement note date and who completed work		
Are the outlet structure inlets free from debris and working?		
Has the outlet structure been cleaned and maintained? When?		
Is the emergency spillway stable, working, and free of debris?		
Is the pond outlet stable and functioning?		
Level spreader functioning propertly or filled with sediment?		
Is erosion occuring downslope of the pond outlet?		
Is the pond functioning as intended?		

Additional Comments:

* The top several inches of the filter can be replaced with fresh material if water is ponding for more than 72 hours, or the basin can be rototilled, seeded and mulched. Once the filter is mature, adding new material (a 1 inch to 2 inche cover of muture compost) can compensate for subsidence

** If mowing is desired, only hand-held string trimmers or push-mowers are allowed on the filter (no tractor) and the grass bed should be mowed no more than 2 times per growing season to maintain grass heights of no less than 6 inches.

*** Sediment and plant debris should be removed from the pre-treatment structure at least annually

Fertilization of the underdrained filter should be avoided unless absolutely necessary to establish vegetation

Harvesting, Weeding, and prunning of excessive growth should be done occasionally.

Weeding to control unwanted or invasive plants may also be necessary.

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that RAY LABBE & SONS, INC., a Maine corporation with a principal place of business in Brunswick, Maine ("Grantor"), for consideration paid, does hereby grant to JONES FARM, LLC, a Maine limited liability company with a mailing address of 4 Highland Road, Brunswick, Maine 04011 ("Grantee"), with Quitclaim Covenant, the real property in the Town of Brunswick, County of Cumberland, and State of Maine more particularly described on the attached EXHIBIT A.

IN WITNESS WHEREOF, the said Ray Labbe & Sons, Inc. has caused this instrument to be signed by Peter L. Labbe, its President, thereunto duly authorized, this 28th day of December, 2006.

WITNESS:

RAY LABBE & SONS, INC.

Peter L. Labbe, President

STATE OF MAINE
CUMBERLAND, ss.

December 28, 2006

Then personally appeared the above named Peter L. Labbe, President of Ray Labbe & Sons, Inc., and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said corporation.

Before me,

Attorney at Law/Notary Public
Printed Name: Jude A. Cluff-Graham

SEAL

JUDE A. CLUFF-GRAHAM
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES OCTOBER 27, 2013

EXHIBIT A

Lisbon Road, Brunswick

A certain parcel of land, with any improvements thereon, on the easterly side of Lisbon Road in the Town of Brunswick, County of Cumberland, and State of Maine (the "Premises"), said Premises being more particularly described as follows:

BEGINNING on the assumed right-of-way line of said Lisbon Road at the most southerly corner of the Jones Cemetery as described in a deed recorded at the Cumberland County Registry of Deeds in Book 111, Page 332;

THENCE N 57° 44' 43" E along said Cemetery a distance of 214.50 feet to the most easterly corner of said parcel, and the most southerly corner of a parcel extending said Cemetery described in a deed recorded at said Registry in Book 286, Page 445;

THENCE N 56° 37' 03" E along said Cemetery extension a distance of 184.14 feet to the most easterly corner of said extension;

THENCE N 37° 28' 50" W along the end of said Cemetery extension a distance of 71.87 feet to the most northerly corner thereof at remaining land of Ray Labbe & Sons, Inc.;

THENCE N 58° 18' 01" E along said remaining land of Ray Labbe & Sons, Inc. a distance of 625.17 feet to the southwesterly line of land now or formerly of Town of Brunswick;

THENCE S 72° 40' 46" E along said Town land a distance of 1467.19 feet to a survey pin set at other remaining land of Ray Labbe & Sons, Inc.;

THENCE S 13° 26' 28" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 1239.48 feet to a point;

THENCE S 55° 53' 16" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 749.38 feet to a point;

THENCE N 38° 28' 40" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 18.10 feet to the northeasterly prolongation of the northwesterly line of land now or formerly of the Spruce Pond Homeowners Association;

THENCE S 67° 04' 13" W along said remaining land of Ray Labbe & Sons, Inc. a distance of 6.22 feet to the most northerly corner of said land of the Spruce Pond Homeowners Association;

THENCE S 67° 04' 13" W along said land of the Spruce Pond Homeowners Association a distance of 1065.51 feet to said line of said Lisbon Road;

THENCE N 03° 50' 35" E along said road line a distance of 202.43 feet to an angle point;

THENCE N 02° 11' 36" E along said road line a distance of 443.83 feet to an angle point;

THENCE N 02° 15' 10" W along said road line a distance of 207.72 feet to an angle point;

THENCE N 11° 44' 58" W along said road line a distance of 187.41 feet to an angle point;

THENCE N 14° 36' 19" W along said road line a distance of 181.71 feet to an angle point;

THENCE N 21° 23' 31" W along said road line a distance of 700.56 feet to the POINT OF BEGINNING.

Containing 79.43 acres, more or less. All survey pins set are 5/8" rebar with an aluminum cap bearing the name Martinson and PLS 2137.

Being a portion of the premises conveyed from Lewiston Crushed Stone Co., Inc. to the Grantor herein by Warranty Deed dated July 16, 1984, recorded at the Cumberland County Registry of Deeds in Book 9171, Page 148.

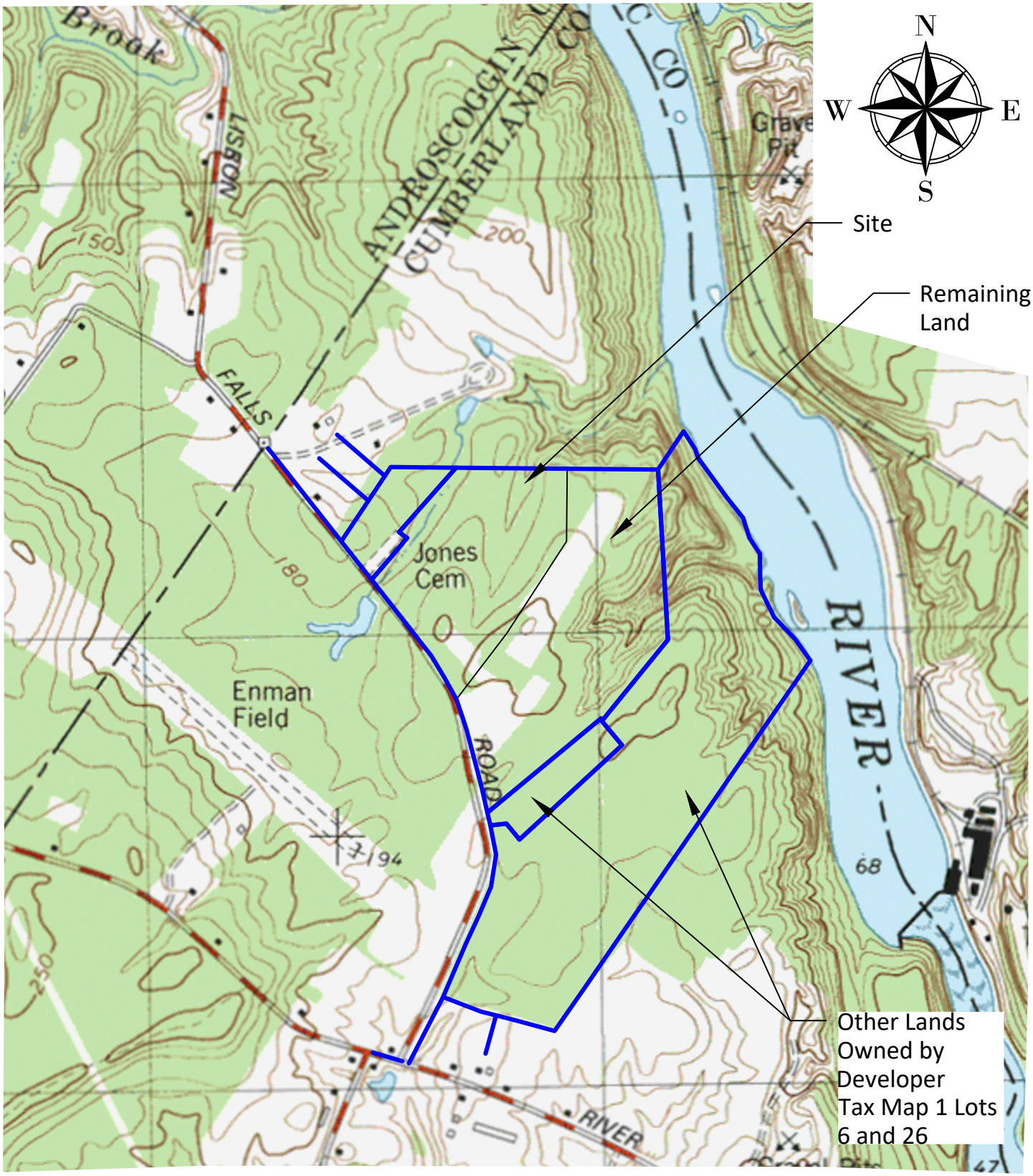
RESERVING to Grantor a nonexclusive easement to use any roadway constructed on the Premises for access to Grantor's remaining land located southerly and easterly of the Premises (the "Grantor's Remaining Property"), with any construction by Grantee of any such roadway to include a curb cut at a location suitable for such access to Grantor's Remaining Property, provided that Grantor shall be responsible for obtaining all necessary permits and approvals required for such curb cut, and provided further that this easement shall only be over and across such roadway as may exist from time to time, and this easement shall not be construed to prevent Grantee from altering and/or relocating any such roadway. Said nonexclusive easement to include the right of Grantor to construct and maintain its own roadway from said curb cut to Grantor's Remaining Property. If Grantor shall desire to use the Premises for access to Grantor's Remaining Property at any time before Grantee shall construct a roadway on the Premises, then Grantor shall have the right to construct and maintain a private roadway on the Premises (at the sole cost and expense of Grantor), subject to the prior written approval of Grantee, which approval shall not be unreasonably withheld, conditioned, or delayed. Said right of Grantor shall include the right to grade, excavate and fill a 50-foot wide strip on the Premises, and the right to construct, maintain, repair, and replace a roadway, curbing, sidewalks and other paved surfaces within such 50-foot wide strip; provided, however, that any construction or maintenance by

Grantor on the Premises shall be at the sole risk and expense of Grantor and shall be in compliance with all laws, ordinances and regulations pertaining thereto. Grantee shall have the right to use any such private roadway so constructed by Grantor, provided that Grantee reimburses Grantor for fifty percent (50%) of the costs incurred by Grantor in constructing that portion of such private roadway to be used by Grantee. The aforementioned reimbursement obligation of Grantee shall automatically terminate at such time as any roadway so constructed by Grantor is established as a public way. Nothing contained herein shall be deemed a gift or dedication of any portion of the Premises to the general public or for the general public or for any public purpose whatsoever.

ALSO RESERVING to Grantor the right to install and maintain on the Premises utility services for Grantor's Remaining Property, including facilities necessary for the transmission of electricity, gas, telephone communications, cable television, sewerage, water or similar services which are currently or may in the future become available; provided, however, that the location of any such utility services shall be subject to the prior written approval of Grantee, which approval shall not be unreasonably withheld, conditioned, or delayed.

P:\acalcagni\Labbe\deed3.doc

Received
Recorded Register of Deeds
Jan 05,2007 02:46:27P
Cumberland County
Pamela E. Lovley



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 500 1000
1 inch = 1000 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

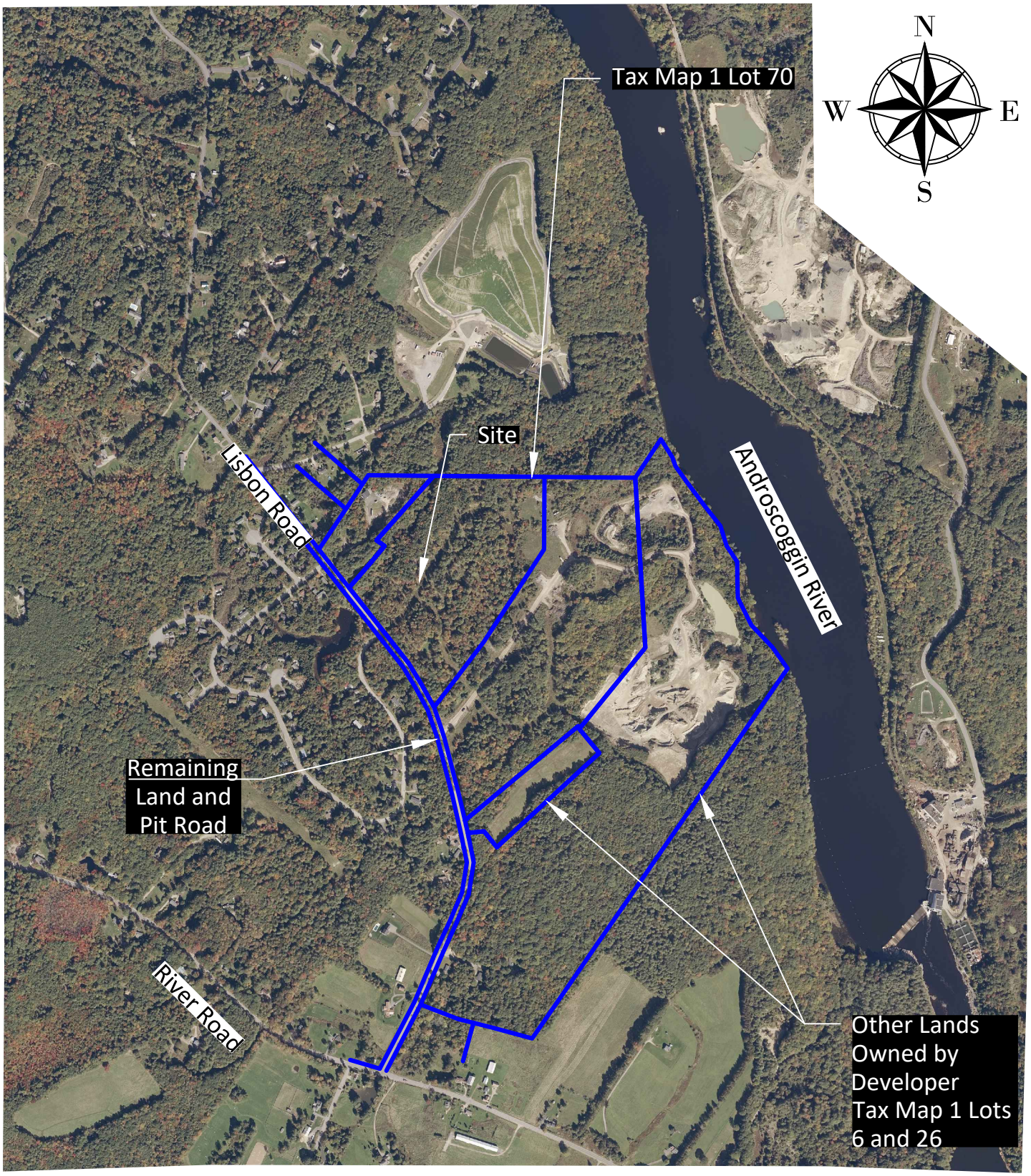
Title:
USGS Map Overlay
Brunswick 7.5' Quad.

Scale: 1"= 1000'

Date: 1-2-2026

Project #: 162

Figure #:
1



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 500 1000

1 inch = 1000 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

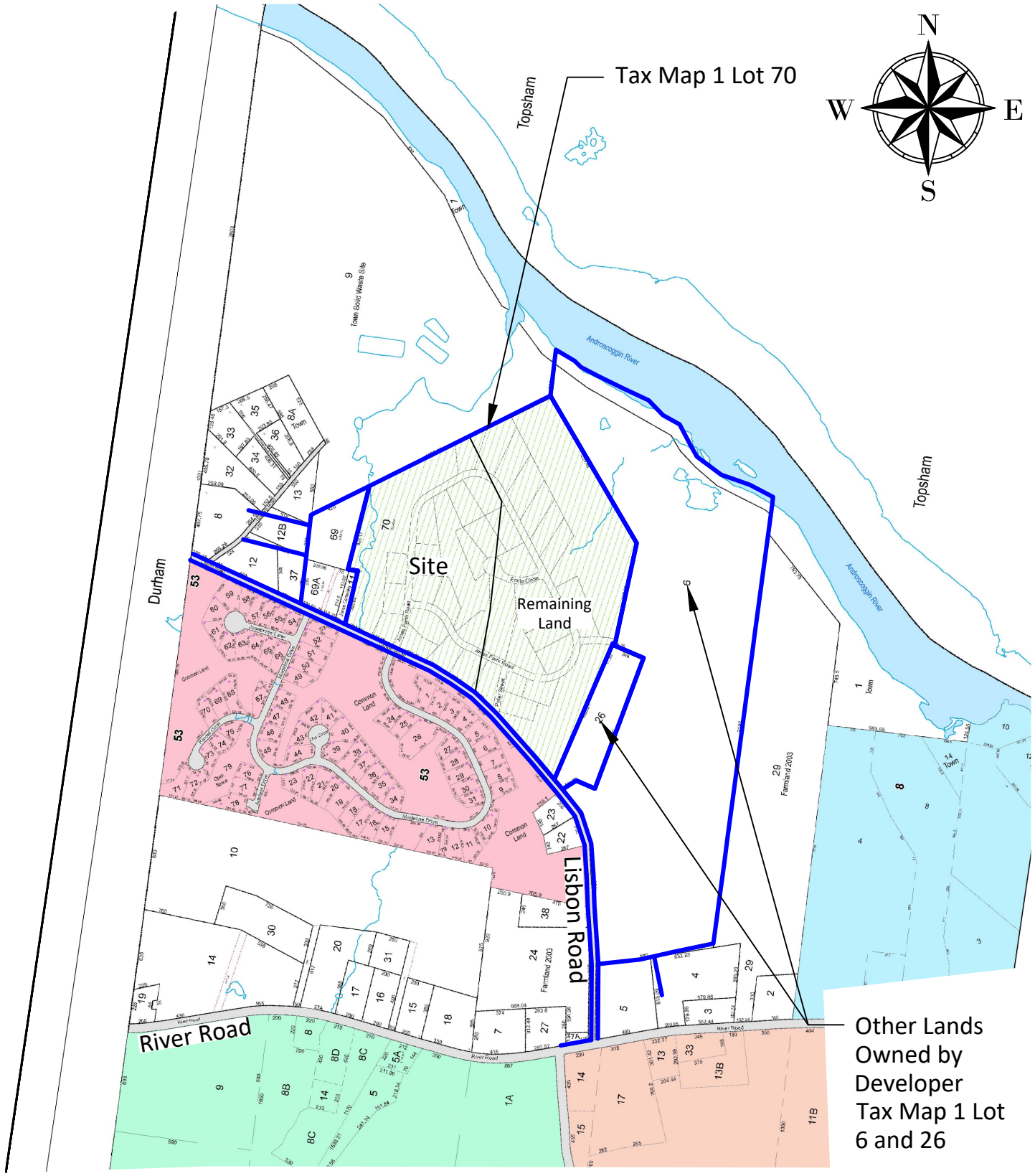
Scale: 1"= 1000'

Date: 1-2-2026

Project #: 162

Title:
Aerial Map Overlay

Figure #:
2



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 500 1000
1 inch = 1000 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

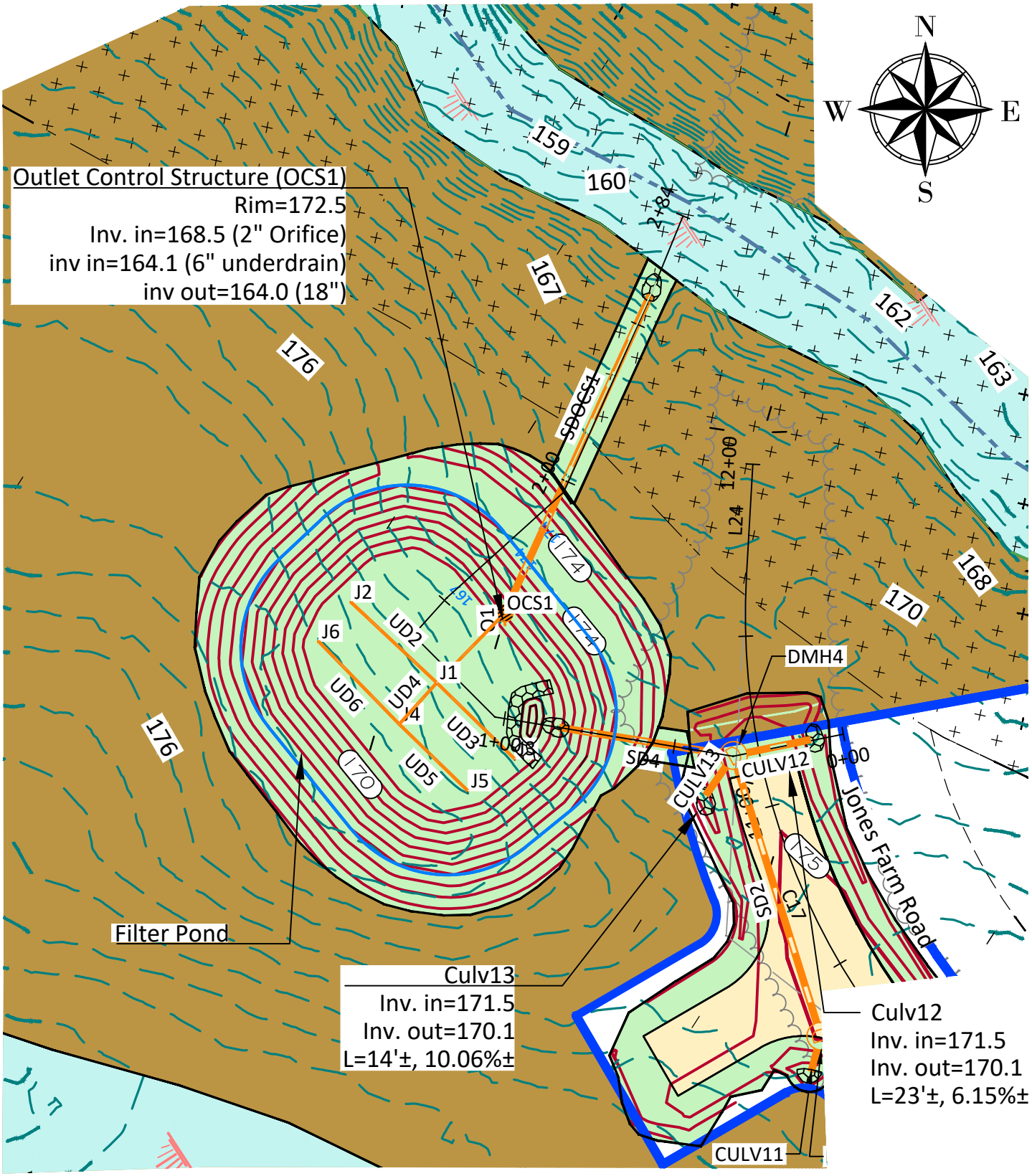
Title:
Brunswick Tax Map 1 Overlay
Locus: Tax Map 1 Lot 70

Scale: 1"= 1000'

Date: 1-2-2026

Project #: 162

Figure #:
3



BELANGER ENGINEERING
CONSULTING ENGINEERS

0 20 40
1 inch = 40 ft.

Prepared For:
Jones Farm Subdivision
0 Lisbon Road
Brunswick, Maine

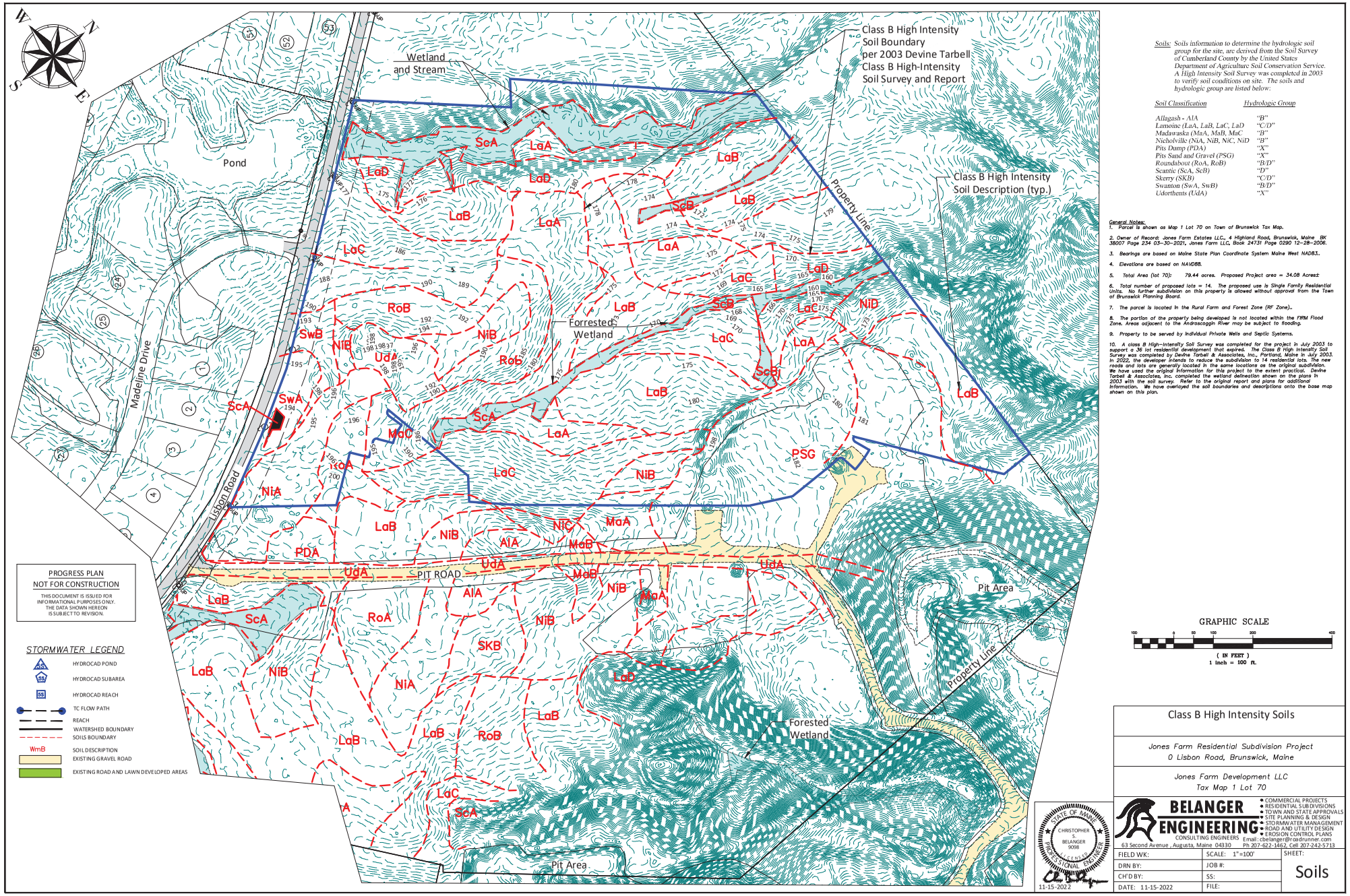
Title:
Stormwater Filter Pond 10P

Scale: 1"= 40'

Date: 1-2-2026

Project #: 162

Figure #:
5



Soils: Soils information to determine the hydrologic soil group for the site, are derived from the Soil Survey of Cumberland County by the United States Department of Agriculture Soil Conservation Service. A High Intensity Soil Survey was completed in 2003 to verify soil conditions on site. The soils and hydrologic group are listed below:

Soil Classification	Hydrologic Group
Allagash - AlA	"B"
Lamoine (LaA, LaB, LaC, LaD	"C/D"
Madawaska (MaA, MaB, MaC	"B"
Nicholville (NiA, NiB, NiC, NiD	"B"
Pits Dump (PDA)	"X"
Pits Sand and Gravel (PSG)	"X"
Roundabout (RoA, RoB)	"B/D"
Scantic (ScA, ScB)	"D"
Skerry (SKB)	"C/D"
Swanton (SwA, SwB)	"B/D"
Udorthents (UdA)	"X"

General Notes:

1. Parcel is shown as Map 1 Lot 70 on Town of Brunswick Tax Map.
2. Owner of Record: Jones Farm Estates LLC., 4 Highland Road, Brunswick, Maine BK 38007 Page 234 03-30-2021, Jones Farm LLC, Book 24731 Page 0290 12-28-2006.
3. Bearings are based on Maine State Plan Coordinate System Maine West NAD83..
4. Elevations are based on NAVD88.
5. Total Area (lot 70): 79.44 acres. Proposed Project area = 34.08 Acres±
6. Total number of proposed lots = 14. The proposed use is Single Family Residential Units. No further subdivision on this property is allowed without approval from the Town of Brunswick Planning Board.
7. The parcel is located in the Rural Farm and Forest Zone (RF Zone)..
8. The portion of the property being developed is not located within the FIRM Flood Zone. Areas adjacent to the Androscoggin River may be subject to flooding.
9. Property to be served by Individual Private Wells and Septic Systems.
10. A class B High-Intensity Soil Survey was completed for the project in July 2003 to support a 36 lot residential development that expired. The Class B High Intensity Soil Survey was completed by Devine Tarbell & Associates, Inc., Portland, Maine in July 2003. In 2022, the developer intends to reduce the subdivision to 14 residential lots. The new roads and lots are generally located in the same locations as the original subdivision. We have used the original information for this project to the extent practical. Devine Tarbell & Associates, Inc. completed the wetland delineation shown on the plans in 2003 with the soil survey. Refer to the original report and plans for additional information. We have overlayed the soil boundaries and descriptions onto the base map shown on this plan.

Class B High Intensity Soils

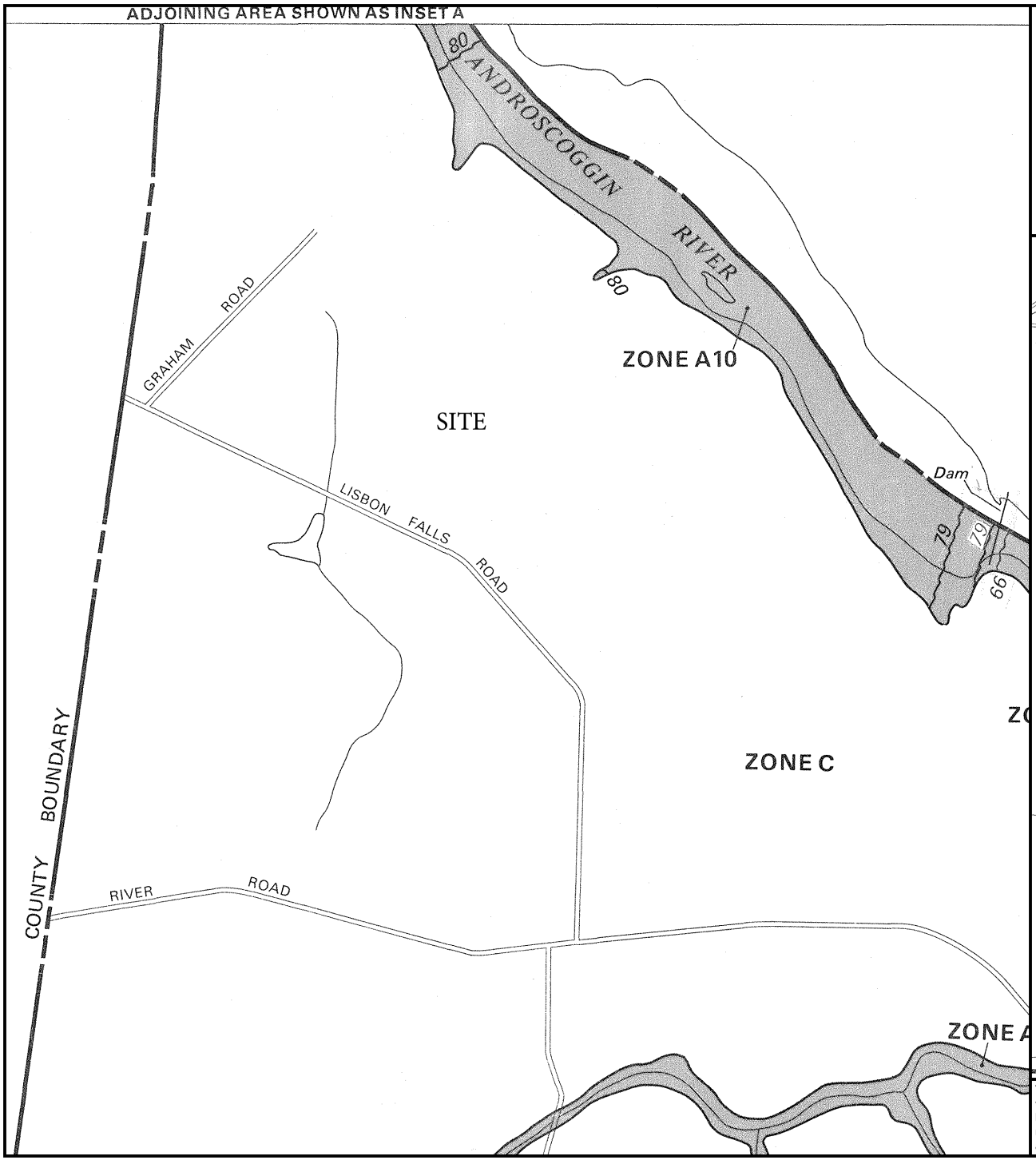
Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

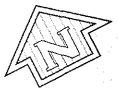
Jones Farm Development LLC
Tax Map 1 Lot 70

BELANGER ENGINEERING
CONSULTING ENGINEERS
63 Second Avenue , Augusta, Maine 04330 Ph 207-622-1462, Cell 207-242-5713
email: cbelanger@roadrunner.com
• COMMERCIAL PROJECTS • RESIDENTIAL SUBDIVISIONS • TOWN AND STATE APPROVALS • SITE PLANNING & DESIGN • STORMWATER MANAGEMENT • ROAD AND UTILITY DESIGN • EROSION CONTROL PLANS

STATE OF MAINE — CHRISTOPHER S. BELANGER 9098 — REGISTERED PROFESSIONAL ENGINEER
11-15-2022

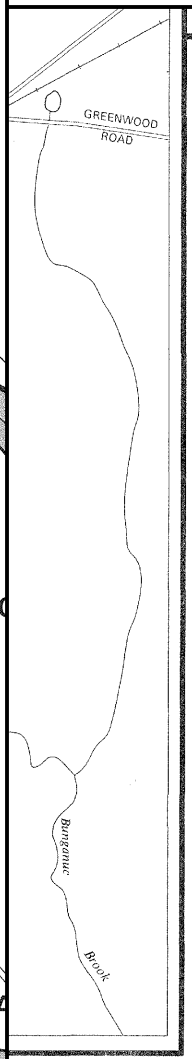
FIELD WK:	SCALE: 1"=100'	SHEET: Soils
DRN BY:	JOB #:	
CH'D BY:	SS:	
DATE: 11-15-2022	FILE:	





APPROXIMATE SCALE

1000 0 1000 FEET



NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TOWN OF
BRUNSWICK, MAINE
CUMBERLAND COUNTY

PANEL 10 OF 35
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230042 0010 B

EFFECTIVE DATE:
JANUARY 3, 1986

Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at https://msc.fema.gov.

Site Photos – Taken September 27, 2022

Standing at the Pit Road entrance looking left (Southwest)

Standing at the Pit Road entrance looking right (Northeast)

Pit Road and Gate

Pit Road

Approximate Entrance

Site Photos

Lisbon Road at Culvert Crossing

Lisbon Road at Pond Culvert Crossing

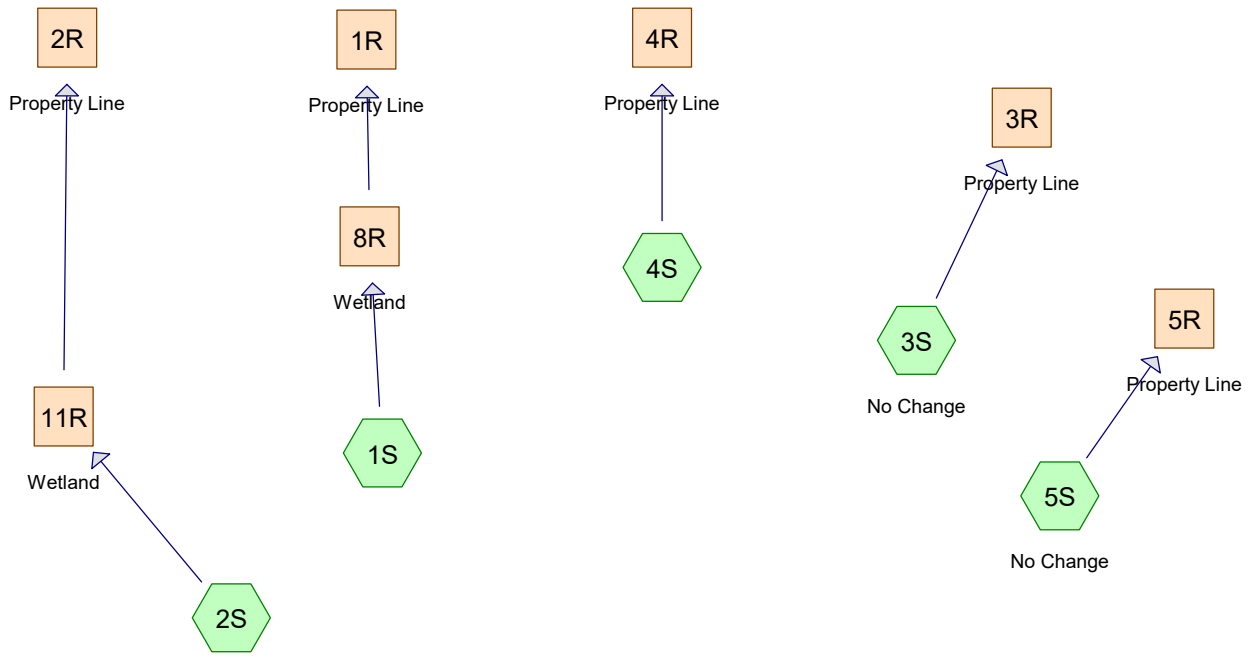
Off Site House

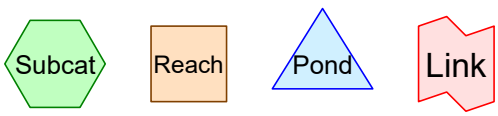
Madeline Drive

Existing Road across from Proposed Intersection (Madeline Drive)

Existing pond above site draining across Lisbon Road

Culvert Crossing Lisbon Road at Pond Outlet





Routing Diagram for PRE 1-2-2026
Prepared by Belanger Engineering, Printed 1/2/2026
HydroCAD® 10.00-26 s/n 02780 © 2020 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.350	98	Existing Impervious On Site (2S, 3S, 4S, 5S)
0.740	74	Existing Lawn Off Site (2S, 5S)
1.350	74	Existing Lawn On Site (2S, 3S, 4S, 5S)
0.740	98	Existing Roads Off Site (2S, 5S)
9.670	30	Woods, Good, HSG A (1S, 2S, 4S)
15.860	55	Woods, Good, HSG B (1S, 2S, 3S, 4S, 5S)
50.060	70	Woods, Good, HSG C (1S, 2S, 3S, 4S, 5S)
8.400	77	Woods, Good, HSG D (1S, 2S, 3S, 5S)
88.170	**64**	**TOTAL AREA**

Summary for Subcatchment 1S:

Runoff = 1.99 cfs @ 13.00 hrs, Volume= 0.477 af, Depth> 0.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	4.120	30	Woods, Good, HSG A
	3.940	55	Woods, Good, HSG B
	11.490	70	Woods, Good, HSG C
	0.900	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
	0.000	74	>75% Grass cover, Good, HSG C
*	0.000	98	Existing Impervious On Site
*	0.000	74	Existing Lawn On Site
	20.450	59	Weighted Average
	20.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.1	100	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
4.9	200	0.0750	0.68		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
55.0	300	Total			

Summary for Subcatchment 2S:

Runoff = 5.95 cfs @ 12.62 hrs, Volume= 0.887 af, Depth> 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	1.910	30	Woods, Good, HSG A
	0.940	55	Woods, Good, HSG B
	12.710	70	Woods, Good, HSG C
	2.020	77	Woods, Good, HSG D
*	0.460	98	Existing Roads Off Site
*	0.460	74	Existing Lawn Off Site
*	0.300	98	Existing Impervious On Site
*	0.300	74	Existing Lawn On Site
	19.100	67	Weighted Average
	18.340		96.02% Pervious Area
	0.760		3.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0400	0.06		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
9.0	383	0.0800	0.71		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
37.8	483	Total			

Summary for Subcatchment 3S: No Change

Runoff = 6.05 cfs @ 12.98 hrs, Volume= 1.195 af, Depth> 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	0.000	30	Woods, Good, HSG A
	8.880	55	Woods, Good, HSG B
	17.490	70	Woods, Good, HSG C
	0.960	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
*	0.000	74	Existing Lawn Off Site
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	28.090	66	Weighted Average
	27.710		98.65% Pervious Area
	0.380		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	100	0.0600	0.07		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
36.7	1,350	0.0600	0.61		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
61.2	1,450	Total			

Summary for Subcatchment 4S:

Runoff = 0.02 cfs @ 17.64 hrs, Volume= 0.008 af, Depth> 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	3.640	30	Woods, Good, HSG A
	0.250	55	Woods, Good, HSG B
	0.850	70	Woods, Good, HSG C
	0.000	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
*	0.000	74	Existing Lawn Off Site
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	5.500	45	Weighted Average
	5.120		93.09% Pervious Area
	0.380		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
44.3	1,050	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
82.3	1,150	Total			

Summary for Subcatchment 5S: No Change

Runoff = 3.94 cfs @ 13.29 hrs, Volume= 0.887 af, Depth> 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	0.000	30	Woods, Good, HSG A
	1.850	55	Woods, Good, HSG B
	7.520	70	Woods, Good, HSG C
	4.520	77	Woods, Good, HSG D
*	0.280	98	Existing Roads Off Site
*	0.280	74	Existing Lawn Off Site
*	0.290	98	Existing Impervious On Site
*	0.290	74	Existing Lawn On Site
	15.030	71	Weighted Average
	14.460		96.21% Pervious Area
	0.570		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
49.5	1,050	0.0200	0.35		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
87.5	1,150	Total			

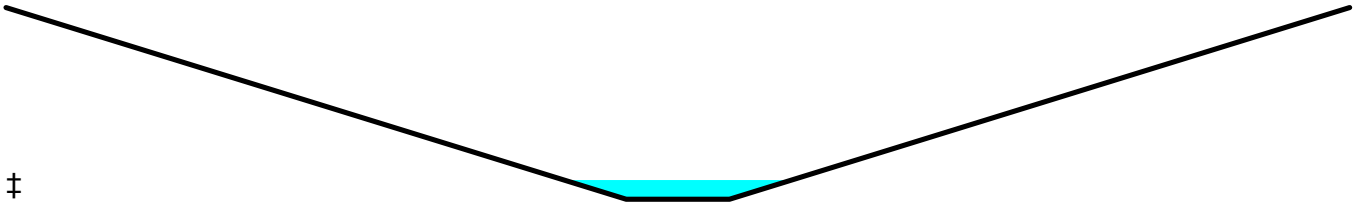
Summary for Reach 1R: Property Line

Inflow Area = 20.450 ac, 0.00% Impervious, Inflow Depth > 0.27" for 2 - YEAR event
Inflow = 1.85 cfs @ 13.41 hrs, Volume= 0.462 af
Outflow = 1.85 cfs @ 13.42 hrs, Volume= 0.461 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.87 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.07 fps, Avg. Travel Time= 0.4 min

Peak Storage= 32 cf @ 13.41 hrs
Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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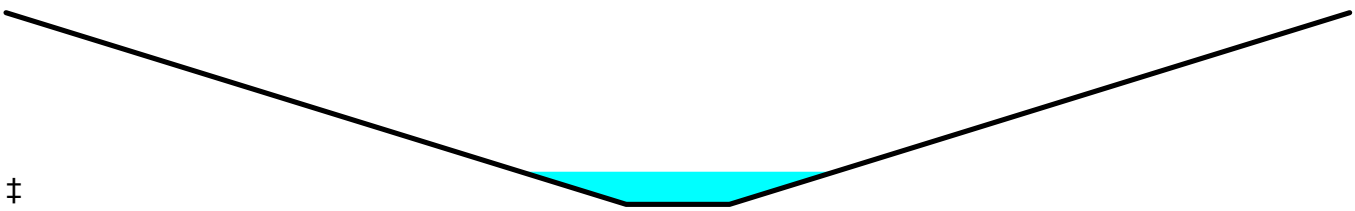
Summary for Reach 2R: Property Line

Inflow Area = 19.100 ac, 3.98% Impervious, Inflow Depth > 0.54" for 2 - YEAR event
Inflow = 5.24 cfs @ 13.02 hrs, Volume= 0.859 af
Outflow = 5.24 cfs @ 13.03 hrs, Volume= 0.859 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.83 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.37 fps, Avg. Travel Time= 0.4 min

Peak Storage= 68 cf @ 13.02 hrs
Average Depth at Peak Storage= 0.34'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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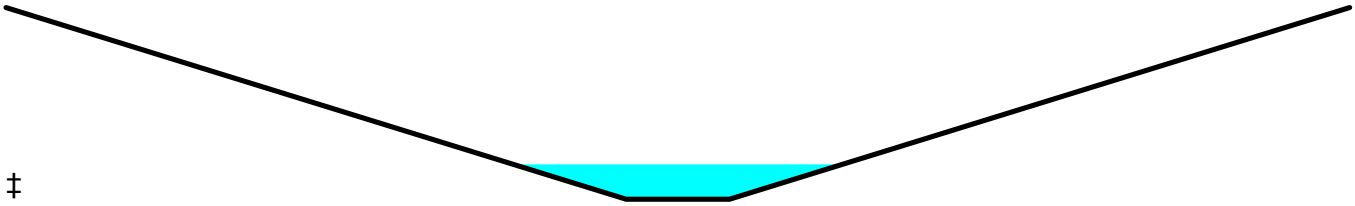
Summary for Reach 3R: Property Line

Inflow Area = 28.090 ac, 1.35% Impervious, Inflow Depth > 0.51" for 2 - YEAR event
Inflow = 6.05 cfs @ 12.98 hrs, Volume= 1.195 af
Outflow = 6.05 cfs @ 12.98 hrs, Volume= 1.194 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.98 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.62 fps, Avg. Travel Time= 0.3 min

Peak Storage= 76 cf @ 12.98 hrs
Average Depth at Peak Storage= 0.36'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 98.00', Outlet Invert= 95.00'



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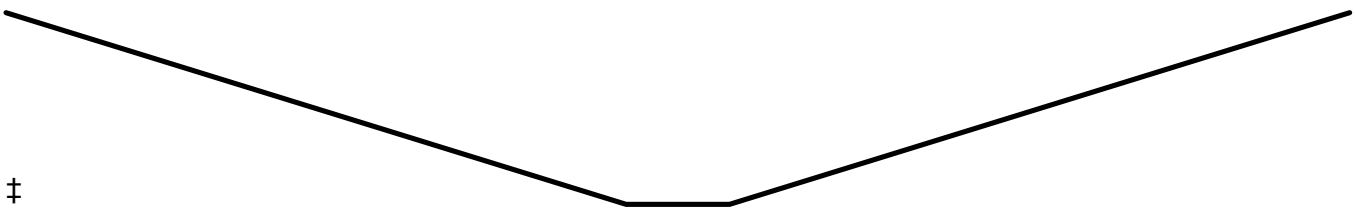
Summary for Reach 4R: Property Line

Inflow Area = 5.500 ac, 6.91% Impervious, Inflow Depth > 0.02" for 2 - YEAR event
Inflow = 0.02 cfs @ 17.64 hrs, Volume= 0.008 af
Outflow = 0.02 cfs @ 17.65 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.74 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 0.74 fps, Avg. Travel Time= 1.1 min

Peak Storage= 1 cf @ 17.50 hrs
Average Depth at Peak Storage= 0.01'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 168.00', Outlet Invert= 165.00'



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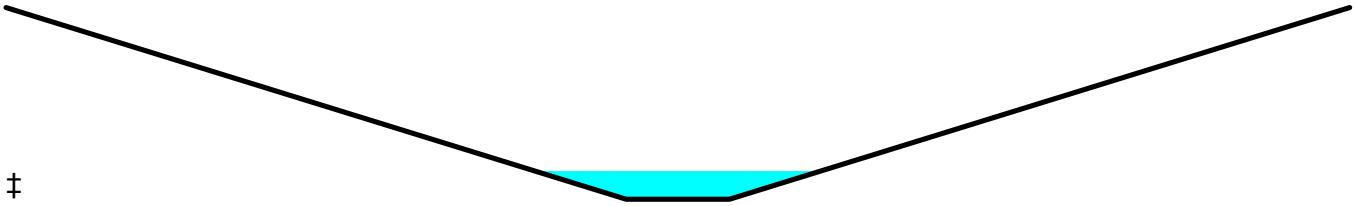
Summary for Reach 5R: Property Line

Inflow Area = 15.030 ac, 3.79% Impervious, Inflow Depth > 0.71" for 2 - YEAR event
Inflow = 3.94 cfs @ 13.29 hrs, Volume= 0.887 af
Outflow = 3.94 cfs @ 13.30 hrs, Volume= 0.886 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.55 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.32 fps, Avg. Travel Time= 0.4 min

Peak Storage= 56 cf @ 13.30 hrs
Average Depth at Peak Storage= 0.29'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 188.00', Outlet Invert= 185.00'



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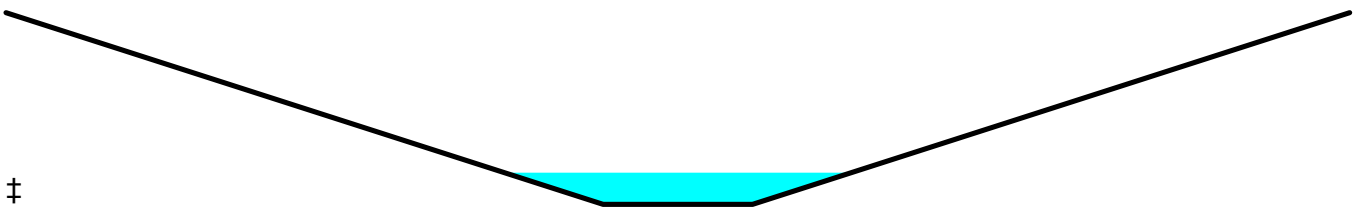
Summary for Reach 8R: Wetland

Inflow Area = 20.450 ac, 0.00% Impervious, Inflow Depth > 0.28" for 2 - YEAR event
Inflow = 1.99 cfs @ 13.00 hrs, Volume= 0.477 af
Outflow = 1.85 cfs @ 13.41 hrs, Volume= 0.462 af, Atten= 7%, Lag= 24.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.13 fps, Min. Travel Time= 13.2 min
Avg. Velocity = 0.80 fps, Avg. Travel Time= 18.6 min

Peak Storage= 1,471 cf @ 13.19 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 2.00' Flow Area= 30.0 sf, Capacity= 94.55 cfs

3.00' x 2.00' deep channel, n= 0.075 Very weedy reaches w/pools
Side Slope Z-value= 6.0 '/' Top Width= 27.00'
Length= 895.0' Slope= 0.0223 '/'
Inlet Invert= 183.00', Outlet Invert= 163.00'



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Summary for Reach 11R: Wetland

Inflow Area = 19.100 ac, 3.98% Impervious, Inflow Depth > 0.56" for 2 - YEAR event
Inflow = 5.95 cfs @ 12.62 hrs, Volume= 0.887 af
Outflow = 5.24 cfs @ 13.02 hrs, Volume= 0.859 af, Atten= 12%, Lag= 24.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.34 fps, Min. Travel Time= 13.7 min
Avg. Velocity = 0.75 fps, Avg. Travel Time= 24.4 min

Peak Storage= 4,303 cf @ 12.79 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 4.00' Flow Area= 136.0 sf, Capacity= 747.00 cfs

10.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 58.00'
Length= 1,100.0' Slope= 0.0055 '/'
Inlet Invert= 166.00', Outlet Invert= 160.00'

‡

Summary for Subcatchment 1S:

Runoff = 8.49 cfs @ 12.86 hrs, Volume= 1.507 af, Depth> 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	4.120	30	Woods, Good, HSG A
	3.940	55	Woods, Good, HSG B
	11.490	70	Woods, Good, HSG C
	0.900	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
	0.000	74	>75% Grass cover, Good, HSG C
*	0.000	98	Existing Impervious On Site
*	0.000	74	Existing Lawn On Site
	20.450	59	Weighted Average
	20.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.1	100	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
4.9	200	0.0750	0.68		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
55.0	300	Total			

Summary for Subcatchment 2S:

Runoff = 16.47 cfs @ 12.56 hrs, Volume= 2.192 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	1.910	30	Woods, Good, HSG A
	0.940	55	Woods, Good, HSG B
	12.710	70	Woods, Good, HSG C
	2.020	77	Woods, Good, HSG D
*	0.460	98	Existing Roads Off Site
*	0.460	74	Existing Lawn Off Site
*	0.300	98	Existing Impervious On Site
*	0.300	74	Existing Lawn On Site
	19.100	67	Weighted Average
	18.340		96.02% Pervious Area
	0.760		3.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0400	0.06		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
9.0	383	0.0800	0.71		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
37.8	483	Total			

Summary for Subcatchment 3S: No Change

Runoff = 17.48 cfs @ 12.88 hrs, Volume= 3.036 af, Depth> 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	0.000	30	Woods, Good, HSG A
	8.880	55	Woods, Good, HSG B
	17.490	70	Woods, Good, HSG C
	0.960	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
*	0.000	74	Existing Lawn Off Site
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	28.090	66	Weighted Average
	27.710		98.65% Pervious Area
	0.380		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	100	0.0600	0.07		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
36.7	1,350	0.0600	0.61		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
61.2	1,450	Total			

Summary for Subcatchment 4S:

Runoff = 0.32 cfs @ 13.65 hrs, Volume= 0.114 af, Depth> 0.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	3.640	30	Woods, Good, HSG A
	0.250	55	Woods, Good, HSG B
	0.850	70	Woods, Good, HSG C
	0.000	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
*	0.000	74	Existing Lawn Off Site
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	5.500	45	Weighted Average
	5.120		93.09% Pervious Area
	0.380		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
44.3	1,050	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
82.3	1,150	Total			

Summary for Subcatchment 5S: No Change

Runoff = 9.56 cfs @ 13.21 hrs, Volume= 2.021 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	0.000	30	Woods, Good, HSG A
	1.850	55	Woods, Good, HSG B
	7.520	70	Woods, Good, HSG C
	4.520	77	Woods, Good, HSG D
*	0.280	98	Existing Roads Off Site
*	0.280	74	Existing Lawn Off Site
*	0.290	98	Existing Impervious On Site
*	0.290	74	Existing Lawn On Site
	15.030	71	Weighted Average
	14.460		96.21% Pervious Area
	0.570		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
49.5	1,050	0.0200	0.35		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
87.5	1,150	Total			

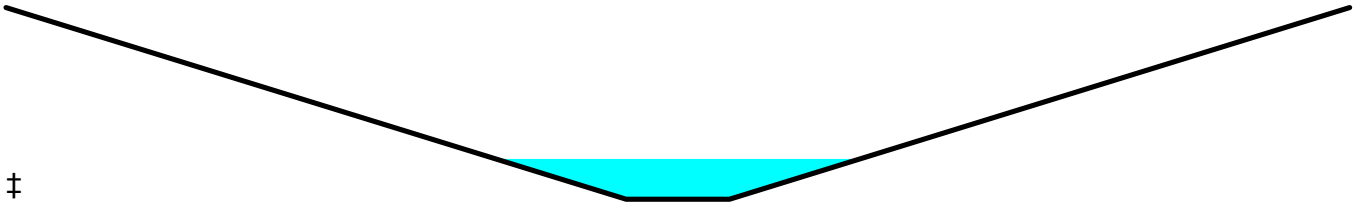
Summary for Reach 1R: Property Line

Inflow Area = 20.450 ac, 0.00% Impervious, Inflow Depth > 0.87" for 10 - YEAR event
Inflow = 8.18 cfs @ 13.12 hrs, Volume= 1.481 af
Outflow = 8.17 cfs @ 13.13 hrs, Volume= 1.481 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.31 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.76 fps, Avg. Travel Time= 0.3 min

Peak Storage= 95 cf @ 13.13 hrs
Average Depth at Peak Storage= 0.42'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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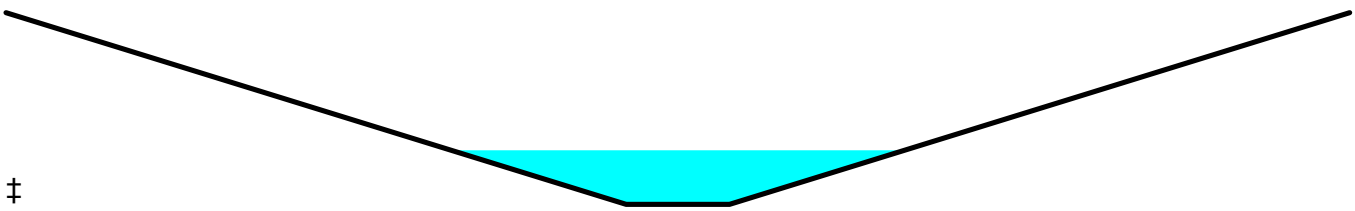
Summary for Reach 2R: Property Line

Inflow Area = 19.100 ac, 3.98% Impervious, Inflow Depth > 1.35" for 10 - YEAR event
Inflow = 15.40 cfs @ 12.85 hrs, Volume= 2.151 af
Outflow = 15.39 cfs @ 12.85 hrs, Volume= 2.151 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.09 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.82 fps, Avg. Travel Time= 0.3 min

Peak Storage= 151 cf @ 12.85 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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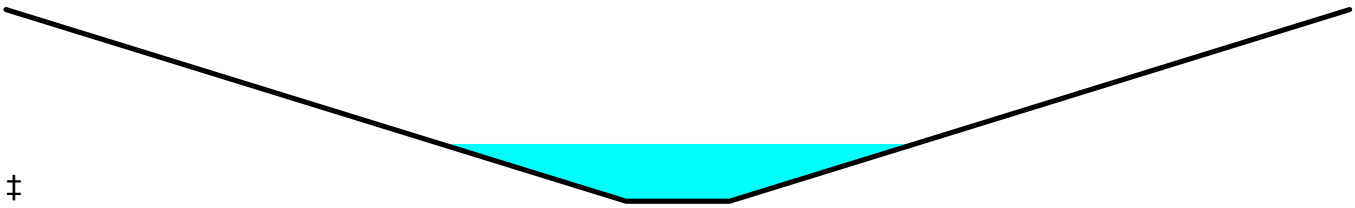
Summary for Reach 3R: Property Line

Inflow Area = 28.090 ac, 1.35% Impervious, Inflow Depth > 1.30" for 10 - YEAR event
Inflow = 17.48 cfs @ 12.88 hrs, Volume= 3.036 af
Outflow = 17.47 cfs @ 12.89 hrs, Volume= 3.035 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.26 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.13 fps, Avg. Travel Time= 0.3 min

Peak Storage= 166 cf @ 12.89 hrs
Average Depth at Peak Storage= 0.60'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 98.00', Outlet Invert= 95.00'



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Summary for Reach 4R: Property Line

Inflow Area = 5.500 ac, 6.91% Impervious, Inflow Depth > 0.25" for 10 - YEAR event
Inflow = 0.32 cfs @ 13.65 hrs, Volume= 0.114 af
Outflow = 0.32 cfs @ 13.66 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.68 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.34 fps, Avg. Travel Time= 0.6 min

Peak Storage= 9 cf @ 13.65 hrs
Average Depth at Peak Storage= 0.08'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 168.00', Outlet Invert= 165.00'

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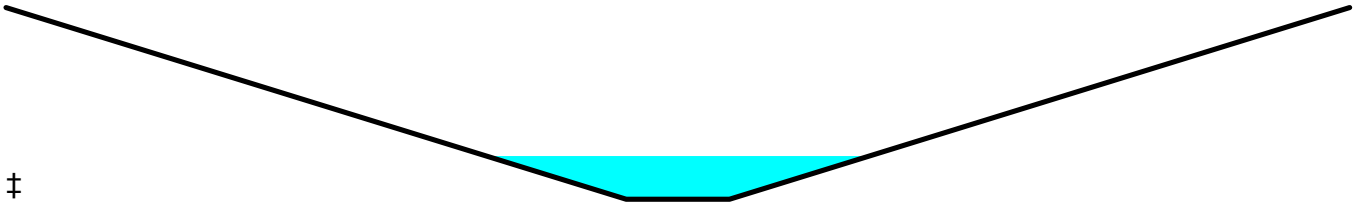
Summary for Reach 5R: Property Line

Inflow Area = 15.030 ac, 3.79% Impervious, Inflow Depth > 1.61" for 10 - YEAR event
Inflow = 9.56 cfs @ 13.21 hrs, Volume= 2.021 af
Outflow = 9.56 cfs @ 13.21 hrs, Volume= 2.020 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.49 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.69 fps, Avg. Travel Time= 0.3 min

Peak Storage= 106 cf @ 13.21 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 188.00', Outlet Invert= 185.00'



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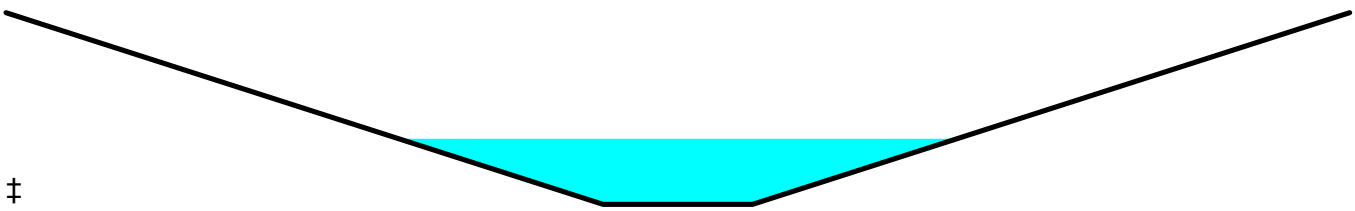
Summary for Reach 8R: Wetland

Inflow Area = 20.450 ac, 0.00% Impervious, Inflow Depth > 0.88" for 10 - YEAR event
Inflow = 8.49 cfs @ 12.86 hrs, Volume= 1.507 af
Outflow = 8.18 cfs @ 13.12 hrs, Volume= 1.481 af, Atten= 4%, Lag= 15.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.68 fps, Min. Travel Time= 8.9 min
Avg. Velocity = 1.07 fps, Avg. Travel Time= 14.0 min

Peak Storage= 4,345 cf @ 12.98 hrs
Average Depth at Peak Storage= 0.68'
Bank-Full Depth= 2.00' Flow Area= 30.0 sf, Capacity= 94.55 cfs

3.00' x 2.00' deep channel, n= 0.075 Very weedy reaches w/pools
Side Slope Z-value= 6.0 '/' Top Width= 27.00'
Length= 895.0' Slope= 0.0223 '/'
Inlet Invert= 183.00', Outlet Invert= 163.00'



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Summary for Reach 11R: Wetland

Inflow Area = 19.100 ac, 3.98% Impervious, Inflow Depth > 1.38" for 10 - YEAR event
Inflow = 16.47 cfs @ 12.56 hrs, Volume= 2.192 af
Outflow = 15.40 cfs @ 12.85 hrs, Volume= 2.151 af, Atten= 6%, Lag= 17.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.90 fps, Min. Travel Time= 9.7 min
Avg. Velocity = 0.94 fps, Avg. Travel Time= 19.5 min

Peak Storage= 8,946 cf @ 12.69 hrs
Average Depth at Peak Storage= 0.60'
Bank-Full Depth= 4.00' Flow Area= 136.0 sf, Capacity= 747.00 cfs

10.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 58.00'
Length= 1,100.0' Slope= 0.0055 '/'
Inlet Invert= 166.00', Outlet Invert= 160.00'

‡

Summary for Subcatchment 1S:

Runoff = 15.65 cfs @ 12.81 hrs, Volume= 2.587 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	4.120	30	Woods, Good, HSG A
	3.940	55	Woods, Good, HSG B
	11.490	70	Woods, Good, HSG C
	0.900	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
	0.000	74	>75% Grass cover, Good, HSG C
*	0.000	98	Existing Impervious On Site
*	0.000	74	Existing Lawn On Site
	20.450	59	Weighted Average
	20.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.1	100	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
4.9	200	0.0750	0.68		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
55.0	300	Total			

Summary for Subcatchment 2S:

Runoff = 26.44 cfs @ 12.55 hrs, Volume= 3.445 af, Depth> 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	1.910	30	Woods, Good, HSG A
	0.940	55	Woods, Good, HSG B
	12.710	70	Woods, Good, HSG C
	2.020	77	Woods, Good, HSG D
*	0.460	98	Existing Roads Off Site
*	0.460	74	Existing Lawn Off Site
*	0.300	98	Existing Impervious On Site
*	0.300	74	Existing Lawn On Site
	19.100	67	Weighted Average
	18.340		96.02% Pervious Area
	0.760		3.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0400	0.06		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
9.0	383	0.0800	0.71		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
37.8	483	Total			

Summary for Subcatchment 3S: No Change

Runoff = 28.57 cfs @ 12.86 hrs, Volume= 4.822 af, Depth> 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	0.000	30	Woods, Good, HSG A
	8.880	55	Woods, Good, HSG B
	17.490	70	Woods, Good, HSG C
	0.960	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
*	0.000	74	Existing Lawn Off Site
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	28.090	66	Weighted Average
	27.710		98.65% Pervious Area
	0.380		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	100	0.0600	0.07		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
36.7	1,350	0.0600	0.61		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
61.2	1,450	Total			

Summary for Subcatchment 4S:

Runoff = 0.98 cfs @ 13.41 hrs, Volume= 0.272 af, Depth> 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	3.640	30	Woods, Good, HSG A
	0.250	55	Woods, Good, HSG B
	0.850	70	Woods, Good, HSG C
	0.000	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
*	0.000	74	Existing Lawn Off Site
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	5.500	45	Weighted Average
	5.120		93.09% Pervious Area
	0.380		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
44.3	1,050	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
82.3	1,150	Total			

Summary for Subcatchment 5S: No Change

Runoff = 14.74 cfs @ 13.17 hrs, Volume= 3.075 af, Depth> 2.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	0.000	30	Woods, Good, HSG A
	1.850	55	Woods, Good, HSG B
	7.520	70	Woods, Good, HSG C
	4.520	77	Woods, Good, HSG D
*	0.280	98	Existing Roads Off Site
*	0.280	74	Existing Lawn Off Site
*	0.290	98	Existing Impervious On Site
*	0.290	74	Existing Lawn On Site
	15.030	71	Weighted Average
	14.460		96.21% Pervious Area
	0.570		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
49.5	1,050	0.0200	0.35		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
87.5	1,150	Total			

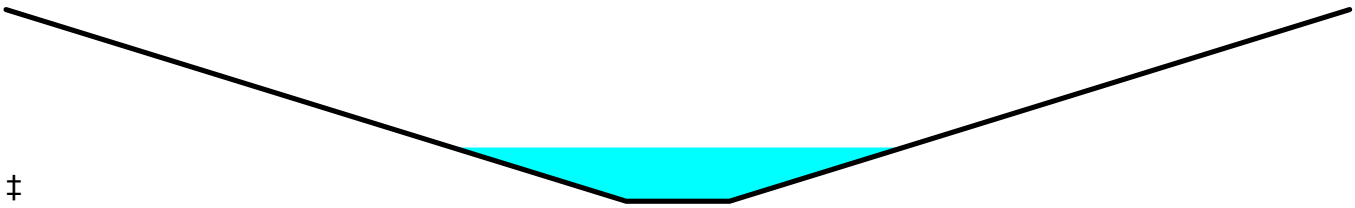
Summary for Reach 1R: Property Line

Inflow Area = 20.450 ac, 0.00% Impervious, Inflow Depth > 1.50" for 25 - YEAR event
Inflow = 15.21 cfs @ 13.04 hrs, Volume= 2.554 af
Outflow = 15.20 cfs @ 13.05 hrs, Volume= 2.553 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.07 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.05 fps, Avg. Travel Time= 0.3 min

Peak Storage= 150 cf @ 13.04 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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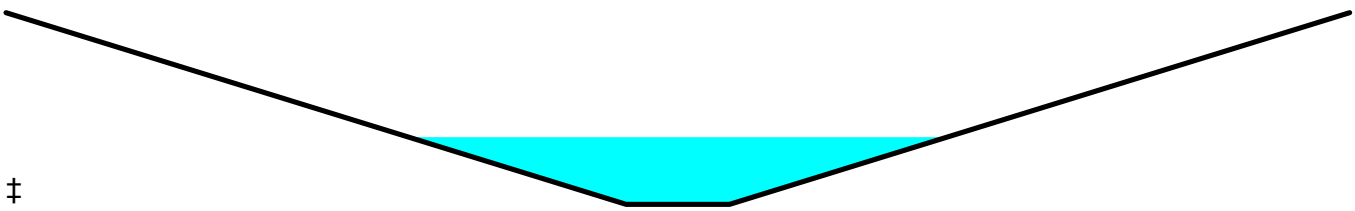
Summary for Reach 2R: Property Line

Inflow Area = 19.100 ac, 3.98% Impervious, Inflow Depth > 2.13" for 25 - YEAR event
Inflow = 25.12 cfs @ 12.79 hrs, Volume= 3.395 af
Outflow = 25.10 cfs @ 12.80 hrs, Volume= 3.394 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.77 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.05 fps, Avg. Travel Time= 0.3 min

Peak Storage= 218 cf @ 12.79 hrs
Average Depth at Peak Storage= 0.70'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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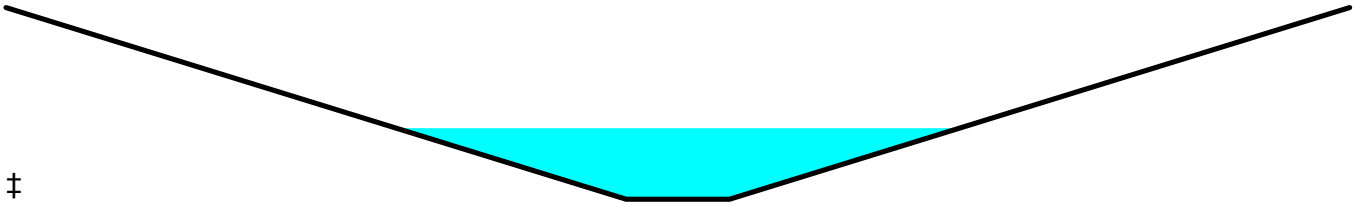
Summary for Reach 3R: Property Line

Inflow Area = 28.090 ac, 1.35% Impervious, Inflow Depth > 2.06" for 25 - YEAR event
Inflow = 28.57 cfs @ 12.86 hrs, Volume= 4.822 af
Outflow = 28.55 cfs @ 12.87 hrs, Volume= 4.821 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.96 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.40 fps, Avg. Travel Time= 0.2 min

Peak Storage= 239 cf @ 12.86 hrs
Average Depth at Peak Storage= 0.74'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 98.00', Outlet Invert= 95.00'



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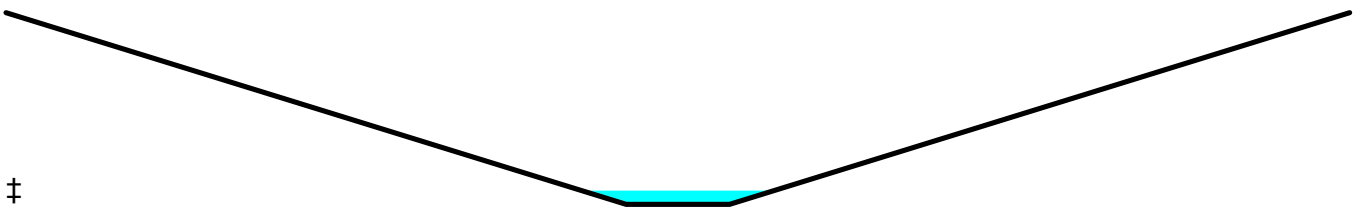
Summary for Reach 4R: Property Line

Inflow Area = 5.500 ac, 6.91% Impervious, Inflow Depth > 0.59" for 25 - YEAR event
Inflow = 0.98 cfs @ 13.41 hrs, Volume= 0.272 af
Outflow = 0.98 cfs @ 13.42 hrs, Volume= 0.271 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.38 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.75 fps, Avg. Travel Time= 0.5 min

Peak Storage= 21 cf @ 13.41 hrs
Average Depth at Peak Storage= 0.14'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 168.00', Outlet Invert= 165.00'



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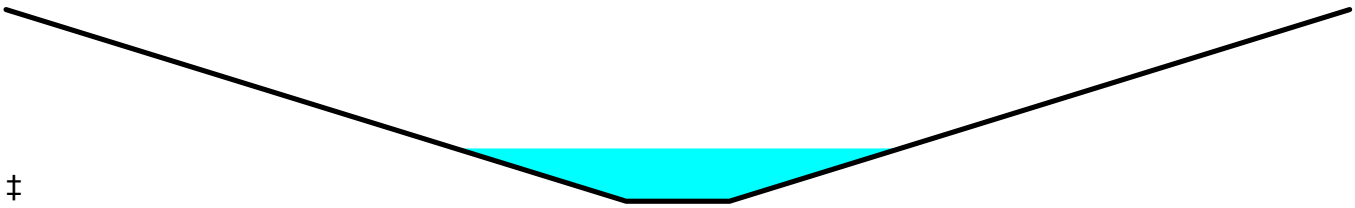
Summary for Reach 5R: Property Line

Inflow Area = 15.030 ac, 3.79% Impervious, Inflow Depth > 2.45" for 25 - YEAR event
Inflow = 14.74 cfs @ 13.17 hrs, Volume= 3.075 af
Outflow = 14.73 cfs @ 13.18 hrs, Volume= 3.074 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.03 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.90 fps, Avg. Travel Time= 0.3 min

Peak Storage= 147 cf @ 13.17 hrs
Average Depth at Peak Storage= 0.55'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 188.00', Outlet Invert= 185.00'



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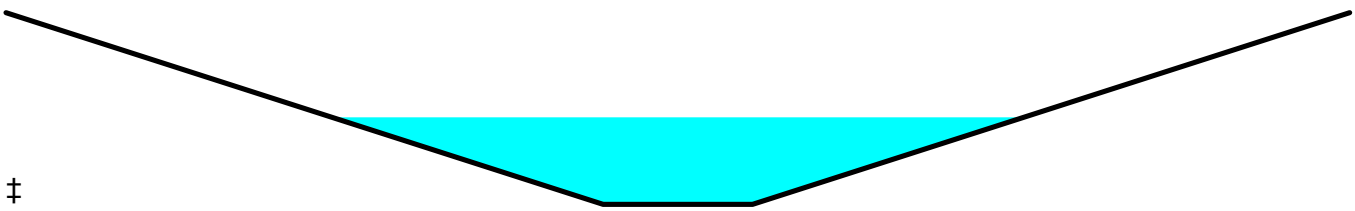
Summary for Reach 8R: Wetland

Inflow Area = 20.450 ac, 0.00% Impervious, Inflow Depth > 1.52" for 25 - YEAR event
Inflow = 15.65 cfs @ 12.81 hrs, Volume= 2.587 af
Outflow = 15.21 cfs @ 13.04 hrs, Volume= 2.554 af, Atten= 3%, Lag= 13.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.98 fps, Min. Travel Time= 7.5 min
Avg. Velocity = 1.18 fps, Avg. Travel Time= 12.7 min

Peak Storage= 6,884 cf @ 12.92 hrs
Average Depth at Peak Storage= 0.91'
Bank-Full Depth= 2.00' Flow Area= 30.0 sf, Capacity= 94.55 cfs

3.00' x 2.00' deep channel, n= 0.075 Very weedy reaches w/pools
Side Slope Z-value= 6.0 '/' Top Width= 27.00'
Length= 895.0' Slope= 0.0223 '/'
Inlet Invert= 183.00', Outlet Invert= 163.00'



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Summary for Reach 11R: Wetland

Inflow Area = 19.100 ac, 3.98% Impervious, Inflow Depth > 2.16" for 25 - YEAR event
Inflow = 26.44 cfs @ 12.55 hrs, Volume= 3.445 af
Outflow = 25.12 cfs @ 12.79 hrs, Volume= 3.395 af, Atten= 5%, Lag= 14.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.20 fps, Min. Travel Time= 8.3 min
Avg. Velocity = 1.04 fps, Avg. Travel Time= 17.6 min

Peak Storage= 12,587 cf @ 12.65 hrs
Average Depth at Peak Storage= 0.78'
Bank-Full Depth= 4.00' Flow Area= 136.0 sf, Capacity= 747.00 cfs

10.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 58.00'
Length= 1,100.0' Slope= 0.0055 '/'
Inlet Invert= 166.00', Outlet Invert= 160.00'

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Summary for Subcatchment 1S:

Runoff = 31.96 cfs @ 12.78 hrs, Volume= 5.068 af, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	4.120	30	Woods, Good, HSG A
	3.940	55	Woods, Good, HSG B
	11.490	70	Woods, Good, HSG C
	0.900	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
	0.000	74	>75% Grass cover, Good, HSG C
*	0.000	98	Existing Impervious On Site
*	0.000	74	Existing Lawn On Site
	20.450	59	Weighted Average
	20.450		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.1	100	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
4.9	200	0.0750	0.68		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
55.0	300	Total			

Summary for Subcatchment 2S:

Runoff = 47.56 cfs @ 12.53 hrs, Volume= 6.153 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	1.910	30	Woods, Good, HSG A
	0.940	55	Woods, Good, HSG B
	12.710	70	Woods, Good, HSG C
	2.020	77	Woods, Good, HSG D
*	0.460	98	Existing Roads Off Site
*	0.460	74	Existing Lawn Off Site
*	0.300	98	Existing Impervious On Site
*	0.300	74	Existing Lawn On Site
	19.100	67	Weighted Average
	18.340		96.02% Pervious Area
	0.760		3.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.8	100	0.0400	0.06		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
9.0	383	0.0800	0.71		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
37.8	483	Total			

Summary for Subcatchment 3S: No Change

Runoff = 52.21 cfs @ 12.84 hrs, Volume= 8.711 af, Depth> 3.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	0.000	30	Woods, Good, HSG A
	8.880	55	Woods, Good, HSG B
	17.490	70	Woods, Good, HSG C
	0.960	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
*	0.000	74	Existing Lawn Off Site
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	28.090	66	Weighted Average
	27.710		98.65% Pervious Area
	0.380		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	100	0.0600	0.07		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
36.7	1,350	0.0600	0.61		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
61.2	1,450	Total			

Summary for Subcatchment 4S:

Runoff = 3.11 cfs @ 13.25 hrs, Volume= 0.703 af, Depth> 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	3.640	30	Woods, Good, HSG A
	0.250	55	Woods, Good, HSG B
	0.850	70	Woods, Good, HSG C
	0.000	77	Woods, Good, HSG D
*	0.000	98	Existing Roads Off Site
*	0.000	74	Existing Lawn Off Site
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	5.500	45	Weighted Average
	5.120		93.09% Pervious Area
	0.380		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
44.3	1,050	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
82.3	1,150	Total			

Summary for Subcatchment 5S: No Change

Runoff = 25.46 cfs @ 13.15 hrs, Volume= 5.300 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	0.000	30	Woods, Good, HSG A
	1.850	55	Woods, Good, HSG B
	7.520	70	Woods, Good, HSG C
	4.520	77	Woods, Good, HSG D
*	0.280	98	Existing Roads Off Site
*	0.280	74	Existing Lawn Off Site
*	0.290	98	Existing Impervious On Site
*	0.290	74	Existing Lawn On Site
	15.030	71	Weighted Average
	14.460		96.21% Pervious Area
	0.570		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
49.5	1,050	0.0200	0.35		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
87.5	1,150	Total			

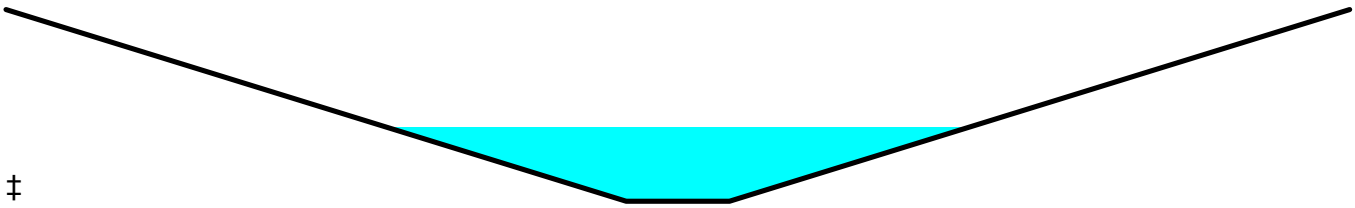
Summary for Reach 1R: Property Line

Inflow Area = 20.450 ac, 0.00% Impervious, Inflow Depth > 2.95" for 100 - YEAR event
Inflow = 31.34 cfs @ 12.97 hrs, Volume= 5.020 af
Outflow = 31.33 cfs @ 12.97 hrs, Volume= 5.019 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.11 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.42 fps, Avg. Travel Time= 0.2 min

Peak Storage= 257 cf @ 12.97 hrs
Average Depth at Peak Storage= 0.77'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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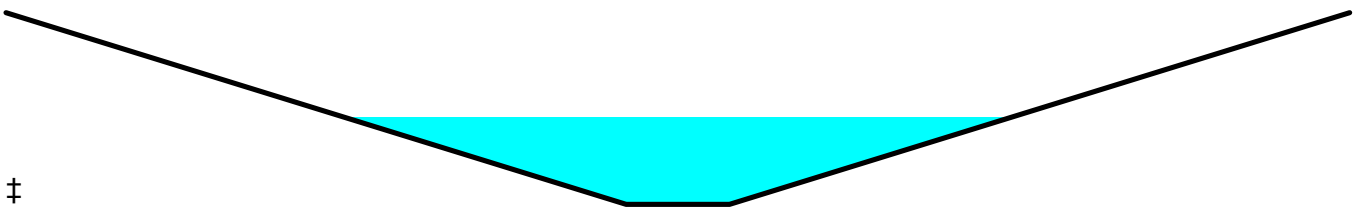
Summary for Reach 2R: Property Line

Inflow Area = 19.100 ac, 3.98% Impervious, Inflow Depth > 3.82" for 100 - YEAR event
Inflow = 45.76 cfs @ 12.74 hrs, Volume= 6.086 af
Outflow = 45.73 cfs @ 12.74 hrs, Volume= 6.085 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.72 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.39 fps, Avg. Travel Time= 0.2 min

Peak Storage= 340 cf @ 12.74 hrs
Average Depth at Peak Storage= 0.91'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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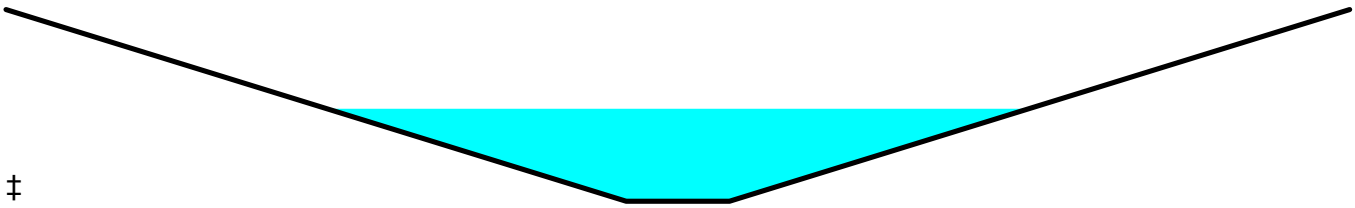
Summary for Reach 3R: Property Line

Inflow Area = 28.090 ac, 1.35% Impervious, Inflow Depth > 3.72" for 100 - YEAR event
Inflow = 52.21 cfs @ 12.84 hrs, Volume= 8.711 af
Outflow = 52.20 cfs @ 12.85 hrs, Volume= 8.710 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.95 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.78 fps, Avg. Travel Time= 0.2 min

Peak Storage= 375 cf @ 12.85 hrs
Average Depth at Peak Storage= 0.96'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 98.00', Outlet Invert= 95.00'



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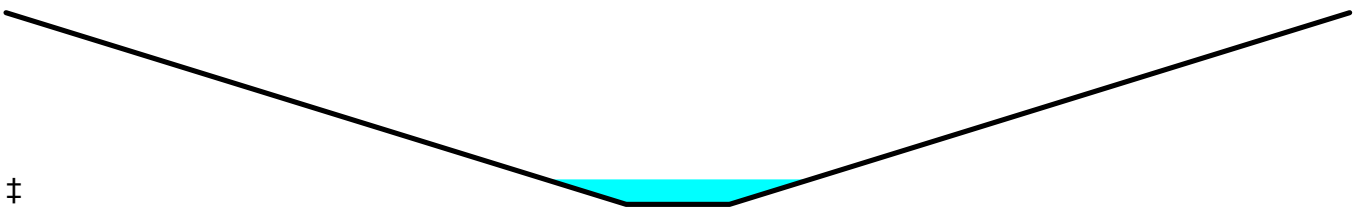
Summary for Reach 4R: Property Line

Inflow Area = 5.500 ac, 6.91% Impervious, Inflow Depth > 1.53" for 100 - YEAR event
Inflow = 3.11 cfs @ 13.25 hrs, Volume= 0.703 af
Outflow = 3.11 cfs @ 13.26 hrs, Volume= 0.703 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.32 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.24 fps, Avg. Travel Time= 0.4 min

Peak Storage= 47 cf @ 13.25 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 168.00', Outlet Invert= 165.00'



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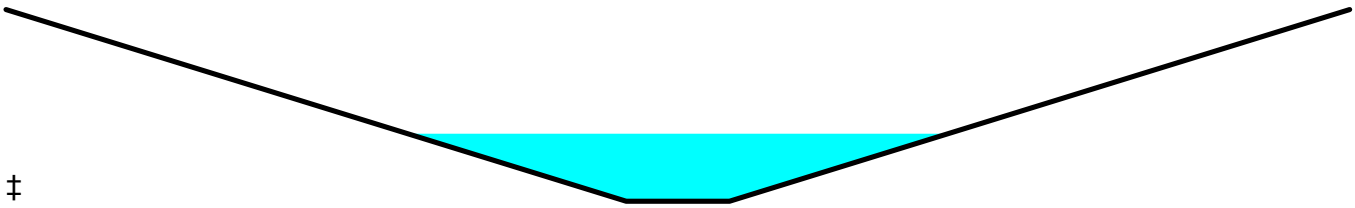
Summary for Reach 5R: Property Line

Inflow Area = 15.030 ac, 3.79% Impervious, Inflow Depth > 4.23" for 100 - YEAR event
Inflow = 25.46 cfs @ 13.15 hrs, Volume= 5.300 af
Outflow = 25.46 cfs @ 13.16 hrs, Volume= 5.299 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.79 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.20 fps, Avg. Travel Time= 0.3 min

Peak Storage= 220 cf @ 13.16 hrs
Average Depth at Peak Storage= 0.71'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 188.00', Outlet Invert= 185.00'



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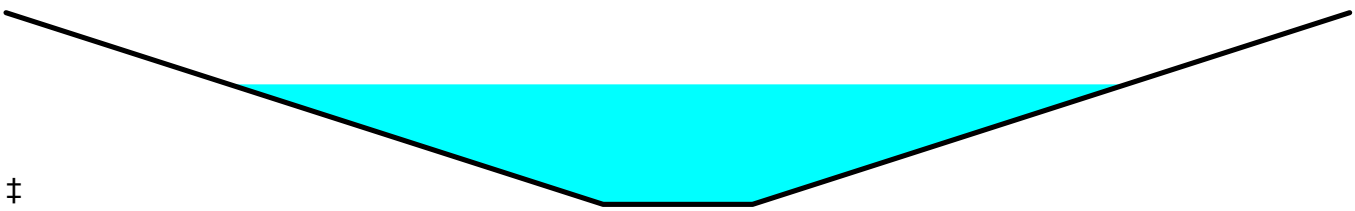
Summary for Reach 8R: Wetland

Inflow Area = 20.450 ac, 0.00% Impervious, Inflow Depth > 2.97" for 100 - YEAR event
Inflow = 31.96 cfs @ 12.78 hrs, Volume= 5.068 af
Outflow = 31.34 cfs @ 12.97 hrs, Volume= 5.020 af, Atten= 2%, Lag= 11.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.38 fps, Min. Travel Time= 6.3 min
Avg. Velocity = 1.33 fps, Avg. Travel Time= 11.2 min

Peak Storage= 11,777 cf @ 12.86 hrs
Average Depth at Peak Storage= 1.25'
Bank-Full Depth= 2.00' Flow Area= 30.0 sf, Capacity= 94.55 cfs

3.00' x 2.00' deep channel, n= 0.075 Very weedy reaches w/pools
Side Slope Z-value= 6.0 '/' Top Width= 27.00'
Length= 895.0' Slope= 0.0223 '/'
Inlet Invert= 183.00', Outlet Invert= 163.00'



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Summary for Reach 11R: Wetland

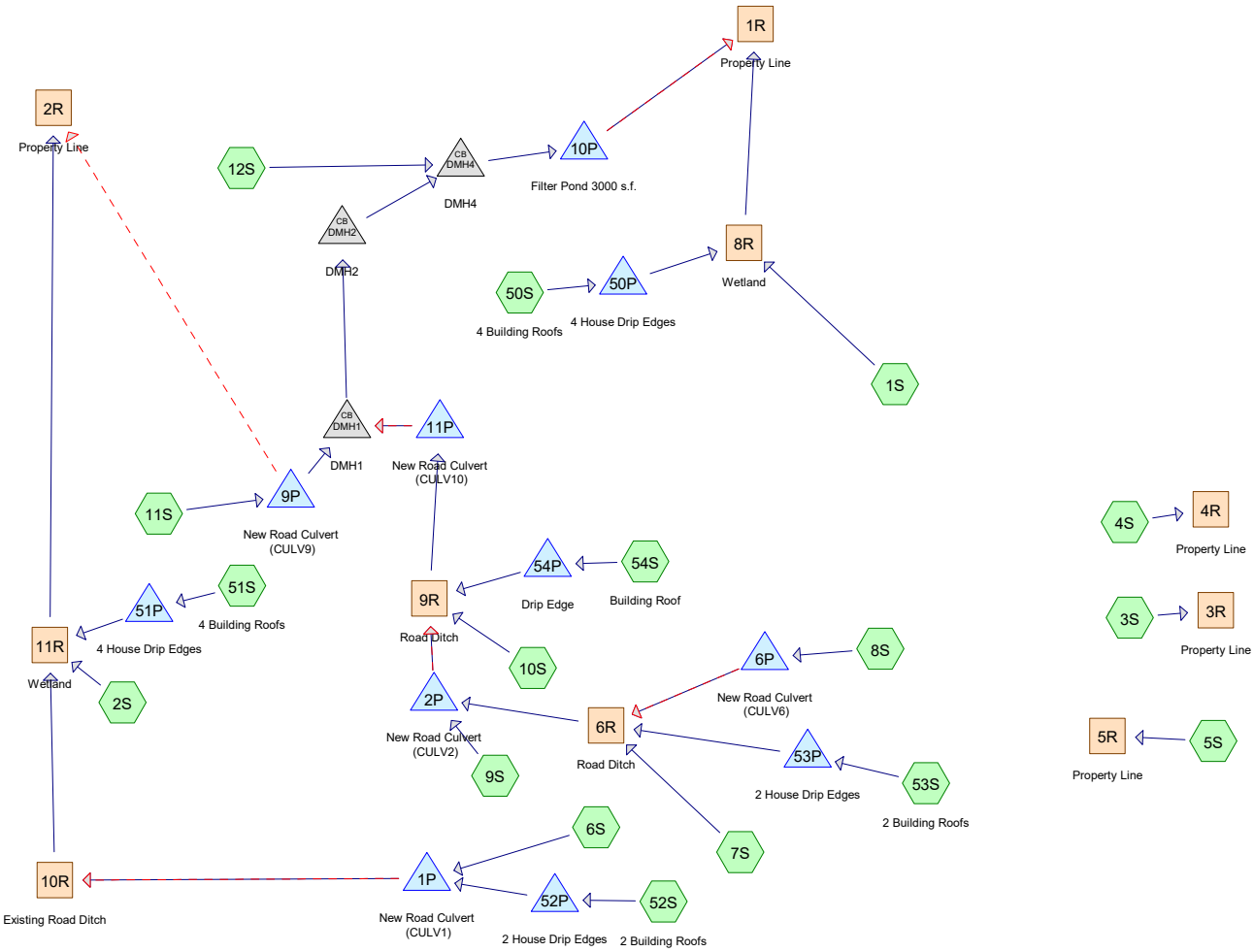
Inflow Area = 19.100 ac, 3.98% Impervious, Inflow Depth > 3.87" for 100 - YEAR event
Inflow = 47.56 cfs @ 12.53 hrs, Volume= 6.153 af
Outflow = 45.76 cfs @ 12.74 hrs, Volume= 6.086 af, Atten= 4%, Lag= 12.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.62 fps, Min. Travel Time= 7.0 min
Avg. Velocity = 1.19 fps, Avg. Travel Time= 15.5 min

Peak Storage= 19,286 cf @ 12.62 hrs
Average Depth at Peak Storage= 1.07'
Bank-Full Depth= 4.00' Flow Area= 136.0 sf, Capacity= 747.00 cfs

10.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 58.00'
Length= 1,100.0' Slope= 0.0055 '/'
Inlet Invert= 166.00', Outlet Invert= 160.00'

‡



Subcat Reach Pond Link

Routing Diagram for POST 1-2-2026
Prepared by Belanger Engineering, Printed 1/2/2026
HydroCAD® 10.00-26 s/n 02780 © 2020 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.650	98	Building Roof (50S, 51S, 52S, 53S, 54S)
1.350	98	Existing Impervious On Site (3S, 4S, 5S, 6S)
0.740	74	Existing Lawn Off Site (2S, 5S, 6S)
1.350	74	Existing Lawn On Site (3S, 4S, 5S, 6S)
0.740	98	Existing Roads Off Site (2S, 5S, 6S)
0.290	74	Filter Pond (12S)
0.650	98	New Lot Impervious (1S, 2S, 6S, 7S, 10S, 11S)
1.950	74	New Lot Lawn (1S, 2S, 6S, 7S, 10S)
0.880	98	New Road Impervious (1S, 2S, 6S, 7S, 8S, 9S, 10S, 11S, 12S)
1.120	74	New Road Lawn (1S, 2S, 6S, 7S, 8S, 9S, 10S, 11S, 12S)
9.670	30	Woods, Good, HSG A (1S, 4S, 6S)
16.060	55	Woods, Good, HSG B (1S, 2S, 3S, 4S, 5S, 6S, 8S, 9S, 10S)
44.320	70	Woods, Good, HSG C (1S, 2S, 3S, 4S, 5S, 6S, 7S, 9S, 10S, 12S)
8.420	77	Woods, Good, HSG D (1S, 2S, 3S, 5S, 6S)
88.190	**65**	**TOTAL AREA**

Summary for Subcatchment 1S:

Runoff = 1.87 cfs @ 12.97 hrs, Volume= 0.440 af, Depth> 0.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	4.120	30	Woods, Good, HSG A
	3.940	55	Woods, Good, HSG B
	9.010	70	Woods, Good, HSG C
	0.900	77	Woods, Good, HSG D
*	0.010	98	New Road Impervious
*	0.040	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.20 to 50)
*	0.200	98	New Lot Impervious
*	0.600	74	New Lot Lawn
	18.820	59	Weighted Average
	18.610		98.88% Pervious Area
	0.210		1.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.1	100	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.8	160	0.1500	0.97		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
52.9	260	Total			

Summary for Subcatchment 2S:

Runoff = 2.86 cfs @ 13.48 hrs, Volume= 0.692 af, Depth> 0.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	0.240	55	Woods, Good, HSG B
	7.540	70	Woods, Good, HSG C
	2.010	77	Woods, Good, HSG D
*	0.170	98	Existing Roads Off Site
*	0.170	74	Existing Lawn Off Site
*	0.120	98	New Road Impervious
*	0.160	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.20 to 51)
*	0.100	98	New Lot Impervious
*	0.600	74	New Lot Lawn
	11.110	72	Weighted Average
	10.720		96.49% Pervious Area
	0.390		3.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
61.1	1,450	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
1.3	1,100	0.0400	13.91	111.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
100.4	2,650	Total			

Summary for Subcatchment 3S:

Runoff = 6.05 cfs @ 12.98 hrs, Volume= 1.195 af, Depth> 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	8.880	55	Woods, Good, HSG B
	17.490	70	Woods, Good, HSG C
	0.960	77	Woods, Good, HSG D
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	28.090	66	Weighted Average
	27.710		98.65% Pervious Area
	0.380		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	100	0.0600	0.07		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
36.7	1,350	0.0600	0.61		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
61.2	1,450	Total			

Summary for Subcatchment 4S:

Runoff = 0.02 cfs @ 17.64 hrs, Volume= 0.008 af, Depth> 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	3.640	30	Woods, Good, HSG A
	0.250	55	Woods, Good, HSG B
	0.850	70	Woods, Good, HSG C
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
*	0.000	74	New Road Lawn
	5.500	45	Weighted Average
	5.120		93.09% Pervious Area
	0.380		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
44.3	1,050	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
82.3	1,150	Total			

Summary for Subcatchment 5S:

Runoff = 3.94 cfs @ 13.29 hrs, Volume= 0.887 af, Depth> 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	1.850	55	Woods, Good, HSG B
	7.520	70	Woods, Good, HSG C
	4.520	77	Woods, Good, HSG D
*	0.280	98	Existing Roads Off Site
*	0.280	74	Existing Lawn Off Site
*	0.290	98	Existing Impervious On Site
*	0.290	74	Existing Lawn On Site
	15.030	71	Weighted Average
	14.460		96.21% Pervious Area
	0.570		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
49.5	1,050	0.0200	0.35		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
87.5	1,150	Total			

Summary for Subcatchment 6S:

Runoff = 0.45 cfs @ 13.72 hrs, Volume= 0.139 af, Depth> 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	1.910	30	Woods, Good, HSG A
	0.500	55	Woods, Good, HSG B
	1.400	70	Woods, Good, HSG C
	0.030	77	Woods, Good, HSG D
*	0.290	98	Existing Roads Off Site
*	0.290	74	Existing Lawn Off Site
*	0.300	98	Existing Impervious On Site
*	0.300	74	Existing Lawn On Site
*	0.070	98	New Road Impervious
*	0.100	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.1 to 52)
*	0.100	98	New Lot Impervious
*	0.300	74	New Lot Lawn
	5.590	60	Weighted Average
	4.830		86.40% Pervious Area
	0.760		13.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
61.1	1,450	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
1.3	1,100	0.0400	13.91	111.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
100.4	2,650	Total			

Summary for Subcatchment 7S:

Runoff = 0.53 cfs @ 12.54 hrs, Volume= 0.069 af, Depth> 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	0.000	55	Woods, Good, HSG B
	0.140	70	Woods, Good, HSG C
*	0.080	98	New Road Impervious
*	0.100	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.1 to 53S)
*	0.100	98	New Lot Impervious
*	0.300	74	New Lot Lawn
	0.720	79	Weighted Average
	0.540		75.00% Pervious Area
	0.180		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
35.5	65	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
37.3	315	Total			

Summary for Subcatchment 8S:

Runoff = 0.38 cfs @ 12.04 hrs, Volume= 0.023 af, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	0.010	55	Woods, Good, HSG B
*	0.090	98	New Road Impervious
*	0.070	74	New Road Lawn
	0.170	86	Weighted Average
	0.080		47.06% Pervious Area
	0.090		52.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
2.3	250	0.0150	1.84		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.5	263	Total			

Summary for Subcatchment 9S:

Runoff = 0.54 cfs @ 12.05 hrs, Volume= 0.034 af, Depth> 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	0.140	55	Woods, Good, HSG B
	0.180	70	Woods, Good, HSG C
*	0.090	98	New Road Impervious
*	0.110	74	New Road Lawn
*	0.000	98	New Lot Buildings
*	0.000	98	New Lot Impervious
*	0.000	74	New Lot Lawn
	0.520	72	Weighted Average
	0.430		82.69% Pervious Area
	0.090		17.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 10S:

Runoff = 1.25 cfs @ 12.05 hrs, Volume= 0.078 af, Depth> 0.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	0.250	55	Woods, Good, HSG B
	0.150	70	Woods, Good, HSG C
*	0.190	98	New Road Impervious
*	0.260	74	New Road Lawn
*	0.000	98	New Lot Buildings (.05 TO 54)
*	0.050	98	New Lot Impervious
*	0.150	74	New Lot Lawn
	1.050	74	Weighted Average
	0.810		77.14% Pervious Area
	0.240		22.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 11S:

Runoff = 0.84 cfs @ 12.04 hrs, Volume= 0.051 af, Depth> 1.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
*	0.100	98	New Road Impervious
*	0.130	74	New Road Lawn
*	0.000	98	New Lot Buildings
*	0.100	98	New Lot Impervious
*	0.000	74	New Lawn
	0.330	89	Weighted Average
	0.130		39.39% Pervious Area
	0.200		60.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 12S:

Runoff = 0.98 cfs @ 12.04 hrs, Volume= 0.059 af, Depth> 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
	0.040	70	Woods, Good, HSG C
*	0.130	98	New Road Impervious
*	0.150	74	New Road Lawn
*	0.290	74	Filter Pond
*	0.000	98	New Lot Buildings
*	0.000	98	New Lot Impervious
*	0.000	74	New Lawn
	0.610	79	Weighted Average
	0.480		78.69% Pervious Area
	0.130		21.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 50S: 4 Building Roofs

Runoff = 0.69 cfs @ 12.00 hrs, Volume= 0.045 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
*	0.200	98	Building Roof
	0.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 51S: 4 Building Roofs

Runoff = 0.69 cfs @ 12.00 hrs, Volume= 0.045 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
*	0.200	98	Building Roof
	0.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 52S: 2 Building Roofs

Runoff = 0.34 cfs @ 12.00 hrs, Volume= 0.022 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
*	0.100	98	Building Roof
	0.100		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 53S: 2 Building Roofs

Runoff = 0.34 cfs @ 12.00 hrs, Volume= 0.022 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
*	0.100	98	Building Roof
	0.100		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 54S: Building Roof

Runoff = 0.17 cfs @ 12.00 hrs, Volume= 0.011 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 - YEAR Rainfall=3.10"

	Area (ac)	CN	Description
*	0.050	98	Building Roof
	0.050		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

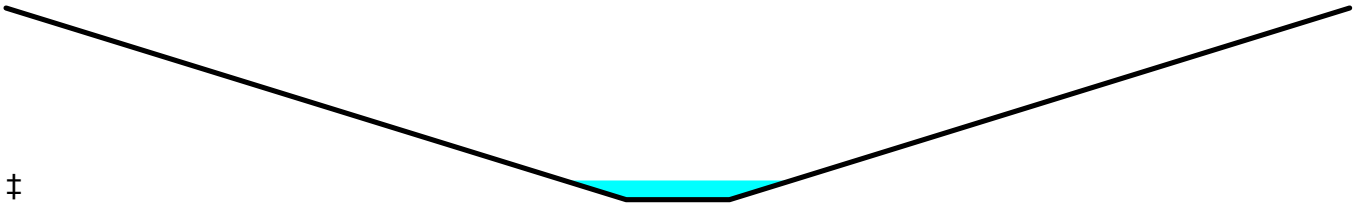
Summary for Reach 1R: Property Line

Inflow Area = 22.570 ac, 6.60% Impervious, Inflow Depth > 0.28" for 2 - YEAR event
Inflow = 1.86 cfs @ 13.39 hrs, Volume= 0.520 af
Outflow = 1.86 cfs @ 13.40 hrs, Volume= 0.520 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.87 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.64 fps, Avg. Travel Time= 0.5 min

Peak Storage= 32 cf @ 13.39 hrs
Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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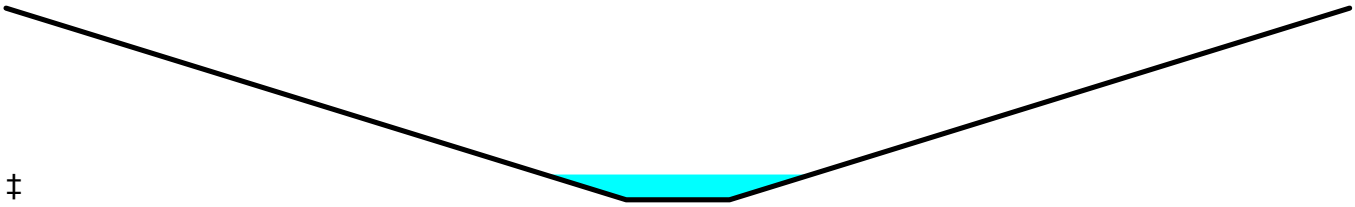
Summary for Reach 2R: Property Line

Inflow Area = 17.000 ac, 8.53% Impervious, Inflow Depth > 0.56" for 2 - YEAR event
Inflow = 3.16 cfs @ 13.98 hrs, Volume= 0.800 af
Outflow = 3.16 cfs @ 13.98 hrs, Volume= 0.800 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.34 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.28 fps, Avg. Travel Time= 0.4 min

Peak Storage= 47 cf @ 13.98 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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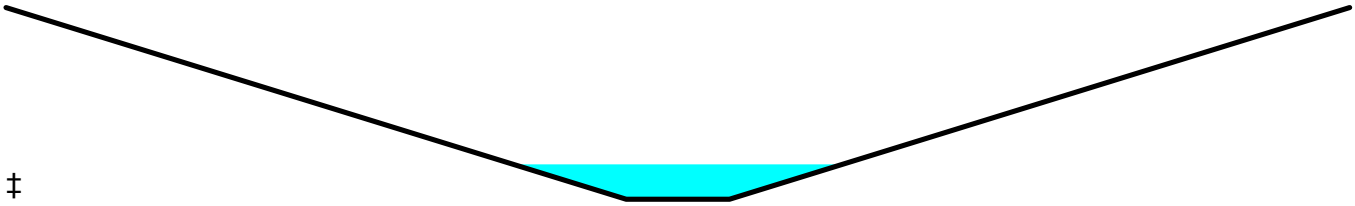
Summary for Reach 3R: Property Line

Inflow Area = 28.090 ac, 1.35% Impervious, Inflow Depth > 0.51" for 2 - YEAR event
Inflow = 6.05 cfs @ 12.98 hrs, Volume= 1.195 af
Outflow = 6.05 cfs @ 12.98 hrs, Volume= 1.194 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.98 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.62 fps, Avg. Travel Time= 0.3 min

Peak Storage= 76 cf @ 12.98 hrs
Average Depth at Peak Storage= 0.36'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 98.00', Outlet Invert= 95.00'



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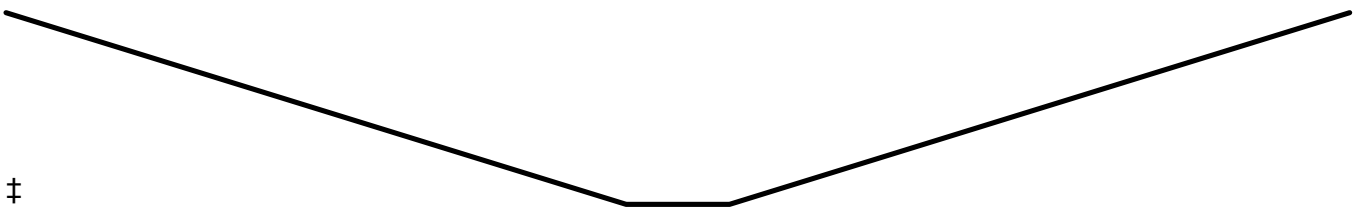
Summary for Reach 4R: Property Line

Inflow Area = 5.500 ac, 6.91% Impervious, Inflow Depth > 0.02" for 2 - YEAR event
Inflow = 0.02 cfs @ 17.64 hrs, Volume= 0.008 af
Outflow = 0.02 cfs @ 17.65 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.74 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 0.74 fps, Avg. Travel Time= 1.1 min

Peak Storage= 1 cf @ 17.50 hrs
Average Depth at Peak Storage= 0.01'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 168.00', Outlet Invert= 165.00'



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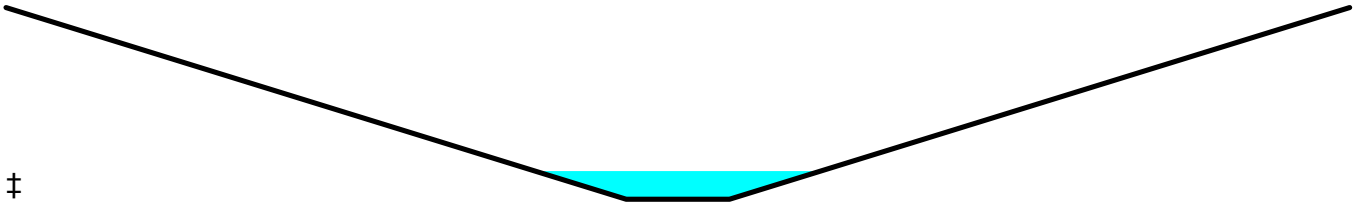
Summary for Reach 5R: Property Line

Inflow Area = 15.030 ac, 3.79% Impervious, Inflow Depth > 0.71" for 2 - YEAR event
Inflow = 3.94 cfs @ 13.29 hrs, Volume= 0.887 af
Outflow = 3.94 cfs @ 13.30 hrs, Volume= 0.886 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.55 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.32 fps, Avg. Travel Time= 0.4 min

Peak Storage= 56 cf @ 13.30 hrs
Average Depth at Peak Storage= 0.29'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 188.00', Outlet Invert= 185.00'



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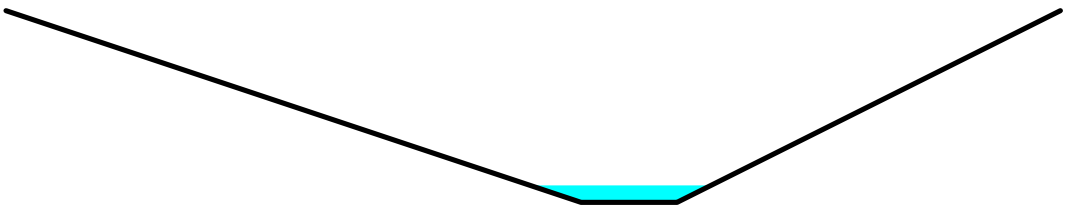
Summary for Reach 6R: Road Ditch

Inflow Area = 0.990 ac, 37.37% Impervious, Inflow Depth > 1.11" for 2 - YEAR event
Inflow = 0.60 cfs @ 12.48 hrs, Volume= 0.092 af
Outflow = 0.59 cfs @ 12.56 hrs, Volume= 0.092 af, Atten= 1%, Lag= 5.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.34 fps, Min. Travel Time= 2.8 min
Avg. Velocity = 1.12 fps, Avg. Travel Time= 6.0 min

Peak Storage= 101 cf @ 12.52 hrs
Average Depth at Peak Storage= 0.18'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 110.75 cfs

1.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.0183 '/'
Inlet Invert= 193.00', Outlet Invert= 185.70'



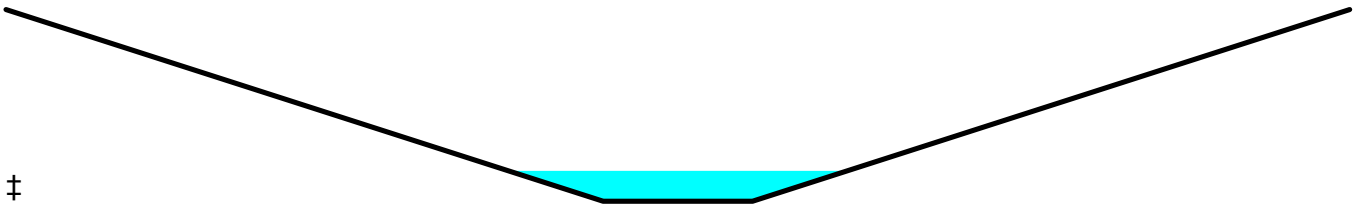
Summary for Reach 8R: Wetland

Inflow Area = 19.020 ac, 2.16% Impervious, Inflow Depth > 0.28" for 2 - YEAR event
Inflow = 1.87 cfs @ 12.97 hrs, Volume= 0.440 af
Outflow = 1.73 cfs @ 13.39 hrs, Volume= 0.425 af, Atten= 8%, Lag= 25.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.10 fps, Min. Travel Time= 13.5 min
Avg. Velocity = 0.78 fps, Avg. Travel Time= 19.1 min

Peak Storage= 1,400 cf @ 13.16 hrs
Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 2.00' Flow Area= 30.0 sf, Capacity= 94.55 cfs

3.00' x 2.00' deep channel, n= 0.075 Very weedy reaches w/pools
Side Slope Z-value= 6.0 '/' Top Width= 27.00'
Length= 895.0' Slope= 0.0223 '/'
Inlet Invert= 183.00', Outlet Invert= 163.00'



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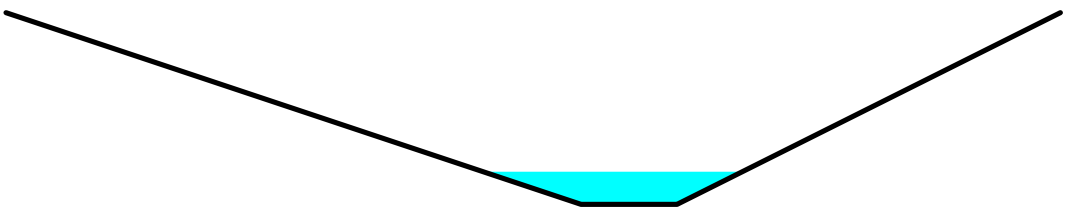
Summary for Reach 9R: Road Ditch

Inflow Area = 2.610 ac, 28.74% Impervious, Inflow Depth > 0.93" for 2 - YEAR event
Inflow = 2.07 cfs @ 12.05 hrs, Volume= 0.203 af
Outflow = 1.89 cfs @ 12.12 hrs, Volume= 0.202 af, Atten= 9%, Lag= 4.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.03 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 1.31 fps, Avg. Travel Time= 5.1 min

Peak Storage= 253 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.34'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 100.41 cfs

1.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.0150 '/'
Inlet Invert= 184.50', Outlet Invert= 178.50'



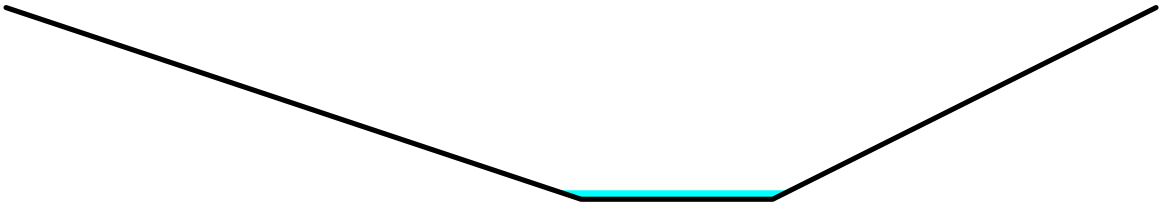
Summary for Reach 10R: Existing Road Ditch

Inflow Area = 5.690 ac, 15.11% Impervious, Inflow Depth > 0.29" for 2 - YEAR event
Inflow = 0.44 cfs @ 13.73 hrs, Volume= 0.138 af
Outflow = 0.44 cfs @ 13.78 hrs, Volume= 0.138 af, Atten= 0%, Lag= 3.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.15 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 1.59 fps, Avg. Travel Time= 2.6 min

Peak Storage= 52 cf @ 13.75 hrs
Average Depth at Peak Storage= 0.09'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 168.01 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 12.00'
Length= 250.0' Slope= 0.0280 '/'
Inlet Invert= 180.00', Outlet Invert= 173.00'



Summary for Reach 11R: Wetland

Inflow Area = 17.000 ac, 8.53% Impervious, Inflow Depth > 0.59" for 2 - YEAR event
Inflow = 3.28 cfs @ 13.50 hrs, Volume= 0.830 af
Outflow = 3.16 cfs @ 13.98 hrs, Volume= 0.800 af, Atten= 4%, Lag= 28.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.13 fps, Min. Travel Time= 16.2 min
Avg. Velocity = 0.73 fps, Avg. Travel Time= 25.0 min

Peak Storage= 3,078 cf @ 13.70 hrs
Average Depth at Peak Storage= 0.24'
Bank-Full Depth= 4.00' Flow Area= 136.0 sf, Capacity= 747.00 cfs

10.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 58.00'
Length= 1,100.0' Slope= 0.0055 '/'
Inlet Invert= 166.00', Outlet Invert= 160.00'

‡

Summary for Pond 1P: New Road Culvert (CULV1)

Inflow Area = 5.690 ac, 15.11% Impervious, Inflow Depth > 0.29" for 2 - YEAR event
Inflow = 0.45 cfs @ 13.72 hrs, Volume= 0.139 af
Outflow = 0.44 cfs @ 13.73 hrs, Volume= 0.138 af, Atten= 0%, Lag= 0.9 min
Primary = 0.44 cfs @ 13.73 hrs, Volume= 0.138 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 181.23' @ 13.73 hrs Surf.Area= 87 sf Storage= 23 cf

Plug-Flow detention time= 1.1 min calculated for 0.138 af (100% of inflow)
Center-of-Mass det. time= 0.7 min (928.9 - 928.2)

Volume	Invert	Avail.Storage	Storage Description
#1	180.90'	561 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.90	50	0	0
182.00	175	124	124
183.00	100	138	261
184.00	125	113	374
185.00	250	188	561

Device	Routing	Invert	Outlet Devices
#1	Primary	180.90'	**18.0" Round Culvert** L= 53.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 180.90' / 180.37' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	183.50'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.44 cfs @ 13.73 hrs HW=181.23' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.44 cfs @ 1.54 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=180.90' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 2P: New Road Culvert (CULV2)

Inflow Area = 1.510 ac, 30.46% Impervious, Inflow Depth > 1.00" for 2 - YEAR event
Inflow = 0.86 cfs @ 12.07 hrs, Volume= 0.126 af
Outflow = 0.84 cfs @ 12.09 hrs, Volume= 0.126 af, Atten= 2%, Lag= 1.0 min
Primary = 0.84 cfs @ 12.09 hrs, Volume= 0.126 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 185.46' @ 12.09 hrs Surf.Area= 108 sf Storage= 36 cf

Plug-Flow detention time= 1.2 min calculated for 0.126 af (100% of inflow)
Center-of-Mass det. time= 0.8 min (825.6 - 824.8)

Volume	Invert	Avail.Storage	Storage Description
#1	185.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
185.00	50	0	0
186.00	175	113	113
187.00	100	138	250
188.00	125	113	363
189.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**18.0" Round Culvert** L= 55.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 185.00' / 184.72' S= 0.0051 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	188.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.83 cfs @ 12.09 hrs HW=185.46' (Free Discharge)
1=Culvert (Inlet Controls 0.83 cfs @ 1.82 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=185.00' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 6P: New Road Culvert (CULV6)

Inflow Area = 0.170 ac, 52.94% Impervious, Inflow Depth > 1.63" for 2 - YEAR event
Inflow = 0.38 cfs @ 12.04 hrs, Volume= 0.023 af
Outflow = 0.38 cfs @ 12.05 hrs, Volume= 0.023 af, Atten= 1%, Lag= 0.6 min
Primary = 0.38 cfs @ 12.05 hrs, Volume= 0.023 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 192.08' @ 12.05 hrs Surf.Area= 79 sf Storage= 18 cf

Plug-Flow detention time= 1.6 min calculated for 0.023 af (100% of inflow)
Center-of-Mass det. time= 1.2 min (787.2 - 786.0)

Volume	Invert	Avail.Storage	Storage Description
#1	191.80'	572 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.80	50	0	0
193.00	175	135	135
194.00	100	138	272
195.00	125	113	385
196.00	250	188	572

Device	Routing	Invert	Outlet Devices
#1	Primary	191.78'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 191.78' / 191.50' S= 0.0048 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	195.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.37 cfs @ 12.05 hrs HW=192.08' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.37 cfs @ 1.47 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=191.80' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 9P: New Road Culvert (CULV9)

Inflow Area = 0.330 ac, 60.61% Impervious, Inflow Depth > 1.87" for 2 - YEAR event
Inflow = 0.84 cfs @ 12.04 hrs, Volume= 0.051 af
Outflow = 0.84 cfs @ 12.04 hrs, Volume= 0.051 af, Atten= 0%, Lag= 0.0 min
Primary = 0.84 cfs @ 12.04 hrs, Volume= 0.051 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 180.03' @ 12.04 hrs Surf.Area= 54 sf Storage= 2 cf

Plug-Flow detention time= 0.0 min calculated for 0.051 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (776.0 - 776.0)

Volume	Invert	Avail.Storage	Storage Description
#1	180.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.00	50	0	0
181.00	175	113	113
182.00	100	138	250
183.00	125	113	363
184.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	179.50'	**18.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 179.50' / 175.00' S= 0.0789 '/' Cc= 0.900
n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

#2	Secondary	182.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.09 cfs @ 12.04 hrs HW=180.03' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.09 cfs @ 1.95 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=180.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 10P: Filter Pond 3000 s.f.

Inflow Area = 3.550 ac, 30.42% Impervious, Inflow Depth > 1.06" for 2 - YEAR event
Inflow = 3.16 cfs @ 12.07 hrs, Volume= 0.313 af
Outflow = 0.15 cfs @ 17.42 hrs, Volume= 0.095 af, Atten= 95%, Lag= 320.8 min
Primary = 0.15 cfs @ 17.42 hrs, Volume= 0.095 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Starting Elev= 168.50' Surf.Area= 4,019 sf Storage= 5,257 cf
Peak Elev= 170.55' @ 17.42 hrs Surf.Area= 5,573 sf Storage= 15,030 cf (9,774 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 149.0 min (963.4 - 814.5)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	39,518 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	3,000	0	0
168.00	3,669	3,335	3,335
169.00	4,369	4,019	7,354
170.00	5,127	4,748	12,102
171.00	5,941	5,534	17,636
172.00	6,811	6,376	24,012
173.00	7,739	7,275	31,287
174.00	8,723	8,231	39,518

Device	Routing	Invert	Outlet Devices
#1	Primary	164.00'	**18.0" Round Culvert**
			L= 100.0' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 164.00' / 163.00' S= 0.0100 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	168.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	172.50'	**48.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads
#4	Secondary	173.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60

Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.15 cfs @ 17.42 hrs HW=170.55' (Free Discharge)
└**1=Culvert** (Passes 0.15 cfs of 20.49 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.15 cfs @ 6.75 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=168.50' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 11P: New Road Culvert (CULV10)

Inflow Area = 2.610 ac, 28.74% Impervious, Inflow Depth > 0.93" for 2 - YEAR event
Inflow = 1.89 cfs @ 12.12 hrs, Volume= 0.202 af
Outflow = 1.87 cfs @ 12.14 hrs, Volume= 0.202 af, Atten= 1%, Lag= 0.8 min
Primary = 1.87 cfs @ 12.14 hrs, Volume= 0.202 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 176.71' @ 12.14 hrs Surf.Area= 139 sf Storage= 67 cf

Plug-Flow detention time= 1.0 min calculated for 0.202 af (100% of inflow)
Center-of-Mass det. time= 0.7 min (827.2 - 826.5)

Volume	Invert	Avail.Storage	Storage Description
#1	176.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.00	50	0	0
177.00	175	113	113
178.00	100	138	250
179.00	125	113	363
180.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	176.00'	**18.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 176.00' / 175.00' S= 0.0175 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	180.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.84 cfs @ 12.14 hrs HW=176.70' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.84 cfs @ 2.26 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=176.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 50P: 4 House Drip Edges

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth > 2.68" for 2 - YEAR event
Inflow = 0.69 cfs @ 12.00 hrs, Volume= 0.045 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 184.06' @ 20.00 hrs Surf.Area= 4,608 sf Storage= 1,947 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	183.00'	2,765 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 4 6,912 cf Overall x 40.0% Voids
		2,765 cf	x 4.00 = 11,059 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	188.50'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 4.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=183.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 51P: 4 House Drip Edges

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth > 2.68" for 2 - YEAR event
Inflow = 0.69 cfs @ 12.00 hrs, Volume= 0.045 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 168.06' @ 20.00 hrs Surf.Area= 4,608 sf Storage= 1,947 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	2,765 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 4 6,912 cf Overall x 40.0% Voids
		2,765 cf	x 4.00 = 11,059 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 4.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=167.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 52P: 2 House Drip Edges

Inflow Area = 0.100 ac,100.00% Impervious, Inflow Depth > 2.68" for 2 - YEAR event
Inflow = 0.34 cfs @ 12.00 hrs, Volume= 0.022 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 180.11' @ 20.00 hrs Surf.Area= 1,152 sf Storage= 973 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	178.00'	1,382 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 2 3,456 cf Overall x 40.0% Voids
		1,382 cf	x 2.00 = 2,765 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=178.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 53P: 2 House Drip Edges

Inflow Area = 0.100 ac,100.00% Impervious, Inflow Depth > 2.68" for 2 - YEAR event
Inflow = 0.34 cfs @ 12.00 hrs, Volume= 0.022 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 198.11' @ 20.00 hrs Surf.Area= 1,152 sf Storage= 973 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	196.00'	1,382 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 2 3,456 cf Overall x 40.0% Voids
		1,382 cf	x 2.00 = 2,765 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	201.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=196.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 54P: Drip Edge

Inflow Area = 0.050 ac,100.00% Impervious, Inflow Depth > 2.68" for 2 - YEAR event
Inflow = 0.17 cfs @ 12.00 hrs, Volume= 0.011 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 185.22' @ 20.00 hrs Surf.Area= 288 sf Storage= 487 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	181.00'	691 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** 1,728 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	186.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=181.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond DMH1: DMH1

Inflow Area = 2.940 ac, 32.31% Impervious, Inflow Depth > 1.04" for 2 - YEAR event
Inflow = 2.36 cfs @ 12.11 hrs, Volume= 0.254 af
Outflow = 2.36 cfs @ 12.11 hrs, Volume= 0.254 af, Atten= 0%, Lag= 0.0 min
Primary = 2.36 cfs @ 12.11 hrs, Volume= 0.254 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 175.61' @ 12.11 hrs
Flood Elev= 182.96'

Device	Routing	Invert	Outlet Devices
#1	Primary	174.90'	**18.0" Round Culvert** L= 253.0' RCP, square edge headwall, Ke= 0.500

Inlet / Outlet Invert= 174.90' / 170.60' S= 0.0170 '/' Cc= 0.900
n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.33 cfs @ 12.11 hrs HW=175.60' (Free Discharge)
1=Culvert (Inlet Controls 2.33 cfs @ 2.86 fps)

Summary for Pond DMH2: DMH2

Inflow Area = 2.940 ac, 32.31% Impervious, Inflow Depth > 1.04" for 2 - YEAR event
Inflow = 2.36 cfs @ 12.11 hrs, Volume= 0.254 af
Outflow = 2.36 cfs @ 12.11 hrs, Volume= 0.254 af, Atten= 0%, Lag= 0.0 min
Primary = 2.36 cfs @ 12.11 hrs, Volume= 0.254 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 171.27' @ 12.11 hrs
Flood Elev= 175.09'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.50'	**18.0" Round Culvert**
			L= 85.5' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 170.50' / 170.10' S= 0.0047 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.33 cfs @ 12.11 hrs HW=171.26' (Free Discharge)
1=Culvert (Barrel Controls 2.33 cfs @ 3.76 fps)

Summary for Pond DMH4: DMH4

Inflow Area = 3.550 ac, 30.42% Impervious, Inflow Depth > 1.06" for 2 - YEAR event
Inflow = 3.16 cfs @ 12.07 hrs, Volume= 0.313 af
Outflow = 3.16 cfs @ 12.07 hrs, Volume= 0.313 af, Atten= 0%, Lag= 0.0 min
Primary = 3.16 cfs @ 12.07 hrs, Volume= 0.313 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 170.77' @ 12.07 hrs
Flood Elev= 174.24'

Device	Routing	Invert	Outlet Devices
#1	Primary	169.90'	**18.0" Round Culvert**
			L= 51.3' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 169.90' / 169.50' S= 0.0078 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=3.08 cfs @ 12.07 hrs HW=170.75' (Free Discharge)
1=Culvert (Barrel Controls 3.08 cfs @ 4.29 fps)

Summary for Subcatchment 1S:

Runoff = 8.00 cfs @ 12.83 hrs, Volume= 1.389 af, Depth> 0.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	4.120	30	Woods, Good, HSG A
	3.940	55	Woods, Good, HSG B
	9.010	70	Woods, Good, HSG C
	0.900	77	Woods, Good, HSG D
*	0.010	98	New Road Impervious
*	0.040	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.20 to 50)
*	0.200	98	New Lot Impervious
*	0.600	74	New Lot Lawn
	18.820	59	Weighted Average
	18.610		98.88% Pervious Area
	0.210		1.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.1	100	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.8	160	0.1500	0.97		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
52.9	260	Total			

Summary for Subcatchment 2S:

Runoff = 6.74 cfs @ 13.38 hrs, Volume= 1.550 af, Depth> 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	0.240	55	Woods, Good, HSG B
	7.540	70	Woods, Good, HSG C
	2.010	77	Woods, Good, HSG D
*	0.170	98	Existing Roads Off Site
*	0.170	74	Existing Lawn Off Site
*	0.120	98	New Road Impervious
*	0.160	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.20 to 51)
*	0.100	98	New Lot Impervious
*	0.600	74	New Lot Lawn
	11.110	72	Weighted Average
	10.720		96.49% Pervious Area
	0.390		3.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
61.1	1,450	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
1.3	1,100	0.0400	13.91	111.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
100.4	2,650	Total			

Summary for Subcatchment 3S:

Runoff = 17.48 cfs @ 12.88 hrs, Volume= 3.036 af, Depth> 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	8.880	55	Woods, Good, HSG B
	17.490	70	Woods, Good, HSG C
	0.960	77	Woods, Good, HSG D
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	28.090	66	Weighted Average
	27.710		98.65% Pervious Area
	0.380		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	100	0.0600	0.07		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
36.7	1,350	0.0600	0.61		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
61.2	1,450	Total			

Summary for Subcatchment 4S:

Runoff = 0.32 cfs @ 13.65 hrs, Volume= 0.114 af, Depth> 0.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	3.640	30	Woods, Good, HSG A
	0.250	55	Woods, Good, HSG B
	0.850	70	Woods, Good, HSG C
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
*	0.000	74	New Road Lawn
	5.500	45	Weighted Average
	5.120		93.09% Pervious Area
	0.380		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
44.3	1,050	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
82.3	1,150	Total			

Summary for Subcatchment 5S:

Runoff = 9.56 cfs @ 13.21 hrs, Volume= 2.021 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	1.850	55	Woods, Good, HSG B
	7.520	70	Woods, Good, HSG C
	4.520	77	Woods, Good, HSG D
*	0.280	98	Existing Roads Off Site
*	0.280	74	Existing Lawn Off Site
*	0.290	98	Existing Impervious On Site
*	0.290	74	Existing Lawn On Site
	15.030	71	Weighted Average
	14.460		96.21% Pervious Area
	0.570		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
49.5	1,050	0.0200	0.35		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
87.5	1,150	Total			

Summary for Subcatchment 6S:

Runoff = 1.69 cfs @ 13.50 hrs, Volume= 0.426 af, Depth> 0.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	1.910	30	Woods, Good, HSG A
	0.500	55	Woods, Good, HSG B
	1.400	70	Woods, Good, HSG C
	0.030	77	Woods, Good, HSG D
*	0.290	98	Existing Roads Off Site
*	0.290	74	Existing Lawn Off Site
*	0.300	98	Existing Impervious On Site
*	0.300	74	Existing Lawn On Site
*	0.070	98	New Road Impervious
*	0.100	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.1 to 52)
*	0.100	98	New Lot Impervious
*	0.300	74	New Lot Lawn
	5.590	60	Weighted Average
	4.830		86.40% Pervious Area
	0.760		13.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
61.1	1,450	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
1.3	1,100	0.0400	13.91	111.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
100.4	2,650	Total			

Summary for Subcatchment 7S:

Runoff = 1.06 cfs @ 12.52 hrs, Volume= 0.136 af, Depth> 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	0.000	55	Woods, Good, HSG B
	0.140	70	Woods, Good, HSG C
*	0.080	98	New Road Impervious
*	0.100	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.1 to 53S)
*	0.100	98	New Lot Impervious
*	0.300	74	New Lot Lawn
	0.720	79	Weighted Average
	0.540		75.00% Pervious Area
	0.180		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
35.5	65	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
37.3	315	Total			

Summary for Subcatchment 8S:

Runoff = 0.67 cfs @ 12.04 hrs, Volume= 0.041 af, Depth> 2.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	0.010	55	Woods, Good, HSG B
*	0.090	98	New Road Impervious
*	0.070	74	New Road Lawn
	0.170	86	Weighted Average
	0.080		47.06% Pervious Area
	0.090		52.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
2.3	250	0.0150	1.84		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.5	263	Total			

Summary for Subcatchment 9S:

Runoff = 1.25 cfs @ 12.04 hrs, Volume= 0.076 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	0.140	55	Woods, Good, HSG B
	0.180	70	Woods, Good, HSG C
*	0.090	98	New Road Impervious
*	0.110	74	New Road Lawn
*	0.000	98	New Lot Buildings
*	0.000	98	New Lot Impervious
*	0.000	74	New Lot Lawn
	0.520	72	Weighted Average
	0.430		82.69% Pervious Area
	0.090		17.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 10S:

Runoff = 2.75 cfs @ 12.04 hrs, Volume= 0.166 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	0.250	55	Woods, Good, HSG B
	0.150	70	Woods, Good, HSG C
*	0.190	98	New Road Impervious
*	0.260	74	New Road Lawn
*	0.000	98	New Lot Buildings (.05 TO 54)
*	0.050	98	New Lot Impervious
*	0.150	74	New Lot Lawn
	1.050	74	Weighted Average
	0.810		77.14% Pervious Area
	0.240		22.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 11S:

Runoff = 1.40 cfs @ 12.03 hrs, Volume= 0.088 af, Depth> 3.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
*	0.100	98	New Road Impervious
*	0.130	74	New Road Lawn
*	0.000	98	New Lot Buildings
*	0.100	98	New Lot Impervious
*	0.000	74	New Lawn
	0.330	89	Weighted Average
	0.130		39.39% Pervious Area
	0.200		60.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 12S:

Runoff = 1.93 cfs @ 12.04 hrs, Volume= 0.117 af, Depth> 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
	0.040	70	Woods, Good, HSG C
*	0.130	98	New Road Impervious
*	0.150	74	New Road Lawn
*	0.290	74	Filter Pond
*	0.000	98	New Lot Buildings
*	0.000	98	New Lot Impervious
*	0.000	74	New Lawn
	0.610	79	Weighted Average
	0.480		78.69% Pervious Area
	0.130		21.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 50S: 4 Building Roofs

Runoff = 1.03 cfs @ 12.00 hrs, Volume= 0.068 af, Depth> 4.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
*	0.200	98	Building Roof
	0.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 51S: 4 Building Roofs

Runoff = 1.03 cfs @ 12.00 hrs, Volume= 0.068 af, Depth> 4.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
*	0.200	98	Building Roof
	0.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 52S: 2 Building Roofs

Runoff = 0.51 cfs @ 12.00 hrs, Volume= 0.034 af, Depth> 4.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
*	0.100	98	Building Roof
	0.100		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 53S: 2 Building Roofs

Runoff = 0.51 cfs @ 12.00 hrs, Volume= 0.034 af, Depth> 4.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
*	0.100	98	Building Roof
	0.100		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 54S: Building Roof

Runoff = 0.26 cfs @ 12.00 hrs, Volume= 0.017 af, Depth> 4.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 - YEAR Rainfall=4.60"

	Area (ac)	CN	Description
*	0.050	98	Building Roof
	0.050		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

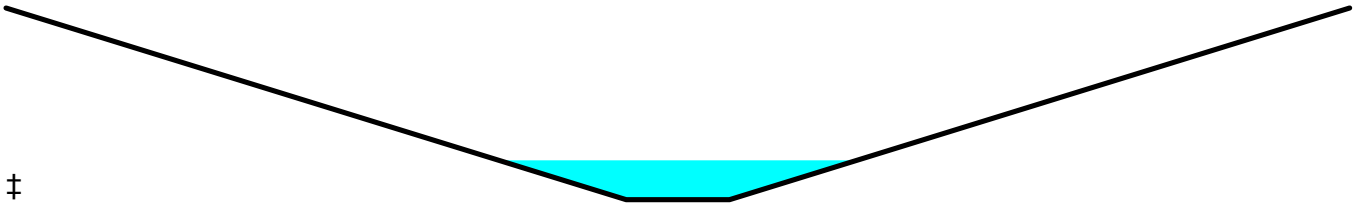
Summary for Reach 1R: Property Line

Inflow Area = 22.570 ac, 6.60% Impervious, Inflow Depth > 0.80" for 10 - YEAR event
Inflow = 7.86 cfs @ 13.10 hrs, Volume= 1.502 af
Outflow = 7.85 cfs @ 13.10 hrs, Volume= 1.501 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.27 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.95 fps, Avg. Travel Time= 0.4 min

Peak Storage= 92 cf @ 13.10 hrs
Average Depth at Peak Storage= 0.41'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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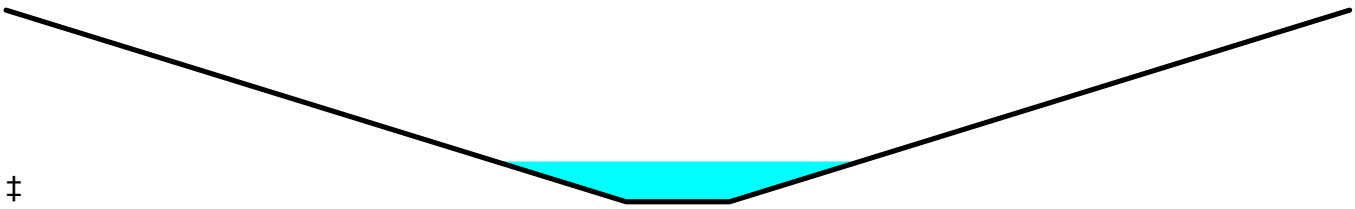
Summary for Reach 2R: Property Line

Inflow Area = 17.000 ac, 8.53% Impervious, Inflow Depth > 1.36" for 10 - YEAR event
Inflow = 8.24 cfs @ 13.76 hrs, Volume= 1.930 af
Outflow = 8.24 cfs @ 13.77 hrs, Volume= 1.929 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.32 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.64 fps, Avg. Travel Time= 0.3 min

Peak Storage= 95 cf @ 13.76 hrs
Average Depth at Peak Storage= 0.42'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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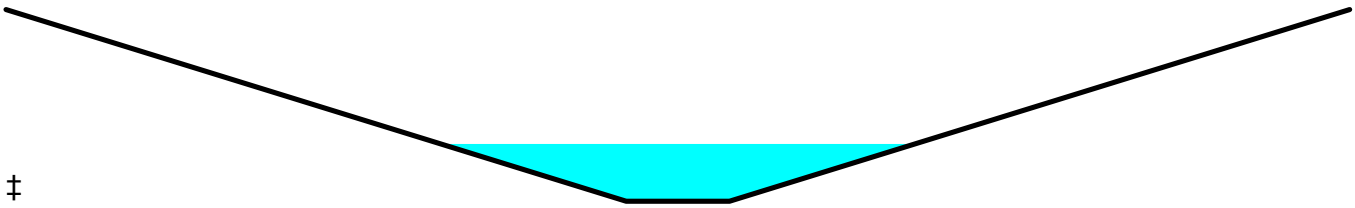
Summary for Reach 3R: Property Line

Inflow Area = 28.090 ac, 1.35% Impervious, Inflow Depth > 1.30" for 10 - YEAR event
Inflow = 17.48 cfs @ 12.88 hrs, Volume= 3.036 af
Outflow = 17.47 cfs @ 12.89 hrs, Volume= 3.035 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.26 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.13 fps, Avg. Travel Time= 0.3 min

Peak Storage= 166 cf @ 12.89 hrs
Average Depth at Peak Storage= 0.60'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 98.00', Outlet Invert= 95.00'



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Summary for Reach 4R: Property Line

Inflow Area = 5.500 ac, 6.91% Impervious, Inflow Depth > 0.25" for 10 - YEAR event
Inflow = 0.32 cfs @ 13.65 hrs, Volume= 0.114 af
Outflow = 0.32 cfs @ 13.66 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.68 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.34 fps, Avg. Travel Time= 0.6 min

Peak Storage= 9 cf @ 13.65 hrs
Average Depth at Peak Storage= 0.08'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 168.00', Outlet Invert= 165.00'

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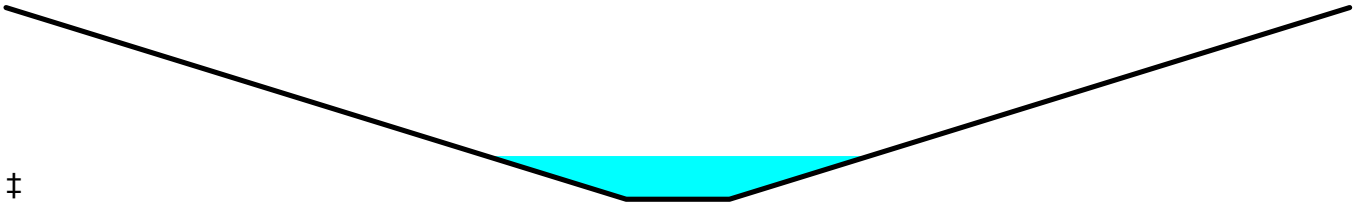
Summary for Reach 5R: Property Line

Inflow Area = 15.030 ac, 3.79% Impervious, Inflow Depth > 1.61" for 10 - YEAR event
Inflow = 9.56 cfs @ 13.21 hrs, Volume= 2.021 af
Outflow = 9.56 cfs @ 13.21 hrs, Volume= 2.020 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.49 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.69 fps, Avg. Travel Time= 0.3 min

Peak Storage= 106 cf @ 13.21 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 188.00', Outlet Invert= 185.00'



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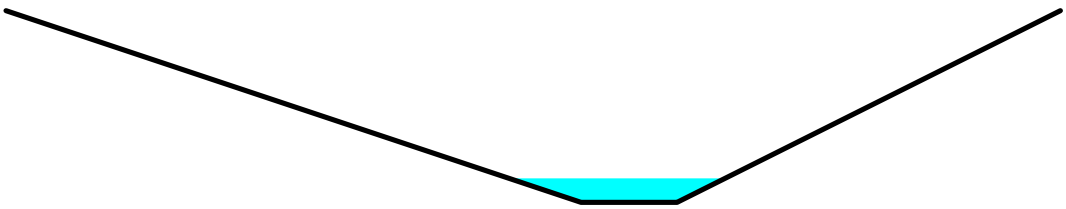
Summary for Reach 6R: Road Ditch

Inflow Area = 0.990 ac, 37.37% Impervious, Inflow Depth > 2.15" for 10 - YEAR event
Inflow = 1.17 cfs @ 12.47 hrs, Volume= 0.177 af
Outflow = 1.17 cfs @ 12.54 hrs, Volume= 0.177 af, Atten= 1%, Lag= 4.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.85 fps, Min. Travel Time= 2.3 min
Avg. Velocity = 1.28 fps, Avg. Travel Time= 5.2 min

Peak Storage= 164 cf @ 12.50 hrs
Average Depth at Peak Storage= 0.25'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 110.75 cfs

1.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.0183 '/'
Inlet Invert= 193.00', Outlet Invert= 185.70'



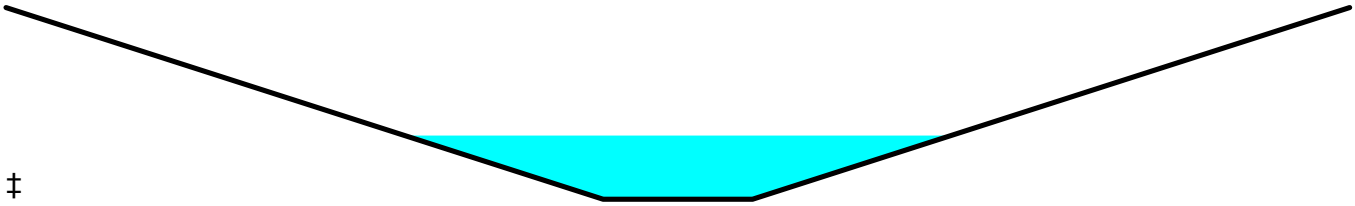
Summary for Reach 8R: Wetland

Inflow Area = 19.020 ac, 2.16% Impervious, Inflow Depth > 0.88" for 10 - YEAR event
Inflow = 8.00 cfs @ 12.83 hrs, Volume= 1.389 af
Outflow = 7.67 cfs @ 13.10 hrs, Volume= 1.365 af, Atten= 4%, Lag= 16.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.66 fps, Min. Travel Time= 9.0 min
Avg. Velocity = 1.04 fps, Avg. Travel Time= 14.3 min

Peak Storage= 4,146 cf @ 12.95 hrs
Average Depth at Peak Storage= 0.66'
Bank-Full Depth= 2.00' Flow Area= 30.0 sf, Capacity= 94.55 cfs

3.00' x 2.00' deep channel, n= 0.075 Very weedy reaches w/pools
Side Slope Z-value= 6.0 '/' Top Width= 27.00'
Length= 895.0' Slope= 0.0223 '/'
Inlet Invert= 183.00', Outlet Invert= 163.00'



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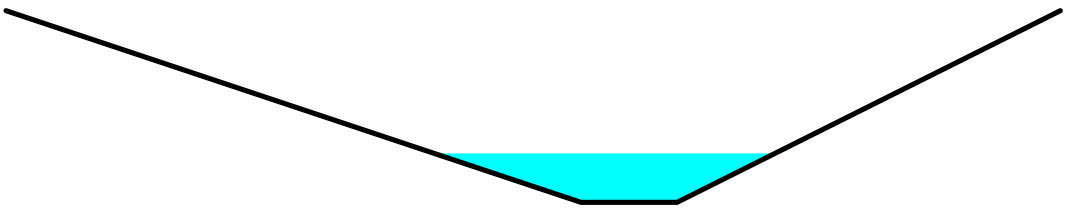
Summary for Reach 9R: Road Ditch

Inflow Area = 2.610 ac, 28.74% Impervious, Inflow Depth > 1.94" for 10 - YEAR event
Inflow = 4.61 cfs @ 12.05 hrs, Volume= 0.422 af
Outflow = 4.25 cfs @ 12.11 hrs, Volume= 0.421 af, Atten= 8%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.76 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.52 fps, Avg. Travel Time= 4.4 min

Peak Storage= 465 cf @ 12.07 hrs
Average Depth at Peak Storage= 0.51'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 100.41 cfs

1.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.0150 '/'
Inlet Invert= 184.50', Outlet Invert= 178.50'



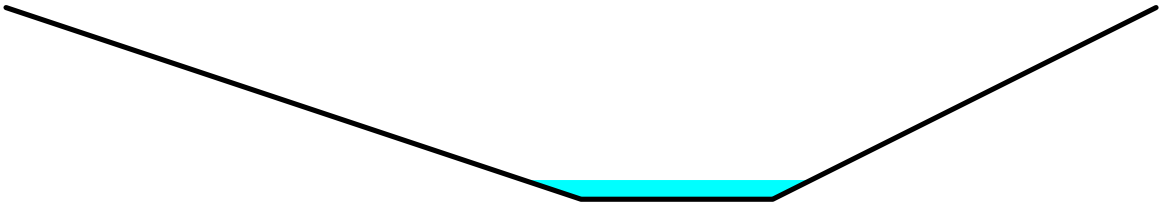
Summary for Reach 10R: Existing Road Ditch

Inflow Area = 5.690 ac, 15.11% Impervious, Inflow Depth > 0.90" for 10 - YEAR event
Inflow = 1.69 cfs @ 13.51 hrs, Volume= 0.425 af
Outflow = 1.69 cfs @ 13.55 hrs, Volume= 0.424 af, Atten= 0%, Lag= 2.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.37 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 2.25 fps, Avg. Travel Time= 1.9 min

Peak Storage= 125 cf @ 13.53 hrs
Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 168.01 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 12.00'
Length= 250.0' Slope= 0.0280 '/'
Inlet Invert= 180.00', Outlet Invert= 173.00'



Summary for Reach 11R: Wetland

Inflow Area = 17.000 ac, 8.53% Impervious, Inflow Depth > 1.39" for 10 - YEAR event
Inflow = 8.39 cfs @ 13.42 hrs, Volume= 1.974 af
Outflow = 8.24 cfs @ 13.76 hrs, Volume= 1.930 af, Atten= 2%, Lag= 20.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.56 fps, Min. Travel Time= 11.8 min
Avg. Velocity = 0.89 fps, Avg. Travel Time= 20.6 min

Peak Storage= 5,821 cf @ 13.56 hrs
Average Depth at Peak Storage= 0.42'
Bank-Full Depth= 4.00' Flow Area= 136.0 sf, Capacity= 747.00 cfs

10.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 58.00'
Length= 1,100.0' Slope= 0.0055 '/'
Inlet Invert= 166.00', Outlet Invert= 160.00'

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Summary for Pond 1P: New Road Culvert (CULV1)

Inflow Area = 5.690 ac, 15.11% Impervious, Inflow Depth > 0.90" for 10 - YEAR event
Inflow = 1.69 cfs @ 13.50 hrs, Volume= 0.426 af
Outflow = 1.69 cfs @ 13.51 hrs, Volume= 0.425 af, Atten= 0%, Lag= 0.5 min
Primary = 1.69 cfs @ 13.51 hrs, Volume= 0.425 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 181.57' @ 13.51 hrs Surf.Area= 126 sf Storage= 59 cf

Plug-Flow detention time= 0.7 min calculated for 0.425 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (901.8 - 901.3)

Volume	Invert	Avail.Storage	Storage Description
#1	180.90'	561 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.90	50	0	0
182.00	175	124	124
183.00	100	138	261
184.00	125	113	374
185.00	250	188	561

Device	Routing	Invert	Outlet Devices
#1	Primary	180.90'	**18.0" Round Culvert** L= 53.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 180.90' / 180.37' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	183.50'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.69 cfs @ 13.51 hrs HW=181.57' (Free Discharge)
1=Culvert (Inlet Controls 1.69 cfs @ 2.20 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=180.90' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 2P: New Road Culvert (CULV2)

Inflow Area = 1.510 ac, 30.46% Impervious, Inflow Depth > 2.01" for 10 - YEAR event
Inflow = 1.92 cfs @ 12.06 hrs, Volume= 0.252 af
Outflow = 1.91 cfs @ 12.07 hrs, Volume= 0.252 af, Atten= 1%, Lag= 0.5 min
Primary = 1.91 cfs @ 12.07 hrs, Volume= 0.252 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 185.72' @ 12.07 hrs Surf.Area= 140 sf Storage= 69 cf

Plug-Flow detention time= 0.9 min calculated for 0.252 af (100% of inflow)
Center-of-Mass det. time= 0.7 min (809.8 - 809.1)

Volume	Invert	Avail.Storage	Storage Description
#1	185.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
185.00	50	0	0
186.00	175	113	113
187.00	100	138	250
188.00	125	113	363
189.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**18.0" Round Culvert** L= 55.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 185.00' / 184.72' S= 0.0051 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	188.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.85 cfs @ 12.07 hrs HW=185.71' (Free Discharge)
1=Culvert (Barrel Controls 1.85 cfs @ 3.29 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=185.00' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 6P: New Road Culvert (CULV6)

Inflow Area = 0.170 ac, 52.94% Impervious, Inflow Depth > 2.91" for 10 - YEAR event
Inflow = 0.67 cfs @ 12.04 hrs, Volume= 0.041 af
Outflow = 0.66 cfs @ 12.05 hrs, Volume= 0.041 af, Atten= 1%, Lag= 0.5 min
Primary = 0.66 cfs @ 12.05 hrs, Volume= 0.041 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 192.19' @ 12.05 hrs Surf.Area= 90 sf Storage= 27 cf

Plug-Flow detention time= 1.4 min calculated for 0.041 af (100% of inflow)
Center-of-Mass det. time= 1.1 min (773.5 - 772.4)

Volume	Invert	Avail.Storage	Storage Description
#1	191.80'	572 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.80	50	0	0
193.00	175	135	135
194.00	100	138	272
195.00	125	113	385
196.00	250	188	572

Device	Routing	Invert	Outlet Devices
#1	Primary	191.78'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 191.78' / 191.50' S= 0.0048 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	195.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.66 cfs @ 12.05 hrs HW=192.18' (Free Discharge)
1=Culvert (Inlet Controls 0.66 cfs @ 1.71 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=191.80' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 9P: New Road Culvert (CULV9)

Inflow Area = 0.330 ac, 60.61% Impervious, Inflow Depth > 3.20" for 10 - YEAR event
Inflow = 1.40 cfs @ 12.03 hrs, Volume= 0.088 af
Outflow = 1.39 cfs @ 12.04 hrs, Volume= 0.088 af, Atten= 1%, Lag= 0.1 min
Primary = 1.39 cfs @ 12.04 hrs, Volume= 0.088 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 180.10' @ 12.04 hrs Surf.Area= 63 sf Storage= 6 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (763.2 - 763.1)

Volume	Invert	Avail.Storage	Storage Description
#1	180.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.00	50	0	0
181.00	175	113	113
182.00	100	138	250
183.00	125	113	363
184.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	179.50'	**18.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 179.50' / 175.00' S= 0.0789 '/' Cc= 0.900
n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

#2	Secondary	182.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.34 cfs @ 12.04 hrs HW=180.09' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 1.34 cfs @ 2.07 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=180.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 10P: Filter Pond 3000 s.f.

Inflow Area = 3.550 ac, 30.42% Impervious, Inflow Depth > 2.11" for 10 - YEAR event
Inflow = 6.79 cfs @ 12.07 hrs, Volume= 0.625 af
Outflow = 0.20 cfs @ 18.52 hrs, Volume= 0.138 af, Atten= 97%, Lag= 387.1 min
Primary = 0.20 cfs @ 18.52 hrs, Volume= 0.138 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Starting Elev= 168.50' Surf.Area= 4,019 sf Storage= 5,257 cf
Peak Elev= 172.37' @ 18.52 hrs Surf.Area= 7,153 sf Storage= 26,585 cf (21,329 cf above start)

Plug-Flow detention time= 599.0 min calculated for 0.017 af (3% of inflow)
Center-of-Mass det. time= 150.5 min (950.7 - 800.2)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	39,518 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	3,000	0	0
168.00	3,669	3,335	3,335
169.00	4,369	4,019	7,354
170.00	5,127	4,748	12,102
171.00	5,941	5,534	17,636
172.00	6,811	6,376	24,012
173.00	7,739	7,275	31,287
174.00	8,723	8,231	39,518

Device	Routing	Invert	Outlet Devices
#1	Primary	164.00'	**18.0" Round Culvert**
			L= 100.0' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 164.00' / 163.00' S= 0.0100 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	168.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	172.50'	**48.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads
#4	Secondary	173.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60

Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.20 cfs @ 18.52 hrs HW=172.37' (Free Discharge)
└**1=Culvert** (Passes 0.20 cfs of 23.49 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.20 cfs @ 9.37 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=168.50' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 11P: New Road Culvert (CULV10)

Inflow Area = 2.610 ac, 28.74% Impervious, Inflow Depth > 1.93" for 10 - YEAR event
Inflow = 4.25 cfs @ 12.11 hrs, Volume= 0.421 af
Outflow = 4.22 cfs @ 12.11 hrs, Volume= 0.421 af, Atten= 1%, Lag= 0.5 min
Primary = 4.22 cfs @ 12.11 hrs, Volume= 0.421 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 177.16' @ 12.11 hrs Surf.Area= 163 sf Storage= 139 cf

Plug-Flow detention time= 0.8 min calculated for 0.419 af (100% of inflow)
Center-of-Mass det. time= 0.6 min (811.1 - 810.5)

Volume	Invert	Avail.Storage	Storage Description
#1	176.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.00	50	0	0
177.00	175	113	113
178.00	100	138	250
179.00	125	113	363
180.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	176.00'	**18.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 176.00' / 175.00' S= 0.0175 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	180.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=4.12 cfs @ 12.11 hrs HW=177.14' (Free Discharge)
└**1=Culvert** (Inlet Controls 4.12 cfs @ 2.87 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=176.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 50P: 4 House Drip Edges

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth > 4.05" for 10 - YEAR event
Inflow = 1.03 cfs @ 12.00 hrs, Volume= 0.068 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 184.60' @ 20.00 hrs Surf.Area= 4,608 sf Storage= 2,942 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	183.00'	2,765 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 4 6,912 cf Overall x 40.0% Voids
		2,765 cf	x 4.00 = 11,059 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	188.50'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 4.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=183.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 51P: 4 House Drip Edges

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth > 4.05" for 10 - YEAR event
Inflow = 1.03 cfs @ 12.00 hrs, Volume= 0.068 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 168.60' @ 20.00 hrs Surf.Area= 4,608 sf Storage= 2,942 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	2,765 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 4 6,912 cf Overall x 40.0% Voids
		2,765 cf	x 4.00 = 11,059 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 4.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=167.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 52P: 2 House Drip Edges

Inflow Area = 0.100 ac,100.00% Impervious, Inflow Depth > 4.05" for 10 - YEAR event
Inflow = 0.51 cfs @ 12.00 hrs, Volume= 0.034 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 181.19' @ 20.00 hrs Surf.Area= 1,152 sf Storage= 1,471 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	178.00'	1,382 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 2 3,456 cf Overall x 40.0% Voids
		1,382 cf	x 2.00 = 2,765 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=178.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 53P: 2 House Drip Edges

Inflow Area = 0.100 ac,100.00% Impervious, Inflow Depth > 4.05" for 10 - YEAR event
Inflow = 0.51 cfs @ 12.00 hrs, Volume= 0.034 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 199.19' @ 20.00 hrs Surf.Area= 1,152 sf Storage= 1,471 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	196.00'	1,382 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 2 3,456 cf Overall x 40.0% Voids
		1,382 cf	x 2.00 = 2,765 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	201.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=196.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 54P: Drip Edge

Inflow Area = 0.050 ac,100.00% Impervious, Inflow Depth > 4.05" for 10 - YEAR event
Inflow = 0.26 cfs @ 12.00 hrs, Volume= 0.017 af
Outflow = 0.03 cfs @ 13.27 hrs, Volume= 0.004 af, Atten= 90%, Lag= 76.1 min
Primary = 0.03 cfs @ 13.27 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 186.00' @ 13.25 hrs Surf.Area= 288 sf Storage= 576 cf

Plug-Flow detention time= 389.8 min calculated for 0.004 af (22% of inflow)
Center-of-Mass det. time= 204.7 min (936.0 - 731.3)

Volume	Invert	Avail.Storage	Storage Description
#1	181.00'	691 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** 1,728 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	186.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 13.27 hrs HW=186.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 0.00 cfs @ 0.08 fps)

Summary for Pond DMH1: DMH1

Inflow Area = 2.940 ac, 32.31% Impervious, Inflow Depth > 2.08" for 10 - YEAR event
Inflow = 5.17 cfs @ 12.10 hrs, Volume= 0.509 af
Outflow = 5.17 cfs @ 12.10 hrs, Volume= 0.509 af, Atten= 0%, Lag= 0.0 min
Primary = 5.17 cfs @ 12.10 hrs, Volume= 0.509 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 176.03' @ 12.10 hrs
Flood Elev= 182.96'

Device	Routing	Invert	Outlet Devices
#1	Primary	174.90'	**18.0" Round Culvert** L= 253.0' RCP, square edge headwall, Ke= 0.500

Inlet / Outlet Invert= 174.90' / 170.60' S= 0.0170 '/' Cc= 0.900
n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.13 cfs @ 12.10 hrs HW=176.02' (Free Discharge)
1=Culvert (Inlet Controls 5.13 cfs @ 3.61 fps)

Summary for Pond DMH2: DMH2

Inflow Area = 2.940 ac, 32.31% Impervious, Inflow Depth > 2.08" for 10 - YEAR event
Inflow = 5.17 cfs @ 12.10 hrs, Volume= 0.509 af
Outflow = 5.17 cfs @ 12.10 hrs, Volume= 0.509 af, Atten= 0%, Lag= 0.0 min
Primary = 5.17 cfs @ 12.10 hrs, Volume= 0.509 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 171.74' @ 12.10 hrs
Flood Elev= 175.09'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.50'	**18.0" Round Culvert**
			L= 85.5' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 170.50' / 170.10' S= 0.0047 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.13 cfs @ 12.10 hrs HW=171.74' (Free Discharge)
1=Culvert (Barrel Controls 5.13 cfs @ 4.47 fps)

Summary for Pond DMH4: DMH4

Inflow Area = 3.550 ac, 30.42% Impervious, Inflow Depth > 2.11" for 10 - YEAR event
Inflow = 6.79 cfs @ 12.07 hrs, Volume= 0.625 af
Outflow = 6.79 cfs @ 12.07 hrs, Volume= 0.625 af, Atten= 0%, Lag= 0.0 min
Primary = 6.79 cfs @ 12.07 hrs, Volume= 0.625 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 171.33' @ 12.07 hrs
Flood Elev= 174.24'

Device	Routing	Invert	Outlet Devices
#1	Primary	169.90'	**18.0" Round Culvert**
			L= 51.3' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 169.90' / 169.50' S= 0.0078 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=6.60 cfs @ 12.07 hrs HW=171.30' (Free Discharge)
1=Culvert (Barrel Controls 6.60 cfs @ 4.99 fps)

Summary for Subcatchment 1S:

Runoff = 14.74 cfs @ 12.78 hrs, Volume= 2.384 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	4.120	30	Woods, Good, HSG A
	3.940	55	Woods, Good, HSG B
	9.010	70	Woods, Good, HSG C
	0.900	77	Woods, Good, HSG D
*	0.010	98	New Road Impervious
*	0.040	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.20 to 50)
*	0.200	98	New Lot Impervious
*	0.600	74	New Lot Lawn
	18.820	59	Weighted Average
	18.610		98.88% Pervious Area
	0.210		1.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.1	100	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.8	160	0.1500	0.97		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
52.9	260	Total			

Summary for Subcatchment 2S:

Runoff = 10.27 cfs @ 13.33 hrs, Volume= 2.340 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	0.240	55	Woods, Good, HSG B
	7.540	70	Woods, Good, HSG C
	2.010	77	Woods, Good, HSG D
*	0.170	98	Existing Roads Off Site
*	0.170	74	Existing Lawn Off Site
*	0.120	98	New Road Impervious
*	0.160	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.20 to 51)
*	0.100	98	New Lot Impervious
*	0.600	74	New Lot Lawn
	11.110	72	Weighted Average
	10.720		96.49% Pervious Area
	0.390		3.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
61.1	1,450	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
1.3	1,100	0.0400	13.91	111.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
100.4	2,650	Total			

Summary for Subcatchment 3S:

Runoff = 28.57 cfs @ 12.86 hrs, Volume= 4.822 af, Depth> 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	8.880	55	Woods, Good, HSG B
	17.490	70	Woods, Good, HSG C
	0.960	77	Woods, Good, HSG D
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	28.090	66	Weighted Average
	27.710		98.65% Pervious Area
	0.380		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	100	0.0600	0.07		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
36.7	1,350	0.0600	0.61		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
61.2	1,450	Total			

Summary for Subcatchment 4S:

Runoff = 0.98 cfs @ 13.41 hrs, Volume= 0.272 af, Depth> 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	3.640	30	Woods, Good, HSG A
	0.250	55	Woods, Good, HSG B
	0.850	70	Woods, Good, HSG C
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
*	0.000	74	New Road Lawn
	5.500	45	Weighted Average
	5.120		93.09% Pervious Area
	0.380		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
44.3	1,050	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
82.3	1,150	Total			

Summary for Subcatchment 5S:

Runoff = 14.74 cfs @ 13.17 hrs, Volume= 3.075 af, Depth> 2.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	1.850	55	Woods, Good, HSG B
	7.520	70	Woods, Good, HSG C
	4.520	77	Woods, Good, HSG D
*	0.280	98	Existing Roads Off Site
*	0.280	74	Existing Lawn Off Site
*	0.290	98	Existing Impervious On Site
*	0.290	74	Existing Lawn On Site
	15.030	71	Weighted Average
	14.460		96.21% Pervious Area
	0.570		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
49.5	1,050	0.0200	0.35		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
87.5	1,150	Total			

Summary for Subcatchment 6S:

Runoff = 3.04 cfs @ 13.46 hrs, Volume= 0.724 af, Depth> 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	1.910	30	Woods, Good, HSG A
	0.500	55	Woods, Good, HSG B
	1.400	70	Woods, Good, HSG C
	0.030	77	Woods, Good, HSG D
*	0.290	98	Existing Roads Off Site
*	0.290	74	Existing Lawn Off Site
*	0.300	98	Existing Impervious On Site
*	0.300	74	Existing Lawn On Site
*	0.070	98	New Road Impervious
*	0.100	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.1 to 52)
*	0.100	98	New Lot Impervious
*	0.300	74	New Lot Lawn
	5.590	60	Weighted Average
	4.830		86.40% Pervious Area
	0.760		13.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
61.1	1,450	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
1.3	1,100	0.0400	13.91	111.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
100.4	2,650	Total			

Summary for Subcatchment 7S:

Runoff = 1.50 cfs @ 12.51 hrs, Volume= 0.195 af, Depth> 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	0.000	55	Woods, Good, HSG B
	0.140	70	Woods, Good, HSG C
*	0.080	98	New Road Impervious
*	0.100	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.1 to 53S)
*	0.100	98	New Lot Impervious
*	0.300	74	New Lot Lawn
	0.720	79	Weighted Average
	0.540		75.00% Pervious Area
	0.180		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
35.5	65	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
37.3	315	Total			

Summary for Subcatchment 8S:

Runoff = 0.90 cfs @ 12.04 hrs, Volume= 0.056 af, Depth> 3.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	0.010	55	Woods, Good, HSG B
*	0.090	98	New Road Impervious
*	0.070	74	New Road Lawn
	0.170	86	Weighted Average
	0.080		47.06% Pervious Area
	0.090		52.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
2.3	250	0.0150	1.84		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.5	263	Total			

Summary for Subcatchment 9S:

Runoff = 1.89 cfs @ 12.04 hrs, Volume= 0.114 af, Depth> 2.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	0.140	55	Woods, Good, HSG B
	0.180	70	Woods, Good, HSG C
*	0.090	98	New Road Impervious
*	0.110	74	New Road Lawn
*	0.000	98	New Lot Buildings
*	0.000	98	New Lot Impervious
*	0.000	74	New Lot Lawn
	0.520	72	Weighted Average
	0.430		82.69% Pervious Area
	0.090		17.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 10S:

Runoff = 4.08 cfs @ 12.04 hrs, Volume= 0.246 af, Depth> 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	0.250	55	Woods, Good, HSG B
	0.150	70	Woods, Good, HSG C
*	0.190	98	New Road Impervious
*	0.260	74	New Road Lawn
*	0.000	98	New Lot Buildings (.05 TO 54)
*	0.050	98	New Lot Impervious
*	0.150	74	New Lot Lawn
	1.050	74	Weighted Average
	0.810		77.14% Pervious Area
	0.240		22.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 11S:

Runoff = 1.84 cfs @ 12.03 hrs, Volume= 0.118 af, Depth> 4.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
*	0.100	98	New Road Impervious
*	0.130	74	New Road Lawn
*	0.000	98	New Lot Buildings
*	0.100	98	New Lot Impervious
*	0.000	74	New Lawn
	0.330	89	Weighted Average
	0.130		39.39% Pervious Area
	0.200		60.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 12S:

Runoff = 2.74 cfs @ 12.04 hrs, Volume= 0.167 af, Depth> 3.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
	0.040	70	Woods, Good, HSG C
*	0.130	98	New Road Impervious
*	0.150	74	New Road Lawn
*	0.290	74	Filter Pond
*	0.000	98	New Lot Buildings
*	0.000	98	New Lot Impervious
*	0.000	74	New Lawn
	0.610	79	Weighted Average
	0.480		78.69% Pervious Area
	0.130		21.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 50S: 4 Building Roofs

Runoff = 1.30 cfs @ 12.00 hrs, Volume= 0.086 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
*	0.200	98	Building Roof
	0.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 51S: 4 Building Roofs

Runoff = 1.30 cfs @ 12.00 hrs, Volume= 0.086 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
*	0.200	98	Building Roof
	0.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 52S: 2 Building Roofs

Runoff = 0.65 cfs @ 12.00 hrs, Volume= 0.043 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
*	0.100	98	Building Roof
	0.100		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 53S: 2 Building Roofs

Runoff = 0.65 cfs @ 12.00 hrs, Volume= 0.043 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
*	0.100	98	Building Roof
	0.100		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 54S: Building Roof

Runoff = 0.33 cfs @ 12.00 hrs, Volume= 0.021 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 - YEAR Rainfall=5.80"

	Area (ac)	CN	Description
*	0.050	98	Building Roof
	0.050		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

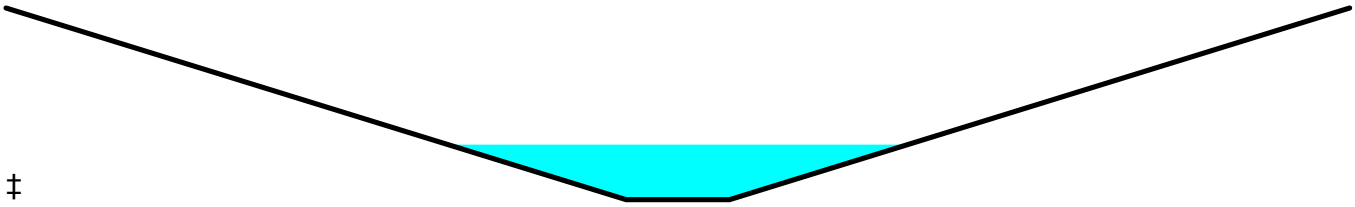
Summary for Reach 1R: Property Line

Inflow Area = 22.570 ac, 6.60% Impervious, Inflow Depth > 1.46" for 25 - YEAR event
Inflow = 16.09 cfs @ 13.03 hrs, Volume= 2.743 af
Outflow = 16.08 cfs @ 13.04 hrs, Volume= 2.742 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.14 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.20 fps, Avg. Travel Time= 0.4 min

Peak Storage= 156 cf @ 13.03 hrs
Average Depth at Peak Storage= 0.57'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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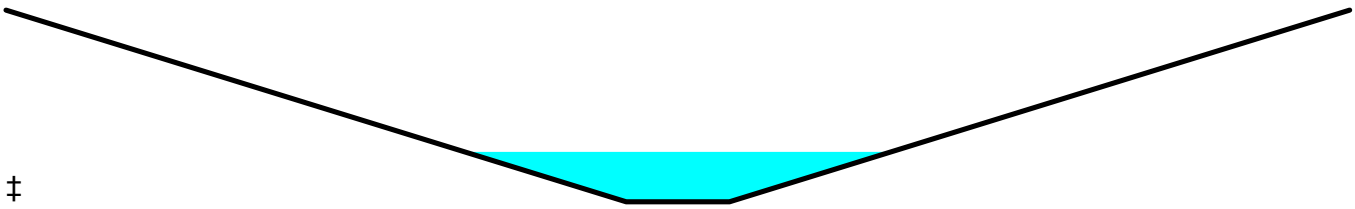
Summary for Reach 2R: Property Line

Inflow Area = 17.000 ac, 8.53% Impervious, Inflow Depth > 2.12" for 25 - YEAR event
Inflow = 13.09 cfs @ 13.68 hrs, Volume= 3.008 af
Outflow = 13.09 cfs @ 13.69 hrs, Volume= 3.007 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.88 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.86 fps, Avg. Travel Time= 0.3 min

Peak Storage= 134 cf @ 13.68 hrs
Average Depth at Peak Storage= 0.52'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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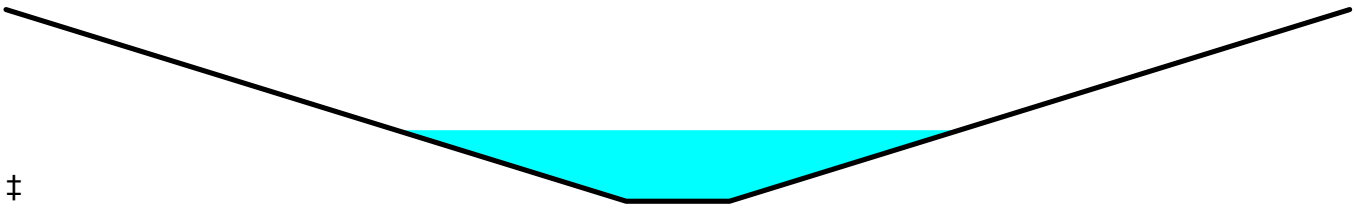
Summary for Reach 3R: Property Line

Inflow Area = 28.090 ac, 1.35% Impervious, Inflow Depth > 2.06" for 25 - YEAR event
Inflow = 28.57 cfs @ 12.86 hrs, Volume= 4.822 af
Outflow = 28.55 cfs @ 12.87 hrs, Volume= 4.821 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.96 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.40 fps, Avg. Travel Time= 0.2 min

Peak Storage= 239 cf @ 12.86 hrs
Average Depth at Peak Storage= 0.74'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 98.00', Outlet Invert= 95.00'



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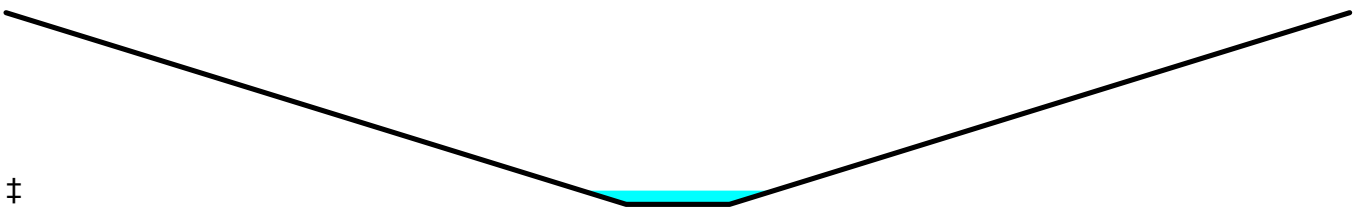
Summary for Reach 4R: Property Line

Inflow Area = 5.500 ac, 6.91% Impervious, Inflow Depth > 0.59" for 25 - YEAR event
Inflow = 0.98 cfs @ 13.41 hrs, Volume= 0.272 af
Outflow = 0.98 cfs @ 13.42 hrs, Volume= 0.271 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.38 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.75 fps, Avg. Travel Time= 0.5 min

Peak Storage= 21 cf @ 13.41 hrs
Average Depth at Peak Storage= 0.14'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 168.00', Outlet Invert= 165.00'



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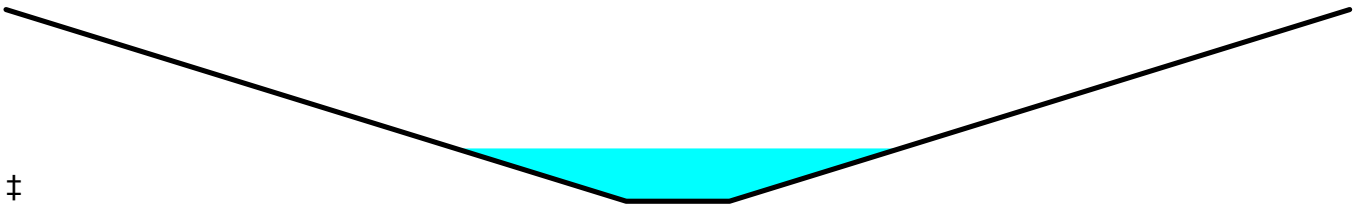
Summary for Reach 5R: Property Line

Inflow Area = 15.030 ac, 3.79% Impervious, Inflow Depth > 2.45" for 25 - YEAR event
Inflow = 14.74 cfs @ 13.17 hrs, Volume= 3.075 af
Outflow = 14.73 cfs @ 13.18 hrs, Volume= 3.074 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.03 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.90 fps, Avg. Travel Time= 0.3 min

Peak Storage= 147 cf @ 13.17 hrs
Average Depth at Peak Storage= 0.55'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 188.00', Outlet Invert= 185.00'



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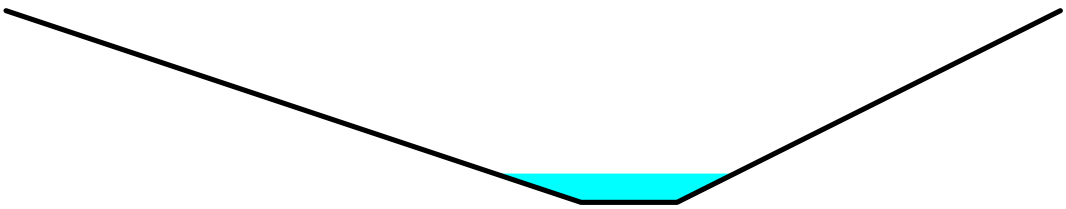
Summary for Reach 6R: Road Ditch

Inflow Area = 0.990 ac, 37.37% Impervious, Inflow Depth > 3.04" for 25 - YEAR event
Inflow = 1.66 cfs @ 12.46 hrs, Volume= 0.251 af
Outflow = 1.65 cfs @ 12.53 hrs, Volume= 0.250 af, Atten= 1%, Lag= 3.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.13 fps, Min. Travel Time= 2.1 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 4.9 min

Peak Storage= 211 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.30'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 110.75 cfs

1.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.0183 '/'
Inlet Invert= 193.00', Outlet Invert= 185.70'



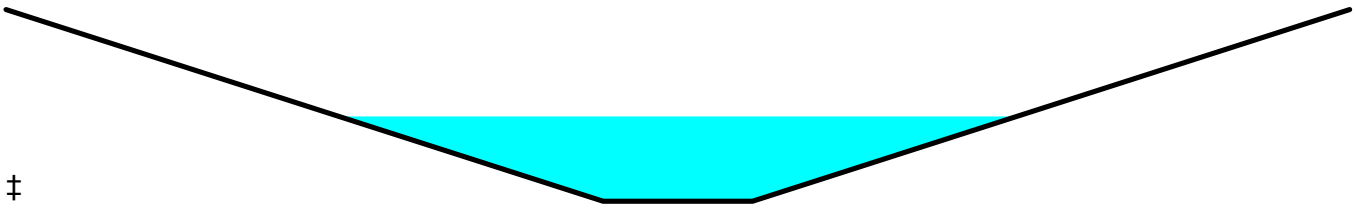
Summary for Reach 8R: Wetland

Inflow Area = 19.020 ac, 2.16% Impervious, Inflow Depth > 1.50" for 25 - YEAR event
Inflow = 14.74 cfs @ 12.78 hrs, Volume= 2.384 af
Outflow = 14.28 cfs @ 13.02 hrs, Volume= 2.352 af, Atten= 3%, Lag= 14.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.95 fps, Min. Travel Time= 7.7 min
Avg. Velocity = 1.15 fps, Avg. Travel Time= 12.9 min

Peak Storage= 6,570 cf @ 12.89 hrs
Average Depth at Peak Storage= 0.88'
Bank-Full Depth= 2.00' Flow Area= 30.0 sf, Capacity= 94.55 cfs

3.00' x 2.00' deep channel, n= 0.075 Very weedy reaches w/pools
Side Slope Z-value= 6.0 '/' Top Width= 27.00'
Length= 895.0' Slope= 0.0223 '/'
Inlet Invert= 183.00', Outlet Invert= 163.00'



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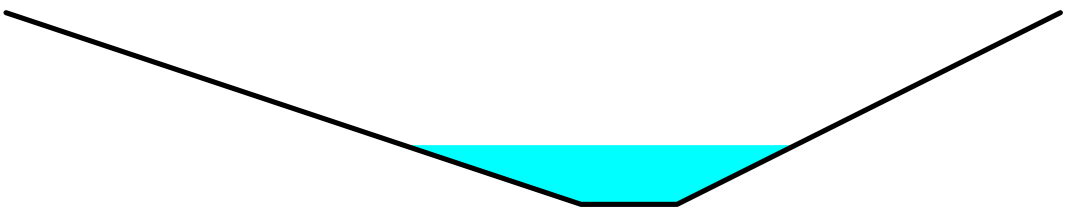
Summary for Reach 9R: Road Ditch

Inflow Area = 2.610 ac, 28.74% Impervious, Inflow Depth > 2.85" for 25 - YEAR event
Inflow = 6.86 cfs @ 12.05 hrs, Volume= 0.619 af
Outflow = 6.33 cfs @ 12.10 hrs, Volume= 0.618 af, Atten= 8%, Lag= 3.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.19 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 1.64 fps, Avg. Travel Time= 4.1 min

Peak Storage= 628 cf @ 12.07 hrs
Average Depth at Peak Storage= 0.62'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 100.41 cfs

1.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.0150 '/'
Inlet Invert= 184.50', Outlet Invert= 178.50'



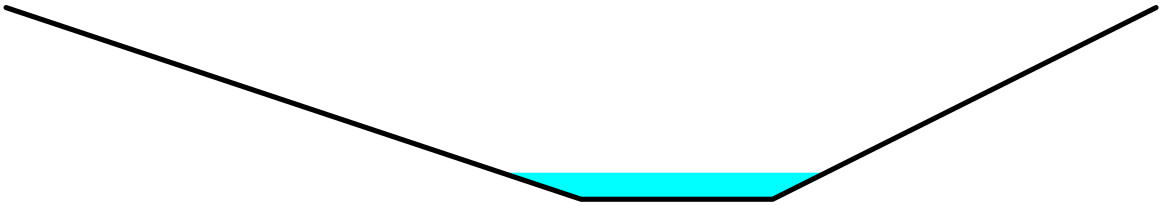
Summary for Reach 10R: Existing Road Ditch

Inflow Area = 5.690 ac, 15.11% Impervious, Inflow Depth > 1.53" for 25 - YEAR event
Inflow = 3.04 cfs @ 13.46 hrs, Volume= 0.723 af
Outflow = 3.04 cfs @ 13.49 hrs, Volume= 0.722 af, Atten= 0%, Lag= 1.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.05 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 2.54 fps, Avg. Travel Time= 1.6 min

Peak Storage= 188 cf @ 13.47 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 168.01 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 12.00'
Length= 250.0' Slope= 0.0280 '/'
Inlet Invert= 180.00', Outlet Invert= 173.00'



Summary for Reach 11R: Wetland

Inflow Area = 17.000 ac, 8.53% Impervious, Inflow Depth > 2.16" for 25 - YEAR event
Inflow = 13.28 cfs @ 13.38 hrs, Volume= 3.062 af
Outflow = 13.09 cfs @ 13.68 hrs, Volume= 3.008 af, Atten= 1%, Lag= 18.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.80 fps, Min. Travel Time= 10.2 min
Avg. Velocity = 0.98 fps, Avg. Travel Time= 18.7 min

Peak Storage= 7,985 cf @ 13.51 hrs
Average Depth at Peak Storage= 0.55'
Bank-Full Depth= 4.00' Flow Area= 136.0 sf, Capacity= 747.00 cfs

10.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 58.00'
Length= 1,100.0' Slope= 0.0055 '/'
Inlet Invert= 166.00', Outlet Invert= 160.00'

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Summary for Pond 1P: New Road Culvert (CULV1)

Inflow Area = 5.690 ac, 15.11% Impervious, Inflow Depth > 1.53" for 25 - YEAR event
Inflow = 3.04 cfs @ 13.46 hrs, Volume= 0.724 af
Outflow = 3.04 cfs @ 13.46 hrs, Volume= 0.723 af, Atten= 0%, Lag= 0.3 min
Primary = 3.04 cfs @ 13.46 hrs, Volume= 0.723 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 181.84' @ 13.46 hrs Surf.Area= 157 sf Storage= 97 cf

Plug-Flow detention time= 0.6 min calculated for 0.721 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (891.1 - 890.7)

Volume	Invert	Avail.Storage	Storage Description
#1	180.90'	561 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.90	50	0	0
182.00	175	124	124
183.00	100	138	261
184.00	125	113	374
185.00	250	188	561

Device	Routing	Invert	Outlet Devices
#1	Primary	180.90'	**18.0" Round Culvert** L= 53.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 180.90' / 180.37' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	183.50'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=3.04 cfs @ 13.46 hrs HW=181.84' (Free Discharge)
1=Culvert (Inlet Controls 3.04 cfs @ 2.61 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=180.90' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 2P: New Road Culvert (CULV2)

Inflow Area = 1.510 ac, 30.46% Impervious, Inflow Depth > 2.89" for 25 - YEAR event
Inflow = 2.86 cfs @ 12.06 hrs, Volume= 0.364 af
Outflow = 2.85 cfs @ 12.06 hrs, Volume= 0.364 af, Atten= 1%, Lag= 0.5 min
Primary = 2.85 cfs @ 12.06 hrs, Volume= 0.364 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 185.92' @ 12.06 hrs Surf.Area= 165 sf Storage= 99 cf

Plug-Flow detention time= 0.8 min calculated for 0.364 af (100% of inflow)
Center-of-Mass det. time= 0.6 min (801.3 - 800.7)

Volume	Invert	Avail.Storage	Storage Description
#1	185.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
185.00	50	0	0
186.00	175	113	113
187.00	100	138	250
188.00	125	113	363
189.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**18.0" Round Culvert** L= 55.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 185.00' / 184.72' S= 0.0051 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	188.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.77 cfs @ 12.06 hrs HW=185.90' (Free Discharge)
1=Culvert (Barrel Controls 2.77 cfs @ 3.57 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=185.00' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 6P: New Road Culvert (CULV6)

Inflow Area = 0.170 ac, 52.94% Impervious, Inflow Depth > 3.98" for 25 - YEAR event
Inflow = 0.90 cfs @ 12.04 hrs, Volume= 0.056 af
Outflow = 0.89 cfs @ 12.05 hrs, Volume= 0.056 af, Atten= 1%, Lag= 0.5 min
Primary = 0.89 cfs @ 12.05 hrs, Volume= 0.056 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 192.26' @ 12.05 hrs Surf.Area= 97 sf Storage= 34 cf

Plug-Flow detention time= 1.3 min calculated for 0.056 af (100% of inflow)
Center-of-Mass det. time= 1.0 min (765.9 - 764.9)

Volume	Invert	Avail.Storage	Storage Description
#1	191.80'	572 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.80	50	0	0
193.00	175	135	135
194.00	100	138	272
195.00	125	113	385
196.00	250	188	572

Device	Routing	Invert	Outlet Devices
#1	Primary	191.78'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 191.78' / 191.50' S= 0.0048 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	195.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.89 cfs @ 12.05 hrs HW=192.26' (Free Discharge)
1=Culvert (Inlet Controls 0.89 cfs @ 1.85 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=191.80' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 9P: New Road Culvert (CULV9)

Inflow Area = 0.330 ac, 60.61% Impervious, Inflow Depth > 4.30" for 25 - YEAR event
Inflow = 1.84 cfs @ 12.03 hrs, Volume= 0.118 af
Outflow = 1.85 cfs @ 12.04 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.4 min
Primary = 1.85 cfs @ 12.04 hrs, Volume= 0.118 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 180.21' @ 12.04 hrs Surf.Area= 76 sf Storage= 13 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (756.5 - 756.5)

Volume	Invert	Avail.Storage	Storage Description
#1	180.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.00	50	0	0
181.00	175	113	113
182.00	100	138	250
183.00	125	113	363
184.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	179.50'	**18.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 179.50' / 175.00' S= 0.0789 '/' Cc= 0.900
n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

#2	Secondary	182.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.79 cfs @ 12.04 hrs HW=180.19' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.79 cfs @ 2.24 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=180.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 10P: Filter Pond 3000 s.f.

Inflow Area = 3.550 ac, 30.42% Impervious, Inflow Depth > 3.05" for 25 - YEAR event
Inflow = 9.99 cfs @ 12.07 hrs, Volume= 0.902 af
Outflow = 1.84 cfs @ 13.07 hrs, Volume= 0.390 af, Atten= 82%, Lag= 60.0 min
Primary = 1.84 cfs @ 13.07 hrs, Volume= 0.390 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Starting Elev= 168.50' Surf.Area= 4,019 sf Storage= 5,257 cf
Peak Elev= 172.61' @ 13.07 hrs Surf.Area= 7,381 sf Storage= 28,372 cf (23,116 cf above start)

Plug-Flow detention time= 269.5 min calculated for 0.270 af (30% of inflow)
Center-of-Mass det. time= 106.6 min (898.5 - 791.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	39,518 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	3,000	0	0
168.00	3,669	3,335	3,335
169.00	4,369	4,019	7,354
170.00	5,127	4,748	12,102
171.00	5,941	5,534	17,636
172.00	6,811	6,376	24,012
173.00	7,739	7,275	31,287
174.00	8,723	8,231	39,518

Device	Routing	Invert	Outlet Devices
#1	Primary	164.00'	**18.0" Round Culvert**
			L= 100.0' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 164.00' / 163.00' S= 0.0100 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	168.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	172.50'	**48.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads
#4	Secondary	173.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60

Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.79 cfs @ 13.07 hrs HW=172.61' (Free Discharge)
└**1=Culvert** (Passes 1.79 cfs of 23.86 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.21 cfs @ 9.67 fps)
  └**3=Orifice/Grate** (Weir Controls 1.58 cfs @ 1.10 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=168.50' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 11P: New Road Culvert (CULV10)

Inflow Area = 2.610 ac, 28.74% Impervious, Inflow Depth > 2.84" for 25 - YEAR event
Inflow = 6.33 cfs @ 12.10 hrs, Volume= 0.618 af
Outflow = 6.26 cfs @ 12.11 hrs, Volume= 0.617 af, Atten= 1%, Lag= 0.6 min
Primary = 6.26 cfs @ 12.11 hrs, Volume= 0.617 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 177.62' @ 12.11 hrs Surf.Area= 129 sf Storage= 206 cf

Plug-Flow detention time= 0.7 min calculated for 0.617 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (801.6 - 801.1)

Volume	Invert	Avail.Storage	Storage Description
#1	176.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.00	50	0	0
177.00	175	113	113
178.00	100	138	250
179.00	125	113	363
180.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	176.00'	**18.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 176.00' / 175.00' S= 0.0175 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	180.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=6.16 cfs @ 12.11 hrs HW=177.59' (Free Discharge)
└**1=Culvert** (Inlet Controls 6.16 cfs @ 3.49 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=176.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 50P: 4 House Drip Edges

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth > 5.15" for 25 - YEAR event
Inflow = 1.30 cfs @ 12.00 hrs, Volume= 0.086 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 185.03' @ 20.00 hrs Surf.Area= 4,608 sf Storage= 3,735 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	183.00'	2,765 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 4 6,912 cf Overall x 40.0% Voids
		2,765 cf	x 4.00 = 11,059 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	188.50'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 4.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=183.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 51P: 4 House Drip Edges

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth > 5.15" for 25 - YEAR event
Inflow = 1.30 cfs @ 12.00 hrs, Volume= 0.086 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 169.03' @ 20.00 hrs Surf.Area= 4,608 sf Storage= 3,735 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	2,765 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 4 6,912 cf Overall x 40.0% Voids
		2,765 cf	x 4.00 = 11,059 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 4.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=167.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 52P: 2 House Drip Edges

Inflow Area = 0.100 ac,100.00% Impervious, Inflow Depth > 5.15" for 25 - YEAR event
Inflow = 0.65 cfs @ 12.00 hrs, Volume= 0.043 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 182.05' @ 20.00 hrs Surf.Area= 1,152 sf Storage= 1,868 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	178.00'	1,382 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 2 3,456 cf Overall x 40.0% Voids
		1,382 cf	x 2.00 = 2,765 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=178.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 53P: 2 House Drip Edges

Inflow Area = 0.100 ac,100.00% Impervious, Inflow Depth > 5.15" for 25 - YEAR event
Inflow = 0.65 cfs @ 12.00 hrs, Volume= 0.043 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 200.05' @ 20.00 hrs Surf.Area= 1,152 sf Storage= 1,868 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	196.00'	1,382 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 2 3,456 cf Overall x 40.0% Voids
		1,382 cf	x 2.00 = 2,765 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	201.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=196.00' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 54P: Drip Edge

Inflow Area = 0.050 ac,100.00% Impervious, Inflow Depth > 5.15" for 25 - YEAR event
Inflow = 0.33 cfs @ 12.00 hrs, Volume= 0.021 af
Outflow = 0.21 cfs @ 12.22 hrs, Volume= 0.009 af, Atten= 35%, Lag= 12.9 min
Primary = 0.21 cfs @ 12.22 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 186.01' @ 12.20 hrs Surf.Area= 288 sf Storage= 577 cf

Plug-Flow detention time= 224.3 min calculated for 0.009 af (43% of inflow)
Center-of-Mass det. time= 114.2 min (844.2 - 730.0)

Volume	Invert	Avail.Storage	Storage Description
#1	181.00'	691 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** 1,728 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	186.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.08 cfs @ 12.22 hrs HW=186.01' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 0.08 cfs @ 0.22 fps)

Summary for Pond DMH1: DMH1

Inflow Area = 2.940 ac, 32.31% Impervious, Inflow Depth > 3.00" for 25 - YEAR event
Inflow = 7.57 cfs @ 12.09 hrs, Volume= 0.736 af
Outflow = 7.57 cfs @ 12.09 hrs, Volume= 0.736 af, Atten= 0%, Lag= 0.0 min
Primary = 7.57 cfs @ 12.09 hrs, Volume= 0.736 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 176.44' @ 12.09 hrs
Flood Elev= 182.96'

Device	Routing	Invert	Outlet Devices
#1	Primary	174.90'	**18.0" Round Culvert** L= 253.0' RCP, square edge headwall, Ke= 0.500

Inlet / Outlet Invert= 174.90' / 170.60' S= 0.0170 '/' Cc= 0.900
n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.45 cfs @ 12.09 hrs HW=176.42' (Free Discharge)
1=Culvert (Inlet Controls 7.45 cfs @ 4.22 fps)

Summary for Pond DMH2: DMH2

Inflow Area = 2.940 ac, 32.31% Impervious, Inflow Depth > 3.00" for 25 - YEAR event
Inflow = 7.57 cfs @ 12.09 hrs, Volume= 0.736 af
Outflow = 7.57 cfs @ 12.09 hrs, Volume= 0.736 af, Atten= 0%, Lag= 0.0 min
Primary = 7.57 cfs @ 12.09 hrs, Volume= 0.736 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 172.15' @ 12.09 hrs
Flood Elev= 175.09'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.50'	**18.0" Round Culvert**
			L= 85.5' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 170.50' / 170.10' S= 0.0047 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.46 cfs @ 12.09 hrs HW=172.13' (Free Discharge)
1=Culvert (Barrel Controls 7.46 cfs @ 4.85 fps)

Summary for Pond DMH4: DMH4

Inflow Area = 3.550 ac, 30.42% Impervious, Inflow Depth > 3.05" for 25 - YEAR event
Inflow = 9.99 cfs @ 12.07 hrs, Volume= 0.902 af
Outflow = 9.99 cfs @ 12.07 hrs, Volume= 0.902 af, Atten= 0%, Lag= 0.0 min
Primary = 9.99 cfs @ 12.07 hrs, Volume= 0.902 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 172.03' @ 12.07 hrs
Flood Elev= 174.24'

Device	Routing	Invert	Outlet Devices
#1	Primary	169.90'	**18.0" Round Culvert**
			L= 51.3' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 169.90' / 169.50' S= 0.0078 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=9.70 cfs @ 12.07 hrs HW=171.96' (Free Discharge)
1=Culvert (Barrel Controls 9.70 cfs @ 5.49 fps)

Summary for Subcatchment 1S:

Runoff = 30.10 cfs @ 12.75 hrs, Volume= 4.668 af, Depth> 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	4.120	30	Woods, Good, HSG A
	3.940	55	Woods, Good, HSG B
	9.010	70	Woods, Good, HSG C
	0.900	77	Woods, Good, HSG D
*	0.010	98	New Road Impervious
*	0.040	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.20 to 50)
*	0.200	98	New Lot Impervious
*	0.600	74	New Lot Lawn
	18.820	59	Weighted Average
	18.610		98.88% Pervious Area
	0.210		1.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.1	100	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.8	160	0.1500	0.97		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
52.9	260	Total			

Summary for Subcatchment 2S:

Runoff = 17.58 cfs @ 13.31 hrs, Volume= 4.000 af, Depth> 4.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	0.240	55	Woods, Good, HSG B
	7.540	70	Woods, Good, HSG C
	2.010	77	Woods, Good, HSG D
*	0.170	98	Existing Roads Off Site
*	0.170	74	Existing Lawn Off Site
*	0.120	98	New Road Impervious
*	0.160	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.20 to 51)
*	0.100	98	New Lot Impervious
*	0.600	74	New Lot Lawn
	11.110	72	Weighted Average
	10.720		96.49% Pervious Area
	0.390		3.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
61.1	1,450	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
1.3	1,100	0.0400	13.91	111.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
100.4	2,650	Total			

Summary for Subcatchment 3S:

Runoff = 52.21 cfs @ 12.84 hrs, Volume= 8.711 af, Depth> 3.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	8.880	55	Woods, Good, HSG B
	17.490	70	Woods, Good, HSG C
	0.960	77	Woods, Good, HSG D
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
	28.090	66	Weighted Average
	27.710		98.65% Pervious Area
	0.380		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	100	0.0600	0.07		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
36.7	1,350	0.0600	0.61		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
61.2	1,450	Total			

Summary for Subcatchment 4S:

Runoff = 3.11 cfs @ 13.25 hrs, Volume= 0.703 af, Depth> 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	3.640	30	Woods, Good, HSG A
	0.250	55	Woods, Good, HSG B
	0.850	70	Woods, Good, HSG C
*	0.380	98	Existing Impervious On Site
*	0.380	74	Existing Lawn On Site
*	0.000	74	New Road Lawn
	5.500	45	Weighted Average
	5.120		93.09% Pervious Area
	0.380		6.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
44.3	1,050	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
82.3	1,150	Total			

Summary for Subcatchment 5S:

Runoff = 25.46 cfs @ 13.15 hrs, Volume= 5.300 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	1.850	55	Woods, Good, HSG B
	7.520	70	Woods, Good, HSG C
	4.520	77	Woods, Good, HSG D
*	0.280	98	Existing Roads Off Site
*	0.280	74	Existing Lawn Off Site
*	0.290	98	Existing Impervious On Site
*	0.290	74	Existing Lawn On Site
	15.030	71	Weighted Average
	14.460		96.21% Pervious Area
	0.570		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
49.5	1,050	0.0200	0.35		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
87.5	1,150	Total			

Summary for Subcatchment 6S:

Runoff = 6.12 cfs @ 13.38 hrs, Volume= 1.405 af, Depth> 3.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	1.910	30	Woods, Good, HSG A
	0.500	55	Woods, Good, HSG B
	1.400	70	Woods, Good, HSG C
	0.030	77	Woods, Good, HSG D
*	0.290	98	Existing Roads Off Site
*	0.290	74	Existing Lawn Off Site
*	0.300	98	Existing Impervious On Site
*	0.300	74	Existing Lawn On Site
*	0.070	98	New Road Impervious
*	0.100	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.1 to 52)
*	0.100	98	New Lot Impervious
*	0.300	74	New Lot Lawn
	5.590	60	Weighted Average
	4.830		86.40% Pervious Area
	0.760		13.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.0	100	0.0200	0.04		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
61.1	1,450	0.0250	0.40		**Shallow Concentrated Flow, BC** Forest w/Heavy Litter Kv= 2.5 fps
1.3	1,100	0.0400	13.91	111.28	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=2.00' Z= 1.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
100.4	2,650	Total			

Summary for Subcatchment 7S:

Runoff = 2.39 cfs @ 12.51 hrs, Volume= 0.313 af, Depth> 5.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	0.000	55	Woods, Good, HSG B
	0.140	70	Woods, Good, HSG C
*	0.080	98	New Road Impervious
*	0.100	74	New Road Lawn
*	0.000	98	New Lot Buildings (0.1 to 53S)
*	0.100	98	New Lot Impervious
*	0.300	74	New Lot Lawn
	0.720	79	Weighted Average
	0.540		75.00% Pervious Area
	0.180		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
35.5	65	0.0100	0.03		**Sheet Flow, AB** Woods: Dense underbrush n= 0.800 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
37.3	315	Total			

Summary for Subcatchment 8S:

Runoff = 1.34 cfs @ 12.04 hrs, Volume= 0.086 af, Depth> 6.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	0.010	55	Woods, Good, HSG B
*	0.090	98	New Road Impervious
*	0.070	74	New Road Lawn
	0.170	86	Weighted Average
	0.080		47.06% Pervious Area
	0.090		52.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
2.3	250	0.0150	1.84		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.5	263	Total			

Summary for Subcatchment 9S:

Runoff = 3.19 cfs @ 12.04 hrs, Volume= 0.194 af, Depth> 4.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	0.140	55	Woods, Good, HSG B
	0.180	70	Woods, Good, HSG C
*	0.090	98	New Road Impervious
*	0.110	74	New Road Lawn
*	0.000	98	New Lot Buildings
*	0.000	98	New Lot Impervious
*	0.000	74	New Lot Lawn
	0.520	72	Weighted Average
	0.430		82.69% Pervious Area
	0.090		17.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 10S:

Runoff = 6.74 cfs @ 12.04 hrs, Volume= 0.412 af, Depth> 4.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	0.250	55	Woods, Good, HSG B
	0.150	70	Woods, Good, HSG C
*	0.190	98	New Road Impervious
*	0.260	74	New Road Lawn
*	0.000	98	New Lot Buildings (.05 TO 54)
*	0.050	98	New Lot Impervious
*	0.150	74	New Lot Lawn
	1.050	74	Weighted Average
	0.810		77.14% Pervious Area
	0.240		22.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 11S:

Runoff = 2.69 cfs @ 12.03 hrs, Volume= 0.176 af, Depth> 6.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
*	0.100	98	New Road Impervious
*	0.130	74	New Road Lawn
*	0.000	98	New Lot Buildings
*	0.100	98	New Lot Impervious
*	0.000	74	New Lawn
	0.330	89	Weighted Average
	0.130		39.39% Pervious Area
	0.200		60.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 12S:

Runoff = 4.31 cfs @ 12.04 hrs, Volume= 0.268 af, Depth> 5.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
	0.040	70	Woods, Good, HSG C
*	0.130	98	New Road Impervious
*	0.150	74	New Road Lawn
*	0.290	74	Filter Pond
*	0.000	98	New Lot Buildings
*	0.000	98	New Lot Impervious
*	0.000	74	New Lawn
	0.610	79	Weighted Average
	0.480		78.69% Pervious Area
	0.130		21.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	13	0.0400	1.19		**Sheet Flow, AB** Smooth surfaces n= 0.011 P2= 3.10"
1.8	250	0.0250	2.37		**Shallow Concentrated Flow, BC** Grassed Waterway Kv= 15.0 fps
2.0	263	Total			

Summary for Subcatchment 50S: 4 Building Roofs

Runoff = 1.82 cfs @ 12.00 hrs, Volume= 0.121 af, Depth> 7.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
*	0.200	98	Building Roof
	0.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 51S: 4 Building Roofs

Runoff = 1.82 cfs @ 12.00 hrs, Volume= 0.121 af, Depth> 7.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
*	0.200	98	Building Roof
	0.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 52S: 2 Building Roofs

Runoff = 0.91 cfs @ 12.00 hrs, Volume= 0.060 af, Depth> 7.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
*	0.100	98	Building Roof
	0.100		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 53S: 2 Building Roofs

Runoff = 0.91 cfs @ 12.00 hrs, Volume= 0.060 af, Depth> 7.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
*	0.100	98	Building Roof
	0.100		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

Summary for Subcatchment 54S: Building Roof

Runoff = 0.45 cfs @ 12.00 hrs, Volume= 0.030 af, Depth> 7.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 - YEAR Rainfall=8.10"

	Area (ac)	CN	Description
*	0.050	98	Building Roof
	0.050		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	24	0.2500	2.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"

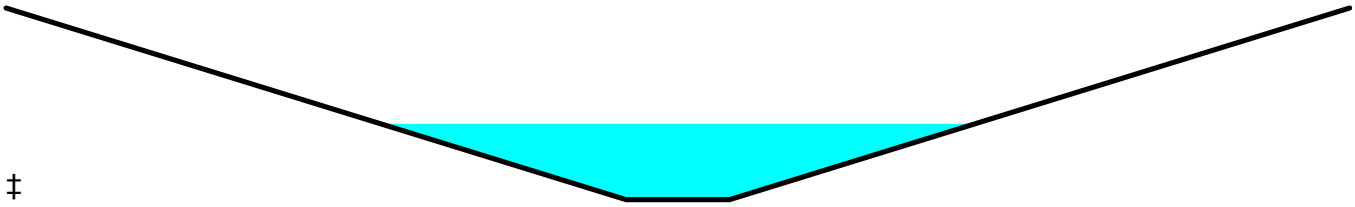
Summary for Reach 1R: Property Line

Inflow Area = 22.570 ac, 6.60% Impervious, Inflow Depth > 2.97" for 100 - YEAR event
Inflow = 33.15 cfs @ 12.92 hrs, Volume= 5.577 af
Outflow = 33.13 cfs @ 12.92 hrs, Volume= 5.576 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.19 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.64 fps, Avg. Travel Time= 0.3 min

Peak Storage= 267 cf @ 12.92 hrs
Average Depth at Peak Storage= 0.79'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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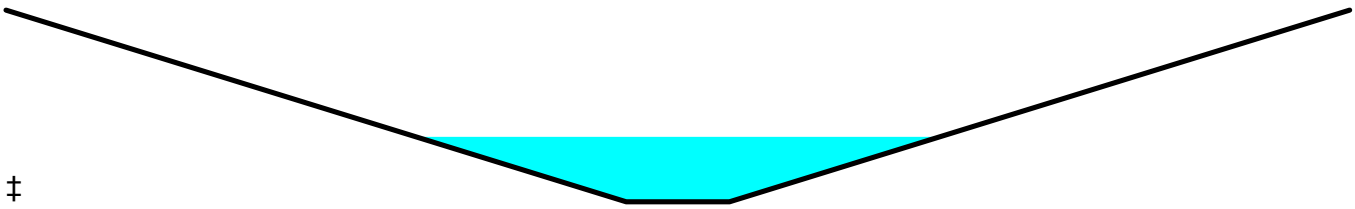
Summary for Reach 2R: Property Line

Inflow Area = 17.000 ac, 8.53% Impervious, Inflow Depth > 3.76" for 100 - YEAR event
Inflow = 23.38 cfs @ 13.60 hrs, Volume= 5.330 af
Outflow = 23.38 cfs @ 13.60 hrs, Volume= 5.329 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.67 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.15 fps, Avg. Travel Time= 0.3 min

Peak Storage= 206 cf @ 13.60 hrs
Average Depth at Peak Storage= 0.68'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 158.00', Outlet Invert= 155.00'



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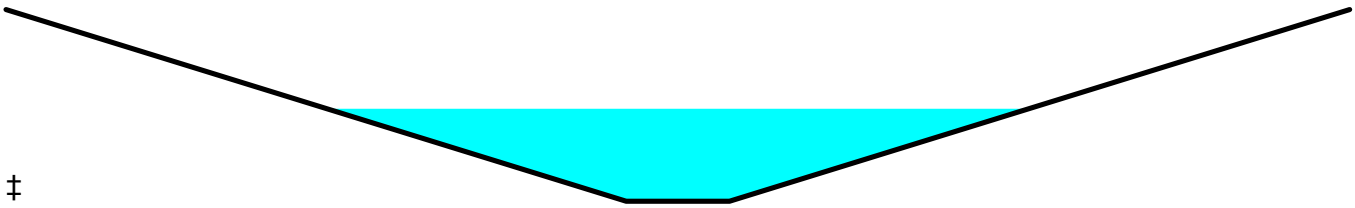
Summary for Reach 3R: Property Line

Inflow Area = 28.090 ac, 1.35% Impervious, Inflow Depth > 3.72" for 100 - YEAR event
Inflow = 52.21 cfs @ 12.84 hrs, Volume= 8.711 af
Outflow = 52.20 cfs @ 12.85 hrs, Volume= 8.710 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.95 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.78 fps, Avg. Travel Time= 0.2 min

Peak Storage= 375 cf @ 12.85 hrs
Average Depth at Peak Storage= 0.96'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 98.00', Outlet Invert= 95.00'



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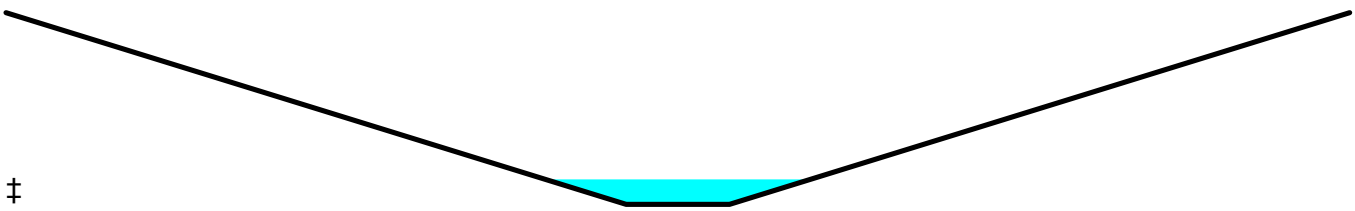
Summary for Reach 4R: Property Line

Inflow Area = 5.500 ac, 6.91% Impervious, Inflow Depth > 1.53" for 100 - YEAR event
Inflow = 3.11 cfs @ 13.25 hrs, Volume= 0.703 af
Outflow = 3.11 cfs @ 13.26 hrs, Volume= 0.703 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.32 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.24 fps, Avg. Travel Time= 0.4 min

Peak Storage= 47 cf @ 13.25 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 168.00', Outlet Invert= 165.00'



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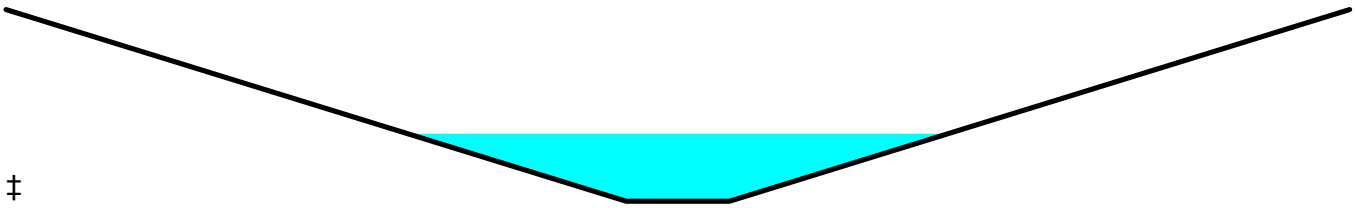
Summary for Reach 5R: Property Line

Inflow Area = 15.030 ac, 3.79% Impervious, Inflow Depth > 4.23" for 100 - YEAR event
Inflow = 25.46 cfs @ 13.15 hrs, Volume= 5.300 af
Outflow = 25.46 cfs @ 13.16 hrs, Volume= 5.299 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.79 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.20 fps, Avg. Travel Time= 0.3 min

Peak Storage= 220 cf @ 13.16 hrs
Average Depth at Peak Storage= 0.71'
Bank-Full Depth= 2.00' Flow Area= 28.0 sf, Capacity= 303.37 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 26.00'
Length= 50.0' Slope= 0.0600 '/'
Inlet Invert= 188.00', Outlet Invert= 185.00'



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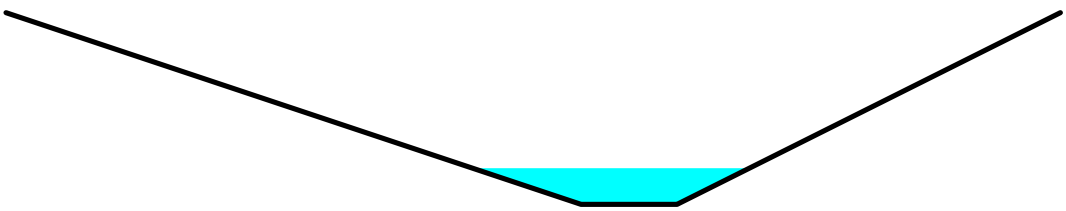
Summary for Reach 6R: Road Ditch

Inflow Area = 0.990 ac, 37.37% Impervious, Inflow Depth > 4.93" for 100 - YEAR event
Inflow = 2.62 cfs @ 12.46 hrs, Volume= 0.407 af
Outflow = 2.61 cfs @ 12.52 hrs, Volume= 0.406 af, Atten= 1%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.54 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 1.61 fps, Avg. Travel Time= 4.1 min

Peak Storage= 295 cf @ 12.48 hrs
Average Depth at Peak Storage= 0.38'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 110.75 cfs

1.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.0183 '/'
Inlet Invert= 193.00', Outlet Invert= 185.70'



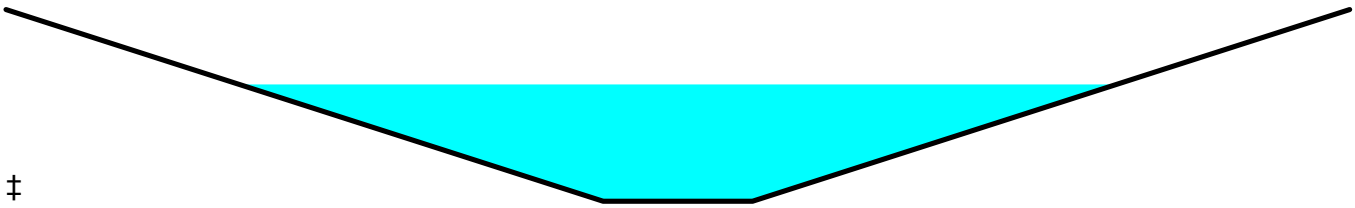
Summary for Reach 8R: Wetland

Inflow Area = 19.020 ac, 2.16% Impervious, Inflow Depth > 2.95" for 100 - YEAR event
Inflow = 30.10 cfs @ 12.75 hrs, Volume= 4.668 af
Outflow = 29.44 cfs @ 12.94 hrs, Volume= 4.624 af, Atten= 2%, Lag= 11.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.35 fps, Min. Travel Time= 6.4 min
Avg. Velocity = 1.30 fps, Avg. Travel Time= 11.5 min

Peak Storage= 11,242 cf @ 12.84 hrs
Average Depth at Peak Storage= 1.22'
Bank-Full Depth= 2.00' Flow Area= 30.0 sf, Capacity= 94.55 cfs

3.00' x 2.00' deep channel, n= 0.075 Very weedy reaches w/pools
Side Slope Z-value= 6.0 '/' Top Width= 27.00'
Length= 895.0' Slope= 0.0223 '/'
Inlet Invert= 183.00', Outlet Invert= 163.00'



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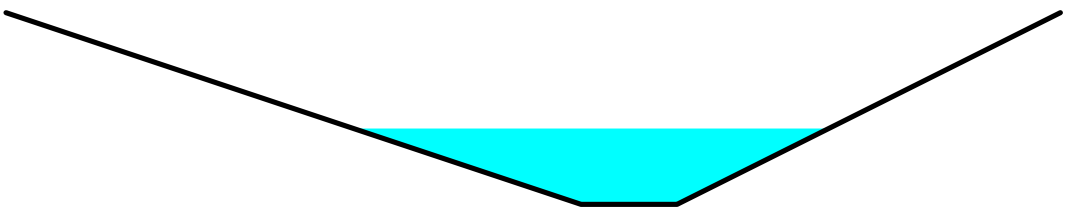
Summary for Reach 9R: Road Ditch

Inflow Area = 2.610 ac, 28.74% Impervious, Inflow Depth > 4.72" for 100 - YEAR event
Inflow = 11.72 cfs @ 12.04 hrs, Volume= 1.027 af
Outflow = 10.82 cfs @ 12.09 hrs, Volume= 1.025 af, Atten= 8%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.83 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 1.93 fps, Avg. Travel Time= 3.5 min

Peak Storage= 945 cf @ 12.06 hrs
Average Depth at Peak Storage= 0.79'
Bank-Full Depth= 2.00' Flow Area= 12.0 sf, Capacity= 100.41 cfs

1.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 11.00'
Length= 400.0' Slope= 0.0150 '/'
Inlet Invert= 184.50', Outlet Invert= 178.50'



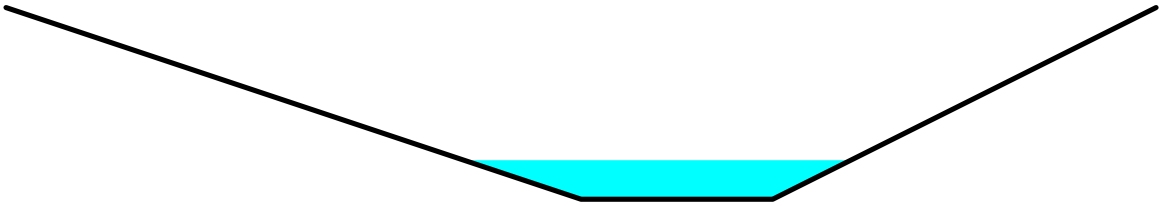
Summary for Reach 10R: Existing Road Ditch

Inflow Area = 5.690 ac, 15.11% Impervious, Inflow Depth > 2.96" for 100 - YEAR event
Inflow = 6.12 cfs @ 13.38 hrs, Volume= 1.404 af
Outflow = 6.11 cfs @ 13.41 hrs, Volume= 1.402 af, Atten= 0%, Lag= 1.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.98 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 2.89 fps, Avg. Travel Time= 1.4 min

Peak Storage= 307 cf @ 13.39 hrs
Average Depth at Peak Storage= 0.41'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 168.01 cfs

2.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 2.0 '/' Top Width= 12.00'
Length= 250.0' Slope= 0.0280 '/'
Inlet Invert= 180.00', Outlet Invert= 173.00'



Summary for Reach 11R: Wetland

Inflow Area = 17.000 ac, 8.53% Impervious, Inflow Depth > 3.81" for 100 - YEAR event
Inflow = 23.64 cfs @ 13.33 hrs, Volume= 5.402 af
Outflow = 23.38 cfs @ 13.60 hrs, Volume= 5.330 af, Atten= 1%, Lag= 16.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.15 fps, Min. Travel Time= 8.5 min
Avg. Velocity = 1.10 fps, Avg. Travel Time= 16.6 min

Peak Storage= 11,955 cf @ 13.46 hrs
Average Depth at Peak Storage= 0.75'
Bank-Full Depth= 4.00' Flow Area= 136.0 sf, Capacity= 747.00 cfs

10.00' x 4.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 6.0 '/' Top Width= 58.00'
Length= 1,100.0' Slope= 0.0055 '/'
Inlet Invert= 166.00', Outlet Invert= 160.00'

‡

Summary for Pond 1P: New Road Culvert (CULV1)

Inflow Area = 5.690 ac, 15.11% Impervious, Inflow Depth > 2.96" for 100 - YEAR event
Inflow = 6.12 cfs @ 13.38 hrs, Volume= 1.405 af
Outflow = 6.12 cfs @ 13.38 hrs, Volume= 1.404 af, Atten= 0%, Lag= 0.1 min
Primary = 6.12 cfs @ 13.38 hrs, Volume= 1.404 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 182.48' @ 13.38 hrs Surf.Area= 139 sf Storage= 199 cf

Plug-Flow detention time= 0.6 min calculated for 1.399 af (100% of inflow)
Center-of-Mass det. time= 0.4 min (878.3 - 877.8)

Volume	Invert	Avail.Storage	Storage Description
#1	180.90'	561 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.90	50	0	0
182.00	175	124	124
183.00	100	138	261
184.00	125	113	374
185.00	250	188	561

Device	Routing	Invert	Outlet Devices
#1	Primary	180.90'	**18.0" Round Culvert** L= 53.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 180.90' / 180.37' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	183.50'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=6.11 cfs @ 13.38 hrs HW=182.48' (Free Discharge)
1=Culvert (Inlet Controls 6.11 cfs @ 3.46 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=180.90' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 2P: New Road Culvert (CULV2)

Inflow Area = 1.510 ac, 30.46% Impervious, Inflow Depth > 4.77" for 100 - YEAR event
Inflow = 4.78 cfs @ 12.05 hrs, Volume= 0.600 af
Outflow = 4.78 cfs @ 12.06 hrs, Volume= 0.600 af, Atten= 0%, Lag= 0.5 min
Primary = 4.78 cfs @ 12.06 hrs, Volume= 0.600 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 186.28' @ 12.06 hrs Surf.Area= 154 sf Storage= 158 cf

Plug-Flow detention time= 0.8 min calculated for 0.600 af (100% of inflow)
Center-of-Mass det. time= 0.6 min (792.7 - 792.1)

Volume	Invert	Avail.Storage	Storage Description
#1	185.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
185.00	50	0	0
186.00	175	113	113
187.00	100	138	250
188.00	125	113	363
189.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**18.0" Round Culvert** L= 55.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 185.00' / 184.72' S= 0.0051 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	188.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=4.67 cfs @ 12.06 hrs HW=186.26' (Free Discharge)
1=Culvert (Barrel Controls 4.67 cfs @ 3.99 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=185.00' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 6P: New Road Culvert (CULV6)

Inflow Area = 0.170 ac, 52.94% Impervious, Inflow Depth > 6.08" for 100 - YEAR event
Inflow = 1.34 cfs @ 12.04 hrs, Volume= 0.086 af
Outflow = 1.33 cfs @ 12.05 hrs, Volume= 0.086 af, Atten= 1%, Lag= 0.4 min
Primary = 1.33 cfs @ 12.05 hrs, Volume= 0.086 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 192.37' @ 12.05 hrs Surf.Area= 109 sf Storage= 45 cf

Plug-Flow detention time= 1.2 min calculated for 0.086 af (100% of inflow)
Center-of-Mass det. time= 0.9 min (756.3 - 755.4)

Volume	Invert	Avail.Storage	Storage Description
#1	191.80'	572 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.80	50	0	0
193.00	175	135	135
194.00	100	138	272
195.00	125	113	385
196.00	250	188	572

Device	Routing	Invert	Outlet Devices
#1	Primary	191.78'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 191.78' / 191.50' S= 0.0048 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	195.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.32 cfs @ 12.05 hrs HW=192.37' (Free Discharge)
1=Culvert (Barrel Controls 1.32 cfs @ 3.05 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=191.80' (Free Discharge)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 9P: New Road Culvert (CULV9)

Inflow Area = 0.330 ac, 60.61% Impervious, Inflow Depth > 6.41" for 100 - YEAR event
Inflow = 2.69 cfs @ 12.03 hrs, Volume= 0.176 af
Outflow = 2.69 cfs @ 12.04 hrs, Volume= 0.176 af, Atten= 0%, Lag= 0.3 min
Primary = 2.69 cfs @ 12.04 hrs, Volume= 0.176 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 180.38' @ 12.04 hrs Surf.Area= 97 sf Storage= 28 cf

Plug-Flow detention time= 0.1 min calculated for 0.176 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (748.7 - 748.6)

Volume	Invert	Avail.Storage	Storage Description
#1	180.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.00	50	0	0
181.00	175	113	113
182.00	100	138	250
183.00	125	113	363
184.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	179.50'	**18.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 179.50' / 175.00' S= 0.0789 '/' Cc= 0.900
n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

#2	Secondary	182.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.60 cfs @ 12.04 hrs HW=180.36' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.60 cfs @ 2.49 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=180.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 10P: Filter Pond 3000 s.f.

Inflow Area = 3.550 ac, 30.42% Impervious, Inflow Depth > 4.97" for 100 - YEAR event
Inflow = 16.51 cfs @ 12.07 hrs, Volume= 1.469 af
Outflow = 8.42 cfs @ 12.28 hrs, Volume= 0.954 af, Atten= 49%, Lag= 13.0 min
Primary = 8.42 cfs @ 12.28 hrs, Volume= 0.954 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Starting Elev= 168.50' Surf.Area= 4,019 sf Storage= 5,257 cf
Peak Elev= 172.84' @ 12.28 hrs Surf.Area= 7,591 sf Storage= 30,065 cf (24,809 cf above start)

Plug-Flow detention time= 156.8 min calculated for 0.830 af (57% of inflow)
Center-of-Mass det. time= 58.0 min (840.1 - 782.1)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	39,518 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	3,000	0	0
168.00	3,669	3,335	3,335
169.00	4,369	4,019	7,354
170.00	5,127	4,748	12,102
171.00	5,941	5,534	17,636
172.00	6,811	6,376	24,012
173.00	7,739	7,275	31,287
174.00	8,723	8,231	39,518

Device	Routing	Invert	Outlet Devices
#1	Primary	164.00'	**18.0" Round Culvert**
			L= 100.0' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 164.00' / 163.00' S= 0.0100 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	168.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	172.50'	**48.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads
#4	Secondary	173.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60

Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=8.34 cfs @ 12.28 hrs HW=172.84' (Free Discharge)
└**1=Culvert** (Passes 8.34 cfs of 24.20 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.22 cfs @ 9.93 fps)
  └**3=Orifice/Grate** (Weir Controls 8.12 cfs @ 1.90 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=168.50' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 11P: New Road Culvert (CULV10)

Inflow Area = 2.610 ac, 28.74% Impervious, Inflow Depth > 4.71" for 100 - YEAR event
Inflow = 10.82 cfs @ 12.09 hrs, Volume= 1.025 af
Outflow = 10.63 cfs @ 12.10 hrs, Volume= 1.024 af, Atten= 2%, Lag= 0.9 min
Primary = 10.63 cfs @ 12.10 hrs, Volume= 1.024 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 179.25' @ 12.10 hrs Surf.Area= 157 sf Storage= 398 cf

Plug-Flow detention time= 0.7 min calculated for 1.021 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (791.1 - 790.6)

Volume	Invert	Avail.Storage	Storage Description
#1	176.00'	550 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.00	50	0	0
177.00	175	113	113
178.00	100	138	250
179.00	125	113	363
180.00	250	188	550

Device	Routing	Invert	Outlet Devices
#1	Primary	176.00'	**18.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 176.00' / 175.00' S= 0.0175 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Secondary	180.00'	**15.0' long x 15.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=10.58 cfs @ 12.10 hrs HW=179.23' (Free Discharge)
└**1=Culvert** (Inlet Controls 10.58 cfs @ 5.98 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=176.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 50P: 4 House Drip Edges

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth > 7.24" for 100 - YEAR event
Inflow = 1.82 cfs @ 12.00 hrs, Volume= 0.121 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 185.85' @ 20.00 hrs Surf.Area= 4,608 sf Storage= 5,250 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	183.00'	2,765 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 4 6,912 cf Overall x 40.0% Voids
		2,765 cf	x 4.00 = 11,059 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	188.50'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 4.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=183.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 51P: 4 House Drip Edges

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth > 7.24" for 100 - YEAR event
Inflow = 1.82 cfs @ 12.00 hrs, Volume= 0.121 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 169.85' @ 20.00 hrs Surf.Area= 4,608 sf Storage= 5,250 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	2,765 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 4 6,912 cf Overall x 40.0% Voids
		2,765 cf	x 4.00 = 11,059 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 4.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=167.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 52P: 2 House Drip Edges

Inflow Area = 0.100 ac,100.00% Impervious, Inflow Depth > 7.24" for 100 - YEAR event
Inflow = 0.91 cfs @ 12.00 hrs, Volume= 0.060 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 183.70' @ 20.00 hrs Surf.Area= 1,152 sf Storage= 2,625 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	178.00'	1,382 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 2 3,456 cf Overall x 40.0% Voids
		1,382 cf	x 2.00 = 2,765 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=178.00' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 53P: 2 House Drip Edges

Inflow Area = 0.100 ac,100.00% Impervious, Inflow Depth > 7.24" for 100 - YEAR event
Inflow = 0.91 cfs @ 12.00 hrs, Volume= 0.060 af
Outflow = 0.04 cfs @ 14.87 hrs, Volume= 0.007 af, Atten= 95%, Lag= 172.1 min
Primary = 0.04 cfs @ 14.87 hrs, Volume= 0.007 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 201.00' @ 14.85 hrs Surf.Area= 1,152 sf Storage= 2,304 cf

Plug-Flow detention time= 546.3 min calculated for 0.007 af (12% of inflow)
Center-of-Mass det. time= 285.9 min (1,014.7 - 728.7)

Volume	Invert	Avail.Storage	Storage Description
#1	196.00'	1,382 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** x 2 3,456 cf Overall x 40.0% Voids
		1,382 cf	x 2.00 = 2,765 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	201.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.01 cfs @ 14.87 hrs HW=201.00' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 0.01 cfs @ 0.07 fps)

Summary for Pond 54P: Drip Edge

Inflow Area = 0.050 ac,100.00% Impervious, Inflow Depth > 7.24" for 100 - YEAR event
Inflow = 0.45 cfs @ 12.00 hrs, Volume= 0.030 af
Outflow = 0.39 cfs @ 12.02 hrs, Volume= 0.015 af, Atten= 14%, Lag= 0.9 min
Primary = 0.39 cfs @ 12.02 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 186.02' @ 12.00 hrs Surf.Area= 288 sf Storage= 578 cf

Plug-Flow detention time= 188.5 min calculated for 0.015 af (51% of inflow)
Center-of-Mass det. time= 94.4 min (823.1 - 728.7)

Volume	Invert	Avail.Storage	Storage Description
#1	181.00'	691 cf	**3.00'W x 96.00'L x 6.00'H Prismatoid** 1,728 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	186.00'	**48.0' long x 3.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32

Primary OutFlow Max=0.21 cfs @ 12.02 hrs HW=186.01' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 0.21 cfs @ 0.29 fps)

Summary for Pond DMH1: DMH1

Inflow Area = 2.940 ac, 32.31% Impervious, Inflow Depth > 4.90" for 100 - YEAR event
Inflow = 12.62 cfs @ 12.09 hrs, Volume= 1.201 af
Outflow = 12.62 cfs @ 12.09 hrs, Volume= 1.201 af, Atten= 0%, Lag= 0.0 min
Primary = 12.62 cfs @ 12.09 hrs, Volume= 1.201 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 177.85' @ 12.09 hrs
Flood Elev= 182.96'

Device	Routing	Invert	Outlet Devices
#1	Primary	174.90'	**18.0" Round Culvert** L= 253.0' RCP, square edge headwall, Ke= 0.500

Inlet / Outlet Invert= 174.90' / 170.60' S= 0.0170 '/' Cc= 0.900
n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=12.40 cfs @ 12.09 hrs HW=177.77' (Free Discharge)
1=Culvert (Inlet Controls 12.40 cfs @ 7.02 fps)

Summary for Pond DMH2: DMH2

Inflow Area = 2.940 ac, 32.31% Impervious, Inflow Depth > 4.90" for 100 - YEAR event
Inflow = 12.62 cfs @ 12.09 hrs, Volume= 1.201 af
Outflow = 12.62 cfs @ 12.09 hrs, Volume= 1.201 af, Atten= 0%, Lag= 0.0 min
Primary = 12.62 cfs @ 12.09 hrs, Volume= 1.201 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 173.52' @ 12.09 hrs
Flood Elev= 175.09'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.50'	**18.0" Round Culvert**
			L= 85.5' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 170.50' / 170.10' S= 0.0047 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=12.40 cfs @ 12.09 hrs HW=173.45' (Free Discharge)
1=Culvert (Barrel Controls 12.40 cfs @ 7.02 fps)

Summary for Pond DMH4: DMH4

Inflow Area = 3.550 ac, 30.42% Impervious, Inflow Depth > 4.97" for 100 - YEAR event
Inflow = 16.51 cfs @ 12.07 hrs, Volume= 1.469 af
Outflow = 16.51 cfs @ 12.07 hrs, Volume= 1.469 af, Atten= 0%, Lag= 0.0 min
Primary = 16.51 cfs @ 12.07 hrs, Volume= 1.469 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 174.40' @ 12.06 hrs
Flood Elev= 174.24'

Device	Routing	Invert	Outlet Devices
#1	Primary	169.90'	**18.0" Round Culvert**
			L= 51.3' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 169.90' / 169.50' S= 0.0078 '/' Cc= 0.900
			n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=16.06 cfs @ 12.07 hrs HW=174.21' (Free Discharge)
1=Culvert (Inlet Controls 16.06 cfs @ 9.09 fps)

APPENDIX H. 24-hour duration rainfalls for various return periods

COUNTY	Storm Type	1-YR	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR	500-YR
ANDROSCOGGIN	III	2.5	3.0	3.7	4.3	5.4	6.4	7.6	11.1
AROOSTOOK C (Presque Isle Area)	II	1.9	2.3	2.8	3.2	3.9	4.6	5.3	7.6
AROOSTOOK N (Fort Kent Area)	II	1.9	2.2	2.7	3.1	3.7	4.3	5.0	7.0
AROOSTOOK S (Houlton Area)	II	2.1	2.5	3.0	3.4	4.1	4.7	5.4	7.5
CUMBERLAND NW (Bridgton Area)	III	2.5	3.0	3.7	4.3	5.4	6.3	7.5	10.9
CUMBERLAND SE (N Windham Area)	III	2.6	3.1	3.9	4.6	5.8	6.9	8.1	12.1
FRANKLIN	II	2.0	2.4	2.9	3.4	4.2	4.9	5.7	8.2
HANCOCK	III	2.5	2.9	3.6	4.2	5.2	6.1	7.2	10.5
KENNEBEC	III	2.4	2.8	3.5	4.2	5.2	6.1	7.2	10.6
KNOX	III	2.6	3.2	3.9	4.6	5.7	6.7	7.9	11.5
LINCOLN	III	2.5	3.1	3.8	4.5	5.5	6.5	7.6	11.1
OXFORD E (Rumford Area)	II[1]	2.3	2.7	3.3	3.9	4.8	5.7	6.7	9.7
OXFORD W (Gilead Area)	II	2.2	2.7	3.4	4.0	4.9	5.8	6.9	10.1
PENOBSCOT N (Millinocket Area)	II	2.2	2.6	3.2	3.8	4.7	5.6	6.5	9.5
PENOBSCOT S (Hudson Area)	II	2.3	2.7	3.4	3.9	4.9	5.7	6.7	9.7
PISCATAQUIS N (Chesuncook Area)	II	2.0	2.4	2.9	3.4	4.2	5.0	5.8	8.5
PISCATAQUIS S (Monson Area)	II	2.2	2.7	3.3	3.9	4.8	5.7	6.8	10.0
SAGADAHOC	III	2.6	3.2	3.9	4.6	5.7	6.7	7.8	11.4
SOMERSET N (Pittston Farm Area)	II	2.0	2.3	2.8	3.3	4.0	4.7	5.4	7.8
SOMERSET S (Solon Area)	II	2.3	2.7	3.4	3.9	4.9	5.7	6.7	9.8
WALDO	III	2.4	2.9	3.6	4.2	5.2	6.1	7.2	10.5
WASHINGTON	III	2.5	2.8	3.4	3.9	4.8	5.5	6.4	9.0
YORK	III	2.6	3.3	4.1	4.9	6.2	7.3	8.7	13.2

1 Use Type III rainfall for the towns of Brownfield, Buckfield, Denmark, Hartford, Hebron, Hiram, Oxford, and Porter.

Source: Data extracted by the Maine Department of Environmental Protection from the Northeast Regional Climate Center website (http://precip.eas.cornell.edu), Extreme Precipitation Tables. Data from this website was obtained from the National Oceanic and Atmospheric Administration's Regional Climate Center Program.
June 2014

Table 5-1 - Hydrologic Soil Groups for Maine Soils

This table provides information on the hydrologic soil series recognized in Maine and is current as of January 1, 2016. It is understood that these ratings may, and some probably will, change over time and with better data. The USDA - NRCS (Natural Resources Conservation Service) should be contacted for more accurate information.
http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

HSG A	HSG A/D	HSG B	HSG B/D	HSG C	HSG C/D	HSG D
Adams	Au Gres	Agawam	Atherton	Becket	Boothbay #	Abram
Colton	Bucksport	Allagash	Belgrade	Chesuncook *	Buxton #	Aurelie
Croghan	Chocorua	Bangor	Charles	Conant	Chesuncook **	Bemis
Danforth	Kinsman	Berkshire	Cornish	Dixfield *	Dixfield **	Benson
Deerfield	Markey	Caribou	Elmwood +	Elliottsville	Dixmont	Biddeford
Eldridge	Moosabec	Charlton	Fredon	Howland *	Easton	Brayton
Enchanted	Naskeag	Fryeburg	Halsey	Linneus	Howland **	Burnham
Hermon	Naumburg	Hadley	Limerick	Mapleton	Lamoine	Cabot
Hinckley	Rifle	Hartland	Lovewell +	Marlow	Leicester	Canaan
Mahoosuc	Scarboro	Nicholville ^	Medomak	Melrose	Perham **	Canandaigua
Masardis	Searsport	Machias ^	Ninigret +	Paxton	Pushaw	Colonel
Merrimac	Sebago	Madawaska ^	Podunk +	Penquis	Ragmuff **	Creasey
Skowhegan	Togus	Monadnock	Raynham	Perham *	Peru **	Daigle
Stetson	Vassalboro	Ondawa	Red Hook	Peru *	Skerry *	Gouldsboro
Sunday	Walpole	Salmon	Roundabout	Plaisted	Surplus **	Hogback
Udipsamments	Waskish	Sheepscot ^	Rumney	Ragmuff *	Washburn	Hollis
Windsor			Saco	Rawsonville	Woodbridge	Knob Lock
			Scio +	Sisk		Lyman
			Sutton +	Skerry **		Monarda
			Swanton	Suffield		Monson
			Whately	Surplus *		Peacham
			Winooski +	Tunbridge		Pillsbury
			Wonsqueak	Winnecook		Ricker
						Ridgebury
	Soils (with *) are HSG C or C/D depending on depth to Cd (C horizon with a dense unconsolidated material) and depth to water table - (with **) most commonly HSG C/D					Saddleback
						Scantic
						Saugatuck
	Soils (with +) are HSG B or B/D if aquic-redox is within 60cm					Schoodic
						Swanville
	Soils (with ^) are HSG B if water table is below 60cm and Ksat of lower horizon greater than 10					Telos
						Thorndike
	Soils (with #) are HSG C - or C/D if aquic-redox is within 60cm					Westbury
						Whitman

Jones Farm Residential Subdivision Project
13 Residential Lots
Lisbon Road, Brunswick, Maine
1-2-2026
Planning Board Submission Set

LEGEND:

EXISTING		PROPOSED
● OR ■	IRON PIPE OR MONUMENT	○ OR □
	BENCH MARK (SEE NOTES)	
TP2	TRAVERSE STATION	TP2
	TEST PIT	
	CATCH BASIN	
S	SEWER MANHOLE	S
FH	FIRE HYDRANT	
WV	WATER GATE VALVE	WV
WS	WATER SHUT-OFF	WS
	BLOW-OFF/CLEAN-OUT	
W	WELL	W
	UTILITY POLE	
	POLE W/SINGLE LIGHT	
	POLE W/DOUBLE LIGHT	
	SPOT LIGHT	
	BOLLARD LIGHT	
	SIGN	
	HANDICAP SYMBOL	
	PAVEMENT PAINT MARKINGS	
	PARKING SPACE COUNT	15
	PROPERTY LINE	
	EASEMENTS	
	SETBACK/BUFFER	
WmB Au	SOILS BOUNDARY	WmB Au
	WETLAND BOUNDARY	
	STREAM	
	CULVERT	
	CONCRETE SLIPFORM	
	GRANITE CURB	
	VERTICAL CONCRETE CURB	
	EDGE OF PAVEMENT	
	ROAD CENTERLINE	
	BUILDING	
	STORM DRAIN(SEE PLAN FOR SIZE)	12"SD
S	SEWER LINE(SEE PLAN FOR SIZE)	S
FM	SEWER FORCE MAIN(SEE PLAN FOR SIZE)	6"FM
W	WATER LINE(SEE PLAN FOR SIZE)	W
GAS	NATURAL GAS LINE(SEE PLAN FOR SIZE)	G
UE	UNDERGROUND POWER,PHONE,CABLE CONDUIT	UE
SE	UNDERGROUND SECONDARY POWER LINES	SE
WC	CHILLER LINES	WC
x (100.00)	SPOT ELEVATION	x 100.00
	SPOT: CURB TOP & BOTTOM	T=106.9 B=106.4
100	CONTOURS	100
	CATCH BASIN HAY BALE BARRIER	
	CLEARING LIMIT	
	TREE LINE	
	SILT FENCE	
X	CHAIN LINK FENCE	X
	WOOD GUARD RAIL RIPRAP	
	CONSTRUCTION ENTRANCE	
	CONCRETE	
	PAVEMENT	
	PAVEMENT OVERLAY	
	BUILDING	
	EXISTING BUILDING	
"NIC"	NOT IN CONTRACT	"NIC"

GENERAL NOTES:

1. TOPOGRAPHIC DATA IS BASED ON COMPILATIONS OF INFORMATION INCLUDING AERIAL INFORMATION, ON THE GROUND SURVEY, APPROVED DESIGN PLANS, AND FIELD OBSERVATIONS. ON THE GROUND SURVEYS HAVE BEEN COMPLETED BY DIRIGO SURVEYING. AREAS THAT WILL BE IMPACTED BY THE PROPOSED IMPROVEMENTS HAS BEEN VERIFIED BY AN EXISTING CONDITIONS SURVEY COMPLETED FOR THE PROJECT IN 2022 BY COLLIER ENGINEERING.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION HAS NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES AND IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (1-800-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC AND FIRE ALARM). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
4. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, SIZE, INVERTS AND TYPES OF EXISTING PIPES AT ALL PROPOSED POINTS OF CONNECTION PRIOR TO ORDERING MATERIALS. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATIONS, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT.
5. ALL AREAS OUTSIDE THE LIMIT OF WORK THAT ARE DISTURBED SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. ALL AREAS DISTURBED DURING CONSTRUCTION NOT COVERED WITH BUILDINGS, STRUCTURES, OR PAVEMENT SHALL RECEIVE 6 INCHES OF LOAM AND SEED.
6. CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND SHALL BE RESPONSIBLE FOR PAYING ANY FEES FOR ANY POLE RELOCATION AND FOR THE ALTERATION OR ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS.
8. ALL PROPERTY MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE RESET TO THEIR ORIGINAL LOCATION BY A MAINE REGISTERED PROFESSIONAL LAND SURVEYOR (PLS) AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PREPARE AN AS-BUILT PLAN SURVEY SHOWING LOCATIONS OF ALL SURFACE FEATURES AND SUBSURFACE UTILITY SYSTEMS INCLUDING THE LOCATION TYPE, SIZE AND INVERTS.
9. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO EARTHWORK OPERATION AND MAINTAIN ALL EROSION CONTROL MEASURES AND SEEDED EMBANKMENTS DURING CONSTRUCTION. EROSION CONTROL SHALL BE REMOVED ONLY UPON THE ESTABLISHMENT OF ALL LANDSCAPED AREAS. AL WORK SHALL BE IN COMPLIANCE WITH THE ENVIRONMENTAL QUALITY HANDBOOK FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION, AS ADOPTED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
10. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
11. ALL MATERIALS AND CONSTRUCTION METHODS USED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL LOCAL MUNICIPAL STANDARDS AND MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
12. ALL HANDICAP ACCESSIBLE PARKING SPACES, RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA).
13. ALL SITE SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
14. THE CONTRACTOR SHALL FOLLOW THE STANDARDS SET FORTH BY THE TOWN OF BRUNSWICK ZONING CODES AND ENGINEERING DEPARTMENT.
15. LOTS TO BE SERVED BY ON LOT SEPTIC AND WELLS.

LAYOUT NOTES:

1. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR BUILDING.
2. OFFSETS TO CATCH BASINS AND MANHOLES ARE TO THE CENTER OF THE FRAME.
3. PIPE LENGTH EQUALS THE CENTER TO CENTER DISTANCES BETWEEN CATCH BASINS AND/OR MANHOLES MINUS ONE HALF THE DIAMETER OF EACH CATCH BASIN OR MANHOLE.
4. BOUNDARY INFORMATION ON LAYOUT PLAN IS FOR REFERENCE ONLY, REFER TO SURVEY FOR ACTUAL SURVEY AND BOUNDARY SURVEY REFERENCES.

GRADING AND DRAINAGE NOTES:

1. UNLESS OTHERWISE NOTED, ALL STORM DRAIN PIPE SHALL BE IN ACCORDANCE WITH MDOT SPECIFICATIONS SECTION 603. PIPE CULVERTS AND STORM DRAINS, LATEST REVISION WITH THE EXCEPTION THAT THE ONLY ACCEPTABLE TYPES OF PIPE ARE AS FOLLOWS:
   REINFORCED CONCRETE PIPE
   POLYVINYL CHLORIDE PIPE (PVC)
   SMOOTH BORE HDPE POLYETHYLENE PIPE
2. TOPSOIL STRIPPED IN AREAS OF CONSTRUCTION THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED ON SITE AT A LOCATION TO BE DESIGNATED BY OWNER. UNSUITABLE SOIL SHALL BE SEPARATED, REMOVED AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION OFF SITE.
3. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

EROSION CONTROL NOTES:

1. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE SITE. SEE EROSION CONTROL PLAN FOR EROSION CONTROL SEQUENCING.
2. ALL EROSION CONTROL METHODS IMPLEMENTED SHALL CONFORM TO THE "MAINE EROSION AND SEDIMENT CONTROL EST MANAGEMENT PRACTICES (BMP's) MANUAL" DATED OCTOBER 2016 BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION. http://www.maine.gov/dep/land/erosion/escbmps/esc_bmp_engineers.pdf
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL PLACE THE EROSION CONTROL BMPS INCLUDING SILT FENCE, BERMS, EROSION CONTROL MIX, ETC.. THE CONTRACTOR SHALL INSPECT THE BARRIER AND OTHER PREVENTATIVE MEASURES BI-WEEKLY, BEFORE ANY PREDICTED RAIN EVENT, AND AFTER ANY RAIN EVENT. THE CONTRACTOR SHALL REMOVE ANY ACCUMULATED SILT AND/OR MAKE REPAIRS AS NECESSARY.
4. THE CONTRACTOR IS CAUTIONED THAT FAILURE TO COMPLY WITH THE SEQUENCE OF CONSTRUCTION, EROSION/SEDIMENT CONTROL PLAN, AND OTHER PERMIT REQUIREMENTS MAY RESULT IN MONETARY PENALTIES. THE CONTRACTOR SHALL BE ASSESSED ALL SUCH PENALTIES AT NO COST TO THE OWNER OR PERMITTEE.

APPROVALS REQUIRED.

1. TOWN OF BRUNSWICK PLANNING BOARD.
2. MAINE DEP STORMWATER PERMIT.

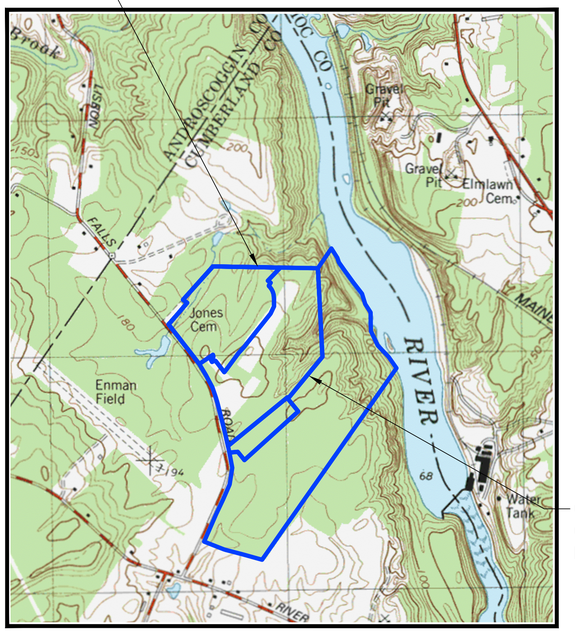
PROJECT SCALES:

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

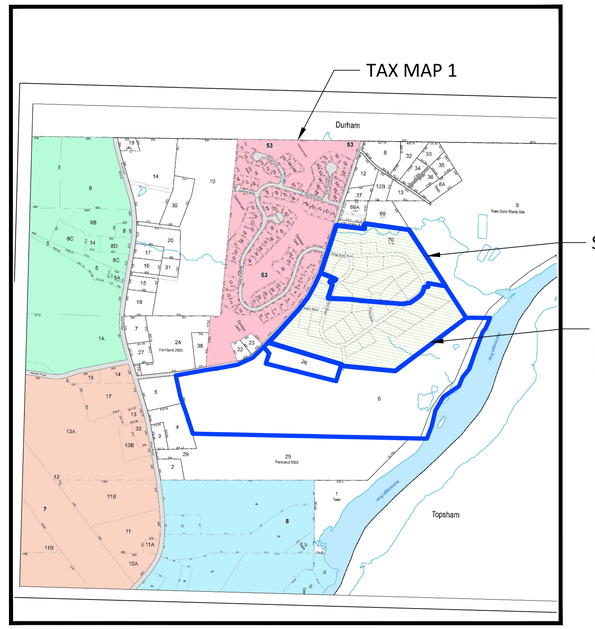
GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

SITE



LOCATION
USGS MAP
1"=1000'



LOCATION TAX MAP
1"=1000'

SITE

LOCATION AERIAL MAP
1"=400'

SHEET INDEX:

C0	COVER SHEET
1	TOPOGRAPHIC SURVEY PLAN BY COLLIER ENGINEERING
1	SUBDIVISION PLAN BY COLLIER ENGINEERING
C1	OVERALL SUBDIVISION PLAN: 1"=100'
C2-C5	ROADWAY SITE PLANS: 1"=20'
C6	JONES FARM ROAD PROFILES: 1"=40'
C7	HAY STACK LANE PROFILE: 1"=40'
C8	FILTER POND PLAN, PROFILE, AND DETAILS
C9	ROADWAY SECTIONS AND DETAILS
C110	CIVIL DETAILS
C11, C12	EROSION CONTROL NOTES AND DETAILS
SOILS	HIGH INTENSITY SOIL SURVEY PLAN
PRE	PRE DEVELOPMENT STORMWATER PLAN
POST	POST DEVELOPMENT STORMWATER PLAN
WQ1	WATER QUALITY STORMWATER PLAN

PROGRESS PLAN
NOT FOR CONSTRUCTION

THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.

STATE OF MAINE
CHRISTOPHER S. BELANGER 9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

Cover Sheet

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

BELANGER ENGINEERING CONSULTING ENGINEERS
63 Second Avenue , Augusta, Maine 04330 Ph 207-622-1462, Cell 207-242-5713

- COMMERCIAL PROJECTS
- RESIDENTIAL SUBDIVISIONS
- TOWN AND STATE APPROVALS
- SITE PLANNING & DESIGN
- STORMWATER MANAGEMENT
- ROAD AND UTILITY DESIGN
- EROSION CONTROL PLANS

FIELD WK:	SCALE: 1"=100'	SHEET: C0
DRN BY:	JOB #:	
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	

LEGEND

- EXISTING PROPERTY LINE
- ABUTTER LINE (NOT SURVEYED)
- EXISTING RIGHT-OF-WAY LINE
- PROPOSED RIGHT-OF-WAY LINE
- RECORD PLAN LINE
- TIE LINE
- SETBACK (NOTE 2)
- EASEMENT
- BUILDING
- EDGE PAVEMENT
- EDGE GRAVEL
- EDGE CONCRETE
- TREELINE
- WETLANDS (NOTE 11)
- UPLANDS (NOTE 11)
- APPROX. SPO-RP ZONE (NOTE 2)
- APPROX. SPO-SP ZONE (NOTE 2)
- OHU — OVERHEAD UTILITY
- STREAM (NOTE 11B)
- 120 — 118 — CONTOURS
- X120.00 — SPOT GRADE
- CULVERT
- SURVEY CONTROL
- SIGN
- A.G./B.G. — ABOVE/BELOW GRADE
- N/F — NOW OR FORMERLY
- MONUMENT FOUND
- IRON PIPE/ROD FOUND
- UTILITY POLE
- GUY WIRE

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS JONES FARM ESTATE, LLC BY DEED DATED MARCH 30, 2021 AND RECORDED AT THE C.C.R.D. IN BOOK 38007, PAGE 234, AND IS SHOWN AS LOT 70 ON THE TOWN OF BRUNSWICK TAX MAP 1.
2. THE PROPERTY IS LOCATED IN THE RURAL FARM & FOREST (RF) DISTRICT. PORTIONS OF THE PROPERTY ARE ALSO LOCATED IN THE SHORELAND PROTECTION OVERLAY - STREAM PROTECTION (SPO-SP) AND RESOURCE PROTECTION (SPO-RP) SUB-DISTRICTS.

   LAND USE REGULATIONS WITHIN THE RF DISTRICT ARE AS FOLLOWS:

	STANDARD DEVELOPMENTS:	OPEN SPACE DEVELOPMENTS:
MIN LOT AREA:	2 ACRES	N/A
NET RES. DENSITY (UNITS/ACRE):	0.5	0.625 (+25%)
MIN LOT WIDTH:	150 FT	75 FT
MIN FRONT SETBACK:	25 FT	N/A
MIN SIDE SETBACK:	30 FT	10 FT
MIN REAR SETBACK:	30 FT	20 FT
MIN STREAM SETBACK:	75 FT (NOTE 2C.3)	
MAX IMPERVIOUS COVERAGE:	20%	N/A
MAX BUILDING HEIGHT:	40 FT	
MAX BUILDING FOOTPRINT:	10,000 S.F. PER STRUCTURE	

2.A. THIS SURVEY HAS BEEN PREPARED WITHOUT THE BENEFIT OF A ZONING REPORT. LAND USE REGULATIONS LISTED ABOVE ARE INTENDED FOR PRELIMINARY PLANNING PURPOSES AND HAVE BEEN COMPILED BASED SOLELY UPON THIS SURVEYOR'S INTERPRETATION OF THE BRUNSWICK ZONING ORDINANCE (REVISED THROUGH AUGUST 17, 2022) AND MAY NOT NECESSARILY INCLUDE ALL RELEVANT REGULATIONS AFFECTING DEVELOPMENT. AS SUCH, ALL LAND USE REGULATIONS MUST BE CONFIRMED WITH THE APPROPRIATE LOCAL, STATE AND/OR FEDERAL REGULATOR AGENCY. REFERENCE MAY BE HAD TO SAID ORDINANCE FOR MORE PARTICULAR INFORMATION.

2.B. A MINIMUM OF 45% OF THE TOTAL SITE AREA MUST BE DEDICATED AS PROTECTED CONSERVATION AREA FOR OPEN SPACE DEVELOPMENT STANDARDS TO APPLY.

2.C. SPO SUB-DISTRCTS:

2.C.1. THE LOCATION OF ALL SPO SUB-DISTRICTS SHOWN HEREON ARE APPROXIMATE AND ARE SHOWN BASED ON SPATIAL DATA OBTAINED FROM THE TOWN OF BRUNSWICK.

2.C.2. ACCORDING TO SECTION 2.3.3.B(3) OF THE TOWN OF BRUNSWICK ZONING ORDINANCE, THE SPO-RP SUB-DISTRICT ENCOMPASSES AREAS "WHEN THEY OCCUR WITHIN THE LIMITS OF THE SHORELAND PROTECTION OVERLAY DISTRICT, EXCLUSIVE OF THE STREAM PROTECTION SUB-DISTRICT." ALL SPO-RP ZONES ON THE SURVEYED PROPERTY OCCUR WITH THE SPO-SP ZONE. DUE TO THIS FINDING, PLEASE CONSULT WITH THE TOWN OF BRUNSWICK TO CONFIRM WHETHER THE SPO-RP ZONES SHOWN HEREON ARE IN EFFECT.

2.C.3. STREAM SETBACKS ARE MEASURED FROM THE NORMAL HIGH-WATER LINE. HOWEVER, THE NORMAL HIGH-WATER LINE WAS NOT DELINEATED DURING THE COURSE OF THIS SURVEY. SETBACKS SHOWN HEREON ARE APPROXIMATE AND BASED SOLELY ON SPATIAL DATA OBTAINED FROM THE TOWN OF BRUNSWICK AND SHOULD BE VERIFIED PRIOR TO ANY CONSTRUCTION IN THOSE AREAS.

3. TOTAL AREA OF PARCEL IS APPROXIMATELY 79.45 ACRES.
4. PERIMETER BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON PLAN REF. 7A & 7B, BEST-FIT TO FIELD MEASUREMENTS TO EXISTING MONUMENTS RECOVERED BY NORTHERN SURVEY ENGINEERING, LLC IN NOVEMBER, 2022 USING A HELMERT ADJUSTMENT METHOD. A COMPLETE RECORDS SEARCH WAS NOT COMPLETED AS PART OF THIS SURVEY, AND THIS PLAT DOES NOT REPRESENT THIS SURVEYORS OPINION AS TO THE EXTENT OF TITLE.

4.A. PROPOSED ROADS AND LOTS ARE SHOWN BASED ON CAD FILES PROVIDED BY BELANGER ENGINEERING.

5. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY COLLIERS ENGINEERING & DESIGN INC. IN DECEMBER, 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH SUAS BASED PHOTOGRAMMETRY WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
6. BOOK AND PAGE REFERENCES SHOWN HEREON ARE IN REFERENCE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.).
7. BEARINGS SHOWN HEREON ARE IN REFERENCE TO GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE IN REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED GPS OBSERVATIONS.
8. THIS SURVEY HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT PREPARED BY AN ATTORNEY. AS SUCH, THIS SURVEY MAY NOT NECESSARILY DEPICT ALL EASEMENTS, RESTRICTIONS, EXCEPTIONS OR OTHER ENCUMBRANCES OF RECORD WHICH AFFECT THE TITLE TO THE PROPERTY.
9. UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL SURFACE EVIDENCE LOCATED IN THE FIELD IN CONJUNCTION WITH ANY RECORD INFORMATION AVAILABLE AT THE TIME OF THIS SURVEY (SUE LEVEL C), AND MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
10. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF BRUNSWICK, MAINE, CUMBERLAND COUNTY, COMMUNITY-PANEL NUMBER 230042 0010 B, HAVING AN EFFECTIVE DATE OF JANUARY 3, 1986. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE C (NO SHADING), AREAS OF MINIMAL FLOODING.
11. A WETLAND DELINEATION WAS PERFORMED ON THIS SITE IN NOVEMBER, 2022 BY ALEX FINAMORE, CERTIFIED SOIL SCIENTIST OF MAINELY SOILS, LLC, AND LOCATED BY SUB-METER GPS. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS.

11.A. THE WETLAND DELINEATION PERFORMED BY ALEX FINAMORE (MAINELY SOILS) WAS LIMITED TO THE AREA TO BE DEVELOPED. WETLANDS BEYOND THIS AREA ARE SHOWN BASED SOLELY ON PLAN REF. 7A AND HAVE NOT BEEN VERIFIED SURVEY.

11.B. THE LOCATION OF ALL STREAMS DEPICTED HEREON, AND THEREFORE ALL SETBACKS THEREFROM, ARE APPROXIMATE AND SHOWN BASED ON CAD FILES PROVIDED BY MAINELY SOILS AND HAS NOT BEEN INDEPENDENTLY VERIFIED BY THIS SURVEY.

12. ROAD NOTES:

12.A. LISBON FALLS ROAD IS SHOWN AS 49.5 FEET WIDE (3 RODS) AND IS SHOWN PER PLAN REF. 7A.

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 INCH = 100FT.

LOCATION MAP N.T.S.

FOR REGISTRY USE ONLY

PLAN REFERENCES:

A. "JONES FARM SUBDIVISION" PREPARED FOR JONES FARM, LLC BY PINE TREE ENGINEERING, PROJECT NO. 03013 DATED MAY 1, 2007, REVISED THROUGH APRIL 4, 2008 AND RECORDED IN PLAN BOOK 208, PAGE 232

B. "STANDARD BOUNDARY SURVEY - LABCO REALTY TRUST - SUBSURFACE WASTEWATER DISPOSAL SYSTEM PARCEL" PREPARED BY KIMBALL CHASE COMPANY, INC., PROJECT NO. 88-2347 DATED SEPTEMBER 10, 1990, REVISION 2 (NO REVISION DATE, APPROVED BY THE TOWN OF BRUNSWICK PLANNING BOARD ON SEPTEMBER 2, 1996) AND RECORDED IN PLAN BOOK 196, PAGE 225.

C. "LOT LAYOUT PLAN - SPRUCE POND SUBDIVISION" PREPARED BY KIMBALL CHASE COMPANY, INC., PROJECT NO. 88-2347 DATED MAY 26, 1989 (REVISED THROUGH APRIL 29, 1991 AND RECORDED IN PLAN BOOK 196, PAGE 224.

D. "SURVEY PLAN OF LAND OF RAY LABBE & SONS" PREPRAED BY SITELINES, PA, JOB NO. 3113SV DATED MAY 23, 2016. UNRECORDED.

SURVEYORS CERTIFICATION:

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

DEVON J. HURLEY, MAINE PLS 2584 — DATE 3/22/23

STATE OF MAINE
DEVON J. HURLEY
2584
REGISTERED PROFESSIONAL LAND SURVEYOR

DEVON J. HURLEY, PLS 2584

REV.| BY: | DATE: | STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION AND ALL REVISIONS, APPROVED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK.

NORSE
NORTHERN SURVEY ENGINEERING
207.440.3487
41 CHURCH ROAD, BRUNSWICK, MAINE 04011
www.northernsurveyengineering.com

EXISTING CONDITIONS & LIMITED BOUNDARY SURVEY
OF:
JONES FARM SUBDIVISION
LISBON FALLS ROAD
BRUNSWICK, MAINE 04011
FOR:
RAY LABBE & SONS, INC.
4 HIGHLAND ROAD
BRUNSWICK, MAINE 04011

RECORD OWNER:
JONES FARM ESTATE, LLC
BOOK 38007, PAGE 234

DRAWN	CHECKED
DJH	TMM
PROJECT NO.	DATE
220011760A	3/22/23
SHEET SIZE	SCALE
24" X 36"	1" = 100'

SHEET 1 OF 1

PLAN REFERENCES:

A. "JONES FARM SUBDIVISION" PREPARED FOR JONES FARM, LLC BY PINE TREE ENGINEERING, PROJECT NO. 03013 DATED MAY 1, 2007, REVISED THROUGH APRIL 4, 2008 AND RECORDED IN PLAN BOOK 208, PAGE 232

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GENERAL NOTES:

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2. TOTAL AREA OF PARCEL IS APPROXIMATELY 79.45 ACRES.
3. PERIMETER BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON PLAN REF. 7A & 7B, BEST-FIT TO FIELD MEASUREMENTS TO EXISTING MONUMENTS RECOVERED BY NORTHERN SURVEY ENGINEERING, LLC IN NOVEMBER, 2022 USING A HELMERT ADJUSTMENT METHOD. A COMPLETE RECORDS SEARCH WAS NOT COMPLETED AS PART OF THIS SURVEY, AND THIS PLAT DOES NOT REPRESENT THIS SURVEYORS OPINION AS TO THE EXTENT OF TITLE.

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8. UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL SURFACE EVIDENCE LOCATED IN THE FIELD IN CONJUNCTION WITH ANY RECORD INFORMATION AVAILABLE AT THE TIME OF THIS SURVEY (SUE LEVEL C), AND MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
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10. A WETLAND DELINEATION WAS PERFORMED ON THIS SITE IN NOVEMBER, 2022 BY ALEX FINAMORE, CERTIFIED SOIL SCIENTIST OF MAINELY SOILS, LLC, AND LOCATED BY SUB-METER GPS. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS.

10.A. THE WETLAND DELINEATION PERFORMED BY ALEX FINAMORE (MAINELY SOILS) WAS LIMITED TO THE AREA TO BE DEVELOPED. WETLANDS BEYOND THIS AREA ARE SHOWN BASED SOLELY ON PLAN REF. 7A AND HAVE NOT BEEN VERIFIED SURVEY.

10.B. THE LOCATION OF ALL STREAMS DEPICTED HEREON, AND THEREFORE ALL SETBACKS THEREFROM, ARE APPROXIMATE AND SHOWN BASED ON CAD FILES PROVIDED BY MAINELY SOILS AND HAS NOT BEEN INDEPENDENTLY VERIFIED BY THIS SURVEY.

11. ROAD NOTES:

11.A. LISBON FALLS ROAD IS SHOWN AS 49.5 FEET WIDE (3 RODS) AND IS SHOWN PER PLAN REF. 7A.

12. A 25 FOOT WIDE EASEMENT AREA IS RESERVED ALONG AND ADJACENT TO ALL ROAD RIGHTS OF WAY (INCL. LISBON FALLS ROAD, JONES FARM ROAD, AND HAY STACK LANE) FOR THE PURPOSE OF INSTALLATION AND MAINTENANCE OF DRAINAGE STRUCTURES AND GRADING SWALES AS REQUIRED TO DRAIN ADJACENT LOTS TO THE WETLANDS AND STREAM. SAID EASEMENTS SHALL BENEFIT ANY IMPACTED LOTS AND SHALL BE MAINTAINED BY THE HOME OWNER ASSOCIATION AFTER THE COMPLETION OF THE PROJECT. THESE EASEMENTS DO NOT BENEFIT THE TOWN OF BRUNSWICK. THE TOWN WILL NOT BE RESPONSIBLE FOR DRAINAGE AND UTILITY MAINTENANCE LOCATED WITHIN SAID EASEMENTS.

13. SUBDIVISION NOTES:

13.A. THE SUBDIVISION ROADS SHALL REMAIN PRIVATE UNLESS THEY ARE UPGRADED TO TOWN ROAD STANDARDS, APPROVED AND ACCEPTED BY THE TOWN IN THE FUTURE.

13.B. LOTS 1, 9, 11, AND 12 DRIVEWAYS SHALL BE LOCATED OFF THE PROPOSED ROADS JONES FARM ROAD AND HAY STACK LANE. DRIVEWAYS CANNOT BE LOCATED OFF LISBON ROAD. NO DRIVEWAY PERMITS WILL BE GRANTED OFF LISBON ROAD.

13.C. NO CUTTING IS ALLOWED IN THE STREAM PROTECTION OVERLAY ZONE (SPO) ON LOTS 4, 5, 7, AND 8.

13.D. DRIVEWAYS ARE NOT ALLOWED OFF THE HAMMERHEAD TURN AROUND AND SHALL NOT BE LOCATED WITHIN 50' OF THE END OF THE ROAD. THIS APPLIES TO LOTS 8 AND 12.

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- ABUTTER LINE (NOT SURVEYED)
- EXISTING RIGHT-OF-WAY LINE
- PROPOSED RIGHT-OF-WAY LINE
- (1) PROPOSED LOT NUMBER
- RECORD PLAN LINE
- TIE LINE
- SETBACK (NOTE 2)
- EASEMENT
- BUILDING
- EDGE PAVEMENT
- EDGE GRAVEL
- EDGE CONCRETE
- WETLANDS
- APPROX. SPO-RP ZONE (SEE SPO NOTE)
- APPROX. SPO-SP ZONE (SEE SPO NOTE)
- EXISTING TREELINE
- OHU EXISTING OVERHEAD UTILITY
- STREAM (NOTE 10B)
- 120 118 CONTOURS (EXISTING)
- EXISTING CULVERT
- A.G./B.G. ABOVE/BELOW GRADE
- N/F NOW OR FORMERLY
- MONUMENT FOUND
- IRON PIPE/ROD FOUND
- IRON ROD W/CAP SET
- CONCRETE/STONE BOUND SET
- UTILITY POLE
- GUY WIRE

SURVEYORS CERTIFICATION:

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

DRAFT

SEAN P. PIERCE, MAINE PLS 2517 — DATE

COLLIERS ENGINEERING & DESIGN, INC.

APPROVED: BRUNSWICK PLANNING BOARD

CHAIR — DATE

RF DISTRICT REGULATIONS:

THE PROPERTY IS LOCATED IN THE RURAL FARM & FOREST (RF) DISTRICT. PORTIONS OF THE PROPERTY ARE ALSO LOCATED IN THE SHORELAND PROTECTION OVERLAY - STREAM PROTECTION (SPO-SP) AND RESOURCE PROTECTION (SPO-RP) SUB-DISTRICTS.

LAND USE REGULATIONS WITHIN THE RF DISTRICT ARE AS FOLLOWS:

	STANDARD DEVELOPMENTS:	OPEN SPACE DEVELOPMENTS:
MIN LOT AREA:	2 ACRES	N/A
NET RES. DENSITY (UNITS/ACRE):	0.5	0.625 (+25%)
MIN LOT WIDTH:	150 FT	75 FT
MIN FRONT SETBACK:	25 FT	N/A
MIN SIDE SETBACK:	30 FT	10 FT
MIN REAR SETBACK:	30 FT	20 FT
MAX IMPERVIOUS COVERAGE:	20%	N/A
MAX BUILDING HEIGHT:	40 FT	
MAX BUILDING FOOTPRINT:	10,000 S.F. PER STRUCTURE	

* THIS SURVEY HAS BEEN PREPARED WITHOUT THE BENEFIT OF A ZONING REPORT. LAND USE REGULATIONS LISTED ABOVE ARE INTENDED FOR PRELIMINARY PLANNING PURPOSES AND HAVE BEEN COMPILED BASED SOLELY UPON THIS SURVEYOR'S INTERPRETATION OF THE BRUNSWICK ZONING ORDINANCE (REVISED THROUGH AUGUST 17, 2022) AND MAY NOT NECESSARILY INCLUDE ALL RELEVANT REGULATIONS AFFECTING DEVELOPMENT. AS SUCH, ALL LAND USE REGULATIONS MUST BE CONFIRMED WITH THE APPROPRIATE LOCAL, STATE AND/OR FEDERAL REGULATOR AGENCY. REFERENCE MAY BE HAD TO SAID ORDINANCE FOR MORE PARTICULAR INFORMATION.

** A MINIMUM OF 45% OF THE TOTAL SITE AREA MUST BE DEDICATED AS PROTECTED CONSERVATION AREA FOR OPEN SPACE DEVELOPMENT STANDARDS TO APPLY.

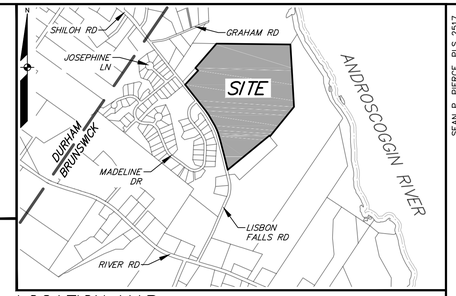
SPO NOTES:

1.A.1. THE LOCATION OF ALL SPO SUB-DISTRICTS SHOWN HEREON ARE APPROXIMATE AND ARE SHOWN BASED ON SPATIAL DATA OBTAINED FROM THE TOWN OF BRUNSWICK.

1.A.2. ACCORDING TO SECTION 2.3.3.B(3) OF THE TOWN OF BRUNSWICK ZONING ORDINANCE, THE SPO-RP SUB-DISTRICT ENCOMPASSES AREAS "WHEN THEY OCCUR WITHIN THE LIMITS OF THE SHORELAND PROTECTION OVERLAY DISTRICT, EXCLUSIVE OF THE STREAM PROTECTION SUB-DISTRICT." ALL SPO-RP ZONES ON THE SURVEYED PROPERTY OCCUR WITH THE SPO-SP ZONE, DUE TO THIS FINDING, PLEASE CONSULT WITH THE TOWN OF BRUNSWICK TO CONFIRM WHETHER THE SPO-RP ZONES SHOWN HEREON ARE IN EFFECT.

LOCATION MAP

N.T.S.



FOR REGISTRY USE ONLY

LOT AREAS

LOT	AREA (S.F.)	AREA (AC.)
1	37,580 S.F.	0.86 AC.
2	35,242 S.F.	0.81 AC.
3	34,895 S.F.	0.80 AC.
4	38,563 S.F.	0.86 AC.
5	44,092 S.F.	1.01 AC.
6	38,594 S.F.	0.89 AC.
7	41,861 S.F.	0.96 AC.
8	54,013 S.F.	1.24 AC.
9	41,914 S.F.	0.96 AC.
10	38,032 S.F.	0.87 AC.
11	41,385 S.F.	0.95 AC.
12	45,198 S.F.	1.04 AC.
13	44,280 S.F.	1.02 AC.
14	796,449 S.F.	18.28 AC.

ROAD AREAS

	AREA (S.F.)	AREA (AC.)
HAY STACK LANE	35,839 S.F.	0.82 AC.
JONES FARM ROAD	58,270 S.F.	1.34 AC.

LINE/CURVE TABLE

LINE/CURVE #	LENGTH	DIRECTION/DELTA	RADIUS
C1	39.19'	89°49'08"	25.00'
C2	124.21'	14°58'57"	475.00'
C3	46.41'	5°35'53"	475.00'
C4	51.83'	13°08'52"	225.00'
C5	14.21'	81°26'05"	10.00'
C8	14.21'	81°26'05"	10.00'
C7	45.12'	11°29'20"	225.00'
C8	127.57'	41°46'01"	175.00'
C9	39.27'	90°00'12"	25.00'
C10	116.06'	25°05'40"	265.00'
C11	156.73'	33°53'13"	265.00'
C12	17.07'	5°35'22"	175.00'
C13	99.65'	32°37'32"	175.00'
C14	15.71'	90°00'00"	10.00'
C15	15.71'	89°58'52"	10.00'
C16	150.07'	38°12'51"	225.00'
C17	221.33'	58°58'53"	215.00'
C18	39.27'	89°59'48"	25.00'
C19	95.75'	10°26'58"	525.00'
C20	92.83'	10°07'52"	525.00'
C21	39.34'	90°10'07"	25.00'
L1	63.44'	N51°52'17"E	
L2	173.66'	N31°17'26"E	
L3	200.00'	N31°17'26"E	
L4	200.00'	N31°22'01"E	
L5	122.71'	N31°17'26"E	
L6	41.48'	N36°59'46"W	
L7	50.00'	N53°00'14"E	
L8	41.48'	S36°59'46"E	
L9	50.00'	S16°56'36"E	
L10	187.05'	S31°17'26"W	
L11	225.00'	S31°17'26"W	
L12	171.05'	S31°17'26"W	
L13	20.40'	S58°42'46"E	
L14	58.36'	S01°61'08"W	
L15	54.77'	S37°56'46"E	
L16	40.00'	N52°03'13"E	
L17	50.00'	S37°56'47"E	
L18	40.00'	S52°03'13"W	
L19	45.04'	S37°56'46"E	
L20	51.70'	S37°18'22"W	
L21	155.28'	N37°56'47"W	
L22	27.56'	N37°56'47"W	
L23	18.52'	N01°51'51"E	
L24	39.84'	N01°61'51"E	
L25	20.40'	N58°42'46"W	
L26	13.27'	S31°17'26"W	
L27	63.22'	S51°52'17"W	
L28	176.70'	N46°32'09"W	
L29	185.62'	S52°47'55"W	
L30	183.05'	N31°23'40"E	
L31	174.66'	N58°36'20"W	
L32	200.00'	N31°23'40"E	
L33	174.30'	N58°36'20"W	
L34	200.00'	N31°23'40"E	
L35	174.20'	S58°36'20"E	
L36	103.70'	S16°56'32"E	
L37	239.84'	S19°13'50"W	
L38	171.93'	S58°42'34"E	
L39	230.08'	S19°13'52"W	
L40	220.00'	S58°42'34"E	
L41	40.00'	S58°42'34"E	
L42	229.64'	N47°00'31"E	
L43	240.74'	S5°36'58"W	
L44	179.46'	N48°12'23"E	
L45	214.72'	S55°59'53"E	
L46	282.51'	N37°18'23"E	
L47	267.11'	S37°18'22"W	
L48	223.91'	S50°50'59"W	
L49	169.38'	S50°50'59"W	
L50	97.47'	S50°50'59"W	
L51	246.07'	S35°34'16"E	
L53	528.59'	N0°30'58"E	
L54	169.03'	S38°11'37"E	
L55	99.99'	S38°15'11"E	
L56	215.58'	S38°11'27"E	
L57	33.54'	S38°04'34"E	
L58	147.82'	S31°24'40"E	
L59	33.89'	S31°24'11"E	

GRAPHIC SCALE

80 0 40 80 160

(IN FEET)
1 INCH = 80 FT.

SEAN P. PIERCE, PLS 2517

STATE OF MAINE
SEAN P. PIERCE
2517
PROFESSIONAL LAND SURVEYOR

REV.| BY: | DATE: | STATUS:
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION AND ALTERATIONS, AFFIXED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK.

NORTHERN SURVEY ENGINEERING
NOW PART OF COLLIERS ENGINEERING & DESIGN, INC.
207.440.3487
41 CHURCH ROAD, BRUNSWICK, MAINE 04011
www.colliersengineering.com

FIRST AMENDED SUBDIVISION PLAN
OF:
JONES FARM ESTATES
LISBON FALLS ROAD
BRUNSWICK, MAINE 04011
FOR:
JONES FARM ESTATE, LLC
4 HIGHLAND ROAD
BRUNSWICK, MAINE 04011

RECORD OWNER:
JONES FARM ESTATE, LLC
BOOK 38007, PAGE 234

DRAWN	CHECKED
DJH	SPP
PROJECT NO.	DATE
22011760A	12/22/25
SHEET SIZE	SCALE
24" X 36"	1" = 80'

SHEET 1 OF 1

PROGRESS PLAN
NOT FOR CONSTRUCTION

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Stormwater Treatment Filter Pond

Forrested Wetland

Install turnaround at end of road (see detail) (see Note 16)

Wetland and Stream

20' wide "private" gravel road with ditching (Jones Farm Road) (see details)

Start of Stream

Open Space Lot 14
796,453 s.f.=18.28 Acres

Forested Wetland

Madeline Drive

Lisbon Road

Jones Farm Road

Hay Stack Lane

PIT ROAD

Install Street and Stop Sign at new entrance

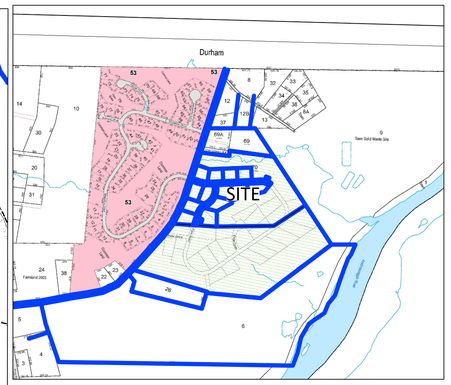
Install 18" Driveway Culvert to maintain Lisbon Road drainage

Existing Power Pole to be moved as required for new entrance, extend power, phone, cable along new road as required. Coordinate with utility company

20' wide "private" gravel road with ditching "Hay Stack Lane"

Install turnaround at end of driveway (see detail) (see Note 16)

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.



Location Map
Scale: 1"=1000'

General Notes:

1. Parcel is shown as Map 1 Lot 70 on Town of Brunswick Tax Map.
2. Owner of Record: Jones Farm Estates LLC., 4 Highland Road, Brunswick, Maine BK 38007 Page 234 03-30-2021, Jones Farm LLC, Book 24731 Page 0290 12-28-2006.
3. Bearings are based on Maine State Plan Coordinate System Maine West NAD83..
4. Elevations are based on NAVD88.
5. Total Area (lot 70): 79.44 acres. Proposed Project area = 32.50 Acres±
6. Total number of proposed lots = 13. The proposed use is Single Family Residential Units. No further subdivision on this property is allowed without approval from the Town of Brunswick Planning Board. One open space lot is proposed to be set aside in conservation as required.
7. The parcel is located in the Rural Farm and Forest Zone (RF Zone)..
8. The portion of the property being developed is not located within the FIRM Flood Zone. Areas adjacent to the Androscoggin River may be subject to flooding.
9. Property to be served by individual Private Wells and Septic Systems.
10. A DEP stormwater permit by rule is required for this project for the creation of less than 1 acre of new impervious road. Additional standards from the The Town of Brunswick also apply. The project creates 0.88 acres of new road impervious area and 2.29 acres of new road developed area.
11. Zone RF Setbacks: **(see open space setbacks in note 14 for min. required setbacks)
    Front: 25'
    Side: 30'
    Rear: 30'
12. Minimum Lot Area: Residential / Nonresidential = 2 ac.
    Maximum Density = 1 dwelling unit per 2 acres.
    Maximum Impervious coverage = 20%
    Min. Lot Width: 150'
    Max. Building Height: 40'
    Max. Building Footprint per Structure: 10,000 s.f.
13. Net Site Area: Total Area in Project: 32.50 Acres
    Deductions:
    -Steep Slopes (>25% & 5000 s.f.) = -1.32 Acres
    -Any Wetlands and Stream = -3.55 Acres
    -Any water body = -0 s.f.
    -Existing / Proposed Streets = -0.88 Acres
    Net Site Area: = 26.75 Acres
14. Open Space Developments in RF Zone: Table 4.2.5.C(5) Brunswick Zoning Ordinance.
    Protected Open Area: 45% Gross Area = 14.63 Acres minimum.
    Proposed Open Space Area: 18.28 Acres
    Lot Area, min. N/A (s.f.)*
    *septic and wells min. setback from property line = 15'
    Lot Width, min. (feet) = 75'
    Front Setback, min. (feet) = n/a (25' proposed and shown on Subdivision Plans)
    Rear Setback, min. (feet) = 20' (20' shown on Subdivision Plans)
    Side Setback, min. (feet) = 10' (10' shown on Subdivision Plans)
    Impervious Surface Coverage, max. (% lot area) = 80%
    Density Bonus: See subsection 4.2.5.E of Brunswick Zoning Ordinance.
15. Density: Net Site Area = 26.75 Acres
    Density Calculation: 26.75 Acres / 2 Acres/dwelling unit = 13 dwelling units.
16. The proposed subdivision roads shall remain private unless they are upgraded to Town Road Standards, approved and accepted by the Town in the future.
17. Lots 1, 9, 11, and 12 driveways shall be located off the proposed roads. Driveways cannot be located off Lisbon Road. No driveway permits will be granted off Lisbon Road.
18. No cutting is allowed in the stream protection overlay zone (SP0) on lots 4, 5, 7, and 8.
19. Driveways are not allowed off the hammerhead turn around and shall not be located within 50' of the end of the road. This applies to Lots 8 and 12.

STATE OF MAINE
CHRISTOPHER S. BELANGER 9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

Jones Farm Road 2025

Number	Radius	Length	Line/Chord Direction	A Value
L22		98.77	N51° 52' 16.83"E	
C16	500.00	179.60	N41° 34' 51.58"E	
L23		696.37	N31° 17' 26.33"E	
C17	200.00	192.61	N58° 52' 48.73"E	
L24		32.64	N86° 28' 11.13"E	

Hay Stack Lane

Number	Radius	Length	Line/Chord Direction	A Value
L12		74.30	S58° 42' 45.55"E	
C9	233.10	239.96	S29° 13' 18.88"E	
L13		62.26	S0° 16' 07.79"W	
C10	200.00	133.40	S18° 50' 19.44"E	
L14		194.75	S37° 56' 46.68"E	

Lot Summary

	Lot Area s.f.	Lot Area Acres	# units
Lot 1	37643	0.86	1
Lot 2	35178	0.81	1
Lot 3	34895	0.80	1
Lot 4	38563	0.89	1
Lot 5	44092	1.01	1
Lot 6	38593	0.89	1
Lot 7	41861	0.96	1
Lot 8	54013	1.24	1
Lot 9	41902	0.96	1
Lot 10	38032	0.87	1
Lot 11	41387	0.95	1
Lot 12	44280	1.02	1
Lot 13	34830	0.80	1
Open Space Lot 14	796453	18.28	0
ROW Jones Farm	58270	1.34	
ROW Hay Stack Lane	35835	0.82	
Totals	1415827.00	32.50	13

Overall Plan
13 Lots plus 1 open space parcel (Lot 14)

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

BELANGER ENGINEERING
CONSULTING ENGINEERS
63 Second Avenue , Augusta, Maine 04330 Ph 207-622-1462, Cell 207-242-5713
Email: cbelanger@roadrunner.com

- COMMERCIAL PROJECTS
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- TOWN AND STATE APPROVALS
- SITE PLANNING & DESIGN
- STORMWATER MANAGEMENT
- ROAD AND UTILITY DESIGN
- EROSION CONTROL PLANS

FIELD WK:	SCALE: 1"=100'	SHEET: C1
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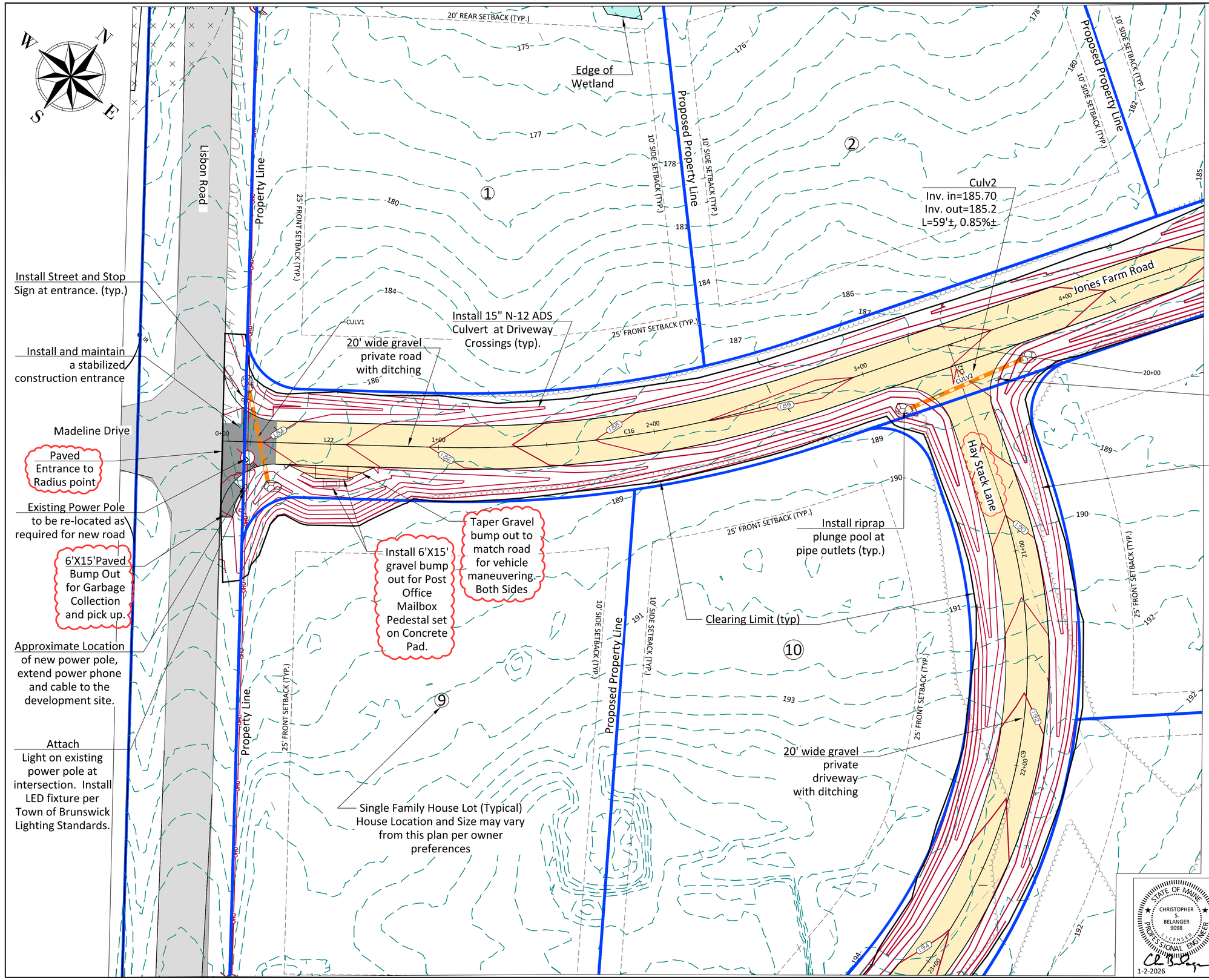
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Lot Construction Notes:

1. Lot house and driveway construction by others. Type, Size, and Location to coordinated with Lot owner.

2. Slope driveway to road at 4% for 10' to maintain gutter line drainage along the road along driveway. Do not let road runoff to drain into driveways. Grade to drain to road ditching typical.

3. Install min. 15" N-12 ADS Driveway Culvert as required to maintain road ditch drainage. If Lot is set at a high point, grade to drain along each side as required.

PROGRESS PLAN
NOT FOR CONSTRUCTION

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Jones Farm Road and Hay Stack Lane Site Plan

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

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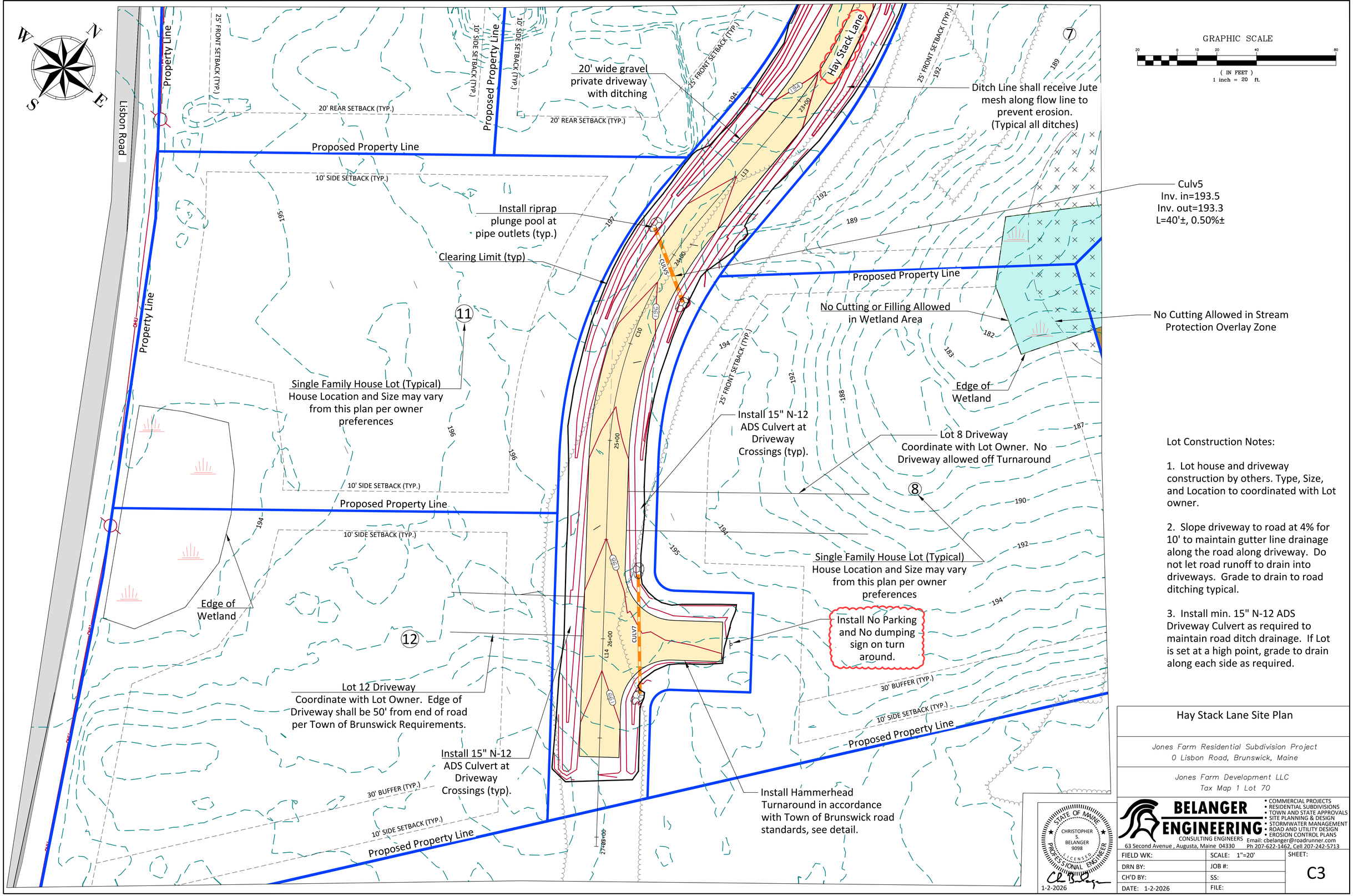
STATE OF MAINE
CHRISTOPHER S. BELANGER
9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

FIELD WK:	SCALE: 1"=20'	SHEET: C2
DRN BY:	JOB #:	
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	



Lot Construction Notes:

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2. Slope driveway to road at 4% for 10' to maintain gutter line drainage along the road along driveway. Do not let road runoff to drain into driveways. Grade to drain to road ditching typical.

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Hay Stack Lane Site Plan

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

STATE OF MAINE
CHRISTOPHER S. BELANGER 9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

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FIELD WK:	SCALE: 1"=20'	SHEET: C3
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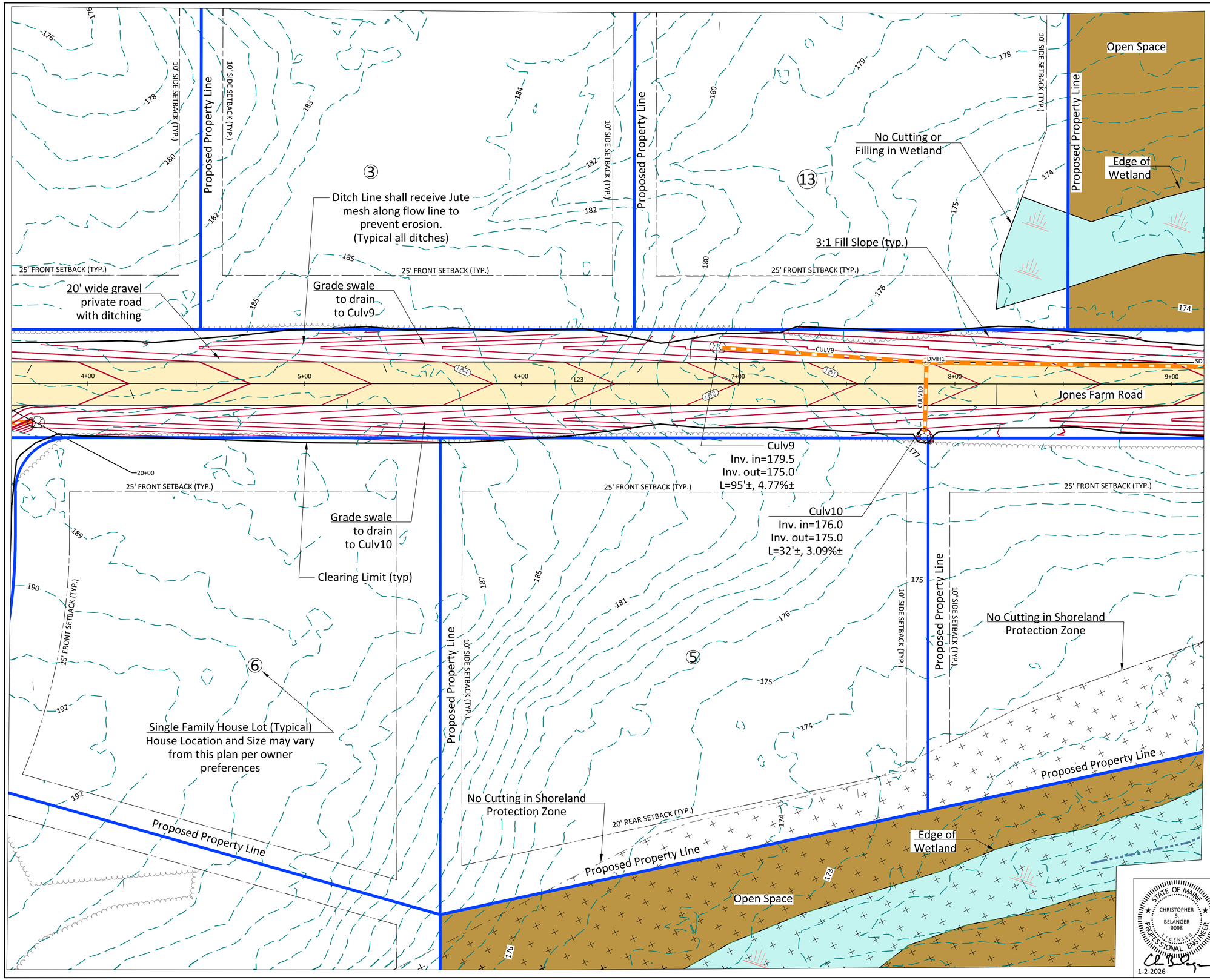
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	



Lot Construction Notes:

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Jones Farm Road Site Plan

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

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1-2-2026

FIELD WK:	SCALE: 1"=20'	SHEET: C4
DRN BY:	JOB #:	
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	

Culv11
Inv. in=172.5
Inv. out=170.6
L=11'±, 18.07%±

Culv13
Inv. in=171.5
Inv. out=170.1
L=14'±, 10.06%±

Culv12
Inv. in=171.5
Inv. out=170.1
L=23'±, 6.15%±

Open Space

Clearing Limit (typ)

Install Filter Pond
See Sheet C10

Property Line

Open Space

20' wide gravel
private road
with ditching

25' FRONT SETBACK (TYP.)

Ditch Line shall receive Jute
mesh along flow line to
prevent erosion.
(Typical all ditches)

No Cutting in
the Stream
Protection Zone

Install riprap
plunge pool at
pipe outlet (typ.)

Install plunge pool,
sediment forebay,
and stone berm at
pipe outlet into
pond.

Edge of
Wetland

Proposed Property Line

Open Space

Open Space

Lot Construction Notes:

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GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

Jones Farm Road Site Plan

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

STATE OF MAINE
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FIELD WK:	SCALE: 1"=20'	SHEET: C5
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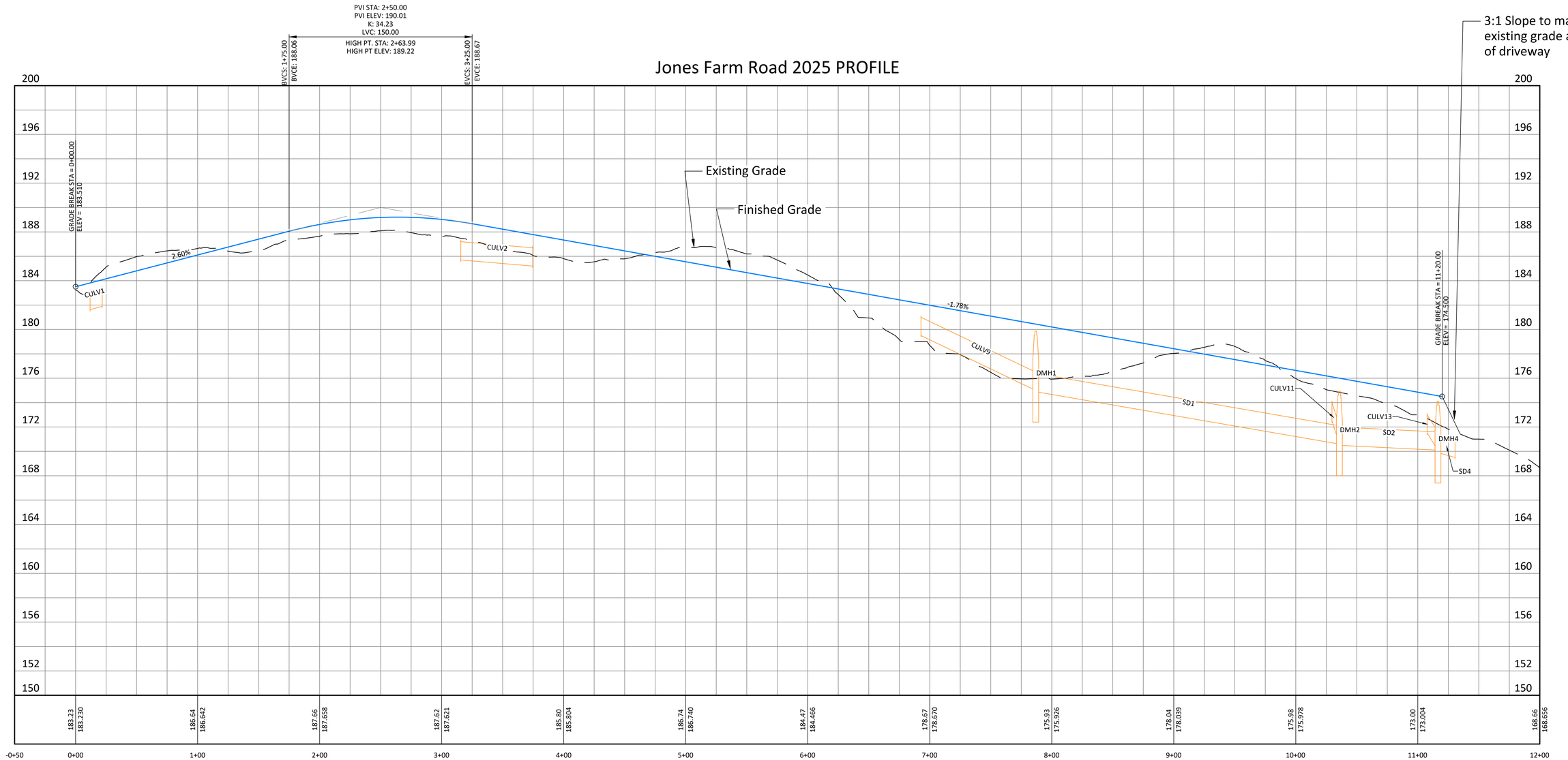
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	

Jones Farm Road 2025 PROFILE



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

STATE OF MAINE
CHRISTOPHER S. BELANGER 9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

Jones Farm Road Profile

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

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FIELD WK:	SCALE: 1"=40' H / 4' V	SHEET: C6
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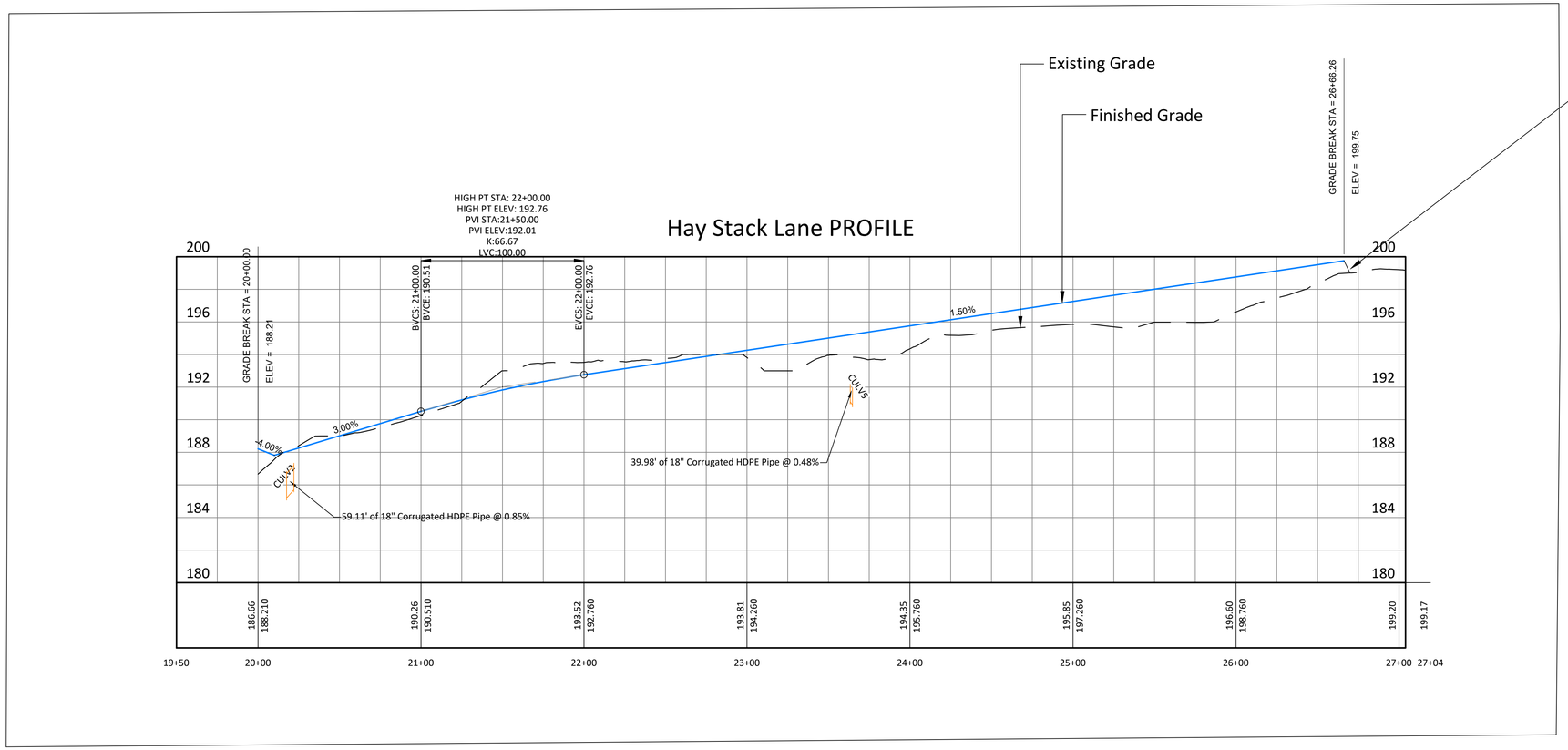

Storm Drain Structure Table		
Structure Name	Structure Details	
DMH1	RIM = 179.868 SUMP = 172.900 CULV10 INV IN = 175.000 CULV9 INV IN = 175.000 SD1 INV OUT = 174.900	Sta=7+86.89 OFF=-10.002 L N=412311.3630 E=2986710.9636
DMH2	RIM = 174.936 SUMP = 168.500 SD1 INV IN = 170.600 CULV11 INV IN = 170.600 SD2 INV OUT = 170.500	Sta=10+35.75 OFF=-16.061 L N=412525.3046 E=2986845.5749
DMH4	RIM = 174.091 SUMP = 167.900 CULV13 INV IN = 170.100 CULV12 INV IN = 170.100 SD2 INV IN = 170.100 SD4 INV OUT = 169.900	Sta=11+16.58 OFF=-7.561 L N=412560.1337 E=2986923.5769
J1	RIM = 164.807 SUMP = ??? UD4 INV IN = 164.240 UD3 INV IN = 164.240 UD2 INV IN = 164.240 UD1 INV OUT = 164.241	Sta=??? OFF=??? ??? N=412648.1427 E=2986934.4446
J2	RIM = 164.977 SUMP = ???	Sta=??? OFF=??? ??? N=412675.5744 E=2986954.7238
J3	RIM = 164.964 SUMP = ??? UD3 INV OUT = 164.398	Sta=??? OFF=??? ??? N=412623.0851 E=2986915.1405
J4	RIM = 164.887 SUMP = ??? UD5 INV IN = 164.320 UD6 INV IN = 164.320 UD4 INV OUT = 164.321	Sta=??? OFF=??? ??? N=412657.5596 E=2986921.2256
J5	RIM = 165.025 SUMP = ??? UD5 INV OUT = 164.459	Sta=??? OFF=??? ??? N=412635.5162 E=2986904.3310
J6	RIM = 165.054 SUMP = ???	Sta=??? OFF=??? ??? N=412683.6237 E=2986942.3276
OCS1	RIM = 172.001 SUMP = 164.000 O1 INV IN = 168.500 UD1 INV IN = 164.100 SDOCS1 INV OUT = 164.000	Sta=??? OFF=??? ??? N=412630.9710 E=2986956.7707

Storm Drain Pipe Table						
NAME	SIZE	LENGTH	SLOPE			MATERIAL
CULV1	18"	43.06'	0.63%	INV IN=181.900	INV OUT=181.628	N-12 ADS
CULV2	18"	59.11'	0.85%	INV IN=185.700	INV OUT=185.200	N-12 ADS
CULV5	18"	39.98'	0.48%	INV IN=191.100	INV OUT=190.910	N-12 ADS
CULV7	15"	59.99'	0.67%	INV IN=196.500	INV OUT=196.100	N-12 ADS
CULV9	18"	94.27'	4.77%	INV IN=179.500	INV OUT=175.000	N-12 ADS
CULV10	18"	32.33'	3.09%	INV IN=176.000	INV OUT=175.000	N-12 ADS
CULV11	18"	10.51'	18.07%	INV IN=172.500	INV OUT=170.600	N-12 ADS
CULV12	18"	22.77'	6.15%	INV IN=171.500	INV OUT=170.100	N-12 ADS
CULV13	18"	13.92'	10.06%	INV IN=171.500	INV OUT=170.100	N-12 ADS
O1	4"	3.47'	0.00%	INV IN=168.500	INV OUT=168.500	3" N-12 ADS
SD1	18"	252.77'	1.70%	INV IN=174.900	INV OUT=170.600	N-12 ADS
SD2	18"	85.42'	0.47%	INV IN=170.500	INV OUT=170.100	N-12 ADS
SD4	18"	51.11'	0.78%	INV IN=169.900	INV OUT=169.500	N-12 ADS
SDOCS1	18"	101.91'	0.47%	INV IN=164.000	INV OUT=163.522	N-12 ADS
UD1	6"	28.17'	0.50%	INV IN=164.241	INV OUT=164.100	PERFORATED UNDERDRAIN
UD2	6"	34.11'	0.50%	INV IN=164.411	INV OUT=164.240	PERFORATED UNDERDRAIN
UD3	6"	31.63'	0.50%	INV IN=164.398	INV OUT=164.240	PERFORATED UNDERDRAIN
UD4	6"	16.23'	0.50%	INV IN=164.321	INV OUT=164.240	Install Cleanout - raise to grad
UD5	6"	27.77'	0.50%	INV IN=164.459	INV OUT=164.320	PERFORATED UNDERDRAIN
UD6	6"	33.54'	0.50%	INV IN=164.488	INV OUT=164.320	PERFORATED UNDERDRAIN

Structure Table Key

CB CATCH BASIN
ECB EXISTING CATCH BASIN
DMH DRAIN MANHOLE
OCS POND OUTLET CONTROL STRUCTURE
FI FIELD INLET
J PIPE JUNCTION, CHANGE IN DIRECTION, ELBOW, TEE, WYE, CLEANOUT, ETC. (SEE PLANS)
FD FOOTING/FOUNDATION DRAIN
RUD ROAD UNDERDRAIN PERFORATED
UD PERFORATED UNDERDRAIN
SD STORM DRAIN
SP SEWER PIPE
ESP EXISTING SEWER PIPE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

STATE OF MAINE
CHRISTOPHER S. BELANGER 9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

Hay Stack Lane Road Profile

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

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FIELD WK:	SCALE: 1"=40' H / 4' V	SHEET: C7
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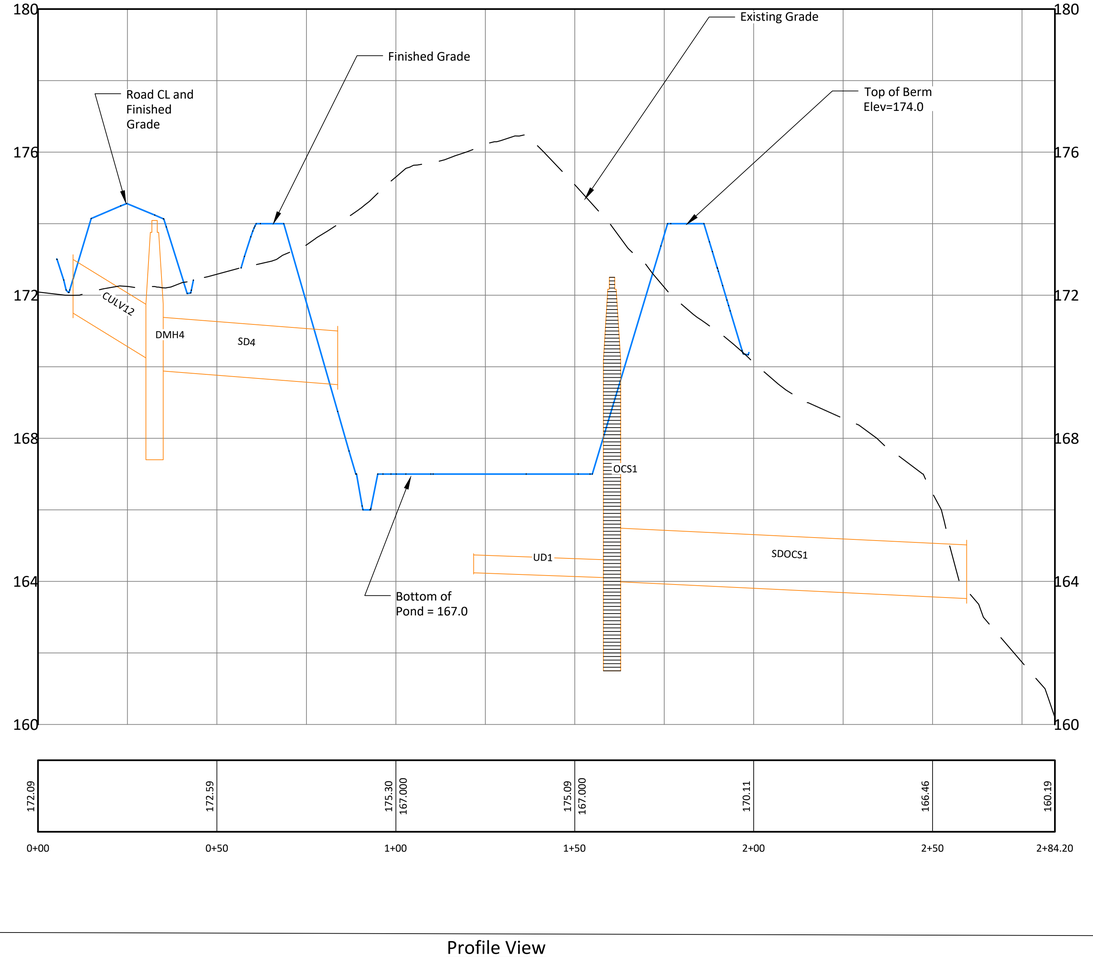
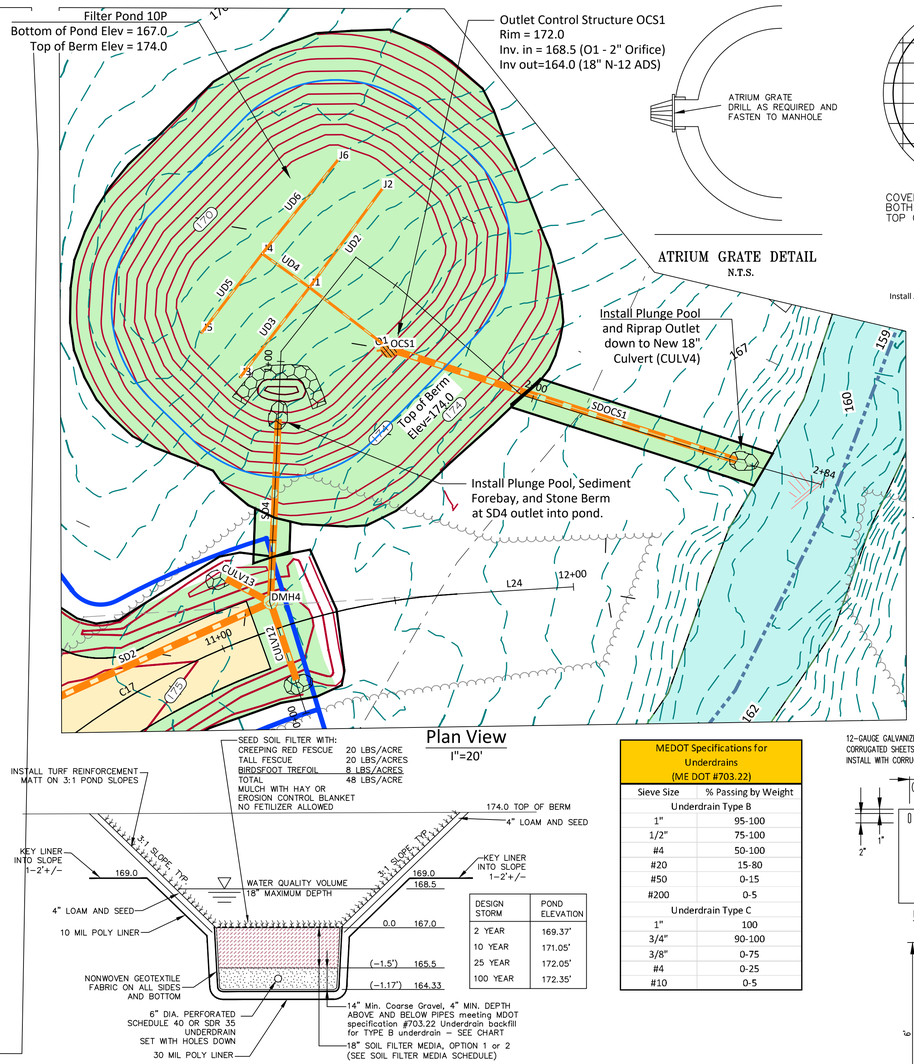
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	

Pond 10P Section PROFILE



Profile View
1"=20'H/2'V



Plan View
1"=20'

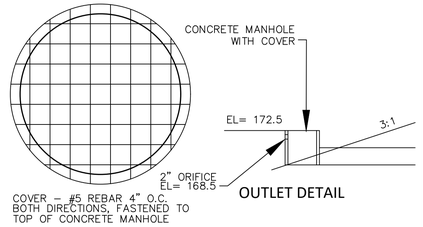
DESIGN STORM	POND ELEVATION
2 YEAR	169.37'
10 YEAR	171.05'
25 YEAR	172.05'
100 YEAR	172.35'

0.0	167.0
(–1.5')	165.5
(–1.17')	164.33

FILTER POND 10P
SOIL FILTER DETAIL
(NOT TO SCALE)

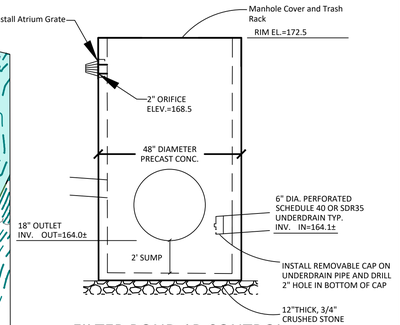
INSTALLATION NOTES:
1. THE FILTER MEDIA IS TO BE INSTALLED IN THE BASIN ONLY AFTER THE AREA DRAINING TO THE BASIN HAS BEEN STABILIZED WITH PERMANENT MEASURES.
2. THE FILTER MEDIA IN THE BASIN IS TO BE ONLY LIGHTLY COMPACTED TO NO MORE THAN 92% STANDARD PROCTOR.

ATRIUM GRATE DETAIL
N.T.S.



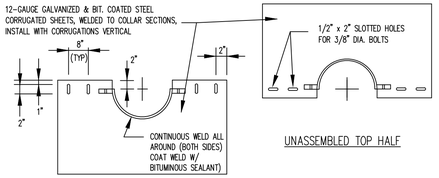
OUTLET DETAIL

Manhole Cover and Trash Rack
Not to Scale



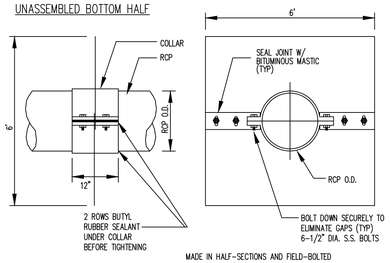
FILTER POND 1P CONTROL
STRUCTURE DETAIL
(NOT TO SCALE)

MEDOT Specifications for Underdrains (ME DOT #703.22)	
Sieve Size	% Passing by Weight
Underdrain Type B	
1"	95-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5
Underdrain Type C	
1"	100
3/4"	90-100
3/8"	0-75
#4	0-25
#10	0-5



UNASSEMBLED TOP HALF

UNASSEMBLED BOTTOM HALF



5 ANTI–SEEP COLLAR
NOT TO SCALE

CONSTRUCTION OVERSIGHT – GRASSED UNDERDRAIN SOIL FILTER

The applicant will retain the services of a professional engineer to inspect the construction and stabilization of all stormwater management structures to be built as part of the project. If necessary, the inspecting engineer will interpret the construction plans for the contractor. Once all stormwater management structures are constructed and stabilized, the inspecting engineer will notify the department in writing within 30 days to state that the structures have been completed. Accompanying the engineer's notification must be a copy of the test results for any soil fill, aggregate, or mulch materials used in the construction of the stormwater management structures and a log of the engineer's inspections giving the date of each inspection, the time of each inspection, and the items inspected on each visit.

VEGETATED UNDERDRAINED SOIL FILTER BASINS

Construction inspections: At a minimum, the professional engineer's inspection will occur after foundation soil preparation but prior to placement of the embankment fill, after the underdrain pipes are installed but not backfilled, after the pipe bedding fill is placed but prior to the placement of the filter media, and after the filter media has been placed and the filter surface seeded.

Testing and submittals: All the soil, mulch, and aggregate used for the construction of the vegetated underdrained soil filter basin must be confirmed as suitable by testing. The contractor shall identify the source of each material and obtain samples for each material for testing. All testing must be done by a certified laboratory. All results of field and laboratory testing shall be submitted to the project engineer for confirmation. It shall be the contractor's responsibility to ensure completion of the following sampling and testing before the fill or aggregate is placed as part of the vegetated underdrained soil filter basin's construction.

- Obtain a sample of the filter media consisting of a blend of sand, topsoil, and wood fiber mulch (or other approved organic source). The sample must be a composite of three different locations (grabs) from the stockpile. The sample size required will be determined by the testing laboratory. Perform analyses of the blended filter media showing it has 8% to 12% by weight passing the #200 sieve as determined by ASTM C136 (Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates 1996A), has a clay content of less than 2%, and has an organic matter content of no less than 10% by dry weight.
- If the underdrain pipes will be bedded in gravel, obtain a sample of the gravel fill to be used for the pipe bedding. The sample must be a composite of three different locations (grabs) from the stockpile or pit face. The sample size required will be determined by the testing laboratory. Perform a sieve analysis conforming to ASTM C136 (Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates 1996A) of the gravel to be used for the underdrain pipe bedding. The gravel fill must conform to MEDOT specification 703.22 Underdrain Type B.
- If the underdrain pipes will be bedded in crushed stone, obtain a sample of the crushed stone to be used for the pipe bedding. The sample must be a composite of three different locations (grabs) from the stockpile. The sample size required will be determined by the testing laboratory. Perform a sieve analysis conforming to ASTM C136 (Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates 1996A) of the crushed stone to be used for the underdrain pipe bedding. The crushed stone fill must conform to MEDOT specification 703.22 Underdrain Type C.

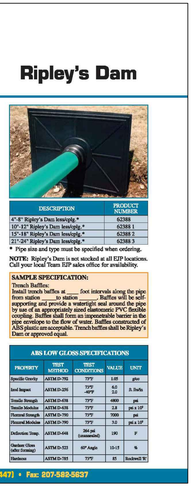
Table 7.1.2 Sandy Loam to Fine Sandy Loam Specifications	
Sieve Size #	% Passing by Weight
No. 4	75-95
No. 10	60-90
No. 40	35-85
No. 200	20-70
(200 Clay Size)	< 2.0

Table 7.1.3 Loamy Coarse Sand Specifications	
Sieve Size #	% Passing by Weight
No. 10	85-100
No. 20	70-100
No. 60	15-40
No. 200	8-15
(200 Clay Size)	< 2.0

SOIL FILTER MEDIA (OPTION 1)		
DEPTH	FILTER MEDIA	SPECIFICATION
0"–18"		Soil Filter Media – OPTION 1: Soil filter media consists of a silty sand soil or soil mixture combined with a mature, moderately fine shredded bark or wood fiber mulch 20% to 25% by volume (no less than 10% by dry weight). The resulting mixture should have 8% to 12% passing the No. 200 sieve and a clay content of less than 2%. The proportions of the mixture can be adjusted so it will contain sufficient fines and organic matter. • As an example, the soil filter media may contain the following (by volume): -50% of sand (Maine DOT specification #703.01 is close but it contains insufficient fine material for the filter media). -20% of sandy loam to fine sandy loam (Table 7.1.2). -30% of mature composted woody fibers and fine shredded bark, superhumus or equivalent (adjusted for mineral soil content).

SOIL FILTER MEDIA (OPTION 2)		
DEPTH	FILTER MEDIA	SPECIFICATION
0" – 6"	TOPSOIL	Non–Clayey, loamy topsoil such as USDA loamy sand topsoil with 5 to 8% humified organic content. Topsoil from the development site may be appropriate but should be tested for organic content and clay content (hydrometer test). The soil must be screened, loose, friable, and shall be free from admixtures of subsoil, refuse, stones (greater than 2 inches in diameter), clumps, root and other undesirable foreign matter. The topsoil should be gently mixed within the filter layer to provide continuity for deep root penetration. The teeth of a backhoe, a hand rake, a shovel or rototilling 2–3 inches may be used to create a loosened transition.
6" – 18"	GRAVELY COARSE SAND MIX	A 12" layer of loamy coarse sand which is loosely installed and meets the grain size specification of table 7.1.3

GRASSED UNDERDRAINED SOIL FILTER
MEDIA SCHEDULE



PRELIMINARY
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

Filter Pond 10P Detail

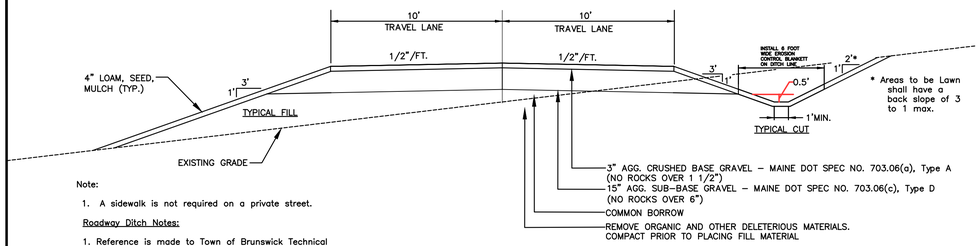
Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

BELANGER ENGINEERING
CONSULTING ENGINEERS
63 Second Avenue , Augusta, Maine 04330 Email: cbelanger@roadrunner.com
Ph 207-622-1462, Cell 207-242-5713

• COMMERCIAL PROJECTS
• RESIDENTIAL SUBDIVISIONS
• TOWN AND STATE APPROVALS
• SITE PLANNING & DESIGN
• STORMWATER MANAGEMENT
• ROAD AND UTILITY DESIGN
• EROSION CONTROL PLANS

FIELD WK:	SCALE: 1"=20' H / 2' V	SHEET: C8
DRN BY:	JOB #:	
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	



Note:

1. A sidewalk is not required on a private street.

Roadway Ditch Notes:

1. Reference is made to Town of Brunswick Technical Design Standards Sec 14-187.
2. Slopes and ditches shall be loamed and seeded with a minimum of 4" loam and then mulched.
3. Seed. See erosion control notes.
4. Ditches shall have a slope of no less than 1.5%.
5. Erosion control methods shall adhere to Best Management Practices as set forth by the Maine Department of Environmental Protection.

Town of Brunswick - Private Street Gravel Cross Section

NOT TO SCALE

(Jones Farm Road and Hay Stack Lane)

ROAD CONSTRUCTION CROSS SECTION NOTES:

1. THE ROAD SHALL BE CONSTRUCTED, AT A MINIMUM, IN ACCORDANCE WITH THE "PRIVATE STREET" STANDARDS OUTLINED IN THE TOWN OF BRUNSWICK TECHNICAL STANDARDS SEC. 14-187. TOWN ORDINANCE "ROAD" STANDARDS ARE SHOWN FOR GRAVEL AND PAVEMENT DEPTHS. THE PROPOSED ROAD WIDTH AND SHOULDER WIDTH PROPOSED MEET THE "PRIVATE STREET" STANDARD AS REQUIRED.

2. THE GRADED AREAS BETWEEN DITCHES SHALL BE CLEARED OF ALL STUMPS, ROOTS, BUSHES, TOPSOIL, AND PERISHABLE MATERIALS INCLUDING TREES AND LARGE ROCKS.

3. ALL LEDGE SHALL BE REMOVED TO A MINIMUM DEPTH OF TWO FEET BELOW SUBGRADE. ROCKS AND BOULDERS VISIBLE AT SUBGRADE AND EXCEEDING SIX (6) INCHES IN SIZE SHALL ALSO BE REMOVED. SUBSOILS WHICH HAVE BEEN IDENTIFIED BY THE TOWN ENGINEER AS NOT SUITABLE FOR ROADWAYS SHALL BE REMOVED FROM THE STREET SITE TO A DEPTH OF TWO (2) FEET BELOW SUBGRADE AND REPLACE WITH MATERIAL MEETING THE SPECIFICATIONS FOR GRAVEL AGGREGATE SUBBASE.

4. ALL DEVELOPED AREAS OF THE ROAD SECTION SHALL BE LOCATED WITHIN THE RIGHT OF WAY OR DEEDED SLOPE EASEMENT, INCLUDING CUT AND FILL SLOPES OVER CROSS CULVERTS.

5. CULVERTS SHALL BE COATED STEEL OR RECOGNIZED EQUIVALENTS ACCEPTED BY THE MAINE DEPARTMENT OF TRANSPORTATION. ROADWAY CULVERTS SHALL NOT BE LESS THAN 18" IN DIAMETER FOR ROAD CROSSING. YOU MAY SUSTITUTE COATED STEEL PIPE WITH N-12 ADS OR EQUIVALENT IF PERMISSION IS OBTAINED FROM THE TOWN ENGINEER.

6. ROAD DITCH SHALL BE 0.5' BELOW AGGREGATE SUBBASE AT A MINIMUM.

7. DITCH CENTERLINE VARIES WITH DITCH ELEVATION. SEE CROSS SECTION.

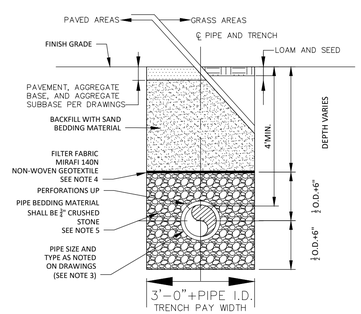
8. IN FILL AREAS THE GRANULAR MATERIAL TO BE USED SHALL CONFORM TO SECTION 703.19 OF THE STATE OF MAINE STANDARDS SPECIFICATIONS FOR GRANULAR BORROW.

9. EXTEND SUB-BASE TO DITCH LINE TO ALLOW PROPER DRAINAGE.

10. INSTALL APPROPRIATE GEOTEXTILE OVER CLAY WHEN ENCOUNTERED DURING CONSTRUCTION. AS AN ALTERNATIVE, THE TOWN ENGINEER MAY APPROVE THE USE OF A GEOTEXTILE FABRIC WHICH MEETS THE MAINE DEPARTMENT OF TRANSPORTATION'S SPECIFICATION UNDER SECTION 620 AND 722 "STABILIZATION GEOTEXTILE".

11. EXCEPT IN A LEDGE CUT OR FOR BRIDGE APPROACHES, BACK SLOPES SHALL BE NO STEEPER THAN A SLOPE OF TWO (2) FEET HORIZONTAL TO ONE (1) FOOT VERTICAL, AND SHALL BE GRADED, LOAMED, LIMED, FERTILIZED, AND SEEDED ACCORDING TO THE SPECIFICATIONS OF THE EROSION AND SEDIMENTATION CONTROL PLAN. WHERE A CUT RESULTS IN EXPOSED LEDGE OR IN CASES SUCH AS BRIDGE APPROACHES, A BACK SLOPE NO STEEPER THAN FOUR (4) FEET VERTICAL TO ONE (1) FOOT HORIZONTAL IS PERMITTED. THERE SHALL BE A SNOW SHELF PROVIDED IN LEDGE CUT AREAS WITH A MINIMUM WIDTH OF SIX (6) FEET BEHIND THE EDGE OF TRAVEL WAY.

12. THE SUBGRADE IS TO BE SHAPED TO DRAIN. NO IRREGULARITIES WHICH CAUSE WATER TO BE TRAPPED WILL BE ALLOWED. THE BASE AND SUB-BASE MUST DRAIN TO A DITCH OR TO UNDERDRAIN. THE DEPTH OF THE SUBBASE COURSE ON A GRANULAR MATERIAL SUBGRADE MAY BE REDUCED TO A TOTAL OF 18", SUBJECT TO APPROVAL OF THE TOWN ENGINEER. THE AGGREGATE BASE COURSE SHALL BE SAND OR GRAVEL OR HARD DURABLE PARTICLES FREE FROM VEGETATIVE MATTER, LUMPS OR BALLS OF CLAY AND OTHER UNSUITABLE SUBSTANCES.

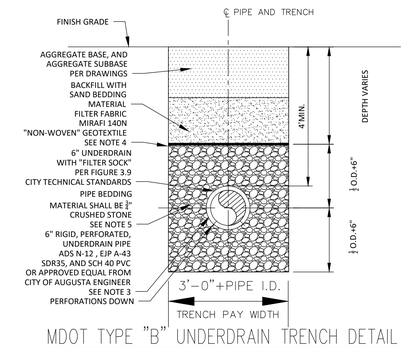


MDOT TYPE "C" UNDERDRAIN TRENCH DETAIL

NOT TO SCALE WHEN STORM DRAIN IS USED AS UNDERDRAIN

NOTES:

1. THE UNDERDRAIN SHALL BE INSTALLED WITH A MINIMUM OF 4 FEET OF COVER BETWEEN THE PAVEMENT AND THE TOP OF THE UNDERDRAIN.
2. THE UNDERDRAIN SHALL BE INSTALLED WITH A MINIMUM OF 0.5% SLOPE.
3. THE UNDERDRAIN PIPE SHALL MEET MDOT SPECIFICATIONS SECTION 706.06 MINIMUM.
4. THE NON-WOVEN GEOTEXTILE SHALL MEET MDOT SPECIFICATIONS SECTION 722.02.
5. THE GRANULAR MATERIAL SHALL MEET MDOT SPECIFICATIONS SECTION 703.22.



MDOT TYPE "B" UNDERDRAIN TRENCH DETAIL

NOTES: NOT TO SCALE IN ROAD AREAS WITH NO STORM DRAIN

1. THE UNDERDRAIN SHALL BE INSTALLED WITH A MINIMUM OF 4 FEET OF COVER BETWEEN THE PAVEMENT AND THE TOP OF THE UNDERDRAIN.
2. THE UNDERDRAIN SHALL BE INSTALLED WITH A MINIMUM OF 0.5% SLOPE.
3. THE UNDERDRAIN PIPE SHALL MEET MDOT SPECIFICATIONS SECTION 706.06 MINIMUM.
4. THE NON-WOVEN GEOTEXTILE SHALL MEET MDOT SPECIFICATIONS SECTION 722.02.
5. THE GRANULAR MATERIAL SHALL MEET MDOT SPECIFICATIONS SECTION 703.22.

ROAD CONSTRUCTION NOTES:

1. IN FILL AREAS 3:1 SLOPES ARE TO BE USED UNLESS ENOUGH USEABLE WASTE MATERIAL HAS BEEN STOCKPILED TO USE 4:1 FILL SLOPES.

2. IN FILL AREAS THE GRANULAR MATERIAL TO BE USED SHALL CONFORM TO SECTION 703.19 OF THE STATE OF MAINE STANDARDS SPECIFICATIONS FOR GRANULAR BORROW.

3. UNDERDRAIN SHALL BE INSTALLED IN ALL AREAS WHERE LEDGE IS ENCOUNTERED AND DITCHING IS NOT AVAILABLE. CONTRACTOR SHALL ASSUME UNDERDRAIN IS REQUIRED IN CUT AND LEDGE CONDITIONS AND SHALL BE PART OF THE BASE BID.

4. INSTALL FABRIC (Mirafi 500X) UNDER ROAD BASE WHEN SOFT CLAY IS ENCOUNTERED DURING CONSTRUCTION. WHEN FOUND CONTRACTOR SHALL CONTACT ENGINEER FOR SPECIFIC RECOMMENDATION BASED ON FIELD CONDITIONS.

5. CONTRACTOR MAY PERFORATE STORM DRAIN IF AVAILABLE TO SUBSTITUTE UNDERDRAIN ON THAT SIDE OF ROAD. UNDERDRAIN IS STILL REQUIRED ON OTHER SIDE OF ROAD TO MEET TOWN SPECIFICATION. INSTALL TYPE C UNDERDRAIN WITH PERFORATED STORM DRAIN (HOLES UP). INSTALL TYPE B UNDERDRAIN FOR 6" UNDERDRAIN IS USED (HOLES DOWN). TIE UNDERDRAIN INTO CATCH BASINS AS AVAILABLE OR OUTLET TO DITCH OR SWALE.

FAIRPOINT NOTES:

1. ALL CONSTRUCTION TO BE IN COMPLIANCE WITH FAIRPOINT CONSTRUCTION STANDARDS.

2. ALL TRENCHING, CONDUIT AND BACK FILLING IS THE CONTRACTOR'S RESPONSIBILITY.

3. ALL CABLES SHALL BE IN CONDUIT UNDER ALL PAVED ROADS, DRIVEWAYS AND WALKWAYS. 4" FOR THE MAIN CABLE AND 2" FOR SERVICE WIRES.

4. CONDUITS FOR SERVICE WIRES SHOULD BE INSTALLED AT ALL LOCATIONS WHERE REQUIRED DURING THE INITIAL INSTALLATION OF THE MAIN CABLE.

5. THE TRENCH MUST BE FILLED WITH "SUITABLE" BACK FILL, I.E. , SAND BACK FILL WITH NO STONE LARGER THAN 1/4" IN DIAMETER.

6. FAIRPOINT WILL SUPPLY THE CABLE AND LABOR TO INSTALL SAME.

7. A SEPARATION OF 12" HORIZONTAL OR VERTICAL MUST BE MAINTAINED BETWEEN FAIRPOINT AND ALL OTHER UTILITIES SUCH AS ELECTRIC, CABLE TV, OR OTHERS.

PAVING, GRADING & DRAINAGE NOTES:

1. VERTICAL DATUM IS DESCRIBED ON THE SURVEY AND SUBDIVISION PLANS. BENCHMARK LOCATIONS ARE SPECIFIED ON SURVEY PLANS.

2. CLEARING LIMITS WILL BE FLAGGED BY THE SURVEYOR, ENGINEER AND THE OWNER. THE CONTRACTOR SHALL NOT CUT BEYOND THE LIMITS OR REMOVE A TREE DESIGNATED TO BE SAVED WITHOUT THE OWNER'S AND ENGINEER'S CONSENT.

3. ALL CURBS AND WALKS SHALL BE STAKED OUT BY THE CONTRACTOR AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. HOUSE SIDEWALKS TO BE 4' WIDE FROM DRIVEWAY TO THE FRONT DOOR AND SET BACK 4' FROM THE HOUSE. THE 5' WIDE ROAD SIDEWALK IS SHOWN ON THE PLANS

4. DRIVEWAYS TO BE 24' WIDE AT THE GARAGE DOOR AND MAY TRANSITION TO 20' WIDTH AS APPROPRIATE TO MEET SITE CONDITIONS. GARAGE DOORS TO BE SET A MINIMUM OF 2' ABOVE THE FINAL ROAD PAVEMENT GRADE.

UTILITIES GENERAL NOTES:

1. ALL UTILITIES TO BE LOCATED UNDERGROUND.

2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES WITH THE RESPECTIVE OWNERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF UTILITY AN STRUCTURE OWNERS REGARDING NOTIFICATION OF WORK AND PROTECTION OF EXISTING FACILITIES.

3. CONTRACTOR SHALL VERIFY ALL CRITICAL DIMENSIONS AND GRADES TO HIS SATISFACTION BEFORE WORK BEGINS. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.

4. ALL UTILITIES ARE TO BE CONSTRUCTED TO THE STANDARDS SET BY THE RESPECTIVE UTILITY. PRE- CONSTRUCTION CONFERENCE MUST BE HELD WITH ALL UTILITY REPRESENTATIVES.

5. A MINIMUM OF 12" HORIZONTAL SPACING IS NECESSARY BETWEEN CABLES.

6. 4" CABLE & TELEPHONE SERVICE WILL BE CONSTRUCTED IN THE SAME TRENCH AS ELECTRIC.

7. THE ROAD CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ELECTRIC, TELEPHONE, & CABLE UP TO AND INCLUDING THE INSTALLATION OF JUNCTION BOXES AND TRANSFORMER PADS. THE ROAD CONTRACTOR SHALL INSTALL ANY ADDITIONAL CONDUIT NEEDED WHERE INDIVIDUAL UNIT SERVICES CROSS THE ROADWAY. THE SITE CONTRACTOR SHALL BE RESPONSIBLE TO EXTEND INDIVIDUAL SERVICE FROM THE TRANSFORMER PAD TO THE BUILDING. THE SITE CONTRACTOR IS REQUIRED TO INSTALL CONDUIT AT ALL PAVEMENT CROSSINGS OTHER THAN THE ROADWAY.

8. THE ROADWAY CONTRACTOR SHALL SET UP A SCOPING MEETING WITH THE SITE CONTRACTOR TO CONFIRM LIMITS OF WORK, SCHEDULING, AND CONSTRUCTION SEQUENCE BEFORE CONSTRUCTION.

CMP NOTES:

1. THE PROPOSED DISTRIBUTION SYSTEM PLAN SHALL BE COORDINATED WITH CENTRAL MAINE POWER COMPANY.

2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CMP'S CONSTRUCTION STANDARDS AND THE LATEST REVISION OF THE NATIONAL ELECTRICAL SAFTEY CODE.

3. ALL TRENCHING, CONDUIT AND BACK FILLING IS THE CONTRACTOR'S RESPONSIBILITY.

4. CONDUITS SHALL BE A MINIMUM OF SCHEDULE 40 PVC OR EQUIVALENT.

5. ALL CABLES SHALL BE IN CONDUIT UNDER ALL PAVED AREAS, ROADWAYS, AND DRIVEWAYS. PRIMARY CABLES ARE TO BE INSTALLED IN CONDUIT IF DRIVEWAYS ARE NOT ROUGH GRADED.

6. CONDUITS FOR SECONDARY CABLES SHOULD BE INSTALLED AT ALL LOCATIONS WHERE REQUIRED DURING THE INITIAL INSTALLATION OF THE PRIMARY CABLE.

7. PRIMARY CABLE TO BE #2 AL 15 KV.

8. SEE CMP'S CONTRACTOR HANDBOOK, SECTION IX, PARAGRAPHS 910, 911, AND 912 FOR SPECIFICATIONS ON BACK-FILL MATERIALS AND DEPTHS, ETC.

9. ALL TRANSFORMER PADS MUST BE SUPPLIED AND INSTALLED BY THE CONTRACTOR. PAD DESIGNS MUST CONFORM TO CMP SPECIFICATIONS. SEE ILLUSTRATIONS NO. 19, NO. 20, NO. 21 IN SECTION XII OF THE CONTRACTOR'S HANDBOOK.

10. ALL JUNCTION BOXES WILL BE PURCHASED AND INSTALLED BY THE CONTRACTOR. CMP WILL PROVIDE THE JUNCTION BOX, HOWEVER, THE EXCESS COST WILL BE BILLED TO THE OWNER.FIBERGLASS OR CONCRETE PADS REQUIRED FOR STELL CABINETS AND JUNCTION BOXES.

11. CMP WILL SUPPLY THE CABLE, TRANSFORMERS AND LABOR TO INSTALL SAME.

12. ALL METERING ENCLOSURES WILL BE PUNCHED AND INSTALLED BY THE CONTRACTOR.

13. A SEPARATION OF 12" MUST BE MAINTAINED BETWEEN CMP AND ALL OTHER UTILITIES AND/OR TELEPHONE, CABLE ETC.

CABLE TV NOTES:

1. ALL TRENCHING, CONDUIT & BACK FILLING IS THE CONTRACTORS RESPONSIBILITY.

2. CONDUITS SHALL BE SCHEDULE 40 PVC AND WILL BE ROPED WITH 1/4" ROPE.

3. ALL CABLES SHALL BE IN CONDUIT UNDER ALL PAVED ROADS, DRIVEWAYS AND WALKWAYS AS NOTED OR SHOWN ON THE PLAN; 4" FOR THE MAIN CABLE AND 2" FOR THE SERVICE WIRES.

4. CONDUITS FOR SERVICE WIRES SHOULD BE INSTALLED AT ALL LOCATIONS WHERE REQUIRED DURING THE INSTALLATION OF THE MAIN CABLE.

5. THE CABLE COMPANY WILL SUPPLY THE MAIN CABLE AND PEDESTALS AND THE LABOR TO INSTALL SAME.

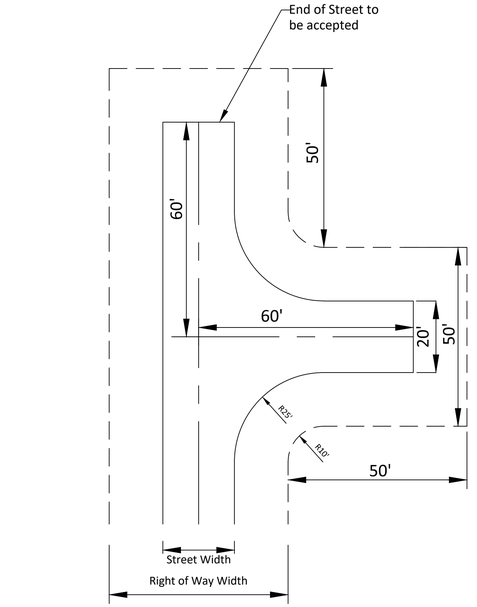
6. THE CABLE COMPANY WILL SUPPLY THE SERVICE WIRES.

7. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE CABLE COMPANY FOR INTERNAL WIRING SPECIFICATIONS AND SERVICE WIRE INSTALLATIONS.

8. ALL SERVICE WIRE INSTALLATIONS AND INTERIOR WIRING SHALL CONFORM TO THE CABLE COMPANY SPECIFICATIONS.

9. A SEPARATION OF 12" HORIZONTAL OR VERTICAL MUST BE MAINTAINED BETWEEN THE CABLE COMPANY AND ALL OTHER UTILITIES SUCH AS ELECTRIC, TELEPHONE OR OTHERS.

10. CONTRACTOR SHALL EXPOSE GROUND ROD AT ALL PAD LOCATIONS TO INSURE PROPER GROUNDING FOR THE CABLE COMPANY.

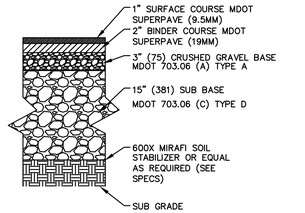


Hammerhead Turn-Around Detail

uncurbed minor roadway

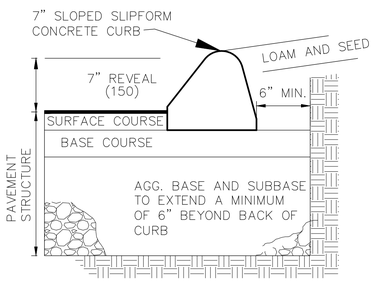
(Not to scale)

Town of Brunswick



BIUMINOUS CONCRETE DRIVE

NOT TO SCALE Lot Driveways



7" SLOPED SLIPFORM CONCRETE CURB

NOT TO SCALE

PROGRESS PLAN

NOT FOR CONSTRUCTION

THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.

STATE OF MAINE
CHRISTOPHER S. BELANGER 9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

Roadway Sections and Details

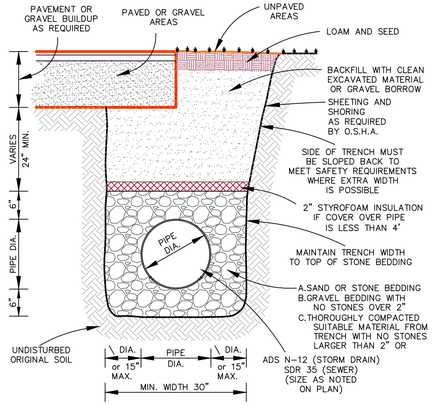
Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Estates LLC
Tax Map 1 Lot 70

BELANGER ENGINEERING
CONSULTING ENGINEERS
63 Second Avenue , Augusta, Maine 04330
Email: cbelanger@roadrunner.com
Ph 207-622-1462, Cell 207-242-5713

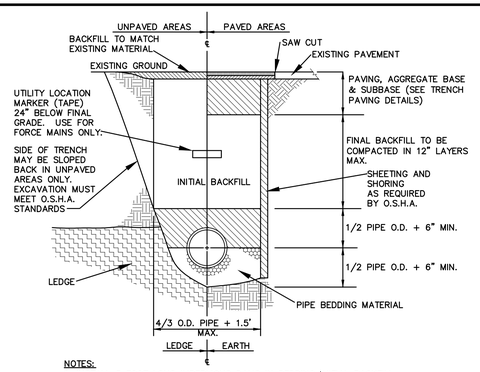
- COMMERCIAL PROJECTS
- RESIDENTIAL SUBDIVISIONS
- TOWN AND STATE APPROVALS
- SITE PLANNING & DESIGN
- STORMWATER MANAGEMENT
- ROAD AND UTILITY DESIGN
- EROSION CONTROL PLANS

FIELD WK:	SCALE:	SHEET: C9
DRN BY: CSB	JOB #: 162	
CH'D BY: CSB	SS:	
DATE: 1-2-2026	FILE:	



STORM DRAIN / SEWER TRENCH DETAIL

NOT TO SCALE

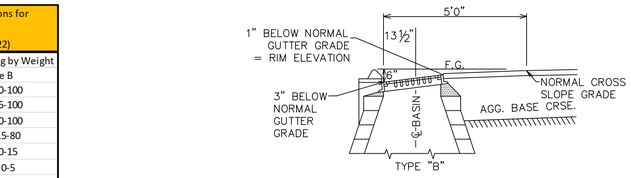


NOTES:
1. INSTALL 3 FOOT LONG IMPERVIOUS DAMS IN BEDDING/INITIAL BACKFILL MATERIAL EVERY 100 FEET TO PREVENT TRENCH GROUNDWATER FROM BEING CHANNELED ALONG BEDDING/INITIAL BACKFILL
2. REFER TO LATEST MDOT SPECIFICATIONS FOR BEDDING AND BACKFILL REQUIREMENTS.
3. INITIAL BACKFILL TO BE 12 INCHES OVER TOP OF PVC PIPE ONLY.

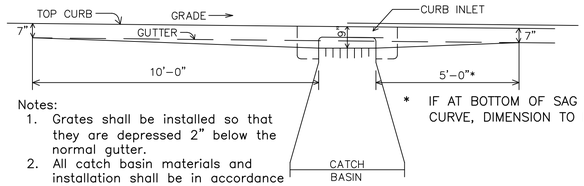
TYPICAL TRENCH DETAIL

NOT TO SCALE

MEDOT Specifications for Underdrains (ME DOT #703.22)	
Sieve Size	% Passing by Weight
Underdrain Type B	
1"	90-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5
Underdrain Type C	
1"	100
3/4"	90-100
3/8"	0-75
#4	0-25
#10	0-5



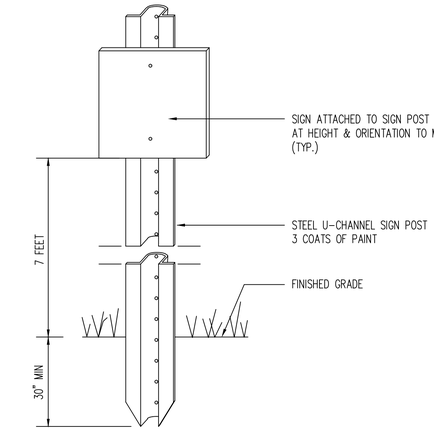
GUTTER GRADE TRANSITION AT CATCH BASIN



Notes:
1. Grates shall be installed so that they are depressed 2" below the normal gutter.
2. All catch basin materials and installation shall be in accordance with Town of Brunswick Standards.

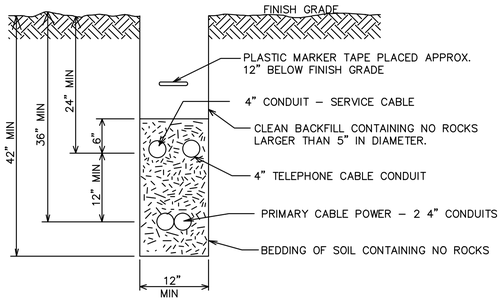
* IF AT BOTTOM OF SAG VERTICAL CURVE, DIMENSION TO BE 10'

GUTTER GRADE TRANSITION AT CATCH BASIN



SIGN & POST

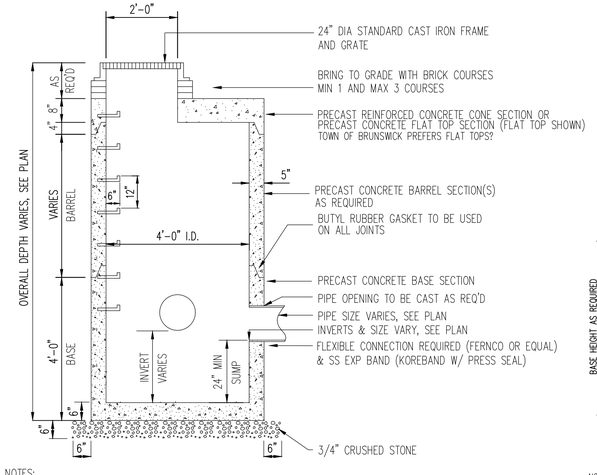
NOT TO SCALE



NOTES:
1. SECONDARY OR SERVICE CABLES AND COMMUNICATION CABLES MAY BE PLACED IN THE SAME TRENCH AT THE SAME DEPTH WITHOUT A REQUIRED CLEARANCE OR SEPARATION BETWEEN THE CABLES.
2. INSTALLATION SHOULD NOT ALLOW THE INTER–TWINING OF CABLES.
3. BEDDING AND BACKFILL SHALL BE FREE OF ROCKS, STUMPS AND OTHER DEBRIS.

TYPICAL ELECTRICAL TRENCH

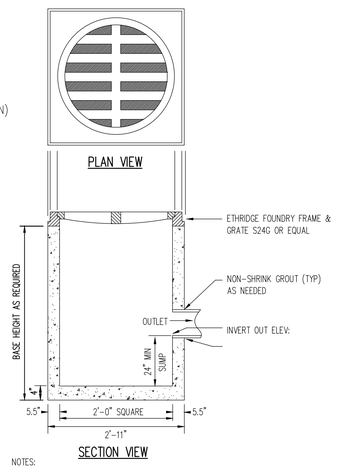
NOT TO SCALE



NOTES:
1. CONCRETE 4000 PSI AFTER 28 DAYS.
2. REINFORCING H-20 LOADING 4x4 / 4x4 WWM. SLAB TOP – NO. 5 BARS.
3. EACH CASTING TO HAVE LIFTING HOLES TO BE FILLED WITH NON-SHRINK MORTAR.

PRECAST CONCRETE CATCH BASIN–FLAT TOP

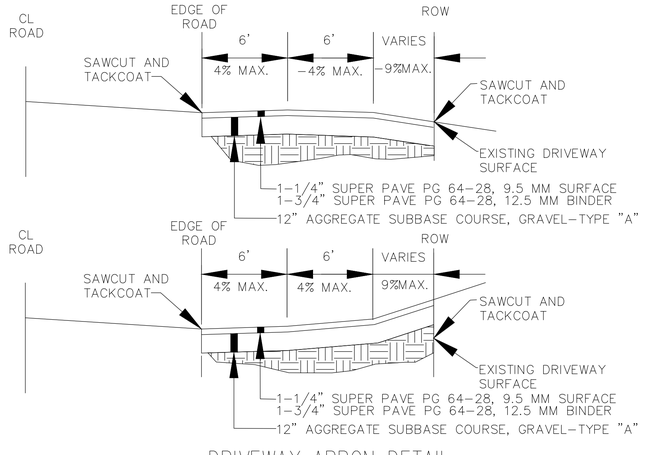
NOT TO SCALE ST-CB-FLAT/4-94



NOTES:
1. CONCRETE 5000 PSI AFTER 28 DAYS.
2. REINFORCING: 1 LAYER 4x4 / 4x4 WWM.
3. FIELD INLET IS USED FOR SHALLOW, OFF-DRIVE, DEAD END DRAINAGE AREAS.

FIELD INLET

NOT TO SCALE



DRIVEWAY APRON DETAIL

NOT TO SCALE (Lot Driveways by others – maintain road drainage)

PROGRESS PLAN
NOT FOR CONSTRUCTION

THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.

STATE OF MAINE
CHRISTOPHER S. BELANGER 9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

Civil Details

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Estates LLC
Tax Map 1 Lot 70

BELANGER ENGINEERING
CONSULTING ENGINEERS
63 Second Avenue , Augusta, Maine 04330 Ph 207-622-1462, Cell 207-242-5713
Email: cbelanger@roadrunner.com

- COMMERCIAL PROJECTS
- RESIDENTIAL SUBDIVISIONS
- TOWN AND STATE APPROVALS
- SITE PLANNING & DESIGN
- STORMWATER MANAGEMENT
- ROAD AND UTILITY DESIGN
- EROSION CONTROL PLANS

FIELD WK:	SCALE:	SHEET: C10
DRN BY: CSB	JOB #: 162	
CH'D BY: CSB	SS:	
DATE: 1-2-2026	FILE:	

EROSION AND SEDIMENTATION NOTES:

1. The Site Contractor shall follow the "Maine Erosion and Sediment Control BMPs" published by the Maine DEP in 2003 and the "Maine Erosion and Sediment Control Practices Field Guide for Contractors published in 2015". The manuals can be found on the Maine DEP web site. A Link to the field guide is shown below:

http://www.maine.gov/dep/land/erosion/escbmps/index.html

THE CONTRACTOR SHALL ALSO FOLLOW THE GUIDELINES LISTED IN APPENDICES A, B, C IN MAINE DEP CHAPTER 500 RULES.

GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES:

EROSION/SEDIMENT CONTROL DEVICES:
THE FOLLOWNG EROSION SEDIMENTATION CONTROL DEVICES ARE PROPOSED FOR CONSTRUCTION ON THIS PROJECT. INSTALL THESE DEVICES AS INDICATED ON THE PLANS.

1 SILT FENCE: SILT FENCE WILL BE INSTALLED ALONG THE DOWN GRADING EDGES OF DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL THE SITE IS STABILIZED. IN AREAS WHERE STORMWATER DISCHARGES THE SILT FENCE WILL BE REINFORCED WITH HAY BALES TO HELP MAINTAIN THE INTEGRITY OF THE SILT FENCE AND TO PROVIDE ADDITIONAL TREATMENT.

2. HAY BALES: HAY BALES TO BE PLACED IN LOW FLOW DRAINAGE SWALES AND PATHS TO TRAP SEDIMENTS AND REDUCE RUNOFF VELOCITIES. DO NOT PLACE HAY BALES IN FLOWING WATER OR STREAMS.

3. RIPRAP: PROVIDE RIPRAP IN AREAS WHERE CULVERTS DISCHARGE OR AS SHOWN ON THE PLANS.

4. LOAM, SEED, & MULCH: ALL DISTURBED AREAS, WHICH ARE NOT OTHERWISE TREATED, SHALL RECEIVE PERMANENT SEEDING AND MULCH TO STABILIZE THE DISTURBED AREAS. THE DISTURBED AREAS WILL BE REVEGETATED WITHIN 5 DAYS OF FINAL GRADING. SEEDING REQUIREMENTS ARE PROVIDED AT THE END OF THIS SPECIFICATION.

5. STRAW AND HAY MULCH: USED TO COVER DENUDED AREAS UNTIL PERMANENT SEED OR EROSION CONTROL MEASURES ARE IN PLACE. MULCH BY ITSELF CAN BE USED ON SLOPES LESS THAN 15% IN SUMMER AND 8% IN WINTER. JUTE MESH IS TO BE USED OVER MULCH ONLY. CURLEX II AND EXCELSIOR MAY BE USED IN PLACE OF JUTE MESH OVER MULCH.

6. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%

TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES:

PROVIDE THE FOLLOWING TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION OF THE DEVELOPMENT:

1. SILTATION FENCE ALONG THE DOWNGRADIENT SIDE OF THE PARKING AREAS AND OF ALL FILL SECTIONS. THE SILTATION FENCE WILL REMAIN IN PLACE UNTIL THE SITE IS 90% REVEGETATED. REMOVE SILTATION FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENT AND STABILIZE.

2. HAY BALES PLACED AT KEY LOCATIONS TO SUPPLEMENT THE SILT FENCE.

3. PROTECT TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION AS FOLLOWS:
   A. SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.
   B. AVOID PLACING TEMPORARY STOCKPILES IN AREAS WITH SLOPES OVER 10 PERCENT, OR NEAR DRAINAGE SWALES. SEE ITEM 3 IN CONSTRUCTION PHASE NOTES BELOW.
   C. STABILIZE STOCKPILES WITHIN 15 DAYS BY TEMPORARILY SEEDING WITH A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH.
   D. SURROUND STOCKPILE SOIL WITH SILTATION FENCE AT BASE OF PILE.

4. ALL DENUDED AREAS WHICH HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN THE BUILDING PAD, OR PARKING AND DRIVEWAY SUBBASE AREA THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS SHALL RECEIVE MULCH OR NON-ERODABLE COVER. STABILIZE AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OR THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST. IN THE EVENT THE CONTRACTOR COMPLETES FINAL GRADING AND INSTALLATION OF LOAM AND SOD WITHIN THE TIME PERIODS PRESENTED ABOVE, INSTALLATION OF MULCH AND NETTING, WHERE APPLICABLE, IS NOT REQUIRED.

5. IF WORK IS CONDUCTED BETWEEN OCTOBER 15 AND APRIL 15, ALL DENUDED AREAS ARE TO BE COVERED WITH HAY MULCH, APPLIED AT TWICE THE NORMAL APPLICATION RATE, AND ANCHORED WITH FABRIC NETTING. THE PERIOD BETWEEN FINAL GRADING AND MULCHING SHALL BE REDUCED TO A 15 DAY MAXIMUM.

6. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILIZED OR IN AREAS WHERE PERMANENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

PERMANENT EROSION CONTROL MEASURES:

THE FOLLOWING PERMANENT CONTROL MEASURES ARE REQUIRED BY THIS EROSION/SEDIMENTATION CONTROL PLAN:

1. ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.), WILL BE LOAMED, LIMED, FERTILIZED AND SEEDED. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.

2. IF AN AREAS WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, THEN PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR ROAD SUB-BASE. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, SOIL, AND MOISTURE CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING TO AVOID DIE-OFF FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. IF NECESSARY, AREAS MUST BE SEEDED AND MULCHED AGAIN IF GERMINATION IS SPARCE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE.

   (a) Seeded areas. For seeded areas, permanent stabilization means a 90% cover of healthy plants with no evidence of washing or rilling of the topsoil.

   (b) Sodded areas. For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.

   (c) Permanent Mulch. For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.

   (d) Riprap. For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.

   (e) Agricultural use. For construction projects on land used for agricultural purposes (e.g., pipelines across crop land), permanent stabilization may be accomplished by returning the disturbed land to agricultural use.

   (f) Paved areas. For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed.

   (g) Ditches, channels, and swales. For open channels, permanent stabilization means the channel is stabilized with a 90% cover of healthy vegetation, with a well-graded riprap lining, turf reinforcement mat, or with another non-erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel banks, or down-cutting of the channel.

3. SLOPES GREATER THAN 2:1 WILL RECEIVE RIPRAP.

POST-CONSTRUCTION REVEGETATION:

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION AS SOON AS AN AREA IS READY TO UNDERGO FINAL GRADING.

1. A MINIMUM OF 4" OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND NATURAL APPEARANCE, OR STONE WILL BE PLACED ON SLOPES TO STABILIZE SURFACES.

2. IF FINAL GRADING IS REACHED DURING THE NORMAL GROWING SEASON (4/15 TO 9/15), PERMANENT SEEDING WILL BE DONE AS SPECIFIED BELOW OR AS REQUIRED BY THE TOWN ARBORIST. PRIOR TO SEEDING, LIMESTONE SHALL BE APPLIED AT A RATE OF 138 LBS/1000 SQ. FT. AND 10: 20: 20 FERTILIZER AT A RATE OF 18.4 LBS/1000 SQ.FT WILL BE APPLIED. BROADCAST SEEDING AT THE FOLLOWNG RATES:

LAWNS	SWALES
KENTUCKY BLUEGRASS 0.46 LBS/1000 SF.	RED TOP 0.05 LBS/1000 SF.
CREEPING RED FESCUE 0.46 LBS/1000 SF.	TALL FESCUE 0.46 LBS/1000 SF.
PERENNIAL RYE GRASS 0.11 LB/1000 SF.	

3. AN AREA SHALL BE MULCHED IMMEDIATELY AFTER IS HAS BEEN SEEDED. MULCHING SHALL CONSIST OF HAY MULCH. OR ANY SUITABLE ENVIRONMENTALLY SAFE SUBSTITUTE DEEMED ACCEPTABLE BY THE DESIGNER AND THE TOWN.
   A. HAY MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. HAY MULCH SHALL BE SECURED BY EITHER: (NOTE: SOIL SHALL NOT BE VISIBLE)
      I. BEING DRIVEN OVER BY TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS.
      II. SEE NOTE 6, GENERAL NOTES, AND NOTE 8, WINTER CONSTRUCTION.

4. CONSTRUCTION SHALL BE PLANNED TO ELIMINATE THE NEED FOR SEEDING BETWEEN SEPTEMBER 15 AND APRIL 15. SHOULD SEEDING BE NECESSARY BETWEEN SEPTEMBER 15 AND APRIL 15 THE FOLLOWING PROCEDURE SHALL BE FOLLOWED. ALSO REFER TO NOTE 9 OF WINTER CONSTRUCTION.
   A. ONLY UNFROZEN LOAM SHALL BE USED.
   B. LOAMING, SEEDING AND MULCHING WILL NOT BE DONE OVER SNOW OR ICE COVER. IF SNOW EXISTS, IT MUST BE REMOVED PRIOR TO PLACEMENT OF SEED.
   C. WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1000 SQ.FT) SHALL BE ADDED TO THE PREVIOUSLY NOTED AREAS.
   D. WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.6 LBS/1000 SQ. FT.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.
   E. FERTILIZING, SEEDING AND MULCHING SHALL BE APPLIED TO LOAM THE DAY THE LOAM IS SPREAD BY MACHINERY.
   F. ALTERNATIVE HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE NETTING. TRACKING BY MACHINERY ALONE WILL NOT SUFFICE.

5. FOLLOWING FINAL SEEDING, THE SITE WILL BE INSPECTED EVERY 30 DAYS UNTIL 90% COVER HAS BEEN ESTABLISHED. RESEEDING WILL BE CARRIED OUT BY THE CONTRACTOR WITHIN 10 DAYS OF NOTIFICATION BY THE ENGINEER THAT THE EXISTING CATCH IS INADEQUATE.

MONITORING SCHEDULE:

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MONITORING, MAINTAINING, REPAIRING, REPLACING AND REMOVING ALL OF THE EROSION AND SEDIMENTATION CONTROLS OR APPOINTING A QUALIFIED SUBCONTRACTOR TO DO SO. MAINTENANCE MEASURES WILL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, A VISUAL INSPECTION WILL BE MADE OF ALL EROSION AND SEDIMENTATION CONTROLS AS FOLLOWS:

1. HAY BALE BARRIERS, SILT FENCE, AND STONE CHECK DAMS SHALL BE INSPECTED AND REPAIRED ONCE A WEEK OR IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REDISTRIBUTED TO AREAS UNDERGOING FINAL GRADING. SHOULD THE HAY BALE BARRIERS PROVE TO BE INEFFECTIVE, THE CONTRACTOR SHALL INSTALL SILT FENCE BEHIND THE HAY BALES.

2. VISUALLY INSPECT RIPRAP ONCE A WEEK OR AFTER EACH SIGNIFICANT RAINFALL AND REPAIR AS NEEDED. REMOVE SEDIMENT TRAPPED BEHIND THESE DEVICES ONCE IT ATTAINS A DEPTH EQUAL TO 1/2 THE HEIGHT OF THE DAM OR RISER. DISTRIBUTE REMOVED SEDIMENT OFF-SITE OR TO AN AREA UNDERGOING FINAL GRADING.

3. REVEGETATION OF DISTURBED AREAS WITHIN 25' OF DRAINAGE-COURSE/STREAM WILL BE SEEDED WITH THE "MEADOW AREA MIX" AND INSPECTED ON A WEEKLY BASIS OR AFTER EACH SIGNIFICANT RAINFALL AND RESEEDED AS NEEDED. EXPOSED AREAS WILL BE RESEEDED AS NECESSARY UNTIL THE AREA HAS OBTAINED 100% GROWTH RATE. PROVIDE PERMANENT RIPRAP FOR SLOPES IN EXCESS OF 3:1 AND WITHIN 25' OF DRAINAGE COURSE.

EROSION CONTROL DURING WINTER CONSTRUCTION:

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.

2. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

3. EXPOSED AREA SHALL BE LIMITED TO THOSE AREAS TO BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. AT THE END OF EACH WORK WEEK NO AREAS MAY BE LEFT UNSTABILIZED OVER THE WEEKEND.

4. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.

5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1000 S.F. (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ANCHORED SUCH THAT SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH. NOTE: AN AREA IS ALSO CONSIDERED STABLE IF SODDED, COVERED WITH GRAVEL (PARKING LOTS) OR STRUCTURAL SAND.

6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1 AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW, DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY, SILT FENCE OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS SHOWN ON THE DESIGN DRAWINGS. NOTE: DORMANT SEEDING SHOULD NOT BE ATTEMPTED UNLESS SOIL TEMPERATURE REMAINS BELOW 50 DEGREES AND DAY TIME TEMPERATURES REMAIN IN THE 30'S.

7. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8% VEGETATED DRAINAGE SWALES SHALL BE LINED WITH EXCELSIOR OR CURLEX.

8. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1 THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%

9. BETWEEN THE DATES OF OCTOBER 15 TO NOVEMBER 1, WINTER RYE IS RECOMMENDED FOR STABILIZATION. AFTER NOVEMBER 1, WINTER RYE IS NOT EFFECTIVE. AROUND NOVEMBER 15 OR LATER, ONCE TEMPERATURES OF THE AIR AND SOIL PERMIT, DORMANT SEEDING IS EFFECTIVE.

10. IN THE EVENT OF SNOWFALL (FRESH OR CUMULATIVE) GREATER THAN 1 INCH DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM THE AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

PROGRESS PLAN
NOT FOR CONSTRUCTION
THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.

Construction Plan

CONSTRUCTION OF THE PROJECT IS EXPECTED TO COMMENCE IN LATE SUMMER 2024 FOLLOWING ISSUE OF TOWN AND DEP PERMITS AND ONCE UNITS ARE PRE-SOLD. THE CONSTRUCTION OF THE ROAD AND UTILITY INFRASTRUCTURE IS EXPECTED TO CONTINUE INTO THE SPRING OF 2025. CONSTRUCTION OF UNITS WILL DEPEND ON MARKET CONDITIONS BUT BASED ON THE RECENT SUCCESS WE WOULD EXPECT THE UNITS TO BE CONSTRUCTED WITHIN 2-3 YEARS. CONSTRUCTION SEQUENCING WILL INCLUDE THE FOLLOWING:

- TREE CLEARING AND STUMP REMOVAL.
- REMOVAL OF THE ASSOCIATED DRIVES AND INFRASTRUCTURE.
- ROUGH GRADING, SITE BLASTING FOR ROADWAYS AND UNITS AND INSTALLATION OF UTILITIES AND STORMWATER SYSTEMS.
- FINISH GRAVELS AND SURFACES & PAVING
- LOAM, SEED AND STABILIZATION.

CONSTRUCTION PHASE:

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION DURING CONSTRUCTION OF THIS PROJECT.

1. ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN AN UNTREATED OR UNVEGETATED CONDITION. IF FINAL GRADING, LOAMING AND SEEDING WILL NOT OCCUR WITHIN 7 DAYS, SEE ITEM NO. 4.

2. PRIOR TO THE START OF CONSTRUCTION IN A SPECIFIC AREA, SILT FENCING AND/OR HAY BALES WILL BE INSTALLED AT THE TOE OF SLOPE AND IN AREAS AS LOCATED ON THE PLANS TO PROTECT AGAINST ANY CONSTRUCTION RELATED EROSION. IMMEDIATELY FOLLOWING CONSTRUCTION OF CULVERTS AND SWALES, RIP RAP APRONS SHALL BE INSTALLED, AS SHOWN ON THE PLANS.

3. TOPSOIL WILL BE STOCKPILED WHEN NECESSARY IN AREAS WHICH HAVE MINIMUM POTENTIAL FOR EROSION AND WILL BE KEPT AS FAR AS POSSIBLE FROM THE EXISTING DRAINAGE COURSE. NO STOCKPILE SHALL BE CLOSER THEN 100' OF A RESOURCE INCLUDING, BUT NOT LIMITED TO, WETLANDS, STREAMS, AND OPEN WATER BODIES. ALL STOCKPILES SHALL HAVE A SILTATION FENCE BELOW THEM REGARDLESS OF TIME OF PRESENCE. ALL STOCKPILES EXPECTED TO REMAIN LONGER THAN 15 DAYS SHALL BE:
   A. TREATED WITH ANCHORED MULCH (WITHIN 5 DAYS OF THE LAST DEPOSIT OF STOCKPILED SOIL).
   B. SEEDED WITH CONSERVATION MIX AND MULCHED IMMEDIATELY.
   C. INSTALL SILT FENCE AROUND STOCKPILE AT BASE OF PILE. STOCKPILES TO HAVE SILT FENCE INSTALLED AT TIME OF ESTABLISHMENT AT BASE OF PILE.

4. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS SHALL BE EITHER:
   A. TREATED WITH ANCHORED MULCH IMMEDIATELY, OR
   B. SEEDED WITH CONSERVATION MIX OF ANNUAL RYE GRASS (0.9 LBS/1000 SQ. FT) AND MULCHED IMMEDIATELY.

5. ALL GRADING WILL BE HELD TO A MAXIMUM 2:1 SLOPE WHERE PRACTICAL. ALL SLOPES WILL BE STABILIZED WITH PERMANENT SEEDING, OR WITH STONE, WITHIN 7 DAYS AFTER FINAL GRADING IS COMPLETE. (SEE POST-CONSTRUCTION REVEGETATION FOR SEEDING SPECIFICATION.)

6. ALL CULVERTS WILL BE PROTECTED WITH STONE RIPRAP (D50 = 6" UNLESS OTHERWISE SPECIFIED) AT INLETS AND OUTLETS.

Maine DEP Chapter 500, APPENDIX C. Housekeeping

These performance standards apply to all projects except for stormwater PBR projects.

1. Spill prevention. Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

   NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at : http://www.maine.gov/dep/spills/emergspillresp/

2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors infiltrates or runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of runoff must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

   See Appendix D for license by rule standards for infiltration of stormwater.

   NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. Fugitive sediment and dust. Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance, (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

   NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the Natural Resources Protection Act.

4. Debris and other materials. Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

   NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. Excavation de-watering. Excavation de-watering is the removal of water from trenches, foundations, cofer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinder correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

   NOTE: Dewatering controls are discussed in the "Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection."

6. Authorized Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

   (a) Discharges from firefighting activity;

   (b) Fire hydrant flushings;

   (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);

   (d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);

   (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;

   (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;

   (g) Uncontaminated air conditioning or compressor condensate;

   (h) Uncontaminated groundwater or spring water;

   (i) Foundation or footer drain-water where flows are not contaminated;

   (j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));

   (k) Potable water sources including waterline flushings; and

   (l) Landscape irrigation.

7. Unauthorized non-stormwater discharges . The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non_stormwater, other than those discharges in compliance with Appendix C (6). Specifically, the Department's approval does not authorize discharge of the following:

   (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;

   (b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;

   (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and

   (d) Toxic or hazardous substances from a spill or other release.

(8) Additional requirements. Additional requirements may be applied on a site-specific basis.

Maine DEP Chapter 500, APPENDIX A. Erosion and sedimentation control (2023 Update)

This appendix applies to all projects.

A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 M.R.S. §480-B. Erosion control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken.

NOTE: Other requirements may apply, including, but not limited to the Natural Resources Protection Act 38 M.R.S. §480-B.

NOTE: The Department has prepared protocols for the control of erosion and sedimentation. See "Maine Erosion and Sediment Control BMPs Maine Department of Environmental Protection."

1. Pollution prevention. Minimize disturbed areas and protect natural downgradient buffer areas to the extent practicable. Control stormwater volume and velocity within the site to minimize soil erosion. Minimize the disturbance of steep slopes. Control stormwater discharges, including both peak flow rates and volume, to minimize erosion at outlets. The discharge may not result in erosion of any open drainage channels, swales, stream channels or stream banks, upland, or coastal or freshwater wetlands off the project site.

   Whenever practicable, no disturbance activities should take place within 50 feet of any protected natural resource. If disturbance activities take place between 30 feet and 50 feet of any protected natural resource, and stormwater discharges through the disturbed areas toward the protected natural resource, perimeter erosion controls must be doubled. If disturbance activities take place less than 30 feet from any protected natural resource, and stormwater discharges through the disturbed areas toward the protected natural resource, perimeter erosion controls must be doubled and disturbed areas must be temporarily or permanently stabilized within 7 days.

NOTE: Buffers improve water quality by helping to filter pollutants in run-off both during and after construction. Minimizing disturbed areas through phasing limits the amount of exposed soil on the site through retention of natural cover and by retiring areas as permanently stabilized. Less exposed soil results in fewer erosion controls to install and maintain. If work within an area is not anticipated to begin within two weeks' time, consider leaving the area in its naturally existing cover.

NOTE: Many construction activities within 75 feet of a protected natural resource require a permit under the Natural Resources Protection Act prior to initiation. For more information regarding the applicability of the NRPA to your project, you can visit the Department's website at http://www.maine.gov/dep/land/nrpa/index.html or contact staff of the Division of Land Resource Regulation at the nearest regional office.

2. Sediment barriers. Prior to construction, properly install sediment barriers at the downgradient edge of any area to be disturbed by construction and adjacent to any drainage channels within the disturbed area. Sediment barriers include installed downgradient of soil or sediment stockpiles and stormwater prevented from running onto the stockpile. Maintain the sediment barriers by removing accumulated sediment, or removing and replacing the barrier, until the disturbed area is permanently stabilized. Where a discharge to a storm drain inlet occurs, if the storm drain carries water directly to a surface water and you have authority to access the storm drain inlet, you must install and maintain protection measures that remove sediment from the discharge.

3. Stabilized construction entrance. Prior to construction, properly install a stabilized construction entrance (SCE) at all points of egress from the site. The SCE is a stabilized pad of aggregate, underlain by a geotextile filter fabric, used to prevent traffic from tracking material away from the site onto public ROWs. Maintain the SCE until all disturbed areas are stabilized.

4. Temporary stabilization. Within 7 days of the cessation of construction activities in an area that will not be worked for more than 7 days, stabilize exposed soil with mulch or non-erodible cover. Stabilize areas within 75 feet of a wetland or waterbody within 48 hours of the initial disturbance of the soil or prior to any storm event, whichever comes first.

5. Removal of temporary measures. Remove any temporary control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

NOTE: It is recommended that silt fences be removed by cutting the fence materials at ground level to avoid additional soil disturbance.

6. Permanent stabilization. If the area will not be worked for more than one year or has been brought to final grade, then permanently stabilize the area within 7 days by planting vegetation, seeding, sod, or through the use of permanent mulch, or riprap, or road sub-base. If using vegetation for stabilization, select the proper vegetation for the light, moisture, and soil conditions; amend areas of disturbed subsoils with topsoil, compost, or fertilizers; protect seeded areas with mulch or, if necessary, erosion control blankets; and schedule sodding, planting, and seeding so to avoid die-off from summer drought and fall frosts. Newly seeded or sodded areas must be protected from vehicle traffic, excessive pedestrian traffic, and concentrated runoff until the vegetation is well-established with 90% cover by healthy vegetation. If necessary, areas must be reworked and restabilized if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. One or more of the following may apply to a particular site.

   (a) Seeded areas. For seeded areas, permanent stabilization means a 90% cover of the disturbed area with mature, healthy plants with no evidence of washing or rilling of the topsoil.

   (b) Sodded areas. For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.

   (c) Permanent Mulch. For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion Control Mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.

   (d) Riprap. For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.

   (e) Agricultural use. For construction projects on land used for agricultural purposes (e.g., pipelines across crop land), permanent stabilization may be accomplished by returning the disturbed land to agricultural use.

   (f) Paved areas. For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed, provided it is free of fine materials that may runoff with a rain event

   (g) Ditches, channels, and swales. For open channels, permanent stabilization means the channel is stabilized with a 90% cover of healthy vegetation, with a well-graded riprap lining, turf reinforcement mat, or with another non-erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel banks, or down-cutting of the channel.

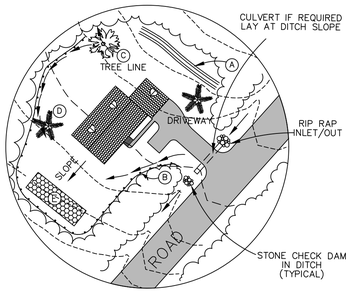
7. Winter Construction. "Winter construction" is construction activity performed during the period from November 1 through April 15. If disturbed areas are not stabilized with permanent measures by November 1 or new soil disturbance occurs after November 1, but before April 15, then these areas must be protected and runoff from them must be controlled by additional measures and restrictions.

   (a) Site Stabilization. For winter stabilization, hay mulch is applied at twice the standard temporary stabilization rate. At the end of each construction day, areas that have been brought to final grade must be stabilized. Mulch may not be spread on top of snow.

   (b) Sediment Barriers. All areas within 75 feet of a protected natural resource must be protected with a double row of sediment barriers.

   (c) Ditch. All vegetated ditch lines that have not been stabilized by November 1, or will be worked during the winter construction period, must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from this standard by the Department.

   (d) Slopes. Mulch netting must be used to anchor mulch on all

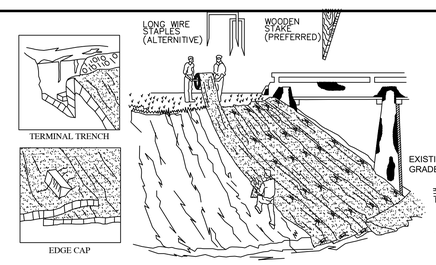


BUILDING SITE EROSION CONTROL

(TYPICAL DETAIL)

NOTES:
THIS SKETCH IS INDICATING THE INTENT OF THE SOIL EROSION MEASURES. ACTUAL SITE CONDITIONS AND LAYOUTS WILL VARY FROM SITE TO SITE. BUILDING CONTRACTORS MUST COMPLY WITH THE EROSION CONTROL NOTES SHOWN ON THESE DRAWINGS AND WITH THE "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES."

A.) CONSTRUCT DIVERSION DITCH TO KEEP UPSLOPE DRAINAGE AREA FROM ENTERING SITE.
B.) INSTALL SILT FENCE BELOW ALL DISTURBED AREAS.
C.) KEEP CLEARING TO A MINIMUM.
D.) RE-SEED ALL DISTURBED AREAS. SEE SEEDING NOTES.



-UNROLL MAT ONTO GROUND IN DIRECTION OF WATER FLOW.
-MAT SHOULD LIE FLAT. DO NOT STRETCH MAT OVER GROUND. STRETCHING MAY CAUSE MAT TO BRIDGE DEPRESSIONS IN THE SURFACE AND ALLOW EROSION UNDERNEATH.
-BURY TRANSVERSE TERMINAL ENDS OF MAT TO SECURE AND PREVENT EROSIVE FLOW UNDERNEATH.
-SECURE MAT SNUGLY INTO ALL TRANSVERSE CHECK SLOTS.
-BACKFILL AND COMPACT TRENCHES AND CHECK SLOTS AFTER STAKING THE MAT IN BOTTOM OF TRENCH.
-OVERLAP ROLL ENDS BY THREE (3) FEET (MIN.) WITH UPSLOPE MAT ON TOP TO PREVENT UPLIFT OF MAT END BY WATER FLOW. IF INSTALLING IN THE DIRECTION OF A CONCENTRATED WATER FLOW, START NEW ROLLS IN A TRANSVERSE DITCH.
-WOOD STAKES ARE RECOMMENDED FOR PINNING MAT TO THE GROUND SURFACE. STAKES SHOULD BE 1"x 3" NOMINAL STOCK CUT IN A TRIANGULAR SHAPE. STAKES SHOULD BE 12" TO 18" LONG, DEPENDING ON SOIL DENSITY.
-DRIVE WOODEN STAKES TO WITHIN THREE (3) INCHES OF GROUND SURFACE. DO NOT DRIVE FLUSH TO SURFACE.
-IN ALL TRANSVERSE TERMINAL TRENCHES AND CHECK SLOTS, STAKE EACH MAT AT IS CENTER AND OVERLAP EDGES BEFORE BACKFILLING AND COMPACTING.
-STAKE OVERLAPS LONGITUDINALLY AT THREE (3) TO FIVE (5) FOOT INTERVALS.

GENERAL INSTALLATION GUIDELINES FOR EROSION CONTROL BLANKET

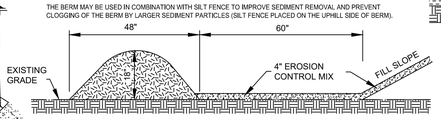
NOT TO SCALE

THE FILTER BERM SHALL CONSIST OF AN EROSION CONTROL MIX(BARK MULCH MIX OR RECYCLED COMPOSTED BARK FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER FLUME LOG HANDLING SYSTEMS. COMPARABLE COMPOSTED MIXES CAN BE USED UPON WRITTEN APPROVAL OF THE ENGINEER.

THE MIX SHALL CONFORM TO THE FOLLOWING: pH BETWEEN 5.0-8.0. PARTICLE SIZE - 100% PASSING THROUGH A 6" SCREEN AND 80% RETAINED ON A 3/4" SCREEN. SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 mmhos/cm.

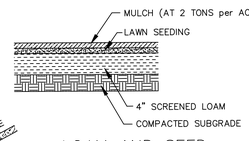
THE COMPOSTED BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.

THE BERM MAY BE USED IN COMBINATION WITH SILT FENCE TO IMPROVE SEDIMENT REMOVAL AND PREVENT CLOGGING OF THE BERM BY LARGER SEDIMENT PARTICLES (SILT FENCE PLACED ON THE UPHILL SIDE OF BERM).



Erosion Control Mix Filter Berm

NOT TO SCALE



LOAM AND SEED

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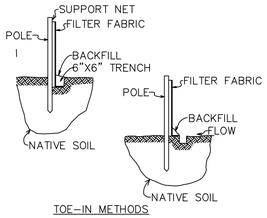
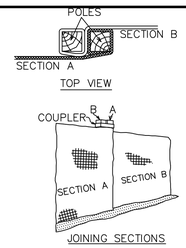


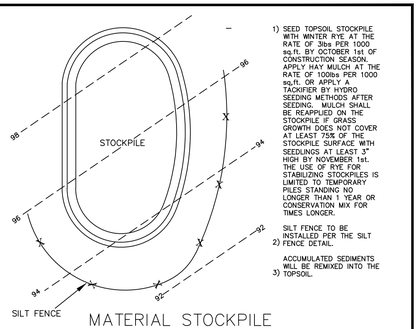
TOE-IN METHODS



JOINING SECTIONS

SILTATION FENCING

1. INSTALL DOWNSLOPE OF ALL CONSTRUCTION ACTIVITIES AS NECCESSARY.
2. INSPECTION SHOULD BE FREQUENT AND REPAIR OR REPLACEMENT MADE PROMPTLY AS NEEDED. CHECK AFTER EACH RAINFALL.
3. BARRIERS SHOULD BE REMOVED WHEN THAY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.



MATERIAL STOCKPILE EROSION PREVENTION DETAIL

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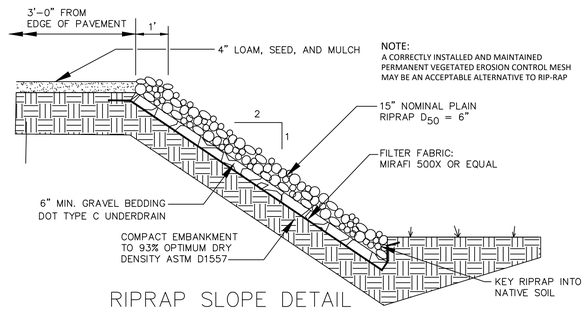
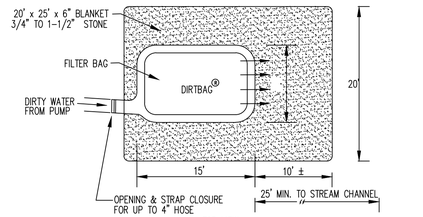


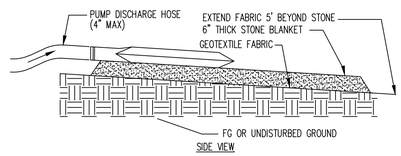
NOTE:
A CORRECTLY INSTALLED AND MAINTAINED PERMANENT VEGETATED EROSION CONTROL MESH MAY BE AN ACCEPTABLE ALTERNATIVE TO RIP-RAP

RIPRAP SLOPE DETAIL

NOT TO SCALE



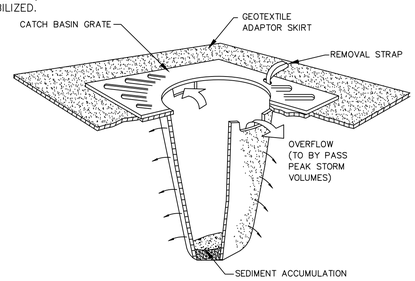
TOP VIEW



SIDE VIEW

PUMPED DISCHARGE SEDIMENT CONTROL DEVICE

NOT TO SCALE



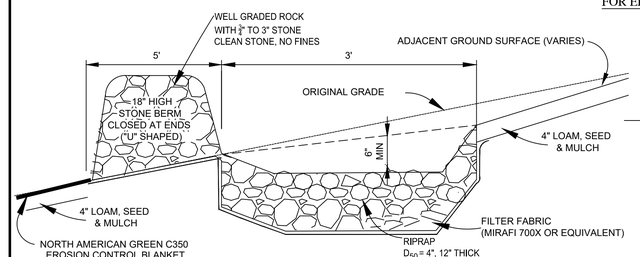
NOTES:
1. CATCH BASIN PROTECTION TO BE "SILTSTACK" (BY ACF ENVIRONMENTAL) OR "STREAM GUARD" (BY FOSS ENVIRONMENTAL SERVICES).

2. INSPECT INSERT AFTER ALL RAINFALL EVENTS, REPAIR AND MAINTAIN IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS.

3. INSTALL SILT SACK SEDIMENT BARRIER IN ALL CATCH BASIN AND MAINTAIN UNTIL PROJECT COMPLETION.

TEMPORARY INLET PROTECTION

NOT TO SCALE



NOTE: THE DESIGN ENGINEER SHALL OVERSEE THE LOCATION AND INSTALLATON OF THE STONE BERM LEVEL SPREADER

THE STONE BERM SHALL BE INSTALLED ALONG THE CONTOUR TO THE EXTENT POSSIBLE

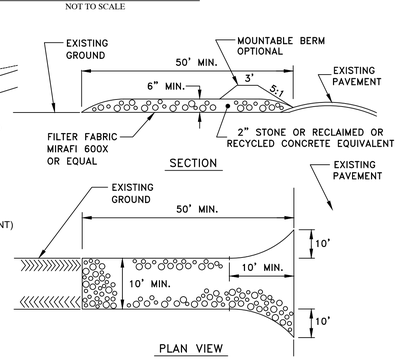
THE BERM MUST BE WELL-GRADED AND CONTAIN SOME SMALL STONE TO FORCE FLOWS TO SPREAD OUT BEHIND THE BERM

STONE BERM MUST BE AT LEAST 1.5' HIGH AND 2' ACROSS THE TOP WIDTH WITH 2:1 SIDE SLOPES.

SEE MAINE DEP BMP 5.2.2 BUFFER WITH STONE BERMED LEVEL LIP SPREADER

STONE BERM LEVEL SPREADER

NOT TO SCALE



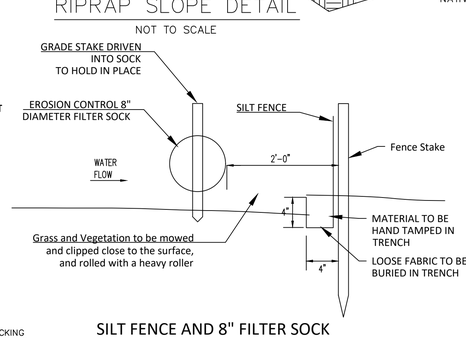
SECTION

PLAN VIEW

NOTE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE WHICH DRAINS INTO AN APPROVED SEDIMENT OR WATERWAYS.

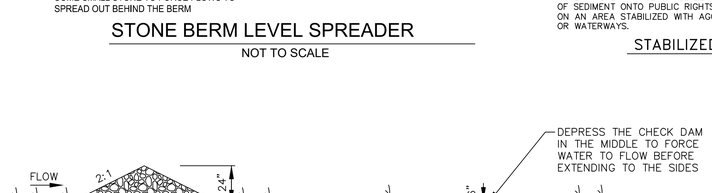
STABILIZED CONSTRUCTION ENTRANCE

N.T.S.



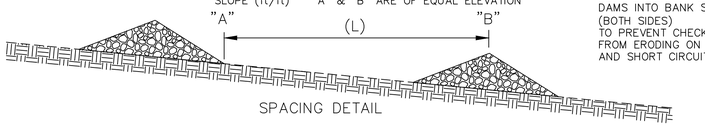
SILT FENCE AND 8" FILTER SOCK DOUBLE BARRIER DETAIL

NOT TO SCALE



CROSS SECTIONS

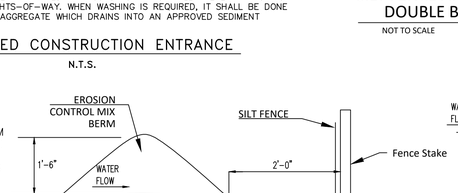
$L = \frac{2'}{\text{SLOPE (ft/ft)}}$ = THE DISTANCE SUCH THAT POINTS "A" & "B" ARE OF EQUAL ELEVATION



SPACING DETAIL

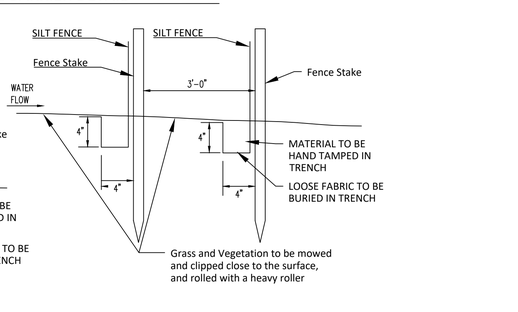
STONE CHECK DAM DETAILS

NOT TO SCALE



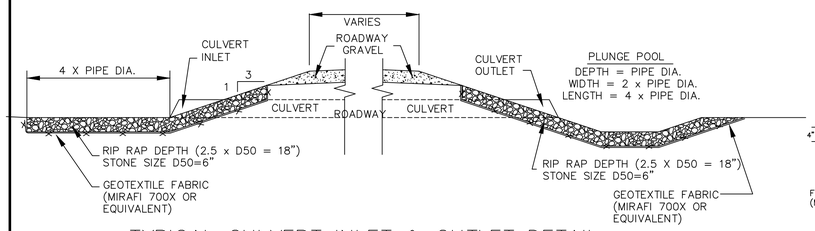
SILT FENCE AND EROSION CONTROL MIX DOUBLE BARRIER DETAIL

NOT TO SCALE



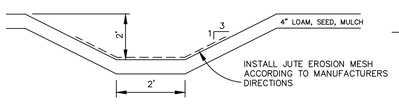
DOUBLE SILT FENCE DETAIL

NOT TO SCALE



TYPICAL CULVERT INLET & OUTLET DETAIL

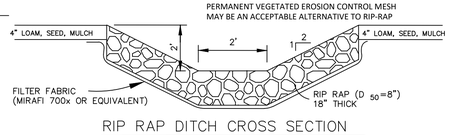
NOT TO SCALE



GRASSED DITCH CROSS SECTION

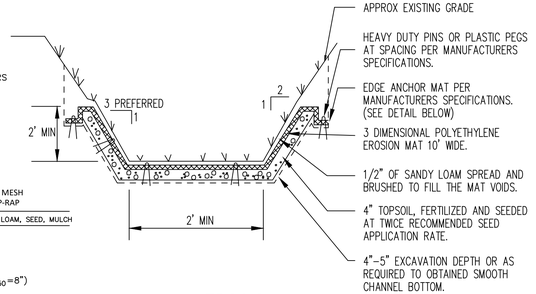
NOT TO SCALE

NOTE:
A CORRECTLY INSTALLED AND MAINTAINED PERMANENT VEGETATED EROSION CONTROL MESH MAY BE AN ACCEPTABLE ALTERNATIVE TO RIP-RAP



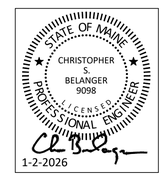
RIP RAP DITCH CROSS SECTION

NOT TO SCALE



EROSION MAT INSTALLATION IN DITCHES

NOT TO SCALE



Erosion Control Details

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Estates LLC
Tax Map 1 Lot 70

BELANGER ENGINEERING
CONSULTING ENGINEERS
63 Second Avenue , Augusta, Maine 04330
Email: cbelanger@roadrunner.com
Ph 207-622-1462, Cell 207-242-5713

- COMMERCIAL PROJECTS
- RESIDENTIAL SUBDIVISIONS
- TOWN AND STATE APPROVALS
- SITE PLANNING & DESIGN
- STORMWATER MANAGEMENT
- ROAD AND UTILITY DESIGN
- EROSION CONTROL PLANS

FIELD WK:	SCALE:	SHEET: C12
DRN BY: CSB	JOB #: 162	
CH'D BY: CSB	SS:	
DATE: 1-2-2026	FILE:	

Wetland and Stream

Pond

Madeline Drive

Lisbon Road

Start of Stream

Forrested Wetland

PIT ROAD

Lot Septic Test Pit (typ)

Class A High Intensity Soil Boundary per Statewide Surveys, Inc. Class A High-Intensity Soil Survey and Report dated December 21, 2007.

Class A High Intensity Soil Description (typ.)

Property Line

Pit Area

Forested Wetland

Property Line

Pit Area

SOIL LEGEND

AlA	ALLAGASH	FINE SANDY LOAM	0–3%
LaA	LAMOINE	SILT LOAM	0–3%
LaB	LAMOINE	SILT LOAM	3–8%
LaC	LAMOINE	SILT LOAM	8–15%
LaD	LAMOINE	SILT LOAM	15–30%
MaA	MADAWASKA	FINE SANDY LOAM	0–3%
MaB	MADAWASKA	FINE SANDY LOAM	3–8%
MaC	MADAWASKA	FINE SANDY LOAM	8–15%
NiA	NICHOLVILLE	SILT LOAM	0–3%
NiB	NICHOLVILLE	SILT LOAM	3–8%
NiC	NICHOLVILLE	SILT LOAM	8–15%
NiD	NICHOLVILLE	SILT LOAM	15–30%
PDA	PITS DUMP	VARIABLE	0–3%
PSG	PITS SAND & GRAVEL		
RoA	ROUNDABOUT	SILT LOAM	0–3%
RoB	ROUNDABOUT	SILT LOAM	3–8%
ScA	SCANTIC	SILT LOAM	0–3%
ScB	SCANTIC	SILT LOAM	3–8%
SKB	SKERRY	FINE SANDY LOAM	3–8%
SwA	SWANTON	FINE SANDY LOAM	0–3%
SwB	SWANTON	FINE SANDY LOAM	3–8%
UdA	UDORTHENTS	VARIABLE	0–3%

NOTES:

1. SOIL SURVEY CONDUCTED BY DALE A. BREWER (CSS #304), NOVEMBER/DECEMBER 2007.

2. CLASS A SOIL SURVEY COMPLETED IN NOVEMBER/DECEMBER 2007 FOR THE PROPOSED DEVELOPED AREA.

3. SOIL SURVEY COMPLETED IN ACCORDANCE WITH THE GUIDELINES FOR MAINE CERTIFIED SOIL SCIENTISTS FOR SOIL IDENTIFICATION AND MAPPING.

4. SEE "CLASS A HIGH INTENSITY SOIL SURVEY" REPORT BY STATEWIDE SURVEYS DATED DECEMBER 2007.

5. REFERENCE IS MADE TO CLASS A HIGH INTENSITY SOIL MAP FOR JONES FARM SUBDIVISION BY PINE TREE ENGINEERING DATED 12-21-2007.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

SYMBOL LEGEND

- TP–R SOIL TEST PIT
- SOIL BOUNDARY
- SOIL SURVEY LIMIT
- SPOIL PILES
- VERY STONY AREA
- GRADED SURFACE

Class A High Intensity Soils Overlay

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

STATE OF MAINE · CHRISTOPHER S. BELANGER 9098 · LICENSED PROFESSIONAL ENGINEER
1-2-2026

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CONSULTING ENGINEERS
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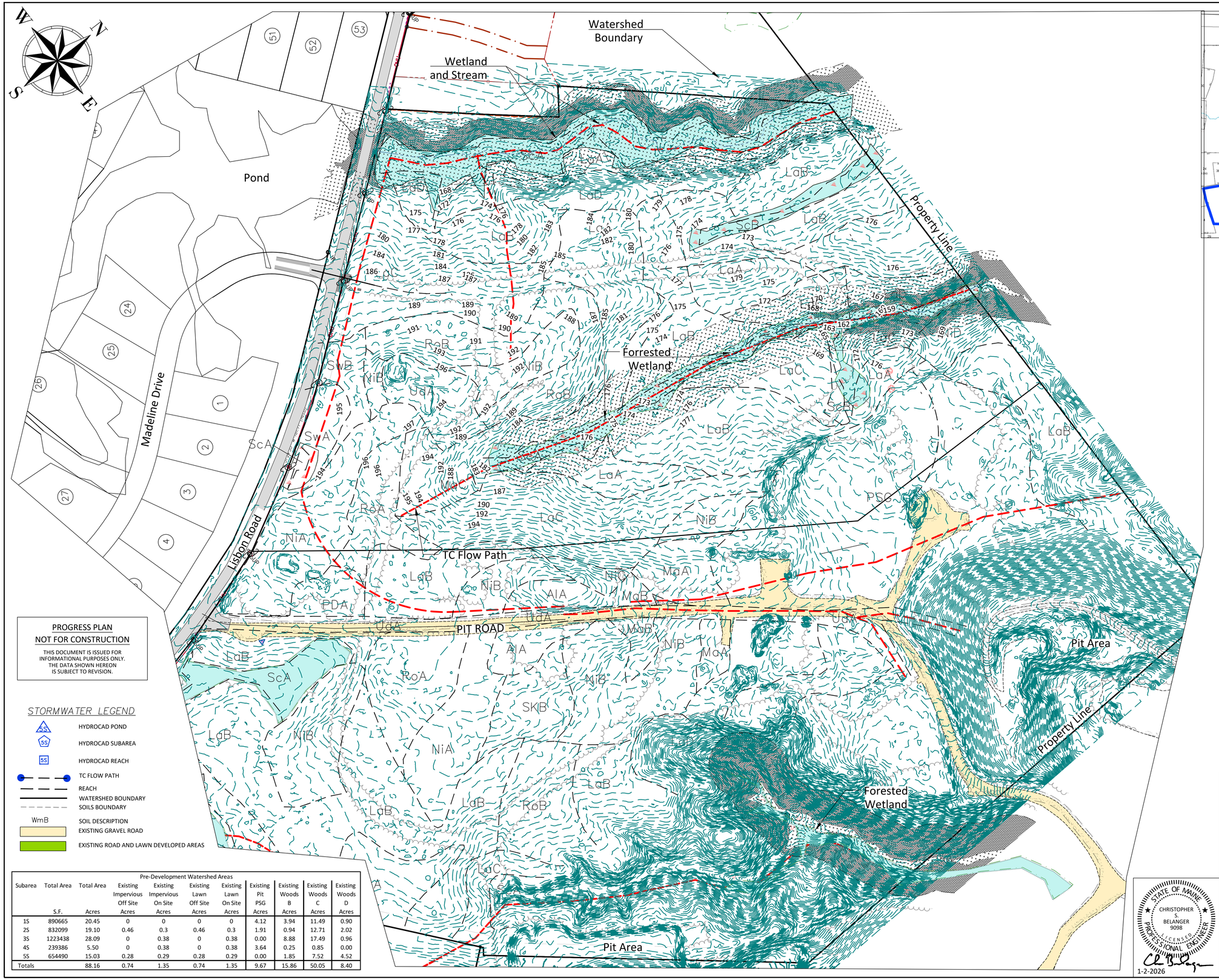
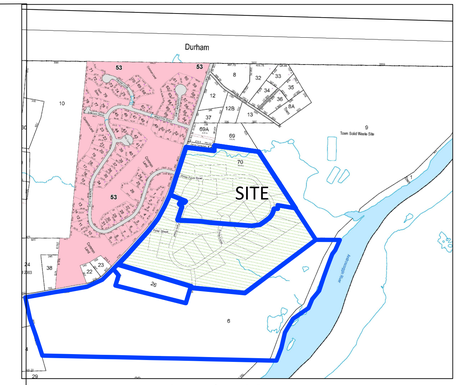
FIELD WK:	SCALE: 1"=100'	SHEET: Soils
DRN BY:	JOB #:	
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	





Location Map
Scale: 1"=1000'

FLOODING STANDARD RESULTS Reach 1R			
Storm	PRE C.F.S.	POST C.F.S.	DIFFERENCE %
2 YEAR	1.85	1.81	-2%
10 YEAR	8.17	7.83	-4%
25 YEAR	15.2	14.47	-5%
50 YEAR	22.58	24.12	6%
100 YEAR	31.33	33.12	5%

FLOODING STANDARD RESULTS Reach 2R			
Storm	PRE C.F.S.	POST C.F.S.	DIFFERENCE %
2 YEAR	5.24	3.16	-66%
10 YEAR	15.39	8.24	-87%
25 YEAR	25.1	13.09	-92%
50 YEAR	34.71	17.89	-94%
100 YEAR	45.73	23.38	-96%

FLOODING STANDARD RESULTS Reach 3R			
Storm	PRE C.F.S.	POST C.F.S.	DIFFERENCE %
2 YEAR	6.05	6.05	0%
10 YEAR	17.47	17.47	0%
25 YEAR	28.55	28.55	0%
50 YEAR	39.56	39.56	0%
100 YEAR	52.2	52.2	0%

FLOODING STANDARD RESULTS Reach 4R			
Storm	PRE C.F.S.	POST C.F.S.	DIFFERENCE %
2 YEAR	0.02	0.02	0%
10 YEAR	0.32	0.32	0%
25 YEAR	0.98	0.98	0%
50 YEAR	1.88	1.88	0%
100 YEAR	3.11	3.11	0%

FLOODING STANDARD RESULTS Reach 5R			
Storm	PRE C.F.S.	POST C.F.S.	DIFFERENCE %
2 YEAR	3.94	3.94	0%
10 YEAR	9.56	9.56	0%
25 YEAR	14.73	14.73	0%
50 YEAR	19.77	19.77	0%
100 YEAR	25.46	25.46	0%

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

PROGRESS PLAN
NOT FOR CONSTRUCTION

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STORMWATER LEGEND

- HYDROCAD POND
- HYDROCAD SUBAREA
- HYDROCAD REACH
- TC FLOW PATH
- REACH
- WATERSHED BOUNDARY
- SOILS BOUNDARY
- WmB — SOIL DESCRIPTION
- EXISTING GRAVEL ROAD
- EXISTING ROAD AND LAWN DEVELOPED AREAS

Pre-Development Watershed Areas

Subarea	Total Area S.F.	Total Area Acres	Existing Impervious Off Site Acres	Existing Impervious On Site Acres	Existing Lawn Off Site Acres	Existing Lawn On Site Acres	Existing Pit PSG Acres	Existing Woods B Acres	Existing Woods C Acres	Existing Woods D Acres
1S	890665	20.45	0	0	0	0	4.12	3.94	11.49	0.90
2S	832099	19.10	0.46	0.3	0.46	0.3	1.91	0.94	12.71	2.02
3S	1223438	28.09	0	0.38	0	0.38	0.00	8.88	17.49	0.96
4S	239386	5.50	0	0.38	0	0.38	3.64	0.25	0.85	0.00
5S	654490	15.03	0.28	0.29	0.28	0.29	0.00	1.85	7.52	4.52
Totals		88.16	0.74	1.35	0.74	1.35	9.67	15.86	50.05	8.40

STATE OF MAINE
CHRISTOPHER S. BELANGER
9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

Pre Development Drainage Plan

Jones Farm Residential Subdivision Project
0 Lisbon Road, Brunswick, Maine

Jones Farm Development LLC
Tax Map 1 Lot 70

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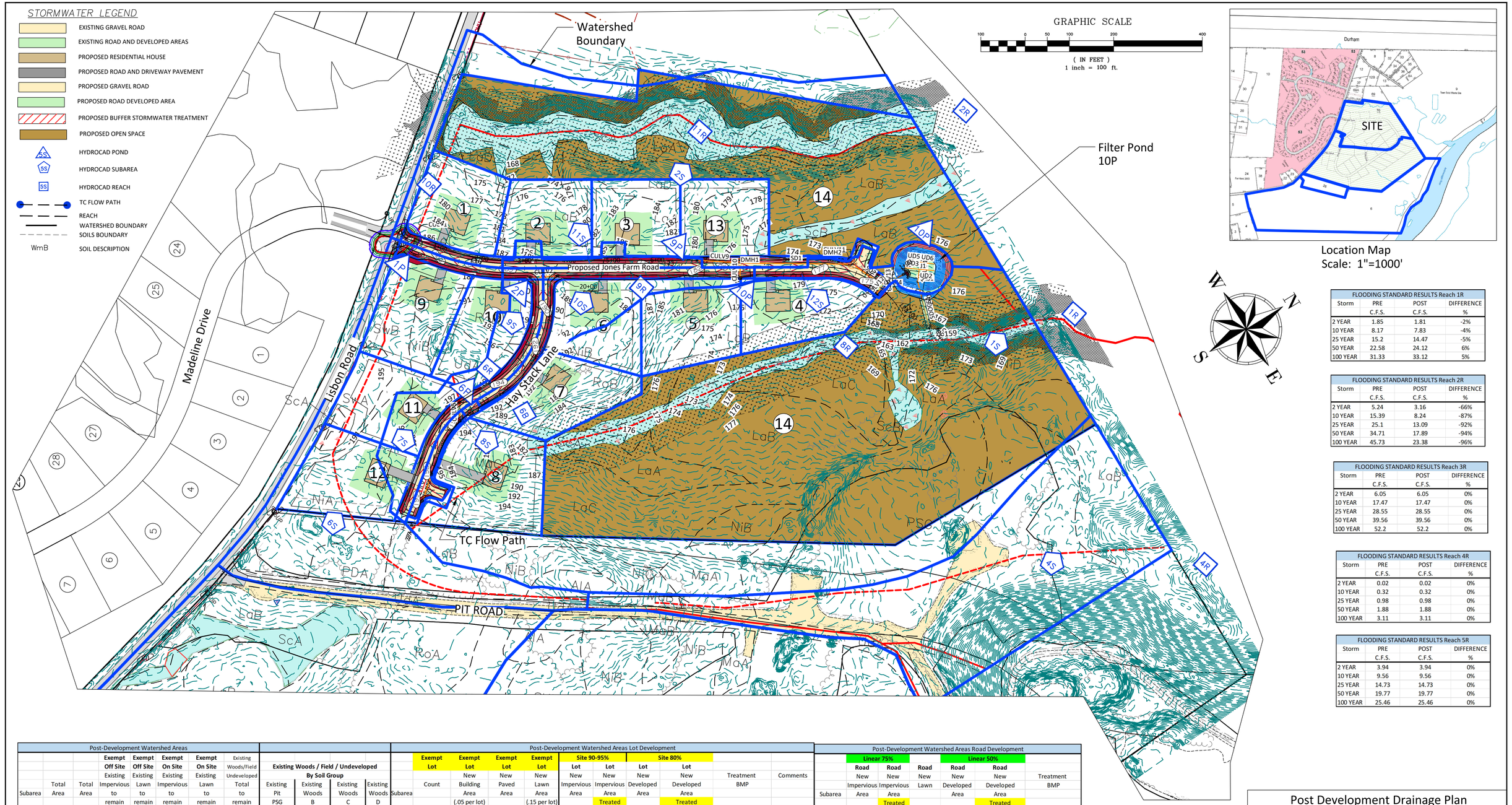
FIELD WK:	SCALE: 1"=100'	SHEET: Pre
DRN BY:	JOB #:	
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	



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Storm	PRE	POST	DIFFERENCE
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2 YEAR	1.85	1.81	-2%
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100 YEAR	45.73	23.38	-96%

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	C.F.S.	C.F.S.	%
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25 YEAR	28.55	28.55	0%
50 YEAR	39.56	39.56	0%
100 YEAR	52.2	52.2	0%

FLOODING STANDARD RESULTS Reach 4R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	0.02	0.02	0%
10 YEAR	0.32	0.32	0%
25 YEAR	0.98	0.98	0%
50 YEAR	1.88	1.88	0%
100 YEAR	3.11	3.11	0%

FLOODING STANDARD RESULTS Reach 5R			
Storm	PRE	POST	DIFFERENCE
	C.F.S.	C.F.S.	%
2 YEAR	3.94	3.94	0%
10 YEAR	9.56	9.56	0%
25 YEAR	14.73	14.73	0%
50 YEAR	19.77	19.77	0%
100 YEAR	25.46	25.46	0%

| Post-Development Watershed Areas | | |

Jones Farm Road

Lisbon Road

Hay Stack Lane

Watershed Boundary

Stormwater Filter Pond 10P

Post-Development Watershed Areas Road Development						
	Linear 75%			Linear 50%		
Subarea	Road New Impervious Area acres	Road New Impervious Area Treated acres	Road New Lawn Area acres	Road New Developed Area acres	Road New Developed Area Treated acres	Treatment BMP
1S	0.01	0	0.04	0.05	0	Zero Treatment
2S	0.12	0	0.16	0.28	0	Zero Treatment
3S	0	0	0	0	0	No Changes
4S	0	0	0	0	0	No Changes
5S	0	0	0	0	0	No Changes
6S	0.07	0	0.1	0.17	0	Zero Treatment
7S	0.08	0.08	0.1	0.18	0.18	Filter Pond 10P
8S	0.09	0.09	0.07	0.16	0.16	Filter Pond 10P
9S	0.09	0.09	0.11	0.2	0.2	Filter Pond 10P
10	0.19	0.19	0.26	0.45	0.45	Filter Pond 10P
11	0.1	0.1	0.13	0.23	0.23	Filter Pond 10P
12	0.13	0.13	0.44	0.57	0.57	Filter Pond 10P
Totals	0.88	0.68	1.41	2.29	1.79	
	>75%	77%	✓	>50%	78%	✓

Jones Farm Grassed Underdrained Soil Filter Pond Design Criteria - Hydrocad Pond 10P				
	acres	s.f.		
Impervious Area Draining to Pond	0.68	29620.8		
Lawn Area draining to Pond	1.11	48352		
Total Area	**1.79**	Acres < 2.5 ac.	✓	
Minimum Treatment Volume	1" X Impervious Area + 0.4" X Lawn		**4054**	c.f.
Pond Storage Volume Provided			**5257**	✓
Minimum Pond Surface Area	5% Impervious Area + 2% Lawn		**2448**	s.f.
Pond Surface Area Provided	< 3000 s.f.		**2629**	✓
Pre-Treatment	Sanded Area (acres)		0.54	acres
	10 storms per year			
	500 lbs per acre-storm			
	90 lbs/c.f.			
	Annual Sediment Loa		30.00	c.f.

STORMWATER TREATMENT LEGEND

- PROPOSED FILTER POND 10P IMPERVIOUS TREATMENT
- ZERO TREATMENT IMPERVIOUS AREA
- PROPOSED GRAVEL ROAD
- PROPOSED ROAD DEVELOPED AREA
- PROPOSED OPEN SPACE
- EXISTING GRAVEL ROAD
- EXISTING ROAD AND DEVELOPED AREAS
- PROPOSED RESIDENTIAL HOUSE
- PROPOSED ROAD AND DRIVEWAY PAVEMENT
- PROPOSED BUFFER STORMWATER TREATMENT

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

PROGRESS PLAN
NOT FOR CONSTRUCTION

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STATE OF MAINE
CHRISTOPHER S. BELANGER 9098
LICENSED PROFESSIONAL ENGINEER
1-2-2026

Road Water Quality Treatment Plan

Jones Farm Development
0 Lisbon Road, Tax Map 1 Lot 70

Ray Labbe and Sons

BELANGER ENGINEERING
CONSULTING ENGINEERS
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FIELD WK:	SCALE: 1"=60'	SHEET: WQ1
DRN BY:	JOB #:	
CH'D BY:	SS:	
DATE: 1-2-2026	FILE:	

Molnlycke Health Care

Brunswick Facility Expansion

EXTERIOR AXONOMETRIC

Town of Brunswick, Maine

Major Development Review
December 31, 2025
Project # 24040

Submitted by:
SMRT Architects and Engineers
207.772.3846
smrtinc.com

December 31, 2025

Matt James, Land Use Planner
Town of Brunswick | 85 Union Street | Brunswick, Maine 04011

Subject: Molnlycke Health Care Expansion, Major Development Review Application

Dear Mr. James,

On behalf of Molnlycke Health Care, SMRT is pleased to make this Major Development Review Final Plan submission for the proposed expansion of their light manufacturing facility in Brunswick Landing. SMRT has been retained and authorized by the Applicant to perform all work necessary to submit this application. Authorization accompanies this application.

We anticipate the following approvals related to site permitting:

Regulator	**Required Approval**
Town of Brunswick	Major Development Review
MaineDEP	Site Location of Development Act (SLDA)
Midcoast Regional Redevelopment Authority	Design Review Notice of Approval

The project is currently located within the Growth Industrial (GI) Zone. The Zone will change to GM7 as of December 31, 2025, and this application will reference ordinance requirements for the new Zone.

We look forward to working with you to make this project a success. If you have any questions do not hesitate to contact me.

Sincerely,

Wendy MacDaniels, EI (ME)
Civil Engineer

SMRT Architects & Engineers | 75 Washington Ave., Suite 3A | Portland, ME 04101
p 207.321.3894 | c 207.400.0638 | wmacdaniels@smrtinc.com

Matt James
December 18, 2025

Attachments:

- Application Form
- Agent Authorization Letter
- Location Map
- FIRMette
- MNAP Review Letter
- IFW Approval Letter
- IFW Map
- MHPC Findings Letter
- Existing Truck Circulation
- Proposed Truck Circulation
- Circulation Plan
- BTWD Ability to Serve Letter
- BSD Ability to Serve Letter
- Exterior Lighting Cut Sheet
- Stormwater Management Narrative
- Pollutant Impact Ranking Calculations
- Test Pit Data
- Stormwater inspection and Maintenance Plan
- Pre-development Hydrocad Report
- Pre-development Watershed Plan
- Post-development Hydrocad Report
- Post-development Watershed Plan
- Geotechnical Report
- NRCS Soils Map
- Soils Data
- Solar Study – Equinoxes
- Solar Study – Solstices
- Lease Agreement 2011
- Lease Amendment 2011
- Purchase and Sale Agreement
- SMRT Technical Ability
- Molnlycke Financial Capacity Letter
- Molnlycke Annual Report
- Abutter List

DEVELOPMENT REVIEW APPLICATION

1. Development Review application type (refer to **Appendix D**):

- [ ] **Minor Development Review**
- [ ] Major Development Review: **Sketch Plan**
- [x] Major Development Review: **Final Plan**

2. Project Name: Molnlycke Health Care Facility Expansion

3. Project Applicant

Name: Molnlycke Manufacturing US, LLC (Molnlycke Health Care)
Address: 192 Admiral Fitch Avenue
Brunswick, Maine 04011
Phone Number: 207-607-4947
Email: nicholas.darak@molnlycke.com

4. Property Owner (name on deed)

Name: Molnlycke Manufacturing US, LLC
Address: 192 Admiral Fitch Avenue
Brunswick, Maine 04011
Phone Number: 207-607-4900
Email: dino.desanctis@molnlycke.co.

5. Authorized Representative

Name: Melissa Flynn / SMRT, Inc.
Address: 75 Washington Avenue, Suite 3A
Portland, Maine 04101
Phone Number: 978-289-6037
Email: mflynn@smrtinc.com

6. List of Design Consultants. Indicate the registration number, address and phone number, email for any additional project engineers, surveyors, architects, landscape architects or planners:

1. Melissa Flynn, SMRT, 75 Washington Ave, Suite 3A, Portland, ME, Civil Engineer, Maine License #15831
2. Evan Walker, S.W. Cole, 286 Portland Road, Gray, ME, Geotechnical Engineer, Maine License #12847
3. Kenneth Costello, SMRT, 75 Washington Ave, Suite 3A, Portland, ME, Landscape Architect, Maine License #5058
4. Kevin Clark, Sitelines, 119 Purinton Road, Brunswick, ME, Land Surveyor, Maine License #2245

7. Physical location of property: 192 Admiral Fitch Avenue, Brunswick, Maine

8. Lot Size: 9.92 acres

9. Zoning District: GI - Growth Industrial (current); GM7 - Growth Mixed-Use (per recent zoning change)

10. Overlay Zoning District(s): N/A

11. Indicate the interest of the applicant in the property and abutting property. For example, is the applicant the owner of the property and abutting property? If not, who owns the property subject to this application? If property owner is an organization, what is the applicant's affiliation?

The applicant leases Lot 16 from the Midcoast Regional Redevelopment Authority and will close on Lot 16B on January 31, 2026.

The applicant has operated a manufacturing facility on the two lots since 2013.

12. Assessor's Tax Map 40 Lot Number 294, 294-1 of subject property.

13. Brief description of proposed use/subdivision: The applicant operates a light manufacturing facility and is proposing to expand operations.

14. Describe specific physical improvements to be done: The applicant proposes to expand their manufacturing facility with a 78,000 square foot addition and expanded parking, pedestrian and vehicle circulation, stormwater management systems, and extended utilities.

Property Owner Signature: Jake Levesque Date: 12-18-25

Property Owner Name Printed:
Jake Levesque - Director of Innovation and Development

Applicant Signature: DRDeSanctis Date: 12-18-25

Applicant Name & Title Printed:
Dino R. DeSanctis-Finance Director Molnlycke Manufacturing US, LLC

REQUIREMENTS FOR FINAL PLAN & MINOR DEVELOPMENT REVIEW APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Final Plan	Minor	Staff
General	Application form and fee	X		
	Name of development	X		
	Existing zoning district and overlay designations	X		
	Location map (Project property and surrounding area for context)	X		
	Location of features, natural and artificial, such as water bodies, wetlands, streams, important habitats, vegetation, railroads, ditches and buildings	X		
	Documentation of Right, Title and Interest	X		
	Draft performance guarantee or conditional agreement	X		
	Disclosure of permits required (federal, state, local); if permit has been granted or application submitted, provide a copy	X		
	Drafts of legal documents appropriate to the application, including: deeds, easements, conservation easements, deed restrictions or covenants, home/property owners association declarations and by-laws, and such other agreements or documents as are necessary to show the manner in which common areas will be owned, maintained, and protected	X		
	Narrative including Chapter 4 development standards and any applicable overlay standards and how they are being addressed	X		
	Written response to all Staff Review Committee comments received	P		
Survey, Topography, & Existing Conditions	Scale, date, north point, and area	X		
	A survey submitted by a professional land surveyor with a current license by the State of Maine Board of Licensure for Professional Surveyors. Surveys must be stamped for final plan approval.	X		
	Boundaries of all lots and tracts with accurate distances and bearings, locations of all permanent monuments on the property identified as existing or proposed.	X		
	Location of existing utilities; water, sewer, electrical lines, and profiles of underground facilities	X		
	Existing easements associated with the development	N/A		
	Existing locations of sidewalks	X		
	Approximate locations of dedicated public open space, areas protected by conservation easements and recreation areas	N/A		
	When applicable, a table indicating the maximum number of lots permitted based upon the applicable dimensional requirements, the number of lots proposed, and the number of lots permitted to be further subdivided.	N/A		
	Building envelopes showing acceptable locations for principal and accessory structures, setbacks and impervious coverage	X		
	Existing location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability	X		
	Topography with contour intervals of not more than two (2) feet	X		
	A delineation of wetlands, floodplains, important habitats, and other environmentally sensitive areas	N/A		
	A Medium Intensity Soil Survey, available from the Cumberland County Soil and Water Conservation District. The Planning Board may require a Class A (high intensity) Soil Survey, prepared in accordance with the standards of the Maine Association of Professional Soil Scientists, if issues of water quality, wetlands or other natural constraints are noted.	X		

REQUIREMENTS FOR FINAL PLAN & MINOR DEVELOPMENT REVIEW APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Final Plan	Minor	Staff
Infrastructure - Proposed	Name, location, width of paving and rights-of-way, profile, cross-section dimensions, curve radii of existing and proposed streets; profiles of center-lines of proposed streets, at a horizontal scale of one (1) inch = 50 feet and vertical scale of one (1) = five (5) feet, with all evaluations referred to in U.S.G.S. datum	N/A		
	Proposed easements associated with the development	N/A		
	Kind, location, profile and cross-section of all proposed drainage facilities, both within and connections to the proposed development, and a storm-water management plan in accordance with Section 4.5.4	X		
	Location of proposed utilities; water, sewer, electrical lines, and profiles of underground facilities. Tentative locations of private wells.	X		
	Proposed location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability	X		
	Proposed locations, widths and profiles of sidewalks	X		
	Locations, dimensions, and number of proposed vehicular and bicycle parking spaces, including proposed shared parking arrangement if applicable.	X		
	Grading, erosion control, and landscaping plan; proposed finished grades, slopes, swells, and ground cover or other means of stabilization	X		
	Storm water management plan for the proposed project prepared by a professional engineer	X		
	The size and proposed location of water supply and sewage disposal systems	X		
	A statement from the General Manager of the Brunswick Sewer District as to conditions under which the Sewer District will provide public sewer and approval of the proposed sanitary sewer infrastructure	X		
	A statement from the General Manager of the Brunswick and Topsham Water District as to conditions under which public water will be provided and approval of the proposed water distribution infrastructure	X		
Proposed Development Plan	Lighting plan showing details of all proposed lighting and the location of that lighting in relation to the site	X		
	Reference to special conditions stipulated by the Review Authority	P		
	Proposed ownership and approximate location and dimensions of open spaces for conservation and recreation. Dedicated public open specs, areas protected by conservation easements, and existing and proposed open spaces or recreation areas and potential connectivity to adjoining open space.	N/A		
	When applicable, a table indicating the maximum number of lots permitted based upon the applicable dimensional requirements, the number of lots proposed, and the number of lots permitted to be further subdivided.	N/A		
	Building envelopes showing acceptable locations for principal and accessory structures, setbacks and impervious coverage	X		
	Disclosures of any required permits. If a permit has been granted or an application for one submitted, provide a copy of the permit application.	X		
	A statement from the General Manager of the Brunswick and Topsham Water District regarding the proposed development if located within an Aquifer Protection Zone	N/A		
	A plan of all new construction, expansion and/or redevelopment of existing facilities, including type, size, footprint, floor layout, setback, elevation of first floor slab, storage and loading areas	X		

REQUIREMENTS FOR FINAL PLAN & MINOR DEVELOPMENT REVIEW APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Final Plan	Minor	Staff
Proposed Development Plan	An elevation view of all sides of each building proposed indicating height, color, bulk, surface treatment, signage and other features as may be required by specific design standards [Cooks Corner or Village Review]	X		
	A circulation plan describing all pedestrian and vehicle traffic flow on surrounding road systems	X		
	Traffic: A trip generation report	X		
	A site landscaping plan indicating grade change, vegetation to be preserved, new plantings used to stabilize areas of cut and fill, screening, the size, locations and purpose and type of vegetation	X		
	Number of lots if a subdivision	N/A		
	A plan showing all ten (10) inch caliper trees to be removed as a result of the development proposal	N/A		
	All applicable materials necessary for the Review Authority to review the proposal in accordance with the criteria of Chapter 5.	X		
	Any additional studies required by the Review Authority	P		

Mölnlycke®

August 20, 2025

Re: **Agent Authorization**
Mölnlycke Manufacturing Brunswick Landing Expansion
Brunswick, ME

To whom it may concern:

Mölnlycke Manufacturing US, LLC (the "Company") is in the process of expanding is current factory (the "Site") located in the state of Maine, Cumberland County, on Admiral Fitch Avenue, Brunswick, ME. On behalf of the Company, I hereby authorize SMRT Architects and Engineers (the "Architect") to assist as agent for the purpose of obtaining permits and approvals related to the expansion of the Site. This authorization is effective as of the date of this correspondence and will remain valid until revoked in writing.

If you have any questions or if I can be of any further assistance, please contact me.

Best Regards,

Chris Biddle
General Manager
Mölnlycke Manufacturing US, LLC
cbiddle@molnlycke.com

Property Development Standards

Background:

The existing Mölnlycke Health Care production and warehouse facility sits on a 5.94-acre parcel on the Brunswick Landing campus, formerly the Brunswick Naval Air Station, in Brunswick, Maine. The property is currently within Brunswick's Growth Industry Zoning District (GI) (Map 040, Lots 294-000 (Lot 16) and 294-001 (Lot 16B)). A zoning change is being undertaken that will result in the property falling within the Growth-Mixed Use 7 (GM7) zone. The zoning change is expected to take effect on December 31, 2025 The proposed development will comply with all applicable standards of Chapter 4 of the Brunswick Zoning Ordinance and align with the GM7 designation. Section 3.2 of the ordinance, Growth Area Permitted Use Table, indicates Class II Industrial uses are permitted within GM7. Dimensional standards per Section 4.2.3, Growth Area Dimensional and Density Standards, are shown below:

Space & Bulk Standard	Requirement	Proposed (Lots 16 and 16b)
Minimum Lot Size (sf)	7,000	432,115
Minimum Lot Width (ft)	n/a	553
Front Setback (ft)	0	94
Rear Setback (ft)	0	21
Side Setback (ft)	0	61
Maximum Impervious Surface (%)	100	71
Minimum Building Height (ft)	24	21.5
Maximum Building Height (ft)	50	42
Maximum Building Footprint per Structure (sf)	n/a	n/a

The Town is currently assessing the minimum building height requirement and expects to revise this standard in early 2026. The Town is considering an average height standard to compare required and proposed minimums. This change would raise the proposed minimum height to 32 feet, meeting the minimum requirement.

The existing parcel, Lot 16 (5.94 acres), is surrounded by Seahawk Avenue to the northwest, Gerzofsky Way to the northeast, Admiral Fitch Drive to the southeast, and an adjacent parcel, Lot 16B (3.98 acres), to the southwest. See **Attachment 1 f**or location map. The Midcoast Regional Redevelopment Authority (MRRA) currently owns both lots. Molnlycke currently leases Lot 16 and intends to purchase Lot 16B in January of 2026. Lot 16B includes a portion of Pelican Street, which will become private access for the expanded property. Pelican Street west and southeast of the site will remain a public way.

The existing facility, entirely on Lot 16, comprises a 63,786 square foot (SF) building with four truck loading docks and an enclosed at-grade loading area (2 bays), both with paved truck access from Seahawk Avenue. The facility was constructed between 2011 and 2013. The main entrance faces Gerzofsky Way. An employee parking lot is southeast of the building, with primary access via Gerzofsky Way and secondary access via Admiral Fitch Avenue through an unstriped pavement area west of the lot. The finished floor elevation is 75.50 feet. Survey was conducted using horizontal datum NAD83 and vertical datum NAVD88.

The remainder of Lot 16B holds the remnants of a parking lot, concrete slabs, abandoned steam lines, and underground utilities, some of which served an unused 1,585 SF building (Naval Building 647) located approximately 150 feet southwest of the existing facility. An earth-covered bunker surrounded by chain link fence sits in the southwest corner of Lot 16B, at the intersection of Pelican Street and Admiral Fitch Avenue. The bunker has historical significance for the U. S. Navy and will remain undisturbed.

Due to the history of the site, it is believed that unknown buried structures and materials may be found during site preparation. A Finding of Suitability to Transfer (FOST) was prepared by the Department of the Navy in July of 2011 to report on soil conditions for potential reuse sites. The original building site was covered by the report and referred to as EDC-2. A second FOST was prepared in March of 2014 which includes the remaining portion of the current site (EDC-15 and EDC-35). The later FOST noted that liquid storage tanks existed on the site at the time of Naval operations and Naval Building 647 was used for the handling and disposal of pesticides.

Natural and Historic Areas:

The site is predominantly flat. Grade rises from the base of the existing bunker southwest to the northeast corner of the site approximately 2 feet, with entry door grades built up to meet the finished floor elevation. The site is in an area of minimal flood hazard. See **Attachment 2,** FEMA FIRMette.

No natural resources are found on the site. On-site soils generally consist of a surficial layer of topsoil over uncontrolled fill. The uncontrolled fill is loose to medium dense sand with varying portions of silt, gravel, cobbles, organics, and rubble including concrete, rebar, pipe, wire, bricks, glass, plastic, and other debris. It is believed that varying depths of uncontrolled fill may be found, given the former usage of the site. Testing revealed uncontrolled fill about 5 feet thick at the test sites.

Below the uncontrolled fill, the test sites contained layers of buried topsoil and organics. Ten to 35 feet below these top layers are glacial outwash sands, glaciomarine silty clay, silty sand, and clayey silt. Refusal surfaces were met at depths ranging from 42 to 103 feet below finished surface. The soil series is generally Adams, with areas of soils that do not match a best-fit soil series. The Geotechnical Report, prepared by S.W. Cole and dated September 9, 2025, is included with the Stormwater Report.

The site is subject to Navy regulations regarding soil disposal. Soil will be retained on-site to the extent possible. Procedures for off-site soil disposal will be followed, including soil testing and disposal in specialized landfills. Coordination with the Navy is currently underway to ensure waste soil is handled correctly.

Long-term groundwater information is not available. Saturated soils were found in the tested areas at depths ranging from 9 to 10 feet below grade. Groundwater likely becomes perched in the uncontrolled fill. No groundwater extraction is proposed for the project.

Determinations have been made by the Maine Department of Agriculture, Conservation & Forestry, the Department of Inland Fisheries & Wildlife, and the Maine Historic Preservation Commission that no regulated natural or historic areas exist on site. Determination letters from each agency are included as **Attachments 3 through 6.**

Property Development:

The development will be constructed in accordance with the Maine Department of Environmental Protection' s Best Management Practices. Erosion and sediment control measures are shown on sheets CE001, CE101, and CE501 in the drawing set.

General Layout

Mölnlycke's aim for the project is to expand and diversify their production. To that end, the firm is adding a new production foam line, expanding warehouse space, and furthering sustainability goals. The proposed addition (77,952 SF) will connect to the existing building at the westernmost loading dock. The addition will run parallel along Seahawk Avenue toward Pelican Street and will include four new loading bays on the southeast wall and a new administrative space at the south wall of the existing building. Floor plans are included in the drawing set.

Vehicle Circulation and Parking

The existing parking lot, located east of the existing building and parallel to Admiral Fitch Avenue, has 106 striped parking spaces and approximately 34,000 SF of unstriped asphalt in poor condition. There are 5 ADA spaces and 4 EV spaces in proximity to the main building entrance. West of the building along Seahawk Avenue are loading docks and a paved truck yard of approximately 20,000 SF. Truck deliveries currently average 5 trucks per day, Monday through Friday, typically between 7 am and 5 pm. Existing circulation patterns are shown in **Attachment 7.**

First shift employee traffic typically peaks between 5 am and 6 am. The shift change occurs at 3 pm and second shift leaves the facility at 1 am. Office personnel are typically on site between 7 am and 5 pm. Currently, approximately 95 staff are on site at first shift and approximately 165 are on site across all shifts. Projected employee traffic is 109 staff for first shift and an additional 56 at shift change. The Owner is preparing for future growth and projects 205 employees at peak operations.

The passenger vehicle parking lot entrances will be provided with new vehicle control gates. The primary entrance on Gerzofsky Way will have motion-activated gate arms for visitor-only access. The existing secondary entrance on Gerzofsky Way will be designated employee-only exiting with a motion-activated gate. Three existing parking spaces near Gerzofsky Way will be striped to accommodate the control gates. The main employee entrance will be at the Admiral Fitch curb-cut, with badge entry access and motion-activated exiting. The new control gates will be connected to the building's access control system to manage passenger car access to parking lots.

The easterly parking lot will be expanded to accommodate 98 additional spaces for a total of 204 spaces. An additional 8 spaces will be provided to the southeast of the building addition. This number covers the Town of Brunswick parking requirements and the Owner's need for more employee and visitor parking. The existing unassigned pavement at the southeast corner of the lot will be reconstructed to make room for the new parking and expand westerly toward the addition. The existing curb-cut at Admiral Fitch Avenue will be reconstructed to provide access to the lot and provide circulation for trucks accessing the new loading docks.

A paved truck yard will span the new loading-dock area and include a curb-cut on Pelican Street. Projected truck traffic increases are minimal. An average of 1 additional truck per day for the first 3 years and 2 additional trucks per day in 5 years is expected. Peak truck delivery is expected to add 5 trucks per day for a total of 10 trucks per day 7 years after the start of operations. Proposed truck circulation (arrival and departure) is shown in **Attachments 8a** and **8b.** General circulation patterns are demonstrated in **Attachment 8c**, Circulation Plan.

Trip Generation

As noted in this narrative, the proposed expansion includes additional warehouse and production space. The facility is currently staffed in two shifts with a total employee count of 165. The proposed expansion increases the staff by 40 employees for a total employee count of 205.

The following existing and trip generation estimates are based on the Institute of Traffic Engineers (ITE) Trip Generation Manual, 12th Edition (August 2025).

Trip Generation Estimate

	Existing	Proposed	Change
# Employees	165	205	**40**
AM Peak Hour Trips	59	74	**15**
PM Peak Hour Trips	61	76	**15**
Daily Trips	441	547	**106**

The total daily trips to the site increased by 106 trips. There is an increase of 15 trips in the morning peak hour and 15 trips in the evening peak hour. The additional 15 trips in the AM and PM Peak Hours should not have a significant impact on the adjacent roadway network and does not trigger a Traffic Movement Permit.

Pedestrian Access and Amenities

Foot traffic can access the site from sidewalks on Seahawk Avenue and Admiral Fitch Avenue. Pelican Street and Gerzofsky Way have no sidewalks. The sidewalks will be assessed by the Town Engineer to determine if they meet current standards. Sidewalk repair is required where new utilities cross into Seahawk Avenue and to provide ADA access at the Admiral Fitch curb-cut. If stipulated by the Town Engineer, both sidewalks abutting the properties will be reconstructed.

Landscaped plaza areas are located at the southeast corner of the existing building, near the main entrance on Gerzofsky Way. Two ribbon-style bicycle racks that can accommodate 22 bicycles are next to a secondary building entrance on the southwest end of the parking lot. The existing bicycle racks meet the ordinance requirement and will remain in place.

A 9,800 square foot outdoor wellness and gathering space for employee use will be provided on the southeast side of the building, near the expanded parking area. Improvements will include hardscape

paving, seating, shade structures, trash receptacles and other portable recreation amenities. The area will include landscaping to enhance user experience and to screen the area from the parking lot.

The facility's trash compactor will be relocated to the south end of the addition, with paved truck access from Pelican Street.

Utilities

Existing utility locations will be field-verified prior to the start of construction. Underground utilities that serve off-site uses run across the site and will require rerouting to maintain service. Rerouting will require trenching in Seahawk Avenue and Pelican Street.

Domestic Water: An 8" domestic water service crosses Gerzofsky Way, runs across the existing loading area along the west face of the building, and runs west across adjacent Lot 16B. This service appears to serve other sites. A 4" tee from this service enters the existing building at the northeast corner. New domestic water connections will be needed for toilet rooms in the addition. New service will connect to a new 12" main in Seahawk Avenue. The new main will connect to an existing 8" main in Pegasus Street to the north of the site. An authorization letter from the Brunswick and Topsham Water District is included as **Attachment 9.**

Fire Service: A 10" high-pressure line enters the northeast corner of the existing building from a high-pressure fire service in Seahawk Avenue. Hydrants are located at the southwest corner of adjacent Lot 16B, near the existing loading dock off Seahawk Avenue, and across Seahawk Avenue near a public parking area. The existing 10" fire service will be retrofitted to accommodate the addition. A new pump house will connect to the existing fire service. The service will be disconnected from the high-pressure main and connected to the new 12" main in Seahawk Avenue.

Sanitary Sewer: A 6" sanitary service exits the existing building to Gerzofsky Way. Naval Building 647 is served by a 36" sanitary line running to Pelican Street and further to the west. This service is not currently active. Sanitary service is also located in Seahawk Avenue and once served previously removed buildings. A Brunswick Naval Air Station utility map indicates sanitary is available in Pelican Street and connected to the Seahawk Avenue system. Existing sanitary sewer infrastructure is located on the west side of Admiral Fitch Avenue but has been taken out of service. Piping is filled with concrete.

A new 6" sanitary sewer service will exit at the utility room in the northwest corner of the addition and connect to existing service in Seahawk Avenue. The system will need to be extended to the existing manhole further west on Seahawk. A second 6" sanitary service will exit the addition at the south wall and connect to a new manhole in Pelican Street. New piping will connect to the system in Seahawk Avenue. New toilet rooms are being added at the southeast corner adjacent to the addition. A new 6" service will exit the addition on the east wall and connect to existing 6" service in Gerzofsky Way. See **Attachment 10** for an authorization letter from the Brunswick Sewer District.

Electrical Service: Underground service enters the site from a utility pole on the east corner of Gerzofsky Way and Seahawk Avenue. A generator and transformer are located east of the existing building. A new electrical service will be connected to the existing service in Seahawk Avenue. A new transformer and a new generator will be located to the west of the proposed addition. A mobile generator docking station will be mounted on the west side of the building.

Lighting: The existing parking lot is lit by poles in the lot islands. Power is connected to an electrical box on the south wall of the existing building. New light poles will be required in the extended parking lot. The addition will include wall-pack lighting at doorways and as needed around the perimeter. Exterior lighting fixtures will match existing fixtures. A light fixture cut sheet is included as **Attachment 11**.

Communications: Communications conduit enters the existing building at the southwest corner and runs from the south side of Admiral Fitch Avenue. No new communications connections are proposed.

Steam and Unknown Underground Lines: Abandoned steam lines are located west of the existing building. The survey and previous site plans note the existence of unknown underground piping within the proposed development area. All steam service will be removed or abandoned in place.

Gas: A gas line from the south and crossing Admiral Fitch Avenue enters the site and connects to Naval Building 647. This service will be abandoned and removed or left in place as necessary. A gas line runs along Gerzofsky Way and enters the existing facility in the northeast corner of the building. No new gas service is proposed.

Stormwater

The site has an extensive stormwater piping system, crossing the site from Gerzofsky Way to Pelican Street and beyond. Piping that runs along the north and west sides of the existing building drains to Atlantic Avenue, segments of Pelican Street and Seahawk Avenue, the loading dock area, and the existing roof. The piping is 18" reinforced concrete pipe (RCP). This piping system connects in Orion Street. Several drain manholes and catch basins connect the pipes within the system. Underdrained bioretention cells are located to the north of the truck yard and between the parking lot and Admiral Fitch Avenue. Seahawk Avenue runoff is collected near the Seahawk Avenue curb-cut and enters the site via piping to a series of structures. The system crosses the site north to south, veering east around Naval Building 647, and southerly to Pelican Street. The existing building roof outlets directly into the municipal system. The stormwater outfall for the Brunswick Landing area including the site is approximately 2,500 feet south, off Orion Street.

Stormwater management standards will be implemented to address additional impervious areas (building addition, pavements, etc.). New pavement and roof runoff will be directed to underground storage systems below the new pavement and to new bioretention cells. These treatment features will address the stormwater quality and quantity requirements.

The existing stormwater system that crosses the property will be rerouted into Seahawk Avenue and Pelican Street and reconnect to the existing system which outlets west from Pelican Street. See the attached Stormwater Report and associated documents for stormwater design.

Stormwater storage and treatment measures are designed to meet the Chapter 500 rules of Maine DEP's Stormwater Management Law. **Attachments 12a through 14c** detail the stormwater design.

Landscaping

Mature plantings associated with the existing building and bioretention cells are located primarily on the perimeter of the site on Gerzofsky Way, Admiral Fitch Avenue, and along northwest portion of Seahawk Avenue All will remain in place. Tree removal will be limited to the groupings of arborvitae on Lot 16B.

The planting design for the new building addition is intended to complement the architecture and associated hardscape elements while creating a cohesive and welcoming environment. The design emphasizes sensitivity to the surrounding context by minimizing visual impacts on abutting properties and preserving existing vegetation wherever possible.

The planting strategy incorporates a mix of native species that provide seasonal interest, ecological benefits, and long-term sustainability. Street trees and parking lot plantings feature medium to large canopy trees to offer shade, reduce heat island effects, and enhance the pedestrian experience. Around the employee patio and adjacent open spaces, the design introduces a variety of ornamental shrubs, perennials, and groundcovers to create a comfortable and visually appealing setting for outdoor use throughout the year.

Screening plantings are strategically placed to soften views of mechanical and electrical equipment, ensuring functional areas remain unobtrusive. All plant selections are chosen for their adaptability to local conditions, durability, and contribution to biodiversity. The overall planting design reflects a balance between aesthetics, environmental stewardship, and the operational needs of the facility.

Architectural Compatibility:

The building design follows MRRA guidelines and is compatible with the existing Molnlycke facility. MRRA review is currently underway. New signage will include wayfinding signs located in the parking lot and at the new loading dock entrance. A 147 SF building-mounted sign is proposed for the southeast corner of the addition. Permits for signage will be requested as needed.

Sustainability:

Several sustainability measures will be implemented in the project.

1. The roof and wall assemblies exceed the code's minimum R-values by greater than 133%.
2. Extensive solar energy generation will lessen the impact on the regional electric grid.
3. Low energy mechanical systems with high efficiency heat recovery from process loads will be installed. The systems will precondition and optimize HVAC performance.

Attachments 15a and **15b** demonstrate solar effects for fall and spring equinoxes and solstices.

Construction Plan:

Anticipated construction start for the building addition and associated site improvements is June of 2026. The work will be done in one phase with anticipated occupancy in early August of 2028. Final paving is expected in Spring of 2027. The existing facility will remain operational during construction. Utility relocation within Seahawk Avenue will be coordinated with MRRA to limit traffic disruption.

Proposed Construction Schedule:

- Site Work / Utilities — June 2026 – January 2027
  - Enabling/Mobilization/Erosion Control — June 2026
  - Rerouting water line work — July 2026
  - New electrical work — September 2026
  - New fire / domestic water line work — July 2026 – August 2026
  - New sanitary work — August 2026
  - New storm drainage work — August 2026 – October 2026
  - Site Finishes / Paving — February 2027– May 2027
- Foundations / Underground MEP / Slab on Grade — June 2026 – November 2026
- Superstructure / Slab on Deck — August 2026 – December 2026
- Building Envelope — August 2026 – February 2027
- Interior Work / Commissioning — December 2026 – October 2027

Financial and Technical Capacity / Right, Title, and Interest:

The applicant has adequate financial and technical capacity to meet Chapter 4, Property Development Standards. See **Attachments 16a through 19** for financial, technical, and right, title, and interest documentation. **Attachment 20** lists abutters within a 300-foot radius of the property.

Drawings:

The following drawings are included with this application:

GI001	COVER SHEET
C-001	SITE NOTES & LEGENDS
	LEASE RETRACEMENT & TOPOGRAPHIC SURVEY
C-100	CONTEXT PLAN
CD101	EXISTING CONDITIONS & DEMOLITION PLAN
CP101	SITE LAYOUT PLAN
CP501	SITE LAYOUT DETAILS
CP502	SITE LAYOUT DETAILS
CE001	EROSION & SEDIMENT CONTROL NOTES
CE101	EROSION & SEDIMENT CONTROL PLAN
CE501	EROSION & SEDIMENT CONTROL DETAILS
CG101	GRADING & DRAINAGE PLAN
CG102	SPOT GRADE PLAN
CG501	GRADING & DRAINAGE DETAILS
CG502	GRADING & DRAINAGE DETAILS
CG503	GRADING & DRAINAGE DETAILS
CG504	GRADING & DRAINAGE DETAILS
CG505	GRADING & DRAINAGE DETAILS
CG601	DRAINAGE SCHEDULES

CU101	UTILITY PLAN
CG102	WATER MAIN PLAN
CU501	UTILITY DETAILS
LP101	PLANTING & LANDSCAPING PLAN
LP501	PLANTING DETAILS, NOTES, & SCHEDULE
ES101	ELECTRICAL SITE PLAN
A101	FLOOR PLAN – LEVEL 1
A102	FLOOR PLAN – LEVEL 2
A150	ROOF PLAN
A200	EXTERIOR ELEVATIONS
A800	RENDERINGS

Regulatory Requirements:

Midcoast Regional Redevelopment Authority (MRRA) - Property within Brunswick Landing is administered by MRRA. Development must meet MRRA design guidelines in addition to the Town of Brunswick requirements. Submission was made to MRRA on December 4, 2025. Upon acceptance of the submission, MRRA will issue a Notice of Approval. The Notice will be submitted to the Town upon receipt.

Town of Brunswick - The proposed building addition and site improvements will require a Major Development Review and Planning Board approval.

Maine Department of Environmental Protection (MaineDEP) - Properties that create more than 3 acres of impervious surface must obtain a Site Location of Development Act (SLDA) permit. MRRA currently holds SLDA permit #L-20116-26-O-B covering Lot 16 (2010) and amended in 2012 (#L-20116-26-W-M). The current permit will be amended via a Major Amendment. Submission was made to MaineDEP on October 31, 2025.

MRRA
Midcoast Regional Redevelopment Authority

January 5th, 2026

Molnlycke Health Care
192 Admiral Fitch Ave.
Brunswick, ME 04011

To Whom it May Concern,

The Midcoast Regional Redevelopment Authority (MRRA) has reviewed the design for the new Molnlycke Health Care facility expansion designed and submitted by SMRT. Our review has determined that the proposed design is consistent with MRRA's Design Guidelines and meets all minimum standard requirements. The exterior building design is attractive, fits cohesively with the architectural elements of the Landing, remains consistent with Molnlycke's existing footprint and incorporates high quality and durable material.

If you have any questions or need any additional information, please contact me at 207-798-6512.

Sincerely,

Daniel B. Stevenson,

Executive Director

Daniel B. Stevenson

Cc: Town of Brunswick

Brunswick Landing Maine's Center for Innovation | Brunswick Landing Water Utility | Brunswick Landing Electric Utility | Brunswick Executive Airport | You can make it here. Tech Place

ATTACHMENT 1

LOCATION MAP

Molnlycke Health Care - Brunswick Landing

Brunswick, Maine

DECEMBER 2025

SMRT

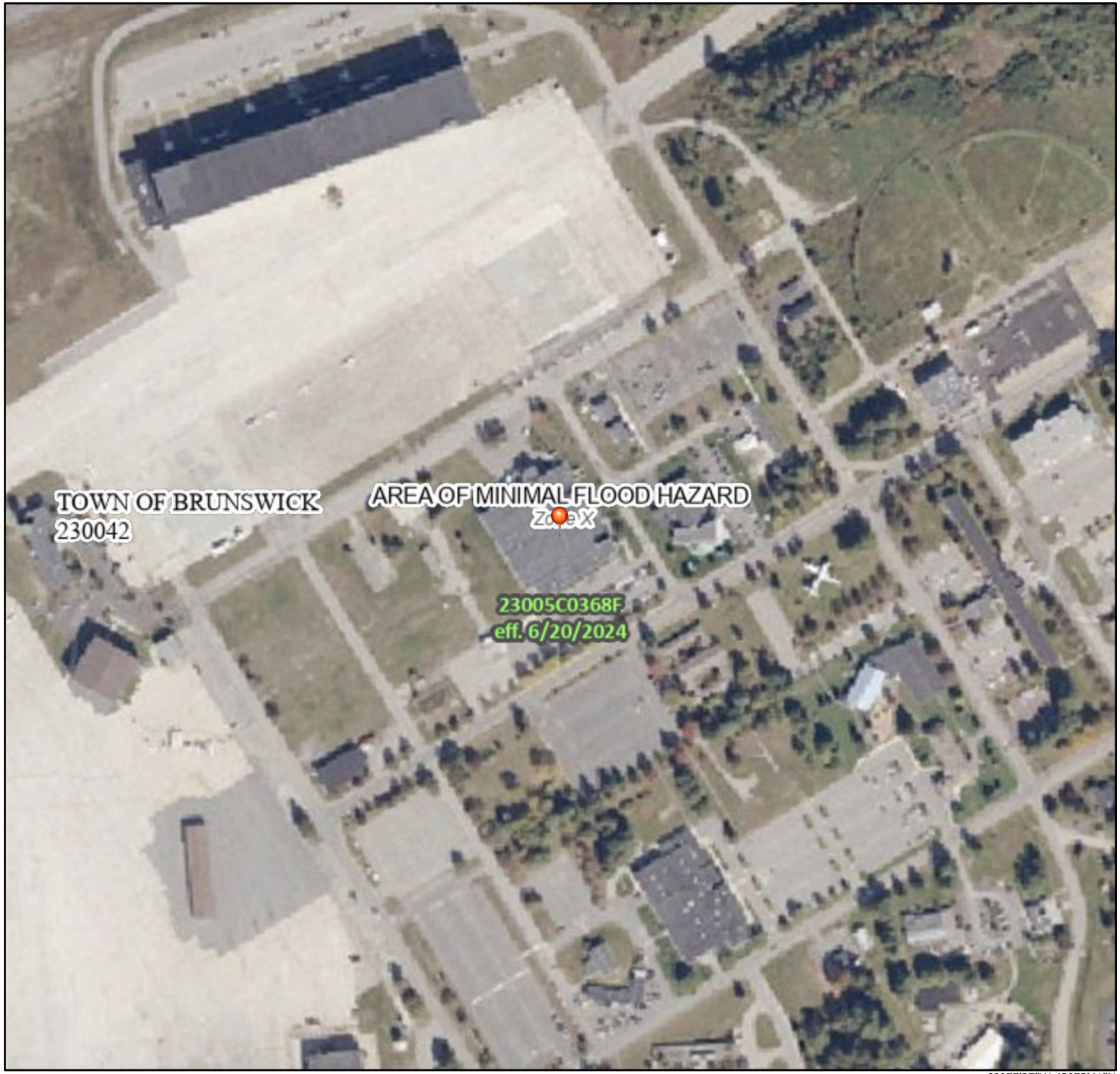
Architecture • Engineering • Planning

ATTACHMENT 2

National Flood Hazard Layer FIRMette

FEMA

69°56'4"W 43°54'7"N



69°55'27"W 43°53'41"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/16/2025 at 1:59 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ATTACHMENTS 3, 4, 5, AND 6

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

August 5, 2025

Wendy MacDaniels
SMRT Architects and Engineers
75 Washington Avenue
Suite 3A
Portland, Maine 04101

Via email: WMACDANIELS@smrtinc.com

Re: Rare and exemplary botanical features in proximity to: #24040, Molnlycke Health Care, Facility Expansion, 192 Admiral Fitch Ave, Brunswick, Maine

Dear Wendy MacDaniels:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received August 1, 2025 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Brunswick, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. Based on the information in our files and the landscape context of this project, there is a low probability that rare or significant botanical features occur at this project location.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING

maine DEPARTMENT OF Agriculture Conservation & Forestry

PHONE: (207) 287-8044
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Abby Stepanauskas

Abby Stepanauskas | Ecologist | Maine Natural Areas Program
207-287-8048 | abby.stepanauskas@maine.gov

JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
353 WATER STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JUDITH CAMUSO
COMMISSIONER

September 19, 2025

Wendy MacDaniels
SMRT, Inc.
75 Wshington Avenue, Suite 3A
Portland, ME 04101

RE: Information Request - 192 Admiral Fitch Avenue, Expansion, Brunswick Project ID 9404-10911

Dear Wendy:

Per your request received on **August 12, 2025**, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information sources for known locations of Endangered, Threatened, and Special Concern (Rare) species; designated Essential and Significant Wildlife Habitats; inland fisheries and aquatic habitats; and other protected natural resource concerns within the vicinity of the ***192 Admiral Fitch Avenue, Expansion, Brunswick*** project, pursuant to MDIFW's authority. MDIFW understands the project proposes construction of a 94,151 square foot commercial building with associated parking, landscaping, and utility infrastructure.

Our Department has not mapped any Essential Habitats, Significant Wildlife Habitats, inland fish habitat, or Endangered, Threatened, or Special Concern Species that would be affected by this project.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance, we recommend additional consultation with the municipality, and other state resource and regulatory agencies including the Maine Natural Areas Program and the Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance. For information on federally listed species, contact the U.S. Fish and Wildlife Service's Maine Field Office (207-469-7300, mainefieldoffice@fws.gov).

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

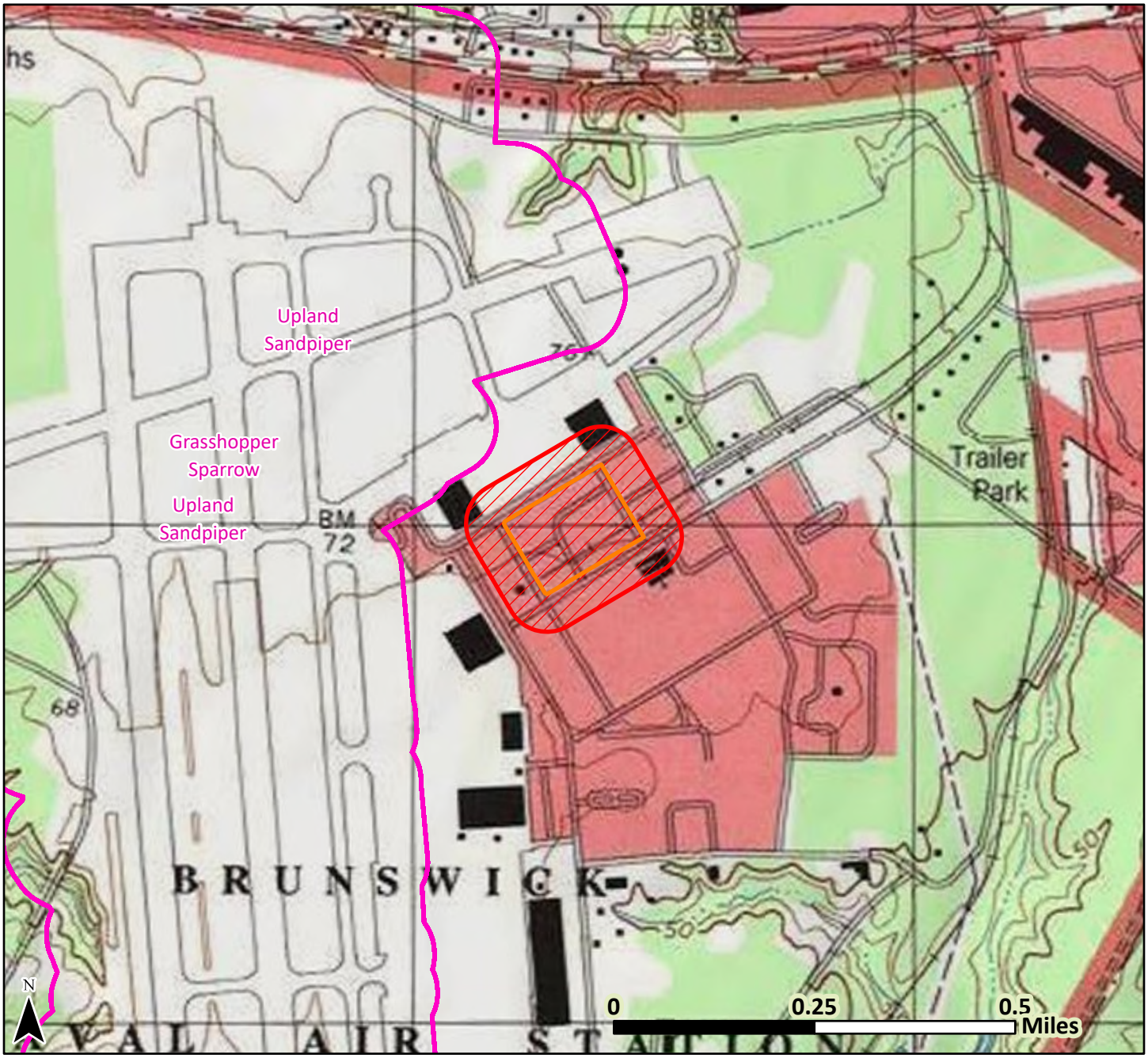
Best regards,

Andrew J. Wood
Environmental Review Coordinator

Maine Department of Inland Fisheries and Wildlife
Project Area Review of Fish and Wildlife Observations and Priority Habitats

192 Admiral Fitch Avenue, Expansion, Brunswick

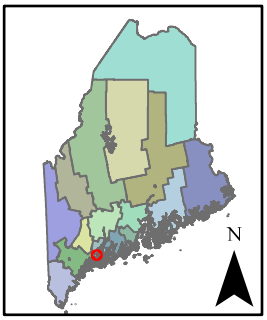
Project ID 9404, Version ID 10911



Legend only lists resources visible in the map; see response letter for all resources that were evaluated.

- County Boundary
- Township Boundary
- Project Footprint
- Search Area
- E, T, & SC Species

Date: 8/18/2025
UTM Zone 19N, NAD83



This map contains sensitive information - do not distribute it beyond the project applicant, consultant, or the permitting agency.

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

August 18, 2025

Ms. Wendy MacDaniels
SMRT Architects and Engineers
75 Washington Ave
Suite 3A
Portland, ME 04101

Project: MHPC #1361-25 Molnlycke Health Care; 192 Admiral Fitch Ave
Expand Production Facility

Town: Brunswick, ME

Dear Ms. MacDaniels:

In response to your recent request, I have reviewed the information received August 1, 2025 to initiate consultation on the above referenced project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Based on the information submitted, I have concluded that the proposed undertaking will have **no adverse effect** upon historic properties (architectural or archaeological), as defined by Section 106.

Please contact Megan Rideout at (207) 287-2992 or megan.m.rideout@maine.gov if we can be of further assistance in this matter.

Sincerely,

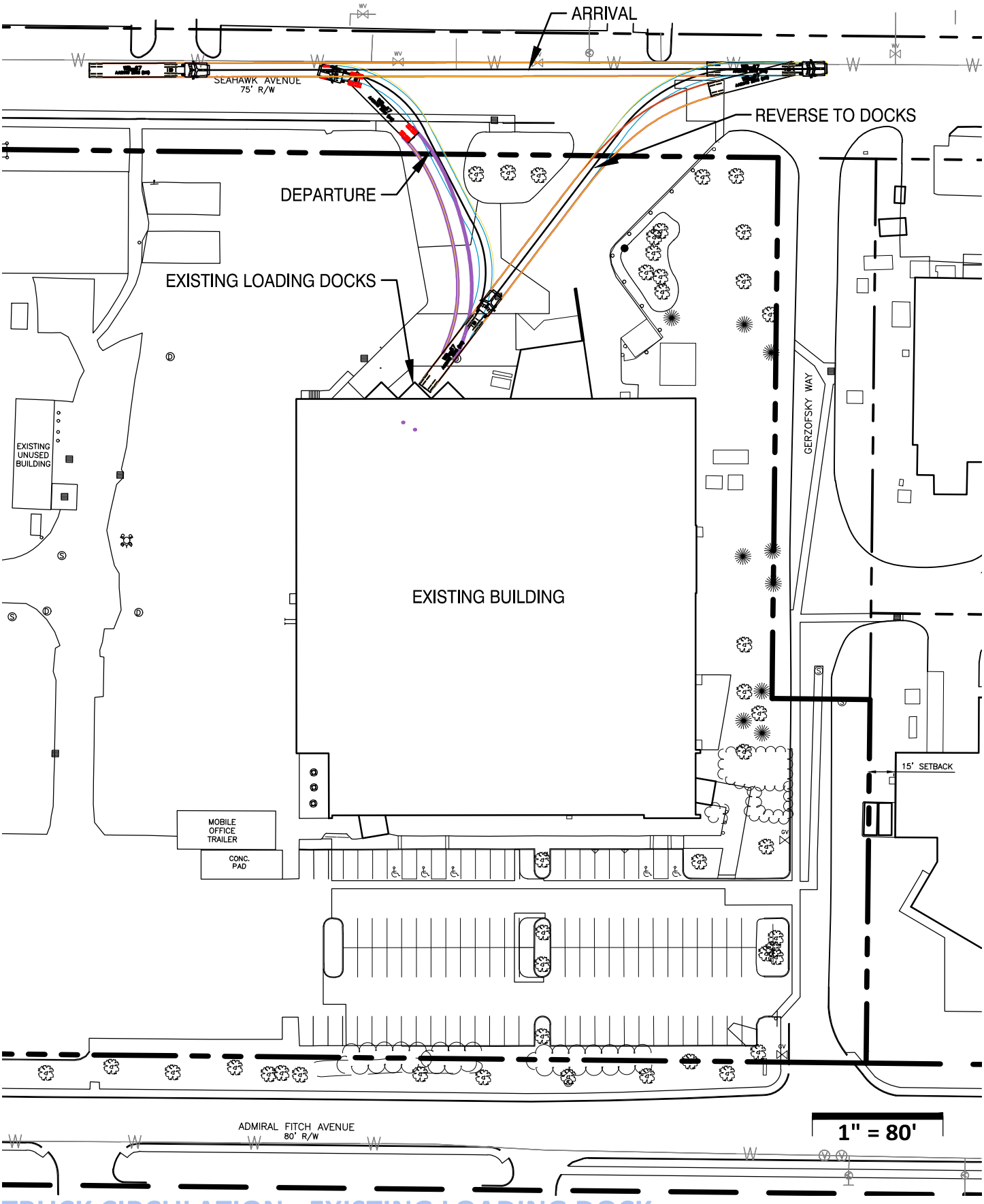
Kirk F. Mohney

Kirk F. Mohney
State Historic Preservation Officer

PHONE: (207) 287-2132 FAX: (207) 287-2335

ATTACHMENT 7

Exhibit 1a



TRUCK CIRCULATION - EXISTING LOADING DOCK

Molnlycke Health Care - Brunswick Landing

Brunswick, Maine

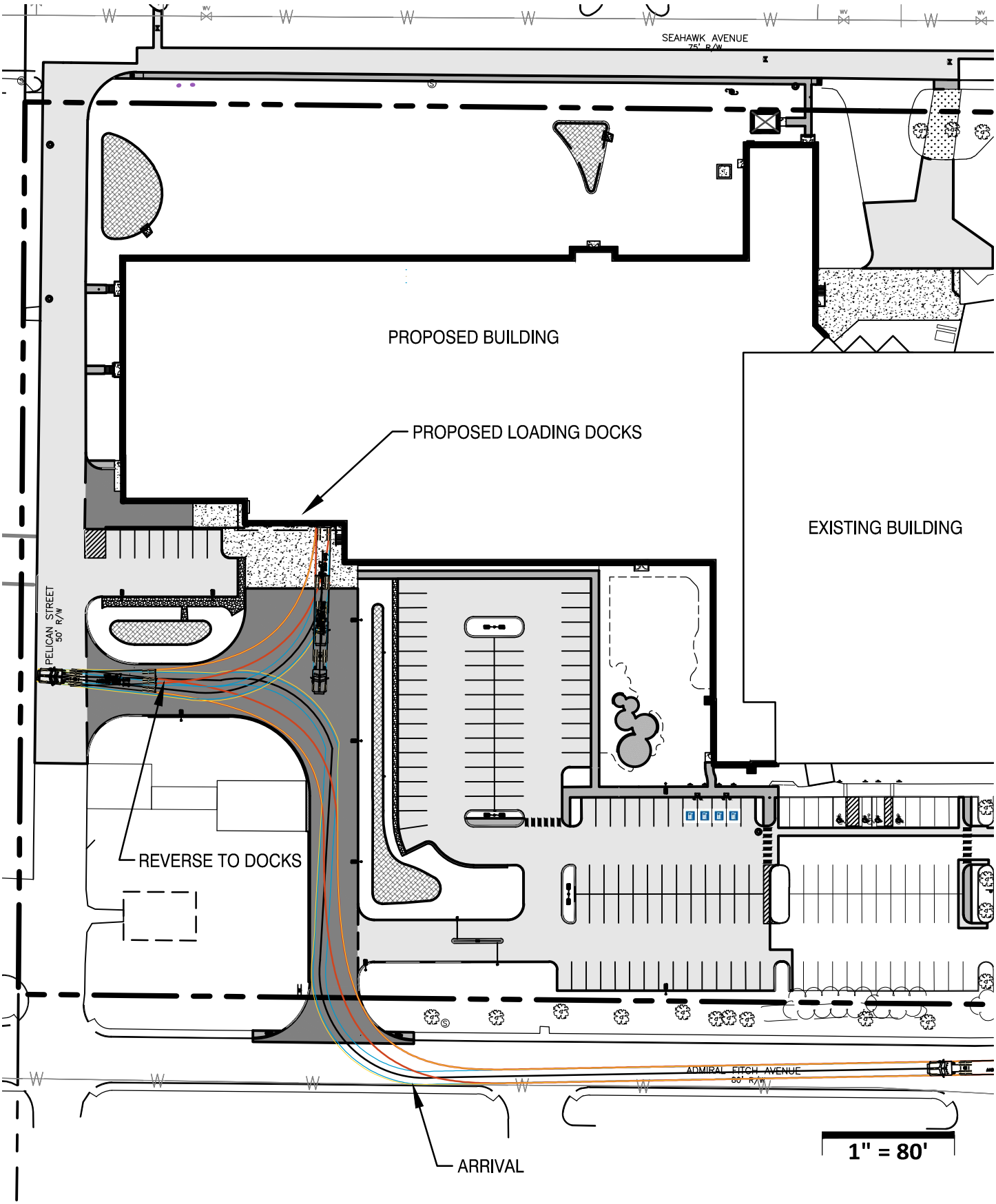
DECEMBER 2025

SMRT

Architecture • Engineering • Planning

ATTACHMENTS 8a, 8b, and 8c

Exhibit 1b



TRUCK CIRCULATION - PROPOSED ARRIVAL

Molnlycke Health Care - Brunswick Landing

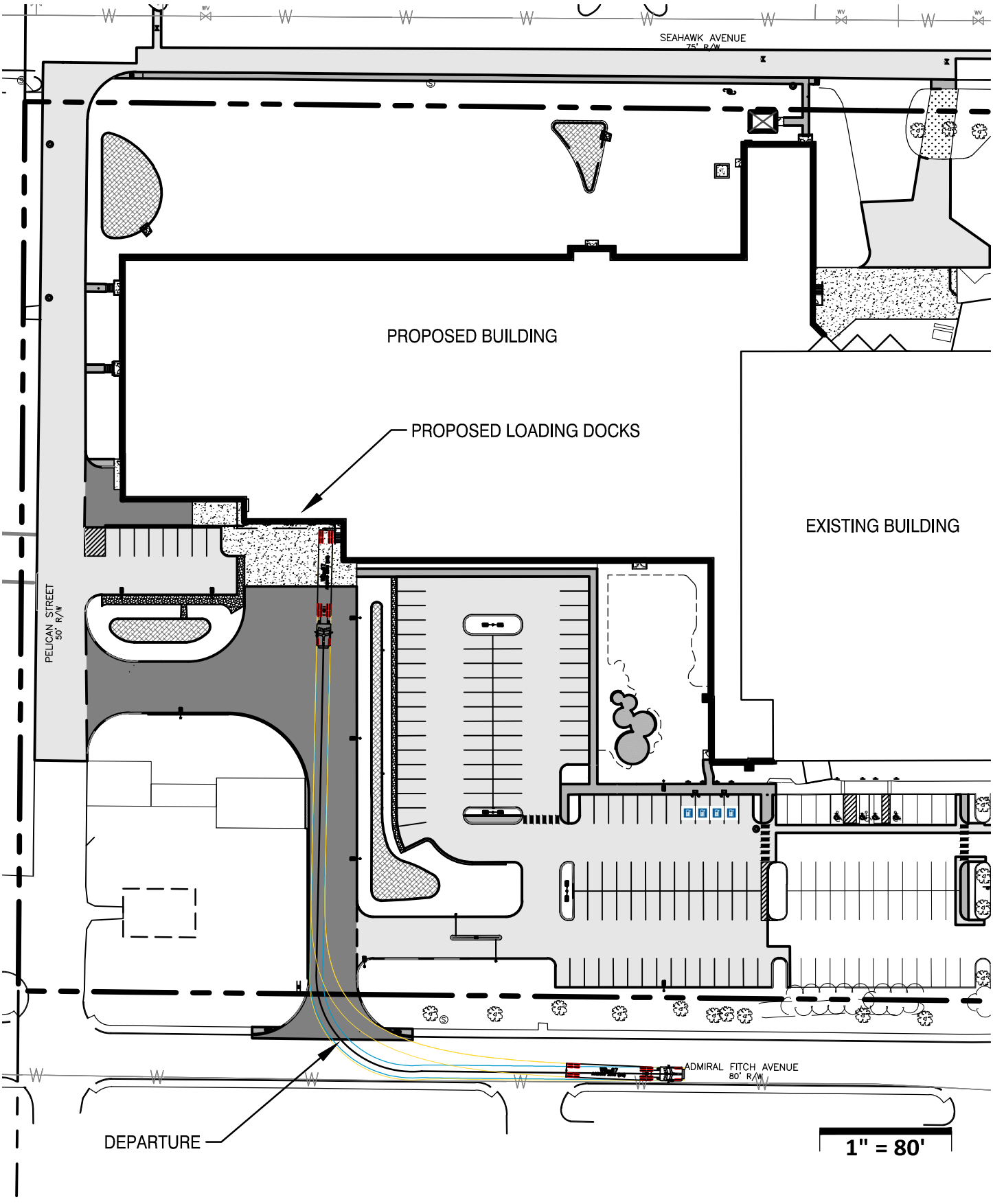
Brunswick, Maine

DECEMBER 2025

SMRT

Architecture • Engineering • Planning

Exhibit 1b



TRUCK CIRCULATION - PROPOSED DEPARTURE

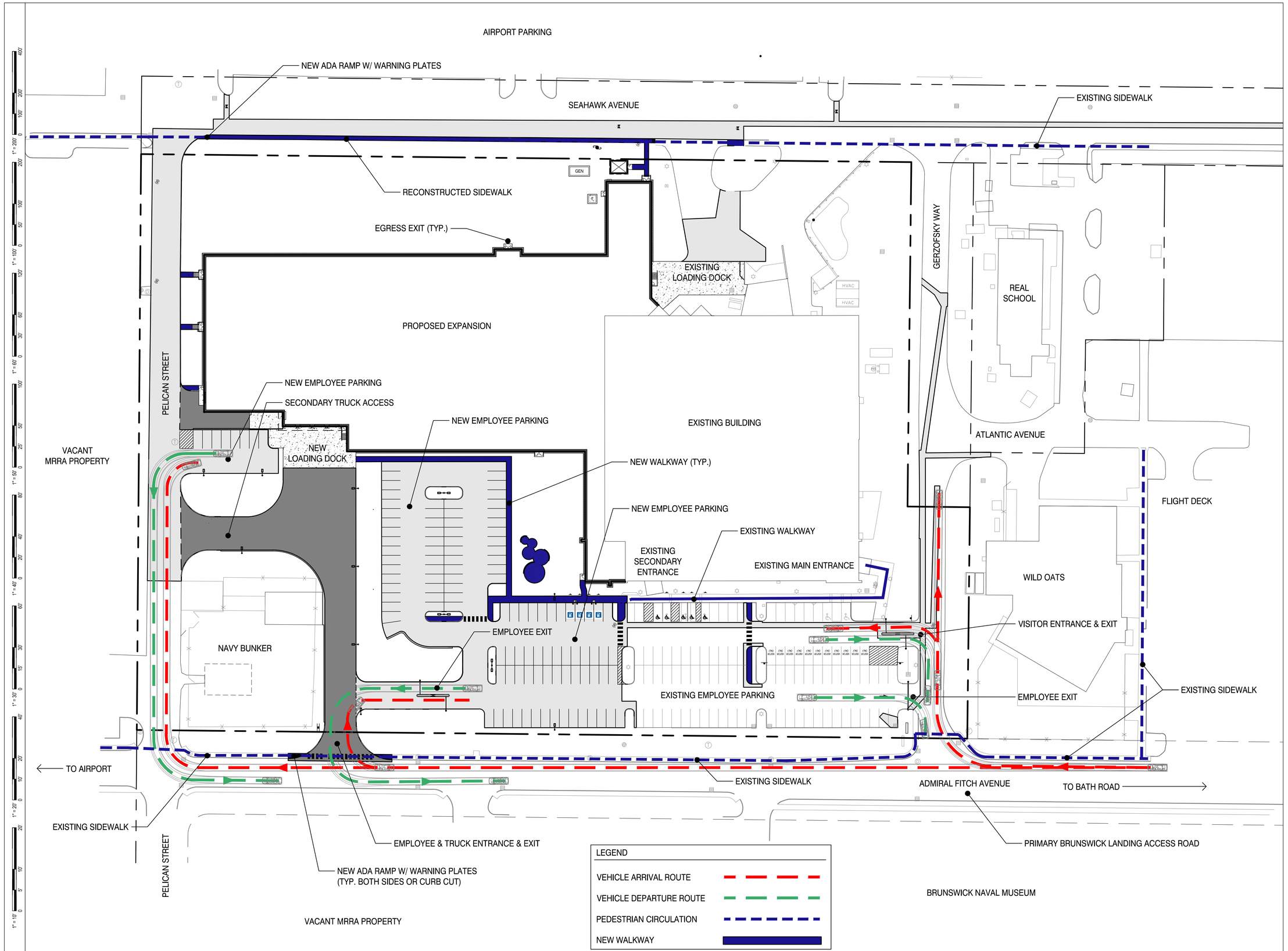
Molnlycke Health Care - Brunswick Landing

Brunswick, Maine

DECEMBER 2025

SMRT

Architecture • Engineering • Planning



Mölnlycke®

MOLNLYCKE

BRUNSWICK EXPANSION

192 Admiral Fitch Avenue, Brunswick Landing, Brunswick, Maine

SMRT

SMRT, Inc.
75 Washington Ave., Suite 3A
Portland, Maine 04101

1.877.700.7678
www.smrtinc.com

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In Association With

TRUE NORTH

STATE OF MAINE
MELISSA ANN FLYNN
15831
LICENSED PROFESSIONAL ENGINEER
12/18/25

#	REVISION	DATE
0	MAJOR DEVELOPMENT REVIEW	12-18-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-18-25

SHEET TITLE:

CIRCULATION PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR

SCALE:	1" = 40'	DESIGNED BY:	WSM
SMRT PROJECT #:	24040	DRAWN BY:	WSM

8a

NOT FOR CONSTRUCTION

ATTACHMENT 9

BRUNSWICK & TOPSHAM
WATER DISTRICT
PO Box 489
Topsham, Maine 04086
Telephone (207) 729-9956
Fax (207) 725-6470

Craig W. Douglas, PE
General Manager

T.C. Schofield, PE
District Engineer

Daniel O. Knowles, CPA
Director of Finance and
Data Management Systems

Joshua S. Cobb, PE
Director of Operations

October 6, 2025

Wendy MacDaniels, EI
SMRT Architects and Engineers
75 Washington Ave
Portland, ME 04101

Transmitted Via email: wmacdaniels@smrtinc.com

RE: Molnlycke Expansion, 192 Admiral Fitch Ave, Brunswick

Dear Ms. MacDaniels:

This letter is to inform you that the District has the ability to serve the referenced project, and will provide service in accordance with Maine Public Utilities Commission and Brunswick & Topsham Water District Rules and Regulations. This project can be served by a new 12-inch main extension along Seahawk Ave from the existing 8-inch DI water main in Pegasus Street. A new 10-inch fire service and 6-inch domestic service can be installed from this main. The fire and domestic services currently serving the building will need to be connected to the new fire and domestic services to be installed by either connecting to the new main in Seahawk Ave or through connections inside the building as MRRA works to reduce the size of their water system.

The following documents can be found on our website (http://btwater.org/apply-water-main-extension.aspx) and are included in a main extension project:

1. Procedures for Water Main Extensions
2. Application for Water Main Extension
3. Main Extension Design Guidelines
4. Sample Water Main Easement Form
5. Water Main Material Specifications
6. Water Main Extension Details

We require the customer, or their representative, to provide us with peak flow data in gallons per minute for all domestic services, this will allow us to properly size the service line and water meter. If a fire sprinkler system is required, a sprinkler system designer should specify the size of the fire service.

Please keep us informed as this project progresses. If you have any questions, please call.

Yours truly,

T.C. Schofield

T.C. Schofield, PE
District Engineer

ATTACHMENT 10

BRUNSWICK SEWER DISTRICT brunswicksewer.org
10 PINE TREE ROAD facebook.com/brunswicksewer
BRUNSWICK, ME 04011 info@brunswicksewer.org
(207) 729-0148

December 4, 2025

Wendy MacDaniels, EI
Civil Engineer
SMRT Architects and Engineers
75 Washington Ave
Portland, ME 04101

RE: 192 Admiral Fitch Ave, Brunswick, ME

Dear Ms. MacDaniels;

This letter is in response to your request for willingness and capacity to serve regarding the Proposed Molnlycke Expansion, 192 Admiral Fitch Avenue in Brunswick, Maine.

I have reviewed the material provided and conclude that the **Brunswick Sewer District (BSD) has both the willingness and capacity to serve the proposed project.**

The project will be subject to the District's entrance charge program. An entrance permit must be secured, and the entrance charge paid. Based on the information you provided, the entrance fee is $3000 per flow unit for a total of $54291.43 if this is paid before the end of 2025 the new rate is set to go up to January 1, 2026. Please note an entrance permit must be obtained and the fee paid prior to any additional flow entering the public sewer.

The following conditions apply to construction:

1. All sewer-related construction will be performed to District standards. 2. All sewer construction will comply with provisions of the Maine Plumbing Code. 3. Design and construction of project sanitary sewers will exclude all non-sanitary ground, surface, foundation drain, floor drain, sump pump, and roof drain waters. 4. Horizontal clearance between utility infrastructures will be sufficient to allow future utility maintenance operations without disturbance to adjacent utility infrastructure.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

Jennifer Nicholson
Assistant General Manager

ATTACHMENT 11

D-Series Size 0
LED Area Luminaire

Catalog Number

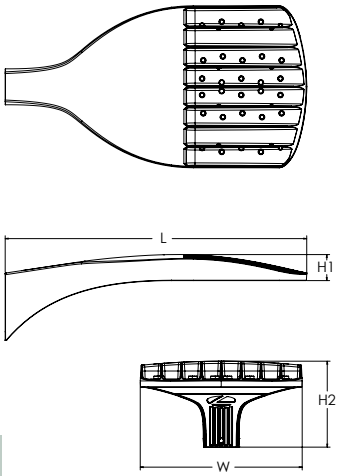
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.44 ft² (0.04 m²)
Length:	26.18" (66.5 cm)
Width:	14.06" (35.7 cm)
Height H1:	2.26" (5.7 cm)
Height H2:	7.46" (18.9 cm)
Weight:	23 lbs (10.4 kg)



Design Select options indicated by this color background.

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Ordering Information

EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED

Series
DSX0 LED

LEDs
Forward optics

P1	P5
P2	P6
P3	P7
P4	

Rotated optics

P10 [1]	P12 [1]
P11 [1]	P13 [1]

Color temperature [2]

(this section 70CRI only)	
30K	3000K
40K	4000K
50K	5000K
27K	2700K
30K	3000K
35K	3500K
40K	4000K
50K	5000K

Color Rendering Index [2]

70CRI
70CRI
70CRI
80CRI
80CRI
80CRI
80CRI
80CRI

Distribution

AFR	Automotive front row
T1S	Type I short
T2M	Type II medium
T3M	Type III medium
T3LG	Type III low glare [3]
T4M	Type IV medium
T4LG	Type IV low glare [3]
TFTM	Forward throw medium
T5M	Type V medium
T5LG	Type V low glare
T5W	Type V wide
BLC3	Type III backlight control [3]
BLC4	Type IV backlight control [3]
LCCO	Left corner cutoff [3]
RCCO	Right corner cutoff [3]

Voltage

MVOLT	(120V-277V) [4]
HVOLT	(347V-480V) [5,6]
XVOLT	(277V-480V) [7,8]
120	[16, 24]
208	[16, 24]
240	[16, 24]
277	[16, 24]
347	[16, 24]
480	[16, 24]

Mounting
Shipped included

SPA	Square pole mounting (#8 drilling, 3.5" min. SQ pole)
RPA	Round pole mounting (#8 drilling, 3" min. RND pole)
SPA5	Square pole mounting (#5 drilling. 3" min. SQ pole) [9]
RPA5	Round pole mounting (#5 drilling, 3" min. RND pole) [9]
SPA8N	Square narrow pole mounting (#8 drilling, 3" min. SQ pole)
WBA	Wall bracket [10]
MA	Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)

Control options
Shipped installed

NLTAIR2 PIRHN	nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc. [11, 12, 18, 19]
PIR	High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc [13, 18, 19]
PER	NEMA twist-lock receptacle only (controls ordered separate) [14]
PER5	Five-pin receptacle only (controls ordered separate) [14, 19]
PER7	Seven-pin receptacle only (controls ordered separate) [14, 19]
FAO	Field adjustable output [15, 19]
BL30	Bi-level switched dimming, 30% [16, 19]
BL50	Bi-level switched dimming, 50% [16, 19]
DMG	0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) [17]

Other options
Shipped installed

HS	Houseside shield (black finish standard) [20]
L90	Left rotated optics [1]
R90	Right rotated optics [1]
CCE	Coastal Construction [21]
HA	50°C ambient operation [22]
BAA	Buy America(n) Act and/or Build America Buy America Qualified
SF	Single fuse (120, 277, 347V) [24]
DF	Double fuse (208, 240, 480V) [24]

Shipped separately

EGSR	External Glare Shield (reversible, field install required, matches housing finish)
BSDB	Bird Spikes (field install required)

Finish *(required)*

DDBXD	Dark Bronze
DBLXD	Black
DNAXD	Natural Aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

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Ordering Information

Accessories

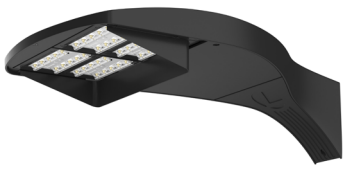
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [23]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [23]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [23]
DSHORT SBK	Shorting cap [23]
DSX0HS P#	House-side shield (enter package number P1-7, P10-13 in place of #)
DSXRPA (FINISH)	Round pole adapter (#8 drilling, specify finish)
DSXRPA5 (FINISH)	Round pole adapter #5 drilling (specify finish)
DSXSPA5 (FINISH)	Square pole adapter #5 drilling (specify finish)
DSX0EGSR (FINISH)	External glare shield (specify finish)
DSX0BSDB (FINISH)	Bird spike deterrent bracket (specify finish)

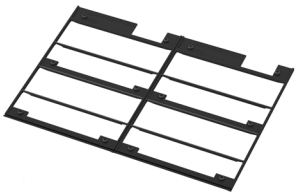
NOTES

1 Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option L90 or R90.
2 30K, 40K, and 50K available in 70CRI and 80CRI. 27K and 35K only available with 80CRI. Contact Technical Support for other possible combinations.
3 T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
6 HVOLT not available with package P1, P2 and P10 when combined with option NLTAIR2 PIRHN or option PIR.
7 XVOLT operates with any voltage between 277V and 480V (50/60 Hz).
8 XVOLT not available in packages P1, P2, or P10. XVOLT not available with fusing (SF or DF). XVOLT also not available in packages P3, P4, P5, P7, P11, P13 when combined with NLTAIR2 PIRHN or PIR.
9 SPA5 and RPA5 for use with #5 drilling only (Not for use with #8 drilling).
10 WBA cannot be combined with Type 5 distributions plus photocell (PER).
11 NLTAIR2 and PIRHN must be ordered together. For more information on nLight Air 2.
12 NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50 and DMG. NLTAIR2 PIRHN not available with P1, P2 and P10 using HVOLT. NLTAIR2 PIRHN not available with P1 using MVOLT.
13 PIR not available with NLTAIR2, PER, PER5, PER7, FAO BL30, BL50 and DMG. PIR not available with P1, P2 and P10 using HVOLT.PIR not available with P1 using MVOLT.
14 PER/PER5/PER7 not available with NLTAIR2, PIR, BL30, BL50. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
15 FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PER5, PER7, BL30, BL50, or DMG.
16 BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, FAO and DMG. BL30 or BL50 must specify 120 or 277V.
17 DMG not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50 and FAO.
18 Reference Motion Sensor Default Settings table on page 4 to see functionality.
19 Reference Controls Options table on page 4.
20 Option HS not available with T3LG, T4LG, BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
21 CCE option not available with option BS and EGSR. Contact Technical Support for availability.
22 Option HA not available with performance packages P6, P7, P12 and P13.
23 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
24 Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).

Shield Accessories



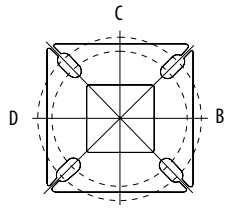
External Glare Shield (EGSR)

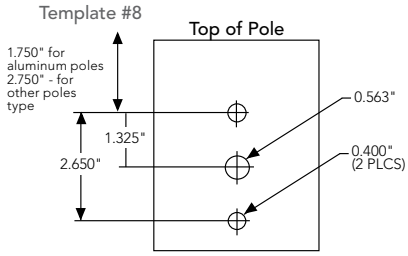


House Side Shield (HS)

Drilling

HANDHOLE ORIENTATION
(from top of pole)





Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
		Minimum Acceptable Outside Pole Dimension					
SPA	#8	3.5"	3.5"	3.5"	3.5"		3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPA5	#5	3"	3"	3"	3"		3"
RPA5	#5	3"	3"	3"	3"	3"	3"
SPA8N	#8	3"	3"	3"	3"		3"

DSX0 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX0 with SPA	0.44	0.88	0.96	1.18	---	1.16
DSX0 with SPA5, SPA8N	0.51	1.02	1.06	1.26	---	1.29
DSX0 with RPA, RPA5	0.51	1.02	1.06	1.26	1.24	1.29
DSX0 with MA	0.64	1.28	1.24	1.67	1.70	1.93

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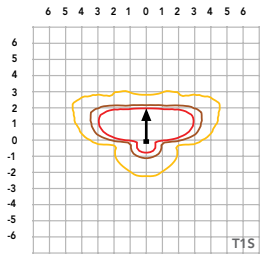
Photometric Diagrams

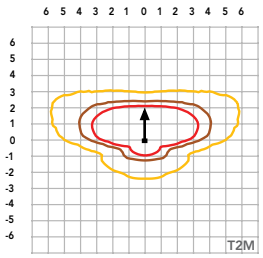
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's homepage.

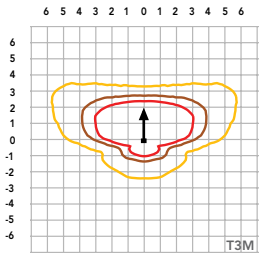
Isofootcandle plots for the DSX0 LED P7 40K 70CRI. Distances are in units of mounting height (20').

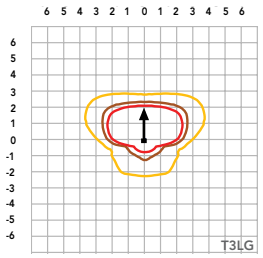
LEGEND

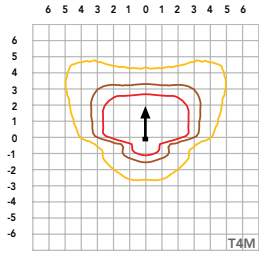
- 0.1 fc
- 0.5 fc
- 1.0 fc

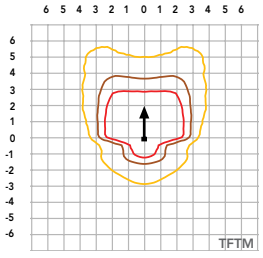


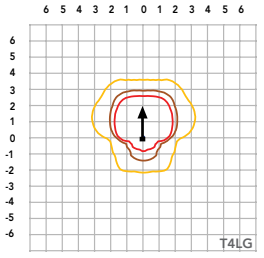


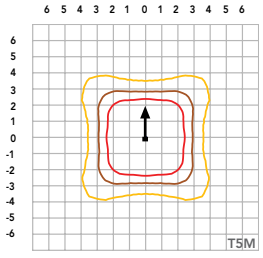


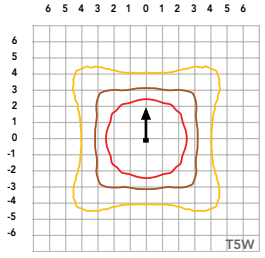


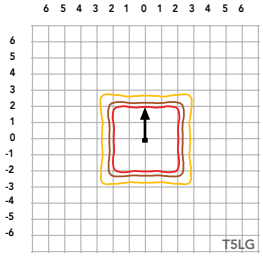


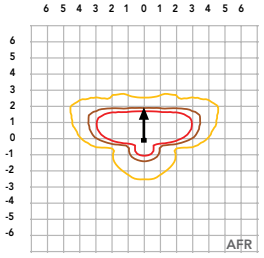


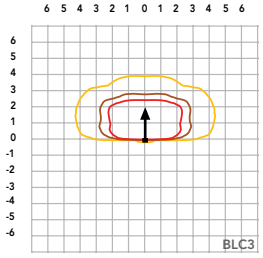


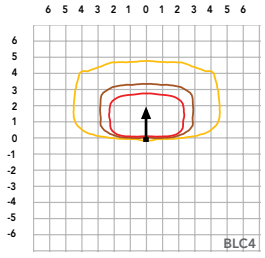


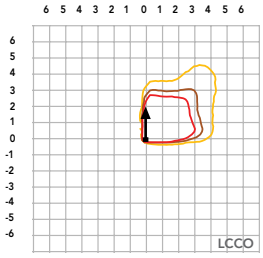


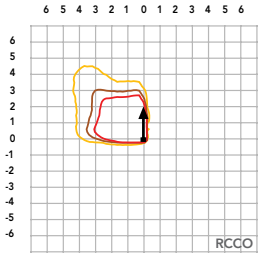












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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°C**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.94
50,000	0.89
100,000	0.80

FAO Dimming Settings

FAO Position	% Wattage	% Lumen Output
8	100%	100%
7	93%	95%
6	80%	85%
5	66%	73%
4	54%	61%
3	41%	49%
2	29%	36%
1	15%	20%

*Note: Calculated values are based on original performance package data. When calculating new values for given FAO position, use published values for each package based on input watts and lumens by optic type.

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current (mA)	Wattage	120V	208V	240V	277V	347V	480V
Forward Optics (Non-Rotated)	P1	20	530	34	0.28	0.16	0.14	0.12	0.10	0.07
	P2	20	700	45	0.38	0.22	0.19	0.16	0.13	0.09
	P3	20	1050	69	0.57	0.33	0.29	0.25	0.20	0.14
	P4	20	1400	94	0.78	0.45	0.39	0.34	0.27	0.19
	P5	40	700	89	0.75	0.43	0.38	0.33	0.26	0.19
	P6	40	1050	136	1.14	0.66	0.57	0.49	0.39	0.29
	P7	40	1300	170	1.42	0.82	0.71	0.62	0.49	0.36
Rotated Optics (Requires L90 or R90)	P10	30	530	51	0.42	0.24	0.21	0.18	0.15	0.11
	P11	30	700	67	0.57	0.33	0.28	0.25	0.20	0.14
	P12	30	1050	103	0.86	0.50	0.43	0.37	0.30	0.22
	P13	30	1300	129	1.07	0.62	0.54	0.46	0.37	0.27

LED Color Temperature / Color Rendering Multipliers

	70 CRI		80CRI		90CRI	
	Lumen Multiplier	Availability	Lumen Multiplier	Availability	Lumen Multiplier	Availability
5000K	102%	Standard	92%	Extended lead-time	71%	(see note)
4000K	100%	Standard	92%	Extended lead-time	67%	(see note)
3500K	100%	(see note)	90%	Extended lead-time	63%	(see note)
3000K	96%	Standard	87%	Extended lead-time	61%	(see note)
2700K	94%	(see note)	85%	Extended lead-time	57%	(see note)

Note: Some LED types are available as per special request. Contact Technical Support for more information.

Motion Sensor Default Settings

Option	Unoccupied Dimmed Level	High Level (when occupied)	Phototcell Operation	Dwell Time	Ramp-up Time	Dimming Fade Rate
PIR	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min
NLTAIR2 PIRHN	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS (not available on DSX0)	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire. Cannot be used with other controls options that need the 0-10V leads.
PIR	Motion sensor with integral photocell. Sensor suitable for 8' to 40' mounting height.	Luminaires dim when no occupancy is detected.	Acuity Controls rSBG	Cannot be used with other controls options that need the 0-10V leads.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSBG	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app. Cannot be used with other controls options that need the 0-10V leads.
BL30 or BL50	Integrated bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output	BLC device provides input to 0-10V dimming leads on all drivers providing either 100% or dimmed (30% or 50%) control by a secondary circuit	BLC UVOLT1	BLC device is powered off the 0-10V dimming leads, thus can be used with any input voltage from 120 to 480V

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Performance Data

Lumen Output

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Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	33W	20	530	T1S	4,906	1	0	1	148	5,113	1	0	1	154	5,213	1	0	1	157
				T2M	4,545	1	0	2	137	4,736	1	0	2	143	4,829	1	0	2	145
				T3M	4,597	1	0	2	138	4,791	1	0	2	144	4,885	1	0	2	147
				T3LG	4,107	1	0	1	124	4,280	1	0	1	129	4,363	1	0	1	131
				T4M	4,666	1	0	2	141	4,863	1	0	2	146	4,957	1	0	2	149
				T4LG	4,244	1	0	1	128	4,423	1	0	1	133	4,509	1	0	1	136
				TFTM	4,698	1	0	2	141	4,896	1	0	2	147	4,992	1	0	2	150
				T5M	4,801	3	0	1	145	5,003	3	0	1	151	5,101	3	0	1	154
				T5W	4,878	3	0	1	147	5,084	3	0	2	153	5,183	3	0	2	156
				T5LG	4,814	2	0	1	145	5,018	2	0	1	151	5,115	2	0	1	154
				BLC3	3,344	0	0	1	101	3,485	0	0	1	105	3,553	0	0	1	107
				BLC4	3,454	0	0	2	104	3,599	0	0	2	108	3,670	0	0	2	111
				RCCO	3,374	0	0	1	102	3,517	0	0	1	106	3,585	0	0	1	108
				LCCO	3,374	0	0	1	102	3,517	0	0	1	106	3,585	0	0	1	108
				AFR	4,906	1	0	1	148	5,113	1	0	1	154	5,213	1	0	1	157
P2	45W	20	700	T1S	6,328	1	0	1	140	6,595	1	0	1	146	6,724	1	0	1	149
				T2M	5,862	1	0	2	130	6,109	1	0	2	135	6,228	1	0	2	138
				T3M	5,930	1	0	3	131	6,180	1	0	3	137	6,301	1	0	3	140
				T3LG	5,297	1	0	1	117	5,521	1	0	1	122	5,628	1	0	1	125
				T4M	6,018	1	0	3	133	6,272	1	0	3	139	6,395	1	0	3	142
				T4LG	5,474	1	0	1	121	5,705	1	0	1	126	5,816	1	0	1	129
				TFTM	6,060	1	0	3	134	6,316	1	0	3	140	6,439	1	0	3	143
				T5M	6,192	3	0	1	137	6,453	3	0	2	143	6,579	3	0	2	146
				T5W	6,293	3	0	2	139	6,558	3	0	2	145	6,686	3	0	2	148
				T5LG	6,210	2	0	1	138	6,472	3	0	1	143	6,598	3	0	1	146
				BLC3	4,313	0	0	2	96	4,495	0	0	2	100	4,583	0	0	2	102
				BLC4	4,455	0	0	2	99	4,643	0	0	2	103	4,733	0	0	2	105
				RCCO	4,352	0	0	2	96	4,536	0	0	2	100	4,624	0	0	2	102
				LCCO	4,352	0	0	2	96	4,536	0	0	2	100	4,624	0	0	2	102
				AFR	6,328	1	0	1	140	6,595	1	0	1	146	6,724	1	0	1	149
P3	69W	20	1050	T1S	9,006	1	0	2	131	9,386	1	0	2	136	9,569	1	0	2	139
				T2M	8,343	2	0	3	121	8,694	2	0	3	126	8,864	2	0	3	129
				T3M	8,439	2	0	3	122	8,795	2	0	3	128	8,967	2	0	3	130
				T3LG	7,539	1	0	2	109	7,857	1	0	2	114	8,010	1	0	2	116
				T4M	8,565	2	0	3	124	8,926	2	0	3	129	9,100	2	0	3	132
				T4LG	7,790	1	0	2	113	8,119	1	0	2	118	8,277	1	0	2	120
				TFTM	8,624	1	0	3	125	8,988	1	0	3	130	9,163	2	0	3	133
				T5M	8,812	3	0	2	128	9,184	4	0	2	133	9,363	4	0	2	136
				T5W	8,955	4	0	2	130	9,333	4	0	2	135	9,515	4	0	2	138
				T5LG	8,838	3	0	1	128	9,211	3	0	1	134	9,390	3	0	1	136
				BLC3	6,139	0	0	2	89	6,398	0	0	2	93	6,522	0	0	2	95
				BLC4	6,340	0	0	3	92	6,607	0	0	3	96	6,736	0	0	3	98
				RCCO	6,194	1	0	2	90	6,455	1	0	2	94	6,581	1	0	2	95
				LCCO	6,194	1	0	2	90	6,455	1	0	2	94	6,581	1	0	2	95
				AFR	9,006	1	0	2	131	9,386	1	0	2	136	9,569	1	0	2	139
P4	93W	20	1400	T1S	11,396	1	0	2	122	11,877	1	0	2	128	12,109	2	0	2	130
				T2M	10,557	2	0	3	113	11,003	2	0	3	118	11,217	2	0	3	121
				T3M	10,680	2	0	3	115	11,130	2	0	3	120	11,347	2	0	3	122
				T3LG	9,540	1	0	2	103	9,942	1	0	2	107	10,136	1	0	2	109
				T4M	10,839	2	0	3	117	11,296	2	0	3	121	11,516	2	0	4	124
				T4LG	9,858	1	0	2	106	10,274	1	0	2	110	10,474	1	0	2	113
				TFTM	10,914	2	0	3	117	11,374	2	0	3	122	11,596	2	0	3	125
				T5M	11,152	4	0	2	120	11,622	4	0	2	125	11,849	4	0	2	127
				T5W	11,332	4	0	3	122	11,811	4	0	3	127	12,041	4	0	3	129
				T5LG	11,184	3	0	1	120	11,656	3	0	2	125	11,883	3	0	2	128
				BLC3	7,768	0	0	2	83	8,096	0	0	2	87	8,254	0	0	2	89
				BLC4	8,023	0	0	3	86	8,362	0	0	3	90	8,524	0	0	3	92
				RCCO	7,838	1	0	2	84	8,169	1	0	2	88	8,328	1	0	2	90
				LCCO	7,838	1	0	2	84	8,169	1	0	2	88	8,328	1	0	2	90
				AFR	11,396	1	0	2	122	11,877	1	0	2	128	12,109	2	0	2	130

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Performance Data

Lumen Output

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Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P5	90W	40	700	T1S	12,380	2	0	2	137	12,902	2	0	2	143	13,154	2	0	2	146
				T2M	11,468	2	0	3	127	11,952	2	0	3	133	12,185	2	0	3	135
				T3M	11,601	2	0	3	129	12,091	2	0	3	134	12,326	2	0	4	137
				T3LG	10,363	2	0	2	115	10,800	2	0	2	120	11,011	2	0	2	122
				T4M	11,774	2	0	4	131	12,271	2	0	4	136	12,510	2	0	4	139
				T4LG	10,709	1	0	2	119	11,160	2	0	2	124	11,378	2	0	2	126
				TFTM	11,856	2	0	3	132	12,356	2	0	4	137	12,596	2	0	4	140
				T5M	12,114	4	0	2	134	12,625	4	0	2	140	12,871	4	0	2	143
				T5W	12,310	4	0	3	137	12,830	4	0	3	142	13,080	4	0	3	145
				T5LG	12,149	3	0	2	135	12,662	3	0	2	141	12,908	3	0	2	143
				BLC3	8,438	0	0	2	94	8,794	0	0	2	98	8,966	0	0	2	99
				BLC4	8,715	0	0	3	97	9,083	0	0	3	101	9,260	0	0	3	103
				RCCO	8,515	1	0	2	94	8,874	1	0	2	98	9,047	1	0	2	100
				LCCO	8,515	1	0	2	94	8,874	1	0	2	98	9,047	1	0	2	100
				AFR	12,380	2	0	2	137	12,902	2	0	2	143	13,154	2	0	2	146
P6	137W	40	1050	T1S	17,545	2	0	3	128	18,285	2	0	3	133	18,642	2	0	3	136
				T2M	16,253	3	0	4	119	16,939	3	0	4	124	17,269	3	0	4	126
				T3M	16,442	2	0	4	120	17,135	3	0	4	125	17,469	3	0	4	128
				T3LG	14,687	2	0	2	107	15,306	2	0	2	112	15,605	2	0	2	114
				T4M	16,687	2	0	4	122	17,391	3	0	5	127	17,730	3	0	5	129
				T4LG	15,177	2	0	2	111	15,817	2	0	2	115	16,125	2	0	2	118
				TFTM	16,802	2	0	4	123	17,511	2	0	4	128	17,852	2	0	5	130
				T5M	17,168	4	0	2	125	17,893	5	0	3	131	18,241	5	0	3	133
				T5W	17,447	5	0	3	127	18,183	5	0	3	133	18,537	5	0	3	135
				T5LG	17,218	4	0	2	126	17,944	4	0	2	131	18,294	4	0	2	134
				BLC3	11,959	0	0	3	87	12,464	0	0	3	91	12,707	0	0	3	93
				BLC4	12,352	0	0	4	90	12,873	0	0	4	94	13,124	0	0	4	96
				RCCO	12,067	1	0	3	88	12,576	1	0	3	92	12,821	1	0	3	94
				LCCO	12,067	1	0	3	88	12,576	1	0	3	92	12,821	1	0	3	94
				AFR	17,545	2	0	3	128	18,285	2	0	3	133	18,642	2	0	3	136
P7	171W	40	1300	T1S	20,806	2	0	3	122	21,683	2	0	3	127	22,106	2	0	3	129
				T2M	19,273	3	0	4	113	20,086	3	0	4	118	20,478	3	0	4	120
				T3M	19,497	3	0	5	114	20,319	3	0	5	119	20,715	3	0	5	121
				T3LG	17,416	2	0	2	102	18,151	2	0	2	106	18,504	2	0	2	108
				T4M	19,787	3	0	5	116	20,622	3	0	5	121	21,024	3	0	5	123
				T4LG	17,997	2	0	2	105	18,756	2	0	2	110	19,121	2	0	2	112
				TFTM	19,924	3	0	5	117	20,765	3	0	5	122	21,170	3	0	5	124
				T5M	20,359	5	0	3	119	21,217	5	0	3	124	21,631	5	0	3	127
				T5W	20,689	5	0	3	121	21,561	5	0	3	126	21,982	5	0	3	129
				T5LG	20,418	4	0	2	120	21,279	4	0	2	125	21,694	4	0	2	127
				BLC3	14,182	0	0	3	83	14,780	0	0	3	87	15,068	0	0	3	88
				BLC4	14,647	0	0	4	86	15,265	0	0	4	89	15,562	0	0	4	91
				RCCO	14,309	1	0	3	84	14,913	1	0	3	87	15,204	1	0	3	89
				LCCO	14,309	1	0	3	84	14,913	1	0	3	87	15,204	1	0	3	89
				AFR	20,806	2	0	3	122	21,683	2	0	3	127	22,106	2	0	3	129

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79.
Contact factory for performance data on any configurations not shown here.

Rotated Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P10	51W	30	530	T1S	7,399	3	0	3	145	7,711	3	0	3	151	7,862	3	0	3	154
				T2M	6,854	3	0	3	135	7,144	3	0	3	140	7,283	3	0	3	143
				T3M	6,933	3	0	3	136	7,225	3	0	3	142	7,366	3	0	3	145
				T3LG	6,194	2	0	2	122	6,455	2	0	2	127	6,581	2	0	2	129
				T4M	7,036	3	0	3	138	7,333	3	0	3	144	7,476	3	0	3	147
				T4LG	6,399	2	0	2	126	6,669	2	0	2	131	6,799	2	0	2	134
				TFTM	7,086	3	0	3	139	7,385	3	0	3	145	7,529	3	0	3	148
				T5M	7,239	3	0	2	142	7,545	3	0	2	148	7,692	3	0	2	151
				T5W	7,357	3	0	2	145	7,667	3	0	2	151	7,816	4	0	2	154
				T5LG	7,260	3	0	1	143	7,567	3	0	1	149	7,714	3	0	1	152
				BLC3	5,043	3	0	3	99	5,256	3	0	3	103	5,358	3	0	3	105
				BLC4	5,208	3	0	3	102	5,428	3	0	3	107	5,534	3	0	3	109
				RCCO	5,089	0	0	2	100	5,303	0	0	2	104	5,407	0	0	2	106
				LCCO	5,089	0	0	2	100	5,303	0	0	2	104	5,407	0	0	2	106
				AFR	7,399	3	0	3	145	7,711	3	0	3	151	7,862	3	0	3	154
P11	68W	30	700	T1S	9,358	3	0	3	138	9,753	3	0	3	143	9,943	3	0	3	146
				T2M	8,669	3	0	3	127	9,034	3	0	3	133	9,211	3	0	3	135
				T3M	8,768	3	0	3	129	9,138	3	0	3	134	9,316	3	0	3	137
				T3LG	7,833	3	0	3	115	8,164	3	0	3	120	8,323	3	0	3	122
				T4M	8,899	3	0	3	131	9,274	3	0	3	136	9,455	3	0	3	139
				T4LG	8,093	3	0	3	119	8,435	3	0	3	124	8,599	3	0	3	126
				TFTM	8,962	3	0	3	132	9,340	3	0	3	137	9,522	3	0	3	140
				T5M	9,156	4	0	2	135	9,542	4	0	2	140	9,728	4	0	2	143
				T5W	9,304	4	0	2	137	9,696	4	0	2	143	9,885	4	0	2	145
				T5LG	9,182	3	0	1	135	9,569	3	0	1	141	9,756	3	0	1	143
				BLC3	6,378	3	0	3	94	6,647	3	0	3	98	6,777	3	0	3	100
				BLC4	6,587	3	0	3	97	6,865	3	0	3	101	6,999	3	0	3	103
				RCCO	6,436	0	0	2	95	6,707	0	0	2	99	6,838	0	0	2	101
				LCCO	6,436	0	0	2	95	6,707	0	0	2	99	6,838	0	0	2	101
				AFR	9,358	3	0	3	138	9,753	3	0	3	143	9,943	3	0	3	146
P12	103W	30	1050	T1S	13,247	3	0	3	128	13,806	3	0	3	134	14,075	3	0	3	136
				T2M	12,271	4	0	4	119	12,789	4	0	4	124	13,038	4	0	4	126
				T3M	12,412	4	0	4	120	12,935	4	0	4	125	13,187	4	0	4	128
				T3LG	11,089	3	0	3	107	11,556	3	0	3	112	11,782	3	0	3	114
				T4M	12,597	4	0	4	122	13,128	4	0	4	127	13,384	4	0	4	129
				T4LG	11,457	3	0	3	111	11,940	3	0	3	116	12,173	3	0	3	118
				TFTM	12,686	4	0	4	123	13,221	4	0	4	128	13,479	4	0	4	130
				T5M	12,960	4	0	2	125	13,507	4	0	2	131	13,770	4	0	2	133
				T5W	13,170	4	0	3	127	13,726	4	0	3	133	13,994	4	0	3	135
				T5LG	12,998	3	0	2	126	13,546	3	0	2	131	13,810	3	0	2	134
				BLC3	9,029	3	0	3	87	9,409	3	0	3	91	9,593	3	0	3	93
				BLC4	9,324	4	0	4	90	9,718	4	0	4	94	9,907	4	0	4	96
				RCCO	9,110	1	0	2	88	9,495	1	0	2	92	9,680	1	0	2	94
				LCCO	9,110	1	0	2	88	9,494	1	0	2	92	9,680	1	0	2	94
				AFR	13,247	3	0	3	128	13,806	3	0	3	134	14,075	3	0	3	136
P13	129W	30	1300	T1S	15,704	3	0	3	122	16,366	3	0	3	127	16,685	4	0	4	130
				T2M	14,547	4	0	4	113	15,161	4	0	4	118	15,457	4	0	4	120
				T3M	14,714	4	0	4	114	15,335	4	0	4	119	15,634	4	0	4	121
				T3LG	13,145	3	0	3	102	13,700	3	0	3	106	13,967	3	0	3	108
				T4M	14,933	4	0	4	116	15,563	4	0	4	121	15,867	4	0	4	123
				T4LG	13,582	3	0	3	105	14,155	3	0	3	110	14,431	3	0	3	112
				TFTM	15,039	4	0	4	117	15,673	4	0	4	122	15,979	4	0	4	124
				T5M	15,364	4	0	2	119	16,013	4	0	2	124	16,325	4	0	2	127
				T5W	15,613	5	0	3	121	16,272	5	0	3	126	16,589	5	0	3	129
				T5LG	15,409	3	0	2	120	16,059	3	0	2	125	16,372	4	0	2	127
				BLC3	10,703	4	0	4	83	11,155	4	0	4	87	11,372	4	0	4	88
				BLC4	11,054	4	0	4	86	11,520	4	0	4	89	11,745	4	0	4	91
				RCCO	10,800	1	0	2	84	11,256	1	0	2	87	11,475	1	0	3	89
				LCCO	10,800	1	0	2	84	11,255	1	0	2	87	11,475	1	0	3	89
				AFR	15,704	3	0	3	122	16,366	3	0	3	127	16,685	4	0	4	130

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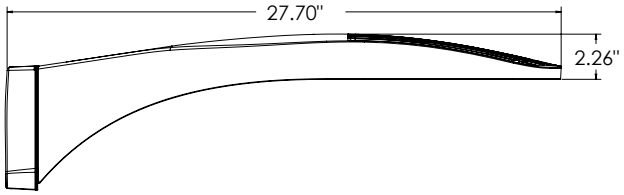
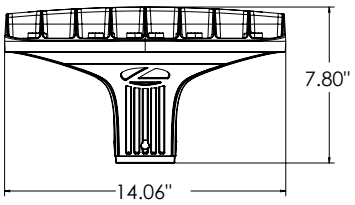
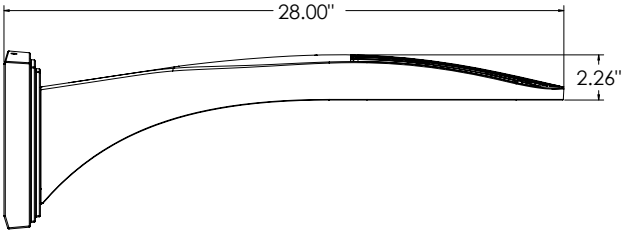
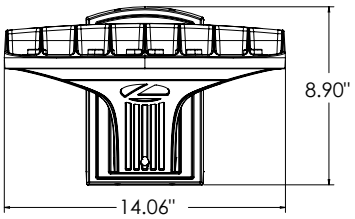
Dimensions



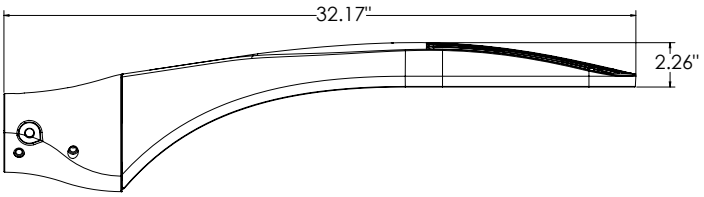


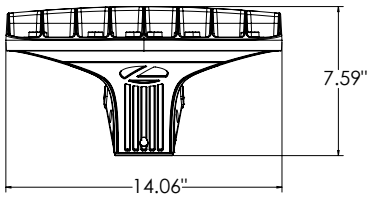
DSX0 with RPA, RPA5, SPA5, SPA8N mount
Weight: 25 lbs





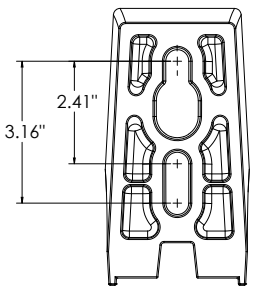
DSX0 with WBA mount
Weight: 27 lb



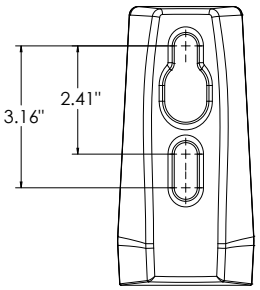


DSX0 with MA mount
Weight: 28 lbs

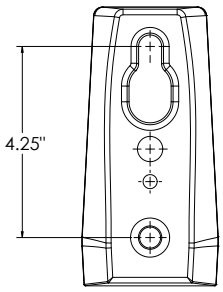
SPA (STANDARD ARM)



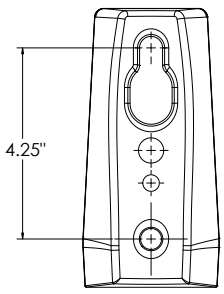
RPA



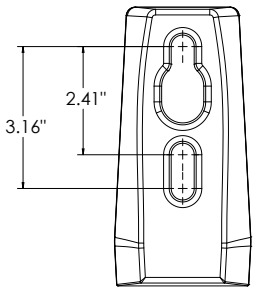
SPA5



RPA5



SPA8N



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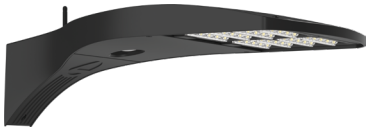
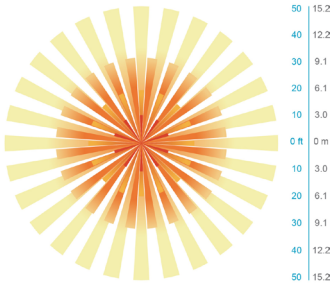
nLight Control - Sensor Coverage and Settings

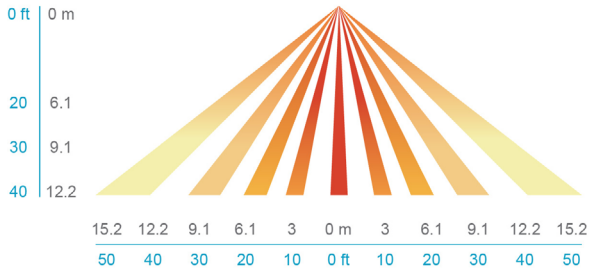
nLight Sensor Coverage Pattern

NLTAIR2 PIRHN





Top



Side

FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing driver compartment is completely sealed against moisture and environmental contaminants (IP66). Vibration rated per ANSI C136.31 for 3G. Low EPA (0.44 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

COASTAL CONSTRUCTION (CCE)

Optional corrosion resistant construction is engineered with added corrosion protection in materials and/or pre-treatment of base material under super durable paint. Provides additional corrosion protection for applications near coastal areas. Finish is salt spray tested to over 5,000 hours per ASTM B117 with scribe rating of 10. Additional lead-times may apply.

OPTICS

Precision-molded proprietary silicone lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) configurations. 80CRI configurations are also available. The D-Series Size 0 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L80/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX0 LED area luminaire has a number of control options. DSX Size 0, comes standard with 0-10V dimming driver. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. PIR integrated motion sensor with on-board photocell feature field-adjustable programing and are suitable for mounting heights up to 40 feet. Control option BL features a bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output.

nLIGHT AIR CONTROLS

The DSX0 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION

Integral mounting arm allows for fast mounting using Lithonia standard #8 drilling and accommodates pole drilling's from 2.41 to 3.12" on center. The standard "SPA" option for square poles and the "RPA" option for round poles use the #8 drilling. For #5 pole drillings, use SPA5 or RPA5. Additional mountings are available including a wall bracket (WBA) and mast arm (MA) option that allows luminaire attachment to a 2 3/8" horizontal mast arm.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP66 rated. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

GOVERNMENT PROCUREMENT

BAA – Buy America(n) Act: Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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ATTACHMENTS 12a, 12b, 12c, 12d

13a, 13b, 13c, 13d

14a, 14b, 14c

Introduction

SMRT, Inc. was retained to assist Molnlycke Health Care (Applicant) for the design and permitting for the construction of an approximately 77,952 square foot (SF) addition to their existing facility located at 192 Admiral Fitch Avenue in Brunswick, Maine. The property consists of Lots 16 and 16B and sections of Pelican Street and Gerzofsky Way. An existing 61,675 SF building and associated access drives, parking areas, utilities, and stormwater facilities make up the current development.
This Stormwater Management Report assesses both pre-development and post-development peak runoff rates and stormwater treatment practices for the project in accordance with Maine Department of Environmental Protection, the Town of Brunswick, and the Midcoast Regional Redevelopment Authority regulations.

Methodology

The stormwater runoff analysis has been undertaken using the HydroCAD Stormwater Modeling System software (version 10.20-7a) developed by Applied Microcomputer Systems of Chocorua, New Hampshire. The program is based upon the TR-20 computer program and the TR-55 tabular method, both of which are based on approaches developed by the USDA Soil Conservation Service. The analysis was undertaken for the 2-, 10-, and 25 precipitation frequencies for Cumberland County. Twenty-four-hour storms with a Type III distribution are the basis for the analysis.

All stormwater drainage piping and treatment Best Management Practices (BMPs) have been sized for a 25-year, 24-hour storm. Copies of the pre- and post-development HydroCAD reports are included in Appendices C and D.

24-Hour Rainfall Depths for Brunswick, Maine at Design Storm Frequencies

The NOAA Atlas 14, Volume 10, Version 3 – Precipitation Frequency Data was used to determine the rainfall depths for the design storms.

	2-Year	10-Year	25-Year
Rainfall Depth	3.16	4.81	5.84

Permitting History and Requirements

Previous development, begun in 2010 and completed in 2013, was subject to amendment of an existing Site Location of Development Act (SLDA) which encompasses the areas of the former Brunswick Naval Air Station then owned by the Midcoast Regional Redevelopment Authority (MRRA). Permit #L-20116-26-O-B was issued in December of 2010 for the original manufacturing facility as a Minor Amendment to MRRA's permit.

Adherence to SLDA is determined by the Town of Brunswick, which has been granted Site Capacity by the MaineDEP. Brunswick does not have Stormwater Capacity, therefore MaineDEP will review stormwater design and issue a Maine Construction General Permit. Brunswick will provide a Development Review permit in addition to the SLDA.

Pre-Development Conditions

The existing Molnlycke production and warehouse facility sites on a 5.94-acre parcel on the campus of Brunswick Landing (Lot 16). Brunswick Landing is the former Brunswick Naval Air Station. Molnlycke has acquired 3.98-acre Lot 16B. west and adjacent to their current lot. The combined lot includes portions of Pelican Street and Gerzofsky Way, campus streets west and east of the lot, respectively. Navy-era

buildings and structures have been removed from Lot 16B, with the exception of Building 694, used by the Navy for pesticide storage but now unused. Campus utility infrastructure crosses the lot and foundation and pavement remnants can be found in the northwest quadrant of the lot. A grass-covered bunker is located in the southwest corner of the lot and will remain undisturbed.

As determined by soil testing log included in the application, the site consists of "Adams soils" with fill over the top. The underlying hydrologic soil group is HSG A as noted on the soil log.

The site is generally flat and drains to a series of catch basins, ultimately flowing south and west to an outfall approximately 2,500 feet south of the property. A 1,350 SF underdrained bioretention cell is located north of the existing production facility.

The project is located in the Mare Brook watershed, which is classified by the MaineDEP as an Urban Impaired Stream.

Stormwater peak runoff flow rates from the site for 2-, 10-, and 25-year storm events were analyzed and are summarized in Table 1 in the Stormwater Quantity section of this report. Pre-development HydroCAD calculations and Sheet C-120- Pre-Development Watershed Plan are included with this application.

The site was analyzed at three design points:

- DP-1 at the existing storm drain system which outlets to the west of the project site at Pelican Street.
- DP-2 at existing storm drain system which outlets at the southwest corner of the project site at the intersection of Pelican Street and Admiral Finch Avenue.
- DP-3 at the existing storm drain system which outlets at the southeast corner of the project site along Admiral Finch Avenue.

Post-Development Conditions

The proposed project includes the construction of a 77,952 SF addition west of the existing building, reconstructed and expanded parking areas, new and relocated utilities, and stormwater collection and treatment systems.

Stormwater runoff will be collected and treated by four (4) bioretention areas and three (3) subsurface R-Tank storage systems.

Stormwater peak runoff flow rates from the site for 2-, 10-, and 25-year storm events were analyzed at the same design points and are summarized in Table 1 in the Stormwater Quantity section of this report. Post-development HydroCAD calculations and Sheet C-121- Post-Development Watershed Plan are included with this application.

Redevelopment Requirement

The proposed project improvements fall under the Redevelopment Applicable Standard (4)(C)(2)(d). See application for eligible area, area treated, and treatment provided. The Applicant has completed the required Pollutant Impact Ranking Calculation and the table has been included with the application.

Based on the calculations, the project is required to provide 60% treatment of the Developed Area.

Stormwater Quantity

The project is required to meet Maine DEP Chapter 500 flooding standard for the 2-, 10-, and 25-year storm events. Stormwater detention is provided by three (3) Ferguson R-Tank underground storage systems (RT-1, RT-2, and Rt-3) and four (4) bioretention filter cells (BR-1, BR-2, BR-3, and BR-4).

The BMPs have been sized to attenuate the peak flow rates leaving the site for the 2-, 10-, and 25-events as much as possible. Table 1 below summarizes the peak flow rates at the analysis points.

Table 1

Analysis Point	Design Storm Event Return Period - Peak Flow (cfs)								
	2-Year			10-Year			25-Year		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
DP-1	4.52	4.72	**0.20**	7.24	7.48	**0.24**	9.67	9.27	**-0.40**
DP-2	3.17	3.07	**-0.10**	5.68	5.33	**-0.35**	7.41	6.64	**-0.77**
DP-3	1.73	1.95	**0.22**	3.48	4.13	**0.65**	4.63	5.62	**0.99**

As shown in Table 1, the peak runoff rates for DP-2 are reduced from the pre-development runoff rates at all the design storms. Reducing the flows at DP-1 and DP-3 to below pre-development peak runoff rates is not practical at all the design storms. The post-development 25-year design storm for DP-1 is reduced from the pre-development condition.

The design team attempted to reduce the peak flows for the remaining design storms at DP-1 and DP-3, but it was not feasible, due to several existing site constraints:

- DP-1: The design team has maximized the treatment features collecting the runoff directed to DP-1. As shown in the HydroCAD report (and in the table below), the flows leaving BR-1, BR-2, BR-4, and RT-1 are minimal at the 2-year and 10-year storms and the flow from the existing roof (SC-P5) is the peak flow that is overpowering these rates.

Table 2

Design Storm	Peak Flow (cfs) at each node				
	BR-1	BR-2	BR-4	RT-1	SC-P5
2-year	0.11	0.16	0.04	0.05	4.50
10-year	0.11	0.27	0.04	0.05	6.90

- DP-3: In the pre-development condition, a large storm drain trunk line (18”) transversed this lot. This storm drain conveyed runoff from the east side of the Molnlycke site to the downstream outlet west of the site. Due to the shallow pitch of this drain line, it is not feasible to reroute the pipe north within Seahawk Avenue; therefore, the storm drain needs to be rerouted to the system to the south within Admiral Fitch Avenue (DP-3). The project does not propose any improvements on this side of the property and there is no available area to provide a stormwater best management practice (BMP). The areas within subcatchments SC-P6, P8, and P9 are unchanged from the pre- to post-development condition. Due to this rerouting and to limit disturbance on this portion of the property, it is not feasible to further reduce the runoff collected from these areas.

Despite minimal increases at DP-1 and DP-3, the design team does not anticipate any adverse impact on downgradient systems due to the proposed development.

Stormwater Quality

The project has been designed to meet the Maine DEP Chapter 500 Redevelopment treatment standards. As a Redevelopment project, the required water quality volume is calculated at 1" for impervious area and 0.4" for landscaped areas. See calculation in Table 3.

Table 3

		Treatment Depth (ft)	Water Quality Volume (cf)
Total Landscaped Area	126,074	0.033	4,160
Total Impervious Area	119,628	0.083	9,929
Total Treatment Required			**14,090**

The proposed BMPs will collect and treat the required Water Quality Volume. See Table 4 below for water quality volume treated by each BMP.

Table 4

BMP	Volume Treated (cf)	Description of Treatment
BR-1	5,334	Soil filter/gravel volume
BR-2	1,826	Soil filter/gravel volume
BR-3	3,600	Soil filter/gravel volume
BR-4	1,340	Soil filter/gravel volume
RT-1	1,717	Treatment rows: 5 x 15
RT-2	611	Treatment rows: 6 x 8
RT-3	577	Treatment rows: 2 x 8
Total Treatment Provided	**15,005**	

The required WQV is 14,090 cf and the proposed project provides 15,005 cf; therefore, the WQV requirement is met.

Erosion Control

BMPs such as stabilized construction entrances, siltation fence, erosion control mix berms, rip rap pipe inlet and outlet protection, erosion control blanket, mulch, and permanent seeding will be used to prevent erosion and downstream migration of sediment during construction. The locations of temporary and permanent erosion and sediment control measures, as well as notes and details are shown in the drawing set.

Inspection and Maintenance

The Applicant will be responsible for maintaining the stormwater BMPs for the project. An Inspection and Maintenance Plan has been included with this application.

Conclusion

The stormwater management for this project includes multiple stormwater BMP treatment systems to control both quantity and quality of the stormwater runoff. The HydroCAD calculations show that the peak runoff rates at the post-development conditions are less than the peak runoff rates under pre-development conditions for the 2-, 10-, and 25- year storm events at DP-2. As explained in this narrative, while there are slight increases at the 2-year and 10-year storm at DP-1 and slight increases at the design storms at DP-3, the design team believes there will be no adverse impacts to downstream receiving waterbodies.

Supporting Data and Calculations

The following material has been uploaded to the Maine Enterprise Licensing System (MELS) along with this narrative:

- Inspection and Maintenance Plan for Stormwater Management Facilities
- Sheet C-120- Pre-Development Watershed Map
- Sheet C-121- Post-Development Watershed Map
- Pre-Development HydroCAD Report
- Post-Development HydroCAD Report
- Pollutant Impact Ranking Calculation
- Soils Log by Sebago Technics (8/1/25)

Pollutant Impact Ranking Calculations 9/22/2025

Molnlycke Brunswick Expansion

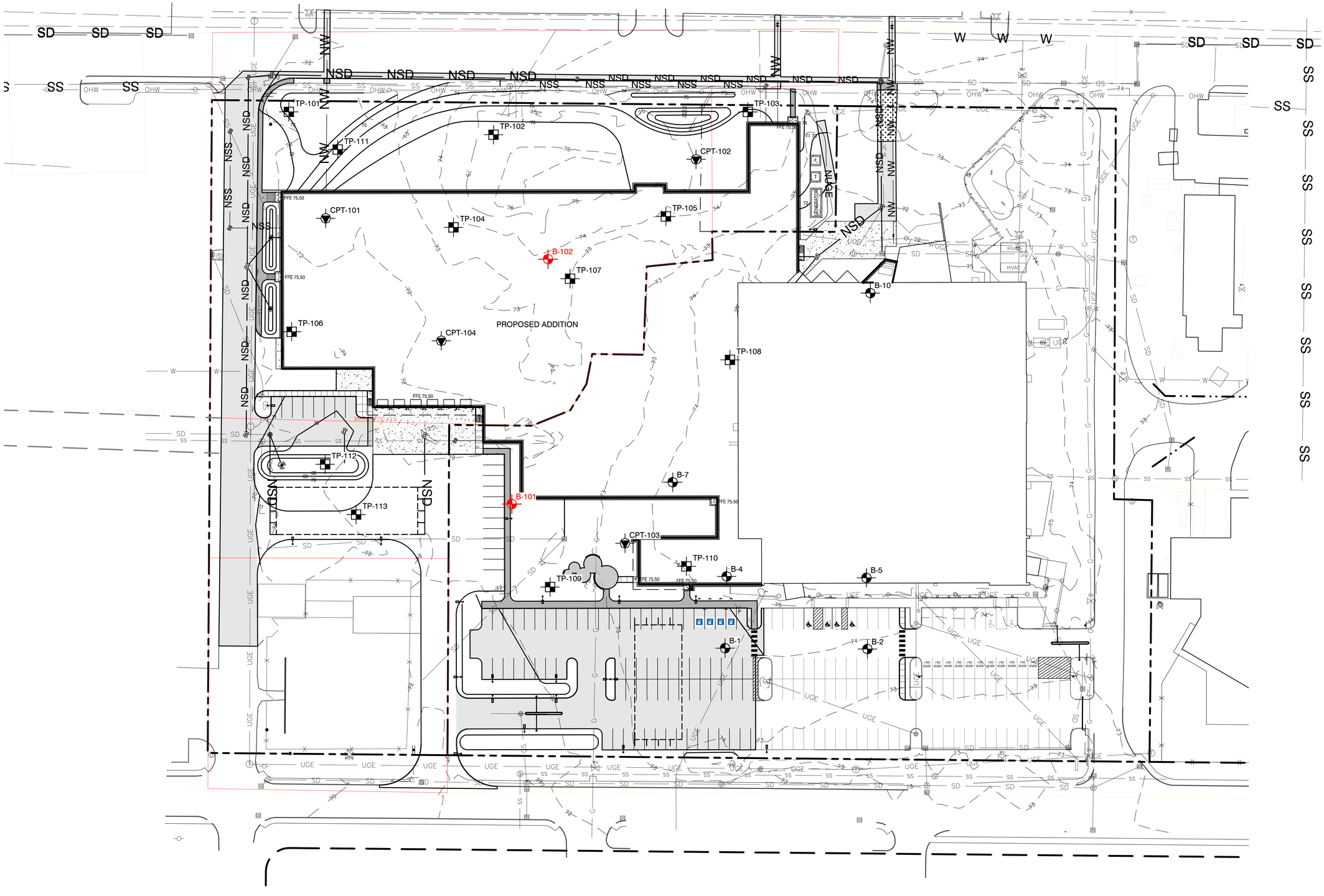
SMRT Project No: 24040

Existing Conditions

Land Use	Pollutant Ranking (PR)	Land Use Area (sf)	Land Use Area (ac)	Impact Weighted Average (PR x ac)
Roads where idling may occur	5	12,140	0.279	1.393
High use parking lots	5	0	0.000	0.000
Other roads	4	0	0.000	0.000
Medium use parking lots	4	0	0.000	0.000
Other parking lots and driveways	3	67,241	1.544	4.631
Flat asphalt rooftops	3	0	0.000	0.000
Roofs on industrial facility	3	1,793	0.041	0.123
Other rooftops	2	1,425	0.033	0.065
Bikeways	2	0	0.000	0.000
Grassed areas mowed more than twice per year	2	154,524	3.547	7.095
Walkways/foot traffic only pavement	2	9,681	0.222	0.444
Non-grass landscaped areas	1	723	0.017	0.017
Stormwater treatment/storage systems	1	0	0.000	0.000
Forest	0	0	0.000	0.000
Meadow mowed no more than twice per year	0	0	0.000	0.000
	Total Acreage =	**246,102**	**5.682**	**13.769**
	Existing Impact rating =			**0.000056**
	Impervious (ac) =		2.118	
	% Impervious (ac) =		37.28%	

Proposed Conditions

Land Use	Pollutant Ranking (PR)	Land Use Area (sf)	Land Use Area (ac)	Impact Weighted Average (PR x ac)
Roads where idling may occur	5	12,133	0.279	0.056
High use parking lots	5	0	0.000	0.000
Other roads	4	0	0.000	0.000
Medium use parking lots	4	70,074	1.609	0.402
Other parking lots and driveways	3	0	0.000	0.000
Flat asphalt rooftops	3	0	0.000	0.000
Roofs on industrial facility	3	78,473	1.801	0.600
Other rooftops	2	0	0.000	0.000
Bikeways	2	0	0.000	0.000
Grassed areas mowed more than twice per year	2	61,323	1.408	0.704
Walkways/foot traffic only pavement	2	2,845	0.065	0.033
Non-grass landscaped areas	1	8,497	0.195	0.195
Stormwater treatment/storage systems	1	12,757	0.293	0.293
Forest	0	0	0.000	0.000
Meadow mowed no more than twice per year	0	0	0.000	0.000
	Total Acreage =	**246,102**	**5.650**	**2.283**
	Proposed Impact rating =			**0.404063**
	Proposed - Existing Impact Rating =			**0.404007**
	Treatment Level =			**60%**
	Impervious (ac) =		3.754	
	% Impervious (ac) =		66.45%	



LEGEND:

- APPROXIMATE CONE PENETRATION TEST LOCATION
- APPROXIMATE TEST PIT LOCATION
- APPROXIMATE HISTORICAL BORING LOCATION
- PROPOSED BORING LOCATION

NOTES:

1. EXPLORATION LOCATION PLAN WAS PREPARED FROM A 1"=30' SCALE PLAN OF THE SITE TITLED "MOLNLYCKE ADDITION SCHEMATIC SITE PLAN," PREPARED BY SMRT, DATED 08/4/2025.
2. THE TEST PITS WERE LOCATED IN THE FIELD BY MEASUREMENTS FROM EXISTING SITE FEATURES.
3. THE CONE PENETRATION TESTS WERE PERFORMED UNDER THE DIRECTION OF S. W. COLE ENGINEERING, INC. ON DECEMBER 20, 2024.
4. BORINGS B-1, B-2, B-4, B-5, B-7 AND B-10 WERE PERFORMED UNDER THE DIRECTION OF SUMMIT GEOENGINEERING SERVICES IN DECEMBER 2010.
5. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
6. THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.

0 40 80 Feet

NO.	DATE	DESCRIPTION	BY
1	02/05/2025	INTERIM SUBMISSION - ADD TEST PITS AND PROPOSED BORINGS	CEM
0	02/05/2025	REPORT SUBMISSION	CEM

S.W.COLE ENGINEERING, INC.

SMRT

EXPLORATION LOCATION PLAN

PROPOSED MOLNLYCKE EXPANSION
192 ADMIRAL FITCH AVENUE
BRUNSWICK, MAINE

Job No.: 24-2370 Scale: 1" = 40'
Date : 02/05/2025 Sheet: 1

R:\2024\24-2370\CAD\Drawings\24-2370 ELP Rev1.dwg, 8/8/2025 1:19:22 PM, CEM, S. W. Cole Engineering, Inc.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-101

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 6.5
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.5 Light brown, gravelly SAND, some silt, with rebar, concrete blocks and rubble, pipe, (FILL)					
		3.0 Buried Relic Topsoil and Organics					
		4.0 Gray-brown to orange-brown, silty SAND					
5							

Bottom of Exploration at 6.5 feet

TEST PIT TP-102

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 75' +/- **COMPLETION DEPTH (FT):** 5.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.5 Light brown, silty fine SAND					
5							

Bottom of Exploration at 5.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-103

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 74' +/- **COMPLETION DEPTH (FT):** 4.5
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.4 Dark brown,SAND, some silt, some gravel, with occasional cobbles (FILL)					
		2.5 Light brown, silty fine SAND					
		4.0 Very dense / Cemented, dark rust-brown, silty SAND					

Bottom of Exploration at 4.5 feet

TEST PIT TP-104

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 73' +/- **COMPLETION DEPTH (FT):** 5.3
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.9 Brown, silty SAND, with roots, bricks (FILL)					
		2.0 Buried Relic Topsoil and Organics					
		2.5 Light orange-brown, silty fine SAND, trace gravel					
5							

Bottom of Exploration at 5.25 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
- ▽ At time of Digging
- ▼ At Completion of Digging
- ▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-105

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 74' +/- **COMPLETION DEPTH (FT):** 5.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.8 Dark brown, fine SAND, some silt, with glass, roots, and organics (FILL)					
		2.0 Light brown, silty fine SAND					
5		Bottom of Exploration at 5.0 feet					

TEST PIT TP-106

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 4.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.6 Brown, fine SAND, some silt, some gravel, with bricks and concrete (FILL)					
		2.5 Buried Relic Topsoil and Organics					
		3.0 Light brown, silty fine SAND					
		Bottom of Exploration at 4.0 feet					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-107

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 73' +/- **COMPLETION DEPTH (FT):** 5.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.5 Dark brown, fine SAND, some silt, trace gravel (FILL)					
		1.3 Light brown, silty fine SAND					
5		Bottom of Exploration at 5.0 feet					

TEST PIT TP-108

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 74' +/- **COMPLETION DEPTH (FT):** 7.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.8 Gray-brown, fine SAND, some silt, some gravel (FILL)					
		4.3 Buried Relic Topsoil, PEAT, and Organics					
5		5.0 Very dense/cemented, gray-brown to rust-brown, silty SAND					
		Bottom of Exploration at 7.0 feet					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-109

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 73' +/- **COMPLETION DEPTH (FT):** 4.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		0.3 Vegetation / Topsoil (FILL)					
		Light brown, fine SAND, some silt, trace gravel (FILL)					
		1.5 Buried Relic Topsoil and Organics					
		3.0 Light brown, silty fine SAND, some gravel					

Bottom of Exploration at 4.0 feet

TEST PIT TP-110

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 74' +/- **COMPLETION DEPTH (FT):** 7.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		0.5 Vegetation / Topsoil (FILL)					
		Gray-brown, gravelly silty SAND, with concrete rubble (FILL)					
		2.5 Light brown, silty SAND (FILL)					
5		5.0 Very dense / Cemented, dark rust-brown silty SAND					

Bottom of Exploration at 7.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-111

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 8.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.5 Brown to dark brown, silty SAND, some gravel, with sandy silt layers (FILL)					
		3.5 Buried Relic Topsoil and Organics					
		4.5 Orange-brown, fine SAND, trace silt					
5							
		7.5 Gray, silty SAND					

Bottom of Exploration at 8.0 feet

TEST PIT TP-112

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 71' +/- **COMPLETION DEPTH (FT):** 5.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Grass/topsoil (FILL)					
		0.5 Brown, silty SAND, some gravel, with relic foundation, rebar, steel pipes, plastic, wires (FILL)					
5							

Refusal at 5.0 feet
Buried Concrete Slab or Foundation

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-113

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 6.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Grass/topsoil (FILL)					
		0.5 Light brown to brown, silty SAND, trace gravel, with brick, plastic, rebar, steel pipe, paper (FILL)					
5							

Refusal at 6.0 feet
Buried Concrete Slab or Foundation

TEST PIT TP-114

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 8.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Grass/topsoil (FILL)					
		1.0 Brown, gravelly fine SAND, some silt, with roots and cobbles (FILL)					
		2.0 Gray-brown to orange-brown, silty SAND, some gravel					
5							

Bottom of Exploration at 8.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

KEY TO NOTES & SYMBOLS
Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q_u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S_v	-	field vane shear strength, kips/sq. ft.
L_v	-	lab vane shear strength, kips/sq. ft.
q_p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W_L	-	liquid limit - Atterberg test
W_P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ_T	-	total soil weight
γ_B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	½" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: **Test Boring Explorations** - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: **Test Pit Explorations** - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

FORM F 250560

SOIL PROFILE/CLASSIFICATION INFORMATION

Detailed Description of Subsurface Conditions at Project Sites

Project Name:	Applicant Name:	Project Location (municipality):
192 ADMIRAL FITCH AVENUE	MOLNLYCKE HEALTH CARE FACILITY	BRUNSWICK

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-111 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
LOAMY FILL WITH SILT LENSES		2.5Y 3/1 VERY DARK GRAY	
			NONE OBSERVED
	FRIABLE		
		10YR 3/6 DARK YELLOWISH	
LOAMY SAND FILL		BROWN AND 10YR 3/1 VERY DARK GRAY	
		10YR 3/1 VERY DARK GRAY	
LOAMY SAND			
	FRIABLE	5Y 4/1 DARK GRAY	
		10YR 5/6	
FINE SAND		YELLOWISH BROWN	COMMON, MEDIUM AND DISTINCT
SILTY SAND		5Y 5/1 GRAY	

LIMIT OF EXCAVATION = 96"

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
non-hydric	0-3	54"	restrictive layer

L.S.S. Soil Series / phase name: 36" FILL OVER ADAMS SAND | Drainage Class: SED | Hydrologic Group: A

L.S.E. Soil Classification: Profile: ____ Drainage Condition: ____

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-112 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
SANDY FILL WITH REBAR, ASPHALT, AND PIPING	FRIABLE	10YR 4/3 BROWN	NONE OBSERVED

REFUSAL/ CONCRETE SLAB OR FOOTING AT 60"

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
non-hydric	0-3	60"	restrictive layer

L.S.S. Soil Series / phase name: N/A | Drainage Class: --- | Hydrologic Group: ---

L.S.E. Soil Classification: Profile: ____ Drainage Condition: ____

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-113 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		2.5Y 5/3	
SANDY FILL		LIGHT OLIVE BROWN	
		2.5Y 4/4	NONE OBSERVED
LOAMY FILL WITH BRICKS, CONCRETE, REBAR AND PIPING		OLIVE BROWN	

REFUSAL/ CONCRETE SLAB OR FOOTING AT 72"

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
non-hydric	0-3	72"	restrictive layer

L.S.S. Soil Series / phase name: N/A | Drainage Class: --- | Hydrologic Group: ---

L.S.E. Soil Classification: Profile: ____ Drainage Condition: ____

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-114 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
GRAVELLY FINE SAND FILL	FRIABLE	2.5Y 5/4 LIGHT OLIVE BROWN	
		10YR 3/2	
SANDY LOAM		VERY DARK GRAYISH BROWN	
		10YR 4/6	
	FRIABLE	DARK YELLOWISH BROWN	
FINE SAND		10YR 5/6 YELLOWISH BROWN	
		2.5Y 5/3	
		LIGHT OLIVE BROWN	COMMON, MEDIUM AND DISTINCT

LIMIT OF EXCAVATION = 96"

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
non-hydric	0-3	54"	ground water

L.S.S. Soil Series / phase name: 24" FILL OVER ADAMS SAND | Drainage Class: SED | Hydrologic Group: A

L.S.E. Soil Classification: Profile: ____ Drainage Condition: ____

Professional Endorsements *(as applicable)*

L.S.S. signature: [signature] Date: 8/1/25

name printed/typed: Gary M. Fullerton Lic.#: 462

L.S.E. signature: Date:

name printed/typed: Lic.#:

affix professional seal

Inspection and Maintenance Plan for Stormwater Management Facilities

Molnlycke Health Care
192 Admiral Fitch Avenue
Brunswick, Maine
December 18, 2025

Installations requiring stormwater management include paved surfaces, catch basins, field inlets, drainage manholes, storm drain pipes, bioretention areas, and underground storage systems.

During construction activities, the maintenance of all stormwater measures will be the direct responsibility of the Contractor undertaking the work. All work shall conform to the terms and conditions of all relevant local, State and/or Federal permits. After acceptance by the Owner, the maintenance of all stormwater management facilities, the establishment of any contract services required implementing the program and the keeping of records and maintenance log book will be the responsibility of Molnlycke Health Care. Notwithstanding any other schedule noted below, general inspections should be conducted by facilities staff monthly during wet weather conditions from March to November.

Housekeeping

Contractor will be responsible for providing housekeeping requirements described in Appendix C of the Maine Department of Environmental Protection Maine Construction General Permit (MCGP).

Recertification Requirement

The stormwater license has a five-year recertification period, starting with the date the license was issued. The Owner shall apply for recertification in accordance with the requirements in Maine DEP Chapter 500, current edition.

Driveways, Walkways and Parking Lots

Accumulations of winter sand along paved surfaces shall be cleared at least once a year, preferably in the Spring, and periodically during the year on an as-needed basis, to minimize transportation of sediment during rainfall events.

Pipe Outlet Aprons

Aprons shall be inspected at a minimum twice per year, in spring and fall, and before and after a major rainfall event to assure that debris and/or sediments do not reduce the effectiveness of the system. Debris noticed during an inspection shall be removed at that time, or within 24 hours of the inspection. Any sign of erosion or blockage shall be immediately repaired and stabilized to ensure the stability of the structure and proper function. Maintenance shall include, but not be limited to, mowing, trimming and removal vegetation as required to prevent vegetation from blocking or diverting storm flows, replacement of riprap channel lining to prevent scouring of the channel invert, removing vegetation and debris from the culverts, inlet and outlet structures.

Riprap aprons where stone is displaced should be replaced and chinked to assure stability. With time, additional riprap may be added to maintain design depths and grades. Vegetation growing through riprap and accumulated sediments and debris should be removed on a bi-annual basis.

Catch Basins, Field Inlets, and Drainage Manholes

All catch basins, field inlets, and drainage manholes throughout the collection system shall be inspected twice per year, in spring and fall, to assure that the inlet entry and grates are clear of debris and will accept intended flows. Any debris and sediments shall be cleared. Sediment should be removed from these structures when it accumulates within 12 inches of the lowest pipe invert. At a minimum, remove floating debris and hydrocarbons at the time of inspection. The removed material must be disposed of in accordance with the Maine Solid Waste Disposal Rules. Confined space entry safety procedures shall be practiced should entry into these structures be required.

Inlet and Outlet Grates

Inlet and outlet grates are intended to trap and control floatables and debris within the stormwater system. The grates should be inspected on a quarterly basis, and after large storm events for buildup of debris and other potentially detrimental material. Periodic maintenance of these features will be required to keep grates clear and prevent damage to either the grate itself or the attached structure.

Culverts and Storm Drainage Pipes

Culverts and piped drainage systems shall be inspected on an annual basis to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the pipe inlet and outlet. Sediment should be removed when its level exceeds 20 percent of the pipe diameter. This may be accomplished by hydraulic flushing or any mechanical means; however, care should be taken to contain the sediment at the pipe outlet, and to avoid flushing the sediments into the stormwater filter or wetland areas as this will reduce the pond's capacity and ability to infiltrate runoff and will hasten the time when the pond must be cleaned or rehabilitated.

Rip rap aprons where stone is displaced should be replaced and adjusted to assure stability. With time, additional rip rap may be added. Vegetation growing through rip rap should be removed on an annual basis.

Outlet Control Structures

Inspect outlet control structures at least four times a year, and at the end of foliage and snow removal seasons. Remove sediments from structures at least four times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the basin. Clean out must include the removal and legal disposal of accumulated sediments and debris at the bottom of the structure, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins.

Inspect all orifices within structure or weir wall. Inspect orifices for evidence of clogging. If orifices appear to be clogging, remove blockages and inspect trash racks to ensure functioning properly. Repair trash racks as required.

Bioretention Areas

A general inspection of the bioretention areas should occur at least twice a year and following any rainfall even that exceeds 2.4 inches in a 24-hour period. Remove trash and debris at each inspection. Annually vegetation should be inspected and maintained in a healthy condition. This

includes pruning, removal and replacement of dead or diseased vegetation, replacement of mulch or bark, and removal of invasive species. Any woody vegetation near the inflow location should be removed.
Annually verify the bioretention system drawdown time. If the system does not drain within 72-hours following a rainfall event, then a qualified professional shall be contacted to assess the condition of the facility to determine measures required to restore the filtration function. This may include the removal of accumulated sediment, reconstruction of the filter media, and re-establishment of vegetation.

R-Tank Stormwater Storage System

Inspect R-Tank storage system every six months for the first year of operation, and once per year thereafter to ensure it is operating as intended. Inspect during and after storms to determine the storage system is meeting the expected detention times. Inspect inlet and outlet structures for evidence of clogging and remove debris and sediment as needed.

Inspect the storage system chambers per manufacturer's recommendation. In general, the inspection should include measurement of sediment at clean out locations that include the chambers, and manifold piping. If measured sediment build-up exceeds manufacturer's recommended percentage of pipe diameter or build-up depth cleaning should be performed at the earliest opportunity. Cleaning shall be performed by vacuum truck.

STORMWATER FACILITIES

INSPECTION AND MAINTENANCE INSPECTION REPORT

GENERAL Project: Molnlycke Brunswick Expansion

Brunswick, Maine

Inspector: Qualifications:

Date/Time:

Inspection Type: ☐ Annual/Biannual/_____

☐ Storm Event-Storm start date & rainfall (inches):

Weather conditions (at time of inspection):

General Observations:

Outstanding Issues from Previous Report:

BMP's Functional?		Condition?	Notes
Pipe Outlet Aprons:	☐ Yes ☐ No		_____
Drainage Pipes and Culverts:		☐ Yes ☐ No	_____
Driveways, Walkways and Parking Lots:		☐ Yes ☐ No	_____
Inlet and Outlet Grates:		☐ Yes ☐ No	_____
Catch Basins:		☐ Yes ☐ No	_____
Outlet Control Structures:		☐ Yes ☐ No	_____
Bioretention Areas:		☐ Yes ☐ No	_____
RTank Stormwater Storage System:		☐ Yes ☐ No	_____
Riprap:		☐ Yes ☐ No	_____
Mulch:		☐ Yes ☐ No	_____

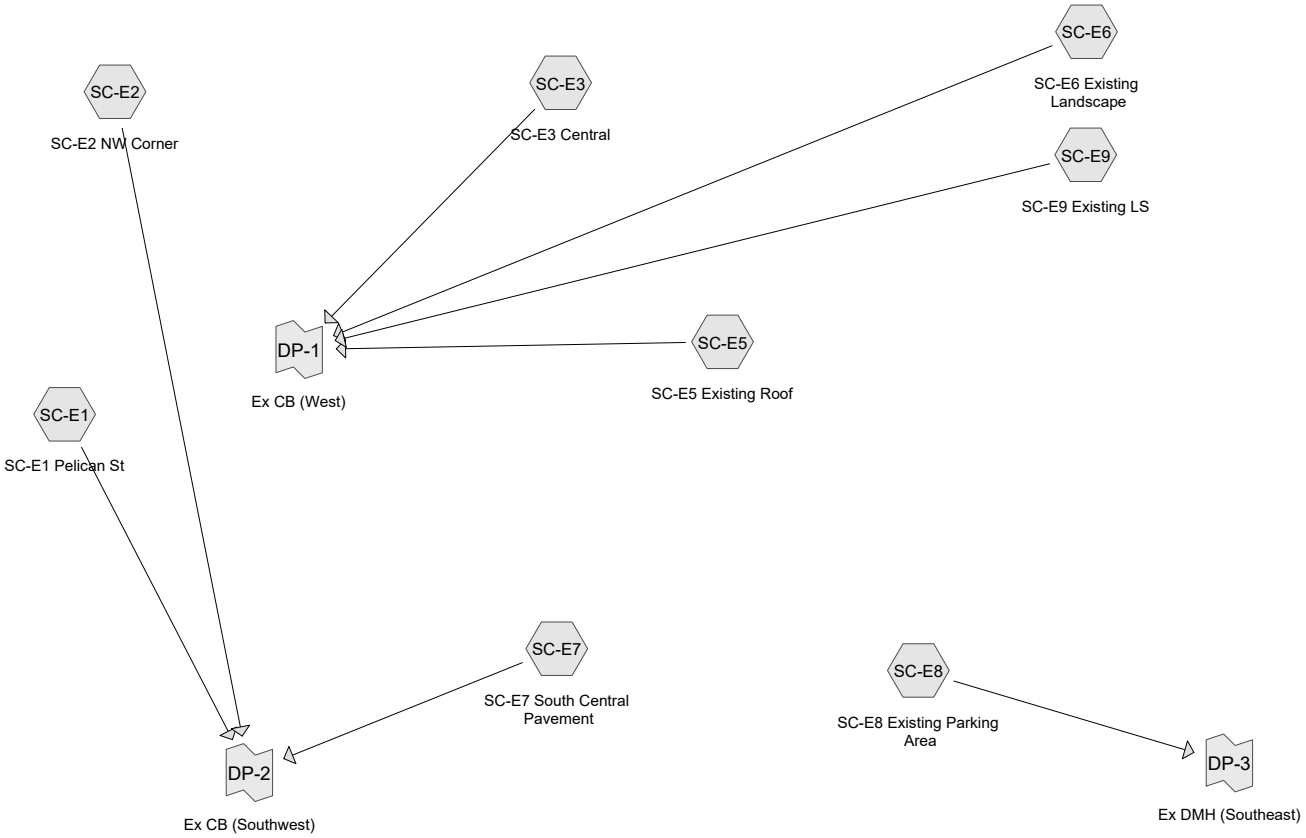
Other BMP notes:

HOUSEKEEPING	Observed?	Condition?	Notes
Contaminants/Chemicals:	☐ Yes ☐ No	_____	
Dumpster(s)/Litter Control:	☐ Yes ☐ No	_____	
Sanitary Facilities:	☐ Yes ☐ No	_____	
Vehicle Maintenance:	☐ Yes ☐ No	_____	

Other:

CORRECTIVE ACTIONS, FOLLOW UP, SCHEDULE, RESPONSIBLE PARTIES AND GENERAL NOTES

Inspector's Name and Signature: _____



Subcat Reach Pond Link

Routing Diagram for Pre-Development Model-24040
Prepared by SMRT, Inc, Printed 12/16/2025
HydroCAD® 10.20-7a s/n 00729 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-year	Type III 24-hr		Default	24.00	1	3.15	2
2	25-year	Type III 24-hr		Default	24.00	1	5.82	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.772	39	>75% Grass cover, Good, HSG A (SC-E1, SC-E2, SC-E3, SC-E6, SC-E7, SC-E8)
0.131	98	Gerzofsky Way (SC-E8)
0.632	39	Landscaped Area (SC-E3, SC-E6, SC-E7, SC-E8, SC-E9)
2.389	98	Paved parking, HSG A (SC-E2, SC-E3, SC-E6, SC-E7, SC-E8)
0.280	98	Pelican Street (SC-E1)
1.536	98	Roofs, HSG A (SC-E3, SC-E5, SC-E7)
0.404	98	Unconnected pavement, HSG A (SC-E2, SC-E3, SC-E6, SC-E7, SC-E8, SC-E9)
0.017	81	Urban industrial, 72% imp, HSG A (SC-E3, SC-E7)
9.160	**70**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
8.117	HSG A	SC-E1, SC-E2, SC-E3, SC-E5, SC-E6, SC-E7, SC-E8, SC-E9
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
1.043	Other	SC-E1, SC-E3, SC-E6, SC-E7, SC-E8, SC-E9
9.160		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
3.772	0.000	0.000	0.000	0.000	3.772	>75% Grass cover, Good	SC-E1, SC-E2, SC-E3, SC-E6, SC-E7, SC-E8
0.000	0.000	0.000	0.000	0.131	0.131	Gerzofsky Way	SC-E8
0.000	0.000	0.000	0.000	0.632	0.632	Landscaped Area	SC-E3, SC-E6, SC-E7, SC-E8, SC-E9
2.389	0.000	0.000	0.000	0.000	2.389	Paved parking	SC-E2, SC-E3, SC-E6, SC-E7, SC-E8
0.000	0.000	0.000	0.000	0.280	0.280	Pelican Street	SC-E1
1.536	0.000	0.000	0.000	0.000	1.536	Roofs	SC-E3, SC-E5, SC-E7
0.404	0.000	0.000	0.000	0.000	0.404	Unconnected pavement	SC-E2, SC-E3, SC-E6, SC-E7, SC-E8, SC-E9
0.017	0.000	0.000	0.000	0.000	0.017	Urban industrial, 72% imp	SC-E3, SC-E7
8.117	**0.000**	**0.000**	**0.000**	**1.043**	**9.160**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	SC-E6	0.00	0.00	91.0	0.0038	0.013	0.0	6.0	0.0	
2	SC-E6	0.00	0.00	807.0	0.0038	0.011	0.0	18.0	0.0	
3	SC-E9	0.00	0.00	807.0	0.0038	0.011	0.0	18.0	0.0	

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC-E1: SC-E1 Pelican St Runoff Area=17,042 sf 71.51% Impervious Runoff Depth>1.43"
Tc=5.0 min CN=81 Runoff=0.65 cfs 0.047 af

Subcatchment SC-E2: SC-E2 NW Corner Runoff Area=23,955 sf 19.96% Impervious Runoff Depth>0.12"
Flow Length=217' Tc=10.6 min UI Adjusted CN=50 Runoff=0.01 cfs 0.005 af

Subcatchment SC-E3: SC-E3 Central Runoff Area=168,551 sf 25.59% Impervious Runoff Depth>0.16"
Flow Length=164' Tc=17.8 min UI Adjusted CN=52 Runoff=0.14 cfs 0.052 af

Subcatchment SC-E5: SC-E5 Existing Runoff Area=63,889 sf 100.00% Impervious Runoff Depth>2.92"
Tc=5.0 min CN=98 Runoff=4.51 cfs 0.356 af

Subcatchment SC-E6: SC-E6 Existing Runoff Area=15,000 sf 33.34% Impervious Runoff Depth>0.35"
Flow Length=978' Tc=14.5 min CN=59 Runoff=0.06 cfs 0.010 af

Subcatchment SC-E7: SC-E7 South Runoff Area=46,325 sf 85.04% Impervious Runoff Depth>2.03"
Tc=5.0 min CN=89 Runoff=2.54 cfs 0.180 af

Subcatchment SC-E8: SC-E8 Existing Runoff Area=54,800 sf 69.78% Impervious Runoff Depth>1.36"
Flow Length=247' Tc=9.7 min CN=80 Runoff=1.73 cfs 0.143 af

Subcatchment SC-E9: SC-E9 Existing LS Runoff Area=9,458 sf 3.85% Impervious Runoff Depth>0.00"
Flow Length=843' Tc=5.8 min UI Adjusted CN=40 Runoff=0.00 cfs 0.000 af

Link DP-1: Ex CB (West) Inflow=4.52 cfs 0.418 af
Primary=4.52 cfs 0.418 af

Link DP-2: Ex CB (Southwest) Inflow=3.17 cfs 0.232 af
Primary=3.17 cfs 0.232 af

Link DP-3: Ex DMH (Southeast) Inflow=1.73 cfs 0.143 af
Primary=1.73 cfs 0.143 af

Total Runoff Area = 9.160 ac Runoff Volume = 0.793 af Average Runoff Depth = 1.04"
48.13% Pervious = 4.409 ac 51.87% Impervious = 4.752 ac

Summary for Subcatchment SC-E1: SC-E1 Pelican St

[49] Hint: Tc<2dt may require smaller dt

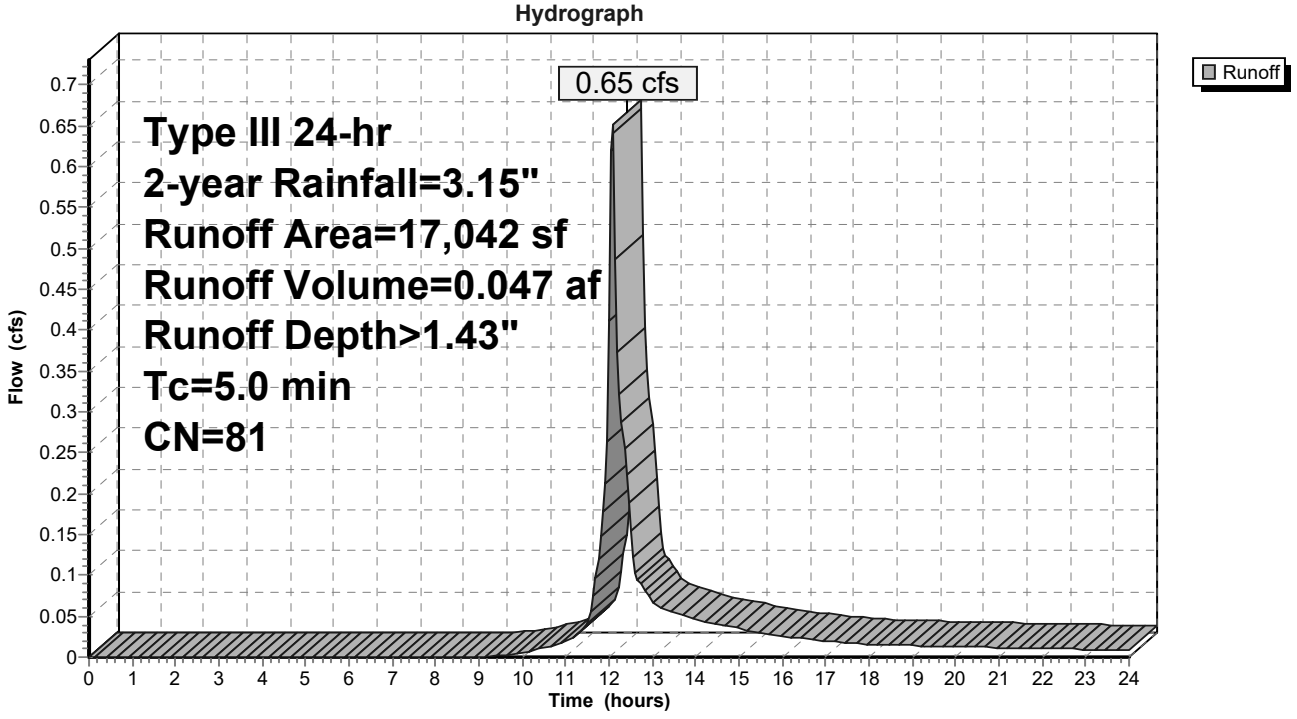
Runoff = 0.65 cfs @ 12.08 hrs, Volume= 0.047 af, Depth> 1.43"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
*	12,186	98	Pelican Street
	4,856	39	>75% Grass cover, Good, HSG A
	17,042	81	Weighted Average
	4,856		28.49% Pervious Area
	12,186		71.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Road Standard**

Subcatchment SC-E1: SC-E1 Pelican St



Summary for Subcatchment SC-E2: SC-E2 NW Corner

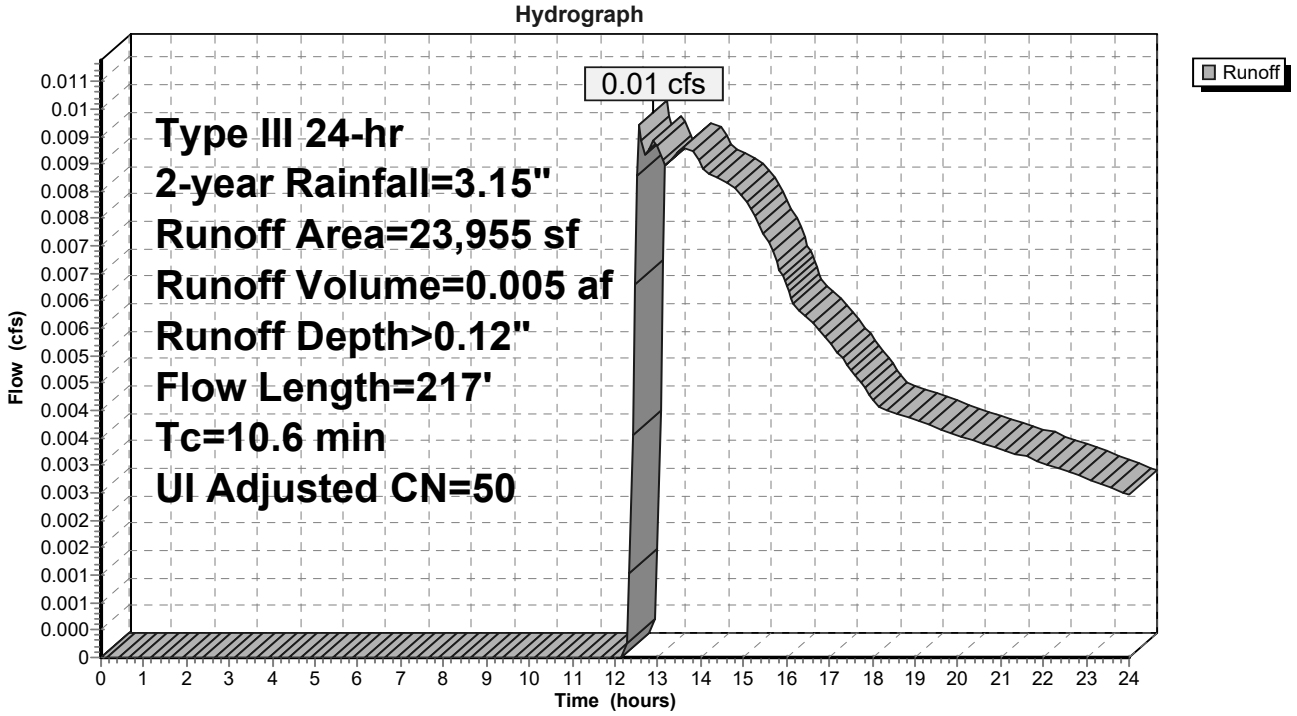
Runoff = 0.01 cfs @ 12.57 hrs, Volume= 0.005 af, Depth> 0.12"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

Area (sf)	CN	Adj	Description
3,936	98		Paved parking, HSG A
846	98		Unconnected pavement, HSG A
19,173	39		>75% Grass cover, Good, HSG A
23,955	51	50	Weighted Average, UI Adjusted
19,173			80.04% Pervious Area
4,782			19.96% Impervious Area
846			17.69% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0335	0.20		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
2.4	117	0.0026	0.82		**Shallow Concentrated Flow, Shallow Flow** Unpaved Kv= 16.1 fps
10.6	217	Total			

Subcatchment SC-E2: SC-E2 NW Corner



Summary for Subcatchment SC-E3: SC-E3 Central

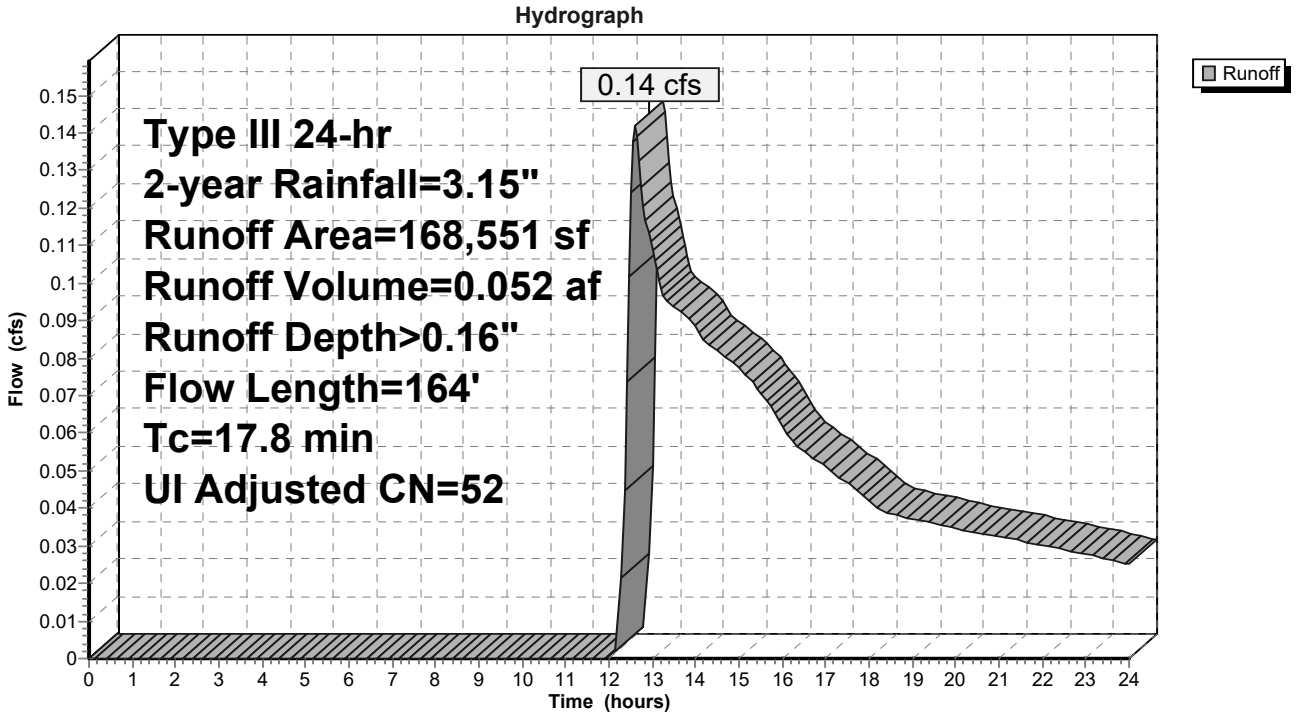
Runoff = 0.14 cfs @ 12.60 hrs, Volume= 0.052 af, Depth> 0.16"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Adj	Description
	1,594	98		Roofs, HSG A
	29,684	98		Paved parking, HSG A
	11,387	98		Unconnected pavement, HSG A
	123,736	39		>75% Grass cover, Good, HSG A
*	1,510	39		Landscaped Area
	640	81		Urban industrial, 72% imp, HSG A
	168,551	54	52	Weighted Average, UI Adjusted
	125,425			74.41% Pervious Area
	43,126			25.59% Impervious Area
	11,387			26.40% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.3	100	0.0052	0.10		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.5	64	0.0198	2.27		**Shallow Concentrated Flow, Shallow Flow** Unpaved Kv= 16.1 fps
17.8	164	Total			

Subcatchment SC-E3: SC-E3 Central



Summary for Subcatchment SC-E5: SC-E5 Existing Roof

Via RD

[49] Hint: Tc<2dt may require smaller dt

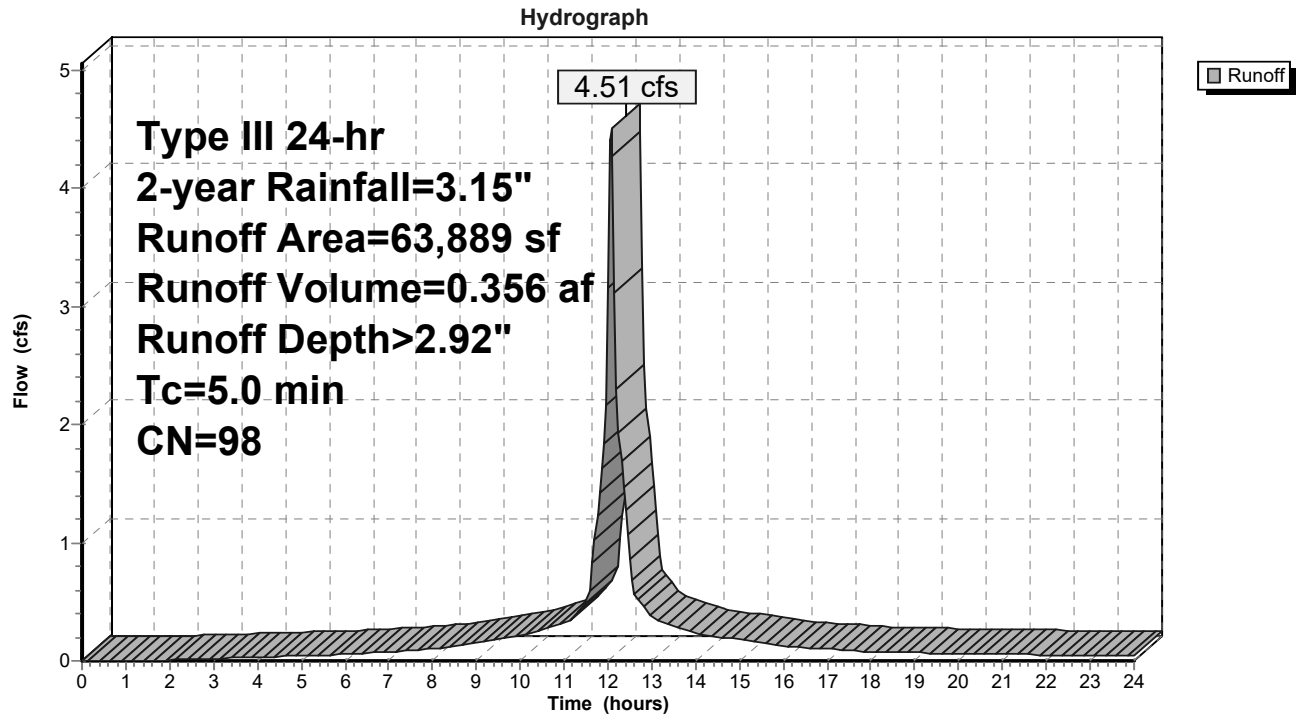
Runoff = 4.51 cfs @ 12.07 hrs, Volume= 0.356 af, Depth> 2.92"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
*	63,889	98	Roofs, HSG A
	63,889		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-E5: SC-E5 Existing Roof



Summary for Subcatchment SC-E6: SC-E6 Existing Landscape

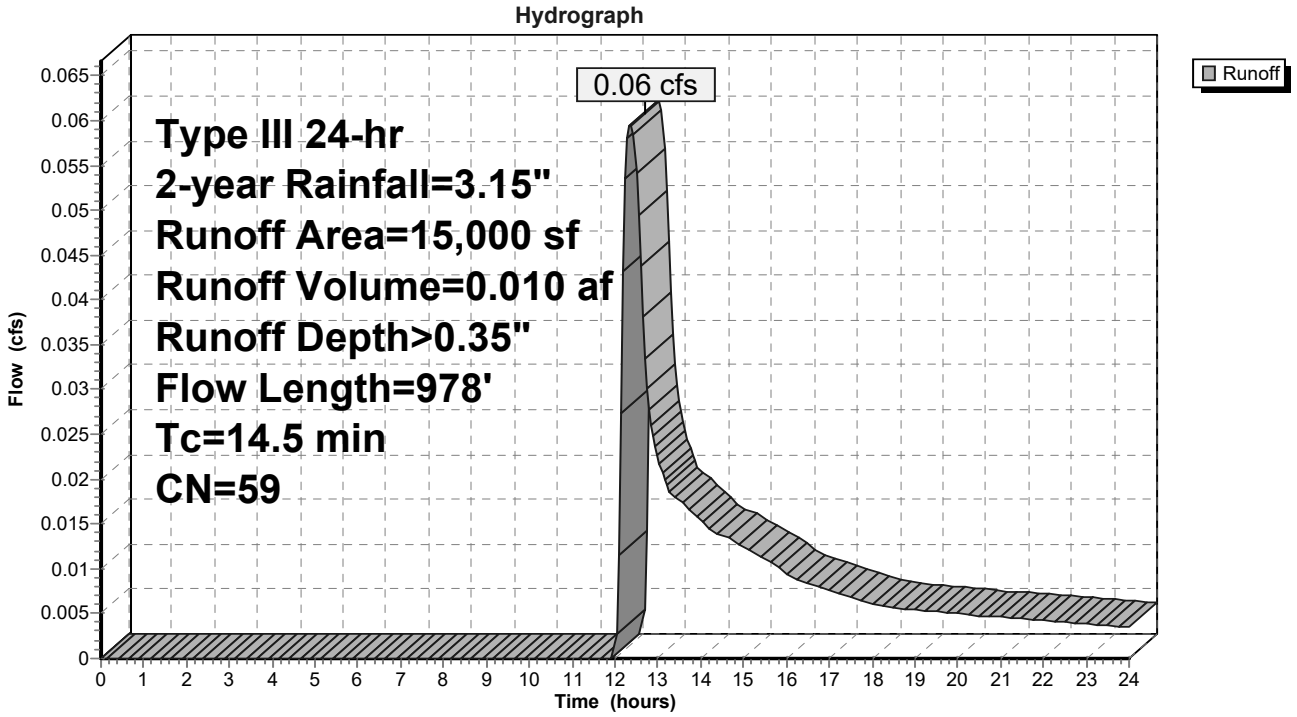
Runoff = 0.06 cfs @ 12.37 hrs, Volume= 0.010 af, Depth> 0.35"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	4,143	98	Paved parking, HSG A
	858	98	Unconnected pavement, HSG A
	8,182	39	>75% Grass cover, Good, HSG A
*	1,817	39	Landscaped Area
	15,000	59	Weighted Average
	9,999		66.66% Pervious Area
	5,001		33.34% Impervious Area
	858		17.16% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	80	0.0297	0.13		**Sheet Flow, Initial Sheeting** Grass: Dense n= 0.240 P2= 3.00"
0.9	91	0.0038	1.76	0.35	**Pipe Channel, Ex 6" PVC** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
3.1	807	0.0038	4.33	7.65	**Pipe Channel, Ex 18" RCP** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011 Concrete pipe, straight & clean
14.5	978	Total			

Subcatchment SC-E6: SC-E6 Existing Landscape



Summary for Subcatchment SC-E7: SC-E7 South Central Pavement

[49] Hint: Tc<2dt may require smaller dt

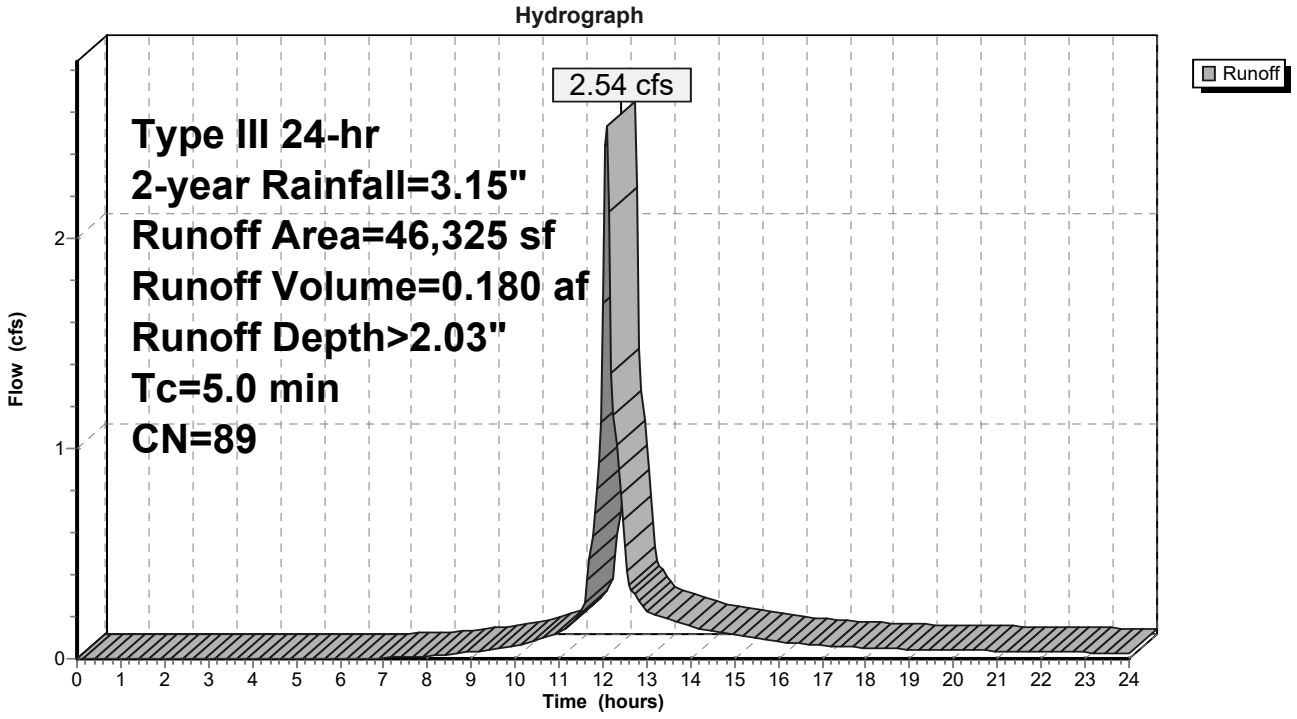
Runoff = 2.54 cfs @ 12.07 hrs, Volume= 0.180 af, Depth> 2.03"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	1,425	98	Roofs, HSG A
	37,605	98	Paved parking, HSG A
	309	98	Unconnected pavement, HSG A
	3,018	39	>75% Grass cover, Good, HSG A
*	3,888	39	Landscaped Area
	80	81	Urban industrial, 72% imp, HSG A
	46,325	89	Weighted Average
	6,928		14.96% Pervious Area
	39,397		85.04% Impervious Area
	309		0.78% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-E7: SC-E7 South Central Pavement



Summary for Subcatchment SC-E8: SC-E8 Existing Parking Area

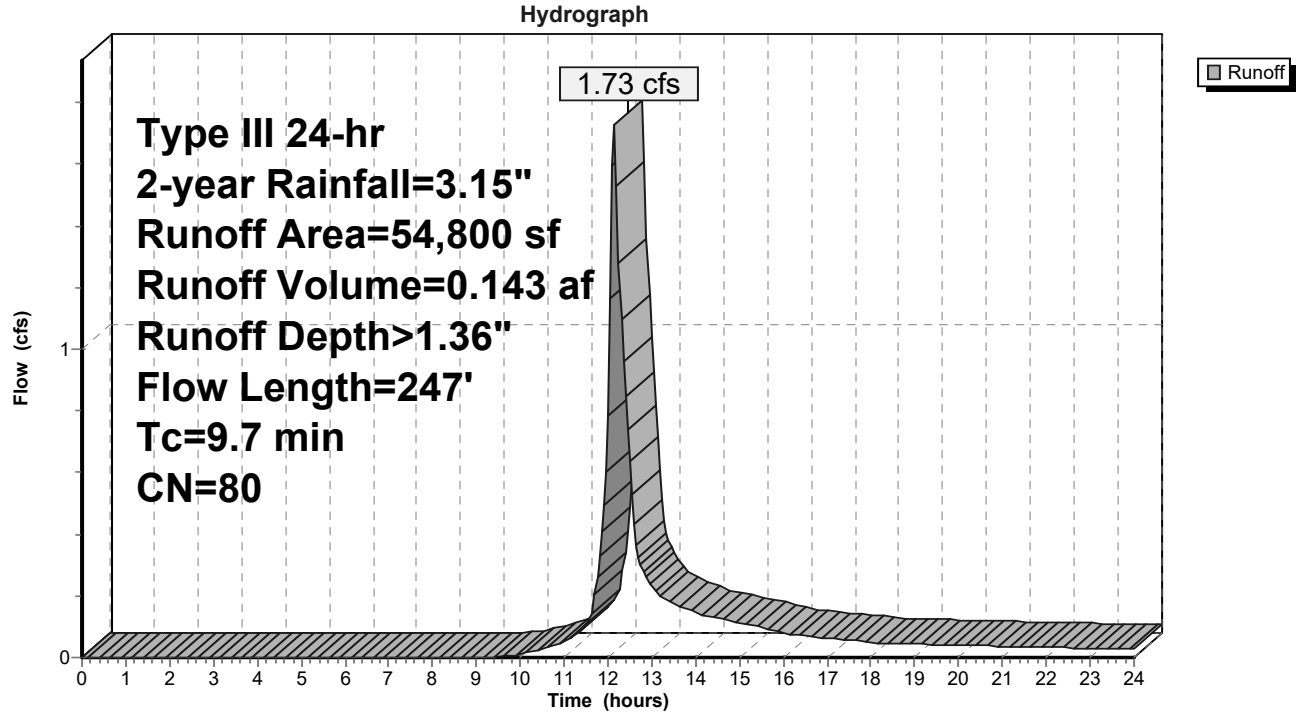
Runoff = 1.73 cfs @ 12.15 hrs, Volume= 0.143 af, Depth> 1.36"
Routed to Link DP-3 : Ex DMH (Southeast)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	28,705	98	Paved parking, HSG A
	3,835	98	Unconnected pavement, HSG A
	5,325	39	>75% Grass cover, Good, HSG A
*	11,237	39	Landscaped Area
*	5,698	98	Gerzofsky Way
	54,800	80	Weighted Average
	16,562		30.22% Pervious Area
	38,238		69.78% Impervious Area
	3,835		10.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	58	0.0340	0.13		**Sheet Flow, Initial Sheeting** Grass: Dense n= 0.240 P2= 3.00"
2.0	189	0.0060	1.57		**Shallow Concentrated Flow, Shallow Flow** Paved Kv= 20.3 fps
9.7	247	Total			

Subcatchment SC-E8: SC-E8 Existing Parking Area



Summary for Subcatchment SC-E9: SC-E9 Existing LS

[49] Hint: Tc<2dt may require smaller dt
[73] Warning: Peak may fall outside time span

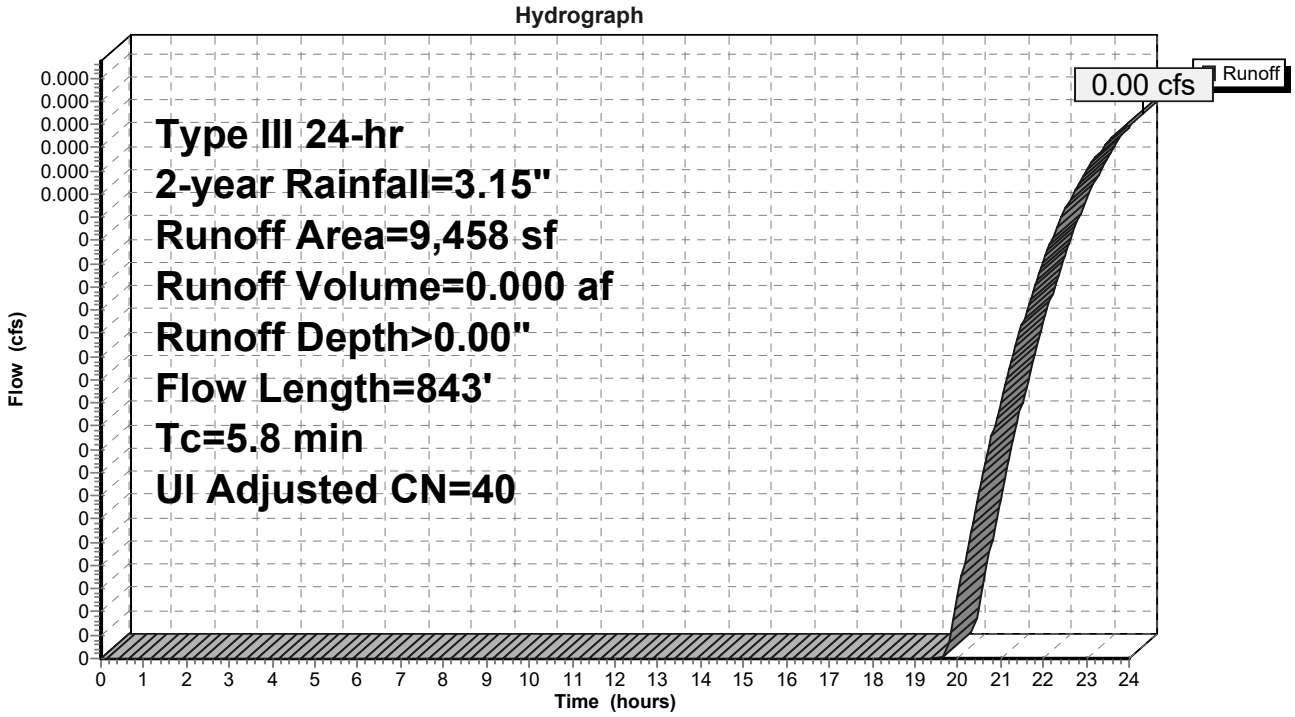
Runoff = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Depth> 0.00"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Adj	Description
	364	98		Unconnected pavement, HSG A
*	9,094	39		Landscaped Area
	9,458	41	40	Weighted Average, UI Adjusted
	9,094			96.15% Pervious Area
	364			3.85% Impervious Area
	364			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	36	0.0680	0.22		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
3.1	807	0.0038	4.33	7.65	**Pipe Channel, Ex 18" RCP** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011 Concrete pipe, straight & clean
5.8	843	Total			

Subcatchment SC-E9: SC-E9 Existing LS

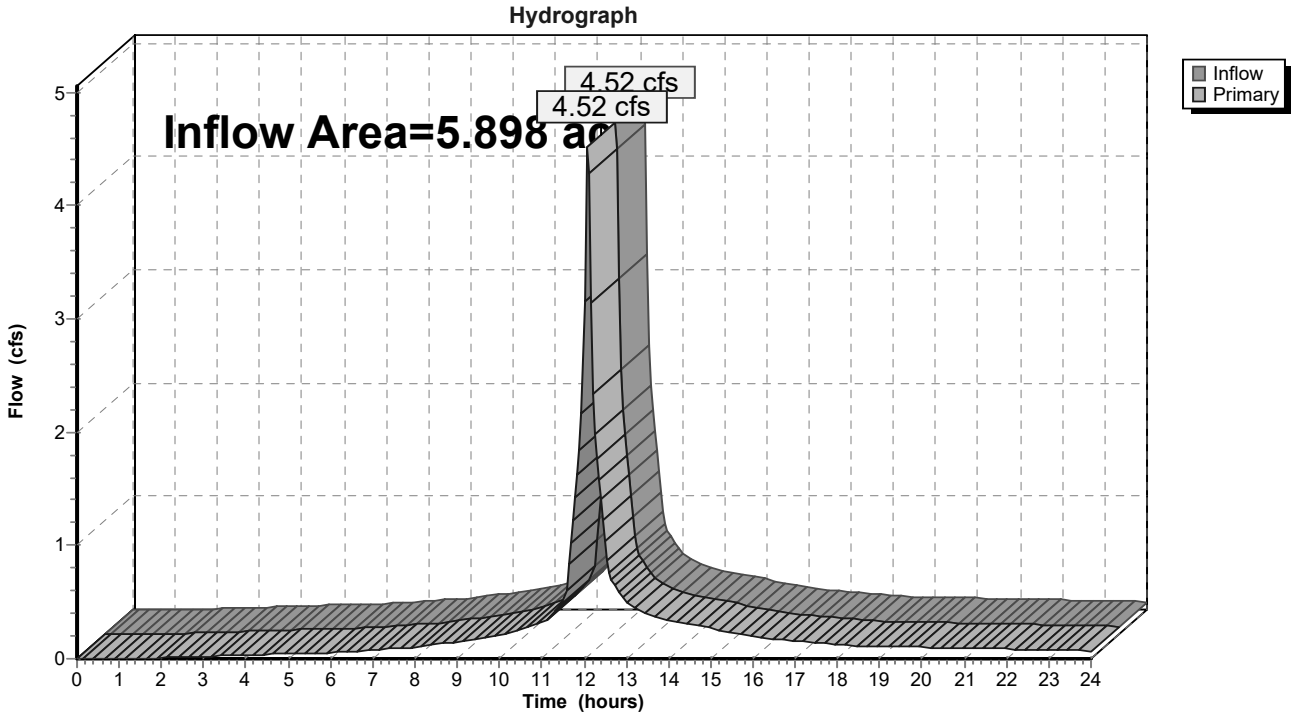

Hydrograph
Runoff
0.00 cfs
Type III 24-hr
2-year Rainfall=3.15"
Runoff Area=9,458 sf
Runoff Volume=0.000 af
Runoff Depth>0.00"
Flow Length=843'
Tc=5.8 min
UI Adjusted CN=40
Flow (cfs)
0.000
0.000
0.000
0.000
0.000
0.000
0
0
0

Summary for Link DP-1: Ex CB (West)

Inflow Area = 5.898 ac, 43.74% Impervious, Inflow Depth > 0.85" for 2-year event
Inflow = 4.52 cfs @ 12.07 hrs, Volume= 0.418 af
Primary = 4.52 cfs @ 12.07 hrs, Volume= 0.418 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-1: Ex CB (West)

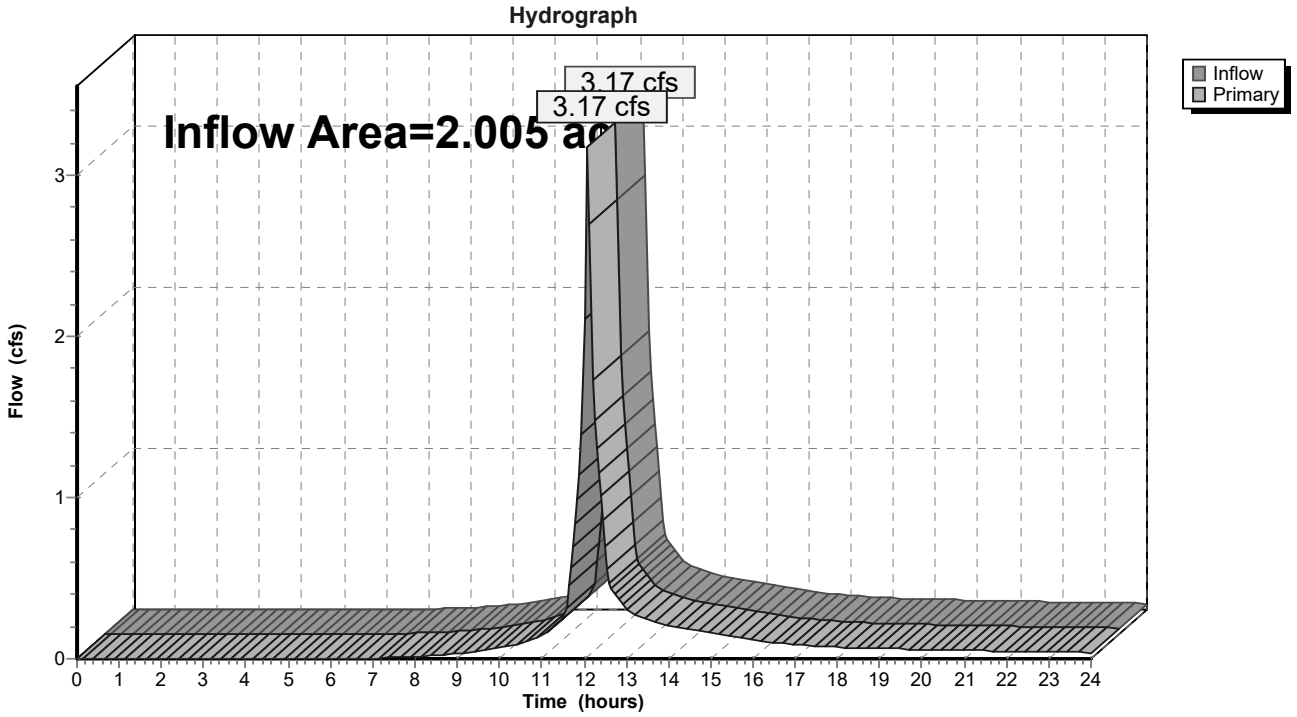


Summary for Link DP-2: Ex CB (Southwest)

Inflow Area = 2.005 ac, 64.55% Impervious, Inflow Depth > 1.39" for 2-year event
Inflow = 3.17 cfs @ 12.08 hrs, Volume= 0.232 af
Primary = 3.17 cfs @ 12.08 hrs, Volume= 0.232 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-2: Ex CB (Southwest)

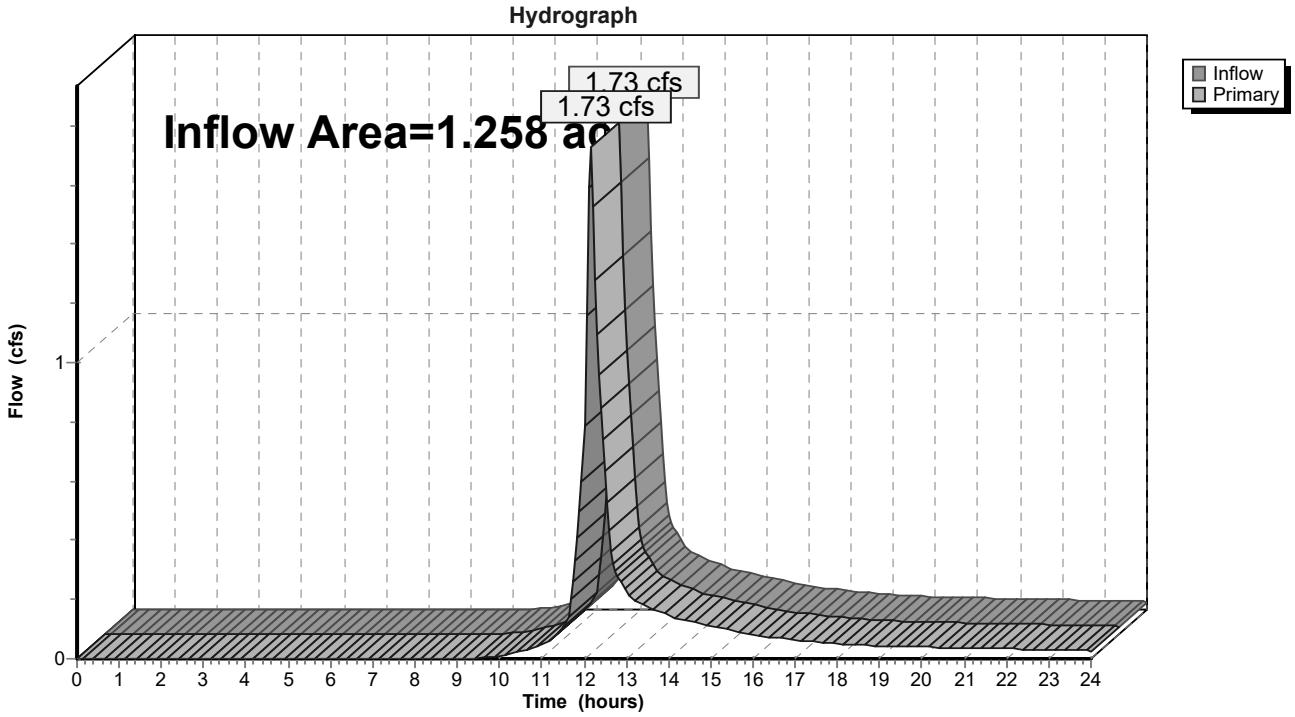


Summary for Link DP-3: Ex DMH (Southeast)

Inflow Area = 1.258 ac, 69.78% Impervious, Inflow Depth > 1.36" for 2-year event
Inflow = 1.73 cfs @ 12.15 hrs, Volume= 0.143 af
Primary = 1.73 cfs @ 12.15 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-3: Ex DMH (Southeast)



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC-E1: SC-E1 Pelican St Runoff Area=17,042 sf 71.51% Impervious Runoff Depth>3.72"
Tc=5.0 min CN=81 Runoff=1.70 cfs 0.121 af

Subcatchment SC-E2: SC-E2 NW Corner Runoff Area=23,955 sf 19.96% Impervious Runoff Depth>1.05"
Flow Length=217' Tc=10.6 min UI Adjusted CN=50 Runoff=0.43 cfs 0.048 af

Subcatchment SC-E3: SC-E3 Central Runoff Area=168,551 sf 25.59% Impervious Runoff Depth>1.19"
Flow Length=164' Tc=17.8 min UI Adjusted CN=52 Runoff=3.10 cfs 0.384 af

Subcatchment SC-E5: SC-E5 Existing Runoff Area=63,889 sf 100.00% Impervious Runoff Depth>5.58"
Tc=5.0 min CN=98 Runoff=8.42 cfs 0.682 af

Subcatchment SC-E6: SC-E6 Existing Runoff Area=15,000 sf 33.34% Impervious Runoff Depth>1.72"
Flow Length=978' Tc=14.5 min CN=59 Runoff=0.49 cfs 0.049 af

Subcatchment SC-E7: SC-E7 South Runoff Area=46,325 sf 85.04% Impervious Runoff Depth>4.56"
Tc=5.0 min CN=89 Runoff=5.50 cfs 0.404 af

Subcatchment SC-E8: SC-E8 Existing Runoff Area=54,800 sf 69.78% Impervious Runoff Depth>3.61"
Flow Length=247' Tc=9.7 min CN=80 Runoff=4.63 cfs 0.379 af

Subcatchment SC-E9: SC-E9 Existing LS Runoff Area=9,458 sf 3.85% Impervious Runoff Depth>0.45"
Flow Length=843' Tc=5.8 min UI Adjusted CN=40 Runoff=0.04 cfs 0.008 af

Link DP-1: Ex CB (West) Inflow=9.67 cfs 1.123 af
Primary=9.67 cfs 1.123 af

Link DP-2: Ex CB (Southwest) Inflow=7.41 cfs 0.573 af
Primary=7.41 cfs 0.573 af

Link DP-3: Ex DMH (Southeast) Inflow=4.63 cfs 0.379 af
Primary=4.63 cfs 0.379 af

Total Runoff Area = 9.160 ac Runoff Volume = 2.075 af Average Runoff Depth = 2.72"
48.13% Pervious = 4.409 ac 51.87% Impervious = 4.752 ac

Summary for Subcatchment SC-E1: SC-E1 Pelican St

[49] Hint: Tc<2dt may require smaller dt

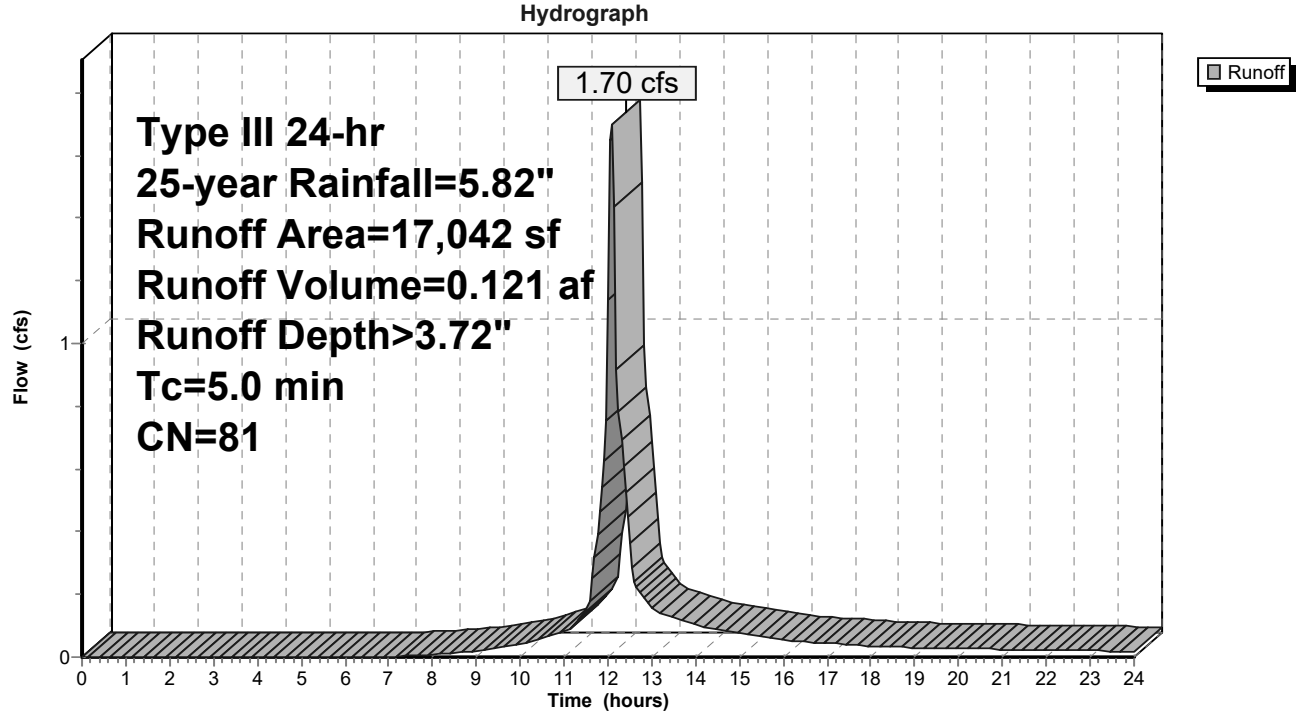
Runoff = 1.70 cfs @ 12.08 hrs, Volume= 0.121 af, Depth> 3.72"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
*	12,186	98	Pelican Street
	4,856	39	>75% Grass cover, Good, HSG A
	17,042	81	Weighted Average
	4,856		28.49% Pervious Area
	12,186		71.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Road Standard**

Subcatchment SC-E1: SC-E1 Pelican St



Summary for Subcatchment SC-E2: SC-E2 NW Corner

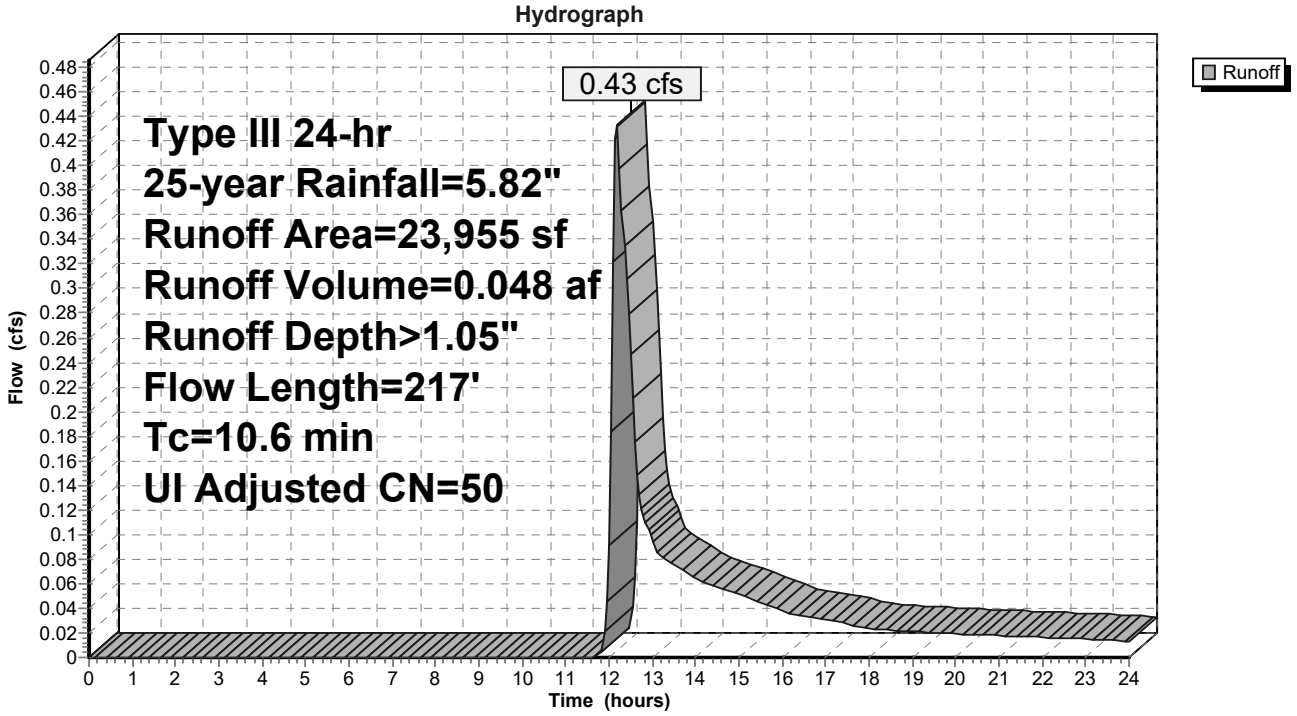
Runoff = 0.43 cfs @ 12.19 hrs, Volume= 0.048 af, Depth> 1.05"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

Area (sf)	CN	Adj	Description
3,936	98		Paved parking, HSG A
846	98		Unconnected pavement, HSG A
19,173	39		>75% Grass cover, Good, HSG A
23,955	51	50	Weighted Average, UI Adjusted
19,173			80.04% Pervious Area
4,782			19.96% Impervious Area
846			17.69% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0335	0.20		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
2.4	117	0.0026	0.82		**Shallow Concentrated Flow, Shallow Flow** Unpaved Kv= 16.1 fps
10.6	217	Total			

Subcatchment SC-E2: SC-E2 NW Corner



Summary for Subcatchment SC-E3: SC-E3 Central

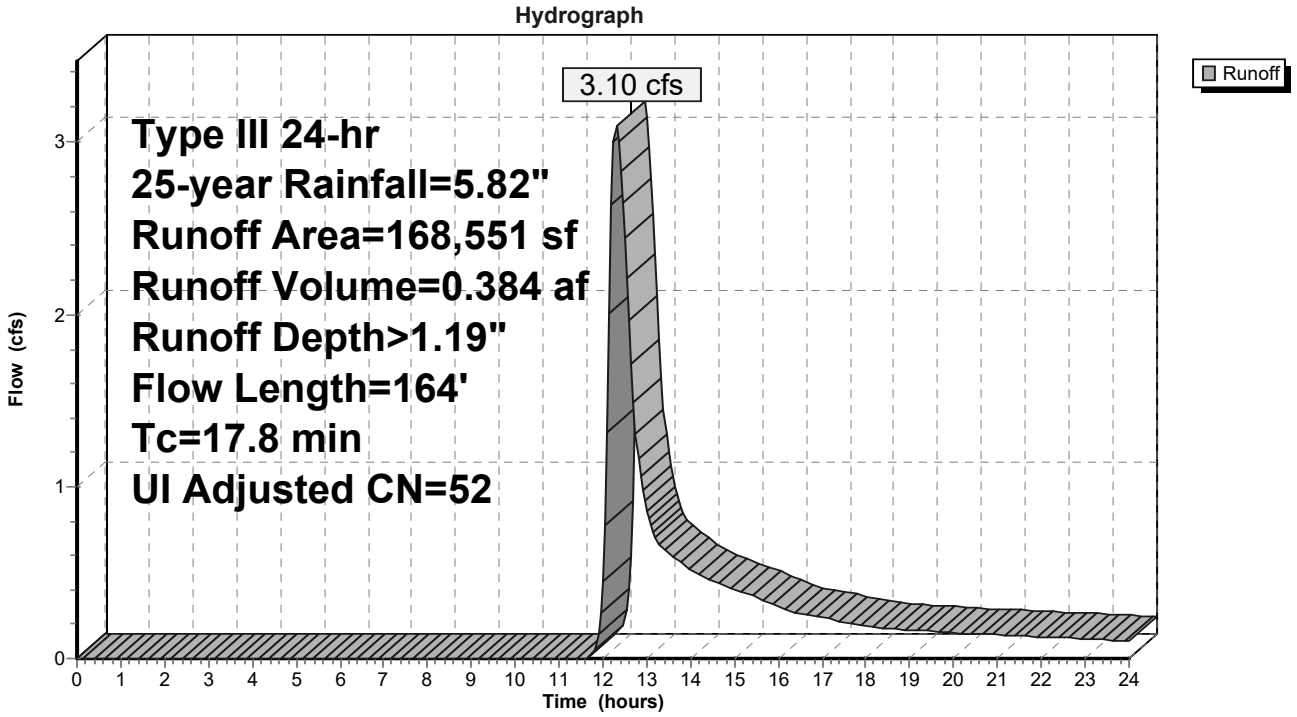
Runoff = 3.10 cfs @ 12.30 hrs, Volume= 0.384 af, Depth> 1.19"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Adj	Description
	1,594	98		Roofs, HSG A
	29,684	98		Paved parking, HSG A
	11,387	98		Unconnected pavement, HSG A
	123,736	39		>75% Grass cover, Good, HSG A
*	1,510	39		Landscaped Area
	640	81		Urban industrial, 72% imp, HSG A
	168,551	54	52	Weighted Average, UI Adjusted
	125,425			74.41% Pervious Area
	43,126			25.59% Impervious Area
	11,387			26.40% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.3	100	0.0052	0.10		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.5	64	0.0198	2.27		**Shallow Concentrated Flow, Shallow Flow** Unpaved Kv= 16.1 fps
17.8	164	Total			

Subcatchment SC-E3: SC-E3 Central



Summary for Subcatchment SC-E5: SC-E5 Existing Roof

Via RD

[49] Hint: Tc<2dt may require smaller dt

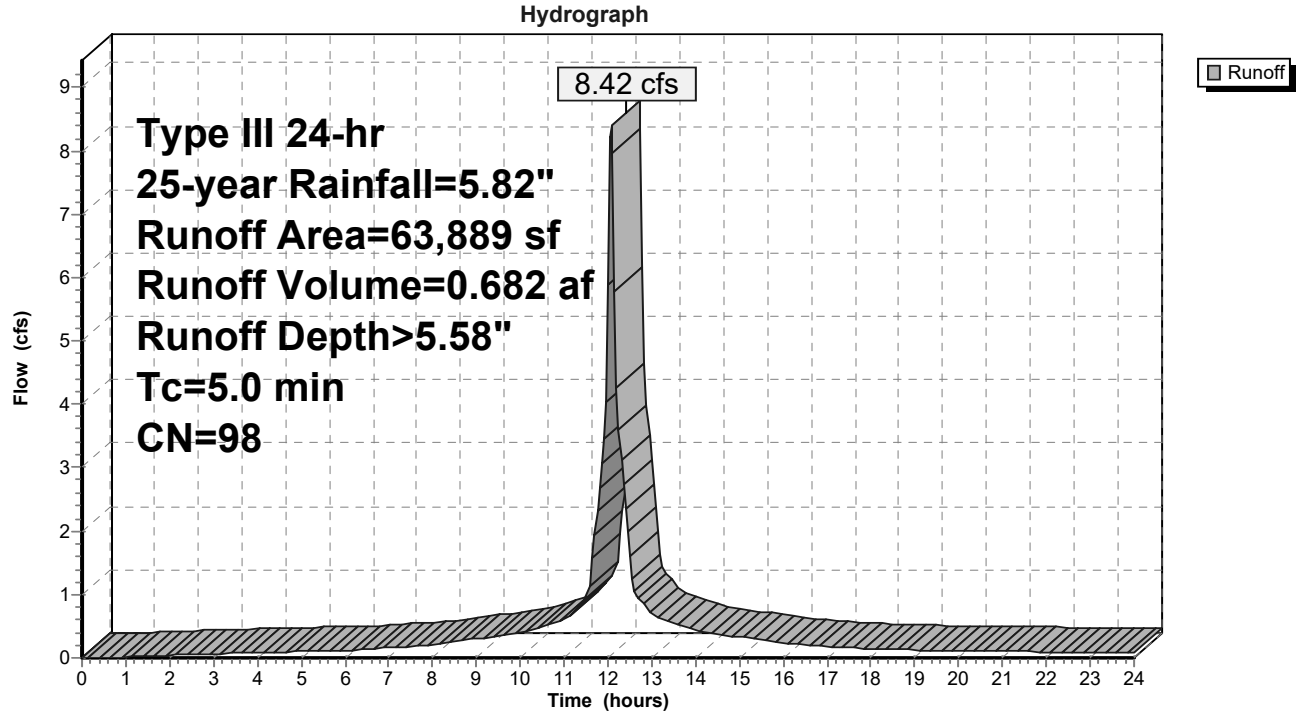
Runoff = 8.42 cfs @ 12.07 hrs, Volume= 0.682 af, Depth> 5.58"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
*	63,889	98	Roofs, HSG A
	63,889		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-E5: SC-E5 Existing Roof



Summary for Subcatchment SC-E6: SC-E6 Existing Landscape

[47] Hint: Peak is 142% of capacity of segment #2

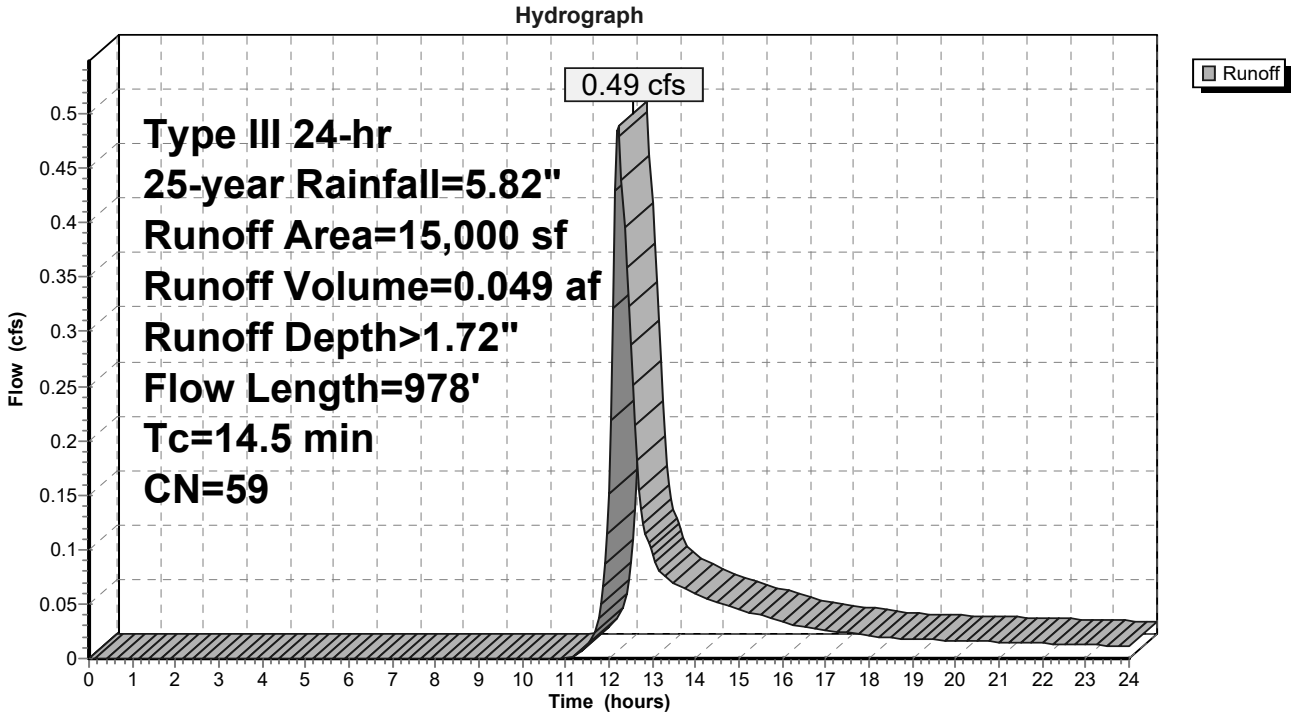
Runoff = 0.49 cfs @ 12.22 hrs, Volume= 0.049 af, Depth> 1.72"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	4,143	98	Paved parking, HSG A
	858	98	Unconnected pavement, HSG A
	8,182	39	>75% Grass cover, Good, HSG A
*	1,817	39	Landscaped Area
	15,000	59	Weighted Average
	9,999		66.66% Pervious Area
	5,001		33.34% Impervious Area
	858		17.16% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	80	0.0297	0.13		**Sheet Flow, Initial Sheeting** Grass: Dense n= 0.240 P2= 3.00"
0.9	91	0.0038	1.76	0.35	**Pipe Channel, Ex 6" PVC** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013 Corrugated PE, smooth interior
3.1	807	0.0038	4.33	7.65	**Pipe Channel, Ex 18" RCP** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011 Concrete pipe, straight & clean
14.5	978	Total			

Subcatchment SC-E6: SC-E6 Existing Landscape



Summary for Subcatchment SC-E7: SC-E7 South Central Pavement

[49] Hint: Tc<2dt may require smaller dt

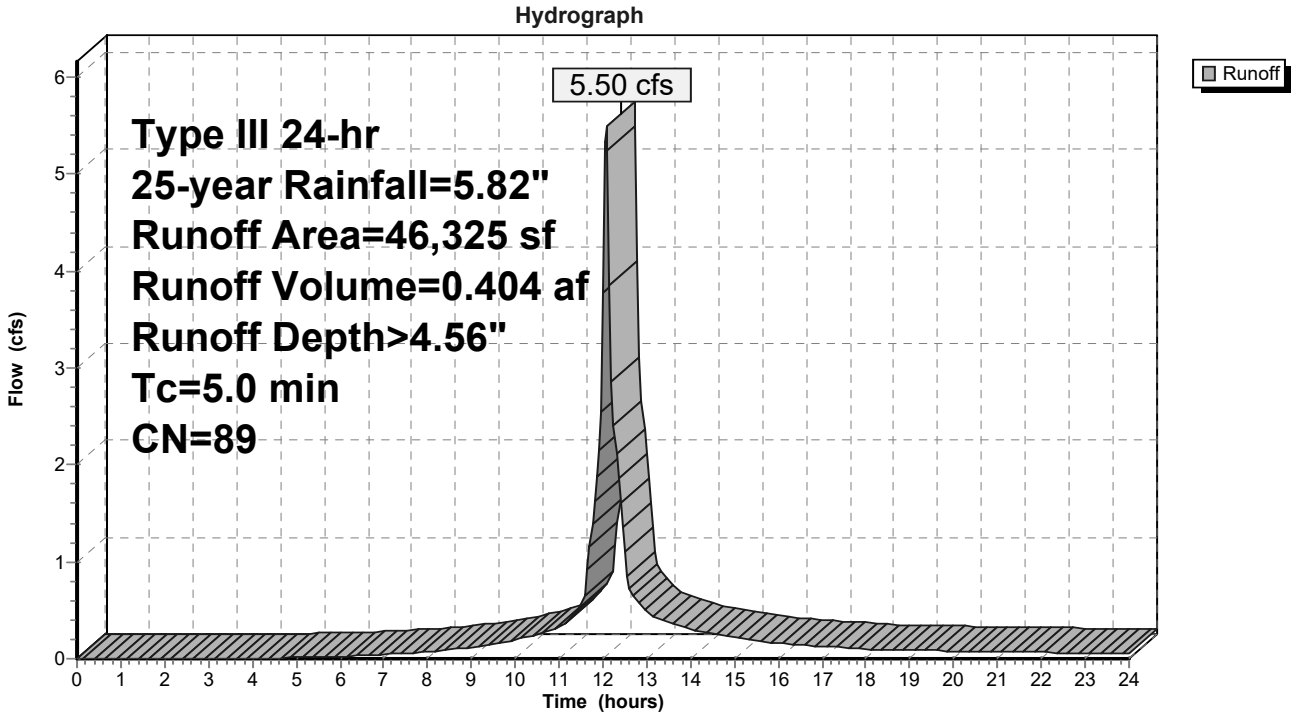
Runoff = 5.50 cfs @ 12.07 hrs, Volume= 0.404 af, Depth> 4.56"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	1,425	98	Roofs, HSG A
	37,605	98	Paved parking, HSG A
	309	98	Unconnected pavement, HSG A
	3,018	39	>75% Grass cover, Good, HSG A
*	3,888	39	Landscaped Area
	80	81	Urban industrial, 72% imp, HSG A
	46,325	89	Weighted Average
	6,928		14.96% Pervious Area
	39,397		85.04% Impervious Area
	309		0.78% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-E7: SC-E7 South Central Pavement



Summary for Subcatchment SC-E8: SC-E8 Existing Parking Area

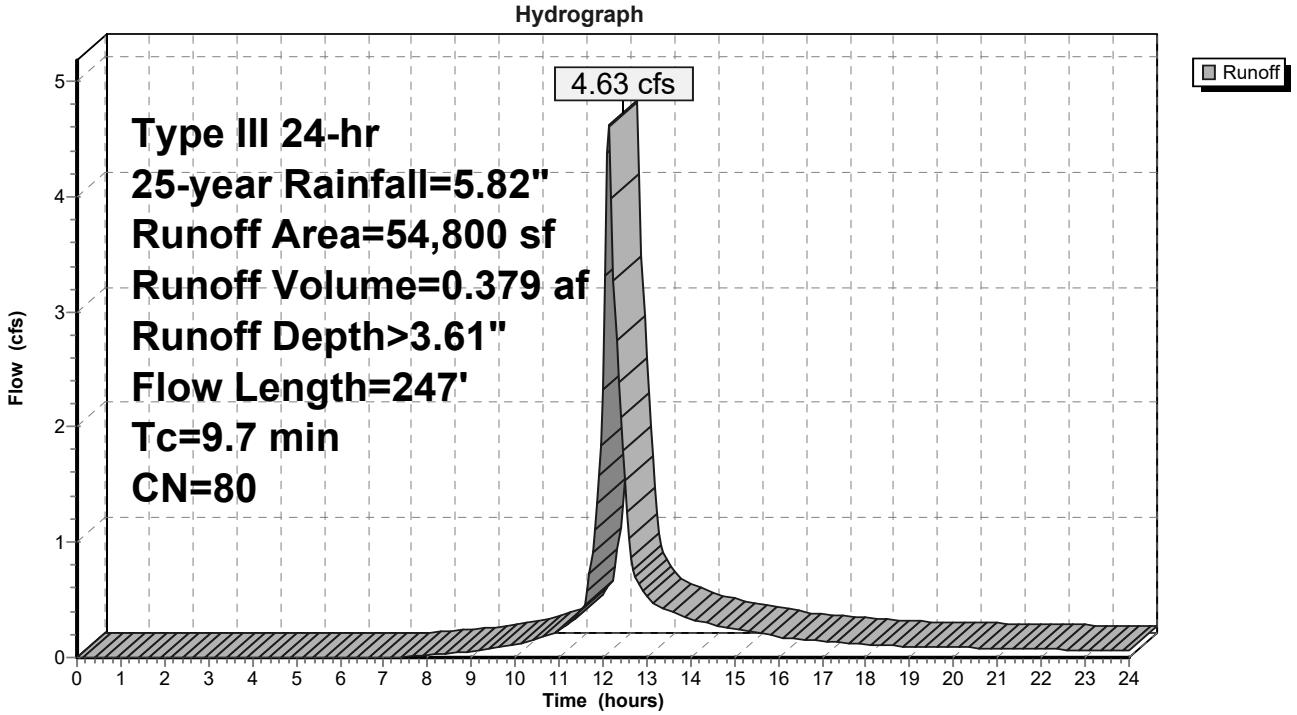
Runoff = 4.63 cfs @ 12.14 hrs, Volume= 0.379 af, Depth> 3.61"
Routed to Link DP-3 : Ex DMH (Southeast)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	28,705	98	Paved parking, HSG A
	3,835	98	Unconnected pavement, HSG A
	5,325	39	>75% Grass cover, Good, HSG A
*	11,237	39	Landscaped Area
*	5,698	98	Gerzofsky Way
	54,800	80	Weighted Average
	16,562		30.22% Pervious Area
	38,238		69.78% Impervious Area
	3,835		10.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	58	0.0340	0.13		**Sheet Flow, Initial Sheeting** Grass: Dense n= 0.240 P2= 3.00"
2.0	189	0.0060	1.57		**Shallow Concentrated Flow, Shallow Flow** Paved Kv= 20.3 fps
9.7	247	Total			

Subcatchment SC-E8: SC-E8 Existing Parking Area



Summary for Subcatchment SC-E9: SC-E9 Existing LS

[49] Hint: Tc<2dt may require smaller dt

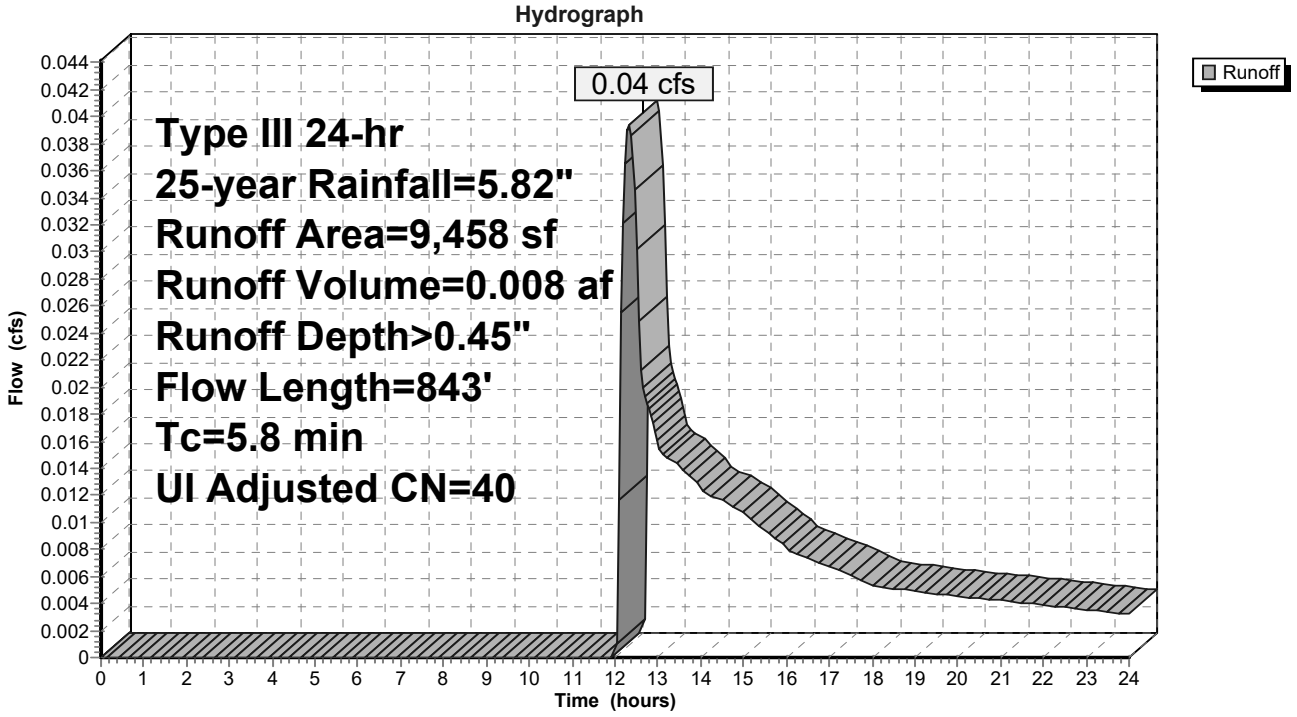
Runoff = 0.04 cfs @ 12.33 hrs, Volume= 0.008 af, Depth> 0.45"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Adj	Description
	364	98		Unconnected pavement, HSG A
*	9,094	39		Landscaped Area
	9,458	41	40	Weighted Average, UI Adjusted
	9,094			96.15% Pervious Area
	364			3.85% Impervious Area
	364			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	36	0.0680	0.22		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
3.1	807	0.0038	4.33	7.65	**Pipe Channel, Ex 18" RCP** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011 Concrete pipe, straight & clean
5.8	843	Total			

Subcatchment SC-E9: SC-E9 Existing LS

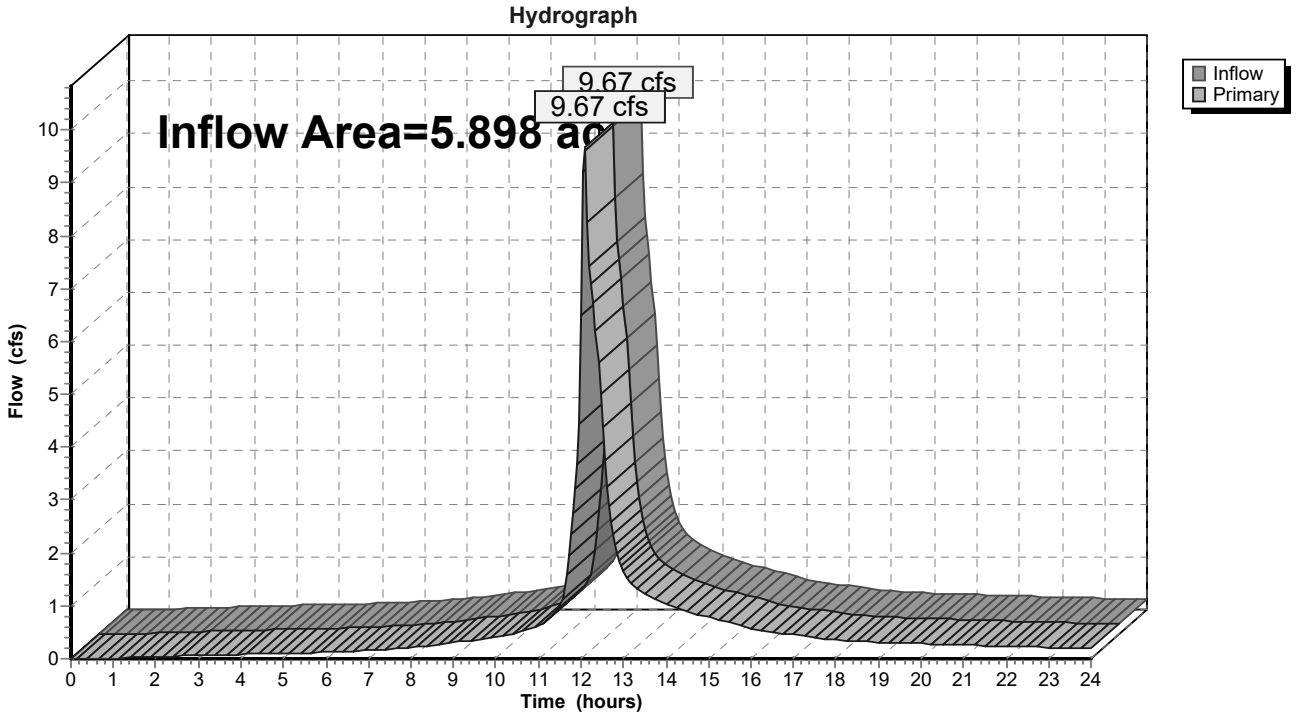


Summary for Link DP-1: Ex CB (West)

Inflow Area = 5.898 ac, 43.74% Impervious, Inflow Depth > 2.28" for 25-year event
Inflow = 9.67 cfs @ 12.09 hrs, Volume= 1.123 af
Primary = 9.67 cfs @ 12.09 hrs, Volume= 1.123 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-1: Ex CB (West)

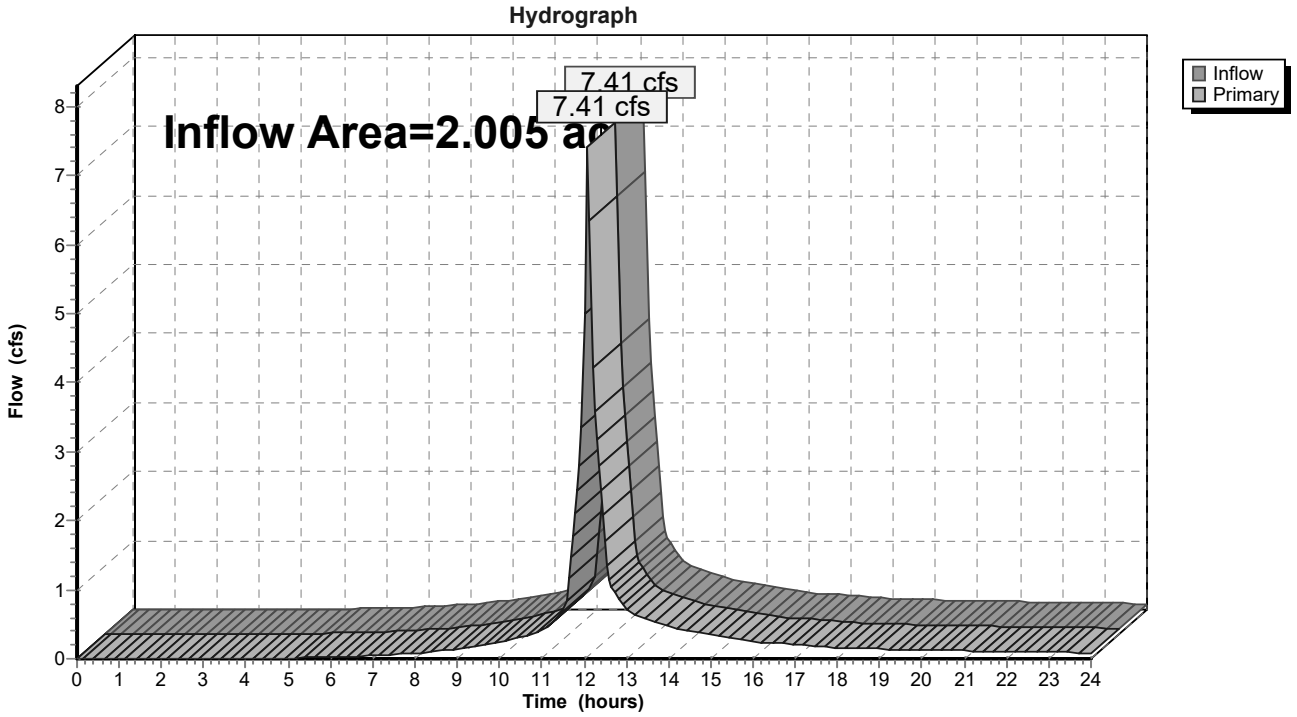


Summary for Link DP-2: Ex CB (Southwest)

Inflow Area = 2.005 ac, 64.55% Impervious, Inflow Depth > 3.43" for 25-year event
Inflow = 7.41 cfs @ 12.08 hrs, Volume= 0.573 af
Primary = 7.41 cfs @ 12.08 hrs, Volume= 0.573 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-2: Ex CB (Southwest)

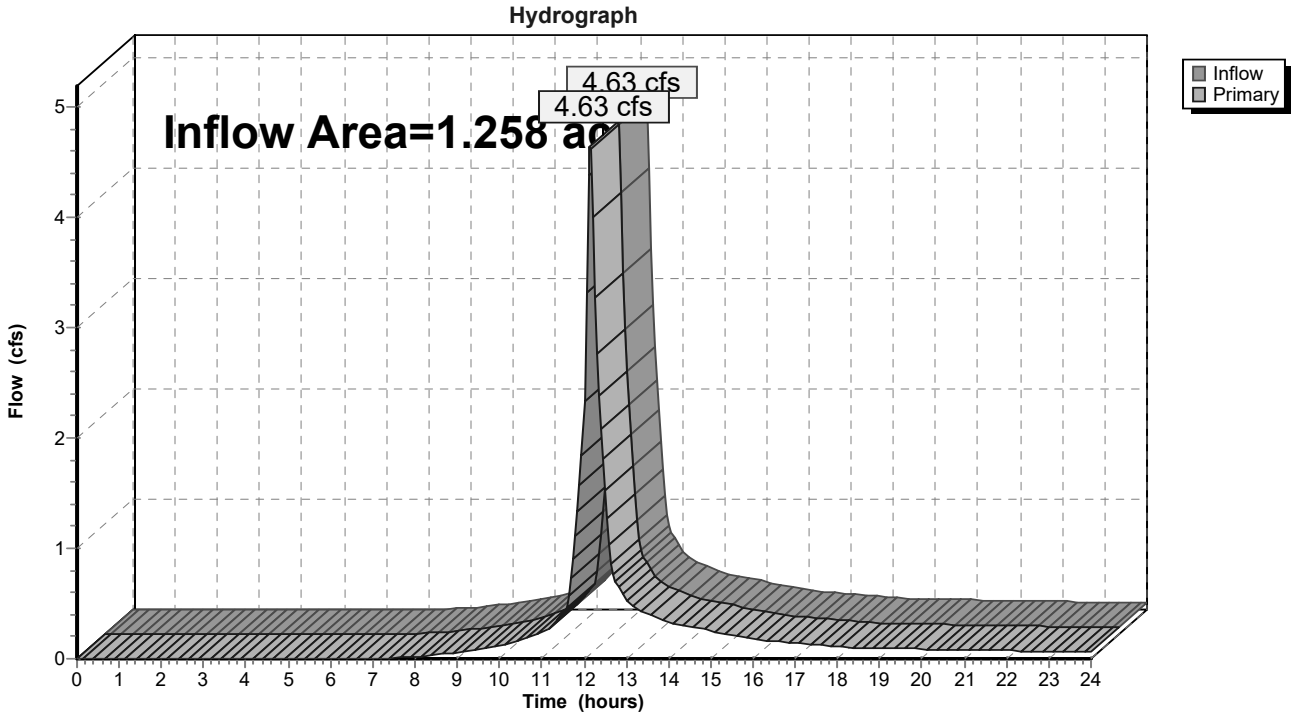


Summary for Link DP-3: Ex DMH (Southeast)

Inflow Area = 1.258 ac, 69.78% Impervious, Inflow Depth > 3.61" for 25-year event
Inflow = 4.63 cfs @ 12.14 hrs, Volume= 0.379 af
Primary = 4.63 cfs @ 12.14 hrs, Volume= 0.379 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-3: Ex DMH (Southeast)



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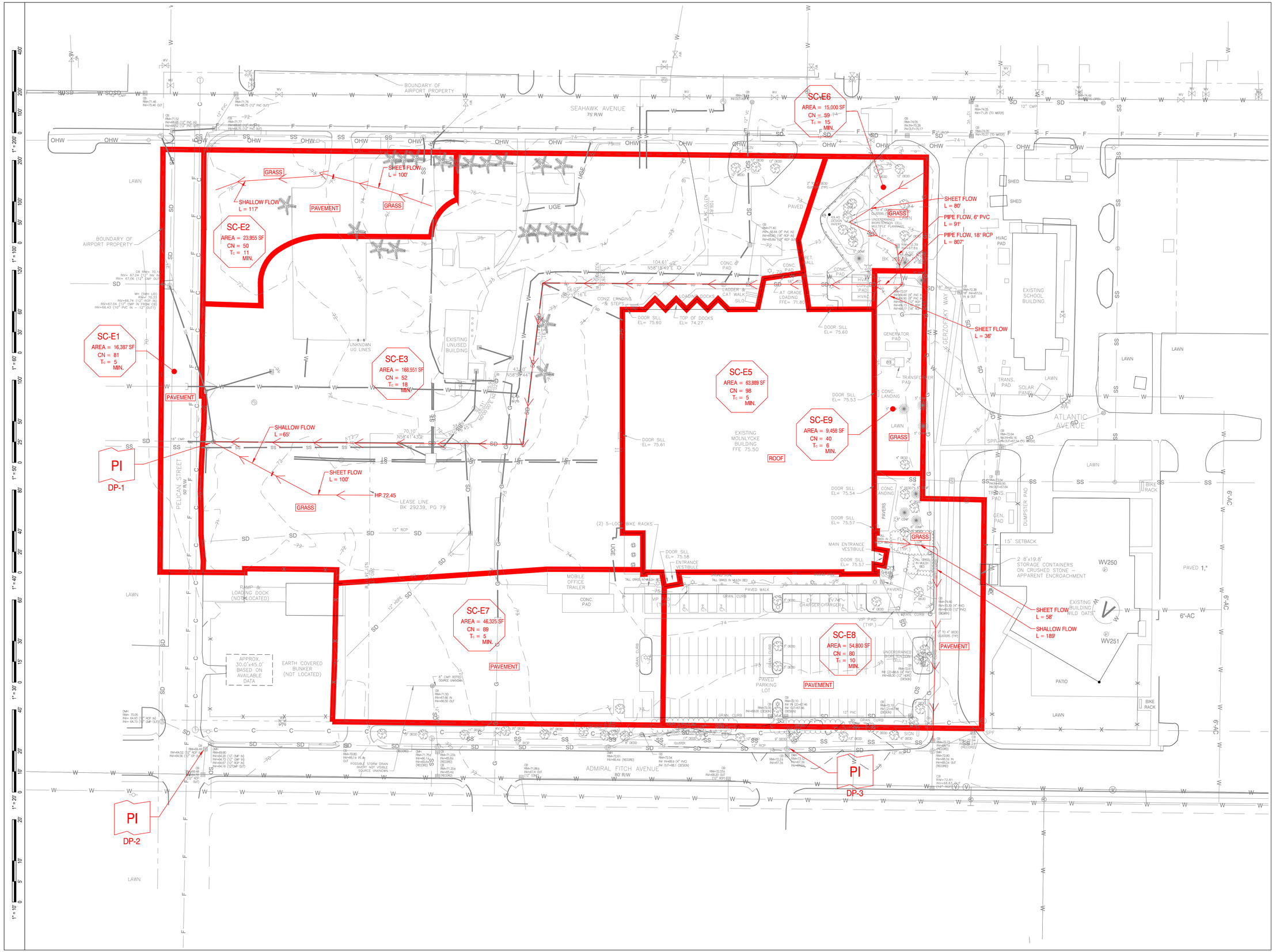

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In Association With

TRUE NORTH

STATE OF MAINE
MELISSA ANN FLYNN
15831
LICENSED PROFESSIONAL ENGINEER
12/18/25

#	REVISION	DATE
1	MAJOR DEVELOPMENT REVIEW	12-18-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-18-25

SHEET TITLE:

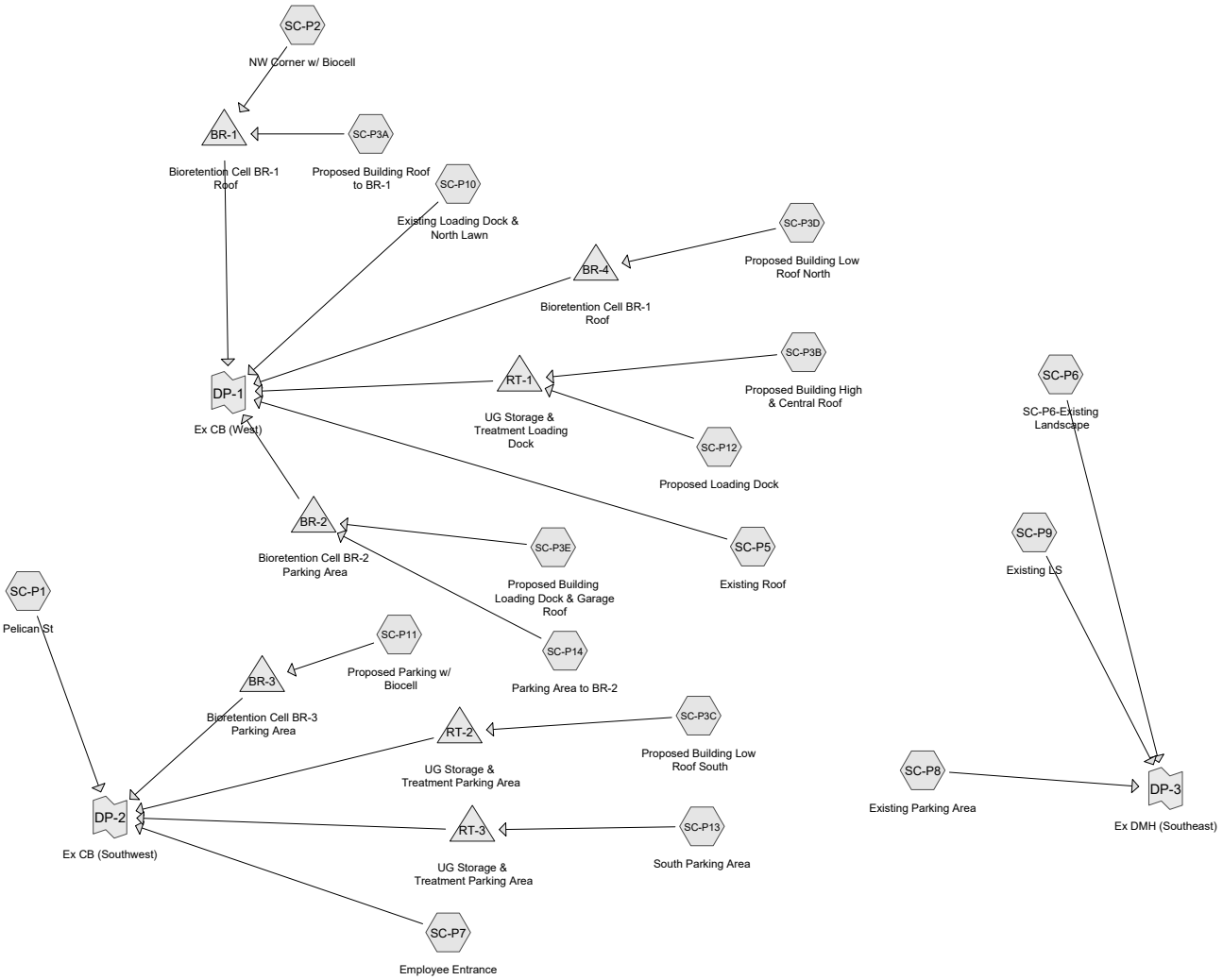
PRE-DEVELOPMENT WATERSHED PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE:	1" = 40'	DESIGNED BY:	WSM
SMRT PROJECT #:	24040	DRAWN BY:	WSM

C-120

NOT FOR CONSTRUCTION



Routing Diagram for Post-Development Model-24040

Prepared by SMRT, Inc, Printed 12/16/2025

HydroCAD® 10.20-7a s/n 00729 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-year	Type III 24-hr		Default	24.00	1	3.15	2
2	25-year	Type III 24-hr		Default	24.00	1	5.82	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.880	39	>75% Grass cover, Good, HSG A (SC-P1, SC-P10, SC-P11, SC-P12, SC-P13, SC-P14, SC-P2, SC-P6, SC-P7, SC-P8)
0.130	98	Gerzofsky Way (SC-P8)
0.743	39	Landscaped Area (SC-P10, SC-P11, SC-P13, SC-P14, SC-P6, SC-P7, SC-P8, SC-P9)
2.381	98	Paved parking, HSG A (SC-P1, SC-P10, SC-P11, SC-P12, SC-P13, SC-P14, SC-P6, SC-P7, SC-P8)
0.271	98	Pelican Street (SC-P1)
3.267	98	Roofs, HSG A (SC-P1, SC-P10, SC-P11, SC-P12, SC-P13, SC-P3A, SC-P3B, SC-P3C, SC-P3D, SC-P3E, SC-P5)
0.487	98	Unconnected pavement, HSG A (SC-P1, SC-P10, SC-P11, SC-P12, SC-P13, SC-P14, SC-P6, SC-P7, SC-P8, SC-P9)
9.160	**81**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
8.015	HSG A	SC-P1, SC-P10, SC-P11, SC-P12, SC-P13, SC-P14, SC-P2, SC-P3A, SC-P3B, SC-P3C, SC-P3D, SC-P3E, SC-P5, SC-P6, SC-P7, SC-P8, SC-P9
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
1.145	Other	SC-P1, SC-P10, SC-P11, SC-P13, SC-P14, SC-P6, SC-P7, SC-P8, SC-P9
9.160		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
1.880	0.000	0.000	0.000	0.000	1.880	>75% Grass cover, Good	SC-P1, SC-P10, SC-P11, SC-P12, SC-P13, SC-P14, SC-P2, SC-P6, SC-P7, SC-P8
0.000	0.000	0.000	0.000	0.130	0.130	Gerzofsky Way	SC-P8
0.000	0.000	0.000	0.000	0.743	0.743	Landscaped Area	SC-P10, SC-P11, SC-P13, SC-P14, SC-P6, SC-P7, SC-P8, SC-P9
2.381	0.000	0.000	0.000	0.000	2.381	Paved parking	SC-P1, SC-P10, SC-P11, SC-P12, SC-P13, SC-P14, SC-P6, SC-P7, SC-P8
0.000	0.000	0.000	0.000	0.271	0.271	Pelican Street	SC-P1
3.267	0.000	0.000	0.000	0.000	3.267	Roofs	SC-P1, SC-P10, SC-P11, SC-P12, SC-P13, SC-P3A, SC-P3B, SC-P3C, SC-P3D, SC-P3E, SC-P5
0.487	0.000	0.000	0.000	0.000	0.487	Unconnected pavement	SC-P1, SC-P10, SC-P11, SC-P12, SC-P13, SC-P14,

Ground Covers (all nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
8.015	**0.000**	**0.000**	**0.000**	**1.145**	**9.160**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	SC-P6	0.00	0.00	69.0	0.0050	0.011	0.0	6.0	0.0	
2	SC-P6	0.00	0.00	73.0	0.0050	0.011	0.0	12.0	0.0	
3	SC-P6	0.00	0.00	577.0	0.0050	0.011	0.0	18.0	0.0	
4	SC-P9	0.00	0.00	577.0	0.0040	0.013	0.0	18.0	0.0	
5	BR-1	67.00	66.18	42.0	0.0195	0.013	0.0	18.0	0.0	
6	BR-2	65.25	64.50	50.0	0.0150	0.013	0.0	18.0	0.0	
7	BR-3	67.05	66.20	92.0	0.0092	0.013	0.0	12.0	0.0	
8	BR-4	68.00	67.65	29.0	0.0121	0.013	0.0	16.0	0.0	
9	RT-1	64.71	64.39	64.0	0.0050	0.013	0.0	12.0	0.0	
10	RT-2	68.75	67.80	79.0	0.0120	0.013	0.0	12.0	0.0	
11	RT-3	67.72	66.54	124.0	0.0095	0.013	0.0	10.0	0.0	

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC-P1: Pelican St Runoff Area=26,806 sf 63.12% Impervious Runoff Depth>1.12"
Tc=5.0 min CN=76 Runoff=0.78 cfs 0.057 af

Subcatchment SC-P10: Existing Loading Runoff Area=49,731 sf 34.38% Impervious Runoff Depth>0.35"
Flow Length=212' Tc=23.8 min CN=59 Runoff=0.17 cfs 0.034 af

Subcatchment SC-P11: Proposed Parking Runoff Area=45,084 sf 59.53% Impervious Runoff Depth>1.00"
Tc=5.0 min CN=74 Runoff=1.16 cfs 0.087 af

Subcatchment SC-P12: Proposed Loading Runoff Area=9,873 sf 93.93% Impervious Runoff Depth>2.49"
Tc=5.0 min CN=94 Runoff=0.64 cfs 0.047 af

Subcatchment SC-P13: South Parking Area Runoff Area=16,401 sf 92.00% Impervious Runoff Depth>2.40"
Tc=5.0 min CN=93 Runoff=1.03 cfs 0.075 af

Subcatchment SC-P14: Parking Area to BR-2 Runoff Area=7,835 sf 52.99% Impervious Runoff Depth>0.80"
Tc=5.0 min CN=70 Runoff=0.15 cfs 0.012 af

Subcatchment SC-P2: NW Corner w/ Biocell Runoff Area=8,030 sf 0.00% Impervious Runoff Depth>0.00"
Flow Length=150' Tc=11.6 min CN=39 Runoff=0.00 cfs 0.000 af

Subcatchment SC-P3A: Proposed Runoff Area=18,292 sf 100.00% Impervious Runoff Depth>2.92"
Tc=5.0 min CN=98 Runoff=1.29 cfs 0.102 af

Subcatchment SC-P3B: Proposed Runoff Area=21,573 sf 100.00% Impervious Runoff Depth>2.92"
Tc=5.0 min CN=98 Runoff=1.52 cfs 0.120 af

Subcatchment SC-P3C: Proposed Runoff Area=28,468 sf 100.00% Impervious Runoff Depth>2.92"
Tc=5.0 min CN=98 Runoff=2.01 cfs 0.159 af

Subcatchment SC-P3D: Proposed Building Runoff Area=5,624 sf 100.00% Impervious Runoff Depth>2.92"
Tc=5.0 min CN=98 Runoff=0.40 cfs 0.031 af

Subcatchment SC-P3E: Proposed Building Runoff Area=3,890 sf 100.00% Impervious Runoff Depth>2.92"
Tc=5.0 min CN=98 Runoff=0.27 cfs 0.022 af

Subcatchment SC-P5: Existing Roof Runoff Area=63,786 sf 100.00% Impervious Runoff Depth>2.92"
Tc=5.0 min CN=98 Runoff=4.50 cfs 0.356 af

Subcatchment SC-P6: SC-P6-Existing Runoff Area=15,000 sf 38.97% Impervious Runoff Depth>0.46"
Flow Length=799' Tc=9.9 min CN=62 Runoff=0.10 cfs 0.013 af

Subcatchment SC-P7: Employee Entrance Runoff Area=10,596 sf 65.27% Impervious Runoff Depth>1.24"
Tc=5.0 min CN=78 Runoff=0.35 cfs 0.025 af

Subcatchment SC-P8: Existing Parking Runoff Area=58,570 sf 69.35% Impervious Runoff Depth>1.36"
Flow Length=247' Tc=9.7 min CN=80 Runoff=1.85 cfs 0.152 af

Subcatchment SC-P9: Existing LS Runoff Area=9,458 sf 3.85% Impervious Runoff Depth>0.00"
Flow Length=664' Tc=7.3 min UI Adjusted CN=40 Runoff=0.00 cfs 0.000 af

Pond BR-1: Bioretention Cell BR-1 Roof Peak Elev=68.64' Storage=2,737 cf Inflow=1.29 cfs 0.102 af
Outflow=0.11 cfs 0.075 af

Pond BR-2: Bioretention Cell BR-2 Parking Area Peak Elev=66.68' Storage=728 cf Inflow=0.42 cfs 0.034 af
Outflow=0.05 cfs 0.028 af

Pond BR-3: Bioretention Cell BR-3 Parking Peak Elev=68.02' Storage=1,646 cf Inflow=1.16 cfs 0.087 af
Outflow=0.11 cfs 0.066 af

Pond BR-4: Bioretention Cell BR-1 Roof Peak Elev=69.74' Storage=631 cf Inflow=0.40 cfs 0.031 af
Outflow=0.04 cfs 0.028 af

Pond RT-1: UG Storage & Treatment Loading Peak Elev=65.90' Storage=4,753 cf Inflow=2.16 cfs 0.167 af
Outflow=0.16 cfs 0.092 af

Pond RT-2: UG Storage & Treatment Parking Peak Elev=69.80' Storage=1,817 cf Inflow=2.01 cfs 0.159 af
Outflow=1.24 cfs 0.139 af

Pond RT-3: UG Storage & Treatment Parking Peak Elev=68.29' Storage=865 cf Inflow=1.03 cfs 0.075 af
Outflow=0.82 cfs 0.064 af

Link DP-1: Ex CB (West) Inflow=4.72 cfs 0.611 af
Primary=4.72 cfs 0.611 af

Link DP-2: Ex CB (Southwest) Inflow=3.07 cfs 0.351 af
Primary=3.07 cfs 0.351 af

Link DP-3: Ex DMH (Southeast) Inflow=1.95 cfs 0.166 af
Primary=1.95 cfs 0.166 af

Total Runoff Area = 9.160 ac Runoff Volume = 1.293 af Average Runoff Depth = 1.69"
28.64% Pervious = 2.623 ac 71.36% Impervious = 6.537 ac

Summary for Subcatchment SC-P1: Pelican St

[49] Hint: Tc<2dt may require smaller dt

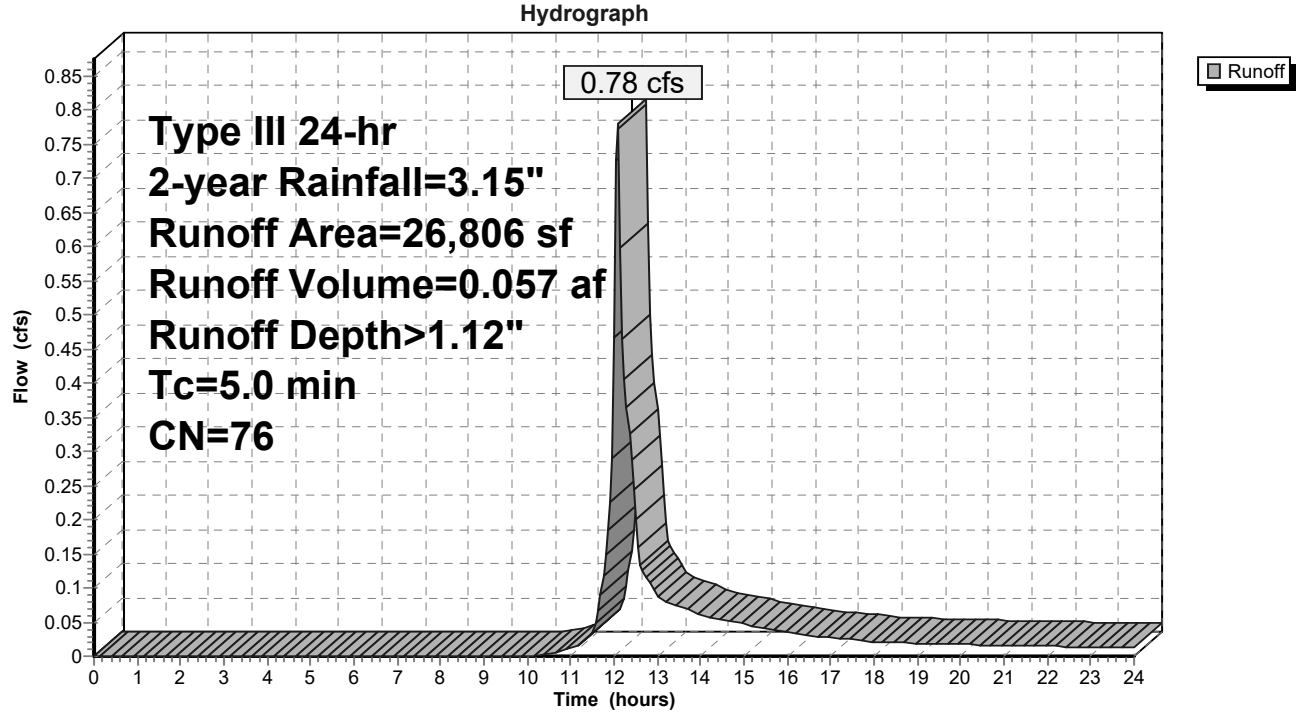
Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.057 af, Depth> 1.12"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	102	98	Roofs, HSG A
	4,197	98	Paved parking, HSG A
	820	98	Unconnected pavement, HSG A
*	11,801	98	Pelican Street
	9,886	39	>75% Grass cover, Good, HSG A
	26,806	76	Weighted Average
	9,886		36.88% Pervious Area
	16,920		63.12% Impervious Area
	820		4.85% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Road Standard**

Subcatchment SC-P1: Pelican St



Summary for Subcatchment SC-P10: Existing Loading Dock & North Lawn

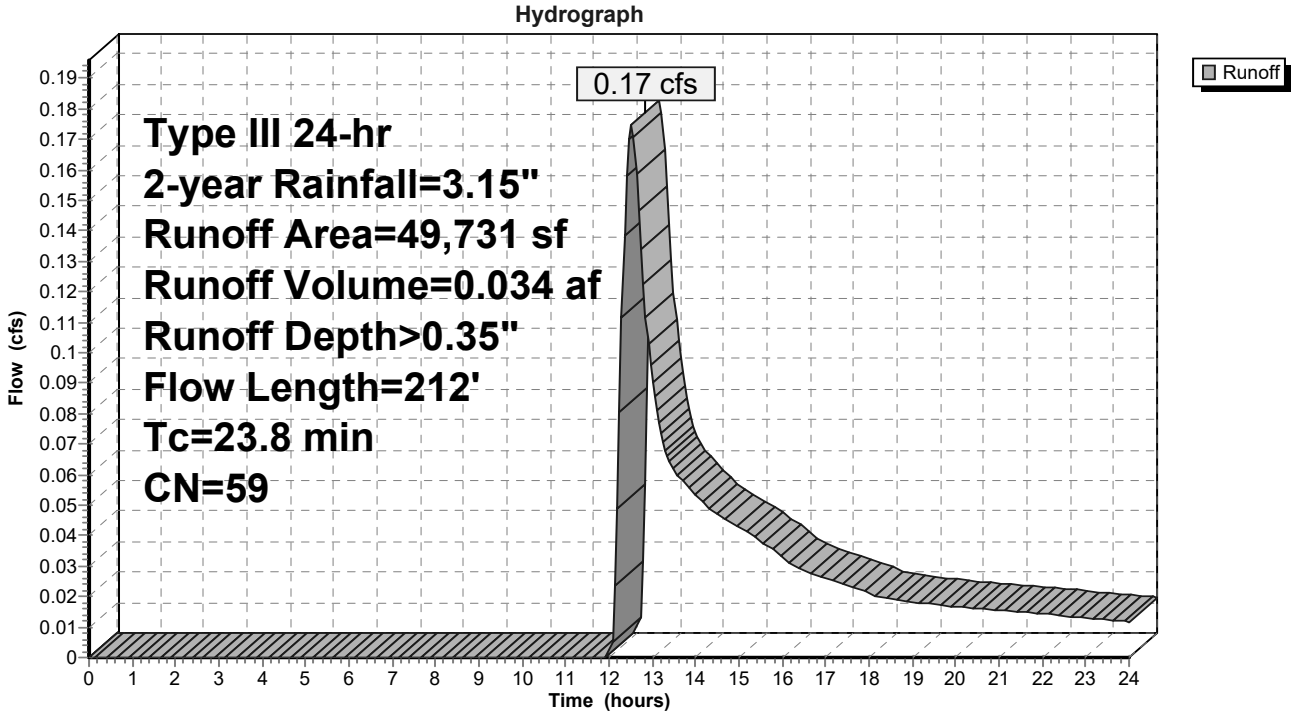
Runoff = 0.17 cfs @ 12.52 hrs, Volume= 0.034 af, Depth> 0.35"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	51	98	Roofs, HSG A
	9,270	98	Paved parking, HSG A
	7,776	98	Unconnected pavement, HSG A
	30,998	39	>75% Grass cover, Good, HSG A
*	1,636	39	Landscaped Area
	49,731	59	Weighted Average
	32,634		65.62% Pervious Area
	17,097		34.38% Impervious Area
	7,776		45.48% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.2	100	0.0025	0.07		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.6	112	0.0330	2.92		**Shallow Concentrated Flow, Shallow Flow** Unpaved Kv= 16.1 fps
23.8	212	Total			

Subcatchment SC-P10: Existing Loading Dock & North Lawn



Summary for Subcatchment SC-P11: Proposed Parking w/ Biocell

[49] Hint: Tc<2dt may require smaller dt

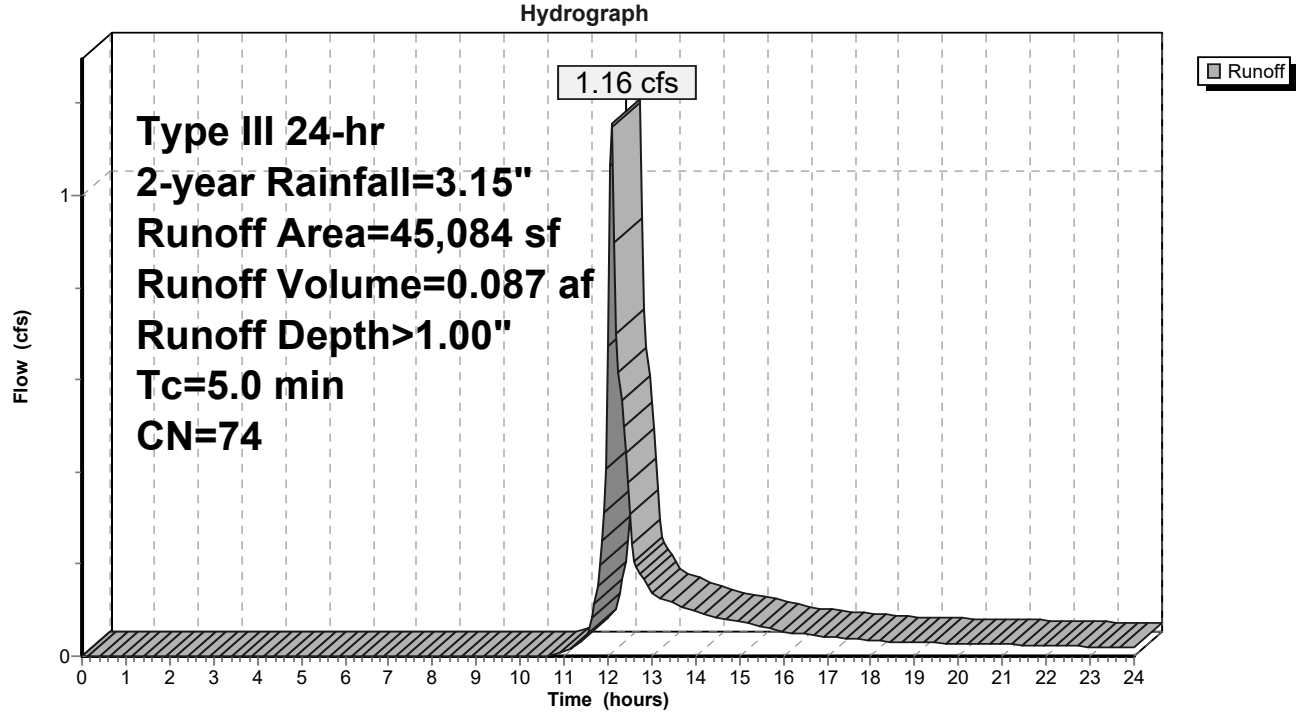
Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.087 af, Depth> 1.00"
Routed to Pond BR-3 : Bioretention Cell BR-3 Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	169	98	Roofs, HSG A
	23,691	98	Paved parking, HSG A
	2,977	98	Unconnected pavement, HSG A
	17,017	39	>75% Grass cover, Good, HSG A
*	1,230	39	Landscaped Area
	45,084	74	Weighted Average
	18,247		40.47% Pervious Area
	26,837		59.53% Impervious Area
	2,977		11.09% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P11: Proposed Parking w/ Biocell



Summary for Subcatchment SC-P12: Proposed Loading Dock

[49] Hint: Tc<2dt may require smaller dt

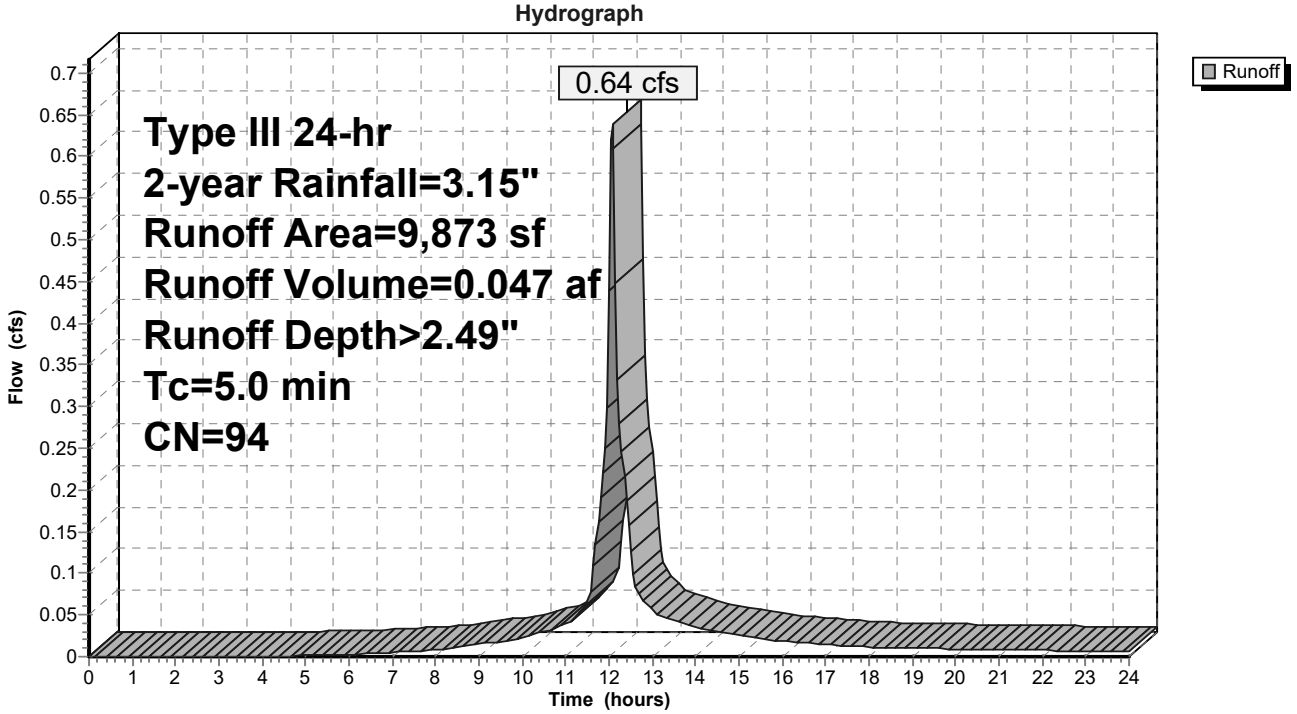
Runoff = 0.64 cfs @ 12.07 hrs, Volume= 0.047 af, Depth> 2.49"
Routed to Pond RT-1 : UG Storage & Treatment Loading Dock

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

Area (sf)	CN	Description
247	98	Roofs, HSG A
6,647	98	Paved parking, HSG A
2,380	98	Unconnected pavement, HSG A
599	39	>75% Grass cover, Good, HSG A
9,873	94	Weighted Average
599		6.07% Pervious Area
9,274		93.93% Impervious Area
2,380		25.66% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P12: Proposed Loading Dock



Summary for Subcatchment SC-P13: South Parking Area

[49] Hint: Tc<2dt may require smaller dt

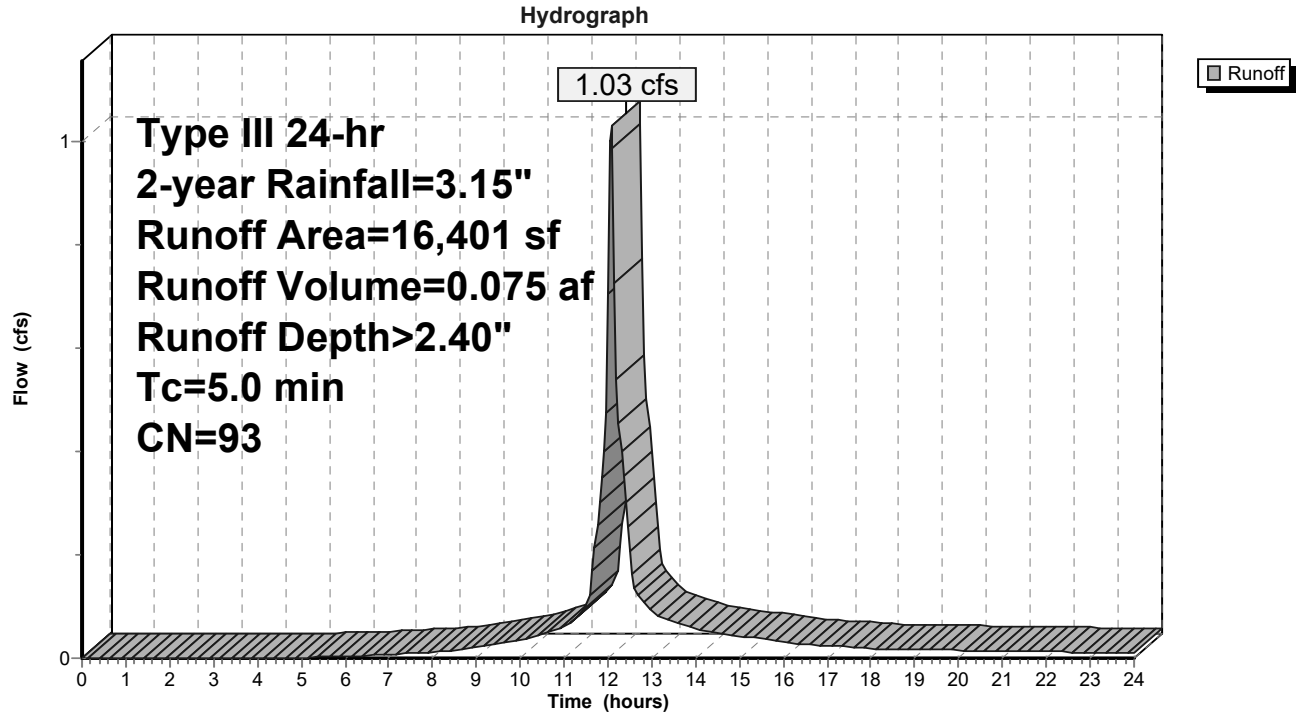
Runoff = 1.03 cfs @ 12.07 hrs, Volume= 0.075 af, Depth> 2.40"
Routed to Pond RT-3 : UG Storage & Treatment Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	123	98	Roofs, HSG A
	14,640	98	Paved parking, HSG A
	326	98	Unconnected pavement, HSG A
	248	39	>75% Grass cover, Good, HSG A
*	1,064	39	Landscaped Area
	16,401	93	Weighted Average
	1,312		8.00% Pervious Area
	15,089		92.00% Impervious Area
	326		2.16% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P13: South Parking Area



Summary for Subcatchment SC-P14: Parking Area to BR-2

[49] Hint: Tc<2dt may require smaller dt

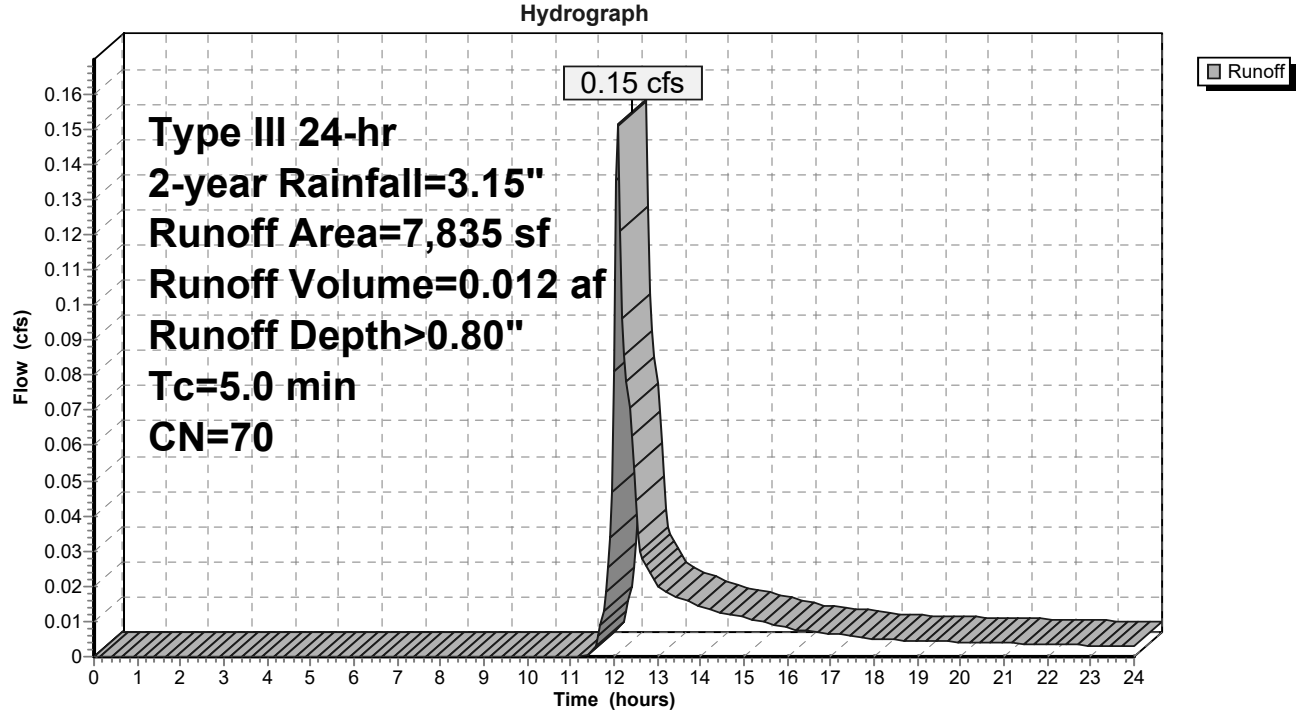
Runoff = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af, Depth> 0.80"
Routed to Pond BR-2 : Bioretention Cell BR-2 Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	3,887	98	Paved parking, HSG A
	265	98	Unconnected pavement, HSG A
	1,192	39	>75% Grass cover, Good, HSG A
*	2,491	39	Landscaped Area
	7,835	70	Weighted Average
	3,683		47.01% Pervious Area
	4,152		52.99% Impervious Area
	265		6.38% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P14: Parking Area to BR-2



Summary for Subcatchment SC-P2: NW Corner w/ Biocell

[73] Warning: Peak may fall outside time span

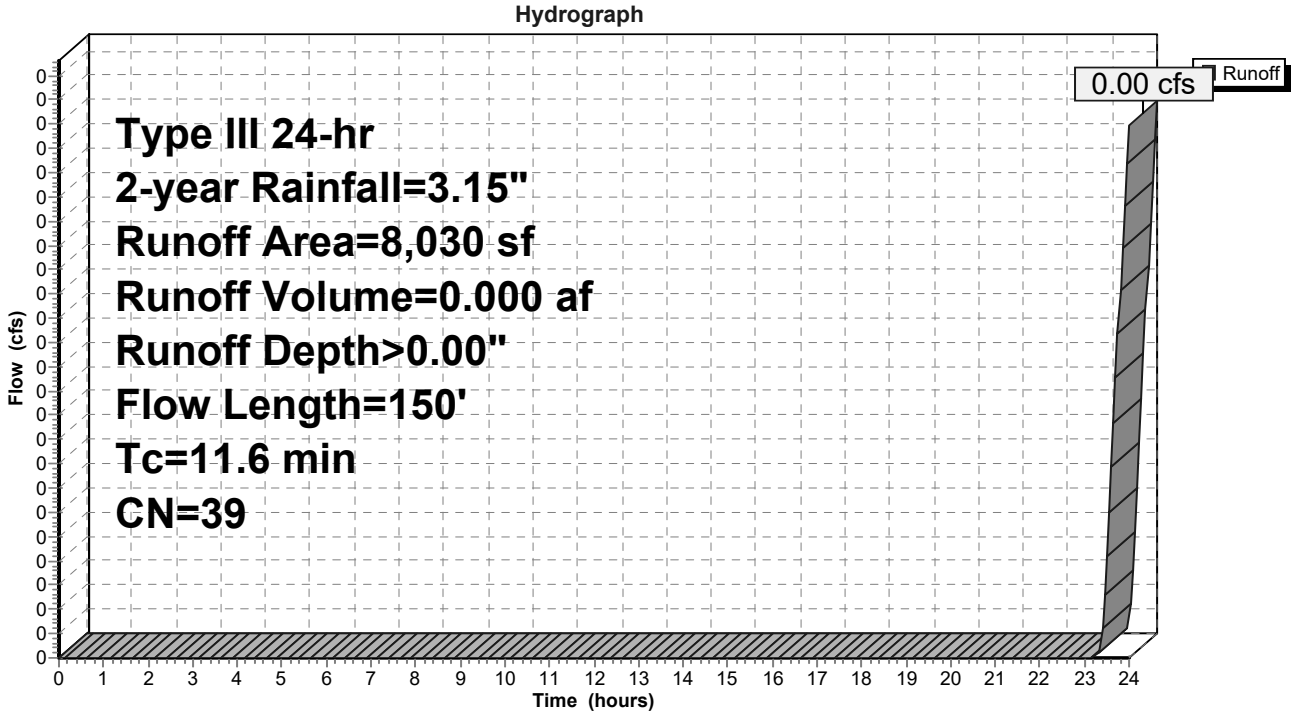
Runoff = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Depth> 0.00"
Routed to Pond BR-1 : Bioretention Cell BR-1 Roof

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

Area (sf)	CN	Description
8,030	39	>75% Grass cover, Good, HSG A
8,030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0150	0.15		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.2	50	0.1150	5.46		**Shallow Concentrated Flow, Shallow Flow** Unpaved Kv= 16.1 fps
11.6	150	Total			

Subcatchment SC-P2: NW Corner w/ Biocell



Summary for Subcatchment SC-P3A: Proposed Building Roof to BR-1

[49] Hint: Tc<2dt may require smaller dt

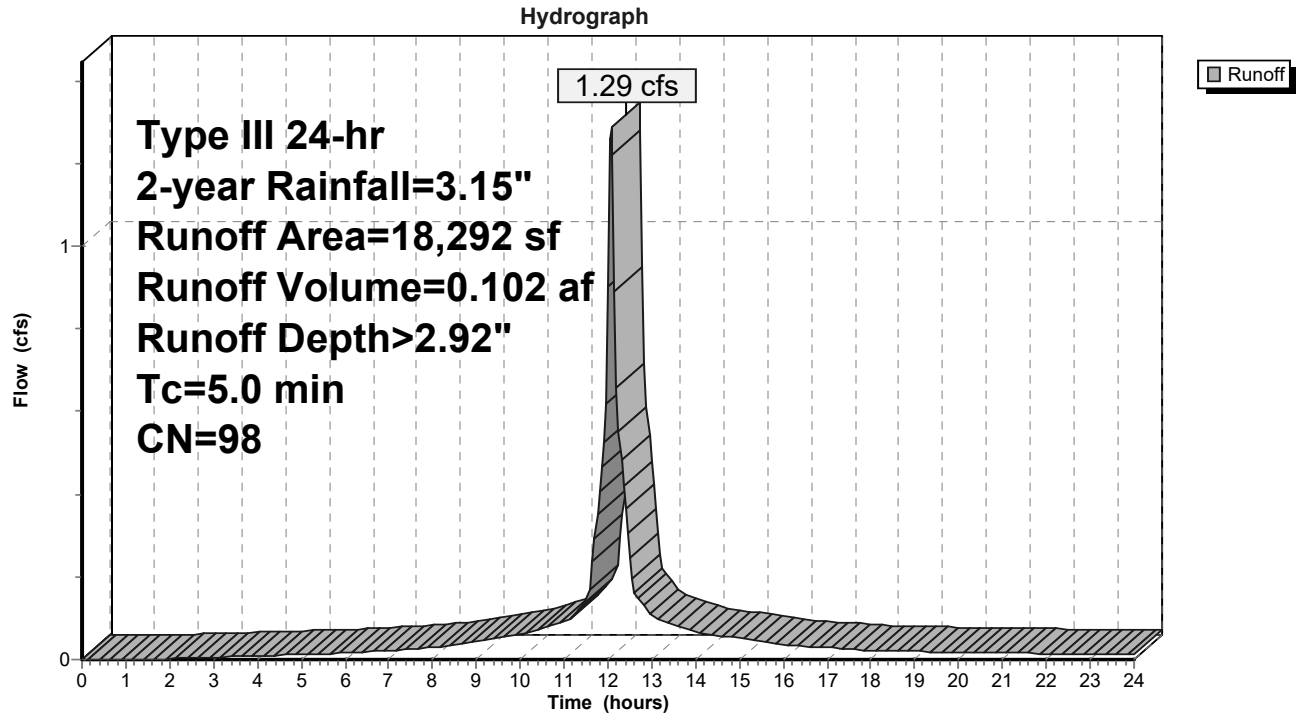
Runoff = 1.29 cfs @ 12.07 hrs, Volume= 0.102 af, Depth> 2.92"
Routed to Pond BR-1 : Bioretention Cell BR-1 Roof

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

Area (sf)	CN	Description
18,292	98	Roofs, HSG A
18,292		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3A: Proposed Building Roof to BR-1



Summary for Subcatchment SC-P3B: Proposed Building High & Central Roof

[49] Hint: Tc<2dt may require smaller dt

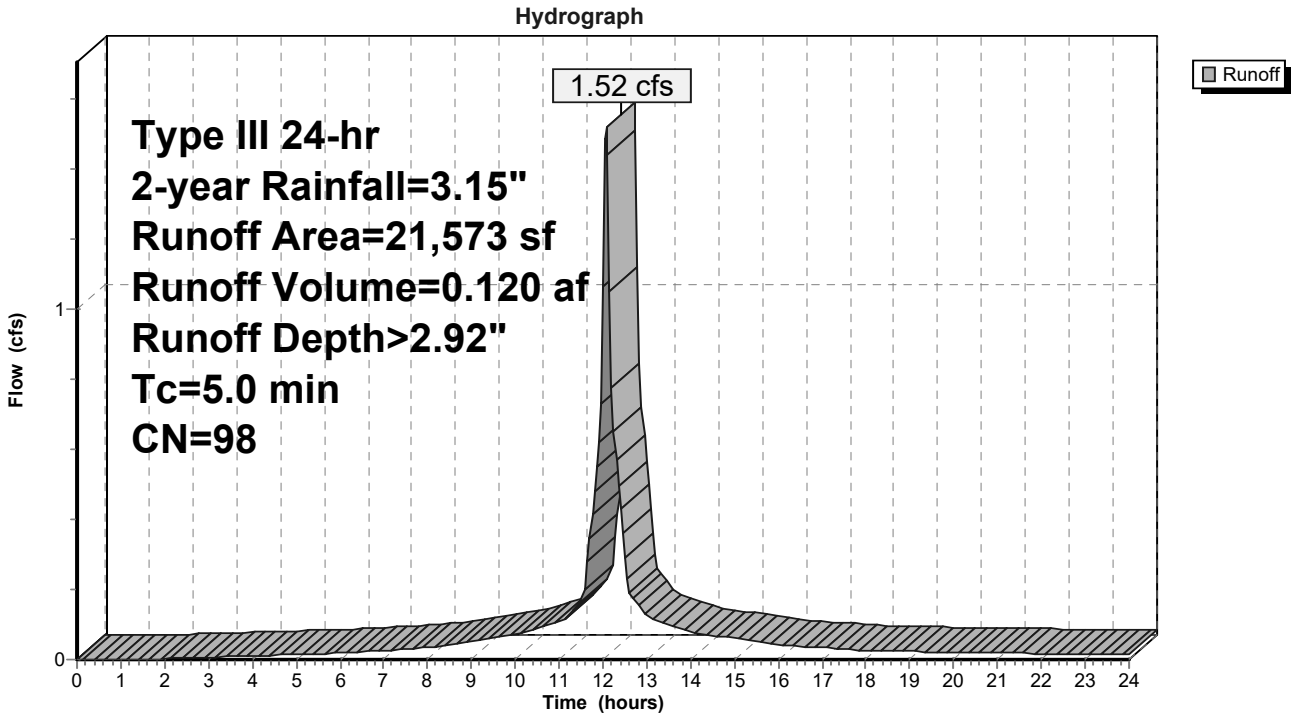
Runoff = 1.52 cfs @ 12.07 hrs, Volume= 0.120 af, Depth> 2.92"
Routed to Pond RT-1 : UG Storage & Treatment Loading Dock

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

Area (sf)	CN	Description
21,573	98	Roofs, HSG A
21,573		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3B: Proposed Building High & Central Roof



Summary for Subcatchment SC-P3C: Proposed Building Low Roof South

[49] Hint: Tc<2dt may require smaller dt

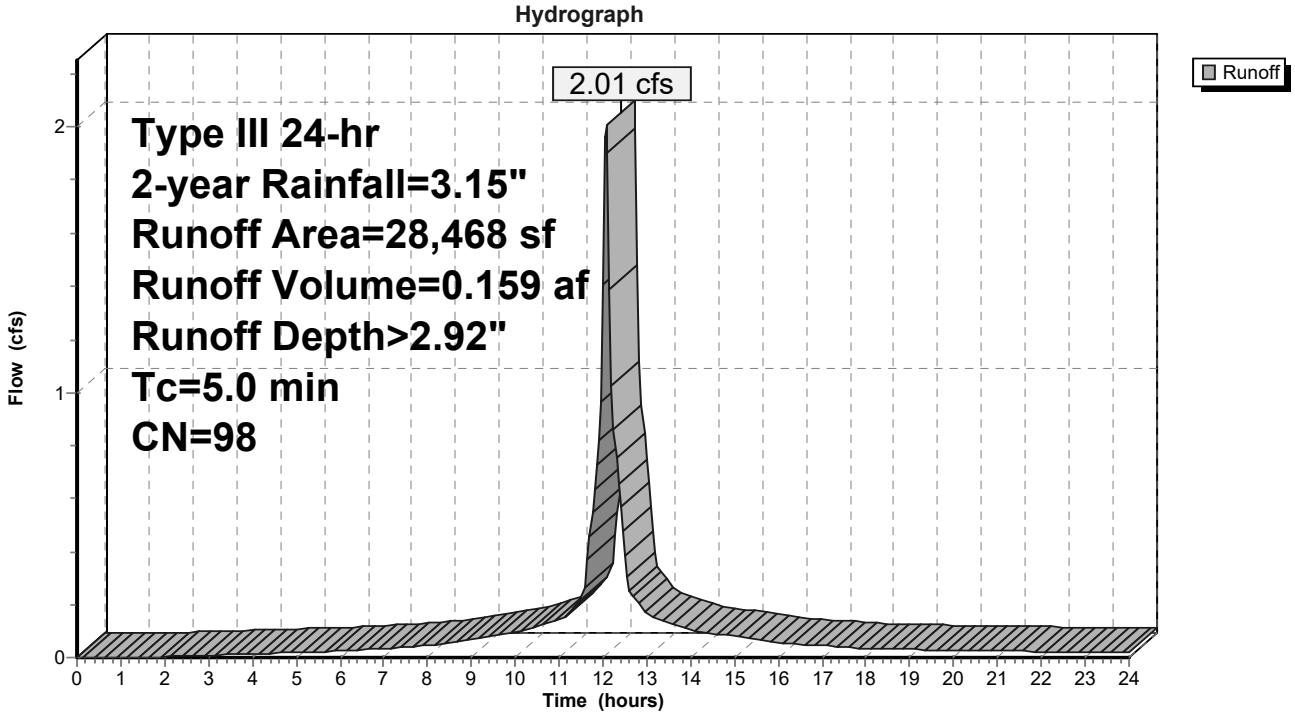
Runoff = 2.01 cfs @ 12.07 hrs, Volume= 0.159 af, Depth> 2.92"
Routed to Pond RT-2 : UG Storage & Treatment Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

Area (sf)	CN	Description
28,468	98	Roofs, HSG A
28,468		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3C: Proposed Building Low Roof South



Summary for Subcatchment SC-P3D: Proposed Building Low Roof North

[49] Hint: Tc<2dt may require smaller dt

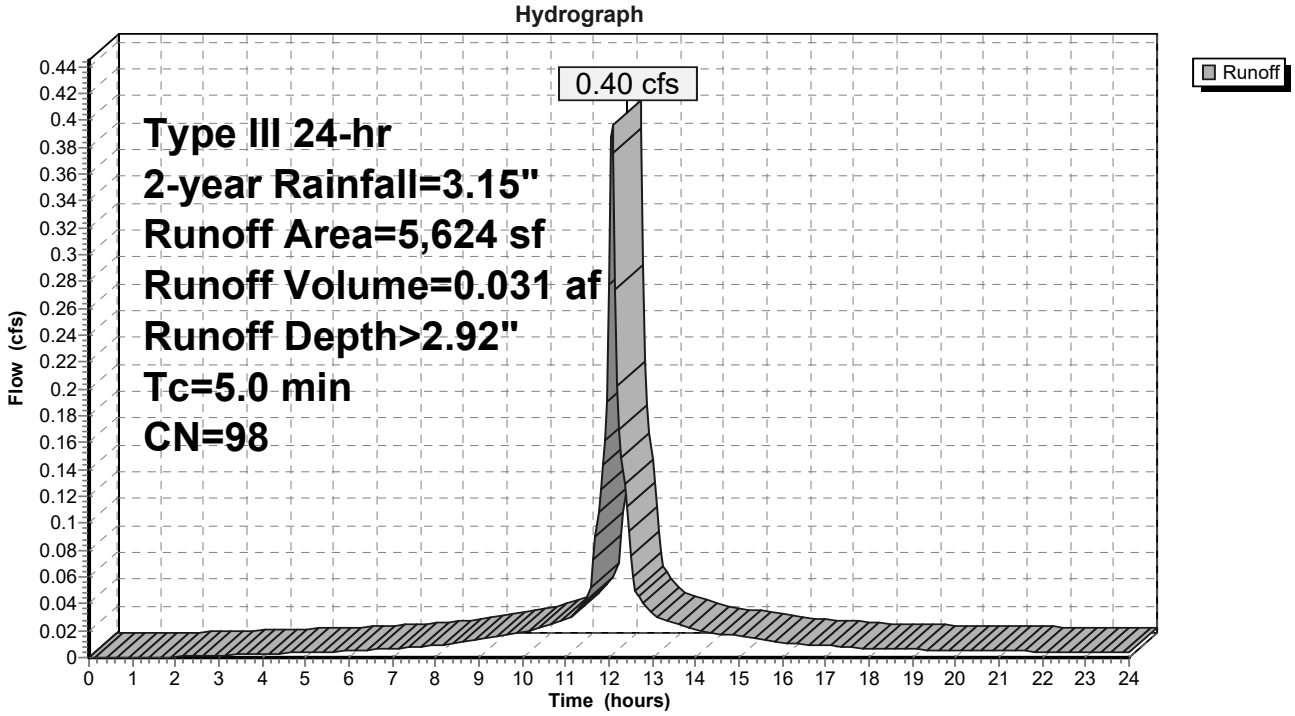
Runoff = 0.40 cfs @ 12.07 hrs, Volume= 0.031 af, Depth> 2.92"
Routed to Pond BR-4 : Bioretention Cell BR-1 Roof

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

Area (sf)	CN	Description
5,624	98	Roofs, HSG A
5,624		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3D: Proposed Building Low Roof North



Summary for Subcatchment SC-P3E: Proposed Building Loading Dock & Garage Roof

[49] Hint: Tc<2dt may require smaller dt

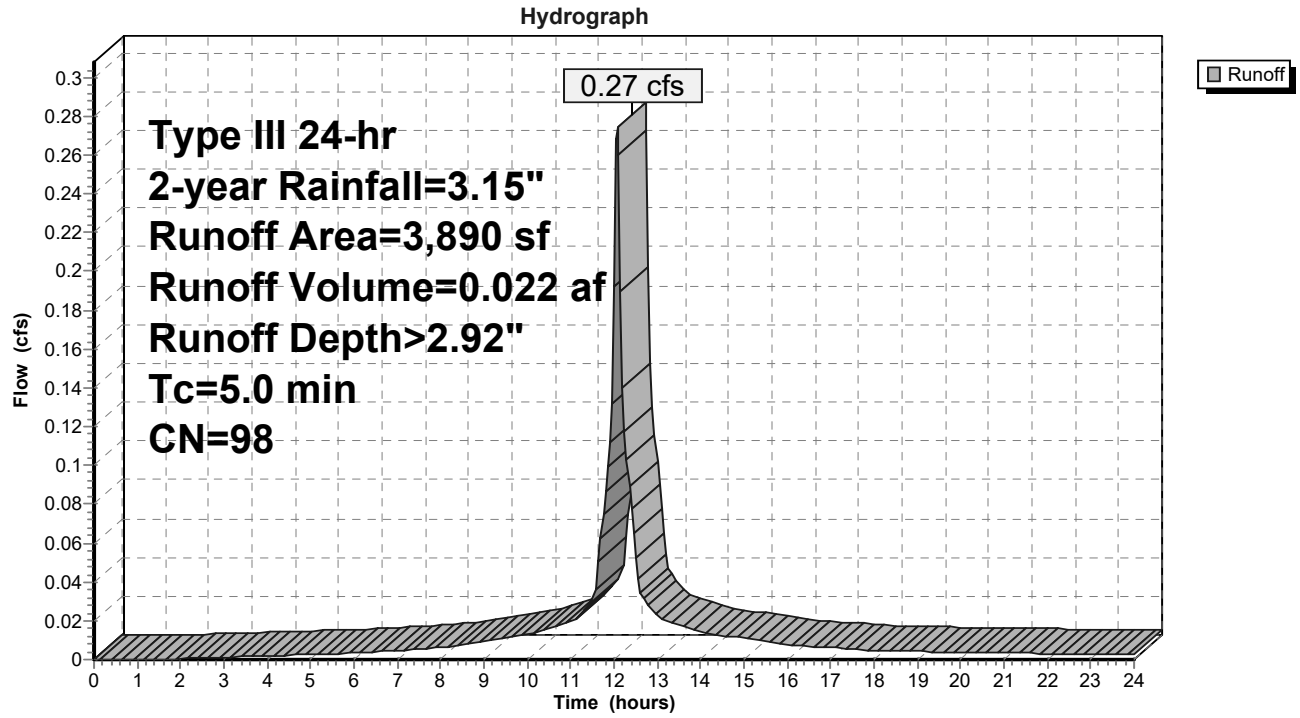
Runoff = 0.27 cfs @ 12.07 hrs, Volume= 0.022 af, Depth> 2.92"
Routed to Pond BR-2 : Bioretention Cell BR-2 Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

Area (sf)	CN	Description
3,890	98	Roofs, HSG A
3,890		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3E: Proposed Building Loading Dock & Garage Roof



Summary for Subcatchment SC-P5: Existing Roof

Via RD

[49] Hint: Tc<2dt may require smaller dt

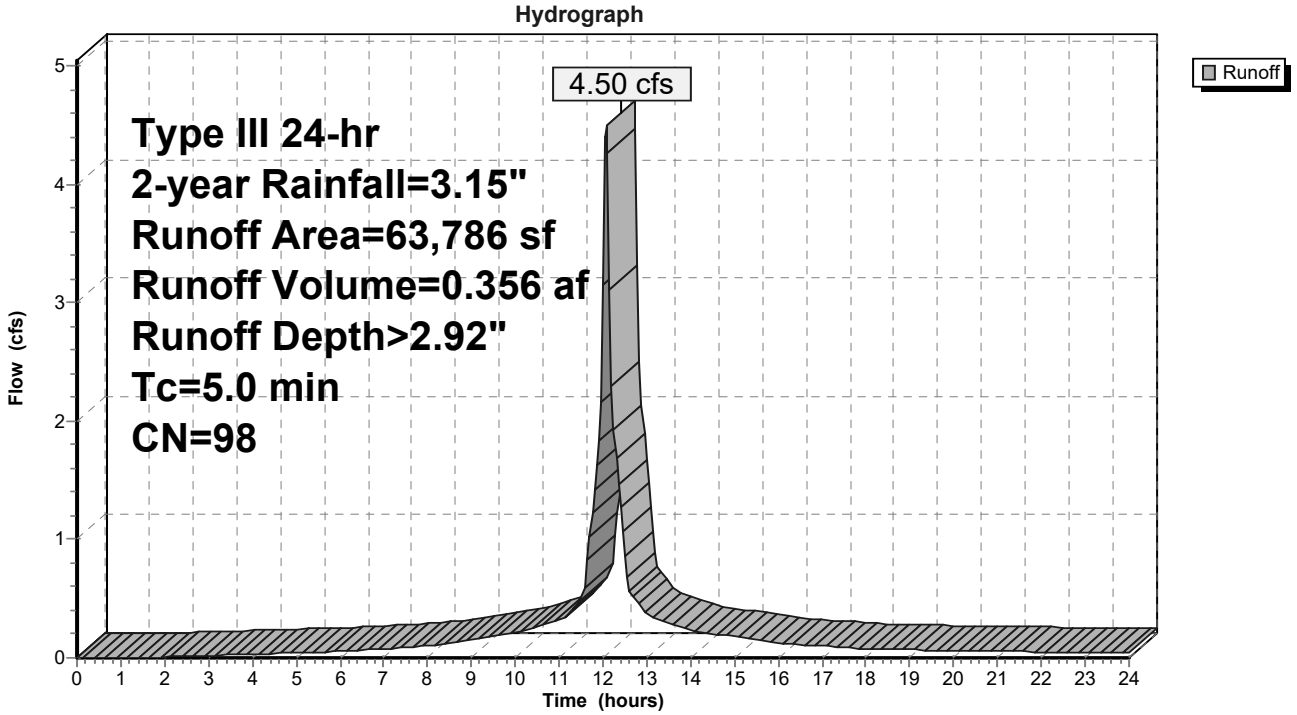
Runoff = 4.50 cfs @ 12.07 hrs, Volume= 0.356 af, Depth> 2.92"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
*	63,786	98	Roofs, HSG A
	63,786		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P5: Existing Roof



Summary for Subcatchment SC-P6: SC-P6-Existing Landscape

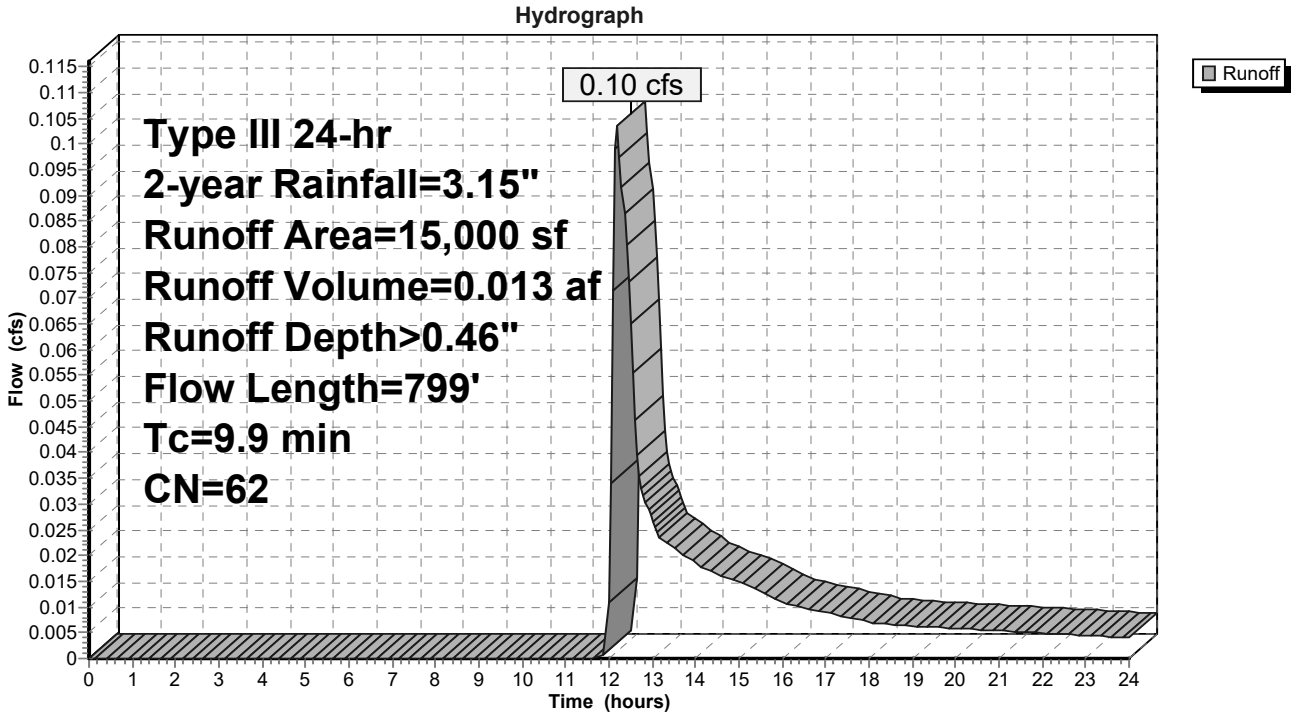
Runoff = 0.10 cfs @ 12.20 hrs, Volume= 0.013 af, Depth> 0.46"
Routed to Link DP-3 : Ex DMH (Southeast)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	4,143	98	Paved parking, HSG A
	1,702	98	Unconnected pavement, HSG A
	7,338	39	>75% Grass cover, Good, HSG A
*	1,817	39	Landscaped Area
	15,000	62	Weighted Average
	9,155		61.03% Pervious Area
	5,845		38.97% Impervious Area
	1,702		29.12% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	80	0.0297	0.18		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.5	69	0.0050	2.39	0.47	**Pipe Channel, 6" HDPE** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.011 Concrete pipe, straight & clean
0.3	73	0.0050	3.79	2.98	**Pipe Channel, 12" HDPE** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.011 Concrete pipe, straight & clean
1.9	577	0.0050	4.97	8.78	**Pipe Channel, 18" HDPE** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011 Concrete pipe, straight & clean
9.9	799	Total			

Subcatchment SC-P6: SC-P6-Existing Landscape



Summary for Subcatchment SC-P7: Employee Entrance

[49] Hint: Tc<2dt may require smaller dt

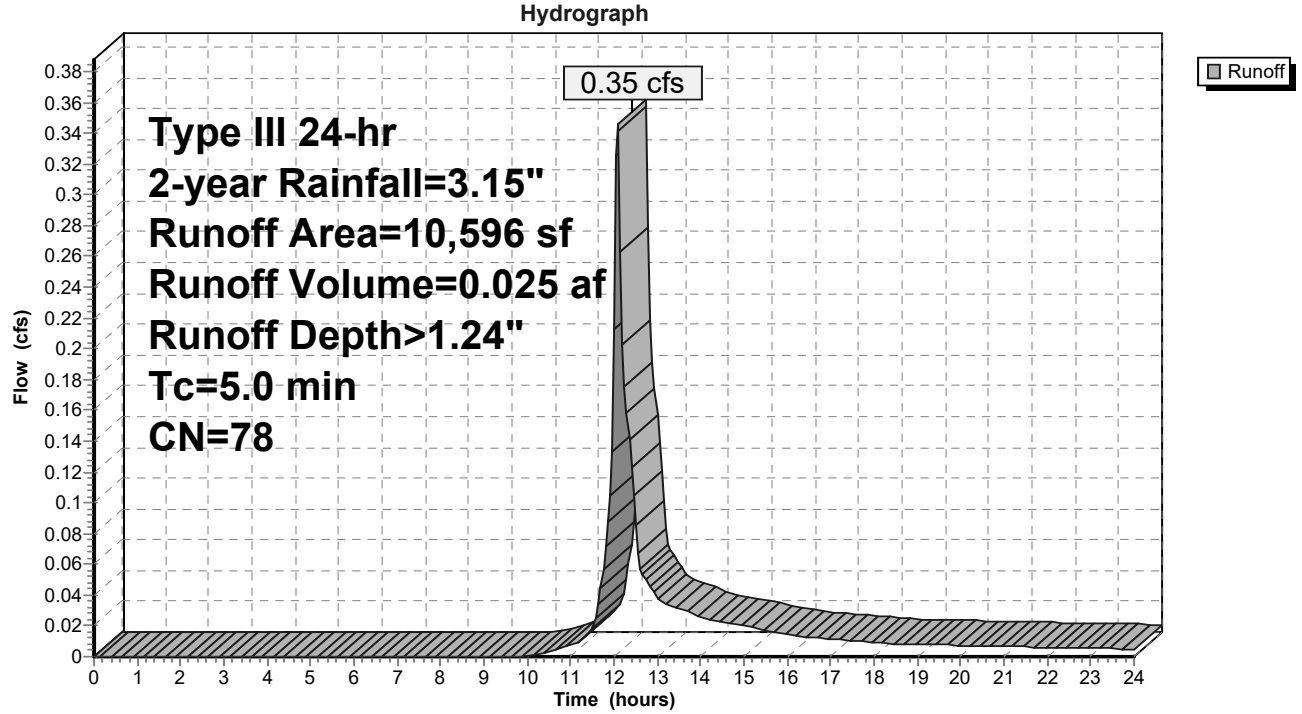
Runoff = 0.35 cfs @ 12.08 hrs, Volume= 0.025 af, Depth> 1.24"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	6,851	98	Paved parking, HSG A
	65	98	Unconnected pavement, HSG A
	903	39	>75% Grass cover, Good, HSG A
*	2,777	39	Landscaped Area
	10,596	78	Weighted Average
	3,680		34.73% Pervious Area
	6,916		65.27% Impervious Area
	65		0.94% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P7: Employee Entrance



Summary for Subcatchment SC-P8: Existing Parking Area

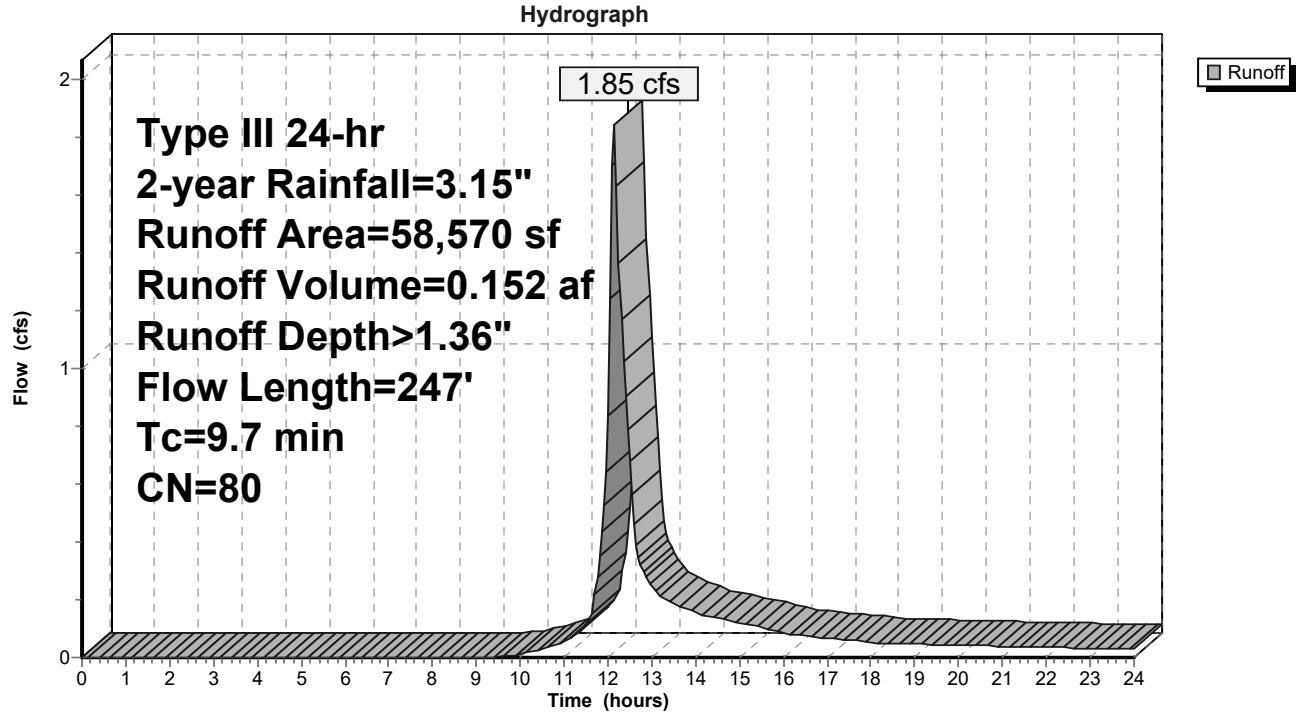
Runoff = 1.85 cfs @ 12.15 hrs, Volume= 0.152 af, Depth> 1.36"
Routed to Link DP-3 : Ex DMH (Southeast)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Description
	30,400	98	Paved parking, HSG A
	4,535	98	Unconnected pavement, HSG A
	5,676	39	>75% Grass cover, Good, HSG A
*	12,276	39	Landscaped Area
*	5,683	98	Gerzofsky Way
	58,570	80	Weighted Average
	17,952		30.65% Pervious Area
	40,618		69.35% Impervious Area
	4,535		11.17% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	58	0.0340	0.13		**Sheet Flow, Initial Sheeting** Grass: Dense n= 0.240 P2= 3.00"
2.0	189	0.0060	1.57		**Shallow Concentrated Flow, Shallow Flow** Paved Kv= 20.3 fps
9.7	247	Total			

Subcatchment SC-P8: Existing Parking Area



Summary for Subcatchment SC-P9: Existing LS

[73] Warning: Peak may fall outside time span

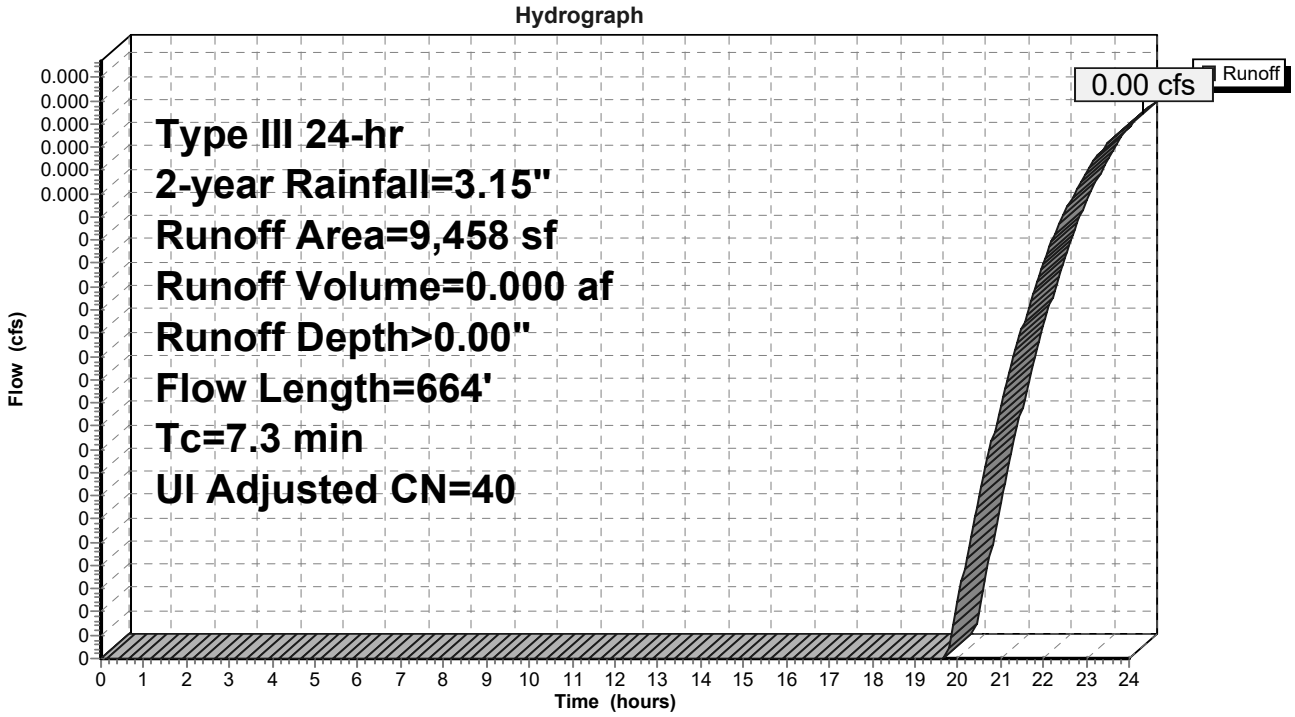
Runoff = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Depth> 0.00"
Routed to Link DP-3 : Ex DMH (Southeast)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.15"

	Area (sf)	CN	Adj	Description
	364	98		Unconnected pavement, HSG A
*	9,094	39		Landscaped Area
	9,458	41	40	Weighted Average, UI Adjusted
	9,094			96.15% Pervious Area
	364			3.85% Impervious Area
	364			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	48	0.0375	0.18		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.3	39	0.0159	2.56		**Shallow Concentrated Flow, Shallow Flow** Paved Kv= 20.3 fps
2.6	577	0.0040	3.76	6.64	**Pipe Channel, 18" HDPE** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
7.3	664	Total			

Subcatchment SC-P9: Existing LS


Hydrograph
Runoff
0.00 cfs
Type III 24-hr
2-year Rainfall=3.15"
Runoff Area=9,458 sf
Runoff Volume=0.000 af
Runoff Depth>0.00"
Flow Length=664'
Tc=7.3 min
UI Adjusted CN=40
Flow (cfs)
0.000
0.000
0.000
0.000
0.000
0.000
0
0
0

Summary for Pond BR-1: Bioretention Cell BR-1 Roof

Inflow Area = 0.604 ac, 69.49% Impervious, Inflow Depth > 2.03" for 2-year event
Inflow = 1.29 cfs @ 12.07 hrs, Volume= 0.102 af
Outflow = 0.11 cfs @ 11.85 hrs, Volume= 0.075 af, Atten= 92%, Lag= 0.0 min
Primary = 0.11 cfs @ 11.85 hrs, Volume= 0.075 af
Routed to Link DP-1 : Ex CB (West)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.64' @ 13.00 hrs Surf.Area= 1,905 sf Storage= 2,737 cf
Flood Elev= 72.00' Surf.Area= 3,060 sf Storage= 10,274 cf

Plug-Flow detention time= 299.5 min calculated for 0.075 af (73% of inflow)
Center-of-Mass det. time= 211.5 min (967.0 - 755.5)

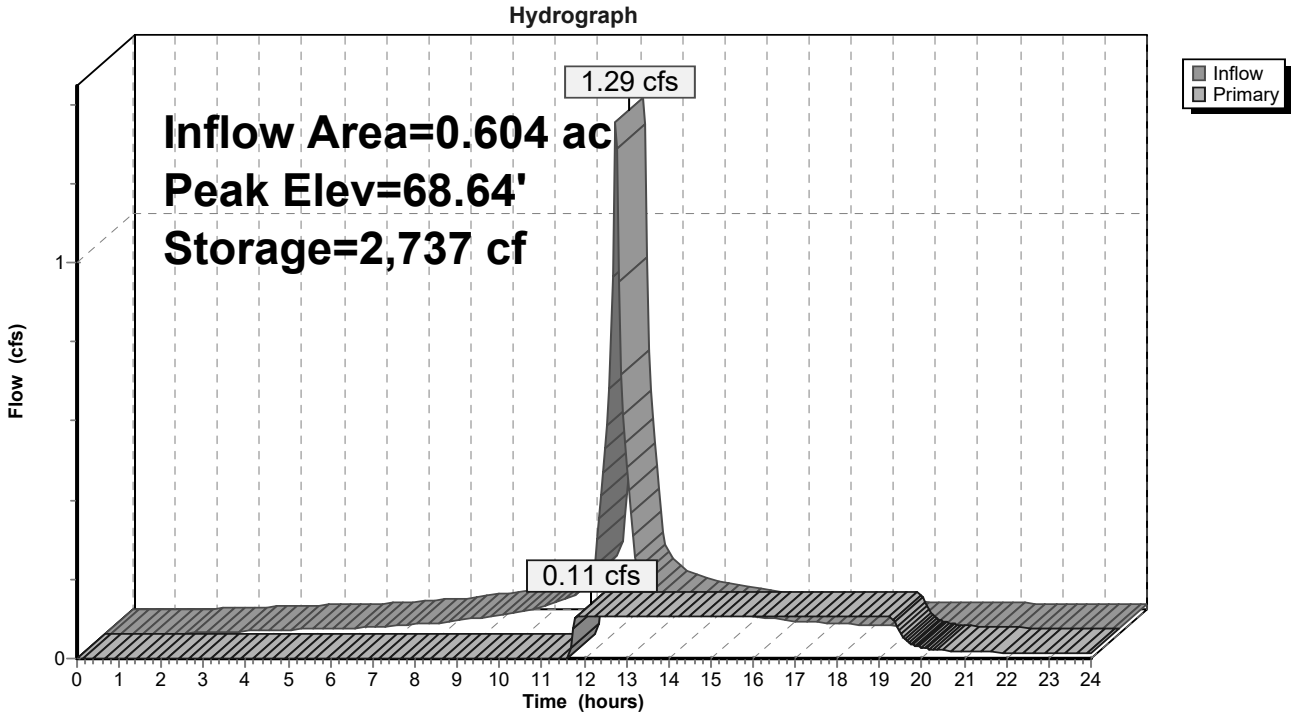
Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	10,274 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
66.00	1,905	0.0	0	0
66.50	1,905	40.0	381	381
67.00	1,905	40.0	381	762
68.00	1,905	40.0	762	1,524
70.00	1,905	100.0	3,810	5,334
71.00	2,457	100.0	2,181	7,515
72.00	3,060	100.0	2,759	10,274

Device	Routing	Invert	Outlet Devices
#1	Primary	67.00'	**18.0" Round Culvert** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 67.00' / 66.18' S= 0.0195 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	67.50'	**6.0" Vert. Orifice/Grate - UD** C= 0.600 Limited to weir flow at low heads
#3	Device 2	66.00'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	70.50'	**18.0" W x 6.0" H Vert. Orifice/Grate - Vert Weir** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.11 cfs @ 11.85 hrs HW=67.81' (Free Discharge)
- **1=Culvert** (Passes 0.11 cfs of 2.33 cfs potential flow)
  - **2=Orifice/Grate - UD** (Passes 0.11 cfs of 0.24 cfs potential flow)
    - **3=Exfiltration** (Exfiltration Controls 0.11 cfs)
  - **4=Orifice/Grate - Vert Weir** (Controls 0.00 cfs)

Pond BR-1: Bioretention Cell BR-1 Roof



Summary for Pond BR-2: Bioretention Cell BR-2 Parking Area

Inflow Area = 0.269 ac, 68.59% Impervious, Inflow Depth > 1.50" for 2-year event
Inflow = 0.42 cfs @ 12.08 hrs, Volume= 0.034 af
Outflow = 0.05 cfs @ 11.90 hrs, Volume= 0.028 af, Atten= 89%, Lag= 0.0 min
Primary = 0.05 cfs @ 11.90 hrs, Volume= 0.028 af
Routed to Link DP-1 : Ex CB (West)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 66.68' @ 12.93 hrs Surf.Area= 830 sf Storage= 728 cf
Flood Elev= 71.00' Surf.Area= 2,490 sf Storage= 6,634 cf

Plug-Flow detention time= 217.6 min calculated for 0.028 af (82% of inflow)
Center-of-Mass det. time= 143.0 min (941.1 - 798.1)

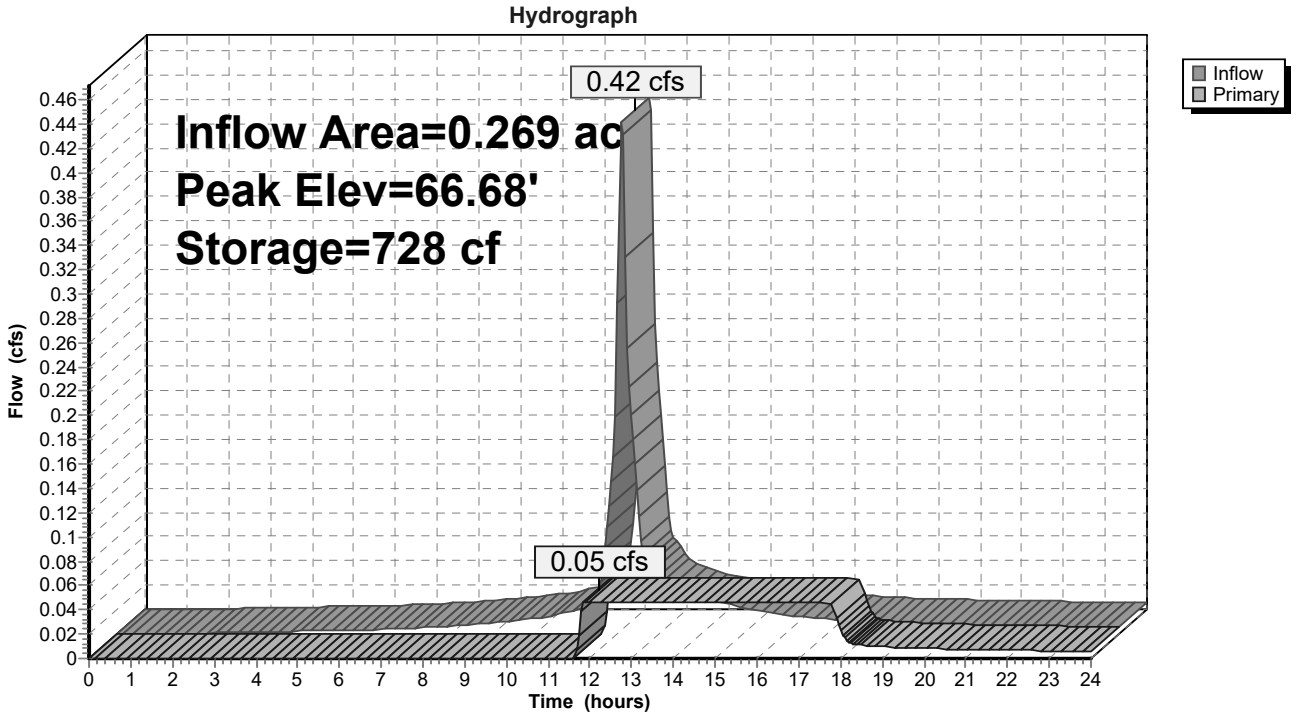
Volume	Invert	Avail.Storage	Storage Description
#1	64.75'	6,634 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.75	830	0.0	0	0
65.25	830	40.0	166	166
66.50	830	40.0	415	581
68.00	830	100.0	1,245	1,826
69.00	1,296	100.0	1,063	2,889
70.00	1,852	100.0	1,574	4,463
71.00	2,490	100.0	2,171	6,634

Device	Routing	Invert	Outlet Devices
#1	Primary	65.25'	**18.0" Round Culvert** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 65.25' / 64.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	65.50'	**6.0" Vert. Orifice/Grate - UD** C= 0.600 Limited to weir flow at low heads
#3	Device 2	64.75'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	68.50'	**18.0" W x 6.0" H Vert. Orifice/Grate - Vert Weir** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 11.90 hrs HW=65.70' (Free Discharge)
- **1=Culvert** (Passes 0.05 cfs of 0.80 cfs potential flow)
  - **2=Orifice/Grate - UD** (Passes 0.05 cfs of 0.11 cfs potential flow)
    - **3=Exfiltration** (Exfiltration Controls 0.05 cfs)
  - **4=Orifice/Grate - Vert Weir** (Controls 0.00 cfs)

Pond BR-2: Bioretention Cell BR-2 Parking Area



Summary for Pond BR-3: Bioretention Cell BR-3 Parking Area

Inflow Area = 1.035 ac, 59.53% Impervious, Inflow Depth > 1.00" for 2-year event
Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.087 af
Outflow = 0.11 cfs @ 12.20 hrs, Volume= 0.066 af, Atten= 90%, Lag= 6.8 min
Primary = 0.11 cfs @ 12.20 hrs, Volume= 0.066 af
Routed to Link DP-2 : Ex CB (Southwest)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.02' @ 13.58 hrs Surf.Area= 2,000 sf Storage= 1,646 cf
Flood Elev= 71.00' Surf.Area= 5,404 sf Storage= 11,059 cf

Plug-Flow detention time= 199.3 min calculated for 0.066 af (76% of inflow)
Center-of-Mass det. time= 108.2 min (969.8 - 861.6)

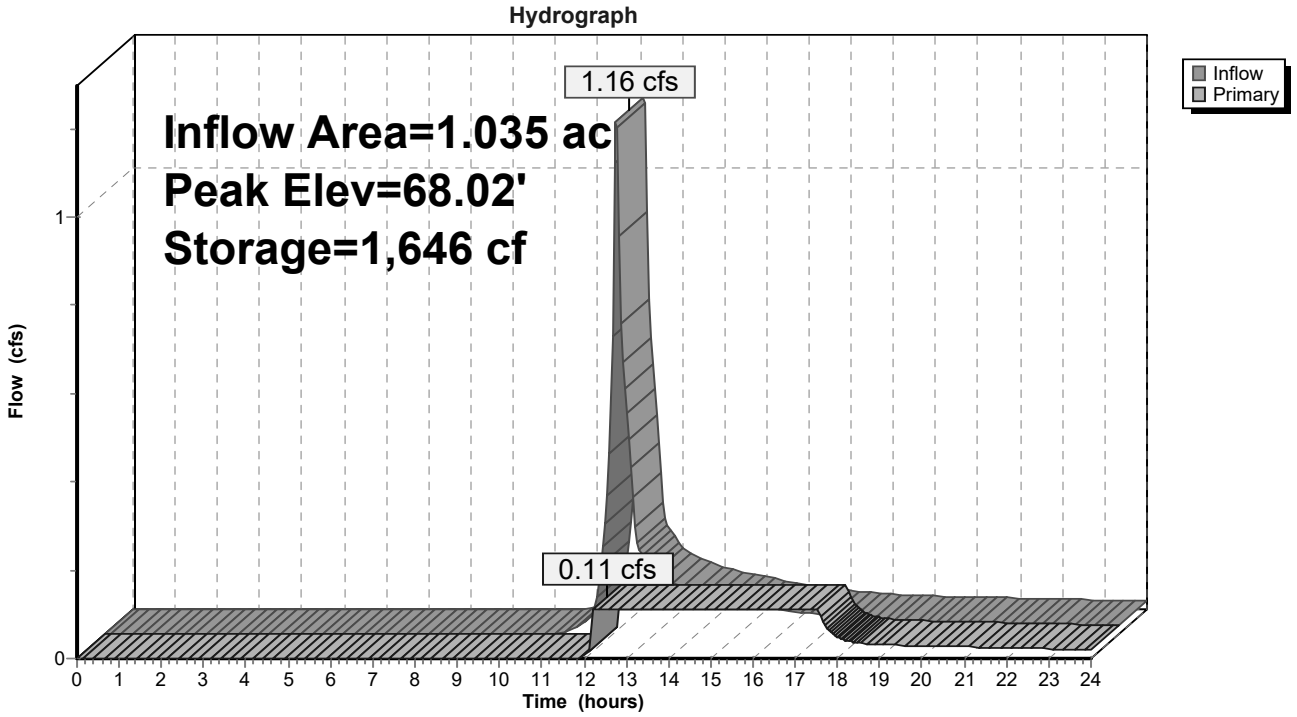
Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	11,059 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
66.00	2,000	0.0	0	0
67.00	2,000	40.0	800	800
67.50	2,000	40.0	400	1,200
68.00	2,000	40.0	400	1,600
69.00	2,000	100.0	2,000	3,600
70.00	3,757	100.0	2,879	6,479
71.00	5,404	100.0	4,581	11,059

Device	Routing	Invert	Outlet Devices
#1	Primary	67.05'	**12.0" Round Culvert** L= 92.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 67.05' / 66.20' S= 0.0092 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	67.05'	**6.0" Vert. Orifice/Grate - UD** C= 0.600 Limited to weir flow at low heads
#3	Device 2	66.00'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	69.50'	**18.0" W x 6.0" H Vert. Orifice/Grate - Vert Weir** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.11 cfs @ 12.20 hrs HW=67.34' (Free Discharge)
- **1=Culvert** (Passes 0.11 cfs of 0.27 cfs potential flow)
  - **2=Orifice/Grate - UD** (Passes 0.11 cfs of 0.21 cfs potential flow)
    - **3=Exfiltration** (Exfiltration Controls 0.11 cfs)
  - **4=Orifice/Grate - Vert Weir** (Controls 0.00 cfs)

Pond BR-3: Bioretention Cell BR-3 Parking Area



Summary for Pond BR-4: Bioretention Cell BR-1 Roof

Inflow Area = 0.129 ac,100.00% Impervious, Inflow Depth > 2.92" for 2-year event
Inflow = 0.40 cfs @ 12.07 hrs, Volume= 0.031 af
Outflow = 0.04 cfs @ 11.60 hrs, Volume= 0.028 af, Atten= 90%, Lag= 0.0 min
Primary = 0.04 cfs @ 11.60 hrs, Volume= 0.028 af
Routed to Link DP-1 : Ex CB (West)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 69.74' @ 12.82 hrs Surf.Area= 705 sf Storage= 631 cf
Flood Elev= 74.00' Surf.Area= 1,803 sf Storage= 4,410 cf

Plug-Flow detention time= 189.2 min calculated for 0.028 af (89% of inflow)
Center-of-Mass det. time= 137.9 min (893.3 - 755.5)

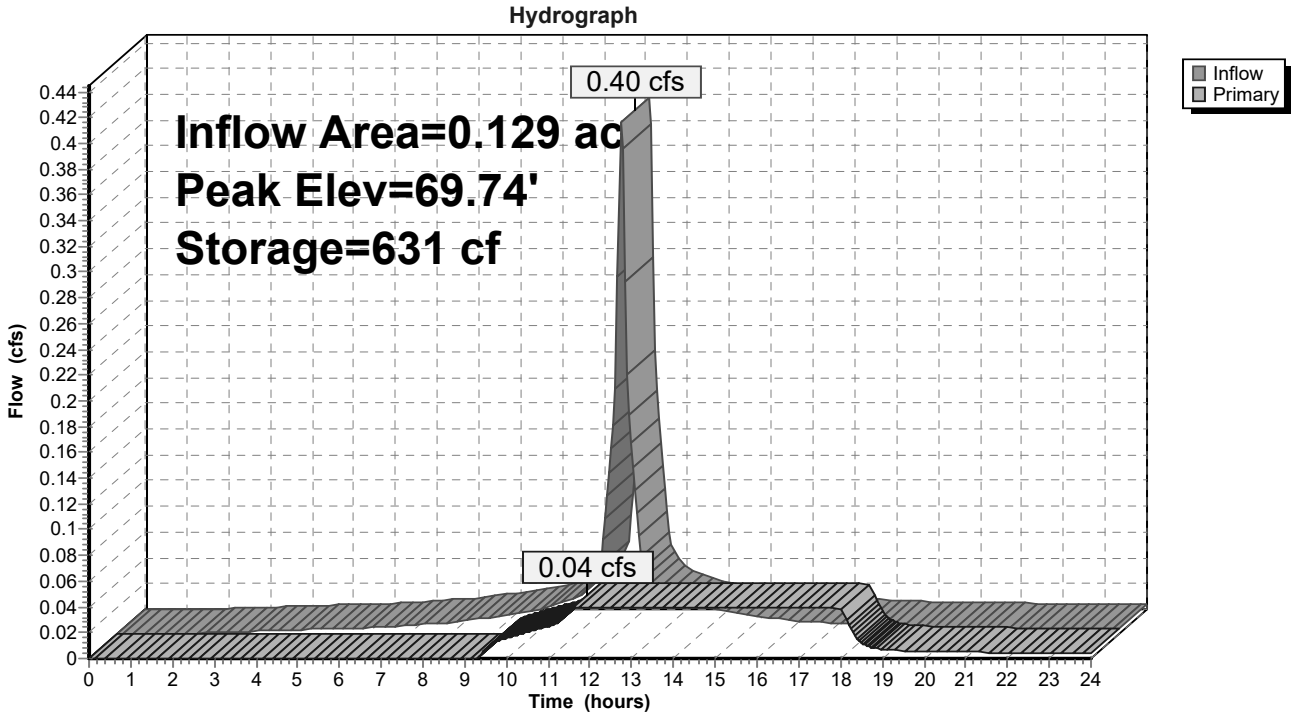
Volume	Invert	Avail.Storage	Storage Description
#1	67.50'	4,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
67.50	705	0.0	0	0
68.00	705	40.0	141	141
69.00	705	40.0	282	423
70.00	705	40.0	282	705
71.00	705	40.0	282	987
71.50	705	100.0	353	1,340
72.00	896	100.0	400	1,740
73.00	1,321	100.0	1,109	2,848
74.00	1,803	100.0	1,562	4,410

Device	Routing	Invert	Outlet Devices
#1	Primary	68.00'	**16.0" Round Culvert** L= 29.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 68.00' / 67.65' S= 0.0121 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.40 sf
#2	Device 1	68.00'	**6.0" Vert. Orifice/Grate - UD** C= 0.600 Limited to weir flow at low heads
#3	Device 2	67.50'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	72.00'	**18.0" W x 6.0" H Vert. Orifice/Grate - Vert Weir** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.04 cfs @ 11.60 hrs HW=68.15' (Free Discharge)
└**1=Culvert** (Passes 0.04 cfs of 0.09 cfs potential flow)
  ├**2=Orifice/Grate - UD** (Passes 0.04 cfs of 0.07 cfs potential flow)
  │ └**3=Exfiltration** (Exfiltration Controls 0.04 cfs)
  └**4=Orifice/Grate - Vert Weir** (Controls 0.00 cfs)

Pond BR-4: Bioretention Cell BR-1 Roof



Summary for Pond RT-1: UG Storage & Treatment Loading Dock

Inflow Area = 0.722 ac, 98.10% Impervious, Inflow Depth > 2.78" for 2-year event
Inflow = 2.16 cfs @ 12.07 hrs, Volume= 0.167 af
Outflow = 0.16 cfs @ 13.12 hrs, Volume= 0.092 af, Atten= 92%, Lag= 63.1 min
Primary = 0.16 cfs @ 13.12 hrs, Volume= 0.092 af
Routed to Link DP-1 : Ex CB (West)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 65.90' @ 13.12 hrs Surf.Area= 3,820 sf Storage= 4,753 cf
Flood Elev= 68.51' Surf.Area= 3,820 sf Storage= 12,657 cf

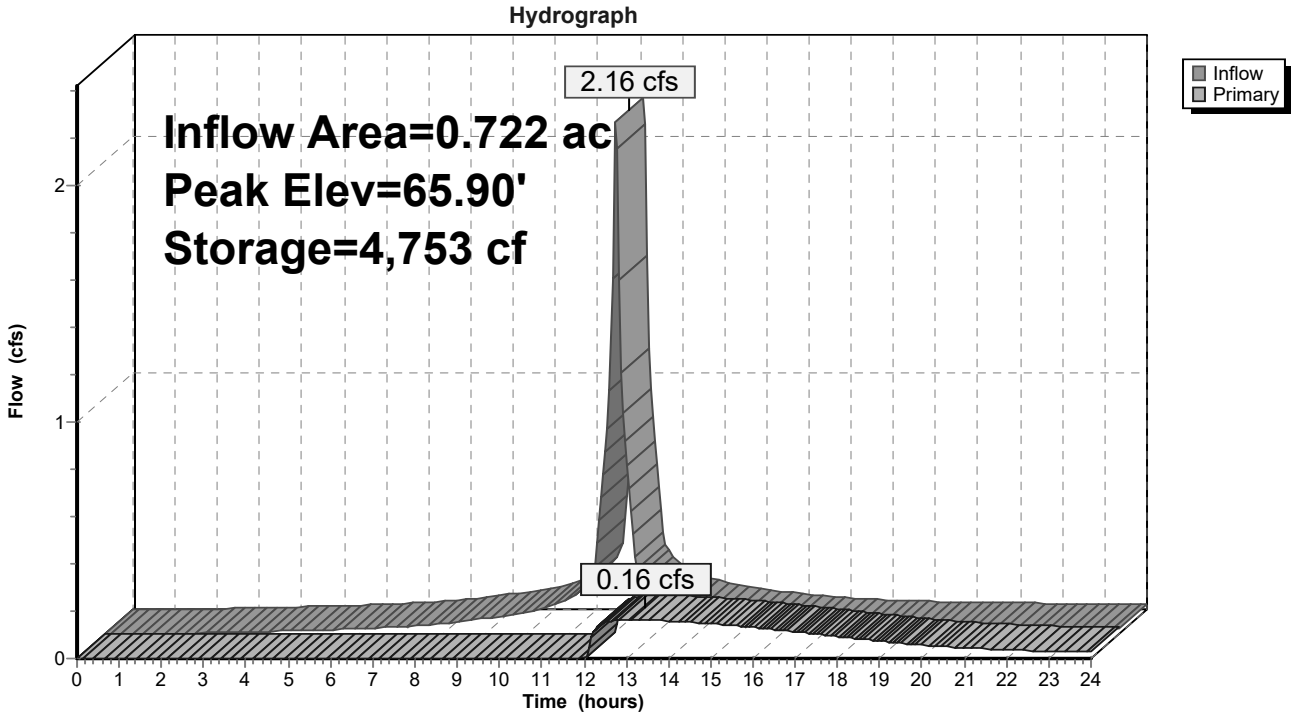
Plug-Flow detention time= 329.8 min calculated for 0.092 af (55% of inflow)
Center-of-Mass det. time= 216.5 min (980.6 - 764.2)

Volume	Invert	Avail.Storage	Storage Description
#1	65.16'	7,256 cf	**Ferguson R-Tank UD 3** x 620 Inside #2 Inside= 23.6"W x 40.2"H => 6.26 sf x 1.97'L = 12.3 cf Outside= 23.6"W x 40.2"H => 6.59 sf x 1.97'L = 13.0 cf 620 Chambers in 10 Rows 8,040 cf Overall x 95.0% Voids
#2	63.51'	2,928 cf	**24.00'W x 128.00'L x 5.00'H Prismatoid** 15,360 cf Overall - 8,040 cf Embedded = 7,320 cf x 40.0% Voids
#3	65.16'	1,755 cf	**Ferguson R-Tank UD 3** x 150 Inside #4 Inside= 23.6"W x 40.2"H => 6.26 sf x 1.97'L = 12.3 cf Outside= 23.6"W x 40.2"H => 6.59 sf x 1.97'L = 13.0 cf 150 Chambers in 10 Rows 1,945 cf Overall x 95.0% Voids
#4	63.51'	718 cf	**22.00'W x 34.00'L x 5.00'H Prismatoid** 3,740 cf Overall - 1,945 cf Embedded = 1,795 cf x 40.0% Voids
		12,657 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	64.71'	**12.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 64.71' / 64.39' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 3	65.30'	**10.0" Vert. Orifice/Grate - from RTanks** C= 0.600 Limited to weir flow at low heads
#3	Device 1	65.30'	**3.0" Vert. Orifice/Grate- low flow** C= 0.600 Limited to weir flow at low heads
#4	Device 1	66.80'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.16 cfs @ 13.12 hrs HW=65.90' (Free Discharge)
└**1=Culvert** (Passes 0.16 cfs of 2.48 cfs potential flow)
  └**3=Orifice/Grate- low flow** (Orifice Controls 0.16 cfs @ 3.31 fps)
    └**2=Orifice/Grate - from RTanks** (Passes 0.16 cfs of 1.10 cfs potential flow)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond RT-1: UG Storage & Treatment Loading Dock



Summary for Pond RT-2: UG Storage & Treatment Parking Area

Inflow Area = 0.654 ac,100.00% Impervious, Inflow Depth > 2.92" for 2-year event
Inflow = 2.01 cfs @ 12.07 hrs, Volume= 0.159 af
Outflow = 1.24 cfs @ 12.17 hrs, Volume= 0.139 af, Atten= 38%, Lag= 6.1 min
Primary = 1.24 cfs @ 12.17 hrs, Volume= 0.139 af
Routed to Link DP-2 : Ex CB (Southwest)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 69.80' @ 12.17 hrs Surf.Area= 1,468 sf Storage= 1,817 cf
Flood Elev= 72.20' Surf.Area= 1,468 sf Storage= 3,877 cf

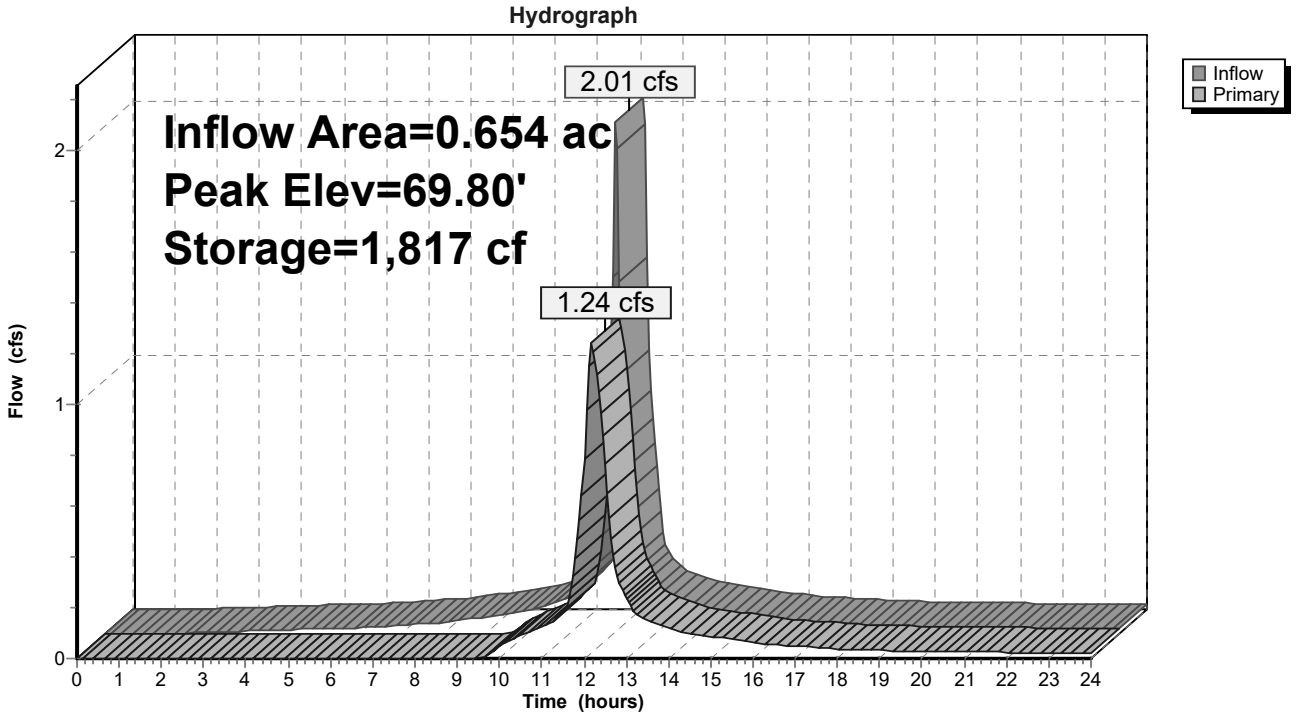
Plug-Flow detention time= 114.8 min calculated for 0.139 af (88% of inflow)
Center-of-Mass det. time= 59.3 min (814.8 - 755.5)

Volume	Invert	Avail.Storage	Storage Description
#1	68.77'	1,710 cf	**Ferguson R-Tank UD 2** x 216 Inside #2 Inside= 23.6"W x 27.2"H => 4.23 sf x 1.97'L = 8.3 cf Outside= 23.6"W x 27.2"H => 4.46 sf x 1.97'L = 8.8 cf 216 Chambers in 9 Rows 1,895 cf Overall x 95.0% Voids
#2	67.77'	946 cf	**20.00'W x 50.00'L x 4.26'H Prismatoid** 4,260 cf Overall - 1,895 cf Embedded = 2,365 cf x 40.0% Voids
#3	68.77'	760 cf	**Ferguson R-Tank UD 2** x 96 Inside #4 Inside= 23.6"W x 27.2"H => 4.23 sf x 1.97'L = 8.3 cf Outside= 23.6"W x 27.2"H => 4.46 sf x 1.97'L = 8.8 cf 96 Chambers in 12 Rows 842 cf Overall x 95.0% Voids
#4	67.77'	461 cf	**26.00'W x 18.00'L x 4.26'H Prismatoid** 1,994 cf Overall - 842 cf Embedded = 1,152 cf x 40.0% Voids
		3,877 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	68.75'	**12.0" Round Culvert** L= 79.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 68.75' / 67.80' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 3	68.92'	**10.0" Vert. Orifice/Grate - from RTanks** C= 0.600 Limited to weir flow at low heads
#3	Device 1	68.92'	**8.0" Vert. Orifice/Grate - from RTanks** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.23 cfs @ 12.17 hrs HW=69.79' (Free Discharge)
↑**1=Culvert** (Passes 1.23 cfs of 2.19 cfs potential flow)
↑**3=Orifice/Grate - from RTanks** (Orifice Controls 1.23 cfs @ 3.53 fps)
↑**2=Orifice/Grate - from RTanks** (Passes 1.23 cfs of 1.77 cfs potential flow)

Pond RT-2: UG Storage & Treatment Parking Area



Summary for Pond RT-3: UG Storage & Treatment Parking Area

Inflow Area = 0.377 ac, 92.00% Impervious, Inflow Depth > 2.40" for 2-year event
Inflow = 1.03 cfs @ 12.07 hrs, Volume= 0.075 af
Outflow = 0.82 cfs @ 12.14 hrs, Volume= 0.064 af, Atten= 21%, Lag= 4.0 min
Primary = 0.82 cfs @ 12.14 hrs, Volume= 0.064 af
Routed to Link DP-2 : Ex CB (Southwest)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.29' @ 12.14 hrs Surf.Area= 920 sf Storage= 865 cf
Flood Elev= 73.00' Surf.Area= 920 sf Storage= 2,308 cf

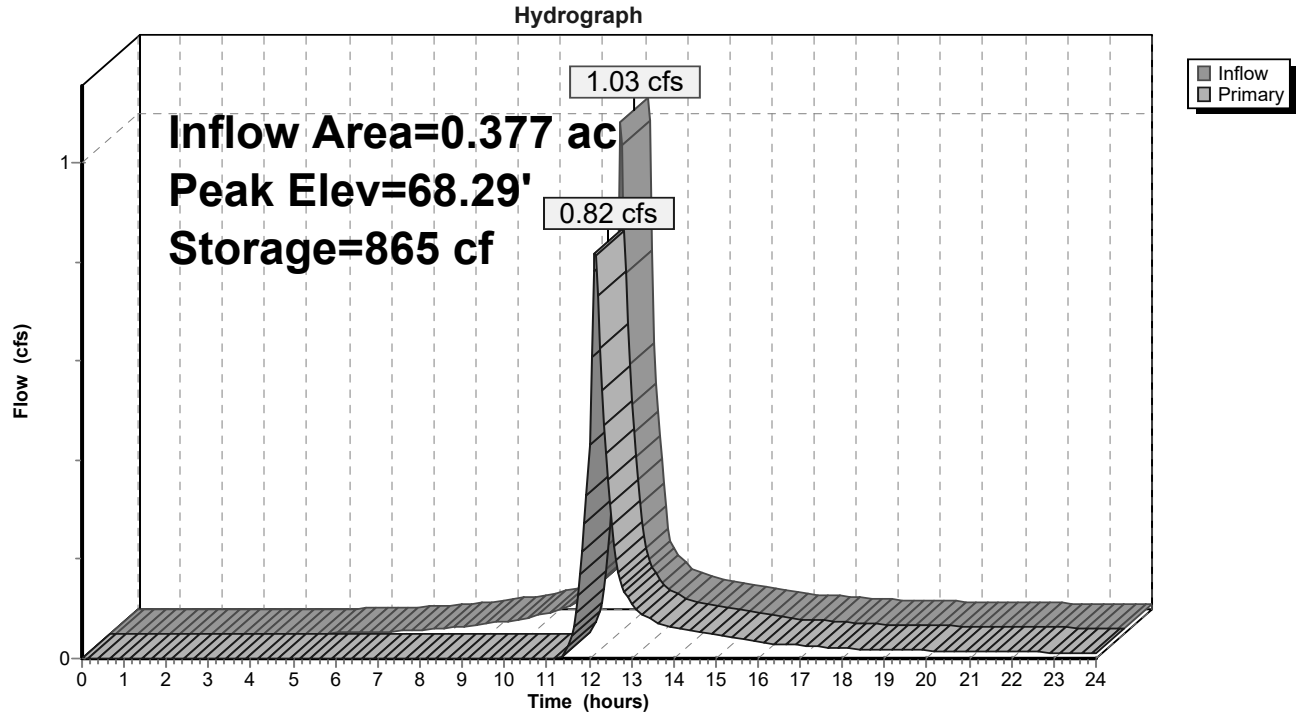
Plug-Flow detention time= 111.1 min calculated for 0.064 af (85% of inflow)
Center-of-Mass det. time= 48.1 min (840.1 - 791.9)

Volume	Invert	Avail.Storage	Storage Description
#1	67.58'	1,330 cf	**Ferguson R-Tank UD 2** x 168 Inside #2 Inside= 23.6"W x 27.2"H => 4.23 sf x 1.97'L = 8.3 cf Outside= 23.6"W x 27.2"H => 4.46 sf x 1.97'L = 8.8 cf 168 Chambers in 8 Rows 1,474 cf Overall x 95.0% Voids
#2	66.58'	978 cf	**20.00'W x 46.00'L x 4.26'H Prismatoid** 3,919 cf Overall - 1,474 cf Embedded = 2,445 cf x 40.0% Voids
		2,308 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	67.72'	**10.0" Round Culvert** L= 124.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 67.72' / 66.54' S= 0.0095 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.55 sf
#2	Device 1	67.72'	**10.0" Vert. Orifice/Grate - from RTanks** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.81 cfs @ 12.14 hrs HW=68.29' (Free Discharge)
↑**1=Culvert** (Inlet Controls 0.81 cfs @ 2.03 fps)
↑**2=Orifice/Grate - from RTanks** (Passes 0.81 cfs of 1.02 cfs potential flow)

Pond RT-3: UG Storage & Treatment Parking Area

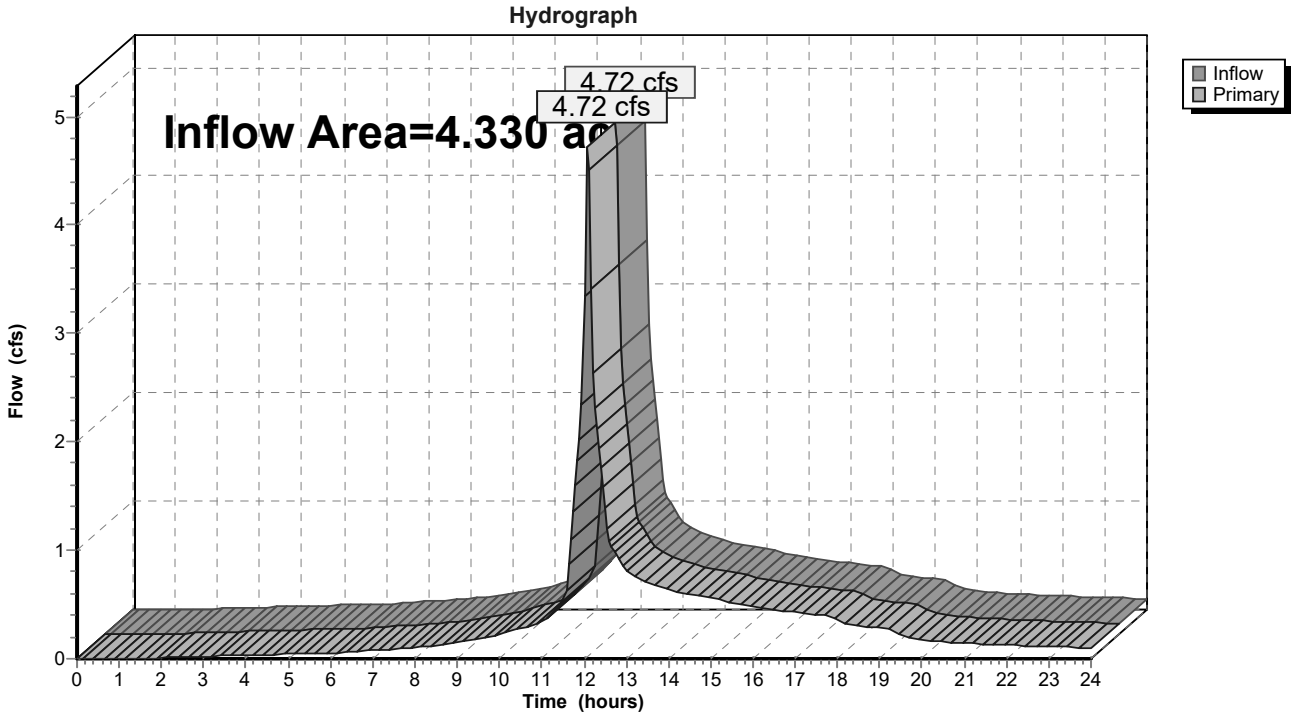


Summary for Link DP-1: Ex CB (West)

Inflow Area = 4.330 ac, 76.17% Impervious, Inflow Depth > 1.69" for 2-year event
Inflow = 4.72 cfs @ 12.07 hrs, Volume= 0.611 af
Primary = 4.72 cfs @ 12.07 hrs, Volume= 0.611 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-1: Ex CB (West)

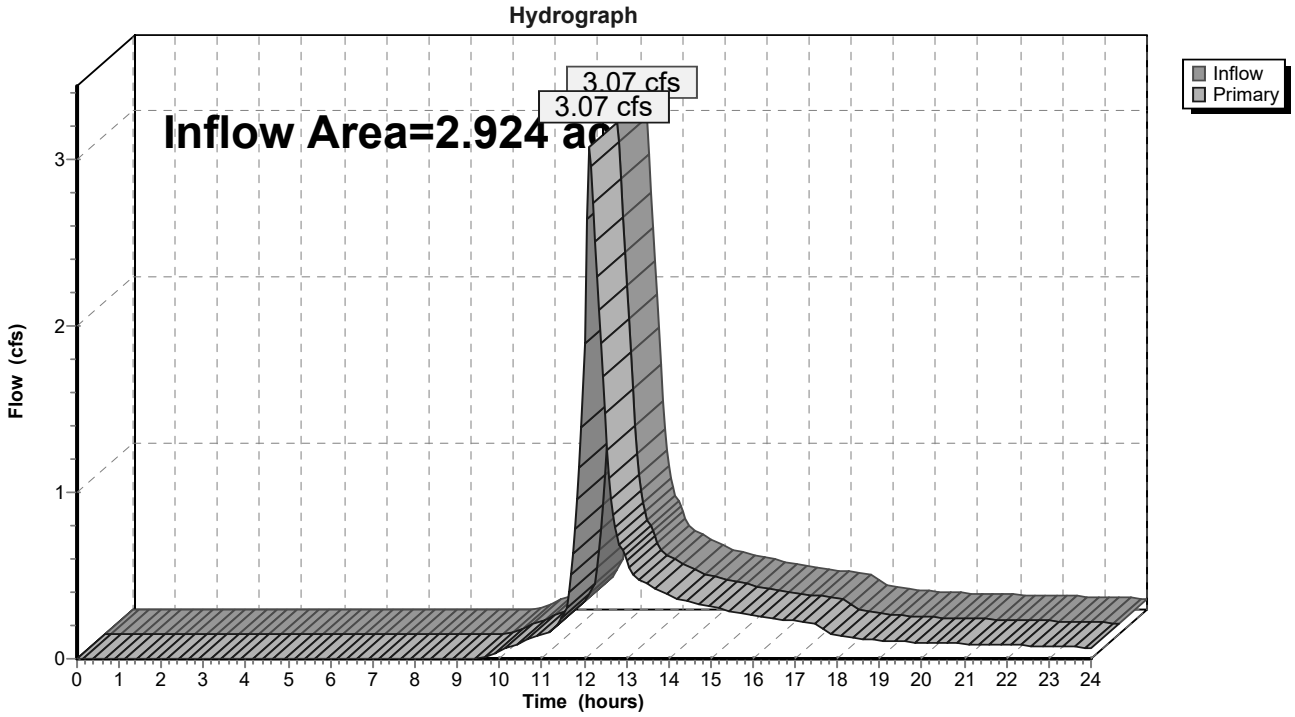


Summary for Link DP-2: Ex CB (Southwest)

Inflow Area = 2.924 ac, 73.99% Impervious, Inflow Depth > 1.44" for 2-year event
Inflow = 3.07 cfs @ 12.12 hrs, Volume= 0.351 af
Primary = 3.07 cfs @ 12.12 hrs, Volume= 0.351 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-2: Ex CB (Southwest)

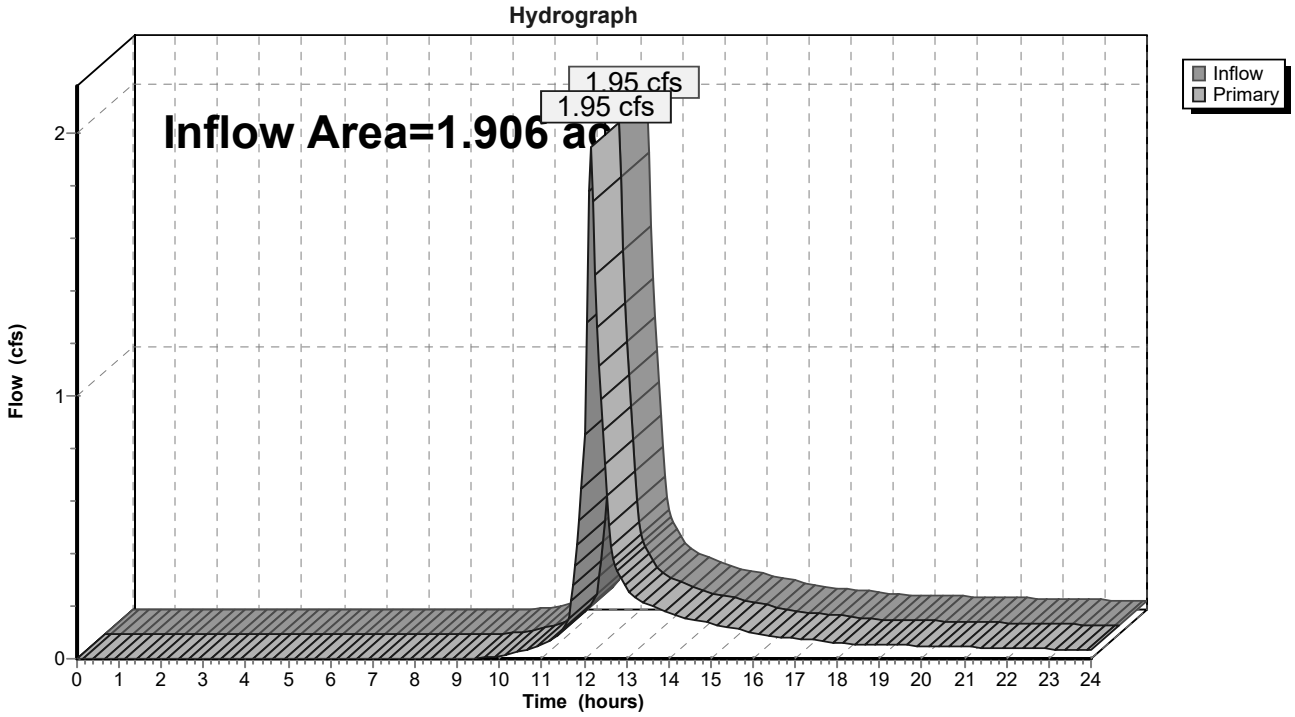


Summary for Link DP-3: Ex DMH (Southeast)

Inflow Area = 1.906 ac, 56.40% Impervious, Inflow Depth > 1.04" for 2-year event
Inflow = 1.95 cfs @ 12.15 hrs, Volume= 0.166 af
Primary = 1.95 cfs @ 12.15 hrs, Volume= 0.166 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-3: Ex DMH (Southeast)



Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC-P1: Pelican St Runoff Area=26,806 sf 63.12% Impervious Runoff Depth>3.22"
Tc=5.0 min CN=76 Runoff=2.33 cfs 0.165 af

Subcatchment SC-P10: Existing Loading Runoff Area=49,731 sf 34.38% Impervious Runoff Depth>1.71"
Flow Length=212' Tc=23.8 min CN=59 Runoff=1.33 cfs 0.163 af

Subcatchment SC-P11: Proposed Parking Runoff Area=45,084 sf 59.53% Impervious Runoff Depth>3.03"
Tc=5.0 min CN=74 Runoff=3.68 cfs 0.262 af

Subcatchment SC-P12: Proposed Loading Runoff Area=9,873 sf 93.93% Impervious Runoff Depth>5.12"
Tc=5.0 min CN=94 Runoff=1.26 cfs 0.097 af

Subcatchment SC-P13: South Parking Area Runoff Area=16,401 sf 92.00% Impervious Runoff Depth>5.00"
Tc=5.0 min CN=93 Runoff=2.07 cfs 0.157 af

Subcatchment SC-P14: Parking Area to BR-2 Runoff Area=7,835 sf 52.99% Impervious Runoff Depth>2.66"
Tc=5.0 min CN=70 Runoff=0.56 cfs 0.040 af

Subcatchment SC-P2: NW Corner w/ Biocell Runoff Area=8,030 sf 0.00% Impervious Runoff Depth>0.39"
Flow Length=150' Tc=11.6 min CN=39 Runoff=0.03 cfs 0.006 af

Subcatchment SC-P3A: Proposed Runoff Area=18,292 sf 100.00% Impervious Runoff Depth>5.58"
Tc=5.0 min CN=98 Runoff=2.41 cfs 0.195 af

Subcatchment SC-P3B: Proposed Runoff Area=21,573 sf 100.00% Impervious Runoff Depth>5.58"
Tc=5.0 min CN=98 Runoff=2.84 cfs 0.230 af

Subcatchment SC-P3C: Proposed Runoff Area=28,468 sf 100.00% Impervious Runoff Depth>5.58"
Tc=5.0 min CN=98 Runoff=3.75 cfs 0.304 af

Subcatchment SC-P3D: Proposed Building Runoff Area=5,624 sf 100.00% Impervious Runoff Depth>5.58"
Tc=5.0 min CN=98 Runoff=0.74 cfs 0.060 af

Subcatchment SC-P3E: Proposed Building Runoff Area=3,890 sf 100.00% Impervious Runoff Depth>5.58"
Tc=5.0 min CN=98 Runoff=0.51 cfs 0.042 af

Subcatchment SC-P5: Existing Roof Runoff Area=63,786 sf 100.00% Impervious Runoff Depth>5.58"
Tc=5.0 min CN=98 Runoff=8.40 cfs 0.681 af

Subcatchment SC-P6: SC-P6-Existing Runoff Area=15,000 sf 38.97% Impervious Runoff Depth>1.96"
Flow Length=799' Tc=9.9 min CN=62 Runoff=0.66 cfs 0.056 af

Subcatchment SC-P7: Employee Entrance Runoff Area=10,596 sf 65.27% Impervious Runoff Depth>3.42"
Tc=5.0 min CN=78 Runoff=0.97 cfs 0.069 af

Subcatchment SC-P8: Existing Parking Runoff Area=58,570 sf 69.35% Impervious Runoff Depth>3.61"
Flow Length=247' Tc=9.7 min CN=80 Runoff=4.95 cfs 0.405 af

Subcatchment SC-P9: Existing LS Runoff Area=9,458 sf 3.85% Impervious Runoff Depth>0.44"
Flow Length=664' Tc=7.3 min UI Adjusted CN=40 Runoff=0.04 cfs 0.008 af

Pond BR-1: Bioretention Cell BR-1 Roof Peak Elev=70.02' Storage=5,367 cf Inflow=2.41 cfs 0.201 af
Outflow=0.11 cfs 0.124 af

Pond BR-2: Bioretention Cell BR-2 Parking Peak Elev=68.20' Storage=1,999 cf Inflow=1.07 cfs 0.081 af
Outflow=0.05 cfs 0.055 af

Pond BR-3: Bioretention Cell BR-3 Parking Peak Elev=69.71' Storage=5,455 cf Inflow=3.68 cfs 0.262 af
Outflow=0.64 cfs 0.190 af

Pond BR-4: Bioretention Cell BR-1 Roof Peak Elev=71.45' Storage=1,301 cf Inflow=0.74 cfs 0.060 af
Outflow=0.04 cfs 0.051 af

Pond RT-1: UG Storage & Treatment Loading Peak Elev=67.20' Storage=8,693 cf Inflow=4.10 cfs 0.327 af
Outflow=0.52 cfs 0.241 af

Pond RT-2: UG Storage & Treatment Parking Peak Elev=70.62' Storage=2,803 cf Inflow=3.75 cfs 0.304 af
Outflow=1.97 cfs 0.284 af

Pond RT-3: UG Storage & Treatment Parking Peak Elev=68.71' Storage=1,154 cf Inflow=2.07 cfs 0.157 af
Outflow=1.57 cfs 0.145 af

Link DP-1: Ex CB (West) Inflow=9.27 cfs 1.314 af
Primary=9.27 cfs 1.314 af

Link DP-2: Ex CB (Southwest) Inflow=6.64 cfs 0.853 af
Primary=6.64 cfs 0.853 af

Link DP-3: Ex DMH (Southeast) Inflow=5.62 cfs 0.469 af
Primary=5.62 cfs 0.469 af

Total Runoff Area = 9.160 ac Runoff Volume = 2.940 af Average Runoff Depth = 3.85"
28.64% Pervious = 2.623 ac 71.36% Impervious = 6.537 ac

Summary for Subcatchment SC-P1: Pelican St

[49] Hint: Tc<2dt may require smaller dt

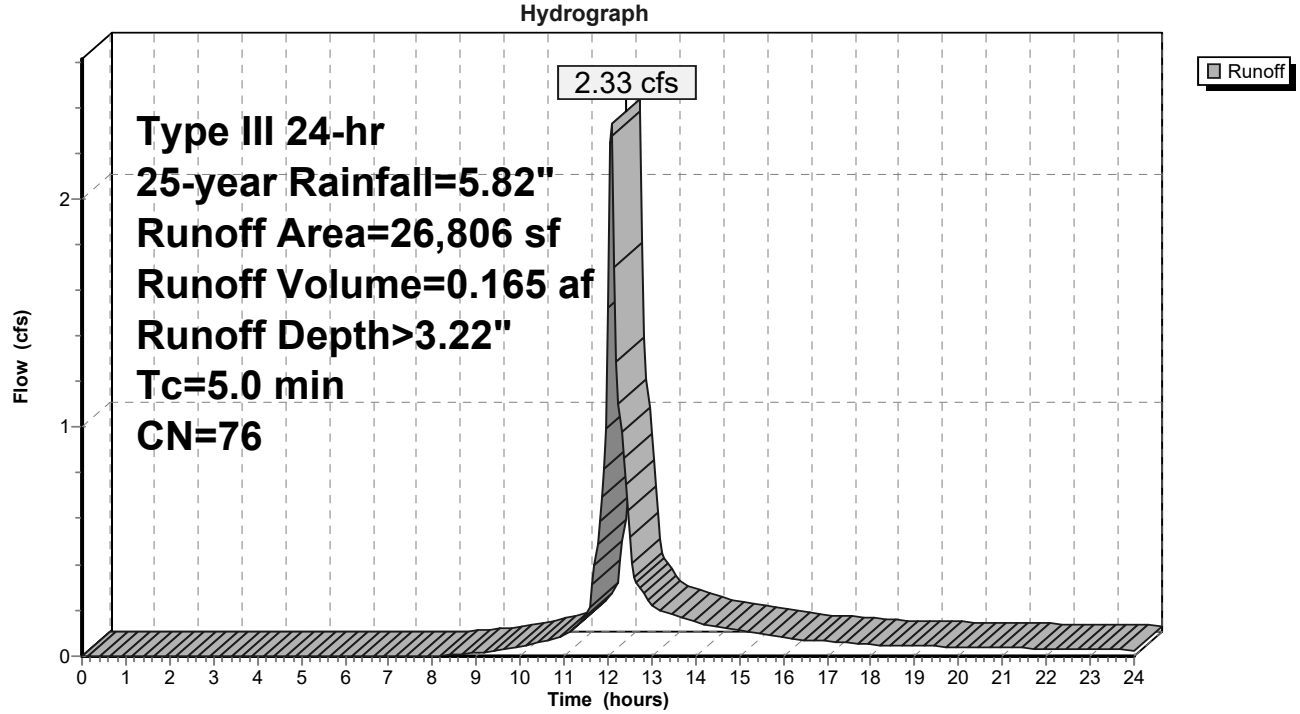
Runoff = 2.33 cfs @ 12.08 hrs, Volume= 0.165 af, Depth> 3.22"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	102	98	Roofs, HSG A
	4,197	98	Paved parking, HSG A
	820	98	Unconnected pavement, HSG A
*	11,801	98	Pelican Street
	9,886	39	>75% Grass cover, Good, HSG A
	26,806	76	Weighted Average
	9,886		36.88% Pervious Area
	16,920		63.12% Impervious Area
	820		4.85% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Road Standard**

Subcatchment SC-P1: Pelican St



Summary for Subcatchment SC-P10: Existing Loading Dock & North Lawn

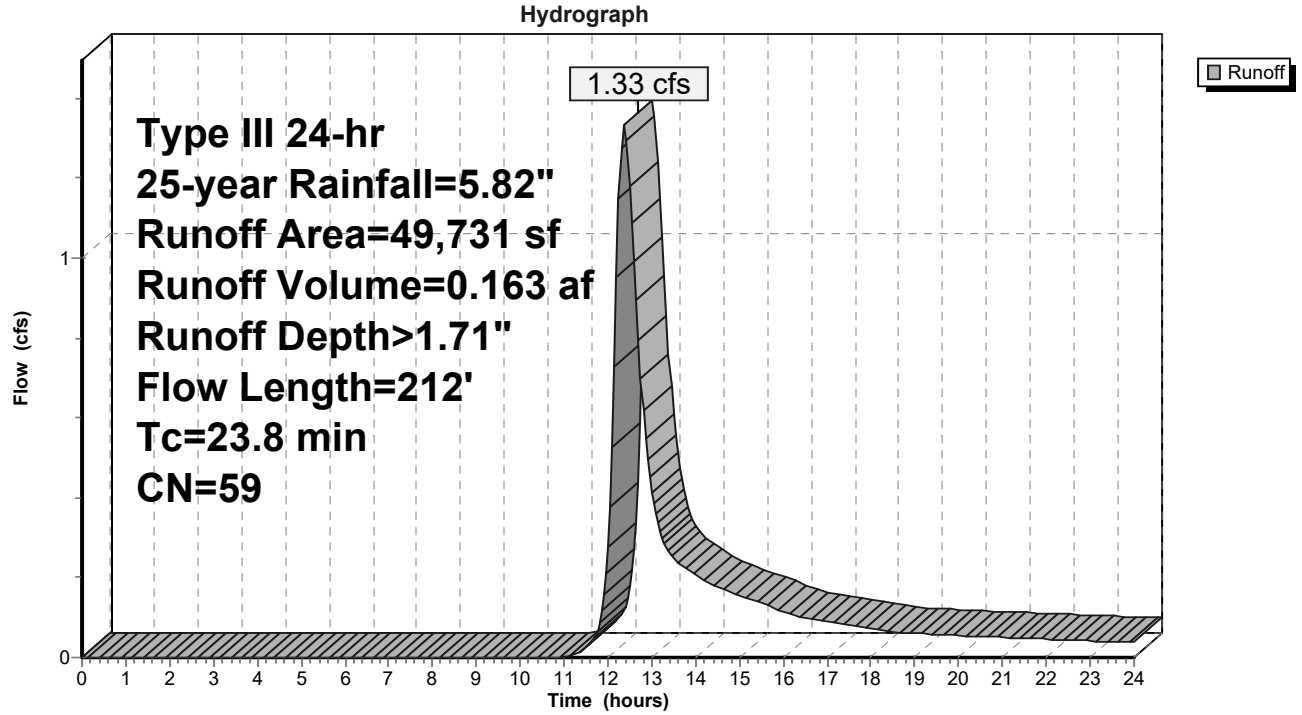
Runoff = 1.33 cfs @ 12.37 hrs, Volume= 0.163 af, Depth> 1.71"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	51	98	Roofs, HSG A
	9,270	98	Paved parking, HSG A
	7,776	98	Unconnected pavement, HSG A
	30,998	39	>75% Grass cover, Good, HSG A
*	1,636	39	Landscaped Area
	49,731	59	Weighted Average
	32,634		65.62% Pervious Area
	17,097		34.38% Impervious Area
	7,776		45.48% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.2	100	0.0025	0.07		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.6	112	0.0330	2.92		**Shallow Concentrated Flow, Shallow Flow** Unpaved Kv= 16.1 fps
23.8	212	Total			

Subcatchment SC-P10: Existing Loading Dock & North Lawn



Summary for Subcatchment SC-P11: Proposed Parking w/ Biocell

[49] Hint: Tc<2dt may require smaller dt

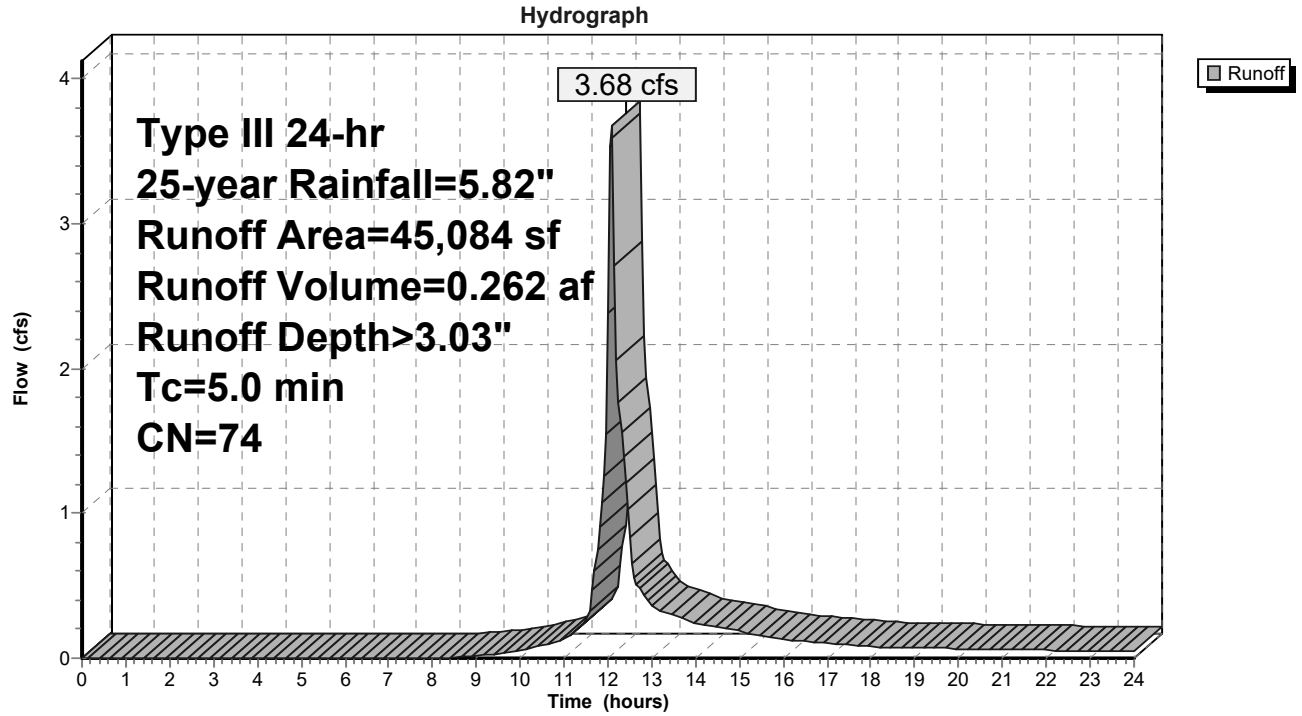
Runoff = 3.68 cfs @ 12.08 hrs, Volume= 0.262 af, Depth> 3.03"
Routed to Pond BR-3 : Bioretention Cell BR-3 Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	169	98	Roofs, HSG A
	23,691	98	Paved parking, HSG A
	2,977	98	Unconnected pavement, HSG A
	17,017	39	>75% Grass cover, Good, HSG A
*	1,230	39	Landscaped Area
	45,084	74	Weighted Average
	18,247		40.47% Pervious Area
	26,837		59.53% Impervious Area
	2,977		11.09% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P11: Proposed Parking w/ Biocell



Summary for Subcatchment SC-P12: Proposed Loading Dock

[49] Hint: Tc<2dt may require smaller dt

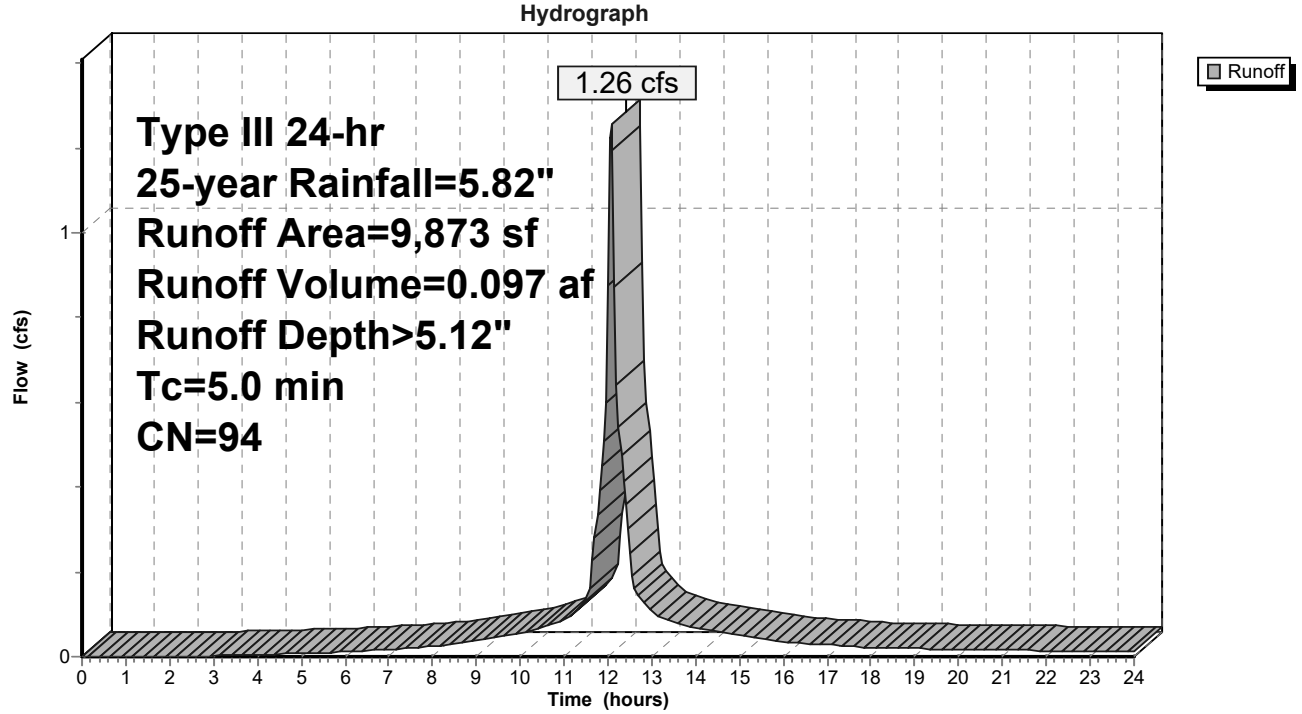
Runoff = 1.26 cfs @ 12.07 hrs, Volume= 0.097 af, Depth> 5.12"
Routed to Pond RT-1 : UG Storage & Treatment Loading Dock

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

Area (sf)	CN	Description
247	98	Roofs, HSG A
6,647	98	Paved parking, HSG A
2,380	98	Unconnected pavement, HSG A
599	39	>75% Grass cover, Good, HSG A
9,873	94	Weighted Average
599		6.07% Pervious Area
9,274		93.93% Impervious Area
2,380		25.66% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P12: Proposed Loading Dock



Summary for Subcatchment SC-P13: South Parking Area

[49] Hint: Tc<2dt may require smaller dt

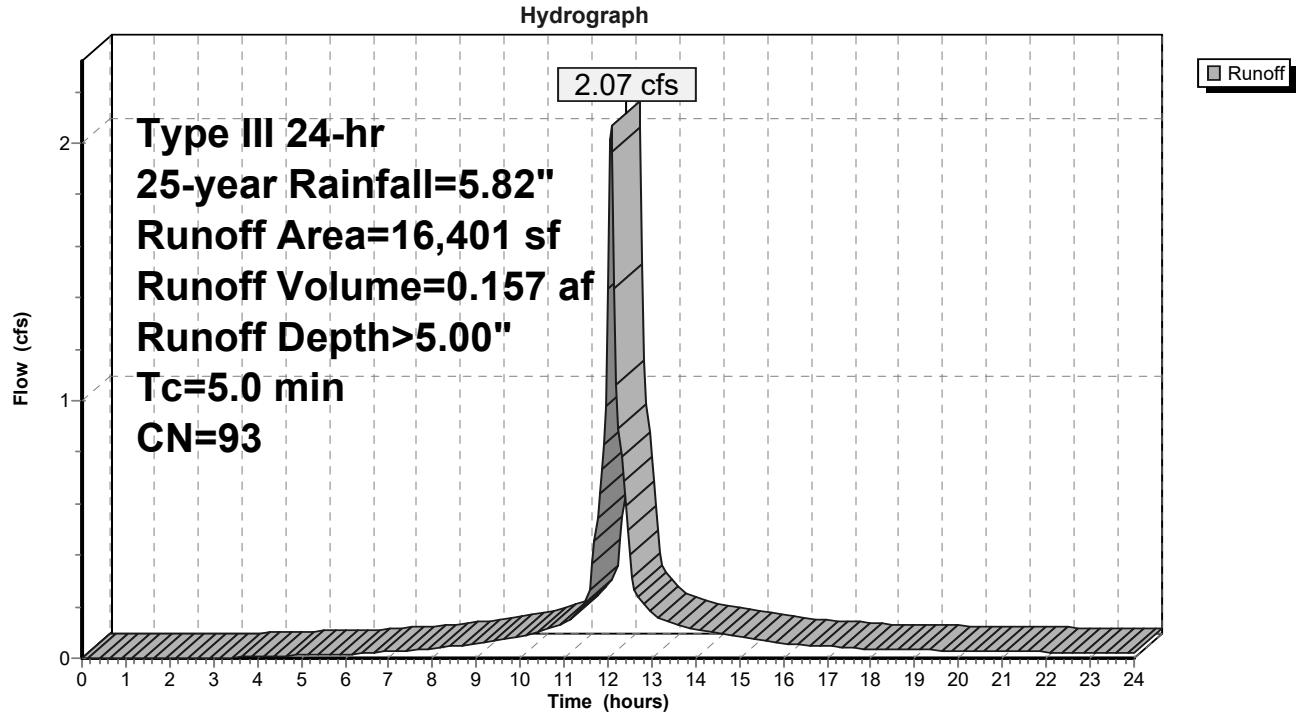
Runoff = 2.07 cfs @ 12.07 hrs, Volume= 0.157 af, Depth> 5.00"
Routed to Pond RT-3 : UG Storage & Treatment Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	123	98	Roofs, HSG A
	14,640	98	Paved parking, HSG A
	326	98	Unconnected pavement, HSG A
	248	39	>75% Grass cover, Good, HSG A
*	1,064	39	Landscaped Area
	16,401	93	Weighted Average
	1,312		8.00% Pervious Area
	15,089		92.00% Impervious Area
	326		2.16% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P13: South Parking Area



Summary for Subcatchment SC-P14: Parking Area to BR-2

[49] Hint: Tc<2dt may require smaller dt

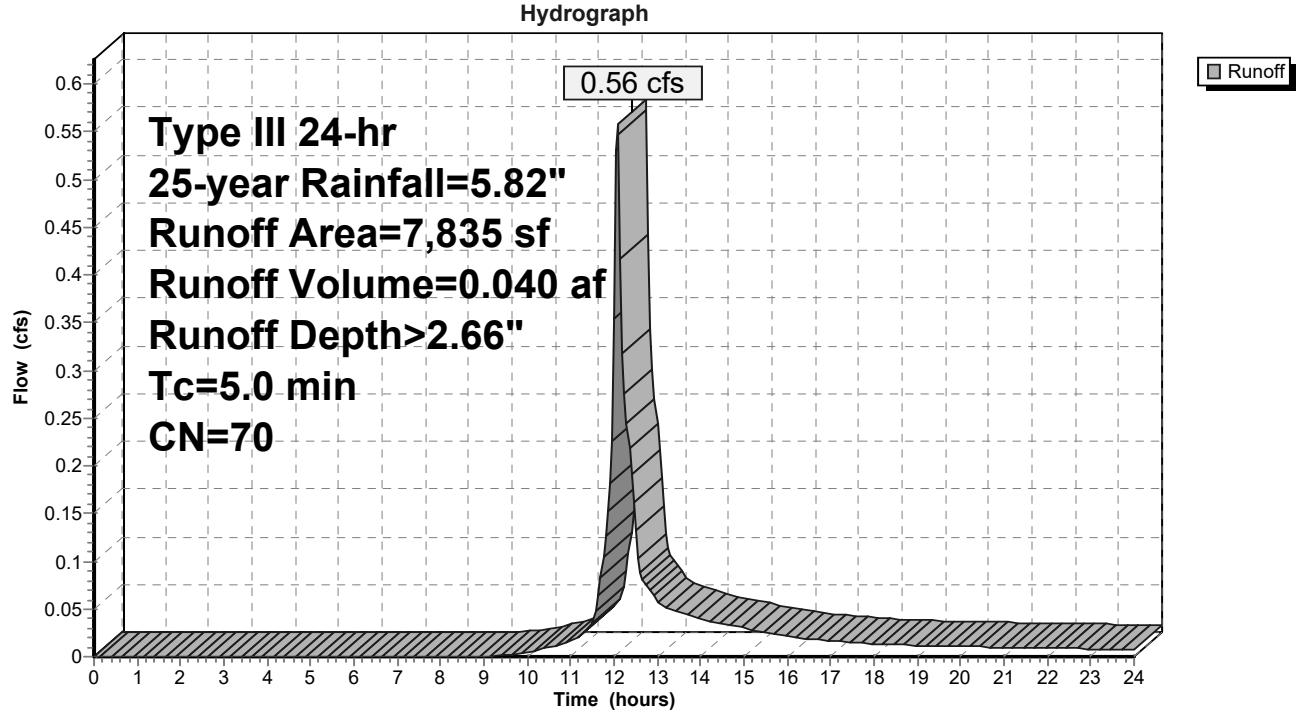
Runoff = 0.56 cfs @ 12.08 hrs, Volume= 0.040 af, Depth> 2.66"
Routed to Pond BR-2 : Bioretention Cell BR-2 Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	3,887	98	Paved parking, HSG A
	265	98	Unconnected pavement, HSG A
	1,192	39	>75% Grass cover, Good, HSG A
*	2,491	39	Landscaped Area
	7,835	70	Weighted Average
	3,683		47.01% Pervious Area
	4,152		52.99% Impervious Area
	265		6.38% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P14: Parking Area to BR-2



Summary for Subcatchment SC-P2: NW Corner w/ Biocell

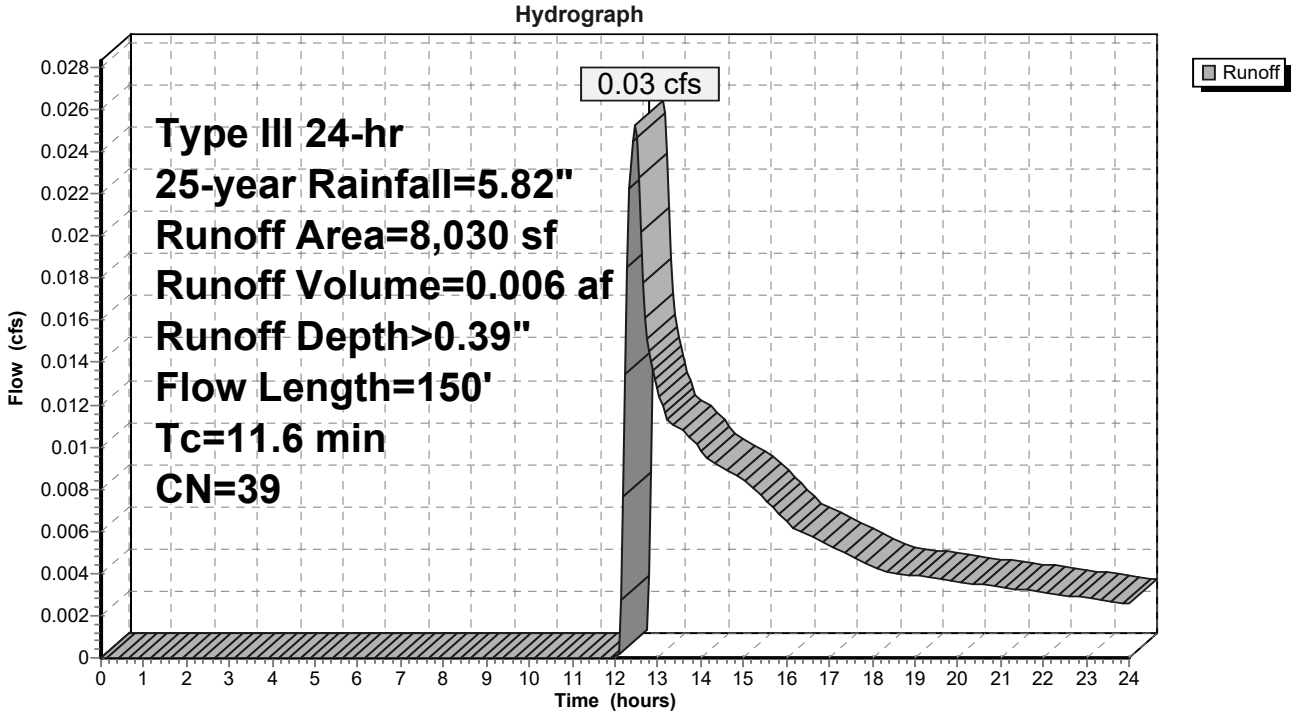
Runoff = 0.03 cfs @ 12.45 hrs, Volume= 0.006 af, Depth> 0.39"
Routed to Pond BR-1 : Bioretention Cell BR-1 Roof

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

Area (sf)	CN	Description
8,030	39	>75% Grass cover, Good, HSG A
8,030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0150	0.15		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.2	50	0.1150	5.46		**Shallow Concentrated Flow, Shallow Flow** Unpaved Kv= 16.1 fps
11.6	150	Total			

Subcatchment SC-P2: NW Corner w/ Biocell



Summary for Subcatchment SC-P3A: Proposed Building Roof to BR-1

[49] Hint: Tc<2dt may require smaller dt

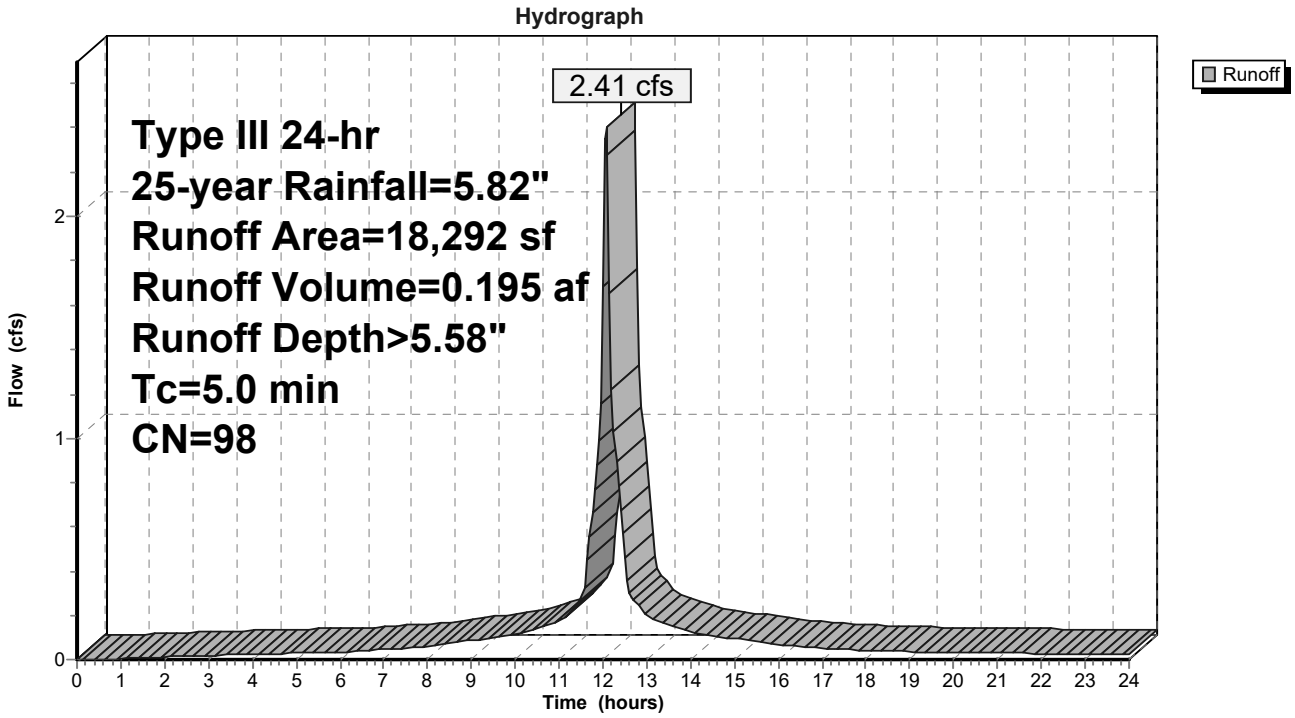
Runoff = 2.41 cfs @ 12.07 hrs, Volume= 0.195 af, Depth> 5.58"
Routed to Pond BR-1 : Bioretention Cell BR-1 Roof

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

Area (sf)	CN	Description
18,292	98	Roofs, HSG A
18,292		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3A: Proposed Building Roof to BR-1



Summary for Subcatchment SC-P3B: Proposed Building High & Central Roof

[49] Hint: Tc<2dt may require smaller dt

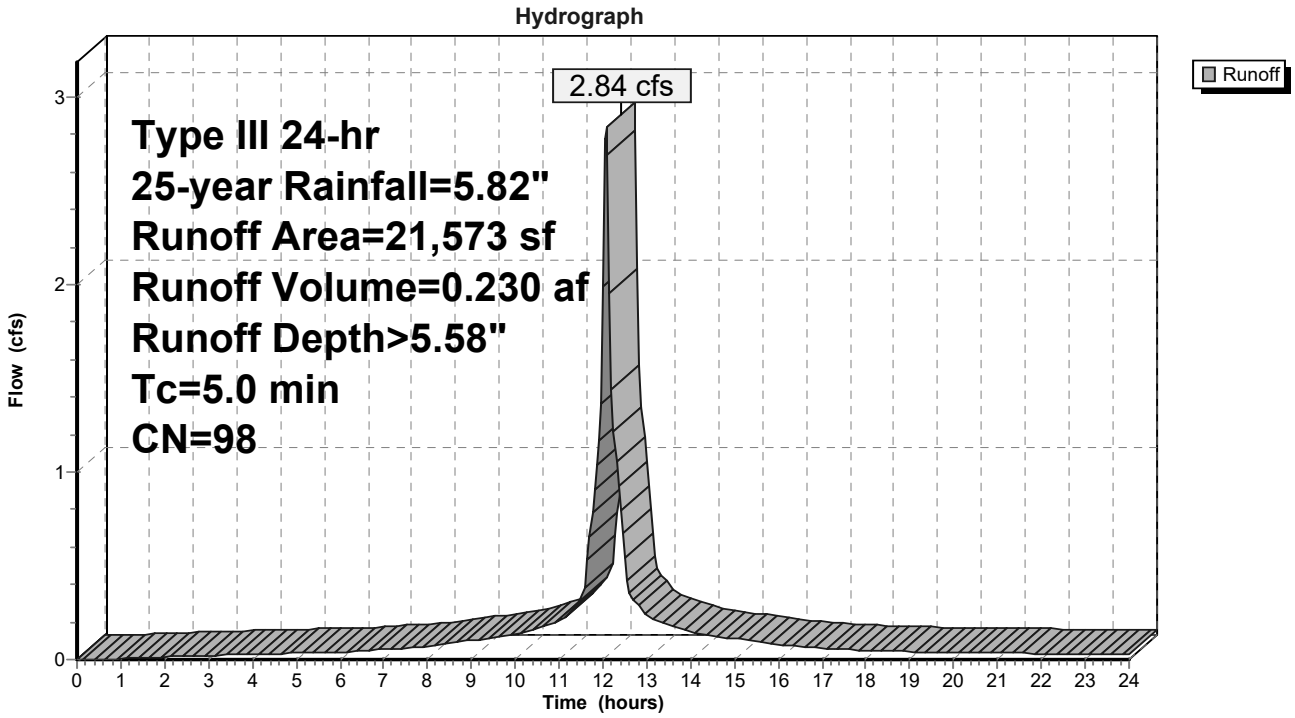
Runoff = 2.84 cfs @ 12.07 hrs, Volume= 0.230 af, Depth> 5.58"
Routed to Pond RT-1 : UG Storage & Treatment Loading Dock

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

Area (sf)	CN	Description
21,573	98	Roofs, HSG A
21,573		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3B: Proposed Building High & Central Roof



Summary for Subcatchment SC-P3C: Proposed Building Low Roof South

[49] Hint: Tc<2dt may require smaller dt

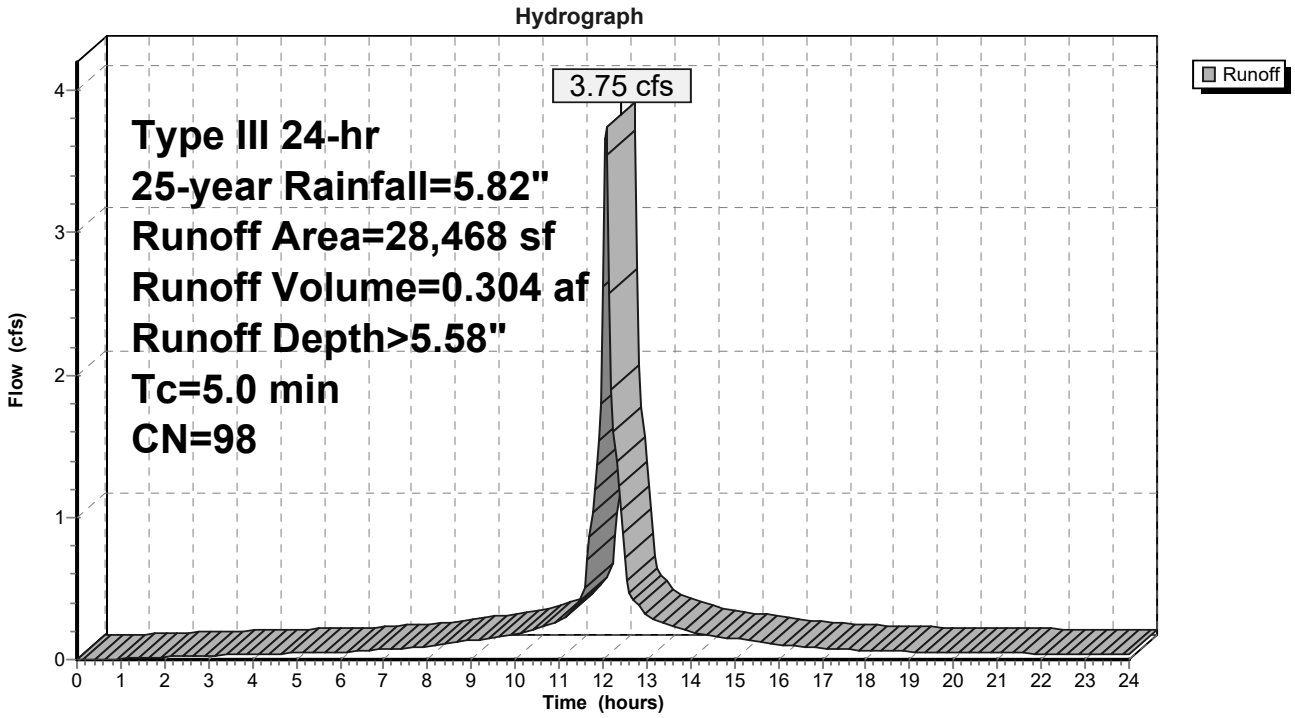
Runoff = 3.75 cfs @ 12.07 hrs, Volume= 0.304 af, Depth> 5.58"
Routed to Pond RT-2 : UG Storage & Treatment Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

Area (sf)	CN	Description
28,468	98	Roofs, HSG A
28,468		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3C: Proposed Building Low Roof South



Summary for Subcatchment SC-P3D: Proposed Building Low Roof North

[49] Hint: Tc<2dt may require smaller dt

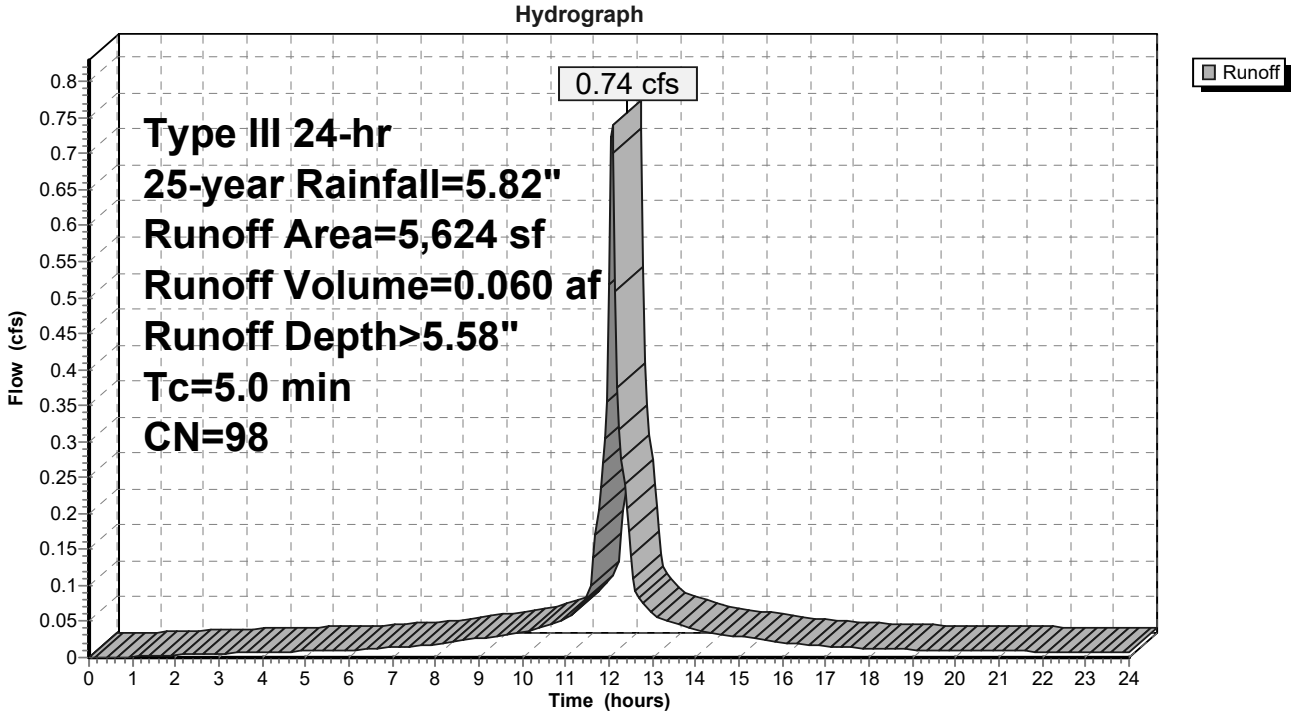
Runoff = 0.74 cfs @ 12.07 hrs, Volume= 0.060 af, Depth> 5.58"
Routed to Pond BR-4 : Bioretention Cell BR-1 Roof

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

Area (sf)	CN	Description
5,624	98	Roofs, HSG A
5,624		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3D: Proposed Building Low Roof North



Summary for Subcatchment SC-P3E: Proposed Building Loading Dock & Garage Roof

[49] Hint: Tc<2dt may require smaller dt

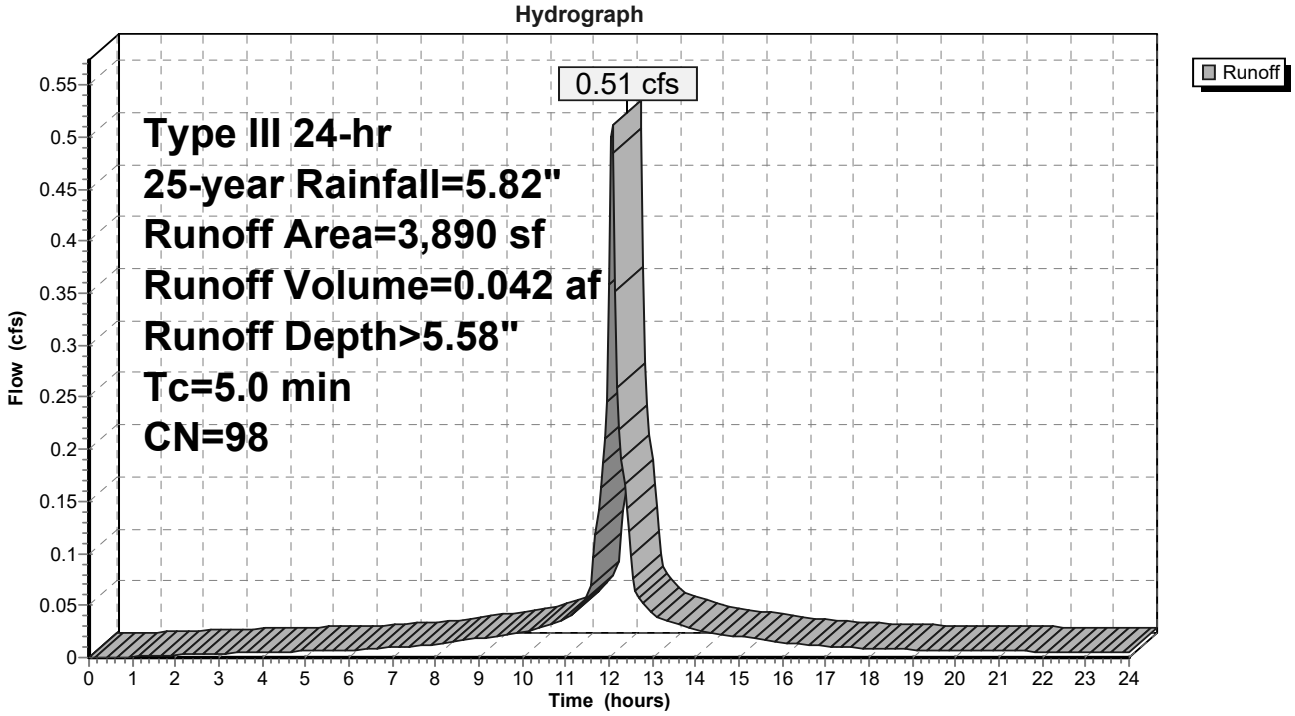
Runoff = 0.51 cfs @ 12.07 hrs, Volume= 0.042 af, Depth> 5.58"
Routed to Pond BR-2 : Bioretention Cell BR-2 Parking Area

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

Area (sf)	CN	Description
3,890	98	Roofs, HSG A
3,890		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P3E: Proposed Building Loading Dock & Garage Roof



Summary for Subcatchment SC-P5: Existing Roof

Via RD

[49] Hint: Tc<2dt may require smaller dt

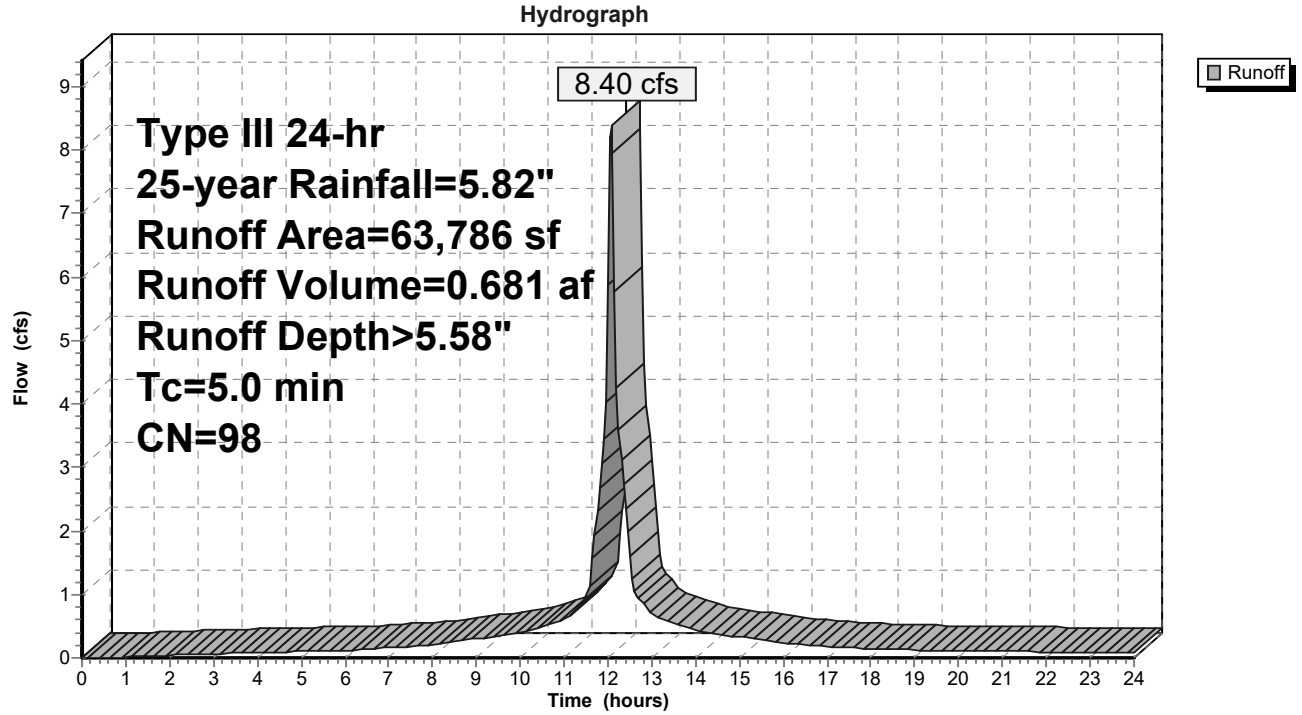
Runoff = 8.40 cfs @ 12.07 hrs, Volume= 0.681 af, Depth> 5.58"
Routed to Link DP-1 : Ex CB (West)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
*	63,786	98	Roofs, HSG A
	63,786		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Roof Standard**

Subcatchment SC-P5: Existing Roof



Summary for Subcatchment SC-P6: SC-P6-Existing Landscape

[47] Hint: Peak is 140% of capacity of segment #2

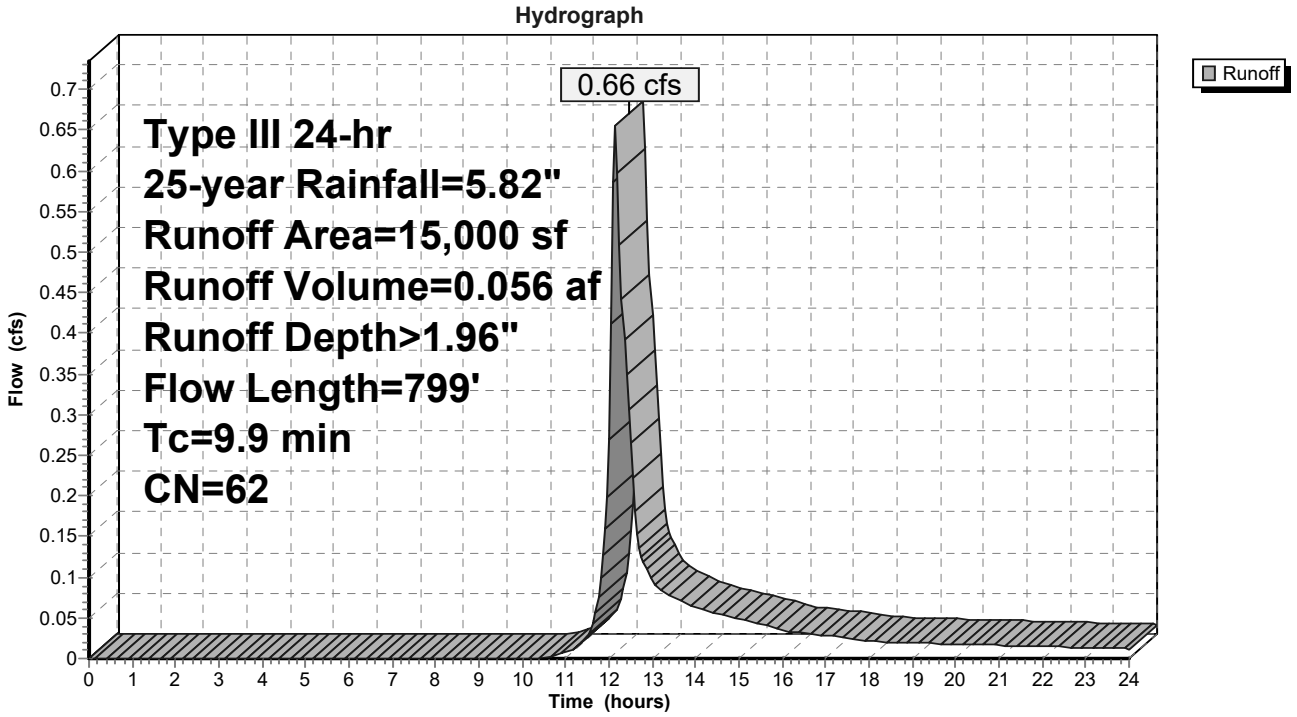
Runoff = 0.66 cfs @ 12.15 hrs, Volume= 0.056 af, Depth> 1.96"
Routed to Link DP-3 : Ex DMH (Southeast)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	4,143	98	Paved parking, HSG A
	1,702	98	Unconnected pavement, HSG A
	7,338	39	>75% Grass cover, Good, HSG A
*	1,817	39	Landscaped Area
	15,000	62	Weighted Average
	9,155		61.03% Pervious Area
	5,845		38.97% Impervious Area
	1,702		29.12% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	80	0.0297	0.18		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.5	69	0.0050	2.39	0.47	**Pipe Channel, 6" HDPE** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.011 Concrete pipe, straight & clean
0.3	73	0.0050	3.79	2.98	**Pipe Channel, 12" HDPE** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.011 Concrete pipe, straight & clean
1.9	577	0.0050	4.97	8.78	**Pipe Channel, 18" HDPE** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.011 Concrete pipe, straight & clean
9.9	799	Total			

Subcatchment SC-P6: SC-P6-Existing Landscape



Summary for Subcatchment SC-P7: Employee Entrance

[49] Hint: Tc<2dt may require smaller dt

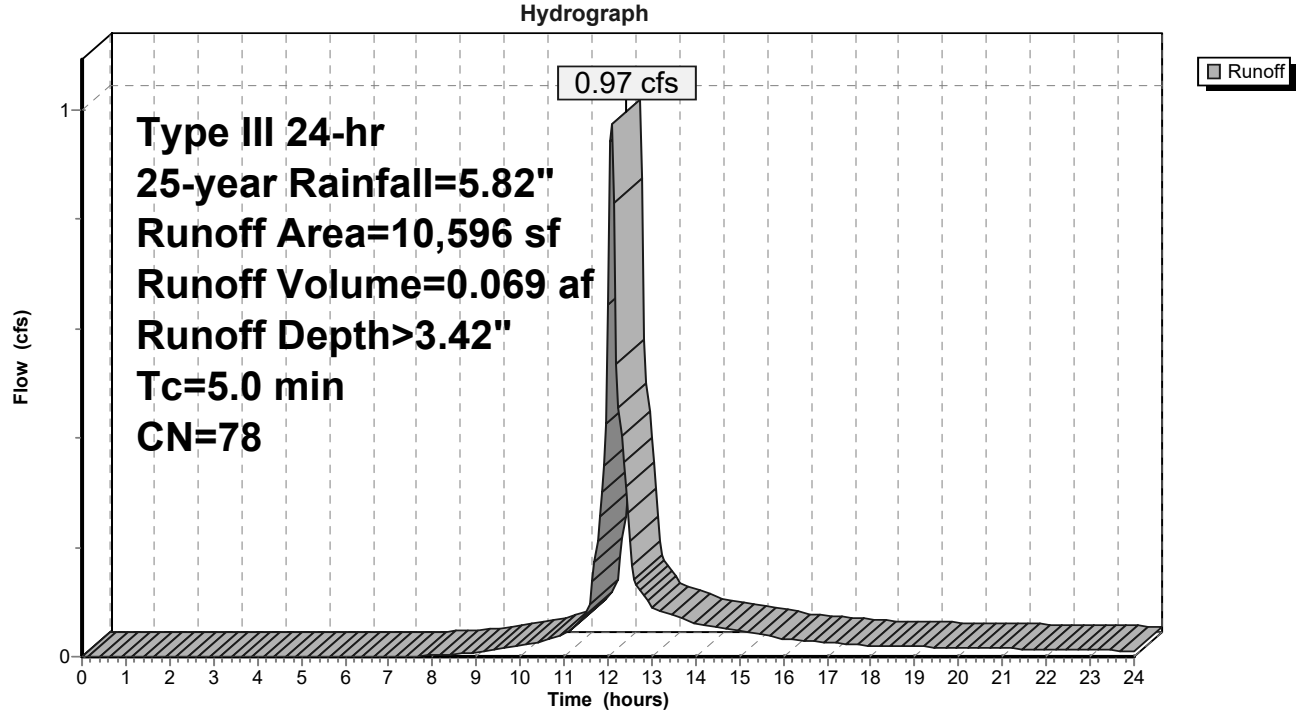
Runoff = 0.97 cfs @ 12.08 hrs, Volume= 0.069 af, Depth> 3.42"
Routed to Link DP-2 : Ex CB (Southwest)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	6,851	98	Paved parking, HSG A
	65	98	Unconnected pavement, HSG A
	903	39	>75% Grass cover, Good, HSG A
*	2,777	39	Landscaped Area
	10,596	78	Weighted Average
	3,680		34.73% Pervious Area
	6,916		65.27% Impervious Area
	65		0.94% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Paved Standard**

Subcatchment SC-P7: Employee Entrance



Summary for Subcatchment SC-P8: Existing Parking Area

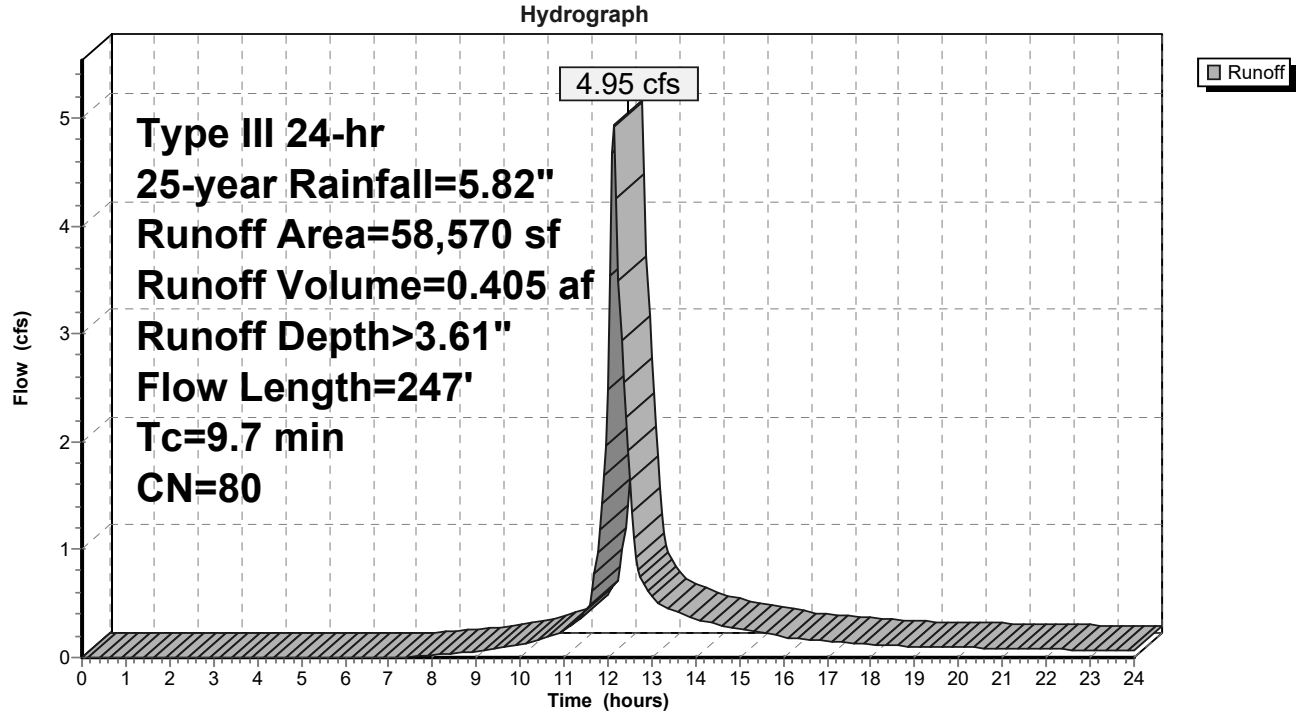
Runoff = 4.95 cfs @ 12.14 hrs, Volume= 0.405 af, Depth> 3.61"
Routed to Link DP-3 : Ex DMH (Southeast)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Description
	30,400	98	Paved parking, HSG A
	4,535	98	Unconnected pavement, HSG A
	5,676	39	>75% Grass cover, Good, HSG A
*	12,276	39	Landscaped Area
*	5,683	98	Gerzofsky Way
	58,570	80	Weighted Average
	17,952		30.65% Pervious Area
	40,618		69.35% Impervious Area
	4,535		11.17% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	58	0.0340	0.13		**Sheet Flow, Initial Sheeting** Grass: Dense n= 0.240 P2= 3.00"
2.0	189	0.0060	1.57		**Shallow Concentrated Flow, Shallow Flow** Paved Kv= 20.3 fps
9.7	247	Total			

Subcatchment SC-P8: Existing Parking Area



Summary for Subcatchment SC-P9: Existing LS

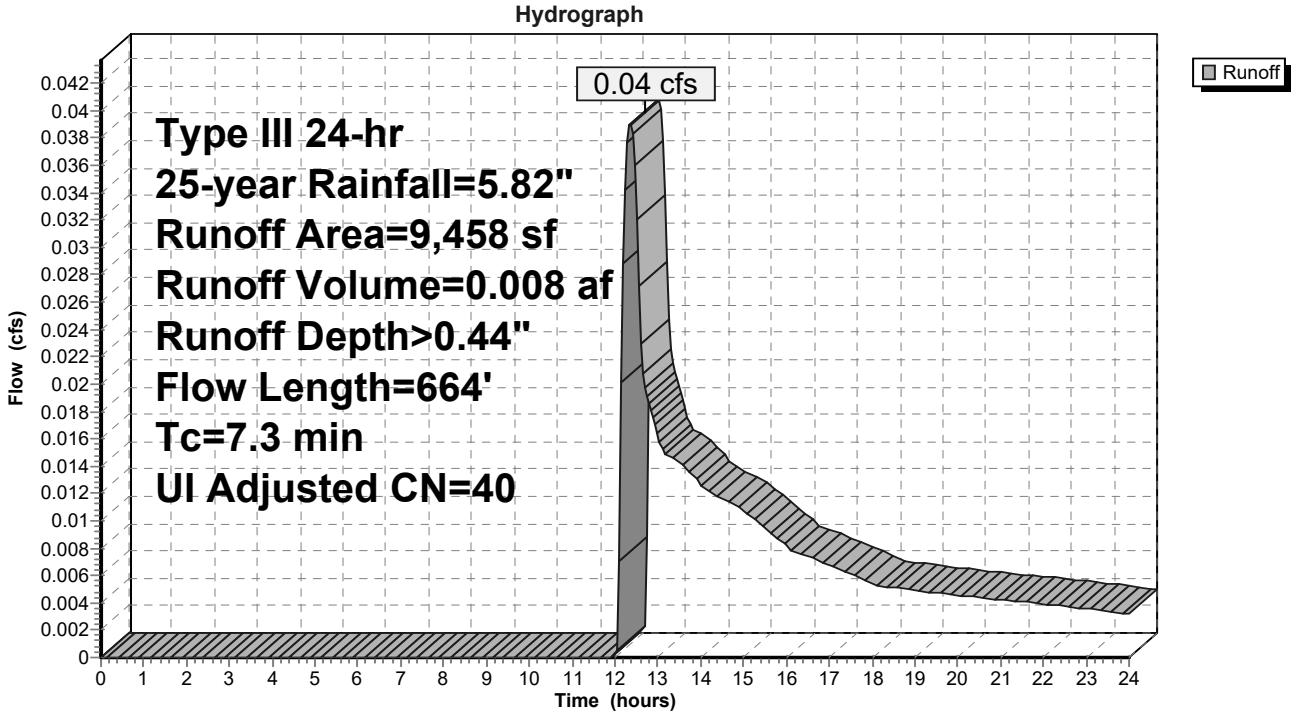
Runoff = 0.04 cfs @ 12.36 hrs, Volume= 0.008 af, Depth> 0.44"
Routed to Link DP-3 : Ex DMH (Southeast)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.82"

	Area (sf)	CN	Adj	Description
	364	98		Unconnected pavement, HSG A
*	9,094	39		Landscaped Area
	9,458	41	40	Weighted Average, UI Adjusted
	9,094			96.15% Pervious Area
	364			3.85% Impervious Area
	364			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	48	0.0375	0.18		**Sheet Flow, Initial Sheeting** Grass: Short n= 0.150 P2= 3.00"
0.3	39	0.0159	2.56		**Shallow Concentrated Flow, Shallow Flow** Paved Kv= 20.3 fps
2.6	577	0.0040	3.76	6.64	**Pipe Channel, 18" HDPE** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
7.3	664	Total			

Subcatchment SC-P9: Existing LS



Summary for Pond BR-1: Bioretention Cell BR-1 Roof

Inflow Area = 0.604 ac, 69.49% Impervious, Inflow Depth > 4.00" for 25-year event
Inflow = 2.41 cfs @ 12.07 hrs, Volume= 0.201 af
Outflow = 0.11 cfs @ 14.87 hrs, Volume= 0.124 af, Atten= 96%, Lag= 167.8 min
Primary = 0.11 cfs @ 14.87 hrs, Volume= 0.124 af
Routed to Link DP-1 : Ex CB (West)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 70.02' @ 14.87 hrs Surf.Area= 1,915 sf Storage= 5,367 cf
Flood Elev= 72.00' Surf.Area= 3,060 sf Storage= 10,274 cf

Plug-Flow detention time= 378.5 min calculated for 0.124 af (62% of inflow)
Center-of-Mass det. time= 266.7 min (1,017.8 - 751.1)

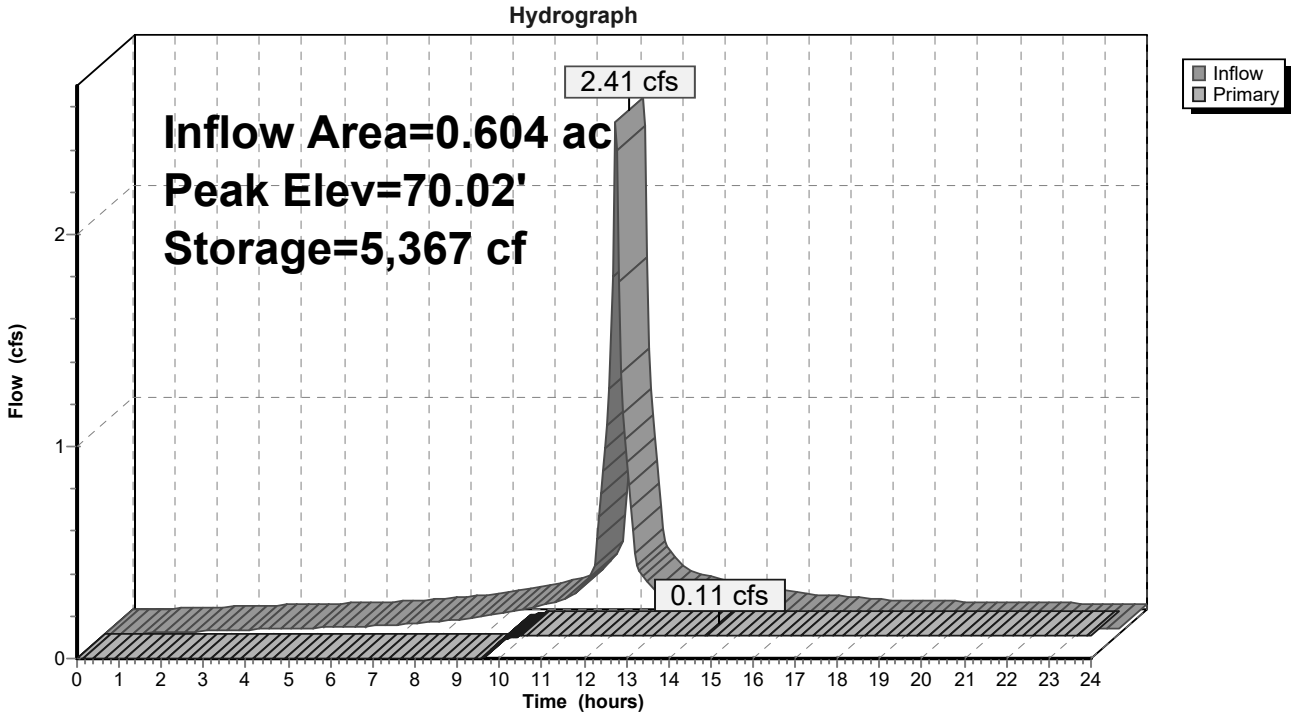
Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	10,274 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
66.00	1,905	0.0	0	0
66.50	1,905	40.0	381	381
67.00	1,905	40.0	381	762
68.00	1,905	40.0	762	1,524
70.00	1,905	100.0	3,810	5,334
71.00	2,457	100.0	2,181	7,515
72.00	3,060	100.0	2,759	10,274

Device	Routing	Invert	Outlet Devices
#1	Primary	67.00'	**18.0" Round Culvert** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 67.00' / 66.18' S= 0.0195 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	67.50'	**6.0" Vert. Orifice/Grate - UD** C= 0.600 Limited to weir flow at low heads
#3	Device 2	66.00'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	70.50'	**18.0" W x 6.0" H Vert. Orifice/Grate - Vert Weir** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.11 cfs @ 14.87 hrs HW=70.02' (Free Discharge)
- **1=Culvert** (Passes 0.11 cfs of 10.12 cfs potential flow)
  - **2=Orifice/Grate - UD** (Passes 0.11 cfs of 1.42 cfs potential flow)
    - **3=Exfiltration** (Exfiltration Controls 0.11 cfs)
  - **4=Orifice/Grate - Vert Weir** (Controls 0.00 cfs)

Pond BR-1: Bioretention Cell BR-1 Roof



Summary for Pond BR-2: Bioretention Cell BR-2 Parking Area

Inflow Area = 0.269 ac, 68.59% Impervious, Inflow Depth > 3.63" for 25-year event
Inflow = 1.07 cfs @ 12.08 hrs, Volume= 0.081 af
Outflow = 0.05 cfs @ 14.90 hrs, Volume= 0.055 af, Atten= 95%, Lag= 169.5 min
Primary = 0.05 cfs @ 14.90 hrs, Volume= 0.055 af
Routed to Link DP-1 : Ex CB (West)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.20' @ 14.90 hrs Surf.Area= 922 sf Storage= 1,999 cf
Flood Elev= 71.00' Surf.Area= 2,490 sf Storage= 6,634 cf

Plug-Flow detention time= 334.6 min calculated for 0.054 af (67% of inflow)
Center-of-Mass det. time= 231.6 min (1,022.0 - 790.4)

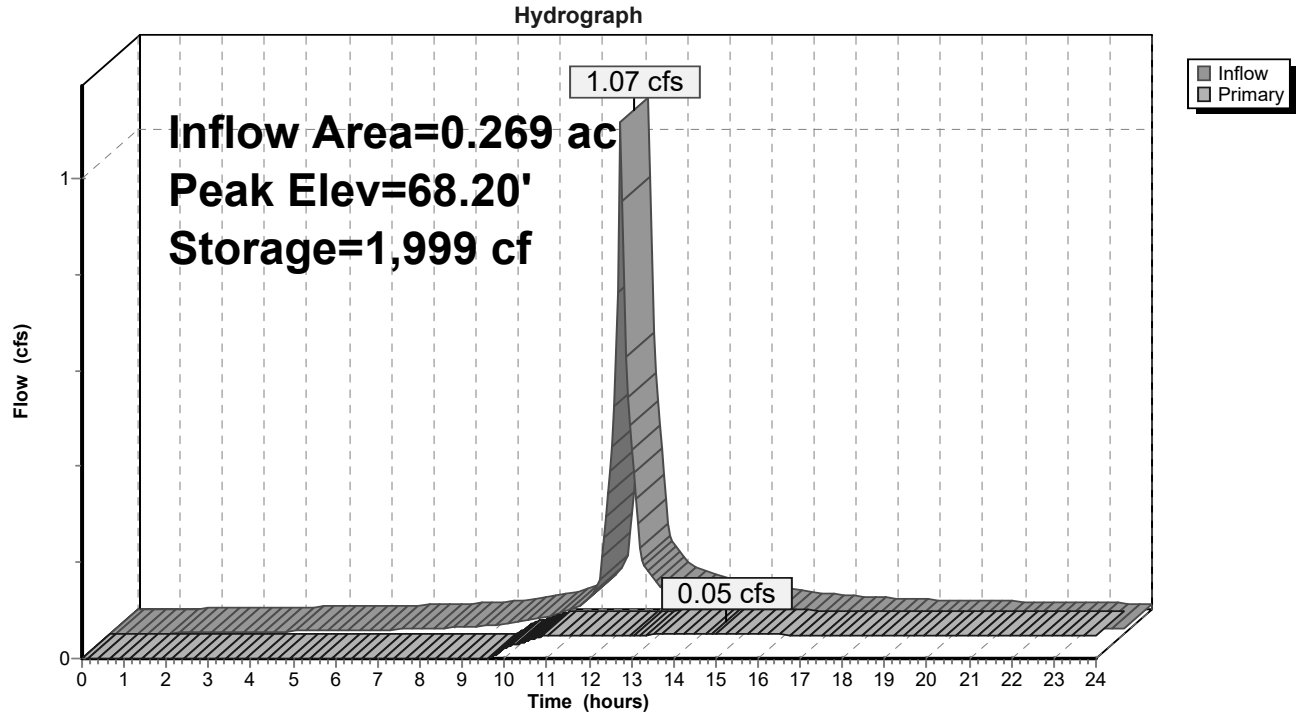
Volume	Invert	Avail.Storage	Storage Description
#1	64.75'	6,634 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.75	830	0.0	0	0
65.25	830	40.0	166	166
66.50	830	40.0	415	581
68.00	830	100.0	1,245	1,826
69.00	1,296	100.0	1,063	2,889
70.00	1,852	100.0	1,574	4,463
71.00	2,490	100.0	2,171	6,634

Device	Routing	Invert	Outlet Devices
#1	Primary	65.25'	**18.0" Round Culvert** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 65.25' / 64.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	65.50'	**6.0" Vert. Orifice/Grate - UD** C= 0.600 Limited to weir flow at low heads
#3	Device 2	64.75'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	68.50'	**18.0" W x 6.0" H Vert. Orifice/Grate - Vert Weir** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 14.90 hrs HW=68.20' (Free Discharge)
- **1=Culvert** (Passes 0.05 cfs of 9.96 cfs potential flow)
  - **2=Orifice/Grate - UD** (Passes 0.05 cfs of 1.48 cfs potential flow)
    - **3=Exfiltration** (Exfiltration Controls 0.05 cfs)
  - **4=Orifice/Grate - Vert Weir** (Controls 0.00 cfs)

Pond BR-2: Bioretention Cell BR-2 Parking Area



Summary for Pond BR-3: Bioretention Cell BR-3 Parking Area

Inflow Area = 1.035 ac, 59.53% Impervious, Inflow Depth > 3.03" for 25-year event
Inflow = 3.68 cfs @ 12.08 hrs, Volume= 0.262 af
Outflow = 0.64 cfs @ 12.57 hrs, Volume= 0.190 af, Atten= 83%, Lag= 29.2 min
Primary = 0.64 cfs @ 12.57 hrs, Volume= 0.190 af
Routed to Link DP-2 : Ex CB (Southwest)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 69.71' @ 12.57 hrs Surf.Area= 3,243 sf Storage= 5,455 cf
Flood Elev= 71.00' Surf.Area= 5,404 sf Storage= 11,059 cf

Plug-Flow detention time= 248.7 min calculated for 0.190 af (73% of inflow)
Center-of-Mass det. time= 156.3 min (985.1 - 828.8)

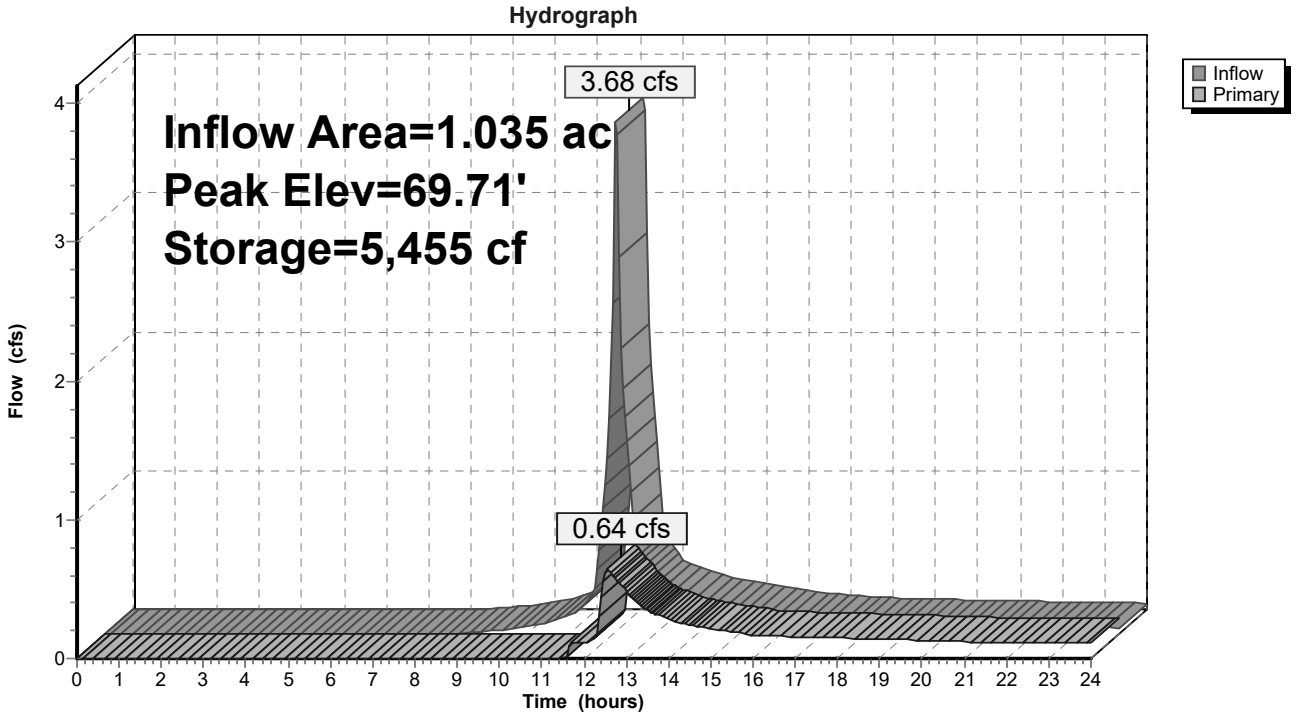
Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	11,059 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
66.00	2,000	0.0	0	0
67.00	2,000	40.0	800	800
67.50	2,000	40.0	400	1,200
68.00	2,000	40.0	400	1,600
69.00	2,000	100.0	2,000	3,600
70.00	3,757	100.0	2,879	6,479
71.00	5,404	100.0	4,581	11,059

Device	Routing	Invert	Outlet Devices
#1	Primary	67.05'	**12.0" Round Culvert** L= 92.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 67.05' / 66.20' S= 0.0092 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	67.05'	**6.0" Vert. Orifice/Grate - UD** C= 0.600 Limited to weir flow at low heads
#3	Device 2	66.00'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	69.50'	**18.0" W x 6.0" H Vert. Orifice/Grate - Vert Weir** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.63 cfs @ 12.57 hrs HW=69.71' (Free Discharge)
- **1=Culvert** (Passes 0.63 cfs of 4.38 cfs potential flow)
  - **2=Orifice/Grate - UD** (Passes 0.18 cfs of 1.47 cfs potential flow)
    - **3=Exfiltration** (Exfiltration Controls 0.18 cfs)
  - **4=Orifice/Grate - Vert Weir** (Orifice Controls 0.45 cfs @ 1.46 fps)

Pond BR-3: Bioretention Cell BR-3 Parking Area



Summary for Pond BR-4: Bioretention Cell BR-1 Roof

Inflow Area = 0.129 ac,100.00% Impervious, Inflow Depth > 5.58" for 25-year event
Inflow = 0.74 cfs @ 12.07 hrs, Volume= 0.060 af
Outflow = 0.04 cfs @ 10.55 hrs, Volume= 0.051 af, Atten= 95%, Lag= 0.0 min
Primary = 0.04 cfs @ 10.55 hrs, Volume= 0.051 af
Routed to Link DP-1 : Ex CB (West)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 71.45' @ 13.95 hrs Surf.Area= 705 sf Storage= 1,301 cf
Flood Elev= 74.00' Surf.Area= 1,803 sf Storage= 4,410 cf

Plug-Flow detention time= 291.6 min calculated for 0.051 af (84% of inflow)
Center-of-Mass det. time= 225.9 min (970.3 - 744.3)

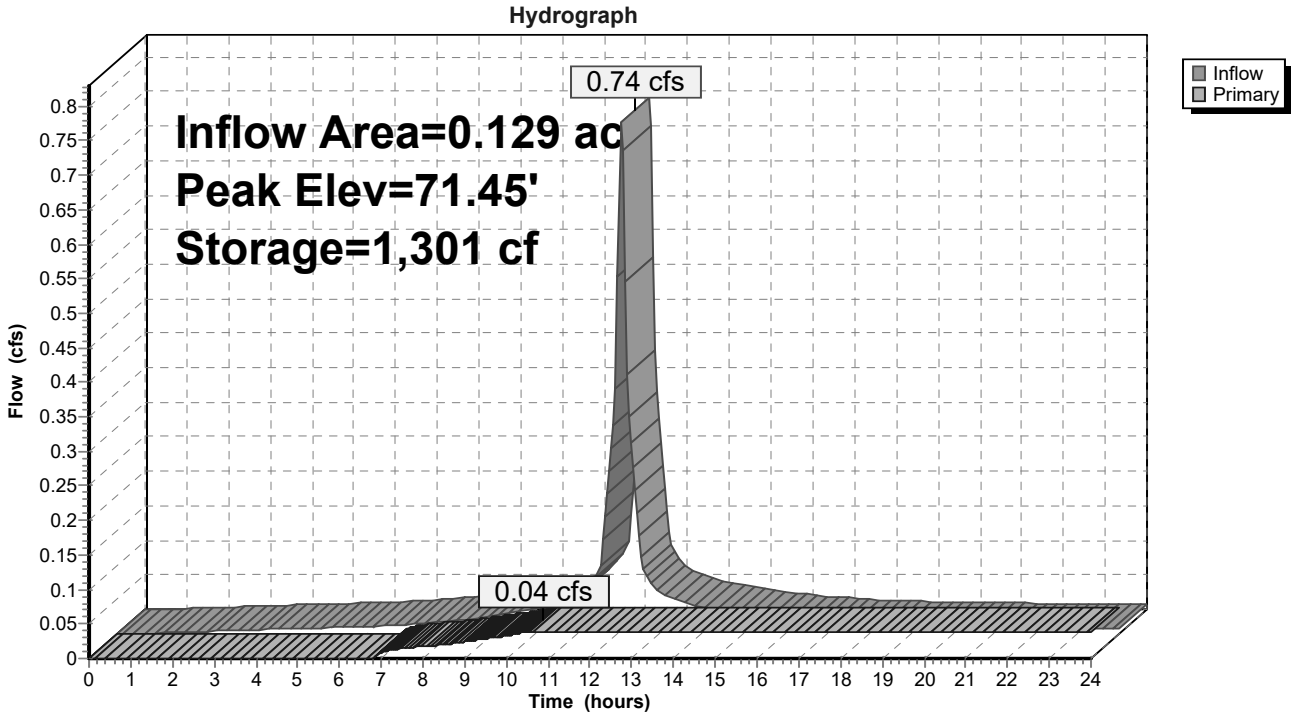
Volume	Invert	Avail.Storage	Storage Description
#1	67.50'	4,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
67.50	705	0.0	0	0
68.00	705	40.0	141	141
69.00	705	40.0	282	423
70.00	705	40.0	282	705
71.00	705	40.0	282	987
71.50	705	100.0	353	1,340
72.00	896	100.0	400	1,740
73.00	1,321	100.0	1,109	2,848
74.00	1,803	100.0	1,562	4,410

Device	Routing	Invert	Outlet Devices
#1	Primary	68.00'	**16.0" Round Culvert** L= 29.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 68.00' / 67.65' S= 0.0121 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.40 sf
#2	Device 1	68.00'	**6.0" Vert. Orifice/Grate - UD** C= 0.600 Limited to weir flow at low heads
#3	Device 2	67.50'	**2.410 in/hr Exfiltration over Surface area**
#4	Device 1	72.00'	**18.0" W x 6.0" H Vert. Orifice/Grate - Vert Weir** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.04 cfs @ 10.55 hrs HW=68.15' (Free Discharge)
└**1=Culvert** (Passes 0.04 cfs of 0.09 cfs potential flow)
  ├**2=Orifice/Grate - UD** (Passes 0.04 cfs of 0.07 cfs potential flow)
  │ └**3=Exfiltration** (Exfiltration Controls 0.04 cfs)
  └**4=Orifice/Grate - Vert Weir** (Controls 0.00 cfs)

Pond BR-4: Bioretention Cell BR-1 Roof



Summary for Pond RT-1: UG Storage & Treatment Loading Dock

Inflow Area = 0.722 ac, 98.10% Impervious, Inflow Depth > 5.43" for 25-year event
Inflow = 4.10 cfs @ 12.07 hrs, Volume= 0.327 af
Outflow = 0.52 cfs @ 12.61 hrs, Volume= 0.241 af, Atten= 87%, Lag= 32.4 min
Primary = 0.52 cfs @ 12.61 hrs, Volume= 0.241 af
Routed to Link DP-1 : Ex CB (West)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 67.20' @ 12.61 hrs Surf.Area= 3,820 sf Storage= 8,693 cf
Flood Elev= 68.51' Surf.Area= 3,820 sf Storage= 12,657 cf

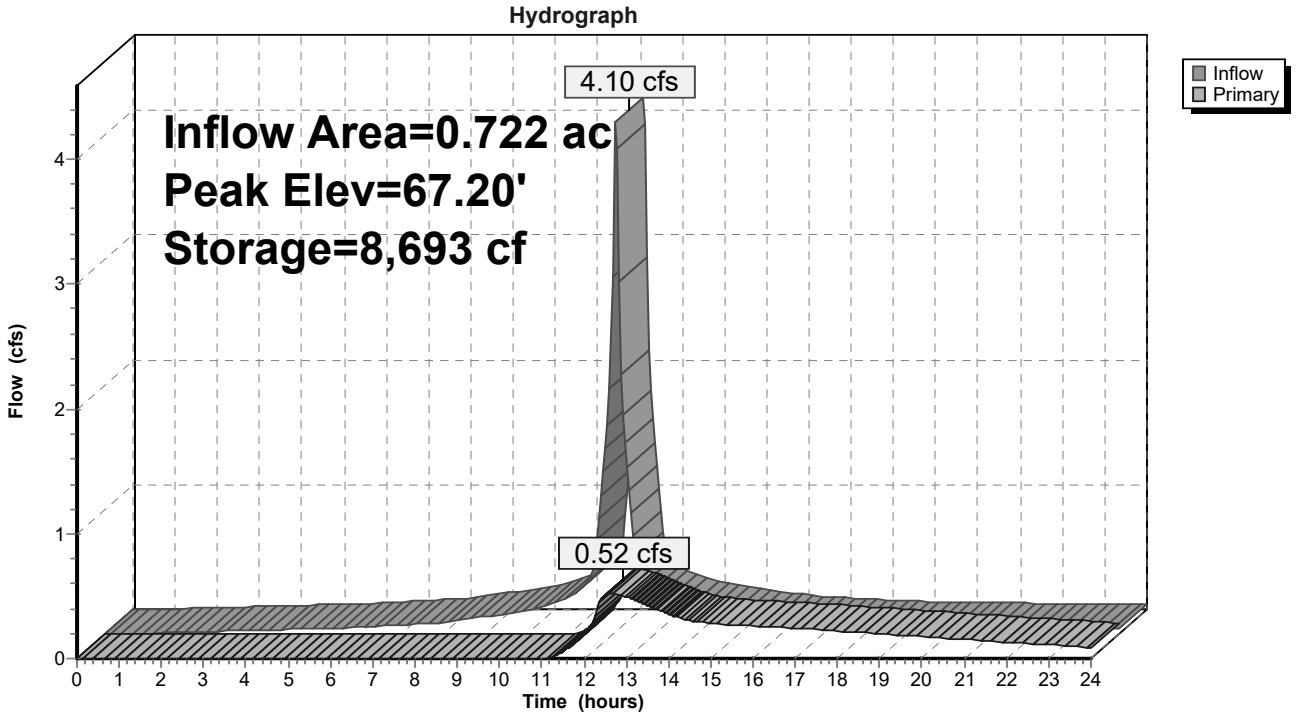
Plug-Flow detention time= 322.2 min calculated for 0.241 af (74% of inflow)
Center-of-Mass det. time= 234.1 min (985.4 - 751.4)

Volume	Invert	Avail.Storage	Storage Description
#1	65.16'	7,256 cf	**Ferguson R-Tank UD 3** x 620 Inside #2 Inside= 23.6"W x 40.2"H => 6.26 sf x 1.97'L = 12.3 cf Outside= 23.6"W x 40.2"H => 6.59 sf x 1.97'L = 13.0 cf 620 Chambers in 10 Rows 8,040 cf Overall x 95.0% Voids
#2	63.51'	2,928 cf	**24.00'W x 128.00'L x 5.00'H Prismatoid** 15,360 cf Overall - 8,040 cf Embedded = 7,320 cf x 40.0% Voids
#3	65.16'	1,755 cf	**Ferguson R-Tank UD 3** x 150 Inside #4 Inside= 23.6"W x 40.2"H => 6.26 sf x 1.97'L = 12.3 cf Outside= 23.6"W x 40.2"H => 6.59 sf x 1.97'L = 13.0 cf 150 Chambers in 10 Rows 1,945 cf Overall x 95.0% Voids
#4	63.51'	718 cf	**22.00'W x 34.00'L x 5.00'H Prismatoid** 3,740 cf Overall - 1,945 cf Embedded = 1,795 cf x 40.0% Voids
		12,657 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	64.71'	**12.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 64.71' / 64.39' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 3	65.30'	**10.0" Vert. Orifice/Grate - from RTanks** C= 0.600 Limited to weir flow at low heads
#3	Device 1	65.30'	**3.0" Vert. Orifice/Grate- low flow** C= 0.600 Limited to weir flow at low heads
#4	Device 1	66.80'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.52 cfs @ 12.61 hrs HW=67.20' (Free Discharge)
- **1=Culvert** (Passes 0.52 cfs of 4.21 cfs potential flow)
  - **3=Orifice/Grate- low flow** (Orifice Controls 0.31 cfs @ 6.41 fps)
    - **2=Orifice/Grate - from RTanks** (Passes 0.31 cfs of 3.20 cfs potential flow)
  - **4=Orifice/Grate** (Orifice Controls 0.20 cfs @ 2.32 fps)

Pond RT-1: UG Storage & Treatment Loading Dock



Summary for Pond RT-2: UG Storage & Treatment Parking Area

Inflow Area = 0.654 ac,100.00% Impervious, Inflow Depth > 5.58" for 25-year event
Inflow = 3.75 cfs @ 12.07 hrs, Volume= 0.304 af
Outflow = 1.97 cfs @ 12.20 hrs, Volume= 0.284 af, Atten= 48%, Lag= 8.0 min
Primary = 1.97 cfs @ 12.20 hrs, Volume= 0.284 af
Routed to Link DP-2 : Ex CB (Southwest)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 70.62' @ 12.20 hrs Surf.Area= 1,468 sf Storage= 2,803 cf
Flood Elev= 72.20' Surf.Area= 1,468 sf Storage= 3,877 cf

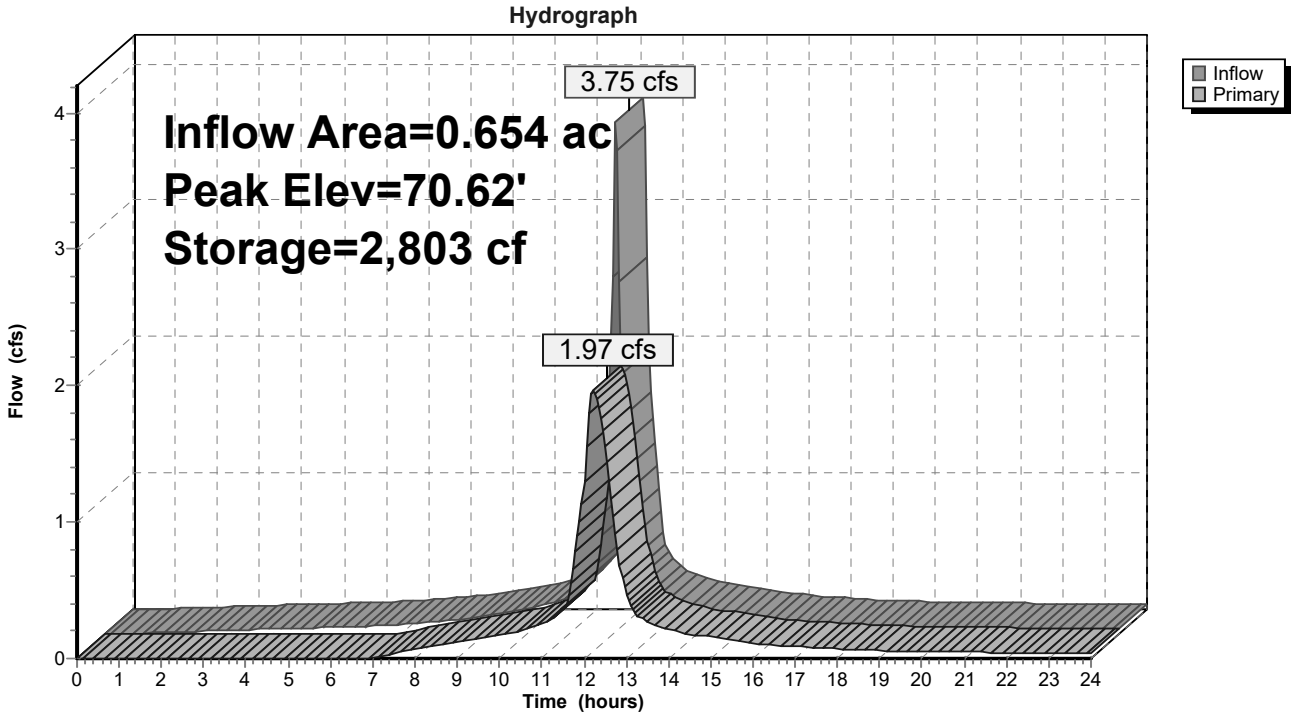
Plug-Flow detention time= 81.7 min calculated for 0.284 af (93% of inflow)
Center-of-Mass det. time= 45.1 min (789.4 - 744.3)

Volume	Invert	Avail.Storage	Storage Description
#1	68.77'	1,710 cf	**Ferguson R-Tank UD 2** x 216 Inside #2 Inside= 23.6"W x 27.2"H => 4.23 sf x 1.97'L = 8.3 cf Outside= 23.6"W x 27.2"H => 4.46 sf x 1.97'L = 8.8 cf 216 Chambers in 9 Rows 1,895 cf Overall x 95.0% Voids
#2	67.77'	946 cf	**20.00'W x 50.00'L x 4.26'H Prismatoid** 4,260 cf Overall - 1,895 cf Embedded = 2,365 cf x 40.0% Voids
#3	68.77'	760 cf	**Ferguson R-Tank UD 2** x 96 Inside #4 Inside= 23.6"W x 27.2"H => 4.23 sf x 1.97'L = 8.3 cf Outside= 23.6"W x 27.2"H => 4.46 sf x 1.97'L = 8.8 cf 96 Chambers in 12 Rows 842 cf Overall x 95.0% Voids
#4	67.77'	461 cf	**26.00'W x 18.00'L x 4.26'H Prismatoid** 1,994 cf Overall - 842 cf Embedded = 1,152 cf x 40.0% Voids
		3,877 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	68.75'	**12.0" Round Culvert** L= 79.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 68.75' / 67.80' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 3	68.92'	**10.0" Vert. Orifice/Grate - from RTanks** C= 0.600 Limited to weir flow at low heads
#3	Device 1	68.92'	**8.0" Vert. Orifice/Grate - from RTanks** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.97 cfs @ 12.20 hrs HW=70.62' (Free Discharge)
↑**1=Culvert** (Passes 1.97 cfs of 3.50 cfs potential flow)
↑**3=Orifice/Grate - from RTanks** (Orifice Controls 1.97 cfs @ 5.63 fps)
↑**2=Orifice/Grate - from RTanks** (Passes 1.97 cfs of 2.98 cfs potential flow)

Pond RT-2: UG Storage & Treatment Parking Area



Summary for Pond RT-3: UG Storage & Treatment Parking Area

Inflow Area = 0.377 ac, 92.00% Impervious, Inflow Depth > 5.00" for 25-year event
Inflow = 2.07 cfs @ 12.07 hrs, Volume= 0.157 af
Outflow = 1.57 cfs @ 12.14 hrs, Volume= 0.145 af, Atten= 24%, Lag= 4.3 min
Primary = 1.57 cfs @ 12.14 hrs, Volume= 0.145 af
Routed to Link DP-2 : Ex CB (Southwest)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 68.71' @ 12.14 hrs Surf.Area= 920 sf Storage= 1,154 cf
Flood Elev= 73.00' Surf.Area= 920 sf Storage= 2,308 cf

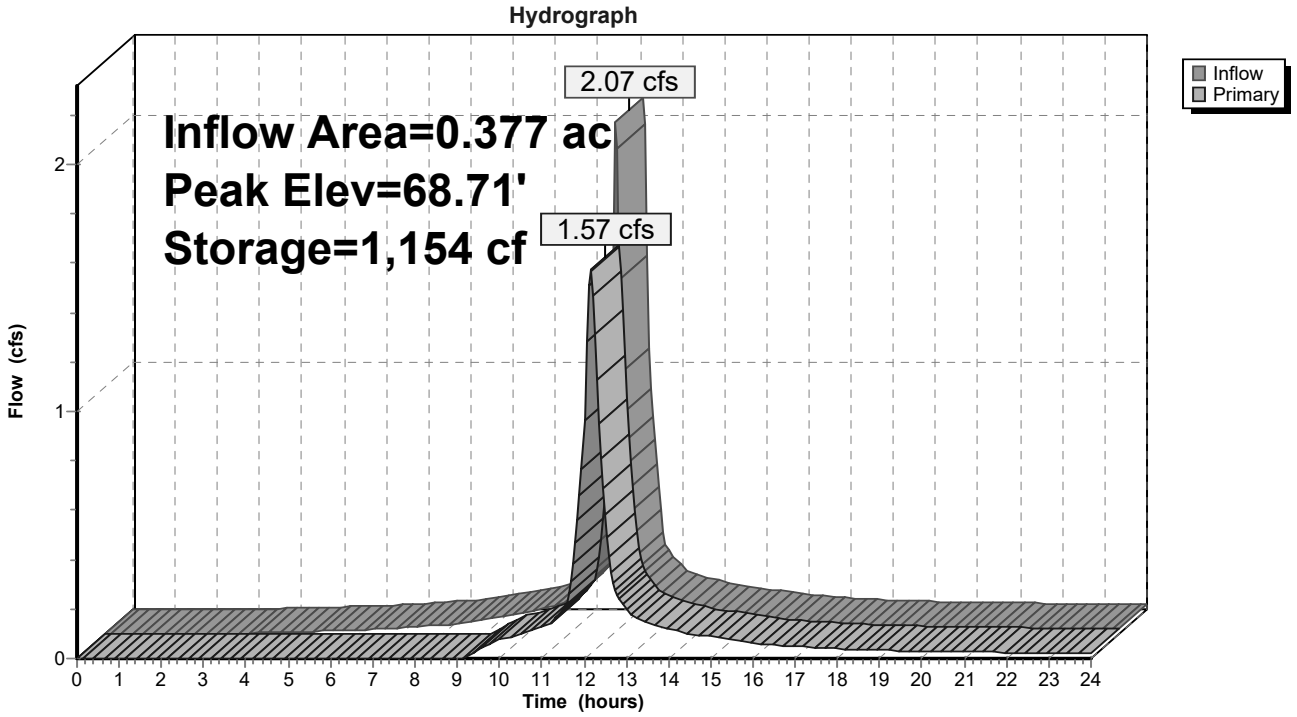
Plug-Flow detention time= 74.6 min calculated for 0.145 af (92% of inflow)
Center-of-Mass det. time= 35.1 min (807.7 - 772.6)

Volume	Invert	Avail.Storage	Storage Description
#1	67.58'	1,330 cf	**Ferguson R-Tank UD 2** x 168 Inside #2 Inside= 23.6"W x 27.2"H => 4.23 sf x 1.97'L = 8.3 cf Outside= 23.6"W x 27.2"H => 4.46 sf x 1.97'L = 8.8 cf 168 Chambers in 8 Rows 1,474 cf Overall x 95.0% Voids
#2	66.58'	978 cf	**20.00'W x 46.00'L x 4.26'H Prismatoid** 3,919 cf Overall - 1,474 cf Embedded = 2,445 cf x 40.0% Voids
		2,308 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	67.72'	**10.0" Round Culvert** L= 124.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 67.72' / 66.54' S= 0.0095 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.55 sf
#2	Device 1	67.72'	**10.0" Vert. Orifice/Grate - from RTanks** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.56 cfs @ 12.14 hrs HW=68.70' (Free Discharge)
↑**1=Culvert** (Inlet Controls 1.56 cfs @ 2.86 fps)
↑**2=Orifice/Grate - from RTanks** (Passes 1.56 cfs of 1.98 cfs potential flow)

Pond RT-3: UG Storage & Treatment Parking Area

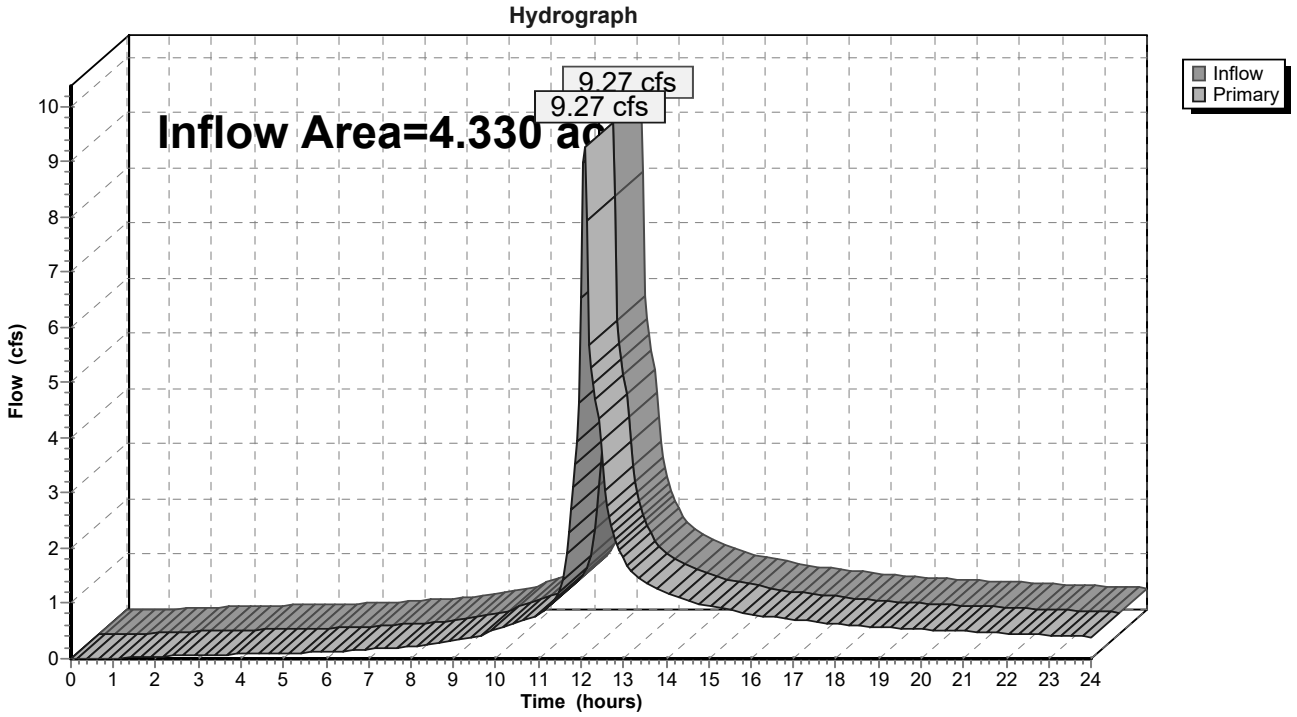


Summary for Link DP-1: Ex CB (West)

Inflow Area = 4.330 ac, 76.17% Impervious, Inflow Depth > 3.64" for 25-year event
Inflow = 9.27 cfs @ 12.07 hrs, Volume= 1.314 af
Primary = 9.27 cfs @ 12.07 hrs, Volume= 1.314 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-1: Ex CB (West)

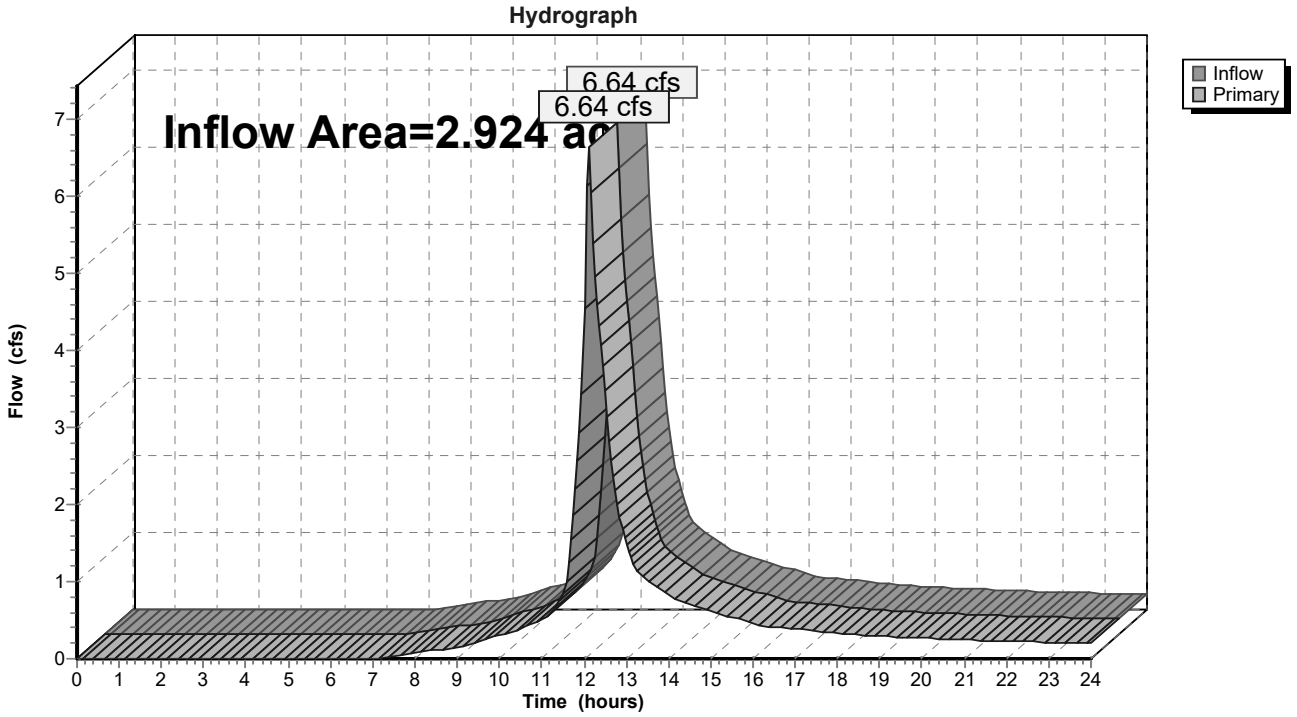


Summary for Link DP-2: Ex CB (Southwest)

Inflow Area = 2.924 ac, 73.99% Impervious, Inflow Depth > 3.50" for 25-year event
Inflow = 6.64 cfs @ 12.10 hrs, Volume= 0.853 af
Primary = 6.64 cfs @ 12.10 hrs, Volume= 0.853 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-2: Ex CB (Southwest)

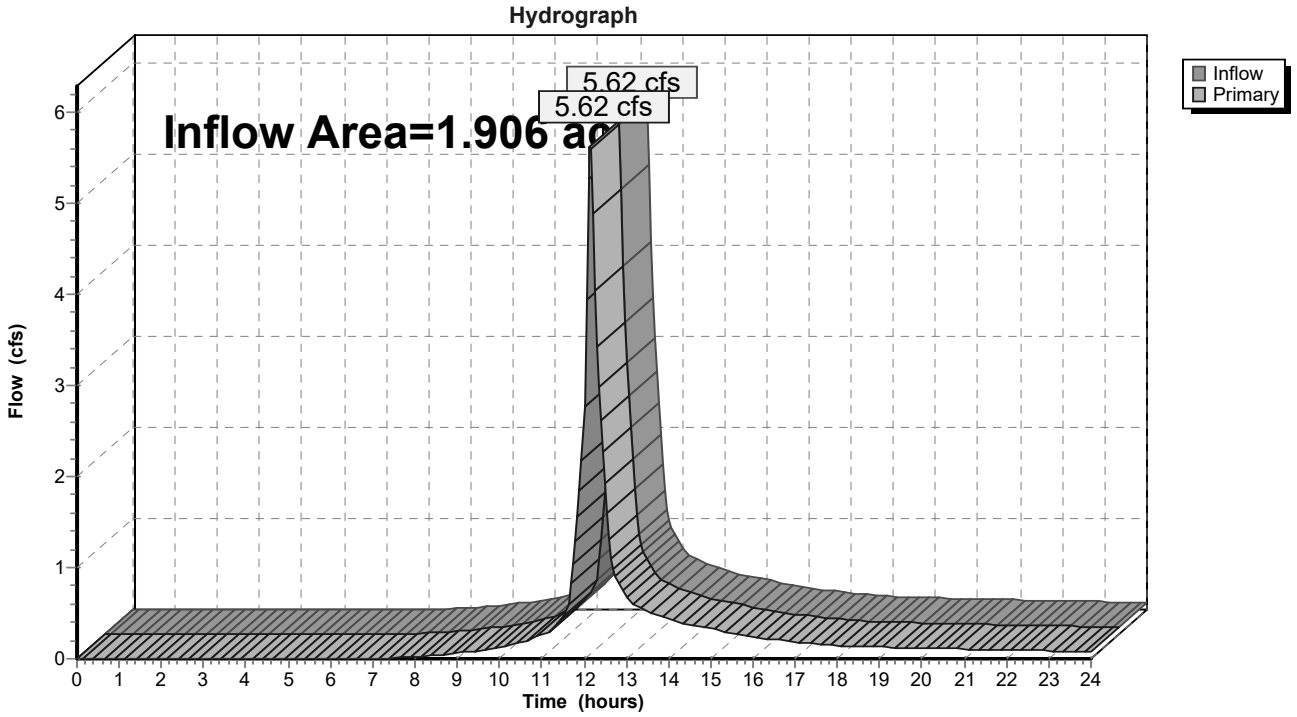


Summary for Link DP-3: Ex DMH (Southeast)

Inflow Area = 1.906 ac, 56.40% Impervious, Inflow Depth > 2.95" for 25-year event
Inflow = 5.62 cfs @ 12.14 hrs, Volume= 0.469 af
Primary = 5.62 cfs @ 12.14 hrs, Volume= 0.469 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link DP-3: Ex DMH (Southeast)



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2 Rainfall Events Listing (selected events)
3 Area Listing (all nodes)
4 Soil Listing (all nodes)
5 Ground Covers (all nodes)
7 Pipe Listing (all nodes)

2-year Event
8 Node Listing
10 Subcat SC-P1: Pelican St
11 Subcat SC-P10: Existing Loading Dock & North Lawn
12 Subcat SC-P11: Proposed Parking w/ Biocell
13 Subcat SC-P12: Proposed Loading Dock
14 Subcat SC-P13: South Parking Area
15 Subcat SC-P14: Parking Area to BR-2
16 Subcat SC-P2: NW Corner w/ Biocell
17 Subcat SC-P3A: Proposed Building Roof to BR-1
18 Subcat SC-P3B: Proposed Building High & Central Roof
19 Subcat SC-P3C: Proposed Building Low Roof South
20 Subcat SC-P3D: Proposed Building Low Roof North
21 Subcat SC-P3E: Proposed Building Loading Dock & Garage Roof
22 Subcat SC-P5: Existing Roof
23 Subcat SC-P6: SC-P6-Existing Landscape
25 Subcat SC-P7: Employee Entrance
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29 Pond BR-1: Bioretention Cell BR-1 Roof
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33 Pond BR-3: Bioretention Cell BR-3 Parking Area
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37 Pond RT-1: UG Storage & Treatment Loading Dock
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51 Subcat SC-P12: Proposed Loading Dock
52 Subcat SC-P13: South Parking Area
53 Subcat SC-P14: Parking Area to BR-2

54 Subcat SC-P2: NW Corner w/ Biocell
55 Subcat SC-P3A: Proposed Building Roof to BR-1
56 Subcat SC-P3B: Proposed Building High & Central Roof
57 Subcat SC-P3C: Proposed Building Low Roof South
58 Subcat SC-P3D: Proposed Building Low Roof North
59 Subcat SC-P3E: Proposed Building Loading Dock & Garage Roof
60 Subcat SC-P5: Existing Roof
61 Subcat SC-P6: SC-P6-Existing Landscape
63 Subcat SC-P7: Employee Entrance
64 Subcat SC-P8: Existing Parking Area
65 Subcat SC-P9: Existing LS
66 Pond BR-1: Bioretention Cell BR-1 Roof
68 Pond BR-2: Bioretention Cell BR-2 Parking Area
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74 Pond RT-1: UG Storage & Treatment Loading Dock
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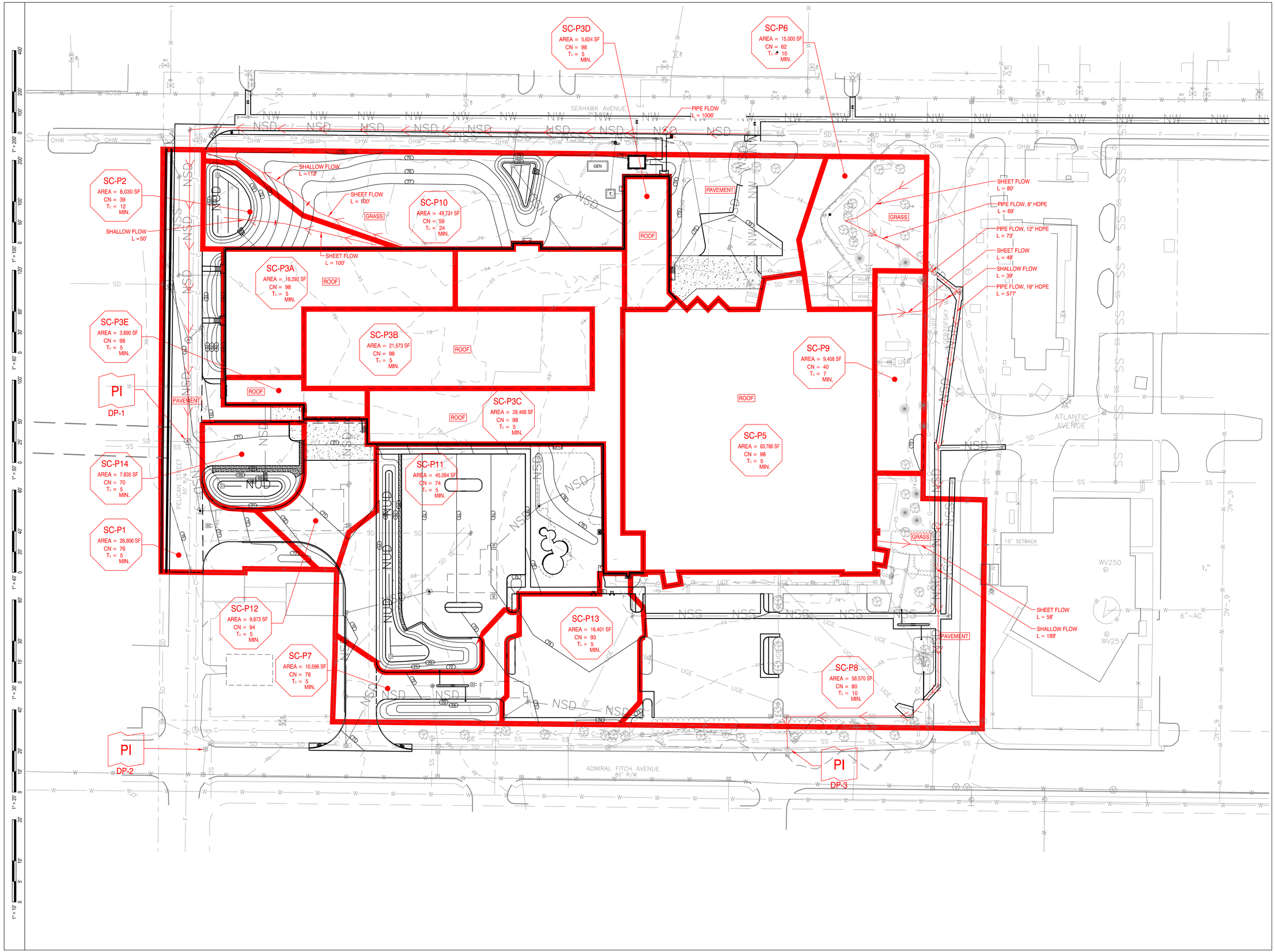
78 Pond RT-3: UG Storage & Treatment Parking Area
80 Link DP-1: Ex CB (West)
81 Link DP-2: Ex CB (Southwest)
82 Link DP-3: Ex DMH (Southeast)



Mölnlycke®

MOLNLYCKE

BRUNSWICK EXPANSION

192 Admiral Fitch Avenue, Brunswick Landing, Brunswick, Maine

SMRT

SMRT, Inc.
75 Washington Ave., Suite 3A
Portland, Maine 04101

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In Association With

TRUE NORTH

STATE OF MAINE
MELISSA ANN FLYNN
15831
LICENSED PROFESSIONAL ENGINEER
12/18/25

#	REVISION	DATE
1	MAJOR DEVELOPMENT REVIEW	12-18-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-18-25

SHEET TITLE:

POST-DEVELOPMENT WATERSHED PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE:	1" = 40'	DESIGNED BY:	WSM
SMRT PROJECT #:	24040	DRAWN BY:	WSM

C-121

NOT FOR CONSTRUCTION

Exhibit 11b

REPORT – rev. 1

24-2370 S

September 9, 2025

Explorations and Geotechnical Engineering Services

Proposed Molnlycke Expansion
192 Admiral Fitch Avenue
Brunswick, Maine

Prepared For:
SMRT
Attention: Matthew Ranger, AIA
75 Washnington Avenue, Suite 3A
Portland, ME 04101

Prepared By:
S. W. Cole Engineering, Inc.
286 Portland Road
Gray, ME 04039
T: 207-657-2866

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24-2370 S

September 9, 2025

SMRT
Attention: Matthew Ranger, AIA
75 Washington Avenue, Suite 3A
Portland, ME 04101

Subject: Explorations and Geotechnical Engineering Services – Rev. 1
Proposed Molnlycke Expansion
192 Admiral Fitch Avenue
Brunswick, Maine

Dear Matt:

In accordance with our Proposal, dated December 6, 2024, our Contract Addendum, dated June 4, 2025, and our Contract Addendum 2, dated July 16, 2025, we have performed subsurface explorations for the subject project. This report summarizes our findings and geotechnical recommendations and its contents are subject to the limitations set forth in Appendix A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services was to obtain subsurface information at the site in order to develop geotechnical recommendations relative to foundations and earthwork associated with the proposed construction. Our scope of services included a review of prior explorations by others, test boring, test pit, and Cone Penetration Test explorations, soils laboratory testing, a geotechnical analysis of the subsurface findings, and preparation of this report.

1.2 Site and Proposed Construction

We understand the site is located at the existing Molnlycke facility at 192 Admiral Fitch Avenue in Brunswick, Maine. The facility includes an existing one and two-story building with associated paved and landscape areas in the easterly portion, and an

undeveloped lot with some relic U.S. Navy structures and paved areas to the west, fronting Pelican Street. Numerous underground utilities are present at the site including water, sanitary sewer, storm drain, steam, and gas. Existing grades are relatively flat and level across the proposed expansion site, ranging from about elevation 72 to 76 feet (project datum). We understand the existing building has a finish floor elevation of about 75.6 feet.

We understand project planning is still in the early stages for a new building addition with future expansion area in the undeveloped portion of the site, off the northwest corner of the existing building. We anticipate the addition will be one to two-story, high-bay construction with on-grade floor slabs. Finish floor elevation will match that of the existing building, requiring tapered grade-raise fills approaching about 4 feet and tapered cuts approaching about 0.5-foot.

Proposed and existing site features are shown on the "Exploration Location Plan" attached in Appendix B.

2.0 EXPLORATION AND TESTING

2.1 Explorations

2.1.1 Current Explorations

Four Cone Penetration Tests (CPT-101 through CPT-104) were made at the site on December 20, 2024. Fourteen test pits (TP-101 through TP-114) were made at the site on August 1, 2025. Two test borings (B-101 and B-102) were made at the site on August 19, 2025. The explorations were made by Seaboard Drilling, LLC working under subcontract to S. W. Cole Engineering, Inc. (S.W.COLE). The locations of test pits TP-111 through TP-114 were requested by SMRT; the remainder of the exploration locations were selected and established in the field by S.W.COLE using measurements from existing site features. The approximate exploration locations are shown on the "Exploration Location Plan" attached in Appendix B. Logs of the explorations are attached in Appendix C.

Test pits TP-111 through TP-114 were also logged by a Maine Certified Soil Scientist working under subcontract to S.W.COLE; these logs are also attached in Appendix C.

2.1.2 Prior Explorations

A test boring exploration program was made in 2010 by Summit Geoengineering Services (SGS) for the existing Molnlycke building. Select test borings from this prior program were reviewed by S.W.COLE as they pertain to the current proposed development. The approximate locations of these prior test borings are shown on the "Exploration Location Plan" attached in Appendix B. Logs of these prior test borings are attached in Appendix C.

2.2 Field Testing

The test borings were drilled using a combination of solid-stem auger and cased wash-boring techniques. The soils were samples at 2 to 5 foot intervals using a split spoon sampler and Standard Penetration Testing (SPT) methods. Pocket Penetrometer Tests (PPT) were performed where stiffer cohesive soils were encountered. Shelby tube sampling and Vane Shear testing (VST) were performed where softer cohesive soils were encountered, SPT blow counts, PPT, and VST results are shown on the boring logs.

The CPT's were made by pushing a Vertek digital cone to collect cone resistance (q_c), sleeve friction (f_s), and pore water pressure (u) data. Additionally, shear wave velocity (V_s) testing was performed at approximate 1-meter intervals during CPT advancement. CPT data and shear wave velocity testing results are noted on the CPT logs.

2.3 Laboratory Testing

Soil samples obtained from the explorations were returned to our laboratory for further classification and testing. Atterberg Limits and moisture content tests results are noted on the logs. The results of two, one-dimensional laboratory consolidation tests are attached in Appendix D.

3.0 SUBSURFACE CONDITIONS

3.1 Soil and Bedrock

Underlying a surficial layer of topsoil, the explorations encountered a subsurface profile generally consisting of fill overlying native glacial outwash sand and glaciomarine silt and silty clay, overlying refusal surfaces. The principal soils encountered at the explorations

are summarized below. Not all of the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

Uncontrolled Fill: Underlying a surficial layer of topsoil, the explorations encountered a layer of uncontrolled fill, up to about 5 feet thick, where penetrated. . The uncontrolled fill consisted of loose to medium dense sand with varying portions of silt, gravel, cobbles, organics, and miscellaneous rubble and debris including concrete, rebar, pipe, wire, bricks, glass, plastic, and paper. Test boring B-101 and test pits TP-112 and TP-113 encountered refusal on buried relic concrete slabs or foundations at depths of about 5 to 6 feet below existing ground surface (bgs). Considering the previous U.S. Navy site usage and infrastructure, we anticipate a greater thickness of uncontrolled fill and buried rubble, foundations, slabs, and utilities are present in portions of the site.

Buried Relic Organics: Underlying the uncontrolled fill, test pits TP-101, TP-104, TP-106, TP-108, TP-109, and TP-111 encountered layers of buried relic topsoil, peat, and organics up to about 1.5 feet thick.

Glacial Outwash: Underlying the fill and buried relic organics, where penetrated, the explorations encountered native deposits of glacial outwash sands with varying portions of silt and gravel. Where penetrated in the borings and CPTs, the glacial outwash extended to depths ranging from about 10 to 35 feet below existing ground surface (bgs).

Glaciomarine Soils: Underlying the glacial outwash, the native deposits transitioned to layered glaciomarine silty clay, silty sand, and clayey silt, transitioning to an underlying layer of medium gray silty clay. The CPTs and test borings penetrated the glaciomarine deposits at depths ranging from about 40 to 100 feet bgs.

Refusal Surfaces: Refusal surfaces, defined as sufficient resistance to stop advancement of the rod probes and CPT probe, such as on dense granular soil, boulders, or bedrock, were encountered at depths ranging from about 42 to 103 feet bgs. Shallow refusal surfaces were encountered on buried relic concrete slabs, foundations in borings B-101 and test pits TP-112 and TP-113.

3.2 Groundwater

Saturated soils were encountered in the test borings at depths ranging from about 9 to 10 feet bgs. Groundwater likely becomes perched in the uncontrolled fill and on the relatively impervious silts and clays encountered in the explorations. Long term groundwater information is not available. It should be anticipated that groundwater levels will fluctuate, particularly in response to periods of snowmelt and precipitation, as well as changes in site use.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General Findings

Based on the subsurface findings, the proposed construction appears feasible from a geotechnical standpoint. The principle geotechnical considerations include:

- The explorations encountered uncontrolled fills, buried relic foundations and slabs, and buried relic organics extending to depths of up to about 6 feet bgs, where penetrated, which are unsuitable for support of the proposed building foundations and floor slabs. Considering the previous U.S. Navy site usage and infrastructure, we anticipate additional uncontrolled fill, buried relic foundations, utilities, and relic backfill may be present across the site. We recommend existing fill, backfill, organics, pavement, utilities, structures, foundations, and debris be completely removed from beneath the proposed building addition, including foundations, floor slabs, entrance slabs, and the future building addition, to expose the underlying native sand. The exposed native sands should be proof-rolled and densified, and the overexcavation backfilled with compacted Granular Borrow.

- We recommend the construction documents include unit price rates for removal and disposal of existing fill and unsuitable materials, and backfilling with imported compacted Granular Borrow. We recommend the design team review available historical mapping of the site to help identify potential buried foundations and utilities.

- Portions of the existing sandy fill, free from organics, debris, and deleterious material, appear suitable for reuse as Granular Borrow to backfill the building overexcavation provided they are at a compactable moisture content at the time of

reuse. Debris, rubble, organics, and deleterious material must be culled from the sand fill prior to reuse. Additionally, existing concrete foundations and slabs could be crushed and processed onsite and blended with the sand to make Granular Borrow.

- We understand the site soils and groundwater may be environmentally impacted, which may result in premium handling and disposal. We recommend the owner coordinate environmental requirements with MRRA, and retain a qualified environmental consultant prior to construction, as necessary, to provide recommendations for handling and disposal of site soils and groundwater.

- Following removal and replacement of unsuitable materials, spread footing foundations and a slab-on-grade floors bearing on properly prepared subgrades appear suitable for the proposed building addition. Footings should bear on at least 6-inches of compacted Crushed Stone overlying densified native non-organic outwash sands, or overlying compacted Granular Borrow overlying densified native non-organic outwash sands. On-grade floor slabs should bear on at least 12-inches of properly compacted Structural Fill overlying compacted Granular Borrow overlying native non-organic outwash sands.

- Considering the underlying compressible silty clay soils, we recommend the proposed building addition pad, including the future expansion area, be filled to within 2 feet of finish floor elevation prior to excavating for foundations.

- Relatively shallow groundwater was encountered in the explorations. Well point dewatering will likely be needed for excavations extending below groundwater.

- Subgrades across the site will consist of sensitive silts and clays. Earthwork and grading activities should occur during drier, non-freezing weather of Spring, Summer and Fall. Rubber tired construction equipment should not operate directly on the native silt and clays when wet. Excavation of bearing surfaces should be completed with a smooth-edged bucket to lessen subgrade disturbance.

- S.W.COLE should be engaged to review our geotechnical recommendations once final site layout, grading, and structural loading is available, and revise, as necessary.

4.2 Site and Subgrade Preparation

We recommend that site preparation begin with the construction of an erosion control system to protect adjacent drainage ways and areas outside the construction limits. Surficial organics, roots and topsoil should be completely removed from areas of proposed fill and construction. As much vegetation as possible should remain outside the construction areas to lessen the potential for erosion and site disturbance.

As discussed, the explorations encountered fill soils, buried relic foundations and slabs, and buried relic organics extending to depths of up to about 6 feet where penetrated. Considering the previous U.S. Navy site usage and infrastructure, we anticipate additional uncontrolled fill, buried relic foundations, utilities, and relic backfill are likely present across the site.

We recommend existing fill, backfill, organics, pavement, utilities, structures, foundations, and debris be completely removed from beneath the proposed building addition, including foundations, floor slabs, entrance slabs, and the future expansion area, to expose the underlying non-organic native sand. The extent of removal should extend 1 foot laterally outward from outside edge of perimeter footings for every 1-foot of excavation depth (1H:1V bearing splay). The exposed native sand should be proof-rolled and densified with 3 to 5 passes of a 5-ton vibratory roller. Areas which become soft or continue to yield after densification should be overexcavated and replaced with compacted Structural Fill. After densifying the native sand, the overexcavated area should be backfilled with compacted Granular Borrow.

Additionally, site grades should be raised with compacted Granular Borrow. Considering the underlying compressible silty clay soils, we recommend the proposed building addition pad, including the future expansion area, be filled to within 2 feet of finish floor elevation prior to excavating for foundations.

We recommend that footings be excavated using a smooth-edged bucket and that footings be underlain by at least 6 inches of compacted Crushed Stone overlying properly prepared subgrade soils.

4.3 Excavation and Dewatering

Excavation work will generally encounter existing fill, backfill, utilities, structures, and buried relic organics, overlying native glacial outwash sands and glaciomarine silts and clays. Care must be exercised during construction to limit disturbance of the bearing soils. Earthwork and grading activities should occur during drier, non-freezing weather of Spring, Summer and Fall. Final cuts to subgrade should be performed with a smooth-edged bucket to help reduce strength loss from soil disturbance.

Vibrations from construction should be controlled below threshold limits of 0.5 in/sec for structures, water supply wells and infrastructure within 500 feet of the project site. More restrictive vibration limits may be warranted in specific cases with sensitive equipment, historic structures or artifacts on-site or within close proximity.

Sumping and pumping dewatering techniques should be adequate to control groundwater in shallow excavations above groundwater. Well-point dewatering will likely be required for excavations extending below groundwater. Controlling the water levels to at least one foot below planned excavation depths will help stabilize subgrades during construction.

Excavations must be properly shored or sloped in accordance with OSHA Regulations to prevent sloughing and caving of the sidewalls during construction. Care must be taken to preclude undermining adjacent structures, utilities and roadways.

The design and planning of excavations, excavation support systems, and dewatering is the responsibility of the contractor.

4.4 Foundations

We recommend the proposed building addition be supported on spread footings founded on at least 6-inches of compacted Crushed Stone overlying undisturbed, native, non-organic sand, or overlying compacted Granular Borrow used to backfill the overexcavation of unsuitable soils. For foundations bearing on properly prepared

subgrades, we recommend the following geotechnical parameters for design consideration:

Geotechnical Parameters for Spread Footings and Foundation Walls	
Design Frost Depth (100 year AFI)	4.5 feet
Net Allowable Soil Bearing Pressure	2.0 ksf
Base Friction Factor	0.35
Total Unit Weight of Backfill	125 pcf
At-Rest Lateral Earth Pressure Coefficient	0.5
Internal Friction Angle of Backfill	30°
Seismic Soil Site Class	D (IBC 2021 Shear Wave Velocity Method)
Estimated Total Settlement	1-inch
Differential Settlement	½-inch

4.5 Foundation Drainage

We recommend an underdrain system be installed on the outside edge of the perimeter footings. The underdrain pipe should consist of 4-inch diameter, perforated SDR-35 foundation drain pipe bedded in Crushed Stone and wrapped in non-woven geotextile fabric. The underdrain pipe must have a positive gravity outlet protected from freezing, clogging and backflow. Surface grades should be sloped away from the building for positive surface water drainage. General underdrain details are illustrated on the "Foundation Detail Sketch" attached in Appendix B.

4.6 Slab-On-Grade

On-grade floor slabs in heated areas may be designed using a subgrade reaction modulus of 100 pci (pounds per cubic inch) provided the slab is underlain by at least 12-inches of compacted Structural Fill placed over properly prepared, densified subgrades. The structural engineer or concrete consultant must design steel reinforcing and joint spacing appropriate to slab thickness and function, as well as cracking and curling.

We recommend a sub-slab vapor retarder particularly in areas of the building where the concrete slab will be covered with an impermeable surface treatment or floor covering that may be sensitive to moisture vapors. The vapor retarder must have a permeance that is less than the floor cover or surface treatment that is applied to the slab. The vapor retarder must have sufficient durability to withstand direct contact with the sub-slab base material and construction activity. The vapor retarder material should be

placed according to the manufacturer's recommended method, including the taping and lapping of all joints and wall connections. The architect and/or flooring consultant should select the vapor retarder products compatible with flooring and adhesive materials.

The floor slab should be appropriately cured using moisture retention methods after casting. Typical floor slab curing methods should be used for at least 7 days. The architect or flooring consultant should assign curing methods consistent with current applicable American Concrete Institute (ACI) procedures with consideration of curing method compatibility to proposed surface treatments, flooring and adhesive materials.

4.7 Entrance Slabs and Sidewalks

Entrance slabs and sidewalks adjacent to the building must be designed to reduce the effects of differential frost action between adjacent pavement, doorways, and entrances. We recommend that non-frost susceptible Structural Fill be provided to a depth of at least 4.5 feet below the top of entrance slabs. This thickness of Structural Fill should extend the full footprint of the entrance slab, thereafter transitioning up to the bottom of the adjacent sidewalk or pavement gravels at a 3H:1V or flatter slope. General details of this frost transition zone are shown on the "Foundation Detail Sketch" attached in Appendix B.

4.8 Fill, Backfill and Compaction

We recommend the following fill and backfill materials: recycled products must also be tested in accordance with applicable environmental regulations and approved by a qualified environmental consultant.

Common Borrow: Fill to raise grades in landscape areas should be non-organic compactable earth meeting the requirements of 2020 MaineDOT Standard Specification 703.18 Common Borrow.

Granular Borrow: Fill to raise grades in building and paved areas, and backfill for overexcavations, should be sand meeting the requirements of 2020 MaineDOT Standard Specification 703.19 Granular Borrow. Granular Borrow for Underwater Backfill may be required in wet conditions.

Structural Fill: Backfill for foundations, slab base material, material below exterior entrances slabs, and backfill to repair soft areas, should be clean, non-frost susceptible sand and gravel meeting the gradation requirements for Structural Fill as given below:

Structural Fill	
Sieve Size	**Percent Finer by Weight**
4 inch	100
3 inch	90 to 100
¼ inch	25 to 90
No. 40	0 to 30
No. 200	0 to 6

Crushed Stone: Crushed Stone, used beneath foundations and for underdrain aggregate should be washed ¾-inch crushed stone meeting the requirements of 2020 MaineDOT Standard Specification 703.13 Crushed Stone ¾-Inch.

Reuse of Site Soils: The native sands and portions of the sand fill, free of silt and clay layers, organics, rubble, debris, and deleterious material, may be suitable for reuse as Granular Borrow provided they are at a compactable moisture content at the time of reuse. The existing silts and clays are unsuitable for reuse in building and paved areas, but may be suitable for reuse as Common Borrow in landscape areas, provided they are at a compactable moisture content at the time of reuse

Placement and Compaction: Fill should be placed in horizontal lifts and compacted such that the desired density is achieved throughout the lift thickness with 3 to 5 passes of the compaction equipment. Loose lift thicknesses for grading, fill and backfill activities should not exceed 12 inches. We recommend that fill and backfill in building and paved areas be compacted to at least 95 percent of its maximum dry density as determined by ASTM D-1557. Crushed Stone should be compacted with 3 to 5 passes of a vibratory plate compactor having a static weight of at least 500 pounds.

4.9 Weather Considerations

Construction activity should be limited during wet and freezing weather and the site soils may require drying or thawing before construction activities may continue. The contractor should anticipate the need for water to temper fills in order to facilitate compaction during dry weather. If construction takes place during cold weather, subgrades, foundations and floor slabs must be protected during freezing conditions. Concrete and fill must not be

placed on frozen soil; and once placed, the concrete and soil beneath the structure must be protected from freezing.

4.10 Design Review and Construction Testing

S.W.COLE should be retained to review the construction documents prior to bidding to determine that our foundation and earthwork recommendations have been properly interpreted and implemented.

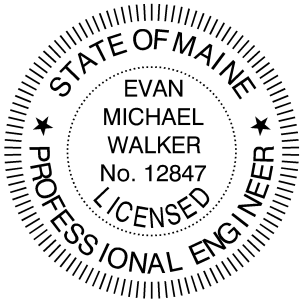
A construction materials testing and quality assurance program should be implemented during construction to observe compliance with the design concepts, plans, and specifications. S.W.COLE is available to observe earthwork activities, the preparation of foundation bearing surfaces and pavement subgrades, as well as to provide testing and IBC Special Inspection services for soils, concrete, steel, spray-applied fireproofing, structural masonry and asphalt construction materials.

5.0 CLOSURE

It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you during the construction phase of the project.

Sincerely,

S. W. Cole Engineering, Inc.



Evan M. Walker, P.E.
Senior Geotechnical Engineer

EMW:tjb

APPENDIX A

Limitations

This report has been prepared for the exclusive use of SMRT for specific application to the proposed Molnlycke Expansion at 192 Admiral Fitch Avenue in Brunswick, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct our services in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

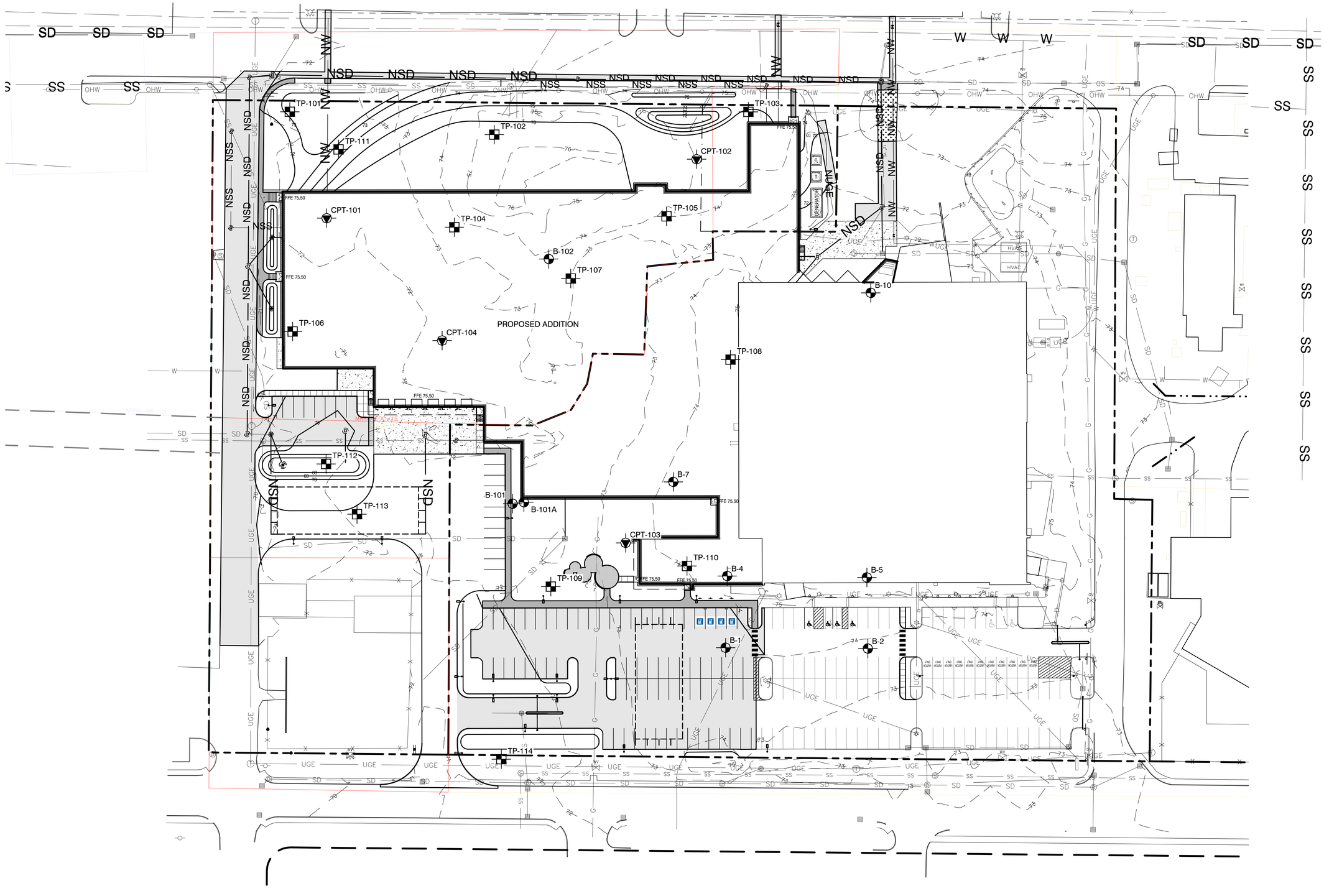
Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

S.W.COLE's scope of services has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S.W.COLE should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S.W.COLE.

APPENDIX B

Figures



LEGEND:

- APPROXIMATE BORING LOCATION
- APPROXIMATE CONE PENETRATION TEST LOCATION
- APPROXIMATE TEST PIT LOCATION

NOTES:

1. EXPLORATION LOCATION PLAN WAS PREPARED FROM A 1"=30' SCALE PLAN OF THE SITE TITLED "MOLNLYCKE ADDITION SCHEMATIC SITE PLAN," PREPARED BY SMRT, DATED 08/4/2025.
2. BORINGS B-101, B-101A AND B-102 WERE LOCATED IN THE FIELD BY MEASUREMENTS FROM EXISTING SITE FEATURES.
3. THE TEST PITS WERE LOCATED IN THE FIELD BY MEASUREMENTS FROM EXISTING SITE FEATURES.
4. THE CONE PENETRATION TESTS WERE PERFORMED UNDER THE DIRECTION OF S. W. COLE ENGINEERING, INC. ON DECEMBER 20, 2024.
5. BORINGS B-1, B-2, B-4, B-5, B-7 AND B-10 WERE PERFORMED UNDER THE DIRECTION OF SUMMIT GEOENGINEERING SERVICES IN DECEMBER 2010.
6. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
7. THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.

0 40 80 Feet

NO.	DATE	DESCRIPTION	BY
2	09/09/2025	ADD BORINGS B-101 THRU B-102	CEM
1	08/08/2025	INTERIM SUBMISSION - ADD TEST PITS AND PROPOSED BORINGS	CEM
0	02/05/2025	REPORT SUBMISSION	CEM

S.W.COLE ENGINEERING, INC.

SMRT

EXPLORATION LOCATION PLAN

PROPOSED MOLNLYCKE EXPANSION
192 ADMIRAL FITCH AVENUE
BRUNSWICK, MAINE

Job No.: 24-2370 Scale: 1" = 40'
Date : 02/05/2025 Sheet: 1

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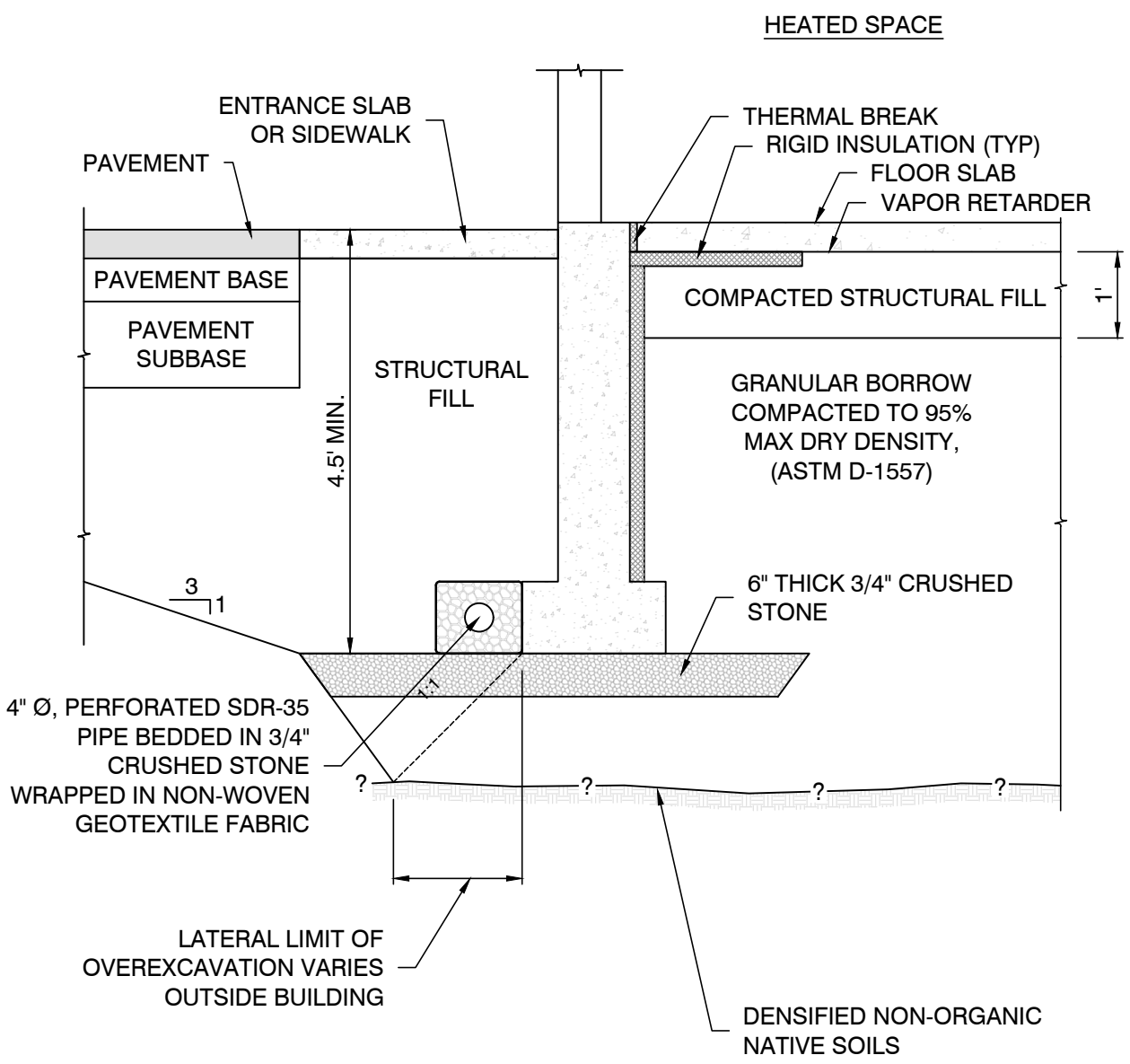

NOTE:

1. UNDERDRAIN INSTALLATION AND MATERIAL GRADATION RECOMMENDATIONS ARE CONTAINED WITHIN THIS REPORT.
2. DETAIL IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY, NOT FOR CONSTRUCTION.

S.W.COLE ENGINEERING, INC.

SMRT

FOUNDATION DETAIL SKETCH

PROPOSED MOLNLYCKE EXPANSION
192 ADMIRAL FITCH AVENUE
BRUNSWICK, MAINE

Job No.:	24-2370	Scale:	Not to Scale
Date :	02/05/2025; Rev. 9/9/2025	Sheet:	2

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APPENDIX C

Exploration Logs and Key

BORING LOG

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

BORING NO.: B-101
SHEET: 1 of 1
PROJECT NO. 24-2370
DATE START: 8/19/2025
DATE FINISH: 8/19/2025

Drilling Information

LOCATION: See Exploration Location Plan | **ELEVATION (FT):** 73' +/- | **TOTAL DEPTH (FT):** 5.0 | **LOGGED BY:** Kyle Kaserman
DRILLING CO.: Seaboard Drilling | **DRILLER:** Jeremy Adams | **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted Diedrich D-50 | **AUGER ID/OD:** N/A / N/A | **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic | **HAMMER WEIGHT (lbs):** 140 / 140 | **CASING ID/OD:** 3 in / 3 1/2 in | **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: | **HAMMER DROP (inch):** 30 / 30
WATER LEVEL DEPTHS (ft): No Freewater Observed
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
			1D		0-2	24/14	4-4-7-9			0.2 Grass/Topsoil (FILL)		
										0.8 Medium dense, light brown, fine SAND, trace silt, with concrete (FILL)		
70			2D		2-4	24/14	9-7-6-6			2.0 Medium dense, dark brown, fine to medium SAND, some silt, trace gravel (FILL)		
	5		3D		5-5	0/0	50/0"			Medium dense, brown, fine to medium SAND, trace silt, trace gravel, trace clay (FILL)		Metal and concrete in wash
										Refusal at 5.0 feet Buried Concrete Slab or Foundation		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING / WELL 10-12-2022 24-2370.GPJ SWCE TEMPLATE.GDT 9/9/25

BORING LOG

BORING NO.: B-101A
SHEET: 1 of 2
PROJECT NO. 24-2370
DATE START: 8/19/2025
DATE FINISH: 8/19/2025

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

Drilling Information

LOCATION: See Exploration Location Plan **ELEVATION (FT):** 73' +/- **TOTAL DEPTH (FT):** 44.7 **LOGGED BY:** Kyle Kaserman
DRILLING CO.: Seaboard Drilling **DRILLER:** Jeremy Adams **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted Diedrich D-50 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic **HAMMER WEIGHT (lbs):** 140 / 140 **CASING ID/OD:** 3 in / 3 1/2 in **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: **HAMMER DROP (inch):** 30 / 30
WATER LEVEL DEPTHS (ft): ▽ 9 ft Soils Saturated Below 9' +/-
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_u = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
										Advanced with Auger. See B-101 for Strata		
70												
	5		3D		5-7	24/18	3-3-2-2			5.0 Loose, brown, fine to medium SAND, trace silt, trace gravel		
65			4D		7-9	24/18	2-1/12"-1				▽	
	10		5D		10-12	24/0	WOH/18"-2					
60												
	15		6D		15-17	24/12	3-4-5-7			15.0 Loose, gray-brown, fine to medium SAND, trace silt		
55												
	20		7D		20-22	24/10	3-4-5-4					
50												
	25		8D		25-27	24/14	2-3-1-4			25.0 Very soft to loose, gray, layered, SAND, SILT, and CLAY		
45												
	30		9D		30-32	24/14	5-5-3-3					
40												
	35		10D		35-37	24/24	1-1/12"-1			35.0 Very soft, gray, silty CLAY		
35										ROD PROBE Depth: 37-42.7 — Resistance: HYD — Interpreted Soil Type: Silty Clay		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING / WELL 10-12-2022 24-2370.GPJ SWCE TEMPLATE.GDT 9/9/25

BORING LOG

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

BORING NO.: B-101A
SHEET: 2 of 2
PROJECT NO. 24-2370
DATE START: 8/19/2025
DATE FINISH: 8/19/2025

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
30										42.7 ROD PROBE Depth / Resistance / Interpreted Soil Type 42.7-43.7 / 54 / Granular 43.7-44.7 / 52 / Granular Bottom of Exploration at 44.7 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING / WELL 10-12-2022 24-2370.GPJ SWCE TEMPLATE.GDT 9/9/25

BORING LOG

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

BORING NO.: B-102
SHEET: 1 of 2
PROJECT NO. 24-2370
DATE START: 8/19/2025
DATE FINISH: 8/19/2025

Drilling Information

LOCATION: See Exploration Location Plan | **ELEVATION (FT):** 73' +/- | **TOTAL DEPTH (FT):** 50.6 | **LOGGED BY:** Kyle Kaserman
DRILLING CO.: Seaboard Drilling | **DRILLER:** Jeremy Adams | **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted Diedrich D-50 | **AUGER ID/OD:** N/A / N/A | **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic | **HAMMER WEIGHT (lbs):** 140 / 140 | **CASING ID/OD:** 3 in / 3 1/2 in | **CORE BARREL:** N/A
HAMMER CORRECTION FACTOR: | **HAMMER DROP (inch):** 30 / 30
WATER LEVEL DEPTHS (ft): ▽ 10 ft Soils Saturated Below 10' +/-
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level: ▽ At time of Drilling; ▼ At Completion of Drilling; ▼ After Drilling
D = Split Spoon Sample; U = Thin Walled Tube Sample; R = Rock Core Sample; V = Field Vane Shear
Pen. = Penetration Length; Rec. = Recovery Length; bpf = Blows per Foot; mpf = Minute per Foot
WOR = Weight of Rods; WOH = Weight of Hammer; RQD = Rock Quality Designation; PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.; q_U = Unconfined Compressive Strength, kips/sq.ft.; Ø = Friction Angle (Estimated); N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_2O Depth	Remarks
			1D		0-2	24/14	3-3-7-7			0.5 Vegetation/Topsoil (FILL)		
70			2D		2-4	24/14	9-10-9-8			2.0 Loose, orange-brown, fine to medium SAND, trace gravel (FILL) Medium dense, light brown, fine SAND, trace silt		
	5		3D		5-7	24/18	3-4-6-5					
65			4D		7-9	24/18	7-7-5-5					
	10		5D		10-12	24/12	6-10-11-9			9.0 Medium dense, orange-brown, fine to medium SAND, trace silt	▽	
60												
	15		6D		15-17	24/12	4-2-3-3	q_P=0-0.5 ksf		15.0 15.3 Loose, gray, fine to medium SAND, trace silt Very soft to soft, gray, silty CLAY, with occasional sand seams		
55												
	20		7D		20-22	24/24	WOH/24"					
50												
	25		1U		25-27	24/24						
			1V		27-27.8	10		w =31.6 % W_L=39 W_P=19				
45			1V'		27.8-28.6	10		S_V=0.64/0.12ksf S_V=1.0/0.12ksf				
	30											
40												
	35		2U		35-37	24/24						
			2V		37-37	0		w =36.6 % W_L=35 W_P=22				
35										ROD PROBE Depth 37-50.5 / Resistance HYD / Interpreted Soil Type Silty Clay		Incomplete Vane Penetration at 2V - Sand Seam

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING LOG

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

BORING NO.: B-102
SHEET: 2 of 2
PROJECT NO. 24-2370
DATE START: 8/19/2025
DATE FINISH: 8/19/2025

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION: Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data	Graphic Log	Sample Description & Classification	H_20 Depth	Remarks
	30											
	45											
	25											
	50											
										50.5 ROD PROBE Depth Resistance Interpreted Soil Type 50.5-50.6 25 Granular Bottom of Exploration at 50.6 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING / WELL 10-12-2022 24-2370.GPJ SWCE TEMPLATE.GDT 9/9/25

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-101

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 6.5
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.5 Light brown, gravelly SAND, some silt, with rebar, concrete blocks and rubble, pipe, (FILL)					
		3.0 Buried Relic Topsoil and Organics					
		4.0 Gray-brown to orange-brown, silty SAND					
5							

Bottom of Exploration at 6.5 feet

TEST PIT TP-102

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 75' +/- **COMPLETION DEPTH (FT):** 5.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.5 Light brown, silty fine SAND					
5							

Bottom of Exploration at 5.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-103

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 74' +/- **COMPLETION DEPTH (FT):** 4.5
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.4 Dark brown,SAND, some silt, some gravel, with occasional cobbles (FILL)					
		2.5 Light brown, silty fine SAND					
		4.0 Very dense / Cemented, dark rust-brown, silty SAND					

Bottom of Exploration at 4.5 feet

TEST PIT TP-104

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 73' +/- **COMPLETION DEPTH (FT):** 5.3
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.9 Brown, silty SAND, with roots, bricks (FILL)					
		2.0 Buried Relic Topsoil and Organics					
		2.5 Light orange-brown, silty fine SAND, trace gravel					
5							

Bottom of Exploration at 5.25 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
- ▽ At time of Digging
- ▼ At Completion of Digging
- ▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-105

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 74' +/- **COMPLETION DEPTH (FT):** 5.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.8 Dark brown, fine SAND, some silt, with glass, roots, and organics (FILL)					
		2.0 Light brown, silty fine SAND					
5		Bottom of Exploration at 5.0 feet					

TEST PIT TP-106

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 4.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.6 Brown, fine SAND, some silt, some gravel, with bricks and concrete (FILL)					
		2.5 Buried Relic Topsoil and Organics					
		3.0 Light brown, silty fine SAND					
		Bottom of Exploration at 4.0 feet					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-107

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 73' +/- **COMPLETION DEPTH (FT):** 5.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.5 Dark brown, fine SAND, some silt, trace gravel (FILL)					
		1.3 Light brown, silty fine SAND					
5		Bottom of Exploration at 5.0 feet					

TEST PIT TP-108

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 74' +/- **COMPLETION DEPTH (FT):** 7.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.8 Gray-brown, fine SAND, some silt, some gravel (FILL)					
		4.3 Buried Relic Topsoil, PEAT, and Organics					
5		5.0 Very dense/cemented, gray-brown to rust-brown, silty SAND					
		Bottom of Exploration at 7.0 feet					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-109

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 73' +/- **COMPLETION DEPTH (FT):** 4.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		0.3 Vegetation / Topsoil (FILL)					
		Light brown, fine SAND, some silt, trace gravel (FILL)					
		1.5 Buried Relic Topsoil and Organics					
		3.0 Light brown, silty fine SAND, some gravel					

Bottom of Exploration at 4.0 feet

TEST PIT TP-110

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 74' +/- **COMPLETION DEPTH (FT):** 7.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		0.5 Vegetation / Topsoil (FILL)					
		Gray-brown, gravelly silty SAND, with concrete rubble (FILL)					
		2.5 Light brown, silty SAND (FILL)					
5		5.0 Very dense / Cemented, dark rust-brown silty SAND					

Bottom of Exploration at 7.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-111

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 8.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Vegetation / Topsoil (FILL)					
		0.5 Brown to dark brown, silty SAND, some gravel, with sandy silt layers (FILL)					
		3.5 Buried Relic Topsoil and Organics					
		4.5 Orange-brown, fine SAND, trace silt					
5							
		7.5 Gray, silty SAND					

Bottom of Exploration at 8.0 feet

TEST PIT TP-112

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 71' +/- **COMPLETION DEPTH (FT):** 5.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Grass/topsoil (FILL)					
		0.5 Brown, silty SAND, some gravel, with relic foundation, rebar, steel pipes, plastic, wires (FILL)					
5							

Refusal at 5.0 feet
Buried Concrete Slab or Foundation

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

TEST PIT LOGS

CLIENT: SMRT
PROJECT: Proposed Molnlycke Expansion
LOCATION: 192 Admiral Fitch Avenue, Brunswick, Maine

PROJECT NO.: 24-2370
LOGGED BY: Kyle Kaserman
CONTRACTOR: Seaboard Drilling
EQUIPMENT: Bobcat E42

TEST PIT TP-113

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 6.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Grass/topsoil (FILL)					
		0.5 Light brown to brown, silty SAND, trace gravel, with brick, plastic, rebar, steel pipe, paper (FILL)					
5							

Refusal at 6.0 feet
Buried Concrete Slab or Foundation

TEST PIT TP-114

DATE: 8/1/2025 **LOCATION:** See Exploration Location Plan **SURFACE ELEVATION (FT):** 72' +/- **COMPLETION DEPTH (FT):** 8.0
WATER LEVEL DEPTHS (FT): No Free Water Observed **REMARKS:**

Depth (feet)	Graphic Log	Stratum Description	H_20 Depth	Sample No.	Type	Sample Depth (ft)	Field / Lab Test Data
		Grass/topsoil (FILL)					
		1.0 Brown, gravelly fine SAND, some silt, with roots and cobbles (FILL)					
		2.0 Gray-brown to orange-brown, silty SAND, some gravel					
5							

Bottom of Exploration at 8.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

KEY TO NOTES AND SYMBOLS:

Water Level
▽ At time of Digging
▼ At Completion of Digging
▼ After Digging

q_p = Pocket Penetrometer Strength, kips/sq.ft.

FORM F 250560

SOIL PROFILE/CLASSIFICATION INFORMATION

Detailed Description of Subsurface Conditions at Project Sites

Project Name:	Applicant Name:	Project Location (municipality):
192 ADMIRAL FITCH AVENUE	MOLNLYCKE HEALTH CARE FACILITY	BRUNSWICK

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-111 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
LOAMY FILL WITH SILT LENSES		2.5Y 3/1 VERY DARK GRAY	
			NONE OBSERVED
	FRIABLE		
		10YR 3/6 DARK YELLOWISH	
LOAMY SAND FILL		BROWN AND 10YR 3/1 VERY DARK GRAY	
		10YR 3/1 VERY DARK GRAY	
LOAMY SAND			
	FRIABLE	5Y 4/1 DARK GRAY	
		10YR 5/6	
FINE SAND		YELLOWISH BROWN	COMMON, MEDIUM AND DISTINCT
SILTY SAND		5Y 5/1 GRAY	

LIMIT OF EXCAVATION = 96"

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
non-hydric	0-3	54"	restrictive layer

L.S.S. Soil Series / phase name: 36" FILL OVER ADAMS SAND | Drainage Class: SED | Hydrologic Group: A

L.S.E. Soil Classification: Profile: ____ Drainage Condition: ____

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-112 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
SANDY FILL WITH REBAR, ASPHALT, AND PIPING	FRIABLE	10YR 4/3 BROWN	NONE OBSERVED

REFUSAL/ CONCRETE SLAB OR FOOTING AT 60"

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
non-hydric	0-3	60"	restrictive layer

L.S.S. Soil Series / phase name: N/A | Drainage Class: --- | Hydrologic Group: ---

L.S.E. Soil Classification: Profile: ____ Drainage Condition: ____

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-113 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
		2.5Y 5/3	
SANDY FILL		LIGHT OLIVE BROWN	
		2.5Y 4/4	NONE OBSERVED
LOAMY FILL WITH BRICKS, CONCRETE, REBAR AND PIPING		OLIVE BROWN	

REFUSAL/ CONCRETE SLAB OR FOOTING AT 72"

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
non-hydric	0-3	72"	restrictive layer

L.S.S. Soil Series / phase name: N/A | Drainage Class: --- | Hydrologic Group: ---

L.S.E. Soil Classification: Profile: ____ Drainage Condition: ____

SOIL DESCRIPTION AND CLASSIFICATION

Exploration Symbol: TP-114 ■ Test Pit ☐ Boring

0 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (Inches)

Texture	Consistence	Color	Redox
GRAVELLY FINE SAND FILL	FRIABLE	2.5Y 5/4 LIGHT OLIVE BROWN	
		10YR 3/2	
SANDY LOAM		VERY DARK GRAYISH BROWN	
		10YR 4/6	
	FRIABLE	DARK YELLOWISH BROWN	
FINE SAND		10YR 5/6 YELLOWISH BROWN	
		2.5Y 5/3	
		LIGHT OLIVE BROWN	COMMON, MEDIUM AND DISTINCT

LIMIT OF EXCAVATION = 96"

hydric / non-hydric	Slope %	Limiting factor	ground water / restrictive layer / bedrock
non-hydric	0-3	54"	ground water

L.S.S. Soil Series / phase name: 24" FILL OVER ADAMS SAND | Drainage Class: SED | Hydrologic Group: A

L.S.E. Soil Classification: Profile: ____ Drainage Condition: ____

Professional Endorsements *(as applicable)*

L.S.S. signature: [signature] Date: 8/1/25

name printed/typed: Gary M. Fullerton Lic.#: 462

L.S.E. signature: Date:

name printed/typed: Lic.#:

affix professional seal

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-1**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	1 of 1
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	Parking lot south of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/3/2010	Date Completed: 12/3/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	2 1/4" HSA	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/3/2010	8.7'	64.3' +/-	Measured in borehole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
					Pavement = 4 inches		PAVEMENT
1	S-1	24/18	0.5 - 2.5	16	Brown SAND, little Gravel, trace Silt, damp,		0.3'
				14	compact, SP		FILL
2				13	Light brown SAND, trace Silt, damp, compact, SP		1.4'
				12			MARINE
3							REGRESSIVE
4							
5							
	S-2	24/20	5 - 7	3	Same as above, damp, loose, SP		
6				3			
				7	Dark brown Silty fine SAND, damp, compact, SM		6'
7				14	Orange brown SAND, little Silt, damp to moist,		6.4'
					compact, SP-SM		
8							
9							
10							
	S-3	24/24	10 - 12	3	Same as above, trace to little Silt, loose, wet, SP-SM		
11				3			
				5			
12				4			
13							
14							
15							
	S-4	24/24	15 - 17	3	Same as above, loose, wet, SP-SM		
16				4			
				6			
17				6			
					End of exploration, running sand plugged augers		17'
18							
19							
20							
21							
22							

Granular Soils		Cohesive Soils		% Composition		NOTES:	Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency				Dry: S = 0%
0-4	V. Loose	<2	V. soft			Bedrock Joints	Humid: S = 1 to 25%
4-10	Loose	2-4	Soft	<5%	trace	Shallow = 0 to 35 degrees	Damp: S = 26 to 50%
10-30	Compact	4-8	Firm	5-15	little	Dipping = 35 to 55 degrees	Moist: S = 51 to 75%
30-50	Dense	8-15	Stiff	15-25	some	Steep = 55 to 90 degrees	Wet: S = 76 to 99%
>50	V. Dense	15-30	V. Stiff	>25	and		Saturated: S = 100%
		>30	Hard			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches	

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-2**

Project: Manufacturing Facility
Location: Fourth Street - BNAS Base
Brunswick, Maine

Project #: 10111
Sheet: 1 of 1
Chkd by: WMP

Drilling Co: Northern Test Boring
Personnel: Nick Voltolina
Summit Staff: Adam Lyons, E.I.

Boring Location: Parking lot south of building 294
Elevation: 73' +/- from siteplan topography
Date started: 12/6/2010 Date Completed: 12/6/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	2 1/4" HSA	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/6/2010	6.5'	66.5' +/-	Measured on Rods

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
					Pavement = 4.5 inches		PAVEMENT
1	S-1	24/11	0.5 - 2.5	5	Brown SAND, some Gravel, trace Silt, damp,		0.4'
				5	compact, SP		FILL
2				8	Brown SAND, trace Silt, damp, compact, SP		1.4'
				8			MARINE
3							REGRESSIVE
4							
5							
	S-2	24/16	5 - 7	8	Orange brown SAND, little Silt, moist,		
6				8	compact, SP-SM		
				10			
7				11			
8							
9							
10							
	S-3	24/20	10 - 12	5	Brown SAND, little Silt, wet, compact, SP-SM		
11				6			
				7			
12				8			
13							
14							
15							
	S-4	18/18	15 - 16.5	4	Same as above, wet, compact, SP-SM		
16				4			
				8			
17					End of exploration, running sand plugged augers		16.5'
18							
19							
20							
21							
22							

Granular Soils		Cohesive Soils		% Composition		NOTES:	Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency				Dry: S = 0%
0-4	V. Loose	<2	V. soft			Bedrock Joints	Humid: S = 1 to 25%
4-10	Loose	2-4	Soft	<5%	trace	Shallow = 0 to 35 degrees	Damp: S = 26 to 50%
10-30	Compact	4-8	Firm	5-15	little	Dipping = 35 to 55 degrees	Moist: S = 51 to 75%
30-50	Dense	8-15	Stiff	15-25	some	Steep = 55 to 90 degrees	Wet: S = 76 to 99%
>50	V. Dense	15-30	V. Stiff	>25	and		Saturated: S = 100%
		>30	Hard			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches	

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-4**

Project: Manufacturing Facility
Location: Fourth Street - BNAS Base
Brunswick, Maine

Project #: 10111
Sheet: 1 of 1
Chkd by: WMP

Drilling Co: Northern Test Boring
Personnel: Nick Voltolina
Summit Staff: Adam Lyons, E.I.

Boring Location: Southwest corner of building 294
Elevation: 73' +/- from siteplan topography
Date started: 12/6/2010 Date Completed: 12/6/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	2 1/4" HSA	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/6/2010	8.5' +/-	64.5' +/-	Observed moisture change in sample

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
					Pavement = 6 inches		PAVEMENT
1	S-1	24/18	0.6 - 2.6	8	Brown SAND, little Gravel, trace Silt, damp,		0.5'
				9	compact, SP		FILL
2				10			
				10	Brown SAND, trace Silt, damp, compact, SP		1.9'
3							MARINE
							REGRESSIVE
4							
5							
	S-2	24/14	5 - 7	7	Dark orange-brown Silty SAND, dense, moist, SM		5'
6				16			
				18			
7				18	Brown SAND, trace Silt, moist, compact, SP		6.2'
8							
9							
10							
	S-3	24/24	10 - 12	3	Same as above, wet, loose, SP		
11				3			
				3			
12				3			
13							
14							
15							
	S-4	24/20	15 - 17	3	Same as above, wet, loose, SP		
16				4			
				3	Gray SAND, little Silt, wet, loose, SP-SM		16'
17				4			
18							
19							
20							
					End of exploration, running sand plugged augers,		20'
21					unable to advance drilling rods to 20'		
22							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES:

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition

Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-5**

Project: Manufacturing Facility
Location: Fourth Street - BNAS Base
Brunswick, Maine

Project #: 10111
Sheet: 1 of 4
Chkd by: WMP

Drilling Co: Northern Test Boring
Personnel: Nick Voltolina
Summit Staff: Adam Lyons, E.I.

Boring Location: South wall of building 294
Elevation: 73' +/- from siteplan topography
Date started: 12/3/2010 Date Completed: 12/3/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4 " Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/3/2010	8' +/-	65' +/-	Observed moisture change in sample

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
					Pavement = 3.5 inches		PAVEMENT
1	S-1	24/14	0.5 - 2.5	9	Brown SAND, little Gravel, trace Silt, damp,		0.3' FILL
				11	compact, SP		1.1'
2				8	Brown SAND, trace Silt, damp, compact, SP		MARINE
				8			REGRESSIVE
3							
4							
5							
	S-2	24/24	5 - 7	4	Same as above, moist, loose, SP		
6				5			
				18	Dark brown fine SAND, little to some Silt,		6'
7				34	trace organics, moist, dense, SM		
							7'
8							
9							
10							
	S-3	24/24	10 - 12	6	Brown SAND, trace Silt, wet, loose, SP		
11				4			
				5			
12				6			
13							
14							
							14' +/-
15							
	S-4	24/12	15 - 17	8	Gray - brown fine SAND, little to some Silt,	Gravel = 0%	
16				9	wet, compact, SM	Sand = 50.5%	
				9		Silt = 49.5%	
17				11		w = 27.8%	
18							
19							
20							
	S-5	24/12	20 - 22	2	Gray Silty SAND, little Clay, wet, loose, SM		
21				3			
				3	Clay seam 21.3' - 21.6'		
22				5			

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES:

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-5**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	2 of 4
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	South wall of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/3/2010	Date Completed: 12/3/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4 " Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/3/2010	8' +/-	65' +/-	Observed moisture change in sample

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
							MARINE
23							REGRESSIVE
24							
25							
	S-6	24/14	25 - 27	3	Gray Silty SAND, little Clay, wet, loose, SM		
26				3			
				10			
27				8			
28							
29							
30							
	S-7	24/24	30 - 32	2	Gray SILT, little to some SAND, wet, firm, ML		30' +/-
31				2			
				2	Clayey seams present 30.4' to 30.8' and 31.2' - 31.4'	pp = 1000 psf	
32				2			
33							
34							
35							
	S-8	24/10	35 - 37	7	Same as above, wet, firm, ML		
36				7			
				2	Interbedded with clay seams		
37				1			
38							
39							
40							
	S-9	24/24	40 - 42	2	Gray Silty CLAY, trace to little Sand, wet, soft, CL		40' +/-
41				1	Sand seam 40.8' to 40.9'	pp = 1500 psf	
				2			
42				1	Sand seam 41.5' to 42'		
43							
44							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES: pp = pocket penetrometer

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-5**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	3 of 4
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	South wall of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/3/2010	Date Completed: 12/3/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4 " Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/3/2010	8' +/-	65' +/-	Observed moisture change in sample

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
							MARINE
45							REGRESSIVE
					Sv = 780 psf, 55 psf remold at 45'		
46					Sv = 815 psf, 45 psf remold at 45.8'		
47					Hydraulic rod probe advancement to 55'		
48							
49							
50							
51							
52							
53							
54							
55							
				2	Auto hammer rod probe advancement to refusal		
56				2			
				2			
57				2			
				2			
58				2			
				2			
59				3			
				2			
60				2			
				2			
61				2			
				3			
62				2			
				2			
63				2			
				3			
64				2			
				2			
65				2			
				3			
66				2			
				3			

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES: Sv = field shear vane

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-5**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	4 of 4
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	South wall of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/3/2010	Date Completed: 12/3/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4 " Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/3/2010	8' +/-	65' +/-	Observed moisture change in sample

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
				3	Auto hammer rod probe advancement to refusal		MARINE
67				2			REGRESSIVE
				3			
68				2			
				2			
69				3			
				2			
70				3			
				2			
71				3			
				2			
72				3			
				3			
73				2			
				3			
74				2			
				3			
75				3			
				3			
76				2			
				3			
77				2			
				3			
78				3			
				3			
79				3			
				3			
80				2			
				3			
81				2			
				3			
82				3			
				3			
83				3			
				2			
84				3			
				6			
85				25			
				22			
86				10			
				6			
87				50/2"			
					End of exploration, rod refusal on dense stratum		86.7'
88							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES:

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition

Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-7**

Project: Manufacturing Facility
Location: Fourth Street - BNAS Base
Brunswick, Maine

Project #: 10111
Sheet: 1 of 5
Chkd by: WMP

Drilling Co: Northern Test Boring
Personnel: Nick Voltolina
Summit Staff: Adam Lyons, E.I.

Boring Location: West wall of building 294
Elevation: 73' +/- from siteplan topography
Date started: 12/6/2010 Date Completed: 12/6/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4" Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/6/2010	8.5' +/-	64.5' +/-	Observed on rods

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/20	0 - 2	2	Dark brown Sandy SILT, damp, loose, ML		TOPSOIL
1				3	Light brown SAND, trace to little Silt, damp,		0.7'
				3	loose, SP-SM		
2				3			
3							
4							
5							
	S-2	24/16	5 - 7	5	Same as above, moist, compact, SP-SM		
6				7	Dark brown Silty fine SAND, moist to wet,		5.5'
				12	compact, SM		
7				15			
8							
9							
10							
	S-3	24/15	10 - 12	4	Same as above, wet, compact, SM		
11				5	Gray SAND, some Silt, wet, loose, SM		10.5'
				7			
12				7	3" gray clayey silt layer in spoon tip		
13							
14							
15							
	S-4	24/16	15 - 17	3	Brown SAND, trace to little Silt, wet, loose, SP-SM		15' +/-
16				1			
				1			
17				1			
18							
19							
20							
	S-5	24/13	20 - 22	7	Same as above, little Silt, wet, compact, SP-SM		
21				8			
				8			
22				7			

Granular Soils		Cohesive Soils		% Composition		NOTES:	Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency				Dry: S = 0%
0-4	V. Loose	<2	V. soft			Bedrock Joints	Humid: S = 1 to 25%
4-10	Loose	2-4	Soft	<5%	trace	Shallow = 0 to 35 degrees	Damp: S = 26 to 50%
10-30	Compact	4-8	Firm	5-15	little	Dipping = 35 to 55 degrees	Moist: S = 51 to 75%
30-50	Dense	8-15	Stiff	15-25	some	Steep = 55 to 90 degrees	Wet: S = 76 to 99%
>50	V. Dense	15-30	V. Stiff	>25	and		Saturated: S = 100%
		>30	Hard			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches	

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-7**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	2 of 5
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	West wall of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/6/2010	Date Completed: 12/6/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4" Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/6/2010	8.5' +/-	64.5' +/-	Observed on rods

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
					Rotary wash advancement to 30'		
23							
24							
25							
26							
27							
28							
29							
30							
					Hydraulic rod probe advancement to 31'		
31							
				8	Auto hammer rod probe advancement to refusal		
32				8			
				9			
33				13			
				10			
34				8			
				12			
35				11			
				10			
36				9			
				10			
37				8			
				9			
38				10			
				9			
39				10			
				8			
40				9			
				10			
41				9			
				8			
42				9			
				10			
43				10			
				12			
44				15			
				13			

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES:

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition

Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-7**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	3 of 5
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	West wall of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/6/2010	Date Completed: 12/6/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4" Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/6/2010	8.5' +/-	64.5' +/-	Observed on rods

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
				13	Auto hammer rod probe advancement to refusal		
45				13			
				12			
46				14			
				17			
47				15			
				12			
48				13			
				15			
49				11			
				8			
50				12			
				14			
51				10			
				7			
52				8			
				7			
53				8			
				10			
54				7			
				6			
55				6			
				6			
56				6			
				5			
57				5			
				6			
58				7			
				6			
59				7			
				7			
60				5			
				5			
61				7			
				5			
62				5			
				7			
63				6			
				5			
64				6			
				4			
65				4			
				5			
66				4			
				4			

Granular Soils		Cohesive Soils		% Composition		NOTES:	Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency				Dry: S = 0%
0-4	V. Loose	<2	V. soft			Bedrock Joints	Humid: S = 1 to 25%
4-10	Loose	2-4	Soft	<5%	trace	Shallow = 0 to 35 degrees	Damp: S = 26 to 50%
10-30	Compact	4-8	Firm	5-15	little	Dipping = 35 to 55 degrees	Moist: S = 51 to 75%
30-50	Dense	8-15	Stiff	15-25	some	Steep = 55 to 90 degrees	Wet: S = 76 to 99%
>50	V. Dense	15-30	V. Stiff	>25	and		Saturated: S = 100%
		>30	Hard			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches	

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-7**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	4 of 5
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	West wall of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/6/2010	Date Completed: 12/6/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4" Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/6/2010	8.5' +/-	64.5' +/-	Observed on rods

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
				4	Auto hammer rod probe advancement to refusal		
67				3			
				6			
68				5			
				6			
69				5			
				5			
70				5			
				4			
71				5			
				4			
72				5			
				6			
73				6			
				6			
74				8			
				6			
75				6			
				6			
76				5			
				5			
77				6			
				6			
78				6			
				6			
79				5			
				5			
80				5			
				5			
81				6			
				6			
82				7			
				6			
83				6			
				6			
84				5			
				6			
85				6			
				7			
86				7			
				7			
87				6			
				6			
88				6			
				7			

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES:

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition

Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-7**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	5 of 5
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	West wall of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/6/2010	Date Completed: 12/6/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4" Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/6/2010	8.5' +/-	64.5' +/-	Observed on rods

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
				7	Auto hammer rod probe advancement to refusal		
89				8			
				7			
90				7			
				6			
91				6			
				7			
92				6			
				6			
93				7			
				7			
94				8			
				7			
95				7			
				8			
96				8			
				7			
97				7			
				8			
98				10			
				7			
99				8			
				7			
100				7			
				8			
101				8			
				7			
102				7			
				8			
103				20			
				50/3"			
104					End of exploration, rod refusal		103.5' BEDROCK
105							
106							
107							
108							
109							
110							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES:

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition

Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-10**

Project: Manufacturing Facility
Location: Fourth Street - BNAS Base
Brunswick, Maine

Project #: 10111
Sheet: 1 of 4
Chkd by: WMP

Drilling Co: Northern Test Boring
Personnel: Nick Voltolina
Summit Staff: Adam Lyons, E.I.

Boring Location: North wall of building 294
Elevation: 73' +/- from siteplan topography
Date started: 12/3/2010 Date Completed: 12/3/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4 " Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/3/2010	5.4' +/-	67.6' +/-	Measured in borehole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
					Pavement = 5 inches		PAVEMENT
1	S-1	24/17	0.5 - 2.5	13	Brown Sandy GRAVEL, trace Silt, damp,		0.4' FILL
				14	compact, GP		1.1'
2				13	Brown SAND, little Silt, damp, compact, SP-SM		MARINE
				8			REGRESSIVE
3							
4							
5							
	S-2	24/16	5 - 7	3	Same as above, moist, loose, SP-SM		
6				7	Dark brown Silty SAND, trace organics, moist,		5.5'
				11	compact, SM		
7				11	Light brown SAND, little Silt, moist to wet,		6.5'
					compact, SP-SM		
8							
9							
10							
	S-3	24/22	10 - 12	8	Brown SAND, little Silt, wet, compact, SP-SM		
11				8			
				6			
12				7			
13							
14							
15							
	S-4	24/13	15 - 17	5	Same as above, wet, compact, SP-SM		
16				6	Orange stain at 15.4'		
				6	Gray to brown Silty fine SAND, wet, compact, SM		16'
17				7			
18							
19							
20							
	S-5	24/13	20 - 22	5	Gray fine SAND, little to some Silt, wet, compact, SM		
21				6			
				6			
22				5			
					Rotary wash advancement to 30'		

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES:

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition

Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-10**

Project: Manufacturing Facility
Location: Fourth Street - BNAS Base
Brunswick, Maine

Project #: 10111
Sheet: 2 of 4
Chkd by: WMP

Drilling Co: Northern Test Boring
Personnel: Nick Voltolina
Summit Staff: Adam Lyons, E.I.

Boring Location: North wall of building 294
Elevation: 73' +/- from siteplan topography
Date started: 12/3/2010 Date Completed: 12/3/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4 " Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/3/2010	5.4' +/-	67.6' +/-	Measured in borehole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
					Rotary wash advancement to 30'		MARINE
23							REGRESSIVE
24							
25							
26							
27							
28							
29							
30							
				3	Auto hammer rod probe advancement to refusal		
31				2			
				3			
32				4			
				5			
33				6			
				16			
34				22			
				21			
35				12			
				6			
36				14			
				16			
37				14			
				13			
38				15			
				8			
39				10			
				9			
40				10			
				9			
41				13			
				10			
42				12			
				10			
43				11			
				8			
44				10			
				8			

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES:

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-10**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	3 of 4
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	North wall of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/3/2010	Date Completed: 12/3/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4 " Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/3/2010	5.4' +/-	67.6' +/-	Measured in borehole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
				8	Auto hammer rod probe advancement to refusal		MARINE
45				8			REGRESSIVE
				7			
46				8			
				6			
47				7			
				8			
48				8			
				7			
49				8			
				7			
50				7			
				7			
51				5			
				5			
52				6			
				6			
53				8			
				6			
54				6			
				5			
55				6			
				6			
56				7			
				7			
57				6			
				7			
58				7			
				7			
59				7			
				6			
60				6			
				6			
61				6			
				5			
62				7			
				7			
63				7			
				7			
64				7			
				7			
65				7			
				5			
66				6			
				7			

Granular Soils		Cohesive Soils		% Composition		NOTES:	Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency				Dry: S = 0%
0-4	V. Loose	<2	V. soft			Bedrock Joints	Humid: S = 1 to 25%
4-10	Loose	2-4	Soft	<5%	trace	Shallow = 0 to 35 degrees	Damp: S = 26 to 50%
10-30	Compact	4-8	Firm	5-15	little	Dipping = 35 to 55 degrees	Moist: S = 51 to 75%
30-50	Dense	8-15	Stiff	15-25	some	Steep = 55 to 90 degrees	Wet: S = 76 to 99%
>50	V. Dense	15-30	V. Stiff	>25	and		Saturated: S = 100%
		>30	Hard			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches	

SUMMIT
GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Manufacturing Facility	Boring #:	**B-10**
Location:	Fourth Street - BNAS Base	Project #:	10111
	Brunswick, Maine	Sheet:	4 of 4
		Chkd by:	WMP

Drilling Co:	Northern Test Boring	Boring Location:	North wall of building 294
Personnel:	Nick Voltolina	Elevation:	73' +/- from siteplan topography
Summit Staff:	Adam Lyons, E.I.	Date started: 12/3/2010	Date Completed: 12/3/2010

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Type:	24" SS
Model:	Diedrich D-50	Hammer:	140 lb
Method:	4 " Casing/RW	Fall:	30"

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
12/3/2010	5.4' +/-	67.6' +/-	Measured in borehole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	Blows/6 in.	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
				7	Auto hammer rod probe advancement to refusal		MARINE
67				6			REGRESSIVE
				6			
68				6			
				7			
69				8			
				8			
70				6			
				6			
71				8			
				7			
72					Hydraulic rod probe advancement to dense stratum		
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
					End of exploration, rod refusal on dense stratum		82'
83							
84							
85							
86							
87							
88							

Granular Soils		Cohesive Soils		% Composition	
Blows/ft.	Density	Blows/ft.	Consistency		
0-4	V. Loose	<2	V. soft		
4-10	Loose	2-4	Soft	<5%	trace
10-30	Compact	4-8	Firm	5-15	little
30-50	Dense	8-15	Stiff	15-25	some
>50	V. Dense	15-30	V. Stiff	>25	and
		>30	Hard		

NOTES:

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Soil Moisture Condition

Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

KEY TO NOTES & SYMBOLS

Test Boring and Test Pit Explorations

Stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q_u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S_v	-	field vane shear strength, kips/sq. ft.
L_v	-	lab vane shear strength, kips/sq. ft.
q_p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W_L	-	liquid limit - Atterberg test
W_P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ_T	-	total soil weight
γ_B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	½" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: **Test Boring Explorations** - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: **Test Pit Explorations** - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

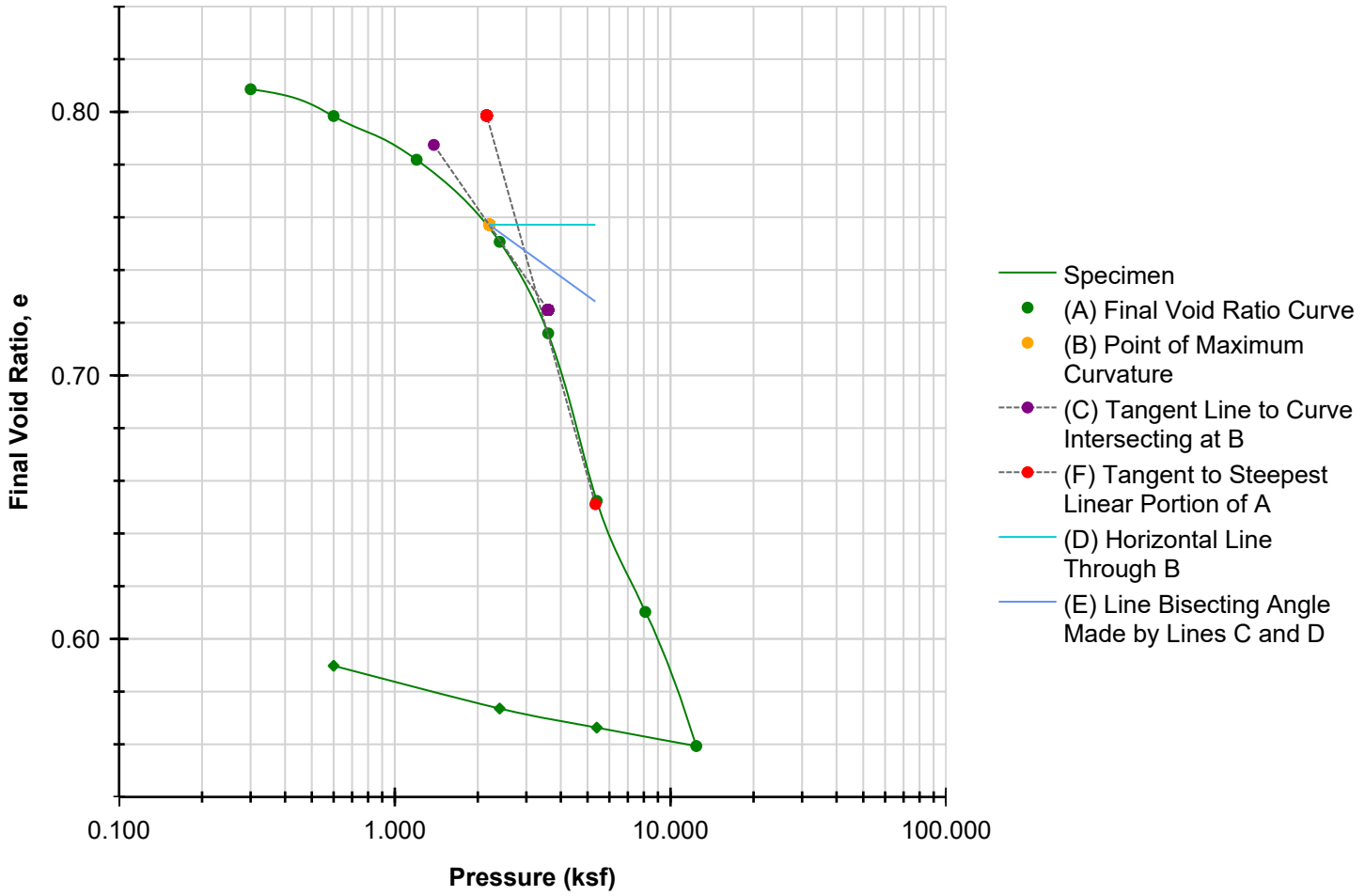
APPENDIX D

Laboratory Testing Results

S. W. Cole Engineering, Inc.
10 Centre Road, Somersworth, NH 03878
603-692-0088

Final Voids [Log]

ASTM D2435



Preconsolidation Stress (ksf)	2.950	**Cc**	0.395	**Cr**	0.049

	BEFORE	AFTER			
			Liquid Limits	39	**Test Date** 8/21/2025
Moisture (%)	31.6	30.2	**Plastic Limits**	19	
Dry Density (pcf)	93.2	102.1			
Saturation (%)	104.7	123.7			
Void Ratio	0.82	0.66	**Specific Gravity**	2.72	ASSUMED

Sample Description				
Project Number	24-2370	**Depth (ft)**	25-27	**Remarks**
Sample Number	1U	**Boring Number**	B-102	
Project	Proposed MoInlycke Expansion			
Client	SMRT			
Location	Brunswick, ME			

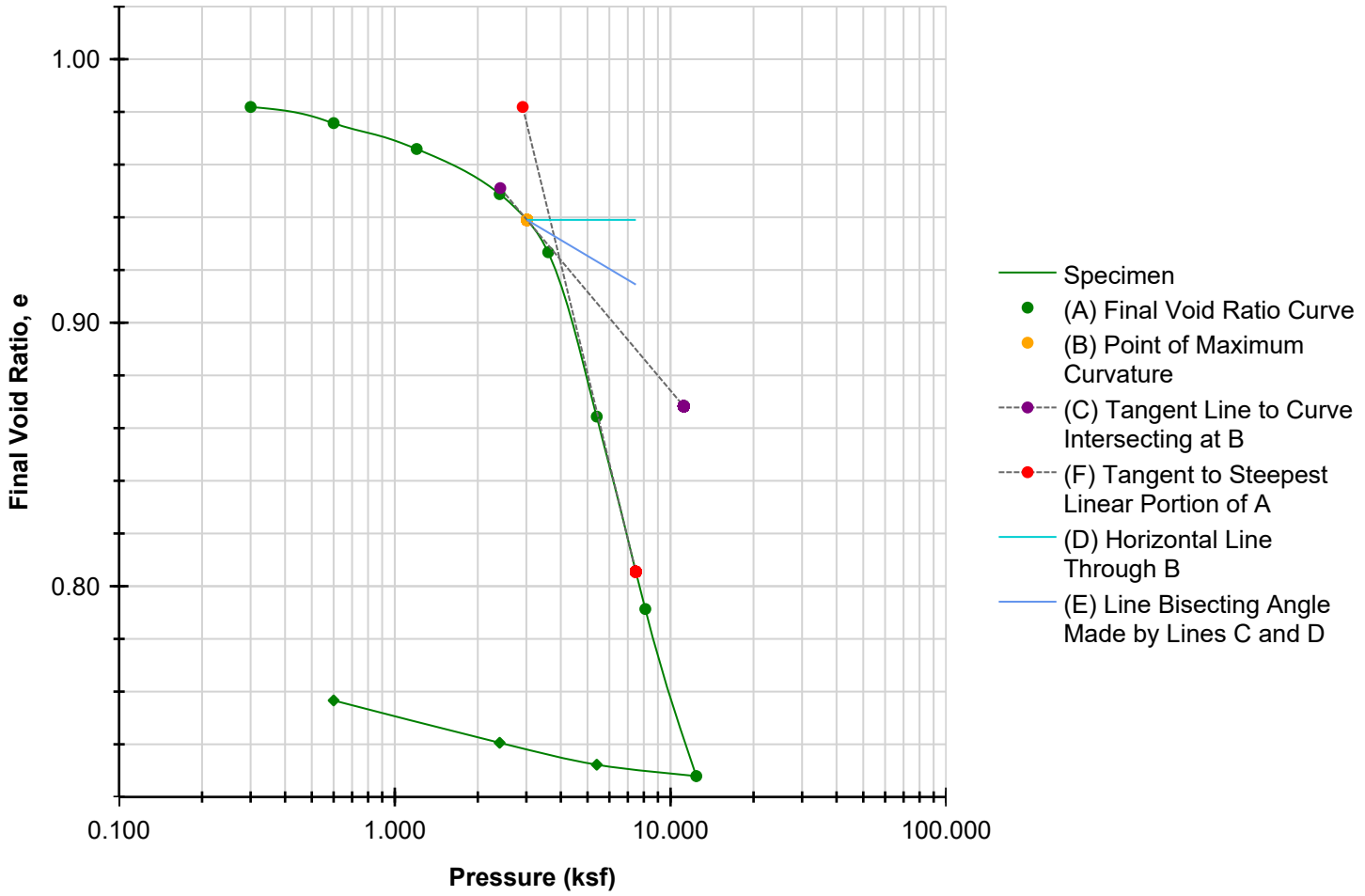
Project Name: Proposed MoInlycke Expansion Project Number: 24-2370

Technician: Test Date: 8/21/2025 Checked By: _____ Date: _____

S. W. Cole Engineering, Inc.
10 Centre Road, Somersworth, NH 03878
603-692-0088

Final Voids [Log]

ASTM D2435



Preconsolidation Stress (ksf)	3.782	**Cc**	0.350	**Cr**	0.026

	BEFORE	AFTER			
			Liquid Limits	35	**Test Date** 9/2/2025
Moisture (%)	36.6	30.3	**Plastic Limits**	22	
Dry Density (pcf)	85.2	95.2			
Saturation (%)	100.1	105.3			
Void Ratio	0.99	0.78	**Specific Gravity**	2.72	ASSUMED

Sample Description				
Project Number	24-2370	**Depth (ft)**	35-37	**Remarks**
Sample Number	2U	**Boring Number**	B-102	
Project	Proposed MoInlycke Expansion			
Client	SMRT			
Location	Brunswick, ME			

Project Name: Proposed MoInlycke Expansion Project Number: 24-2370

Technician: Test Date: 9/2/2025 Checked By: _____ Date: _____

Exhibit 11a

MAP UNIT SYMBOL	MAP UNIT NAME	ACRES IN AOI	PERCENT OF AOI
Md	Made Land	11.6	100.0%

Map Scale: 1:2,470 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 35 70 140 210

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

NRCS SOILS MAP

Molnlycke Health Care - Brunswick Landing

Brunswick, Maine

OCTOBER 2025

SMRT

Architecture • Engineering • Planning

Wendy MacDaniels

From: Gary Fullerton <gfullerton@sebagotechnics.com>
Sent: Friday, September 19, 2025 4:49 PM
To: Wendy MacDaniels
Cc: Melissa Flynn
Subject: RE: Molnlycke Brunswick Landing Soils testing
Attachments: 250560soillog.pdf

Hi Wendy,

Attached is the test pit log I provided to Evan. This would be Adams soils with fill over the top. Two of the test pits contained no original soil and inside the old building footprint so I couldn't really describe a 'best fit' soil series. Let me know if you still have any questions.

Gary Fullerton, LSS, LSE, CWS
Director, Natural Resources
Sebago Technics, Inc. | An Employee-Owned Company
75 John Roberts Rd., Suite 4A, South Portland, ME 04106
Office: 207.200.2100 | Direct: 207.200.2063 | Mobile: 207.232.1758
gfullerton@sebagotechnics.com | https://link.edgepilot.com/s/ee512696/u4yy7konLEC6DJO0Q4sM1w?u=http://www.sebagotechnics.com/

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From: Wendy MacDaniels <WMACDANIELS@smrtinc.com>
Sent: Wednesday, September 17, 2025 11:45 AM
To: Gary Fullerton <gfullerton@sebagotechnics.com>
Cc: Melissa Flynn <mflynn@smrtinc.com>
Subject: [External] Molnlycke Brunswick Landing Soils testing

Hi Gary,

Evan Walker at SW Cole gave me your contact information as we recently had Cole do some test pits for us at the Molnlycke Health Care site on Admiral Fitch Avenue in Brunswick Landing. I am hoping you can help solve a mystery. The NRCS soils report gives a soil category of "made land", which DEP has told us will not be an acceptable classification for our permitting efforts. We know the site was filled (probably repeatedly) with random soils and debris, so this classification makes sense from NRCS's perspective. Should we describe the soils as type A without a classification, or is there a standard classification we can refer to for this type of situation? I have attached the NRCS report.

Thank you,

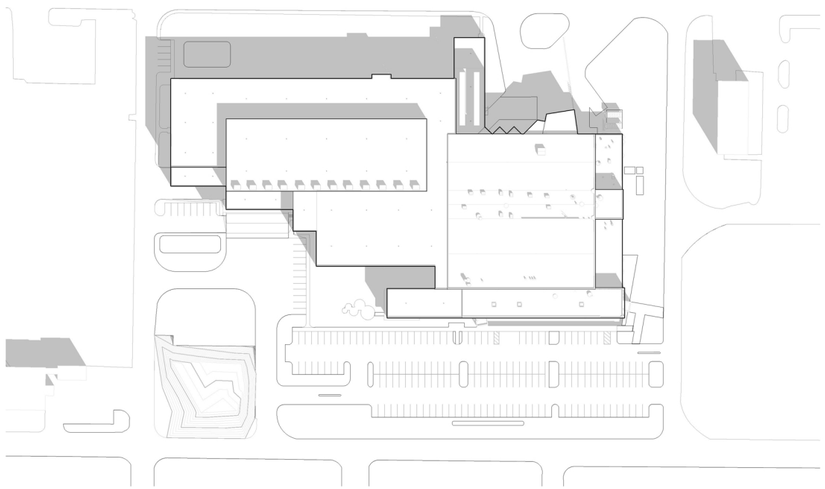
Wendy MacDaniels EI
Civil Engineer

SMRT Architects and Engineers
| d: 207.321.3894
smrtinc.com

Links contained in this email have been replaced. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

ATTACHMENTS 15a and 15b

Exhibit 24a



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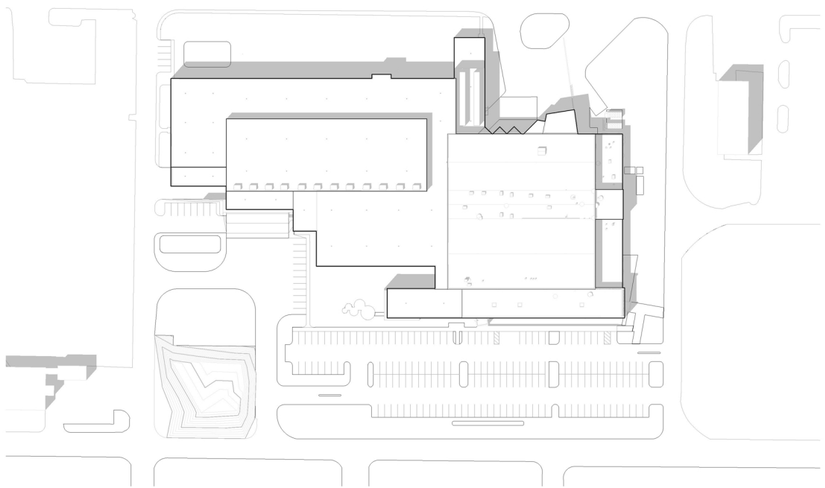
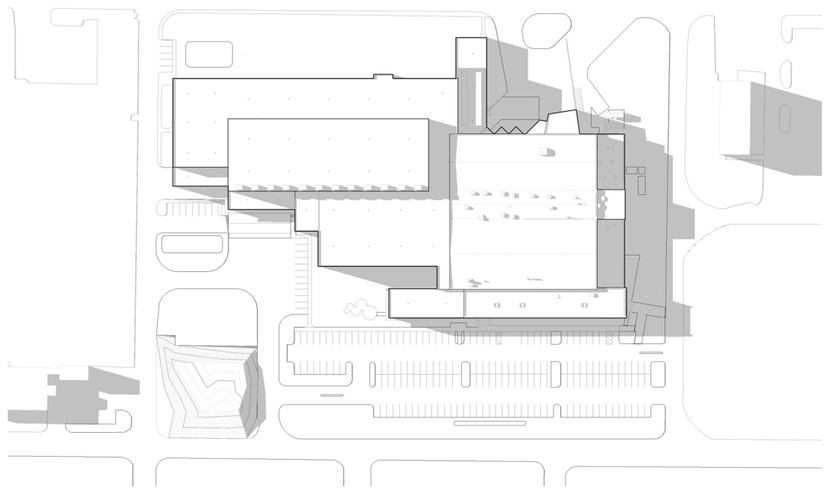


NOON

FALL EQUINOX



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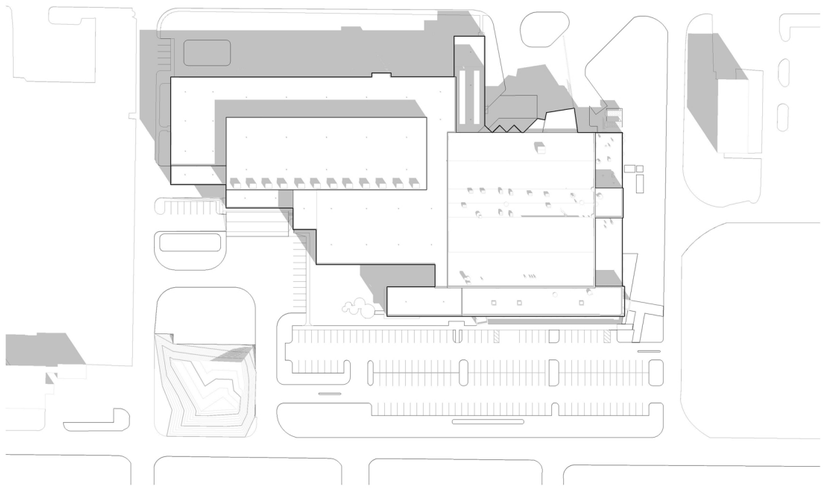

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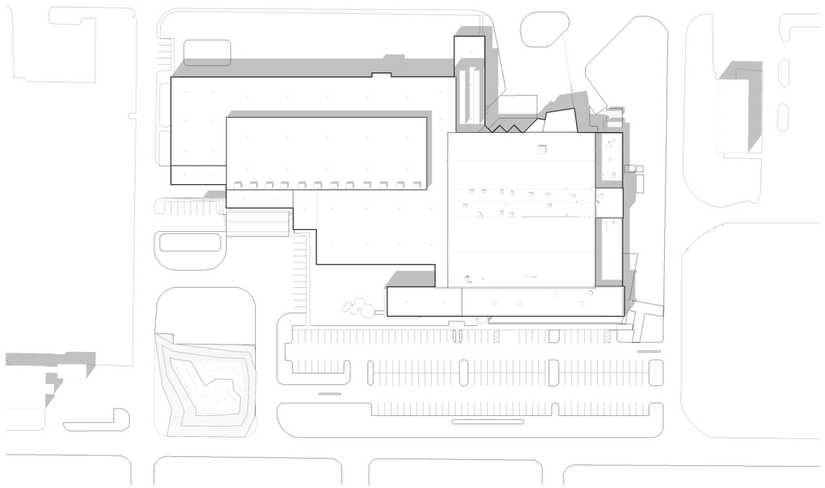
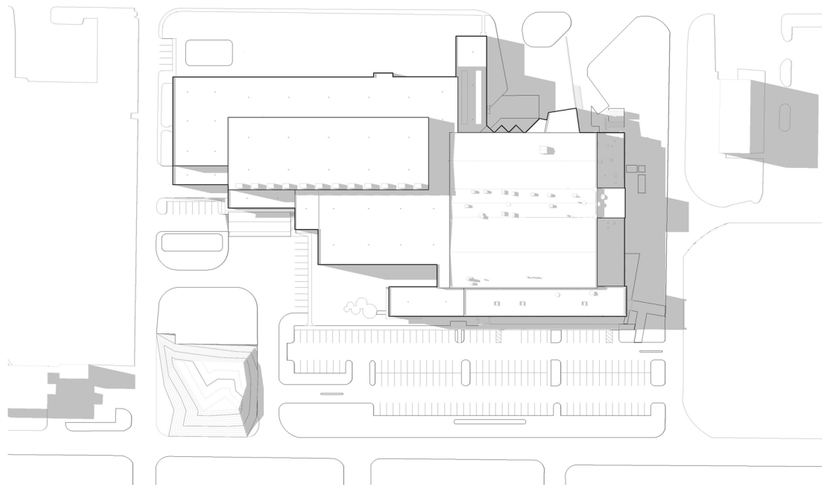


NOON

SPRING EQUINOX



4:00 PM

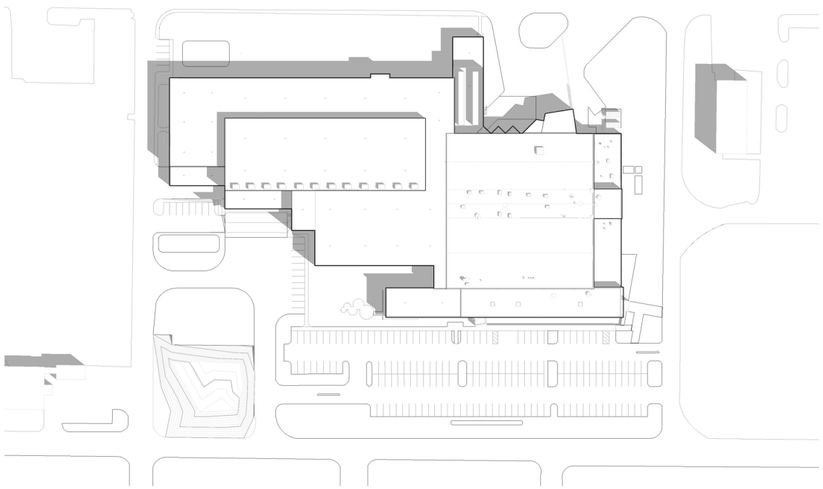
Renderings are for representation purposes only. Refer to contract documents for project requirements.

SOLAR STUDY - EQUINOXES

Molnlycke Health Care Expansion

SMRT

Exhibit 24b



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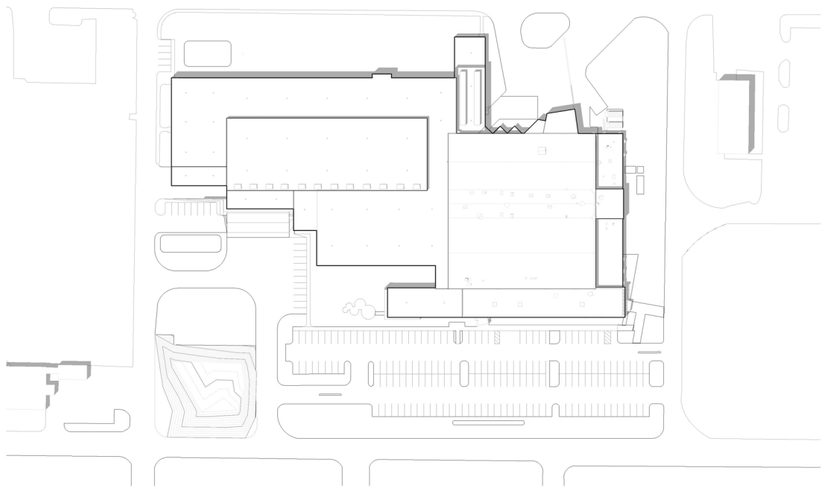
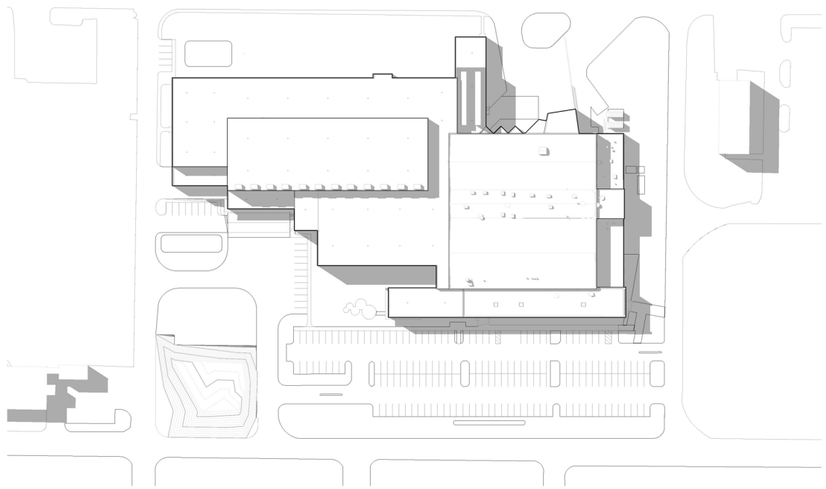


NOON

SUMMER SOLSTICE



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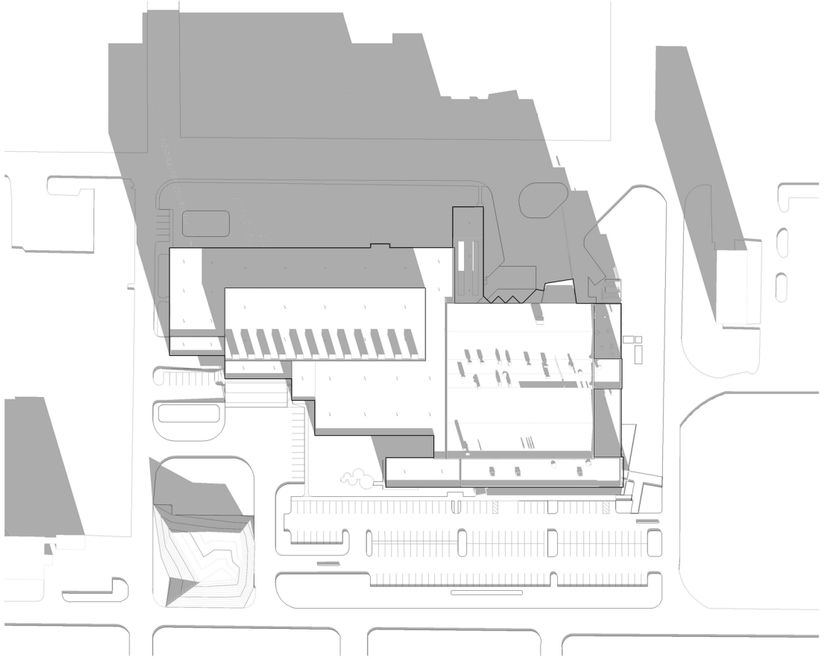

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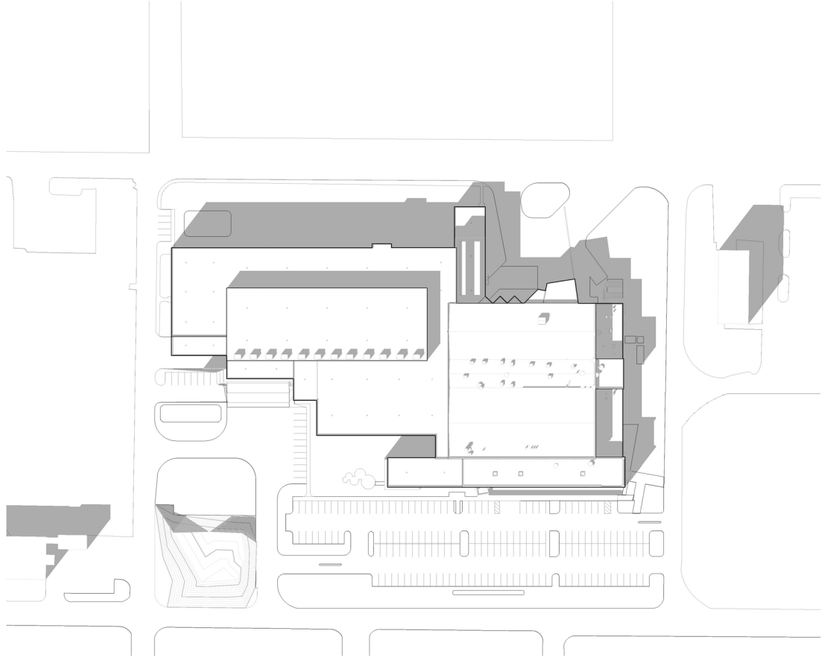
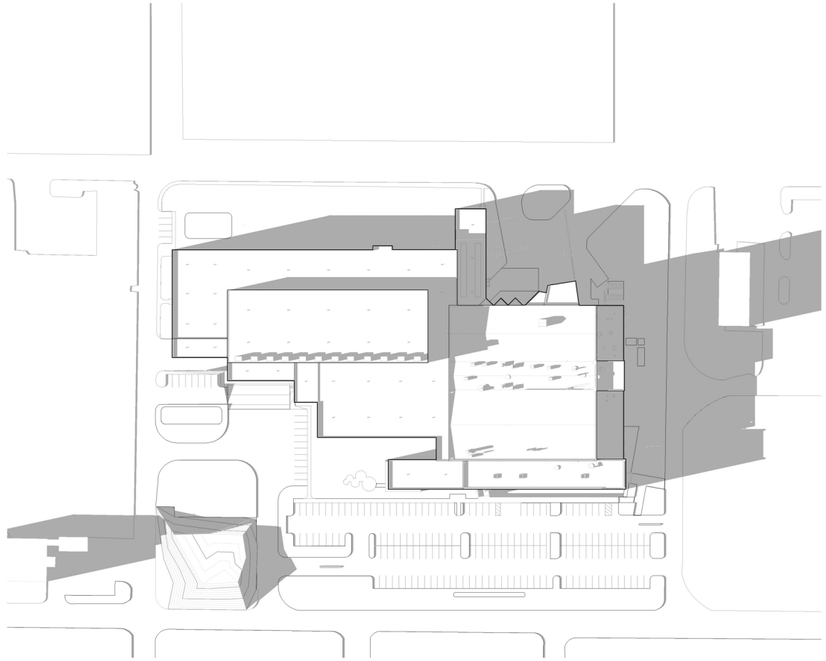


NOON

WINTER SOLSTICE



3:00 PM

Renderings are for representation purposes only. Refer to contract documents for project requirements.

SOLAR STUDY - SOLSTICES

Molnlycke Health Care Expansion

SMRT

ATTACHMENTS 16a, 16b, 16c, 17, 18, 19, 20

LEASE AGREEMENT

BY AND BETWEEN

BRUNSWICK LANDING MHC USA, LLC,

A MAINE LIMITED LIABILITY COMPANY,

AS LANDLORD

AND

MOLNLYCKE MANUFACTURING US, LLC,

A DELAWARE LIMITED LIABILITY COMPANY,

AS TENANT

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LIST OF EXHIBITS

EXHIBIT A-1 – Plan Showing Premises (Site Layout Plan)
EXHIBIT A-2 – Survey Description of Premises
EXHIBIT A-3 - Title Encumbrances
EXHBIIT A-4 -- Form of non-disturbance, attornment and recognition agreement
EXHIBIT B – Base Rent Schedule
EXHIBIT C – Base Building Work
EXHIBIT C-1 - Site Work
EXHIBIT D - Copy of Construction Contract
EXHIBIT E – Form of Confirmation of Occupancy Commencement Date

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "Lease") is dated as of November 2, 2011 (the "Effective Date"), by and between **BRUNSWICK LANDING MHC USA, LLC,** a Maine limited laibility company ("Landlord") and **MOLNLYCKE MANUFACTURING US, LLC**, a Delaware limited liability company ("Tenant").

ARTICLE 1
DEFINITIONS

1.1 Building: The building located in the complex known as "Brunswick Landing" in Brunswick, Maine, containing approximately seventy-nine thousand (79,000) rentable square feet, to be located on Lot 1-A as shown on on Exhibit A-1, which Building is located on a parcel of land known as Lot 1-A (the "Land") as more particularly shown and described Exhibit A-2. The Land is leased to Landlord by Midcoast Regional Redevelopment Authority ("MRRA") under a certain Ground Lease by and between Landlord and MRRA dated November 2, 2011 (the "Ground Lease"). Landlord agrees to cause MRRA to timely perform all of its obligations under the Ground Lease, including without limitation its operations and maintenance obligations with respect to the common roads, utilities and signage for the Complex The Land is subject only to those easements, covenants, agreements, and restrictions of record listed on Exhibit A-3 attached hereto. Landlord shall deliver to Tenant an executed non-disturbance, attornment and recognition agreement in the form attached hereto as Exhibit A-4 from MRRA simultaneously with the execution of this Lease.

1.2 Premises: The Land, including sufficient rights and easements, in common with others, for vehicular and pedestrian access over direct, useful and convenient roads, utility services, signage rights, and the entire Building, containing approximately seventy-nine thousand (79,000) rentable square feet, and being the entire rentable area of the Building. The Building as it shall be initially constructed, together with the Land, is sometimes referred to as the "Initial Premises." In the event that the Premises are expanded following an election by Tenant pursuant to Article 25.1 below, upon substantial completion of construction of the Expansion Premises as defined in Article 25 below, the Premises shall be deemed to include both the Initial Premises and the Expansion Premises. Until substantial completion of the Expansion Premises, the term "Premises" shall refer solely to the Initial Premises. In the event that additional parcels become subject to this Lease as a result of Tenant's exercise of the option provided in Article 25.2 below, the Premises shall be deemed to also include the land leased pursuant to the exercise of said option. The leasehold interest of Landlord in the Land and the Premises are sometimes referred to herein as the "Property."

1.3 Tenant's Proportionate Share: Tenant shall pay all (100%) of the Real Estate Taxes, subject to Landlord's obligation in Section 5.3 below to refund 50% of all funds received from the Town of Brunswick attributable to the Lease Term pursuant to any tax increment financing arrangement.

1.4 Lease Term: Twenty (20) Years commencing on the Occupancy Commencement Date, subject to early termination by Tenant as provided below in Section 3.1(b) and to renewal as provided in Section 3.5.

1.5 Anticipated Occupancy Date: February 21, 2013.

1.6 Base Rent: Base Rent as set forth in Exhibit B hereto, payable beginning effective on the date of this Lease Agreement.

1.7 Base Rent Annual Escalation: As set forth in Exhibit B hereto.

1.8 Security Deposit: NONE

1.9 Broker(s): NONE

1.10 Tenant Address for Notices: 11 Twin Rivers Drive, Wiscasset, Maine 04578 (Attn: Mr. James W. Detert) with copy to John L. Carpenter, Bernstein, Shur, Sawyer & Nelson, 100 Middle Street, P.O. Box 9729, Portland, Maine 04104-5029, until the Occupancy Commencement Date and after the Lease Comencement Date at the address of the Premises (with copy to John L. Carpenter, Bernstein, Shur, Sawyer & Nelson, 100 Middle Street, P.O. Box 9729, Portland, Maine 04104-5029 and a copy to Shawna Traynor, Senior Company Counsel, Molnlycke Healthcare, 5550 Peachtree Parkway, Suite 500, Norcross, GA 30092).

1.11 Complex: that complex (of which the Building is a part) known as Brunswick Landing, Brunswick, Maine, and including all easements, rights and appurtenances thereto (including private streets, storm detention facilities and any other service facilities).

1.12 Guarantor(s): Molnlycke Healthcare US LLC, a Delaware limited liability company.

1.13 Landlord Address for Notices: c/o Midcoast Regional Redevelopment Authority, 5450 Fitch Avenue, Brunswick, Maine 04011.

ARTICLE 2
LEASED PREMISES

2.1 Tenant leases the Premises from Landlord upon the terms stated herein.

2.2 MRRA presently is a party to a Purchase and Sale Agreement with the United States of America, Department of the Navy, pursuant to which it expects to be conveyed the additional parcel of land shown as Lot 1-B on Exhibit A-1 and more particularly described on Exhibit A-2-A (the "Supplemental Land"). Upon any receipt of such conveyance, MRRA shall notify Tenant in writing of the conveyance of the Supplemental Land and shall add the Supplemental Land to the Ground Lease within sixty days of MRRA's receipt of the Supplemental Land unless Landlord or Tenant objects in writing to MRRA before such sixtieth day. In the event that MRRA adds the Supplemental Land to the Ground Lease, Landlord and Tenant shall promptly execute an amendment to this Lease Agreement to add the Supplemental Land to this Lease Agreement. There shall be no change to the Base Rent as a result of the addition of the Supplemental Land. After the Supplemental Land had been added to this Lease Agreement, all references herein to the Land shall include the Supplemental Land. If the Supplemental Land is added to this Lease Agreement as provided in this Section 2.2, Landlord shall demolish, or cause MRRA to demolish, the presently existing building (commonly known as Building 41) located on the Supplemental Land. Landlord shall object only if notified to do so by Landlord's lender(s) after completion of due diligence investigations.

ARTICLE 3
TERM

3.1 (a) The terms and conditions of this Lease shall be effective from the Effective Date. The Lease Term shall commence on the Occupancy Commencement Date specified in Section 3.2 hereinbelow. If the Occupancy Commencement Date is not the first day of a month, then the Lease Term shall be the period set forth in Section 1.4 hereinabove plus the partial month in which the Occupancy Commencement Date occurs. The Lease Term shall also include any properly exercised renewal or extension of the term of this Lease.

(b) Tenant shall have the right to terminate this Lease at any time after expiration of the seven-year New Markets Tax Credit holding period regarding the Initial Premises (expected to occur in December, 2018) by payment to Landlord of all amounts owed by Landlord to CCM Community Development XXII, LLC, its successors or assigns for the construction loans in the combined principal amount of $14,200,000 (the "Construction Loans"), including without limitation all principal, accrued interest, prepayment premiums, and other fees and costs due under the Construction Loan. In the event that the construction of Expansion Premises has commenced or been completed, Tenant's right to terminate shall also be subject to payment by Tenant of all financing, contractual obligations and other costs and expenses actually incurred by Landlord in connection with such Expansion Premises.

3.2 (a) The Occupancy Commencement Date shall be the date on or after the Anticipated Occupancy Date that Landlord delivers possession of the Premises to Tenant following substantial completion of the Base Building Work as described in Exhibit C attached hereto, which Base Building Work shall include the site work as depicted and described on Exhibit C-1 to be attached hereto. Landlord shall construct the Base Building Work pursuant to the Contract Agreement attached hereto as Exhibit D (the "Construction Contract") in a good and workmanlike manner, using good quality materials and in compliance with all applicable municipal, state, and federal laws, regulations, codes, ordinances, and rules and in compliance with any private covenants and restrictions applicable to the Premises. "Substantial completion" shall mean the earlier to occur of (A) the date on which Tenant takes possession of the Premises for beneficial use (i.e., except for purposes of installing trade fixtures), or (B) the later to occur of (i) the date on which Harriman Associates, the architect responsible for administration of the construction of the Base Building Work (the "Project Architect") determines, in its reasonable discretion, that Landlord has fully and finally completed construction of the Base Building Work, but for minor, so-called punch list items which can reasonably be expected to be completed within thirty (30) days of the date of delivery of the Premises to Tenant and which do not materially and adversely affect the operation of Tenant's business on the Premises, and (ii) Landlord has received (and delivered to Tenant) all governmental inspections necessary in connection with the Base Building Work and a certificate of occupancy. Tenant's remedies for any breach or other violation of Landlord's obligations pursuant to this section 3.2(a) shall be limited as provided below in Articles 8 and 15.

(b) If the Occupancy Commencement Date does not occur on the Anticipated Occupancy Date, then, after the Occupancy Commencement Date is ascertained, Landlord shall provide Tenant with a certificate (in the form of Exhibit E attached hereto) confirming such date, and the date of expiration of the initial Lease Term.

(c) If the Occupancy Commencement Date does not occur on the Anticipated Occupancy Date, and Landlord recovers liquidated or other damages under the Construction Contract for delays in the substantial completion of the Base Building Work (a "Delay"), any damages recovered shall be allocated

between Landlord and Tenant as follows: (1) first, to Landlord to reimburse Landlord for the reasonable, actual and verifiable expenses incurred by Landlord to pursue such recovery, including without limitation reasonable attorneys' fees, and actual and verifiable expenses incurred by Landlord directly attributable to the Delay, including without limitation real estate taxes, debt service payments, and utility costs that otherwise would not have been paid by Landlord if not for a Delay, (2), next, to the actual and verifiable expenses incurred by Tenant directly attributable to the Delay, including without limitation storage of furnishings, fixtures and equipment ("FFE") intended to be installed in the Building, penalties paid for delaying delivery of FFE, and wages and other expenses of employees hired to work in the Building but unable to do so because of the Delay, and (3) any remaining such liquidated or other damages so recovered after allocation to (1) and (2) above shall be shared evenly between Landlord and Tenant. Landlord agrees to use commercially reasonable efforts to recover any liquidated or other damages due for a Delay to Landlord under the Construction Contract or otherwise.

3.3 It is presently anticipated that the Premises will be delivered to Tenant on or about the Anticipated Occupancy Date. Such date is subject to Force Majeure Delays. Landlord shall use commercially reasonable efforts to keep Tenant informed of the progress of construction, and any change in the Anticipated Occupancy Date. The Anticicipated Occupancy Date shall be extended by any period of delay in construction of the Base Building Work attributable to "Force Majeure Delay" as hereinafter defined. As used in this Lease, the term "Force Majeure Delay" shall mean any delay in construction of the Base Building Work resulting directly or proximately from any of the following reasons to the extent beyond the reasonable control of Landlord: earthquake; explosion; flood; hurricane; fire or other casualty, the elements; acts of God or public enemy; actions or restrictions of governmental authorities other than MRRA; governmental regulation of the sale of materials or supplies or the transportation thereof; war; invasion; insurrection; rebellion; riots; strikes or lockouts; inability to obtain necessary materials, goods, equipment, services, utilities or labor at commercially reasonable rates and upon commercially reasonable terms; or any other cause whether similar or dissimilar to the foregoing which is beyond the reasonable control of Landlord, including without limitation a delay in the completion of the Base Building Work by the contractor under the Construction Contract due to causes beyond the reasonable control of Landlord.

3.4 Lease Year shall mean a period of twelve (12) consecutive months commencing on the Occupancy Commencement Date as defined in Section 3.2(a) above, and each successive twelve (12) month period thereafter; provided, however, that if the Occupancy Commencement Date is not the first day of a month, then the second Lease Year shall commence on the first day of the month after the first anniversary of the Occupancy Commencement Date occurs.

3.5 Renewal Period. (a) Landlord hereby grants to Tenant the right, exercisable at Tenant's option only if the Tenant is not in default beyond applicable grace or cure periods at the time of exercise, to renew the term of this Lease, for two (2) additional consecutive five (5) year terms (each a "Renewal Term" and collectively the "Renewal Terms"). If an option to renew the then current term is exercised, then each Renewal Term shall commence immediately following the end of the then-current term. Tenant's right of renewal granted hereby (i) may be exercised by Tenant solely as to the entirety of the Premises, and not as to any portion thereof, and (ii) may be exercised by Tenant and any permitted assignee or transferee.

(b) The Base Rent for each Renewal Term shall be as set forth in Exhibit B hereto.

(c) Notice Required. Tenant shall give Landlord written notice of its intent to exercise its option to renew the term of the Lease. Such notice shall be given no more than three hundred and sixty (360) and no less than one hundred eighty (180) days prior to the end of the then-current term. Notwithstanding that Tenant shall have failed to have given written notice to Landlord in accordance with this subsection, Tenant's right to renew the term of this Lease shall nevertheless continue until fifteen (15) days after Landlord shall have given Tenant written notice of its failure to so renew.

(d) Landlord agrees to exercise all extensions of the term of the Ground Lease necessary to provide Tenant with term renewal rights, to the extent such righs are exercised, as provided in this Article 3.

ARTICLE 4
BASE RENT

4.1 Tenant shall pay to Landlord as annual base rent for the Premises, the Base Rent as set forth in Exhibit B hereto. Tenant's obligation to pay the Base Rent shall commence on the Effective Date. Following the Occupancy Commencement Date, with respect to each Lease Year, Landlord shall use its best efforts to divide the Base Rent with respect to such Lease Year into twelve (12) equal monthly installments, shall advise Tenant of the amounts thereof and each such monthly installment shall be due and payable in advance on the first day of each month during each Lease Year. If the Occupancy Commencement Date is not the first day of a month, then the Base Rent from the Occupancy Commencement Date until the first day of the following month shall be prorated on a per diem basis at the rate of one-thirtieth (1/30th) of the monthly installment of the Base Rent payable during the first Lease Year, and Tenant shall pay such prorated installment in advance on the Occupancy Commencement Date. Landlord shall, no less frequently than annually after the Occupancy Commencement Date, provide Tenant with a computation showing the determination of the actual Base Rent for the preceding year, and (1) if the amount so determined exceeds the Base Rent previously paid by Tenant, then Tenant shall pay any difference to Landlord within thirty (30) days and (2) if the amount so determined is less than the Base Rent previously paid by Tenant, then Tenant shall pay be entitled to a credit against the next due installment of Base Rent or a prompt refund of such excess amount if the Lease is by Tenant terminated pursuant to the express provisions of this Lease or the Lease Term has expired.

4.2 Commencing on the first (1st) day of the seventh (7th) Lease Year and on the first (1st) day of every Lease Year thereafter during the Lease Term, the Base Rent in effect shall be adjusted as provided in Exhibit B hereto.

4.3 All sums payable by Tenant shall be paid to Landlord absoutely and unconditionally and without any offset, abatement, deductions or setoff whatsoever and without previous demand therefor, in legal tender of the United States, at the address to which notices to Landlord are to be given or to such other party or such other address as Landlord may designate in writing. Landlord's acceptance of rent after it shall have become due and payable shall not excuse a delay upon subsequent occasions nor constitute a waiver of rights, notwithstanding any endorsement or restriction that Tenant may include with such payment. Tenant's obligation to pay Base Rent and additional rent under this Lease are independent of Landlord's obligations hereunder, and no breach or default by Landlord of any provision hereof shall excuse Tenant from its obligation to pay Base Rent and additional rent. Tenant shall not have any right to terminate this Lease except as expressly provided herein.

ARTICLE 5
REAL ESTATE TAXES

5.1 (a) Tenant shall pay, as additional rent to Landlord, all of the Real Estate Taxes (as defined in Section 5.2(b) hereinbelow) for each calendar year falling entirely or partly within the Lease Term. Landlord shall pay the taxing authority all Real Estate Taxes on or before the date on which such taxes are due.

(b) "Real Estate Taxes" shall mean (1) all real estate taxes, including general and special assessments, ordinary and extraordinary, foreseen and unforeseen, which are imposed or levied upon Landlord or assessed against the Building and/or the Land by the Town of Brunswick, (2) any other present or future taxes or governmental charges that are imposed upon Landlord or assessed against the Building or the Land which are in the nature of or in substitution for real estate taxes, including any tax levied on or measured by the rents payable by Tenant, and (3) all expenses (including attorneys' fees) incurred in seeking a reduction of any real estate taxes through reassessment or abatement. Landlord shall elect to pay any special assessment by installments if such option is offered by the Town of Brunswick, and in such event Real Estate Taxes shall include such installments and interest paid on the unpaid balance of the assessment. Real Estate Taxes shall not include income taxes, transfer, estate or inheritance taxes.

Landlord shall provide to Tenant a semi-annual statement setting forth the amount of the Real Estate Taxes incurred for the half of the tax year for which a tax bill was received (or portion thereof attributable to the Lease Term). Tenant shall pay to Landlord all of such amount within thirty (30) days after receipt of such statement.

5.2 If the Lease Term commences or expires on a day other than the first day or the last day of a calendar year, respectively, then Tenant's liabilities pursuant to this Article 5 for such year shall be adjusted proportionately.

5.3 While this Lease is in effect, MRRA shall pay in immediately-available funds to Tenant, within thirty (30) days of receipt from the Town of Brunswick, Fifty Percent (50%) of the value of all funds or credits received by MRRA attributable to the Premises pursuant to any tax increment financing arrangement during the Lease Term.

ARTICLE 6
USE OF PREMISES

6.1 Tenant shall use the Premises solely for manufacturing, research and development/laboratory and warehouse uses and office uses ancillary thereto. Tenant shall not use the Premises for any other use or purpose. Tenant shall not use the Premises for any unlawful purpose or in any manner that will constitute waste, nuisance or unreasonable annoyance to Landlord or the occupants of any nearby building in the Complex, nor in any manner that would cause the Premises to be deemed a "place of public accommodation" under the Americans With Disabilities Act, as the same may be amended. Landlord represents and warrants to Tenant that Tenant's proposed use of the Premises complies with all the presently applicable zoning and other public or private land-use restrictions and requirements for the Complex. Tenant shall comply at its expense with all present and future laws, ordinances, regulations, and orders (including, without limitation, any regulation requiring the sorting or separation of refuse and trash) except those imposed by MRRA that are in

derogation of Tenant's rights under this Lease, and all existing private covenants, easements, conditions and restrictions listed on Exhibit A-3, concerning the use, occupancy and condition of the Premises and all machinery, equipment, furnishings and activities to be conducted therein ("Applicable Laws"), except to the extent that Landlord's construction of the Base Building Work resulted in a violation of Applicable Laws. If any such law, ordinance, regulation or order requires a use permit for the Premises, then Tenant shall obtain and keep current such permit at Tenant's expense and promptly deliver a copy thereof to Landlord.

The following activities shall not be conducted on the Premises: (1) the rental to others of residential rental property (as defined in Section 168(e)(2)(A) of the Internal Revenue Code (the "Tax Code"); (2) the operation of any private or commercial golf course, country club, massage parlor, hot tub facility, or suntan facility, any race track or other facility used for gambling, any store the principal business of which is the sale of alcoholic beverages for consumption off premises, or any check cashing store; (3) the development or holding of intangibles for sale or license; (4) farming (within the meaning of Section 2032A(e)(5)(A) or (B) of the Tax Code); (5) the operation of any a bank, credit union or other financial institution; (6) any type of sexually oriented business, adult entertainment or adult bookstore; including but not limited to any facility selling or displaying adult or pornographic books, literature, videotapes or materials in any medium, or any facility providing adult entertainment or other adult services (for purposes of this limitation, materials or activities shall be considered "adult" or "pornographic" if the same are not available for sale or rental to children under 18 years old because they explicitly deal with or depict human sexuality); (7) escort services, dating services, or similar matchmaking or companion services; (8) without limitation of (2) above, bingo or similar games of chance, including, without limitation, the sale of lottery tickets; (9) the sale of any firearms, ammunition or weapons, or a shooting gallery of any type; (10) the sale of fireworks, except as an incidental part of another primary business; (11) pay day lending activities, pay day advances, pay check advances, or any similar type of lending activity; (12) pawn shops, pawn brokers, car title Lender (which, for purposes of this limitation, will not include auto loans made by a state or federally chartered bank or thrift), or any similar type of lending activity; (13) check cashing services, except as an incidental part of another primary business or incident to the banking activities of a state or federally chartered bank or thrift; (14) debt collection activities, debt consolidation services, credit repair or credit restoration activities, except as such activities are incidental to banking activities conducted by a state or Federally chartered bank or thrift; (15) bail bond services of any kind, or any activities of a bail bond agent; (16) the sale, distribution, marketing, or production of medical marijuana, medical cannabis or any constituent cannabinoids such as THC, as well as any substance considered to be synthetic cannabinoids (this limitation applies broadly, regardless of whether the activity is conducted by collectives, collective caregivers, co-ops, growers, or any other entity or organization.); (17) the sale, distribution, or manufacture of any type of drug paraphernalia; (18) tattoo parlors or any establishment that performs tattooing; (19) a bar, restaurant or other establishment, the principal business of which is the sale of alcohol for consumption on-premises (for purposes of this limitation, an establishment shall be considered to have the sale of alcohol for consumption on-premises as a principal business if (i) alcohol sales amount to fifty percent (50%) or more of the establishment's gross receipts in any month, (ii) there is no independent, full-service kitchen to service in-restaurant dining, (iii) there are no waiters and table service for dining, (iv) minors are prohibited from entry during all or at specified times of the day in accordance with applicable local laws, or (v) more than 30% of the square footage of the premises is devoted principally to the sale and consumption of alcohol on-premises); (20) businesses based predominantly on inbound or outbound telemarketing activities, except as such calls are an incidental part of another primary business; and (21) multi-level marketing activities, the sale of multi-level business opportunities or network marketing activities.

6.2 Tenant shall pay before delinquency any business, rent or other tax or fee that is now or hereafter assessed or imposed upon Tenant's use of the Premises, the conduct of Tenant's business in the Premises or Tenant's equipment, fixtures, furnishings, inventory or personal property by the Town of Brunswick or the State of Maine. If any such tax or fee is enacted or altered so that such tax or fee is imposed upon Landlord so that Landlord is responsible for collection or payment thereof, then Tenant shall pay the amount of such tax or fee within thirty (30) days after Landlord's demand therefor.

6.3 Tenant shall not (either with or without negligence) generate, use, store, or cause or permit the escape, disposal or release of any Hazardous Materials in or about the Building or the Land or the Complex, except that Tenant may bring such materials or substances into the Premises to use and store in the ordinary course of Tenant's business and in full compliance with Applicable Laws. Notwithstanding any provison in this Lease to the contrary, Landlord understands and agrees that Tenant shall have the right to install various sterilization processes in the Initial Premises or Expansion Premises permitted by Applicable Laws including, but not limited to, Etheylene Oxide sterilization processes, provided that Tenant's use, storage, and disposal of Hazardous Materials in connection with such processes, and in all other respects, complies with Applicable Laws. "Hazardous Materials" shall mean (a) "hazardous wastes," as defined by the Resource Conservation and Recovery Act of 1976, as amended from time to time, (b) "hazardous substances," as defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended from time to time, (c) "toxic substances," as defined by the Toxic Substances Control Act, as amended from time to time, (d) "hazardous materials," as defined by the Hazardous Materials Transportation Act, as amended from time to time, (e) any substance, material or other item designated as hazardous or toxic under any applicable state or local laws and the regulations adopted thereunder and under the aforesaid acts, as amended from time to time, (f) oil or other petroleum products, (g) any highly combustible substance, (h) any biologically or chemically active substance and (i) the emission of any electromagnetic or microwave radiation at levels above those recommended by governmental authorities. Tenant shall indemnify Landlord in the manner elsewhere provided in this Lease from any release of Hazardous Materials in the Premises after the Occupancy Commencement Date or otherwise caused by Tenant or persons acting under Tenant. Landlord shall indemnify Tenant in the manner elsewhere provided in this Lease from any release of Hazardous Materials in the Premises prior to the Occupancy Commencement Date. The within covenants shall survive the expiration or earlier termination of the Lease Term.

ARTICLE 7
ASSIGNMENT AND SUBLETTING

7.1 Tenant shall not assign this Lease or any of Tenant's rights or obligations hereunder, sublet or permit anyone to occupy the Premises or any part thereof, or mortgage this lease, without the prior written consent of the holder of any Mortgage (as defined in Section 21.1) to the extent, if any, such consent is required by any mortgage encumbering the Premises. Tenant shall not assign this Lease or any of Tenant's rights or obligations hereunder, sublet or permit anyone to occupy the Premises or any part thereof, or mortgage this lease, without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed; provided, however, that Tenant may assign this Lease without Landlord's consent to any parent, subsidiary or affiliate of Tenant. The initial Tenant and any guarantor of the obligations of the intital Tenant shall remain fully liable as a primary obligor for the payment of all rent and other charges hereunder and for the performance of all its other obligations hereunder notwithstanding such assignment or subletting. Any assignment, subletting or occupancy, Landlord's collection or acceptance of rent from any assignee, subtenant or occupant, shall not be construed as a waiver or release of Tenant or such guarantor from

liability hereunder (it being understood that Tenant shall at all times remain primarily liable as a principal and not as a guarantor or a surety). All restrictions and obligations imposed pursuant to this Lease on Tenant or the use and occupancy of the Premises shall be deemed to extend to any subtenant, assignee or occupant of Tenant, and Tenant shall cause such persons to comply with all such restrictions and obligations.

7.2 (a) Notwithstanding anything in this Lease to the contrary, Tenant shall have the right, at any time and from time to time during the term of this Lease, to mortgage or otherwise encumber Tenant's leasehold interest in the Premises or any part or parts thereof, including any and all improvements, appurtenances, rights, privileges and easements benefiting, belonging or pertaining thereto, and to assign this Lease as collateral security for such mortgage and to renew, modify, consolidate, replace, extend or refinance any one or more of such mortgages.

(b) If Tenant shall mortgage this leasehold in accordance with the foregoing provisions, Landlord agrees that so long as any such leasehold mortgage shall remain unsatisfied of record, and written notice of such leasehold mortgage shall have been given to Landlord together with the notice address of any mortgagee thereunder, the following provisions shall apply:

(1) There shall be no termination, cancellation, surrender, acceptance of surrender or modification of this Lease without the prior written consent of each holder of a leasehold mortgage, provided, however, that without the prior written consent of any holder of a leasehold mortgage this Lease may be terminated for (i) default only upon compliance with all of the terms of this Lease, including, without limitation, this Section 7.2, (ii) by Tenant's exercise of its right of early termination pursuant to section 3.1(b), or (iii) as a result of Tenant's exercise of Tenant's purchase option rights under Article 24.

(2) Landlord shall send each holder of a leasehold mortgage of record in the Cumberland County Registry of Deeds copies of all notices of default or termination or both given by Landlord to Tenant in accordance with any term or provision of this Lease or otherwise. If pursuant to any provision of this Lease or otherwise this Lease may be terminated without notice to Tenant, no such termination shall be effective unless Landlord shall have given each holder of a leasehold mortgage written notice thereof at least 30 days prior to the effective date of such termination. In the event of any failure by Tenant to perform, fulfill or observe any agreement by Tenant herein or any breach by Tenant of any representation or warranty by Tenant, any such holder of a leasehold mortgage may at its election cure such failure or breach for and on behalf of Tenant, and in such event Landlord shall accept such performance, fulfillment or observance by such holder of a leasehold mortgage as if the same had been done by Tenant.

(3) For the purposes of this Section 7.2, no failure or default on the part of Tenant in the performance of work to be performed, acts to be done or conditions to be remedied shall be deemed to exist if steps shall in good faith have been commenced to rectify the same and shall be prosecuted to completion with diligence and continuity. The preceding sentence shall not apply to an obligation of Tenant to pay a sum of money.

(4) Anything herein contained notwithstanding, while such leasehold mortgage remains unsatisfied of record, if any event or events (including, without limitation, any default) shall occur which shall entitle Landlord to terminate this Lease other than those events described in Section 7.2(b)(1)(ii) or (iii), and if before the expiration of 30 days after the date of service of such notice of termination or notice of default, any holder of a leasehold mortgage shall have paid to Landlord all rent and additional rent herein provided for and then in default and shall have complied or shall engage in the work of complying with all of

the other requirements of this Lease, if any are then in default, then and in any such event Landlord shall not be entitled to terminate this Lease and any notice of termination or default theretofore given shall be void and of no effect.

(5) If any matter giving rise to termination of this Lease or any default by Tenant is, in either case, reasonably incapable of cure (such as Tenant's bankruptcy or insolvency), the holder of a leasehold mortgage shall not be required to cure such default or matter in order to avoid termination of this Lease, and termination of this Lease shall be postponed, so long as Landlord continues to receive payment of all rent and other sums due Landlord, while any holder of a leasehold mortgage shall prosecute foreclosure proceedings (or actions to remove a stay thereof) or take other action to acquire Tenant's interest under this Lease. If such holder shall foreclose or otherwise acquire Tenant's interest in this Lease, this Lease shall not terminate but shall continue in full force and effect so long as such holder shall pay all rent and other sums due to Landlord.

(6) If any default by Tenant cannot be remedied unless the holder of a leasehold mortgage shall have possession of the premises or shall have foreclosed such leasehold mortgage, then termination of this Lease shall be postponed, so long as Landlord continues to receive payment of all rent and other sums due Landlord, while any holder of a leasehold mortgage shall prosecute foreclosure proceedings (or actions to remove a stay thereof) or take other action to acquire Tenant's interest under this Lease and thereafter while such holder shall prosecute the cure of such default with reasonable diligence. If such holder shall foreclose or otherwise acquire Tenant's interest under this Lease and shall complete such cure, this Lease shall not terminate but shall continue in full force and effect. Landlord agrees to recognize any purchaser or assignee of a leasehold mortgagee whose succession to the rights of Tenant hereunder is acquired through foreclosure or otherwise.

(7) If Landlord shall elect to terminate this Lease by reason of any failure or default of Tenant, each holder of a leasehold mortgage shall not only have and be subrogated to any and all rights of Tenant with respect to curing such defaults, but shall also have the right to postpone and extend the specified date for the termination of this Lease for a period of four (4) months, provided such holder of a leasehold mortgage shall cure any then existing money failures or defaults and meanwhile pay the rent and additional charges and comply with and perform all of the other terms, conditions and provisions of this lease on Tenant's part to be complied with and performed which it can cure without taking possession or foreclosing and which are otherwise reasonably capable of cure, and such holder of a leasehold mortgage shall forthwith take steps to acquire Tenant's interest in this Lease by foreclosure or otherwise. If at the end of such four (4) month period such holder shall be actively engaged in steps to acquire Tenant's interest herein, such postponement and extension of the date for termination shall be extended for such period as shall be necessary to complete such steps subject to the terms and conditions described above. If such holder of a leasehold mortgage so acquires Tenant's interest herein and cures all defaults which are reasonably capable of cure under the subparagraph hereof applicable thereto, this Lease shall not terminate but shall continue in full force and effect.

(8) Landlord will from time to time upon not less than ten (10) business days' prior written request by any holder of a leasehold mortgage deliver to such holder of a leasehold mortgage a written statement certifying whether or not this Lease is in full force and effect and stating (a) the last day to which the rent and other charges have been paid, (b) whether or not this Lease has been amended, (c) whether or not Tenant is in default hereunder or has any indebtedness to Landlord for the payment of money, and (d) if so, each such default or indebtedness.

(9) Landlord agrees that in the event of termination of this Lease by reason of any default by Tenant, other than for non-payment of the rent or additional charges and other payments herein provided for, Landlord will enter into a new Lease for the premises with the holder of the then first mortgage of record in the Cumberland County Registry of Deeds on this Lease or with its nominee or designee, for the remainder of the term, effective as of the date of such termination, at the rent and additional rent and upon the terms and provisions as herein contained and subject only to the same conditions of title as this Lease was subject on the Effective Date, and to the rights, if any, of any parties then in possession of the premises or any portion thereof, provided:

(i) Such holder shall request by written notice to Landlord such new Lease within thirty (30) days after the date of such termination.

(ii) Such holder shall pay to Landlord at the time of execution and delivery of such new Lease all sums as to which such mortgagee which would at the time of execution and delivery thereof be due under this Lease had it not terminated. In addition, such mortgagee shall pay any expenses, including reasonable attorneys' fees, to which Landlord shall have been subjected by reason of such default.

(iii) Landlord shall not warrant possession of the premises to the tenant under the new Lease.

(iv) Such new Lease shall be expressly made subject to the rights, if any, of Tenant under the terminated Lease.

(v) Tenant under such new Lease shall have the same right, title and interest in and to the premises as Tenant had under this Lease.

(vi) Such holder shall not be obligated to perform any obligations of Tenant hereunder until such holder actually acquires possession of the premises.

(10) Any Leasehold Mortgagee may become the legal owner and holder of this Lease by foreclosure of its leasehold mortgage or as a result of the assignment of this Lease in lieu of foreclosure.

(11) Nothing herein contained shall require any holder of a leasehold mortgage or its nominee or designee to cure any default of Tenant arising out of its bankruptcy, insolvency, reorganization or other proceeding under the bankruptcy or insolvency laws of the United States or the Commonwealth of Massachusetts or otherwise.

(12) Landlord agrees not to interfere with the exercise by any leasehold mortgagee of its rights under this Lease.

(13) Any foreclosure of a leasehold or conveyance in lieu thereof or any reassignment of this Lease by lender, may be made without Landlord's consent.

ARTICLE 8
MAINTENANCE AND REPAIRS

8.1 Tenant shall, at Tenant's sole cost and expense, keep and maintain the Premises and all fixtures and equipment located therein in clean, safe and sanitary condition and in compliance with all Applicable Laws, shall take good care thereof, shall suffer no waste or injury thereto, and at the expiration or earlier termination of the Lease Term, shall surrender the Premises in the same order and condition in which they were on the Occupancy Commencement Date (damage by fire or other casualty and ordinary wear and tear consistent with the permitted use hereunder excepted). All injury, breakage and damage to the Premises and to any other part of the Building or the Land shall be repaired or replaced (as applicable) by and at Tenant's expense, subject to Article 17 hereof and except for any injury or damage resulting from the acts or omissions of Landlord or its employees, agents or contractors.

8.2 Tenant shall, at Tenant's sole cost and expense, be responsible for usual and customary cleaning, repairing and maintaining of the parking areas and landscaping and the prompt removal of ice and snow from the parking areas, and for all routine cleaning and janitorial services for the Building and Premises. Tenant shall be responsible for all routine maintenance, repair and replacement of HVAC and electrical and utility systems serving the Building,.

8.3 Landlord shall have the right, but not the obligation, to perform, at Tenant's sole cost and expense, any maintenance, repair(s), or replacement(s) to the Building and Premises required to be performed by Tenant pursuant to this lease but not performed by Tenant following notice and the expiration of any applicable grace or cure periods (provided notice shall not be required in the event of an emergency). Tenant shall reimburse Landlord for all actual costs incurred by Landlord in performing such maintenance, repair(s) or replacement(s) within thirty (30) days of demand by Landlord.

8.4 Upon the written request of Tenant, Landlord promptly shall assign to Tenant all warranty and contractual rights with respects to construction defects or incomplete work under the Construction Contract in order that Tenant may enforce the same. In the event that any such warranties or contractual rights are not assignable, Landlord shall enforce the same on behalf of and for the account of Tenant, at Tenant's sole cost and expense. In any event, Landlord's sole obligation with respect to construction defects shall be to make available to Tenant any warranty or contractual rights that are available to Landlord or to allocate liquidated damages received as provided in this Lease, and Landlord shall have no other liability to Tenant as a result of construction defects, incomplete work or similar causes.

ARTICLE 9
ALTERATIONS

9.1 Tenant shall not make or permit anyone to make any Alteration (as defined below) in or to the Premises or the Building without Landlord's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. Landlord's consent to a proposed Alteration shall be deemed granted in the event that Landlord fails to respond within ten (10) business days of Tenant's written request for consent. Any Alteration which Landlord permits Tenant to make shall be made: (a) in a good, workmanlike, first-class and prompt manner; (b) using new materials only; (c) by a licensed, bondable contractor, reasonably satisfactory to

Landlord, and in accordance with plans and specifications approved in writing by Landlord, such approval not to be unreasonably withheld, conditioned or delayed; (d) in accordance with legal requirements (including, without limitation, the obtaining of all necessary permits and licenses) and requirements of any insurance company insuring the Building; (e) after obtaining any required consent of the holder(s) of the Mortgage; (f) after obtaining a workmen's compensation insurance policy required by law; (g) after delivering to Landlord certificates of insurance, in form and substance satisfactory to Landlord in its reasonable discretion, evidencing that any contractor retained to perform any Alteration has obtained insurance coverages as reasonably required by Landlord. If any lien (or a petition to establish a lien) is filed in connection with any Alteration, then such lien (or petition) shall be discharged by Tenant at Tenant's expense within thirty (30) days thereafter by the payment thereof or filing of a bond reasonably acceptable to Landlord. Landlord's consent to the making of an Alteration shall be deemed not to constitute Landlord's consent to subject its interest in the Premises or the Building or the Land to liens which may be filed in connection therewith. If any Alteration is made without Landlord's prior written consent, then Landlord shall have the right, in addition to exercising all other available remedies, at Tenant's expense, to remove and correct such Alteration and restore the Premises and the Building to their condition immediately prior thereto or to require Tenant to do the same. Unless Landlord elects otherwise pursuant to this Section 9.1, all Alterations to the Premises or the Building made by either party shall immediately become Landlord's property (provided, however, that during the Lease Term, Tenant shall retain an insurable interest in such Alterations and shall be entitled to take depreciation of such Alterations) and shall remain upon and be surrendered with the Premises at the expiration or earlier termination of the Lease Term; provided, however, Tenant shall remove, prior to the expiration or earlier termination of the Lease Term, all movable furniture, furnishings and trade fixtures installed in the Premises by or on behalf of Tenant. Notwithstanding anything in the foregoing to the contrary in this Section 9.1, Tenant shall also be required to remove all Alterations to the Premises or the Building and all non-trade fixtures and equipment which Landlord designates in writing for removal (which designation shall be provided to Tenant contemporaneously with Landlord's consent (if granted) to a proposed Alteration, or upon Tenant's written request, that such Alteration be permitted to remain in the Premises at the expiration or earlier termination of the Lease Term (or deemed permitted to remain by Landlord if no designation is made in Landlord's consent following Tenant's request therefor). Landlord shall have the right to repair or replace at Tenant's expense all damage to the Premises or the Building caused by any such removal or to require Tenant to do the same. If any such furniture, furnishing or trade fixture is not removed by Tenant prior to the expiration or earlier termination of the Lease Term, then the same shall, at Landlord's option, become Landlord's property and shall be surrendered with the Premises as a part thereof; provided, however, that Landlord shall have the right to remove from the Premises at Tenant's expense such furniture, furnishing or trade fixture and any Alteration, non-trade fixture or equipment (which Landlord designates in writing for removal as provided above). For purposes of this Lease, "Alteration" shall mean alterations, modifications or additions to the Building or its systems exclusive of the installation by Tenant of its trade fixtures and equipment and related work to the Building to accommodate such installation.

9.2 Notwithstanding anything contained in Section 9.1, Tenant shall have the right to make Permitted Alterations in the Premises, without Landlord's consent (but with ten (10) days prior written notice (the "Permitted Alterations Notice"), which notice shall contain a description of the Permitted Alterations proposed to be undertaken by Tenant, state that such Alterations are Permitted Alterations, identify the general contractor who is to construct such Permitted Alterations, and be accompanied by a copy of the plans and specifications for such Permitted Alterations). A "Permitted Alteration" shall mean Alterations in the Building, the cost of which do not, in each instance exceed $250,000 and further provided that such Alterations are not visible from outside the Building, and do not affect the structure of, or any of the utility feeds, in the Building. All Permitted Alterations shall be constructed in accordance with the standards set forth in Section 9.1, except

that Landlord's consent shall not be required. In the event that, within ten (10) business days after receiving the Permitted Alterations Notice, Landlord determines, in its reasonable discretion, that the proposed Alterations are not Permitted Alterations, and so notifies Tenant, Tenant shall apply for Landlord's consent for such Alterations in accordance with the provisions of this Section 9.

9.3 Upon completion of any improvement, the Tenant shall deliver to the Landlord:

a. A certificate signed by the Tenant's architect/engineer (or Tenant's Site Director if the project did not employ an architect/engineer) stating that the additional improvements have been completed in accordance with the final plans, in accordance with the requirements of public authorities having jurisdiction, and in accordance with all other requirements of this lease;
b. Copies of occupancy permits and other licenses and certificates necessary for use of the improvements;
c. Copies of final and complete releases, executed by Tenant's general contractors, subcontractors and suppliers acknowledging that they have been paid in full; and
d. One complete set of reproducible "as built" or record drawings of the improvements.

ARTICLE 10
SIGNS

10.1 Tenant may install on the Premises, at its sole expense, exterior signs providing identification of Tenant, subject to applicable laws, and governmental rules and regulations and the Brunswick Landing Design Guidelines dated July, 2010 previously made available to Tenant. Tenant shall be solely responsible for obtaining all necessary governmental approvals and permits for the installation of, or other activity regarding, such signs. Landlord shall not grant to any other party the right to install any signs on the Premises, nor shall Landlord be permitted to install any such signs. Tenant shall be responsible for, and shall perform in a reasonable workmanlike manner, the installation, maintenance and repair of all such signage. Tenant also shall have the same rights to install signage, including without limitation pylon and directional signage, in the Complex as is provided by MRRA generally to other tenants and owners of lots in the Complex.

ARTICLE 11
RESERVED

ARTICLE 12
HOLDING OVER

12.1 If Tenant (or anyone claiming through Tenant) does not immediately surrender the Premises or any portion thereof upon the expiration or earlier termination of the Lease Term, then the rent shall be the Base Rent, additional rent and other sums that would have been payable pursuant to the provisions of this Lease if the Lease Term had continued during such holdover period. Such rent shall be computed by Landlord on a monthly basis and shall be payable on the first day of such holdover period and the first day of each calendar month thereafter during such holdover period until the Premises have been vacated. Notwithstanding any other provision of this Lease, Landlord's acceptance of such rent shall not in any manner adversely affect Landlord's other rights and remedies, including Landlord's right to evict Tenant, or any person or entity claiming under Tenant, and to recover all damages. Any holdover shall be deemed to be a tenancy-at-sufferance and not a

tenancy-at-will or tenancy from month-to-month; provided, however that Landlord may, in addition to its other remedies, elect, in its sole discretion, to treat such holdover as the creation of a month-to-month tenancy with Tenant. In no event shall any holdover be deemed a permitted extension or renewal of the Lease Term, and nothing contained herein shall be construed to constitute Landlord's consent to any holdover or to give Tenant any right with respect thereto. Tenant agrees to hold Landlord harmless from and against all loss and damages, direct and consequential, which Landlord may suffer or incur in connection with claims by other parties against Landlord arising out of the holding over by Tenant, including, without limitation, attorneys' fees which may be incurred by Landlord in defense of such claims. Except as otherwise specifically provided in this Article, all terms of this Lease shall remain in full force and effect during any holdover period.

ARTICLE 13
INSURANCE

13.1 (a) Tenant shall maintain at its own expense throughout the Lease Term (1) comprehensive general liability insurance, to include premises and completed operations coverage, broad form property damage coverage, independent contractors coverage, personal injury coverage and blanket contractual liability coverage insuring the obligations assumed by Tenant pursuant to Sections 6.3 and 15.2, all such comprehensive general liability coverage to be on an occurrence basis, (2) special property form insurance, excluding flood and earthquake, for full replacement cost value of the Building, all Alterations, personal property, trade fixtures and equipment, (3) comprehensive automobile liability insurance (covering all automobiles owned, leased but not owned, or hired by Tenant, if any), (4) business income and extra expense combined insurance, (5) worker's compensation insurance, (6) employer's liability insurance and (7) rental or business interruption insurance as provided below. Such liability insurance shall be in an amount not less than Two Million Dollars ($2,000,000) combined single limit per occurrence. Such property insurance shall be in an amount not less than that required to replace the Building and all Alterations and all other contents of the Premises. Such automobile liability insurance shall be in an amount not less than One Million Dollars ($1,000,000). Such business interruption insurance shall be in an amount not less than the Base Rent then in effect during any Lease Year. Such worker's compensation insurance shall carry minimum limits as defined by the law of Maine (as the same may be amended from time to time). Such employer's liability insurance shall be in an amount not less than One Million Dollars ($1,000,000) for each accident, One Million Dollars ($1,000,000) disease-policy limit, and One Million Dollars ($1,000,000) disease-each employee. An umbrella liability policy may be used to supplement primary insurance limits to comply with the minimum limits required herein.

(b) All such insurance shall: (1) be issued by a company that is licensed to do business in the State of Maine, that has a rating equal to or exceeding A:VII from Best's Insurance Guide; (2) name Landlord, its managing agent (or its successor) and the holder of any Mortgage as additional insureds and/or loss payees as applicable (as their interests may appear); (3) contain an endorsement that such insurance shall remain in full force and effect notwithstanding that the insured may have waived its right of action against any person or entity prior to the occurrence of a loss (Landlord and Tenant hereby waiving their respective rights of action and recovery against and releasing the other party and its employees, affiliates, partners and agents from any and all liabilities, claims and losses for which they may otherwise be legally liable to the extent the other party is covered by insurance carried or required to be carried under this Lease); (4) provide that the insurer waives all right of recovery by way of subrogation against Landlord, its partners, affiliates, agents and employees, (5) be reasonably acceptable to Landlord; (6) be primary and non-contributory; and (7) contain an endorsement prohibiting cancellation, reduction in amount of insurance or change of coverage (A) as to the interests of

Landlord or the holder of the Mortgage by reason of any act or omission of Tenant and (B) require a thirty day (30) day notice of cancellation to Landolord and Landlord's mortgagees. No such policy shall contain any deductible provision in excess of $100,000.00. Tenant shall deliver a certificate of all such insurance and receipts evidencing payment of the premium for such insurance (and, upon request, copies of all required insurance policies, including endorsements and declarations) to Landlord concurrently with Tenant's execution of this Lease and at least annually thereafter.

13.3 Notwithstanding anything to the contrary contained herein, Landlord and Tenant each hereby waive any and all right to recover against the other (or against their respective officers, directors, trustees, partners, joint venturers, employees or agents) for any loss or damage to such waiving party arising from any cause covered by any property damage insurance carried or required to be carried by such party pursuant to this Lease to the extent of insurance proceeds received with respect thereto. Landlord and Tenant shall secure appropriate waivers of subrogation from their respective insurance carriers; and each party will, upon request, deliver to the other a certificate evidencing such waiver of subrogation by the insurer.

ARTICLE 14
SERVICES AND UTILITIES

14.1 In addition to the Rent and Additional Rent provided elsewhere herein, after the Occupancy Commencement Date, Tenant shall be responsible for contracting for and making direct payment of all utility and service costs incurred in operating the Premises to the parties providing service to the Premises, including without limitation and by way of example, all utility costs, trash removal and janitorial services, water, electricity, natural gas, and sewer. Tenant shall at all times maintain the Premises in a neat and clean manner, and shall place all trash in its dumpster. Tenant shall be responsible, at Tenant's cost, for HVAC and electrical systems maintenance and all repairs.

14.2 If any curtailment or suspension of utilities to the Premises results from the negligence or willful misconduct of Landlord or MRRA, their respective employees, agents or contractors other than pursuant to the Construction Contract, and such curtailment or suspension prohibits Tenant from conducting business in the Premises for more than two (2) business days after notice to Landlord of such curtailment or suspension, Base Rent shall abate until such curtailment or suspension is resolved.

14.3 Landlord, at its sole cost and expense, shall take whatever action is required to obtain all utility services necessary for the operations of the Premises and shall make the necessary arrangements with utility providers to bring electricity, natural gas, water and sewer utility lines and services to the Premises. Arrangements for all other utilities and services, including without limitation, telephone, cable and/or internet telecommunications services, fire alarm and waste handling services shall be the responsibility of Tenant. Landlord and MRRA represent and warrant that the Ground Lease includes the rights and easement necessary to provide such services to the Premises. Landlord and MRRA represent and warrant that telephone, cable and/or internet telecommunications services are adjacent and available to the Premises. For the Lease Term, Tenant shall pay to the appropriate authority all rents and other charges for all utilities consumed on the Premises. If MRRA, Landlord or an affiliate of MRRA or Landlord operates a utility district or otherwise provided utility transmission, distribution or supply services to the Premises, charges to Tenant for metered electric, water and/or sanitary sewer will be at or below the fair market rate for such services outside the Complex.

ARTICLE 15
LIABILITY OF LANDLORD

15.1 Landlord, its employees and agents shall be liable to Tenant for any damage (excluding indirect, special, consequential or punitive damages), injury, loss or claim based on or arising out Landlord's breach of this Lease. If any condition exists which may be the basis of a claim of constructive eviction, then Tenant shall give Landlord written notice thereof and an opportunity to correct such condition as provided below, and in the interim Tenant shall not claim that it has been constructively evicted or is entitled to a rent abatement. Any property placed by Tenant or its invitees in or about the Premises, the Building or the Land shall be at the sole risk of Tenant. Notwithstanding anything to the contrary in this Lease, Tenant hereby acknowledges that the Landlord may be subject to the Maine Tort Claims Act and, if Landlord is so subject, the Landlord does not waive the monetary limits or substantive areas of immunity under the Maine Tort Claims Act (14 MRSA Sec. 8101, et seq.) or any other immunities or defenses under that Act or other applicable law. Landlord is not liable for any damage (including indirect and consequential damage), injury, loss or claim (including claims for the interruption of or loss to business) based on failure to provide electrical, sewer or water utilities to the Premises and/or building, except to the extent that such failure is a proximate result of a breach of a specific obligation of Landlord under this Lease to provide such utility services.

15.2 Except to the extent caused by the negligence or willful misconduct of Landlord or its employees, agents or contractors, Tenant shall reimburse Landlord for, and shall indemnify, defend upon request and hold Landlord, its employees and agents harmless from and against, all costs, damages(excluding indirect, special, or consequential damages), claims, liabilities, expenses (including attorneys' fees), losses and court costs suffered by or claimed against Landlord, directly or indirectly, based on or arising out of, in whole or in part, (a) Tenant's use and occupancy of the Premises or Tenant's business conducted therein, (b) any negligence of Tenant, (c) any breach of Tenant's obligations under this Lease, including failure to surrender the Premises upon the expiration or earlier termination of the Lease Term, or (d) any entry by Tenant or any invitee upon the Land prior to the Occupancy Commencement Date. Tenant agrees not to assert immunity under workers' compensation laws as a defense to the enforcement of the foregoing indemnity by Landlord.

15.3 Except to the extent otherwise provided in this Lease or caused by the negligence or willful misconduct of Tenant, its employees, agents and contractors or as otherwise would be subject to monetary limits or substantive areas of immunity under the Maine Tort Claims Act, Landlord shall reimburse Tenant for, and shall indemnify, defend upon request and hold Tenant, its employees and agents harmless from and against, all costs, damages(excluding indirect, special, or consequential damages),claims, liabilities, expenses (including attorneys' fees), losses and court costs suffered by or claimed against Tenant, directly or indirectly, based on or arising out of, in whole or in part, (a) Landlord's access to or presence upon the Premises, (b) any negligence of Landlord, (c) any breach of Landlord's obligations under this Lease, or (d) MRRA's operation of the Complex, contrary to the provisions of this Lease Agreement. Landlord agrees not to assert immunity under workers' compensation laws as a defense to the enforcement of the foregoing indemnity by Tenant.

15.4 If any landlord hereunder transfers the Building or such landlord's interest therein, then such landlord shall not be liable for any obligation or liability based on or arising out of any event or condition occurring after such transfer. Tenant shall attorn to such transferee and, within five (5) business days after request, shall execute, acknowledge and deliver any commercially reasonable document submitted to Tenant confirming such attornment.

15.5 If Landlord shall default in the performance or observance of any agreement, condition or other provision in this Lease contained on its part to be performed or observed, and shall not cure such default within thirty (30) days after notice in writing or such additional time as is necessary to cure provided that Landlord promptly commences cure and diligently pursues the same to completion, Tenant may, at its option, without waiving any claims for breach of this Lease, at any time thereafter cure such default for the account of the Landlord, and the Landlord shall reimburse Tenant for any amount actually paid and any expense or contractual liability so incurred, subject to any good faith dispute relating to the reasonableness of the amount of, or the necessity for, any such expenditure; and provided further that Tenant may cure any such default as aforesaid prior to the expiration of such cure period but after notice to the Landlord, if Landlord's failure shall result in an immediate threat to health, safety or the business operations of Tenant from the Premises. Tenant shall not have the right to offset or deduct any amount allegedly owed Tenant pursuant to any claim against Landlord from any rent or other sum payable to Landlord. Tenant's sole remedy for recovering upon such claim shall be to institute an independent action against Landlord.

ARTICLE 16
RULES

Unless required by State, Local or Federal Regulations, MRRA shall not record a declaration of covenants, restrictions and common easements or like document with respect to the Complex which materially and adversely affects access to or use of the Premises, without consulting with Tenant and receiving Tenant's prior review and approval of the same, which approval shall not be unreasonably withheld, conditioned or delayed Nothing contained in such declaration shall conflict with the Tenant's rights under this Lease. MRRA agree that Tenant shall receive at least the same rights and the same access to and use of amenities in the Complex as provided to any other lot owner or occupant in the Complex. Notwithstanding the foregoing, MRRA may impose or record a declaration of covenants, restrictions and common easements or like document with respect to all or part of the Complex which imposes fair and consistently-applied financial obligations upon the owners of the Premises and other lots in the Complex to pay the operating expenses of the Complex; such financial obligations shall be the responsibility of Landlord during the term of the Lease but shall become the financial obligations of Tenant if Tenant acquires ownership of the Premises.

ARTICLE 17
DAMAGE OR DESTRUCTION

17.1 If the Premises or the Building are totally or partially damaged or destroyed thereby rendering the Premises totally or partially untenantable, then Landlord shall repair and restore the Building (except as hereinafter provided) to substantially the same condition in which they were in on the Occupancy Commencement Date, reasonable wear and tear excepted; provided, however, that if in Tenant's commercially reasonable judgment such repair and restoration cannot be completed within one (1) year (such year to commence after the time needed for effecting a satisfactory settlement with any insurance company involved, removal of debris, preparation of plans and issuance of all required governmental permits) after the occurrence of such damage or destruction, then Tenant shall have the right, at its sole option, to terminate this Lease as of the sixtieth (60th) day after such damage or destruction by giving written notice of termination within forty-five (45) days after the occurrence of such damage or destruction. If the Building or any part thereof is damaged or destroyed by fire or any other cause, Tenant shall give prompt written notice thereof to Landlord. If this Lease

is terminated pursuant to this Article, then rent shall be apportioned (based on the portion of the Premises which is usable after such damage or destruction) and paid to the date of termination. If this Lease is not terminated as a result of such damage or destruction, then until such repair and restoration of the Premises are substantially complete, Tenant shall be required to pay the Base Rent and additional rent without abatement or adjustment while Landlord undertakes repairs. If this Lease is not terminated as a result of such damage or destruction, then Landlord shall bear the expenses of such repair and restoration of the Building to substantially the same condition in which the Building was in on the Occupancy Commencement Date, reasonable wear and tear excepted; and provided further, however, that in no event shall Landlord be required to repair or restore any work and materials not Base Building Work, any Alteration previously made by Tenant or any of Tenant's trade fixtures, furnishings, equipment or personal property. Notwithstanding anything herein to the contrary, Landlord shall have the right to terminate this Lease if (a) the insurance that Tenant is required to maintain plus any contribution offered by Tenant in Tenant's sole discretion is insufficient to pay the full cost of such repair and restoration, (b) the holder of any Mortgage fails or refuses to make such insurance proceeds available for such repair and restoration, (c) zoning or other applicable laws or regulations do not permit such repair and restoration.

ARTICLE 18
CONDEMNATION

18.1 If one-third or more of the Premises or occupancy thereof shall be taken or condemned by any governmental or quasi-governmental authority (except for MRRA) for any public or quasi-public use or purpose or sold under threat of such a taking or condemnation (collectively, "condemned"), then this Lease shall terminate on the date title vests in such authority and rent shall be apportioned as of such date. If less than one-third of the Premises or occupancy thereof is condemned, then this Lease shall continue in full force and effect as to the part of the Premises not condemned, except that as of the date title vests in such authority, Tenant shall not be required to pay the Base Rent and additional rent with respect to the part of the Premises condemned.

18.2 All awards, damages and other compensation paid by such authority on account of such condemnation shall belong to Landlord, and Tenant assigns to Landlord all rights to such awards, damages and compensation. Tenant shall not make any claim against Landlord or the authority for any portion of such award, damages or compensation attributable to damage to the Premises, value of the unexpired portion of the Lease Term as determined by the net income generated to Landlord by this lease, leasehold improvements made by Landlord or severance damages. Nothing contained herein, however, shall prevent Tenant from pursuing a separate claim against the authority for the value of Tenant's leasehold interest as determined by the positive difference between the Base Rent and the fair market rent for the Premises, the value of furnishings and trade fixtures and leasehold improvements installed in the Premises at Tenant's expense and for relocation expenses, provided that such claim is stated separately from any award to Landlord and provided further that such claim shall in no way diminish the award, damages or compensation otherwise payable to Landlord as described above in connection with such condemnation.

ARTICLE 19
DEFAULT

19.1 An "Event of Default" is any one or more of the following: (a) Tenant's failure to pay Base Rent within ten (10) business days of the date on which it is due, (b) Tenant's failure to make when due any payment

of the additional rent or sum due hereunder other than the Base Rent, which failure continues for ten (10) business days after Landlord delivers written notice thereof to Tenant; (c) Tenant's failure to perform or observe any term, covenant or condition of this Lease not otherwise specifically described in this Section 19.1, which failure continues for thirty (30) days after Landlord delivers written notice thereof to Tenant, or if such failure is not susceptible to cure within said thirty days, such additional time as is necessary to cure provided Tenant promptly commences cure and diligently pursues cure to completion; (d) an Event of Bankruptcy as specified in Article 20; (e) Tenant's dissolution or liquidation; or (f) any subletting, assignment, transfer, mortgage or other encumbrance of the Premises or this Lease not permitted by Article 7.

19.2 If there shall be an Event of Default, including an Event of Default prior to the Occupancy Commencement Date, then the provisions of this Section shall apply. Landlord shall have the right, at its sole option, to terminate this Lease by written notice thereof to Tenant. Landlord may proceed to recover possession of the Premises under applicable laws, by such other proceedings, including re-entry and possession. If Landlord elects to terminate this Lease and/or elects to terminate Tenant's right of possession, then everything in this Lease to be done by Landlord shall cease, without prejudice, however, to Tenant's liability for all rent and other sums due hereunder, regardless of whether Tenant's default shall occur before or after the Occupancy Commencement Date. Landlord may relet the Premises or any part thereof, alone or together with other premises, for such term(s) (which may extend beyond the date on which the Lease Term would have expired but for Tenant's default) and on such terms and conditions (which may include concessions or free rent and alterations of the Premises) as Landlord, in its reasonable discretion, may determine; provided, however, that Landlord shall use commercially reasonable efforts to mitigate its damages hereunder. Whether or not this Lease is terminated, Tenant nevertheless shall remain liable for the Base Rent, additional rent and damages which may be due or sustained, and all reasonable costs, fees and expenses (including without limitation attorneys' fees, brokerage fees and expenses incurred in placing the Premises in a rentable condition) incurred by Landlord in pursuit of its remedies and in renting the Premises to others from time to time. Tenant shall also be liable for additional damages in an amount equal to the Base Rent and additional rent which would have become due during the remainder of the Lease Term, less the amount of rental, if any, which Landlord receives during such period from others to whom the Premises may be rented (other than any additional rent payable as a result of any failure of such other person to perform any of its obligations), in which case such damages shall be computed and payable in monthly installments, in advance, on the first day of each calendar month following Tenant's default and continuing until the date on which the Lease Term would have expired but for Tenant's default (provided however, that separate suits may be brought to collect any such damages for any month(s), and such suits shall not in any manner prejudice Landlord's right to collect any such damages for any subsequent month(s), or Landlord may defer any such suit until after the expiration of the Lease Term, in which event such suit shall be deemed not to have accrued until the expiration of the LeaseTerm); or (b) an amount equal to the present value (as of the date of Tenant's default) of the sum of (i) the difference between (A) all Base Rent and additional rent which would have become due through the date on which the Lease Term would have expired but for Tenant's default less (B) the fair market rental value of the Premises over the same period, plus (ii) the reasonable expenses actually incurred and, to the extent not yet incurred, reasonably projected by Landlord in connection with the reletting of the Premises, which damages shall be payable to Landlord in a lump sum on demand. For purpose of this Section, present value shall be computed by discounting at a rate equal to the discount rate then in effect at the Federal Reserve Bank nearest to the Building. Tenant waives any right of redemption, re-entry or restoration of the operation of this Lease under any present or future law, including any such right which Tenant would otherwise have if Tenant shall be dispossessed for any cause. As used in the preceding sentence, the words "redemption", "re-entry", "retention", and "dispossessed" shall not be deemed restricted to their technical or legal meanings. Whether or not this Lease and/or Tenant's right of

possession is terminated, Landlord shall have the right after default to terminate by written notice any renewal or expansion right contained in this Lease.

19.3 Landlord's rights and remedies set forth in this Lease are, except as expressly set forth in this Lease, cumulative and in addition to Landlord's other rights and remedies at law or in equity, including those available as a result of any anticipatory breach of this Lease. Landlord's exercise of any such right or remedy shall not prevent the concurrent or subsequent exercise of any other right or remedy. Landlord's or Tenant's delay or failure to exercise or enforce any of Landlord's or Tenant's rights or remedies or Landlord's or Tenant's obligations shall not constitute a waiver of any such rights, remedies or obligations. Landlord or Tenant shall not be deemed to have waived any default unless such waiver expressly is set forth in an instrument signed by Landlord or Tenant, as the case may be. Any such waiver shall not be construed as a waiver of any covenant or condition except as to the specific circumstances described in such waiver. Neither Tenant's payment of an amount less than a sum due nor Tenant's endorsement or statement on any check or letter accompanying such payment shall be deemed an accord and satisfaction. Notwithstanding any request or designation by Tenant, Landlord may apply any payment received from Tenant to any payment then due. Landlord may accept the same without prejudice to Landlord's right to recover the balance of such sum or to pursue other remedies. Re-entry and acceptance of keys shall not be considered an acceptance of a surrender of this Lease.

19.4 If more than one natural person and/or entity shall constitute Tenant or any Guarantor, then the liability of each such person or entity shall be joint and several. If Tenant or any Guarantor is a general partnership or other entity the partners or members of which are subject to personal liability, then the liability of each such partner or member shall be joint and several. Under no circumstance shall Tenant's or Guarantor's directors, officers, shareholders, manager, members or employees have any personal liablity or responsibility under this Lease. Under no circumstance shall Tenant be liable to Landlord for damages in addition to those expressly provided in this Article 19, including without limitation indirect, special, consequential or punitive damages. Under no circumstance shall Landlord be liable to Tenant for damages which are indirect, special, consequential or punitive damages.

19.5 If Tenant fails to make any payment to any third party or to do any act herein required to be made or done by Tenant beyond applicable grace or cure periods, then Landlord may, but shall not be required to, make such payment or do such act. Landlord's taking such action shall not be considered a cure of such failure by Tenant nor prevent Landlord from pursuing any remedy it is otherwise entitled to in connection with such failure. If Landlord elects to make such payment or do such act, then all expenses actually incurred, plus interest thereon at the Default Rate (as hereinafter defined) from the date incurred to the date of payment thereof by Tenant, shall constitute additional rent. The Default Rate shall equal the *Wall Street Journal* "Prime Rate" per annum.

19.6 If Tenant fails to make any payment of the Base Rent, additional rent or any other sum payable to Landlord on or before the tenth (10th) business day following the date such payment is due and payable, then Tenant shall pay a late charge equal to two percent (2%) of the amount of such payment. Such payment shall bear interest at the Default Rate from thirty (30) days from the date such payment was due to the date such payment or charge was paid. If Tenant shall deliver to Landlord a check that is returned unpaid for any reason, such payment shall be deemed never to have been made and, additionally, Tenant shall pay Landlord One Hundred Dollars ($100.00) for Landlord's expense in connection therewith (plus any out-of-pocket expenses

incurred in connection therewith) and said charge shall be payable to Landlord on the first day of the next succeeding month as additional rent.

ARTICLE 20
BANKRUPTCY

20.1 An Event of Bankruptcy is: (a) Tenant's, or any general partner (a "General Partner") of Tenant's, or any successor to either of them, becoming insolvent, as that term is defined in Title 11 of the United States Code (the "Bankruptcy Code"), or under the insolvency laws of any state (the "Insolvency Laws"); (b) appointment of a receiver or custodian for Tenant or any successor thereto or any property of Tenant or any successor thereto, or a General Partner or successor thereto, or the institution of a foreclosure or attachment action upon any property of Tenant or successor thereto, or a General Partner or successor thereto; (c) filing of a voluntary petition by Tenant or any successor thereto or a General Partner or any successor thereto under the provisions of the Bankruptcy Code or Insolvency Laws; (d) filing of an involuntary petition against Tenant or any successor thereto or a General Partner or any successor thereto as the subject debtor under the Bankruptcy Code or Insolvency Laws, which either (1) is not dismissed within sixty (60) days after filing, or (2) results in the issuance of an order for relief against the debtor; (e) Tenant's, any successor thereto or a General Partner's or any successor therto making or consenting to an assignment for the benefit of creditors or a composition of creditors; or (f) an admission by Tenant or any successor thereto of its inability to pay debts as they become due.

20.2 Upon occurrence of an Event of Bankruptcy, Landlord shall have all rights and remedies available pursuant to Article 19; provided, however, that while a case (the "Case") in which Tenant,or any successor thereto, is the subject debtor under the Bankruptcy Code is pending, Landlord's right to terminate this Lease shall be subject, to the extent required by the Bankruptcy Code, to any rights of Tenant or its trustee in bankruptcy (collectively, "Trustee") to assume or assign this Lease pursuant to the Bankruptcy Code. Nothing contained inthis Article 20 or elsewhere in this Lease shall in any way limit the ability of Landlord to seek relief or any order or remedy from any bankruptcy court

ARTICLE 21
SUBORDINATION

21.1 This Lease is subject and subordinate to the lien, provisions, operation and effect of the first and subordinate mortgages, deeds of trust, or other security instruments which may now or hereafter encumber the Building or the Land or the property subject to Tenant's options as provided in Article 25 (the "Mortgage" or the "Mortgages"), to all funds and indebtedness intended to be secured thereby, and to all renewals, extensions, modifications, recastings or refinancings thereof; provided, however, such subordination is conditioned upon Landlord or MRRA obtaining its mortgagee's commercially reasonable subordination, non-disturbance and attornment agreement. The holder of the Mortgages to which this Lease is subordinate shall have the right at any time to declare this Lease to be superior to the lien, provisions, operation and effect of such Mortgages and Tenant shall execute, acknowledge and deliver all commercially reasonable confirming documents required by such holder.

21.2 In confirmation of the foregoing subordination, Tenant shall at Landlord's request promptly execute any reasonable requisite or appropriate document. Tenant waives the provisions of any statute or rule of law now or hereafter in effect which may give or purport to give Tenant any right to terminate or otherwise

adversely affect this Lease or Tenant's obligations in the event any such foreclosure proceeding is prosecuted or completed or in the event the Land, the Building or Landlord's interest therein is sold at a foreclosure sale or by deed in lieu of foreclosure. At the request of such purchaser, Tenant shall attorn to such purchaser and shall recognize such purchaser as the landlord under this Lease. Upon such attornment such purchaser shall not be (a) bound by any payment of the Base Rent more than one (1) month in advance, (b) bound by any amendment of this Lease made without the consent of the holder of the Mortgage existing as of the date of such amendment, (c) liable for damages for any breach, act or omission of any prior landlord except for continuing breaches, or (d) subject to any offsets or defenses which Tenant might have against any prior landlord except for defenses arising from continuing breaches. Within ten (10) business days after receipt, Tenant shall execute, acknowledge and deliver any reasonable requisite or appropriate document submitted to Tenant confirming such attornment.

21.3 Notwithstanding any other provision of this Article 21, if the Building or Land are subject to mortgages, deeds of trust, or ground leases as of the Effective Date, Landlord shall provide to Tenant, at no cost to Tenant, within ten (10) business days of the execution of this Lease, a subordination, non-disturbance and attornment agreement from the holder of any such interest, in a form reasonably satisfactory to Tenant, with the form attached hereto as Exhibit A-5 being deemed satisfactory to Tenant.

ARTICLE 22
COVENANTS OF LANDLORD

22.1 Landlord covenants that if Tenant shall perform timely all of its obligations, then, subject to the provisions of this Lease, Tenant shall during the Lease Term peaceably and quietly occupy and enjoy possession of the Premises without hindrance by Landlord or anyone claiming by, through or under Landlord.

ARTICLE 23
GENERAL PROVISIONS

23.1 Tenant acknowledges that neither Landlord nor any broker, agent or employee of Landlord has made any representation or promise with respect to the Premises or the Building or the Land except as expressly set forth herein, and no right is being acquired by Tenant except as expressly set forth herein. This Lease contains the entire agreement of the parties and supersedes all prior agreements, negotiations, letters of intent, proposals, representations, warranties and discussions between the parties. This Lease may be changed in any manner only by an instrument signed by Landlord and Tenant and MRRA, where applicable.

23.2 Nothing contained in this Lease shall be construed as creating any relationship between Landlord and Tenant other than that of landlord and tenant and in no event shall Tenant be deemed to be an agent of Landlord in connection with this Lease.

23.3 Landlord and Tenant each warrants that in connection with this Lease it has not employed or dealt with any broker, agent or finder. Tenant shall indemnify and hold Landlord harmless from and against any claim for brokerage or other commissions asserted by any other broker, agent or finder employed by Tenant or with whom Tenant has dealt.

23.4 From time to time upon ten (10) business days' prior written notice from the other party, Landlord and Tenant shall execute, acknowledge and deliver to the other party and any designee of the other

part a written statement certifying, to the extent applicable: (a) that this Lease is unmodified and in full force and effect (or that this Lease is in full force and effect as modified and stating the modifications); (b) the dates to which rent and any other charges have been paid; (c) that, to certifying party's knowledge without investigation, the requesting party is not in default in the performance of any obligation (or specifying the nature of any default); (d) the address to which notices are to be sent; (e) that this Lease is subject and subordinate to all Mortgages subject to the non-disturbance of Tenant as provided herein; (f) that Tenant has accepted the Premises and to Tenant's knowledge all work thereto has been completed (or specifying the incomplete work); and (g) such other matters as the requesting party may reasonably request. Any such statement may be relied upon by any owner of the Building or the Land, any prospective purchaser of the Building or the Land, the holder or prospective holder of a Mortgage, any lenders or investors in Tenant, or any other person or entity. Tenant acknowledges that time is of the essence to the delivery of such statements and Tenant's failure to deliver timely such statements may cause substantial damages resulting from, for example, delays in obtaining financing secured by the Building.

23.5 LANDLORD AND TENANT WAIVE TRIAL BY JURY IN ANY ACTION, CLAIM OR COUNTERCLAIM BROUGHT IN CONNECTION WITH ANY MATTER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS LEASE, THE LANDLORD-TENANT RELATIONSHIP, TENANT'S USE OR OCCUPANCY OF THE PREMISES OR ANY CLAIM OF INJURY OR DAMAGE. Landlord and Tenant waive any objection to the venue of any action filed in any court situated in Maine and waive any right under the doctrine of forum non conveniens or otherwise to transfer any such action filed in any such court to any other court. Landlord and Tenant consent to the jurisdiction of all state and Federal courts in Maine.

23.6 All notices or other required communications shall be in writing and shall be deemed duly given only when delivered in person (with receipt therefor), or when sent by certified or registered mail, return receipt requested, postage prepaid, to the following addresses: (a) if to Landlord, at the Landlord Address for Notices, with a copies to John Kaminski, Esq., Drummond Woodsum, 84 Marginal Way, Suite 600, Portland, Maine 04101-2480 and to CCM Community Development XXII, LLC, c/o CEI Capital Management LLC, Two Portland Fish Pier, Suite 206,Portland, ME 04101 (b) if to Tenant, at the Tenant Address for Notices, with a copy to John Carpenter, Esq, Bernstein Shur, 100 Middle Street, P.O. Box 9729, Portland, Maine 04104-5029. Either party may change its address for the giving of notices by notice given in accordance with this Section. If Landlord or the holder of the Mortgage notifies Tenant that a copy of each notice to Landlord shall be sent to such holder at a specified address, then Tenant shall send (in the manner specified in this Section and at the same time such notice is sent to Landlord) a copy of each such notice to such holder, and no such notice shall be considered duly sent unless such copy is so sent to such holder. If Tenant claims that Landlord has breached any obligation, then Tenant shall send such holder notice specifying the breach and permit such holder a reasonable opportunity to cure the breach (not to exceed thirty (30) days beyond the expiration of Landlord's cure period). All notices shall be deemed delivered when actually received.

23.7 Each provision of this Lease shall be valid and enforceable to the fullest extent permitted by law. If any provision or its application to any person or circumstance shall to any extent be invalid or unenforceable, then such provision shall be deemed to be replaced by the valid and enforceable provision most substantively similar thereto, and the remainder of this Lease and the application of such provision to other persons or circumstances shall not be affected.

23.8 Feminine, masculine or neuter pronouns shall be substituted for those of another form, and the plural or singular shall be substituted for the other number, in any place in which the context may require.

23.9 The provisions of this Lease shall be binding upon and inure to the benefit of the parties and their respective representatives, successors and assigns, subject to the provisions herein restricting assignment or subletting.

23.10 Landlord and its designees may enter the Premises at any time with at least 48 hours advance notice (except in case of emergency in which case notice shall not be required) and if requested by Tenant, accompanied by a representative of Tenant, without charge therefor and without diminution of the rent payable by Tenant, to examine, inspect or protect the Premises and the Building, to make such alterations or repairs as Landlord is obligated to perform under this Lease. Landlord agrees to use commercially reasonable efforts not to disturb or interfere with Tenant's business while exercising its rights under this Section 23.10.

23.11 This Lease shall be governed by the laws of Maine, without taking into account the choice of laws principles.

23.12 Headings are used for convenience and shall not be considered when construing this Lease. Use of words such as hereof, herein, hereafter and the like shall be deemed to be reference to this entire Lease and not to provision, paragraph, section or articles in which such words appear.

23.13 The submission of a copy of this document to Tenant shall not constitute an offer or option to lease. This Lease shall become effective and binding only upon execution and delivery by both Landlord and Tenant.

23.14 Time is of the essence with respect to each obligation of Tenant and Landlord.

23.15 This Lease may be executed in multiple counterparts, each of which is deemed an original and all of which constitute one and the same document.

23.16 This Lease shall not be recorded. MRRA, Landlord and Tenant shall execute, in recordable form for recording in the Cumberland County Registry of Deeds, upon execution of this Lease, a commercially reasonable memorandum of lease prepared by Tenant, identifying MRRA, Landlord, Tenant, the Premises, the term of this Lease, including the Renewal Terms, and referring to Tenant's option rights and rights under Articles 24 and 25 of this Lease.

23.17 Except as otherwise provided in this Lease, any additional rent or other sum owed by Tenant to Landlord, and any cost, expense, damage or liability incurred by Landlord for which Tenant is expressly liable under this Lease, shall be considered additional rent payable pursuant to this Lease and paid by Tenant no later than ten (10) business days after the date Landlord notifies Tenant of the amount thereof, unless otherwise provided in this Lease.

23.18 Tenant's liabilities existing as of the expiration or earlier termination of the Lease Term shall survive such expiration or earlier termination.

23.19 If Landlord or Tenant is in any way delayed or prevented from performing any obligation due to fire, act of God, governmental act or failure to act, labor dispute, unforeseeable inability to procure materials or any cause beyond Landlord's or Tenant's reasonable control (whether similar or dissimilar to the foregoing

events), then the time for performance of such obligation shall be excused for the period of such delay or prevention and extended for the time necessary to compensate for the period of such delay or prevention. Nothing herein shall excuse or modify Tenant's covenant to pay timely all monetary obligations hereunder.

23.20 The deletion of any printed, typed or other portion of this Lease shall not evidence an intention to contradict such deleted portion. Such deleted portion shall be deemed not to have been inserted in this Lease.

23.21 Each person executing this Lease on MRRA's, Tenant's and Landlord's behalf each warrants that such person is duly authorized to so act.

23.22 If any Base Rent or additional rent is successfully collected by or through an attorney, Tenant shall pay the reasonable fees of such attorney together with all reasonable costs and expenses incurred by Landlord in connection with such matters, whether or not any legal proceedings have been commenced. If either party hereto brings an action at law or in equity to enforce or interpret this Lease, the prevailing party in such action shall be entitled to recover reasonable attorneys' fees and expenses and court costs for all stages of litigation, including, but not limited to, appellate proceedings, in addition to any other remedy granted.

23.23 MRRA, Landlord and Tenant agree to work cooperatively and in good faith to seek to obtain such grants, tax-increment financing, Governor's training initiative, Military Redevelopment Zone designation, loans and other economic incentives as may be available to Tenant or the Premises. MRRA and Landlord cannot guarantee, however, that Tenant will be a recipient of any such economic incentives. Tenant shall endeavor to be an engaged and supportive participant in the redevelopment of the Complex (provided that such participation shall not require Tenant to incur any material expenses).

23.24 Tenant and Landlord (each, a "Representing Party") each represents and warrants to the other that the Representing Party, the persons or entities that own any interest in the Representing Party, and all of the officers, directors, managers and members of the Representing Party are not persons or entities with whom U.S. persons or entities are restricted from doing business under regulations of the Office of Foreign Asset Control ("OFAC") of the Department of the Treasury (including those named on OFAC's Specially Designated Nationals and Blocked Persons List) or under any statute, executive order (including Executive Order 13224 (the "Executive Order") signed on September 24, 2001 and entitled "Blocking Property and Prohibiting Transactions with Person Who Commit, Threaten to Commit, or Support Terrorism"), or other governmental action.

23.25 Tenant covenants and agrees that in order to confirm the assurance required by the Civil Rights Act of 1964 and by 49 CFR Part 21 governing the US Department of Transportation, it will not, in its operation and use of the Premises, discriminate nor permit discrimination against any person or group of persons on the basis of race, color, or national origin, in any manner prohibited by 49 CFR Part 21 and all similar or comparable Maine statutes. Non-compliance with this provision is a breach of this Lease, subject to applicable grace or cure periods.

23.26 Notwithstanding anything to the contrary contained in this Lease, Tenant shall look only to Landlord's ownership in the Project for satisfaction of Tenant's remedies for the collection of a judgment (or other judicial process) requiring the payment of money by Landlord in the event of any default by Landlord hereunder, and no other property or assets of the partners or principals of Landlord, disclosed or undisclosed, shall be subject to levy, execution or the enforcement procedure for the satisfaction of Tenant's remedies under

or with respect to this Lease, the relationship of Landlord and Tenant hereunder or Tenant's use or occupancy of the Premises. No personal liability or personal responsibility is assured by, nor shall at any time be asserted or enforceable against Landlord, its members, partners or its principals, or their respective heirs, legal representatives, successors and assigns on account of this Lease or any covenant, undertaking, or agreement to Landlord contained herein.

23.27. TENANT AND LANDLORD EXPRESSLY AGREE THAT THERE ARE AND SHALL BE NO IMPLIED WARRANTIES OF MERCHANTABILITY, HABITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER KIND ARISING OUT OF THIS LEASE, AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE EXPRESSLY SET FOR IN THIS LEASE.

23.28. It is understood and agreed by and between the parties hereto that this Lease contains the final and entire agreement between said parties, and that they shall not be bound by any terms, statements, conditions or representations, oral or written, express or implied, not herein contained. This Lease may not be modified orally or in any manner other than by written agreement signed by the parties hereto.

23.29. As a prerequisite to Landlord entering this Lease Agreement, Landlord has required Tenant to deliver a Guaranty of Lease from Mölnlycke Health Care, U.S. dated of even or near date. A default, breach or failure to perform any obligation of the guarantor under said Guaranty of Lease shall be an Event of Default under this Lease Agreement. Such Guaranty of Lease shall be secured by a letter of credit on such terms and conditions as provided in the Guaranty of Lease.

23.30. Tenant shall, upon request of Landlord, promptly provide all reasonable information in the possession of Tenant required by or useful to Landlord for the purpose of Landlord's compliance with new markets tax credit information reporting requirements pursuant to the documents evidencing the loan from CCM Community Development XXII, LLC, its successors and assigns to Landlord.

ARTICLE 24
ADDITIONAL TENANT RIGHTS

24.1 (a) MRRA hereby grants to Tenant an option to purchase the Premises (the "Option to Purchase"), including without limitation any property leased pursuant to Tenant's exercise of an option to lease provided under section 25.2, at any time between the last day of the seventh (7th) Lease Year of the Initial Term and the expiration of the Lease Term at Landlord's Cost Basis (as defined below). Tenant may exercise such option only with respect to all of the property leased under this Lease Agreement, including without limitation property leased pursuant to the exercise of an option to lease under Section 25.2; exercise of the option with respsect to only a portion of the property so leased is not permitted. Tenant shall exercise the purchase option by sending MRRA written notice thereof on or before the expiration of the Lease Term (the "Exercise Date") provided, however, that Tenant shall not be in default beyond applicable grace or cure periods hereunder at the time that Tenant exercises the purchase option. Within thirty (30) days of the Exercise Date, MRRA and Tenant shall execute a commercially-reasonable and binding purchase and sale agreement for the Premises (the "Sale Agreement"). The closing of the sale of the Premises shall occur on or before one hundred twenty (120) days after the Exercise Date. At the closing, MRRA shall deliver to Tenant a statutory short form Quitclaim With Covenant Deed, conveying good and marketable title to the Premises in its then "as-is" physical

condition , free and clear of all liens and encumbrances, except those encumbrances listed on Exhibit A-3 and any declaration or other document imposed or recorded as described in Article 16 of this Lease. At such closing from the amounts paid to MRRA by Tenant, in exchange for Landlord's relinquishment to MRRA of Landlord's rights to the buliding and rights under the Ground Lease, MRRA shall pay to Landlord a sufficient amount to pay all indebtedness of Landlord then owed to Landlord's mortgagees. Tenant may designate in writing a grantee of the deed other than Tenant, and MRRA shall deliver the deed to such designee unless prohibited by law, regulation or applicable recorded restriction from so doing. MRRA also shall agree in writing at closing to pay to Tenant, or its successors and assigns, in immediately-available funds within thirty (30) days of receipt, Fifty Percent (50%) of the value of all funds or credits received by MRRA or Landlord, its successors and assigns, from and after the date of closing from the Town of Brunswick under any tax increment financing arrangement attributable to the Premises. Real estate taxes, municipal assessments, Base Rent and additional rent shall be pro rated between MRRA and Tenant at the closing, and MRRA shall assign to Tenant at the closing all MRRA's rights, to the extent assignable, under any TIF with respect to the Premises, to the extent assignable. MRRA also shall execute and deliver at the closing a title insurance affidavit regarding persons in possession and mechanics' liens. Notwithstanding any other provision of this Article 24, Tenant's option is only exercisable with respect to all property leased by Tenant pursuant to this Lease including any Expansion Premises and any additional parcels leased by Tenant under Article 25; the Tenant may not exercise the option with respect to less than all of the property leased by Tenant pursuant to this Lease.

(b) The term "Landlord's Cost Basis" shall be (A) the then current fair market value of the Land (excluding the value of any improvements thereon) as determined by Appraisal (as defined below) plus (B) the then outstanding principal balance of all mortgages, and New Markets Tax Credit financing incurred by Landlord for the initial construction of the Building and improvements on the Premises in the combined initial principal amount of $14,200,000, or any refinancings of all or any portions thereof, plus (C) the then current fair market value of any land leased pursuant to the exercise by Tenant of an option to lease pursuant to section 25.2 (excluding the value of any improvements thereon) as determined by Appraisal (as defined below) plus (D) the then outstanding principal balance of any mortgage, bond, and any other financing of any kind incurred by or guaranteed by MRRA or Landlord for the construction of any building or improvements cosntructed by Landlord pursuant to Article 25 of this Lease Agreement, after application of all lender reserves and sinking funds established pursuant to this Lease to such outstanding principal balance. Within thirty (30) days after Occupancy Commencement Date, Landlord shall deliver to Tenant copies of all loan closing statements and loan documents so that Tenant possesses the means to determine Landlord's Cost Basis. The "Appraisal" shall be performed by a licensed appraiser that is mutually and reasonably satisfactory to MRRA and Tenant who has at least fifteen (15) years of experience appraising commercial real estate in Maine. The cost of the Appraisal shall be paid equally by MRRA and Tenant. In the event that MRRA and Tenant cannot agree on the selection of an appraiser, each party shall select an appraiser meeting the aforesaid qualifications and the parties' appraisers shall select the appraiser who will acting singly perform the Appraisal. Each party shall be responsible for the cost of the appraiser selected by that party as provided above.

ARTICLE 25
EXPANSION PREMISES

25.1 Upon receipt of written notice from Tenant regarding Tenant's desire to expand the Building on the Land, Landlord agrees to use best efforts to expand the Building to include an additional area of not less than 5,000 nor more than 160,000 rentable square feet of space (the "Expansion Premises") to be located adjacent to the Building, such Landlord best efforts to include seeking to obtain financing for the cost of construction of the Expansion Premises and related site work. It shall be the obligation of Tenant to obtain or prepare design and construction specifications for the Expansion Premises and related site work, to obtain any and all required governmental approvals for the Expansion Premises, to obtain bids for construction of the Expansion Premises and related site work, and a construction contract substantially similar to the Construction Contract for construction of the Expansion Premises. For purposes of this section, "best efforts" shall not require Landlord to incur more out-of-pocket or other expenses or take more financial risk than Landlord incurred with respect to the Initial Premises. In the event that Landlord constructs the Expansion Premises, the Expansion Premises shall be leased to Tenant on the same terms and conditions as in this Lease for the Initial Premises, using the same methodology for determining Base Rent for the Expansion Premises as provided on Exhibit B with respect to the Initial Premises. Any financing for the Expansion Premises shall be (1) subordinate to any indebtedness of Landlord to CCM Community Development XXII, LLC, its successors and assigns ("CCML Lender") unless the prior written consent of CCML Lender is obtained and (2) subject to the prior written consent of CCML Lender if any indebtedness from Landlord to CCML Lender is then outstanding.

25.2 The provisions of this Section 25.2 shall become effective only upon the conveyence to MRRA of all of the land to the west of the Initial Premises shown as Lot 2 on Exhibit A-1 [the "Option Parcel"]. Landlord and Tenant acknowledge that MRRA does not presently own the entire Option Parcel, but expects to be conveyed the Option Parcel by the United States of America, Department of the Navy. No representation or warranty is made that MRRA will in fact receive such conveyence. Tenant shall have the the option at any time during the first ten (10) years of the Lease Term to lease the Option Parcel, (and reasonable rights of entry and egress and provision of utilities thereto), which option MRRA hereby grants to Tenant. Any lease of any such parcel shall be restricted to the same general purposes as the other property leased pursuant to this Lease. In the event that Tenant exercises its option(s), the lease of such parcel(s) shall be under a separate lease for the balance of the Lease Term hereunder and otherwise on comparable terms and conditions as contained in this Lease with respect to the Initial Premises. Such lease shall contain an obligation of Landlord to demolish, or cause MRRA to demolish, the presently existing building (commonly known as Building 9) located on the Option Parcel. Tenant shall pay to MRRA Base Rent equal to the then-fair market rent for such parcel(s). In the event that Tenant exercises either of its options as provided above and Tenant contemporaneously with such exercise or at any time thereafter during the Lease Term indicates in writing to MRRA that Tenant desires to construct building(s) on such parcel(s) as provided in Section 25.1 above, MRRA and Tenant shall engage in the efforts described in Section 25.1 above with respect to the optioned parcel(s). At the election of MRRA, MRRA may lease the Option Parcel to Landlord or another affiliate of MRRA and cause Landlord or such affiliate to lease the Option Parcel to Tenant on the same terms and conditions as described above.

25.3 MRRA hereby grants to Tenant a right of first refusal to purchase the land east of the Land and shown as Lot 3 on Exhibit A-1 or any portion thereof ("Lot3") as follows: In the event that MRRA receives a bona fide offer to purchase Lot 3from a third party that MRRA intends to accept, MRRA shall send a copy of such offer to Tenant. Tenant shall have thirty (30) days from receipt of such copy of the third-party offer to notify MRRA in writing that Tenant is exercising its right to purchase Lot 102 on the same terms and conditions

as the third-party offer. In the event that Tenant waives in writing its right to purchase Lot 3 pursuant to the third-party offer or fails within 30 days to notify MRRA in writing of the exercise of its right to purchase Lot 3 according to the terms of the third-party offer, Tenant's right of first refusal automatically shall be released and of no further force and effect.

[No further text; signatures on next page]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the date first above written.

WITNESS:

LANDLORD:

BRUNSWICK LANDING MHC USA, LLC

By:
Name: Steven H. Levesque
Title: Chief Executive Officer
Date: November 2, 2011

WITNESS:

TENANT:

MOLNLYCKE MANUFACTURING US, LLC

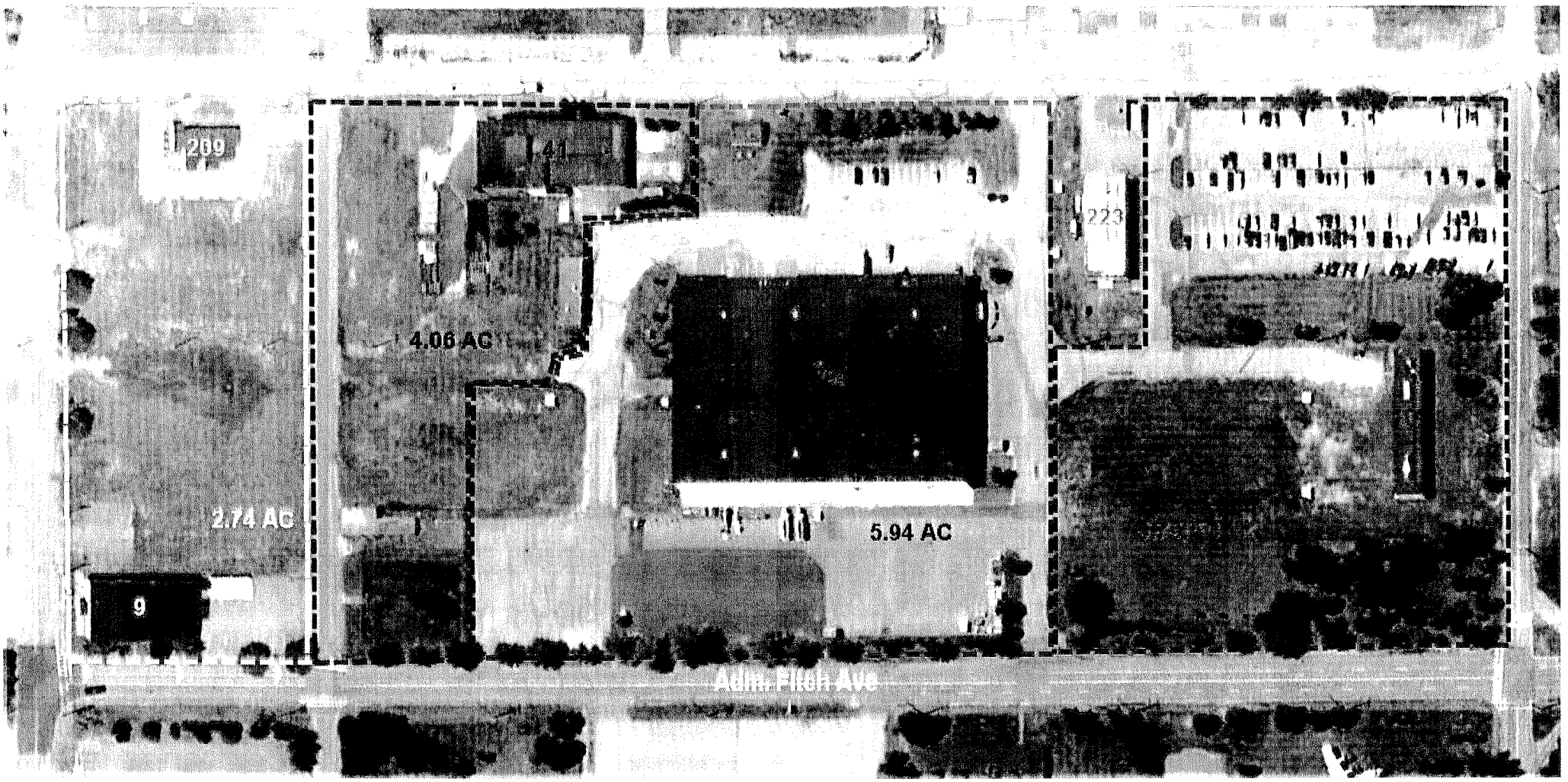
By:
Name: James W. Detert
Title: Site Director
Date: November 2, 2011

Seen and agreed to with respect to Section 2.2., Section 5.2, Section 10.1, Article 14, Article 16, Section 21.1, Section 23.16, Section 23.21, Section 23.23, Article 24 and Article 25 above:

MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

By:
Name: Steven H. Levesque
Title: Executive Director
Date: November 2, 2011

EXHIBIT A-1
PLAN SHOWING PREMISES



- - - - - - -	Lot	1 A	5.94 AC
- - - - - - -	Lot	1 B	4.06 AC
- - - - - - -	Lot	3	5.79 AC

EXHIBIT A-2
SURVEY DESCRIPTION OF PREMISES

A certain lot or parcel of land located on the southeasterly side of Seahawk Avenue, the southwesterly side of Pegasus Street, and the northwesterly side of Fitch Avenue in the Town of Brunswick, County of Cumberland, State of Maine, bounded and described as follows:

Beginning at a point on the northwesterly sideline of Fitch Avenue, said point lying S 63°37'13" W a distance of Four Hundred Sixty-Three and 26/100 (463.26) feet from the intersection of a line parallel to and Thirty (30) feet northeasterly of the southwesterly sideline of Pegasus Street and a line parallel to and Forty (40) feet southeasterly of the northwesterly sideline of Fitch Avenue (Pegasus Street being a proposed right of way Seventy-Five (75) feet in width and Fitch Avenue being a proposed right of way Eighty (80) feet in width). Thence:

(1) S 58°40'01" W by said Fitch Avenue a distance of Five Hundred Ninety-Five and 45/100 (595.45) feet to a point;

(2) N 31°34'21" W a distance of Two Hundred Eighty and 23/100 (280.23) feet to a point;

(3) N 58°41'43" E a distance of Seventy and 10/100 (70.10) feet to a point;

(4) N 36°16'45" E a distance of Thirty-Four and 96/100 (34.96) feet to a point;

(5) N 00°00'00" W a distance of Twenty-Six and 31/100 (26.31) feet to a point;

(6) N 21°02'17" W a distance of Twenty-Five and 96/100 (25.96) feet to a point;

(7) N 58°59'44" E a distance of Forty-Three and 50/100 (43.50) feet to a point;

(8) N 29°47'11" W a distance of Seventy-Four and 91/100 (74.91) feet to a point;

(9) N 52°32'16" E a distance of Fifty-Six and 07/100 (56.07) feet to a point;

(10) N 32°40'53" W a distance of Twenty-Four and 28/100 (24.28) feet to a point;

(11) N 58°18'49" E a distance of One Hundred Four and 61/100 (104.61) feet to a point;

(12) N 31°01'34" W a distance of One Hundred Six and 82/100 (106.82) feet to a point;

(13) N 58°40'01" E a distance of Two Hundred Thirty-Six and 14/100 (236.14) feet to a point;

(14) S 31°36'06" E a distance of Three Hundred Thirty-One and 32/100 (331.32) feet to a point;

(15) N 59°36'55" E a distance of Thirty-Two and 46/100 (32.46) feet to a point;

(16) S 31°17'31" E a distance of Two Hundred Twenty-Two and 02/100 (222.02) feet to the point of beginning.

The above described parcel contains 258,793 square feet, or 5.94 acres, lying over a portion of property now or formerly of Midcoast Regional Redevelopment Authority as described in a deed recorded in the Cumberland County Registry of Deeds in Book 29003, Page 03, and being shown on a Plan of ALTA/ACSM Land Title Survey-Molnlycke Leasehold Parcel-Phase 1 made for Wright-Pierce and Midcoast Regional Redevelopment Authority by Titcomb Associates dated October 7, 2011. Bearings are referenced to Grid North, Maine State Plane Coordinate System, West Zone (NAD83).

This description and the above referenced plan were prepared based on a plan entitled "Boundary Survey, Naval Air Station, Brunswick, Maine" prepared for BRAC Program Management Office by Sebago Technics dated August 2008.

EXHIBIT A-2
SURVEY DESCRIPTION OF SUPPLEMENTAL LAND

[Not yet available – refer to aerial photo – Exhibit A]

EXHIBIT A-3
TITLE ENCUMBRANCES

1. Real estate taxes and municipal charges which may constitute liens in the public records.

2. Matters set forth on a plan entitled, "Metes and Bounds Survey of Second Taking of Land, U.S. Naval Air Station, Brunswick, Maine", prepared by C. H. Barron, C. E., dated April 17, 1943 and recorded in the Cumberland County Registry of Deeds in Plan Book 29, Page 25.

3. Matters set forth on plans entitled, "Brunswick Naval Air Station Property" prepared by Sebago Technics, Job No. 96278, for the Department of the Navy, Northern Division, Sheets 1-10, recorded on October 23, 1997 in the Cumberland County Registry of Deeds in Plan Book 197, Pages 457-466.

4. Terms, conditions and rights of Affordable Mid Coast Housing, LLC regarding access and utilities as set forth in a Memorandum of Second Amended, Restated and Bifurcated Brunswick Real Estate Ground Lease and Conveyance of Facilities, dated October 28, 2010 and recorded in the Cumberland County Registry of Deeds in Book 28222, Page 303.

5. Terms, covenants, easements, restrictions and conditions set forth in an Agreement Granting Reciprocal Easement for Ingress and Egress, General Access and Utility Service by and between United States of America, acting through the Department of the Navy and MRRA, dated March 28, 2011 and recorded in the Cumberland County Registry of Deeds in Book 28607, Page 205.

6. Terms and conditions of the following Department of Environmental Protection Department Orders:

   a. Matters set forth on a Department of Environmental Protection Order dated May 22, 1991 and recorded in the Cumberland County Registry of Deeds in Book 9604, Page 51.

   b. Matters set forth on a Department of Environmental Protection Order dated March 28, 2001 and recorded in the Cumberland County Registry of Deeds in Book 16164, Page 300.

   c. Matters set forth on a Department of Environmental Protection Order dated November 21, 2001 and recorded in the Cumberland County Registry of Deeds in Book 17095, Page 171.

   d. Matters set forth on a Department of Environmental Protection Order dated March 4, 2003 and recorded in the Cumberland County Registry of Deeds in Book 19232, Page 329.

   e. Matters set forth on a Department of Environmental Protection Order recorded on January 11, 2011 in the Cumberland County Registry of Deeds in Book 28440, Page 111.

   f. Matters set forth on a Department of Environmental Protection Order recorded on March 1, 2011 in the Cumberland County Registry of Deeds in Book 28555, Page 36.

   g. Matters set forth on a Department of Environmental Protection Order dated March 28, 2001 and recorded in the Cumberland County Registry of Deeds in Book 16164, Page 304.

7. Terms, provisions, restrictions, rights and covenants set forth in a Quitclaim Deed from the United States of America, acting by and through the Secretary of the Navy, dated September 30, 2011 and recorded in the Cumberland County Registry of Deeds in Book 29003, Page 3. (Main Base Parcels EDC 1 – 4).

8. Terms, provisions, restrictions, rights and covenants set forth in a Quitclaim Deed from the United States of America, acting by and through the Secretary of the Navy, dated September 30, 2011 and recorded in the Cumberland County Registry of Deeds in Book 29004, Page 173. (Utility parcels).

9. Matters set forth on a plan entitled, "ALTA Land Title Survey - Molnlycke Leasehold Parcel – Phase 1", dated October 5, 2011 and prepared by Titcomb Associates to be recorded in the Cumberland County Registry of Deeds.

EXHIBIT A-4

FORM OF RECOGNITION AGREEMENT

NON-DISTURBANCE, RECOGNITION AND ATTORNMENT AGREEMENT FROM FEE OWNER/GROUND LESSOR

Reference is made to a certain ground lease dated November _____, 2011, between Midcoast Regional Redevelopment Authority, a body corporate and politic and a public instrumentality of the State of Maine (hereinafter referred to as "Ground Lessor"), as lessor, and Brunswick Landing MHC USA, LLC, a Maine limited liability company ("Landlord"), as lessee, of certain premises located at "Brunswick Landing" in Brunswick, Maine, more particularly described on **Exhibit A** attached hereto (the "Premises"). Said Lease is hereinafter referred to as the "Ground Lease."

Further reference is made to a Lease (the "Sublease") dated November ____, 2011, between Landlord, as sublessor, and Molnlycke Manufacturing US, LLC, a Delaware limited liability company, as the sublessee, (therein and hereinafter referred to as "Tenant") of the Premises.

In consideration of the mutual covenants and agreements herein contained, the parties hereto hereby agree as follows:

(1) Ground Lessor does hereby warrant and represent to Tenant that the Ground Lease has not been amended and is valid and in full force and effect as of the date hereof, that the term of the Ground Lease has heretofore commenced, that there are no defaults by either party thereunder, that Landlord is, as of the date hereof, the lessee under the Ground Lease and that nothing in the Ground Lease constrains, prohibits or restricts the execution and delivery of the Sublease or any term or condition contained in the Sublease.

(2) Ground Lessor does hereby consent to the execution and delivery of the Sublease and all of the terms and conditions therein contained. Ground Lessor does hereby recognize the Sublease and all of Tenant's rights thereunder. Ground Lessor does hereby agree that, if the term of the Ground Lease shall be canceled or shall terminate or expire prior to the expiration of the term of the Sublease, or Ground Lessor shall come into possession of all or any part of the demised premises described in the Sublease prior to the expiration of the term of the Sublease, the Sublease shall continue in full force and effect in accordance with its terms and Tenant's rights in the Premises and Tenant's rights under the Sublease, including without limitation the provision of the Sublease with respect to proceeds of insurance and actions of public authority by eminent domain, and Tenant's use, possession and enjoyment of the demised premises shall not be disturbed, except for such cause as would entitle Landlord to terminate the Sublease in accordance with the terms and conditions contained in the Sublease. Ground Lessor shall take no action which shall in any way interfere with any right of Tenant under the Sublease, and the Premises shall be and remain subject to the Sublease.

(3) Upon the cancellation, termination or expiration of the term of the Ground Lease, prior to the expiration of the term of the Sublease, as extended, whether the Ground Lease shall so terminate or expire, or be canceled, upon the expiration of its term as stated thereon or on any other date, and whether

upon the election of either Ground Lessor or Landlord hereunder, or in any other manner, Ground Lessor shall recognize Tenant as tenant of the demised premises for the balance of the term of the Sublease, as extended, in accordance with all of the provisions of the Sublease and Ground Lessor shall then and thereafter perform and observe all of the agreements and conditions on the part of Landlord under the Sublease, to be performed or observed.

(4) Tenant does hereby agree that, if the term of the Ground Lease shall be canceled or terminated prior to the expiration of the Sublease, Tenant shall recognize, and attorn to, Ground Lessor as the landlord under the Sublease in accordance with the terms and conditions contained in the Sublease, provided that Ground Lessor shall then assume in writing to Tenant to thereafter perform and observe all of the terms and conditions contained in the Sublease on the part of the landlord thereunder to be performed or observed.

(5) References herein contained to the term of the Ground Lease and the term of the Sublease shall mean the term thereof as then extended pursuant to the provisions thereof.

(6) The agreements contained herein shall be self-executing without the requirement of any further instrument or act by any party referred to herein. The Agreement shall be binding upon, and inure to the benefit of, each of the parties hereto and its successors and assigns.

IN WITNESS WHEREOF, each of the parties hereto has caused this instrument to be executed and delivered all as of the _____ day of November, 2011.

WITNESSES: Ground Lessor: Midcoast Regional Redevelopment Authority

_____ By: _____
Print name:
Its duly authorized:

Landlord: Brunswick Landing MHC USA, LLC

_____ By: _____
Print name:
Its duly authorized:

Tenant: Molnlycke Manufacturing US, LLC

_____ By: _____
Print name:
Its duly authorized:

State of Maine
County of Cumberland November _____, 2011

Personally appeared before me the above-named _____, _____ of Midcoast Regional Redevelopment Authority, and acknowledged the foregoing to be his free act and deed and the free act and deed of said corporation.

_____
Print name:
Notary Public/Attorney at Law

State of Maine
County of Cumberland November _____, 2011

Personally appeared before me the above-named _____, _____ of Brunswick Landing MHC USA, LLC, and acknowledged the foregoing to be his free act and deed and the free act and deed of said limited liability company.

_____
Print name:
Notary Public/Attorney at Law

State of Maine
County of Cumberland November _____, 2011

Personally appeared before me the above-named _____, _____ of Molnlycke Manufacturing US, LLC, and acknowledged the foregoing to be his free act and deed and the free act and deed of said limited liability company.

_____
Print name:
Notary Public/Attorney at Law

Exhibit A

[insert legal description of ground leased parcel]

EXHIBIT A-5

FORM OF SUBORDINATION, NON-DISTURBANCE, ATTORNMENT AND RECOGNITION AGREEMENT

SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT
(Loan A)

THIS AGREEMENT, made this ___ day of October, 2011, by and between **MOLNLYCKE MANUFACTURING USA LLC**, a Maine limited liability company, with offices at Brunswick Landing, 192 Admiral Fitch Avenue, Brunswick, Maine ("Tenant") and **CCM COMMUNITY DEVELOPMENT XXII LLC**, a Delaware limited liability company with a mailing address c/o CEI Capital Management LLC, 2 Portland Fish Pier, Suite 206, Portland, Maine 04101-4633 ("Lender").

WITNESSETH:

WHEREAS, pursuant to a Sublease Agreement dated October ___, 2011, as amended (hereinafter referred to as the "Sublease"), **BRUNSWICK LANDING MHC USA, LLC** ("Landlord") subleased and rented to Tenant certain premises located at Brunswick Landing, 192 Admiral Fitch Avenue, Brunswick, Maine and the appurtenant rights as provided in the Sublease (the "Property"), a more particular description of which Property appears in Exhibit "A", attached hereto and by this reference made a part hereof; and

WHEREAS, Lender is the holder of a certain Open End Construction and Permanent Leasehold Mortgage With Absolute Assignment of Leases and Rents, Security Agreement and Fixture Filing of even or near even date from Landlord, securing the amount of $10,212,640.00, (the "Leasehold Mortgage") encumbering the Property, which Leasehold Mortgage is to be recorded in the Cumberland County Registry of Deeds; and

WHEREAS, the Sublease has been collaterally assigned to Lender by Landlord as security for the payment by the Landlord of the loans and the Obligations described in the Leasehold Mortgage; and

WHEREAS, Lender does not wish to make the loan secured by the Leasehold Mortgage or to consent to Tenant's Sublease, unless Tenant subordinates the Sublease and Tenant's rights thereunder to the liens and provisions of the Leasehold Mortgage; and

WHEREAS, Tenant is not obliged to subordinate the Sublease and Tenant's rights thereunder unless and until Lender has agreed to recognize Tenant's rights under the Sublease as provided herein; and

WHEREAS, Tenant and Lender desire hereby to establish certain rights, safeguards, obligations and priorities with respect to their respective interests by means of the following Subordination, Non-Disturbance and Attornment Agreement:

1. The Sublease and the rights of Tenant thereunder (including any rights to purchase) are and shall be subject and subordinate to the lien of the Leasehold Mortgage and to all of the terms, conditions and provisions thereof, to all advances made or to be made thereunder, to the full extent of the principal sum and

interest thereon from time to time secured thereby, and to any renewal, substitution, extension, modification or replacement thereof, including any increase in the indebtedness secured thereby or any supplements thereto, and all other indebtedness secured by the Leasehold Mortgage, or any renewal, substitution, extension, modification, or replacement thereof. In the event that Lender or any other person acquires title to the Property pursuant to the exercise of any remedy provided for in the Leasehold Mortgage, by reason of the acceptance of a deed in lieu of foreclosure or in any other manner (the Lender, any other such person and their participants, successors and assigns being referred to herein as the "Purchaser"), Tenant covenants and agrees to attorn to and recognize and be bound to Purchaser as its new Landlord, and subject to the provision in Paragraph 2 of this Agreement, the Sublease shall continue in full force and effect as a direct Sublease between Tenant and Purchaser.

2. So long as the Sublease is in full force and effect and Tenant is not in default under any provision of the Sublease beyond applicable grace or cure periods, and no event has occurred which has continued to exist for a period of time (after notice, if any, required by the Sublease) as would entitle Landlord to terminate the Sublease or would cause without further action by Landlord, the termination of the Sublease or would entitle Landlord to dispossess the Tenant thereunder:

a. the right of possession of Tenant to the Property and all other rights of Tenant under the Lease shall not be terminated or disturbed by any action or proceedings taken by Lender in the exercise of any of its rights under the Leasehold Mortgage or the indebtedness secured thereby, and Lender shall recognize and respect all of Tenant's rights under the Sublease, including without limitation any and all options to purchase the Property and purchase or lease additional land; and

b. the Sublease shall not be terminated by said exercise of any remedy provided for in the Leasehold Mortgage, and Lender thereby covenants that any sale by it of the Property pursuant to the exercise of any rights and remedies under the Leasehold Mortgage or otherwise, shall be made subject to the Sublease and the rights of Tenant thereunder, including without limitation any and all options to purchase the Property and purchase or lease additional land.

3. In no event shall Lender or any other Purchaser be:

a. liable for the return of any security deposit unless such deposit has been delivered to Lender;

b. bound by any payment of rent or additional rent which Tenant might have paid to Landlord or any prior landlord for more than the current month;

c. bound by any amendment, modification or termination of the Sublease made after the date hereof without Lender's or such other Purchaser's prior written consent;

d. personally liable under the Sublease, Lender's liability being limited to Lender's interest in the Property, or

e. liable for any indemnity obligations of Landlord under the Sublease with respect to environmental matters or releases of hazardous materials occurring at any time when Lender was not in possession of, operating and making hazardous materials decisions with respect to the Property.

f. liable for any previous act or omission of Landlord under the Sublease, other than those acts or omissions Lender or any other Purchaser succeeds to the Landlord's interest under the Sublease, of which Tenant has given Lender notice of in the manner provided in this Agreement prior to Lender's or any other Purchaser's succession to the obligations of Landlord under the Sublease;

g. subject to any off-set, defense or counterclaim which shall have previously accrued to Tenant against Landlord other than those which are specifically set forth in the Sublease and of which Tenant has given Lender notice and opportunity to cure in the manner provided in this Agreement;

4. Tenant agrees to give prompt written notice to Lender of any default by Landlord under the Sublease which would entitle Tenant to cancel the Sublease or abate the rent payable thereunder or set off rent in accordance with the Sublease. Notwithstanding any provision of the Sublease, no notice of cancellation thereof given on behalf of Tenant shall be effective unless Lender has received said notice and has failed within 30 days of the date of receipt thereof to cure Landlord's default, or if the default cannot be cured within 30 days has failed to commence and thereafter diligently pursue the cure of Landlord's default which gave rise to such right of cancellation or abatement and, in any event, effect a cure within 90 days of its receipt of such notice. Tenant further agrees to give such notices to any successor of holder of said Leasehold Mortgage, *provided* that such successor shall have given written notice to Tenant of its acquisition of Lender's interest in the Leasehold Mortgage and designated the address to which such notices are to be sent. Tenant further agrees to give written notice to Lender of any election by Tenant to terminate the Sublease pursuant to Section 3.1(b) or to exercise the Option to Purchase under Section 24.1 of the Sublease not less than 30 days prior to the effective date of any such termination or purchase. If requested by Lender in writing prior to the expiration of such 30 day period Tenant shall, and Landlord hereby authorizes Tenant to, make any payments due to Landlord or MRRA directly to Lender. To the extent any such payment exceeds the amount of the Obligations, Lender agrees to deliver the balance to Landlord or MRRA as applicable.

5. Tenant acknowledges that Landlord will execute and deliver to Lender an Assignment of Leases and Rents conveying the rentals under the Sublease as additional security for the loan secured by the Leasehold Mortgage, and Tenant hereby expressly consents to such Assignment. Landlord hereby agrees that rentals payable under the Sublease shall be paid directly by Tenant to Lender upon an event of default by Landlord under the Leasehold Mortgage and that any amounts so paid shall discharge Tenant's obligations to Landlord *pro tanto*. After receipt of notice from Lender to Tenant (at the address set forth above) that Rents under the Sublease should be paid to Lender, Tenant shall pay to Lender all monies due to Landlord under the Sublease as they come due in accordance with the terms of the Sublease.

6. Tenant agrees that it will not, without the prior written consent of Lender, subordinate or permit subordination of the Sublease to any lien subordinate to the Leasehold Mortgage. Tenant and Landlord agree that the Sublease will not amended or modified without the prior written consent of Lender, provided, however, that Lender shall not unreasonably withhold consent to amendments that the Tenant and Landlord desire to make.

7. Tenant agrees to certify in writing to Lender, upon request, whether or not, to the knowledge of Tenant, any default on the part of Landlord exists under the Sublease and the nature of any such default.

8. Tenant agrees to enter into a subordination, non-disturbance and attornment agreement with any entity which shall succeed Lender as direct assignee from Lender with respect to the Property, or any portion thereof, provided such agreement is substantially similar to this Agreement.

9. Tenant agrees, at any time, and from time-to-time, upon not less than twenty (20) days' prior request by Lender, to execute, acknowledge, and deliver to Lender a statement in writing certifying, if such be the case, that the Sublease is unmodified and in full force and effect (or, if there have been modifications, stating the modifications, and that the Sublease as modified is in full force and effect), and that, to Tenant's actual knowledge, there are no defenses or offsets thereto then accrued, or stating those claimed by Tenant, and the dates to which the rent and other charges under the Sublease have been paid, it being intended that any such statement delivered pursuant to this Paragraph 9 may be relied upon by any Purchaser or other successor to Lender.

10. Tenant hereby certifies and represents to Lender that the person executing this Agreement is duly authorized and empowered in all respects to do so on behalf of Tenant, and as of the date of this Agreement, the Sublease is in full force and effect and has not been modified or amended except as may be noted in this Agreement.

11. The provisions hereof shall be self-operative and effective without the execution of any further instruments on the part of either party hereto.

12. From and after payment in full of the loan secured by the Leasehold Mortgage and the recordation of a release or satisfaction thereof, without the transfer of the Property to Lender as a Purchaser, this Agreement shall become void and of no further force or effect.

13. The agreements herein contained shall be binding upon and shall inure to the benefit of the parties hereto, their respective participants, successors, and assigns, and, without limiting such, the agreements of Lender shall specifically be binding upon any Purchaser of the Property at foreclosure or at a sale under power.

14. This Agreement may not be modified other than by an agreement in writing signed by Tenant, Lender and Landlord or their respective successors.

15. This Agreement may be signed in counterparts.

16. If any term or provision of this Agreement shall to any extent be held invalid or unenforceable, the remaining terms and provisions hereof shall not be affected thereby, but each term and provision hereof shall be valid and enforceable to the fullest extent permitted by law.

[NO FURTHER TEXT. SIGNATURE PAGE FOLLOWS.]

IN WITNESS WHEREOF, Tenant and Lender have caused this instrument to be executed under seal of the day and year first above written.

Signed, sealed and delivered
in the presence of:

TENANT:
MOLNLYCKE MANUFACTURING
US LLC

_____
Witness

By: _____
Name:
Title:

STATE OF MAINE
Cumberland, ss.

October ___, 2011

PERSONALLY APPEARED the above named _____, in his capacity as _____ of Tenant, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Tenant.

Before me,

_____
Notary Public/Attorney at Law

_____
Print Name

IN WITNESS WHEREOF, Tenant and Lender have caused this instrument to be executed under seal of the day and year first above written.

Signed, sealed and delivered
in the presence of:

LENDER:
CCM COMMUNITY DEVELOPMENT
XXII LLC

By: CEI Capital Management LLC
Its Managing Member

_____
Witness

By: _____
Name: F. Robert Wilson
Title: Senior Investment Officer

STATE OF MAINE
Cumberland, ss.

October ___, 2011

PERSONALLY APPEARED the above named F. Robert Wilson, in his capacity as Senior Investment Officer of said Managing Member of Lender, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Managing Member and of said Lender.

Before me,

_____
Notary Public/Attorney at Law

_____
Print Name

IN WITNESS WHEREOF, Landlord joins herein for purposes of acknowledging the provisions hereof and agreeing to payments and Rent in accordance with the provisions hereof.

Signed, sealed and delivered
in the presence of:

LANDLORD:
BRUNSWICK LANDING MHC USA, LLC

_____
Witness

By: _____
Name:
Title:

STATE OF MAINE
Cumberland, ss.

October ___, 2011

PERSONALLY APPEARED the above named _____, in his capacity as _____ of Landlord, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Landlord.

Before me,

_____
Notary Public/Attorney at Law

_____
Print Name

EXHIBIT B

BASE RENT SCHEDULE

Total Square Footage-Initial Premises*	79,000*
Initial Term	240 months after Occupancy Commencment Date

* Includes only Initial Premises

FROM THE EFFECTIVE DATE OF THIS LEASE AGREEMENT THROUGH THE OCCUPANCY COMMENCEMENT DATE:

During the period from the Effective Date through the Occupancy Commencment Date, Tenant shall pay to Landlord Base Rent as follows:

On the Effective Date, Tenant shall pay to Landlord the initial lease payment of $ 114,720.00. [Insert the amount of all of Tenant's unpaid reimbursement obligations to Landlord including professional fees and other agreed expenses]

On the earliest to occur of December 30, 2011, the Refinancing (as hereinafter defined) or five business days after notice from Landlord, Tenant shall pay to Landlord an amount equal to the difference between (a) the total debt service (principal and interest) then due (or to be due upon the date determined by such notice from Landlord to Tenant) pursuant to all of Landlord's indebtedness to Bangor Savings Bank for loans used to construct or improve the Premises in the initial principal amount of $1,500,000 and (b) the principal and interest amount thereof which is paid with the proceeds of any Refinancing occurring on the date in which said amount is payable.

"Refinancing" means the incurrence by Landlord of indebtedness to CCM Community Development XXII, LLC (the "NMTC Financing") or another lender or lenders satisfactory to Landlord and Tenant (the "Alternate Lenders") for the purposes of (1) repaying the then-outstanding principal of the Bangor Savings Bank loan described above and (2) constructing or improving the Premises.

On the 1st day of each calendar month following any Refinancing through the Occupancy Commencement Date (construction period), Tenant shall pay to Landlord an amount equal to the total debt service (principal and interest) then due or scheduled to become due within the next 30 days pursuant to all of Landlord's indebtedness to CCM Community

Development XXII, LLC or any Alternate Lenders. If CCM Community Development XXII, LLC is the Lender with respect to the Refinancing, then (1) Tenant shall also pay to Landlord $1,583.33 on the _1st_ day of each calendar month and (2) beginning in the 13th month following the Refinancing, Tenant shall also pay to Landlord on the _1st_ day of each calendar month the additional sum of $28,735.23.

On or before the date on which any payment of real estate taxes is due to the Town of Brunswick, Maine, Tenant shall pay to Landlord the amount of any and all real estate taxes due to the Town of Brunswick with respect to the Initial Premises. The preceding sentence shall not modify the obligations of MRRA pursuant to Section 5.3 of this Lease (regarding payments related to tax increment financing).

AFTER THE OCCUPANCY COMMENCEMENT DATE OF THIS LEASE AGREEMENT:

Following the Occupancy Commencement Date, Tenant shall pay to Landlord monthly Base Rent equal to the amount which is one hundered-twenty percent (120%) of the sum of the following: (a) all of Landlord's monthly debt service (principal, interest and other charges, except that no "other charges" attributable to acts or omissions of Landlord not caused by Tenant's late payment [determined without regard to any grace periods under this Lease] or other conduct of Tenant shall be included in this formula) on all amounts owed by Landlord to CCM Community Development XXII, LLC, its successors and assigns, for the loans used to construct or improve the Premises in the initial principal amount of $14,200,000, (b) all of Landlord's debt service (principal, interest and other charges, except that no "other charges" attributable to acts or omissions of Landlord not caused by Tenant's late payment [determined without regard to any grace periods under this Lease] or other conduct of Tenant shall be included in this formula)) on all amounts owed by Landlord to any Alternate Lender, its successors and assigns, for the loans used to construct or improve the Premises, (c) all of Landlord's debt service (principal, interest and other charges) on all amounts owed by Landlord pursuant to any refinancing of all or any portion of such loans described in subparts (a) and (b) above, (d) in the event that CCM Community Development XXII, LLC, its successors and assigns is the lender with respect to the Refinancing, beginning as of the Occupancy Commencement Date and ending after 84 monthly payments (including any payments made before the Occupancy Commencement Date) have been made, the sum of $28,735.23 per month and (e) in the event that CCM Community Development XXII, LLC, its successors and assigns is the lender with respect to the Refinancing, the amount of $1,583.33 in each of the first twelve (12) months after the Refinancing(for clarity, it is not intended that this read Occupancy Commencement Date) such amount increasing by four percent (4%) for the thirteenth (13th) month thereafter and then further increasing four percent (4%) each twelve (12) months thereafter.

Notwithstanding the foregoing, Landlord and Tenant agree that beginning in Lease Year 10, in the event and at such times that the separate identifiable obligation to CCM Community Development XXII, LLC in the amount of $3,987,640 remains outstanding and not repaid or refinanced, the above formula shall be modified to require Tenant to pay as Base Rent only

one hundred percent (100%) of the debt service thereon and not one hundred twenty percent (120%) unless any lender refinancing the other indebtedness of Landlord to CCM Community Development XXII, LLC, its successors and assigns, shall require a covenant or debt service coverage ratio of one hundred twenty percent (120%) or greater that incorporates such separate identifiable obligation, in which case this paragraph shall be inapplicable.

All references to Landlord above include Landlord's successors and assigns.

LANDLORD AND TENANT AGREE AND ACKNOWLEDGE (1) THAT ANY COMPUTATIONS PROVIDED TO TENANT OF RENT COMPUTATIONS ARE FOR PURPOSES OF ILLUSTRATION AND THE ACTUAL BASE RENT SHALL BE DETERMINED AS PROVIDED ABOVE AND AS ILLUSTRATED BY EXAMPLE BELOW AND (2) THAT THE INITIAL FINANCING FOR THE PREMISES HAS A TERM OF TEN YEARS WITH AN AMORTIZATION SCHEDULE OF TWENTY YEARS SO THAT A SUBSTANTIAL BALANCE WILL REMAIN AFTER TEN YEARS TO BE REFINANCED, THEREBY CAUSING A POSSIBLY SIGNIFICANT CHANGE IN THE BASE RENT AFTER THE COMPLETION OF THE FIRST TEN YEARS OF THE LEASE TERM, DEPENDING ON THE TERMS OF THE TENTH YEAR REFINANCING. LANDLORD SHALL NOT BE OBLIGATED TO REFINANCE SAID BALANCE FOR ANY TERM IN EXCESS OF THE THEN-REMAINING PERIOD OF THE LEASE TERM.

ESTIMATED BASE RENT:

Based upon information currently available to Landlord and Tenant, the estimated annual Base Rent beginning on the Occupancy Commencement Date is as follows,

Lease Year 1	$1,163,538.37
Lease Year 2	$1,163,538.37
Lease Year 3	$1,163,538.37
Lease Year 4	$1,163,538.37
Lease Year 5	$1,163,538.37
Lease Year 6	$1,163,538.37
Lease Year 7	$1,070,450.00
Lease Year 8	$1,070,450.00

Base Rent was calculated as shown on the spreadsheet attached as Exhibit B-1. In the event that the NMTC Financing closes, the Excel Spreadsheet entitled Estimated Rent Computation to Include in Lease (November 1, 2011)_(the "Base Rent Spreadsheet"), and the formulas contained therein, shall be used by the parties as illustrative as to how to determine the Base Rent from the Occupancy Commencement Date.

Begining in at the start of the 9th year following the Occupancy Commencement Date, the Landlord and the Tenant have estimated the annual Base Rentto be as follows:

Lease Year 9	$1,080,726.32
Lease Year 10	$1,091,101.29
Lease Year 11	$1,101,575.87
Lease Year 12	$1,112,150.99
Lease Year 13	$1,122,827.64
Lease Year 14	$1,133,606.79
Lease Year 15	$1,144,489.41
Lease Year 16	$1,155,476.51
Lease Year 17	$1,166,569.09
Lease Year 18	$1,177,768.15
Lease Year 19	$1,189,074.72
Lease Year 20	$1,200,489.84

At the beginning of the 9th year, an annual adjustment factor of 1.096 will be applied to the previous lease year's annual Base Rent to determine the Base Rent for lease year 9.

Refinancing will occur at on or prior to the beginning of Lease Year 10. Following the refinancing, Tenant shall pay to Landlord Base Rent equal to the amount which is one hundered-twenty percent (120%) of all of Landlord's debt service (principal, interest and other charges, except that no "other charges" attributable to acts or omissions of Landlord not caused by Tenant's late payment [determined without regard to any grace periods under this Lease] or other conduct of Tenant shall be included in this formula) on all amounts owed by Landlord to mortgage lenders.

The estimated Base Rent above and Base Rent Spread sheet assume refinancing at existing rates for Lease Year 10 and subsequent for the $10,212,640 component of Landlord's initial debt obligation to CCM Community Development XXII, LLC. Actual rates for refinancing may vary.

By way of further explanation, the Base Rent calculations performed by the Base Rent Spreadsheet under the 'put scenario" are as follows:

Effective Date to the start of Lease Year 1 - (i.e. the construction period)

Annual Base Rent during the construction period is calculated as the sum of column A (Construction Loan), column E (CCML Asset Management Fee), column F (CDE Operating Expense), column H (CDE Deposit to Operating Reserve), column I (Investment Fund Operating Expense), and column J (QALICB Operating Expense).

Lease Years 1 through 6

Annual Base Rent is calculated as the sum of column B (Interest Only Payments During NMTC Period), column C (Contribution to Principal Reduction Due in 2018), column D (Debt Service on Leveraged Loan QLICI Loan A), column E (CCML Asset Management Fee), column F (CDE Operating Expense), column G (CCML Back End Fee), column H (CDE Deposit to Operating Reserve), column I (Invest Fund Operating Expense), and column J (QALICB Operating Expense) with the sum then multiplied by 120% to equal the Total Cost (Column M). The Total Cost is then divided by the total square feet of the building (79,000 square feet) to come up with the annual Base Rent per square foot (Column O).

The per square foot cost calculated above is further modified as follows:

The individual year square foot cost calculation is performed for each of the lease years 1-6. The Base Rent for each of the lease years 1-6 is determined by calculating the simple average of the calculated Base Rent for lease years 1-6 and using that average as uniform rate for lease years 1-6.

Lease Years 7 and 8

Annual Base Rent is calculated as the sum of column B (Interest Only Payments During NMTC Period), column C (Contribution to Principal Reduction Due in 2018), column D (Debt Service on Leveraged Loan QLICI Loan A), column E (CCML Asset Management Fee), column F (CDE Operating Expense), column G (CCML Back End Fee), column H (CDE Deposit to Operating Reserve), column I (Investment Fund Operating Expense), and column J (QALICB Operating Expense) with the sum then multiplied by 120% to equal the Total Cost (Column M). The Total Cost is then divided by the total square feet of the building (79,000 square feet) to come up with the annual Base Rent per square foot (Column O).

The Base Rent per square foot calculated above is further modified as follows:

The individual year annual Base Rent per square foot calculation is performed for each of lease years 7 and 8. The annual Base Rent for each of lease years 7 and 8 is uniform and is determined by calculating the simple average of the calculated annual Base Rent for lease years 7 and 8 and using that average as uniform rate for lease years 7 and 8.

Lease Year 9

The annual Base Rent per square foot for lease year 9 is obtained by multiplying the previous lease year's annual Base Rent per square foot by 1.096. (0.96% escalation factor).

Lease Year 10

The annual Base Rent per square foot for lease year 10 is based on the refinancing that will be done in lease year 10. Tenant shall pay to Landlord Base Rent equal to the amount which is one hundered-twenty percent (120%) of all of Landlord's debt service (principal, interest and other charges, except that no "other charges" attributable to acts or omissions of Landlord not caused by Tenant's late payment [determined without regard to any grace periods under this Lease] or other conduct of Tenant shall be included in this formula) on all amounts owed by Landlord due to the refinancing. There will be no escalation factor applied in lease year 10.

Lease Years 11-20 (example assumes refinancing that extrapolates terms from construction loan)

Annual Base Rent is calculated as the sum of column B (Interest Only Payments During NMTC Period), column C (Contribution to Principal Reduction Due in 2018), column D (Debt Service on Leveraged Loan QLICI Loan A), column E (CCML Asset Management Fee), column F (CDE Operating Expense), column G (CCML Back End Fee), column H (CDE Deposit to Operating Reserve), column I (Investment Fund Operating Expense), and column J (QALICB Operating Expense) with the sum then multiplied by 120% to equal the Total Cost (Column M). The Total Cost is then divided by the total square feet of the building (79,000 square feet) to come up with the annual Base Rent per square foot (Column O).

The foregoing is modified such that the actual annual Base Rent per square foot is the higher of:

1) the annual Base Rent per square foot cost calculated per the above, or

2) the annual Base Rent per square foot of the previous lease year multiplied by 1.096 (0.96% escalation factor)

Lease Years 21 – 25

The annual Base Rent per square foot for each lease year is obtained by multiplying the previous lease year's annual Base Rent per square foot by 1.01 (1% escalation factor).

Lease Years 26-30

The annual Base Rent per square foot for each lease year is obtained by multiplying the previous lease year's annual Base Rent per square foot by 1.02 (2% escalation factor).

Notes:

1. Landlord and Tenant agree that the actual amounts in columns A through J of the attached Base Rent Spreadsheet could be different and the actual Base Rent calculation shall be based on actual values as determined by the NMTC Financing. The estimates on the attached Base Rent Spreadsheet have been used to structure the transaction and the parties intend that the actual figures will be similar to the estimates.

2. In the event that a)the NMTC Financing closes and, b) at the end of the New Markets Tax Credit compliance period, Wells Fargo Community Investment Holdings, LLC (the tax credits investor) does not exercise to the so-called "put option" to sell its interest in WF Rynel Investment Fund, LLC (the pooling entity), Tenant may by timely written notice to MRRA, require MRRA to exercise the so-called "call option" provided that Tenant provides funding to MRRA to cover the price of purchasing the interest in WF Rynel Investment Fund, LLC.

MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY
MOLNLYCKE HEALTHCARE
BUILD TO SUIT

	November 1, 2011	
Midcoast Regional Redevelopment Authority Participation		
Demolition Building 294	$50,000	x
Asbestos Removal	$78,593	
Change Order Asbestos removal	$37,800	
Site electrical	$147,000	x
Water and Sewer Infrastructure to the building	$50,000	x
Stormwater utilities on site	$40,000	x
Contribution to Homeless Assistance Trust Fund required by McKinney Act	$5,600	
Second Survey (relocated site)	$3,450	
Total	**$412,443**	
Value of Land to the Deal (10 acres at $50,000 per acre)	$500,000	
Total MRRA contribution	**$912,443**	

Expenses

Construction costs		
Civil, Architectural, Structural Components		
Mechanical		
Sprinkler		
Electrical		
Fire Alarm		
General Requirements		
General Contractor Fee		
Construction Bid (Pizzagalli Construction Company)	$12,633,000	
Less MRRA contributions	($287,000)	x
Winter Shutdown costs	$252,251	
	$12,598,251	
Contract Administration /Clerk of the Works (estimated at $170,000 to be paid directly by Molnlycke)	$0	
Bank Clerk of the Works ($10,600 less bank contribution of $6,000)	$4,600	
Construction Contingency (5.0%)	$629,913	
	$13,232,764	
Financing Costs		
CCML Loan Placement Fee (3.0% upfront)	$426,000	
Implan Impact Report (may likely be higher)	$3,500	
CCML Back End Fee	$0	
CCML Annual Audit Fee	$0	
CCML Management Fees	$0	
Legal Fees	$380,000	
Commitment Fee (37.5basis points)	$40,875	
Bank legal representation	$70,000	
Phase I environmental assessment	$5,000	

Construction budget review	$500
Title updates during construction	$150
MRRA Attorney Fee	$40,000
Bank Appraisal	$7,500
Title Insurance (0.5%)	$71,000
Building Permit	$31,600
Rate Lock (25 basis points)	$25,532
Bank Fee (October 4, 2011) 10 basis points	$10,213
Second Appraisal	$5,000
	$1,116,869

Total Estimated Construction and Direct Financing Costs	**$14,349,633**
New Markets Tax Credit (revised August 26)	($3,987,360)
Leveraged or Equity Dollars Needed to Fund the Project	**$10,362,273**
Bangor Savings Bank Communication of Loan A (September 15, 2011)	**$10,212,640**
Current short fall:	($149,633)

Construction Period Obligation of Molnlycke Healthcare

Molnlycke to provide construction loan financing Year One	$491,838
Molnlycke to begin interest obligation on New Market Tax Credit Loan B Year One	$102,880
Total	**$594,718**

Includes items marked with ("x") above - assumed site work included $50,000 demolition budget for 294

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MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

MODEL OF NMTC PROGRAM, LEVERAGE LOAN AND LEASE CALCULATION WITH PUT OPTION

	Year	a Construction Loan (prime plus 150 basis points currently (4.75% BSB 360 loan calculator)	b Interest Only Payments During NMTC Period (assumes rate lock payment - 5.00% BSB 360 day loan calculator - page x)	c Contribution to principal reduction due in 2018 (page xx)	d Debt Service On Leveraged Loan QLICI Loan A (assumes same financing terms for years 11 through 20)	e CCML Asset Management Fee (0.5% of total project cost $14.2 million) (page xx)	f CDE Operating Expense	g CCML Back End Fee *
	2012	$491,837.91				$71,000.00	$10,000.00	
1	2013		$517,780.85	$344,822.75	$0.00	$71,000.00	$10,400.00	$0.00
2	2014		$517,780.85	$344,822.75	$0.00	$71,000.00	$10,816.00	$0.00
3	2015		$517,780.85	$344,822.75	$0.00	$71,000.00	$11,248.64	$0.00
4	2016		$517,780.85	$344,822.75	$0.00	$71,000.00	$11,698.59	$0.00
5	2017		$517,780.85	$344,822.75	$0.00	$71,000.00	$12,166.53	$0.00
6	2018		$517,780.85	$344,822.75	$0.00	$71,000.00	$12,653.19	$0.00
7	2019		$0.00	$0.00	$813,533.40	$0.00	$0.00	$53,250.00
8	2020		$0.00	$0.00	$813,533.40	$0.00	$0.00	$53,250.00
9	2021		$0.00	$0.00	$813,533.40	$0.00	$0.00	$53,250.00
10	2022		$0.00	$0.00	$813,533.40	$0.00	$0.00	$53,250.00
11	2023		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00
12	2024		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00
13	2025		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00
14	2026		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00
15	2027		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00
16	2028		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00
17	2029		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00
18	2030		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00
19	2031		$0.00	$0.00	$813,531.91	$0.00	$0.00	$0.00
20	2032		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
			$3,106,685.09	$2,068,936.50	$10,575,932.71	$497,000.00	$78,982.94	$213,000.00
	2033			$0.00		$0.00	$0.00	$0.00
	2034			$0.00		$0.00	$0.00	$0.00
	2035			$0.00		$0.00	$0.00	$0.00
	2036			$0.00		$0.00	$0.00	$0.00
	2037			$0.00		$0.00	$0.00	$0.00
				$0.00		**$0.00**	**$0.00**	**$0.00**
	2038			$0.00		$0.00	$0.00	$0.00
	2039			$0.00		$0.00	$0.00	$0.00
	2040			$0.00		$0.00	$0.00	$0.00
	2041			$0.00		$0.00	$0.00	$0.00
	2042			$0.00		$0.00	$0.00	$0.00
				$0.00		**$0.00**	**$0.00**	**$0.00**
			$3,106,685.09	$2,068,936.50		$497,000.00	$78,982.94	$213,000.00

* Deferment and reduction of back end fee contingent on no default on loan agreements and plant is used for intended purpose.

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MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

MODEL OF NMTC PROGRAM, LEVERAGE LOAN AND LEASE CALCULATION WITH PUT OPTION

h CDE Deposit to Operating Reserve (page xx)	i Investment Fund Operating Expense (page xx and xx)	j QALICB Operating Expense (operating and audit fees)	k Base for Debt Coverage Ratio	l Debt Coverage Ratio	m Total Cost	n Square Foot Cost (79,000 sq. ft.)		o Base Rent	p Base Rent Revenue
									$594,717.91
$1,880.00	$1,000.00	$19,000.00							
$1,880.00	$1,000.00	$19,570.00	$966,453.60	$193,290.72	$1,159,744.32	$14.68		$14.73	$1,163,538.37
$1,880.00	$1,000.00	$20,352.80	$967,652.40	$193,530.48	$1,161,182.88	$14.70		$14.73	$1,163,538.37
$1,880.00	$1,000.00	$21,166.91	$968,899.15	$193,779.83	$1,162,678.98	$14.72		$14.73	$1,163,538.37
$1,880.00	$1,000.00	$22,013.59	$970,195.77	$194,039.15	$1,164,234.93	$14.74		$14.73	$1,163,538.37
$1,880.00	$1,000.00	$22,894.13	$971,544.26	$194,308.85	$1,165,853.11	$14.76		$14.73	$1,163,538.37
$1,880.00	$1,000.00	$23,809.90	$972,946.69	$194,589.34	$1,167,536.02	$14.78		$14.73	$1,163,538.37
$0.00	$0.00	$24,762.29	$891,545.69	$178,309.14	$1,069,854.83	$13.54		$13.55	$1,070,450.00
$0.00	$0.00	$25,752.78	$892,536.18	$178,507.24	$1,071,043.42	$13.56		$13.55	$1,070,450.00
$0.00	$0.00	$26,782.90	$893,566.30	$178,713.26	$1,072,279.56	$13.57		$13.68	$1,080,726.32
$0.00	$0.00	$27,854.21	$894,637.61	$178,927.52	$1,073,565.13	$13.59		$13.81	$1,091,101.29
$0.00	$0.00	$28,968.38	$842,501.78	$168,500.36	$1,011,002.14	$12.80		$13.94	$1,101,575.87
$0.00	$0.00	$30,127.12	$843,660.52	$168,732.10	$1,012,392.62	$12.82		$14.08	$1,112,150.99
$0.00	$0.00	$31,332.20	$844,865.60	$168,973.12	$1,013,838.72	$12.83		$14.21	$1,122,827.64
$0.00	$0.00	$32,585.49	$846,118.89	$169,223.78	$1,015,342.67	$12.85		$14.35	$1,133,606.79
$0.00	$0.00	$33,888.91	$847,422.31	$169,484.46	$1,016,906.77	$12.87		$14.49	$1,144,489.41
$0.00	$0.00	$35,244.46	$848,777.86	$169,755.57	$1,018,533.44	$12.89		$14.63	$1,155,476.51
$0.00	$0.00	$36,654.24	$850,187.64	$170,037.53	$1,020,225.17	$12.91		$14.77	$1,166,569.09
$0.00	$0.00	$38,120.41	$851,653.81	$170,330.76	$1,021,984.58	$12.94		$14.91	$1,177,768.15
$0.00	$0.00	$39,645.23	$853,177.14	$170,635.43	$1,023,812.57	$12.96		$15.05	$1,189,074.72
$0.00	$0.00	$41,231.04	$41,231.04	$8,246.21	$49,477.25	$0.63		$15.20	$1,200,489.84
$13,160.00	**$7,000.00**	**$582,757.00**	**$17,059,574.24**	**$3,411,914.85**	**$20,471,489.09**		**X=**	**$14.43**	**$22,797,986.86**
		$0.00	$0.00	$0.00	$0.00	$0.00		$15.35	$1,212,494.74
$0.00		$0.00	$0.00	$0.00	$0.00	$0.00		$15.50	$1,224,619.69
$0.00		$0.00	$0.00	$0.00	$0.00	$0.00		$15.66	$1,236,865.88
$0.00		$0.00	$0.00	$0.00	$0.00	$0.00		$15.81	$1,249,234.54
$0.00		$0.00	$0.00	$0.00	$0.00	$0.00		$15.97	$1,261,726.89
$0.00		**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**			**$6,184,941.74**
$0.00		$0.00	$0.00	$0.00	$0.00	$0.00		$16.29	$1,286,961.43
$0.00		$0.00	$0.00	$0.00	$0.00	$0.00		$16.62	$1,312,700.65
$0.00		$0.00	$0.00	$0.00	$0.00	$0.00		$16.95	$1,338,954.67
$0.00		$0.00	$0.00	$0.00	$0.00	$0.00		$17.29	$1,365,733.76
$0.00		$0.00	$0.00	$0.00	$0.00	$0.00		$17.63	$1,393,048.44
$0.00		**$0.00**	**$0.00**	**$0.00**	**$0.00**				**$6,697,398.94**
$13,160.00	**$7,000.00**	**$582,757.00**	**$17,059,574.24**	**$3,411,914.85**	**$20,471,489.09**				**$35,680,327.55**

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MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

MODEL OF NMTC PROGRAM, LEVERAGE LOAN AND LEASE CALCULATION WITH CALL OPTION

Year	Construction Loan (prime plus 150 basis points currently (4.75% BSB 360 loan calculator)	Interest Only Payments During NMTC Period (assumes rate lock payment - 5.00% BSB 360 day loan calculator - page x)	Contribution to principal reduction due in 2018 (page xx)	Debt Service On Leveraged Loan QLICI Loan A (assumes same financing terms for years 11 through 20)	CCML Asset Management Fee (0.5% of total project cost $14.2 million) (page xx)	CDE Operating Expense	CCML Back End Fee	CDE Deposit to Operating Reserve (page xx)
2012	$491,837.91				$71,000.00	$10,000.00		$1,880.00
2013		$517,780.85	$344,822.75	$0.00	$71,000.00	$10,400.00	$0.00	$1,880.00
2014		$517,780.85	$344,822.75	$0.00	$71,000.00	$10,816.00	$0.00	$1,880.00
2015		$517,780.85	$344,822.75	$0.00	$71,000.00	$11,248.64	$0.00	$1,880.00
2016		$517,780.85	$344,822.75	$0.00	$71,000.00	$11,698.59	$0.00	$1,880.00
2017		$517,780.85	$344,822.75	$0.00	$71,000.00	$12,166.53	$0.00	$1,880.00
2018		$517,780.85	$344,822.75	$0.00	$71,000.00	$12,653.19	$0.00	$1,880.00
2019		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2020		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2021		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2022		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2023		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2024		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2025		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2026		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2027		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2028		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2029		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2030		$0.00	$0.00	$813,533.40	$0.00	$0.00	$0.00	$0.00
2031		$0.00	$0.00	$813,531.91	$0.00	$0.00	$0.00	$0.00
2032		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
		$3,106,685.09	$2,068,936.50	$10,575,932.71	$497,000.00	$78,982.94	$0.00	$13,160.00
2033			$0.00		$0.00	$0.00	$0.00	$0.00
2034			$0.00		$0.00	$0.00	$0.00	$0.00
2035			$0.00		$0.00	$0.00	$0.00	$0.00
2036			$0.00		$0.00	$0.00	$0.00	$0.00
2037			$0.00		$0.00	$0.00	$0.00	$0.00
			$0.00		$0.00	$0.00	$0.00	$0.00
2038			$0.00		$0.00	$0.00	$0.00	$0.00
2039			$0.00		$0.00	$0.00	$0.00	$0.00
2040			$0.00		$0.00	$0.00	$0.00	$0.00
2041			$0.00		$0.00	$0.00	$0.00	$0.00
2042			$0.00		$0.00	$0.00	$0.00	$0.00
			$0.00		$0.00	$0.00	$0.00	$0.00
		$3,106,685.09	$2,068,936.50		$497,000.00	$78,982.94	$0.00	$13,160.00

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MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

MODEL OF NMTC PROGRAM, LEVERAGE LOAN AND LEASE CALCULATION WITH CALL OPTION

Investment Fund Operating Expense (page xx and xx)	QALICB Operating Expense (operating and audit fees)	QLICI Loan B (Call Option at a price of $1,028,479)	Base for Debt Coverage Ratio	Debt Coverage Ratio	Total Cost	Square Foot Cost (79,000 sq. ft.)	Proposed Lease Rate (with debt coverage ratio on call loan)	Lease Revenue
$1,000.00	$19,000.00	$0.00						
$1,000.00	$19,760.00	$0.00	$966,643.60	$193,328.72	$1,159,972.32	$14.68	$14.73	$1,163,790.43
$1,000.00	$20,550.40	$0.00	$967,850.00	$193,570.00	$1,161,420.00	$14.70	$14.73	$1,163,790.43
$1,000.00	$21,372.42	$0.00	$969,104.65	$193,820.93	$1,162,925.58	$14.72	$14.73	$1,163,790.43
$1,000.00	$22,227.31	$0.00	$970,409.50	$194,081.90	$1,164,491.40	$14.74	$14.73	$1,163,790.43
$1,000.00	$23,116.41	$0.00	$971,766.53	$194,353.31	$1,166,119.84	$14.76	$14.73	$1,163,790.43
$1,000.00	$24,041.06	$0.00	$973,177.85	$194,635.57	$1,167,813.42	$14.78	$14.73	$1,163,790.43
$0.00	$25,002.70	$119,653.00	$958,189.10	$191,637.82	$1,149,826.92	$14.55	$14.56	$1,150,240.00
$0.00	$26,002.81	$119,653.00	$959,189.21	$191,837.84	$1,151,027.05	$14.57	$14.56	$1,150,240.00
$0.00	$27,042.92	$119,653.00	$960,229.32	$192,045.86	$1,152,275.19	$14.59	$14.70	$1,161,282.30
$0.00	$28,124.64	$119,653.00	$961,311.04	$192,262.21	$1,153,573.25	$14.60	$14.84	$1,172,430.61
$0.00	$29,249.63	$119,653.00	$962,436.03	$192,487.21	$1,154,923.23	$14.62	$14.98	$1,183,685.95
$0.00	$30,419.61	$119,653.00	$963,606.01	$192,721.20	$1,156,327.21	$14.64	$15.13	$1,195,049.33
$0.00	$31,636.40	$119,653.00	$964,822.80	$192,964.56	$1,157,787.36	$14.66	$15.27	$1,206,521.81
$0.00	$32,901.85	$119,653.00	$966,088.25	$193,217.65	$1,159,305.90	$14.67	$15.42	$1,218,104.42
$0.00	$34,217.93	$119,653.00	$967,404.33	$193,480.87	$1,160,885.19	$14.69	$15.57	$1,229,798.22
$0.00	$35,586.64	$119,653.00	$968,773.04	$193,754.61	$1,162,527.65	$14.72	$15.72	$1,241,604.28
$0.00	$37,010.11	$119,653.00	$970,196.51	$194,039.30	$1,164,235.81	$14.74	$15.87	$1,253,523.68
$0.00	$38,490.51	$119,653.00	$971,676.91	$194,335.38	$1,166,012.30	$14.76	$16.02	$1,265,557.51
$0.00	$40,030.13	$119,653.00	$973,215.04	$194,643.01	$1,167,858.05	$14.78	$16.17	$1,277,706.86
$0.00	$41,631.34	$119,653.00	$161,284.34	$32,256.87	$193,541.21	$2.45	$16.33	$1,289,972.85
$7,000.00	**$588,414.83**	**$1,675,142.00**	**$18,527,374.08**	**$3,705,474.82**	**$22,232,848.89**			**$23,978,460.38**
$0.00	$0.00		$0.00	$0.00	$0.00	$0.00	$16.49	$1,302,872.58
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$16.66	$1,315,901.30
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$16.82	$1,329,060.32
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$16.99	$1,342,350.92
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$17.16	$1,355,774.43
$0.00	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**		**$6,645,959.54**
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$17.50	$1,382,889.92
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$17.86	$1,410,547.71
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$18.21	$1,438,758.67
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$18.58	$1,467,533.84
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$18.95	$1,496,884.52
$0.00	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**		**$7,196,614.66**
$7,000.00	**$588,414.83**	**$1,675,142.00**	**$18,527,374.08**	**$3,705,474.82**	**$22,232,848.89**			**$37,821,034.58**

Proposed Lease Rate (without debt coverage ratio on call loan)	Lease Revenue
$14.73	$1,163,670.00
$14.73	$1,163,790.43
$14.73	$1,163,790.43
$14.73	$1,163,790.43
$14.73	$1,163,790.43
$14.73	$1,163,790.43
$12.74	$1,006,243.32
$12.86	$1,016,305.76
$12.99	$1,026,468.82
$13.12	$1,036,733.50
$13.25	$1,047,100.84
$13.39	$1,057,571.85
$13.52	$1,068,147.57
$13.66	$1,078,829.04
$13.79	$1,089,617.33
$13.93	$1,100,513.50
$14.07	$1,111,518.64
$14.21	$1,122,633.83
$14.35	$1,133,860.16
$14.50	$1,145,198.77
$13.94	**$22,023,365.05**
$14.64	$1,156,650.75
$14.79	$1,168,217.26
$14.94	$1,179,899.43
$15.08	$1,191,698.43
$15.24	$1,203,615.41
	$5,900,081.29
$15.54	$1,227,687.72
$15.85	$1,252,241.48
$16.17	$1,277,286.30
$16.49	$1,302,832.03
$16.82	$1,328,888.67
	$6,388,936.20

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MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

MODEL OF NMTC PROGRAM, LEVERAGE LOAN AND LEASE CALCULATION

Year	Construction Loan (prime plus 150 basis points currently (4.75% BSB 360 loan calculator)	Interest Only Payments During NMTC Period (assumes rate lock payment - 5.00% BSB 360 day loan calculator - page x)	Contribution to principal reduction due in 2018 (page xx)	Debt Service On Leveraged Loan QLICI Loan A (assumes same financing terms for years 11 through 20)	CCML Asset Management Fee (0.5% of total project cost $14.2 million) (page xx)	CDE Operating Expense	CCML Back End Fee
2012	$491,837.91				$71,000.00	$10,000.00	
2013		$517,780.85	$344,822.75	$0.00	$71,000.00	$10,400.00	$0.00
2014		$517,780.85	$344,822.75	$0.00	$71,000.00	$10,816.00	$0.00
2015		$517,780.85	$344,822.75	$0.00	$71,000.00	$11,248.64	$0.00
2016		$517,780.85	$344,822.75	$0.00	$71,000.00	$11,698.59	$0.00
2017		$517,780.85	$344,822.75	$0.00	$71,000.00	$12,166.53	$0.00
2018		$517,780.85	$344,822.75	$0.00	$71,000.00	$12,653.19	$0.00
2019		$0.00	$0.00	$813,533.40	$71,000.00	$13,159.32	$53,250.00
2020		$0.00	$0.00	$813,533.40	$71,000.00	$13,685.69	$53,250.00
2021		$0.00	$0.00	$813,533.40	$71,000.00	$14,233.12	$53,250.00
2022		$0.00	$0.00	$813,533.40	$71,000.00	$14,802.44	$53,250.00
2023		$0.00	$0.00	$813,533.40	$71,000.00	$15,394.54	$0.00
2024		$0.00	$0.00	$813,533.40	$71,000.00	$16,010.32	$0.00
2025		$0.00	$0.00	$813,533.40	$71,000.00	$16,650.74	$0.00
2026		$0.00	$0.00	$813,533.40	$71,000.00	$17,316.76	$0.00
2027		$0.00	$0.00	$813,533.40	$71,000.00	$18,009.44	$0.00
2028		$0.00	$0.00	$813,533.40	$71,000.00	$18,729.81	$0.00
2029		$0.00	$0.00	$813,533.40	$71,000.00	$19,479.00	$0.00
2030		$0.00	$0.00	$813,533.40	$71,000.00	$20,258.17	$0.00
2031		$0.00	$0.00	$813,531.91	$71,000.00	$21,068.49	$0.00
2032		$0.00	$0.00	$0.00	$71,000.00	$21,911.23	$0.00
		$3,106,685.09	**$2,068,936.50**	**$10,575,932.71**	**$1,491,000.00**	**$319,692.02**	**$213,000.00**
2033			$0.00	$0.00	$71,000.00	$21,911.23	$0.00
2034			$0.00	$0.00	$71,000.00	$22,787.68	$0.00
2035			$0.00	$0.00	$71,000.00	$23,699.19	$0.00
2036			$0.00	$0.00	$71,000.00	$24,647.16	$0.00
2037			$0.00	$0.00	$71,000.00	$25,633.04	$0.00
			$0.00	$0.00	**$355,000.00**	**$118,678.30**	**$0.00**
2038			$0.00	$0.00	$71,000.00	$26,658.36	$0.00
2039			$0.00	$0.00	$71,000.00	$27,724.70	$0.00
2040			$0.00	$0.00	$71,000.00	$28,833.69	$0.00
2041			$0.00	$0.00	$71,000.00	$29,987.03	$0.00
2042			$0.00	$0.00	$71,000.00	$31,186.51	$0.00
			$0.00	**$0.00**	**$355,000.00**	**$144,390.29**	**$0.00**
		$3,106,685.09	**$2,068,936.50**	**$10,575,932.71**	**$2,201,000.00**	**$582,760.61**	**$213,000.00**

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MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY
MODEL OF NMTC PROGRAM, LEVERAGE LOAN AND LEASE CALCULATION

CDE Deposit to Operating Reserve (page xx)	Investment Fund Operating Expense (page xx and xx)	QALIC B Loan Interest Schedule	QALICB Operating Expense (operating and audit fees)	Base for Debt Coverage Ratio	Debt Coverage Ratio (assumes debt coverage ratio of 1.2:1.0 will only be required on leveraged loan beginning year 2022)	Total Cost	Square Foot Cost (79,000 sq. ft.)	Proposed Lease Rate	Lease Revenue
$1,880.00	$1,000.00		$19,000.00						
$1,880.00	$1,000.00	$0.00	$19,760.00	$966,643.60	$193,328.72	$1,159,972.32	$14.68	$14.73	$1,163,790.43
$1,880.00	$1,000.00	$0.00	$20,550.40	$967,850.00	$193,570.00	$1,161,420.00	$14.70	$14.73	$1,163,790.43
$1,880.00	$1,000.00	$0.00	$21,372.42	$969,104.65	$193,820.93	$1,162,925.58	$14.72	$14.73	$1,163,790.43
$1,880.00	$1,000.00	$0.00	$22,227.31	$970,409.50	$194,081.90	$1,164,491.40	$14.74	$14.73	$1,163,790.43
$1,880.00	$1,000.00	$0.00	$23,116.41	$971,766.53	$194,353.31	$1,166,119.84	$14.76	$14.73	$1,163,790.43
$1,880.00	$1,000.00	$0.00	$24,041.06	$973,177.85	$194,635.57	$1,167,813.42	$14.78	$14.73	$1,163,790.43
$1,880.00	$1,000.00	$0.00	$25,002.70	$978,825.42	$195,765.08	$1,174,590.51	$14.87	$14.88	$1,175,520.00
$1,880.00	$1,000.00	$0.00	$26,002.81	$980,351.90	$196,070.38	$1,176,422.28	$14.89	$14.88	$1,175,520.00
$1,880.00	$1,000.00	$0.00	$27,042.92	$981,939.44	$196,387.89	$1,178,327.33	$14.92	$15.03	$1,186,981.32
$1,880.00	$1,000.00	$0.00	$28,124.64	$983,590.48	$196,718.10	$1,180,308.58	$14.94	$15.17	$1,198,554.39
$1,880.00	$1,000.00	$153,225.46	$29,249.63	$813,533.40	$162,706.68	$1,247,989.71	$15.80	$15.80	$1,247,989.71
$1,880.00	$1,000.00	$152,609.68	$30,419.61	$813,533.40	$162,706.68	$1,249,159.69	$15.81	$15.95	$1,259,970.41
$1,880.00	$1,000.00	$151,969.26	$31,636.40	$813,533.40	$162,706.68	$1,250,376.48	$15.83	$16.10	$1,272,066.12
$1,880.00	$1,000.00	$151,303.24	$32,901.85	$813,533.40	$162,706.68	$1,251,641.93	$15.84	$16.26	$1,284,277.96
$1,880.00	$1,000.00	$150,610.56	$34,217.93	$813,533.40	$162,706.68	$1,252,958.01	$15.86	$16.41	$1,296,607.03
$1,880.00	$1,000.00	$149,890.19	$35,586.64	$813,533.40	$162,706.68	$1,254,326.72	$15.88	$16.57	$1,309,054.45
$1,880.00	$1,000.00	$149,141.00	$37,010.11	$813,533.40	$162,706.68	$1,255,750.19	$15.90	$16.73	$1,321,621.38
$1,880.00	$1,000.00	$148,361.83	$38,490.51	$813,533.40	$162,706.68	$1,257,230.59	$15.91	$16.89	$1,334,308.94
$1,880.00	$1,000.00	$147,551.51	$40,030.13	$813,531.91	$162,706.38	$1,258,768.43	$15.93	$17.05	$1,347,118.31
$1,880.00	$1,000.00	$146,708.77	$41,631.34	$0.00	$0.00	$284,131.34	$3.60	$17.22	$1,360,050.64
$39,480.00	**$21,000.00**	**$1,501,371.50**	**$588,414.83**	**$17,065,458.49**	**$3,413,091.70**	**$23,254,724.34**			**$24,752,383.22**
$1,880.00	$1,000.00	$146,708.77	$43,296.59	$0.00	$0.00	$285,796.59	$3.62	$17.39	$1,373,651.15
$1,880.00	$1,000.00	$145,832.32	$45,028.46	$0.00	$0.00	$287,528.46	$3.64	$17.56	$1,387,387.66
$1,880.00	$1,000.00	$144,920.81	$46,829.60	$0.00	$0.00	$289,329.60	$3.66	$17.74	$1,401,261.54
$1,880.00	$1,000.00	$143,972.84	$48,702.78	$0.00	$0.00	$291,202.78	$3.69	$17.91	$1,415,274.15
$1,880.00	$1,000.00	$142,986.96	$50,650.89	$0.00	$0.00	$293,150.89	$3.71	$18.09	$1,429,426.90
$9,400.00	**$5,000.00**	**$724,421.70**	**$234,508.32**	**$0.00**	**$0.00**	**$1,447,008.32**			**$7,007,001.40**
$1,880.00	$1,000.00	$141,961.64	$52,676.93	$0.00	$0.00	$295,176.93	$3.74	$18.46	$1,458,015.43
$1,880.00	$1,000.00	$140,895.30	$243,888.65	$0.00	$0.00	$486,388.65	$6.16	$18.83	$1,487,175.74
$1,880.00	$1,000.00	$139,786.31	$0.00	$0.00	$0.00	$242,500.00	$3.07	$19.20	$1,516,919.26
$1,880.00	$1,000.00	$138,632.97	$54,784.00	$0.00	$0.00	$297,284.00	$3.76	$19.59	$1,547,257.64
$1,880.00	$1,000.00	$137,433.49	$253,644.19	$0.00	$0.00	$496,144.19	$6.28	$19.98	$1,578,202.80
$9,400.00	**$5,000.00**	**$698,709.71**	**$604,993.77**	**$0.00**	**$0.00**	**$1,817,493.77**			**$7,587,570.87**
$58,280.00	**$31,000.00**	**$2,924,502.91**	**$1,427,916.92**	**$17,065,458.49**	**$3,413,091.70**	**$26,519,226.43**			**$39,346,955.49**

Amortization Schedule
Based on 5.0% Bangor Savings Rate (estimate of 360 day loan schedule)

Payment schedule

5.0% Bangor Savings Bank Loan (estimate of 360 day loan amortization - effective rate 5.07%)

Year	Total Payments	Principal Paid	Interest Paid	Ending Principal Balance	Principal Payment Reduction	Cumulative Reserve
				$10,212,640.00		
1	$813,533.40	$302,722.84	$510,810.56	$9,909,917.16		$344,822.75
2	$813,533.40	$318,432.57	$495,100.83	$9,591,484.59		$689,645.50
3	$813,533.40	$334,957.62	$478,575.78	$9,256,526.97		$1,034,468.25
4	$813,533.40	$352,340.20	$461,193.20	$8,904,186.77		$1,379,291.00
5	$813,533.40	$370,624.86	$442,908.54	$8,533,561.91		$1,724,113.75
6	$813,533.40	$389,858.39	$423,675.01	$8,143,703.52	$2,068,936.48	$2,068,936.48
7	$813,533.40	$410,090.04	$403,443.36	$7,733,613.48		
8	$813,533.40	$431,371.61	$382,161.79	$7,302,241.87		
9	$813,533.40	$453,757.62	$359,775.78	$6,848,484.25		
10	$813,533.40	$477,305.32	$336,228.08	$6,371,178.93		
11	$813,533.40	$502,075.04	$311,458.36	$5,869,103.89		
12	$813,533.40	$528,130.16	$285,403.24	$5,340,973.73		
13	$813,533.40	$555,537.43	$257,995.97	$4,785,436.30		
14	$813,533.40	$584,366.97	$229,166.43	$4,201,069.33		
15	$813,533.40	$614,692.64	$198,840.76	$3,586,376.69		
16	$813,533.40	$646,592.04	$166,941.36	$2,939,784.65		
17	$813,533.40	$680,146.87	$133,386.53	$2,259,637.78		
18	$813,533.40	$715,443.02	$98,090.38	$1,544,194.76		
19	$813,533.40	$752,570.82	$60,962.58	$791,623.94		
20	$813,531.91	$791,623.94	$21,907.97	$0.00		

Payment schedule

Amortization on Call at 5.0% (360 day loan calculator)

Year	Total Payments	Principal Paid	Interest Paid	Ending Principal Balance
				$1,074,000.00
1	$119,652.96	$66,737.82	$52,915.14	$1,007,262.18
2	$119,652.96	$70,201.16	$49,451.80	$937,061.02
3	$119,652.96	$73,844.26	$45,808.70	$863,216.76
4	$119,652.96	$77,676.39	$41,976.57	$785,540.37
5	$119,652.96	$81,707.40	$37,945.56	$703,832.97
6	$119,652.96	$85,947.58	$33,705.38	$617,885.39
7	$119,652.96	$90,407.82	$29,245.14	$527,477.57
8	$119,652.96	$95,099.55	$24,553.41	$432,378.02
9	$119,652.96	$100,034.71	$19,618.25	$332,343.31
10	$119,652.96	$105,226.00	$14,426.96	$227,117.31
11	$119,652.96	$110,686.70	$8,966.26	$116,430.61
12	$119,652.78	$116,430.61	$3,222.17	$0.00

	Original Balance	Int. Rate	I/O Payment	Debt Service Payments (YR 8)
Leverage Loan	$ 10,212,640	4.82%	$ 491,838	
		5.07%		
QLICI Loan A	$ 10,212,640	5.07%	$ 517,724	$ 813,496
QLICI Loan B	$ 3,987,360	2.14%	$ 85,163	$ 312,148
		6.08%	$ 242,503	
Refinance Loan	$ 2,495,034	5.07%		$ 198,753
DSCR	120%		Call Refinancing	$ 114,581
QLICI I/O	$ 602,887			

Total Term (yrs.)	39
Initial Term	10
Rest	29
Loan B Subs Rate	0.2135829
0.060817832	1.7637171
	0.0507000

QEI	$ 14,200,000
NMTC Equity	$ 3,987,360
Pricing	$ 0.72

	WF Rynel Investment Fund	CCM Community Development XXII LLC			Brunswick Landing MHC US, LLC		MRRA
Year	Expense Rev.	Operating Exp.	Asset Mgmt. Fee	Operating Rev.	Operating Exp.	Principal Repay. Rev.	Sinking Fund Rev.
1	$ 1,000	$ 10,000	$ 71,000	$ 1,880			
2	$ 1,000	$ 10,400	$ 71,000	$ 1,880	$ 19,000	$ 71,000	$ 344,839
3	$ 1,000	$ 10,816	$ 71,000	$ 1,880	$ 19,760	$ 71,000	$ 344,839
4	$ 1,000	$ 11,249	$ 71,000	$ 1,880	$ 20,550	$ 71,000	$ 344,839
5	$ 1,000	$ 11,699	$ 71,000	$ 1,880	$ 21,372	$ 71,000	$ 344,839
6	$ 1,000	$ 12,167	$ 71,000	$ 1,880	$ 22,227	$ 71,000	$ 344,839
7	$ 1,000	$ 12,653	$ 71,000	$ 1,880	$ 23,116	$ 71,000	$ 344,839
8					$ 24,041		
9					$ 25,003		
10					$ 26,003		
Total	$ 7,000	$ 78,983	$ 497,000	$ 13,159	$ 201,073	$ 426,000	$ 2,069,034

Lease Payment during the 7 year period	
Year	
1	$ -
2	$ 1,160,071
3	$ 1,160,983
4	$ 1,161,932
5	$ 1,162,918
6	$ 1,163,944
7	$ 1,165,011

	Asset Mgmt. Fee	Back-end Fee
%	100%	50%

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	*Interest*	*Principal*	*End. Bal*	*PRV Calculation*
1	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
2	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
3	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
4	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
5	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
6	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
7	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
8	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
9	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
10	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
11	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
12	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
13	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
14	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
15	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
16	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
17	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
18	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
19	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
20	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
21	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
22	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
23	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
24	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
25	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
26	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
27	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
28	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
29	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
30	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
31	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
32	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
33	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
34	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
35	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
36	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
37	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
38	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
39	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
40	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
41	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	*Interest*	*Principal*	*End. Bal*	*PRV Calculation*
42	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
43	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
44	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
45	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
46	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
47	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
48	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
49	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
50	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
51	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
52	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
53	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
54	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
55	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
56	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
57	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
58	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
59	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
60	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
61	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
62	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
63	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
64	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
65	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
66	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
67	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
68	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
69	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
70	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
71	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
72	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
73	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
74	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
75	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
76	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
77	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
78	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
79	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
80	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
81	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
82	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	
83	$3,987,360.00	$7,110.79	$0.00	$3,987,360.00	

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	Interest		Principal	End. Bal	PRV Calculation
84	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
85	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
86	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
87	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
88	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
89	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
90	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
91	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
92	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
93	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
94	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
95	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	
96	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$1,073,997.77
97	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$50,894.13
98	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
99	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
100	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
101	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
102	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
103	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
104	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
105	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
106	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
107	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
108	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
109	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
110	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
111	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
112	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
113	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
114	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
115	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
116	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
117	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
118	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
119	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
120	$3,987,360.00	$7,110.79	$3,550.00	$0.00	$3,987,360.00	$4,744.13
121	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
122	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
123	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
124	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
125	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	*Interest*		*Principal*	*End. Bal*	*PRV Calculation*
126	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
127	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
128	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
129	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
130	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
131	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
132	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
133	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
134	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
135	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
136	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
137	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
138	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
139	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
140	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
141	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
142	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
143	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
144	$3,987,360.00	$20,202.62	$3,550.00	$0.00	$3,987,360.00	$17,835.96
145	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
146	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
147	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
148	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
149	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
150	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
151	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
152	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
153	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
154	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
155	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
156	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
157	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
158	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
159	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
160	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
161	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
162	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
163	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
164	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
165	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
166	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96
167	$3,987,360.00	$20,202.62		$0.00	$3,987,360.00	$14,285.96

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	Interest	Principal	End. Bal	PRV Calculation
168	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
169	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
170	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
171	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
172	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
173	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
174	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
175	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
176	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
177	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
178	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
179	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
180	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
181	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
182	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
183	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
184	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
185	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
186	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
187	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
188	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
189	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
190	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
191	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
192	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
193	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
194	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
195	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
196	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
197	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
198	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
199	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
200	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
201	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
202	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
203	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
204	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
205	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
206	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
207	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
208	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
209	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	Interest	Principal	End. Bal	PRV Calculation
210	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
211	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
212	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
213	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
214	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
215	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
216	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
217	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
218	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
219	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
220	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
221	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
222	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
223	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
224	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
225	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
226	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
227	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
228	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
229	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
230	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
231	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
232	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
233	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
234	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
235	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
236	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
237	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
238	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
239	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
240	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
241	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
242	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
243	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
244	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
245	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
246	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
247	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
248	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
249	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
250	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
251	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	*Interest*	*Principal*	*End. Bal*	*PRV Calculation*
252	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
253	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
254	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
255	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
256	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
257	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
258	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
259	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
260	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
261	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
262	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
263	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
264	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
265	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
266	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
267	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
268	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
269	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
270	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
271	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
272	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
273	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
274	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
275	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
276	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
277	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
278	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
279	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
280	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
281	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
282	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
283	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
284	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
285	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
286	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
287	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
288	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
289	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
290	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
291	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
292	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
293	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96

Calculation of Present Value of QUALIC B Loan

	Begin. Bal	Interest	Principal	End. Bal	PRV Calculation
294	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
295	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
296	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
297	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
298	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
299	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
300	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
301	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
302	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
303	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
304	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
305	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
306	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
307	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
308	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
309	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
310	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
311	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
312	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
313	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
314	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
315	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
316	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
317	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
318	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
319	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
320	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
321	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
322	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
323	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
324	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
325	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
326	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
327	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
328	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
329	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
330	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
331	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
332	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
333	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
334	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
335	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	Interest	Principal	End. Bal	PRV Calculation
336	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
337	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
338	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
339	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
340	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
341	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
342	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
343	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
344	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
345	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
346	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
347	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
348	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
349	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
350	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
351	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
352	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
353	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
354	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
355	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
356	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
357	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
358	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
359	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
360	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
361	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
362	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
363	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
364	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
365	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
366	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
367	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
368	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
369	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
370	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
371	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
372	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
373	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
374	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
375	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
376	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
377	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	Interest	Principal	End. Bal	PRV Calculation
378	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
379	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
380	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
381	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
382	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
383	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
384	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
385	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
386	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
387	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
388	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
389	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
390	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
391	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
392	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
393	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
394	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
395	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
396	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
397	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
398	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
399	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
400	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
401	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
402	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
403	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
404	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
405	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
406	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
407	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
408	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
409	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
410	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
411	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
412	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
413	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
414	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
415	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
416	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
417	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
418	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
419	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	Interest	Principal	End. Bal	PRV Calculation
420	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
421	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
422	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
423	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
424	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
425	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
426	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
427	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
428	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
429	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
430	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
431	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
432	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
433	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
434	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
435	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
436	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
437	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
438	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
439	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
440	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
441	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
442	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
443	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
444	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
445	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
446	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
447	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
448	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
449	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
450	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
451	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
452	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
453	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
454	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
455	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
456	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
457	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
458	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
459	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
460	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
461	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96

CALCULATION OF PRESENT VALUE OF QUALIC B LOAN

	Begin. Bal	*Interest*	*Principal*	*End. Bal*	*PRV Calculation*
462	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
463	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
464	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
465	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
466	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
467	$3,987,360.00	$20,202.62	$0.00	$3,987,360.00	$14,285.96
468	$3,987,360.00	$20,202.62	$3,987,360.00	$0.00	$4,001,651.88

Lease Year 1	$1,163,538.37
Lease Year 2	$1,163,538.37
Lease Year 3	$1,163,538.37
Lease Year 4	$1,163,538.37
Lease Year 5	$1,163,538.37
Lease Year 6	$1,163,538.37
Lease Year 7	$1,070,450.00
Lease Year 8	$1,070,450.00
Lease Year 9	$1,080,726.32
Lease Year 10	$1,091,101.29
Lease Year 11	$1,101,575.87
Lease Year 12	$1,112,150.99
Lease Year 13	$1,122,827.64
Lease Year 14	$1,133,606.79
Lease Year 15	$1,144,489.41
Lease Year 16	$1,155,476.51
Lease Year 17	$1,166,569.09
Lease Year 18	$1,177,768.15
Lease Year 19	$1,189,074.72
Lease Year 20	$1,200,489.84

EXHIBIT C
DESCRIPTION OF BASE BUILDING WORK

Refer to Construction Contract attached as Exhibit D

EXHIBIT C-1
DESCRIPTION OF SITE WORK

Refer to Construction Contract attached as Exhibit D

EXHIBIT D
CONSTRUCTION CONTRACT

CONTRACT AGREEMENT

This Contract Agreement is made this 4th day of November, 2011, among the Midcoast Regional Redevelopment Authority, a body corporate and politic and a public instrumentality of the State of Maine ("MRRA"), Brunswick Landing MHC USA, LLC, a Maine limited liability company ("Employer") and PC Construction Company ("Contractor").

WHEREAS, the Employer desires that the construction services, including labor, materials, equipment and all related work, for the construction of a manufacturing facility in Brunswick, Maine, all collectively referred to herein as the Works or the Project shall be provided by Contractor, and

WHEREAS, the Contractor desires to perform the construction services and has proposed to complete the Works on the terms and conditions set forth herein.

NOW THEREFORE, MRRA, the Employer and the Contractor (each referred to herein as a "Party" and collectively referred to herein as the "Parties") do hereby agree as follows:

1. Meaning of Terms. The terms, words and expressions in this Contract Agreement shall have the meanings assigned to them in the General Conditions of the Contract.

2. The Contract Documents. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The following documents comprise the Contract:

a) this Contract Agreement;
b) the General Conditions dated February 18, 2011 (FIDIC) (issued with specifications);
c) the Specifications dated February 18, 2011;
d) the Drawings dated February 18, 2011;
e) the Addenda dated March 22, 2011 and March 30, 2011;
f) Post Addenda dated May 23, 2011;
g) Performance Bond;
h) Payment Bond and;
i) Letter of Intent dated May 5, 2011, as modified in this Contract Agreement.

3. The Works. In consideration of the payments to be made by the Employer, the Contractor hereby covenants and promises to execute and complete the Works and remedy any defects, deficiencies and/or omissions as provided in the Contract.

4. Commencement of the Works and Time for Completion of the Works.

a) The Commencement of the Works was **October 10, 2011** pursuant to a separate limited authorization to proceed dated October 5, 2011. The Contract Time shall be measured from the date of the Commencement of the Works.

b) The Contractor shall achieve Substantial Completion of the entire Works, as defined in Sub-clause 10.2 of the General Conditions not later than **February 21, 2013**.

c) Time is of the essence in the performance of the Contract. .

5. Contract Sum. The Contract Sum is twelve million, eight hundred eighty five thousand, two hundred and fifty one ($12,885,251) U.S. Dollars, subject to additions and deductions as provided in the Contract. The Employer shall be responsible for and shall pay the Contractor the total sum of $12,598,251 in current funds for the Contractor's performance of the Contract; MRRA shall be responsible for $287,000 of the Contract Sum. The Contract Sum is based upon the following alternates and allowances:

a) Alternates:
None

b) Allowances:

Allowance No. 1 – Testing And Inspections: Include $87,000 for onsite testing and inspections.

Allowance No. 2 – Exterior Signage: Include $70,000 for exterior signage including exterior building signage, plaza elements, and monument sign.

Allowance No. 3 - Interior Signage: Include $10,000 for interior signage including interior door signage, room names and numbers, and lobby pendent sign (hanging globes). Note electrical work required for lobby pendent sign to be included in the base bid.

6. Retainage/Retention. The percentage of retainage/retention for purposes of Sub-paragraph 14.3(c) of the General Conditions shall be five (5%) percent.

7. Communications/Notices. Wherever the terms of the Contract require the giving or issuing of approvals, certificates, consents, determinations, notices and requests, notice shall be deemed to have been duly served if delivered in person to the individual or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice; or if sent by electronic means, if actual receipt by the intended recipient of the notice can be proven.

a) The Employer's Representative shall be:
Tom Brubaker, MRRA

b) The Contractor's Representative shall be:
Mark Donovan, PC Construction

8. Insurance. The deadline for providing evidence of insurance, as provided in Sub-paragraph 18.1 of the General Conditions, shall be not more than fourteen (14) days after the award of the Contract by Employer.

9. Other terms. The Parties agree that Contractor shall perform the Work in accordance with the schedule described as Option #2 and set for on Exhibit A to this Agreement which is hereby incorporated herein as a Contract Document. The date of Substantial Completion for the Work is February 28, 2013. The Parties agree that it is difficult, if not impossible, to determine the actual damages that might be incurred by Employer in the event of a delay in completion of the Works and that, in lieu of actual damages, the Employer shall be entitled to recover Liquidated Damages as set forth herein. The Parties further agree that the amount of Liquidated Damages set forth herein is a reasonable approximation, as of the date of execution of this Contract Agreement, of the actual damages that might be incurred by Employer. Liquidated Damages will be assessed at $2,800.00 per calendar day for each day of delay beginning 21 days after the date of Substantial Completion; *provided, however*, that Contractor's total responsibility for Liquidated Damages shall be capped at $200,000.

10. Third Party Beneficiary. Notwithstanding any other term of the Contract, the Parties acknowledge and agree that, except as provided in Clause 21.2 of the General Conditions with respect to the Demolition Work, Mölnlycke US Manufacturing, LLC or its designee is the party that will occupy and utilize the Works. Contractor further understands that, pursuant to an agreement between Brunswick Landing MHC USA, LLC, the Midcoast Regional Redevelopment Authority and Mölnlycke US Manufacturing, LLC or its designee, Mölnlycke US Manufacturing, LLC or its designee has the right and obligation to act on behalf of and as the Employer with respect to the performance of this Contract. Contractor specifically understands and acknowledges, therefore, that Mölnlycke US Manufacturing, LLC or its designee is a third-party beneficiary of the terms of this Contract, that Mölnlycke US Manufacturing, LLC or its designee, as third party beneficiary, will perform all of the duties and responsibilities of the Employer as set forth in this Contract and that Mölnlycke US Manufacturing, LLC or its designee may enforce all of the rights and obtain all of the remedies available to the Employer under the terms of this Contract.

This Agreement entered into as of the day and year first written above.

BRUNSWICK LANDING MHC, USA, LLC

EMPLOYER (Signature)
By: Steven H. Levesque, Chief Executive Officer

PC CONSTRUCTION COMPANY

CONTRACTOR *(Signature)*
By: Andrew Martin, PC Construction Company

MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

By: Steven H. Levesque, Chief Executive Officer

This Agreement entered into as of the day and year first written above.

BRUNSWICK LANDING MHC, USA, LLC

Steven H. Levesque

EMPLOYER (Signature)
By: Steven H. Levesque, Chief Executive Officer

PC CONSTRUCTION COMPANY

CONTRACTOR *(Signature)*
By: Andrew Martin, PC Construction Company

MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

Steven H. Levesque

By: Steven H. Levesque, Chief Executive Officer

Contract Agreement Exhibit A

(Excerpt from September 30, 2011 Letter, PC to Molnlycke)

Option #2
Start on November 1, 2011 with site demolition and installation of underground utilities, demolish existing building, install all foundations, and then shut down for the winter. Return in the spring and resume the schedule with Steel Erection. Winter heating for 2012 thru 2013 winter heating season is based on using the permanent heating systems.
Substantial Completion February 28, 2013.

• Revised winter conditions cost from PC's September 15, 2011 letter:	$142,989
• Unused winter conditions from PC's July 14, 2011 letter:	<$80,300>
• Added winter conditions for foundation placement in December. (soil protection, tenting and heating for foundations:	$50,000
• Winter shut down and re-mobilization costs (demobilization, protect foundations and site, remobilize, and verify as-built conditions):	$53,352
• Storage, protection and insurance of steel, decking and joists:	$25,000
• Added three and a half weeks of general conditions at the end of the project due to inefficiencies and work flow related to winter shutdown:	$37,933
o Subtotal:	$228,974
o **Grand total with fee & insurance's:**	**$252,251**

EXHIBIT E
FORM OF CERTIFICATE CONFIRMING OCCUPANCY COMMENCEMENT DATE

The Certificate to be provided to Tenant pursuant to 3.2(b) of the Lease Agreement pertaining to the Occupancy Commencement Date and Expiration Date shall provide as follows:

"This Certificate is being provided to Tenant pursuant to the terms and provisions of that certain Lease Agreement dated as of _____ (the "Lease"), by and between _____. as Landlord, and _____ as Tenant. This Certificate confirms the following:

The Occupancy Commencement Date of the Lease is: _____, 201___.

The initial Lease Term shall expire on: _____,20___, subject to extension as provided in Section 3.5."

SECOND AMENDMENT TO
LEASE AGREEMENT DATED AS OF NOVEMBER 2, 2011
BY AND BETWEEN

BRUNSWICK LANDING MHC USA, LLC,

A MAINE LIMITED LIABILITY COMPANY,

AS LANDLORD

AND

MOLNLYCKE MANUFACTURING US, LLC,

A DELAWARE LIMITED LIABILITY COMPANY,

AS TENANT

Amendment dated as of June 2, 2020

SECOND AMENDMENT TO LEASE AGREEMENT

THIS SECOND AMENDMENT TO LEASE AGREEMENT (this "Amendment") is dated as of June 2, 2020 by and between **BRUNSWICK LANDING MHC USA, LLC**, a Maine limited laibility company ("Landlord") and **MOLNLYCKE MANUFACTURING US, LLC**, a Delaware limited liability company ("Tenant").

Landlord and Tenant entered into a Lease Agreement dated as of November 2, 2011 which was amended by an Amendment to Leasea Agreement dated as of December 29, 2011 (collectively, the "Existing Lease") . Landlord and Tenant hereby agree that the Existing Lease is hereby amended as follows:

1. Amended Exhibit B attached hereto is substituted for the Exhibit B which was attached to the Existing Lease.

2. Article 25 of the Existing Lease (which provided for a certain reights of first refusal and possible expansion to be located at other property of Midcoast Regional Redevelopment Authorty) is hereby deleted and Tenant releases any and all rights thereunder. The rights thereunder are of no further force and effect.

This Amendment may be executed in several counterparts, including electronic counterparts (such as facsimile or .pdf), each of which shall be deemed to be an original, and all of which together shall constitute one agreement binding on all parties hereto, notwithstanding that all of the parties shall not have signed the same counterpart.

IN WITNESS WHEREOF, Landlord and Tenant have executed this Amendment as of the date first above written.

WITNESS:

TENANT:

MOLNLYCKE MANUFACTURING US, LLC

By:
Name: NIR NAOR
Title: VP FINANCE, US

WITNESS:

LANDLORD:

BRUNSWICK LANDING MHC USA, LLC

By: _____
Name: Steven H. Levesque
Title: Chief Executive Officer

The undersigned, which had executed the Existing Lease solely for the purpose of seeing and agreeing with respect to Section 2.2., Section 5.2, Section 10.1, Article 14, Article 16, Section 21.1, Section 23.16, Section 23.21, Section 23.23, Article 24 and Article 25 above, hereby consents to the foregoing Amendment.

WITNESS:

MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

By: _____
Name: Steven H. Levesque
Title: Executive Director

The undersigned, guarantor of the Existing Lease pursuant to Guaranty of Lease dated November 2, 2011, hereby consents to the foregoing amendment.

WITNESS:

MOLNLYCKE HEALTH CARE U.S., LLC

By: _____
Name: NIR NAOR
Title: VP FINANCE US

EXHIBIT B

BASE RENT SCHEDULE

Total Square Footage-Initial Premises*	79,000*
Initial Term	Expires March 31, 2023

* Includes only Initial Premises

FIXED BASE RENT:

The annual Base Rent for the remainder of the Initial Term is as follows:

Year Number	*Period*	*Rate Per Square Foot*	*Monthly Rent*
8	March 7, 2020 to June 30, 2020	$13.56	$89,270.00
8	July 1, 2020 to March 31, 2021	$12.28	$80,843.33
9	April 1, 2021 to March 31, 2022	$12.40	$81,619.44
10	April 1, 2022 to March 31, 2023	$12.52	$82,402.99
11	April 1, 2023 to March 31, 2024	$12.64	$83,194.04
12	April 1, 2024 to March 31, 2025	$12.76	$83,992.73
13	April 1, 2025 to March 31, 2026	$12.88	$84,799.06
14	April 1, 2026 to March 31, 2027	$13.00	$85,613.16
15	April 1, 2027 to March 31, 2028	$13.13	$86,435.02
16	April 1, 2028 to March 31, 2029	$13.26	$87,264.78
17	April 1, 2029 to March 31, 2030	$13.38	$88,102.51
18	April 1, 2030 to March 31, 2031	$13.51	$88,948.27
19	April 1, 2031 to March 31, 2032	$13.64	$89,802.20
20	April 1, 2022 to March 31, 2033	$13.77	$90,664.28

Lease Years 21 – 25 (First Renewal Term, if applicable)

The annual Base Rent for the first Renewal Term is as follows:

Year Number	*Period*	*Rate Per Square Foot*	*Monthly Rent*
21	April 1, 2033 to March 31, 2034	$13.91	$91,570.94
22	April 1, 2034 to March 31, 2035	$14.05	$92,486.68
23	April 1, 2035 to March 31, 2036	$14.19	$93,411.58
24	April 1, 2036 to March 31, 2037	$14.33	$94,345.68
25	April 1, 2037 to March 31, 2038	$14.47	$95,289.14

Lease Years 26-30 (Second Renewal Term, if applicable)

The annual Base Rent for the second Renewal Term is as follows:

Year Number	*Period*	*Rate Per Square Foot*	*Monthly Rent*
26	April 1, 2038 to March 31, 2039	$14.76	$97,194.95
27	April 1, 2039 to March 31, 2040	$15.06	$99,138.88
28	April 1, 2040 to March 31, 2041	$15.36	$101,121.65
29	April 1, 2041 to March 31, 2042	$15.67	$103,144.11
30	April 1, 2042 to March 31, 2043	$15.98	$105,207.00

Docusign Envelope ID: 765FEB29-A2DA-4789-A983-AFE2AF36292B

PURCHASE AND SALE AGREEMENT

MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

and

MÖLNLYCKE MANUFACTURING US, LLC

Property: To be created Lot 16B consisting of 3.97 acres, as depicted on the proposed plan entitled "Amended Subdivision Plan, Lot 16B, Final Subdivision Plan – Phase 1, Brunswick Landing" dated April 14, 2025, prepared by Haley Ward for the Midcoast Regional Redevelopment Authority

Docusign Envelope ID: 765FEB29-A2DA-4789-A983-AFE2AF36292B

PURCHASE AND SALE AGREEMENT

This Purchase and Sale Agreement ("Agreement") is entered into as of the 11th day of July, 2025 (the "Effective Date"), by and between **Midcoast Regional Redevelopment Authority** ("MRRA") and **Mölnlycke Manufacturing US, LLC**, or its assigns ("Purchaser").

In consideration of the mutual agreements herein set forth, the parties hereto, intending to be legally bound, agree as follows:

1. **Agreement to Sell and Purchase**. For the Purchase Price (as defined in Section 3 below), and subject to the terms and conditions hereof, MRRA agrees to sell to Purchaser, and Purchaser agrees to purchase from MRRA, fee simple absolute title subject to the Permitted Encumbrances (as defined below) to the following Property including without limitation any vehicle ways and/or private roads within the bounds of the areas so described, subject to the terms of this Agreement (which is herein sometimes collectively referred to as the "Property"):

> Subdivision Lot 16B, consisting of approximately 3.97 acres, as depicted on the plan entitled, "Amended Subdivision Plan, Lot 16B, Final Subdivision Plan – Phase 1, Brunswick Landing" dated April 14, 2025, prepared by Haley Ward for the Midcoast Regional Redevelopment Authority and recorded in the Cumberland County Registry of Deeds in Book 225, Page 240 (the "Subdivision Plan"), with all improvements and fixtures thereon and all rights, privileges, easements and appurtenances thereto, being a portion of the property conveyed to MRRA by the United States of America by the following deeds: (i) quitclaim deed dated September 30, 2011 recorded in the Cumberland County Registry of Deeds (the "Registry") in Book 29003, Page 3, (ii) quitclaim deed dated March 5, 2014 recorded in the Registry in Book 31376, Page 1, (iii) quitclaim deed dated March 24, 2014 recorded in the Registry in Book 31438, Page 1, and (iv) quitclaim deed dated July 19, 2023 recorded in the Registry in Book 40277, Page 202 (collectively the "Navy Deeds"). The Property is to be conveyed subject to all terms, conditions, restrictions, requirements and easements as shown on the Subdivision Plan or set forth in the Navy Deeds. A reduced copy of the Subdivision Plan is attached hereto as **Exhibit A**.

The description in the deed of conveyance contemplated herein shall be subject to approval by Purchaser.

Nothing in the foregoing paragraphs shall be deemed to extinguish the access and easement rights of Purchaser to the electrical, water and sewer lines located within the roads and ways laid out within Brunswick Landing.

Design of any new building shall be approved by MRRA's Design Review Committee.

It is a condition of Closing (as defined below) that at Closing, Purchaser shall enter into MRRA's Road and Common Facilities Maintenance Agreement, dated as of July 26, 2013, and recorded at Book 30884, Page 170 in the Cumberland County Registry of Deeds (the "Maintenance

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Agreement"), by executing a Joinder in substantially the form contained therein with respect to the Property conveyed at the Closing (see **Exhibit B**).

2. **Easements and Restrictions**. At the Closing, Purchaser and MRRA shall execute, deliver, and cause to be recorded any and all instruments required to create cross easements sufficient for the provision of utility services and equipment, and the maintenance, repair and improvement thereof, together with such other easements as may be required for sufficient pedestrian and vehicular ingress and egress over, upon, and through the Property and the real estate owned by MRRA, as well as utility, construction, or other easements for the benefit of both MRRA and Purchaser, including without limitation, (i) MRRA shall retain a non-exclusive utility easement in the area labeled "Proposed Utility Easement" on the Subdivision Plan, and (ii) in addition to those general obligations set forth in the Navy Deeds, the Property shall be conveyed subject to a specific restriction that the former navy bunker located at the corner of Admiral Fitch Avenue and Pelican Street shall not be demolished without the prior written consent of the United States Government, Department of the Navy.

3. **Purchase Price**. The purchase price for the Property is Three Hundred Ninety-Seven Thousand and 00/100 Dollars ($397,000.00) the "Purchase Price"). Earnest Money deposit (the "Deposit") shall be Four Thousand Dollars and shall be paid to MRRA within the three (3) business days next following the execution of this Agreement, to be held in escrow by MRRA's Attorney (as identified in Section 18 hereof) until the consummation or sooner termination of this Agreement; the Deposit shall be applied to the Purchase Price at the Closing as defined below or otherwise as provided in this Agreement. In the event that the Closing occurs within three business days of the Effective Date, no deposit shall be required.

4. **Closing**. The closing shall occur on or before the later of (i) the date that is thirty (30) days after (a) the end of the Inspection Period (as that term is defined below) or (b) the date Purchaser provides written notice to Seller that it is satisfied with its due diligence and has waived the remainder of its Inspection Period, or (ii) the date that is thirty (30) days after the recording of the final signed version of the Subdivision Plan, or if such dates fall on a holiday or weekend, then the next business day, at the offices of MRRA's Attorney, 84 Marginal Way, Suite 600, Portland, Maine, unless a different time and/or place is mutually agreed by Purchaser and MRRA (the "Closing"), subject in all respects to the satisfaction of the Closing conditions set forth in Sections 9 and 10 hereof.

5. **Condition of Title.**

(a) On the date of the Closing, title to the Property shall be good and marketable and free and clear of all liens, restrictions, easements, encumbrances, leases, tenancies and other title objections except for the Permitted Encumbrances (as defined in paragraph (b) below).

(b) Purchaser shall order a commitment for title insurance from a title company of Purchaser's choice (the "Title Company"). Purchaser shall deliver to MRRA copies of said title commitment on or before the date which is fifteen (15) days before the Closing, together with a written statement of Purchaser's objections, if any, to title and any survey provided to Purchaser by MRRA or any survey otherwise obtained by Purchaser. Any

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matters shown on the title commitment and/or survey that are not objected to by Purchaser and all covenants, conditions and restrictions as set forth in the Navy Deeds shall be "Permitted Encumbrances." In the event that Purchaser identifies objections to title or the above-described survey, MRRA shall have fifteen (15) days after receipt of Purchaser's written statement of objections to cure or satisfy such objections, and to furnish evidence satisfactory to Purchaser and the Title Company that all such exceptions have been cured or satisfied or that arrangements have been made with the Title Company and any parties in interest to cure or eliminate the same at or prior to Closing. If MRRA determines that it will not or cannot cure or satisfy such objections within said fifteen (15) day period (or up to 30 additional days, if required to cure any title objection, in which case any Closing within such time period shall be postponed accordingly), Purchaser shall have the options set forth in paragraph (c) below. Purchaser shall have the right to update title prior to the Closing and report any new exceptions arising subsequent to the last title update and the foregoing provisions shall apply with respect to any newly discovered exceptions.

(c) If title to any portion of the Property cannot be conveyed to Purchaser in accordance with the requirements of this Agreement, then Purchaser shall have the option of (i) applying all or a portion of the Purchase Price for the portion of the Property being acquired to pay any liens of ascertainable amount against the portion of the Property being acquired at the time of Closing, taking such title as MRRA can convey and waiving the unfulfilled conditions, if any, or (ii) terminating this Agreement, in which event the Deposit shall be immediately refunded to Purchaser and neither party shall have any further liabilities or obligations hereunder. MRRA shall have no obligation to cure any Purchaser title objection.

6. **Inspections**. Purchaser shall have ninety (90) days from the Effective Date of this Agreement in which to inspect the Property and research applicable zoning and other laws and ordinances relevant to development of the Property (the "Inspection Period"). If, for any reason, or no reason at all, Purchaser is dissatisfied with its inspections of the Property or research regarding laws and ordinances and notifies MRRA in writing within the Inspection Period, this Agreement shall terminate without any further obligations on the part of either party and the Deposit shall be immediately refunded to Purchaser. Except in the case of MRRA's default or failure to perform pursuant to this Agreement, the Deposit shall become non-refundable upon the completion of the Inspection Period but shall remain applicable to the Purchase Price. Purchaser shall have the right to extend the Inspection Period for two (2) thirty (30) day periods, by providing written notice to MRRA prior to the expiration of the Inspection Period or first extension period, as applicable, and by depositing the sum of Two Thousand Five Hundred and 00/100 Dollars ($2,500.00) with the MRRA's Attorney (each an "Extension Deposit"). Each Extension Deposit will be considered part of the Deposit and shall be applicable to the Purchase Price in the event Closing occurs and shall be refundable to Purchaser through the completion of each related extension period, becoming non-refundable upon the expiration of such applicable extension period except in the case of MRRA's default or failure to perform pursuant to this Agreement.

7. **Representations of Purchaser**. Purchaser, in order to induce MRRA to enter into this Agreement and to sell the Property, represents and warrants to MRRA as follows:

(a) Purchaser has the full power, authority, and legal right to execute, deliver

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and comply with this Agreement and any other document or instrument relating thereto or the transactions contemplated hereby. All actions of Purchaser and other authorizations necessary for the execution and delivery of and compliance with this Agreement and such other documents and instruments have been taken or obtained or will be taken or obtained prior to Closing and, upon their execution, this Agreement and such other documents and instruments shall constitute the valid and legally binding obligations of Purchaser, enforceable against Purchaser in accordance with their respective terms.

(b) The execution and delivery of this Agreement, the consummation of the transactions contemplated hereby and the compliance with the terms and conditions hereof will not conflict with, or result in a breach of any applicable law, judgment, order, writ, injunction, decree, rule or regulation of any court, administrative agency or other governmental authority to which Purchaser is a party or by which it is bound.

(c) The Purchaser may assign this Agreement to an entity to be formed by Purchaser and controlled by Purchaser, for the purposes of developing the Property or to a qualified intermediary for purposes of acquiring the Property as part of an exchange under Section 1031 of the Internal Revenue Code. In the event that Purchaser assigns this Agreement to a qualified intermediary, Purchaser shall pay all reasonable legal and other expenses incurred by MRRA as a result of the qualified intermediary's involvement in the transaction or as a result of Purchaser's acquisition of the Property as part of such an exchange.

8. **Representations of Seller; Condition of the Property**.

(a) MRRA represents and warrants to Purchaser as follows:

(i) MRRA has the full power, authority, and legal right to execute, deliver and comply with this Agreement and any other document or instrument relating thereto or the transactions contemplated hereby. All actions and other authorizations necessary for the execution and delivery of and compliance with this Agreement and such other documents and instruments have been taken or obtained or will be taken or obtained prior to Closing and, upon their execution, this Agreement and such other documents and instruments shall constitute the valid and legally binding obligations of MRRA, enforceable against MRRA in accordance with their respective terms.

(ii) The execution and delivery of this Agreement, the consummation of the transactions contemplated hereby and the compliance with the terms and conditions hereof will not conflict with, or result in a breach of any applicable law, judgment, order, writ, injunction, decree, rule, or regulation of any court, administrative agency, or other governmental authority to which MRRA is a party or by which it is bound. Without limiting the foregoing no other person or entity has any option, agreement or right of first offer or first refusal with respect to the purchase or leasing of the Property or any portion thereof.

(iii) Electricity, telephone, water, and sewer utility lines adequate to serve existing structures and the buildings to be constructed on the Property are located

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adjacent to the Property and it will not be necessary to install any utility lines crossing over any privately owned land, other than land owned by MRRA (for which MRRA will grant easements to Purchaser), in order to provide service to the buildings and improvements to be constructed on the Property. All utility systems operated by MRRA for the purpose of serving the Property are in substantial compliance with all applicable laws and MRRA is not aware of any conditions or problems with such systems that are likely to result in any interruptions in service to the Property or significant increase in rates. MRRA charges no connection or hookup fees to connect to electrical and water service. The Purchaser bears the responsibility of investigating connection or hookup charges for other utility services.

(iv) A copy of the Common Charges (as defined in the Maintenance Agreement) budgets and actual Common Charges billed to the Property Owners under the Maintenance Agreement for the 2024 Budget are available upon request.

(b) The parties acknowledge and agree that except as provided in the representations above this is an AS-IS, WHERE-IS, WITH-ALL-FAULTS TRANSACTION with respect to the Property. Except as expressly provided in this Agreement, neither MRRA nor Purchaser has made and does not make any representation of any nature as to the physical condition or operation of the Property, as to the accuracy, thoroughness or completeness of, or the conclusions drawn in, any information provided by one party to the other, or as to any other matter or thing affecting or related to the Property including, without limitation, the presence of hazardous materials or substances, and each party hereby expressly acknowledges that no such other representations have been made by either party or relied on by either party. Neither MRRA nor Purchaser shall be liable or bound in any manner by any express or implied warranties, guaranties, promises, statements, representation, or information pertaining to the Property, made or furnished by any agent, employee, servant, or other person representing or purporting to represent MRRA or Purchaser, unless such warranties, guaranties, promises, statements, representations or information are expressly and specifically set forth in this Agreement. All representations, warranties, understandings, and agreements heretofore had between the parties hereto are merged in this Agreement, which alone fully and completely expresses their agreement.

(c) TO THE FULLEST EXTENT PERMITTED BY LAW, AS OF THE CLOSING PURCHASER AND MRRA EACH HEREBY UNCONDITIONALLY AND IRREVOCABLY RELEASE AND FOREVER DISCHARGE THE OTHER, AND ITS OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS, AND EACH OF THEIR RESPECTIVE AFFILIATES, OFFICERS, DIRECTORS, MEMBERS, PARTNERS, EMPLOYEES AND AGENTS FROM ANY AND ALL LIABILITY OR RESPONSIBILITY FOR CLAIMS, LOSSES AND DEMANDS, INCLUDING THOSE ARISING FROM PERSONAL INJURY OR DEATH, AND ALL CONSEQUENCES THEREOF (INCLUDING ANY INTERRUPTION OR INTERFERENCE WITH ANY BUSINESS OR ACTIVITIES BEING CONDUCTED ON THE PROPERTY AND ANY LOSS OF OPPORTUNITY), WHETHER NOW KNOWN OR NOT, WHICH MAY ARISE FROM THE FOLLOWING, IN EACH CASE IN RESEPCT OF WHICH NO REPRESENTATION OR WARRANTY HAS BEEN MADE UNDER THIS AGREEMENT: (1) ANY LATENT OR PATENT DEFECTS, ANY HIDDEN OR

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CONCEALED CONDITIONS, OR ANY SUBSOIL, GROUNDWATER OR GEOLOGICAL CONDITIONS, (2) THE CONDITION, STRUCTURAL INTEGRITY, OPERABILITY, MAINTENANCE OR REPAIR OF ANY BUILDINGS, EQUIPMENT, FURNITURE, FURNISHINGS OR IMPROVEMENTS, (3) THE PRESENCE OF ANY HAZARDOUS MATERIALS OR SUBSTANCES, (4) THE COMPLIANCE OF THE PROPERTY WITH, OR VIOLATION OF, ANY LAW, STATUTE, ORDINANCE, RULE OR REGULATION OF ANY GOVERNMENTAL ENTITY, INCLUDING, WITHOUT LIMITATION, APPLICABLE ZONING ORDINANCES, BUILDING AND HEALTH CODES OR (5) ANY OTHER MATTER OR THING AFFECTING OR RELATED TO THE PROPERTY. THIS RELEASE SHALL NOT RELEASE EITHER PARTY FROM CLAIMS RELATING TO FRAUD, INTENTIONAL MISREPRESENTATION, OR CLAIMS ARISING OUT OF ANY BREACH OF A REPRESENTATION OR WARRANTY INCLUDED IN THIS AGREEMENT.

(d) The provisions of this Section shall survive the Closing or earlier termination of this Agreement.

9. **Conditions to MRRA's Obligations.**

The obligation of MRRA under this Agreement to sell the Property to Purchaser (any or all of which may be waived in whole or in part by MRRA at or prior to the Closing):

(a) All material representations and warranties by Purchaser set forth in this Agreement shall be true and correct as of such Closing in all material respects as though such representations and warranties were made as of such Closing Date;

(b) Purchaser shall have performed, observed and complied in all material respects with all covenants, agreements and conditions required by this Agreement to be performed, observed and complied with prior to or as of such Closing;

(c) Purchaser shall have delivered a manager's or officer's certificate certifying as to and providing evidence of its existence and authority, that Purchaser, and any of its affiliates entering into any of the transactions described in this Agreement, are duly organized and authorized to enter into and carry out the transactions undertaken, and to execute and deliver the documents required to do so, pursuant to this Agreement;

(d) Payment by Purchaser of the Purchase Price; and

(e) MRRA Board approval of this Agreement and the transaction contemplated herein, and MRRA shall provide to Purchaser confirmation of such board consent and approval prior to Closing.

(f) Final subdivision approval from the Town of Brunswick of the Subdivision Plan, as may be revised by agreement of the parties, the expiration of all appeals periods with regards to the same, and recording of the final signed version of the Subdivision Plan in the registry.

If any of the foregoing conditions precedent is not satisfied, MRRA shall have the right to

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(i) terminate this Agreement by written notice thereof to Purchaser at any time prior to the Closing at issue, and Purchaser shall receive a prompt refund of the Deposit and neither party shall have any further liability or obligation hereunder (except as otherwise expressly provided in this Agreement), (ii) waive the unsatisfied conditions precedent and proceed to Closing in accordance with the terms of this Agreement that have not been so waived, or (iii) extend Closing until the earlier of ten (10) days after all of the conditions precedent are satisfied or thirty (30) days after the initially scheduled date of Closing. In the event of an extension under clause (iii) but all conditions precedent still have not been satisfied within such thirty (30) day period, MRRA shall have the right to terminate under clause (i) or waive under clause (ii). Upon termination with respect to subsections (a) or (b) above, MRRA may exercise all right or remedy available to it under Section 25 hereof.

10. **Condition of Purchaser's Obligations.**

The obligation of Purchaser under this Agreement to buy the Property from MRRA at Closing is subject to the satisfaction of all of the following conditions (any or all of which may be waived in whole or in part by Purchaser at or prior to such Closing):

(a) All material representations and warranties by MRRA set forth in this Agreement shall be true and correct as of such Closing in all material respects as though such representations and warranties were made as of the Closing at issue;

(b) MRRA shall have performed, observed and complied in all material respects with all covenants, agreements and conditions required by this Agreement to be performed, observed and complied with prior to or as of such Closing;

(c) Title to the Property shall be good and marketable in accordance with the standards adopted by the Maine State Bar Association, but subject to the Permitted Encumbrances;

(d) Purchaser shall be reasonably satisfied with the metes and bounds on the Property that MRRA may provide or that is otherwise obtained by Purchaser (an official survey will be at the sole discretion of the Purchaser);

(e) Purchaser shall not have terminated this Agreement as a result of its dissatisfaction with inspections as provided above;

(f) MRRA shall have delivered a manager's or officer's certificate certifying as to and providing evidence of its existence and authority, that MRRA, and any of its affiliates entering into any of the transactions described in this Agreement, are duly organized and authorized to enter into and carry out the transactions undertaken, and to execute and deliver the documents required to do so, pursuant to this Agreement;

(g) The physical condition of the Property shall be substantially the same at the time of Closing as it is on the Effective Date; and

(h) Purchaser shall have obtained from the Town of Brunswick during the Inspection Period all zoning approvals, site plan approvals, environmental approvals,

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construction permits, use permits and any other governmental approvals and permits necessary for Purchaser to develop, construct and operate its intended development on the Property (collectively, the "Approvals"), and Purchaser shall provide prompt notice to MRRA if the Town rejects any such Approvals, or withholds or conditions the Approvals in any way that shall impact the date of Closing.

If any of the foregoing conditions precedent is not satisfied, Purchaser shall have the right to (i) terminate this Agreement at any time prior to the Closing at issue, and Purchaser shall receive a prompt refund of the Deposit and neither party shall have any further liability or obligation hereunder (except as otherwise expressly provided in this Agreement), (ii) waive the unsatisfied conditions precedent and proceed to Closing in accordance with the terms of this Agreement that have not been so waived, or (iii) extend Closing until the earlier of ten (10) days after all of the conditions precedent are satisfied or thirty (30) days after the initially scheduled date of Closing. In the event of an extension under clause (iii) but all conditions precedent still have not been satisfied within such thirty (30) day period, the Purchaser shall have the right to terminate under clause (i) or waive under clause (ii). Upon termination with respect to subsections (a) or (b) above, Purchaser may exercise all right or remedy available to it under Section 26 hereof.

11. **Closing Deliverables**.

(a) At the Closing, MRRA shall execute, notarize (where appropriate), and deliver to Purchaser:

(i) a fully executed and acknowledged Quitclaim Deed with Covenant ("Deed") in a form reasonably acceptable to Purchaser;

(ii) a Non-Foreign Affidavit pursuant to the Foreign Investment in Real Property Tax Act, as amended;

(iii) all documents reasonably required by the Title Company such as an owner's affidavit including statements that all real estate taxes have been paid, settled, and cleared, and that there are no mechanics' liens or persons in possession, which are reasonably necessary in order for said title company to issue an ALTA form owner's title insurance policy to Purchaser; and

(iv) a fully executed and acknowledged reciprocal easement or other easements described in Section 2 above in such form as the parties may agree, together with such other documents as are reasonably requested by Purchaser's counsel; and

(v) all notices or written disclosures required by applicable Maine law including pursuant to Title 38 Section 563(6) and (10) and Title 33 Section 193.

(b) At the Closing, Purchaser shall deliver to MRRA the Purchase Price. At the Closing, Purchaser shall deliver to MRRA a fully executed and acknowledged instrument to Purchaser's satisfaction, joining Purchaser to MRRA's Road Maintenance and Common Facilities Agreement (as referenced above).

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(c) Purchaser and MRRA shall each execute and deliver to the other at the Closing any and all other documents customarily delivered at closings for similar transactions in Maine, as well as any and all other documents reasonably requested by the other.

12. **Possession**. At the Closing, MRRA shall deliver to Purchaser actual possession of the Property being purchased subject to the Permitted Encumbrances and any easements contemplated by this Agreement.

13. **Transfer Taxes**. At the Closing, MRRA and Purchaser shall each pay their share of real estate transfer taxes, as applicable.

14. **Apportionments**.

(a) At the Closing, all real estate taxes applicable to the Property being acquired for the tax year in which Closing occurs shall be apportioned between MRRA and Purchaser as of the Closing Date.

(b) The provisions of this Section shall survive the Closing.

15. **Fire and Casualty**. The risk of loss with respect to the Property shall remain on MRRA until the Closing.

16. **Binding Obligations**. Except as otherwise provided in this Agreement, Purchaser may not assign its rights or obligations under this Agreement without the prior written consent of MRRA, which MRRA may not unreasonably withhold. Notwithstanding the foregoing, Purchaser shall have the right to assign its interest hereunder to its nominee or an entity formed by Purchaser prior to Closing. All of the terms, covenants and conditions of this Agreement shall be to the benefit of and bind the respective successors and assigns of MRRA and Purchaser.

17. **Brokers.** No real estate brokers were involved in this transaction.

18. **Notices**. All notices required by or relating to this Agreement shall be in writing and shall be personally delivered, delivered by reputable overnight courier, mailed United States registered or certified mail, return receipt requested, postage prepaid, or sent by electronic mail provided that a copy of each electronic notice is simultaneously delivered via either of the other delivery methods described above unless so waived by the recipient, to the other respective party at its address below set forth, or at such other address as such other party shall designate by notice. Such notices shall be effective when dispatched, except that the time period within which any party may respond to a notice pursuant to this Agreement shall not commence until the earlier of such party's actual receipt of such notice, the third business day after dispatch in the case of notices by certified mail, or the first business day after dispatch for timely next day delivery by overnight delivery.

If to MRRA:

Daniel Stevenson, Director and Jake Levesque, Director of Innovation and Development

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Midcoast Regional Redevelopment Authority
15 Terminal Road, Suite 200
Brunswick, ME 04011
Email: jakel@mrra.us; dans@mrra.us

With a copy to:

Robert M. Liscord, Esq.
Drummond Woodsum
84 Marginal Way, Suite 600
Portland, ME 04101
Email: rliscord@dwmlaw.com

If to Purchaser:

Dino DeSanctis, Financial Director
Molnlycke Manufacturing US, LLC
192 Admiral Fitch Avenue
Brunswick, ME 04011
[ATTN: FINANCE DEPT]
Email: Dino.Desanctis@molnlycke.com

and to:

Sandy D. Newton, Assistant General Counsel
Molnlycke Health Care US, LLC
5445 Triangle Pkwy STE 400
Peachtree Corners, GA 30092
[ATTN: LEGAL DEPT]
Email: sandyd.newton@molnlycke.com

With a copy to Purchaser Attorney:

Erin Diekema, Esq.
Bernstein Shur
100 Middle Street, Tower West 5th Floor
Portland, ME 04101
Email: ediekema@bernsteinshur.com

19. **Recording**. This Agreement shall not be recorded.

20. **Whole Agreement; Amendments; Survival**. This Agreement sets forth all of the agreements, representations, warranties and conditions of the parties hereto with respect to the subject matter hereof, and supersedes all prior or contemporaneous agreements, representations, warranties and conditions. Any exhibits and riders referred to above constitute part of this Agreement. No alteration, amendment, modification or waiver of any of the terms or provisions

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hereof, and no future representation or warranty by either party with respect to this transaction, shall be valid unless the same be in writing specifically referring to this Agreement and signed by the party against whom enforcement of same is sought. Except for the provisions of this Agreement which expressly contemplate survival of the Closing or earlier termination of this Agreement, (i) none of the terms of this Agreement shall survive the Closing or early termination of this Agreement, and (ii) if the Closing occur, the delivery and acceptance of the documents executed and delivered at the Closing shall effect a merger and be deemed to establish the full performance of the parties under this Agreement, except for the provisions of this Agreement which expressly survive the Closing.

21. **Counterparts**. This Agreement may be executed electronically by the parties hereto in any number of separate counterparts, all of which, when delivered, shall together constitute one and the same Agreement.

22 **Holidays**. Wherever this Agreement provides for a date, day or period of time on or prior to which actions or events are to occur or not occur, and if such date, day or last day of such period of time falls on a Saturday, Sunday or legal holiday, then same shall be deemed to fall on the immediately following business day.

23. **Governing Law**. This Agreement and all issues arising hereunder shall be governed by the laws of the State of Maine.

24. **Time of the Essence**. Time is of the essence of this Agreement.

25. **Purchaser's Default**. In the event Purchaser shall default in the observance or performance of any of its obligations under this Agreement which are to be performed by Purchaser at or prior to Closing, then MRRA shall have the right to terminate this Agreement and retain the Deposit as its sole and exclusive remedy.

26. **MRRA's Default**. In the event MRRA shall default in the observance or performance of any of its obligations under this Agreement, then Purchaser shall have the right: (i) to terminate this Agreement and receive a prompt refund of the Deposit; or (ii) to bring an action against MRRA for any legal or equitable remedy available to Purchaser, including specific performance, and in the event Purchaser is successful in such action, Seller shall be liable for Purchaser's reasonable legal fees and expenses incurred in such action. Purchaser's remedies shall be cumulative, but no other remedies at law or in equity shall be available against MRRA.

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In Witness Whereof, the parties have executed this Agreement as of the date and year first above written.

Witness:

_____

Mölnlycke Manufacturing US, LLC

By: Signed by: Dino R DeSanctis B8E7CAFF91E44C8...
Name: Dino De Sanctis
Its: Finance Director

By: Signed by: David Butler 94A89D353E26449...
Name: David Butler
Its: Global VP Operations-Wound Care

Midcoast Regional Redevelopment Authority

_____

By: Signed by: Daniel Stevenson AF1E48B2A6F843E...
Name: Daniel Stevenson
Its: Executive Director

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EXHIBIT A

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ZONING DATA

ZONING CLASSIFICATION: GROWTH INDUSTRIAL DISTRICT (GI)

SETBACKS: FRONT: 10 FEET
SIDE: 15 FEET
REAR: 20 FEET

MAXIMUM LOT DENSITY: N/A

MAXIMUM BUILDING HEIGHT: 60 FEET

RECORD OWNER:

MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY
15 TERMINAL DRIVE, BRUNSWICK LANDING, BRUNSWICK, ME

N/F
MIDCOAST REGIONAL
REDEVELOPMENT AUTHORITY
AIR-5
BOOK 29438, PAGE 1

SEAHAWK AVENUE - 75' WIDE

PROPOSED UTILITY EASEMENT SHOWN ON PLAN FOR M.R.R.A

LOADING AREA

GERZOFSKY WAY

N/F
TBW, LLC
LOT 17
BOOK 33262, PAGE 320
MAP 40, LOT 223

ATLANTIC AVENUE

N/F
FLIGHT DECK PROPERTIES, LLC
LOT 17B
BOOK 38563, PAGE 329
MAP 40, LOT 223B

TITLE TO BE
MIDCOAST REGIONAL
REDEVELOPMENT AUTHORITY
LOT 16C
PORITION OF MAP 40-1, LOT 294

N/F
SHEPHERD PROPERTIES, LLC
LOT 17A
BOOK 38570, PAGE 107
MAP 40, LOT 223A

TAX MAP 40-1 - LOT 294
CURRENT LEASE AREA
MOLNLYCKE
MANUFACTURING US, LLC
BOOK 29239, PAGE 79
5.74 ACRES
REMAINDER OF LOT 16
PLAN REF. #1

PARKING AREA

LOT 16B
3.97 ACRES
PORTION OF TAX MAP 40-1 - LOT 294

LIMIT OF PLAN

NOW OR FORMERLY
MIDCOAST REGIONAL
REDEVELOPMENT AUTHORITY
FOST PARCEL AIR-13
BOOK 31438, PAGE 1

ORIGINAL LOT LINE

PELICAN STREET - 80' WIDE

ORION STREET - 80' WIDE

NOW OR FORMERLY
MIDCOAST REGIONAL
REDEVELOPMENT AUTHORITY
FOST PARCEL AIR-15
BOOK 40277, PAGE 202

BUNKER

ADMIRAL FITCH AVENUE 80' WIDE

LOT 19
2.29 ACRES

LOT 18
2.00 ACRES

N/F
MIDCOAST REGIONAL
REDEVELOPMENT AUTHORITY
FOST PARCEL AIR-17
BOOK 40277, PAGE 202

PLAN REFERENCES:

1. "FINAL SUBDIVISION PLAN, BRUNSWICK LANDING SUBDIVISION - PHASE 1, BRUNSWICK LANDING, BRUNSWICK, CUMBERLAND COUNTY, MAINE" PREPARED BY WRIGHT-PIERCE, RECORDED MARCH 18, 2013 IN PLAN BOOK 213, PAGES 79 THROUGH 85.
2. "AMENDMENT OF SUBDIVISION PLAN, BRUNSWICK LANDING - PHASE 1, BRUNSWICK LANDING, BRUNSWICK, CUMBERLAND COUNTY, MAINE" PREPARED BY WRIGHT-PIERCE, AND RECORDED IN PLAN BOOK 214, PAGES 247 THROUGH 253.
3. "MINOR MODIFICATION TO SUBDIVISION, BRUNSWICK LANDING - PHASE 1, BRUNSWICK LANDING, BRUNSWICK, CUMBERLAND COUNTY, MAINE" PREPARED BY WRIGHT-PIERCE, RECORDED IN PLAN BOOK 217, PAGE 213.
4. "AMENDMENT OF SUBDIVISION PLAN, BRUNSWICK LANDING SUBDIVISION-PHASE IV, ADMIRAL FITCH AVENUE, BRUNSWICK LANDING, BRUNSWICK, CUMBERLAND COUNTY, MAINE" PREPARED BY WRIGHT-PIERCE, RECORDED IN PLAN BOOK 221, PAGES 475 AND 476.
5. "AMENDED SUBDIVISION PLAN, BRUNSWICK LANDING - PHASE IV, BRUNSWICK LANDING, CUMBERLAND COUNTY, MAINE" PREPARED BY HALEY WARD, INC., RECORDED IN PLAN BOOK 223, PAGE 329.
6. "BOUNDARY SURVEY, NAVAL AIR STATION BRUNSWICK, BRUNSWICK MAINE, FOR: BRAC PROGRAM MANAGEMENT OFFICE" DATED AUGUST 2006, BY SEBAGO TECHNICS.

NOTES:

1. PROPERTY LINES SHOWN HEREON ARE BASED UPON PLAN REFERENCES ABOVE AND RECORDED LEGAL DESCRIPTIONS OF EDC PARCELS, AND ARE NOT THE RESULT OF AN ON GROUND SURVEY.
2. SHOWN LOT 16B IS MADE UP OF PARCELS EDC-2, EDC-15, EDC-35, AIR-13, AND AIR-15.
3. BEARINGS REFER TO GRID NORTH, MAINE WEST ZONE (1802) - NAD83. SAME AS THE REFERENCED PLANS ABOVE.
4. ALL BOOK AND PAGE NUMBERS SHOWN REFER TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
5. IMPROVEMENTS, STREET LINES, & BUILDINGS SHOWN HEREON ARE BASED ON PROVIDED BASE FILES FROM MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY AND WRIGHT-PIERCE. THESE FEATURES MAY HAVE CHANGED SINCE THE BASE FILE WAS CREATED.
6. NOT ALL UTILITIES AND EASEMENTS ENCUMBERING THE SITE ARE NOT LOCATED AND MAPPED FOR THIS SURVEY.
7. THE PURPOSE OF THIS AMENDMENT IS DEFINE THE REMAINING PORTION OF LOT 16 ON PLAN REF. #1 AND EXTEND THE LOT ACROSS PELICAN STREET.
8. REFERENCE IS MADE TO THE NOTES AND RESTRICTIONS ON PLAN REFERENCES ABOVE.
9. APPROXIMATE LOCATIONS OF EDC/AIR PARCELS ARE SHOWN FOR REFERENCE. EXACT PARCEL LINES NOT SHOWN FOR CLARITY OF LOT 16B.

CERTIFICATION:

THE UNDERSIGNED CERTIFIES TO THE BEST OF HIS KNOWLEDGE AND BELIEF THAT THIS PLAN AND THE SURVEY ON WHICH IT IS BASED WAS COMPLETED IN ACCORDANCE WITH CHAPTER 90 (02-380 CHAPTER 90) OF THE RULES AND STANDARDS OF PRACTICE ADOPTED BY MAINE'S BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS WITH THE FOLLOWING EXCEPTIONS:

(1) A WRITTEN REPORT HAS NOT BEEN PREPARED.

(2) NARRATIVE PROPERTY DESCRIPTIONS WERE NOT PREPARED.

(3) MONUMENTS WERE NOT SET AT ALL PROPERTY CORNERS OR ANGLE POINTS.

(4)RESEARCH LIMITED TO REFERENCED PLANS.

HALEY WARD, INC. / JEFFREY WEEKS, JR P.L.S. #2609 DATE:04/14/2025

LEGEND:

DESCRIPTION	EXISTING
PROPERTY LINE	
APPROXIMATE EXTERIOR PROPERTY LINE	
SETBACK LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
FENCE	—X—X—
EASEMENT LINE	

GRAPHIC SCALE

60' 0 30' 60' 120' 180'

(IN FEET)
1 inch = 60 ft.

STATE OF MAINE
CUMBERLAND, SS.
REGISTRY OF DEEDS
RECEIVED AND FILED
JULY 02, 2025
2 h 47 m P M.
Attest Jessica Spaulding Register
RECORDED AS MAP FILE:
BOOK: 225 PAGE: 240

TOWN OF BRUNSWICK
DIRECTOR OF PLANNING AND DEVELOPMENT:

THIS IS TO CERTIFY THAT THE AMENDED SUBDIVISION PLAN BRUNSWICK LANDING SUBDIVISION PHASE IV IS A MINOR MODIFICATION TO PLAN REFERENCE #1, AND IS APPROVED BY THE PLANNING DIRECTOR IN CONSULTATION WITH THE TOWN PLANNER, CODE ENFORCEMENT OFFICER, AND PUBLIC WORKS DIRECTOR IN ACCORDANCE WITH BRUNSWICK MAINE ZONING ORDINANCE, CHAPTER 5, SECTION 5.2.10.B

APPROVED ON: _____

_____ _____

_____ _____

_____ _____

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
WWW.HALEYWARD.COM
One Merchants Plaza, Suite 701
Bangor, Maine 04401
207.989.4824

PROJECT

MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY
15 TERMINAL DRIVE, BRUNSWICK LANDING, BRUNSWICK, ME

TITLE

AMENDED SUBDIVISION PLAN
LOT 16B
FINAL SUBDIVISION PLAN - PHASE 1,
BRUNSWICK LANDING,
BRUNSWICK, CUMBERLAND COUNTY, MAINE

STATE OF MAINE
JEFFREY G. WEEKS, JR.
No. 2609
PROFESSIONAL LAND SURVEYOR

DATE	SCALE
2025.04.14	1" = 60'

DRAWN BY	DESIGNED BY	CHECKED BY
NJR	---	---

PROJECT No. 12668.020

DRAWING No. V101 REV.

FILE LOCATION: P:\ME\12668-MIDCOAST_REGIONAL_REDEVELOPMENT_AUTHORITY\020-ARCLYNCKE ADDITION - NORKE\CAD_FILES\SURVEY\Y1\V0001001 V-SUB-TEMPLATE.DWG, 2025.06.11, 11:39 AM

Docusign Envelope ID: 765FEB29-A2DA-4789-A983-AFE2AF36292B

EXHIBIT B

Form Joinder to Road and Common Facilities Maintenance Agreement

JOINDER TO ROAD AND COMMON FACILITIES MAINTENANCE AGREEMENT

This Joinder ("Joinder") to Road and Common Facilities Maintenance Agreement is made as of this ____ day of _____, 202__ (the "Effective Date" of this Joinder) by **MÖLNLYCKE MANUFACTURING US, LLC**, a Maine limited liability company whose notice address is 192 Admiral Fitch Avenue, Brunswick, Maine 04011 (the "Additional Property Owner") and the **MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY**, a body corporate and politic and a public instrumentality of the State of Maine ("MRRA").

1. Additional Property Owner is a party to, and a Property Owner under that certain Road and Common Facilities Maintenance Agreement dated July 26, 2013, as recorded in the Cumberland County Registry of Deeds at Book 30884, Page 170 (the "Agreement") by and among MRRA and certain other parties, with respect to certain real property located within the former Naval Air Station Brunswick ("NASB"), in the Town of Brunswick, County of Cumberland, in the State of Maine. Capitalized terms used herein and not otherwise defined shall have the meaning provided in the Agreement. The Property owned by the Additional Property Owner that is subject to the Agreement as a result of this Joinder is described on **Exhibit A** attached hereto.

2. As of the date hereof, the total interior square footage of the improvements within the Property is _____ square feet and the Property Owner's Share for FY 2024 is _____.

3. MRRA hereby consents to the Additional Property Owner entering into this Joinder and making the Property subject to the Agreement.

4. The Additional Property Owner represents and warrants that the person whose signature appears below for the Additional Property Owner is duly authorized to execute and deliver this Joinder, and that this Joinder is a binding agreement of the Additional Property enforceable in accordance with its terms.

5. This Joinder, together with the Agreement and the Prior Joinders, contains the entire agreement between the parties hereto and is intended to be an integration of all prior agreements, conditions or undertakings between the parties hereto.

6. This document shall be recorded in the Cumberland County Registry of Deeds.

[*remainder of page intentionally blank – signature page to follow*]

Docusign Envelope ID: 765FEB29-A2DA-4789-A983-AFE2AF36292B

IN WITNESS WHEREOF, this Joinder to Road and Common Facilities Maintenance Agreement is executed by the undersigned as of the date first set forth above.

ADDITIONAL PROPERTY OWNER:
MÖLNLYCKE MANUFACTURING US, LLC

By:_____
Name:
Its:

STATE OF MAINE
COUNTY OF CUMBERLAND, ss. _____, 2025

Then personally appeared the above-named _____, _____ of Mölnlycke Manufacturing US, LLC, and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free act and deed of said company.

Before me,

_____
Notary Public/Attorney at Law
Print Name: _____
My Commission Expires: _____

[Signatures continue on following page]

Docusign Envelope ID: 765FEB29-A2DA-4789-A983-AFE2AF36292B

MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY

_____ By: _____
Jeffrey Jordan
Its: Deputy Director

STATE OF MAINE
COUNTY OF CUMBERLAND, ss. __ ____, 2025

Then personally appeared the above-named Jeffrey Jordan, Deputy Director of the Midcoast Regional Redevelopment Authority and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of Midcoast Regional Redevelopment Authority.

Before me,

_____
Notary Public/Attorney at Law
Print name _____
My commission expires _____

Docusign Envelope ID: 765FEB29-A2DA-4789-A983-AFE2AF36292B

EXHIBIT A TO JOINDER
DESCRIPTION OF THE PROPERTY

[TO BE ADDED]

SMRT

Melissa Flynn, PE

Civil Engineer

Melissa is a civil engineer with 18 years of hands-on design experience. She is responsible for civil engineering and stormwater design for new and existing sites throughout New England, from concept design to permitting and construction administration. Various project scopes have included: siting of new buildings and additions on campus, reviewing and designing integration of campus stormwater management, optimizing traffic and pedestrian flow throughout campus, and utility design to support the new/improved facilities. Melissa applies a systematic, problem-solving approach to projects and is well-versed in local and state permitting requirements.

Education

BS, Civil Engineering, Rensselaer Polytechnic Institute

Registrations

ME, CT, MA, NH, RI, NY

Relevant Experience

Molnlycke Healthcare U.S. Expansion, Brunswick, ME

Civil engineer for the design of a 100,000-square-foot facility for a specialty manufacturer focused on medical technology. Program spaces include all phases of the product lifecycle: receiving, inspection, raw material storage, processing, fabrication, quality control, packaging, warehousing, and shipping.

Regeneron Pharmaceuticals Mill Creek Development, East Greenbush, NY

Civil engineer for site master planning, permitting, and design of a new research and manufacturing campus in the Capitol Region. Services included site and utility infrastructure design and construction oversight to support a new raw material warehouse. The design included provisions for future phases, including a manufacturing facility, offices, labs, and a parking garage.

Raytheon Hillsborough Expansion, Pelham, NH

Civil engineer for the renovation of approximately 10,300 square feet of the existing Hillsborough building. The site design included significant retaining walls, extensive utility coordination, and parking and security control upgrades.

University of Maine Sustainable Aquaculture Workforce and Innovation Center, Orono, ME

Civil engineer for this 14,200-square-foot research center which will fill the gap in the existing aquaculture infrastructure for workforce training. Melissa designed the stormwater management system and will assist with the Maine Department of Environmental Protection Site Location of Development Act (SLODA) Permit.

New Hampshire Secure Treatment Facility for Youth, Hampstead, NH

Civil engineering and environmental permitting services for the design of the new, 40,000-square-foot, 18-bed facility. The site design included a reconfigured entrance drop-off, additional parking, a new service loop road, multiple retaining walls to accommodate the steep slopes, new utility connections, and stormwater treatment. A combination of surface detention, underground storage, and bioretention systems was designed to treat the impervious area on the site. The project disturbed approximately 7.7 acres, which required a New Hampshire Department of Environmental Services Alteration of Terrain (AOT) Permit.

SMRT ARCHITECTS & ENGINEERS

SMRT has a rich history of providing professional services for state-of-the-art science and technology clients, with a particular passion for projects at the intersection of research, development, and manufacturing. We provide each client with a uniquely tailored process built to create alignment between design, function, performance, and culture. Whether discussing program areas or the workplace, our approach and methods are time-tested and ever-evolving. Each project is unique and should be treated appropriately. Our approach is based on understanding your process and goals, which is complemented by our expertise, resulting in your success.

SMRT has served its science, technology, and manufacturing (STM) clients for more than 40 years by designing a broad spectrum of facilities and advancing new construction methodologies. Our depth of experience in the specialty research, development, and manufacturing space addresses programs that rely on controlled environments (cleanrooms, dry rooms, laboratories), use of hazardous production materials (HPMs), and associated production support, logistics, and workplace.

DESIGN THAT INSPIRES

The design of today's specialized life sciences facilities requires both technical expertise and operations/facilities management experience. SMRT brings both to every project, while rooting our work in the project's goals. We maximize the efficiencies of our full-service capabilities to best serve you.

The design of facilities that foster scientific discovery is critical. SMRT's life science facilities are designed to support scientific discovery by creating environments that spark creativity and inspire innovation while focusing on the health and well-being of living organisms. We specialize not only in the fundamentals of any architecture and engineering project that creates facilities that are safe, sustainable, and aesthetically pleasing, but also in the unique considerations and constraints inherent to an industry that operates in R&D, manufacturing, biotechnology-based food and medicines, medical devices, biomedical technologies, and food processing.

SMRT

Melissa Flynn, PE

Civil Engineer

Melissa is a civil engineer with 18 years of hands-on design experience. She is responsible for civil engineering and stormwater design for new and existing sites throughout New England, from concept design to permitting and construction administration. Various project scopes have included: siting of new buildings and additions on campus, reviewing and designing integration of campus stormwater management, optimizing traffic and pedestrian flow throughout campus, and utility design to support the new/improved facilities. Melissa applies a systematic, problem-solving approach to projects and is well-versed in local and state permitting requirements.

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Ken Costello, RLA, LEED AP

Landscape Architect

Ken leads SMRT's site design department and has over 32 years of experience providing landscape architecture services on a wide variety of projects. He has experience providing design and construction administration on numerous projects throughout New England, including extensive experience with site and earthwork repair projects, accessibility, and code requirements.

Education

MLA, University of Colorado, Denver

BLA, University of Rhode Island

Registrations

ME, CT, MA, NH, NY, RI

Relevant Experience

Molnlycke Healthcare U.S. Expansion, Brunswick, ME
Landscape architect for the design of a 100,000-square-foot facility for a specialty manufacturer focused on medical technology. Program spaces include all phases of the product lifecycle: receiving, inspection, raw material storage, processing, fabrication, quality control, packaging, warehousing, and shipping.

Abbott Laboratories COVID Test-Kit Manufacturing Facility, Westbrook, ME
Landscape architect for a 120,000-square-foot facility to ramp up production of COVID-19 test kits. The project included major site improvements, including new parking, access, utilities, and stormwater infrastructure. Utility design included upgrading and adding electrical services and new emergency generators. This project includes eight Level 2 electric vehicle charging stations.

RayzeBio Radiopharmaceutical Manufacturing Facility, Indianapolis, IN
Landscape architect for the design of the conversion of 63,000 square feet of Amazon warehouse space into a radiopharmaceutical manufacturing facility with ISO 7 cleanrooms. The design includes state-of-the-art clean rooms, well-functioning office space that focuses on employee well-being and retention, and a partial replacement of the building's exterior to provide natural light and a memorable identity.

Regeneron Pharmaceuticals Mill Creek Development, East Greenbush, NY
Landscape architect for site master planning, permitting, and design of a new research and manufacturing campus in the Capitol Region. Services included site and utility infrastructure design and construction oversight to support a new raw material warehouse. The design included provisions for future phases, including a manufacturing facility, offices, labs, and a parking garage.

Raytheon Hillsborough Expansion, Pelham, NH
Landscape architect for the renovation of approximately 10,300 square feet of the existing Hillsborough building, including the high-bay area. Approximately 2,000 square feet of the building were demolished, and a 10,000-square-foot addition was added and separated into two floors. The site design included significant retaining walls, extensive utility coordination, and parking and security control upgrades.

Exhibit 3a

Gothenburg August 18, 2025

To whom it may concern

The purpose of this letter is to provide evidence of financial capacity for the Mölnlycke Group's ("**Mölnlycke**") proposed expansion of manufacturing capacity in Brunswick, Main, USA. Mölnlycke Manufacturing US, LLC is, indirectly, a wholly owned subsidiary of Mölnlycke AB.

It is estimated that the project cost will be $130,000,000. Mölnlycke will finance this project with existing cash at hand. During 2025 Mölnlycke has raised $400,000,000 of debt to finance Mölnlycke's global growth and development plans. The US expansion of manufacturing capacity project is part of these growth and development plans.

Mölnlycke is rated Investment Grade BBB- by Standard & Poors with a stable outlook. In 2024 Mölnlycke had an annual sales of EUR 2,064M, EBITDA of EUR 591M with a strong cash conversion of 78%.

Please visit www.molnlycke.com (Mölnlycke news) for more information on:

Annual report 2024, press release of US expansion and press release of securing $400M in financing, copies of which can also be provided separately upon request.

This document should clearly demonstrate that Mölnlycke has the financial capacity to afford the US expansion plans.

If you need additional information, please do not hesitate to contact me.

Sincerely,

Richard Magnusson
Group Treasurer
Mölnlycke

Mölnlycke Health Care AB
Entreprenörsstråket 21
SE-431 53 Mölndal
Sweden

Postal adress:
Box 6
SE-431 21 Mölndal
Sweden
www.molnlycke.com

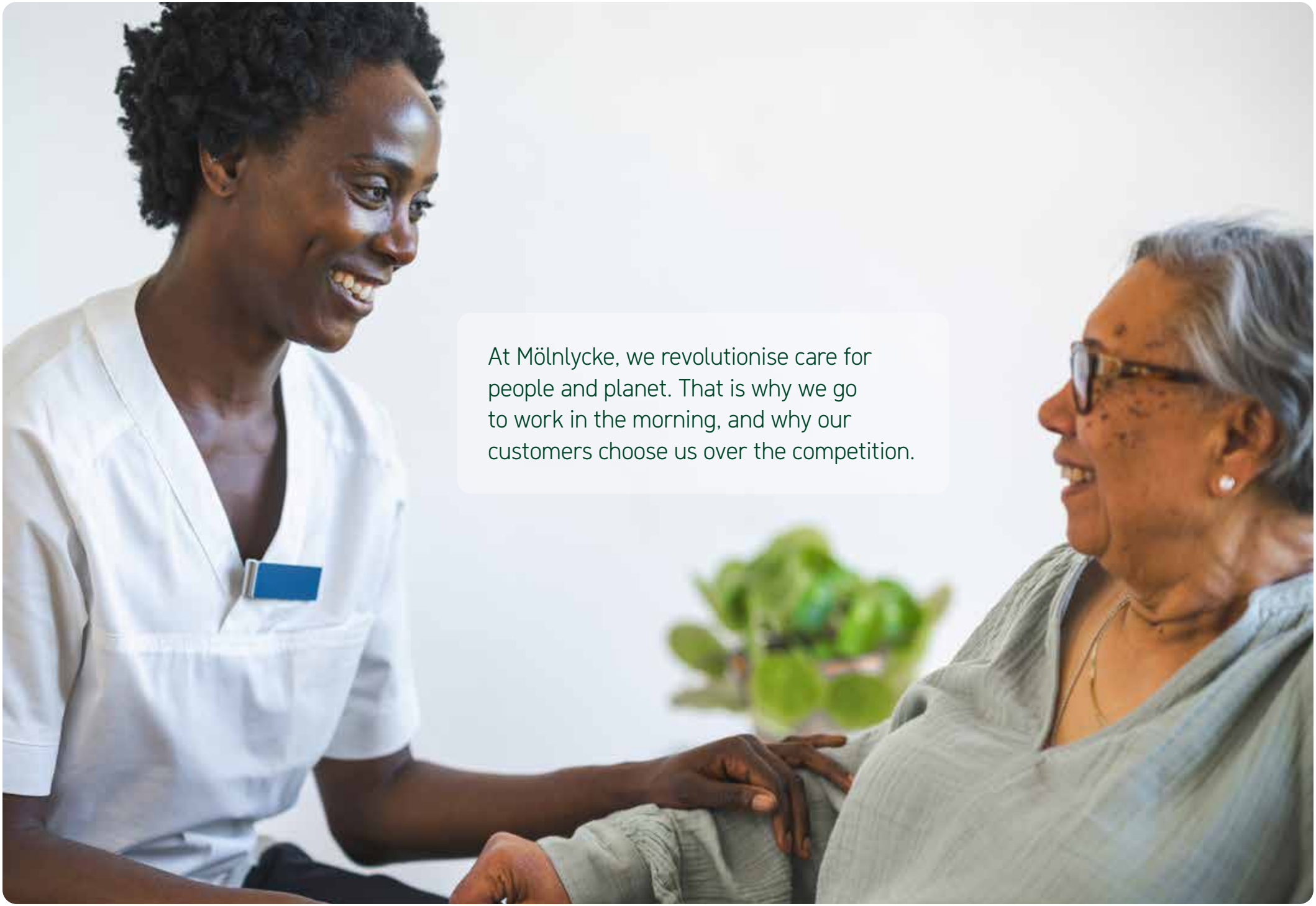
Tel +46 312 722 30 00
Fax +46 312 722 34 00

Reg No. 556547-5489
Seat: Mölndal

Exhibit 3b

Annual report 2024

Mölnlycke®


At Mölnlycke, we revolutionise care for
people and planet. That is why we go
to work in the morning, and why our
customers choose us over the competition.

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Mölnlycke's 2024 Integrated Annual Report covers the year ended 31 December 2024. The audited consolidated financial statements for Mölnlycke Holding AB are prepared in accordance with IFRS and are presented on pages 62–100. The sustainability reporting is prepared in accordance with the Swedish Annual Accounts Act, chapter 6, section 10 and 11 (in line with the EU Directive on non-financial reporting). The report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards, applying the reporting principles outlined in GRI 1: Foundation (2021) and is presented on page 101–146. Additionally, the report has been structured to align with the Corporate Sustainability Reporting Directive (CSRD) format and requirements, though full compliance has not yet been achieved. Climate-related disclosures have been incorporated in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). As a supplement, a GRI content index is provided at the end of this report.

For any questions regarding this report, please contact:
Sara Ehinger, Global Communications VP, Sara.Ehinger@molnlycke.com

This is Mölnlycke®

Mölnlycke Health Care is a world-leading MedTech company that specialises in innovative solutions for wound care and surgical procedures. Mölnlycke products and solutions are used daily by hospitals, healthcare providers and patients in over 100 countries around the world. Founded in 1849 and headquartered in Sweden, Mölnlycke is owned by Investor AB, listed on NASDAQ OMX Stockholm.

Business Areas

Wound Care

Innovative and intuitive solutions for wound prevention and management.

OR Solutions

Sustainable services and solutions for improved operating room performance and efficiencies.

Gloves

State-of-the-art solutions for hand health and improved surgical performance.

Antiseptics

Infection prevention across the patient journey.

Key facts and figures 2024

8,617
employees

14
manufacturing sites in nine countries

3.9
out of 5 in global engagement score

100%
renewable electricity

39
commercial entities

100
countries where Mölnlycke is present

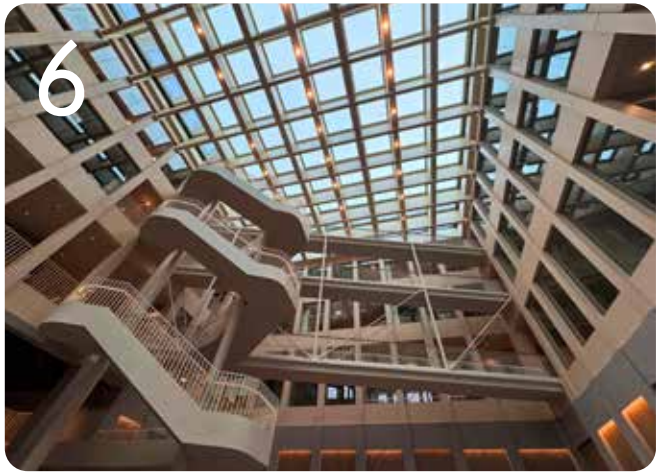
2,064
annual sales (EUR million)

15%
less greenhouse gas emissions across the entire value chain compared to 2021 baseline

3

5

6



2024 in brief

1 Continued strong growth

Mölnlycke continued to deliver strong sales growth throughout 2024, outperforming competition. The sales increase of 7.4% in constant currency rates resulted in net sales of EUR 2,064 million.

2 EUR 2 billion in annual sales

It took 163 years from 1849 to 2012 to reach EUR 1 billion in annual sales, and just another 12 years to achieve EUR 2 billion, highlighting the company's strength and resilience.

3 EcoVadis platinum rating

Mölnlycke has been awarded the platinum medal in EcoVadis sustainability rating, which places the company in the top 1% of all companies assessed.

4 Acquisition of P.G.F. Industry Solutions

Mölnlycke has acquired P.G.F. Industry Solutions GmbH, the Austrian manufacturer of Granudacyn® wound cleansing solutions. The acquisition will allow Mölnlycke to expand its Granudacyn® business.

5 Geographic expansion in the Middle East & APAC

Mölnlycke has increased its investment in the Tamer Mölnlycke Care joint venture to 60%, becoming the majority shareholder. Following a strategic decision to expand manufacturing footprint into India and China, detailed plans have been put in place.

6 New HQ at GoCo Health Innovation City

At the beginning of 2025, Mölnlycke completed the move to new headquarters at GoCo Health Innovation City, ensuring a presence in the MedTech hub with possibilities to collaborate and embrace partnerships.

7 Fighting HAIs[1] through partnership with Ondine Biomedical

Mölnlycke has partnered with Ondine Biomedical Inc to distribute Steriwave®, a light-activated nasal decolonisation technology, in the UK, EU and the Middle East. The partnership aims to combat healthcare-associated infections and antimicrobial resistance.

8 100% renewable electricity at all manufacturing sites and HQ

In 2024, Mölnlycke reached its SBTi-validated near-term target of sourcing 100% renewable electricity for all manufacturing sites and HQ. The company will continue to actively source renewable electricity through 2030.

9 Investment in radical innovation

Mölnlycke has invested USD 15 million in MediWound Ltd., a company specialising in non-surgical wound debridement and USD 8 million in diabetic foot ulcer management system company Siren. Both strategic investments aiming to enhance wound care standards.

1. Healthcare-Associated Infections.

Words from the CEO

"Together we continue our quest to revolutionise care for people and planet. No matter the changes to come."

Zlatko Rihter
Chief Executive Officer

The only constant in life is change. In 2024, Mölnlycke celebrated 175 years of being at the forefront of that change and going forward we will continue to be progressive and innovative, ready to support healthcare professionals and healthcare systems around the world as we revolutionise care for people and planet.

In 2024, we reached the milestone of EUR 2 billion in annual sales for the first time. Our strong financial position and continued growth allow us to direct our future and continued investments. At the same time, it is clear that our strategy and previous investments have paid off, enabling close relationships with our customers working alongside them to handle the challenges of healthcare today.

The healthcare sector is undergoing significant changes. In the wake of the pandemic, healthcare systems globally are under immense pressure. Recognising this, we are dedicated to pioneering sustainable healthcare solutions. Our goal is to ensure that healthcare professionals receive the support they need to continue their vital work, while we innovate towards achieving sustainable healthcare systems, enhancing efficiencies in healthcare and addressing climate change challenges.

In the accelerated shift from acute to non-acute care settings, we are committed to developing ecosystems of care that support day care, ambulatory care and home care, in addition to acute care, ensuring that healthcare professionals and caregivers are well-equipped to meet evolving patient needs. This transition is crucial for alleviating the burden on hospitals and providing more efficient care.

Throughout 2024, despite facing challenges such as supply chain disruptions in the Red Sea and natural disasters, our team has shown remarkable resilience. We have continued to meet the needs of our customers and their patients, adapting to

geopolitical factors with more regional and local strategies. Our significant investments in key regions like China, India and Saudi Arabia, alongside a strong focus on core markets such as the EU, UK and US, demonstrate our commitment to remaining resilient and adaptable in a polarised global landscape.

A heartfelt thank you to all who have supported us during the year – our dedicated people, our valued customers and our committed owners. Together we continue our quest to revolutionise care for people and planet. No matter what changes lie ahead.

Another strong year

When reflecting on 2024, I am proud to report that Mölnlycke has had another strong year, achieving 2,064 MEUR in net sales while improving profitability. This corresponds to a sales growth of 7.4% in constant currency rates, compared to 2023, outperforming the market. The EBITDA margin amounted to 29%. Financially, we have improved on the strong performance of last year, with all business areas showing growth.

- Wound Care continued to outperform the market demonstrated by an 8% organic growth ending the year with more than EUR 1,2 billion in sales.
- Operating Room Solutions achieved 5% organic growth and reached sales of EUR 525 million with growth mainly fuelled by the Tray channel, price increases and acceleration in more profitable segments.
- Gloves positively delivered a 4% organic growth and EUR 250 million sales after a challenging 2023. The positive results are from all regions the business area serves.
- Antiseptics built on the momentum from the end of 2023 delivering an outstanding organic growth of 23%, with similar patterns across regions. Sales was EUR 66 million in total.

A leader in sustainable healthcare

At Mölnlycke, we are dedicated to transforming our business to become a global leader in sustainable healthcare, driving innovation for both people and planet. This means embedding sustainability into every aspect of our operations, offers and partnerships. In 2024, our sustainability roadmap 2030, "WeCare", was updated to prepare for the transition to Corporate Sustainability Reporting Directive (CSRD) with even more transparency in our sustainability reporting.

Our commitment to Net Zero greenhouse gas emissions by 2050 stands firm and we achieved our first SBTi-validated near-term target of 100% renewable electricity at all our manufacturing sites and HQ – a major enabler on the path to Net Zero.

We continued to strengthen the framework for shaping sustainable value chains and ensuring transparency throughout the lifecycle of our solutions. Governance and business ethics is the foundation of our operations. We reinforced the governance structures and the compliance mechanisms to uphold the highest standards across all activities.

The significant progress in becoming a leader in sustainable healthcare was also recognised with a platinum medal from EcoVadis and the Capgemini Swedish Sustainability Tech Award 2024 for Mölnlycke ProcedurePak®.

Leveraging technology

While new business models and digital solutions are emerging, the healthcare sector remains conservative. We are focused on optimising existing systems with digital innovations, understanding that a one-size-fits-all approach is not feasible in healthcare. It requires an in-depth understanding of the different challenges our markets experience, and the different conditions in local healthcare systems.

Our online portal for Operating Room Solutions has been further developed and we are now piloting the first true eCommerce customer. We have also continued to successfully grow our scar management portfolio on key eCommerce platforms in China. Additionally, we have introduced bots at our factory sites to optimise our business systems and are leveraging technology to drive efficiency and innovation. Digitalisation remains at the core of our strategy for the years ahead.

Future of partnerships

A clear focus for our 2025 strategy and beyond will be on transformation through partnerships, collaborations and joint ventures to drive growth. A journey we commenced in 2024 with the acquisition of P.G.F. Industry Solutions, the strategic partnership with Ondine Biomedical Inc and strategic investments in MediWound and Siren. The joint venture Tamer Mölnlycke Care in Saudi Arabia has started production and we are planning for expansion in India and China.

In conclusion, Mölnlycke is well-positioned for a future of change. We will continue to refine our go-to-market strategy, deepen our understanding of patient and caregiver needs, and strengthen our presence in both acute and non-acute care. I am confident that our adaptability and dedicated team will enable us to navigate any challenges ahead.

Zlatko Rihter
CEO, Mölnlycke

Performance

Financial

2,064
annual sales 2024, million EUR

591
EBITDA, million EUR

7%
organic sales growth

29%
EBITDA margin

Non-financial

Planet

Net Zero across the full value chain by latest 2050

Scope 1 and 2 GHG emissions

-40%
Outcome 2024

-50%
Target 2030

Scope 3 GHG emissions

-11%
Outcome 2024

-20%
Target 2028

People

Employee Engagement Index Score by 2025

3.9
Outcome 2024

>4
Target 2025

Employee engagement is measured through Mölnlycke's annual employee engagement survey.

Gender parity for people leaders at all levels by 2025

48%
Outcome 2024
52/48% male/female leaders

50%
Target 2025

Gender distribution is measured at all levels. The target for people leaders is reported at an aggregated outcome level.

Governance - Ethical business culture

99.5%
Outcome 2024

100%
Target 2025

Employees to receive a training or awareness session in ethics and compliance.

70%
Outcome 2024

100%
Target 2025

Employees feel safe to report concerns without fear of retaliation.

Strategy

Mölnlycke's strategy to become a MedTech industry leader in customer-centricity, sustainability and digitalisation is deeply rooted in ethnographic customer studies and the company's purpose to revolutionise care for people and planet.

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External environment and trends

At Mölnlycke, analysing the external environment is a crucial aspect of the strategy formulation process. This helps in identifying potential trends, opportunities and threats that can impact the business. By continuously monitoring its external environment, Mölnlycke can better support its customers and proactively pursue growth opportunities that align with business objectives.

Trends	Mölnlycke's response
The healthcare system There is a noticeable trend in global healthcare where limited resources are exerting significant pressure on healthcare professionals to manage an overburdened system. This strain is due to both cost-saving measures and staff shortages. Consequently, we are seeing a shift towards assigning various healthcare tasks to less experienced and less qualified individuals. It is also bringing care closer to the patient by a transition in settings, with patients moving from acute care to community and post-acute care environments. As a result, the healthcare sector requires more intuitive and efficient products and solutions to address the impact of these trends, aiming to advance care and improve efficiency.	Mölnlycke is committed to delivering high-quality products and solutions that address the evolving needs of the healthcare sector. The company prioritises developing intuitive and user-friendly solutions, emphasising patient safety, comfort, effectiveness, and improved clinical and financial outcomes. By conducting ethnographic studies, Mölnlycke observes its customers and patients in their daily work environments to gain a deep understanding of their needs. These insights guide Mölnlycke's innovation efforts, helping to support its customers in overcoming challenges as well as creating growth opportunities for the company.
Digitalisation The world is undergoing a swift digital transformation which is also impacting the healthcare sector. The digital health market is projected to expand significantly in the coming years, with healthcare providers increasingly adopting various software, hardware and services. Concurrently, digital transformation is driving changes in business and operating models. With the rise in chronic diseases and government efforts to provide accessible and affordable healthcare, the use of digital health technology is anticipated to grow substantially in the future.	Mölnlycke aims to lead the industry in digitalisation by actively investing in the digital transformation of its portfolio. This strategy focuses on delivering sustainable, competitive and customer-centric digital solutions with a unique value proposition. Key initiatives include developing digital ecosystems, launching new business models and leveraging data-driven healthcare through AI, big data and other analytical tools. Furthermore, Mölnlycke is dedicated to creating a strong internal digital ecosystem to ensure efficient and future-proof working processes.

Trends	Mölnlycke's response
Geopolitical dynamics Current geopolitical dynamics drive isolation and regionalisation. Global businesses like Mölnlycke are impacted by trade restrictions and market access challenges resulting from ongoing dynamics. Trade policies and regulatory changes can alter operational landscapes. Economic factors such as inflation and currency fluctuations influence costs and pricing strategies, while supply chain disruptions affect the availability of critical supplies and equipment.	These dynamics drive strategic adaptations including navigation of the geopolitical and macro-economic landscape to maintain innovation and ensure supply availability throughout the entire value chain. Mölnlycke is strengthening its presence in multiple geographies addressing the business model through partnerships.
Sustainability Much like in many other industries, sustainability is driving transformative change in the healthcare sector, focusing on minimising environmental impact, improving resource efficiency and fostering innovation in sustainable products and processes. Prioritising healthcare professionals' well-being and enhancing patient care through sustainable practices are also key trends shaping the future of the industry.	Mölnlycke is taking a holistic and progressive approach to becoming a leader in sustainable healthcare. The company's innovative and sustainable solutions are supported by research-based benefits for its customers and patients. Understanding that collaboration is key to achieving its sustainability goals, Mölnlycke actively engages with all stakeholders across the entire value chain to identify opportunities and create mutual benefits.
Demographics The healthcare industry is likely to be impacted by two significant factors – an increasing global population and the rise in average life expectancy. These demographic shifts will create new challenges and opportunities for the market. Additionally, the growth of a middle-class population and an increase in sedentary lifestyles will further influence Mölnlycke's market.	The growing demand for healthcare products and solutions presents significant growth opportunities for Mölnlycke. To meet this demand, the company is constantly assessing its production capacity, geographical presence, the ecosystems it is part of, and its portfolio of products and services, to ensure that it can fulfil the evolving needs of the market.

Business model

Mölnlycke is organised around four Business Areas with end-to-end responsibility to create value for customers, executing on our strategy. The Business Areas are supported by Corporate Functions providing capabilities and support in enabling processes.

Market drivers

There are a number of underlying market drivers in health care that support Mölnlycke's opportunities for long-term growth. These shape the Business Areas' strategies to drive value and business opportunities.

- Wound Care patients are often treated by inexperienced generalists.
- Solutions are not always accessible, intuitive, fast or easy-to-use.
- Patients' quality of life is impacted by inadequate prevention, 'hard to heal' and reoccurring wounds.

Vision

Free patients, caregivers and healthcare systems from the burden of wounds.

Mission

Deliver innovative and intuitive solutions for prevention, faster healing and better quality of life.

- The immense pressure facing healthcare professionals lead to a high staff turnover and staff shortages.
- Surgeons and operating room staff are forced to conduct more procedures with fewer resources.
- Operating room staff spend substantial time on non-value adding tasks.

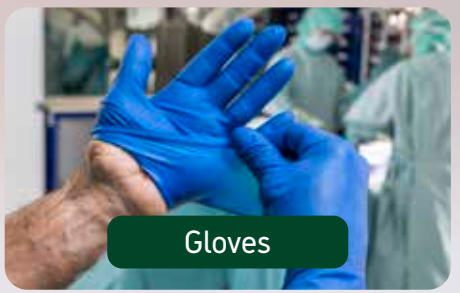
Vision

An operating room in frictionless flow.

Mission

Create an ecosystem of solutions and services to ensure a frictionless flow in the operating room.

- Hand health is critical for the performance of nurses and surgeons.
- Protection, high tactility grip and comfort also impact the performance of caregivers' hands.
- Hand fatigue is a common problem among surgeons and nurses.



Vision

Hands deserve better.

Mission

Deliver innovative and sustainable solutions to enable hands to perform at their best.

- Infection prevention has become the task of experts, who must comply using products that might be effective but are often not practical.
- The multi-faceted, cross-functional nature of infection prevention is taking up time and effort.
- Infection prevention behaviours rely on experienced staff and a strong culture, which is difficult to maintain with high staff turnover and shortage of time.

Vision

A world without healthcare-acquired infections.

Mission

Prevent infections across the patient's journey.

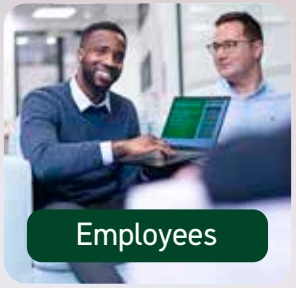
Value creation for stakeholders

Value creation for stakeholders

Mölnlycke is committed to creating long-term value for all stakeholders by achieving growth in a sustainable way in its business model.

By centring its philosophy, strategy and operations around customer needs, Mölnlycke creates value by driving innovation and education to address customer pain points. Through strong partnerships and continuous insights, Mölnlycke enhances patient care and contributes to sustainable healthcare.

Mölnlycke invests in the development of its employees to enable them to develop, grow and bring value to the company and its customers. Mölnlycke fosters a healthy, safe and engaged workforce that values diversity, equity and inclusion, reflected in an increased global engagement score of 3.9 out of 5.



Mölnlycke builds strategic partnerships with its supply and service partners to support the business. Through the purchase of raw materials, components, services, transport, etc. the company creates value that stretches beyond its own business.

Mölnlycke's profitable growth and a strong cash conversion positively impacted the owner's valuation of the company. The owners received a dividend distributions of EUR 500 million in 2024.

investor

Owners

Mölnlycke has total outstanding bonds of EUR 2,073 million and a revolving credit facility of EUR 350 million, currently undrawn from a group of seven banks.

Mölnlycke's purpose is to revolutionise care for people and planet. Its positive contribution to society is measured in innovations aimed at improving the lives of patients and healthcare professionals while making a minimum negative impact on the environment, as well as its contribution through paid taxes.

Mölnlycke's strategy

Mölnlycke's purpose to revolutionise care for people and planet is central to its strategy to become a MedTech industry leader in customer-centricity, sustainability and digitalisation.

Mölnlycke aims to lead the market across all segments and regions where it serves. This ambition is firmly grounded in a robust portfolio of product brands and a strong heritage of clinical data-based and customer-insight driven innovations that enhance the lives of patients and healthcare professionals.

The company's strategy revolves around three pillars: customer-centricity, sustainability and digitalisation, with Mölnlycke aspiring to become the undisputed industry leader. By focusing on these three strategic pillars across its Business Areas, Mölnlycke is dedicated to creating long-term value for its customers, owners and the communities it serves.

Sustainable growth is achieved through innovative and customer-centric solutions that make a measurable positive impact on customers and their patients. This includes the continuous improvement and enhancement of existing offerings, radical innovation into new or adjacent areas, and new technologies that can improve patient outcomes, environmental impact, clinician wellbeing and the efficiency of healthcare systems.

Mölnlycke's strategy is deeply rooted in ethnographic studies conducted in the everyday environment of healthcare professionals. These studies have also informed the individual strategies of each Business Area. Throughout 2024, Mölnlycke focused on further executing the strategy by entering several partnerships.

Wound Care
Free patients, caregivers and healthcare systems from the burden of wounds

OR Solutions
An operating room in frictionless flow

Gloves
Hands deserve better

Antiseptics
A world without healthcare-acquired infections

Strategy governance

Mölnlycke follows an annual strategy governance cycle to ensure continuous progress towards its long-term objectives. This process involves identifying key focus areas that set the company's top priorities for the forthcoming year. The strategy update is conducted annually and approved by the Board of Directors.

To aid the execution and communication of its strategy, Mölnlycke uses a scorecard that translates the strategy into prioritised activities and relevant performance indicators for its Business Areas and corporate functions.

The scorecard serves several purposes, including:

- Defining priorities and clarifying how these are connected to the overall strategy
- Balancing Mölnlycke's short- and long-term ambitions and supporting the execution
- Improving communication of the priorities and activities throughout the organisation

In addition to the annual strategy update, Mölnlycke conducts Quarterly Business Reviews (QBRs). The QBRs focus on key strategic priorities and activities, providing an ongoing opportunity for evaluation and alignment of any corrective measures, followed by financial performance follow-up and mitigating actions when and if required.

Customer-centricity

Customer-centricity has been the foundation of the Mölnlycke business for 175 years and sits at the core of its approach to sustainable healthcare. Simply put, customer-centricity means seeing everything through the eyes of the customer.

For Mölnlycke, this approach involves placing the customer at the centre of the organisation's philosophy, strategy and operations. Mölnlycke defines its customers, in all their shapes and forms, and works to understand their motivations and interconnections. Mölnlycke then uses this understanding to generate value for both the customer and the company.

Adopting a customer-centric mindset allows Mölnlycke to identify where customer needs and motivations are not aligned, generating challenges for a smooth and successful entry into the market, ultimately impacting the patient. By understanding these pain points, Mölnlycke can innovate, educate and train its customers, driving a shared vision and purpose that guides the development of cohesive solutions.

A customer-centric company delivers real and measurable value to its customers and Mölnlycke represents this through strong and relevant value propositions. Stakeholder alignment from the top down is critical, ensuring that everybody understands and has confidence that they are all trying to solve the same problems for the same ultimate beneficiary: the patient. Mölnlycke's value propositions ensure that the connections between customers are as aligned as possible.

It is imperative that, amidst all this, Mölnlycke keeps the patients, caregivers and their problems at the heart of its efforts. Understanding the continuously evolving patient needs is critical. By doing so, Mölnlycke can better address the real challenges patients face and provide solutions that complement

current clinical practices and technologies, to truly revolutionise care for people and planet.

Mölnlycke takes an ethnographic approach, actively listening to and engaging with patients, healthcare providers and payers to build strong relationships founded on trust and partnership. From these relationships, Mölnlycke can innovate – not just in products, but also in digital and service offerings, professional education and training – to make their contribution to sustainable healthcare.

Sustainable healthcare is a vision of a future where people enjoy optimal health and well-being, health systems operate efficiently and responsibly, and healthcare staff feel fulfilled. Achieving this vision requires a holistic approach that considers the environmental, social and economic aspects of care delivery. It also involves the active participation of patients, who are empowered to take responsibility for their own health and care. Mölnlycke's view is that partnerships between various stakeholders will be essential to achieve the vision of a sustainable healthcare.

In addition to the ever-growing number of stakeholders in healthcare, the last few years have seen an explosion of technology along with an increasing convergence of MedTech, HealthTech and Pharmaceutical approaches. The challenge of sustainable healthcare is too complex and too large for the stakeholders to address in isolation and a coordinated approach is required.

As such, Mölnlycke has 'Embrace partnerships' as one of its core values. Mölnlycke believes in going beyond being a supplier to healthcare to being a true partner and is committed to being an active contributor to sustainable healthcare.

Embracing partnerships involves proactively identifying and developing collaborations to address the complexity of delivering sustainable healthcare. This includes actively seeking differing, sometimes opposing, viewpoints and working together to understand these perspectives to find a path forward. Mölnlycke forms partnerships for technological advances by investing in innovative companies, collaborates with medical societies and organisations like MedTech Europe and the International Hospital Federation to influence approaches to healthcare at the highest level and ensures the patient voice is heard, advocating for change on their behalf, especially in under-served specialities and settings of healthcare.

The patient and caregiver are at the heart of everything Mölnlycke is doing. People actively involved in their health and healthcare tend to have better outcomes and, some evidence suggests, lower costs. Patient engagement is the desire and capability to actively choose to participate in care in a way uniquely appropriate to the individual, in cooperation with a healthcare provider, for the purposes of maximising outcomes or improving care experiences.

Mölnlycke believes patient engagement must evolve further into patient empowerment, a process in which patients understand their role and are given the knowledge and skills by their healthcare provider to perform tasks. Clear incentives, accessible tools and patient-to-patient communities are essential to delivering this, and Mölnlycke partners with organisations active in this space.

In order to be truly customer-centric, Mölnlycke sets out to achieve real patient-centred care, where patients are encouraged and supported in embracing their role, in their path of care, from prevention to cure. Evidence and practice show that when care pathways are organised around the patient's needs, clinical outcomes are more likely to improve, as is user satisfaction. Moreover, patient-centred care pathways may contribute to more efficient care delivery and ultimately to sustainable healthcare.

Partnerships will form the basis of Mölnlycke's future as the world of healthcare is changing rapidly and Mölnlycke must never stop seeking for insights and acting upon them to revolutionise care for people and planet.

Sustainability

Mölnlycke is committed to transforming its business to become a global leader in sustainable healthcare.

Substantial progress in Mölnlycke's transformation was made during 2024, as confirmed by independent external ratings. The EcoVadis Sustainability Rating platinum medal that the company received for its sustainability work in 2024 places it in the top 1% of all benchmarked companies (all sectors). Mölnlycke has now advanced its efforts by further embedding sustainability into every aspect of the company's operations, offers and partnerships.

Mölnlycke endorses a vision of a transformation where social, environmental and economic dimensions are fully integrated into the company's business strategy. This holistic approach guarantees that all company actions generate shared value for employees, customers, business partners, the company's owners and society as a whole. WeCare – Mölnlycke sustainability roadmap 2030 – rests on two interconnected focus areas of "**People**" and "**Planet**". These are further supported by Governance, including transparent reporting and a strong ethical business culture.

Partnerships across the company's value chain, as well as within the ever more interrelated healthcare ecosystems, are essential in delivering lasting benefits for people and the planet. Together with customers, industry peers, NGOs and other business partners, Mölnlycke is charting a path towards the elimination of greenhouse gas (GHG) emissions, waste and harm, and the delivery of positive societal value, ensuring a future where healthcare is both efficient and resilient.

Mölnlycke has an ambition to contribute to the healthcare sector's journey towards decarbonisation by eliminating emissions across the company's entire value chain. Having its near-term GHG emission reduction targets validated and its Net Zero target submitted for review to the Science Based

More information regarding Mölnlycke's contribution to UN's Sustainable Development Goals can be found at: https://www.molnlycke.com/corporate/sustainability/

Commitments

Partnerships

Ratings and awards

Targets initiative (SBTi), the company is fully aligned with the Paris Agreement's ambition to limit global warming to 1.5°C. This progress has been bolstered by substantial milestones, including achieving 100% renewable electricity at all Mölnlycke's production sites and the headquarters in December 2024.

Mölnlycke integrates a culture of material efficiency and care into its operations, prioritising a right-first-time principle to eliminate waste. The road to zero manufacturing waste by 2030 is substantially aided by local external partnerships supporting the transition to reusable waste and elimination of landfill waste. Furthermore, by enabling healthcare providers to adopt waste-minimising solutions, the company extends this zero-waste mindset throughout the healthcare system. These efforts are externally recognised – in 2024 Mölnlycke received the Capgemini Nordic Sustainability Tech Award 2024 for Mölnlycke ProcedurePak® trays, which can reduce packaging waste by up to 90%[2].

Through innovative product design, Mölnlycke is contributing to making the circular economy in healthcare a reality. The solutions incorporate renewable and recycled materials certified by ISCC[3] and FSC®[4]. The company continually works with product packaging optimisation and looks for improvements to packaging material with the aim to reduce finite resource consumption. Mölnlycke also explores developing closed-loop systems that retain material value while reducing waste, expanding the use of finite resources to many more patients.

Mölnlycke's continuous efforts to contribute to achieving sustainable healthcare are based on a combination of streamlined practice focused on prevention and appropriate intervention, supported by innovations that enable more efficient clinical practice. The company systematically performs comprehensive Life Cycle Assessments (LCAs) aligned with appropriate international standards, encompassing its entire value chain. LCA data is used to continually develop solutions with lower environmental impact and shared with the healthcare partners to drive informed decisions and help the partners achieve measurable improvements.

Within the focus area "People", Mölnlycke envisions a workplace and healthcare ecosystem where accidents, injuries and harm are non-existent, Mölnlycke prioritises the wellbeing of its employees, customers and patients, fostering a culture of safety and continuous improvement to eliminate workplace injuries and ensure safe conditions throughout its operations. This commitment extends to the design of its products, ensuring they are not only safe to use but also enhance patient outcomes.

Beyond safety, the wellbeing of Mölnlycke's employees is grounded in the company's commitment to create an inclusive and equitable workplace, where the power of diversity is constantly recognised, leveraged and celebrated as the very lynchpin that aids meeting the customers' diverse needs with innovative solutions.

Mölnlycke also strives to consider the long-term impacts of its actions on society. Giving back to society is integral to Mölnlycke's sustainability roadmap and is achieved through partnerships with NGOs that share its vision of sustainable healthcare – most notably in 2024 the partnership with Operation Smile that culminated in the inauguration of the Cebu Comprehensive Cleft Care Centre in the Philippines.

Finally, Mölnlycke is committed to fostering and upholding a sound and ethical business culture by embedding an integrity mindset in every decision. As a signatory of the UN Global Compact, Mölnlycke both endorses and enacts the same values and principles in its relations with own employees and business partners, shaping sustainable value chains and ensuring full transparency throughout the lifecycles of its products and services.

The company is committed to respecting human rights and to eradicating modern slavery and aims to identify, prevent, mitigate and remediate potential and actual risks of adverse human rights impacts within Mölnlycke's own operations and across its value chain.

Mölnlycke is also dedicated to transparent and comprehensive reporting, partially aligning proactively with key principles of the Corporate Sustainability Reporting Directive (CSRD) ahead of full regulatory requirements, demonstrating its commitment to accountability and value creation for all stakeholders.

2. Greiling. A multinational case study to evaluate and quantify time-saving by using custom procedure trays for operation room efficiency. (Poster from 2010.)
3. International Carbon & Sustainability Certification.
4. Forest Stewardship Council.

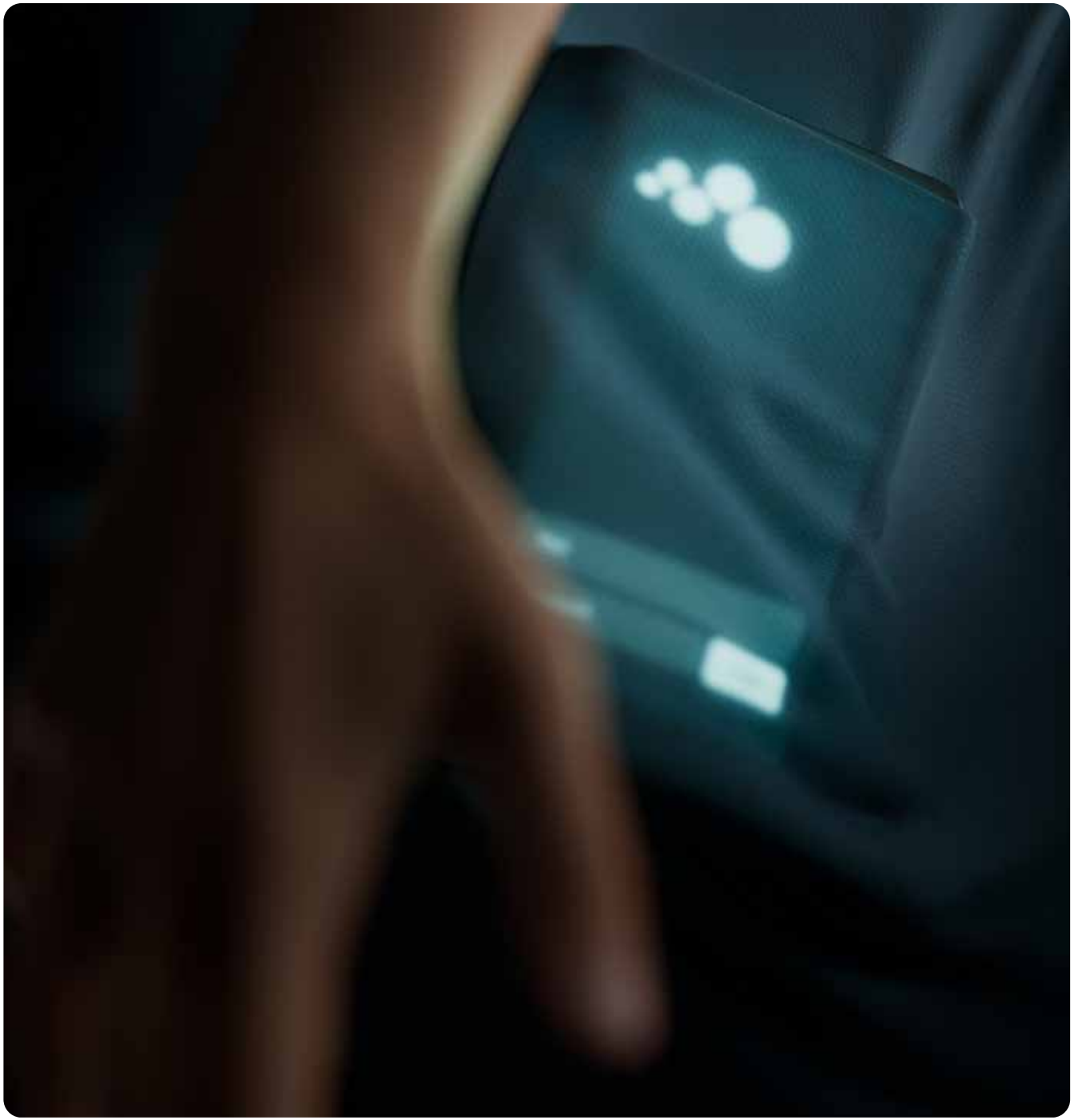
Digitalisation

Mölnlycke aspires to become a leading provider of digital solutions to improve patient outcomes and maximise efficiency of healthcare providers.

The company embraces external partnerships with suppliers, customers and academia, and is actively engaged in the development of several solutions that incorporate digital components designed to enhance the quality of healthcare.

The global digital health market is anticipated to experience substantial growth in the forthcoming years, as chronic diseases continue to increase and governments and healthcare providers are increasingly motivated to explore more accessible and cost-effective methods for providing healthcare.

Mölnlycke is therefore committed to invest in digital solutions and ecosystems to improve patient outcomes, drive efficiencies and reduce costs. Mölnlycke's digital aspiration is built around four pillars.



Mölnlycke's digital aspiration is built around four pillars

IT foundation

Modernise IT infrastructure via flexible platforms and tools to reduce costs and increase capabilities, while also promoting employee efficiency and satisfaction. This includes expanding digital workplaces to allow for both on-site and remote working to improve work-life balance. Mölnlycke prioritises IT security, including cybersecurity and a secure digital backbone in operational technology through a risk-based company security programme. This is to protect its business information and ensure continuity in operations, while adapting to the latest relevant industry standards and complying with different directives in data protection and confidentiality.

Digitalising internal operations

Streamline business operations and processes to improve customer satisfaction while enhancing productivity and efficiency through adoption of modern technology platforms. Mölnlycke also prioritises ongoing improvements to supply chain planning processes to deliver quality services and products to customers in a timely and efficient manner, through state-of-the-art planning technologies and methodologies. Mölnlycke is currently shifting its legacy SAP ERP platform to a cloud-based SAP S/4Hana solution as one of its key priorities, with a targeted completion in spring 2025.

Digital customer engagement

Boost omni-channel customer journeys in healthcare to support different go-to market strategies. This includes a worldclass website, digital marketing, digital self-service, e-commerce and digital professional education. In this way Mölnlycke aims to professionally and effectively engage and strengthen our relationship with customers to position the company's premium brand and enable its strategy. The key driver behind this pillar is to continue executing market expansion plans, to increase market share and to improve sales productivity.

New ventures

Utilise premium product and brand position to become an integrated part of digital health ecosystems. Mölnlycke develops new digital solutions and business models driving radical innovation and positioning the company as a leader in the MedTech industry for digital health. Each Mölnlycke Business Area identifies its specific needs based on customer insights and puts a roadmap in place to achieve the identified goals.

Sustainability in action

This chapter showcases real-world examples of how Mölnlycke's sustainability commitments are being translated into action. By embedding sustainability at the core of everything Mölnlycke does, whether through innovative product design, responsible sourcing practices, or impactful collaborations with stakeholders, the company aims to create measurable value for both **People** and **Planet**. These case studies underscore Mölnlycke's belief that sustainability is not a standalone initiative but a fundamental element of the company's strategy, driving resilience, innovation and long-term success.

Accelerating the use of bio-based materials in Mölnlycke solutions

An important step in Mölnlycke's efforts to design solutions for circularity is the continual expansion of the use of renewable material in the company's solutions replacing finite fossil-based material.

Mölnlycke offers a range of bio-derived products certified by International Sustainability and Carbon Certification (ISCC). During 2024, the assortment was expanded with speciality drapes for laparoscopy and mayo stand cover. The company has also launched a bio-based tray stabiliser and needle counter as components in the tray business. A full list of certified products is available here: www.molnlycke.se/ISCC. In 2024 Mölnlycke more than doubled its procured amount of ISCC-certified material to a total of 159 tonnes.

Furthermore, Mölnlycke offers solutions certified by the Forest Stewardship Council® (FSC), such as the classic gown assortment. The majority of the renewable raw materials are used in packaging or paper coating, as well as in the supply of natural fibres and natural latex.

Altogether, the share of renewable materials procured in 2024 was 33% of the total procured materials – a 20% increase compared to 2023.

For more details please see section "Circularity and resource efficiency," p. 119

Fostering a diverse and inclusive workplace

In 2024, the execution of Mölnlycke's diversity, equity & inclusion (DE&I) strategy was substantially strengthened through the introduction of a company-wide unconscious bias training.

The training explored how humans naturally classify others into categories influenced by cognitive distortions, prejudices and stereotypes, and provided tools to address these unconscious thought patterns. Participants learned to identify common forms of unconscious bias and its impact on decision-making. The training aimed to equip employees to approach professional interactions more objectively and inclusively.

This initiative complemented the company's broader DE&I efforts, including the work of Employee Resource Groups (ERGs), which continued to drive impactful activities across Mölnlycke. This year, two new ERGs were formed: Evergreen, for professionals with 25+ years of experience, and the Professional Women's Alliance in the UK, expanding on the success of its counterpart in the US. These groups enhance connection, support and engagement within Mölnlycke's diverse workforce.

In order to inspire meaningful dialogue and underscore Mölnlycke's commitment to fostering a culture where diversity thrives, the company also recognised key awareness days related to diversity and inclusion, including International Women's Day, the World Day of Cultural Diversity, Pride Month and the International Day of People with Disabilities.

Through initiatives like unconscious bias training, ERG expansion and awareness day recognition, Mölnlycke continues to build a more diverse and inclusive workplace. This not only paves the way for

lasting change but also ensures that the diverse and inclusive teams are better equipped to address the diverse needs of customers and communities.

"The training not only broadened my perspective, but also made me reflect deeply on how we approach new opportunities with preconceived judgements. I'd love to share it with my friends and family."

Carlos Dixon,
Business Development Manager, Wound Care

For more details please see section "Own workforce", p. 127

Improving energy efficiency at the manufacturing site in Havířov

Investing in energy efficiency and preservation initiatives at Mölnlycke's manufacturing sites and offices is an integral part of the company's efforts to decouple its operations from resource constraints.

One example of energy efficiency improvements is the modernisation of lighting at the manufacturing site in Havířov, Czech Republic. In April 2024, new LED lights with a motion-detection sensor system were installed in the warehouse, resulting in a 2.5% reduction in the site's total annual electricity consumption compared to 2023. Looking ahead, this upgrade is expected to reduce electricity consumption for warehouse lighting by 55% annually. Upgraded to the most recent health and safety requirements regarding illumination, uniformity, glare and photobiology, the new lighting will contribute positively to the employees' health and wellbeing.

Other energy efficiency plans in Havířov involve installing two cogeneration units in 2026, which will further reduce consumption of district heat. Such improvement initiatives are an important step toward reaching the company's goal to reduce Scope 1 and 2 GHG emissions by 50% by 2030 (versus 2021 baseline).

For more details please see section "Climate change and energy", p. 108

Image courtesy of ENGIE

100% renewable electricity for Mölnlycke manufacturing sites and HQ

In 2024, Mölnlycke achieved its ambitious target of securing 100% renewable electricity. The achievement was enabled through signing two virtual Power Purchase Agreements (vPPAs) for manufacturing sites in the European Union and Malaysia.

To cover electricity consumption for the sites in the European Union, Mölnlycke signed a long-term vPPA committing to purchasing renewable electricity generated in Mutkalampi, the largest wind farm in Finland. The three manufacturing plants in Malaysia will handle their renewable electricity needs through a similar vPPA from a newly-established solar power plant in Bukit Kayu Hitam, Malaysia.

In addition, Mölnlycke continues to invest in on-site generation of solar energy with manufacturing sites in Malaysia and the UK having completed the installation of rooftop solar panels while the installation on factories in Thailand is ongoing.

The remaining electricity consumption needs for manufacturing sites in Thailand, the UK and the US, as well as the newly established plant in Saudi Arabia, are met through Renewable Energy Certificates (RECs).

"This is a significant milestone in Mölnlycke's commitment to halving Scope 1 and 2 greenhouse gas emissions by 2030, compared to 2021," said Caterina Camerani, VP Sustainability. "It propels us toward our vision of building a sustainable healthcare manufacturing ecosystem."

With this important milestone the company has reached one of its near-term targets pledged to Science Based Targets initiative and will continue sourcing renewable electricity through 2030.

Caterina Camerani,
VP Sustainability

For more details please see section "Climate change and energy", p. 108

"Partnering for Progress": digitalising healthcare and its supply chain

Mölnlycke's webinars series, 'Partnering for Progress', has become an essential part of its efforts to engage with its key suppliers.

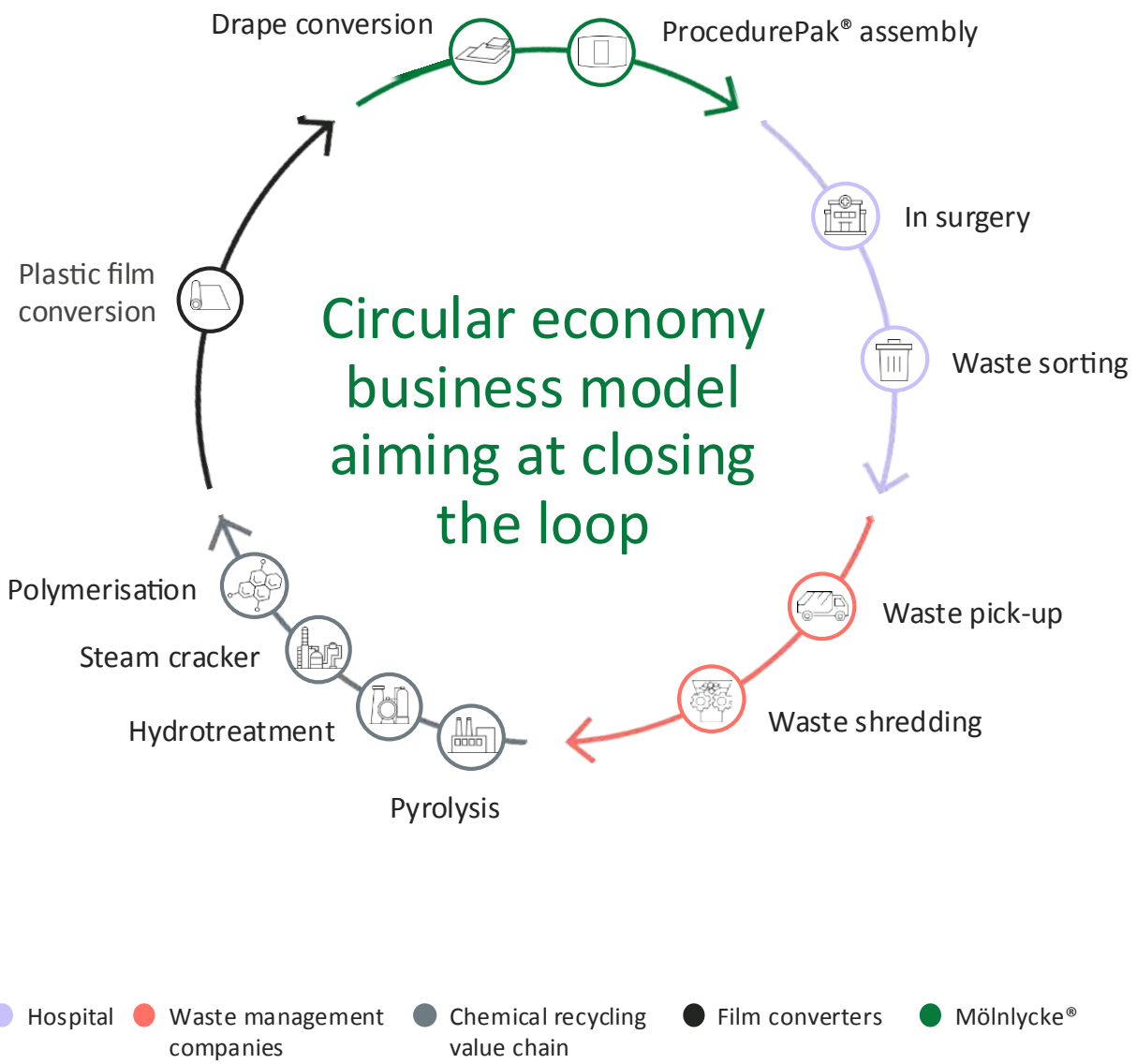
The series, dedicated to strategic topics, is an important channel to align with supplier partners on common goals and encourage them to an open dialogue to spur collaborative innovation.

In 2024, the webinar series focused on:

- 'Digitalisation as Mölnlycke's strategic priority' – sharing the company's macro-trends in digital healthcare alongside its digitalisation roadmap
- 'Data-driven sustainability' – focusing on the importance of data in driving sustainability and Mölnlycke's requirements for its business partners
- 'Network and Information Security 2 (NIS 2) Directive' – focusing on raising the bar on cyber security and Mölnlycke's requirements for its suppliers

The sessions were well attended and appreciated, with approximately 150 strategic suppliers joining live from all over the globe, covering both direct material suppliers and service providers. Supplier engagement is an important component of driving an open dialogue about the transformation of healthcare across its entire value chain.

For more details please see section "Management of relations with suppliers", p.140



Exploring closed loop systems for medical supplies in the Operating Room (OR)

To address the challenge of plastic waste from the OR, Mölnlycke has started to explore developing local closed loop systems for medical supplies, circular business models where cross-sector collaboration aims to bring a disruptive transformation in healthcare.

In collaboration with a European hospital and other industry partners in the healthcare ecosystem, Mölnlycke piloted a circular business model for OR Solutions. The process involved collecting used materials from healthcare providers, separating non-contaminated waste and passing it to waste management partners for shredding and transportation to an advanced chemical recycling facility.

Through chemical recycling, the recovered monomers were polymerised under controlled conditions to create new medical-grade polymers. These were then converted into plastic film for use in various medical devices.

This proof-of-concept helps conserve finite natural resources and reduce plastic waste without compromising the safety and efficacy of medical devices. Additionally, it demonstrates how manufacturers can take on greater responsibility, relieving healthcare professionals of the burden of waste management – a significant step toward a more efficient Operating Room and improved clinician wellbeing.

The next step for Mölnlycke is to rigorously assess the overall environmental impact of this closed-loop approach.

For more details please see section "Circularity and resource efficiency", p. 117

Mölnlycke and Operation Smile help to change people's lives with newly inaugurated cleft care centre

In 2024, Mölnlycke and Operation Smile celebrated the culmination of a four-year partnership aimed at improving access to cleft care.

Operation Smile, a global non-profit organisation specialising in cleft lip and palate (CLP) surgeries for underserved communities, inaugurated the Cebu Comprehensive Cleft Care Center of Excellence in the Philippines – a facility Mölnlycke played a key role in establishing. The centre is poised to provide comprehensive care for individuals with CLP in the region and is expected to treat 10,000 patients within its first three years of operation.

Located within the Cebu City Medical Center (CCMC) hospital, the 2,000 m^2 ²state-of-the-art facility offers an optimal environment for delivering holistic CLP services. These include speech therapy, dental and psychosocial care and advanced surgical support, reflecting Mölnlycke and Operation Smile's shared commitment to comprehensive care. The facility is fully staffed by local healthcare professionals.

"This clinic is a milestone for us, but also for cleft care globally, as it is also a training hub. In a rather lengthy construction project, our partner Mölnlycke has supported us financially while, in parallel with the construction, we have jointly created and rolled out a training programme with innovative methods and solutions," said Emiliano Romano, Executive Director, Operation Smile Philippines.

Through investment in the "train-the-trainer" model, Mölnlycke aims to enhance the competency of local healthcare professionals, creating lasting and scalable shared value for the community.

For more details please see section "Community support", p. 136

Advancing the vision of zero injuries and harm at the Distribution Centre in Anderson, US

Mölnlycke is committed to achieving zero injuries and harm, ensuring a safe and healthy workplace for all employees and visitors to its sites. Many of Mölnlycke's sites have made substantial progress in their safety journey, fostering a culture of care and accountability.

The Distribution Centre in Anderson exemplifies the company's steadfast commitment to its vision of a workplace free from injuries and harm. Through targeted safety improvements, enhanced communication strategies and investments in welfare facilities, the site has strengthened its safety culture and operational excellence.

Safety improvements included the installation of overhead mirrors to improve visibility, upgraded racking systems to enhance stability and the implementation of new forklift safety lighting to reduce collision risks. Additionally, Mölnlycke's proactive approach to safety is demonstrated through the involvement of all its employees in identifying and mitigating potential hazards, embedding hazard recognition as a core part of its safety culture. To foster transparency and alignment, communication improvements include new boards displaying critical metrics on safety, quality and production, ensuring that employees remain informed and engaged. Finally, both offices and restrooms were upgraded to improve employee wellbeing.

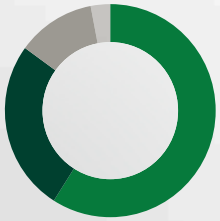
These efforts have yielded tangible results, with the centre achieving a remarkable milestone of five years without a Lost Time Injury (LTI), maintaining a flawless LTI rate of 0. This success is a testament to the strengthened safety culture and the collective commitment of the workforce to reducing risks and creating a safer, more productive environment.

For more details please see section "Health, safety, physical security and wellbeing", p. 132

Business Areas

Mölnlycke's ambition is to be the market leader in all segments and geographies where the company operates.

Each Business Area has end-to-end responsibility to drive profitable growth and add value to its customers.



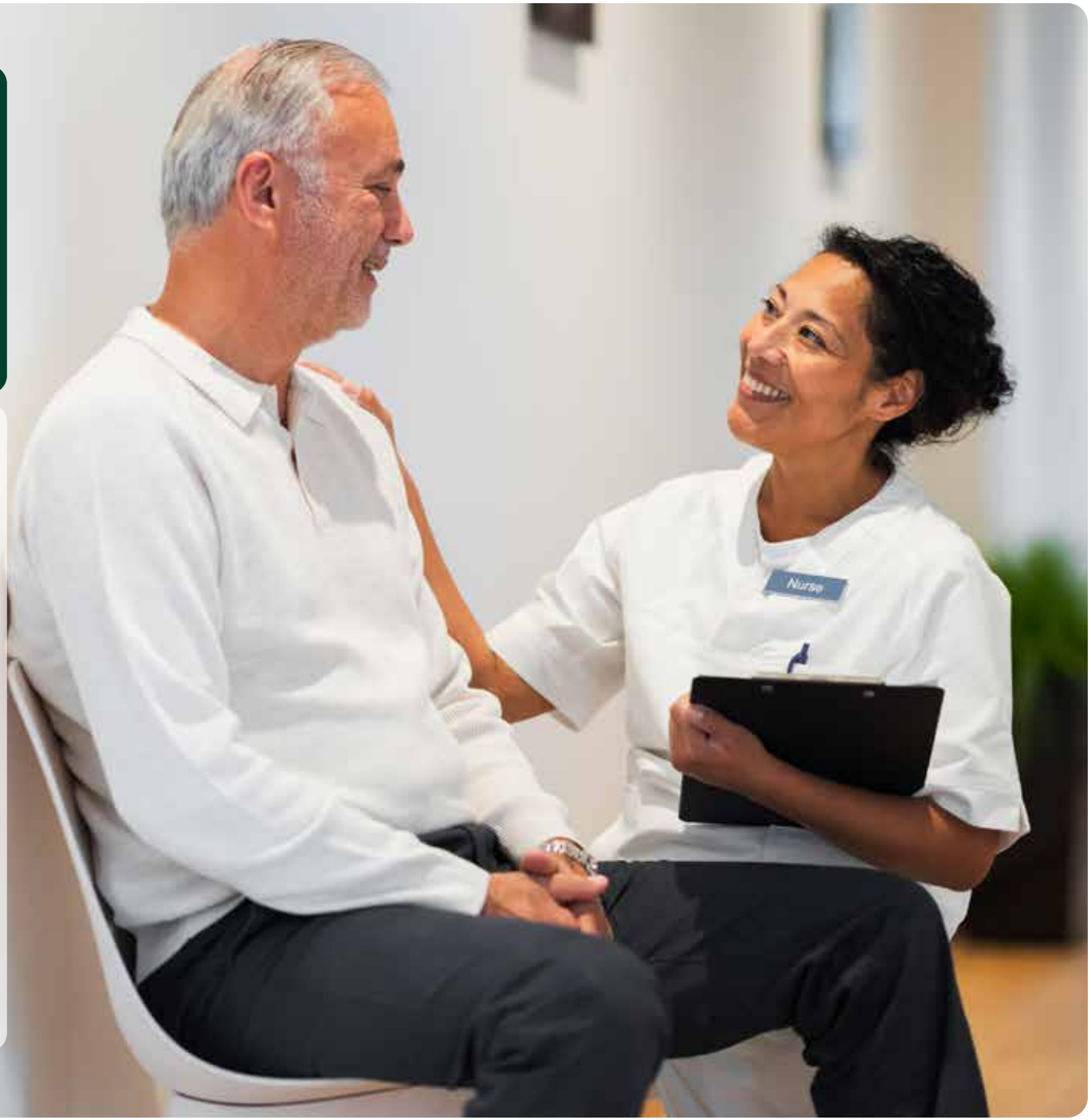
Share of total sales (%)

- Wound Care 59%
- OR Solutions 26%
- Gloves 12%
- Antiseptics 3%

Wound Care 30
OR Solutions 34
Gloves 38
Antiseptics 42

Wound Care

Every day, patients around the world suffer physically and emotionally from acute and chronic ‘hard to heal’ wounds. These wounds can be persistent, difficult to treat and costly to manage. Mölnlycke works with patients, caregivers and healthcare systems to reduce the burden of these wounds through innovative solutions for prevention, faster healing and better quality of life.



Offering

Mölnlycke is a leading global provider of wound care solutions for 'hard to heal' and acute wounds in various healthcare settings, using therapy-based approaches to reduce patient pain and discomfort, prevent infection and promote faster healing.
The company specialises in pressure ulcers, diabetic foot ulcers, leg ulcers, surgical incisions and burns. Additionally, Mölnlycke provides digital tools for wound assessment and to simplify selecting the most appropriate solution.

Strategy

Mölnlycke's Wound Care vision is to free patients, caregivers and healthcare systems from the burden of wounds. The Business Area is committed to supporting multiple stakeholders, including patients, clinicians, at-home caregivers and non-clinical decision-makers involved in patient care, by providing easy-to-use and effective diagnosis and treatment solutions.

To drive impactful change, the Wound Care business prioritises the following:

- improving patients' quality of life with effective solutions for prevention and faster healing
- increasing the intuitiveness of wound care products and delivering education for all stakeholders
- diversifying its portfolio throughout the patient journey
- extending its presence in underserved markets globally, while enhancing its global go-to-market strategy
- providing top-tier supply and service to customers

Mölnlycke continues to work towards reducing the environmental impact of its products and manufacturing. In 2024, the Wound Care business defined a roadmap to reduce the Scope 3 of products, including product and packaging reformulation, working with suppliers to reduce embedded carbon in raw materials and driving manufacturing process efficiency. While progress is being made there is more to do, such as continuing to deliver on the plans to further decarbonise factories, by replacing processes that consume natural gas and investing in new, more efficient equipment.

Products and solutions

Mepilex® Border Flex

Exufiber® and Exufiber® Ag+

Mepilex® and Mepilex® Ag

Granudacyn®

Leg ulcer solutions incl. Mepilex® Up

Oxygen therapy with Granulox®

Incision care solutions

Pressure ulcer prevention solutions

Vision

Free patients, caregivers and healthcare systems from the burden of wounds.

Mission

Deliver innovative and intuitive solutions for prevention, faster healing and better quality of life.

2,562	1,223	8%
employees	annual global sales, million EUR	organic sales growth

Sales per region
- Europe/Middle East /Africa 49%
- Americas 38%
- Asia Pacific 13%

Major product brands

Mepilex®, Mepitel®, Exufiber®, Avance® Solo, Granudacyn®, Granulox®, Mepore® and Mepiform®.

Production

The vast majority of products are manufactured in the company's own factories in the US, the UK, Finland, Denmark and Austria.

Core markets

Mölnlycke's Wound Care business has a global footprint with major markets in the US, France, Germany, the UK and the Nordic countries.

Business environment

The healthcare system is currently facing significant challenges due to staff shortages, a less experienced workforce and budget constraints. Wound care is shifting from acute to post-acute and home care and there is an increased adoption of digital solutions and digital medicine. Procurement continues to play a growing role in decision-making.

It is important for Mölnlycke to address these trends to ensure the best care and results for patients by providing solutions that drive high-value, clinical and economic health outcomes.

"Our team is driven by our purpose to improve patients' lives through innovative and sustainable solutions. We strive to develop products that deliver exceptional value and clinical outcomes while expanding our global presence. We remain committed and resolute in our mission to free patients from the burden of wounds."

Anders Andersson,
EVP Wound Care

2024 Highlights

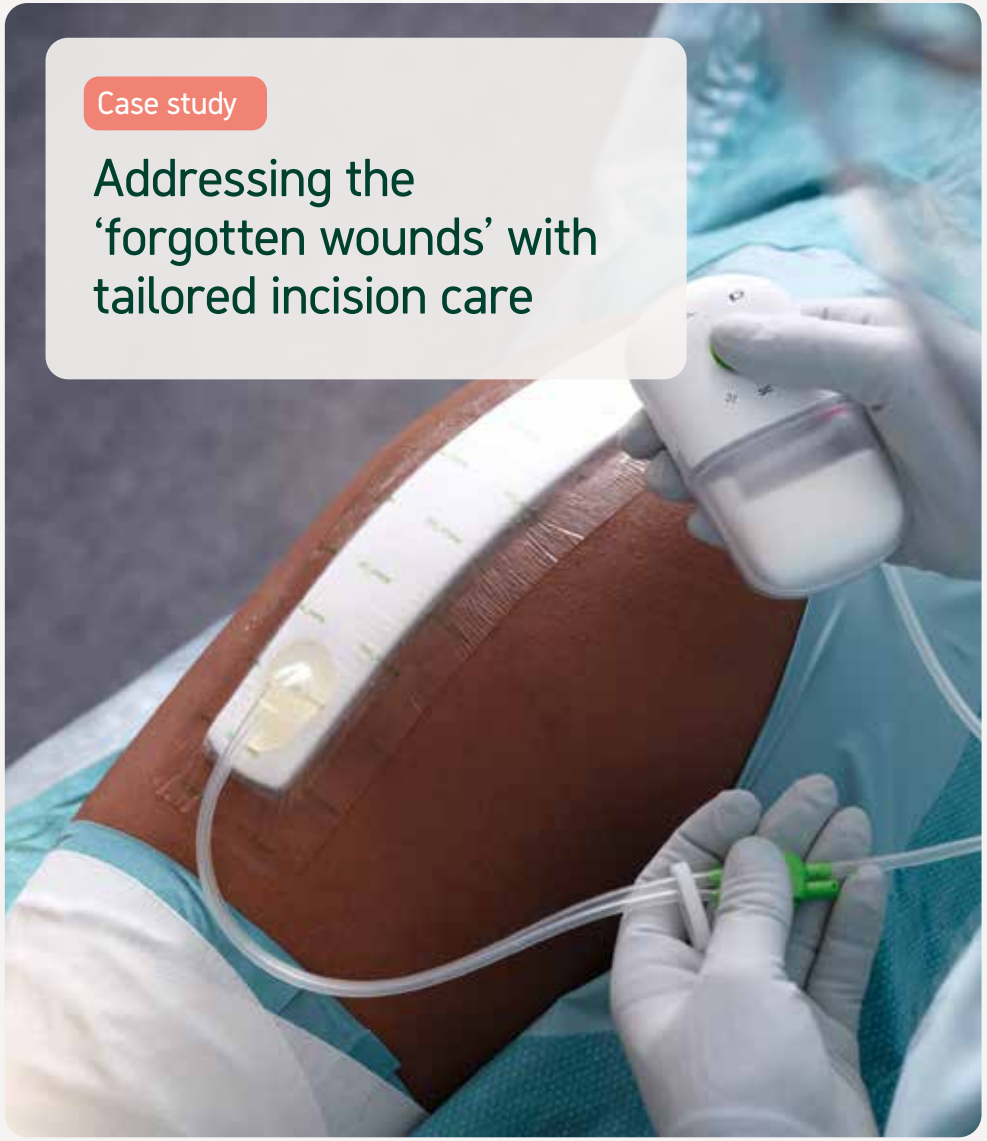
In 2024, Wound Care continued to deliver on its customer-centric strategy with organic sales growth of 8%. The Wound Care business has outperformed its main competitors and its growth has led to increased market share in the advanced wound care segments, demonstrating the business strategy is gaining momentum.

Launch of holistic incision care portfolio, including upgrade to our Mepilex® Border Post-Op, Mepilex® Border Ag solutions and expansion of Avance® Solo.

Expansion of leg ulcer management solutions in preparation for the launch of Mepilex® Up in EMEA in 2025, following the launch of Mepilex Up in the US in 2024.

Acquisition of P.G.F. Industry Solutions GmbH, the manufacturer of Granudacyn®, to further accelerate growth of the Granudacyn business to improve the lives of even more patients.

Strategic investments aiming to improve wound care standards. USD 8 million investment in Siren, a healthcare tech company on a mission to help reduce the risk of diabetic foot ulcers by early detection and USD 15 million investment in MediWound Ltd., a company specialising in non-surgical wound debridement.



Case study

Addressing the ‘forgotten wounds’ with tailored incision care

Mölnlycke’s emphasis on undisturbed wound healing (UWH) is raising the bar on surgical wound care to improve patient outcomes.

Despite significant advances in surgical techniques and innovations aimed at enhancing safety, surgical wound complications remain a leading cause of morbidity worldwide following surgery[5]. Effective postoperative wound care – and particularly the prevention of surgical site complications – may improve outcomes, reducing lengths of stay and readmissions and thereby also reducing the cost of care[6–9].

The safe healing of surgical incisions is too important for them to become the ‘forgotten wounds’. Mölnlycke’s ambition is to prevent surgical wound complications and enhance healing outcomes by providing superior products and promoting treatment protocols based on the concept of undisturbed wound healing.

Mölnlycke Incision Care Solutions include a first class advanced incision dressing, Mepilex® Border Post-Op and a single-use negative pressure wound therapy system (suNPWT), Avance® Solo. Both incorporate Safetac®, Mölnlycke's skin-friendly wound contact layer.

Mepilex Border Post-Op combines the properties of an ideal surgical dressing[10] with a wear time of up to 14 days for undisturbed wound healing. Along with improved patient outcomes, another advantage of fewer dressing changes is a reduction in the amount of medical waste.

Avance Solo includes a multi-layer absorptive dressing and a canister that helps manage exudate. The pump has an operating life span of 14 days and the dressing can be left in place for up to 7 days of continuous therapy. The pump operates with a negative pressure level of -125 mmHg, delivering effective therapy proven to reduce surgical site complications[11-12].

Avance Solo and Mepilex Border Post-Op put Mölnlycke at the forefront of the movement for undisturbed wound healing. The next challenge is to identify those patients at high risk of postoperative complications. This group would benefit most from treatment with negative pressure wound therapy, such as Avance Solo.

"Mölnlycke’s patient-centric approach helps our customers deliver clinically impactful and economically responsible surgical care. This means care that helps provide the right therapy to the right patient’, says Malin Andersson, VP Global Marketing Wound Care.

Mölnlycke aims to prevent surgical wound complications and promote healing by providing superior products and promoting treatment protocols based on the concept of undisturbed wound healing.

5. International Best Practice recommendations for the early identification and prevention of Surgical Wound Complications. Barbara Conway, Gulnaz Tariq, Harikrishna KR Nair, Karen Ousey, Kylie Sandy-Hodgetts, Risal Djohan, Thomas Serena, Wounds International, 11 March 2020.
6. Upton P, Dunk AM, Upton D, Complications associated with postoperative dressings: a clinician's perspective. Wound Practice and Research 2019; 27(4):158-163.
7. Yao K, Bae L, Yew WP. Post-operative wound management. Aust Family Physic 2013 Dec;42(12):867.
8. Walter CJ, Dumville JC, Sharp CA, Page T. Systematic review and meta-analysis of wound dressings in the prevention of surgical-site infections in surgical wounds healing by primary intention. Br J Surg 2012 Sep;99(9):1185–94.
9. Badia JM, Casey AL, Petrosillo N, Hudson PM, Mitchell SA, Crosby C. Impact of surgical site infection on healthcare costs and patient outcomes: a systematic review in six European countries. J Hosp Infect 2017 May 1;96(1):1-5.
10. Incision care and dressing selection in surgical wounds: Findings from a series of international meetings. Sandy-Hodgetts K., Morgan-Jones R. Wounds International, 2022.
11. Apelqvist J, Fagerdahl A, Teót L, Willy C. Negative Pressure Wound Therapy: An Update for Clinicians and Outpatient Care Givers. J Wound Management, 2024;25(2 Sup1): S1-S56 DOI: 10.35279/jowm2024.25.02.sup01.
12. Victoria Rose, Nadine Hachah Haram, Sarah Gallala. A new portable negative pressure wound therapy device: a prospective study investigating clinical outcomes. The Journal of Wound Care, Vol 33, No 11, November 2024.

OR Solutions

In the operating room, healthcare professionals need innovative solutions that are tailored for efficiency, personalised to their needs and designed for safety. Mölnlycke is their trusted partner in optimising efficiency before, during and after surgical care, helping them achieve better health economics and better healthcare outcomes.

Offering

Mölnlycke provides a range of drapes, staff clothing and surgical instruments for the operating room, available individually or as part of ProcedurePak® trays to enhance efficiency. Digital services like Mölnlycke Portal help customers assemble trays with the right components, maximising value creation.

Operating Room Solutions (ORS) differentiates through a core, premium and sustainable model. This commitment, reflected in strategic goals and the innovation pipeline, ensures a frictionless flow in the operating room. The portfolio includes essential instruments for orthopedic, laparoscopic and robotic surgeries, along with patient drapes, staff clothing, protection and patient warming solutions, providing comprehensive support to healthcare professionals.

Sustainability is a key focus, supported by corporate initiatives and partnerships with other companies to drive sustainable practices. ORS incorporates ISCC[13] and FSC®[14]-certified materials, biobased raw materials and PVC-free components. These efforts reflect a broader strategy to integrate environmentally responsible practices, such as minimising waste, into operations, delivering long-term positive environmental and social impacts.

Strategy

Efficiency remains a pivotal driver in the operating room, where healthcare professionals face staff shortages and increasing demands. ORS works closely with customers to eliminate non-value-adding tasks, improving capacity, enhancing care and enabling more procedures to be performed.

Looking ahead, ORS aims to deepen its impact by creating an ecosystem that adds value before, during and after surgical procedures. The goal is a frictionless flow, improving patient outcomes, increasing procedural volume and supporting healthcare professionals to excel in their roles.

A customer insight study launched in 2021 has become central to the ORS strategy. Building on this, four key movements identified in 2024 will position ORS as an international market leader, transitioning from a product supplier to a solutions provider. This transformation is driven by further tray development and a growing digital ecosystem.

13. International Carbon & Sustainability Certification.
14. Forest Stewardship Council.

Products and solutions

BARRIER® drapes and staff clothing

ProcedurePak® customised trays

EasyWarm® patient warming

Surgical instruments

Digital services

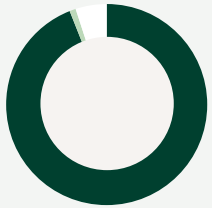
Vision

An operating room in frictionless flow.

Mission

Create an ecosystem of solutions and services that assures a frictionless flow of items in the operating room.

2,247	525	5%
employees	annual global sales, million EUR	organic sales growth



Major product brands

BARRIER®, ProcedurePak® and EasyWarm®

Production

Most of ORS' drapes, staff clothing and customised trays are manufactured in Mölnlycke's factories while other devices largely come from third party manufacturing. ORS provides its customers with 20 medical devices per second.

Core markets

The EMEA region (Europe, Middle East and Africa) is the main market for the ORS business. Asia-Pacific includes several strategically important markets where we have seen notable growth in recent years.

Business environment

Surgery rates have returned to pre-pandemic levels in most countries, though regional variations persist. Surgical backlogs remain a challenge due to operating theatre staff shortages, with mixed results from efforts to address them.

Sustainability is increasingly prioritised by customers, driven by market dynamics and government policies aimed at reducing environmental impact. Digitalisation also plays a key role in improving patient outcomes, efficiency and staff well-being.

To meet these trends, ORS established a digital ecosystem, with the Mölnlycke Portal as a key enabler. Expanding digital offerings will further enhance hospital efficiency and support the ORS vision of a frictionless flow in the operating room.

The supply chain faces ongoing pressure from global disruptions and political tensions. Mölnlycke mitigates risks by expanding tray production to three countries, diversifying contract manufacturing and exploring new suppliers to ensure reliability.

Sustainability-driven sourcing lies at the core of ORS approach, with decisions increasingly focused on minimising environmental impact.

ORS is leveraging economic growth in Asia-Pacific to expand its presence, focusing on innovation, efficiency and tailored solutions. This reinforces leadership in Mölnlycke ProcedurePak® trays and enhances cross-regional benefits.

"We drive innovation and excellence in every aspect of our work. By creating an ecosystem of solutions and services, we ensure a frictionless flow of items in the operating room."

Fredrik Wallefors,
EVP OR Solutions

2024 Highlights

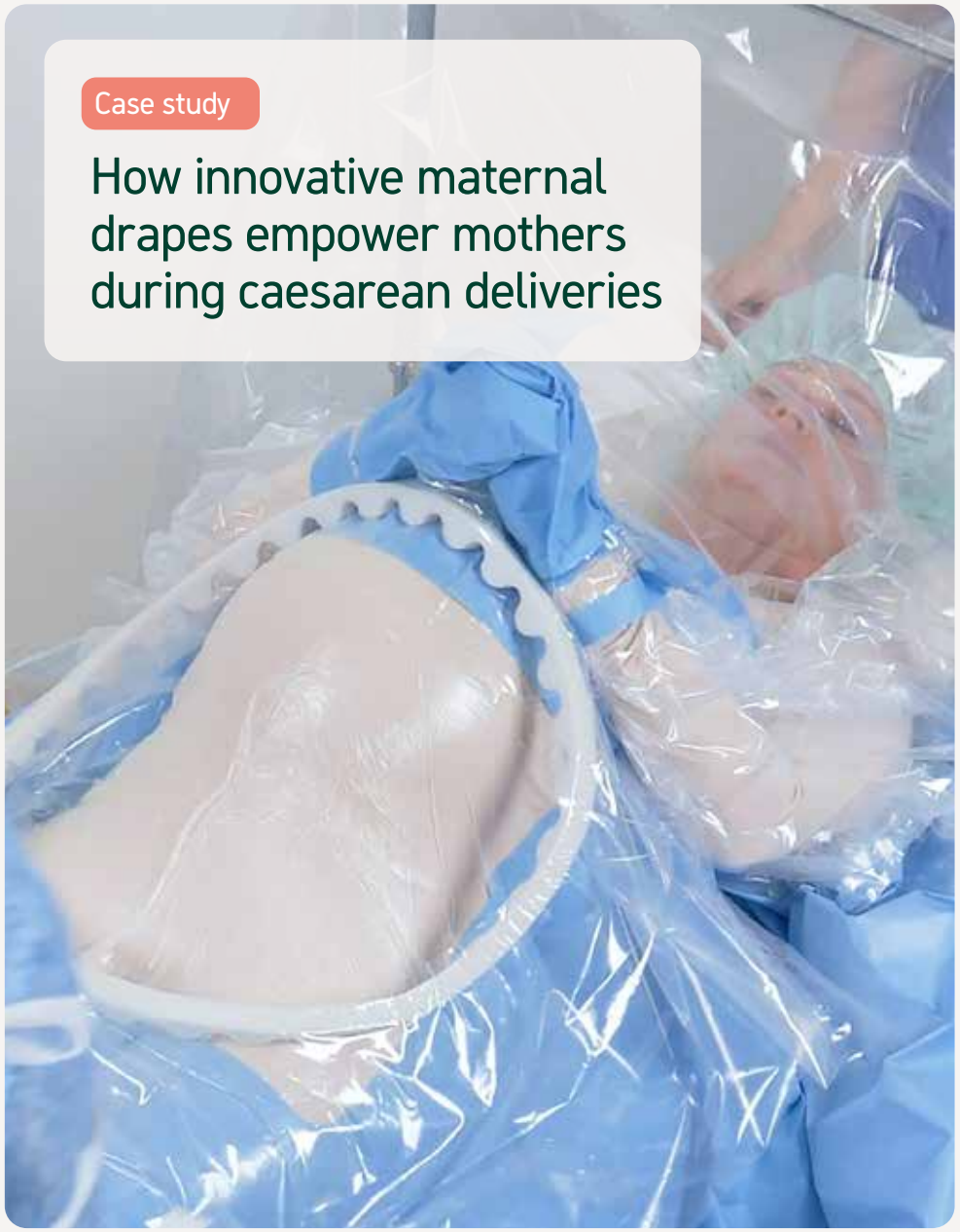
In 2024, the Business Area had another strong year with sales outpacing market growth, driven by focused expansion in key markets and product segments and leveraging our tray channel. Organic sales grew by 5%, reflecting the strength of our offerings and robust customer demand.

The Mölnlycke Portal underwent a comprehensive redesign, making it a state-of-the-art digital platform, with a strong focus on user-friendliness. In 2024, a pilot for e-commerce was launched, onboarding the first customer for ProcedurePak® trays – a key step in enhancing how we serve our customers.

Substantial growth in ISCC-certified solutions, such as BARRIER® drapes, has been achieved, with steadily increasing sales across more customers and countries. These products support sustainability and the circular economy by utilising renewable and circular materials, contributing to sustainable practices and reduced GHG emissions.

Completion of the Tamer Mölnlycke factory in Saudi Arabia marked a significant regional expansion.

The campaign “The answer” highlighting ProcedurePak® sustainability, achieved a total of 126 million impressions across various media channels. In addition, ProcedurePak solutions have been recognised for their sustainability impact, receiving the prestigious Capgemini Swedish Sustainability Tech Award 2024.



Case study

How innovative maternal drapes empower mothers during caesarean deliveries

Mölnlycke's new maternal drape enables mothers to actively participate in their C-sections, fostering a more holistic birthing experience to enhance emotional connection and wellbeing.

In conventional C-section settings, mothers often experience the procedure as passive observers, only able to touch their newborn after initial medical handling[15]. Some hospitals have improvised makeshift solutions involving attached gowns and gloves, but these are cumbersome, time-intensive and increase the risk of contamination.

Mölnlycke's response was to develop an all-in-one, sterile drape with integrated sleeves and gloves. It redefines the C-section experience by allowing the mother to assist in bringing her baby into the world, which can help create a feeling of a deeper emotional connection during the birth.

The design addresses both efficiency and safety, ensuring a seamless experience for healthcare professionals and mothers alike.

Feedback from new mothers and hospitals has been overwhelmingly positive. 'Mothers who experienced this new procedure were enthusiastic about their participation, which added significant value to their birth experience,' noted Cheryl Pape, Sales Manager ORS in The Netherlands.

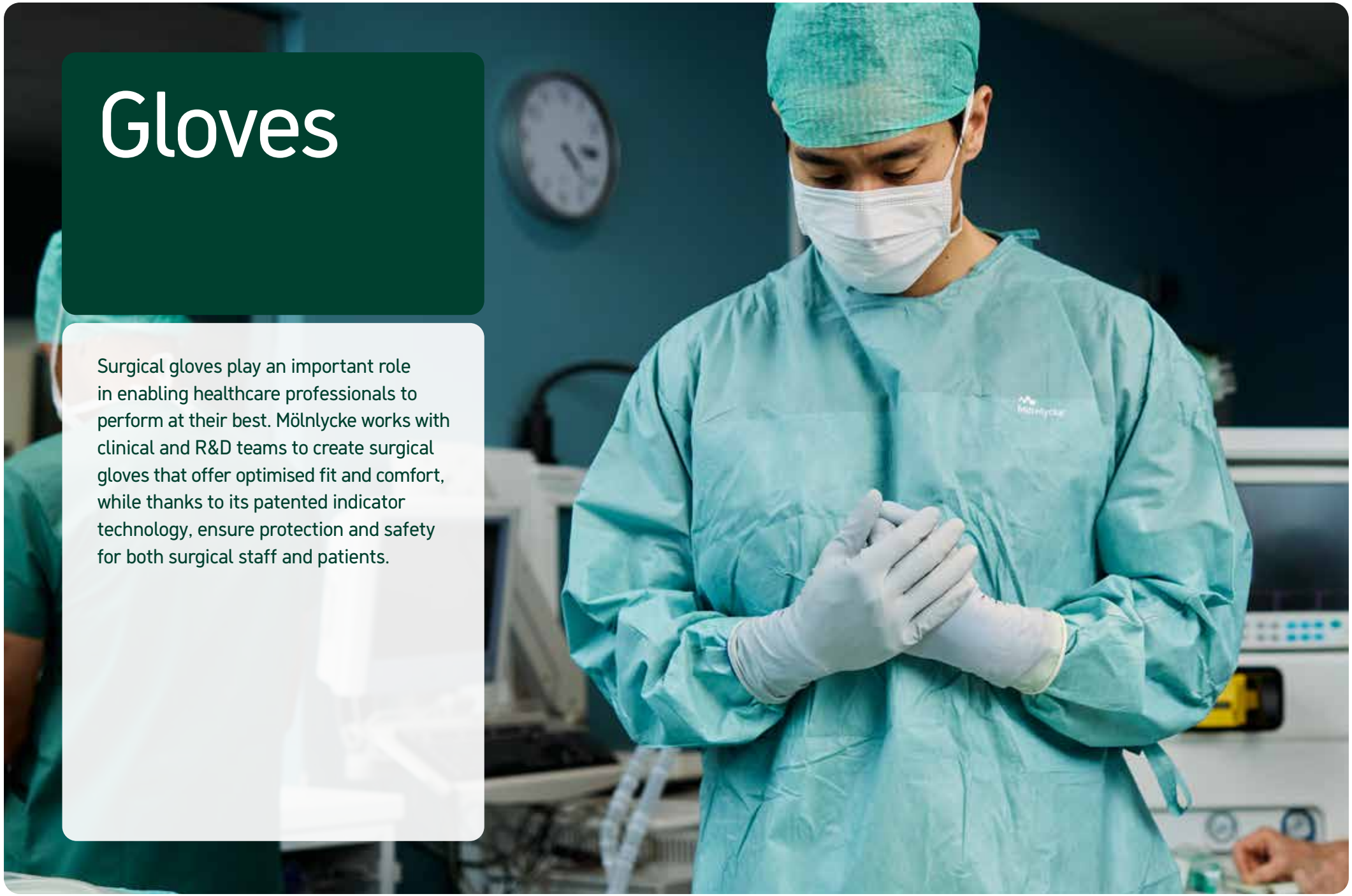
For healthcare professionals, the drape offers operational ease, combining essential features into a single, sterile unit that can be quickly set up. This optimises workflow and minimises the risk of contamination.
The inclusion of transparent sleeves ensures anaesthesiologists can monitor blood flow and pressure unobstructed.

This attention to detail is typical of Mölnlycke's commitment both to patient safety and collaborative development. The initial design was shaped with input from anaesthesiology departments and involved close collaboration between Mölnlycke's R&D, marketing and commercial teams as well as healthcare professionals in Europe to identify critical needs. Extensive feedback throughout the development stages helped refine the product. Mölnlycke's engineers successfully incorporated the insights gained at every stage, resulting in a product that combines functionality and safety, manufactured by Nurel Medikal and distributed by Mölnlycke.

Since its launch two years ago, the drape has seen impressive uptake. It has been adopted as widely as the Nordics, Italy and New Zealand, with further expansion underway. In Belgium, hospitals have integrated it as a standard practice. The success of the drape illustrates the value of Mölnlycke's customer-centric approach in combining innovation with empathy in introducing our products into new hospitals and markets.

The design addresses both efficiency and safety, ensuring a seamless experience for healthcare professionals and mothers alike.

15. Kjerulff KH, Brubaker LH. New mothers' feelings of disappointment and failure after cesarean delivery. Birth. 2018 Mar;45(1):19-27. doi: 10.1111/birt.12315. Epub 2017 Oct 20. PMID: 29052265; PMCID: PMC6366841.



Gloves

Surgical gloves play an important role in enabling healthcare professionals to perform at their best. Mölnlycke works with clinical and R&D teams to create surgical gloves that offer optimised fit and comfort, while thanks to its patented indicator technology, ensure protection and safety for both surgical staff and patients.

Offering

Mölnlycke is a world-leading provider of surgical gloves. Biogel® gloves combines superior fit and comfort with exceptional tactile sensitivity both in surgery and in clean rooms. Biogel has been supporting healthcare professionals for the past 40 years driving innovations such as the first in the world powder-free glove and indicator gloves. With an industry beating AQL of 0.4 this means that all Biogel gloves exceed EN and ASTM standards – giving healthcare professionals better assurance while at work.

Biogel gloves are available in both natural rubber latex and synthetic materials, designed to provide enhanced protection against blood-borne infections. This is achieved through double glove indication technology. The innovative Biogel Indication® System reveals any glove breach.

Thanks to the unique hand scanner technology, healthcare professionals are being helped to find the perfect size and style of gloves This includes determining the most suitable combination of over glove and under glove.

Strategy

Hands are critical to a clinician's ability to excel in their work and to keep the hospital running efficiently. Healthcare professionals emphasise that the right gloves play an important part in a successful procedure. Therefore, surgical teams demand gloves that not only meet the highest standards of protection and safety, but also offer optimised fit and comfort produced in the most sustainable way.

Business Area Gloves aims to help hands perform at their best so clinicians can perform at their best. To help the healthcare professionals, Mölnlycke focuses on three strategic improvement areas:

- fit is foundational, because it affects everything, including comfort and tactility
- hand health is exceptionally important and addressing hand health issues during surgery will improve outcomes
- different situations during the surgery will require different solutions for optimal outcome

Products and solutions

Biogel® gloves

Gloves R&D programmes work on innovation based on customers' needs. A great example of this is Biogel® Pro-Fit, an ergonomic glove allowing natural hand movement during surgery minimising hand fatigue. High quality solutions preventing breaches are important in the Pharma clean room, where it is essential to use high quality equipment to protect the process, the product and the operator. Biogel provides a wide range of high-quality glove protection with the indication breach technology.

Sustainability-wise, the Gloves Business Area is on a mission to decarbonise all its factories by improving production efficiencies and implementing equipment that minimise the environmental footprint. Product packaging has also been improved with all Biogel surgical gloves packed in FSC®-certified dispensers and shipping boxes.

Expansion beyond Mölnlycke's core markets and segments in North America and Europe is in the scope for the Gloves Business Area. India's surgical gloves market is undergoing a shift from powdered gloves towards non-powdered alternatives. Looking ahead, the Biogel Indicator System will remain a cornerstone of the product portfolio and market differentiation strategy – to be replicated across regions and accounts.

Entry into clean room segment, both Pharmacy and Pharma, with differentiated offer providing Indicator technology for safety is another example of Biogel expansion.

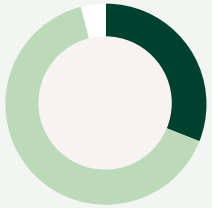
Vision

Hands deserve better.

Mission

To deliver innovative and sustainable solutions to enable hands to perform at their best.

2,352	250	4%
employees	annual global sales, million EUR	organic sales growth



Sales per region

- Europe/Middle East /Africa 31%
- Americas 66%
- Asia Pacific 4%

Major product brands

Biogel® – top-three global surgical gloves business.

Production

All manufacturing of Biogel takes place in Mölnlycke's own factories, located in Malaysia. Gloves Business Area continuously works to enhance its production facilities, aiming for further improved resource efficiency, reduced environmental impact and a safer, healthier work environment for its employees.

Core markets

The US is the main market, followed by the UK and the Nordic countries.

Business environment

The global surgical gloves market stabilised in 2024. However, the supply chain faced distruptions due to complications in the Red Sea, leading to higher logistics costs. Utility costs also continued to rise throughout the year.

Hospitals worldwide are experiencing financial challenges, and staffing shortages remain a concern, affecting both healthcare professionals and administrative staff.

"We experience an increased demand from customers and industry partners for actions on sustainability – from production facilities to packaging materials. Setting ambitious goals to protect the environment and human health, we do not only support them in their sustainability efforts but also contribute to long-term environmental and societal wellbeing."

Katriina Öberg,
EVP Gloves

2024 Highlights

In 2024, the Business Area's net sales amounted to EUR 250 million with organic sales growth of 4%. While facing higher utility and logistics costs on a global level, Gloves has stayed a top-three surgical gloves business maintaining the strategic focus on high-quality solutions enabling hands to perform their best.

The Kulim High Tech Park Biogel glove factory in Malaysia is Leadership in Energy and Environmental Design (LEED) certified by US Green Building Council and Green Business Certification Inc.

The clean room packaging has been improved, becoming more ergonomic for the operator to handle. All Biogel surgical gloves are packed in FSC®-certified dispenser and shipping boxes. Currently 73% of Gloves packaging is recyclable with the target to reach 95% by 2030.

As part of the Business Area's commitment to low-carbon operations, continuous improvement efforts have identified opportunities to further reduce GHG emissions. A Life Cycle Assessment (LCA) conducted in early 2023 showed that Biogel® natural rubber latex gloves have a lower climate impact than Biogel synthetic gloves. In 2024, factories further reduced GHG emissions compared to previous years, and a new LCA was conducted to evaluate the Global Warming Potential impact. The results of this assessment will be released in 2025.

The Business Area Gloves upholds high ethical standards and has zero tolerance of harassment, trafficking, or forced labour. Regular external audits show no issues, reflecting our alignment with ILO standards.

Case study

The world's first consensus on surgical gloving best practice

An evidence-based consensus on surgical gloving means there is now clear guidance to improve the safety, protection and experience of healthcare providers and their patients.

The use of surgical gloves has been studied over many years and many clinical publications have proven the benefits of surgical gloving practices such as double gloving and indicator gloving[16]. Despite this, the clinical use of surgical gloves still varies widely, not only by country but even between departments within the same hospital.

These variations in practice – and the growing body of research highlighting safety concerns in relation to glove use – prompted Mölnlycke bring together a group of 13 independent experts to address the situation. The group comprised researchers, surgeons, nurses, infection specialists and surgical technologists from a range of countries and specialties. Their task was to conduct a review of the available evidence and develop a publication that highlights best practice for surgical gloving. The consensus document they produced is the first of its kind[17].

The expert group looked at the available clinical evidence in four key areas – glove fit, double gloving, indicator gloving and glove change protocol – to understand what best practice statements could be drawn from them. In the course of this work, they conducted a systematic literature review of more than 4,000 clinical papers. Based on the results, the group came up with 10 statements that define best practice for surgical gloving.

These statements were assessed by the strength of the underlying evidence by the group who then voted on each to reach a consensus opinion. The approved recommendations represent the group's mandate for best practice in surgical gloving and have now been written up into a clinical publication.

The consensus document has been presented at several key clinical events held by the American College of Surgeons, the Association for Perioperative Practitioners, the Surgical Infection Society and the European OR Nurses Association, to name just a few.

Mölnlycke strongly supports the work of the consensus group to develop evidence-based best practice. We will provide help and guidance to enable surgical teams to implement the consensus recommendations to improve patient and clinician safety and support the best clinical outcomes.

In the course of their work, the group conducted a systematic review of more than 4,000 clinical papers to come up with 10 statements that define best practice for surgical gloving.

16. For example, Mischke C, Verbeek JH, Saarto A, Lavoie MC, PahwaM, Ijaz S. Gloves, extra gloves or special types of gloves for preventing percutaneous exposure injuries in healthcare personnel. Cochrane Database of Systematic Reviews 2014, Issue 3. Art. No.:CD009573. DOI: 10.1002/14651858.CD009573.pub2; Laine T, Arnio P. Glove perforation in orthopaedic and trauma surgery – A comparison between single, double indicator gloving and double gloving with two regular gloves. J Bone Joint Surg Br. 2004;86(6):898-900.
17. Learn more about the consensus and its recommendations on https://www.molnlycke.com/corporate/about/our-expertise/gloves/first-ever-consensus-on-surgical-gloving-best-practice/.

Antiseptics

Preventing healthcare-acquired infections is a growing concern in pre- and post-operative care. Mölnlycke is committed to human safety in all its actions, and has made it a priority to reduce the risk of infections through effective hygiene measures and antibacterial skin protection. Mölnlycke's innovative solutions enable people and patients across the globe to easily eliminate bacteria that may cause infections from the skin.

Offering

Mölnlycke's Antiseptics Business Area is committed to supporting people and patients in enhancing and strengthening their natural protective barriers, by integrating antiseptic washing into infection control protocols.

The innovative antiseptic products offer long-lasting antibacterial protection for the skin and ensure comprehensive protection against harmful pathogens, particularly when used prior to and after surgical procedures.

The solutions include daily bathing antiseptics for inpatients, whole- body washing solutions for patients and hand disinfectants for healthcare professionals. To also prevent nasal bacterial infections, Mölnlycke has partnered with Ondine Biomedical Inc. to distribute their Steriwave® product in the UK. Steriwave is a non-antibiotic bacterial decolonisation product that ensures nasal antimicrobial protection for patients.

Strategy

Infection prevention is a complex but essential aspect of healthcare. The challenge lies in balancing compliance with usability, as too rigid systems can increase the risk of infection. High staff turnover and time constraints further complicate infection control. Additionally, the cross-functional nature of healthcare environments exacerbates the challenge of achieving understanding and consensus around infection prevention.

Antiseptics focuses on the bacterial decolonisation of the patient both at home, before and after surgery and through their hospitalisation. The Business Area considers hospitals as the primary channel and infection preventionists as the way in, but it also offers an opportunity to engage patients as consumers by shifting some responsibilities.

Looking ahead, Antiseptics aims to expand into new markets and segments globally – with an adjusted and even more streamlined product portfolio that further prevents infections across the patient's journey and fits the demands of the future.

Sustainability thinking is integrated into the Business Area product innovation gate model, ensuring environmental and social considerations are integrated throughout the development process. This includes evaluating opportunities to remove or replace raw materials and incorporating options with higher recycled content or improved recyclability.

Products and solutions

Hibiclens® and Hibi® Universal Bathing System (HUBS)

Hibiscrub®

Antiseptic wound cleansers

Hibi® Liquid Hand Rub+

Hibiwash®

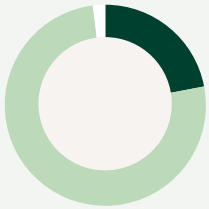
Vision

A world without healthcare-acquired infections.

Mission

Preventing infections across the patient's journey.

53	66	23%
employees	annual global sales, million EUR	organic sales growth



Sales per region

- Europe/Middle East /Africa 22%
- Americas 78%
- Asia Pacific 0%

Major product brands

Hibiscrub®, Hibi® Liquid Hand Rub, Hibiclens®, Hibi® Universal Bathing System and Hibiwash®.

Production

The products are contract manufactured to Mölnlycke's formulations in the US, UK, Belgium and Germany, i.e. close to the markets where they are sold.

Core markets

Main market is the US, followed by the UK and Benelux.

Business environment

In 2024, the US market faced challenges in a price-sensitive environment, with hospital executives under pressure to drive revenue due to rising labour and technology costs.

In the EMEA region, customers remain cost-conscious, but decision-makers are placing greater emphasis on infection prevention, creating a favourable environment for the Business Area. While price pressure continues, there is a growing trend toward investing in prevention rather than covering the costs of treating surgical site infections.

Looking to 2025, following the transition to new Contract Manufacturing Organisation partners in the US and EMEA, product availability has significantly improved, with continued stability expected to support growth.

The successful launch of Hibiwash in the UK has paved the way for its expansion into mainland Europe.

The availability of raw materials and components has improved and dual sourcing activities will also help secure supply.

"Safeguarding human health, protecting people from antimicrobial resistance and surgical site infections via systematic antiseptic protocols is our finest task. Leveraging our broad-spectrum antimicrobial antiseptic properties, we work each day to prevent infections across the patient's journey moving towards a world without healthcare-acquired infections."

Lina Karlsson,
EVP Antiseptics

2024 Highlights

In 2024, Antiseptics delivered growth of 23% and net sales of EUR 66 million, building on the momentum from 2023. The results are thanks to strong performance in the US and similar patterns across other markets.

From 1 January 2024, Antiseptics has its own dedicated US sales force. This creates more focused go-to-market strategy and better sales excellence.

Hibiwash, an improved version of Hibiscrub, was successfully launched in the UK. The removal of ingredients like colour, fragrance and soy oil resulted in a product with lower GHG emissions, supporting customers in fulfilling their climate change commitments.

Antiseptics' strategic direction to create a comprehensive nose-to-toes portfolio. Nasal decolonisation is key to this strategy, as 80% of the bacteria comes from the nose. Signed partnership with Ondine Biomedical Inc. to distribute their Steriwave product, starting with the UK.

Move and start-up of new Contract Manufacturing Organisations both in US and Europe to certify supply stability.

Case study

Innovative new weapon in the battle against healthcare-associated infections

In 2024 Mölnlycke entered into a partnership with Canada's Ondine Biomedical Inc. to distribute their nasal decolonisation therapy, Steriwave®, in the key markets of the UK, EU and Middle East.

The collaboration marks a significant milestone in the fight against healthcare-associated infections (HAIs) and the related and growing threat of antimicrobial resistance (AMR).

Steriwave offers an innovative, light-activated form of nasal decolonisation. It has been clinically proven[18–22] to reduce harmful pathogens in the nasal passages – a common source of HAIs, that lead to increased rates of mortality, lengths of stay in hospital and readmission rates. Because it is a non-antibiotic therapy, Steriwave can safely be used to reduce hospital infections without the risk of generating AMR.

Mölnlycke is incorporating Steriwave as a key product within the infection control portfolio, enhancing the product offerings with a focus on preventing HAIs and reducing AMR. Mölnlycke will spearhead sales and marketing efforts for Steriwave across the UK, EU and Middle East.

The initial focus is on the UK – a pivotal market with a recently published five-year plan to tackle AMR[23]. The UK has a total addressable market of over 3 million major surgeries[24] and 200,000 intensive care unit admissions annually[25] and exerts significant global influence in setting best practice for patient care.

Steriwave is already deployed in a number of National Health Service (NHS) Trusts, including the Mid Yorkshire Teaching NHS Trust and Leeds Teaching Hospital NHS Trust. It is currently listed with NHS Supply Chain, a national body that manages the sourcing, delivery and supply of healthcare products to the NHS and healthcare organisations in England and Wales.

Distribution commenced in the UK in Q4 2024, with expansion into the EU set to follow in 2025, leveraging Mölnlycke's extensive market presence to broaden the impact of this innovative technology on a global scale.

HAIs remain a critical challenge[26] around the world, resulting in avoidable deaths and human suffering as well as significant costs – for example, approximately 6% of European public sector budgets. Post-surgical infections, in particular, can lead to extended recovery times and often require prolonged antibiotic treatment.

Because it is a non-antibiotic therapy, Steriwave can safely be used to reduce hospital infections without the risk of generating antimicrobial resistance.

18. Bryce E, Wong T, Forrester L, et al. Nasal photodisinfection and chlorhexidine wipes decrease surgical site infections: a historical control study and propensity analysis [published correction appears in J Hosp Infect. 2015 Sep;91(1):93]. J Hosp Infect. 2014;88(2):89-95.
19. Moskven E, Banaszek D, Sayre EC, et al. Effectiveness of prophylactic intranasal photodynamic disinfection therapy and chlorhexidine gluconate body wipes for surgical site infection prophylaxis in adult spine surgery. Can J Surg. 2023;66(6):E550-E560. (link)
20. Ondine Biomedical's nasal photodisinfection cuts surgical site infections by 66%. Press release 18 April 2023.
21. Pre-op Nasal Decolonization via Photodisinfection: A Pilot Study in Spinal Surgery Procedures at the Ottawa Hospital. Poster presentation at IPAC Canada 2023 National Conference.
22. Street C, Pedigo L, Gibbs A, et al. Antimicrobial photodynamic therapy for the decolonization of methicillin-resistant Staphylococcus aureus from the anterior nares. In: Kessel DH, editor. Photodynamic therapy: back to the future. 12th World Congress of the International Photodynamic Association. Vol. 7380 of Proceedings series. Bellingham (WA): SPIE; 2009.
23. Poovelikunnel T, Gethin G, Humphreys H. Mupirocin resistance: clinical implications and potential alternatives for the eradication of MRSA. J Antimicrob Chemother. 2015;70(10):2681-2692.
24. Surgical Procedure Volumes in UK from 2021-2029. Life Science Intelligence; 2023 Jan. Volume 23.
25. Hospital Admitted Patient Care Activity, 2011-22. Secondary Care Analytical Team, NHS Digital. Health and Social Care Information Centre. 22 Sep 2022.
26. OECD/European Union (2020), Health at a Glance: Europe 2020: State of Health in the EU Cycle, OECD Publishing, Paris.

Corporate governance

Mölnlycke's robust governance processes ensure transparency, accountability and ethical decision-making, aligning with the company's commitment to long-term sustainability and stakeholder trust. Mölnlycke's risk management involves identifying, assessing and mitigating potential threats to its objectives and assets, ensuring proactive measures are in place to navigate uncertainties and enhance overall resilience.

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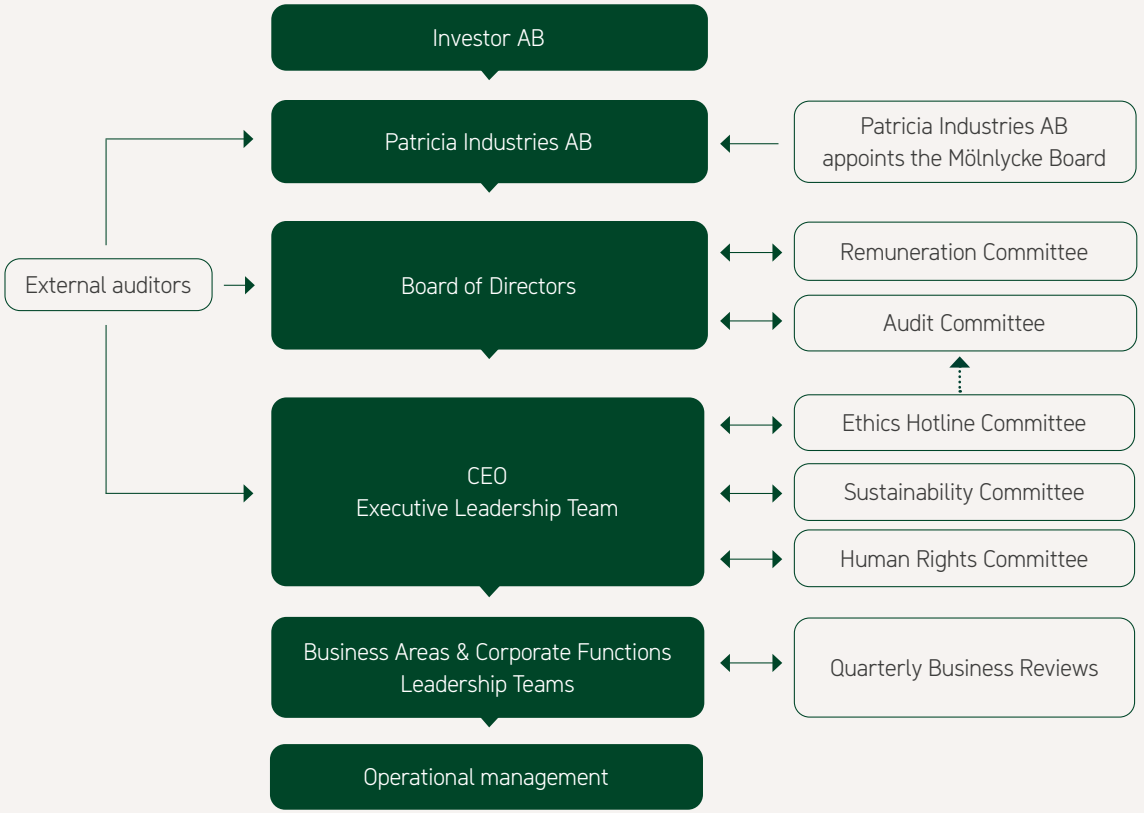
Corporate governance

Mölnlycke has established a thorough governance framework that covers control and compliance with laws and regulations, upholds high ethical standards and promotes efficient strategy implementation and optimal performance. The company has a robust system of policies, procedures, codes and processes that are designed to support sound decision-making, accountability, compliance, control and appropriate behaviour across all aspects of its operations. Mölnlycke continues to develop and improve the system in order to comply with the changes impacting our business and to enable an effective and efficient strategy execution.

Governance and division of responsibilities

Mölnlycke prioritises corporate governance by implementing a robust system of segregation of duties, effective control measures and risk management processes. This ensures that the company meets its commitments to employees, customers, patients, suppliers, owner and other stakeholders, while at the same time adhering to applicable legislation, internal policies and guidelines. In 2024, the corporate structure (see diagram) played a key role in managing, controlling and segregating duties at Mölnlycke, ensuring adherence to strict corporate governance practices.



Relevant external regulations

- Medical Device Regulation (MDR, EU)
- Food & Drug Administration (FDA, US)
- International Financial Reporting Standards (IFRS)
- Swedish Companies Act
- Annual Accounts Act
- Corporate Sustainability Reporting Directive (CSRD)
- EU Taxonomy

Internal governing documents

- Articles of association
- Code of Conduct
- Sustainability policy
- Quality policy
- Other company policies
- Instructions and rules of procedures
- Third-party Codes of Conduct
- Mölnlycke Business Management process
- Enterprise Risk Management process

Ownership structure

Mölnlycke AB is 99% owned by Patricia Industries AB – a part of Investor AB; which is listed on the Nasdaq OMX stock exchange in Stockholm. The remaining 1% is owned by Mölnlycke employees and Board members. Mölnlycke is the largest subsidiary within Patricia Industries' group of companies. Mölnlycke AB owns 100% of Mölnlycke Holding AB.

The Board of Directors

Mölnlycke's Board of Directors holds ultimate responsibility for the company and its operations. They work in accordance with written rules of procedures and are assisted by the Audit Committee and the Remuneration Committee, which have administrative and preparatory roles. The Board oversees Mölnlycke's strategy, objectives, policies and plans and monitors the implementation of these plans, as defined by the Executive Leadership Team (ELT) and driven by stakeholders' needs. The owner, Patricia Industries, determines the overall direction of the holdings of their portfolio investments, including Mölnlycke. The Board is responsible for monitoring how the company identifies and manages risks as part of its enterprise risk management process. They also monitor the actions implemented to ensure Mölnlycke meets its operational and financial objectives in compliance with applicable laws and regulations. Sustainability is integrated across Mölnlycke, guided by the company's Double Materiality Assessment (DMA), in line with recommendations from the ELT. In line with CSRD requirements, the Board annually reviews and approves the company's list of Impacts, Risks and Opportunities (IROs), identified through the DMA process.

As of 23 May 2024, Mölnlycke's Board of Directors consists of eleven members and one deputy, with nine members considered independent from the owners. The Board has convened for eight regular meetings and three extraordinary meetings in 2024 to discuss key issues, including:

- the development and implementation of the strategy
- the progress of the sustainability roadmap and the digital transformation
- macroeconomic conditions including the impact of increased supply costs, lead time constraints and inflation
- financial performance vis-à-vis the long-term strategic plans, and mitigating actions when deviations are identified
- investment and valuation considerations and decisions

Chair of the Board

The Chair's primary responsibility is to oversee and guide the activities of the Board, ensuring they are carried out in an orderly and effective manner. This includes ensuring that the Board fulfills its duties, keeping a vigilant eye on the company's progress and consistently obtaining the necessary information needed for the Board to perform its functions at a high standard while complying with relevant regulations.

Since September 2022, Karl-Henrik Sundström has been the Chair of the Board at Mölnlycke. The other Board members include Jenny Ashman Haquinius (deputy), Christian Cederholm, Aashima Gupta, Sharon James, Johan Malmquist, Leslie McDonnell, David Perez, Zlatko Rihter, Kristina Willgård, Lars Axelsson and Niclas Flach.

Evaluation of the Board's work

Every year, the members of Mölnlycke's Board evaluate their work through a survey. The survey assesses various aspects, such as meetings, materials and the performance of the Chair and Board members in their respective roles as per the rules of procedure. The Chair oversees this survey and the results are presented to and discussed by the Board. The survey serves as the basis for continuous improvement in the Board's functioning as well as the foundation for the owners to suggest any proposals concerning the Board.

Board committees

During 2024, the Board had two committees: the Audit Committee and the Remuneration Committee.

Audit Committee

The Audit Committee is responsible for preparing and reviewing financial and compliance matters. It also ensures a smooth communication channel between the Board and the auditors. As per the committee's rules of procedure, it should safeguard the following on Mölnlycke's Board of Directors' behalf:

- that accounting, reporting and financial statements are accurate and present a true and fair view of the performance
- that audit, audit-related services, audit plan and audit independence are properly managed
- financial risks and valuation considerations
- financial internal control and priorities
- corporate business ethics compliance and priorities
- safeguarding funds are available for the operational and strategic development

Following the 2024 statutory Board meeting held on 23 May 2024, the Audit Committee consisted of: Kristina Willgård (Chair), Christian Cederholm and Jenny Ashman Haquinius (deputy) representing the Board of Directors. Representatives from the company's executive management (Guillaume Joucla (CFO & EVP IT & GBS) and Kristin Hedlund (EVP Legal General Counsel)) attend the Audit Committee meetings to present information.

During 2024, the Committee had five meetings, where the company's auditors participated in all meetings. The company's auditor also attended one Board meeting to present an overview of the audit.

Remuneration Committee

Mölnlycke's Remuneration Committee is dedicated to thoroughly review the company's executive remuneration policies and packages. This remuneration aims to attract and retain key individuals at Mölnlycke, while promoting desirable behaviors in a cost-effective way.

As outlined in the Remuneration Committee's rules of procedure, the committee performs the following tasks on behalf of the Board:

- submitting proposals on reward philosophy for the company, supporting the achievement of long-term business strategy
- submitting proposals on a remuneration framework for the CEO and Executive Leadership Team
- proposing remuneration packages to the Executive Leadership Team members
- submitting proposals on structure of all long-term incentive programmes in the company
- recommending structure of the short-term incentive programme for the Executive Leadership Team and respective Business Area and Corporate Function Leadership Team

Following the 2024 statutory Board meeting held on 23 May 2024, the Remuneration Committee consisted of Chair Karl-Henrik Sundström, Johan Malmqvist, Christian Cederholm, David Perez and Jenny Ashman Haquinius (deputy) representing the Board. Zlatko Rihter (CEO) and Maria Morin (Chief People Officer) attend the meetings representing management.

During 2024, the Committee held five meetings, where among other topics it discussed compensation to executive leaders, salary increases and global short-term incentives for all employees.

Auditors

Each year, Mölnlycke elects auditors during its Annual General Meeting. On 23 May 2024, Deloitte was re-elected, with Hans Warén serving as the auditor in charge. The auditors present their audit plans, status of ongoing work and findings to the Audit Committee and the Board. In addition to their standard duties, Deloitte undertakes advisory and investigative assignments. Such assignments are not deemed to jeopardise the auditors' independence.

CEO

Mölnlycke's Board of Directors appoints the CEO, who is responsible for executing the strategies, business plans, and operational execution approved by the Board. The CEO keeps the Board updated on the company's financial status and performance, provides necessary information and presents reports at Board meetings. All work must align with the Board's directives. Zlatko Rihter has been serving as CEO of Mölnlycke since 1 December 2020.

Executive Leadership Team

The CEO is supported by the Executive Leadership Team (ELT), which consists of the CEO and the 10 Executive Vice Presidents leading Mölnlycke's Business Areas and Corporate Functions. Together, the ELT defines and implements the company's corporate strategy while managing daily operations of their relevant areas. In 2024, the ELT held 11 meetings that mainly centered on the execution of customer-centric strategies, tackling macro-economic challenges and mitigating their effect on the business and its financial performance while also navigating the dynamic sustainability landscape and addressing day-to-day operational issues.

Business Areas and corporate function leadership teams

Mölnlycke's four Business Areas have end-to-end responsibility of all operational and business-related aspects, including strategy, research and development, sustainability, manufacturing, procurement, marketing and sales. The leader of each Business Area is a member of the Executive Leadership Team (ELT).

Each Business Area is supported by a dedicated leadership team, comprised of the head of the unit and the critical staff function heads. The leadership teams manage their relevant Business Area, oversee daily operations, and are responsible for implementing strategies, operational management and decision-making oversight.

During 2024, focus for all Business Area Leadership Teams have been to continue implementing their respective customer-centric strategies. In order to secure alignment of priorities inside each Business Area, but also between Business Areas and Corporate Functions, the Business Areas have each developed a Mölnlycke scorecard against which business is being actioned and monitored. When implementing the operating model based around the four Business Areas with full end-to-end responsibility, the company identified certain areas where it would be beneficial to maintain a cross-functional overview of the company's activities and work alongside the Business Areas, named Corporate Functions.

These are:

- CFO, Finance, IT and Global Business Services
- CMO (Medical Affairs)
- COO (Logistics, Supply Chain and Operational Excellence, Customer Experience, Quality, Regulatory, Indirect Procurement and Corporate Sustainability)
- Corporate Strategy, Business Development and M&A
- Legal Affairs (Business Ethics & Governance, Data Privacy, IP and Legal)
- People/HR and Brand & Communications

The functions at Mölnlycke are accountable for developing and executing relevant company-wide strategies, plans, processes and policies in their functional areas. They drive and support the company's growth based on their individual areas of expertise, while maintaining control over processes. In 2024, Corporate Functions have concentrated on both effectively managing their functions and aligning their strategic priorities to support the Business Areas concurrently.

Sustainability management

A detailed description of Sustainability governance is covered in the Sustainability report on page 102.

Internal controls over financial reporting

Introduction

Mölnlycke provides fair representation of financial and sustainability reporting in a timely manner, and protects the company from potential losses or risks through implementation of reasonable safeguarding controls and compliance to applicable financial laws and regulations.

The Board sets the tone at the top regarding the importance of internal control over financial reporting and is ultimately accountable for risk management and existence of adequate and effective internal controls within the company. The audit committee safeguards on behalf of the Board, the financial internal controls and priorities, as well as the annual reassessment on whether the internal financial control procedures work properly.

Mölnlycke's internal control over financial reporting is based on five essential components of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework.

Control environment

Mölnlycke fosters a robust governance structure through clear roles and responsibilities amongst the Board, audit committee, group management and entity management. Mölnlycke communicates and trains employees regarding the company's code of conduct and the line of authorities.

Global and local policies and guidelines are established and reviewed annually or when needed to provide company's directive. Applied accounting frameworks, reporting requirements and responsibilities are documented in the company accounting policy.

Risk assessment

Mölnlycke adopts an enterprise risk management framework to identify Mölnlycke's top risks. The approached and key risk areas are further elaborated in the "Risk Management" section.

Control activities

The financial internal control function, entity management and other functions work closely to ensure that adequate controls over process, people and technology are implemented and maintained to mitigate identified risks. Control activities are built into Mölnlycke's core business processes to ensure fair presentation of financial reporting. This includes segregation of duties, approval of business transactions by authorised personnels, reconciliations and analytical reviews.

Controls over Mölnlycke's operating systems, platforms and applications include but not limited to access controls, incident and change management, data backup and recovery and application controls.

Approved policies and guidelines are made available to all employees on the company's intranet. Training and communication are conducted through various forums to emphasise the importance of internal controls over financial reporting. These forums are tailored to targeted audience and provide opportunities for feedback.

Continuous communication among group finance, entity finance and global business services is maintained via monthly closing instructions, business performance reviews and process improvement. This ensures fair representation and timely financial reporting both internally and externally.

Monitoring

Entity management is responsible for reviewing any control deficiency with control owners, implementing remediation actions and formally endorsing on the annual control self-assessment questionnaire.

The financial internal control function, in collaboration with group accounting and other functions, conducts risk-based review to assess control effectiveness. Remediation of identified control deficiencies are systematically tracked until completion within the remediation action dashboard. This dashboard is used by action owners to provide regular status updates and the internal control function to provide supervisory oversight.

Summary of control deficiencies identified, action plan to address underlying causes and remediation status is reported to the Audit Committee.

The Audit Commitee and Board deem the current set up appropriate to safeguard the internal control over financial reporting in Mölnlycke.

Risk management

Mölnlycke proactively manages a range of strategic, operational, regulatory, financial and sustainability risks by developing mitigations to reduce impact and likelihood.

Risk management

At Mölnlycke, risk management is an integral part of the company's operations, at both enterprise and individual business area levels. The Board assumes responsibility for efficient risk management by adopting policies that set risk levels and limits for the company. Periodic Enterprise Risk Management (ERM) reporting is submitted by each Business Area and corporate function to the Board. A comprehensive yearly risk and mitigation assessment is performed, which identifies and evaluates current and newly emerging risks across five categories: strategic, operational, legal and compliance, sustainability and financial. The risk assessment also includes black swan scenarios.

Mölnlycke incorporates all material risks into a company-wide risk map, with action plans developed and implemented to minimise their probability and impact. Risk assessments and action plans are reviewed and confirmed with both the Executive Leadership Team and the Board, recognising the potential for these risks to have a significant negative impact on the business if not acted upon. Actions to mitigate these risks are crucial to the company's success and are integrated into daily operations.

Uncertainty factors

Industry shifts and market trends alongside strategy and innovation related risks are the most significant uncertainty factors affecting Mölnlycke. A lack of radical innovation and digital transformation may have a negative impact on Mölnlycke, as well as not capturing a transforming market and trends outside the acute sector.

Political and geopolitical uncertainty but better macroeconomy

2024 has been a year marked by significant geopolitical tensions and numerous elections worldwide. Despite these challenges, the global macroeconomic environment has shown resilience. Factors with the potential to impact Mölnlycke, like other global companies, include:

- increased geopolitical tension – the conflicts in Israel, Ukraine and the Red Sea
- political uncertainty after election year
- protectionism in terms of trade barriers, tariffs and restriction of free trade
- labour unrest with strikes
- macroeconomic uncertainty
- logistic constrains with increased costs and lead times

Mölnlycke works continuously to monitor the global risk environment to mitigate and adapt to a challenging environment to secure the company's business for now and in the future.

Physical risks

Climate change will most likely increase the frequency of natural hazards. As part of Mölnlycke's risk and insurance process, information about hazard risks and natural hazards is collected. Natural hazards considered during this process are earthquakes, floods, drought, hailstorms, lightning, wind, tornados, subsidence, landslides and active volcanos. Based on the individual risk assessments, measures to mitigate the risks to an acceptable level are being implemented. Further controls planned are to extend risk evaluation further down our supply chain as part of the company's Net Zero commitment.

With regards to the risks related to water, the company refers to the World Resources Institute to assess the level of risk at our production locations on a yearly basis. Initiatives to conserve water and optimise production processes for water efficiency are continually ongoing.

Transitional risks

Mölnlycke is also exposed to transitional risks, such as market and technology shifts, reputation risks and policy and legal changes. Identifying and addressing risks, including transitional risks related to climate change, is part of the company's regular risk management process (see 'The current risk landscape').

ESG-related risk identification and management are integral to Mölnlycke's ERM framework.

To ensure alignment with the ERM process, specific sustainability-related risks are assessed using the ERM methodology. The primary sustainability-related risks, along with their corresponding mitigation strategies, are reported in the table below. For detailed information on material impacts, risks,and opportunities, please refer to the separate disclosures in the Environmental, Social and Governance chapter of the Sustainability report. A comprehensive overview of the process steps taken during the double materiality assessment is provided in the Stakeholder Engagement and Materiality chapter on page 103.

Risk description	Mitigation	Likelihood	Impact
Strategic risks			
1. Risk related to industry shifts and market trends			
The global healthcare sector is under pressure to control costs and improve efficiency amid operative challenges. Furthermore, staff shortages have resulted in a reduction of healthcare professionals, affecting the sector's changing needs, expectations and requirements. Such developments can lead to changes in market trends and the medical device industry, which could have an impact on Mölnlycke.	Mölnlycke remains competitive by monitoring industry shifts and market trends. The company's foundation is based on extensive ethnographic studies that provide insights into customers' challenges and daily life. Such insights guide the company's priorities. Additionally, Mölnlycke collaborates with key opinion leaders, healthcare organisations and professionals to develop effective solutions for healthcare challenges. Although the market is under pressure, healthcare is relatively stable due to its non-sensitive demand to economic fluctuations and increased global average life expectancy.	3	5
2. Strategy and innovation risk			
In a competitive landscape, Mölnlycke's position as a market-leading company is constantly challenged. Primary risks involve the potential failure to evolve and future-proof its business through innovative products and solutions, sustainable and digital strategies and robust logistics capabilities. Additionally, heightened price competition poses a notable risk to the company.	Mölnlycke has developed strategies to transform and future-proof its business. The company has intensified product development efforts to strengthen its range of products and solutions. This includes shifting towards radical innovation and increased investments in new technologies. As a market-leading company, Mölnlycke continues to differentiate itself through clinical evidence, professional education and high-quality products.	3	5
3. Reputational risk			
Reputation, encompassing brands, trust and customer satisfaction, influences both current and future demand for a company's offerings and its commercial flexibility. Product quality, service excellence, employee satisfaction and customer relations are key determinants of reputation. Moreover, adherence to regulatory standards adds another layer of significance. In today's multi-channel landscape, managing the market perception of a brand is increasingly complex.	Mölnlycke constantly undertakes initiatives to maintain and strengthen its corporate reputation. The activities include upholding high ethical standards in all business activities as per the company's Code of Conduct, adhere to all relevant laws and regulations, delivering constant quality in products, solutions, employee experiences and customer services. To mitigate unexpected challenges, Mölnlycke has a comprehensive crisis management plan in place. Monitoring the online presence and strategically responding to media coverage and online discussions is a priority.	1	4

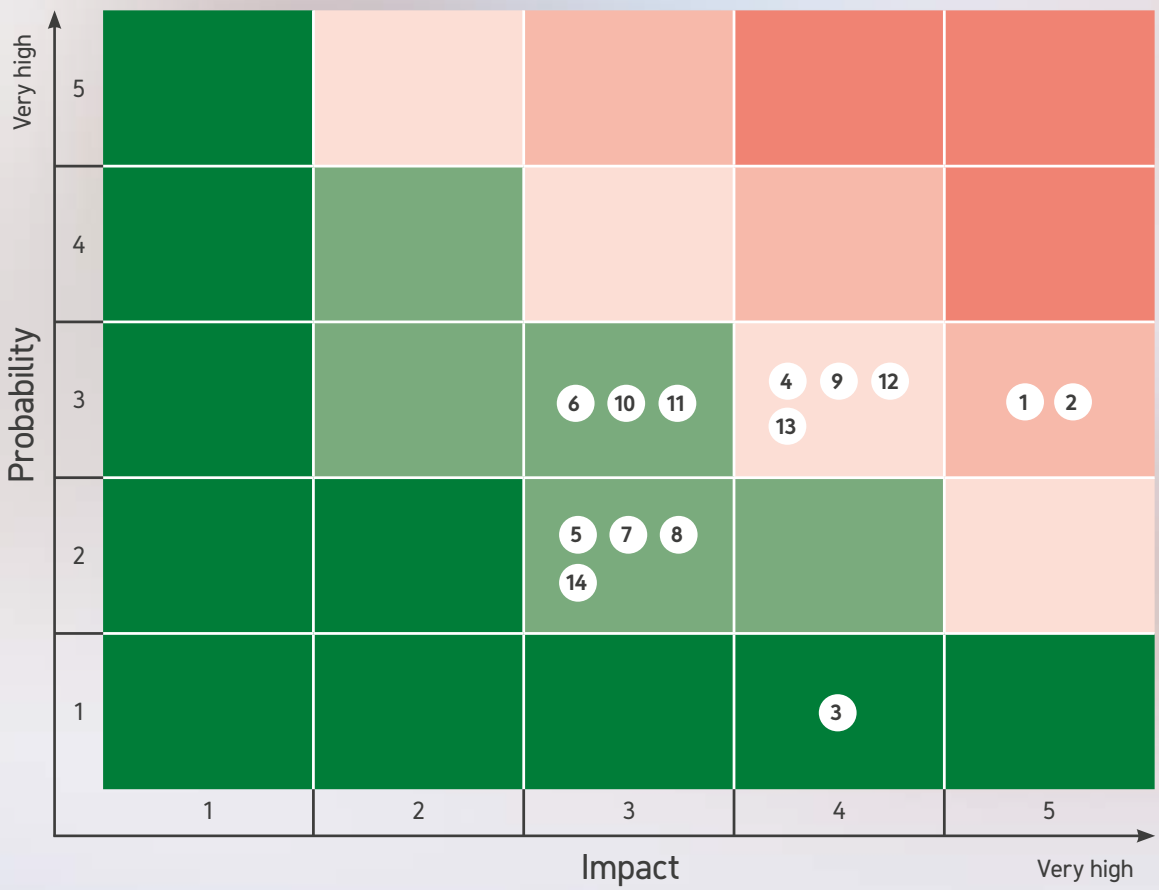
Risk description	Mitigation	Likelihood	Impact
Legal and Compliance risks			
4. Regulatory risk			
Mölnlycke and its product range is subject to rigorous regulatory control activities in most of the markets where the company operates. Breach of regulatory legislation may lead to enforcement activities such as import stop, fines or reputational damage. Increased regulatory control, new or changed requirements, if not identified and properly implemented, could negatively impact the company´s business, financial position and earnings in the future.	Mölnlycke maintains compliance to current regulatory legislation and proactively monitors changes in legislation that may affect the company and its products. Regulatory affairs are represented in all Business Areas and the company aims to be compliant with laws and regulation in the country where it operates. Mölnlycke has successfully transitioned to the new Medical Device Regulations (MDR) in EU. The quality management system is certified to the applicable standards for the company and the product range.	3	4
5. Business ethics risk			
Unethical behavior, such as bribery, corruption, anti-trust, human rights violation and unfair competition within Mölnlycke's organisation or supply chain may result in fines and other legal sanctions. This would also damage the company's brand and credibility. Mölnlycke's expansion into new markets and partnerships may increase the risk.	Mölnlycke's white-collar employees are trained in the company's Code of Conduct and in anti-bribery and anti-corruption, which ensures that the company and its employees uphold core values and avoid unethical business practices. This includes general guidelines on conducting business and how employees should act. The company regularly improves its business ethics programme by implementing preventive measures such as risk assessments, procedure development and offering mechanisms for grievance, including an external Ethics Hotline. See also "Risk related to distributors, suppliers and other third parties" below.	2	3
6. Risk related to distributors, suppliers and other third parties			
As a general rule, monitoring a partner is more challenging than overseeing one's own business operations. If any of Mölnlycke's contract manufacturers, suppliers or distributors fail to adhere to the company's standards for business ethics and human rights, it could have negative impacts on the company. This may include damage to the company's reputation and impeding its ability to participate in tenders. Some of these partners may operate in countries with a higher risk of not meeting ethical standards.	Mölnlycke requires all contract manufacturers and major suppliers to sign its Supplier Code of Conduct or at least have internal code of conduct with corresponding terms and conditions. Mölnlycke performs a yearly sustainability risk screening on all suppliers to identify suppliers exposed to the highest level of inherent sustainability risks. The company joined Sedex in 2023 and apply the Sedex risk assessment tool. To further understand and improve site-specific conditions of suppliers with high-risk scores, Mölnlycke requests a third-party audit to be conducted based on the Sedex Member Ethical Trade Audit-protocol, SMETA. For distributors, Mölnlycke has a global programme that includes due diligence to ensure partners meet the company's ethical standards and encourages our business partners to report concerns through the Ethics Hotline.	3	3

Risk description	Mitigation	Likelihood	Impact
Operational risks			
7. Manufacturing risk			
A substantial disturbance, such as a fire or machinery breakdown, occurring in the factories of Mölnlycke or its contract manufacturers, could result in production interruptions, delivery complications and have adverse effects on the business. Certain products may rely heavily on production in a specific area, making the company more vulnerable to climate-related incidents and material sourcing issues.	Mölnlycke takes measures to minimise the impact of production disruptions by implementing manufacturing backup plans, dual sourcing of raw materials and collaborating closely with logistical partners. The company continually assesses its manufacturing footprint to reduce potential risks, which involves qualifying contract manufacturers for backup production. Additionally, all of Mölnlycke's facilities have comprehensive insurance coverage to safeguard the business.	2	3
8. Supply continuity and resilience			
The company relies on specific suppliers for crucial materials and any disruption or quality issues could adversely impact manufacturing. Dependence on a particular country or region also poses risks. The worldwide logistics chain is vulnerable to disturbances, as evidenced by challenges arising from both the pandemic and geopolitical issues the last few years, potentially causing customer confidence decline and revenue loss.	To minimise the risk of supply disruptions, Mölnlycke has in recent years focused on implementing a dual sourcing strategy and continually seeks alternative materials from different suppliers. Mölnlycke monitors their presence in different locations and regularly reassesses our safety stock levels. The company has a strong logistics network for global distribution and collaborates with suppliers during difficult times. Precise volume forecasts are generated to ensure efficiency. Geopolitical factors are also monitored and adapted to.	2	3
9. Portfolio diversification risk			
Wound Care accounts for more than half of Mölnlycke's revenue streams, making the company vulnerable to fluctuations in that specific segment. Additionally, the concentration of sales in key markets poses a heightened risk, as any adverse economic conditions or regulatory changes in those markets could significantly impact the company's overall financial performance.	By structuring its business into dedicated business areas, Mölnlycke aims to focus each area distinctly, reducing dependence on a singular aspect. For the wound care sector, the company is continuously engaged in developing its portfolio to maintain its premium position. The wound care market is also considered to be growing, driven by factors such as increased life expectancy and a growing population. Mölnlycke predominantly conducts its sales in mature markets known for their stability and a reduced likelihood of significant fluctuations. Additionally, as part of its strategic approach, the company actively pursues expansion opportunities in emerging growth markets like China and India, thereby mitigating the risk associated with overreliance on any single market.	3	4

Risk description	Mitigation	Likelihood	Impact
Operational risks			
10. IT security risk			
Mölnlycke depends on IT systems for its operations, which makes it susceptible to significant changes in the IT sector. With the increasing frequency and complexity of IT security threats, the risk of security breaches such as hacking, cyber-attacks, or data leaks has become higher. Any disruptions or glitches in crucial systems could have a direct impact on Mölnlycke's business processes, such as halted production and possible data loss.	Mölnlycke prioritises IT security and invests resources in proactive measures. Working with partners, the company follows established processes to ensure IT systems are stable and secure, including monitoring services and measures to prevent cyber incidents and reduce vulnerabilities in company devices. The company's security programme aims to increase employee awareness, protect data and enhance the efficiency of Mölnlycke's security processes and controls in line with an established ISO 27001 based ISMS (Information Security Management System). Mölnlycke is preparing or being compliant with the new EU legislation NIS2, that will come in place during 2025.	3	3
11. Risk related to ability to attract and retain talented employees			
Mölnlycke needs to attract and retain skilled and dedicated employees to maintain its competitive edge. As competition for talent intensifies, the process becomes more challenging and expensive, which could potentially affect the company's competitiveness if it fails to succeed.	Mölnlycke invests in long-term career development for its employees, offering learning and development programmes and opportunities for progression. In 2024, 55% of manager-level and above positions were filled internally. The company rewards employees who achieve successful results through its programmes, both short- and long-term. Mölnlycke prioritises health and well-being, aiming to provide accident-free workplaces, and introduced remote working principles to achieve work-life balance. During 2024 Mölnlycke started a graduate programme consisting of young talents.	3	3
Sustainability risks			
12. Climate change impact risk			
The activities of Mölnlycke have environmental implications as manufacturing of the company's products, including transportation, partially relies on fossil fuels, leading to greenhouse gas emissions. Any expansion of Mölnlycke's operations may lead to heightened energy consumption. Additionally, the limited availability of renewable energy sources poses a risk in certain countries where Mölnlycke's manufacturing sites are located.	Mölnlycke is committed to achieving its SBTi-validated near-term reduction targets and reaching Net Zero GHG emissions by 2050. A key milestone in this journey was achieving 100% renewable electricity across all manufacturing sites and headquarters by the end of 2024. This was accomplished in December 2024 through power purchase agreements, on-site renewable energy installations like solar panels and renewable energy certificates where necessary. Beyond its own operations, Mölnlycke continues to work with suppliers to cut emissions across the value chain, increase the use of biobased or recycled materials and shift to more sustainable transportation for finished goods. Further strengthening its climate commitment, Mölnlycke submitted its Net Zero target to the SBTi for validation in December 2024.	3	4

Risk description	Mitigation	Likelihood	Impact
Sustainability risks **13. Stakeholder management, new requirements and regulations risk**			
As sustainability gains more prominence, the demands and expectations evolve swiftly. Failing to meet progressively stringent environmental, social and governance standards may adversely affect the company's reputation, recruitment, retention, operations, financial performance, and could lead to disqualification from tenders or non-compliance with future regulations.	Mölnlycke proactively addresses evolving sustainability demands by integrating sustainability at the core of its business strategy. The company ensures compliance with tightening environmental, social and governance (ESG) standards through robust reporting, strategic initiatives and continuous stakeholder engagement. To maintain transparency and regulatory alignment, Mölnlycke has transitioned to reporting partially in line with the Corporate Sustainability Reporting Directive (CSRD) and Corporate Due Diligence Directive (CSDDD) in 2024, building on its long-standing adherence to GRI standards and the Task Force on Climate-related Financial Disclosures (TCFD) framework. Sustainability is embedded in Mölnlycke's operations through its continuously updated WeCare sustainability roadmap, which aligns with stakeholder expectations and reinforces the company's ambition to be a global leader in sustainable healthcare. Life Cycle Assessments (LCA), following ISO 14040:2006 and 14044:2006 standards, drive sustainable product development and support engagement with customers on environmental impact reduction. Furthermore, Mölnlycke ensures accountability by annually reporting greenhouse gas emissions according to the Greenhouse Gas Protocol and delivery on the SBTi-validated near-term reduction targets.	3	4
Financial risks **14. Currency risk**			
Fluctuations in exchange rates may negatively impact Mölnlycke's cash flow, income statement and balance sheet. Currency exposure can arise from payment flows (transaction exposure), the valuation of foreign currency balance sheet items (balance sheet exposure) and translation during consolidation of foreign subsidiary income statements and balance sheets into EUR (translation exposure). The largest currency exposure for the company is in the USD net in-flow.	Mölnlycke centralises all currency exposure to its Group Treasury via the internal netting system. The Policy of Management of Group Financial Risks, approved by the Board, stipulates the management of foreign exchange market exposure. According to the policy, Mölnlycke does not hedge exchange rate exposure.	2	3

The current risk landscape



Strategic risks

1. Risk related to industry shifts and market trends
2. Strategy and innovation risk
3. Reputational risk

Legal and compliance risks

4. Regulatory risk
5. Business ethics risk
6. Risk related to distributors, suppliers and other third parties

Operational risks

7. Manufacturing risk
8. Supply continuity and resilience isk
9. Portfolio diversification risk
10. Cyber risk
11. Risk related to ability to attract and retain talented employees

Sustainability risks

12. Climate change impact risk
13. Stakeholder management, new requirements and regulations risk

Financial risks

14. Currency risk

Board of Directors

Karl-Henrik Sundström
Chairman of the Board, elected 2022 (Board member since 2018)

Born: 1960
Nationality: Swedish
Education: Bachelor of Economics
Board assignments: Chairman of the Board of Boliden and the Finnish-Swedish Chamber of Commerce. Deputy Chairman of the Board of Vestas A/S. Board member of NXP Semiconductors, and Marcus Wallenberg Foundation.
Professional experience and previous assignments: CEO of Stora Enso 2014–2019. Former leadership positions include, among others, CFO & Executive Vice President of Stora Enso, NXP Semiconductors and Ericsson.

Christian Cederholm
Board Member, elected 2020

Born: 1978
Nationality: Swedish
Education: Master of Science in Economics and Business Administration
Board assignments: Board member of Hi3G Scandinavia.
Professional experience and previous assignments: President and CEO of Investor AB since May 2024 and part of Investor since 2001. Previously Head of Patricia Industries, a part of Investor AB, since 2021.

Aashima Gupta
Board Member, elected 2023

Born: 1970
Nationality: American
Education: BS. Comp Science, Ms Computer Science
Board assignments: Board member of Neogen, Member of the HIMSS NA and GRAIL Advisory Boards.
Professional experience and previous assignment: Currently holds the position as Global Director of Healthcare Industry Solutions at Google Cloud. Former Executive leadership roles driving digital strategy for Kaiser Permanente, an integrated health system and senior leadership roles in software development at J.P Morgan Chase and Fidelity Investments.

Sharon James
Board Member, elected 2018

Born: 1961
Nationality: British
Education: Doctor of Philosophy in Neurobiology
Board assignments: Board member of Novozymes.
Professional experience and previous assignments: Senior advisor to Bain & Company. Former Research & Development leadership roles within Bayer Consumer Health, Reckitt Benckiser, PepsiCo and GlaxoSmithKline.

Johan Malmquist
Board Member, elected 2015

Born: 1961
Nationality: Swedish
Education: Bachelor of Science in Business Administration
Board assignments: Chairman of the Board of Getinge, Arjo and Trelleborg. Board member of Stena Adactum and Chalmers University of Technology Foundation.
Professional experience and previous assignments: President and CEO of Getinge 1997–2015. Previous leadership positions within Getinge and the Electrolux Group.

Leslie McDonnell
Board Member, elected 2023

Born: 1972
Nationality: American
Education: Masters of Business Administration, Bachelor of Science in Business
Board assignments: Board member of Laborie Medical Technologies.
Professional experience and previous assignments: Previous executive leadership roles in MedTech at Medtronic, 3M Healthcare and Natus Medical. Most recently, President, CEO and Board Member of Iradimed Corporation.

Board of Directors

David Perez
Board Member, elected 2019

Born: 1959
Nationality: American
Education: Bachelor of Arts
Board assignments: Chairman of the Board of Advanced Instruments and Laborie. Board member of NeoGenomics, Book Trust and Nurse Family Partnership.
Professional experience and previous assignments: President and CEO of Terumo BCT (and its predecessor companies Cobe BCT, Gambro BCT and CaridianBCT) 1999–2019. Former board member of Terumo Corporation, Ortho Clinical Diagnostics and Sarnova. He serves on the United States Department of Health & Human Services Advisory Committee for Blood & Tissue Safety & Availability.

Zlatko Rihter
Board Member, elected 2020

Born: 1970
Nationality: Swedish
Education: Master of Science, Mechanical Engineering
Board assignments: Board member of Sobi AB.
Professional experience and previous assignments: President and CEO of Mölnlycke. Former CEO of CellaVision, 2015-2020. Previous positions include EVP Global Sales & Marketing at Cooper Companies, President Chronic Dialysis and EMEA commercial at Gambro and VP Patient Handling Product Division at Arjo.

Kristina Willgård
Board Member, elected 2021

Born: 1965
Nationality: Swedish
Education: Bachelor of Economics
Board assignments: Chairman of the Board of C-Rad. Board member of Addnode Group AB, Ernströmgruppen AB, AQ Group and InArea Group.
Professional experience and previous assignments: CEO of AddLife 2015-2022. Previous senior positions include CFO of Addtech and Finance Director at Ericsson.

Jenny Ashman Haquinius
Deputy Board member, elected 2021

Born: 1986
Nationality: Swedish
Education: Master of Science in Finance
Board assignments: Board member of Vectura and Navigare Ventures.
Professional experience and previous assignments: CFO of Investor AB since end of 2024. Previous position as investment professional at Patricia Industries, part of Investor AB, since 2015 and Corporate Finance department of Nordea Markets Investment Banking.

Lars Axelsson
Employee representative, elected 2021

Born: 1961
Nationality: Swedish
Education: Master of Science in Engineering Physics, Masters of Business Administration
Board assignments: -
Professional experience and previous assignments: Project Manager, R&D, OR Solutions.

Niclas Flach
Employee representative, elected 2021

Born: 1975
Nationality: Swedish
Education: Concept Design
Board assignments: -
Professional experience and previous assignments: Senior Concept Designer, R&D, Wound Care.

Executive Leadership Team

Zlatko Rihter
President and CEO

Born: 1970
Nationality: Swedish
Employed since: 2020
Education: Master of Science, Mechanical Engineering
Board assignments: Board member of Sobi AB.
Previous experience: President and CEO of CellaVision, 2015–2020. Previous positions include Executive Vice President Global Sales & Marketing at Cooper Companies, President Chronic Dialysis and EMEA commercial at Gambro and VP Patient Handling Product Division at Arjo.

Guillaume Joucla
CFO and EVP IT and Global Business Services

Born: 1973
Nationality: French
Employed since: 2002
Education: Postgraduate degree in Finance and Management, Master of Science in Applied mathematics
Board assignments: -
Previous experience: Various senior leadership roles in Global Finance & Strategic projects and local operations at Mölnlycke. Prior positions include senior management roles at ProxiMed Services and BioSteril.

Anders Andersson
EVP Wound Care

Born: 1971
Nationality: Swedish
Employed since: 2000
Education: Master of Science in Business and Economics
Board assignments: -
Previous experience: Various senior leadership roles in Operations, Commercial and R&D at Mölnlycke. Before taking on his current role Anders served as EVP OR Solutions.

Fredrik Wallefors
EVP OR Solutions

Born: 1975
Nationality: Swedish
Employed since: 2002
Education: Master of Science in Industrial Engineering and Innovation Management
Board assignments: -
Previous experience: Various senior leadership roles in R&D, Marketing and Commercial at Mölnlycke. Prior to his current role, Fredrik served as the Global Vice President of Commercial OR Solutions.

Katriina Öberg
EVP Gloves

Born: 1966
Nationality: Finnish
Employed since: 1999
Education: Master of Science in Business and Economics
Board assignments: -
Previous experience: Various senior leadership roles at Mölnlycke. Most recently Regional Vice President Asia-Pacific and before that General Manager Region North.

Lina Karlsson
EVP Antiseptics

Born: 1973
Nationality: Swedish
Employed since: 2019
Education: Master of Science in Chemical Engineering, Doctor of Philosophy in Polymer Science, Executive Master of Business Administration
Board assignments: Board member of Dignitana AB.
Previous experience: Head of OR Solutions R&D at Mölnlycke 2019–2021. Previously senior global positions in R&D and Operations at Gambro and Baxter.

In 2024, Susanne Larsson was a part of the Executive Leadership team as CFO and EVP IT, Global Business Services and Indirect Procurement.

Executive Leadership Team

Moatassem Bassiouni
EVP Corporate Strategy, Business Development and M&A

Born: 1973
Nationality: Egyptian
Employed since: 2015
Education: Pharmaceutical Science, Associate degree in Advance Management
Board assignments: -
Previous experience: Several senior commercial leadership roles such as General Manager Turkey, MEA & South Africa and Vice President EMEA Wound Care at Mölnlycke. Prior experience includes positions at Johnson & Johnson Medical.

Eric De Kesel
Chief Operations Officer and EVP Sustainability

Born: 1965
Nationality: Belgian
Employed since: 2002
Education: Master of Applied Science, Electromechanical Engineering
Board assignments: Board member of One Life SA and Tamer Mölnlycke Arabia LLC.
Previous experience: Various senior roles at Mölnlycke, such as head of Global Business Units and President of the Surgical Division. Most recently EVP, Global Operations & Regulatory Affairs and Quality Assurance.

Kristin Hedlund
EVP Legal, Compliance & IP

Born: 1968
Nationality: Swedish
Employed since: 2018
Education: Master of Laws, Political Science
Board assignments: Board member of Swecare foundation.
Previous experience: A number of positions within DB Schenker, serving as General Counsel and member of the Board at Schenker AB and has a background as a judge in the Swedish court system.

Maria Morin
Chief People Officer and EVP Group Brand & Communications

Born: 1974
Nationality: Swedish
Employed since: 2023
Education: Bachelor of Business Administration and Bachelor of Science HR Management
Board assignments: -
Previous experience: Senior positions within human resources development and communication from among others CellaVision AB. Most recently served as Group CHRO at BHG Group, leading HR, communications and ESG functions.

Emma Wright
Chief Medical Officer and EVP Regulatory and Quality Affairs

Born: 1973
Nationality: British
Employed since: 2018
Education: Doctor of Philosophy, Bachelor of Science (Hons)
Board assignments: -
Previous experience: The entire career spent in medical devices, particularly in the wound care and surgical implant space. Has worked across various markets, for a range of MedTech businesses, from start-ups to large global companies.

Financial report

The financial report presents the consolidated financial statements for the Mölnlycke Holding AB Group prepared in accordance with IFRS as adopted by the EU. The parent company of Mölnlycke Holding AB is Mölnlycke AB which in turn is controlled by Investor AB, listed on NASDAQ OMX Stockholm.

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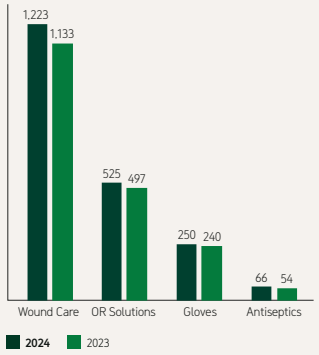
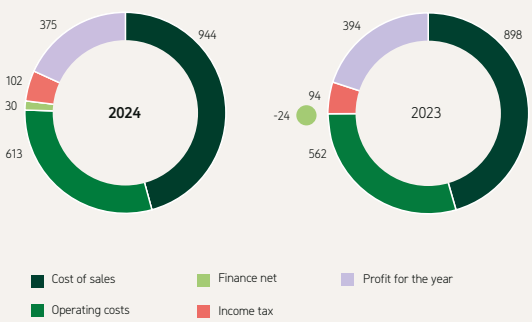
Consolidated income statement, MEUR

	Notes	2024	2023
Revenue	6	2,064.2	1,923.5
Cost of sales	7	-944.3	-897.8
Gross profit		**1,119.9**	**1,025.7**
Selling costs	7	-385.3	-360.7
Administrative costs	7	-174.7	-151.0
Research and development costs	7	-55.0	-51.3
Share of result in associates and joint ventures	4	0.3	-0.6
Other operating income and expenses	7	1.8	1.3
Operating profit		**507.0**	**463.4**
Finance income	8	30.2	76.2
Finance costs	8	-60.4	-52.2
Profit before tax		**476.8**	**487.4**
Income tax expense	9	-101.5	-93.9
Profit for the year		**375.3**	**393.5**
Attributable to:			
Owners of the Company		373.3	393.5
Non-controlling interests		2.0	-
		375.3	**393.5**

Segment revenue
EUR million



Use of revenues
EUR million



Comments on the income statement

Revenues

Mölnlycke revenue reached MEUR 2,064.2 (1,923.5). This corresponds to an organic sales growth of 7.4% compared to prior year, excluding currency impact.

- Wound Care reported an organic sales growth of 8.3% excluding currency impact driven across all regions. This follows a good growth rate in the market with particular strong sales development within the post operation and prevention assortment and in the MEA region leveraging the local investments made
- ORS reported an organic sales growth of 5.4% excluding currency impact. The growth was mainly fueled by the Tray channel through an increased complexity of each product, leveraging price increases and accelerating in more profitable segments
- Gloves reported organic sales growth of 4.1% excluding currency impact driven by distributor destocking in prior year and stabilized supply enabling customer conversions
- Antiseptics reported an organic sales growth of 22.7% excluding currency impact benefitting from an improved supply situation, price increases and customer conversions

Gross profit

The Group's gross profit amounted to MEUR 1,119.9 (1,025.7), corresponding to a gross margin of 54% (53%).

Operating profit

Operating profit amounted to MEUR 507.0 (463.4), corresponding to an operating profit margin of 25% (24%). The increased operating profit is primarily a result of the sales growth and active price management, partly offset by increased sea freight rates following the Red Sea situation. In line with the commercial strategy there was a continued investment in operating expenses which, together with the high inflation rate, increased the selling and administrative costs.

7%
organic growth

Finance net

The Group's net financial items amounted to MEUR -30.2 (24.0). The increase in financial costs in 2024 relates to increased net debt and higher interest rates as well as net revaluation losses on financial instruments compared to significant revaluation gains last year.

Income tax expenses

The Group's income tax expenses amounted to MEUR -101.5 (-93.9), corresponding to an effective tax rate of 21% (19%). The increase in effective tax rate relates primarily to increased profitability in countries with a high corporate tax rate and a one-off effect from initial recognition of deferred tax assets in 2023.

Profit for the year

The Group's profit for the year amounted MEUR 375.3 (393.5) which corresponds to a decrease of 5%. The decrease is mainly related to increased net finance costs and tax expenses.

Consolidated statement of comprehensive income, MEUR

	2024	2023
Profit for the year	**375.3**	**393.5**
Other comprehensive income		
Items that may be reclassified subsequently to profit or loss:		
Exchange differences arising during the year on translation of foreign operations (net of tax of MEUR 2.5 (2023: MEUR 0.3)	4.8	-2.1
Items that will not be reclassified subsequently to profit or loss:		
Actuarial gains/(losses) on defined benefit pension plans (net of tax of MEUR 3.1 (2023: MEUR -0.6))	-11.2	1.5
Total comprehensive income for the year	**368.9**	**392.9**
Attributable to:		
Owners of the Company	366.8	392.9
Non-controlling interests	2.1	-
	368.9	**392.9**

Comments on the consolidated statement of comprehensive income

Total other comprehensive income amounted to MEUR -6.4 (-0.6) which includes exchange differences arising during the year on translation of foreign operations and remeasurements of post-employment benefit obligations.

The loss from remeasurements of post-employment benefit obligations in 2024 relates mainly to net negative changes in actuarial assumptions. The total comprehensive income for the year amounted to MEUR 368.9 (392.9).

Consolidated statement of financial position, MEUR

	Notes	12/31/2024	12/31/2023
Assets			
Non-current assets			
Property, plant and equipment	10	316.1	270.7
Right of use assets	18	114.7	62.6
Goodwill	11	2,138.4	2,129.1
Other intangible assets	12	552.9	574.1
Other non-current assets		26.1	4.1
Investments – equity method	4	-	4.7
Deferred tax assets	9	57.9	53.9
Derivative financial instruments	22	31.6	44.0
		3,237.7	**3,143.2**
Current assets			
Inventories	13	343.2	303.9
Trade and other receivables	14	427.6	356.9
Receivables, parent company	16	288.9	258.3
Current tax receivables		11.0	30.7
Short-term investments	15	200.0	150.0
Cash and cash equivalents	15	166.4	398.4
		1,437.1	**1,498.2**
Total assets		**4,674.8**	**4,641.4**

Comments to the statement of financial position

Assets

Intangible assets are mainly related to goodwill and trademarks with an indefinite useful life and are not subject to amortisation. The change in other intangible assets compared to last year is mainly related to amortisation of intangible assets with a defined useful life, such as proprietary technology, captialised development expenditures and computer software. Investments in property, plant and equipment are mainly related to investments in the factories and the new headquarters in Sweden as well as fixed assets obtained in business combinations.

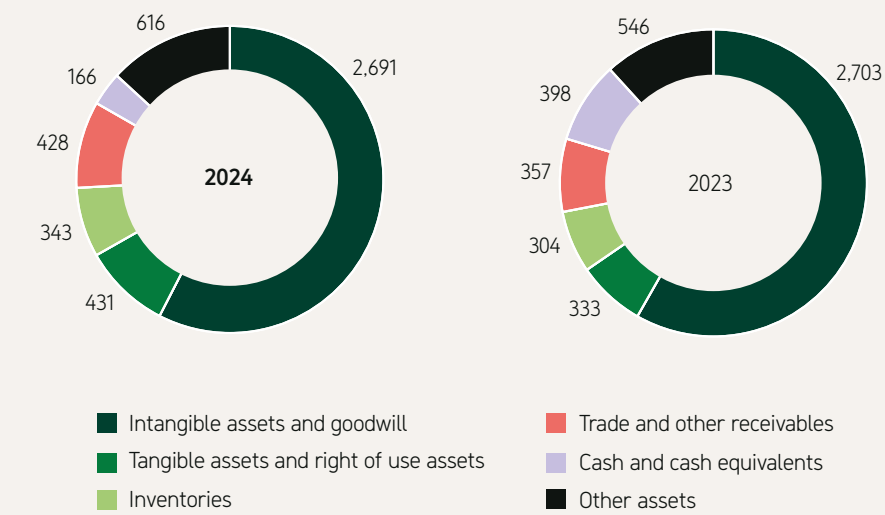
The increase in right-of-use assets refers mainly to the lease contract for the new headquarters and extension and expansion of the lease contract for the factory in Finland.

The derivatives financial instruments refer mainly to cross-currency and interest rate swaps valued at fair value.

Trade receivables and inventories have increased since last year reflecting the underlying sales growth.

Short-term investments refer to interest-bearing deposits of excess cash.

Assets



Consolidated statement of financial position, MEUR

	Notes	12/31/2024	12/31/2023
Equity and liabilities			
Capital and reserves			
Share capital		0.1	0.1
Share premium		999.9	999.9
Foreign currency translation reserve		33.6	28.9
Retained earnings		817.8	952.5
Equity attributable to equity holders of the parent	16	**1,851.4**	**1,981.4**
Non-Controlling interest		**7.7**	**-**
Total equity		**1,859.1**	**1,981.4**
Non-current liabilities			
Bond notes	17, 22	1,789.7	1,792.3
Retirement benefit obligations	19	78.0	62.1
Deferred tax liabilities	9	143.1	143.2
Lease liabilities	17, 18	84.9	39.9
Provisions	20	0.9	0.9
Other interest-bearing financial liabilities	17, 22	11.4	-
Other liabilities		5.8	1.7
		2,113.8	**2,040.1**
Current liabilities			
Trade and other payables	21	388.5	336.0
Current tax liabilities		8.2	12.9
Lease liabilities	17, 18	24.2	22.5
Bond notes	22	272.7	247.8
Provisions	20	0.7	0.7
Other interest-bearing financial liabilities	17, 22	7.6	-
		701.9	**619.9**
Total liabilities		**2,815.7**	**2,660.0**
Total equity and liabilities		**4,674.8**	**4,641.4**

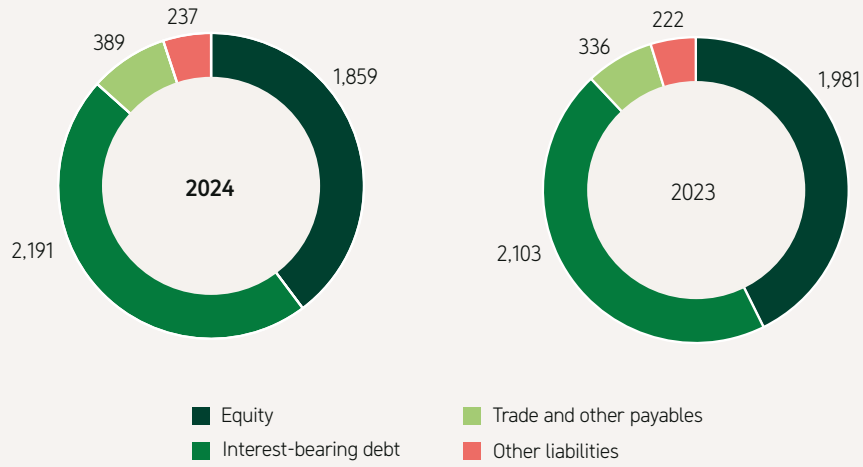
Comments to the statement of financial position

Equity and liabilities

The increase in equity following the positive net result for the year, was offset by the group contribution and the dividend made to the immediate parent company which together were higher than the net result.

A new bond note of MEUR 500.0 has been issued and prior bond notes has been repaid by MEUR 475.2. Trade and other payables have increased compared to last year reflecting higher outstanding payables for inventory and investments compared to last year.

Equity and liabilities



Consolidated statement of changes in equity, MEUR

	Share capital	Share premium	Foreign currency translation reserve	Retained earnings	Attributable to owners of the parent	Non-controlling interest	Total equity
Balance at 31 December 2022	**0.1**	**999.9**	**31.0**	**704.2**	**1,735.2**	**-**	**1,735.2**
Profit or loss for the year	-	-	-	393.5	393.5	-	393.5
Other comprehensive income for the year	-	-	-2.1	1.5	-0.6	-	-0.6
Total comprehensive income for the year	**-**	**-**	**-2.1**	**395.0**	**392.9**	**-**	**392.9**
Group contribution, net of tax	-	-	-	-146.7	-146.7	-	-146.7
Total transactions with owners	**-**	**-**	**-**	**-146.7**	**-146.7**	**-**	**-146.7**
Balance at 31 December 2023	**0.1**	**999.9**	**28.9**	**952.5**	**1,981.4**	-	**1,981.4**
Non-controlling interest on acquisiton of subsidiary						**5.6**	**5.6**
Profit or loss for the year	-	-	-	373.3	373.3	2.0	375.3
Other comprehensive income for the year	-	-	4.7	-11.2	-6.5	0.1	-6.4
Total comprehensive income for the year	**-**	**-**	**4.7**	**362.1**	**366.8**	**2.1**	**368.9**
Dividend				-400.0	-400.0	-	-400.0
Group contribution, net of tax	-	-	-	-96.8	-96.8	-	-96.8
Total transactions with owners	**-**	**-**	**-**	**-496.8**	**-496.8**	**-**	**-496.8**
Balance at 31 December 2024	**0.1**	**999.9**	**33.6**	**817.8**	**1,851.4**	**7.7**	**1,859.1**

Comments on changes in equity

Net profit for the year of MEUR 375.3 (393.5) and other comprehensive income totaling MEUR -6.4 (-0.6) increased the Group's equity while the group contribution (net of tax) and dividend to the parent company during the year of MEUR -496.8 (-146.7) reduced equity. Group contributions refer to distribution of earnings to the immediate parent company Mölnlycke AB. The non-controlling interest of 7.7 (-) refers to the minority holding in Tamer Mölnlycke Arabia LLC.

Consolidated statement of cash flows, MEUR

	Notes	2024	2023
Cash flow from operating activities			
Operating profit		507.0	463.4
Adjustments for:			
Depreciation, amortisation and impairment charges		88.4	81.7
Other items		-1.7	0.7
Operating cash flow before movements in working capital		**593.7**	**545.8**
Decrease / (increase) in inventories		-34.2	28.1
Decrease / (increase) in trade and other receivables		-68.1	-27.5
Increase / (decrease) in trade and other payables		43.1	-21.6
Cash generated from operations		**534.5**	**524.8**
Tax paid		-100.2	-71.9
Cash flow from operating activities		**434.3**	**452.9**
Cash flow from investing activities			
Interest received		15.3	10.7
Investments in intangible assets		-7.6	-6.7
Acquisition of businesses	3	-11.4	-0.3
Investments in property, plant and equipment		-53.2	-37.5
Investment in JV	4	-	-1.8
Short-term financial investments		-50.0	-150.0
Other investments		-21.4	3.0
Cash flow from investing activities		**-128.3**	**-182.6**
Cash flow from financing activities			
Interest paid		-45.9	-36.3
Principal elements of lease payments	17	-25.0	-23.3
Proceeds from bonds and other financial liabilities	17	502.9	397.1
Repurchase of bonds and other financial liabilities	17	-473.3	-251.7
Distribution to the owners of the Group	16	-500.0	-300.0
Cash flow from financing activities		**-541.3**	**-214.2**
Cash flow for the year		**-235.3**	**56.1**
Cash and cash equivalents at the beginning of the year		**398.4**	**343.3**
Effect of foreign exchange rate differences		3.3	-1.0
Cash and cash equivalents at the end of the year	15	**166.4**	**398.4**

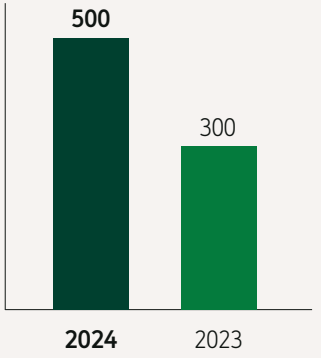
Comments on the statements of cash flows

Cash generated from operations before changes in working capital increased compared to prior year following increased operating profit. The total cash generated from operations decreased due to increases in inventories and trade and other receivables as well as increased tax payments. The decreased cash outflow from investing activities compared to prior year was mainly related to less net short-term investments in bank deposits.

Investments in property, plant and equipment increased as investments were made in the Group's factories as well as in the new headquarters in Sweden.

The decrease in cash flow from financing activities compared to prior year was mainly related to the increased distribution to the owners of the Group. The cash flow from the issuance of a new MEUR 500 bond was offset by the final redemption of the bond with original maturity in 2024 and partly repurchase of the outstanding bond with maturity in 2025. The Group distributed MEUR 500 (300) in cash to the owners of the parent company, Investor AB, on behalf of the immediate parent company Mölnlycke AB.

Distributions to the owners of the Group
EUR million



Notes to the consolidated financial statements

1. Summary of significant accounting policies

General information

Mölnlycke Holding AB (publ), corporate ID number 556693-6729, (the 'Company') is a public limited company incorporated in Sweden with its registered office in Gothenburg. The Company was first registered on 13 December 2005 and undertook no significant activities until it acquired MHC UK Ltd and its subsidiaries on 30 March 2007.

The consolidated financial statements were approved by the Board of Directors and authorised for issue on 27 March 2025.

Basis of preparation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU), which includes interpretations from the IFRS Interpretations Committee (IFRIC).

The consolidated financial statements are presented in millions of Euros rounded to the nearest hundred thousand and are prepared on the historical cost basis modified by the revaluation of certain financial instruments.

The consolidated financial statements of Mölnlycke Holding AB (publ) and its subsidiaries (the 'Group') cover the year ended 31 December 2024. The comparative information covers the year ended 31 December 2023. There were no material discontinued operations in either period and all the results presented refer to continuing operations.

The Company is not required to prepare consolidated financial statements under Swedish Law and these consolidated financial statements are not the Company's Swedish statutory accounts.

The Company's immediate parent company is Mölnlycke AB, corporate ID number 556723-5949, a company incorporated in Sweden, and its ultimate parent company is Investor AB, a company incorporated in Sweden and listed on Nasdaq OMX Stockholm.

Principal accounting policies

Basis of consolidation and equity accounting

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company (its subsidiaries). Control is achieved where the Company has the power to govern the financial and operating policies of an entity to obtain benefits from its activities.

Income and expenses of subsidiaries acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the effective date of acquisition and up to the effective date of disposal, as appropriate. Total comprehensive income of subsidiaries is attributed to the owners of the Company and any non-controlling interests even if this results in the non-controlling interests having a deficit balance.

All intra-group transactions, balances, income and expenses are eliminated in full on consolidation.

Interests in joint ventures are accounted for using the equity method. Under the equity method of accounting, the investments are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses of the joint ventures in profit or loss, and the Group's share of movements in other comprehensive income of the joint ventures in other comprehensive income.

Dividends received or receivable from joint ventures are recognised as a reduction in the carrying amount of the investment. Unrealised gains on transactions between the Group and its joint ventures are eliminated to the extent of the Group's interest in these entities. The carrying amount of equity-accounted investments is tested for impairment when indications of impairments exist.

When necessary, adjustments are made to the financial statements of subsidiaries and joint ventures to bring their accounting policies into line with those used by other members of the Group.

Changes in the Group's ownership interests in existing subsidiaries

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, the profit or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognised in other comprehensive income and accumulated in equity, the amounts previously recognised in other comprehensive income and accumulated in equity are accounted for as if the Company had directly disposed of the relevant assets (i.e. reclassified to profit or loss or transferred directly to retained earnings as specified by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IFRS 9 Financial Instruments or, when applicable, the cost on initial recognition of an investment in an associate or a jointly controlled entity.

Business combinations

All acquisitions that meet the definition in IFRS 3 of a business combination are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Transaction costs are expensed to profit or loss when incurred.

The Group acquired one new subsidiary in 2024. In addition, the Group increased ownership in the prior joint venture and gained control over the entity. There were no acquisitions in 2023.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value at the acquisition date, except that:

- deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognised and measured in accordance with IAS 12 Income Taxes and IAS 19 Employee Benefits respectively
- liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with IFRS 2 Share-based Payment at the acquisition date (see IFRS 2, 3.16.2)
- assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations are measured in accordance with that Standard

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS. For the acquisitions made in 2024, the non-controlling interests have been measured as the proportionate share of the recognised amounts of the acquiree's identifiable net assets.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with IFRS 9, or IAS 37 Provisions, Contingent Liabilities and Contingent Assets, as appropriate, with the corresponding gain or loss being recognised as a financial income or expense in profit or loss.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (i.e. the date when the Group obtains control) and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Executive Officer who is also the chief operating decision-maker.

Foreign currencies

All foreign subsidiaries report in their functional currency being the currency of the primary economic environment in which the subsidiary operates (its functional currency). Transactions denominated in foreign currencies during the year have been translated at the exchange rate prevailing at the respective transaction date. Trade receivables and trade payables and other receivables and payables denominated in foreign currency have been translated at the exchange rates prevailing at the balance sheet date. Such exchange rate gains and losses are included in operating profit.

Exchange rate gains and losses on translation of intra-group receivables from, or liabilities to, a foreign operation that in substance is part of the net investment in the foreign operation are reported in 'Other comprehensive income'. Other foreign currency items have been included in financial income and financial expense.

For the purpose of presenting consolidated financial statements, the assets and liabilities of the Company's foreign subsidiaries are expressed in EUR, the functional currency of the parent company, using exchange rates prevailing on the balance sheet date. Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate. Income and expense items are translated at the average exchange rates for the period. Exchange differences arising, if any, are classified as other comprehensive income and transferred to the translation reserve. Such translation differences are recognised in profit or loss in the period in which the foreign operation is disposed of.

Revenue recognition

The Group's revenue from contracts with customers relates entirely to sale of surgical and wound care products. For all products revenue is recognised at a point in time when products are shipped to the customer and the customer obtains control of the assets. The sales contracts can, to a limited extent, also include various forms of services. These services have however been concluded to not be material in relation to the overall cost of the product to the customer. As a result, no separate performance obligation for services is accounted for.

The evaluations made by the Group in order to identify when a customer obtains control of promised goods is to a large extent based on the shipping terms. This is because shipping terms typically specifies when title passes and will also affect when risk and rewards of ownership transfer to the customer. For the majority of the Group's sale, control is transferred when goods are delivered to the customer since, at that point of time, the customer has legal title to the asset and the significant risks and rewards have been transferred to the customer based on the shipping terms used.

The Group is determining the transaction price based on the consideration the Group expects to be entitled in exchange for transferring promised goods to a customer, excluding sales tax. Where a contract contains elements of variable consideration such as rebates, discounts and bonuses revenue is reported net after reporting a liability for such variable considerations. The liability is calculated based on contractual agreements and historical experience for the respective customer. When sales are made to a distributor the transaction price is reported net after considerations payable to the customer such as distributor fees.

The Group's payment terms are less than one year, hence the contracts do not involve any significant financing component.

The Group has elected to use the practical expedient to not adjust the amount of consideration for the effects of financing components since the period between when the Group transfer a promised good to a customer and when the customer pays for that good is expected to be one year or less at contract inception. For certain countries and customers, when deemed appropriate from a credit risk perspective, payment in advance is requested before delivery of goods. When payment in advance is requested the time from when payment is received until goods are shipped is normally short.

The Group only has very limited performance obligations for right of returns, refunds, warranties and similar obligations. As a result, the Group has not reported any significant liabilities for performance obligations that are not satisfied at the end of the reporting period. Neither have there been any material revenue recognised in the period from performance obligations satisfied in previous periods.

The Group pays some sales commissions that meet the definition for a cost of obtaining a contract. The Group has elected to use the practical expedient to recognise these costs as an expense when incurred if the amortisation period of the asset that the Group otherwise would have recognised is one year or less. Since all sales commissions paid would have been amortised within one year, no costs to obtain or fulfil a contract with a customer has been capitalised as an asset in the Group's balance sheet.

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Dividend income is recognised when the shareholders' rights to receive payment have been established.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for recognition.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred, using the effective interest method.

Retirement benefit costs

Group companies operate various pension schemes. The schemes are generally funded through payments to insurance companies or trustee-administrated funds. The Group has both defined benefit and defined contribution plans. A defined benefit plan is a pension plan that defines an amount of pension benefit that an employee will receive on retirement. A defined contribution plan is a pension plan under which fixed contributions are paid into a separate entity.

Payments to defined contribution retirement benefit plans are recognised as an expense when employees have rendered service entitling them to the contributions. Payments made to state-managed retirement benefit schemes are dealt with in the same way as payments to defined contribution plans where the obligations under the plans are equivalent to those arising in a defined contribution retirement benefit plan.

For defined benefit retirement benefit plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out once a year. Remeasurement, comprising actuarial gains and losses, the effect of changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest) is reflected immediately in the statement of financial position with a charge or credit recognised in other comprehensive income in the period in which they occur. Remeasurement recognised in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Past service cost is recognised in profit or loss in the period of a plan amendment.

Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are categorised as follows:

- service cost (including current service costs, past service costs, as well as gains and losses on curtailments and settlements) – included as a cost in arriving at operating profit
- net interest cost or income – included as a net finance cost or income
- remeasurement – included as part of other comprehensive income

The retirement benefit obligation recognised in the consolidated statement of financial position represents the actual deficit or surplus in the Group's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans. See note 19, Retirement benefit obligations, for further details.

Termination benefits

Termination benefits are payable when employment is terminated before the normal retirement date, or when an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises the termination benefits when it is demonstrably committed to either terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal or providing termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits falling due more than 12 months after the balance sheet date are discounted to present value, if material.

Profit-sharing and bonus plans

The Group recognises a liability and an expense for bonuses when it is contractually obliged to pay a bonus or where there is a past practice that has created a constructive obligation.

Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years (temporary differences) and it further excludes items that are never taxable or deductible (permanent differences).

The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and are accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset realised. Deferred tax is charged or credited to profit or loss, other comprehensive income or directly to equity depending on where the item that the deferred tax relates to is recognised.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis. See note 9, Income tax.

OECD Pillar II legislation

The Group is within the scope of the OECD Pillar II model rules. Pillar II legislation has come into effect for financial years beginning from 31 December 2023 or later. Since the Pillar II legislation was not effective for the financial year 2023, the Group has no related current tax exposure in relation to 2023. The Group has reviewed the safe harbour provisions in relation to 2024 and concluded there are no material current tax exposures. The Group applies the exception to recognising and disclosing information about deferred tax assets and liabilities related to Pillar II income taxes, as provided in the amendments to IAS 12 issued in May 2023.

Group contributions

Group contributions are accounted for directly against equity together with the Group contributions' tax effect.

Property, plant and equipment

Property, plant and equipment (land, buildings, and fixed installations as well as machinery and equipment) are measured at cost less accumulated depreciation and accumulated impairment losses. No depreciation is made for land.

Cost includes the acquisition price, costs directly related to the acquisition, and expenses of making ready the asset until the time when it is ready to be put into operation. Subsequent costs are included in the property, plant and equipment's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other costs for repairs and maintenance are charged to the income statement in the period in which they are incurred.

Depreciation is charged to write off the cost, other than for land and properties under construction, over its expected useful life using the straight-line method. In case where items of property, plant and equipment is comprised of different components each having a cost and expected useful life significantly different than the total item, such components are depreciated separately over each component's useful life. Depreciation commences when the assets are ready for their intended use. Useful lives are reviewed annually. The expected

useful lives of the major categories of property, plant and equipment are:

Properties	25–40 years
Land improvements	30–40 years
Heavy machines	7–15 years
Smaller machines and transport equipment	3–5 years
IT-equipment and other equipment	3–10 years

The gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss but is not included in revenue.

Leasing

The Group has leasing agreements for company cars, office rentals, warehouses and certain factory buildings. Company cars normally have lease terms of around three years while the leasing contracts for offices, warehouses and factories have varying terms for up to 15 years. Leasing contracts for company cars do normally not include any extension options. Outstanding leasing agreements for offices, warehouses and factories include various extension and termination options as well as contracts that are automatically extended for a certain period if not actively being cancelled.

In accordance with IFRS 16, leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Lease liabilities are initially measured at the net present value of the fixed payments during the contract period and periods under extension options that are deemed reasonably certain to be utilised. The Group does not have any leases involving residual value guarantees or variable lease payments. The determination of the lease term for contracts with an extension option is based on the current business plan for each location and all facts and circumstances that create an economic incentive to exercise an extension option such as the cost for moving to a new facility. The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Group, the Group's incremental borrowing rate in a similar economic environment with similar terms, security and conditions is used.

Right-of-use assets are initially measured at the amount of initial measurement of the lease liability plus any lease payments made at or before the commencement date and depreciated over the shorter of the asset´s useful life and the lease term on a straight-line basis. The lease term is reassessed if an option is actually exercised (or not exercised) or the Group becomes obliged to exercise (or not to exercise) it. The assessment of reasonable certainty is only revised if a significant event or a change in circumstances occurs, which affects this assessment, and that is within the control of the Group.

Lease payments are allocated between principal and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short term leases are leases with a lease term of 12 months or less while all leases of office equipment are considered as being of low-value.

Leasehold improvements are capitalised as Property, plant and equipment and amortised over the shorter of their useful life or the remaining term of the lease (including lease renewal periods if the renewal is reasonably assured).

Goodwill

Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business (see 'Business combinations' above) less accumulated impairment losses, if any.

For the purposes of impairment testing, goodwill is allocated to each of the Group's cash-generating units (or groups of cash-generating units) that are expected to benefit from the synergies of the combination.

A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognised directly in profit or loss in the consolidated income statement. An impairment loss recognised for goodwill is not reversed in subsequent periods.

On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

Internally-generated intangible assets

Research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An identifiable internally-generated intangible asset arising from the Group's development projects is recognised if, and only if, all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale
- the intention to complete the intangible asset and use or sell it
- the ability to use or sell the intangible asset
- how the intangible asset will generate probable future economic benefits
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset
- the ability to measure reliably the expenditure attributable to the intangible asset during its development

The amount initially recognised for internally-generated intangible assets is the sum of directly attributable expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no identifiable internally-generated intangible asset can be recognised, the development expenditure is recognised in profit or loss in the period in which it is incurred.

Capitalised development projects are amortised on a straight-line basis over their estimated useful lives, which normally is between 3 to 5 years.

Computer software

Computer software intangible assets are capitalised based on the costs incurred to acquire and bring into use the specific software. These costs are amortised over the expected useful lives, being 3–10 years. Internally developed computer software is capitalised on the same basis as for development expenditures.

Costs associated with maintaining computer software assets are recognised as an expense as incurred.

SaaS (Software-as-a-Service) costs are expensed as incurred. Configuration and customisation services for SaaS software which are performed by the SaaS provider or their subcontractors are considered non-distinct services and are recognised as prepayments which are expensed over the expected SaaS term.

Other intangible assets

Intangible assets separately acquired are initially measured at purchase cost. Intangible assets acquired as part of a business combination are initially measured at fair value.

Proprietary technologies

Proprietary technologies are measured initially at purchase cost and are amortised on a straight-line basis over their estimated useful lives from the time they are available for use. The expected useful lives are reviewed annually and the amortisation period is between 15 and 20 years.

Customer contracts

Customer contracts are stated at cost less accumulated amortisation and impairment losses. Amortisation is charged to the income statement on a straight-line basis over the estimated useful life. The estimated useful lives for customer contracts are based on the expected cash flow regarding the customer contracts acquired and are between 4 and 10 years.

Trademarks and brands

Trademarks and brands are valued independently as part of the fair value of the business acquired from third parties where the trademark has a value which is substantial and long-term and where the trademark can be sold separately from the rest of the business acquired or where it arises from contractual or legal rights. One important element of the strong development of the Group has been the long-term brand building efforts. The trademarks and brands of the Group have a very strong position in the market and several of the Group's

trademarks and brands are therefore considered to have an indefinite useful life. Trademarks and brands that are considered to have an indefinite useful life are subject to an impairment test annually or more often if there is an indication that their value might be impaired. The expected useful lives for trademarks and brands that are not considered to have an indefinite useful life are reviewed annually and the amortisation period is between 5 and 15 years.

Impairment of tangible and intangible assets excluding goodwill

At each balance sheet date, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Intangible assets with indefinite useful lives and intangible assets which are not yet available for use are tested for impairment at least annually, and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

Inventories

Inventories (including raw materials, work in progress, finished goods and spare parts) are stated at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is generally determined on a first in, first out basis. Net realisable value represents the estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. An obsolescence reserve is recognized if the estimated net selling price is lower than the cost of acquisition. To determine any inventory obsolescence, the Group makes estimates and assumptions regarding, among other things, future market conditions and expected sales volumes. The total amount of inventory obsolescence is presented in note 13.

Financial instruments

Financial assets and financial liabilities are recognised on the Group's balance sheet when the Group becomes a party to the contractual provisions of the instrument. Financial assets are classified by reference to the business model within which they are held and their contractual cash flow characteristics. Financial liabilities and equity instruments issued by the Group are classified according to the substance of the contractual arrangements entered and the definitions of a financial liability and an equity instrument.

Trade receivables

Trade receivables are held in a hold to collect business and are at initial recognition measured at fair value and subsequently at amortised cost using the effective interest rate method. The Group applies the IFRS 9 simplified approach to measure credit losses which uses a lifetime expected loss allowance for all trade receivables. All overdue receivables are assessed on an individual basis and a loss allowance is reported for the difference between the asset's carrying amount and the present value of estimated future cash flows for all receivables that are considered doubtful. The same principle is applied to all non-overdue receivables for which other lagging borrower-specific factors are observed. For all receivables not considered doubtful a loss allowance is reported based on an expected loss rate calculated from the historical credit losses experienced over a period of 36 months before the balance sheet day. As of 31 December 2024 this expected loss rate amounts to 0.0437% (0.0369%). In addition, separate calculations and provisions are made for markets for which the expected credit losses expects do deviate significantly from the Group average. Assets for which there is no reasonable expectation of recovery is written off through profit and loss to the extent of expected loss.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and demand deposits and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. In order to be classified as cash and cash equivalents, the maturity of the cash and cash equivalents instruments is three months or less at the time of acquisition. The Group's cash and cash equivalents are held in a hold to collect business and are valued at amortised cost. While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, the identified impairment loss was immaterial. Short-term deposits with maturity at inception exceeding three months (but less than 12 months) are presented as short-term investments and not included as cash and cash equivalents.

Bank loans and other borrowings

Interest-bearing bank loans, overdrafts and other loans are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method. Any difference between the proceeds (net of transaction costs) and the settlement or redemption of borrowings is recognised over the term of the borrowings (see above).

Trade payables

Trade payables are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method.

Derecognition

Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership. Financial liabilities are derecognised when it is extinguished, i.e. when the debt has been paid off or the primary obligation specified in the contract is cancelled or has expired.

Derivative financial instruments

Derivatives are only used for economic hedging purposes or embedded in other agreements such as virtual power purchasing agreements (VPPA) and not used as speculative investments. Derivative financial instruments are initially measured at fair value on the contract date and are remeasured to fair value at sub-sequent reporting dates. All derivatives with a positive fair value are recognised as derivative financial instruments assets and all derivatives with a negative fair value are recognised as derivative financial instruments liabilities.

Changes in the fair value of derivative financial instruments that are not designated as part of a hedging relationship are recognised as operating profit or financial gain, operating loss or financial loss, depending on the objective of using the derivative and whether the derivative is attributable to operational or financial items.

There were no derivatives designated as cash flow hedges in 2024 or 2023, whereby all fair value changes of derivatives are recognised in the income statement. Derivatives embedded in other financial instruments or other non-financial host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contract and the host contract is not carried at fair value with unrealised gains or losses reported in profit or loss.

Provisions

Provisions are recognised when the Group has a present obligation as a result of a past event, and it is probable that the Group will be required to settle that obligation. Provisions are measured at management's best estimate of the expenditure required to settle the obligation at the balance sheet date and are discounted to present value where the effect is material.

Application of new and revised International Financial Reporting Standards (IFRS)

New accounting policies for 2024

There were no new or revised IFRSs or interpretations from the IFRS Interpretations Committee in 2024 that have had any effect on the profit or loss, financial position or disclosures for the Group.

New accounting policies for 2025 and later

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2024 reporting periods.

IFRS 18 Presentation and Disclosure in Financial Statements (effective for annual periods beginning on or after 1 January 2027) will replace IAS 1 Presentation of financial statements, introducing new requirements that will help to achieve comparability of the financial performance of similar entities and provide more relevant information and transparency to users. IFRS 18 will not impact the recognition or measurement of items in the financial statements and its impacts on presentation and disclosures are expected to be limited for the Group.

Standards that are not yet effective have not been early adopted by the Group or are expected to have a material impact on the Group in the future reporting periods or on foreseeable future transactions.

2. Critical accounting judgements and key sources of estimation uncertainty

Inherent in the application of many of the accounting policies used in the preparation of the financial statements is the need for management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the balance sheet date and the reported amounts of income and expenses during the reporting period. Actual outcomes could differ from the estimates and assumptions used. The following summary provides further information about the critical accounting judgments and key sources of estimation uncertainty that could have a significant impact on the results of the Group.

Recoverability of the carrying values of goodwill and indefinite-lived intangible assets

Significant judgment is required to determine the extent to which goodwill and indefinite-lived intangible assets have a value that will benefit the Group over future periods. To assist in making this judgment, the Group undertakes an assessment, at least annually, of their carrying values.

Mölnlycke is organised into four decentralised, customer-centric and empowered Business Areas: Wound Care, Operating Room Solutions (ORS), Gloves and Antiseptics supported by focused Corporate Functions. Management has concluded that the Group's four Business Areas are the lowest level of assets (or groups of assets) for which there are separately identifiable cash flows whereby they meet the definition in IFRS of cash-generating units (CGU's). See note 11 Goodwill for the amount of Goodwill allocated to the respective CGU and the impairment test performed.

Taxation – unrecognised temporary differences

The Group has recognised deferred tax assets in respect of unutilised losses, tax incentives and timing differences. The Group also has losses for which no value has been recognised for deferred tax purposes in these financial statements. These relates to loss-making subsidiaries where the future economic benefit of these timing differences is not deemed to be probable or subsidiaries where the timing differences are of such a nature that their value is dependent only on certain types of profit being earned, such as capital profits. If trading or other appropriate profits are earned in future in these companies, the timing differences may yield benefit to the Group in the form of a reduced tax charge.

In accordance with IAS 12 Income taxes an entity shall recognise a deferred tax liability for all taxable temporary differences associated with investments in subsidiaries except to the extent that 1) the entity is able to control the timing of the reversal of the temporary difference and 2) it is probable that the temporary difference will not reverse in the foreseeable future. The accounting for such temporary differences therefore involves management´s intention regarding the reversal of these temporary differences. Management's assessment is that these criteria to not report a deferred tax liability are fulfilled in relation to certain temporary differences associated with investments in subsidiaries. If these intentions are changed in the future this could result in an increased current or deferred income tax expense for the Group in the period when this occurs. See note 9 for further information on the Group's unrecognised temporary differences and the assessments made in relation to these temporary differences.

Retirement benefits

Retirement benefit accounting requires a number of key assumptions to be made in order to value the Group's obligations and to determine the liabilities to be recognised and the charge to be recognised in the income statement. It is managements responsibility to set the assumptions used in determining the key elements of the costs of meeting the Group's retirement benefit obligations. These assumptions are set after consultation with qualified actuaries. Details of the assumptions used are given in note 19. While management believe that the assumptions used are appropriate, a change in the assumptions used would affect Group profit or loss and financial position.

Climate related risks

In the short term (up to 2026), immediate risks include the need for regulatory compliance and meeting growing customer expectations for sustainable solutions. For instance, this involves adhering to stricter disclosure requirements, such as the CSRD, and investing in lower-carbon supply chains. In the medium term (2026-2030), risks such as potential supply chain disruptions, challenges in sourcing raw materials, and the scaling of lowcarbon technologies are expected to arise. Mölnlycke plans to mitigate these through targeted innovation and supplier engagement. In the long term (beyond 2030), the severity of physical risks, such as extreme weather events and resource scarcity, is anticipated to increase significantly. This will require continuous adaptation strategies to ensure resilience and maintain operational continuity. In the short and medium term, the rising cost of embodied emissions presents an opportunity for Mölnlycke to innovate in low-carbon technologies, optimize energy efficiency, and expand its portfolio with sustainable solutions that support customers' decarbonization goals. The company is committed to leading the transformation of healthcare by continuing to offer and improve products like Custom Procedure Trays®, which reduce waste and optimize resource use, and Biogel® Surgical Gloves, produced with lower material intensity and continuously improved packaging. Mölnlycke's achievement of 100% renewable electricity through a virtual Power Purchase Agreement (vPPA) will continue to reduce embedded emissions and stabilize energy costs, making the company's operations more resilient to market volatility and improving its long-term cost efficiency. Additionally, Mölnlycke is leveraging digital supply chain solutions to optimize transport, reduce emissions, and uses Life Cycle Assessments (LCA) to make informed decisions and support customers in their decarbonization journey. The company's circular economy initiatives, such as closed-loop systems for single-use items, will present significant business opportunities, driving waste reduction and sustainability in healthcare. Overall the Group does not see a significant risk resulting in a material adjustment to the carrying amounts of any assets or liabilities within the next financial year due to climate related risks.

3. Business combinations

Tamer Mölnlycke Arabia LLC

In 2021 the Group established a Joint Venture (JV) in Saudi Arabia, Tamer Mölnlycke Arabia LLC ("TMC"), to manufacture procedure trays for the Saudi Arabian and Middle East region. The JV was governed by the Joint Venture and Shareholders' agreement ("the Agreement") between the Group, Farouk Maamoun Mohammed Said Tamer Industries Holding ("Tamer") and TMC. Mölnlycke's initial ownership and voting rights of this entity was 33.33% and was accounted for using the equity method. In 2023, the Group made an additional capital contribution to the JV of MEUR 1.8 and in total the Group has contributed MEUR 5.7 to the entity since inception.

On 1 June 2024 ("the effective date") an amendment to the Agreement was effective. The amended Agreement added new business lines into TMC to include sales and manufacturing of an increased range of the Group's products in the Middle East region.

The Agreement also changed the shareholding percentage of the TMC owners where the Group is entitled to 60.00% (prior 33.33%) and Tamer is entitled to 40.00% (prior 66.67%). In connection with the change in shareholding, the Group also provided TMC with the licences to manufacture and sell the increased range of the Group's products in the region.

Since being a part of consolidated Group in 2024, TMC contributed with net sales of MEUR 36.8, EBIT of MEUR 5.1 and net income of MEUR 5.1. Since 1 January 2024, TMC generated net sales of MEUR 36.8, EBIT of MEUR 4.7 and net income of MEUR 4.8.

At the effective date the Group became the majority owner of TMC and from then on, TMC is fully consolidated into the Group's accounts. The measured assets and liabilities recognised as a result of the Agreement are as follows:

Tamer Mölnlycke Arabia LLC	MEUR
Purchase consideration	
Fair value of previously held share	4.8
Total purchase consideration	**4.8**
Recognised assets and liabilities	
Property, plant and equipment	27.8
Cash and cash equivalents	0.7
Other current assets	0.8
Non-current liabilities	-12.9
Deferred tax liabilities	-0.2
Other provisions	-0.1
Other current liabilities	-2.3
Net identifiable assets acquired	13.8
Non-controlling interest	-5.2
Bargain purchase	-3.8
	4.8

A bargain purchase of MEUR 3.8 was recognised in the income statement within other operating income and expenses as the only identifiable purchase consideration from a Group consolidation perspective was the previously held share in TMC. Adding additional Mölnlycke business lines into TMC represents a significant value for TMC going forward, but is not included as an identifiable purchase consideration since the business lines existed in the Group prior to the acquisition. The result of derecognition of the previously held share in the JV was MEUR 0.2 and is included in Other income and expenses.

The acquisition's impact on the Group's cash and cash equivalents was MEUR 0.7, representing the Cash and cash equivalents held by TMC at the effective date.

TMC is operating within all business areas, except Antiseptics. The bargain purchase has not been allocated to a specific business area.

P.G.F. Industry Solutions GmbH

In October 2024 the Group completed the acquisition of P.G.F. Industry Solutions GmbH ("PGF"), the Austrian manufacturer of Granudacyn wound cleansing and moistening solutions. PGF produces and sell their products to other entities in the Group and have no external sales. Since being a part of the consolidated Group in 2024, PGF contibuted with EBIT of MEUR 0.2 and net income of MEUR 0.2. Since 1 January 2024, PGF reached an EBIT of MEUR 0.6 and net income of MEUR 0.5.

The purchase price allocation is preliminary and will be finalized during 2025. All goodwill is attributable to operating segment Wound Care. The acquisition's impact on the Group's cash and cash equivalents was MEUR -12.1, representing the cash purchase price of MEUR 12.1 less acquired cash balance of MEUR 0.0.

P.G.F. Industry Solutions GmbH	MEUR
Purchase consideration	
Net cash payment	12.1
Total purchase consideration	**12.1**
Recognised assets and liabilities	
Property, plant and equipment	0.3
Cash and cash equivalents	0.0
Deferred tax assets and other assets	0.7
Non-current liabilities	-0.3
Other current liabilities	-0.5
Net identifiable assets acquired	0.3
Goodwill	11.8
	12.1

Purchase considerations – cash-flow, MEUR	2024	2023
SastoMed GmbH		
Earn-out payments	-	-0.3
Tamer Molnlycke Arabia LLC		
Net cash balance at acquisition	0.7	-
P.G.F. Industry Solutions GmbH		
Net purhase price	-12.1	-
Net cash balance at acquisition	0.0	-
Cash flow from investments in subsidiaries	**-11.4**	**-0.3**

4. Group companies

Principal subsidiaries

The Company's only directly held subsidiaries are MHC UK Ltd, (Reg. No. 5886297), Great Britain and MHC Sweden AB (Reg. No. 556716-2150), Sweden. MHC UK Ltd, Great Britain and MHC Sweden AB, Sweden owns, direct and indirect, 100 % of the following companies (unless otherwise stated):

Mölnlycke Health Care Pty Ltd., Australia
Mölnlycke Health Care GmbH, Austria
P.G.F. Industry Solutions GmbH, Austria
Mölnlycke Health Care N.V./S.A., Belgium
Mölnlycke Health Care Brazil Ltda., Brazil
Molnlycke Health Care Vends de Prod. Médicos Ltda., Brazil
Mölnlycke Health Care Inc., Canada
Mölnlycke Health Care Chile SpA., Chile
Molnlycke Healthcare (Shanghai) Co. Ltd., China
Molnlycke Health Care (Suzhou) Co., Ltd, China
Mölnlycke Health Care Adria d.o.o, Croatia
Mölnlycke Health Care Klinipro s.r.o., Czech Republic
Mölnlycke Health Care s.r.o., Czech Republic
Mölnlycke Health Care ProcedurePak s.r.o., Czech Republic
Mölnlycke Health Care A/S, Denmark
M&J Airlaid Products A/S, Denmark
Mölnlycke Health Care OÜ, Estonia
Mölnlycke Health Care Oy, Finland
Mölnlycke Health Care SAS, France
Mölnlycke Health Care GmbH, Germany
Medlock Medical Ltd, Great Britain
Mölnlycke Health Care Ltd., Great Britain
Regent Medical Holdings America Ltd, Great Britain
Regent Medical Ltd, Great Britain
Regent Medical Overseas Ltd, Great Britain
Mölnlycke Health Care Ltd./Kft., Hungary
Molnlycke Health Care Hong Kong Limited, Hong Kong
Molnlycke Health Care India Pvt Ltd, India
Mölnlycke Health Care S.r.l., Italy
Mölnlycke Health Care K.K., Japan
Mölnlycke Health Care Korea Co, Ltd., Korea
Molnlycke Health Care UAB, Lithuania
Molnlycke Health Care Sdn Bhd., Malaysia
Molnlycke Health Care Sales Sdn Bhd., Malaysia
Molnlycke Health Care KH Property Sdn Bhd, Malaysia
Mölnlycke Health Care B.V., Netherlands
Mölnlycke Health Care AS, Norway
Mölnlycke Health Care Polska Sp. z o.o., Poland
Mölnlycke Health Care LDA., Portugal
Mölnlycke Health Care Asia Pacific Pte. Ltd, Singapore
Mölnlycke Health Care Slovakia s.r.o. Slovakia
Mölnlycke Health Care S.L., Spain
Mölnlycke Health Care South Africa (Pty) Ltd, South Africa
Mölnlycke Health Care AB, Sweden
Mölnlycke IP AB, Sweden
Sälöknapp AB, Sweden
Mölnlycke Health Care S.A., Switzerland
Mölnlycke Health Care (Thailand) Ltd., Thailand
Mölnlycke Health Care Sales (Thailand) Co., Ltd., Thailand
Mölnlycke Health Care Taiwan Co. Ltd., Taiwan
Mölnlycke Health Care US LLC, USA
Mölnlycke Manufacturing US LLC, USA
Molnlycke Middle East & North Africa Reg HQ Ltd, Saudi Arabia
Tamer Mölnlycke Arabia LLC, Saudi Arabia (60%)

Interests in joint ventures

Up until 1 June 2024, the Group had a share of 33.33% in the Joint Venture Tamer Mölnlycke Arabia LLC. As of 1 June 2024, the ownership has changed to 60.00% (refer to note 3). After the change in ownership the entity is fully consolidated into the Group. The result presented below represents the result for the JV up until 1 June 2024.

MEUR	2024	2023
Tamer Mölnlycke Arabia LLC		
Carrying amount	-	4.7
Group share of:		
Result from continuing operations	0.3	-0.6
Other comprehensive income	-	-
Total comprehensive income	**0.3**	**-0.6**

Specification of holdings of shares and participations in Associates and Joint Ventures (2023)

Name of associated company or Joint Venture	Registered office (city, country)	Registration number	Number of shares held	Share of voting power (%)	Proportion of equity (%)
Tamer Mölnlycke Arabia LLC	Jeddah, Saudi Arabia	4,030,411,421	1,299,870	33.33	33.33

The Group has no contingent liabilities relating to the joint venture other than the responsibility of the Group for the quality of items supplied by Mölnlycke to the company in accordance with normal delivery and commercial terms.

5. Segment information

Mölnlycke has a reporting structure with four decentralised, customer-centric and empowered Business Areas: Wound Care, ORS (Operating Room Solutions), Gloves and Antiseptics supported by focused corporate functions. Information reported to the Group's chief operating decision-maker for the purposes of resource allocation and assessment of segment performance is focused on these four Business Areas. Management has made an assessment and concluded that these Business Areas are the Group's reportable segments under IFRS 8.

The Wound Care product segment specialises in providing products for the treatment of acute wounds, caused by burns, trauma and surgery, and the treatment of chronic wounds, including diabetic foot ulcers and venous leg ulcers – as well as the treatment and prevention of pressure ulcers.

The ORS product segment specialises in providing single-use surgical products serving customer needs for operating room efficiency and protection of patients and health care workers. Products include drapes (patient and equipment drapes), staff clothing (gowns, headwear, facemasks, and scrub suits), surgical instruments, components and custom procedure trays.

The Gloves segment provides high quality and reliable gloves to the surgical staff. Mölnlycke gloves are designed to offer optimised comfort and fit as well as extra protection from blood-borne infection and are used as a double glove solution.

The Antiseptics segment provides antiseptic products which are used in pre- and post-operative washing and provides lasting antibacterial protection for the skin.

Information regarding the Group's reportable segments is presented in the following tables.

	2024					
MEUR	Wound Care	OR Solutions	Gloves	Antiseptics	Unallocated	Total
Segment revenue per region						
Europe/Middle East/Africa	600.4	491.5	76.3	14.6	-	1,182.8
Americas	463.1	6.4	164.1	51.3	-	684.9
Asia Pacific	159.9	27.1	9.4	0.1	-	196.5
Total segment revenue	1,223.4	525.0	249.8	66.0	-	**2,064.2**
whereof through distributors	1,015.9	133.2	191.3	59.4	-	1,399.8
whereof directly to customers	207.5	391.8	58.5	6.6	-	664.4
Share of result in associates and joint ventures	-	0.3	-	-	-	**0.3**
Segment EBITDA	490.1	49.8	47.8	3.5	-	**591.2**
Exceptional items	-	-	-	-	4.2	**4.2**
Depreciation, amortisation and impairment charges	-51.4	-19.4	-12.8	-0.7	-4.1	**-88.4**
Operating profit	438.7	30.4	35.0	2.8	0.1	**507.0**
Net finance costs	-	-	-	-	-30.2	**-30.2**
Profit before tax						**476.8**
Income tax	-	-	-	-	-101.5	**-101.5**
Profit for the year						**375.3**
Assets	513.8	390.1	186.9	87.6	3,496.4	**4,674.8**
Investments in associates and joint ventures	-	-	-	-	-	**-**
Additions to non-current assets*	82.1	27.4	15.6	2.7	-	**127.8**
Liabilities	51.3	52.8	11.7	3.1	2,696.8	**2,815.7**

	2023					
MEUR	Wound Care	OR Solutions	Gloves	Antiseptics	Unallocated	Total
Segment revenue per region						
Europe/Middle East/Africa	559.0	463.5	75.3	11.6	-	1,109.4
Americas	425.6	5.9	155.6	41.1	-	628.2
Asia Pacific	148.8	27.1	9.0	1.0	-	185.9
Total segment revenue	1,133.4	496.5	239.9	53.7	-	**1,923.5**
whereof through distributors	960.6	122.3	181.5	49.8	-	1,314.2
whereof directly to customers	172.8	374.2	58.4	3.9	-	609.3
Share of result in associates and joint ventures	-	-0.6	-	-	-	**-0.6**
Segment EBITDA	463.6	35.6	42.8	3.1	-	**545.1**
Exceptional items	-	-	-	-	-	**-**
Depreciation, amortisation and impairment charges	-50.0	-19.4	-11.5	-0.8	-	**-81.7**
Operating profit	413.6	16.2	31.3	2.3	-	**463.4**
Net finance costs	–	–	–	–	24.0	**24.0**
Profit before tax						**487.4**
Income tax	–	–	–	–	-93.9	**-93.9**
Profit for the year						**393.5**
Assets	443.2	318.7	173.4	55.1	3,651.0	**4,641.4**
Investments in associates and joint ventures	-	1.8	-	-	-	**1.8**
Additions to non-current assets*	38.5	9.6	12.1	1.3	-	**61.5**
Liabilities	44.6	41.3	8.8	3.1	2,562.2	**2,660.0**

* The amounts of additions to non-current assets, other than financial instruments and deferred tax assets.

Segment assets are reconciled to total assets as follows	2024	2023
Segment assets for reportable assets	1,178.4	990.4
Unallocated:		
Goodwill	2,138.4	2,129.1
Trademark, Technology & Customer contracts	518.7	535.7
Deferred tax asset	57.9	53.9
Current tax receivables	11.0	30.7
Cash and cash equivalents	166.4	398.4
Receivables, parent company	288.9	258.3
Short-term investments	200.0	150.0
Other	115.1	94.9
Total assets	**4,674.8**	**4,641.4**

Revenue reported above represents revenue generated from external customers. There were no inter-segment sales in the year (2023: Nil).

The accounting policies of the reportable segments are the same as the Group's accounting policies described in note 1. Segment profit (EBITDA) represents the earnings before interest, tax, depreciation, amortisation and impairment charges earned by each segment excluding exceptional items. This is the principal measure reported to the chief operating decision maker for the purposes of resource allocation and assessment of segment performance.

The only liability that is provided on a regular basis to the chief operating decision maker on a segment level is Trade accounts payable. The total of the reportable segments' liabilities does equal the total Trade accounts payable reported in the Group's balance sheet, please refer to note 21.

Geographical information non-current assets, MEUR	12/31/2024	12/31/2023
Sweden	87.0	52.8
Czech Republic	58.5	64.1
Finland	78.9	58.8
Malaysia	95.1	88.2
U.S.	51.0	53.7
Other countries	94.5	54.1
Total	**465.0**	**371.7**

Non-current assets included in the table above comprise property, plant and equipment, right-of-use assets, capitalised development expenditure and computer software. Goodwill and other intangible assets that have been recognised as a result of the acquisition of geographically diverse subsidiaries (trademarks and brands, proprietary technologies and customer contracts) have not been allocated to different geographical areas and are not included in non-current assets in the above table.

6. Revenue from contracts with customers

The Group's revenue from contracts with customers relates entirely to sale of products. For all products, control is transferred and revenue is recognized at a point in time when products are shipped to the customer and the customer obtains control of the assets. The Group derives revenue in the following reportable segments, geographical regions and sales channels. Revenue from external customers is allocated to geographical area by the location of the legal entity in which the revenue is recorded. There were no inter-segment sales in the year (2023: -).

MEUR	2024	2023
Geographical information		
Sweden	68.0	62.1
France	206.0	207.9
UK	149.9	137.6
Europe (excl. Sweden, France and UK), Middle East and Africa	758.9	701.8
Total Europe/Middle East/Africa	**1,182.8**	**1,109.4**
U.S.	610.0	559.7
Americas (excl U.S.)	74.9	68.5
Total Americas	**684.9**	**628.2**
Asia Pacific	**196.5**	**185.9**
Total	**2,064.2**	**1,923.5**
Sales channels		
Through distributors	1,399.8	1,314.2
Directly to customers	664.4	609.3
Total	**2,064.2**	**1,923.5**

7. Operating costs by nature

The Group classifies operating costs in its income statement according to function. The Group's operating costs can be analysed by their nature as follows:

Operating cost, MEUR	2024	2023
Raw materials and finished goods	-675.9	-627.3
Personnel costs	-536.6	-488.2
Depreciation, amortisation and impairment charges	-88.4	-81.7
Other operating expenses	-258.4	-263.6
	-1,559.3	**-1,460.8**

Other operating income and expenses, MEUR	2024	2023
Insurance compensation	-	1.0
Sales to related parties	1.3	0.6
Sales of intangible assets	5.3	–
Government fees	-2.8	–
Impairment charges and write-downs	-3.9	-
Bargain purchase	3.8	-
Other	-2.0	-0.3
	1.8	**1.3**

8. Finance income and finance costs

Finance income, MEUR	2024	2023
Interest income		
Financial assets at amortised cost		
Cash and cash equivalents	17.1	13.9
Receivables parent company, net	13.1	10.2
	30.2	**24.1**
Revaluation gain - net		
Financial assets and financial liabilities at Fair value through profit and loss		
Derivative financial instruments	**-**	**52.1**
Total finance income	**30.2**	**76.2**

Finance costs, MEUR	2024	2023
Interest expenses		
Financial liabilities at amortized cost		
Borrowings	-42.7	-28.4
Interest on derivative instruments	-8.5	-6.9
Other interest cost	-6.8	-4.9
	-58.0	**-40.2**
Revaluation loss - net		
Financial assets and financial liabilities at Fair value through profit and loss		
Derivative financial instruments	-12.2	-
Other financial investments	0.8	-
	-11.4	**-**
Other financial items		
Currency gain/loss	7.3	-11.4
Other financial items	1.7	-0.6
	9.0	**-12.0**
Total finance costs	**-60.4**	**-52.2**

9. Income tax

MEUR	2024	2023
Income tax expense for the period		
Current tax	-102.7	-98.5
Deferred tax	1.2	4.6
	-101.5	**-93.9**
Income tax recognised in other comprehensive income		
Current tax: Exchange difference on foreign operations	2.5	0.3
Deferred tax: Remeasurment of defined benefit pension plans	3.1	-0.6
	5.6	**-0.3**
Income tax recognised directly in equity		
Current tax: Group contribution	25.1	38.1
	25.1	**38.1**
Total tax for the period		
Total current tax	-75.2	-60.1
Total deferred tax	4.3	4.0
Total	**-70.9**	**-56.1**

Numerical reconciliation of income tax expense, MEUR	2024	2023
Profit before tax	476.8	487.4
Tax at the Swedish domestic income tax rate of 20.6%	-98.2	-100.4
Tax effect of expenses that are not tax deductible	-2.8	-2.1
Tax effect of income that is not taxable	2.2	0.1
Difference in tax rates in foreign subsidiaries	-9.0	-3.9
Adjustments to taxes for previous periods	1.3	-1.2
Change of tax rates	-0.3	-0.1
Tax effect of recognition and derecognition of tax losses and tax incentives	-1.1	11.9
Other	6.4	1.8
Income tax expense for the period	**-101.5**	**-93.9**

Movements in net deferred tax balance, MEUR	2024	2023
Net liability at the beginning of the year	**89.3**	**92.8**
Charged /(credited) to profit or loss for the year	-1.2	-4.6
Charged /(credited) to other comprehensive income	-3.1	0.6
Business combinations	-0.1	-
Exchange rate differences	0.3	0.5
Net liability at the end of the year	**85.2**	**89.3**

Deferred tax assets and liabilities attributable to, MEUR	12/31/2024	12/31/2023
Deferred tax assets		
Property, plant and equipment	0.9	0.7
Goodwill	14.3	14.4
Other intangible assets	6.7	5.4
Inventories	23.0	20.3
Accounts receivable	1.1	1.3
Retirement benefit obligations	9.0	6.4
Other accruals, provisions and liabilities	11.6	10.3
Tax loss carry forward and tax incentives	7.9	11.7
Gross total	**74.5**	**70.5**
Net of deferred tax liabilities	-16.6	-16.6
Net total	**57.9**	**53.9**
Deferred tax liabilities		
Property, plant and equipment	26.2	25.3
Goodwill	16.7	14.3
Other intangible assets	109.5	111.1
Fair value derivatives	6.1	9.1
Other	1.2	0.0
Gross total	**159.7**	**159.8**
Net of deferred tax assets	-16.6	-16.6
Net total	**143.1**	**143.2**

Tax losses, MEUR	12/31/2024	12/31/2023
Unused tax losses of which no deferred tax asset has been recognised	26.6	33.0
Potential tax benefit	6.6	8.8

No deferred tax asset has been recognised for certain subsidiaries where the uncertainty exists if the Group will have the specific type of income (such as non-trading income in specific entities) in the jurisdiction of origin that is needed to utilize these losses or if the unused tax losses being incurred by a dormant subsidiary that is not likely to generate taxable income in the foreseeable future. The unused tax losses for these entities can be carried forward indefinitely. Tax incentives are recognised when it is probable that the entity will generate sufficient taxable profit to utilise such incentives and all other requirements to obtain the incentives are fullfilled at the closing day.

Unrecognised temporary differences, MEUR	12/31/2024	12/31/2023
Temporary differences relating to investments in subsidiaries for which deferred tax liabilities have not been recognised:		
Foreign currency translation[1)]	278.5	238.0
Undistributed earnings[2)]	28.1	33.4
	306.6	**271.4**
Unrecognised deferred tax liability relating to the above temporary differences	60.2	52.4

1) The Swedish Council for Advance Tax Rulings has in 2019 interpreted Swedish tax law in relation to exchange differences on EUR denominated financial assets in Swedish entities with EUR as reporting currency. Within the Group's holding structure, external funding denominated in EUR is raised in one of the holding companies and distributed to the Group's operating entities through a EUR denominated intercompany loan. According to the interpretation in the advanced tax ruling, an unrealized taxable foreign exchange gain exists on this intercompany loan that however will be taxable, triggering a negative cash flow effect, only when the loan is close to fully repaid. The Group has the full decisive power to decide if and when to have this loan repaid and the Group has no intention to do so within a foreseeable future. In accordance with IAS 12 Income taxes the Group has therefore not reported any deferred tax liability for this temporary difference.

2) The Group's production entity in Thailand has undistributed earnings which, if paid out as dividends, would be subject to a 10% withholding tax. An assessable temporary difference exists, but no deferred tax liability has been recognised as the Group is able to control the timing of distributions from this subsidiary and is not expected to distribute these profits in the foreseeable future.

10. Property, plant and equipment

MEUR	Properties	Land and land improvements	Machinery	Equipment	Total
At 1 January 2023					
Acquisition cost	125.5	5.3	326.9	94.3	552.0
Accumulated depreciation and impairment	-40.3	0.0	-177.7	-58.2	-276.2
Net book amount	**85.2**	**5.3**	**149.2**	**36.1**	**275.8**
Year ended 31 December 2023					
Opening net book amount	**85.2**	**5.3**	**149.2**	**36.1**	**275.8**
Additions	1.7	0.0	17.3	18.5	37.5
Disposals	0.0	–	-0.1	-0.3	-0.4
Depreciations	-4.7	0.0	-20.7	-7.0	-32.4
Reclassifications	0.1	–	13.5	-13.7	-0.1
Exchange differences	-3.7	-0.1	-4.9	-1.0	-9.7
Closing net book amount	**78.6**	**5.2**	**154.3**	**32.6**	**270.7**
At 31 December 2023					
Acquisition cost	123.6	5.2	352.7	97.8	579.3
Accumulated depreciation and impairment	-45.0	0.0	-198.4	-65.2	-308.6
Net book amount	**78.6**	**5.2**	**154.3**	**32.6**	**270.7**
Year ended 31 December 2024					
Opening net book amount	**78.6**	**5.2**	**154.3**	**32.6**	**270.7**
Business combinations	27.3	–	–	0.1	27.4
Additions	6.7	–	14.9	26.2	47.8
Disposals	-0.3	-0.1	-0.1	-0.1	-0.6
Depreciations	-4.7	0.0	-22.4	-7.9	-35.0
Reclassifications	1.1	0.1	1.4	-2.6	0.0
Write-down	-1.3	–	-2.6	0.0	-3.9
Exchange differences	3.5	0.2	5.5	0.5	9.7
Closing net book amount	**110.9**	**5.4**	**151.0**	**48.8**	**316.1**
At 31 December 2024					
Acquisition cost	161.9	5.4	374.4	121.9	663.6
Accumulated depreciation and impairment	-51.0	0.0	-223.4	-73.1	-347.5
Net book amount	**110.9**	**5.4**	**151.0**	**48.8**	**316.1**

11. Goodwill

MEUR	2024	2023
At the beginning of the year	**2,129.1**	**2,129.2**
Recognised on the acquisition of subsidiaries (note 3)	11.8	-
Exchange differences	-2.5	-0.1
At the end of the year	**2,138.4**	**2,129.1**

Goodwill has been allocated to the Group's cash generating units (CGUs), which corresponds to the Group's four Business Areas, as follows:

MEUR	12/31/2024	12/31/2023
Wound Care	1,433.7	1,424.4
OR Solutions	91.4	91.4
Gloves	547.4	547.4
Antiseptics	65.9	65.9
	2,138.4	**2,129.1**

Impairment test of goodwill

The impairment testing is based on a calculation of value in use in which assumptions of future growth and operating margins are important components. The growth rates and margins used to estimate future performance are based on the Group's forecasts and strategic planning process and are consistent with past performance and experience of growth rates and margins achievable in the Group's key markets. In the Group's impairment assessment special consideration is taken to account for changes in the macroeconomic environment, changes in interest rates and inflation and other uncertainties.

The value in use calculation is based on input data where the first five years' cash-flows are derived from the Group's forecasting and strategic planning process. A growth rate of 2% (2%) has been used to extrapolate the cash flows for the years beyond this five-year period, which is considered reasonable given historical growth, geographical positioning and industry fundamentals. Estimated cash flows have been discounted using a pre-tax discount rate of 9.6% (9.1%) for Wound Care, 11.9% (11.4%) for ORS, 9.6% (9.1%) for Gloves and 13.2% (12.6%) for Antiseptics.

No impairment requirement has been identified since the carrying values are lower than calculated value in use. The assessment is that no reasonable possible change in any key assumption will lead to a calculated recoverable amount that is lower than the carrying amount, except for Business area Gloves where negative changes in any of the key assumptions would require impairment of goodwill.

If the forecasted EBITDA margin used in the value in use calculation for Gloves had been 1% lower than management's estimates at 31 December 2024, all else equal, the Group would have had to recognise an impairment against the carrying amount of goodwill for the Gloves segment of MEUR 40.

If the pre-tax discount rate used was 1% higher (10.6% instead of 9.6%), all else equal, the Group would have had to recognise an impairment against the carrying amount of goodwill for Gloves of MEUR 86.

These changes represent reasonably possible variations to management's forecasts. In the prior year, management's assessment was that there were no reasonably possible changes in any of the key assumptions that would have resulted in an impairment write-down for goodwill allocated to Gloves or the other segments.

12. Other intangible assets

MEUR	Trademarks and brands	Proprietary technology	Customer contracts	Capitalised development expenditure	Computer software	Total
At 1 January 2023						
Acquisition cost	499.0	224.2	8.8	64.5	87.9	884.4
Accumulated amortisation and impairment	-14.5	-157.6	-7.3	-46.7	-62.7	-288.8
Net book amount	**484.5**	**66.6**	**1.5**	**17.8**	**25.2**	**595.6**
Year ended 31 December 2023						
Opening net book amount	484.5	66.6	1.5	17.8	25.2	595.6
Additions	–	–	–	5.2	1.5	6.7
Disposals	–	–	–	–	0.0	0.0
Amortisations	-1.9	-14.3	-0.5	-4.2	-7.1	-28.0
Reclassifications	–	–	–	–	0.1	0.1
Exchange differences	0.0	-0.3	0.1	0.2	-0.3	-0.3
Closing net book amount	**482.6**	**52.0**	**1.1**	**19.0**	**19.4**	**574.1**
At 31 December 2023						
Acquisition cost	499.0	223.9	8.9	69.9	89.2	890.9
Accumulated amortisation and impairment	-16.4	-171.9	-7.8	-50.9	-69.8	-316.8
Net book amount	**482.6**	**52.0**	**1.1**	**19.0**	**19.4**	**574.1**
Year ended 31 December 2024						
Opening net book amount	482.6	52.0	1.1	19.0	19.4	574.1
Additions	–	–	–	3.4	4.2	7.6
Disposals	–	–	–	-0.1	–	-0.1
Amortisations	-1.5	-14.3	-0.2	-4.9	-5.6	-26.5
Reclassifications	–	–	–	–	0.1	0.1
Exchange differences	-0.1	-0.9	-0.1	-0.6	-0.6	-2.3
Closing net book amount	**481.0**	**36.8**	**0.8**	**16.8**	**17.5**	**552.9**
At 31 December 2024						
Acquisition cost	498.9	223.0	8.8	72.6	92.9	896.2
Accumulated amortisation and impairment	-17.9	-186.2	-8.0	-55.8	-75.4	-343.3
Net book amount	**481.0**	**36.8**	**0.8**	**16.8**	**17.5**	**552.9**

Amortisation and impairment charges are included in the following line items in the Group's Income Statement:

MEUR	Trademarks and brands	Proprietary technology	Customer contracts	Capitalised development expenditure	Computer software	Total
2024						
Cost of sales	–	-14.3	–	–	-1.7	-16.0
Selling costs	-1.5	–	-0.2	–	-1.3	-3.0
Administrative costs	–	–	–	–	-2.5	-2.5
Research and development costs	–	–	–	-4.9	-0.1	-5.0
Total	**-1.5**	**-14.3**	**-0.2**	**-4.9**	**-5.6**	**-26.5**
2023						
Cost of sales	–	-14.3	–	–	-2.0	-16.3
Selling costs	-1.9	–	-0.5	–	-1.7	-4.1
Administrative costs	–	–	–	–	-3.1	-3.1
Research and development costs	–	–	–	-4.2	-0.3	-4.5
Total	**-1.9**	**-14.3**	**-0.5**	**-4.2**	**-7.1**	**-28.0**

Trademarks and brands assessed as having an indefinite useful life are allocated to the Group's cash generating units (CGUs) as follows:

MEUR	12/31/2024	12/31/2023
Wound Care	290.0	290.0
OR Solutions	116.6	116.6
Gloves	56.2	56.2
Antiseptics	4.6	4.6
	467.4	**467.4**

13. Inventories

MEUR	12/31/2024	12/31/2023
Raw materials	92.5	83.1
Work-in-progress	22.3	17.3
Finished goods	231.9	207.0
Consumables	6.1	5.9
Inventories, gross amount	**352.8**	**313.3**
Provision for obsolescence	-9.6	-9.4
Inventories, net after provision for obsolescence	**343.2**	**303.9**

The Group reversed 0.9 (2.0) MEUR of a previous inventory write-down during the year.
The amount reversed has been included in cost of sales in the statement of profit or loss.

14. Trade and other receivables

MEUR	12/31/2024	12/31/2023
Trade accounts receivable		
Accounts receivable, gross	375.0	319.4
Allowance for doubtful debts	-4.9	-4.6
	370.1	**314.8**
Other financial receivables		
Customer invoices to be issued	4.2	3.6
Deposits	0.1	0.1
Other current receivables	7.9	6.3
Accrued interest income	5.1	3.3
	17.3	**13.3**
Financial trade and other receivables	**387.4**	**328.1**
Other current receivables		
VAT	6.5	3.8
Prepaid rent	1.6	1.2
Other prepaid expenses	32.1	23.8
	40.2	**28.8**
Trade and other receivables	**427.6**	**356.9**

Trade accounts receivable do not include any debtors that have been transferred to a financial institution.

Ageing of trade receivables, MEUR:	12/31/2024			12/31/2023		
	Gross amount	Reported allowance	Net amount	Gross amount	Reported allowance	Net amount
Not past due	300.1	-0.1	300.0	254.3	-0.1	254.2
Past due 0–30 days	31.2	0.0	31.2	19.9	0.0	19.9
Past due 31–90 days	17.6	-0.3	17.3	18.5	-0.4	18.1
Past due 91–180 days	10.8	-0.3	10.5	11.4	-0.3	11.1
More than 180 days	15.3	-4.2	11.1	15.3	-3.8	11.5
	375.0	**-4.9**	**370.1**	**319.4**	**-4.6**	**314.8**

Movement in the allowance for doubtful debts, MEUR	2024	2023
At 1 January	**-4.6**	**-4.5**
Impairment losses recognised	-0.4	-1.0
Impairment losses reversed	0.1	0.9
Exchange differences	0.0	0.0
At 31 December	**-4.9**	**-4.6**

15. Cash, cash equivalents and short term investments

MEUR	12/31/2024	12/31/2023
Bank balances	166.4	248.4
Short term bank deposits	-	150.0
Cash and cash equivalents	**166.4**	**398.4**

MEUR	12/31/2024	12/31/2023
Short term bank deposits	200.0	150.0
Short term investments	**200.0**	**150.0**

Cash and cash equivalents is cash and short-term bank deposits held by the Group with a maturity of less than three months at the time of acquisition.

Cash and cash equivalents as of 31 December 2024, includes MEUR 51.9 (33.8) in countries where exchange controls or other legal restrictions apply. Therefore it is not possible to immediately use these liquid funds in other parts of the Group. However, there is normally no limitation to use them for the Group's operation in the respective country.

Short term investments refer to short term bank deposits with a maturity at inception of more than three months but less than 12 months. The deposits carry a fixed interest rate.

16. Capital management

The Group considers the capital that it manages to be the equity attributable to equity holders of the parent as shown in the Group's Consolidated statement of financial position.

The Group's objectives when managing capital are to ensure that the Group has adequate funds to continue as a going concern and sufficient flexibility within the capital structure to fund the ongoing growth of the business and to take advantage of business development opportunities including acquisitions. The Group determines the amount of capital in conjunction with its borrowing requirements, taking into account changes in business risks, future funding requirements and any restrictions contained its borrowing facilities (see note 23). The Group's overall strategy remains unchanged from prior year.

A dividend of MEUR 400.0 (-) was transferred to the parent company Mölnlycke AB. Reported group contribution for 2024 to the parent company Mölnlycke AB amounts to MEUR 121.9 (184.8).

In 2024 cash distributions of MEUR 500.0 (300.0) have been made by the Group to the Group's parent company Mölnlycke AB's shareholders on behalf of Mölnlycke AB. From the Group's perspective this distribution is a part of the settlement of dividends and group contributions from the Group to Mölnlycke AB. The table below presents a roll forward of the Group's net receivable/ liability to its parent company Mölnlycke AB.

MEUR	12/31/2024	12/31/2023
Opening balance	**258.3**	**104.8**
Non-cash transactions		
Group contribution to parent company	-121.9	-184.8
Dividend to parent company	-400.0	-
Capitalised interest	13.1	10.2
Exchange rate differences and other	5.3	6.2
Cash transactions		
Tax paid on behalf of parent company	34.1	21.9
Distribution to the owners of the Group, on behalf of parent company	500.0	300.0
Closing balance	**288.9**	**258.3**

17. Cash flow information

The tables below detail changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes.

			Non-cash changes				
MEUR	01/01/2024	Cash flows	Acquisitions	Amortisation	Exchange differences	Other changes	31/12/2024
Bond notes	2,040.1	20.2	-	2.1	-	-	2,062.4
Lease liabilities	62.4	-25.0	68.4	-	0.2	3.1	109.1
Other interest-bearing liabilities	-	9.4	9.3	-	0.3	-	19.0
	2,102.5	**4.6**	**77.7**	**2.1**	**0.5**	**3.1**	**2,190.5**

			Non-cash changes				
MEUR	01/01/2023	Cash flows	Acquisitions	Amortisation	Exchange differences	Other changes	31/12/2023
Bond notes	1,893.0	145.4	–	1.7	–	–	2,040.1
Lease liabilities	66.9	-23.3	17.3	–	-0.3	1.8	62.4
	1,959.9	**122.1**	**17.3**	**1.7**	**-0.3**	**1.8**	**2,102.5**

Other changes include capitalised interest.

18. Leases

MEUR	12/31/2024	12/31/2023
Balance sheet items		
Right-of-use assets		
Buildings	94.6	48.0
Land	7.6	2.0
Vehicles	12.5	12.6
	114.7	**62.6**
Lease liabilities		
Current	24.2	22.5
Non-current	84.9	39.9
	109.1	**62.4**

MEUR	2024	2023
Additions to the right-of-use assets during the year		
Additions	72.4	17.3
Business combinations	1.6	-
	74.0	**17.3**
Amounts included in the consolidated income statement		
Depreciation charge of right-of-use assets		
Buildings	16.0	14.4
Land	0.1	0.0
Vehicles	6.9	6.9
	23.0	**21.3**
Interest expense on lease liabilities	3.0	1.8
Expense relating to short-term leases	0.9	0.8
Expense relating to low-value leases	0.9	1.0
Total cash outflow for leases	**26.7**	**26.9**
Future cash outflows for committed leases not yet commenced	**15.8**	**60.1**

Please refer to Note 1 for the accounting policies followed and information about the nature of the Group's leasing activities and Note 23 for a maturity analysis of lease liabilities.

19. Retirement benefit obligations

Defined contribution plans

In many countries, the Group's employees are covered by defined contribution pension plans. The pension plans primarily entail retirement pensions. The premiums are paid continuously throughout the year by each Group company to separate legal entities, such as insurance companies. The employer's obligation is limited to the premiums the company has undertaken to pay. Under this type of plan, no liability is recognised in the balance sheet, except for accrued contributions.

In Sweden, the total retirement benefit package is a mixed solution, with some parts being defined contribution pension plans and others defined benefit pension plans. The part of the Swedish ITP2 plan (supplementary pensions for salaried employees) concerning family pension, disability pension, and employment group life insurance financed by insurance with Alecta is a defined benefit pension multi-employer plan. The Swedish Financial Accounting Standards Council's Interpretations Committee has however concluded that the information provided by Alecta is not sufficient to be able to account for the Alecta plan as a defined benefit plan. Therefore, the Alecta plan has been reported as a defined contribution plan and this means that premiums paid to Alecta will also be recognized on an ongoing basis as expenses in the period to which they pertain. Alecta's surplus can be distributed to the insurers and/or the insured. At year-end 2024, Alecta's surplus in the form of the collective consolidation level was 162% (158%). For 2025, the Group expects to pay MEUR 0.3 for premiums to Alecta.

During the period the Group expensed MEUR 28.3 (26.1) of contributions to defined contribution plans.

Defined benefit plans

Defined benefit plans are those where the Group's obligation is to provide pension and other post-retirement benefits that participating employees will receive on or after retirement, usually dependent on one or more factors such as age, years of service and compensation. The Group operates defined benefit pension plans for qualifying employees in Sweden, US, Belgium, Germany, Netherlands, Thailand, Italy, Saudi Arabia and France.

The defined benefit plans in Belgium, US and Netherlands are funded, the remainder is unfunded.

The Swedish plan is the most significant defined benefit plan for the Group, representing 58% of the defined benefit obligation and 75% of the net liability at 31 December 2024 (54% and 72% respectively).

The major risks associated with the defined benefit plans are as follows:

- investment risk: The defined benefit obligation is calculated using discount rates set with reference to corporate bond yields. If assets in funded plans underperform this yield it will increase the amount of any deficit
- interest risk: A decrease in corporate bond yields will increase the value of the defined benefit obligation for accounting purposes, although this would be partially offset by an increase in the value of corporate bonds held as assets
- longevity risk: The majority of the obligations are to provide benefits for the life of the plan member so increases in life expectancy will result in an increase in the defined benefit obligation
- salary risk: The majority of the obligations are to provide benefits for plan member based on annual salaries during the last few years of employment. If salaries increase faster than has been assumed this will result in an increase in the defined benefit obligation

The principal assumptions used for the purpose of the actuarial valuations used in preparing the financial statements were as follows:

	Sweden		Others (weighted average)	
	12/31/2024	12/31/2023	**12/31/2024**	12/31/2023
Discount rate	3.1%	4.0%	3.5%	4.1%
Expected rate of salary increases	2.5%	2.4%	2.3%	2.2%
Inflation rate	1.8%	1.7%	2.0%	2.1%

The discount rate is set separately for each country and is determined, in consultation with our local actuaries, by reference to market rates on high quality corporate bonds with a duration and currency that is consistent with the duration and currency of the defined benefit obligation.

This may involve interpolation of bond yield curves where there is no direct match for duration or the market is not deep for matching bond durations.

Other assumptions are based on market conditions in each country.

The amounts recognised in profit or loss in respect of defined benefit plans are as follows:

	Sweden		Others	
MEUR	**2024**	2023	**2024**	2023
Current service cost	1.2	0.9	1.2	1.4
Past service cost and (gain) or loss from settlements	–	–	–	–
Net interest cost	1.9	1.8	0.6	0.6
	3.1	**2.7**	**1.8**	**2.0**

The total costs above are shown under selling costs MEUR 0.3 (0.5), administrative costs MEUR 1.2 (0.9), cost of goods sold MEUR 0.9 (0.9) and finance costs MEUR 2.5 (2.4).

The amount included in the balance sheet arising from the Group's obligations in respect of its defined benefit plans is as follows:

	Sweden		Others	
MEUR	**12/31/2024**	12/31/2023	**12/31/2024**	12/31/2023
Present value of funded defined benefit obligations	–	–	24.3	23.3
Fair value of plan assets	–	–	-23.7	-21.3
Deficit	**–**	**–**	**0.6**	**2.0**
Present value of unfunded defined benefit obligations	58.8	45.0	18.6	15.1
Net liability arising from defined benefit obligations	**58.8**	**45.0**	**19.2**	**17.1**

Movements in the present value of the defined benefit obligation in the period were as follows:

MEUR	2024	2023
Opening defined benefit obligation	83.4	83.5
Current service cost	2.4	2.3
Interest cost	3.4	3.2
Contributions from plan participants	0.0	0.0
Past service costs and settlements	–	–
Actuarial losses/(gains):		
– Arising from changes in demographic assumptions	-0.1	0.2
– Arising from changes in financial assumptions	15.3	-7.1
– Arising from experience differences	0.8	3.2
Liabilities assumed in a business combination	0.3	–
Benefits paid	-2.7	-1.6
Exchange differences	-1.1	-0.3
Closing defined benefit obligation	**101.7**	**83.4**

Movements in the present value of the plan assets in the period were as follows:

MEUR	2024	2023
Opening fair value of plan assets	21.3	21.7
Interest income	0.9	0.8
Return on plan assets, excluding interest income	1.7	-1.6
Contributions from plan sponsors	0.9	0.9
Contributions from plan participants	0.0	0.1
Settlements	–	–
Benefits paid	-1.3	-0.3
Exchange differences	0.2	-0.3
Closing fair value of plan assets	**23.7**	**21.3**

The major categories of plan assets, are as follows:

MEUR	12/31/2024	12/31/2023
Equity investments	4.4	3.2
Fixed income investments	1.3	1.2
Others investments, principally insurance contracts	18.0	16.9
Closing fair value of plan assets	**23.7**	**21.3**

In Belgium and Netherlands the liabilities are insured. No split of assets underlying the related insurance contracts is available for Belgium or Netherlands and all of the plan assets for those countries are included against the 'other investments' caption. US plan assets are included against the relevant caption.

The actual return on plan assets was MEUR 2.6 (-0.8).

Sensitivity analysis

The sensitivity analysis relating to the main actuarial assumptions used to assess the defined benefit obligation for the Group's most significant defined benefit plan (Sweden) is as follows:

	Change in DBO
Discount rate	
1% increase in the discount rate	-17%
1% decrease in the discount rate	23%
Rate of salary increase	
1% increase in the rate of salary increases	8%
1% decrease in the rate of salary increases	-6%
Inflation rate	
1% increase in the rate of inflation	16%
1% decrease in the rate of inflation	-13%
Longevity	
Plus or minus one year	+/- 3%

These sensitivities have been calculated individually while holding the other assumptions constant.

Maturity of the defined benefit obligation and cash flows expected in 2025

At 31 December 2024 the average maturity of the defined benefit obligations under the Swedish plan is 20 years and the weighted average maturity of the defined benefit obligations under the Group's other plans is estimated at 15 years.

It is estimated that Group company contributions to funded defined benefit plans in 2025 will be MEUR 0.9 (1.1) and that benefit payments from unfunded plans in 2025 will be MEUR 1.8 (1.4).

Direct pensions

Certain current and former employees of the Group have pension benefits in form of direct pensions where the Group pays premiums to capital insurances which are then used to settle the pension expense. Pension premiums to such capital insurances are expensed as the employee performs the services. Direct pensions are presented at net zero in the balance sheet since the capital insurance in full cover the liability for the pension. In case the special payroll tax is not covered by the capital insurance, the special payroll tax is accrued (refer to note 21). The capital insurances are pledged to cover the direct pension liability (refer to note 24).

20. Provisions

	Provision for legal cases		Other		Total	
MEUR	**2024**	2023	**2024**	2023	**2024**	2023
Balance at the beginning of the year	**0.9**	**0.9**	**0.7**	**2.6**	**1.6**	**3.5**
Provision made	–	–	0.1	–	0.1	–
Utilisation of provision	–	–	-0.1	-1.9	-0.1	-1.9
Reversals	–	–	–	–	–	–
Reclassifications	–	–	–	–	–	–
Exchange rate differences	–	–	–	–	–	–
Balance at the end of the year	**0.9**	**0.9**	**0.7**	**0.7**	**1.6**	**1.6**
Included in the balance sheet as:						
Current	–	–	0.7	0.7	0.7	0.7
Non-current	0.9	0.9	–	–	0.9	0.9
Total	**0.9**	**0.9**	**0.7**	**0.7**	**1.6**	**1.6**

21. Trade and other payables

MEUR	**12/31/2024**	12/31/2023
Trade accounts payable	**118.8**	**97.9**
Other financial payables		
Accrued interest expense	23.1	18.6
Deferred consideration	0.5	0.5
Goods received not invoiced	9.3	8.6
Withholding personnel tax liabilities	6.4	6.2
Other liabilities	5.3	3.7
	44.6	**37.6**
Financial trade and other payables	**163.4**	**135.5**
Other current liabilities		
Personnel related liabilities	111.8	99.6
Accrued customer rebates	41.0	34.7
VAT	14.6	17.3
Other accrued expenses	57.7	48.9
	225.1	**200.5**
Trade and other payables	**388.5**	**336.0**

22. Financial assets and financial liabilities

The group holds the following financial instruments:

MEUR	Notes	12/31/2024	12/31/2023
Financial assets			
Financial assets at amortised cost:			
Trade and other receivables	14	387.4	328.1
Receivables, parent company	16	288.9	258.3
Short-term investments	15	200.0	150.0
Cash and cash equivalents	15	166.4	398.4
Other non-current assets		4.2	2.7
Financial assets at fair value through profit or loss (FVPL):			
Other non-current assets		23.2	1.4
Derivative financial instruments at FVPL	23	31.6	44.0
Total financial assets		**1,101.7**	**1,182.9**
Financial liabilities			
Financial liabilities at amortised cost:			
Bond notes	17, 23	2,062.4	2,040.1
Trade and other payables	21	162.9	135.6
Other interest-bearing liabilities	17, 23	19.0	-
Other non-current liabilities		5.8	1.7
Financial liabilities at FVPL:			
Other non-current liabilities		–	-
Trade and other payables	21	0.5	0.5
Derivative financial instruments at FVPL	23	–	–
Total financial liabilities		**2,250.6**	**2,177.9**

Fair value of outstanding bond notes amounts to MEUR 1,995.5 (1,898.4) as of 31 December 2024 considering changes in credit margins and interest rates in the market from drawdown until the balance sheet date.

For all financial instruments except bond notes fair value corresponds to book value as of 31 December 2024 and 31 December 2023.

The following section explains the judgements and estimates made in determining the fair values of the financial instruments that are recognised and measured at fair value in the financial statements. To provide an indication about the reliability of the inputs used in determining fair value, the Group has classified its financial instruments into the three levels prescribed under the accounting standards. An explanation of each level follows underneath the table. There were no transfers between the levels for recurring fair value measurements during the year.

At 31 December **2024**, MEUR	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets at fair value through profit or loss (FVPL):				
Listed equity securities	14.3	–	–	14.3
Unlisted financial instruments	–	–	8.9	8.9
Derivative financial instruments held for trading at FVPL	–	31.4	0.2	31.6
Total financial assets	**14.3**	**31.4**	**9.1**	**54.8**
Financial liabilities				
Financial liabilities at FVPL:				
Deferred consideration	–	–	0.5	0.5
Total financial liabilities	**-**	**-**	**0.5**	**0.5**

At 31 December 2023, MEUR	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets at fair value through profit or loss (FVPL):				
Listed equity securities	0.1	–	–	0.1
Unlisted financial instruments	–	–	1.3	1.3
Derivative financial instruments held for trading at FVPL	–	44.0	–	44.0
Total financial assets	**0.1**	**44.0**	**1.3**	**45.4**
Financial liabilities				
Financial liabilities at FVPL:				
Deferred consideration	–	–	0.5	0.5
Total financial liabilities	**-**	**-**	**0.5**	**0.5**

Level 1:
The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. The quoted market price used for financial assets held by the group is the current bid price. These instruments are included in level 1.

Level 2:
The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined using valuation techniques which maximise the use of observable market data and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2. The fair value of the Group's foreign exchange contracts is calculated as the present value of future cash flows based on the forward exchange rates at the balance sheet date. Other derivatives traded in recent arm's lengths transactions are valued at the transaction price. These instruments are included in level 2.

Level 3:
If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for the Group's holding of unlisted financial instruments and deferred consideration liabilities related to business combinations. The following table presents the changes in level 3 items for the periods ended 31 December 2024 and 31 December 2023:

MEUR	Unlisted financial instruments/derivatives	Deferred consideration
Opening balance 1 January 2023	**0.3**	**0.8**
Payment	–	-0.3
Acquisition	1.0	-
Currency revaluation	–	0.0
Closing balance 31 December 2023	**1.3**	**0.5**
Payment	–	-
Acquisition	7.6	-
Revaluation gain/loss reported in other operating income and expenses	0.2	-
Currency revaluation	–	0.0
Closing balance 31 December 2024	**9.1**	**0.5**

The valuation of unlisted equity securities is based on the most recent share issue adjusted for significant development in the company and in the market including changes in currency rates. Deferred considerations are valued based on expected cash outflows originating from earn-out clauses in share purchase agreements.

The expected cash flows are determined based on the most recent prognosis of the basis for the earn-outs, discounted with a risk-adjusted discount rate.

23. Financial risk management

The Group is exposed to financial risks such as currency risk, interest rate risk, liquidity and refinancing risk as well as credit and counterparty risk. The financial policy of the Group, adopted by the Board, outlines the rules for management and mitigations of the financial risks that are generated by the Group's commercial activities. This includes written principles on the use of financial derivatives consistent with the Group's risk management strategy. The Group does not use derivative financial instruments for speculative purposes.

Organisation and activities
The Group's treasury activities are centralised in order to capitalise on economies of scale, consolidate risk exposures and facilitate follow-up and control. Financial activities are managed from Group Treasury, a function within Mölnlycke Health Care AB, which acts as the Group's in-house bank. All financial transactions in the Group are managed and coordinated by the in-house bank that transacts with external counterparties in the foreign currency and interest rate markets.

The Group's executive forum for treasury matters is the Treasury Committee, which includes CFO, Group Treasurer and Treasury Manager. The Treasury Committee proposes changes to the Group's financial policy which is adopted annually by the Board. The Treasury Committee meets on a monthly basis to follow up treasury activities versus the financial policy. Any deviation to Finance Policy is reported to the Board by the CFO.

Currency exposure and risk
Through its international activities, the Group is exposed to fluctuations in exchange rates. Exchange rate fluctuations could affect the Group's reported cash flow, income statement and balance sheet negatively. Currency exposure arises when translating the balance sheets and income statements for subsidiares to the Group's reporting currency (translation exposure) and from transactions in currencies which are different from the reporting entities' functional currency (transaction exposure). The currency impact on EBITDA is the main measure where the Group's management follows the currency exposure of the Group. EBITDA is defined as the earnings before interest, tax, depreciation, amortisation and impairment charges, excluding exceptional items.

Currency exposure in EBITDA
Transaction exposure from commercial flows in foreign currency is generated from internal sales and purchases between manufacturing and sales companies with different functional currencies as well as external sales and purchases in foreign currency. A majority of the Group's internal transactions flows through Mölnlycke Health Care AB, a company with functional currency SEK. As a result, there is a transactional surplus in this entity of the currencies the Group has its largest sales in (EUR, USD, GBP, CHF etc.) and a transactional deficit of currencies the Group has expenses in, for example production facilities and head quarter functions (SEK, MYR, CZK, THB etc.). In general, an appreciation of the the currencies that the Group has its largest sales in and a depreciation of the currencies that the Group has expenses in has a positive impact on the Group's EBITDA.

Also the Group's translation exposure from the consolidation of EBITDA in foreign subsidiaries affects reported earnings. A large portion of the Group's EBITDA is generated in Mölnlycke Health Care AB with functional currency SEK. As a result, there is a large EUR/SEK translation exposure when consolidating this entity. This exposure is to a large extent offset by the SEK/EUR transaction exposure this entity generates since the major part of EBITDA is generated from transactions in EUR or other foreign currencies.

Currency exposure in equity

Foreign currency translation exposure in equity arises when the balance sheets of foreign subsidiaries with other functional currencies are translated into EUR. The below table shows net effect on the Group's equity on the balance sheet day from a depreciation(-)/appreciation(+) of 10% of EUR against all other currencies. The calculation is based on the equity of each legal entity in the Group split by functional currency and includes the effects from intra-group receivables and liabilities that in substance is part of the net investment in the foreign operation. In accordance with IAS 21, the exchange rate gains or losses on such receivables and liabilities are reported in Other comprehensive income.

	31 December 2024			31 December 2023		
MEUR	Balance sheet Shareholders' Equity	EUR -10% vs. other currencies	EUR +10% vs. other currencies	Balance sheet Shareholders' Equity	EUR -10% vs. other currencies	EUR +10% vs. other currencies
USD	191.8	19.2	-19.2	157.3	15.7	-15.7
SEK	44.1	4.4	-4.4	192.4	19.2	-19.2
EUR	1,199.0			1,281.8		
Other	424.2	42.4	-42.4	349.9	35.0	-35.0
Total	**1,859.1**	**66.0**	**-66.0**	**1,981.4**	**69.9**	**-69.9**

Currency risk in financial instruments

Currency risk in financial instruments exists when monetary items in foreign currencies are valued in the functional currency of each entity. The Group has a EUR/USD cross currency swap of 500 MEUR with maturity in 2029 to match the share of net transactional inflow in USD with a corresponding share of USD debt exposure. Derivatives are valued at fair value through profit or loss and hedge accounting is not applied.

The tables below show the balance sheet exposure of financial instruments in foreign currency and the net effect on the Group's consolidated income statement and equity from a depreciation(-)/appreciation(+) of 10% of EUR against SEK and USD.

At 31 December 2024, MEUR Financial instruments in foreign currency	EUR	SEK	USD
Trade and other receivables	3.7	0.0	26.6
Short-term investments	200.0	-	-
Cash and cash equivalents	37.4	0.2	28.2
Total	**241.1**	**0.2**	**54.8**
Bond notes and derivative financial instruments	-0.0	-0.0	-505.1
Financial liabilities, trade and other payables	-12.8	-1.6	-17.1
Total	**-12.8**	**-1.6**	**-522.2**
Group internal receivables and payables	-110.6	65.2	-4.5
Sensitivity		**SEK**	**USD**
A 10% appreciation of the currency against EUR impact on the consolidated income statement:		-6.4	-48.7
A 10% appreciation of the currency against EUR impact directly in equity:		-17.2	1.5

At 31 December 2023, MEUR Financial instruments in foreign currency	EUR	SEK	USD
Trade and other receivables	2.6	-	40.8
Short-term investments	150.0	-	-
Cash and cash equivalents	277.3	0.3	37.7
Total	**429.9**	**0.3**	**78.5**
Bond notes and derivative financial instruments	-	-	-498.0
Financial liabilities, trade and other payables	-9.0	-1.2	-9.0
Total	**-9.0**	**-1.2**	**-507.0**
Group internal receivables and payables	-173.7	71.8	13.3
Sensitivity		**SEK**	**USD**
A 10% appreciation of the currency against EUR impact on the consolidated income statement:		-27.9	-42.9
A 10% appreciation of the currency against EUR impact directly in equity:		-15.2	1.4

Refinancing and liquidity risk

Refinancing risk and liquidity risk are referred to as the risk of being unable to meet payment obligations as a result of insufficient liquidity or difficulties in obtaining adequate financing. To manage the refinancing risk the average duration of the gross interest-bearing debt shall, according to the Group's Finance Policy, exceed three years. As at 31 December 2024 the average duration was 5.3 years (4.0 years).

The liquidity reserve, according to the Group's Finance Policy, shall at all times exceed MEUR 200 (10% of annual sales) on a consolidated level, consisting of cash, short term investments, committed undrawn overdraft facilities and other committed credit facilities excluding trapped cash (refer to note 15). The liquidity reserve amounted to MEUR 662.4 (864.6) as at 31 December 2024.

The Group's main source of financing is bond notes issued in the European capital markets. Since 2020 the Group has a European Medium Term Note (EMTN) programme, which is a loan framework intended for long-term financing. The Group's outstanding bond notes are outlined in the below table. All outstanding bond notes are denominated in EUR, have a fixed interest, are ranked senior and are unsecured.

MEUR	Maturity date	Original facility amount	12/31/2024 Outstanding facility amount	12/31/2023 Outstanding facility amount
Bond 2024	2/28/2024	500.0	-	247.8
Bond 2025	2/28/2025	500.0	272.6	500.0
Bond 2028	08/09/2028	400.0	400.0	400.0
Bond 2029	05/09/2029	500.0	500.0	500.0
Bond 2031	1/15/2031	400.0	400.0	400.0
Bond 2034	06/11/2034	500.0	500.0	-
Total			**2,072.6**	**2,047.8**

The Group renewed its revolving credit facility agreement in April 2023. It has a tenor of five years with two one-year extension options and is provided by a syndicate of seven Nordic and international banks. The facility amounts to MEUR 350 with an option to increase the facility with MEUR 100 to a total of MEUR 450 and a maturity in April 2029. It is ranked senior, is unsecured and can be drawn in several optional currencies and would bear interest at IBOR plus a margin. The terms of the facility include loan market standard restrictions on the Group's ability to, among other things, create security over its assets, sell or otherwise dispose assets or incur subsidiary financial debt. The facility is not subject to any financial covenants. As of the balance sheet day the facility is undrawn.

The tables below analyse the Group's financial liabilities, lease liabilities and derivatives into relevant maturity groups based on their contractual maturities. The amounts disclosed are the contractual undiscounted cash flows including interest.

At 31 December **2024**, MEUR	0 to 6 months	6 to 12 months	1 to 2 years	2 to 5 years	Over 5 years	Total contractual cash flows	Carrying amount
Bond notes	-301.5	-21.4	-45.1	-1,018.4	-1,011.3	-2,397.6	-2,062.4
Other interest-bearing liabilities	-2.6	-5.1	-0.5	-12.2	-3.8	-24.2	-19.0
Financial trade and other payables	-118.8	-	-	-	-	-118.8	-118.8
Lease liabilities	-12.2	-12.2	-31.3	-23.6	-47.1	-126.4	-109.1
Gross settled – swaps							
outflow	-8.0	-18.8	-26.9	-565.4	-	-619.2	
inflow	-	21.4	21.4	547.1	-	589.9	31.4
Total	**-443.1**	**-36.1**	**-82.4**	**-1,072.5**	**-1,062,2**	**-2,696.3**	**-2,277.9**

At 31 December 2023, MEUR	0 to 6 months	6 to 12 months	1 to 2 years	2 to 5 years	Over 5 years	Total contractual cash flows	Carrying amount
Bond notes	-264.1	-21.4	-533.3	-471.6	-911.9	-2,202.3	-2,040.1
Financial trade and other payables	-97.8	-	-	-	-	-97.8	-97.8
Lease liabilities	-11.6	-11.6	-25.2	-10.3	-9.6	-68.3	-62.4
Gross settled – swaps							
outflow	-10.2	-20.4	-30.6	-86.7	-562.8	-710.7	
inflow	-	21.4	21.4	64.1	504.4	611.3	44.0
Total	**-383.7**	**-32.0**	**-567.7**	**-504.5**	**-979.9**	**-2,467.8**	**-2,156.3**

Interest rate risk

Interest rate risk is the risk of a negative impact on the Group's income statement and cash flow due to changes in the market interest rates. To limit the effects of interest rate fluctuations, the average fixed interest term per currency, according to the Group's Finance Policy, shall be between 0,5 and 8 years.

The Group's main source of financing is bond notes issued as listed in the above section. All outstanding bond notes are denominated in EUR and have a fixed interest. The average duration of fixed interest as of 31 December 2024 was 5.3 years (4.0 years) and the average interest rate for 2024 was 2.42% (1.84%). Mölnlycke has two outstanding derivatives. One EUR/USD cross currency swap with maturity 2029 and one EUR fixed to floating swap with maturity 2028. By year-end 2024 17% of Mölnlyckes outstanding debt including derivatives had floating interest rate. According to the Finance Policy the percentage of floating interest shall be 0–50%.

The Group has interest bearing financial assets and liabilities in the form of cash and cash equivalents and debt including derivatives. Based on the outstanding balances at year-end, a one percentage point increase of the interest rate would increase the Group's interest income for the next 12 months with MEUR 3.7 (5.5). A one percentage point increase of the interest rate would increase the Group's interest expenses (including impact from derivatives) with 4.0 (4.0).

Credit and counterpart risk

Credit and counterparty risk refers to the risk that a counterpart in a transaction will be unable to fulfil its obligations and that this will create a loss for the Group. The Group is exposed to credit risks primarily through its balance of cash and cash equivalents, derivative instruments and through outstanding trade accounts receivable.

In order to manage credit risks, the Group's Finance Policy states that financial transactions may only be conducted with approved counterparties having high credit worthiness. Counterparties shall have a rating equivalent to A- by Standard & Poor's, A2 by Moody's Investors Service, or better. The Finance Policy also puts limits for amounts at risk per counterparty which are monitored daily. The following table shows the credit risk exposure in cash and cash equivalents and short-term investment by Standard & Poor's rating category as of the balance sheet day.

MEUR	12/31/2024	12/31/2023
AAA	10.3	3.3
AA	26.0	76.3
A	326.5	464.4
Lower than A	3.5	4.5
	366.3	**548.5**

When trading with derivative instruments, the Group has entered into ISDA (International Swap and Derivative Association) netting agreements with its counterparties in order to further limit the counterparty exposure. ISDA agreements contain enforceable master netting arrangements which allow assets and liabilities arising on separate derivative financial instruments to be set off and settled net in certain circumstances. No derivative balances have been set off in the balance sheet. If existing ISDA agreements would have been used as a basis to set off derivative assets and derivative liabilities, reported net derivative assets in the balance sheet would have amounted to MEUR 31.6 (44.0).

The commercial credit risk is limited since the main part of the Group's sales is directed towards public hospitals/institutions. Regarding sales to private hospitals/institutions, no individual customer is considered to represent a significant part of the Group's sales. The maximum exposure regarding commercial credit risk equals the book value of the trade account receivable. Please refer to note 14 for the aging of trade receivables including a specification of reported allowance.

24. Pledged assets, contingent libilities and commitments

Pledged assets

The Group has outstanding capital insurances pledged to cover direct pension liabilities to current and past employees. The value of such capital insurances corresponds to the payment to be made to each invidual (with the exception of special payroll tax in some cases). The total value of such pledged capital insurances is MEUR 12.7 (12.2).

The Group has no other assets pledged as of 31 December 2024 (2023: Nil).

Contingent liabilities

The Group is involved in various legal proceedings which individually are of non-material magnitude. At 31 December 2024 the Group assesses outstanding legal proceedings to represent a contingent liability of MEUR 3.5 (2023: MEUR 25.6). The decrease since last year relates to increased clarity in certain legal cases as well as cases closed.

In one of the Group's retirement benefit plans the Group has a mutual funding responsibility representing a contingent liability of MEUR 0.8 as of 31 December 2024 (2023: 0.6).

Commitments

Commitments for the acquisition of property, plant and equipment not recognised as liabilities amount to MEUR 11.6 as of 31 December 2024 (2023: 7.2).

25. Related party transactions

The Company's immediate parent company is Mölnlycke AB. Mölnlycke AB is to 98.9 % owned by Rotca AB (a company controlled by Investor AB, the Company's ultimate parent company) and 1.1% by entities facilitating management's ownership. The Company has been a subsidiary of Investor AB since 1 December 2010. Investor AB is listed on Nasdaq OMX Stockholm

Transactions between the Company and its subsidiaries, which are related parties of the Company, have been eliminated on consolidation and are not disclosed in this note. Non-trading transactions with the parent company Mölnlycke AB are disclosed in note 16.

Trading transactions

During the year, Group entities entered into the following transactions with related parties that are not members of the Group:

	Sales of goods and services		Operating expenses and finance net	
MEUR	**2024**	2023	**2024**	2023
Parent company	–	–	13.1	10.2
Other subsidiaries of Investor AB	–	–	–	–
Associates of the Group and Investor AB	1.3	0.6	-3.4	-1.2

The following balances were outstanding at the end of the reporting period:

	Receivables from related parties		Liabilities to related parties	
MEUR	**12/31/2024**	12/31/2023	**12/31/2024**	12/31/2023
Parent company	288.9	258.3	–	–
Other subsidiaries of Investor AB	–	–	–	–
Associates of the Group and Investor AB	27.1	73.1	32.3	–

SEB is an associated company of Investor AB and is one of nine relationship banks participating in the financing of Mölnlycke Holding AB (publ) Group. See note 23 for further information about the Group's financing. Receivables from associates relates to a cash balance with SEB.

The lessor of the Swedish headquarters at GoCo, Steptura AB, is an associated company in the Investor AB Group. Liabilities to related parties represents the lease liability to Steptura AB, calculated in accordance with IFRS 16. Please see note 16 for an explanation to the change in receivables/liabilities from parent company compared to prior year.

Other transactions

There have been no material transactions with related parties other than those disclosed elsewhere in these financial statements.

Compensation of key management personnel, MEUR	**2024**	2023
Short-term benefits	7.5	5.5
Post-employment benefits	1.0	0.8
Total	**8.5**	**6.3**

Key management personnel comprise the members of the Group's Executive Leadership Team.

26. Events after the balance sheet date

No significant events have occured after the balance sheet date.

Definitions

Cash conversion, %
Operating cash flow in relation to EBITDA.

EBITDA
Earnings before interest, tax, depreciation, amortisation and impairment charges, excluding exceptional items.

EBITDA margin, %
EBITDA in relation to revenue.

Equity/Assets ratio, %
Shareholders' equity in relation to total assets.

Interest-coverage ratio
EBITDA in relation to net interest expenses.

Net debt/EBITDA ratio
Net interest-bearing debt in relation to EBITDA.

Net debt/Equity ratio
Net interest-bearing debt in relation to equity.

Net interest-bearing debt
Interest-bearing liabilities including lease liabilities and fair value derivatives less cash, cash equivalents and short-term investments (receivables, parent company is excluded from the calculation of net interest-bearing debt).

Net interest expenses
Interest expenses less interest income.

Operating cash flow
EBITDA adjusted for changes in working capital and capital expenditures in PPE and Intangible Assets.

Operating margin, %
Operating profit in relation to revenue.

Organic sales growth, %
Net sales compared to prior year adjusted for changes in currency rates and acquired or divested businesses.

Working capital
Net balance of Inventory, Trade and other receivables and Trade and other payables excluding Accrued interest expenses and deferred considerations.

Signatures

Gothenburg, 27 March 2025

Karl-Henrik Sundström	Zlatko Rihter	Christian Cederholm	Sharon James	Johan Malmquist	Leslie McDonnell
Chairman of the Board	CEO and Board member	Board member	Board member	Board member	Board member

David Perez	Kristina Willgård	Aashima Gupta	Lars Axelsson	Niclas Flach
Board member	Board member	Board member	Employee representative	Employee representative

Our audit report was submitted on 27 March 2025.

Deloitte AB

Hans Warén
Authorized Public Accountant

Independent auditor's report

To the Board of Directors of Mölnlycke Holding AB,
Corporate identity number 556693-6729

Opinion

We have audited the non-statutory consolidated financial statements of Mölnlycke Holding AB (the Company), which comprise the consolidated statement of financial position as at December 31, 2024, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies. The annual accounts of the Company are included on pages 62–97 in this document.

In our opinion, the accompanying non-statutory consolidated financial statements present a true and fair view, in all material respects, of the financial position of the Company as at December 31, 2024, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU).

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Sweden and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Board of Directors and the Managing Director

The Board of Directors and the Managing Director are responsible for the preparation of the consolidated financial statements and that they give a fair presentation in accordance with IFRS as adopted by the EU. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, The Board of Directors and the Managing Director are responsible for the assessment of the company's and the group's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the Managing Director intends to liquidate the company, to cease operations, or has no realistic alternative but to do so.

The Audit Committee shall, without prejudice to the Board of Director's responsibilities and tasks in general, among other things oversee the company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Gothenburg, 27 March 2025
Deloitte AB

Hans Warén
Authorized Public Accountant

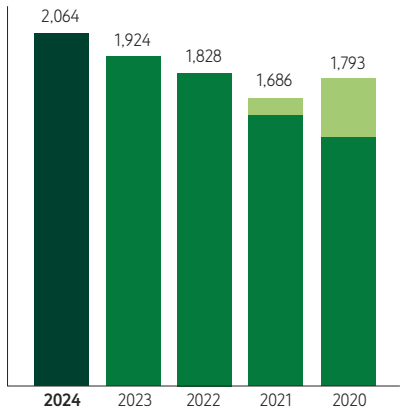
Five-year overview

EUR million (unless otherwise stated)	2024	2023	2022	2021	2020
Income statement					
Revenue[27]	2,064.2	1,923.5	1,827.7	1,685.6	1,792.7
EBITDA[28]	591.2	545.1	476.3	485.6	536,3
Depreciation, amortisation and impairment charges	-84.4	-81.7	-84.5	-83.5	-81.3
Operating profit	507.0	463.4	391.8	402.1	455.0
Net interest expenses	-27.8	-16.1	-34.0	-30.9	-29.1
Profit before tax	476.8	487.4	359.5	364.7	431.5
Profit for the year	375.3	393.5	279.3	285.3	338.0
FFO (Funds from operations)	460.7	430.5	367.7	382.0	389.9
Balance sheet					
Goodwill and other intangible assets	2,691.3	2,703.2	2,724.8	2,763.2	2,789.0
Other non-current assets	546.4	440.0	387.0	365.1	349.5
Current assets excluding cash	1,070.7	949.8	810.0	637.2	785.6
Cash, cash equivalets and Short term investments	366.4	548.4	343.3	541.0	597.0
Total assets	**4,674.8**	**4,641.4**	**4,265.1**	**4,306.5**	**4,521.1**
Equity	1,859.1	1,981.4	1,735.2	1,536.1	1,794.0
Interest-bearing liabilities, incl. lease liabilities	2,190.5	2,102.5	1,959.9	2,086.5	2,089.2
Other liabilities	625.2	557.5	570.0	683.9	637.9
Total equity and liabilities	**4,674.8**	**4,641.4**	**4,265.1**	**4,306.5**	**4,521.1**
Working capital	405.9	343.9	327.5	240.2	193.4
Net interest-bearing debt	1,792.5	1,510.1	1,620.4	1,545.5	1,492.2

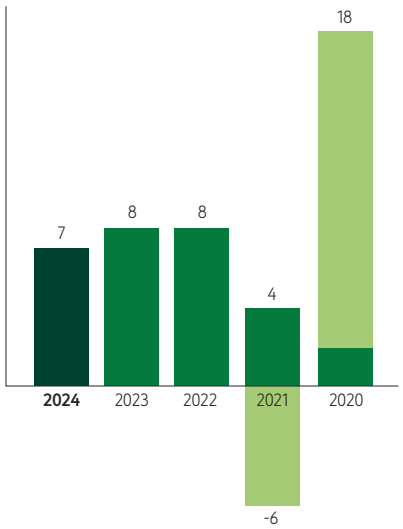
EUR million (unless otherwise stated)	2024	2023	2022	2021	2020
Cash flow					
EBITDA[28]	591.2	545.1	476.3	485.6	536.3
Non-cash items in EBITDA	-1.7	0.7	-6.8	-3.3	-1.8
Change in working capital	-59.2	-21.0	-85.6	-34.0	-8.4
Capital expenditures – PPE and Intangible Assets	-60.8	-44.2	-69.9	-48.7	-38.1
Operating cash flow	**469.5**	**480.6**	**314.0**	**399.6**	**488.0**
Acquisitions and divestments of subsidiaries	-11.4	-0.3	-0.6	-0.3	-11.3
Paid taxes	-100.2	-71.9	-72.4	-116.7	-100.9
Distributions to the owners of the Group	-500.0	-300.0	-300.0	-250.0	-350.0
Other movements in Net debt, net	-140.2	1.9	-15.9	-85.9	-47.1
Increase (-)/decrease (+) in Net debt	**-282.4**	**110.3**	**-74.9**	**-53.3**	**-21.3**
Financial indicators					
Organic sales growth[27]	7%	8%	8%	-6%	18%
Operating margin	25%	24%	21%	24%	25%
EBITDA margin	29%	28%	26%	29%	30%
Net debt/EBITDA ratio	3.0	2.8	3.4	3.2	2.8
Cash conversion	79%	88%	66%	82%	91%
Net debt/Equity ratio	0.96	0.76	0.93	1.01	0.83
Equity/Assets ratio	40%	43%	41%	36%	40%
Personnel					
Number of employees, FTE (full time equivalent)[29]	8,617	8,427	8,775	8,315	7,910

27. Revenue for 2021 & 2020 was positively impacted by one-off orders for staff clothing and protection. Excluding these one-off orders revenue amounted to EUR 1,618 million and the organic sales growth was 4% in 2021 and EUR 1,562 respectively 2% in 2020.
28. EBITDA is positively impacted from the adoption of IFRS16 by approximatly EUR 20 million per year since 2019.
29. FTE for Mölnlycke wholly-owned companies amounts to 8.530 as per end of 2024.

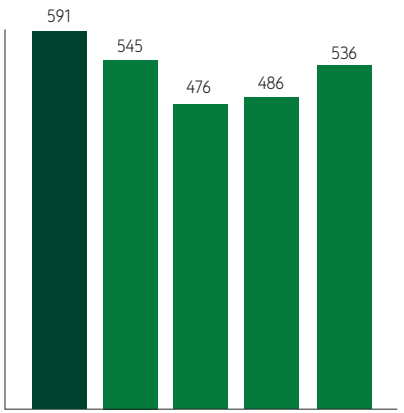
Revenue[27]
EUR million



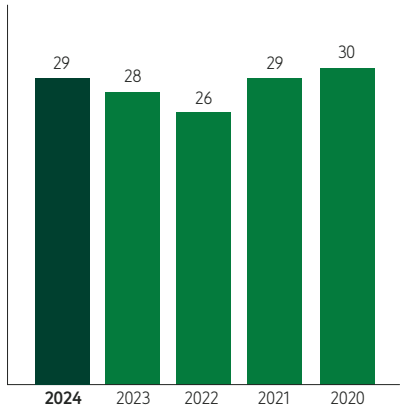
Organic sales growth[27]
Constant currency, %



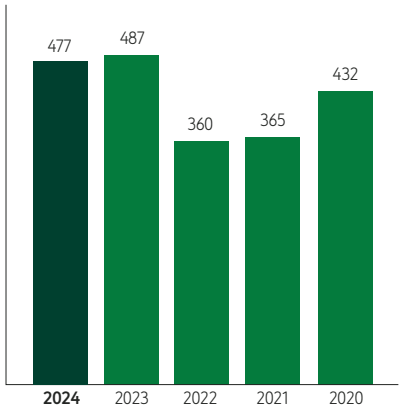
EBITDA
EUR million



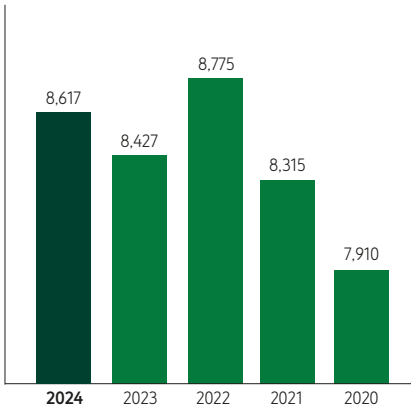
EBITDA margin
%



Profit before tax
EUR million



Number of employees
Full-time equivalent



Impact from the one-off orders for PPE sale

Sustainability report

This section outlines Mölnlycke's vision and strategic roadmap for creating shared value for all stakeholders.

It provides a detailed overview of Mölnlycke's sustainability performance, including progress on environmental, social, and governance aspects, and is partially aligned with the Corporate Sustainability Reporting Directive (CSRD). Mölnlycke is actively preparing for the implementation of CSRD and European Sustainability Reporting Standards (ESRS), which may result in some omissions.

The section also highlights how Mölnlycke identifies, evaluates, and manages sustainability-related impacts, risks and opportunities across the value chain.

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General information

At Mölnlycke, sustainability is embedded in the company's business strategy as a key driver of long-term success. The company's approach to risk management and internal controls ensures the accuracy, reliability, and integrity of sustainability reporting, reflecting Mölnlycke's commitment to transparency and alignment with regulatory requirements. This report has been prepared to align with the format and requirements of the upcoming CSRD; however, it's not yet fully compliant.

Sustainability governance

The Sustainability Committee, composed of senior leaders from key functions and Business Areas, serves as Mölnlycke's decision-making forum for "WeCare" the company's sustainability roadmap. This committee drives a unified, strategic approach to achieving Mölnlycke's sustainability goals while fostering cross-functional collaboration, knowledge exchange, and up-to-date sustainability expertise.

The Committee meets monthly to review ongoing sustainability initiatives, and on a quarterly basis, it evaluates progress against established KPIs. Any deviations are addressed, and resources are reallocated as needed to stay aligned with the company's goals. In-depth sustainability performance reviews occur twice a year and are presented to the Executive Leadership Team (ELT) during Sustainability Quarterly Business Reviews and to the Board of Directors. These reviews encompass key achievements, challenges, and emerging risks or opportunities.

To drive sustainability forward, Mölnlycke has established various dedicated working groups, including:

- **Net Zero Forum:** a cross-functional forum focused on reducing Mölnlycke's Scope 1, 2, and 3 GHG emissions and aligning efforts to achieve Net Zero by 2050. This forum plays a critical role in Mölnlycke's commitment to the Science Based Targets initiative (SBTi) and global climate goals
- **DE&I Council:** a forum consisting of ELT members and senior management, which shapes and oversees Mölnlycke's diversity, equity, and inclusion agenda, ensuring that progress is monitored and achieved
- **Human Rights Committee:** this committee strengthens Mölnlycke's internal focus on human and labour rights, ensuring accountability at the highest levels, with several ELT members actively involved
- **Sustainability Local Leads Network:** a network dedicated to advancing local sustainability activities across various markets

Control environment for sustainability reporting

The Mölnlycke Board of Directors has overall responsibility for overseeing the internal control environment, including the approval of annual plans and ensuring an effective reporting process. Implementation and operational oversight are delegated to the CEO and ELT, with the Audit Committee responsible for evaluating the effectiveness of internal controls.

Mölnlycke's Sustainability Policy and detailed reporting procedures, at both corporate and site levels, establish clear responsibilities, mandates, and processes for reporting and analysing sustainability data. The policy and reporting procedures also outline how validation is conducted for the majority of the disclosures to ensure high-quality reporting.

Key control documents are accessible to all employees in the company's document management system, with regular updates to reflect regulatory changes and organisational needs.

During 2024, processes were initiated to align with CSRD requirements, ensuring robust controls for data collection, validation, and reporting. This approach underscores Mölnlycke's commitment to providing stakeholders with accurate and reliable information.

Risk assessment

Risk assessments form a critical component of Mölnlycke's operations, enabling the proactive identification, evaluation and management of sustainability-related risks and opportunities. A structured approach ensures the quality and reliability of data underpinning these assessments, aligning with regulatory and stakeholder expectations.

Sustainability-related risks are first identified by the Mölnlycke's dedicated sustainability working groups. These risks are then rigorously evaluated, prioritised by the Sustainability Committee, and reviewed by the ELT during the Sustainability Quarterly Business Review. This process includes a specific focus on risks related to data accuracy, ensuring robust validation mechanisms are in place and mitigation plans are developed for any identified issues.

Findings from these assessments are systematically presented to the Board of Directors, providing a robust foundation for informed and strategic decision-making. This ensures that data accuracy risks are managed proactively and that reporting processes are continuously improved to align with evolving regulatory and stakeholder expectations.

The primary sustainability-related risks, along with corresponding targets, mitigation strategies, and progress updates, are comprehensively detailed in the relevant sections of the Sustainability report.

Control activities

To ensure the credibility and compliance of sustainability reporting with CSRD requirements, Mölnlycke has implemented a robust control framework. This framework includes key control activities such as:

- **data validation and verification:** internal data validation processes, supported by automated systems that flag inconsistencies and ensure accuracy. Independent verification with external parties, such as third-party auditors, strengthens credibility and ensures compliance with regulatory and stakeholder expectations
- **approval process with defined accountability:** an approval process under the "four-eye principle" ensures that all data is reviewed and verified by multiple stakeholders, creating accountability at both operational and executive levels. This process mitigates risks of oversight or errors in reporting
- **integrated digital reporting tools:** digital platforms are used to collect, validate, and consolidate data from Business Areas, Corporate Functions and external partners in real-time, reducing the risk of manual errors and enhancing efficiency. These tools also align sustainability data with financial metrics, ensuring consistency across reporting frameworks
- **standardised reporting protocols across the entire organisation:** uniform reporting guidelines are applied across all Business Areas and Corporate Functions to ensure consistency in data collection and validation. This includes the use of CSRD-compliant templates and key performance indicators (KPIs) that are aligned with global standards such as GRI and ESRS standards
- **frequent data analysis and review:** regular analysis of sustainability data is conducted at both Business Areas' and Corporate Functions' levels, as well as once consolidated at Mölnlycke level. Benchmarking against industry standards and peer performance ensures Mölnlycke remains competitive and continuously improves reporting quality

In addition, Mölnlycke has established a continuous feedback loop where insights from internal and external audits are used to refine control processes and improve the overall framework. This iterative approach enables the company to stay ahead of evolving regulatory requirements and stakeholder expectations.

Information and communication

Mölnlycke's Sustainability Policy and related global social and environmental reporting procedures ensure that internal and external reporting processes are efficient, secure, and aligned with the company's sustainability principles and latest legislation requirements. Each year, training sessions are conducted to educate employees and leadership teams on reporting standards and best practices. Together with Finance, the Corporate Sustainability function facilitates communication across the organisation to ensure uniform application of reporting guidelines. In this way, a consistent application of reporting guidelines is achieved, supporting the alignment of sustainability and financial reporting processes, and strengthens the overall integrity of sustainability data.

Monitoring

The Board of Directors and ELT regularly review the effectiveness of internal controls related to sustainability reporting and play a key role in monitoring progress, reviewing findings, and addressing potential risks in the reporting process.

Internal audits, led by the Sustainability function, assess compliance and identify areas for improvement, with findings reported back to the ELT and the Board of Directors. These measures ensure continuous improvement in Mölnlycke's sustainability reporting framework.

Entities with non-controlling interests

Mölnlycke's joint venture in Saudi Arabia (TMC) operates under a framework designed to ensure compliance with Mölnlycke's internal control structures for sustainability reporting. The TMC Board of Directors are responsible for monitoring the efficiency and accuracy of their reporting processes. Findings from TMC reviews are reported to the Mölnlycke ELT, providing a comprehensive understanding of risks and opportunities across the organisation.

Stakeholder engagement and materiality

Approach to stakeholder management

Mölnlycke integrates stakeholder engagement as a fundamental component of its due diligence and materiality assessment processes. Insights from key stakeholder groups including employees, customers, owners, suppliers, industry organisations, and local communities inform strategic decision-making, ensuring alignment with regulatory requirements, industry best practices, and sustainability objectives.

The company's materiality assessment identifies and prioritises key environmental, social, and governance (ESG) issues, reinforcing the connection between stakeholder expectations and Mölnlycke's business strategy.

Stakeholder groups and key engagement insights

The table to the right contains a non-exhaustive list of examples of stakeholder engagements taking place over the past year, and the main ESG-related topics and concerns raised by different stakeholder groups.

Stakeholder group	Examples of engagements	Main topics and concerns raised
Employees	- Employee surveys - Employee resource groups - Dialogues with union representatives - Training and awareness initiatives	- Workplace health & safety, wellbeing, and hybrid work models - Diversity, equity & inclusion (DE&I) - Learning and development - Business ethics and anti-corruption - Employee rights, fair wages, and working conditions
Customers	- Individual customer meetings and dialogues - Customer ESG assessments - Joint research and development	- Greenhouse gas (GHG) emissions and decarbonisation - Circularity (single-patient, multi-patient) - Product safety and quality - Digitalisation in MedTech - Supply chain management and transparency, including ethical labour practices - Cost efficiency
Owners	- Board, Audit Committee and Remuneration Committee regular meetings throughout the year - Sustainability half-yearly review meetings	- Strategies, objectives, policies and plans - Financial and sustainability performance - Risk management - ESG ratings - Science-Based Targets initiative (SBTi) commitments - Sustainable product innovation - Workplace health & safety - Corporate governance and ethical business conduct
Suppliers	- Responsible sourcing programmes - Supplier sustainability assessments and audits - Supplier training, seminars, and workshops	- Climate change impact reduction and energy efficiency - Bio-based/recycled materials - Business ethics and anti-corruption - Labor rights, fair wages, and working conditions - Responsible sourcing standards (e.g., SEDEX membership) - Product traceability, and due diligence
Regulators and international institutions	- Policy advocacy on a continuous basis via MedTech Europe or directly during public consultations - Compliance with evolving regulations at EU or local site level, relating to country legislation, on a continuous basis	- Compliance with CSRD, CS3D, EUDR, and packaging/waste regulations - Sustainable healthcare policies - Transparency in reporting and supply chain due diligence
Academia and business	- Joint research and funding initiatives - Development of sustainable healthcare solutions - Standardisation and best practice collaborations	- Environmental impact of medical supply chains - Digitalisation and innovation in MedTech - Circular economy and material efficiency - Enablement of sustainability in healthcare operations

Stakeholder group	Examples of engagements	Main topics and concerns raised
Local communities	- Healthcare accessibility programmes - Infection prevention training - Sustainability partnerships	- Access to essential medical supplies - Education and healthcare training - Reducing medical waste and improving local healthcare sustainability - Social impact and community resilience
Civil society, NGOs, and other organisations	- Participation in global sustainability initiatives - Partnerships with non-profits and advocacy groups	- Collective climate action - Protection of human rights and labour conditions - Digital inclusion and education - Addressing healthcare inequities in vulnerable regions

Strategic adaptation and enhancements

Mölnlycke continuously refined its "WeCare" sustainability roadmap, ensuring alignment with stakeholder expectations while creating positive impact across climate action, resource efficiency, and health equity.

- **decarbonisation and circular solutions** – Mölnlycke remained committed to achieving Net Zero emissions by 2050, supported by SBTi-validated near-term targets. In 2024, all established manufacturing sites transitioned to 100% renewable electricity, marking a significant milestone in reducing operational emissions. To further minimise environmental impact and support customers in their decarbonisation efforts, Mölnlycke introduced bio-based BARRIER® surgical drapes, lowering downstream GHG emissions. Additionally, the company piloted a closed-loop system for medical supplies, converting used OR materials into new medical-grade polymers through advanced chemical recycling
- **innovation and partnerships** – Mölnlycke collaborated with Medi Wound Ltd. and other partners to enhance sustainable wound care solutions
- **sustainable supply chain** – The company encouraged strategic suppliers to adopt and submit SBTi-aligned GHG reduction targets, conducted supplier sustainability assessments, and advanced responsible sourcing based on standardised Life Cycle Assessment (LCA) studies
- **employee wellbeing and inclusion** – Mölnlycke strengthened DE&I through Employee Resource Groups (ERGs), enhanced workplace safety initiatives, and incorporated employee feedback into corporate strategy
- **product sustainability and transparency** – Mölnlycke prioritised LCAs in product development, ensuring traceability of materials, sustainable innovation, transparency in sourcing, environmental performance and human rights. In 2024, Mölnlycke conducted a pilot impact assessment to better understand its human rights impacts and plans to implement further due diligence measures in 2025. Employees also receive ongoing human rights awareness training, including a dedicated e-learning module

Materiality assessment

In 2024, Mölnlycke conducted a double materiality assessment to enhance its understanding of material sustainability-related impacts, risks, and opportunities, in alignment with CSRD requirements for identifying and evaluating ESG-related factors.

In preparation for the double materiality assessment, a cross-functional team – including Sustainability, Finance, People, IT, Compliance, and Procurement – identified sustainability topics for inclusion based on CSRD standards, sector-specific guidelines, and input from subject matter experts.

The scope of the assessment included all operations of Mölnlycke, including subsidiaries and joint ventures, as well as its upstream and downstream value chain, and was global in geographic scope.

The assessment was conducted through the following key phases:	
A. Definition of the scope, covering environmental, social, and governance (ESG) topics relevant to Mölnlycke	The ESG topics assessed were based on matters found in internationally recognised ESG reporting frameworks, including the ESRS standards, GHG Protocol, SBTi, UN Guiding Principles, and OECD Guidelines. This was conducted through a desktop analysis, which was further supplemented by benchmarking against the ESG disclosures and commitments of industry peers and customers.
B. Preliminary assessment of impacts, risks, and opportunities	After scoping out topics with no apparent relevance to Mölnlycke's value chains, remaining topics were analysed in more detail to identify actual and potential negative and positive impacts, as well as actual and potential risks and opportunities. To enhance Mölnlycke's understanding of the significance of these impacts, this process was supported by input from a wide range of internal and external stakeholders, including customers, suppliers, employees, leadership, Board representatives, distributors, regulators, and non-governmental organisations. To systematically capture and record feedback from this diverse group, various engagement methods were employed, such as surveys, interviews, and focus groups. Significance for each impact was defined using a quantitative scale, including scope, irremediability and likelihood. The threshold for materiality was also set using a quantitative scale. Negative impacts were assessed based on their severity, considering scale, scope, and irremediable nature. Positive impacts were evaluated based on their scale and scope. For potential impacts, the likelihood of occurrence was also taken into account. When assessing downstream impacts in the value chain – specifically in relation to customers and end-users – only impacts directly connected to Mölnlycke's portfolio were included. Impacts occurring within customers' operations or value chains, but with minimal or no connection to Mölnlycke's products, solutions, or technology, were considered irrelevant for this assessment. Sustainability topics, including those within ESRS, were identified where they could influence the company's financial position performance or value creation over the short, medium and long term. Risks and opportunities were considered, and potential future risks and opportunities were modelled under different scenarios including climate change and regulatory shifts. Data including revenues, costs and asset liability values were gathered and used to rank topics based on the magnitude of financial impact and likelihood, using the enterprise risk management rating scale methodology.
C. Validation with key internal stakeholders and subject matter experts across the organisation	The preliminary results were reviewed with internal subject matter experts and business representatives to both validate the assessment of materiality, as well as to embed understanding of impacts, risks and opportunities across Mölnlycke. Impact and financial materiality findings were then consolidated into a single matrix.
D. Final review and approval by Mölnlycke's Executive Team and the Board of Directors	The consolidated results were reviewed by the Sustainability Committee and then approved by the Executive Leadership Team and finally by the Board of Directors.

The validated double materiality assessment will inform Mölnlycke's sustainability disclosures in compliance with CSRD. While the assessment scope covered both risks and opportunities, further analysis is required to integrate these into Mölnlycke's broader business processes. This will ensure consistent alignment with other risk factors and enable a more comprehensive evaluation of potential financial implications moving forward. Any internal and external audit findings or operational changes will serve as valuable input for an ongoing review and improvement of the double materiality process, incorporating stakeholder feedback, emerging best practices, and updates to the CSRD framework.

Detailed descriptions of identified impacts, risks, and opportunities, along with Mölnlycke's policies and actions to address them, can be found in the topic-specific sections of the Sustainability report.

The results of the materiality assessment are presented below.

Material impacts, risk and opportunities

		Impact				
	Sustainability matters	Upstream	Own operations	Downstream	Potential risk and opportunities	Details in section
Environment	Climate change adaptation	•	•	•	•	Climate change and energy
	Climate change mitigation	•	•	•	•	Climate change and energy
	Energy	•	•	•	•	Climate change and energy
	Substances of concern	•	•	•	•	Pollution prevention
	Substances of very high concern	•	•	•		Pollution prevention
	Water	•	•		•	Circularity and resource efficiency
	Resource inflows	•	•		•	Circularity and resource efficiency
	Resource outflows		•	•	•	Circularity and resource efficiency
	Waste	•	•	•	•	Circularity and resource efficiency
Social	Working conditions (own workforce)		•		•	Own workforce
	Equal treatment and opportunities (own workforce)		•		•	Own workforce
	Working conditions (value chain)	•			•	Management of relationships with supliers
	Equal treatment and opportunities (value chain)	•			•	Management of relationships with supliers
	Information-related impacts for consumers / end-users			•		Healthcare compliance
	Personal safety of consumers / end-users			•		Healthcare compliance
	Social inclusion of consumers/ end-users			•		Healthcare compliance
Governance	Corporate culture	•	•	•	•	Business ethics and culture of integrity
	Protection of whistleblowers	•	•	•		Business ethics and culture of integrity
	Management of relationships with suppliers	•	•	•	•	Management of relationships with supliers
	Corruption and bribery	•	•	•	•	Business ethics and culture of integrity
Other company specific topics	Sustainable solutions	•	•	•	•	Sustainable portfolios

Environment

Climate change and energy

Impact, risks and opportunities

Mölnlycke has identified material impacts related to climate change across its value chain, including upstream activities, downstream impacts, and its own operations. The healthcare sector is a significant contributor to global GHG emissions, accounting for approximately 4% to 5% of global emissions.[30]

This substantial footprint arises from various activities, including energy consumption, waste management, and the production and transportation of medical supplies and equipment.

The majority of Mölnlycke's GHG emissions occur upstream, particularly from the production and processing of raw materials, manufacturing activities, and transportation. Downstream emissions, including the disposal and end-of-life treatment of products, represent a smaller share but remain significant, especially as healthcare facilities work to improve waste management practices.

As renewable energy adoption increases in Mölnlycke's own operations and within healthcare facilities, upstream emissions related to materials and production are expected to constitute a larger proportion of the total footprint going forward. Emissions from Mölnlycke's direct operations (Scope 1 and 2), while representing a smaller share of the total GHG emissions, are still considered material, as reducing emissions across all parts of the value chain is essential to achieving Net Zero targets and aligning with global climate commitments.

Mölnlycke recognises that climate change presents both significant risks and transformative opportunities. By adapting and innovating, the company can mitigate risks while capitalising on opportunities to lead the decarbonisation of the healthcare sector.

Potential scenarios analysed

As part of its overall climate strategy and its commitment to align to the reporting recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), the assessment of Mölnlycke's climate-related risks and opportunities is based on two key scenarios, focusing on the potential impacts across the value chain and over different time horizons. For this analysis, Mölnlycke defines short-, medium-, and long-term time horizons as up to 2026, 2026–2030, and beyond 2030, respectively. While quantitative assessments primarily focus on the 2025–2030 period, the longer-term impacts of risks and opportunities extending beyond 2030 are assessed qualitatively. Under the "current policies" scenario, the physical risks associated with climate change are expected to intensify after 2030, posing greater challenges to Mölnlycke's operations and supply chain resilience.

1. Net Zero 2050 scenario

- **ambitious mitigating actions:** immediate and comprehensive global actions are introduced to achieve Net-Zero Greenhouse Gas (GHG) emissions by 2050
- **temperature outcome:** a 50% chance of limiting global warming to below 1.5 °C by the end of the century
- **impact profile:** this scenario is characterised by relatively low physical risks but significant transitional risks. These include escalating regulatory requirements and compliance costs, as companies must align with evolving climate regulations, emission reduction targets, and sustainability reporting standards. In line with the Net Zero 2050 scenario, the anticipated rise in carbon pricing and emission regulations presents potential challenges across Mölnlycke's value chain. While the direct impact on the company's operations may be limited, the key risk lies in the transition risk associated with its supply chain. Should upstream suppliers face increased costs due to stricter emission regulations and carbon pricing, these additional expenses are likely to be passed through to Mölnlycke. This supply chain cost-push risk could lead to higher production costs, which may impact the company's overall profitability and pricing strategies. Additionally, rapid technological advancements create a need for innovation in adopting low-carbon technologies to meet industry standards and respond to evolving customer expectations. The increasing pressure from healthcare providers to achieve their own decarbonisation goals further intensifies the demand for sustainable solutions. This trend presents a significant business opportunity for Mölnlycke, particularly with its bio-based products, longer shelf-life offerings, and more efficient sustainable products and services

2. Current policies scenario

- **limited mitigating actions:** climate action is restricted to policies currently adopted or announced, leading to continued emissions growth until 2080
- **temperature outcome:** global warming of around 3 °C by the end of the century
- **impact profile:** this scenario is dominated by high physical risks, including an increased frequency and intensity of extreme weather events, such as storms, floods, and heatwaves, which could disrupt supply chains and impact manufacturing facilities. Rising energy costs and operational expenses pose another challenge, as energy price volatility may increase, affecting production and logistics costs. Additionally, climate impacts on natural resources could threaten the availability of raw materials, disrupting material supply and affecting production timelines and costs. Finally, climate-related damages could lead to higher insurance premiums and increased infrastructure adaptation costs, further contributing to operational challenges

Scenario analysis

Mölnlycke conducted a thorough evaluation of more than 20 potential climate-related risks, identified through consultations

30. Health Care's Climate Footprint, Health Care Without Harm, 2019. Available at: https://global.noharm.org/sites/default/files/documents-files/5961/HealthCaresClimateFootprint_092319.pdf

with internal subject matter experts and external benchmarking. The probability and impact of various risks and opportunities until 2030 were analysed quantitatively using the ERM (Enterprise Risk Management) methodology. The more long-term impacts of risks and opportunities, stretching beyond 2030, were primarily assessed in a qualitative way. This approach allowed for a more detailed evaluation of a shortlist of risks and opportunities that are most relevant to the company's operations. Both upstream and downstream risks in the value chain, as well as within the company's own operations, were considered.

Physical risks were assessed primarily under the assumptions of the "current policies" scenario, focusing on disruptions to operations, supply chain vulnerabilities, and risks to raw material availability, particularly beyond 2030. Transitional risks and opportunities were analysed in the context of the Net Zero 2050 scenario and focused on regulatory shifts, technological requirements, and customer-driven market changes.

Identified climate change risks and opportunities

In the short term (up to 2026), immediate risks include the need for regulatory compliance and meeting growing customer expectations for sustainable solutions. For instance, this involves adhering to stricter disclosure requirements, such as the CSRD, and investing in lower-carbon supply chains. In the medium term (2026-2030), risks such as potential supply chain disruptions, challenges in sourcing raw materials, and the scaling of low-carbon technologies are expected to arise. Mölnlycke plans to mitigate these through targeted innovation and supplier engagement. In the long term (beyond 2030), the severity of physical risks, such as extreme weather events and resource scarcity, is anticipated to increase significantly. This will require continuous adaptation strategies to ensure resilience and maintain operational continuity.

In the short and medium term, the rising cost of embedded emissions presents an opportunity for Mölnlycke to innovate in low-carbon technologies, optimise energy efficiency, and expand its portfolio with sustainable solutions that support customers' decarbonisation goals. The company is committed to leading the transformation of healthcare by continuing to offer and improve products like custom ProcedurePak®, which reduce waste and optimise resource use, and Biogel® Surgical Gloves, produced with lower material intensity and continuously improved packaging. Mölnlycke's achievement of 100% renewable electricity through a virtual Power Purchase Agreement (vPPA) will continue to reduce embedded emissions and stabilise energy costs, making the company's operations more resilient to market volatility and improving its long-term cost efficiency. Additionally, Mölnlycke is leveraging digital supply chain solutions to optimise transport and reduce emissions, and uses Life Cycle Assessments (LCA) to make informed decisions and support customers in their decarbonisation journey. The company's circular economy initiatives, such as closed-loop systems for single-use items, will present significant business opportunities, driving waste reduction and sustainability in healthcare.

Policies

Mölnlycke's Sustainability Policy serves as a cornerstone of the company's commitment to revolutionising care for people and planet, emphasising sustainable practices across all aspects of its business. The Policy sets out the company's foundational principles on environmental sustainability, including climate change mitigation.

The Policy applies to all Mölnlycke personnel, establishing a company-wide approach to sustainability. It focuses on key priorities, including climate change mitigation, energy efficiency, and responsible resource use, addressing both direct (Scope 1 and 2) and value chain emissions (Scope 3) that contribute to Mölnlycke's overall climate impact. Mölnlycke's commitiment to achieving Net-Zero emissions by 2050 is in line with the Science Based Targets initiative, reinforcing its proactive approach to climate action.

To further strengthen its environmental sustainability efforts, Mölnlycke adopts Life Cycle Assessment (LCA) methodologies to assess the broader environmental impact of its products and operations. Mölnlycke's LCA framework adheres to globally recognised standards, including ISO 14040 and ISO 14044, ensuring a consistent and comprehensive evaluation of environmental impacts across the product lifecycle. This precautionary, life-cycle approach drives continuous environmental improvements and sustainable product design, while aligning with the company's climate change mitigation strategy. Mölnlycke is also committed to minimising the environmental impact of its operations by addressing critical issues such as waste, water use, and pollution prevention. The focus on responsible resource consumption and minimising emissions directly contributes to biodiversity protection and sustainable resource management, reinforcing the company's holistic approach to environmental management.

Mölnlycke's revised Code of Conduct (CoC) for Business Partners strengthens the company's focus on Net Zero and sets clear expectations for its partners, including suppliers, to develop and implement plans and targets for reducing GHG emissions. Suppliers are required to align their emission reduction targets with the science-based 1.5°C ambition and publicly report their progress annually. The CoC, based on the Ten Principles of the UN Global Compact includes Mölnlycke-specific requirements and is incorporated into standard supplier contracts. For all suppliers, but especially for strategic suppliers or suppliers with high GHG emissions, additional CoC requirements apply, including providing specific emission data for their materials or services provided to Mölnlycke, according to the GHG Protocol methodology.

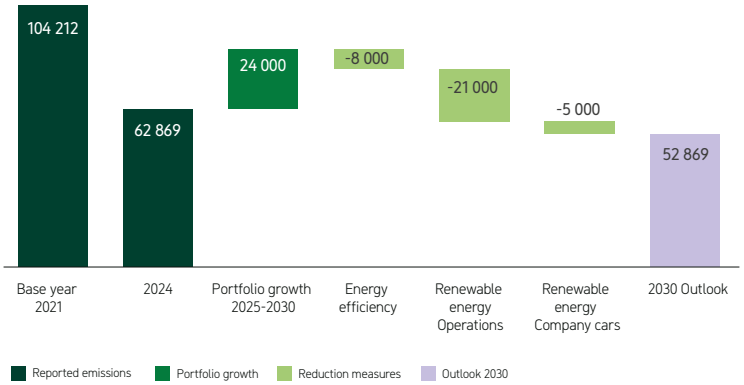
The Board of Directors approves the Sustainability Policy, with ultimate accountability for its implementation resting with the CEO and the ELT. Together, they ensure the policy's objectives are integrated into Mölnlycke's business model and operations, enabling progress tracking and regular reporting on GHG emissions and other material sustainability topics.

Management approach

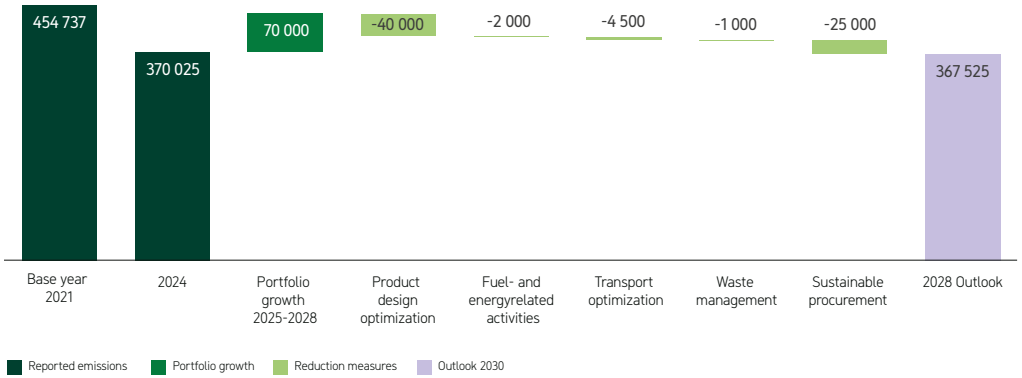
Decarbonisation levers

Mölnlycke is committed to achieving Net Zero emissions across its entire value chain by 2050. In the near term, the company has set ambitious targets to reduce Scope 1 and 2 emissions by 50% by 2030 and Scope 3 emissions by 20% by 2028, based on a 2021 baseline. These targets, validated by the SBTi in January 2024, are supported by a comprehensive transition plan that outlines key actions across each emission scope, with a strong focus on energy efficiency, the shift to renewable energy, and driving emission reductions throughout Mölnlycke's supply chain.

Scope 1 & 2 emission transition plan



Scope 3 emission transition plan



Scope 1 direct emissions

To reduce Scope 1 emissions, Mölnlycke is prioritising energy efficiency improvements and the transition to low-emission technologies across its operations. Comprehensive energy audits are conducted at its facilities to identify inefficiencies and areas for improvement. As part of this, Mölnlycke will replace or retrofit outdated equipment with energy-efficient and low-emission alternatives, including upgrading heating systems, industrial processes, and machinery to more efficient technologies.

Following the succesfull implementation of the waste heat recovery system at Mölnlycke's production site in Finland, similar solutions will be deployed across other sites where feasible to capture and reuse energy that would otherwise be wasted. These measures will help to reduce overall energy consumption and directly contribute to lower emissions.

Additionally, Mölnlycke is committed to transitioning its company car fleet to low- or zero-emission vehicles. This shift will be gradual, with some regions expected to transition more quickly than others, based on the availability of electric vehicles and local market conditions.

Scope 2 indirect emissions

Mölnlycke has set an ambitious target to source 100% of its electricity for operating sites and headquarters from renewable sources by end of 2024. This milestone has been achieved through a combination of onsite renewable energy installations, such as solar panels, long-term PPAs with renewable energy providers and EACs.

In addition to transitioning to renewable electricity, Mölnlycke will continue to implement energy efficiency improvements across its facilities, including upgrading to energy-efficient equipment and optimising energy use in all buildings. These measures will reduce the overall energy consumption, directly lowering Scope 2 emissions, which are tied to purchased energy. Furthermore, Mölnlycke is committed to purchasing 100% renewable electricity through 2030 and beyond for both consolidated sites and new geographical expansions.

Scope 3

Scope 3 emissions represent the largest portion of Mölnlycke's GHG emissions, and addressing these emissions is a key focus of the company's carbon transition strategy. Mölnlycke's approach to reducing Scope 3 emissions spans multiple key areas within operations and the supply chain.

The company is actively engaging with its suppliers to align them with its Net Zero commitment and near-term climate targets. The company has committed to having 63% of its suppliers adopt science-based targets by 2028, with more than 38% already on board at the end of 2024. Supplier engagement is crucial to reducing Scope 3 emissions, and Mölnlycke is working closely with suppliers to drive reductions across the supply chain.

Another central element of the company's decarbonisation strategy is product life-cycle management. By focusing on sustainable product design, including material substitutions with lower environmental impact, down-gauging products, and optimising packaging, Mölnlycke aims to significantly reduce emissions across its product offerings. For further information on how Mölnlycke's products and solutions reduce downstream's GHG emissions and support the decarbonisation of healthcare, please refer to the Sustainable Product Portfolio Assessment section of the Sustainability report.

In the area of sustainable transportation, Mölnlycke is optimising its logistics and supply chain operations to improve efficiency

and reduce emissions related to transportation and distribution. This involves making improvements in supply-chain planning, optimising operations footprint and prioritising low-carbon transport options.

For energy efficiency and renewable energy within its production processes, Mölnlycke is implementing energy-saving measures and transitioning to renewable energy sources to reduce the upstream emissions associated with the production and transportation of the fuels and energy it consumes in its operations.

Through improved waste management practices, including better production efficiency and waste handling, Mölnlycke is working to reduce emissions linked to waste throughout the supply chain. These initiatives focus on reducing waste production in the first place, and then eliminating waste to landfill while improving the overall efficiency in its operations.

Looking further ahead, Mölnlycke is steadfast in its commitment to reaching Net Zero emissions across its entire value chain by 2050, a goal formally submitted to the SBTi at the end of 2024.

Carbon removals

As part of its commitment to Net Zero, Mölnlycke plans to explore the use of carbon removal technologies, such as carbon capture and storage (CCS), to neutralise the unavoidable portion of value chain emissions.

In line with its sustainability principles, Mölnlycke will ensure that any carbon removal technologies employed meet the highest standards of effectiveness, transparency, and accountability to preserve the integrity of Mölnlycke's Net Zero claims.

Internal carbon pricing

In line with Mölnlycke's Investment Request Policy, all investment proposals involving tangible assets must include a sustainability assessment. For significant investments, this includes a quantitative analysis of greenhouse gas (GHG) emission impacts covering Scope 1, 2, and 3. Additionally, Mölnlycke applies an internal static carbon price of €100 per tonne of CO_2e to Scope 1 and 2 emissions. This shadow price is determined using the highest EU Emissions Trading System (ETS) price as a benchmark, reflecting the estimated future cost of carbon in regulatory environments, supporting long-term decision making.

The internal carbon price is an essential tool for guiding investment decisions at Mölnlycke, enabling the company to select the most sustainable and efficient solutions to meet its Net Zero target by 2050. By integrating carbon pricing into investment evaluations, Mölnlycke ensures alignment with its decarbonisation strategy while effectively managing potential risks and opportunities related to carbon costs. For example, the carbon pricing mechanism has been applied to key 2024 investments, including ETO sterilisation and expansion in Mölnlycke's production facility in Mikkeli, Finland. Since Mikkeli has been utilising 100% renewable electricity for several years, the Scope 2 emissions for these investments were effectively zero, resulting in minimal impact on Net Present Value (NPV) and Internal Rate of Return (IRR).

Recognising the dynamic nature of sustainability expectations and regulatory landscapes, Mölnlycke regularly reviews its internal carbon pricing to ensure alignment with the latest scientific guidance and policy developments. This approach allows the company to remain proactive in its decarbonisation commitments, mitigate carbon cost impacts for customers by offering sustainable solutions, and maintain competitiveness in an increasingly sustainability-driven market.

Awareness and training

Climate action is a central part of Mölnlycke's sustainability strategic roadmap. As the company works toward its 2050 Net Zero goal, it is essential to ensure that all employees are equipped with the knowledge and skills necessary to contribute to this journey. To this end, Mölnlycke has developed a comprehensive framework to raise awareness and provide training across the organisation, focusing on building a strong climate-action culture.

In 2024, Mölnlycke rolled out dedicated Net Zero training for 100% of its buyers and R&D employees, ensuring these key teams are well-equipped to integrate sustainability considerations into their daily work. The training was designed to deepen understanding of the company's Net Zero commitment, the importance of sustainable product design, and the role each individual can play in reducing GHG emissions.

A key initiative in Mölnlycke's engagement with its suppliers is the 'Partnering for Progress' webinar series. In 2024, the "Data-driven Sustainability" session focused on using data to drive supply chain sustainability, highlighting the importance of accurate data collection and analysis to track and reduce GHG emissions. The session also covered Mölnlycke's expectations for business partners to set and achieve emission reduction targets, supporting the company's broader efforts to reduce its climate impact. The session also served as a continuation of the company's GHG emissions training, now extended to suppliers, to ensure alignment on data and emission reduction strategies across the value chain. Approximately 150 strategic suppliers attended and recognised the importance of collaboration and transparency in reducing emissions throughout the value chain.

Executive variable remuneration

Mölnlycke's Long-Term Incentive plan incorporates sustainability as a key performance measure, aligning employee rewards with measurable environmental outcomes. This approach reinforces the company's commitment to reducing GHG emissions and motivates leaders to drive decarbonisation efforts throughout the organisation.

A key element of the Long-Term Incentive plan is the inclusion of Scope 3 absolute GHG emission reductions, which represent more than 80% of Mölnlycke's total emissions. This focus ensures efforts are directed at reducing emissions from purchased goods and services, energy, upstream transport, and waste. Leaders across functions, from supply chain to R&D, are motivated to adopt innovative, low-carbon solutions that align with Mölnlycke's sustainability goals. With clear targets and performance-based rewards, the Long-Term Incentive plan fosters accountability, collaboration, and long-term systemic change by encouraging employees to align personal success with the company's mission to revolutionise care for both people and the planet.

Digitalisation

Digitalisation is a key enabler in Mölnlycke's mission to reduce GHG emissions, driving efficiency and innovation across its operations and the solutions it provides to customers.

Within its own operations, Mölnlycke utilises advanced data analytics and real-time monitoring systems to optimise energy use across manufacturing sites, reducing emissions and improving resource efficiency. Supply chain visibility is enhanced through digital platforms that enable smarter transport routes, lower upstream emissions, and improved inventory management. Furthermore, digital Life Cycle Assessment (LCA) tools guide sustainable product design, while virtual collaboration platforms reduce the need for travel, cutting associated emissions. Mölnlycke also empowers its customers with digital solutions designed to optimise care and minimise environmental impact, such as:

- **Mölnlycke ProcedurePak® online tool:** this solution enables healthcare providers to customise procedure trays, ensuring they contain only the necessary items, thereby reducing waste and improving operational efficiency in hospitals
- **e-learning platforms:** Mölnlycke's digital training tools support healthcare professionals by providing virtual resources for skill development and product use, reducing travel-related emissions for in-person training and further improving the outcome of its products
- **supply management systems:** integrated solutions such as inventory tracking and usage analytics help healthcare facilities manage supplies more effectively, reducing overstocking, product waste, and emissions associated with unnecessary deliveries

The company remains committed to further exploring the potential of digital innovation, ensuring all solutions align with best practices and methodologies for assessing their environmental impact. As a general principle, any climate-related commitment or collaboration that Mölnlycke partakes in with external partners must be based on a scientific approach for the company to consider endorsement.

Metrics and targets

Targets

Emission reductions – long-term

Net zero value chain GHG emissions by 2050, including a 90% absolute reduction in Scope 1 and 2 emissions, and a 97% reduction in physical intensity of Scope 3 emissions (all categories), relative to a 2021 baseline. Carbon removal and storage technologies will be utilised to address any remaining unavoidable emissions. These targets were submitted to Science Based Targets initiative (SBTi) for validation in December 2024.

Emission reductions – near-term

Reduce absolute Scope 1 and 2 GHG emissions by 50% by 2030, compared 2021 baseline. Reduce absolute Scope 3 GHG emissions from purchased goods and services (cat. 1), fuel and energy related activities (cat. 3), upstream transportation and distribution (cat. 4) and waste generated in operations (cat. 5) by 20% by 2028, compared to 2021 baseline.

Metric[31]	Categories	Base year (BY)	BY emissions (tCO_2e)	Target year (TY)	TY change vs BY (%)	TY emissions (tCO_2e)	2024 change vs BY (%)	2024 emissions (tCO_2e)	SBTi status
Scope 1 and 2	Market-based	2021	104212	2030	-50	52106	-40	62869	Validated (1.5 °C)
Scope 3	1, 3–5[32]	2021	454737	2028	-20	363790	-19	370023	Validated (1.5 °C)

Renewable energy

Increase active annual sourcing of renewable electricity to 100% by the end of 2024 and continue active annual sourcing of 100% renewable electricity through 2030.

Metric	Base year	Base year status (%)	Target year	Target (%)	2024 end year status (%)	SBTi status
Renewable electricity	2021	23	2024	100	100	Validated (1.5 °C)

Supplier commitment

Have 63% of suppliers by emissions covering purchased goods and services (cat. 1), capital goods (cat. 2), and upstream transportation and distribution (cat. 4) committed to the Science Based Targets Initiative by 2028.

Metric	Scope 3 categories	Base year	Base year status (%)	Target year	Target (%)	2024 status (%)	SBTi status
Suppliers with a SBTi commitment	1–2,4	2021	12	2028	63	38	Validated (1.5 °C)

Energy intensity

Decrease energy intensity per tonne of production with 2% YoY.

Metric	Reference year	Reference year Status (MWh/t)	Target Year	Target (MWh/t)	Target Reduction (%)	2024 status (MWh/t)	2024 Performance (%)
Energy intensity	2023	5.49	2024	5.38	-2	5.64	+2.8

31. The targets are company-wide.
32. Purchased goods and services, Fuel- and energy-related activities, Upstream transportation, and Waste generated in operations.

Metrics

Energy consumption in own operations

Energy consumption[33] and mix[34]

(MWh)	2024	2023	2022	2021
Fossil sources				
Fuel consumption from coal and coal products	**54.9**	54.9	52.3	52.3
Fuel consumption from oil and petroleum products	**34,227**	74,240	54,650	55,382
Fuel consumption from natural gas	**191,317**	140,690	164,127	168,395
Fuel consumption from other fossil sources	**6,212**	6,283	4,745	4,956
Purchased or acquired electricity	**16,258**	30,687	41,388	73,599
Purchased or acquired heat	**9,211**	9,972	3,731	7,259
Purchased or acquired steam	**3,273**	4,457	11,746	11,773
Purchased or acquired cooling	**-**	-	-	-
A. Total fossil energy consumption	**260,552.2**	**266,382.7**	**280,440.8**	**321,415.7**
Share of fossil sources in total energy consumption (%)	**75%**	79%	82%	92%
Share of fossil sources in total electricity consumption (%)	**16%**	30%	40%	71%
Nuclear sources				
Fuel consumption from nuclear sources	**-**	-	-	-
Purchased or acquired electricity	**3,268**	9,279	9,342	9,927
B. Total nuclear energy consumption	**3,268**	**9,279**	**9,342**	**9,927**
Share of nuclear sources in total energy consumption (%)	**1%**	3%	3%	3%
Share of nuclear sources in total electricity consumption (%)	**3%**	9%	9%	10%
Renewable sources				
Fuel consumption from renewable sources	**-**	-	-	-
Purchased or acquired electricity	**81,307**	60,021	51,514	19,818
Purchased or acquired heat	**-**	-	-	-
Purchased or acquired steam	**-**	-	-	-
Purchased or acquired cooling	**-**	-	-	-
Consumption of self-generated non-fuel renewable energy	**3,823**	1,738	-	-
C. Total renewable energy consumption	**85,130**	**61,759**	**51,514**	**19,818**
Share of renewable sources in total energy consumption (%)	**24%**	18%	15%	6%
Share of renewable sources in total electricity consumption (%)	**81%**	61%	50%	19%
D. Total energy consumption (A+B+C)	**348,951**	**337,421**	**341,297**	**351,161**
Energy intensity				
MWh/net sales MEUR	**169.1**	175.4	186.7	208.3
MWh/t of production	**5.64**	5.49	5.71	6.08

Greenhouse gas emissions

GHG emissions by scope and category

(tCO_2e)	2024	2023	2022	2021
Scope 1 direct GHG emissions				
Consolidated Accounting Group	**52,355**	52,788	50,904	51,607
Investees and Joint Arrangements	**0.5**	-	-	-
Total gross Scope 1 emissions	**52,356**	52,788	50,904	51,607
Scope 1 emissions under regulated ETS (%)	**-**	-	-	-

(tCO_2e)	2024	2023	2022	2021
Scope 2 indirect GHG emissions				
Consolidated Accounting Group				
Purchased energy (location-based)	**49,506**	51,898	54,422	55,603
Purchased energy (market-based)	**9,263**	20,276	29,027	52,605
Investees and Joint Arrangements				
Purchased energy (location-based)	**2,080**	-	-	-
Purchased energy (market-based)	**1,250**	-	-	-
Total gross Scope 2 emissions (location-based)	**51,586**	**51,898**	**54,422**	**55,603**
Total gross Scope 2 emissions (market-based)	**10,513**	**20,276**	**29,027**	**52,605**

33. Data on energy consumption in own operations is gathered from internal environmental reporting systems. Data is collected and aggregated by the environmental management responsible on the sites. The data covers fuel and other energy use in MWh, broken down by energy type and source. Primary data is gathered on self-generated electricity. When data is not available – which is predominantly the case for small sales offices – estimations are made for energy demand based on the floor area and the region of operation with the use of literature and publicly available statistics.
34. Following the directives in ESRS E1, energy consumptions is only considered as deriving from renewable sources if the origin of the purchased energy is clearly defined in the contractual arrangements with the suppliers (e.g. renewable power purchasing agreement, Guarantee of Origin or Renewable Energy Certificates).

(tCO_2e)	2024	2023	2022	2021
Scope 3 other indirect GHG emissions				
Upstream				
Purchased goods and services	**312,323**	282,583	312,666	376,780
Capital goods	**49,979**	40,708	62,776	43,226
Fuel- and energy-related activities	**14,692**	18,202	18,830	19,459
Upstream transportation and distribution	**41,254**	39,488	45,848	56,914
Waste generated in operations	**1,756**	1,639	1,505	1,584
Business travel	**28,333**	24,612	24,654	8,006
Employee commuting	**11,797**	11,349	11,436	11,906
Upstream leased assets	**950**	807	759	679
Downstream				
Downstream transportation and distribution	**3,510**	3,174	3,043	3,152
Use of sold products	**670**	743	556	703
End-of-life treatment of sold products	**20,995**	22,748	21,756	22,089
Total gross Scope 3 emissions	**486,261**	**446,053**	**503,829**	**544,497**
Scope 1,2 & 3 total GHG emissions				
Total gross GHG emissions (location-based)	**590,203**	**550,739**	**609,155**	**651,707**
Total gross GHG emissions (market-based)	**549,129**	**519,117**	**583,760**	**648,709**

%	2024	2023	2022	2021
Share of GHG emissions by scope				
Scope 1	**9%**	10%	9%	8%
Scope 2 (market-based)	**2%**	4%	5%	8%
Scope 3	**89%**	86%	86%	84%

(tCO_2e/net sales MEUR)	2024	2023	2022	2021
GHG intensity based on net revenue				
Scope 1	**25.4**	27.4	27.9	30.6
Scope 2 (location-based)	**25.0**	27.0	29.8	33.0
Scope 2 (market-based)	**5.1**	10.5	15.9	31.2
Scope 3 upstream categories	**223.4**	218.0	261.8	307.6
Scope 3 downstream categories	**12.2**	13.9	13.9	15.4
All scopes (market-based)	**266.1**	**269.9**	**319.4**	**384.9**

(tCO_2e/t products sold)	2024	2023	2022	2021
GHG intensity based on sold products				
Scope 3	6.77	6.31	7.21	7.74

Supply chain engagement

Suppliers by emission committed to SBTi

%	2024	2023	2022	2021
Suppliers	38	20	14	12

In 2024, Mölnlycke reported a 15% reduction in total GHG emissions compared to the 2021 baseline, along with a 1.4% decrease in overall emissions intensity. This positive trend reflects the company's ongoing efforts to reduce emissions despite a 6% increase in total GHG emissions compared to 2023. The increase in emissions was driven by strong business growth, including the establishment of a new production site in Saudi Arabia.

The reduction in Scope 1 and 2 emissions was particularly notable, driven by key initiatives such as the transition to 100% renewable electricity at all production sites and the headquarters, which resulted in a 9.8 $ktCO_2e$ reduction in Scope 2 emissions compared to 2023. The company's energy efficiency efforts were further bolstered by the closure of the Batang Kali factory and the relocation of production to more energy-efficient sites, alongside the use of renewable electricity certificates (iRECs) to offset emissions at the Jeddah facility. As a result, Scope 1 and 2 emissions dropped by 40% compared to the 2021 baseline, with a significant 44% reduction in emissions per unit of production. These reductions were achieved while also managing the increased energy demand tied to the company's growth and the energy consumption of newly established facilities.

Mölnlycke continues its decarbonisation efforts in its value chain, achieving a 11% reduction in Scope 3 emissions in 2024 compared to the 2021 baseline. However, compared to 2023, Scope 3 emissions increased by 9%, largely driven by portfolio expansion, longer transportation routes, and changes in emissions calculation methodologies. During 2024, Mölnlycke has made significant progress in decarbonising its value chain. Initiatives such as the transition to renewable energy have contributed to a 19.3% reduction in Scope 3 emissions from fuel- and energy-related activities. implementation of low-carbon transportation solutions, including increased biofuel and intermodal solutions, alongside optimised logistics flows and minimised use of temperature-controlled containers, helped mitigate some of the impacts of the increased business activity. Moreover, packaging and waste management improvements were initiated and will continue during 2025.

GHG accounting methodology

Greenhouse gas emissions are reported according to the GHG Protocol Corporate Standard, using operational control as the basis for consolidation. Emissions are reported in CO_2e and include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorochemicals (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). Included greenhouse gases are defined by the IPPC AR6 methodology, based on a 100-year timeframe.

GHG accounting methodologies

Scope	Methodology
Scope 1	Calculation of scope 1 emissions is based on fuel consumption and refrigerant leakages from facilities, equipment and vehicles under Mölnlyckes control. Fuel consumption is converted into energy using lower heating value factors. Refrigerant leakage is reported per type. Emissions from internal sterilisation using EtO are calculated stochiometrically, assuming complete combustion.
Scope 2	Calculation of scope 2 emissions includes all purchased energy used within Mölnlycke's facilities, equipment and vehicles. Amount of energy used is reported using primary data from electricity providers, bills or metering. Purchased energy volumes are multiplied by country average emission factors for location-based emissions. For market-based emissions supplier-specific emission factors are used (must be proven by contractual instruments) or, for sites that do not have any contract that meets the Scope 2 Quality Criteria, residual mix is used (or the grid mix if no residual mix is available).
Scope 3	
Purchased goods and services	Calculation of emissions from purchased goods (raw materials, components, spare parts) is based on primary procurement data. Masses and materials of the articles are retrieved from internal systems or manually and validated by Business Area representatives. Supplier-specific emission factors are used, where available. Otherwise, secondary database emission factors are retrieved from LCI databases (aggregated or composite) and used to calculate the emissions. Calculation of emissions from external sterilisation is based on primary data on the weight of sterilised products and expert assumptions on the emissions and energy consumption per batch of processing. Calculation of emissions from withdrawn water is based on the primary reported data on water consumption from the sites. When data is not available (predominantly for small sales offices), estimations are made based on the floor area of the offices. Calculation of emissions associated with purchased services is based on the primary data on the spent financial resources per service type.
Capital goods	Calculation of emissions associated with capital goods is based on the primary data on spent financial resources per type of capital goods. Internal expert judgements are applied to define the shares of personnel and project management costs per spent category, to exclude these from the calculations.
Fuel- and energy-related activities	Calculation of emissions associated with fuel- and energy-related activities not included in Scope 1 or Scope 2 is based on the primary reported data on energy consumption from the sites. When data on the consumed amounts is not available (predominantly for small sales offices), estimations are made based on the floor area of the offices and region of operation. When primary data on the energy source is not available, assumptions are made based on the region of operation.
Upstream transportation and distribution	Calculation of emissions associated with the transport of raw materials to the production sites and intracompany transport is based on the primary logistics data on the transported masses, distances and modes of transportation. Calculation of emissions associated with purchased warehousing services is based on the primary data on the leased warehousing capacities in pallets by type, and primary data or expert assumptions on average duration of storage, cooling share and energy consumption. Calculation of emissions associated with logistics of the products to processing and first tier customer, is based on the aggregation of the emissions reported by the logistics services providers.

Scope	Methodology
Scope 3 Waste generated in operations	Calculation of emissions from treatment of operational waste is based on the primary data from the sites on generated operational waste per fraction, destination and treatment type. Transportation of the waste to waste treatment is included, with assumptions on distances and modes of transport. Calculations of emissions from wastewater treatment is based on the primary data on water discharge. When data on water discharge is not available, conservative assumption of equivalence of water withdrawal and discharge is taken. When waste data is not available (predominantly for small sales offices), estimations are made based on the floor area of the offices.
Business travel	Calculation of emissions associated with business travel is based on the primary data on the spent financial resources in business travelling, including transport by mode and accommodation.
Employee commuting	Calculation of emissions associated with employee commuting is based on the primary data on the number of employees and the regional expert estimation of the average distances and modes of commute of the employees.
Upstream leased assets	Calculation of emissions associated with upstream leased assets (operational lease) is based on the primary data on the spent financial resources per leased asset type.
Downstream transportation	Calculation of emissions associated with the transport of sold products from the customer to the final user, is based on the primary data on the volumes of sales, and assumptions on the transportation modes and distances (local supply chain assumed).
Processing of sold products	Mölnlycke does not have any processing of sold products.
Use of sold products	Calculation of emissions associated with the use of products is based on the primary data on sales of the products expected to have considerable energy and material inputs in use, or generating emissions. Energy consumption of products in use is estimated with conservative assumption of full power capacity use, with global average electricity mix. Emissions of products in use are estimated based on provided formulations and relevant substances content.
End-of-life treatment of sold products	Calculation of emissions associated with the end of life of sold products is based on the primary data on sales of products by region. Material composition of the products is assumed analogous to the procurement of goods. End-o- life scenario assumes incineration with energy recovery for products sold in EMEA region, and incineration without energy recovery for products sold elsewhere. Transportation of the waste to waste treatment is included, with assumptions on distances and modes of transport.
Downstream leased assets	Mölnlycke does not lease assets to third parties.
Franchises	No franchises are issued by Mölnlycke.
Investments	Mölnlycke does not act as an investor (excluding operational investments considered in other scopes and categories), nor provides financial services.

Significant assumptions

To ensure accurate emission calculations, the following key assumptions were made:

- **geographical relevance:** emission factors were carefully selected based on the specific locations of operations to account for regional variations
- **activity data:** for smaller sales offices where actual data was unavailable, estimations were made using floor area and regional operational context as the basis
- **data quality and supplier data:** In cases where actual emissions or supplier-specific data could not be obtained, reliable industry-standard emission factors from sources such as Ecoinvent and Defra were used. When necessary, global averages from databases like Exiobase and Ecoinvent were applied to ensure consistency and credibility in the calculations

GHG accounting sources

Scope	Accounting method	Emission factor source
Scope 1		
Fuels	Consumed amounts	Defra, Ecoinvent
Refrigerants	Leakages/refilled amounts	Defra
Scope 2		
Purchased electricity	Market-based	PPA, RECs, IRECs, GO, Supplier specific, IEA, eGRID, AIB
Purchased heat & steam	Purchased amounts	Defra, Ecoinvent
Scope 3		
Purchased goods and services	Supplier-specific, Average data & Spend-based	LCA, Ecoinvent & Exiobase
Capital goods	Spend-based	Exiobase
Fuel- and energy-related activities	Average data	Defra
Upstream transportation and distribution	Distance-based & Average data	GLEC, Ecoinvent
Waste generated in operations	Waste-type-specific	Ecoinvent
Business travel	Spend-based	Exiobase
Employee commuting	Distance-based	Ecoinvent
Upstream leased assets	Spend-based	Exiobase
Downstream transportation and distribution	Distance-based	Ecoinvent
Use of sold products	Average data	Ecoinvent
End-of-life treatment of sold products	Average data	Ecoinvent

GHG accounting rationale

- **Defra:** provides trusted, regularly updated UK government data for energy, fuel, and refrigerant emissions (Scope 1 and 3.3)
- **PPA, RECs, GO, Contract, IEA, AIB:** following the GHG Protocol Scope 2 quality criteria
- **LCA:** product-specific LCAs offer the most accurate emission data for purchased goods
- **Ecoinvent:** provides comprehensive lifecycle data for a wide range of products and activities, ensuring consistent and reliable estimates across the supply chain
- **Exiobase:** a global economic database for consumption-related emissions, used for estimating emissions from purchased services, capital goods, leased assets, and business travel
- **GLEC:** provides specific emission factors for logistics and transportation, used for estimating emissions from upstream and downstream transportation (Scope 3.4 and 3.9)

EU taxonomy disclosure

The Taxonomy Regulation establishes the framework for the EU taxonomy by setting out four conditions that an economic activity must meet in order to qualify as environmentally sustainable.

A qualifying activity must:

1. Contribute substantially to one or more of six environmental objectives, being:
   - climate change mitigation,
   - climate change adaptation,
   - sustainable use and protection of water and marine resources,
   - transition to a circular economy,
   - pollution prevention and control,
   - protection and restoration of biodiversity and ecosystems.
2. Do no significant harm to any of the other environmental objectives.

3. Be carried out in compliance with minimum (social) safeguards.
4. Comply with technical screening criteria. The technical screening criteria specify the performance requirements for any economic activity that determine under what conditions that activity makes a substantial contribution to a given environmental objective and does not significantly harm the other objectives.

Companies are required to report on the proportion of turnover, capital expenditures and operating expenditures that are associated with environmentally sustainable economic activities (eligible activities), and to what extent these activities are aligned (i.e. contributing to one or more environmental objectives). For the purpose of reporting according to Article 8 of the taxonomy, turnover, capital expenditure ("CapEx") and operational expenditure ("OpEx") are identified as follows in accordance with the taxonomy:

- the Group's total turnover corresponds to Revenue in the Consolidated Income Statement
- total CapEx equals the additions as specified in Note 10 "Property, plant and equipment", Note 12 "Other intangible assets" and Note 18 "Leases". Goodwill is not included in the CapEx definition for intangible assets
- total OpEx in the Taxonomy corresponds to non-capitalised research and development costs, building renovation costs, short-term leases, maintenance, and repair costs and other indirect costs for the day-to-day servicing of assets of property, plant and equipment and are not separately disclosed in the consolidated financial statements

Mölnlycke has performed the following activities in 2024 in relation to the EU Taxonomy regulation:

- attended trainings by personnel involved in data-gathering, explaining key characteristics of the EU taxonomy guidelines and potential eligible activities
- performed a detailed analysis of the individual taxonomy-eligible economic activities led by Group Finance and including members from Treasury and Sustainability function. Medical products and solutions do not fall within the EU taxonomy screening criteria for climate change mitigation or adaptation, and only one eligible economic activity generating turnover related to pollution prevention is identified. As a consequence, eligible activities are limited in 2024 and mainly related to supporting CapEx on sustainable solutions
- in accordance with the updated criteria outlined in the EU taxonomy, our review has addressed eligibility and calculated alignment against all six environmental objectives
- the assessment identified that aligned CapEx has increased since 2023 and included: the installation of solar panels at one production facility, installation of EV chargers at two production facilities, installation of LED lighting at one production facility and the investment in our new headquarters at GoCo Health Innovation City
- consulted with external experts and peers to ensure a correct and consistent interpretation of the legal requirements
- conducted a self-assessment using questions which were developed by our owners to determine whether the company complies with the minimum safeguards

The outcomes of the EU taxonomy reporting for 2024 is disclosed in the table below:

	Turnover %	CapEx %	OpEx %
Eligibility	3%	66%	2%
Alignment	-	22%	-

Circularity and resource efficiency

Mölnlycke is committed to advancing the circular economy by designing products and packaging that remain in circulation. This approach reduces reliance on finite resources, supporting sustainable growth and innovation across the value chain.

Central to Mölnlycke's circular economy programmes are collaborations with healthcare providers to optimise device usage, extend product lifespans, recyclability and reduce consumption – all while maintaining the highest standards of quality and safety. By adopting "design-for-circularity" principles, Mölnlycke ensures that its solutions are developed to eliminate waste and pollution and circulate materials and products at their highest value in a sustainable way.

Mölnlycke's use of biobased materials certified by the International Sustainability and Carbon Certification (ISCC) system and the Forestry Stewardship Council (FSC®) underscores the company's commitment to responsible sourcing and minimising environmental impact. With an expanding portfolio of biobased and recycled materials, Mölnlycke is demonstrating its commitment to reducing waste and retaining valuable resources within the healthcare ecosystem. This includes exploring and implementing closed-loop circular models, ensuring that products are designed with end-of-life considerations in mind.

In 2025, Mölnlycke will introduce targets and metrics to track its progress towards circular economy business models, supported by metrics measuring revenue from solutions that drive circularity.

As part of its commitment to circularity, Mölnlycke is also focused on minimising waste and enhancing raw material efficiency in its own operations. By adhering to the "right first time" principle, the company aims to eliminate unnecessary resource use, repurpose materials where possible, and achieve zero waste to landfill by 2030. This aso includes the implementation of closed-loop water systems at its most water-intensive sites, alongside continuous improvements in water reuse practices.

Although reclaiming products and packaging presents challenges due to specific order and product requirements, Mölnlycke continuously monitors its resource efficiency gains related to product reclamation. In 2024, the company reclaimed 1.04% of products based on monetary value, reinforcing its ongoing efforts to improve sustainability across its operations.

For more information on Mölnlycke's circular economy initiatives, please refer to 'Exploring closed loop systems for medical supplies in the Operating Room' in the' Sustainability in action' section of this report.

Waste

In 2024, Mölnlycke generated 14,641 tonnes of waste across its sites, reflecting a 4.7% increase from 2023. Similarly, waste intensity rose by 6%, driven by the same operational factors. These increases were primarily attributed to non-routine waste resulting from the closure of a production facility in the Gloves Business Area, the commissioning of new production lines at the Kulim Hi-Tech facility, and the relocation of Mölnlycke's headquarters in Sweden.

Despite these temporary impacts, ongoing waste reduction efforts helped mitigate the overall effect. Mölnlycke advanced its circularity initiatives, including reusing process materials and recycling raw materials like latex suspension back into production. Additionally, adjustments to machinery specifications and raw material criteria improved product yield, minimised waste generation, and enhanced resource efficiency.

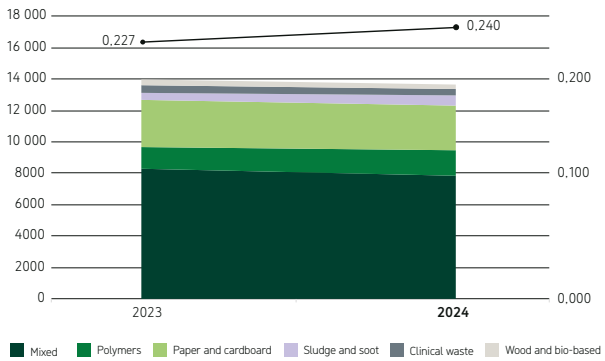
Mölnlycke's collaboration with local waste management firms and other partners played a key role in enhancing the reuse and recycling of resources in 2024, advancing the company's commitment to a circular economy.

As part of its ongoing commitment to reducing landfill waste, Mölnlycke has implemented significant initiatives at its facilities. In early 2025, Mölnlycke's sites in Maine will fully divert 150 tonnes of waste per month away from landfills. Initially, waste will be incinerated with heat recovery, but later on during the year, the company will transition to a new waste handling and transportation vendor, supporting the launch of a pellet programme, offering a second option for landfill diversion.

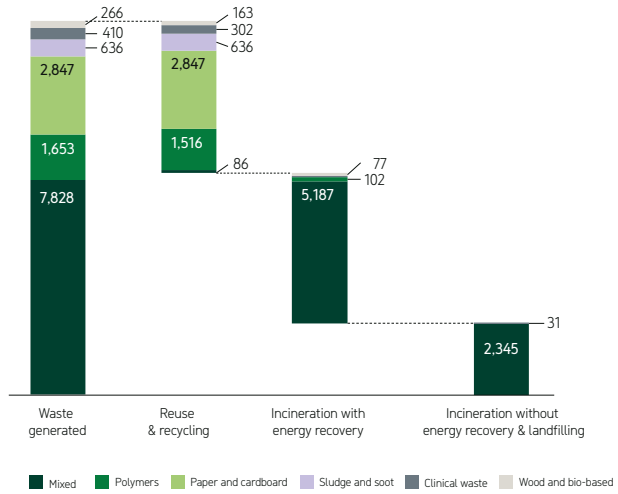
Waste management data is collected via the company's internal environmental reporting system, with each facility's environmental management responsible for compiling the information. The data includes operational waste generation by category and classification (hazardous or non-hazardous), as well as the treatment methods and disposal destinations. For smaller sales offices, where data may not be readily available, estimates are made based on floor area, assuming all waste is general non-hazardous waste due to the limited activities at those offices.

In 2024, Mölnlycke diverted 5,722 tonnes of waste from disposal, primarily through reuse and recycling. The remaining 8,919 tonnes were disposed of, with the majority being incinerated with energy recovery, while the rest was incinerated without energy recovery or sent to landfill. All waste generated, including both hazardous and non-hazardous materials, is managed through off-site treatment by certified third-party providers.

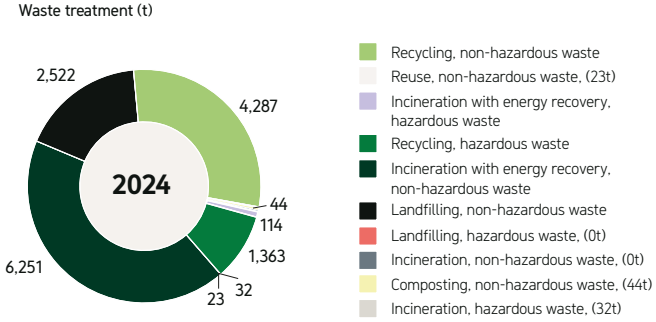
Waste generation (in t) and waste intensity (in t/t)



Waste generated, diverted and disposed by composition (t)



Waste treatment (t)



Water

Mölnlycke is committed to responsible water use across all its production sites and offices, understanding the critical importance of a sustainable water supply for its business operations. Water is essential to various activities, including raw material production, product manufacturing (such as foam production), cleaning, cooling, and sanitisation. While not being a high-intensity water consumer, Mölnlycke recognises the potential impact its operations may have on local water bodies during extraction and discharge, which leads the company to adopt a precautionary approach.

Ongoing risk assessments and the evaluation of water-related impacts are central to Mölnlycke's strategy. The company works to minimise these impacts through:

- water reuse and recycling technology, such as the closed loop system at the Oldham facility, UK,
- the implementation of robust maintenance practices and secondary containment measures at all manufacturing facilities,
- preventing spills of raw materials through proactive maintenance,
- adhering to sound operating procedures,
- providing continuous training for employees and suppliers involved in raw material handling and management.

Mölnlycke's global presence is a key strength, but it also means that the availability of fresh water varies across regions, and some locations face more long-term water security challenges than others.

While water scarcity is not a concern at most of Mölnlycke's sites, certain regions, such as the newly established joint venture in Saudi Arabia, are in water-stressed areas[35]. Mölnlycke recognises that increasing water stress could affect both local communities and business continuity in the future. To address this, the company is proactively reducing water usage by enhancing water capture and reuse at relevant sites. This approach goes beyond traditional water efficiency and regulatory compliance, especially in areas with vulnerable populations.

In water-stressed regions, Mölnlycke is committed to developing tailored water action plans by the end of 2025, including water capture and reuse at these sites, and has already initiated this work at its joint venture in Saudi Arabia.

Additionally, all operational teams share best practices to optimise water use across routine and non-routine activities across sites. The company places a strong emphasis on educating and engaging employees in water conservation initiatives to ensure that water efficiency is a core part of its operations.

Water intake

In 2024, the company saw a 9% increase in total water intake compared to 2023, primarily driven by higher production volumes in the Gloves Business Area in 2024. The majority of this water is sourced from third-party providers, with municipal water supplies being the main source. All withdrawn water (own withdrawn groundwater and water from municipal or other external water supplies) is considered fresh water[36]. Water withdrawal volumes are tracked through the company's internal environmental reporting system, with data collected and compiled by the environmental management teams at each facility[37].

Water consumption

Mölnlycke's overall water consumption is estimated to be moderate, totaling 123,026 m³. Water is used as an ingredient or component in products such as foam and Epaderm®, with production occurring at three locations: Wiscasset (US), Mikkeli (Finland), and Oldham (UK). These sites are not located in water-stressed areas. Notably, in 2024, the Oldham facility in the UK has achieved a 98% reduction in water consumption for the Epaderm mixing process compared to previous year through the implementation of a closed-loop water cooling system.

Water is also utilised during evaporation in the Gloves manufacturing process[38], for fire suppression, and in humidification systems, as well as in various canteens across Mölnlycke's sites.

Water storage is not applicable to Mölnlycke's operations.

Water discharge

Following usage, all Mölnlycke sites discharge water into municipal sewage systems, with limited environmental impact reported from discharge practices. In the USA and Malaysia, for example, water is treated to meet regulatory standards before being released, ensuring compliance through stringent controls governed by local permits and overseen by authorities. Regular testing is conducted as mandated by local regulations, with effluent discharge quality standards set for all industries.

Mölnlycke works closely with local environmental authorities to ensure that permit requirements reflect the specific characteristics of the receiving water bodies. To the best of the company's knowledge, no priority substances of concern are released into natural systems through its water discharges.

A systematic approach, integrated into Mölnlycke's ISO 14001-certified environmental management system, is followed at all sites to identify, document, and assess risks related to water consumption and discharge. Actions are evaluated and implemented as needed to prevent negative impacts, with examples including upgrading on-site filtration systems, modifying chemical usage in production processes, and developing a process to precipitate chemicals, such as silver, from wastewater to reduce the load on municipal treatment facilities.

35. Water stress is defined in terms of the ratio of total yearly water withdrawal to the amount of available renewable water supply. An area is considered a 'water stress area' when the ratio between withdrawal and supply is either high (40–80%) or extremely high (>80%), based on the data from the World Resources Institute. Baseline water scarcity level for each of the reported locations was collected on 30 December 2024, from the Aqueduct Water Risk Atlas, with information from the World Resources Institute. The data is an annual average and is taken to represent water scarcity levels for both 2023 and 2024 data.
36. In cases where water withdrawal data is unavailable, typically for smaller sales offices, estimations are made based on the office's floor area.
37. Fresh water is defined as containing in total <1000 mg/L of dissolved solids.
38. At certain sites, process water is evaporated in cooling systems; however, it is difficult to estimate the volume of evaporated water, so it has been excluded from the water consumption figures.

Regular follow-ups are conducted through annual reviews, internal and external audits, and environmental assessments of new equipment and processes before implementation. Wastewater discharge is measured at all manufacturing sites[39] and water quality is consistently monitored in line with local regulations and permit requirements. Overall, Mölnlycke's assessments confirm that the social, environmental, and financial impacts of its water intake and discharge remain minimal.

Raw material use

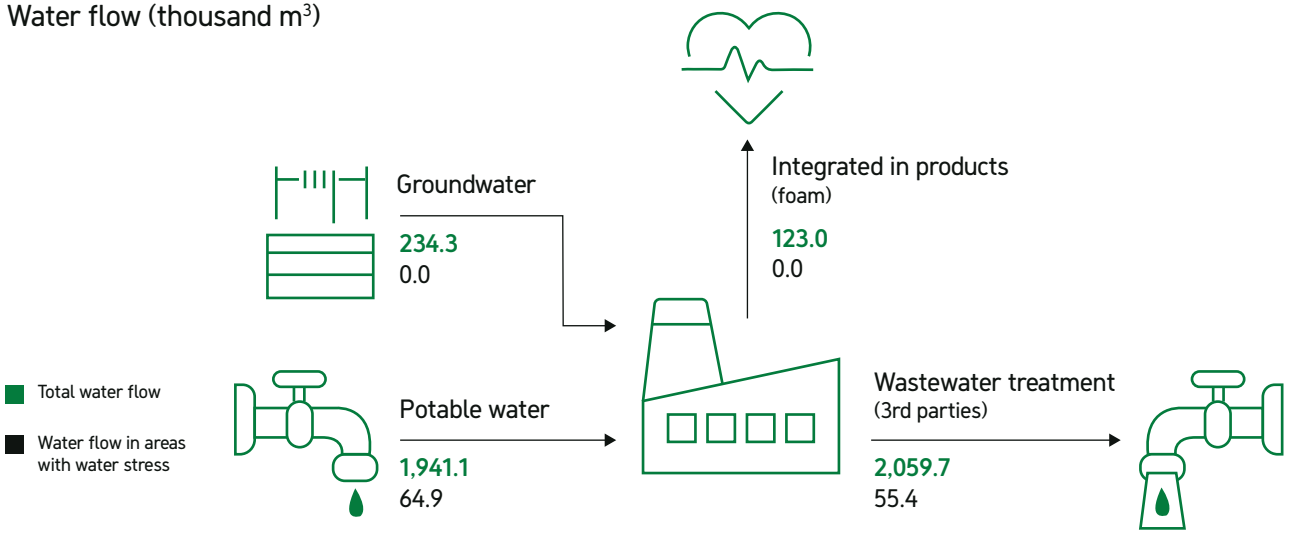
Raw material management is a key pillar of Mölnlycke's decarbonisation strategy. The company is committed to reducing overall resource demand and prioritising the use of recycled and renewable materials with the lowest possible emissions. This approach supports Mölnlycke's long-term sustainability goals, enhancing both decarbonisation and resource efficiency.

In 2024, Mölnlycke procured 86,078 tonnes of raw materials and components for production.

As part of the WeCare roadmap, Mölnlycke continues to expand the use of bio-based raw materials in polymer use. Building on previous success, the company more than doubled its procurement of ISCC-certified materials, reaching 159 tonnes in 2024.

In total, 11% of all procured materials came from certified renewable sources, such as FSC® or ISCC Plus-certified streams, ensuring responsible sourcing practices. The majority of these renewable raw materials were used in packaging, paper coatings, as well as in the supply of natural fibers, and natural latex. Overall, 33% of all procured raw materials – equivalent to 28,024 tonnes – came from renewable sources, marking an increase from 31% in 2023.

Water flow (thousand m³)



Packaging

Mölnlycke continues its progress toward more sustainable packaging solutions by reducing material use and developing recyclable or renewable primary packaging suitable for sterilisation. Ongoing initiatives across all product categories aim to minimise the environmental footprint of packaging.

This work is driven by long-term initiatives at various stages of development, alongside regularly planned product updates. Many feasibility studies and development projects launched in 2023 have progressed well in 2024 and will continue into 2025. Delivering more sustainable packaging solutions requires stringent processes to meet the regulatory requirements of the medical device sector. Collaboration with suppliers, customers, recyclers, and other partners remains essential in advancing these efforts.

In 2024, all implemented packaging changes focused on secondary and tertiary packaging. For example, secondary packaging for a group of wound care products was revised, reducing material use, while a tertiary packaging material made of plastic components was replaced with corrugated board, enhancing recyclability and the use of renewable resources.

Further improvements are planned for 2025, including the removal of secondary packaging for selected antiseptic products, reduced material use in secondary packaging for gloves, and increased recycling opportunities for primary packaging in customised procedure trays.

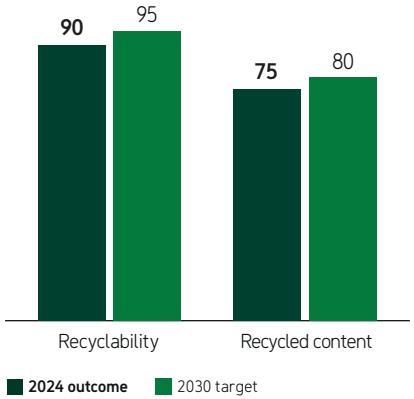
FSC® certification remains a key priority for Mölnlycke, reinforcing the company's commitment to responsible sourcing and sustainable packaging. Building on many years of FSC®-certified packaging implementation in Wound Care and OR Solutions, Mölnlycke continues to expand its commitment to responsible forestry practices and in 2024 significant progress was made in

39. Wastewater discharge is calculated as the difference between water withdrawl and water consumption, where applicable. Untreated wastewater is defined as water with dissolved solids greater than 1000 mg/L. For wastewater that is treated by Mölnlycke before discharge, the classification of the water type is determined based on local regulations.

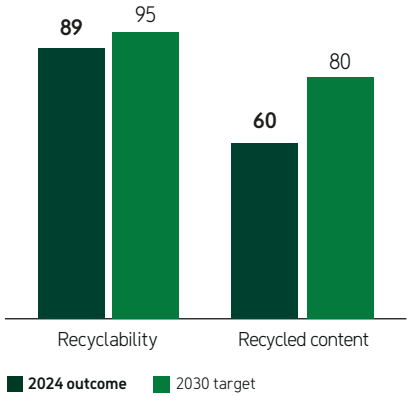
expanding FSC® certification across packaging materials. Since mid-2024, all cardboard and corrugated board boxes used for gloves are FSC®-certified, ensuring they come from responsibly managed forests and controlled sources. Additionally, FSC®-certified tertiary packaging was introduced for selected antiseptic products, with further implementation planned for 2025.

In 2024, further efforts were made to enhance internal data handling and develop a tool for streamlined reporting and assessment. With full implementation expected in 2025, ProcedurePak® trays will be included in packaging targets and baseline calculations. As a result, trays are presented separately in this year's report. The 2024 share of recyclability and renewable and/or recycled content in own-manufactured, contract-manufactured, and distributed products (excluding trays) indicates that Mölnlycke is on the right path to achieving its 2030 packaging targets. Combined data will be presented in 2025.

Share of recyclable packaging and packaging manufactured from renewable and/or recycled materials (%)[40]



Share of recyclable packaging and packaging manufactured from renewable and/or recycled materials in ProcedurePak® trays(%)[41]



Sustainable portfolios

At Mölnlycke, the sustainable product portfolio is seen as a key opportunity for growth and impact. The company has set an ambitious goal to significantly increase revenue from sustainable solutions over the coming years. These solutions are defined as products that deliver measurable sustainability benefits to customers, meeting the growing demand for environmentally and socially responsible offerings.

By identifying and prioritising sustainable solutions, Mölnlycke can engage more collaboratively with customers, many of whom face ambitious sustainability targets. This alignment not only strengthens partnerships but also fosters positive change across healthcare ecosystems. Moreover, through this harmonised approach to portfolio management, Mölnlycke is well-positioned to drive sustainable innovation and create long-term value for both customers and stakeholders. The company works closely with suppliers and customers to ensure that its products and services deliver value at every stage, balancing environmental, social, and economic benefits for all stakeholders.

To guide this process, Mölnlycke uses the Sustainable Product Portfolio Assessment (SPPA) framework to identify the sustainability value delivered to customers. The SPPA is based on a portfolio framework tool developed by the World Business Council for Sustainable Development (WBCSD), which was adapted to meet the needs of a MedTech company. The framework provides a comprehensive view of the sustainability characteristics of Mölnlycke's product portfolio and enables the company to tailor value-selling strategies that align with specific customer needs.

The portfolio is evaluated across multiple sustainability criteria, comparing products to mainstream market alternatives throughout the entire value chain. Based on this evaluation, products are categorised into three groups: "Leading","Performers", and "Transitioners".

Mölnlycke's "Leading" solutions are products that offer measurable substantial sustainability advantages over mainstream alternatives while maintaining equal or better functionality. To qualify, these products must meet all criteria without underperforming in any area compared to the alternatives. The sustainability benefits of Mölnlycke's "Leading" solutions are assessed across the entire value chain and may include one or more of the following:

- lower greenhouse gas (GHG) emissions and improved energy efficiency,
- more efficient use of natural resources, such as using less materials or circular materials,
- avoidance of substances of concern,
- reduced waste through longer service life, lower material usage and recyclability design,
- improved packaging to reduce waste and promote recycling,
- increased inclusiveness,
- enhanced health and wellbeing.

40. Calculations based on total weights of our product portfolio (own manufactured, contract manufactured and distributed products), excluding ProcedurePak® trays.
41. Calculations based on total weights of our ProcedurePak® trays product portfolio.

Products in the "Performer" category meet customer needs and are on a par with mainstream alternatives, while those in the "Transitioner" category contain substances identified as potentially concerning by various stakeholders (e.g., governments, NGOs, customers, and public groups). Through its priority substance programme, Mölnlycke manages these substances and works to promote the use of safer, more sustainable alternatives.
In 2024, Mölnlycke expanded its sustainable product portfolio assessment to include Wound Care, in addition to Antiseptics and Operating Room Solutions. The assessed portfolios represented 75% of the company's total revenue, and the "Leading" category alone accounted for 30% of the total revenue in the assessed portfolio – up significantly from 6% in 2023. This growth underscores the success of Mölnlycke's efforts to deliver innovative, sustainable solutions that provide measurable benefits to customers.

As part of its ongoing commitment, Mölnlycke trained more product management and R&D teams on the SPPA framework in 2024, which resulted in a greater understanding of the methodology and heightened awareness of the potential sustainability benefits of its product portfolio. With continued integration of eco-design principles and sustainability criteria into product development and innovation processes, the customer value of Mölnlycke's "Leading" solutions is expected to grow further.

Examples of "Leading" solutions identified in 2024

- **Hibiscrub® and Hibiclens®**, which avoid potentially concerning substances found in mainstream alternatives.
- **BARRIER® CLASSIC Gowns**, made from certified renewable materials sourced sustainably.
- **Mepilex Border® Flex and Post-Op**, which are changed less frequently, thereby reducing waste compared to mainstream options.

The insights gained from this portfolio analysis are actively used to inform product portfolio planning within Mölnlycke's marketing and innovation processes. The company will continue to promote the adoption of sustainable solutions through this holistic approach to its product portfolio.

Having met its initial target of generating 30% of revenue from "Leading" solutions in the 2024 business in scope, Mölnlycke plans to extend the evaluation in 2025 to include Gloves, further advancing the evolution of its sustainable portfolio.

Customers and end users have accessible and adequate information about the positive and negative environmental and social impacts of Mölnlycke's products and services and how to dispose of the products at their end of life. In 2024, no non-compliance with regulations and/or voluntary codes was identified.

Life Cycle Assessment (LCA) is integral to Mölnlycke's sustainability approach, offering a detailed analysis of the environmental impacts of products across their entire life cycle. In 2024, LCA covered 33.6% of the company's product portfolio in terms of revenue. By identifying both risks and opportunities early in product development, LCA helps minimise costly corrections, ensuring that Mölnlycke's offers are resource-efficient and sustainable.

LCA results are key to supporting customer engagement, aligning Mölnlycke's products with customer sustainability goals and addressing specific performance needs. The assessment evaluates products from raw material sourcing, through production and use, to disposal or recycling, while adhering to ISO 14040:2006 and 14044:2006 standards. Key impact categories assessed include climate change, eutrophication, acidification, ozone depletion, and photochemical ozone creation.

In addition to enhancing transparency, LCA enables Mölnlycke to demonstrate the environmental benefits of its products, reinforcing the company's commitment to sustainable healthcare solutions. By embedding LCA within its SPPA framework, Mölnlycke gains deeper insights into product impacts, unlocking opportunities for improvement and ensuring lasting value that address customer sustainability challenges.

Pollution prevention

Mölnlycke tracks and reports emissions to air, land, and water for substances that may impact people or the environment, such as VOC, CO_2, ethylene oxide (EtO) emissions, and both hazardous and non-hazardous waste, to the relevant authorities. While the impact is limited, the company regularly monitors EtO usage at its production sites in Havirov, Czech Republic, and Mikkeli, Finland, as well as by external partners during product sterilisation prior to customer delivery.

In 2024, EtO emissions from combustion leakage in sterilisation processes totalled 58 kg[42], reflecting a 56% decrease compared to 2023. This decrease was due to a correction of calculation method identified from the previous year, as well as continued efficiency measures such as the implementation of catalysts to reduce the emissions to air at Mölnlycke production sites. Air quality is measured as part of the environmental permitting requirements at these sites. As part of Mölnlycke's continuous pollution prevention efforts, the company is working to identify more efficient alternatives to minimise the environmental impact of its sterilisation processes. At the Havirov factory, validation is underway of a change to process which is expected to be completed in early 2025 and is anticipated to reduce EtO by 30kg per cycle, yielding a reduction of between 240-300 kg EtO per month. At the Mikkeli facility an EtO sterilisation expansion project is ongoing, which will see the site's sterilisation capacity doubled. Using new best available technology, the site will start to use an improved sterilisation cycle which reduces the amount of EtO per pallet by approximately 40%. The EtO process will use the latest, efficient energy handling processes, e.g. heat pump technology for the process heating. The propane-powered catalyst process will also be replaced with new technology powered by renewable electricity. In addition, a pallet automation system will be created to replace manual pallet handling, reducing exposure risk of Mölnlycke's operators.

In 2024, no instances of non-compliance with environmental laws and regulations were identified.

42. Emissions of ethylene oxide (EtO) in sterilisation are based on a calculation formula (mass flow x operating hours or EtO consumption x catalyst process efficiency), in compliance with environmental permits.

Environmental management

Environmental Management System

Mölnlycke's Sustainability Policy serves as the foundation for its environmental management approach. The policy outlines key commitments, including the application of Life Cycle Assessment (LCA) methodology to evaluate significant environmental aspects and reduce the environmental footprint of operations and products. Mölnlycke takes a precautionary approach to environmental challenges, integrating sustainable design principles to drive continuous improvements with a life-cycle perspective.

In line with this policy, Mölnlycke is committed to minimising negative environmental impacts across its operations. The company's Environmental Management System (EMS) is certified to ISO 14001:2015, covering all relevant areas, including manufacturing, product development, supply chain, and facility management. The EMS is embedded within Mölnlycke's broader management system, ensuring alignment with group-wide processes such as audits, assessments, and management reviews. In 2024, 100% of Mölnlycke's manufacturing sites and HQ were certified to ISO 14001 and ISO 45001.

Environmental aspects are regularly assessed to identify significant risks and opportunities, forming the basis for setting measurable targets. Compliance with environmental regulations is closely monitored at a country level to ensure Mölnlycke meets all legal and regulatory requirements.

Environmental risks are integrated into Mölnlycke's Enterprise Risk Management (ERM) framework, ensuring they are systematically identified, assessed, and managed as part of the company's overall risk management approach.

Mölnlycke maintains an incident reporting system, encouraging employees to report environmental incidents. In 2025, this reporting process will be included in the list of environmental requirements for Mölnlycke's suppliers.

	2024	2023	2022	2021	2020
Significant environmental incidents[43]	**0**	0	0	0	0

Biodiversity

While biodiversity and land use may not currently be classified as primary material topics for Mölnlycke, the company recognises that healthy societies, resilient economies, and thriving businesses depend on nature. Acknowledging this, since 2023 Mölnlycke has joined over 1,400 companies in signing the Business for Nature call for action, urging governments to implement policies to reverse nature loss this decade.

As part of its materiality assessment, Mölnlycke has evaluated its biodiversity and ecosystem impacts across its value chain. The company identifies climate change, resource use, and pollution as key drivers of biodiversity loss and prioritises efforts to mitigate these impacts. Other drivers, such as land and sea use changes and invasive species, were not found to be material to Mölnlycke's value chain or the MedTech industry in general.

Mölnlycke integrates biodiversity considerations into its business practices across four key areas:

Own operations

Mölnlycke's facilities, including offices and production sites, are primarily located in urban or semi-urban areas with limited impact on land use and surrounding ecosystems. However, the company's gloves production sites in Malaysia are situated in a region of significant biodiversity value, as recognised by the IUCN. Given the ecological importance of these areas, Mölnlycke has assessed the materiality of biodiversity and land use impacts within these operations.

To minimise its ecological footprint, in 2024 Mölnlycke implemented sustainable practices within its facilities, including water reuse and continued efforts toward its "zero waste to landfill" target. Additionally, the company considers biodiversity impacts in site selection to minimise environmental disruption from land use.

Supply chain

Mölnlycke promotes responsible sourcing practices to ensure procurement aligns with biodiversity and resource conservation goals. Supplier sustainability performance is managed through SEDEX assessments and on-site audits, with high-risk suppliers identified based on country and category risks. The company also engages its top suppliers in Scope 3 upstream emission reduction initiatives, reinforcing its commitment to sustainable supply chains. Biodiversity considerations are embedded in Mölnlycke's material transition strategy. When selecting renewable and bio-based materials, the company prioritises options that minimise ecosystem disruption and habitat loss, supported by recognised certification schemes such as the Forest Stewardship Council (FSC®) and the International Sustainability & Carbon Certification (ISCC).

Product life cycle

Mölnlycke's commitment to biodiversity extends throughout the life cycle of its products. The company's Net Zero commitment provides the foundation for delivering sustainable solutions to customers. Mölnlycke's sustainable product portfolio focuses on reducing greenhouse gas emissions, waste, and packaging – factors that indirectly contribute to biodiversity conservation.

Community engagement

As part of its societal responsibility, Mölnlycke actively participates in community initiatives supporting biodiversity conservation, particularly in Malaysia.

Mölnlycke addresses biodiversity-related impacts through its climate change mitigation efforts, pollution reduction initiatives, and circular economy transition. Consequently, biodiversity, including ecosystems, is integrated into broader sustainability efforts rather than managed as a standalone matter.

Sustainable investments

Mölnlycke's investment decisions are critical in shaping the company's long-term growth, competitiveness, and contribution to a more sustainable healthcare industry. With significant expansion in 2024 — including the acquisition of P.G.F. Industry Solutions GmbH and the joint venture in Saudi Arabia – ensuring that asset acquisitions align with sustainability objectives has become a strategic priority.

43. A significant environmental incident is defined as an unplanned event that has resulted in, or may result in, severe long-term negative environmental impact, including impact on air, water, land, natural resources, flora, and/or fauna.

To strengthen this approach, Mölnlycke has implemented a structured sustainability assessment for all material asset acquisitions. Following the company's Investment Request Policy, this process helps identify environmental and social risks early while capturing opportunities to enhance sustainability performance and future-proof investments.

Key sustainability considerations in asset acquisitions

When evaluating asset acquisitions, Mölnlycke assesses:

- **climate change and other environmental impacts:** energy and water consumption, waste management, circular economy integration, GHG emissions reduction, and air pollution mitigation
- **regulatory and legislative compliance:** adherence to CSRD, CS3D, EUDR, and other evolving sustainability regulations
- **biodiversity and land use:** location-specific risks, particularly for assets in high-biodiversity areas or ecologically sensitive regions
- **health, safety, and other societal impacts:** workplace safety, employee well-being, community engagement, and human rights considerations
- **ethical business practices:** supply chain integrity, responsible sourcing, and governance structures

Internal carbon pricing for asset acquisitions

To further support sustainable decision-making, Mölnlycke has introduced an internal carbon price for significant asset investments. This mechanism ensures that potential long-term carbon costs are factored into financial evaluations, guiding investment choices towards lower-emission assets and operations. It also enables Mölnlycke to proactively manage carbon-related financial risks while reinforcing its leadership in sustainable healthcare solutions. For more details on Mölnlycke's internal carbon pricing, please refer to "Climate change and energy"section of the Sustainability report.

As Mölnlycke continues its global expansion, particularly in high-growth markets like the Middle East and Asia, the company remains committed to integrating sustainability into every stage of its investment strategy, supporting long-term value creation.

Social

Own workforce

At Mölnlycke, employees are at the heart of the company's success and the foundation of its achievements. With a global workforce of 8,668 employees (8,617 FTE) at the end of 2024, Mölnlycke is committed to fostering an inclusive, engaging, and supportive work environment. Feedback gathered through the bi-annual engagement survey is systematically used to identify areas for improvement and enhance the overall employee experience.

Mölnlycke's purpose to revolutionise care for people and planet reflects a commitment to creating meaningful impact for employees and the communities it serves. The company's core values – Be Bold, Lead with Passion, and Embrace Partnerships – shape its culture, drive innovation, and promote effective collaboration to achieve strategic objectives.

The strength of Mölnlycke's brand, rooted in its purpose and values, plays a vital role in attracting, developing, and retaining top talent. It also helps to build trusted partnerships and foster customer loyalty. By focusing on employee engagement, leadership development, and tailored career growth opportunities, Mölnlycke empowers its workforce to achieve their full potential, delivering long-term value to the business.

Mölnlycke strives to ensure an inclusive, and supportive work environment where employee safety, well-being, professional growth, and human rights are prioritised. These priorities are embedded in Mölnlycke's way of working, creating shared value for employees, the business, and society.

Diversity, equity and inclusion

Impact, risks and opportunities

Mölnlycke is committed to fostering an inclusive, equitable and merit-based workplace where the power of diversity is recognised, leveraged, and celebrated. Embracing diversity creates opportunities to better understand the needs of customers and patients, enabling the delivery of more inclusive and effective solutions. Failing to sustain an inclusive environment, on the other hand, poses significant risks, including higher employee turnover, reduced engagement, and challenges in attracting top talent. These risks could impact innovation and compromise the company's competitive market position.

To address these challenges and capitalise on the opportunities presented by diversity, a comprehensive Diversity, Equity and Inclusion (DE&I) roadmap was launched in 2024. This roadmap serves as a strategic framework to achieve ambitious DE&I goals and enhance the company's employer brand reputation. For more information, please refer to the "Management approach" section.

Policies

In 2024, Mölnlycke introduced comprehensive DE&I and Anti-harassment and Anti-discrimination Policies to promote inclusion, ensure fair treatment of employees, and maintain a workplace free from discrimination. These policies play a critical role in mitigating legal and reputational risks associated with non-compliance.

The DE&I Policy formalises Mölnlycke's commitment to diversity, equity, and inclusion. It outlines the strategic approach to ensuring equitable treatment, access, and opportunities for all employees, while actively addressing barriers that hinder full participation. The policy also specifies the governance framework for DE&I, including the various routines and supporting bodies that oversee its implementation.

The Anti-harassment and Anti-discrimination Policy emphasises the company's zero-tolerance stance on any form of harassment or discrimination. The policy provides clear definitions of harassment, bullying, and other forms of discrimination and includes detailed guidelines for reporting breaches or suspected breaches of the policy.

To ensure full awareness and understanding, these policies have been published on Mölnlycke's intranet and communicated to all employees globally. This approach enables reinforcement of the policies at the local level where necessary. By embedding these principles into everyday operations, Mölnlycke not only safeguards employees but also strengthens its organisational culture, fostering innovation and better meeting the diverse needs of its customers.

Management approach

Mölnlycke's DE&I efforts are guided by a comprehensive roadmap launched in 2024. This roadmap serves as a strategic framework to achieve ambitious DE&I goals, enhance the company's employer value proposition, and address the opportunities and challenges associated with diversity.

The DE&I roadmap is governed by the DE&I Council, composed of senior leaders from across the company. The Council oversees the implementation of the roadmap, monitors progress against key performance indicators (KPIs) on a quarterly basis and ensures alignment with Mölnlycke's overarching business objectives.

To promote transparency and ensure activation across all levels of the organisation, the roadmap is communicated to all employees and made accessible through Mölnlycke's intranet. The People function plays a crucial role in engaging business leaders to secure support and drive the integration of DE&I initiatives throughout the company.

The roadmap focuses on key initiatives to embed DE&I principles into Mölnlycke's operations and culture, such as:

- **global DE&I campaigns** highlighting diversity efforts worldwide to support market expansion
- **Employee Resource Groups (ERGs)**, open for all employees regardless of demographics or background, amplifying the voices of diverse employee groups to further improve engagement and satisfaction
- **global awareness days** celebrating events such as International Women's Day and Pride Month to foster inclusivity

- **unconscious bias training** providing training to ensure equitable treatment and decision-making across the workforce
- **graduate and internship programmes**, increasing the representation of younger generations within the workforce
- **DE&I integration in engagement surveys** incorporating DE&I-focused questions in employee surveys to identify opportunities for continuous improvement

This management approach ensures accountability, fosters collaboration, and integrates DE&I principles into Mölnlycke's operations. By addressing risks and seizing opportunities, these initiatives help build a more engaged and diverse workforce, drive innovation, enhance customer satisfaction, and strengthen Mölnlycke's position as an employer of choice.

Metrics and targets

Ambitions

To further the policy objectives of inclusiveness and equal opportunity, Mölnlycke has set ambitions to increase the share of women among people leaders, improve the DE&I driver score in the Employee Engagement Survey, and achieve full completion of unconscious bias training, as outlined below.

Metrics

Characteristics of employees in the workforce and diversity metrics

Diversity, Equity & Inclusion

Metric	Ambition	2024
Gender balance people leaders	50%	**48%**
ELT nationality diversity	>5	**5**
Engagement Survey score	>4.0	**3.9**
DE&I driver	>4.0	**3.9**
Unconscious bias training completion	>80%	**88%**[44]

Employees

(Headcount)	2024	2023	2022
Executive Leadership Team	**11**	11	9
Executive population	**65**	59	51
Director and above	**139**	132	134
Management	**719**	649	609
Other office & field	**2,924**	2,746	2,625
Production worker	**4,810**	4,848	5,128
Total	**8,668**	**8,446**	**8,556**

Employees by gender

(Headcount)	2024	2023	2022
Male	**3,333**	3,116	3,176
Female	**5,335**	5,329	5,380
Other/not reported	**-**	1	-
Total	**8,668**	**8,446**	**8,556**

Share of women per employee category

(%)	2024	2023	2022
Executive Leadership Team	**55**	58	56
Executive population	**38**	42	43
Director and above	**44**	44	43
Management	**50**	50	51
Other office & field	**62**	64	63
Production worker	**64**	65	65
All employees	**62**	**63**	**63**

Employees by contract type and gender

2024 (Headcount)	Male	Female	Other /not reported	Total
Permanent employees	3,173	5,106	-	**8,279**
Temporary employees	160	229	-	**389**
Non-guaranteed hours employees	-	-	-	**-**
Total	**3,333**	**5,335**	**-**	**8,668**
Full-time employees	3,302	5,185	-	**8,487**
Part-time employees	31	150	-	**181**
Total	**3,333**	**5,335**	**-**	**8,668**

Employees by contract type and region

2024 (Headcount)	EMEA	Americas	APAC	Total
Permanent employees	3,645	799	3,835	**8,279**
Temporary employees	369	3	17	**389**
Non-guaranteed hours employees	-	-	-	**-**
Total	**4,014**	**802**	**3,852**	**8,668**
Full-time employees	3,843	800	3,844	**8,487**
Part-time employees	171	2	8	**181**
Total	**4,014**	**802**	**3,852**	**8,668**

44. Office & field only.

Share of employees by age group			
(%)	**2024**	2023	2022
<30	**22**	22	25
30-50	**59**	59	58
>50	**19**	19	17

Employees by country			
(%)	**2024**	2023	2022
Malaysia	**2,412**	2,528	2,741
Thailand	**963**	962	987
Czech Republic	**956**	1005	1020
Other	**4,337**	3,951	3,808
Total	**8,668**	**8,446**	**8,556**

Employee Turnover[45]				
2024 (No./%)	EMEA	Americas	APAC[46]	Total
Voluntary leavers (No.)	**360**	96	764	1,120
Turnover rate Voluntary leavers (%)	**10**	12	20	14
Total leavers (No.)	**527**	143	1,075	1,745
Turnover rate (Total leavers (%)	**14**	18	28	21

Compensation and rewards

At Mölnlycke, the total rewards philosophy reflects the company's commitment to attracting, retaining, and motivating top talent by providing a competitive, equitable, and meaningful reward offering that aligns with Mölnlycke's values and strategic goals. These principles apply to all employees, supporting a culture of excellence, recognition and care. Mölnlycke ensures competitive base salaries informed by internal and external benchmarks, enabling the company to attract and retain skilled talent across all functions and geographies. A globally consistent job levelling framework and architecture guide pay decisions, enabling meaningful comparisons and promoting internal equity.

Performance is at the core of Mölnlycke's rewards philosophy. The company fosters a culture of accountability, where individuals are rewarded for their contributions to business success and alignment with Mölnlycke's values. Employees are incentivised to exceed expectations through clear performance metrics and objective setting. Recognition is a cornerstone of Mölnlycke's culture. Through both monetary and non-monetary programmes, the company celebrates achievements, reinforces behaviours aligned with its values, and drives engagement.

Mölnlycke's incentive programmes are aligned with business objectives, designed to drive performance, and reward both individual and collective achievements. The company's short-term and long-term incentive plans provide opportunities for employees to share in Mölnlycke's success, linking rewards to company performance and individual impact. Incentives are structured to motivate employees at all levels, ensuring alignment with market practices and Mölnlycke's strategic goals.

Mölnlycke's benefit offerings are designed to promote employee wellbeing, work-life balance, and long-term security. Aligned with local market practices, they also integrate sustainable initiatives that reflect Mölnlycke's purpose and global responsibility. The company provides pension plans, healthcare, and other wellbeing programmes tailored to employees' needs, ensuring an inclusive and holistic reward package.

All reward decisions are grounded in robust governance and guided by a disciplined framework that ensures alignment with Mölnlycke's strategy, market standards, and internal equity. Pay decisions are made transparently, objectively, and fairly, with a commitment to pay equity and non-discrimination. Communication about rewards is clear, transparent, and consistent across all levels of the organisation, reinforcing trust and understanding. Mölnlycke regularly reviews and updates its reward structure to ensure competitiveness, effectiveness, and alignment with the company's commitments to sustainability, customer-centricity, and digitalisation. As part of this process, Mölnlycke continuously refines its pay equity analysis to identify and address any unexplained pay differences.

Through these principles, Mölnlycke ensures a comprehensive and meaningful total reward offering that supports employees in achieving personal and professional success while driving the company's overall performance and growth.

Renumeration metrics

Aggregated Gender Pay Gap[47]	
(%)	**2024**
Aggregated gender pay gap	**17.7**

45. Turnover is calculated on the company's permanent workforce only. No comparable numbers are available as the company previously only has reported turnover excluding production workers.
46. Factory closing down in Malaysia increased turnover in 2024.
47. Only office & field employees are included in the compensation metric showing the unadjusted pay gap. Salaries have been converted to EUR and the full-time salary has been used. Included salary types are base salary and STI payments.

Freedom of association

Mölnlycke fully respects the right of all employees to form or join independent trade unions, as well as the right to engage in collective bargaining agreements. The company complies with, at a minimum, the laws and regulations of each location in which it operates, including those governing wages, working hours, and the right to organise.

The company's Code of Conduct and Human Rights Policy both reinforce this commitment, ensuring that employees are free to establish or join trade unions and representative organisations of their choice without interference.

Mölnlycke engages in constructive dialogue with employee representatives, aiming to reach mutually beneficial agreements on terms and conditions of employment. This engagement also extends to addressing employees' grievances where necessary, fostering a cooperative and respectful working environment.

While Mölnlycke has organised collective bargaining agreements at the local level, the company does not currently have agreements with EU or international trade unions. Additionally, union members are represented on Mölnlycke's Board to ensure employees have access to company information and can actively participate in decision-making processes.

In terms of collective bargaining coverage, Mölnlycke reports the percentage of employees covered by such agreements for countries and regions where the company has at least 50 employees representing at least 10% of the company's total employees. The table below outlines the current collective bargaining coverage:

Collective bargaining agreements

(%)	2024	2023	2022
Employees covered	**46**	45	45

Collective bargaining coverage and social dialogue

	Collective bargaining coverage		Social dialogue
Coverage rate	Employees – EEA (for countries with >50 employees representing >10% total employees)	Employees – non-EEA (estimate for regions with >50 employees representing >10% total employees)	Workplace representation (EEA only) (for countries with >50 employees representing >10% total employees)
0–19%			
20–39%		Asia	
40–59%			
60–79%			
80–100%	Czech Republic		Czech Republic

Employee engagement and feedback

Impact, risks and opportunities

Mölnlycke's ability to attract, develop, and retain talent is closely linked to the employee experience it offers. By actively listening to employees and gathering continuous feedback, the company aims to future-proof its operations while nurturing a strong sense of purpose and belonging.

This proactive approach helps to mitigate risks such as disengagement, missed improvement opportunities, and potential damage to Mölnlycke's reputation. Consistent feedback collection boosts employee engagement, driving higher productivity and fostering innovation. Improved DE&I outcomes cultivate a more inclusive, collaborative work environment, enhancing creativity and strengthening Mölnlycke's position as an employer of choice. This, in turn, reduces recruitment costs and turnover rates.

Furthermore, the continuous feedback loop provides valuable insights into employees' concerns and aspirations, allowing Mölnlycke to address issues proactively. This ensures initiatives are aligned with employee needs, resulting in higher satisfaction and loyalty. It also enables the company to identify emerging trends and areas for improvement, ensuring Mölnlycke remains agile and responsive to an ever-changing workplace landscape.

Region	Number of employees in selected region	Number of employees covered by collective agreements in selected region	Percentage of employees covered by collective agreements in selected region [%]
EMEA	4,014	2979	74.2%
APAC	3,852	963	25.0%
Americas	802	71	8.9%
Total number of employees limited to regions where the company has a significant employment	8,668	4,013	46.3%

Policies

Mölnlycke has established clear processes for raising concerns, including a dedicated hotline for employees to report serious behavioural issues requiring immediate attention. This channel ensures that such matters are addressed confidentially and appropriately, in alignment with the Anti-Retaliation Policy.

Additionally, employees can provide feedback anonymously by commenting on individual questions in the Employee Engagement Survey. This mechanism allows for follow up on concerns and taking necessary actions. Where appropriate, employees may also be encouraged to use the hotline for more serious issues, ensuring that all concerns are handled through the most suitable channels.

Management approach

In 2024, Mölnlycke enhanced its employee listening approach, Mölnlycke Pulse, to further improve engagement and better understand employee needs. This enhancement included the launch of global onboarding and offboarding surveys and the introduction of a new DE&I driver in the bi-annual engagement survey. The DE&I driver specifically measures the impact of diversity, equity, and inclusion initiatives and assesses employees' perceptions of belonging and inclusion.

People leaders with a minimum of five survey responses are able to access the results for their teams. They are responsible for reviewing the feedback, discussing it with their teams, and planning actionable steps to improve the workplace and overall employee experience, with support from the People function.

Additionally, each member of the Executive Leadership Team (ELT) is accountable for defining the top engagement actions within their respective functions and Business Areas, as well as for the entire organisation.

This bottom-up approach ensures alignment across teams, focusing on what matters most to Mölnlycke's employees. It helps address the right areas for improvement in a consistent and targeted manner, driving meaningful and sustainable change throughout the organisation.

Metrics and targets

Mölnlycke has set a global target to achieve an engagement score of 4.0 (on a scale of 1-5) in its Employee Engagement Survey for 2025. In 2024, the company achieved a score of 3.9, reflecting a general improvement compared to the previous year.

The highest scores were recorded in areas such as relationships with managers and colleagues, as well as Mölnlycke's approach to strategy, vision, and culture. These strengths highlight the company's commitment to fostering a positive work environment and aligning employees with organisational goals.

Looking ahead, Mölnlycke will continue to focus on improvement opportunities in areas related to employee well-being, health, and empowerment to further elevate the engagement score and enhance the overall employee experience.

Career development and empowerment

Impact, risks and opportunities

Mölnlycke is committed to empowering employees to reach their full potential, creating long-term value for the business. Central to this commitment is understanding employees' aspirations, engaging in meaningful discussions about career paths and development plans, and preparing for future roles. This proactive approach helps mitigate potential risks such as employee disengagement and turnover, which can hinder productivity and innovation.

In addition, this focus on career development presents opportunities for Mölnlycke to strengthen its talent pipeline by identifying high-potential employees early and preparing them for leadership positions. It also fosters a culture of continuous learning and growth, which enhances employee satisfaction and retention.

Polices

While Mölnlycke does not have formal policies on this topic, the company provides guiding materials as a Global Career Development framework, consisting of a personal development workbook and a development toolbox, which outline the process steps and definitions for the practices, processes, and tools mentioned above. These resources ensure that employees and people leaders have a clear understanding of the framework and can effectively apply it in their day-to-day operations.

Management approach

Career and personal development conversations are fundamental to understanding employees' desires, strengths, and motivations. These discussions drive the talent planning cycle, ensuring that employees' needs and aspirations are addressed in a timely manner. In this way, Mölnlycke gains valuable insights into employees' goals, enabling the company to tailor development initiatives to meet their evolving needs, enhancing satisfaction and loyalty. In 2024, 100% of Mölnlycke's employees had a career development conversations with their manager.

Each year, Mölnlycke conducts global training sessions for people leaders to enhance or review their understanding of talent philosophy and planning. These sessions are essential to ensure alignment across the organisation regarding the definition of talent and the attributes the company seeks in potential leaders.

In addition, Mölnlycke runs awareness campaigns around its career and development framework to highlight the benefits and encourage wider use of this tool among employees. The goal is to increase engagement with the framework and its practical application in career development.

Following the training, the company implements an annual structured process to assess employee potential and ensure succession plans are both realistic and diverse. This process includes talent reviews at local, regional, Business Area, and Corporate Function levels to ensure a comprehensive and fair evaluation from all perspectives. In 2024, Mölnlycke introduced the concept of the "early bet", which identifies emerging talents who demonstrate potential for future leadership roles at the beginning of their careers. This initiative enables the company to nurture high-potential individuals early, fostering innovation and ensuring a diverse and dynamic leadership pipeline for the future.

In 2024, Mölnlycke successfully completed succession planning for all roles at the manager level and above. The company also reinforced quarterly talent check-in conversations at the Executive Leadership Team level to discuss talent moves, development actions, and to increase visibility for high-potential employees.

Metrics and targets

Mölnlycke follows up on progress and targets related to leadership development, internal mobility, and gender balance in succession planning.

Number of graduates in our leadership programmes	2024
People in talent programmes	127

Internal moves due to development	2024	2023
Manager and above	55%	61%
Director and above	63%	70%
Gender balance succession plan		
Target	50%	-

Health, safety, physical security and wellbeing

Impact, risks and opportunities

Mölnlycke has identified significant impacts on health, safety, and wellbeing for both its employees and those of its suppliers, including contractors and site service providers. The company continues to maintain a record of zero fatalities among its own employees. Most lost time incidents in recent years have been attributed to two primary causes: issues related to tools and equipment and incidents involving being struck by fixed or moving objects.

For non-operational employees, the main health and wellbeing risks are mental health challenges, including stress, and poor work-life balance. Within operations, the primary impacts are musculoskeletal disorders caused by repetitive tasks or lifting and skin rashes associated with the Gloves manufacturing process.

In addition to health and safety, Mölnlycke also places high importance on physical security across its operations. The company invests in robust physical security measures that ensure a secure working environment addressing the main risks, such as secure access control systems, surveillance, and regular safety drills.

Mölnlycke recognises its responsibility to ensure the health, safety, and wellbeing of everyone working for the company. Additionally, health and safety conditions in the workplace are frequently assessed in customer supplier evaluations, making Mölnlycke's performance in these areas critical to its competitiveness in tenders and proposals.

Occupational health and safety risks are an integral part of the double materiality assessment and the identified risks help inform its priorities and actions to implement mitigation measures and controls.

During the year, Mölnlycke has invested in tools and equipment to improve the health, safety and wellbeing of its employees, for example within manufacturing by purchasing innovative specialised lifting equipment and fork lift trucks utilising the latest technology in safety systems.

Policies

Mölnlycke's commitment to health, safety, and wellbeing is clearly outlined in its Sustainability Policy, which reflects the company's broader purpose to revolutionise care for people and planet. This Policy defines the principles that guide Mölnlycke's relationships with its stakeholders and integrates sustainable practices within its business model, ensuring that all operations are carried out with respect and care for both people and the environment. The Policy states that Mölnlycke is dedicated to achieving a safe, healthy, and incident-free working environment across its operations and the entire value chain. The company measures progress toward this goal both qualitatively and quantitatively, through a set of published metrics and targets.

Mölnlycke's approach to Occupational Health and Safety (OHS) includes a proactive commitment to eliminating hazards and reducing risks to prevent work-related injuries and ill health. The company has implemented and continuously improves a comprehensive health and safety management system that is aligned with ISO 45001:2018 standards, ensuring compliance with legal and other regulatory requirements while continually enhancing its health and safety performance.

The Sustainability Policy is available to all internal stakeholders through Mölnlycke's document control system and intranet. It is communicated digitally and/or in printed form to all employees, translated into 17 languages to ensure accessibility in employees' native or second languages. Additionally, the policy statements are displayed in all ISO-certified locations and are publicly accessible to external stakeholders via Mölnlycke's website.

Mölnlycke's Code of Conduct (CoC) for Business Partners extends occupational health and safety requirements to its suppliers, contractors, and other business partners. This CoC emphasises a risk-based approach to health and safety, ensuring that all relevant parties are properly trained and prepared to carry out their roles safely. The CoC also mandates that senior management is responsible for health and safety within business partner organisations, and it outlines the processes to prepare for and handle emergency situations.

In addition to the overarching Sustainability Policy, Mölnlycke maintains a Physical Security Policy that defines the principles and mandatory requirements for physical security at all its locations. This policy includes locally adapted instructions and detailed security plans that outline working routines, security measures, and emergency response procedures. Physical security is considered a critical part of Mölnlycke's overall Environmental, Health, Safety, and Security (EHSS) framework, ensuring that employees are safeguarded in every workplace environment.

Management approach

Mölnlycke places a strong emphasis on fostering a culture of care for its people, with health, safety, and well-being serving as the cornerstone of its operations. The company is committed to achieving zero injuries and harm through high standards in Occupational Health and Safety (OHS) performance and capability. This commitment extends to both employees and external stakeholders, ensuring a safe and supportive environment for all.

Security at Mölnlycke is integral to protecting people, information, assets, and critical business processes from willful security risks. This encompasses both site security and security while employees are travelling. During the year, the company rolled out its updated Physical Security Policy and new procedures to all Mölnlycke locations, with a continued focus on standardising security processes, procedures, and training for personnel across all locations.

Health, safety, and wellbeing governance at Mölnlycke is managed globally through two primary forums. Firstly, the Corporate Sustainability Committee is responsible for making decisions related to global training programmes, such as behaviour-based safety, and promotes alignment and accountability across all business areas. Secondly, following Mölnlycke's governance process, the Sustainability Business Review is held twice a year with the Executive Leadership Team, who provide strategic guidance on OHS initiatives and endorse global programmes. Additionally, global EHSS meetings take place monthly, chaired by the EHSS Operations Manager, where each site is represented by its EHSS lead. In these meetings, the team reviews lost time and high potential incidents, analyses root causes, tracks actions taken, and monitors compliance. This forum fosters organisational learning, supports consistency, and promotes best practice sharing across the company.

Mölnlycke adopts a proactive approach to OHS that goes beyond legal compliance, international standards, and customer expectations. The company's goal is to actively prevent work-related injuries and illnesses. The OHS Excellence Programme, running for four years, is Mölnlycke's overarching strategy to meet its ambition of zero injuries and harm. The program focuses on people safety, process safety, health and well-being, as well as people and physical security. Regular risk and opportunity assessments help identify strategic and recurring risks, and these evaluations are aligned with Mölnlycke's Enterprise Risk Management (ERM) framework.

OHS management system

Compliance assurance remains a top priority for Mölnlycke to ensure business continuity and regulatory adherence in a dynamic environment. The company's integrated EHS management system is aligned with ISO 45001, the international standard for OHS management, and undergoes regular audits by accredited bodies to maintain certification. This management system aims to mitigate health, safety, and wellbeing risks and identifies opportunities for continuous improvement.

Mölnlycke is proud to have achieved 100% coverage of its OHS management system at all established manufacturing sites and its headquarters, with Denmark's production site being successfully certified in 2024.

Assessment and mitigation of risks and hazards are central to Mölnlycke's approach. The company uses various tools and processes for hazard identification, including risk assessments for machinery, chemicals, and organisational and social change management. A hierarchy of controls is applied to reduce hazards, focusing on machinery guarding and manual handling, which are addressed through site-specific procedures, training, and continuous improvement efforts.

Stop work authority

Mölnlycke empowers its employees to take responsibility for fostering a safe and positive OHS environment. Every individual has the authority and responsibility to stop work or intervene if they perceive an imminent risk of serious injury or illness. This principle, known as the "Golden Rule", is enshrined in Mölnlycke's global safety guidelines. Any stoppage or intervention must be reported through the company's incident reporting process, and work can only resume once the risk is addressed and the workplace is deemed safe. Individuals who apply the "Golden Rule" are not subject to criticism or penalties, and Mölnlycke has a strict no- retaliation policy for those who stop work or report safety concerns.

Incident reporting and investigation

Mölnlycke utilises a global incident reporting software to track and investigate hazards, near misses, and incidents involving employees or non-employees, including concerns related to remote working or customer premises. Concerns related to remote working such as at customer premises can also be reported through this system. Reported incidents are investigated by performing a root-cause analysis to remedy any damage and prevent recurrence. The company reports key performance indicators for both injuries and ill health, maintaining thorough data quality checks and adheres to national legislation in reporting incidents to local authorities. Despite a robust programme, the number of Lost Time Injuries (LTI) reported has increased this year, along with the number of near misses and observations being reported (39% and 18% respectively versus 2023). This is understood to be linked to a maturing safety culture where all incidents, no matter how small, are being reported and the value of taking preventative action. Additionally, the increase can be attributed to a particularly busy year with heightened production demands and operational activities, which naturally introduced more opportunities for potential risks despite ongoing safety measures.

A Mölnlycke-specific training programme in behavioural based safety, focusing on culture and mindset is under development and will be implemented during 2025 across all manufacturing locations.

Lost time days have also seen an increase, partly due to a change in calculation methodology, which is now in line with CSRD requirements, but also attributed to several LTIs related to manual handling in one of Mölnlycke's factories. To address these, Mölnlycke is exploring opportunities for automation in 2025 to reduce manual handling risks. Regarding ill-health cases, the significant majority reported in 2024 are skin rash related issues. This has been identified following a review of the ill health definitions, in line with the CSRD requirements. A specific improvement plan is being developed and will be executed during 2025 to improve this performance.

With the exception of skin rashes, there has been a marked improvement in the number of ill-health cases recorded across the company, reflecting a positive trend in health-related performance metrics. Starting in 2024, all security-related incidents e.g. trespass, must also be reported in the global incident reporting software and investigated in the same way to remedy any damage and prevent recurrence.

Employee consultation and participation

At Mölnlycke, health and safety committees are established at all manufacturing sites and headquarters. These committees consist of managers, employees with safety responsibilities, work councils, and employee representatives, and they serve as forums for consultation and active participation in OHS matters.

Regular meetings are held to review OHS performance, discuss improvements, and implement actions to enhance the OHS management system. The company shares information related to health, safety, and wellbeing targets, performance, programmes and training with employees through internal channels, including the intranet, noticeboards and face-to-face team meetings. Employee input is actively sought through biannual engagement surveys, which include questions on perceptions of health and safety efforts, work-life balance, and opportunities for feedback.

Health and wellbeing

Mölnlycke takes a holistic approach to health and wellbeing, combining organisational initiatives with individual focus areas. Organisationally, Mölnlycke promotes a supportive workplace environment, inclusive leadership, and meaningful work. This includes:

- **supportive workplace environment:** fostering an inclusive setting where jobs are designed to address physical, social, and emotional wellbeing
- **leadership advocacy:** leader's role-modelling safety and wellbeing behaviours to promote accountability across all levels of the company

Individual focus areas are interconnected and include:

- **physical wellbeing:** encouraging healthy habits in fitness, nutrition, substance use, and rest, with voluntary physical exams available in some regions
- **emotional wellbeing:** promoting mental health, work-life balance, stress management, and resilience
- **financial wellbeing:** education and confidence to help employees manage unexpected challenges and plan for the future
- **social wellbeing:** fostering a sense of belonging, respect, and purpose in both career and personal life (for more details, please refer to the "Diversity, Equity and Inclusion" section of the Sustainability report)

These initiatives are supported by hybrid and flexible working arrangements, empowering employees with greater autonomy over where and when they work. Additionally, the company provides confidential counselling and well-being support through an external employee assistance programme, accessible online or by phone.

Training and awareness

All Mölnlycke employees and non-employees, including contractors and site service providers, are required to complete health, safety, and wellbeing induction training. Additional role-specific training is provided based on individual responsibilities and risk exposure to ensure appropriate competency levels are met. Targeted training on Mölnlycke's global safety principles, which aim to reinforce safe behaviour across all manufacturing and non-manufacturing activities, is mandatory for all employees and suppliers present at operational sites. The company's management safety walks programme sets a monthly target, encouraging leaders to visit sites regularly and engage in dedicated conversations about health, safety, and wellbeing. Mölnlycke also offers a variety of health, safety, and wellbeing training programmes. These include a global mandatory musculoskeletal training for all manufacturing employees, which for the last 3 years has been completed by 100% of employees within 30 days of joining the company, together with 100% completion in training of Mölnlycke's Safety Principles among manufacturing personnel, both focusing on behaviours that help prevent injuries, and online courses designed for line managers and key roles to enhance their understanding of responsibilities related to health, safety, and mental health management in the workplace. Following a risk evaluation, additional training for all Mölnlycke employees is planned in 2025 to provide the relevant information regarding site security risks and protection measures identified, as well as their responsibilities.

Metrics and targets

Targets

Mölnlycke has a target to maintain zero work-related fatalities. The target scope will be extended in 2025 to both Mölnlycke's own workforce and non-employees. The target for lost time injuries is less than 0.5ppm[18] and fewer than ten ill health cases by 2030, within Mölnlycke's own workforce.

Metrics

Category	Target year	Target	No. in 2024
Fatalities – Employees (Number)	2024	0	**0**
Lost time injuries – Employees (ppm)	2030	0.5	**2.1**
Ill health cases – Employees (Number)	2030	10	**24**

Lost time injuries and ill health cases – employees	2024	2023	2022
Lost time injuries	**37**	25	29
Ill health cases	**24**	20	23

Employee fatality and lost time injury rate (ppm)	2024	2023	2022
Fatality rate	**0.0**	0.0	0.0
Lost time injury rate[48]	**2.1**	1.3	2.1

Lost workdays and near misses and observations	2024	2023	2022
Lost workdays[49]	**1,029**	292	305
Near misses	**61**	44	69
Observations (unsafe acts and conditions)	**7,554**	6,406	5596

48. The rate of injuries per number of hours worked calculated on one million working hours. Total number of hours worked in 2024 was 17,389,614.
49. 2024 figures are not comparable to previous years due to a change in calculation method in line with CSRD requirements for reporting methodology.

Human rights

Impact, risks and opportunities

Mölnlycke recognises human rights as a material topic within its operations and value chain, with a particular focus on risks related to working conditions and social dialogue. A key concern is the potential disruption of communication and engagement, which could impact both production and employee wellbeing. These risks are further addressed in the "Employee engagement and feedback" and "Health, safety, physical security, and wellbeing" sections of the Sustainability report.

While Mölnlycke has implemented clear management procedures across all countries of operation to ensure fair and ethical treatment of employees in compliance with relevant regulations, there remains a risk of unidentified impacts on key rights holders. Failing to fully assess these impacts could result in adverse outcomes for affected individuals, as well as potential reputational damage, fines, or other legal consequences for the company.

Recognising the importance of addressing these challenges, Mölnlycke sees an opportunity during 2025 to further engage more systematically and proactively on human rights issues. This approach aligns with the company's core values and ambition to revolutionise care for both people and the planet. By enhancing its approach, the company aims to deepen its commitment to human rights across its operations.

For details regarding human rights within its supply chain, please refer to the "Management of relationships with suppliers" section of the Sustainability report.

Policies

Mölnlycke's Code of Conduct is the cornerstone document guiding the company and its employees. Aligned with the Ten Principles of the UN Global Compact (UNGC), it affirms Mölnlycke's commitment to conducting business with integrity, responsibility, and respect for human rights, in line with the United Nations and the International Labour Organisation (ILO) standards. The Code provides clear guidance on expected behaviors and ensures employees understand their rights.

In 2024, Mölnlycke strengthened its focus on human rights by introducing the Human Rights Policy, which covers essential topics such as working conditions, fair wages, social dialogue, freedom of association, collective bargaining, work-life balance, health and safety, and equal opportunities. The policy also covers issues like human trafficking, forced labor, and child labor, and stresses equality, diversity, non-discrimination and development opportunities.

The policy applies to all employees globally and outlines the roles and responsibilities for ensuring human rights and labour rights across Mölnlycke's operations and value chain. Similar requirements are applicable to suppliers and distributors, as expressed in the Codes of Conduct. This approach ensures human rights are respected both within the company and throughout its business relationships.

In crafting the Human Rights Policy, Mölnlycke considered the interests of its employees, providing them with a clear understanding of how their rights are protected and what the company's obligations are. This makes human rights more tangible and relevant to employees in their day-to-day work.

The policy is regularly updated and communicated across the organisation. Internally, it is accessible on Mölnlycke's intranet, ensuring company-wide awareness. Its principles are also reflected in external communications, including the Modern Slavery Statement and Human Rights Position Statement, both of which are accessible on Mölnlycke's website.

Management approach

Mölnlycke is committed to combating modern slavery, including human trafficking, and to respecting human rights across its operations and value chain. The company actively works to identify, prevent, mitigate, and address human rights risks, ensuring compliance with local labor laws while upholding fundamental rights such as freedom of association, non-discrimination, privacy and health and safety.

To monitor adherence to human rights standards, Mölnlycke has implemented processes in alignment with the UN Guiding Principles on Human Rights and the OECD Guidelines for Multinational Enterprises. Mölnlycke's Human Rights Committee oversees the progress of the company's human rights programme. In 2024, Mölnlycke strengthened its approach by adopting a more systematic due diligence process, incorporating human rights considerations into the annual risk assessment. The company also conducted a pilot human rights impact assessment within its Gloves Business Area to gain a deeper understanding of its impact on affected individuals. Building on these insights, Mölnlycke plans to expand its human rights due diligence approach and measures in 2025 to further enhance its commitment.

Employee feedback is collected through biannual engagement surveys, with ongoing consultations with employee representatives ensuring continuous dialogue. Additionally, the company reviews its internal investigation processes to address any human rights concerns raised through reporting channels.

Training and awareness

Mölnlycke provides annual Code of Conduct training, which includes a focus on human rights and labour rights. This training is delivered through e-learning or in-person sessions. In 2024, the company launched two new e-learning courses: "Introduction to human rights" and "Modern slavery," targeted at employees within scope.

Employees are regularly reminded of the available reporting options through multiple communication channels, including Code of Conduct training, Speak-up sessions, videos, intranet communications, posters and ad-hoc awareness sessions. To further support employees, Mölnlycke maintains continuous communication with employee representatives through works councils, employee surveys, union negotiations, and collective bargaining.

Grievance mechanism

Mölnlycke has established a grievance mechanism to address employee concerns, including human rights violations. The same reporting channels used for other misconduct are available to report human rights concerns, ensuring consistent and thorough investigation. For more information on concern reporting and management, including grievance mechanism, please refer to the "Business ethics and culture of integrity" section of the Sustainability report.

Impacts and remediation

Mölnlycke is committed to addressing any negative human rights impacts on its workforce through effective remediation. The company aims to prevent, mitigate, and, where possible, repair damage caused by these impacts. Remediation may include apologies, restitution, rehabilitation, or financial and non-financial compensation, depending on the nature of the issue and the stakeholders involved.

The remediation process is integrated with Mölnlycke's investigation and response procedures. Follow-up actions, both preventive and corrective, are determined on a case-by-case basis and overseen by the Ethics Hotline Committee. Currently, the company does not yet systematically monitor or assess the effectiveness of remediation efforts for its employees; however, it is planned for 2025.

Metrics and targets

Metrics

Human rights-related incidents

In 2024, Mölnlycke was not made aware of any human rights grievance through its reporting channels. As a result, no remediation actions were necessary.

Community support

Mölnlycke is committed to acting responsibly in society by actively engaging with local communities to create meaningful and lasting impacts. The company collaborates closely with stakeholders to address concerns, maximise positive contributions, and ensure that all initiatives drive real societal value. All community support efforts are designed to be measurable, aligned with medical advancements, and contribute to sustainable healthcare development.

In alignment with Mölnlycke's Community Support principles, the company plays an active role in supporting healthcare initiatives through financial contributions, product donations, and employee engagement. These initiatives aim to enhance patient outcomes, improve medical staff protection, and advance medical knowledge, while ensuring compliance with AdvaMed and Eucomed guidelines. Mölnlycke conducts an annual assessment of its community initiatives to evaluate their impact. In 2024, no adverse effects on local communities were recorded, reinforcing the company's commitment to ethical and responsible corporate engagement.

Partnership with Operation Smile: comprehensive cleft care

In 2024, Mölnlycke reached a significant milestone in its long-term partnership with Operation Smile, a global non-profit organisation providing free and safe Cleft Lip and Palate (CLP) surgeries to patients with limited healthcare access. In 2021, Mölnlycke committed to supporting the establishment of a Comprehensive Cleft Care Centre in Cebu, Philippines, which was officially inaugurated in November 2024. In its first months of operation, the centre transformed the lives of 229 patients by providing free, high-quality cleft care, strengthening Mölnlycke's commitment to improving healthcare access and patient outcomes. The centre operates as a formal Ambulatory Surgical Unit within the Cebu City Medical Centre, ensuring that all treatment provided is free of charge.

The facility spans 2,000 m^2 and delivers a holistic approach to CLP care, encompassing speech therapy, nutritional support, dental services, and psychosocial care alongside surgical interventions. The centre is fully staffed by local healthcare professionals and is expected to serve 10,000 patients within its first three years of operation.

Beyond financial support for equipping the Operating Rooms, Mölnlycke employees actively contributed by fundraising for the psychosocial care room, reinforcing the company's commitment to a patient-centered approach.

To ensure sustainable impact at the centre, Mölnlycke has prioritised capacity building within the local healthcare sector. The company co-developed an Infection Prevention Training Programme with Operation Smile, which was launched in October 2024. Since October 2024, Mölnlycke's clinical specialists trained 22 of the centre's healthcare staff alongside Operation Smile's medical volunteers. The curriculum includes best practices in hygiene, equipment handling, and wound management. Furthermore, a 'train the trainer' model has been introduced to enable healthcare professionals across the Philippines to disseminate this knowledge, with plans for annual training expansion to other Operation Smile locations globally. This initiative has proven highly effective, culminating in a certification programme that validates professional development and enhances healthcare standards.

As a pivotal part of Mölnlycke's approach to fostering innovation in surgical care, the Cebu Comprehensive Cleft Care Centre has been established as a global training hub within a hub-and-spokes model. The centre facilitates live-streamed surgeries, educational programmes, and hands-on training for medical professionals worldwide. This initiative aligns with Mölnlycke's broader strategic goal of contributing to medical excellence and improving global surgical outcomes.

Mölnlycke also actively promotes employee engagement through the Mölnlycke Champions Programme, developed in collaboration with Operation Smile. This programme allows selected employees to immerse in the healthcare ecosystem, gaining first-hand insight into patient care, healthcare delivery and community engagement. The 2024 programme took place at the Cebu Comprehensive Cleft Care Centre, offering six employees a unique perspective on the continuum of care, medical leadership, and cross-cultural healthcare dynamics during one full week.

Healthcare compliance

Approach to healthcare compliance

As a global manufacturer, marketer, and distributor of medical devices, Mölnlycke operates in a highly regulated healthcare industry. The company is committed to ensuring that all interactions with Health Care Professionals (HCPs) and Health Care Organisations (HCOs) are conducted transparently, maintaining their independence and safeguarding public trust.

Mölnlycke follows best practices in healthcare compliance, adhering to the Code of Ethical Business Practice established by

MedTech Europe. This framework is built upon the following core principles:

- **principle of image and perception:** ensuring activities reflect a commitment to ethical business conduct
- **principle of separation:** avoiding conflicts of interest in relationships with HCPs and HCOs
- **principle of transparency:** disclosing interactions and financial relationships where required
- **principle of equivalence:** ensuring fair-market value in collaborations with HCPs and HCOs
- **principle of documentation:** maintaining accurate and complete records to demonstrate compliance

Mölnlycke's Business Ethics & Governance function and Medical & Scientific Affairs function work collaboratively to develop, implement, and oversee compliance policies and procedures. Continuous training programmes ensure that all employees and stakeholders uphold Mölnlycke's commitment to ethical healthcare engagement and regulatory adherence.

Ethical clinical research

Mölnlycke upholds the highest ethical standards in clinical research, ensuring full compliance with the Declaration of Helsinki, Good Clinical Practice (GCP), and applicable regulatory requirements. All clinical research activities are governed by Mölnlycke's Clinical Evidence Policy and Investigator-Initiated Studies (IIS) Policy, which align with internationally recognised regulations and ethical guidelines, including ISO 14155, the EU Medical Device Regulation, and the Code of Federal Regulations Title 21. Mölnlycke also adheres to guidance from bodies such as the Medical Device Coordination Group (MDCG), AdvaMed Code of Ethics, and MedTech Europe.

Mölnlycke's commitment to ethical research is embedded in its Standard Operating Procedures (SOPs), including but not limited to:

- **quality improvement projects:** procedures and work instructions supporting continuous enhancement
- **clinical case studies:** guidelines for generating and managing clinical case reports
- **Investigator Initiated Studies (IIS):** governance for independent research collaborations
- **clinical investigations:** policies covering planning, informed consent, safety reporting, and post-market surveillance

Mölnlycke's Quality Management System (QMS) ensures adherence to ethical research practices while mitigating potential negative impacts. Key compliance measures include:

- **safety reporting and risk management:** oversight by a designated complaints unit, rigorous site selection, monitoring, and closure processes
- **data integrity and market readiness:** ensuring high-quality clinical data supports product safety, efficacy, and cost-effectiveness
- **stakeholder training and capacity building:** regular internal and external training sessions for employees and research collaborators to maintain compliance
- **Post-Market Surveillance (PMS) and continuous assessment:** Mölnlycke routinely evaluates research effectiveness through Clinical Evaluation Reports (CERs) and Clinical Investigation Reports (CIRs). No repeated audit findings or FDA warning letters have been reported, demonstrating the effectiveness of its compliance framework

Governance

Business ethics and culture of integrity

Impact, risks and opportunities

Corruption, bribery, and unethical business practices pose significant threats to economic and social development, disproportionately affecting vulnerable communities and undermining institutional trust. These practices can erode confidence in public institutions and businesses, creating long-term barriers to economic growth, particularly in regions with weaker governance structures. For Mölnlycke, operating in diverse global markets, this challenge presents both risks to manage and opportunities to lead with integrity. While exposure to areas with higher corruption risks can harm the business environment, it also presents an opportunity for Mölnlycke to lead by example in fostering a strong culture of integrity.

Mölnlycke has invested in building a robust culture of compliance to mitigate these risks. The company's commitment to ethical practices is reflected in the implementation of a comprehensive compliance programme. By prioritising business integrity and setting clear expectations for employees and stakeholders, Mölnlycke creates an environment where ethical behaviour is supported and misconducts are proactively addressed. This commitment also ensures that employees feel empowered to raise concerns and participate in maintaining a culture of ethics, which helps mitigate the potential financial and reputational costs associated with unethical behaviour.

However, Mölnlycke also recognises that the corporate culture itself can pose a risk if not effectively maintained. A failure to uphold the principles of integrity could lead to misconduct, reputational damage, and even legal consequences. Therefore, the company is dedicated to continually strengthening its business ethics and compliance framework, protecting reporters, and ensuring all employees are equipped to navigate ethical challenges in their daily operations.

Through this ongoing commitment, Mölnlycke aims to not only manage risks but also seize opportunities to foster trust and drive long-term sustainable growth.

Policies

Mölnlycke's Code of Conduct

Mölnlycke's Code of Conduct is a guiding document that outlines Mölnlycke's commitment to fairness, ethical behaviour and acting with integrity when conducting business. Its objective is to guide employees in daily actions and decisions, establishing the standard for expected behaviour and corporate culture. It covers, among others, topics such as corporate culture, protection of whistleblowers, corruption and bribery, and management of relationship with suppliers.

Mölnlycke's Code of Conduct reflects the company's commitment to respecting the UN Global Compact's Ten Principles, conducting business with integrity, and complying with all applicable laws and regulations. It also ensures adherence to medical device industry standards, including the MedTech Europe Code of Ethical Business Practice.

Mölnlycke considered feedback from employees and managers when updating the Code of Conduct to ensure it is easier to navigate and more relevant to their roles. The 2024 version features clearer language and a user-friendly format, along with practical cases and examples to make the content more tangible. It also includes new or expanded topics such as social media, occupational health and safety, and other key sustainability aspects.

Mölnlycke's Code of Conduct applies to all personnel globally and is approved by the Board of Directors. It is available in 14 languages and implemented across the organisation. ELT members are responsible for its application within their respective areas, supported by the Business Ethics & Governance function.

The Code is accessible to both internal and external stakeholders via Mölnlycke's intranet and external website. Internally, it is integrated into training programs and onboarding processes to ensure widespread awareness. The rollout includes communication materials, articles, and training sessions, with ongoing support provided by Business Ethics Representatives and the Business Ethics & Governance team.

The commitment to anti-corruption and anti-bribery is also reflected in additional policies and processes, such as the process to manage interactions with healthcare professionals, healthcare organisations and government officials. Mölnlycke communicates this commitment and expectations to its business partners through contractual agreements and the Distributor and Supplier Codes.

Supporting policies

For more detailed information on the topics covered in the Code of Conduct, employees can refer to relevant policies and materials available on Mölnlycke's intranet. Policies such as the Anti-Corruption Policy, Anti-Retaliation Policy, Ethics Hotline Policy, and Conflict of Interest Policy further define and reinforce the commitments outlined in the Code. These policies establish clear roles and responsibilities and outline processes to ensure effective implementation across the organisation. ELT members are responsible for applying these policies, ensuring consistency and alignment throughout Mölnlycke.

Management approach

Mölnlycke is committed to fostering a culture of integrity by embedding ethical decision making into every aspect of its operations. Transparency, collaboration, and open dialogue are central to ensuring that ethical considerations remain integral to all business activities.

To prevent corruption and bribery, Mölnlycke has established a compliance programme including robust policies and procedures, with a particular focus on high-risk activities involving customers, healthcare professionals, and other key stakeholders. The programme also includes global monitoring activities covering regular risk evaluations and audits to proactively identify and mitigate potential threats. This ensures that any unlawful behaviour or misconduct is promptly detected, reported, and addressed.

All employees are expected to adhere to the Code of Conduct, seek guidance when faced with ethical dilemmas, and report any violations or concerns. Senior leadership plays a pivotal role in shaping this culture, driving discussions on ethics and compliance and addressing emerging challenges. To underscore this commitment, senior leaders, including the CEO, regularly engage with employees on these matters.

Mölnlycke encourages employees, suppliers and business partners to raise concerns, reinforcing a proactive approach to upholding ethical standards.

Mölnlycke actively assesses its corporate culture through maturity assessments, and the perception of its speak-up culture through the employee engagement surveys.

Reporting concerns and internal investigation process

All Mölnlycke, employees have multiple ways to share their questions, concerns, suggestions, or complaints. They can reach out to their manager, their manager's manager, their Business Ethics Representative, or their People function partner. These contacts provide guidance, support and information on how to raise a concern.

Additionally, employees can report potential misconduct through the following channels:

- **business ethics contacts:** employees can contact their Regional Business Ethics Officer, the Chief Business Ethics & Governance Officer, or the Director of Investigations. Reports can be made in writing, by phone, or in person
- **Ethics Hotline:** available for written (online) or phone reports, the Ethics Hotline allows for anonymous submissions and is operated by an independent third-party reporter system provider. The Ethics Hotline is also available to external partners, including distributors, suppliers and other business partners.
- **local channels (where applicable):** employees can select the relevant option on the Ethics Hotline webpage or phone line, or contact the appointed local representative by phone, email, or in person

All reports are thoroughly assessed and investigated. Once a concern is raised, internal investigators follow established procedures, overseen by the Ethics Hotline Committee, which includes senior leaders, and report substantiated issues to line management for corrective action. If the investigation involves members of the ELT, the matter is escalated to the Board or Audit Committee to ensure impartiality and avoid conflicts of interest.

Mölnlycke encourages employees to report concerns without fear of retaliation. This is reinforced by Mölnlycke's Anti-Retaliation Policy, which aligns with the EU Whistleblower Protection Directive.

To ensure awareness of reporting options, the company offers ongoing training, awareness videos, intranet updates, posters, and manager training on handling employee concerns. Retraining is conducted regularly, and senior management reinforces the company's commitment through messaging to relevant units. Employee perceptions of reporter protection are evaluated through the biannual engagement survey, which helps the company to assess its effectiveness and identify areas for improvement.

In response to investigations, Mölnlycke may take disciplinary action, including dismissal, and implement process changes or enhanced controls. Quarterly reports are submitted to the Audit Committee of the Board, highlighting trends, lessons learned, and key insights to support continuous improvement in the management of reports and investigations.

Mölnlycke 's Ethics Hotline can be accessed by scanning the QR code

Anti-retaliation approach

The willingness of employees to speak up is a vital safeguard to ensure Mölnlycke conducts business with integrity and maintains high ethical standards in all its operations.

Retaliation against individuals who report concerns in good faith is considered a serious violation of Mölnlycke's Code of Conduct and may result in disciplinary actions. Employees who become aware of, or suspect, any retaliation against themselves or others for raising concerns or participating in an investigation are required to report it promptly. Mölnlycke maintains a zero-tolerance policy for retaliation, as outlined in its Anti-Retaliation Policy.

Communication and training

To prevent, detect, report and address allegations or incidents of corruption and bribery, Mölnlycke communicates its commitment through various internal channels, including articles on the company intranet and direct interactions during kick-off meetings and team gatherings.

Anti-corruption awareness is integrated into targeted training sessions, especially for teams like sales, where corruption risks in the healthcare industry are more prominent. Mölnlycke also offers annual training sessions on gifts and hospitality, helping employees understand ethical boundaries and navigate potential dilemmas.

The mandatory annual Code of Conduct training further strengthens anti-corruption awareness across the organisation. This training, tailored to different employee categories, is delivered through e-learning or in-person sessions to ensure broad accessibility. It emphasises Mölnlycke's commitment to preventing corruption, provides examples of high-risk situations, and outlines clear employee expectations. Completion of the training is tracked to ensure compliance with the company's anti-corruption policies

Employees are trained to recognise bribery and corruption risks and are equipped with tools to manage ethical dilemmas that may arise in their roles. Mölnlycke utilises diverse training methods and platforms to engage employees effectively and address specific risk exposures.

The most at-risk functions, i.e. sales, marketing, procurement, finance and governmental affairs, are specifically targeted for mitigation measures due to their frequent interactions with healthcare professionals, organisations, authorities, and business partners. To manage these risks, Mölnlycke implements global policies and controls.

Employees at Mölnlycke participate in regular ethics and compliance trainings, which reinforces the company's commitment to a transparent and ethical working environment. These trainings educate employees on the importance of ethical decision making and encourages them to report concerns without fear of retaliation, ensuring they are equipped to handle potential ethical dilemmas.

Consistent internal communications supports these training efforts, helping employees understand their role in fostering a culture of integrity and reinforcing the company's commitment to a transparent, ethical workplace.

Metrics and targets

Targets

Living an ethical business culture.

Strengthen Mölnlycke's ethics and compliance programme.

Employees feeling safe to report concerns

Mölnlycke is committed to fostering a work environment where all employees feel safe to raise concerns without fear of retaliation. As part of this commitment, Mölnlycke has set the target that by 2025, 100% of its employees will feel confident reporting concerns in a safe and supportive environment.

Metrics

Training and awareness raising

Training and awareness raising				
(%)[50]	Target audience	**2024**	2023	2022
Code of Conduct e-learning	Employees	**99.5**	98.7	98.3
Code of Conduct e-learning	Employees in high-risk roles	**99.6**	n.a.	n.a.

Concerns reported and corrective actions

The tables to the left provide an overview of compliance concerns reported, including the number of cases received, those investigated, substantiated cases concluded within the reporting year, and ongoing investigations at year-end. Additionally, data on reported concerns by category is presented.

The duration of an investigation varies depending on case complexity, meaning not all cases are resolved in the same year they are reported. As a result, the number of substantiated cases and ongoing investigations may include cases from previous reporting periods that were concluded during the year.

Reported concerns by category	
(%)	2024
Misuse of Corporate Assets	18
Employee relations	48
Other	34
Total	**100**

Furthermore, many reported concerns fall outside the scope of investigation. These are often general inquiries or issues unrelated to misconduct or breaches of the Code of Conduct. When applicable, such cases are directed to the relevant units for resolution through their established processes.

Compliance concerns reporting and corrective actions			
No.	**2024**	2023	2022
Concern intake and investigation			
Reported	**58**	55	34
Not referred for investigation[51] (out of scope)	**14**	-	-
In scope investigation	**44**	-	-
Cases closed at year end[52]	**41**	-	-
Substantiation rate[53]	**44%**		

Employees feeling safe to report concerns

Year	Share of employees (%)
2022	75
2023	67
2024	**70**

No legal actions for corruption, anti-competitive behaviours, anti-trust or monopoly practices were taken against Mölnlycke in 2024.

50. Completion rates are calculated by dividing the number of individuals having completed training at the reporting year cut-off date with the number of individuals having been assigned the same training.
51. Cases received but not investigated as they pertained to inquiries of a general nature or other matters not deemed to be related to misconduct or breaches of the Code of Conduct.
52. Due to the varying complexity of investigations, not all cases are concluded within the same year they are reported. Therefore, the cases closed at year end include cases from previous periods that were concluded during the reporting year. Cases closed and concluded to be substantiated during the reporting year, some of which were reported in previous reporting years.
53. Cases closed and concluded to be substantiated during the reporting year, some of which were reported in previous reporting years.

Management of relationships with suppliers

Impact, risks and opportunities

Mölnlycke operates a global supply chain encompassing approximately 17,000 first-tier suppliers across nearly 80 countries. This complexity introduces the risk that some business partners may not fully align with Mölnlycke's values, principles, and standards, potentially leading to unintended sustainability impacts within the supply chain. On the other hand, a corresponding opportunity for strategic partnerships with suppliers can improve sustainability practices in the supply chain and support Mölnlycke in meeting the company's objectives and ambition to become a global leader in sustainable healthcare.

Around 400 suppliers of the total supplier base are providers of components or direct material to Mölnlycke's production. The largest portion of suppliers are indirect suppliers not critical to the finished product or to the operation of Mölnlycke. These are low risk suppliers from a business and patient safety perspective, and therefore subject to a simplified evaluation and approval procedure. While a risk-based prioritisation is necessary to make use of appropriate resources, it rules the organisation's capacity to engage with suppliers and by that its ability to capture all potential impacts. Mölnlycke also strives to have dual supply sources to strengthen supply chain resilience, which adds to the number of supplier relationship to manage. Mölnlycke has, in recent years, expanded its geographical footprint and the number of local suppliers operating in higher risk countries considering labour standards, business ethics and the environment.

High risk countries are generally not dominant in Mölnlycke's geographical breakdown of supplier origin and constitute less than 4 % of the total number of suppliers. The most dominant country with a high-risk country score is China. The main material impacts identified upstream in the supply chain are related to occupational health and safety, working hours, wages and environmental management.

Policies

The Mölnlycke Code of Conduct for Suppliers outlines the minimum requirements for Mölnlycke's suppliers with regards to human rights, working conditions and business ethics. It aims to ensure that suppliers comply with rules and regulations, provide safe working conditions for their employees, respect fair business ethics practices, amongst other points.

The Code of Conduct for Suppliers is incorporated in Mölnlycke's Supplier Standard, which also includes requirements on quality and environment, and contractually applies to all direct material suppliers e.g. suppliers of raw materials or components, as well as logistic suppliers and indirect suppliers having a critical impact on finished products or Mölnlycke's business operation. Suppliers are expected to follow the principles and requirements set out in the Code of Conduct, and apply and communicate the requirements on their own suppliers. Mölnlycke has a contractual right to conduct audits to assure compliance with the Code of Conduct and reserves the right to discontinue any relationship should a business partner violate, fail to correct or have a pattern of violating the requirements.

Alongside the Code of Conduct, specific requirements on business partners and suppliers involved in certain activities with higher risks are part of relevant procurement procedures.

Management approach

Supplier segmentation and risk assessment

As a producer of medical devices, Mölnlycke must ensure product safety for users of the company's products and services. Therefore, Mölnlycke applies a risk-based approach for defining the evaluation criteria and monitoring measures of its suppliers. Risk aspects formally encompassed in current supplier evaluation process include:

- quality management
- supply contingency
- sustainability conditions

The evaluation is documented by the following:

- risk assessment
- documentation (such as ISO-certificates according to defined risk level)
- sustainability (signed Supplier Standard or Supplier Code of Conduct, sustainability risk screening followed by an independent on-site audit if considered high risk)

Sustainability is embedded in the evaluation and approval of new suppliers, as well as in the annual performance review and management of active suppliers. All new and active suppliers are subject to a sustainability risk screening, to identify inherent sustainability risks that suppliers might be exposed to, considering the country and sector where different commodities are sourced from. This allows us to engage with the most relevant suppliers for site-specific assessments, to ensure suppliers live up to our requirements as communicated in the Mölnlycke Supplier Code of Conduct. Suppliers exposed to the highest level of risks will be subject to a third-party sustainability audit and corrective action plans are established to address non-conformities. Each audit is seen as an opportunity for improvement.

Social and environmental performance of suppliers

Mölnlycke's Sustainable Procurement Framework sets the governance structure for the company's sustainability efforts related to procurement and supplier management, and it includes for example policies, reporting and training. The Procurement community is continuously trained on various sustainability topics.

Empowering sustainable supply chains with Sedex

Mölnlycke is a member of Sedex, the world's largest platform for sharing supply chain assessment data and results, enabling effective and data-driven environmental, social, and governance (ESG) outcomes. Mölnlycke applies the recognised auditing standards and risk screening tools offered by Sedex. The SMETA (Sedex Member Ethical Trade Audit) 4 pillar audit, is a comprehensive on-site audit conducted by accredited third-party

auditors for the full sustainability scope, including human rights, working conditions, health & safety, environment and business ethics. SMETA utilises the Ethical Trading Initiative (ETI) base code and the local law as main pillars.

Supplier climate action

Mölnlycke has committed to decarbonise healthcare by eliminating emissions across our value chains. As Mölnlycke's largest source of emissions are the supply chain-related emissions, partnership with suppliers is crucial to deliver on company objectives and public commitments, for example to the Science Based Target initiative. Mölnlycke's near-term science based targets include a supplier engagement target to achieve 63% suppliers by emission committed to the Science Based Target initiative by 2028. Mölnlycke's procurement teams continuously monitor our suppliers' status on committing to the SBTi and evaluate this parameter in our sourcing plans.

Supplier engagement

The 'Partnering for Progress' event series has become an essential part of how Mölnlycke engages with its key suppliers. Focused on strategic topics, this series serves as a platform to align with supplier partners on shared goals and foster open dialogue on current and future trends, requirements, and challenges to address together. More details on the 2024 edition of "Partnering for Progress" can be found in the "Sustainability in action" section of this report.

Local procurement practices

Local procurement practices at Mölnlycke are closely monitored at the Business Area (BA) level to enhance cost efficiency, supply chain resilience, and sustainability performance. Prioritising local suppliers strengthens regional economies, reduces logistical risks, and minimises environmental impact by lowering transportation emissions. Additionally, it enhances supplier collaboration, ensuring reliable and agile sourcing while mitigating potential disruptions from geopolitical uncertainties or global supply chain bottlenecks.

For the BA Operating Room Solutions, 23% of the annual purchasing value is spent on local suppliers, defined as those located in the same country as the Business Area's manufacturing sites. This approach fosters strong supplier relationships, supports economic development, and enhances supply chain stability by reducing dependency on long-distance sourcing.

In the Wound Care BA, 36% of the annual purchasing value is allocated to local suppliers, applying the same definition. This strategy optimises procurement efficiency, shortens lead times, and aligns with Mölnlycke's sustainability goals by lowering the carbon footprint associated with transportation.

For the Gloves BA, 98% of the procurement budget is directed towards suppliers within the Asian region, where the majority of manufacturing operations are based. By sourcing within this region, Mölnlycke ensures a more resilient supply chain, reduces exposure to global disruptions, and maintains cost-effective operations.

The Antiseptics BA operates under an outsourced production model, making the local procurement indicator not applicable. However, procurement activities in this area are managed to ensure supplier reliability and compliance with quality and sustainability standards.

In 2024, a total of 37% of Mölnlycke's purchasing value was allocated to local suppliers.

Metrics and targets

	2024	2023
SBTi supplier engagement target		
Suppliers by emission[54] committed to Science Based Target initiative by 2028 (%)	**38**	20
Supplier sustainability risk screening		
Suppliers covered by sustainability risk screening (No.)	**17,203**	15,805
Suppliers with high-risk score (No.)	**66**	49
SMETA (Sedex Member Ethical Trade Audits) (No.)	**40**	n.a.[56]
Corrective action rate for critical and major non-conformities (%)[55]	**67**	n.a.[56]
Good examples and best practice findings (No.)	**36**	n.a.[56]

54. Covering emissions from Scope 3, category 1, 2 and 4.
55. Mölnlycke became members of Sedex in 2023. The result of 2023 sustainability risk screening informed the 2024 Supplier Sustainability Audit Programme, which was the first year using SMETA as preferred audit protocol.
56. Calculated as the number of critical and major non-conformities from SMETA audits conducted in 2024 that have been addressed, closed and verified by the reporting year cut-off date which is December 31, divided by the total number of identified critical and major non-conformities in the same period. The corrective action rate is calculated based on the findings identified in the reporting period and closed during the same period. For this reason, findings identified late in the reporting period may not have been addressed and closed without surpassing the recommended due date.

Payment practices

Impact, risks and opportunities

The relationship with business partners is essential to Mölnlycke's success, particularly when it comes to maintaining strong and effective supplier relationships. Delays or inefficiencies in payment practices can negatively impact these relationships, leading to dissatisfaction, potential supply chain disruptions, and a damaged reputation. Such delays may also increase the risk of suppliers revisiting their contract terms or even choosing to discontinue their partnership, potentially limiting Mölnlycke's access to critical resources.

To mitigate these risks and ensure operational continuity, Mölnlycke's Global Business Services (GBS) is focused on delivering excellence in finance operations. By streamlining invoice processing and ensuring timely payments, GBS helps reduce the risk of strained supplier relationships. Furthermore, a smooth payment process enables suppliers to rely on Mölnlycke as a trustworthy partner, creating opportunities for more favorable negotiations and enhanced collaboration.

Efficient payment practices also present an opportunity for Mölnlycke to enhance supplier loyalty, attract better contractual terms, and build long-term, sustainable business relationships. In addition, this operational efficiency may contribute to Mölnlycke's broader corporate goals by reinforcing its commitment to ethical business practices and sustainability within its supply chain.

Polices

Mölnlycke does not have a specific policy for payment practices but adopts the procedures and Key Performance Indicators (KPIs) as described under Management approach.

Management approach

Supplier invoice and payment management apply to all supplier segments and no difference is made between supplier segments. Standard contract payment terms are 60 days on receipt of invoice. KPIs are implemented to monitor supplier invoices, from a processing efficiency, lead time and payment effectiveness perspective.

Prioritisation of the supplier invoice back-log is made on a daily basis, coordinated by the Operational Lead personnel in the Global Business Services Purchase-to-Pay (GBS PTP) team. There is also a weekly follow-up with team managers, addressing prioritisation of supplier invoice management to ensure timely payment in line with defined payment terms. Further, root-cause analysis and corrective action management is defined in these meetings.

In addition, monthly KPI meetings are held with the Order to Cash (OTC) & Purchase to Pay Director and Global Process Owner, to highlight progress of KPIs and escalate support in terms of tactical/strategic decisions; enhancing the operational excellence of the GBS PTP Finance Operation.

Metrics and targets

	2024	2023
Average time to pay an invoice[57] (days)	**35**	-
Percentage of payments aligned to standard payment terms (%)	**64**	-
Number of legal proceedings currently outstanding for late payments	**0**	0

Data and intellectual property

The purpose of Intellectual Property Rights (IPR) at Mölnlycke is to protect and share innovations by granting time-limited exclusivity. This exclusivity allows the company to secure a competitive advantage, mitigate legal risks, and foster technological advancements that support both business growth and sustainability. Through IPR, Mölnlycke ensures that its innovations are protected, enabling continued investment in the development of more sustainable products and services that positively impact the healthcare industry and the environment.

By safeguarding IPR, Mölnlycke can protect its return on investment and continue to drive the development of high-quality, sustainable products that meet the evolving needs of the healthcare sector. For example, this approach contributes to Mölnlycke's commitment to environmental sustainability by facilitating the creation of solutions that reduce waste, improve efficiency, and enhance patient care while minimising the environmental footprint.

While Mölnlycke does not have specific standalone policies related to IPR in the areas of economy, environment, or people, these topics are addressed within the broader Mölnlycke Sustainability Policy. The Sustainability Policy outlines the company's commitment to responsible innovation, with IPR management being an integral part of this strategy. Additionally, Mölnlycke follows specific IPR policies applicable to each business area to ensure compliance with international standards and legal requirements.

Mölnlycke has implemented a governance framework that ensures effective management of IPR. This includes conducting Freedom-to-Operate (FTO) investigations, filing IPR applications, and ongoing surveillance of competitor activities. These actions are critical in managing the risks associated with intellectual property while ensuring that Mölnlycke remains compliant with global standards and continues to protect its innovations. This governance model is closely aligned with Mölnlycke's sustainability objectives and ensures that the company's IPR practices support the long-term strategic goals of the business.

In 2024, no negative impacts related to IPR or data in relation to the economy, environment, or people have been identified. Mölnlycke continues to assess and improve its IPR strategy to align with both its business and sustainability goals, ensuring that the management of intellectual property remains a key enabler of the company's ongoing success and commitment to innovation.

57. From the date when the contractual or statutory term starts to be calculated.

Strategic fiscal governance

The table below presents data on the creation and distribution of economic value, offering a general overview of how Mölnlycke generates and shares wealth among its stakeholders. Operating costs include cost of sales, selling costs, administrative costs, research and development costs, net other operating income and expenses and share of profit in joint ventures, deducted for employee wages and benefits. Costs and payments to providers of capital include dividends and group contributions distributed, as well as interest expenses. Costs for direct taxes to governments reflect the current income tax expense for the year.

MEUR		2024 Total	2023 Total
Direct economic value generated	revenue	2064,2	1923,5
	revenues from financial investments	30,2	24,1
	sales of assets	0,0	0,0
Economic value distributed	operating costs	-1020,6	-972,6
	employee wages and benefits	-536,6	-488,2
	costs and payments to providers of capital	-521,9	-220,8
	costs for direct taxes to governments	-102,7	-98,5
	community investments	-0,1	-0,3
Economic value retained		-87,5	167,2

Responsible taxation approach

Mölnlycke acknowledges taxes as an important part in its dedication to achieve sustainable and responsible growth. Mölnlycke strives to pay a proper amount of tax in relation to its profits in the countries where the value is being created.

Mölnlycke's tax strategy, applicable to the entire Mölnlycke Group, aligns with Mölnlycke's overall business strategy. Mölnlycke shall manage its tax matters in the light of its commercial objectives and long-term sustainability targets. Recognizing the importance of taxes as a significant part of corporate responsibility, Mölnlycke embraces its role to make a positive impact and bring value to the countries and societies where it operates by contributing with tax revenue.

Mölnlycke's focus when it comes to taxes is to ensure the organization is compliant with tax laws and regulations in all countries where it operates and not expose the organization to any significant tax risks or uncertainties. Mölnlycke always seeks to develop and maintain professional and transparent relationships with tax authorities in all countries where it operates.

Mölnlycke has established a Tax Control Framework, with its documented Tax Policy as a central component. This framework provides a structured approach to tax governance and includes documented procedures for key areas such as Transfer Pricing (TP), DAC6, and Global Mobility.

The Tax Policy sets out clear guidelines for managing taxes across Mölnlycke's operations, ensuring both compliance and efficiency. It defines key roles and responsibilities while outlining fundamental principles for tax compliance, risk management, and governance. The policy is formally approved by the Board of Directors.

The Group Tax Director annually reports to the Audit Committee, a part of the Board of Directors, regarding Mölnlycke tax policy matters, updates on tax regulations and the main challenges Mölnlycke might face within the tax area. In addition, the Group Tax Director reports monthly to a Tax Committee, including the CFO, Group Controller and Group Treasurer. The Tax Committee serves to update the organization on significant tax matters as well as an internal decision forum for tax-related questions.

Mölnlycke's effective tax rate in 2024 was 21%, stated as a percentage of consolidated profit before tax.

MEUR	2024	2023
Corporate income tax	**103**	99
Social security	**68**	63

MEUR	Corporate income tax	Social security	Total tax
Europe/Middle East/Africa	86	55	142
Americas	12	8	20
Asia Pacific	5	5	10
Total	**103**	**68**	**171**

Other

Reporting principles, scope, and external assurance

This Sustainability report ('the report') has been prepared on a voluntary basis and provides information on material environmental, social, and governance (ESG) impacts, risks, and opportunities, as well as governance structures, policies, management approaches, key metrics, and targets for the Mölnlycke Group. Details on Mölnlycke's strategy and business model can be found in the 'Strategy' section of this Annual report document. Mölnlycke is a part of the Investor AB Group which prepares the statutory sustainability report where Mölnlycke is included.

Reporting principles and frameworks

The report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards, following the reporting principles outlined in GRI 1: Foundation (2021). It also aligns with the UN Guiding Principles on Business and Human Rights reporting framework.

Additionally, the report has been structured to align with the Corporate Sustainability Reporting Directive (CSRD) format and requirements, though full compliance has not yet been achieved. Climate-related disclosures are aligned with the Task Force on Climate-related Financial Disclosures (TCFD) framework, embedding its principles into Mölnlycke's climate reporting. As a supplement, a GRI Content Index is provided at the end of this report.

Scope of reporting and boundaries

The sustainability statements of Mölnlycke are prepared on a consolidated basis, with the scope of consolidation aligned with that of the financial statements. Acquisitions, divestments, and other similar transactions are reported from the transaction date. For ESG target setting, baselines are recalculated if mergers, acquisitions, or divestments significantly impact key performance indicators. In other cases, prior period data remains unchanged unless stated otherwise. Any restatements are disclosed within the report.

The report also includes information on Mölnlycke's value chain, covering suppliers, vendors, customers, and business partners. While efforts are made to ensure accuracy, inherent uncertainties exist regarding performance data from areas beyond the company's direct control.

Reporting time horizons

The reporting period for the Sustainability Statements aligns with Mölnlycke's financial statements, i.e. from January 1 to December 31 and includes data from Mölnlycke Holding AB and its subsidiaries.

Changes in preparation or presentation versus prior periods

For 2024, several changes have been made to the preparation and presentation of the Sustainability Report to align with upcoming CSRD requirements. The revised structure follows the Environmental, Social, and Governance (ESG) presentation format mandated under CSRD:

- **general disclosures**, including basis of preparation, governance, strategy, and Mölnlycke's approach to double materiality
- **environmental disclosures**, covering climate action, circularity, waste and water management, pollution prevention,sustainable innovation, and environmental management
- **social disclosures**, addressing employee diversity, equity and inclusion, health, safety and physical security, wellbeing, career development and empowerment, compensation and rewards, human rights and social responsibility within Mölnlycke's value chain and local communities
- **governance disclosures**, including policies, ethical standards, management of relationships with suppliers, payment practices, data and intellectual property and compliance frameworks, including healthcare compliance
- **other disclosures** include reporting principles, scope, external assurance, restatements and regulatory compliance

External assurance

Indicators that fall within the scope of limited assurance by the external auditor for 2024 are selected sustainability data – such as Energy, Scope 1, Scope 2, and Scope 3 GHG emissions. The Limited Assurance Report of the independent auditor, detailing the scope and outcomes, is available on page 147 of this report.

Related reporting and disclosures

Mölnlycke also publishes additional ESG-related statements, including responses to the CDP Climate Change questionnaire, a Modern Slavery and Human Trafficking Statement, and other relevant sustainability disclosures, all available on the company's website.

Restatements of information

The following information in the Sustainability Report has been restated:

Information in "Climate change and energy" section about Scope 1 GHG emissions for the years 2021–2023 has been restated following the correction of a wrong emission factor previously applied to diesel and petrol.

GHG emissions (t CO_2e.)	After restatement			Prior restatement		
	2021	2022	2023	2021	2022	2023
Scope 1	51,607	50,904	52,788	55,894	55,348	57,195
Scope 1 & 2	104,212	79,931	73,064	108,499	84,375	77,471

The Scope 3 GHG emissions data for 2021–2023 in the Climate Change and Energy section has been updated to correct the classification of emissions from ETO sterilization. Previously reported under Category 10 (Processing of Sold Products), these emissions have now been correctly reclassified under Category 1 (Purchased Goods and Services). While this adjustment does not impact the total Scope 3 emissions, it affects Mölnlycke's SBTi near-term Scope 3 target, as Category 1 is included in the target, whereas Category 10 is not.

GHG emissions (t CO_2e.)	After restatement			Prior restatement		
	2021	2022	2023	2021	2022	2023
Category 1: Purchased Goods and Services	376,780	312,666	282,583	359,259	292,378	265,574
Category 10: Processing of Sold Products	0	0	0	17,521	20,288	17,009

The information on Scope 3 GHG emissions for 2021 in the "Climate change and energy section has been restated. This adjustment pertains to Category 4 (Upstream transportation and distribution) and results from the correction of emission data from a supplier, as well as a change in the calculation methodology for emissions from ocean container freight, shifting from mass-based to volume-based allocation of emissions (TEU-methodology). The 2022 and 2023 emissions data have not been recalculated as part of the transitioning process towards the TEU-based methodology. This transition reflects a gradual alignment across suppliers, and the 2023 data includes a mix of both TEU and shipped weight-based calculations, depending on the methodology adopted by each supplier.

The information regarding the share of reclaimed products, expressed as a percentage of the product monetary value, has been restated. A review of 2023 data identified an inconsistency in the calculation methodology, which has now been corrected to ensure greater accuracy and alignment with reporting standards. In 2023 2.39% of products were reclaimed based on monetary value.

GHG emissions (t CO_2e.)	After restatement	Prior restatement
	2021	2021
Category 4: Upstream transportation and distribution	56,914	53,250

% out of total	After restatement	Prior restatement
	2023	2023
Reclaimed products	2.39	0.07

Independent auditor's limited assurance report on specified sustainability information

To Mölnlycke Holding AB, corporate identity number 56693-6729

Introduction

We have been engaged by the Board of Directors and Executive Management of Mölnlycke Holding AB to undertake a limited assurance engagement of selected information as presented in the annual report for 2024 consisting of energy use within the organisation and Greenhouse Gas emissions in Scope 1, 2 and 3 for the year 2024 ("Reporting"), as presented in the annual report on page 114–118.

Responsibilities of the Board of Directors and the Executive Management for the Sustainability Report

The Board of Directors and the Executive Management are responsible for the preparation of the Reporting in accordance with the applicable criteria, as explained on page 150–151 in the annual report, and are the parts of the Sustainability Reporting Guidelines published by GRI (Global Reporting Initiative) related to 302-1 Energy consumption within the organization, 305-1 Direct (Scope 1) GHG emissions, 305-2 Energy indirect (Scope 2) GHG emissions, and 305-3 Other indirect (Scope 3) GHG emissions, as well as the accounting and calculation principles that the Company has developed. This responsibility also includes the internal control relevant to the preparation of the Reporting that is free from material misstatements, whether due to fraud or error.

Responsibilities of the auditor

Our responsibility is to express a conclusion on the Reporting based on the limited assurance procedures we have performed. Our engagement is limited to historical information presented and does therefore not cover future-oriented information.

We conducted our limited assurance engagement in accordance with ISAE 3000 (revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information. A limited assurance engagement consists of making inquiries, primarily of persons responsible for the preparation of the Reporting, and applying analytical and other limited assurance procedures. The procedures performed in a limited assurance engagement vary in nature from, and are less in extent than for, a reasonable assurance engagement conducted in accordance with International Standards on Auditing and other generally accepted auditing standards in Sweden.

The firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We are independent of Mölnlycke Holding AB in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

The procedures performed consequently do not enable us to obtain assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement. Accordingly, the conclusion of the procedures performed does not express a reasonable assurance conclusion.

Our procedures are based on the criteria defined by the Board of Directors and the Executive Management as described above. We consider these criteria suitable for the preparation of the Reporting.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion below.

Conclusion

Based on the limited assurance procedures we have performed, nothing has come to our attention that causes us to believe that the Reporting, is not prepared, in all material respects, in accordance with the criteria defined by the Board of Directors and Executive Management.

Gothenburg, 27 March 2025
Deloitte AB

Hans Warén
Authorized Public Accountant

Appendix

Glossary

CO_2e
Carbon dioxide equivalents. The amount of a particular greenhouse gas, expressed as the amount of carbon dioxide that gives the same greenhouse effect.

GHG Greenhouse gases
Naturally occurring and man-made gases that trap heat in the atmosphere, contributing to the greenhouse effect warming the earth.

LCA Life-Cycle Assessment
An approach for calculating the environmental impact of a product or service across all its lifecycle phases, ranging from extraction of raw materials and manufacturing to usage and end-of-life management.

Downstream in value chain/Downstream emissions
Activities (and related greenhouse gas emissions) occurring post manufacturing/production, primarily associated with a product's distribution, use and end-of-life phases.

GHG (Greenhouse gas) protocol
A framework and de facto standard for measuring, accounting and managing greenhouse gas emissions.

Lost Time Injuries
A metric in workplace health and safety. A work-related injury that causes the Injured Person to be away from work for at least one normal working day/ working shift after the day when the incident occurred.

ESG
Environment, Social, and Governance. Refers to the three overarching themes for assessing non-financial factors which can impact a company's value-creating abilities.

Global Reporting Initiative (GRI) Standards
The first and most widely adopted global standards for sustainability reporting. GRI is an independent international organization that has pioneered sustainability reporting since 1997.

Net Zero
A state in which no net additions of greenhouse gases are released into the atmosphere. Organizations can achieve this primarily by reducing their emissions as well as using certain accepted carbon capture, removal and storage technologies to neutralize any unavoidable remaining emissions.

FSC®
Forestry Stewardship Council.

ISCC
International Sustainability and Carbon Certification system.

Own activities
Cover GHG emissions in Scope 1, 2, and Scope 3 categories. 3.5 Waste generated in operations, 3.6 Business travel, 3.7 Employee commuting, 3.8 Upstream leased assets.

SBTi The Science Based Target initiative
A partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF) that defines and promotes best practice in emissions reductions and net-zero targets in line with climate science, including providing a second opinion on the ambition level of targets set by corporates and other entities.

SDGs Sustainable Development Goals
The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries – developed and developing – in a global partnership.

UNGC United Nations Global Compact
Is a voluntary initiative adopted in 2005 by the UN Secretary-General, based on CEO commitments to implement universal sustainability principles and to take steps to support the UN Sustainable Development Goals.

Scope 1
Direct GHG emissions derived from assets/sources that are owned or controlled by an organisation, typically through combustion of fossil fuels.

Sustainable healthcare
Sustainable healthcare ensures the health needs of the current population are met, without compromising environmental, economic or social resources for future generations.

Upstream in value chain/upstream emissions
Activities (and related greenhouse gas emissions) occurring in an organization's supply chain, including extraction of raw materials, manufacturing, assembly and distribution of purchased products and components, and other acquired services.

Scope 2
Indirect GHG emissions derived from the energy purchased and consumed, but not generated by, an organization, typically from acquired electricity, heating and cooling.

TCFD Task force on Climate related Financial Disclosures
A framework for disclosing on an organization's strategies, targets and risk management approaches as regards climate change.

Scope 3
Other indirect GHG emissions which are a consequence of the activities of the company but are derived from sources not owned or controlled by the company. These include emissions occurring in the supply chain as well those occurring when customers use a company's products and services.

The Paris Agreement
A legally binding international treaty on climate change, adopted by 196 Parties at the UN Climate Change Conference (COP21) in Paris 2015. The Paris Agreement sets out a global framework to avoid dangerous climate change by limiting global warming to well below 2 °C and pursuing efforts to limit it to 1.5 °C.

GRI content index

Statement of use Mölnlycke Holding AB (publ), corporate ID number 556693-6729, has reported in accordance with the GRI Standards for the period 01.01.2024–31.12.2024.
GRI 1 used GRI 1: Foundation 2021.
GRI Sector Standard not applicable.

Disclosure	GRI standard /Other source	Location in the report	Omission reason
General information			
2-1 Organisational details	GRI 2: General Disclosures 2021	p. 4	
2-2 Entities included in the organisation's sustainability reporting		p.76 unless specified otherwise in the Sustainability report	
2-3 Reporting period, frequency and contact point		p. 3, p. 145	
2-4 Restatements of information		p. 146	
2-5 External assurance		p. 145, p. 147	
2-6 Activities, value chain and other business relationships		pp. 12–13	
2-7 Employees		p. 127–129	
2-8 Workers who are not employees		p. 128	
2-9 Governance structure and composition		p. 14, pp. 46–50, pp. 102–103	
2-10 Nomination and selection of the highest governance body		p. 48	
2-11 Chair of the highest governance body		p. 48	
2-12 Role of the highest governance body in overseeing the management of impacts		p. 48, p. 102	
2-13 Delegation of responsibility for managing impacts		p. 51, p. 102–103	
2-14 Role of the highest governance body in sustainability reporting		p. 49, p. 102–103	
2-15 Conflicts of interest		pp. 48–49	
Disclosure 2-16 Communication of critical concerns		pp. 103–105, pp. 139–140	
2-17 Collective knowledge of the highest governance body		p. 48	
2-18 Evaluation of the performance of the highest governance body		p. 48	
2-19 Remuneration policies	GRI 2: General Disclosures 2021	pp. 48–49, p. 129	
2-20 Process to determine remuneration		pp. 48–49, p. 129	
2-21 Annual total compensation ratio		p. 129	
2-22 Statement on sustainable development strategy		p. 7, pp. 17–18	
2-23 Policy commitments		p. 7, pp. 17–18, p. 47	
2-24 Embedding policy commitments		p. 109, p. 127, p. 131, p. 132, p.135, p. 137, p. 138, p. 141, p. 143, p. 144	
2-25 Processes to remediate negative impacts		p. 105, pp. 109–112, pp. 119–122, p. 124, pp. 125–126, pp. 127–128, p. 129, p. 130, pp. 132–134, pp. 135–136, pp.138–140, pp. 141–142, p. 143	
2-26 Mechanisms for seeking advice and raising concerns		pp. 103–105, p. 130, pp. 139	
2-27 Compliance with laws and regulations		p. 138, p. 140	
2-28 Membership associations		p. 18	
2-29 Approach to stakeholder engagement		pp. 103–105	
2-30 Collective bargaining agreements		p. 130	
Stakeholder engagement and materiality			
3-1 Process to determine material topics	GRI 3: Material Topics 2021	pp. 105–107	
3-2 List of material topics		p. 107	
3-3 Management of material topics		p. 17–18, p. 104–105	

Disclosure	GRI standard /Other source	Location in the report	Omission reason
Climate change and energy			
3-3 Management of material topics	GRI 3: Material Topics 2021	pp. 109–112	
302-1 Energy consumption within the organisation	GRI 302: Energy 2016	p. 114	
302-2 Energy consumption outside of the organisation		Omitted	Information of acceptable certainty level is not available. The company is investigating possibilities of reporting the disclosure, according to CSRD ESRS E1 requirements.
302-3 Energy intensity		p. 114	
302-4 Reduction of energy consumption		p. 114	
305-1 Direct (Scope 1) GHG emissions		p. 114	
305-2 Energy indirect (Scope 2) GHG emissions		p. 114	
305-3 Other indirect (Scope 3) GHG emissions	GRI 305: Emissions 2016	p. 115	
305-4 GHG emissions intensity		p. 115	
305-5 Reduction of GHG emissions		p. 115	
201-2 Financial implications and other risks and opportunities due to climate change	GRI 201: Economic Performance 2016	p. 108–109, p. 118–119	
Circularity and resource efficiency – Waste			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 119–120	
306-1 Waste generation and significant waste-related impacts	GRI 306: Waste 2020	p. 120	
306-2 Management of significant waste-related impacts		p. 120	
306-3 Waste generated		p. 120	
306-4 Waste diverted from disposal		p. 120	
306-5 Waste directed to disposal		p. 120	

Disclosure	GRI standard /Other source	Location in the report	Omission reason
Circularity and resource efficiency – Water			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 121	
303-1 Interactions with water as a shared resource	GRI 303: Water and Effluents 2018	p. 121	
303-2 Management of water discharge-related impacts		pp. 121–122	
303-3 Water withdrawal		p. 121	
303-4 Water discharge		pp. 121–122	
303-5 Water consumption		pp. 121-122	
Circularity and resource efficiency – Raw material use			
3-3 Management of material topics	GRI 3: Material Topics 2021	pp. 119–120	
301-1 Materials used by weight or volume	GRI 301: Materials 2016	p. 122	
301-2 Recycled input materials used		Omitted	Information of acceptable certainty level is not available. The company is investigating possibilities of reporting the disclosure, planning to conclude in the next reporting period, according to CSRD ESRS E5 requirements. Information on recycled content in packaging is provided on p.123.
301-3 Reclaimed products and their packaging materials		p. 120	
Pollution prevention			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 124	
305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	GRI 305: Emissions 2016	p. 124	Emissions of only ETO are reported. Other emissions metrics (NOx, SOx, POP, etc) are found not material: omission due to inapplicability.

Disclosure	GRI standard /Other source	Location in the report	Omission reason
Sustainable portfolios			
3-3 Management of material topics	GRI 3: Material Topics 2021	pp. 123–124	
LCA portfolio coverage	Own KPI	p. 124, p. 125	
Own workforce – Diversity, equity and inclusion			
3-3 Management of material topics	3-3 Management of material topics	pp. 127–128	
401-1 New employee hires and employee turnover	401-1 New employee hires and employee turnover	pp. 128–129	
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	p. 129	
405-1 Diversity of governance bodies and employees	405-1 Diversity of governance bodies and employees	pp. 58–61, p.128	
405-2 Ratio of basic salary and remuneration of women to men	405-2 Ratio of basic salary and remuneration of women to men	p. 129	
Own workforce – Health, safety, physical security and wellbeing			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 127, pp. 132–134	
403-1 Occupational health and safety management system	GRI 403: Occupational Health and Safety 2018	p. 133	
403-2 Hazard identification, risk assessment, and incident investigation		pp. 132–133	
403-3 Occupational health services		p. 134	
403-4 Worker participation, consultation, and communication on occupational health and safety		p. 133–134	
403-5 Worker training on occupational health and safety		p. 134	
403-6 Promotion of worker health		pp. 133–134	
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		pp. 133–134	
403-8 Workers covered by an occupational health and safety management system		p. 133	
403-9 Work-related injuries		p. 134	
403-10 Work-related ill health		p. 134	

Disclosure	GRI standard /Other source	Location in the report	Omission reason
Own workforce – Career development and empowerment			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 127, p. 131	
404-1 Average hours of training per year per employee	GRI 404: Training and Education 2016	p. 132	
404-2 Programmes for upgrading employee skills and transition assistance programs		pp. 131–132	
404-3 Percentage of employees receiving regular performance and career development reviews		p. 131	
Own workforce – Human rights			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 127, pp. 135–136	
406-1 Incidents of discrimination and corrective actions taken	GRI 406: Non-discrimination 2016	p. 136	
408-1 Operations and suppliers at significant risk for incidents of child labor	GRI 408: Child Labor 2016	p. 135, pp. 141–142	
409-1 Operations and supplier at significant risk for incidents of forced or compulsory labor	GRI 409: Forced or Compulsory Labor 2016	p. 135, pp. 141–142	
Own workforce – Freedom of association			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 127, p. 130	
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	GRI 407: Freedom of Association and Collective Bargaining 2016	p. 130, pp. 141-142	
Community support			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 136	
413-1 Operations with local community engagement, impact assessments, and development programmes	GRI 413: Local Communities 2016	p. 27, p. 136	
413-2 Operations with significant actual and potential negative impacts on local communities		p. 136	
Healthcare compliance			
3-3 Management of material topics	GRI 3: Material Topics 2021	pp. 136–137	
417-1 Requirements for product and service information and labeling communications	GRI 417: Marketing and Labeling 2016	p. 137	
417-2 Incidents of non-compliance concerning product and service information and labeling		p. 120	
417-3 Incidents of non-compliance concerning marketing		p. 124	

Disclosure	GRI standard /Other source	Location in the report	Omission reason
Business ethics and culture of integrity			
3-3 Management of material topics	GRI 3: Material Topics 2021	pp. 138–140	
205-1 Operations assessed for risks related to corruption	GRI 205: Anti-Corruption 2016	pp. 139–140	
205-2 Communication and training about anti-corruption policies and procedures		p. 140	
205-3 Confirmed incidents of corruption and actions taken		p. 140	
206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	GRI 206: Anti-competitive Behavior 2016	p. 140	
Management of relationships with suppliers			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 141	
204-1 Proportion of spending on local suppliers	GRI 204: Procurement Practices 2016	p. 142	
308-1 New suppliers that were screened using environmental criteria	GRI 308: Supplier Environmental Assessment 2016	pp. 141–142	
308-2 Negative environmental impacts in the supply chain and actions taken		p. 142	
414-1 New suppliers that were screened using social criteria	GRI 414: Supplier Social Assessment 2016	pp. 141–142	
414-2 Negative social impacts in the supply chain and actions taken		p. 142	
Data and intellectual property			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 143	
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	GRI 418: Customer Privacy 2016	p. 143	
Strategic and fiscal governance			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 144	
201-1 Direct economic value generated and distributed	GRI 201: Economic Performance 2016	p. 144	

Disclosure	GRI standard /Other source	Location in the report	Omission reason
Responsible taxation approach			
3-3 Management of material topics	GRI 3: Material Topics 2021	p. 144	
207-1 Approach to tax	GRI 207: Tax 2019	p. 144	
207-2 Tax governance, control, and risk management		p. 144	
207-3 Stakeholder engagement and management of concerns related to tax		p. 104, p. 144	
207-4 Country-by-country reporting		Omitted	Information currently unavailable. To be submitted to the Swedish Tax Office later in 2025.

Find out more at www.molnlycke.com

Mölnlycke Health Care AB, P.O. Box 6, Entreprenörsstråket 21, SE-431 21 Mölndal Sweden. Phone + 46 31 722 30 00.
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Mölnlycke®

Abutter List

Midcoast Regional Redevelopment Authority
15 Terminal Road
Suite 200
Brunswick, ME 04011

Admiral Fitch Properties
2 Main Street
Topsham, ME 04086

Brunswick Naval Museum & Memory Gardens
11 Thomas Avenue
Topsham, ME 04086

Shepard Properties, LLC
106 Union Street
Brunswick, ME 04011-2423

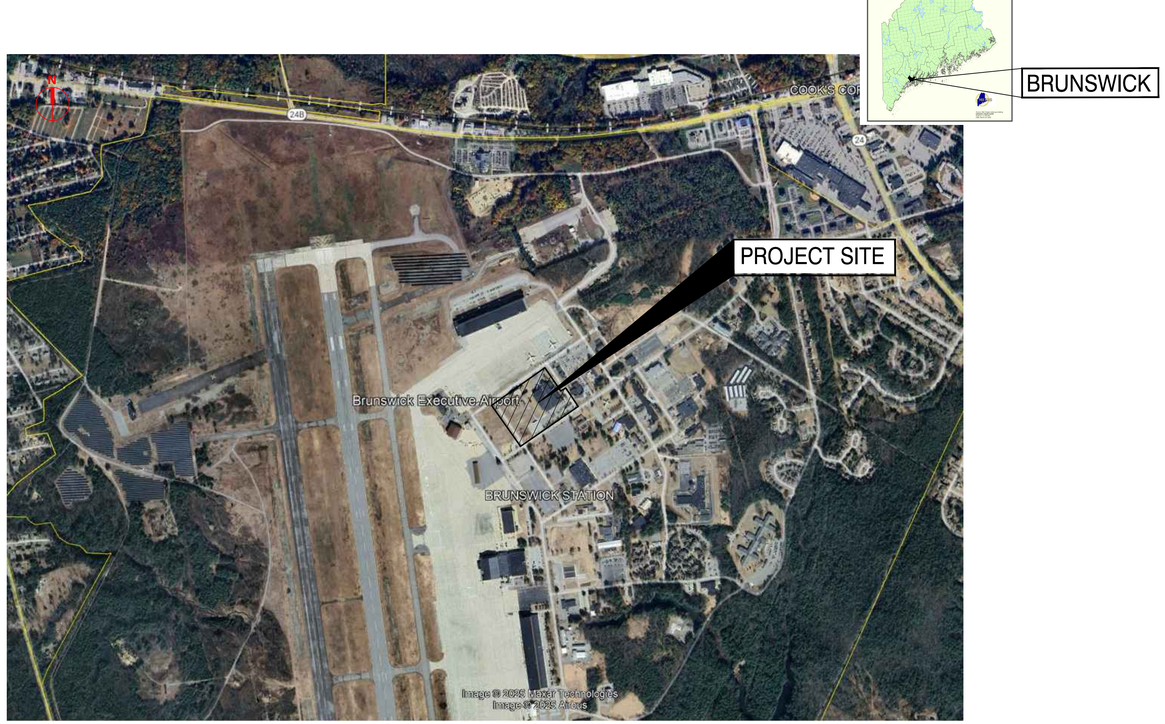
Flight Deck Properties, LLC
245 Ridge Road
Bath, ME 04530

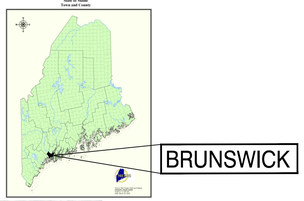
TJT, LLC
60 Maine Street
Brunswick, ME 04011

MOLNLYCKE BRUNSWICK EXPANSION

192 Admiral Fitch Avenue
BRUNSWICK, MAINE

ISSUED FOR MAJOR DEVELOPMENT REVIEW
12-31-25





APPLICANT DATA

APPLICANT:
MOLNLYCKE HEALTH CARE
192 ADMIRAL FITCH AVENUE
BRUNSWICK, MAINE 04011

DRAWING LIST

GI001	COVER SHEET
C-001	SITE NOTES
--------	LEASE RETRACEMENT & TOPOGRAPHIC SURVEY
C-100	CONTEXT PLAN
CD101	EXISTING CONDITIONS & DEMOLITION PLAN
CP101	SITE LAYOUT PLAN
CP501	SITE LAYOUT DETAILS
CP502	SITE LAYOUT DETAILS
CE001	EROSION & SEDIMENT CONTROL NOTES
CE101	EROSION & SEDIMENT CONTROL PLAN
CE501	EROSION & SEDIMENT CONTROL DETAILS
CG101	GRADING & DRAINAGE PLAN
CG102	SPOT GRADE PLAN
CG501	GRADING & DRAINAGE DETAILS
CG502	GRADING & DRAINAGE DETAILS
CG503	GRADING & DRAINAGE DETAILS
CG504	GRADING & DRAINAGE DETAILS
CG505	GRADING & DRAINAGE DETAILS
CG601	DRAINAGE SCHEDULES
CU101	UTILITY PLAN
CU102	WATER MAIN PLAN
CU501	UTILITY DETAILS
LP101	PLANTING & LANDSCAPING PLAN
LP501	PLANTING DETAILS, NOTES, & SCHEDULE
ES101	PHOTOMETRIC PLAN
A101	FLOOR PLAN - LEVEL 1
A102	FLOOR PLAN - LEVEL 2
A150	ROOF PLAN
A200	EXTERIOR ELEVATIONS
A800	RENDERINGS

1" = 10' 0 5' 10' 20'
1" = 20' 0 10' 20' 40'
1" = 30' 0 15' 30' 60'
1" = 40' 0 20' 40' 80'
1" = 50' 0 25' 50' 100'
1" = 60' 0 30' 60' 120'
1" = 100' 0 50' 100' 200'
1" = 200' 0 100' 200' 400'

Mölnlycke®

MOLNLYCKE
BRUNSWICK EXPANSION

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In Association With

STATE OF MAINE
MELISSA ANN FLYNN
15831
LICENSED PROFESSIONAL ENGINEER
12/31/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

COVER SHEET

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE:
SMRT PROJECT #: **24040**
DESIGNED BY: **MAF**
DRAWN BY: **SLM**

GI001

NOT FOR CONSTRUCTION

GENERAL NOTES

1. THE SCOPE OF SITE WORK FOR THIS PROJECT INCLUDES PROTECTION OF EXISTING STRUCTURES AND UTILITIES, AND REINSTATEMENT OF DISTURBED AREAS OF THE SITE TO MATCH EXISTING CONDITIONS. THE EXISTING CONDITIONS SHOWN ON THE PROJECT DRAWINGS ARE TAKEN FROM FIELD SURVEY COMPLETED BY SITELINES, RECORD DRAWINGS, AND HISTORICAL INFORMATION. THE CONTRACTOR SHALL REVIEW THE DRAWINGS AND SITE CONDITIONS PRIOR TO THE START OF WORK AND CONTACT THE PROJECT ARCHITECT IMMEDIATELY IF DISCREPANCIES ARE FOUND.
2. EXISTING UNDERGROUND UTILITIES HAVE BEEN LOCATED FROM HISTORICAL RECORDS AND PREVIOUS DESIGN DRAWINGS. NO GUARANTEE IS MADE THAT THE UTILITIES SHOWN WILL BE FOUND IN THE LOCATIONS INDICATED, OR THAT THE INFORMATION SHOWN IS COMPLETE. INFORMATION ON EXISTING UTILITY LOCATIONS IS PROVIDED FOR REFERENCE ONLY AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING EXISTING UTILITY LOCATIONS AND DEPTHS AND COORDINATING THE WORK ACCORDINGLY. SEE UTILITY NOTES THIS SHEET.
3. THE CONTRACTOR IS REQUIRED TO NOTIFY DIGSAFE (811 OR 1-888-DIGSAFE) PRIOR TO COMMENCEMENT OF EXCAVATION WORK. IN MAINE AND VERMONT, THE CONTRACTOR IS REQUIRED TO NOTIFY ALL OWNERS OF UNDERGROUND UTILITIES WHO ARE NOT MEMBERS OF DIGSAFE. SUCH UTILITY OWNERS CAN BE LOCATED THROUGH THE 'OK-TO-DIG' DIRECTORY (1-866-OKTODIG).
4. THE CONTRACTOR SHALL UNDERTAKE TEST PITS AT THE SITE AND ENGAGE PRIVATE UTILITY DETECTION SERVICE, AS NECESSARY, TO ACCURATELY IDENTIFY UTILITIES IN ORDER TO EFFICIENTLY PLAN AND COMPLETE THE WORK.
5. THE CONTRACTOR SHALL PROTECT EXISTING STRUCTURES AND UTILITIES ADJACENT TO THE WORK. ANY DAMAGE TO EXISTING STRUCTURES, ROADS, SIDEWALKS, UTILITIES, OR OTHER SITE FEATURES CAUSED BY THE WORK SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
6. ANY UTILITY REPAIRS OR RECONFIGURATION REQUIRED AS PART OF THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE AUTHORITY HAVING JURISDICTION.
7. TEMPORARY WORKS, SUPPORT AND PROTECTION OF STRUCTURES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COSTS SHALL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT SUM.
8. ALL WORK SHALL BE UNDERTAKEN IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL SAFETY STANDARDS.
9. OPEN EXCAVATIONS AND WORK AREAS SHALL BE CLEARLY DELINEATED AND FENCED, AS NECESSARY TO PREVENT UNAUTHORIZED ACCESS
10. DRIVEWAYS, WALKWAYS AND ENTRANCES SERVING PREMISES SHALL BE KEPT CLEAR AND AVAILABLE TO OWNER, OWNER'S EMPLOYEES, AND EMERGENCY VEHICLES, AS NECESSARY TO MAINTAIN THE FUNCTION OF THE FACILITY. COORDINATE ALL WORK WITH OWNER TO ENSURE THAT ADEQUATE ACCESS AND CIRCULATION IS MAINTAINED AT ALL TIMES.
11. DE-WATERING, IF NECESSARY, SHALL BE UNDERTAKEN IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL STANDARDS. NO DISCHARGE OF SEDIMENT LADEN RUNOFF TO SURFACE WATERS OR TO THE PIPED STORM DRAIN SYSTEM AT THE SITE SHALL BE ALLOWED.
12. ALL DISTURBED PAVEMENT AREAS, ROADS AND SIDEWALKS SHALL BE REINSTATED TO MATCH EXISTING GRADES, MATERIALS AND DEPTHS.
13. EXISTING PAVEMENT SHALL BE SAW-CUT AT LEAST TWELVE INCHES INTO SOUND MATERIAL TO PROVIDE A CLEAN, STRAIGHT EDGE BETWEEN EXISTING SOUND SURFACE MATERIAL AND THE REPAIRED AREA.
14. A SMOOTH TRANSITION SHALL BE PROVIDED BETWEEN REPAIR WORKS AND EXISTING PAVEMENT. ALL REINSTATED AREAS SHALL BE GRADED TO PITCH UNIFORMLY TO ENSURE POSITIVE DRAINAGE.

LAYOUT NOTES:

1. DO NOT SCALE THE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY OMISSIONS IN DIMENSIONING SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT FOR DECISION. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES, AND SPECIFICATIONS SHALL IMMEDIATELY BE REPORTED TO THE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ANY ADDITIONAL WORK PROCEEDS.
2. ALL ANGLES ARE 90 DEGREES UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS FROM BUILDING ARE TO FACE OF BUILDING FOUNDATION. ALL DIMENSIONS FROM CURBS ARE TO FACE OF CURB.
4. PROVIDE A SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING WORK.
5. CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888-344-7233) AND LOCAL UTILITY COMPANIES TO VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
6. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR WORK SHOWN ON THESE PLANS.
7. ALL WORK SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS AND MEET OR EXCEED MIDCOAST REGIONAL REDEVELOPMENT AUTHORITY (MRRA) AND TOWN OF BRUNSWICK, STANDARDS.
8. PROVIDE TAPERED END SECTIONS AT ALL CURB ENDS.
9. EXISTING CONDITIONS AND TOPOGRAPHIC DATA ARE BASED UPON TOPOGRAPHIC SURVEY PREPARED BY SITELINES DATED 12/30/24.

GRADING NOTES:

1. SOIL DISTURBANCE IS TO BE KEPT TO A MINIMUM AND ALL DISTURBED AREAS SHALL BE STABILIZED (WITH PERMANENT OR TEMPORARY MEASURES) AS QUICKLY AS POSSIBLE.
2. ALL DISTURBED AREAS NOT OTHERWISE TREATED SHALL BE LOAMED AND SEEDED (6" DEPTH).
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED ON A REGULAR BASIS AND AS REQUIRED AFTER STORM EVENTS.
4. GULLIES OR OTHERWISE ERODED AREAS IN SEEDED AREAS SHALL BE RESTORED AS SOON AS POSSIBLE FOLLOWING OBSERVATION, USING EROSION CONTROL MESH TO STABILIZE AS REQUIRED.
5. FILL IN AND AROUND THE AREA OF THE NEW BUILDING ADDITION SHALL MEET THE SPECIFICATION FOR 'STRUCTURAL FILL'.
6. ALL EMBANKMENTS AND OTHER FILL SECTIONS SHALL BE CONSTRUCTED USING GRANULAR BORROW - A MIXTURE OF SAND AND GRAVEL MEETING MDOT SPECIFICATION 703.19 GRANULAR BORROW. SUITABLE SOIL BORROW MAY BE USED IN PLACE OF GRANULAR BORROW ONLY WHERE MOISTURE CONTENT CAN BE CONTROLLED TO MEET THE SPECIFIED COMPACTION.

INLET & OUTLET STRUCTURES:

1. INLET AND OUTLET STRUCTURES SHALL BE PRECAST CONCRETE, UNLESS OTHERWISE SPECIFIED. CONCRETE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 WHEEL LOADING AND SHALL BE PROVIDED WITH PROTECTIVE GRATES WITH A MAXIMUM OPENING SIZE OF FOUR INCHES UNLESS OTHERWISE SPECIFIED. CONCRETE STRUCTURES SHALL BE CONSTRUCTED ON A MINIMUM 12-INCH DEEP BASE OF 3/4-INCH COMPACTED CRUSHED STONE.
2. ALL OUTLET PIPES SHALL BE PROVIDED WITH FLARED END SECTIONS AND ANTI-SEEP COLLARS TO PREVENT PIPING OF RUNOFF ALONG STONE EMBEDMENT TRENCHES.

DEWATERING NOTES:

1. THE CONTRACTOR SHALL EMPLOY A DEWATERING SYSTEM THAT ACHIEVES THE FOLLOWING FUNCTIONS DURING CONSTRUCTION:

   A. DEVELOP A SUBSTANTIALLY DRY AND STABLE SUBGRADE DURING EXECUTION OF THE WORK,

   B. PREVENT DAMAGE TO STRUCTURES ADJACENT TO THE WORK,

   C. RETAIN SEDIMENTS ON-SITE AND WITHIN THE WORK AREA. DEWATERING OPERATIONS SHALL BE SUSPENDED IF THE TURBIDITY OF DISCHARGES TO THE DOWNSTREAM DRAINAGE SYSTEM IS INCREASED ABOVE AMBIENT LEVELS.
2. FLOCCULANTS MAY BE USED TO CONTROL THE TURBIDITY OF DISCHARGE WATER. REFER TO THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS (2014, OR AS CURRENTLY REVISED) FOR RECOMMENDATIONS AND SPECIFICATIONS.
3. SURFACE WATER ENTERING THE CONSTRUCTION SITE SHALL BE INTERCEPTED AND DIVERTED AROUND THE WORK AREA THROUGH THE USE OF DIKES, CURB WALLS, DITCHES, SUMPS, PUMPING, OR OTHER APPROVED MEANS.
4. ANY ENFORCEMENT ACTIONS OR FINES RESULTING FROM THE IMPROPER DISCHARGE OF TURBID WATER AND SEDIMENT TO DOWNSTREAM AREAS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. DIRT BAGS AND TEMPORARY DEWATERING PONDS SHALL BE CONSTRUCTED AND MAINTAINED AS NEEDED TO CAPTURE AND TREAT PUMPATE FROM DEWATERED AREAS.

EMBANKMENT NOTES:

1. BASIN EMBANKMENTS SHALL BE CONSTRUCTED OF SUITABLE ON-SITE SOIL, COMPACTED IN MAXIMUM EIGHT INCH LIFTS TO 90% MAXIMUM DRY DENSITY. A MINIMUM OF SIX INCHES OF CLEAN SCREENED LOAM SHALL BE APPLIED TO FINISHED GRADE AND THE AREA SHALL BE IMMEDIATELY SEEDED AND STABILIZED WITH MULCH, HYDROSEED, OR EROSION BLANKET DEPENDING ON THE LEVEL OF EXPECTED INUNDATION (SEE EROSION CONTROL SHEETS).
2. EMBANKMENTS CONSTRUCTED ON EXISTING SOIL SLOPES STEEPER THAN 4H:1V SHOULD BE KEYED INTO THE EXISTING GROUND SURFACE WITH CONTINUOUS LEVEL BENCHES. EMBANKMENTS CONSTRUCTED ON EXISTING SOIL SLOPES FLATTER THAN 4H:1V SHALL HAVE A 10FT WIDE BENCH CUT INTO THE NATIVE SOIL AT THE TOE OF THE SLOPE FOR FILL EMBANKMENTS. A ONE FOOT (1') MINIMUM LAYER OF DRAINAGE COURSE MATERIAL SHALL BE PLACED OVER THE INITIAL BENCH PRIOR TO PLACING EMBANKMENT FILL. THE TOE BLANKET DRAIN SHALL BE CONSTRUCTED SUCH THAT GRAVITY DRAINAGE FORM THE BLANKET DRAIN OCCURS.

GEOTEXTILE & EROSION BLANKET NOTES:

1. EROSION CONTROL BLANKET FOR USE IN PONDS AND DRAINAGE CHANNELS SHALL BE 100% BIODEGRADABLE DOUBLE NET EROSION BLANKET WITH A 100% COCONUT FIBER MATRIX AND ORGANIC JUTE NETTING. EROSION CONTROL BLANKET FOR USE IN CHANNELS SHALL BE NORTH AMERICAN GREEN® BIONET® C125-BN™. EAST COAST EROSION BLANKETS ECC-2B OR APPROVED EQUAL.
2. PERMANENT TURF REINFORCEMENT MAT FOR REINFORCED TURF SPILLWAYS AND EMERGENCY OVERFLOW WEIRS SHALL BE A UV-STABILIZED POLYPROPYLENE MAT WITH TWO LAYERS OF UV-STABILIZED NETTING. PERMANENT TURF REINFORCEMENT MAT SHALL BE NORTH AMERICAN GREEN® P300, EAST COAST EROSION BLANKETS ECP-2, OR APPROVED EQUAL.
3. GEOTEXTILE SEPARATION FABRIC SHALL BE A WOVEN SLIT FILM GEOTEXTILE WITH AN APPARENT OPENING SIZE OF 50 (US STANDARD SIEVE) (PER ASTM D4751) THAT MEETS THE REQUIREMENTS FOR A CLASS 2 SEPARATION GEOTEXTILE PER AASHTO M288.96. GEOTEXTILE SEPARATION FABRIC SHALL BE MIRAFI® 500X OR APPROVED EQUAL.
4. GEOTEXTILE DRAINAGE FABRIC SHALL BE A NONWOVEN GEOTEXTILE MANUFACTURED FOR USE IN SUBSURFACE DRAINAGE APPLICATIONS. THE MATERIAL SHALL HAVE AN APPARENT OPENING SIZE OF 70 (US STANDARD SIEVE) (PER ASTM D4751), A PERMITTIVITY OF 1.7/SEC OR GREATER (PER ASTM D4491) AND RETAIN A MINIMUM OF 70% STRENGTH AT 500 HOURS UV EXPOSURE (PER ASTM D4355). GEOTEXTILE DRAINAGE FABRIC SHALL BE MIRAFI® 140N, CONTECH® C-35NW, OR APPROVED EQUAL.

RIPRAP STONE NOTES:

1. STONE FOR RIPRAP SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR TOUGH UNHEWN QUARRY STONE OF APPROXIMATE RECTANGULAR SHAPE. THE STONE SHALL BE HARD AND OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY STABLE, AND IT SHALL BE SUITABLE IN ALL RESPECTS FOR THE PURPOSE INTENDED.
2. THE BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.5.
3. THE AVERAGE SIZE OF THE STONE IN A MIXTURE IS INDICATED ON DIAMETER OF THE STONE FOR WHICH 50%, BY WEIGHT, WILL BE SMALLER AND 50% WILL BE LARGER. THE MIXTURE IS COMPOSED PRIMARILY OF THE LARGER STONES BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL PROGRESSIVELY SMALLER VOIDS.
4. THE DIAMETER OF THE LARGEST STONE SIZE IN A GIVEN D_{50} MIXTURE SHALL BE 1.5 TIMES THE D_{50} SIZE SPECIFIED.
5. THE RIPRAP SHALL BE PLACED TO THE THICKNESSES INDICATED OR A MINIMUM OF 2.2 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6 INCHES. FOR D_{50} LARGER THAN 12 INCHES THE RIPRAP LAYER SHALL HAVE A MINIMUM THICKNESS OF 2 TIMES THE D_{50}.

CONSTRUCTION OVERSIGHT NOTES:

1. THE CONTRACTOR WILL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO INSPECT THE CONSTRUCTION AND STABILIZATION OF ALL STORMWATER MANAGEMENT STRUCTURES. IF NECESSARY, THE INSPECTING ENGINEER WILL INTERPRET THE STRUCTURE'S CONSTRUCTION PLAN FOR THE CONTRACTOR. ONCE ALL STORMWATER MANAGEMENT STRUCTURES ARE CONSTRUCTED AND STABILIZED, THE INSPECTING ENGINEER WILL NOTIFY MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION IN WRITING WITHIN 30 DAYS TO STATE THAT THE STRUCTURES HAVE BEEN COMPLETED. ACCOMPANYING THE ENGINEER'S NOTIFICATION MUST BE A LOG OF THE ENGINEER'S INSPECTIONS GIVING THE DATE OF EACH INSPECTION, THE TIME OF EACH INSPECTION, AND THE ITEMS INSPECTED ON EACH VISIT, AND INCLUDE ANY TESTING DATA OR SIEVE ANALYSIS DATA OF EVERY MINERAL SOIL AND SOIL MEDIA SPECIFIED IN THE PLANS AND USED ON THE SITE.
2. ALL CONSTRUCTION, DRILLING, OR DEMOLITION WORK SHALL BE CONDUCTED BETWEEN 7:00 AM AND 7:00 PM EXCEPT WHEN PRIOR WRITTEN APPROVAL HAS BEEN OBTAINED FORM THE CODE ENFORCEMENT OFFICER.
3. THE EQUIVALENT SOUND LEVEL MEASURED IN dBA RESULTING FROM ANY ACTIVITY SHALL NOT EXCEED AT ANY POINT ON OR BEYOND THE LOT LINE THE MAXIMUM LEVELS SET FORTH FOR ZONE GM7:

   DAY: 70 dBA

   NIGHT: 60 dBA.
4. AIR POLLUTION CONTROL AND ABATEMENT SHALL COMPLY WITH APPLICABLE MINIMUM FEDERAL, STATE, AND LOCAL REQUIREMENTS, INCLUDING RECEIPT OF ALL REQUIRED PERMITS. THE MAXIMUM PERMITTED DENSITY OF SMOKE, DUST, AND OTHER PARTICULATE EMISSIONS DURING NORMAL OPERATIONS SHALL NOT EXCEED THE MAXIMUM ALLOWABLE UNDER REGULATIONS OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
5. THE CONTRACTOR SHALL APPLY AND MAINTAIN ASPHALT, WATER, OR CALCIUM CHLORIDE ON DIRT ROADS, DRIVEWAYS, PARKING LOTS, AND OTHER SURFACES TO CONTROL THE LEVEL OF AIRBORNE DUST AND OTHER PARTICLES ASSOCIATED WITH CONSTRUCTION.

UTILITY NOTES:

1. PROVIDE AND INSTALL MATERIALS NECESSARY TO COMPLETE UTILITY FEATURES AND DESIGN UNLESS OTHERWISE INDICATED.
2. ALL WORK SHALL MEET OR EXCEED STANDARDS OF THE TOWN OF BRUNSWICK AND THE BRUNSWICK & TOPSHAM WATER DISTRICT.
3. ALL SEWER WORK SHALL BE IN ACCORDANCE WITH THE TOWN OF BRUNSWICK STANDARD AND SHALL BE INSPECTED AND APPROVED BY TOWN OF BRUNSWICK.
4. CONTRACTOR TO VERIFY EXISTING UTILITY CONNECTION POINTS PRIOR TO SUBMISSION OF BIDS AND INCLUDE ALL EXTRA WORK REQUIRED TO EXTEND UTILITIES AS REQUIRED.
5. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND HAVE BEEN DETERMINED BY SURFACE EVIDENCE AND/OR PREVIOUSLY GENERATED PLANS. NO GUARANTEE IS MADE THAT ALL UTILITIES ARE SHOWN OR WILL BE FOUND IN LOCATIONS INDICATED. THIS INFORMATION IS PROVIDED FOR REFERENCE AND THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES AND POINTS OF CONNECTION IN THE FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND RESTORATION OF ALL UTILITIES DISTURBED DURING CONSTRUCTION AT NO EXTRA EXPENSE TO THE OWNER.
6. THE OWNER, CONSTRUCTION MANAGER AND ARCHITECT SHALL BE NOTIFIED AT LEAST TWO DAYS PRIOR TO ANY INTERRUPTION TO ANY UTILITY SERVICE.
7. ADJUST ALL UTILITY STRUCTURE TOPS/RIMS TO MATCH PROPOSED GRADES UNLESS NOTED OTHERWISE.
8. LOCATIONS OF EXISTING SEWER LINES ARE BASED ON THE LEASE RETRACEMENT AND TOPOGRAPHIC SURVEY PRODUCED BY SITELINES, DATED 12/30/24.
9. EXISTING UTILITY CONNECTIONS TO THE BUILDINGS AT THE SITE ARE TAKEN FROM PREVIOUS PLANS AND A SURVEY OF SURFACE FEATURES. THE CONTRACTOR SHALL EXCAVATE TEST PITS IN AREAS ADJACENT TO EXISTING BUILDINGS AS NECESSARY TO VERIFY THE LOCATION, DEPTH AND SIZE OF EXISTING SERVICES. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT AND OWNER.
10. CONTRACTOR SHALL MAKE PROVISION FOR CONNECTING NEW UTILITY SERVICES TO THE PUBLIC UTILITIES WITHOUT INTERRUPTION BY USE OF LIVE TAPPING AND OVER-PUMPING WHERE APPROPRIATE.

SITE ABBREVIATIONS

ALT	ALTERNATE
BOC	BOTTOM OF CURB
BOW	BOTTOM OF WALL
CIP	CAST-IN-PLACE
℄	CENTER LINE
CLL	CONTRACT LIMITS LINE
ECB	EXISTING CATCH BASIN
FFE	FINISHED FLOOR ELEVATION
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
HC	HANDICAPPED
HMA	HOT MIX ASPHALT
HP	HIGH POINT
ID	INSIDE DIAMETER
LP	LOW POINT
LT	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
MISC.	MISCELLANEOUS
NSD	NEW STORM DRAIN (LINE)
NSS	NEW SANITARY SEWER (LINE)
NW	NEW WATER (LINE)
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
R	RADIUS
RE:	REFER (TO)
ROW	RIGHT-OF-WAY
RT	RIGHT
S	SLOPE
T & B	TOP & BOTTOM
TO	TOP OF
TOC	TOP OF CURB
TOW	TOP OF WALL
TP	TEST PIT
TYP.	TYPICAL
UG	UNDERGROUND
W/	WITH
W/O	WITHOUT

SITE LEGEND

EASEMENT
LIMIT OF WORK — LOW — LOW
PROPERTY LINE
PROPERTY LINE - ABUTTER
RIGHT-OF-WAY
SETBACK
UTILITY CROSSING

NOTE:
THIS LEGEND IS FOR REFERENCE ONLY AND APPLIES ONLY TO THE CIVIL/SITE LAYOUT DRAWINGS. NOT ALL ITEMS SHOWN HEREIN MAY APPEAR ON THE DRAWINGS, OR BE INCORPORATED IN THE DESIGN.

EXISTING	PROPOSED
BOLLARD	BOLLARD
BORING	BORING
BRIDGE	BRIDGE
BUILDING W/ DOOR	BUILDING W/ DOOR
BUILDING CANOPY	BUILDING CANOPY
CATCH BASIN	CATCH BASIN
CHECKDAM - STONE	CHECKDAM - STONE
CLEANOUT	CLEANOUT
COMMUNICATIONS LINE-OH — OHC —	COMMUNICATIONS LINE-OH — NCBL —
COMMUNICATIONS LINE-UG — C — C —	COMMUNICATIONS LINE-UG — NUC —
COMMUNICATIONS VAULT	COMMUNICATIONS VAULT
CONCRETE PAD	CONCRETE PAD
CULVERT	CULVERT
CURB	CURB - BITUMINOUS
	CURB - FLUSH
	CURB - SLOPED GRANITE
	CURB - VERT GRANITE
	CURB - SLIPFORM
DETENTION POND	DETENTION POND
DIRECTION OF FLOW	DIRECTION OF FLOW
DITCH	DITCH
DRIP STRIP	DRIP STRIP
DUMPSTER / RECYCLING BIN	DUMPSTER / RECYCLING BIN
EASEMENT	EASEMENT
ELECTRIC MANHOLE	ELECTRIC MANHOLE
ELECTRIC - OVERHEAD — OHW —	ELECTRIC - OVERHEAD — NOHE —
ELECTRIC - UNDERGROUND — UGE —	ELECTRIC - UNDERGROUND — NUGE —
ELEVATION BOT OF CURB +BOC	ELEVATION BOT OF CURB +BOC
ELEVATION BOT OF STEP +BOS	ELEVATION BOT OF STEP +BOS
ELEVATION TOP OF CURB +TOC	ELEVATION TOP OF CURB +TOC
ELEVATION TOP OF STEP +TOS	ELEVATION TOP OF STEP +TOS
ELEVATION - SPOT +100.0	ELEVATION - SPOT +100.0
EMERGENCY CALL BOX	EMERGENCY CALL BOX
FENCE - CHAINLINK — X — X —	FENCE - CHAINLINK — X — X —
FENCE - ORNAMENTAL	FENCE - ORNAMENTAL
FIELD INLET	FIELD INLET
FIRE HYDRANT	FIRE HYDRANT
FLAG POLE	FLAG POLE
FORCE MAIN PIPE — SFM —	FORCE MAIN PIPE — NSFM —
FOUNDATION DRAIN — FND —	FOUNDATION DRAIN — NFND —
GAS & FUEL EQUIPMENT FUEL	GAS & FUEL EQUIPMENT FUEL
GAS LINE — G — G —	GAS LINE — NGAS —
GAS VALVE	GAS VALVE
GENERATOR/CONCRETE PAD G	GENERATOR /CONCRETE PAD G
GRAVEL DRIVE	GRAVEL DRIVE
GUARDRAIL	GUARDRAIL
HIGH POINT ELEVATION +HP	HIGH POINT ELEVATION +HP
IRRIGATION PIPING — NIP —	IRRIGATION PIPING — NIP —
JUNCTION BOX/HAND HOLE	JUNCTION BOX / HANDHOLE
LANDMARK SIGN	LANDMARK SIGN
LIGHT - BOLLARD	LIGHT - BOLLARD
LIGHT POLE	LIGHT POLE
LIGHT - SPOT	LIGHT - SPOT / WALL
LOW POINT ELEVATION +LP	LOW POINT ELEVATION +LP
MAJOR CONTOUR — 100 —	MAJOR CONTOUR — 100 —
MINOR CONTOUR — 102 —	MINOR CONTOUR — 102 —
OUTLET CONTROL STRUCTURE	OUTLET CONTROL STRUCTURE
PARKING AREA-BITUMINOUS	PARKING AREA-BITUMINOUS
PAVEMENT STRIPING	PAVEMENT STRIPING
RETAINING WALL	RETAINING WALL
RIPRAP	RIPRAP
ROADWAY	ROADWAY
ROADWAY CENTER LINE	ROADWAY CENTER LINE
ROOF DRAIN	ROOF DRAIN
SANITARY SEWER MANHOLE	SANITARY SEWER MANHOLE S
SANITARY SEWER MAIN — SFM —	SANITARY SEWER MAIN — NSFM —
SANITARY SEWER PIPE — SS — SS —	SANITARY SEWER PIPE — NSS —
SIGN	SIGN
SIGN - TWO-SIDED	SIGN - TWO-SIDED
SLOPE NOTATION S = 0.01	SLOPE NOTATION S = 0.01
SPRINKLER	SPRINKLER
STONE WALL	STONE WALL
STORMDRAIN MANHOLE	STORMDRAIN MANHOLE
STORM DRAIN PIPE — SD — SD —	STORM DRAIN PIPE — NSD —
TEST PIT	TEST PIT
TRAFFIC ARM & SIGNAL	TRAFFIC ARM & SIGNAL
TRANSFORMER T	TRANSFORMER T
TRASH RECEPTACLE	TRASH RECEPTACLE
TURF	TURF
UNDERDRAIN PIPE — UD — UD —	UNDERDRAIN PIPE — NUD —
UTILITY POLE	UTILITY POLE
WALKWAY - BITUMINOUS	WALKWAY - BITUMINOUS
WALKWAY - PAVERS	WALKWAY - PAVERS
WALKWAY - CONCRETE	WALKWAY - CONCRETE
WALL - ORNAMENTAL	WALL - ORNAMENTAL
WATER / GATE VALVE	WATER / GATE VALVE
WATER PIPE (DOMESTIC) — W — W —	WATER PIPE (DOMESTIC) — NW — NW —
WATER PIPE (FIRE) — F — F —	WATER PIPE (FIRE) — NFS — NFS —
WATER SHUTOFF	WATER SHUTOFF
WELL W	WELL W

Mölnlycke®

MOLNLYCKE

BRUNSWICK EXPANSION

192 Admiral Fitch Avenue, Brunswick Landing, Brunswick, Maine

SMRT

SMRT, Inc.
75 Washington Ave., Suite 3A
Portland, Maine 04101

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In Association With

STATE OF MAINE — MELISSA ANN FLYNN — 15831 — LICENSED PROFESSIONAL ENGINEER — 12/9/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

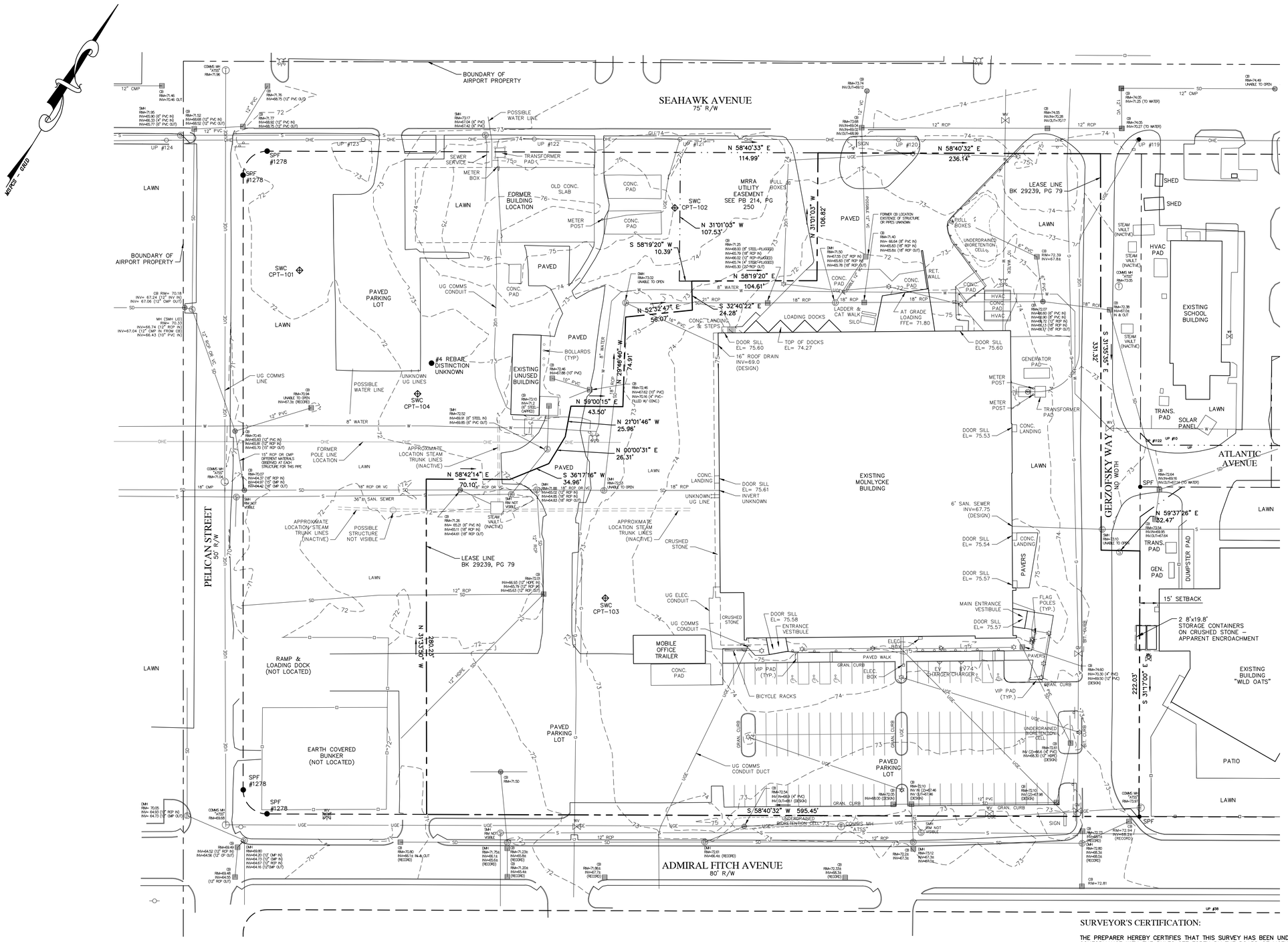
SITE NOTES & LEGENDS

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR

SCALE: -- | DESIGNED BY: MAF
SMRT PROJECT #: 24040 | DRAWN BY: SLM

C-001

NOT FOR CONSTRUCTION



NOTES:

1. TITLE REFERENCE FOR SURVEYED PARCEL:

   BK 29239, PG 79 (LEASE)
   BK 31376, PG 1 (NAVY TO MRRA)

2. PLAN REFERENCE(S):

   A) "AMENDMENT OF SUBDIVISION PLAN, BRUNSWICK LANDING SUBDIVISION – PHASE 1", DATED JUNE 11, 2014, BY WRIGHT–PIERCE, RECORDED IN PB 214, PG 250.

   B) "FINAL SUBDIVISION PLAN – BRUNSWICK LANDING SUBDIVISION – PHASE I", DATED MARCH 11, 2013, BY WRIGHT–PIERCE, RECORDED IN PB 213, PG 79.

   C) "TBW LLC SUBDIVISION AMENDMENT", DATED NOVEMBER 6, 2019, BY WRIGHT–PIERCE, RECORDED IN PB 219, PG 492.

   D) "SITE OVERVIEW PLAN, MOLNLYCKE HEALTH CARE, BRUNSWICK, MAINE", DATED DECEMBER 18, 2011, BY HARRIMAN ARCHITECTS & ENGINEERS, NOT RECORDED.

3. AREA INFORMATION:

   LEASE AREA: 5.96 ACRES (258,795 SF)

4. TAX MAP REFERENCE:

   TAX MAP 40, LOTS 294

5. BASIS OF BEARINGS:

   BEARINGS ARE GRID, REFERENCED TO NAD83, MAINE WEST ZONE, BASED ON RTK GPS OBSERVATIONS.

6. VERTICAL DATUM:

   ELEVATIONS ARE REFERENCED TO NAVD88 DATUM, BASED ON RTK GPS OBSERVATIONS.

7. ROAD INFORMATION:

   SEE INDIVIDUAL ROADS AT LEFT. LOCATIONS ARE BASED ON EVIDENCE FOUND.

8. UTILITY NOTE:

   THE EXISTING UTILITIES AS SHOWN HEREON ARE BASED ON VISIBLE UTILITY STRUCTURES AND EQUIPMENT FOUND, AS LOCATED DURING FIELD WORK. NAVY UTILITY PLANS FOR BRUNSWICK LANDING (FORMER NAVAL AIR STATION BRUNSWICK) ARE NOTORIOUSLY INACCURATE AS TO LOCATION, DEPTH AND TYPE(S) OF UNDERGROUND UTILITIES.

   THE SERVICES OF BLOOD HOUND UNDERGROUND UTILITIY LOCATERS WERE CONTRACTED. APPROXIMATE LOCATIONS OF UNDERGROUND UTILITIES WERE MARKED IN THE FIELD, LOCATED DURING FIELD WORK AND COMPARED TO RECORD DOCUMENTS.

   THE UNDERGROUND LOCATIONS OF UTILITIES ARE APPROXIMATE AND MUST BE FIELD LOCATED BY TEST PIT PRIOR TO ANY CONSTRUCTION. PRIOR TO STARTING ANY GROUND WORK, THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (811) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.

LEGEND

■	MONUMENT FOUND
●	IRON MARKER FOUND
○	5/8" REBAR TOPPED WITH AN ALUMINUM I.D. CAP
— — — —	BOUNDARY LINE OF SURVEYED PARCEL
— — — —	BOUNDARY LINE OF ABUTTERS (APPROX.)
— — — —	ROAD RIGHT OF WAY LINE (APPROX.)
. . . . .	COMPUTATIONAL TIE LINE
○○○○○○○○○○	STONE WALL (APPROX.)
———	EDGE OF TRAVELED WAY
OHE	UTILITY LINE
CMP 13	UTILITY POLE WITH NUMBER
IPF	IRON PIPE FOUND
IRF	IRON ROD FOUND
DH	DRILL HOLE
△ 4	ARBITRARY TRAVERSE POINT WITH NUMBER
12, 1001	ARBITRARY COMPUTATIONAL POINT NUMBER
BK 10674, PG 197	DEED BOOK & PAGE IN COUNTY REGISTRY OF DEEDS
PB 195, PG 130	PLAN BOOK & PAGE IN COUNTY REGISTRY OF DEEDS
R/W	RIGHT OF WAY
N/F	NOW OR FORMERLY HELD BY
AC.	ACRES
±	MORE OR LESS
Ⓢ	SEWER MANHOLE
☼	LIGHT POLE
▥	CATCH BASIN
	WATER SHUT OFF
	HYDRANT
	SIGN
	WATER VALVE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

SURVEYOR'S CERTIFICATION:

THE PREPARER HEREBY CERTIFIES THAT THIS SURVEY HAS BEEN UNDERTAKEN IN CONFORMANCE WITH THE RULES SET FORTH BY THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS, DATED APRIL 1, 2001, FOR A BOUNDARY SURVEY.

STATE OF MAINE
KEVIN P. CLARK
#2245
PROFESSIONAL LAND SURVEYOR

NOT VALID UNLESS EMBOSSED HERE

JUNE 2025
DATE

KEVIN P. CLARK, PLS #2245

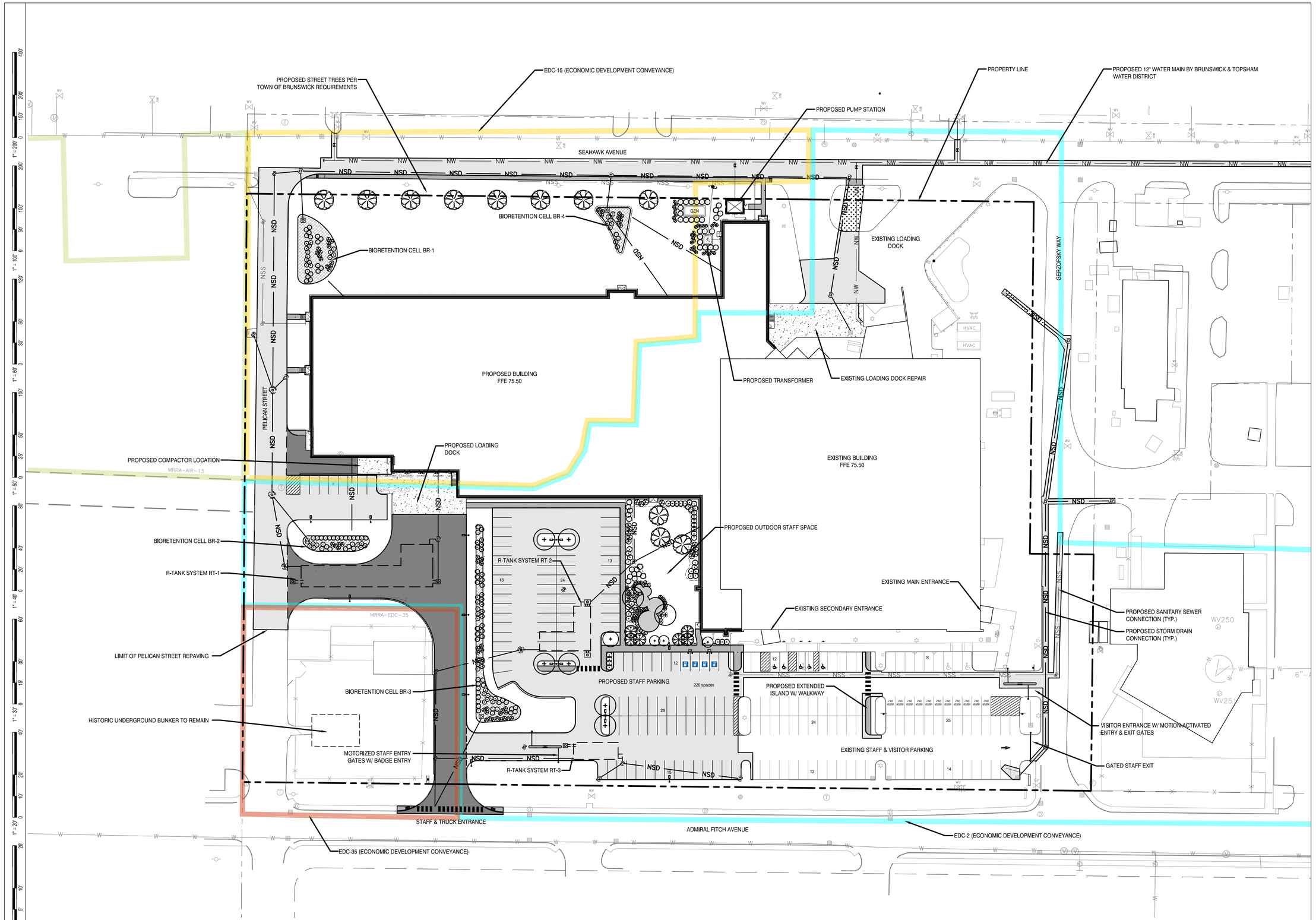
LEASE RETRACEMENT & TOPOGRAPHIC SURVEY

MOLNLYCKE HEALTH CARE
192 ADMIRAL FITCH AVENUE, BRUNSWICK, ME 04011

PREPARED FOR
SMRT ARCHITECTS AND ENGINEERS

SITELINES
119 PURINTON ROAD, SUITE A
BRUNSWICK, MAINE 04011
207.725.1200
CIVIL ENGINEERS ▪ PLANNERS ▪ LAND SURVEYORS

FIELD WK: MC	SCALE: 1"=40'	SHEET:
DRN BY: KPC	JOB #: 5075	
CH'D BY: KPC	MAP/LOT: 40/294	
DATE: 12/30/24	FILE: 5075SV.DWG	



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MOLNLYCKE

BRUNSWICK EXPANSION

192 Admiral Fitch Avenue, Brunswick Landing, Brunswick, Maine

SMRT

SMRT, Inc.
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Portland, Maine 04101

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In Association With

TRUE NORTH

STATE OF MAINE
MELISSA ANN FLYNN
15831
LICENSED PROFESSIONAL ENGINEER
12/31/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
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ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

CONTEXT PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR

SCALE:	1" = 40'	DESIGNED BY:	MAF
SMRT PROJECT #:	24040	DRAWN BY:	SLM

C-100

NOT FOR CONSTRUCTION

DEMOLITION KEY:

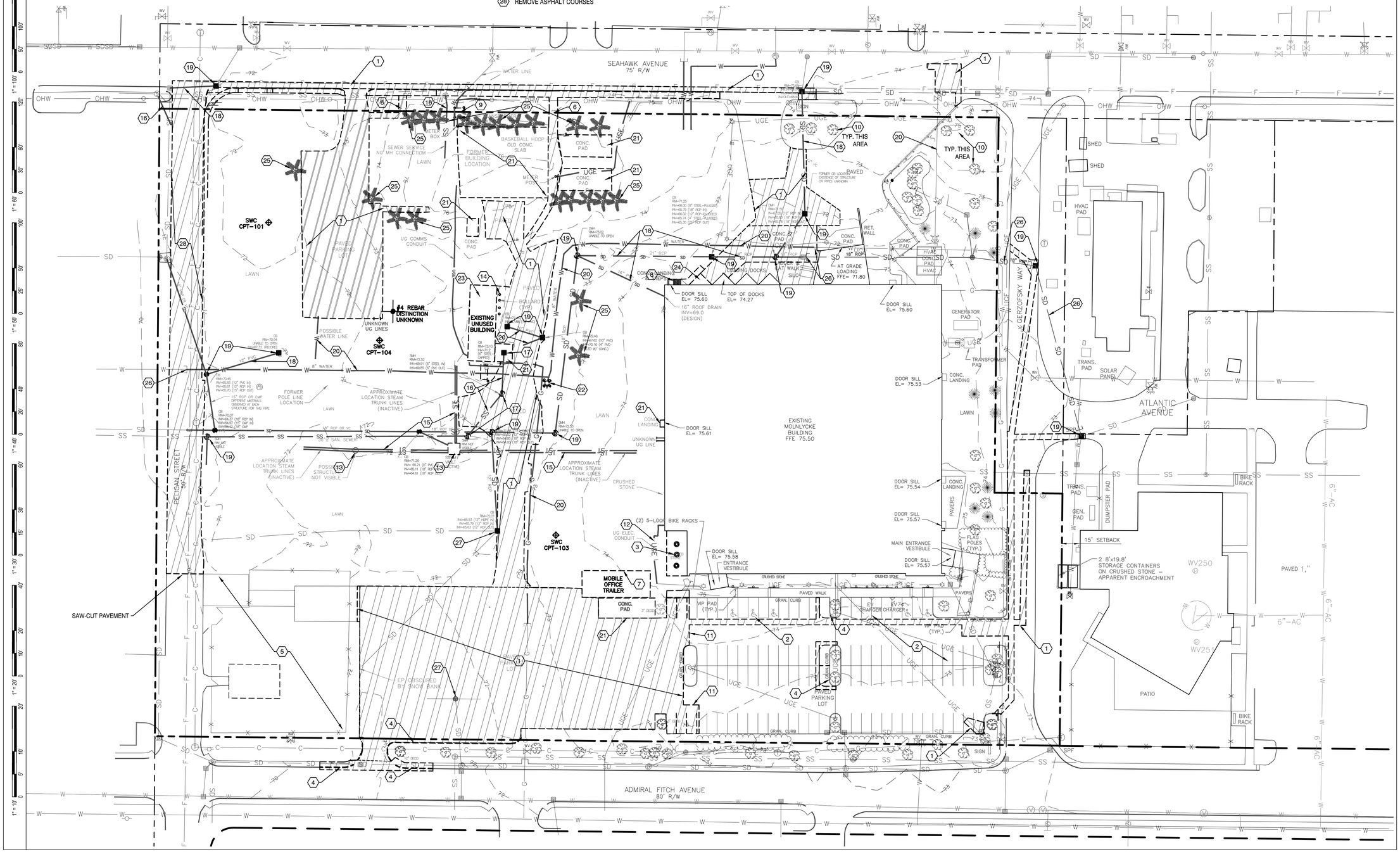
1. REMOVE PAVEMENT TO LIMITS SHOWN
2. RESTRIPE PAVEMENT AS SHOWN ON CP101
3. REMOVE TABLES & STOCKPILE FOR REINSTALLATION
4. REMOVE EXISTING CURBING
5. EXISTING BUNKER AREA TO REMAIN UNDISTURBED
6. REMOVE EXISTING ASPHALT SIDEWALK
7. REMOVE OR RELOCATE MOBILE TRAILER PER OWNER'S INSTRUCTION
8. REMOVE EXISTING STAIRS & HANDRAILS
9. REMOVE TRANSFORMER
10. PROTECT TREES TO REMAIN
11. MILL & OVERLAY ASPHALT PAVEMENT
12. REMOVE EXISTING ELECTRICAL LINES
13. REMOVE STEAM STRUCTURE
14. REMOVE BOLLARD
15. REMOVE STEAM LINES
16. REMOVE SEWER LINE AS SHOWN
17. REMOVE SEWER STRUCTURE
18. REMOVE STORM LINE AS SHOWN
19. REMOVE STORM STRUCTURE
20. REMOVE WATER LINE & VALVES TO LIMIT SHOWN
21. REMOVE EXISTING CONCRETE
22. REMOVE HYDRANT
23. REMOVE EXISTING BUILDING
24. REMOVE EXISTING LOADING DOCK (SEE ARCH PLANS)
25. REMOVE EXISTING TREES
26. CAP & ABANDON PIPING
27. REPLACE GRATE W/ SOLID COVER AS SHOWN ON CG101
28. REMOVE ASPHALT COURSES

DEMOLITION LEGEND:

- MATERIALS TO BE REMOVED
- LIMIT OF ASPHALT REMOVAL
- LIMIT OF MILL & OVERLAY AREA
- UNDERGROUND PIPING TO BE REMOVED

DEMOLITION NOTES:

1. ALL PRE-EXISTING STRUCTURES WITHIN THE PROPOSED BUILDING FOOTPRINT, UNDER AREAS PROPOSED FOR PAVING, AND ALONG PROPOSED UTILITY ROUTES ARE TO BE COMPLETELY REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL.
2. UTILITY POLES AND LIGHTS NOTED FOR REMOVAL SHALL BE SALVAGED.
3. ALL CONFLICTING ITEMS WITHIN THE DEVELOPMENT AREA NOT OTHERWISE NOTED SHALL BE REMOVED.
4. IN PAVEMENT REMOVAL AREAS EXISTING SURFACE MAY BE GROUND, REMOVED AND STOCKPILED FOR LATER USE AS SUITABLE FILL MATERIAL, BASED ON SUBMITTED AND APPROVED TESTING.
5. ALL MANHOLE AND CATCH BASIN FRAMES AND COVERS TO BE REMOVED SHALL BE SALVAGED FOR FUTURE USE.
6. PRIOR TO REMOVAL OF UTILITIES, VERIFY UTILITY FUNCTION, MATERIAL, AND CURRENT USE. REPORT DISCREPANCIES TO ARCHITECT PRIOR TO THE COMMENCEMENT OF WORK ON GIVEN UTILITY.



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15831
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12/31/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
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0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

EXISTING CONDITIONS & DEMOLITION PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE: 1" = 40' | DESIGNED BY: WSM
SMRT PROJECT #: 24040 | DRAWN BY: SLM

CD101

NOT FOR CONSTRUCTION

NOTE:
SANITARY SEWER & STORM DRAIN INSTALLATION IN SEAHAWK AVENUE TO BE DONE IN CONJUNCTION W/ BRUNSWICK & TOPSHAM WATER DISTRICT / MRRA WATER MAIN WORK. CONTRACTOR TO COORDINATE STREET OPENING W/ MRRA & BTWD.

CURB LEGEND
- VG — VERTICAL GRANITE CURB — 7 / CP501
- GT — GRANITE TIPDOWN CURB — 5 / CP501
- F — FLUSH CURB — 2 / CP501

SEAHAWK AVENUE
9 CP501 ASPHALT RAMP
PAVEMENT REPAIR TYP. IN SEAHAWK AVENUE — 8 / CP501
ASPHALT WALK — 6 / CP501
RESET EXISTING VERTICAL GRANITE CURB AS NECESSARY TO MATCH EXISTING CONDITIONS
PUMP HOUSE, RE: CU101
GEN
GENERATOR PAD, RE: CU101
TRANSFORMER PAD, RE: CU101
EXISTING EDGE OF PAVEMENT
ASPHALT RAMP — 9 / CP501
PAVEMENT REPAIR — 8 / CP501
STONE MAINTENANCE STRIP 18' WIDE (TYP.) — 10 / CP501
CONCRETE STEPS, RE: ARCHITECTURAL (TYP.)
DOOR PAD, RE: STRUCTURAL (TYP.)
CANOPY ABOVE, RE: ARCHITECTURAL (TYP.)
PROPOSED BUILDING
EXISTING CONCRETE APRON
CONCRETE APRON — 3 / CP501
EXISTING BUILDING
HVAC
GERZOFSKY WAY
6 CP501 ASPHALT WALK (TYP.)
1 CP501 ASPHALT PAVEMENT
CONCRETE APRON COMPACTOR BY OWNER — 3 / CP501
SCREEN WALL, RE: ARCHITECTURAL
CONCRETE APRON — 3 / CP501
ASPHALT PAVEMENT — 1 / CP501
8 CP501 PAVEMENT REPAIR TYP. IN SEAHAWK AVENUE
PELICAN STREET
END CURB
REPAVE PORTION OF PELICAN STREET AS SHOWN; MAINTAIN WEST EDGE & MATCH EXISTING ALIGNMENT ON EAST EDGE
ALIGN NEW PAVING W/ EXISTING
EXTEND MAINTENANCE STRIP TO NEW EDGE OF BUNKER PAVEMENT
4 CP501 HEAVY-DUTY ASPHALT PAVEMENT (TYP.)
10 CP501 STONE MAINTENANCE STRIP 12' WIDE
CARD READER, RE: ELECTRICAL
GATE ARM (TYP. OF 2) — 4 / CP502
11 CP501 SIGN POST "EMPLOYEE & TRUCK ENTRANCE"
3 CP502 TACTILE WARNING PLATES (TYP.)
9 CP501 ASPHALT RAMP (TYP.)
CONCRETE ISLAND 2.0' x 31.0' — 5 / CP502
LIGHTPOST, RE: ELECTRICAL (TYP.)
ADMIRAL FITCH AVENUE
ASPHALT WALK (TYP.) — 6 / CP501
EV CHARGERS, RE: ELECTRICAL
SIGN POST "ELECTRIC VEHICLES" (TYP OF 4) — 11 / CP501
STANDARD PAVEMENT MARKINGS EV CHARGING SYMBOL — 1 / CP502
STANDARD PAVEMENT MARKINGS DISABILITY SYMBOL & STRIPED AREA — 1 / CP502
STANDARD PAVEMENT MARKINGS PEDESTRIAN CROSSWALK (TYP.) — 1 / CP502
STANDARD PAVEMENT MARKINGS "VISITOR ONLY" (TYP. OF 11) — 1 / CP502
EXISTING MAIN ENTRANCE
EXISTING STAFF ENTRANCE
2 CP502 STEEL BOLLARD (TYP. OF 4)
6 CP501 ASPHALT WALK
8 CP501 PAVEMENT REPAIR
PROVIDE PAVEMENT BUTT JOINT @ TRANSITION
6 CP501 ASPHALT WALK
SIGN POST "VISITORS ONLY" — 11 / CP501
CONCRETE ISLAND 2.0' W x 31.0' L — 5 / CP502
GATE ARM (TYP. OF 2) — 4 / CP502
1 CP502 STANDARD PAVEMENT MARKINGS, STRIPED AREA
NEW LOCATION OF EXISTING LANDMARK SIGN
TRUE NORTH

Parking Requirements			
	Existing	Required	Proposed
Warehouse (1 space per 2,500 SF floor)	40	18	63
Industrial, Class II (1 space per 1,000 SF floor)	47	36	142
Accessible Spaces	5	7	7
Relocated Spaces			
Total	92	61	212

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2	MAJOR DEVELOPMENT REVIEW	12-31-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

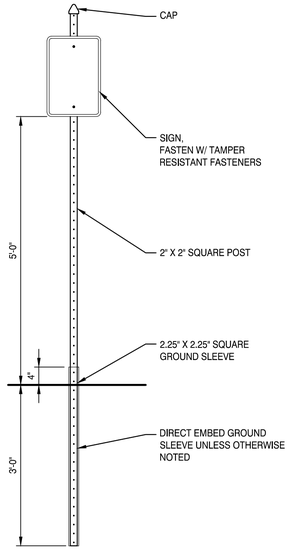
SITE LAYOUT PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE: 1" = 30' | DESIGNED BY: MAF
SMRT PROJECT #: 24040 | DRAWN BY: SLM

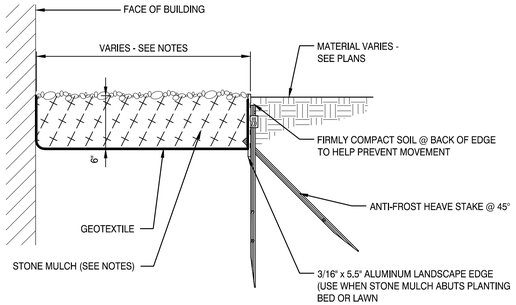
CP101

NOT FOR CONSTRUCTION



11 SIGN POST

NOT TO SCALE

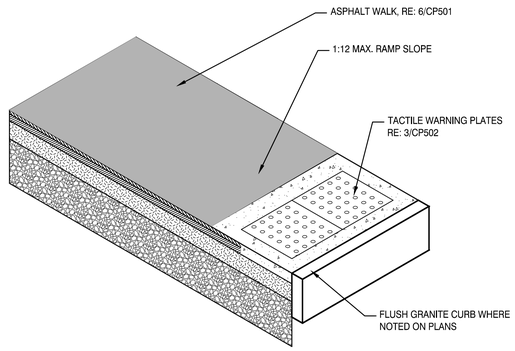


NOTES:

1. STONE MULCH TO BE ROUNDED RIVERSTONE, 3" INCHES DIA. MAX., WASHED AND FREE OF FOREIGN OR ORGANIC MATERIALS.
2. STANDARD MAINTENANCE STRIP TO BE 12" WIDE.
3. STANDARD DRIP STRIP TO BE WIDTH OF BUILDING EAVE PLUS 12" UNLESS SHOWN OTHERWISE.
4. EDGE TO BE BY SURE-LOC ALUMINUM EDGING CORP, OR APPROVED EQUAL .
   - MILL FINISH
   - 12" STAKES
   - ANTI-FROST HEAVE STAKE POCKETS @ 8' O.C.

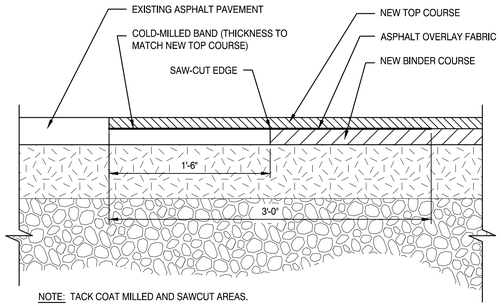
10 STONE MAINTENANCE STRIP

3/4" = 1'-0"



9 ASPHALT RAMP

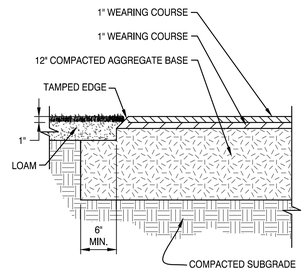
3/4" = 1'-0"



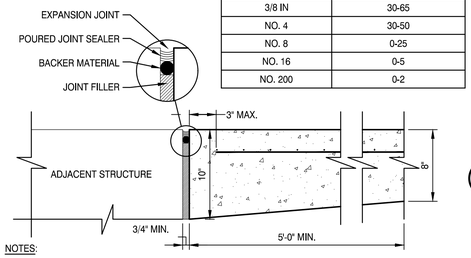
NOTE: TACK COAT MILLED AND SAWCUT AREAS.

8 PAVEMENT REPAIR

3/4" = 1'-0"



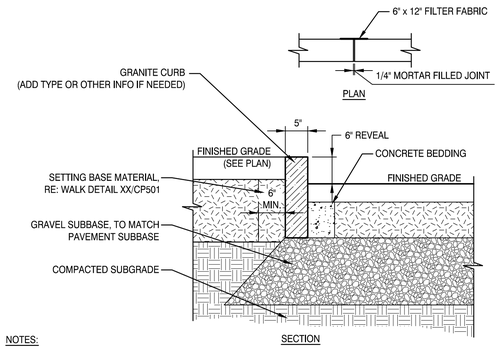
SIEVE SIZE	% FINER BY WEIGHT
1 1/2 IN	100
1 IN	70-100
3/4 IN	55-85
1/2 IN	40-80
3/8 IN	30-65
NO. 4	30-50
NO. 8	0-25
NO. 16	0-5
NO. 200	0-2



NOTES:

1. PROVIDE @ ADJACENT STRUCTURES AND UNCONNECTED PAVEMENT EDGES.
2. PROVIDE @ DOWNSPOUT PENETRATIONS.

EXPANSION JOINT

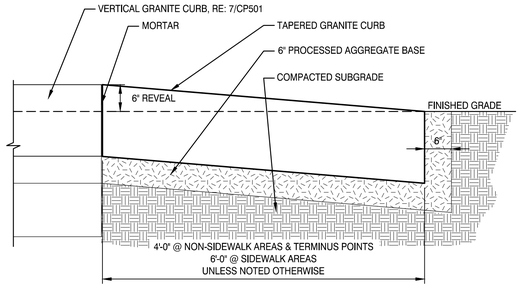


NOTES:

1. PROVIDE TIPDOWN END SECTIONS AT ALL CURB ENDS.
2. WHERE PAVERS ARE TO BE INSTALLED, BACK OF CURB FINISH IS TO BE SMOOTH TO DEPTH OF 6".

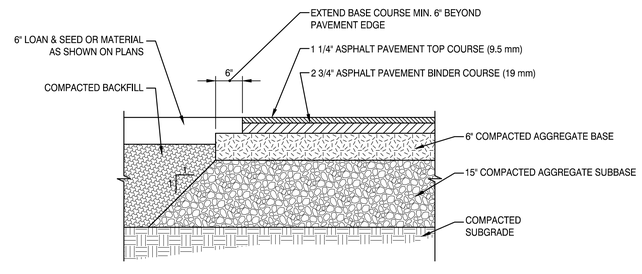
7 VERTICAL GRANITE CURB

3/4" = 1'-0"



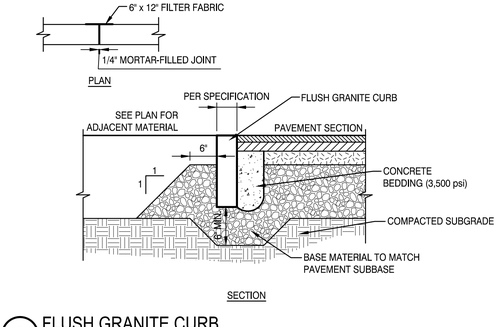
6 ASPHALT WALK

3/4" = 1'-0"



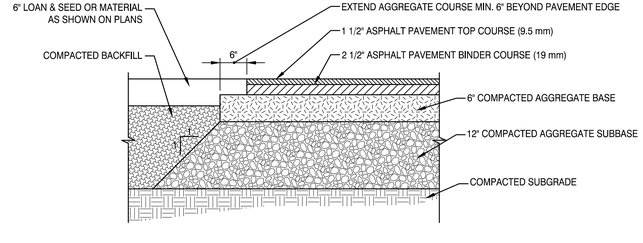
5 TIPDOWN GRANITE CURB

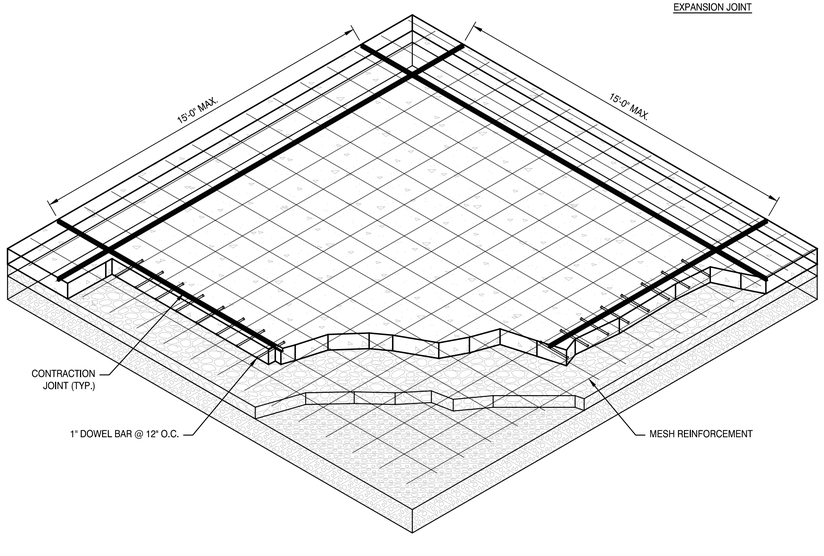
3/4" = 1'-0"



4 HEAVY DUTY ASPHALT PAVEMENT

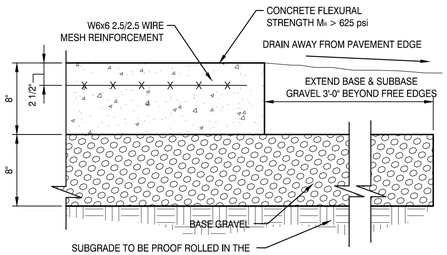
3/4" = 1'-0"





3 HEAVY DUTY CONCRETE APRON

NOT TO SCALE



SECTION

2 FLUSH GRANITE CURB

3/4" = 1'-0"

1 ASPHALT PAVEMENT

3/4" = 1'-0"

1" = 10' 5' 10' 20'
1" = 20' 10' 20' 40'
1" = 30' 15' 30' 60'
1" = 40' 20' 40' 80'
1" = 50' 25' 50' 100'
1" = 60' 30' 60' 120'
1" = 100' 50' 100' 200'
1" = 200' 100' 200' 400'

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SHEET TITLE:

SITE LAYOUT DETAILS

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SCALE:	AS SHOWN	DESIGNED BY:	WSM
SMRT PROJECT #:	24040	DRAWN BY:	SLM

CP501

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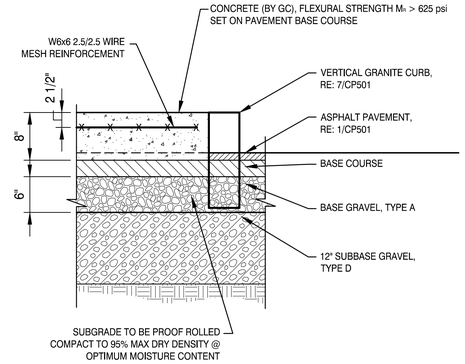
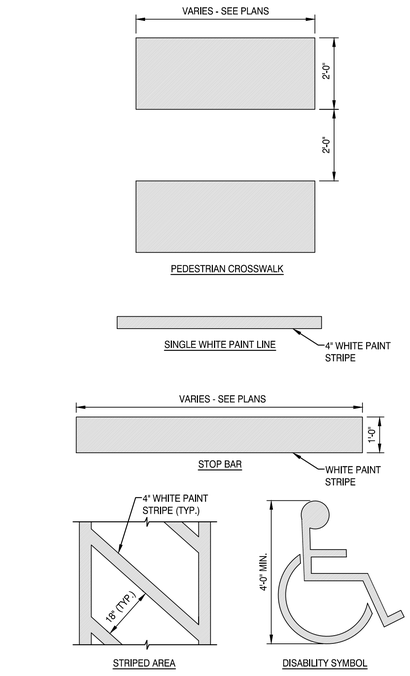


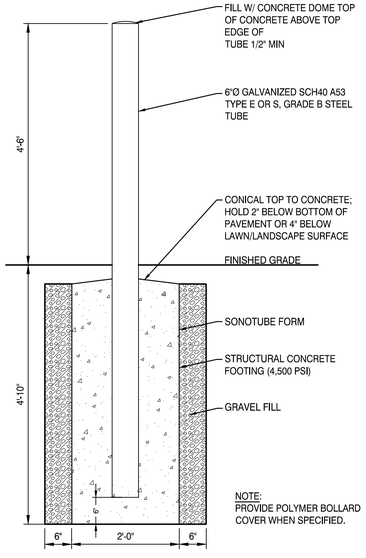
5 CONCRETE ISLAND

NOT TO SCALE



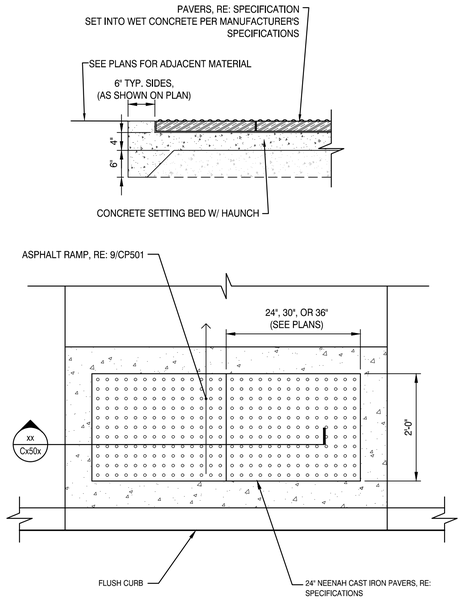
1 STANDARD PAVEMENT MARKINGS

NOT TO SCALE



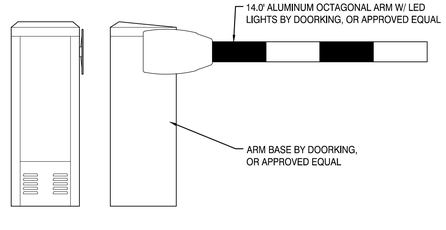
2 BOLLARD

3/4" = 1'-0"



3 TACTILE WARNING PLATES

3/4" = 1'-0"



4 GATE ARM

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SMRT PROJECT #: **24040** | DRAWN BY: **SLM**

CP502

NOT FOR CONSTRUCTION

EROSION & SEDIMENTATION CONTROL NOTES:

TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES INCLUDE THE USE OF STABILIZED CONSTRUCTION ENTRANCE, SILTATION FENCE, HAY BALE BARRIERS, CATCH BASIN INLET BARRIERS, CATCH BASIN SEDIMENT COLLECTION BAGS, EROSION CONTROL BLANKET, AND TEMPORARY SEEDING AND MULCHING AS REQUIRED. PERMANENT DEVICES INCLUDE THE USE OF RIP RAP AT EXPOSED STORM DRAIN AND CULVERT INLETS AND OUTLETS, AND PERMANENT VEGETATION.

GENERAL

A. IT IS ANTICIPATED THAT CONSTRUCTION MAY BEGIN AS SOON AS POSSIBLE FOLLOWING RECEIPT OF NECESSARY PERMITS.

1. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES PUBLISHED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, (2016, OR AS CURRENTLY REVISED), OR U.S ENVIRONMENTAL PROTECTION AGENCY PUBLICATION 832/R-92-005 (SEPTEMBER, 1992, OR AS CURRENTLY REVISED) STORM WATER MANAGEMENT FOR CONSTRUCTION, CHAPTER 3, WHICHEVER IS MORE STRINGENT.

2. ANY ADDITIONAL EROSION AND SEDIMENTATION CONTROL DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE, DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) PERSONNEL AND/OR MUNICIPAL OFFICIALS SHALL BE INSTALLED BY THE CONTRACTOR.

3. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATER BODIES, OR WETLANDS AS A RESULT OF THIS PROJECT.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/ REPLACEMENT/ MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE ABOVE PERSONNEL. DESCRIPTIONS OF ACCEPTABLE PERMANENT STABILIZATION FOR VARIOUS COVER TYPES FOLLOWS:

- FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS A 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.
- FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.
- FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.
- FOR AREAS STABILIZED WITH RIP RAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIP RAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIP RAP. STONE MUST BE SIZED APPROPRIATELY.
- PAVED AREAS: FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED.
- FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIP RAP, OR WITH ANOTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE LINING, UNDERCUTTING OF THE BANKS, OR DOWN CUTTING OF THE CHANNEL.

B. EROSION AND SEDIMENTATION CONTROL MEASURES

1. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE STABILIZED CONSTRUCTION ENTRANCE AND TEMPORARY SILT FENCE SHALL BE INSTALLED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. IT IS THE INTENT THAT SILT FENCE OR EROSION CONTROL MIX BERM BE INSTALLED DOWN GRADIENT OF ALL DISTURBED AREAS OF THE SITE. SILT FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS SHALL BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE SILT BARRIERS. THIS SEDIMENT SHALL BE SPREAD AND STABILIZED IN AREAS OF THE SITE NOT SUBJECT TO EROSION. SILT FENCE OR EROSION CONTROL MIX BERM SHALL BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, THEY SHALL BE REPLACED WITH A TEMPORARY CRUSHED STONE CHECK DAM.

2. ALL CATCH BASINS, NEW OR EXISTING, THAT MAY RECEIVE RUNOFF FROM DISTURBED AREAS MUST BE PROTECTED DURING CONSTRUCTION.

3. REMOVAL OF SOD, TREES, BUSHES AND OTHER VEGETATION AND SOIL DISTURBANCE WILL BE KEPT TO A MINIMUM WHILE ALLOWING PROPER SITE DEVELOPMENT.

4. GRUBBINGS AND ANY UNUSABLE TOPSOIL SHALL BE STRIPPED AND REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN AN APPROVED MANNER.

5. ANY SUITABLE TOPSOIL WILL BE STRIPPED AND STOCKPILED FOR REUSE IN FINAL GRADING. TOPSOIL WILL BE STOCKPILED IN A MANNER SUCH THAT NATURAL DRAINAGE IS NOT OBSTRUCTED AND NO OFF-SITE SEDIMENT DAMAGE WILL RESULT. SEDIMENT BARRIERS SHALL BE INSTALLED DOWN-GRADIENT OF ALL SOIL STOCKPILES AND STORMWATER SHALL BE PREVENTED FROM RUNNING ONTO ALL STOCKPILES. IF A STOCKPILE IS NECESSARY, THE SIDE SLOPES OF THE TOPSOIL STOCKPILE WILL NOT EXCEED 2:1. TOPSOIL STOCKPILES WILL BE TEMPORARILY SEEDED WITH AROOSTOOK RYE, ANNUAL OR PERENNIAL RYE GRASS WITHIN 7 DAYS OF FORMATION, OR TEMPORARILY MULCHED IF SEEDING CANNOT BE DONE WITHIN THE RECOMMENDED SEEDING DATES.

6. TEMPORARY DIVERSION BERMS AND DRAINAGE SWALES SHALL BE CONSTRUCTED AS NECESSARY.

7. TEMPORARY STABILIZATION SHALL BE CONDUCTED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF SOILS, PRIOR TO ANY RAIN EVENT, AND PRIOR TO ANY WORK SHUT DOWN LASTING MORE THAN ONE DAY. TEMPORARY STABILIZATION INCLUDES SEED, MULCH, OR OTHER NON-ERODABLE COVER.

8. TEMPORARY SEEDING SPECIFICATIONS: WHERE SEEDBED HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME, AND SEED. APPLY LIMESTONE AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQUARE FEET) AND 10-10-10 (N-P2O5-K2O) FERTILIZER AT A RATE OF 600 LBS PER ACRE (13.8 LB. PER 1,000 SQUARE FEET). UNIFORMLY APPLY SEED AT THE RECOMMENDED SEEDING RATES AND DATES, APPLY HAY OR STRAW MULCH AT A RATE OF 2 TONS PER ACRES, AND ANCHOR AS NECESSARY.

   RECOMMENDED TEMPORARY SEEDING DATES AND APPLICATION RATES ARE AS FOLLOWS:

   AROOSTOOK RYE:
   RECOMMENDED SEEDING DATES: 8/15 -10/1
   APPLICATION RATE: 112 LBS/ACRE

   ANNUAL RYE GRASS:
   RECOMMENDED SEEDING DATES: 4/1 - 7/1
   APPLICATION RATE: 40 LBS/ACRE

   PERENNIAL RYE GRASS:
   RECOMMENDED SEEDING DATES: 8/15 - 9/15
   APPLICATION RATE: 40 LBS/ACRE

9. PERMANENT SEEDING SPECIFICATION. IF A LANDSCAPE PLAN HAS BEEN PREPARED FOR THE PROJECT, SOIL PREPARATION AND SEED SPECIFICATIONS OF THAT PLAN SHALL SUPERSEDE THESE GENERAL PERMANENT SEEDING REQUIREMENTS. IT IS RECOMMENDED THAT PERMANENT SEEDING BE COMPLETED BETWEEN APRIL 1 AND JUNE 15 OF EACH YEAR. LATE SEASON SEEDING MAY BE DONE BETWEEN AUGUST 15 AND SEPTEMBER 15. AREAS NOT SEEDED OR WHICH DO NOT OBTAIN A SATISFACTORY GROWTH BY OCTOBER 1 SHALL BE SEEDED WITH AROOSTOOK RYE MULCHED AT RATES PREVIOUSLY SPECIFIED. SEE WINTER CONDITIONS NOTES FOR SEEDING STABILIZATION AFTER NOVEMBER 1.

   - APPLY TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES. MIX TOPSOIL WITH THE SUBSOIL TO A MINIMUM DEPTH OF 6 INCHES.
   - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS. IN LIEU OF SOIL TESTS, APPLY GROUND LIMESTONE AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQUARE FEET) AND GRANULAR, COMMERCIAL-GRADE, 10-10-10 (N-P2O5-K2O) FERTILIZER AT A RATE OF 800 LBS PER ACRE (18.4 LBS PER 1,000 SQUARE FEET).
   - UNIFORMLY APPLY SEED MIXTURE AT THE RECOMMENDED SEEDING RATES AND DATES, APPLY HAY OR STRAW MULCH AT A RATE OF 2 TONS PER ACRES, AND ANCHOR AS NECESSARY.
   - THE SEED MIXTURE FOR LAWN AND FILTRATION BASIN AREAS SHALL CONSIST OF SEEDS PROPORTIONED BY WEIGHT AS FOLLOWS:

     30% CREEPING RED FESCUE
     50% KENTUCKY BLUEGRASS
     20% ITALIAN/PERENNIAL RYE GRASS

     NOTE: SEED MIXTURE SHALL CONSIST OF AT LEAST TWO VARIETIES OF EACH TYPE OF GRASS. WHEN USED IN A FILTER BASIN, STORMWATER SHALL NOT BE DIRECTED TO THE BASIN UNTIL THE GRASS IS ESTABLISHED.

10. MULCH ALL AREAS SEEDED SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE.

11. DITCH LININGS AND RIP RAP INLET AND OUTLET PROTECTION SHALL BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR INSTALLATION OF CULVERT.

12. RIP RAP REQUIRED AT CULVERTS AND STORM DRAIN INLETS AND OUTLETS SHALL CONSIST OF FIELD STONE OR ROUGH UNHEWN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE.

13. EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL PERMANENT SLOPES STEEPER THAN 15%, IN THE BASE OF DITCHES NOT OTHERWISE PROTECTED, AND ANY DISTURBED AREAS WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE (E.G. WETLANDS AND WATER BODIES). EROSION CONTROL BLANKET SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

14. TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

15. TEMPORARY EROSION CONTROL MIX BERM SHALL BE REMOVED BY SPREADING MATERIAL IN AREAS OF THE SITE NOT SUBJECT TO EROSION.

C. WINTER CONDITIONS

1. "WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1ST THROUGH APRIL 15TH. IF AREAS WITHIN THE CONSTRUCTION ACTIVITY ARE NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES OUTLINED ABOVE BY NOVEMBER 15TH, THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES THAT ARE SPECIFIC TO WINTER CONDITIONS. NO MORE THAN ONE ACRE OF THE SITE MAY BE WITHOUT STABILIZATION AT ONE TIME.

2. SILT FENCE: IN LIEU OF PROVIDING THE 4" X 4" TRENCH, FOR FROZEN GROUND, STONY SOIL, THE PRESENCE OF LARGE ROOTS, OR OTHER PROHIBITIVE CONDITIONS, THE BOTTOM 8" TO 12" OF THE FABRIC MAY BE LAID ON EXISTING GRADE AND BACK FILLED WITH STONE ANCHORING MATERIAL, AS SHOWN ON THE DRAWINGS.

3. AREAS WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS.

4. HAY MULCH SHALL BE APPLIED AT TWICE THE STANDARD TEMPORARY STABILIZATION RATE. AT THE END OF EACH CONSTRUCTION DAY, AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE STABILIZED. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.

5. AFTER NOVEMBER 1ST OR THE FIRST KILLING FROST FOR THE REGION AND BEFORE SNOW FALL, ALL EXPOSED AND DISTURBED AREAS NOT TO UNDERGO FURTHER DISTURBANCE ARE TO HAVE DORMANT SEEDING. THE DORMANT SEEDING METHOD: PREPARE THE SEEDBED, LIME AND FERTILIZE, APPLY THE SELECTED PERMANENT SEED MIXTURE AT DOUBLE THE REGULAR SEEDING RATE, AND MULCH AND ANCHOR. DORMANT SEEDLINGS NEED TO BE ANCHORED EXTREMELY WELL ON SLOPES, DITCH BASES AND AREAS OF CONCENTRATED FLOWS. DORMANT SEEDING REQUIRES INSPECTION AND RESEEDING AS NEEDED IN THE SPRING. ALL AREAS WHERE COVER IS INADEQUATE MUST BE IMMEDIATELY RESEEDED AND MULCHED AS SOON AS POSSIBLE.

6. ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1ST, OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD, MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

7. MULCH NETTING MUST BE USED TO ANCHOR MULCH ON ALL SLOPES GREATER THAN 8% UNLESS EROSION CONTROL BLANKETS OR EROSION CONTROL MIX IS BEING USED ON THESE SLOPES.

8. LESS THAN ONE ACRE SHALL BE EXPOSED AT ONE TIME DURING CONSTRUCTION.

D. HOUSEKEEPING

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

4. DEBRIS AND OTHER MATERIALS. MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

5. AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

   a. DISCHARGES FROM FIREFIGHTING ACTIVITY;
   b. FIRE HYDRANT FLUSHINGS;
   c. VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
   d. DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);
   e. ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
   f. PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
   g. UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
   h. UNCONTAMINATED GROUNDWATER OR SPRING WATER;
   i. FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
   j. UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));
   k. POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
   l. LANDSCAPE IRRIGATION.

6. UNAUTHORIZED NON-STORMWATER DISCHARGES. THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

   a. WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
   b. FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
   c. SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
   d. TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

7. ADDITIONAL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

E. INSPECTION AND MAINTENANCE

1. INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION AND STORM WATER CONTROL MEASURES, AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE A WEEK AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL), AND PRIOR TO COMPLETION OF PERMANENT STABILIZATION. A PERSON WITH KNOWLEDGE OF EROSION AND STORM WATER CONTROLS, INCLUDING THE STANDARDS IN ANY DEP OR MUNICIPAL COMPANION DOCUMENTS, MUST CONDUCT THE INSPECTION. THIS PERSON MUST BE IDENTIFIED IN THE INSPECTION LOG. IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE MODIFIED OF IF ADDITIONAL BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

2. AN INSPECTION AND MAINTENANCE LOG MUST BE KEPT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME AND QUALIFICATIONS OF THE PERSON PERFORMING THE INSPECTION, DATE, AND MAJOR OBSERVATIONS RELATING TO OPERATION OF EROSION AND SEDIMENTATION CONTROLS AND POLLUTION PREVENTION MEASURES. MAJOR OBSERVATIONS MUST INCLUDE: BMPS THAT NEED TO BE MAINTAINED, LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF THE INSPECTION. FOLLOW-UP TO CORRECT DEFICIENCIES OR ENHANCE CONTROLS MUST ALSO BE INDICATED IN THE LOG AND DATED, INCLUDING WHAT ACTION WAS TAKEN AND WHEN.

3. INSPECTIONS DURING CONSTRUCTION SHOULD BE PERFORMED AT LEAST ONCE PER WEEK AND AFTER EVERY RAINFALL EVENT.

4. AFTER CONSTRUCTION, INSPECTIONS ARE REQUIRED TO BE PERFORMED BY AN INDIVIDUAL WITH KNOWLEDGE OF STORMWATER TREATMENT STRUCTURES, INCLUDING INSTALLED BMPS AND THE STANDARD AND CONDITIONS OF GOVERNING PERMITS.

5. SNOW STORAGE IS PROHIBITED IN STORMWATER BMP SYSTEMS.

F. CONSTRUCTION SCHEDULE & SEQUENCE

1. INSTALL TEMPORARY EROSION CONTROL MEASURES IN THE VICINITY OF THE CONSTRUCTION AREA, INCLUDING A STABILIZED CONSTRUCTION ENTRANCE AT LOCATIONS DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE, SEDIMENT BARRIERS, AND SILT FENCE. NOTE: TEMPORARY EROSION CONTROL MEASURES FOR WINTER CONDITIONS SHALL BE IMPLEMENTED.

2. GRUB THE SITE, STOCKPILE REUSABLE MATERIAL, AND DISPOSE OF UNUSABLE AND/OR SURPLUS MATERIAL AS REQUIRED PER EDC. INSTALL UNDERGROUND UTILITIES AND BUILD DRIVE AND PARKING TO GRADE.

3. EXCAVATE FOUNDATIONS.

4. CONSTRUCT BUILDING.

5. CONSTRUCT OTHER SITE IMPROVEMENTS, INCLUDING PAVEMENT.

6. PLACE LOAM, SEED, AND MULCH.

7. FOLLOWING PERMANENT STABILIZATION OF THE SITE, REMOVE TEMPORARY EROSION CONTROL MEASURES.

1" = 10' 0 5' 10' 20'
1" = 20' 0 10' 20' 40'
1" = 30' 0 15' 30' 60'
1" = 40' 0 20' 40' 80'
1" = 50' 0 25' 50' 100'
1" = 60' 0 30' 60' 120'
1" = 100' 0 50' 100' 200'
1" = 200' 0 100' 200' 400'

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STATE OF MAINE
MELISSA ANN FLYNN
15831
LICENSED PROFESSIONAL ENGINEER
12/31/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

EROSION & SEDIMENT CONTROL NOTES

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING.
Sheet is intended to be PRINTED IN COLOR.

SCALE:	--	DESIGNED BY:	MAF
SMRT PROJECT #:	24040	DRAWN BY:	SLM

CE001

NOT FOR CONSTRUCTION

1" = 200' 1" = 100' 1" = 60' 1" = 50' 1" = 40' 1" = 30' 1" = 20' 1" = 10'

1 CE501 STABILIZED CONSTRUCTION ENTRANCE

3 CE501 SILT FENCE ADJUST LOCATION AS REQUIRED TO ACCOMMODATE UTILITY / TRENCH WORK

6 CE501 EROSION CONTROL BLANKET (TYP.)

4 CE501 SILT SACK TYP. ON ALL NEW & EXISTING CATCH BASINS

3 CE501 SILT FENCE ADJUST LOCATION AS REQUIRED TO ACCOMMODATE UTILITY / TRENCH WORK

SEAHAWK AVENUE 75' R/W

PELICAN STREET 50' R/W

ADMIRAL FITCH AVENUE

GERZOFSKY WAY

EXISTING UNUSED BUILDING

MOBILE OFFICE TRAILER

CONC. PAD

GEN

NUGE

HVAC

18" RCP

4 CE501 SILT SACK, TYP. ON ALL NEW & EXISTING CATCH BASINS OFF PROPERTY; COORDINATE W/ MRRA

COORDINATE ROAD TRENCHING W/ MRRA; PROVIDE EROSION CONTROL PROTECTION AS REQUIRED

COORDINATE ACCESS CONTROL BETWEEN CONSTRUCTION SITE & EMPLOYEE PARKING AREA

3 CE501 SILT FENCE

1 CE501 STABILIZED CONSTRUCTION ENTRANCE

3 CE501 SILT FENCE

COORDINATE ROAD TRENCHING W/ MRRA; PROVIDE EROSION CONTROL PROTECTION AS REQUIRED

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#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
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ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

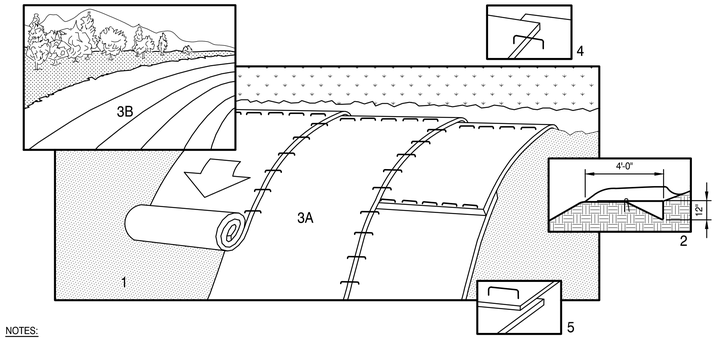
EROSION & SEDIMENT CONTROL PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE:	1" = 30'	DESIGNED BY:	MAF
SMRT PROJECT #:	24040	DRAWN BY:	SLM

CE101

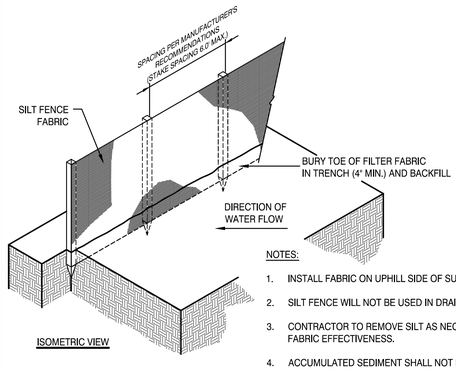
NOT FOR CONSTRUCTION



NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. UPSLOPE ANCHOR: BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE UPSLOPE EDGE IN A 12" DEEP TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 4" OVERLAP. REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, OVERLAP SHINGLE STYLE A MINIMUM OF 12 INCHES AT THE TOP OF EACH ROW AND 4 INCHES AT THE EDGES OF PARALLEL ROWS. ANCHOR ALONG THE OVERLAP WITH A MAXIMUM SPACING OF 3 FEET OR AS REQUIRED BY THE MANUFACTURER.
6. EROSION CONTROL BLANKET FOR USE ON SLOPES SHALL BE A BIODEGRADABLE DOUBLE NET WOVEN BLANKET WITH JUTE NETTING AND COCONUT FIBRE MATRIX SPECIFICALLY MANUFACTURED FOR THE PURPOSE (NORTH AMERICAN GREEN) BIO-NET S150BN OR APPROVED EQUAL.
7. ONCE PERMANENT STABILIZATION IS ACHIEVED, REMOVE ANY NON-BIODEGRADABLE MESH, IF USED.
8. ALL SLOPES 3H:1V OR GREATER, DRAINAGE WAYS AND AREAS INDICATED SHALL RECEIVE EROSION CONTROL BLANKET.
9. IF MANUFACTURER'S ANCHORING AND INSTALLATION SPECIFICATIONS DIFFER FROM THOSE LISTED ABOVE, THE MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED.

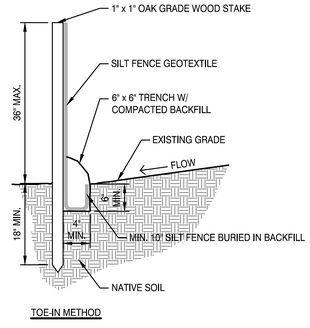
6 EROSION CONTROL BLANKET
NOT TO SCALE



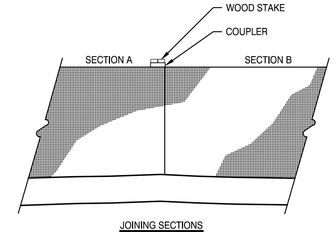
ISOMETRIC VIEW

NOTES:

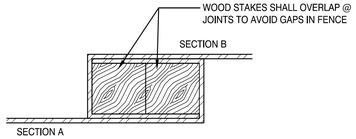
1. INSTALL FABRIC ON UPHILL SIDE OF SUPPORT POSTS.
2. SILT FENCE WILL NOT BE USED IN DRAINAGE WAYS.
3. CONTRACTOR TO REMOVE SILT AS NECESSARY TO MAINTAIN FABRIC EFFECTIVENESS.
4. ACCUMULATED SEDIMENT SHALL NOT EXCEED 1/3 OF FENCE HEIGHT. (9" MAX.)



TOE-IN METHOD

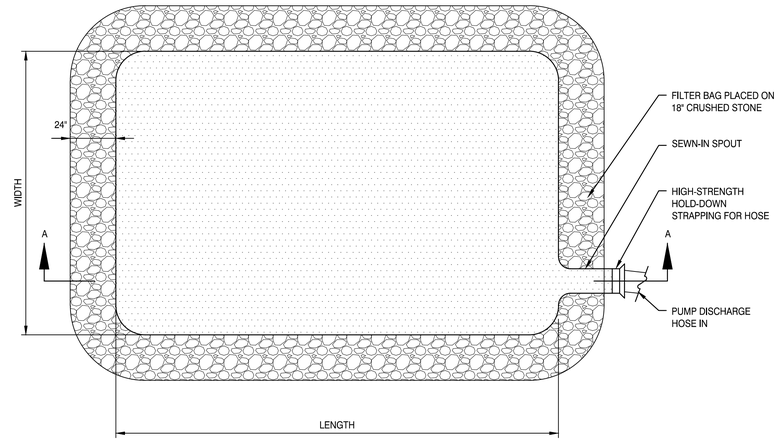


JOINING SECTIONS

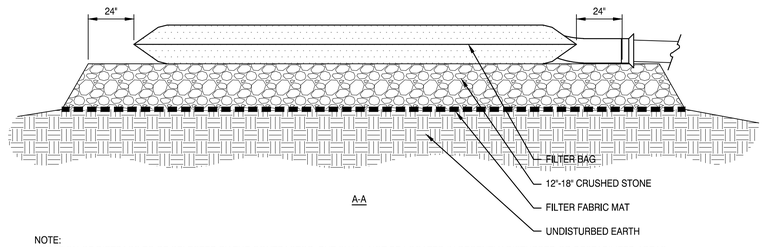


TOP VIEW

3 SILT FENCE
3/4" = 1'



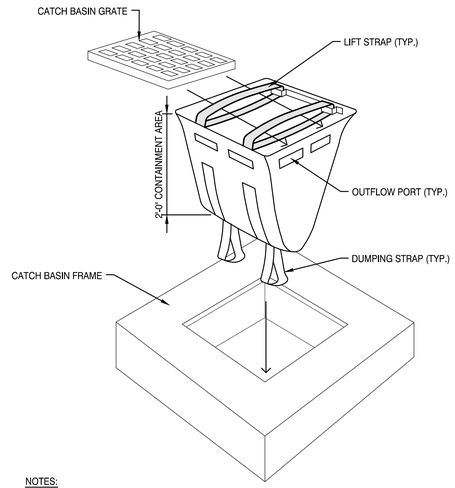
PLAN



A-A

NOTE:
LOCATION OF DIRTBAGS TO BE SELECTED BY THE CONTRACTOR, BUT SHALL NOT BE LOCATED IN RECENTLY DISTURBED OR DESTABILIZED AREAS.

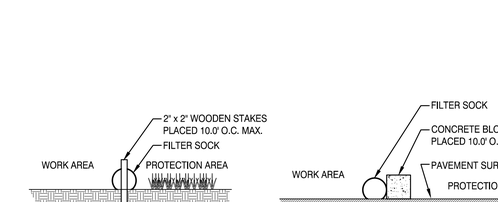
5 DIRT BAG
NOT TO SCALE



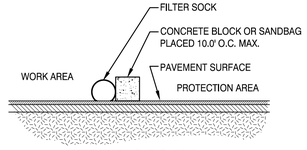
NOTES:

1. SILT SACK TO BE "DANDY SACK" (BY DANDY PRODUCTS) OR APPROVED EQUAL.
2. INSERT TO BE EMPTIED IN AN APPROVED MANNER WHEN IT IS 1/3 FULL OF SEDIMENT AND IMMEDIATELY AFTER EACH STORM EVENT.
3. INSPECT INSERT AFTER ALL RAINFALL EVENTS, REPAIR AND MAINTAIN AS REQUIRED.
4. DISPOSE OF UNIT AND/OR SEDIMENT IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

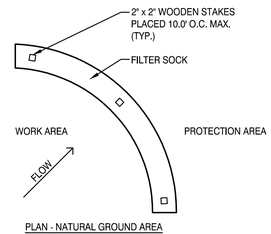
4 SILT SACK
3/4" = 1'



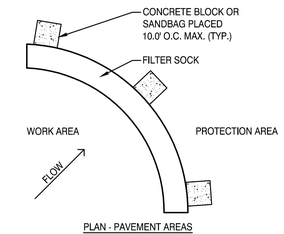
SECTION - NATURAL GROUND AREAS



SECTION - PAVEMENT AREAS



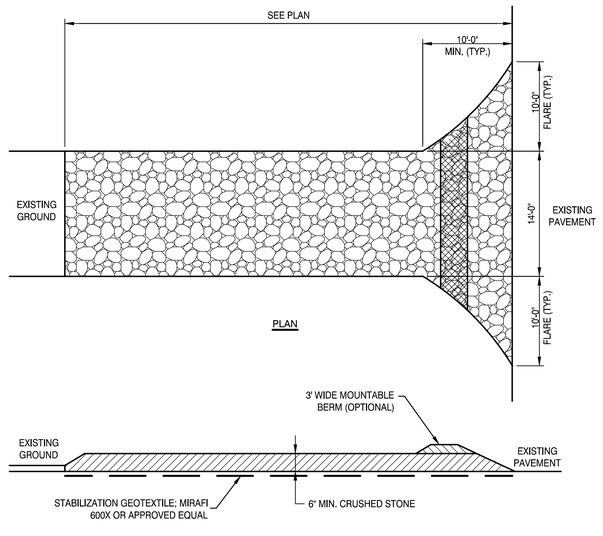
PLAN - NATURAL GROUND AREA



PLAN - PAVEMENT AREAS

NOTES:
1. SOCK SIZE AND SECUREMENT TO BE PER MANUFACTURER'S RECOMMENDATION FOR THE APPLICATION.
2. FILTER MATERIAL TO BE PER MANUFACTURER'S RECOMMENDATION FOR THE APPLICATION.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER AFTER SITE IS PERMANENTLY STABILIZED.
4. FILTER SOCK MAY BE USED IN LIEU OF SILT FENCE IF LOCATIONS REVIEWED AND APPROVED BY OWNER AND ENGINEER.

2 FILTER SOCK
NOT TO SCALE



PLAN

PROFILE

NOTES:
1. THE PURPOSE IS TO REMOVE MUD FROM TIRES OF CONSTRUCTION VEHICLES.
2. WHEN STONE BECOMES CLOGGED AND INEFFECTIVE, TOPDRESS WITH 3" OF NEW STONE OR REPLACE ENTIRE PAD.
3. IF TIRE WASHING IS REQUIRED, WASH WATER SHALL DRAIN INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

1 STABILIZED CONSTRUCTION ENTRANCE
1/8" = 1'

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STATE OF MAINE
MELISSA ANN FLYNN
15831
LICENSED PROFESSIONAL ENGINEER
12/31/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

EROSION & SEDIMENT CONTROL DETAILS

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE: **AS SHOWN** | DESIGNED BY: **MAF**
SMRT PROJECT #: **24040** | DRAWN BY: **SLM**

CE501

NOT FOR CONSTRUCTION

SEAHAWK AVENUE

PELICAN STREET

GERZOFSKY WAY

ADMIRAL FITCH AVENUE

3 CG501 CATCH BASIN (TYP.)

2 CG502 BIORETENTION OUTLET CONTROL STRUCTURE OCS-BR-4

1 CG502 BIORETENTION FILTER CELL BR-4

6 CG501 RIP RAP OUTLET PROTECTION

2 CG502 BIORETENTION OUTLET CONTROL STRUCTURE OCS-BR-1

1 CG502 BIORETENTION FILTER CELL BR-1

6 CG501 RIP RAP OUTLET PROTECTION

4 CG501 FOUNDATION DRAIN

FFE 75.50

EARTHEN BERM SOIL DISPOSAL AREA

PROPOSED BUILDING FFE 75.50

EXISTING BUILDING FFE 75.50

REPLACE EXISTING SANITARY MANHOLE COVER W/ NEW DRAIN MANHOLE COVER; EXISTING RIM = 71.00

EARTHEN BERM SOIL DISPOSAL AREA

FFE 73.00

CAST-IN-PLACE RETAINING WALL 10 CG501

RIP RAP OUTLET PROTECTION 6 CG501

BIORETENTION FILTER CELL 1 CG502 BR-3

REPLACE EXISTING CATCH BASIN FRAME & GRATE W/ NEW DRAIN MANHOLE FRAME & COVER; RAISE RIM TO 73.42

12 CG501 RIP RAP SLOPE (TYP.)

RIP RAP STONE SLOPE PROTECTION: D_{50} = 6"

1 CG502 BIORETENTION FILTER CELL BR-2

2 CG502 BIORETENTION OUTLET CONTROL STRUCTURE OCS-BR-2

6 CG504 RTANK OUTLET CONTROL STRUCTURE OCS-RT-1

1 CG503 R-TANK SYSTEM RT-1

PROVIDE FLARED END SECTION, RE: SPEC

7 CG504 MAINTENANCE STRUCTURE (TYP.)

2 CG501 STORM DRAIN MANHOLE (TYP.)

1 CG501 STORM DRAIN TRENCH (TYP.)

REPLACE EXISTING CATCH BASIN FRAME & GRATE W/ NEW DRAIN MANHOLE FRAME & COVER; RAISE RIM TO 72.18

7 CG501 FIELD INLET (TYP.)

R-TANK SYSTEM RT-2 2 CG503

RTANK OUTLET CONTROL STRUCTURE OCS-RT-2 5 CG504

BIORETENTION OUTLET CONTROL STRUCTURE OCS-BR-3 2 CG502

R-TANK SYSTEM RT-3 3 CG503

GRADE TRANSITION TYP. @ STRUCTURAL DOOR PADS 11 CG501

UNDERDRAINED BIORETENTION CELL W/ MULTIPLE PLANTINGS

UNDERDRAINED BIORETENTION CELL

69.40 DESIGN INVERT

8" CMP ROTTED SOURCE UNKNOWN

POSSIBLE STORM DRAIN INVERT NOT VISIBLE

TRUE NORTH

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ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

GRADING & DRAINAGE PLAN

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SCALE: 1" = 30' | DESIGNED BY: MAF

SMRT PROJECT #: 24040 | DRAWN BY: SLM

CG101

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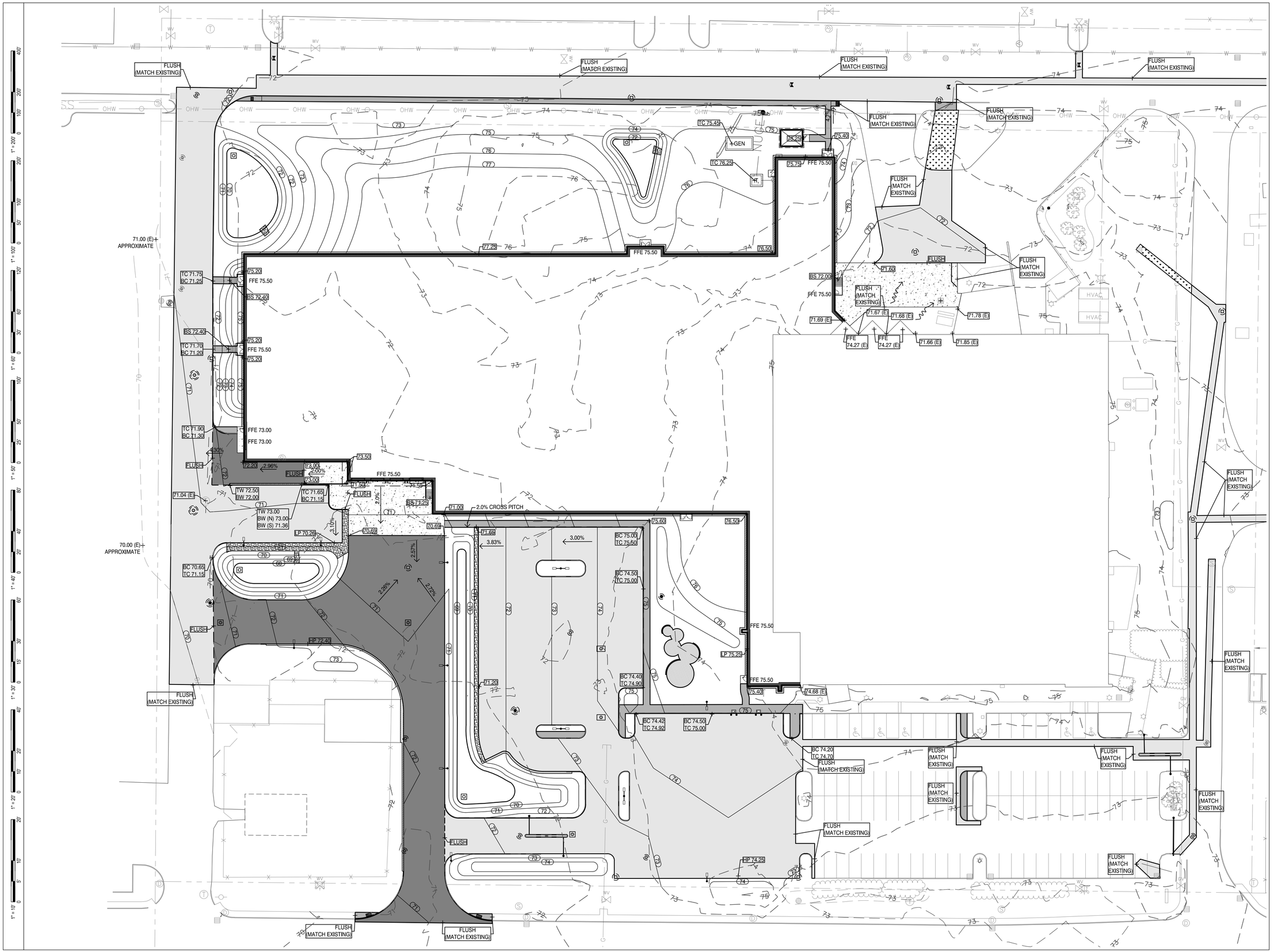

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ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

SPOT GRADE PLAN

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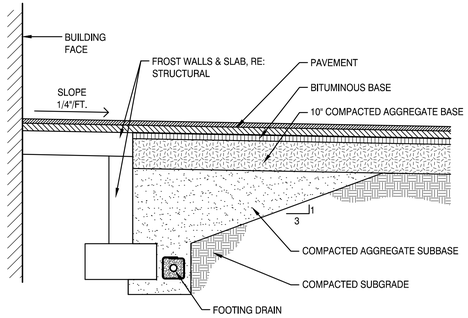
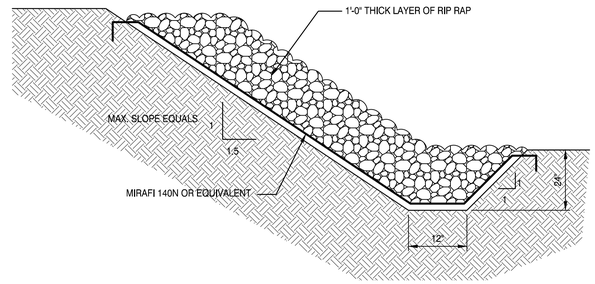
SCALE:	1" = 30'	DESIGNED BY:	WSM
SMRT PROJECT #:	24040	DRAWN BY:	SLM

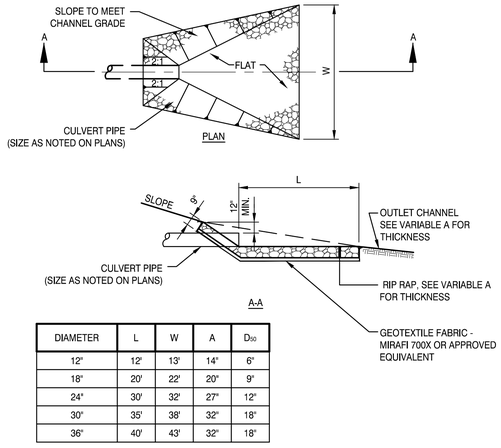
CG102

NOT FOR CONSTRUCTION



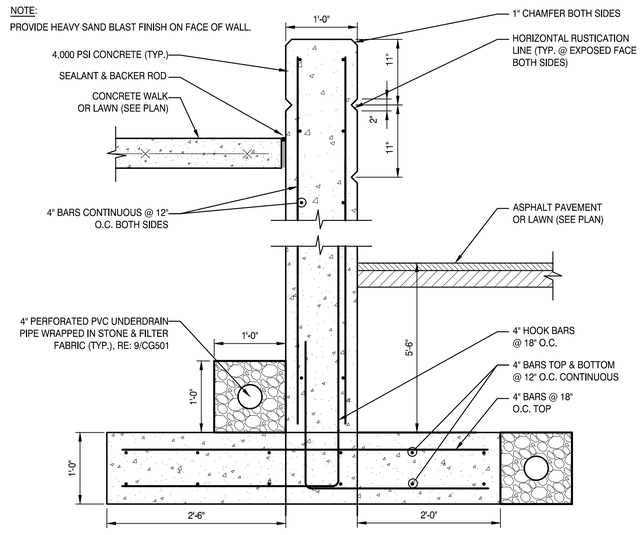


10 GRADE TRANSITION
NOT TO SCALE

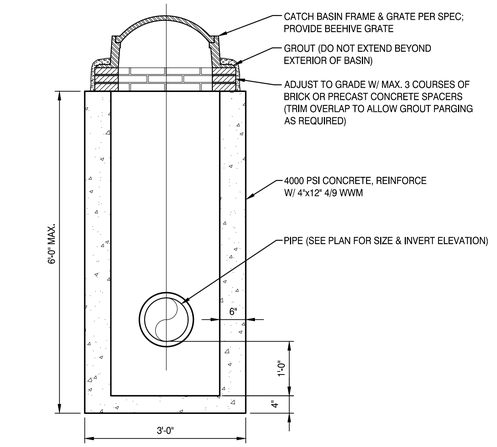


DIAMETER	L	W	A	D_{50}
12"	12'	13'	14"	6"
18"	20'	22'	20"	9"
24"	30'	32'	27"	12"
30"	35'	38'	32"	18"
36"	40'	43'	32"	18"

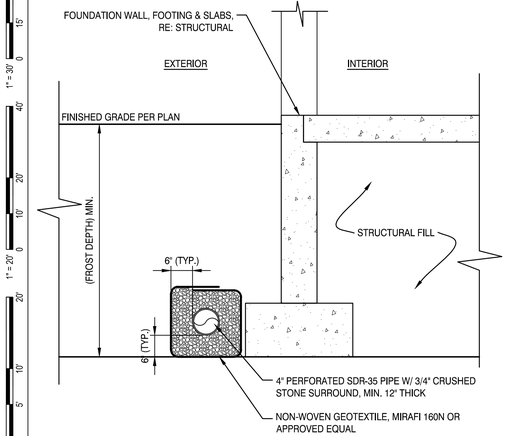
9 RIP RAP SLOPE
NOT TO SCALE



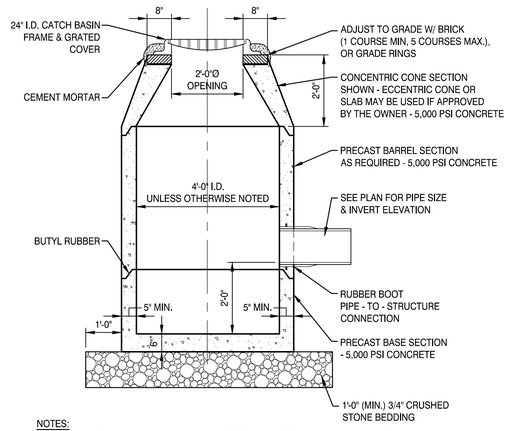
8 UNDERDRAIN
NOT TO SCALE



7 FIELD INLET
NOT TO SCALE

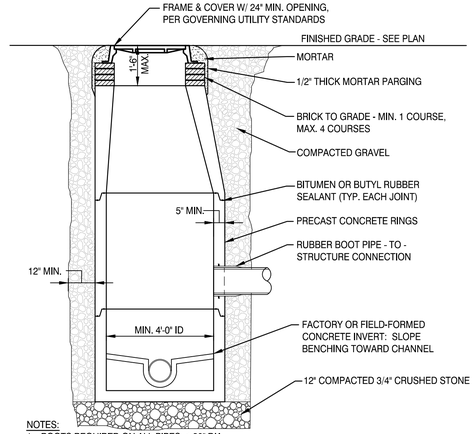


4 FOUNDATION DRAIN
NOT TO SCALE



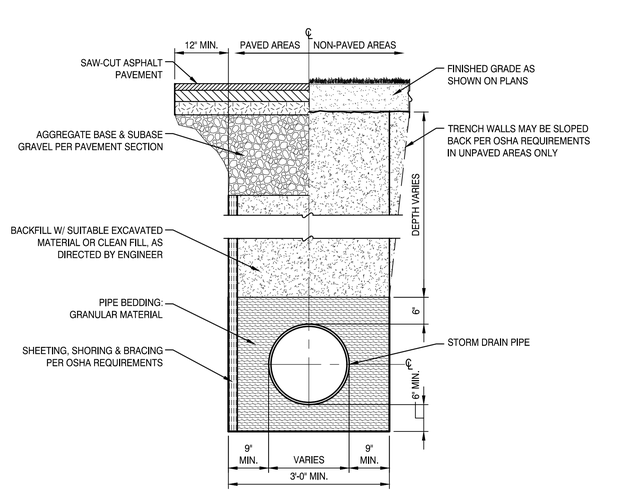
NOTES:
1. STANDARD GRATES SHALL BE NENAH R-3210-L OR APPROVED EQUAL. DITCH GRATES SHALL BE NEENAH R-4342 OR APPROVED EQUAL.
2. STEPS SHALL BE PROVIDED FOR CATCH BASINS WITH DEPTHS IN EXCESS OF 8.0'. STEPS SHALL NOT EXCEED 18" O.C., AND BE LOCATED 6" FROM BARREL SECTION JOINTS.

3 CATCH BASIN
NOT TO SCALE



NOTES:
1. BOOTS REQUIRED ON ALL PIPES < 30" DIA.
2. CONCRETE: 4,000 PSI AFTER 28 DAYS.
3. LIFT HOLES AND BOOT RECESSES ARE TO BE SEALED WITH MORTAR FLUSH TO THE OUTSIDE OF THE STRUCTURE WALL PRIOR TO BACKFILLING.
4. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES. NO MORE THAN 75% OF A HORIZONTAL CROSS-SECTION SHALL BE HOLES. THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

6 RIP RAP OUTLET PROTECTION
NOT TO SCALE



5 CAST-IN-PLACE RETAINING WALL
-

2 STORM DRAIN MANHOLE
NOT TO SCALE

1 STORM DRAIN TRENCH
NOT TO SCALE

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12/5/25

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ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

GRADING & DRAINAGE DETAILS

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SMRT PROJECT #:	24040	DRAWN BY:	SLM

CG501

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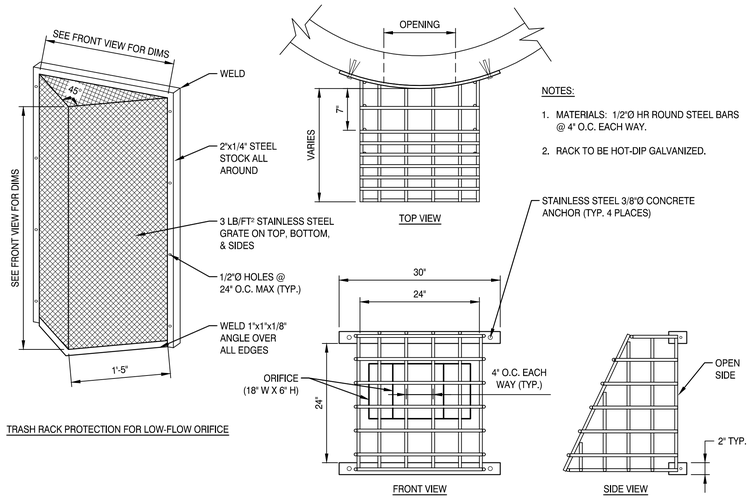
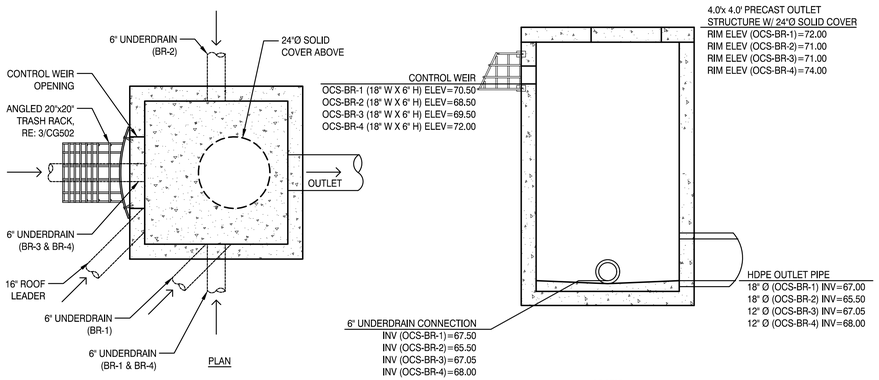


TRASH RACK PROTECTION FOR LOW-FLOW ORIFICE

3 TRASH RACK

NOT TO SCALE

BIORETENTION OUTLET CONTROL STRUCTURE NOTES
1. ALL CEMENT CONCRETE TO BE 4,000 PSI (MIN.).
2. ALL OPENINGS SHALL BE CAST IN AS REQUIRED.
3. PRECAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.
4. ALL STAINLESS STEEL SHALL BE GRADE 316.

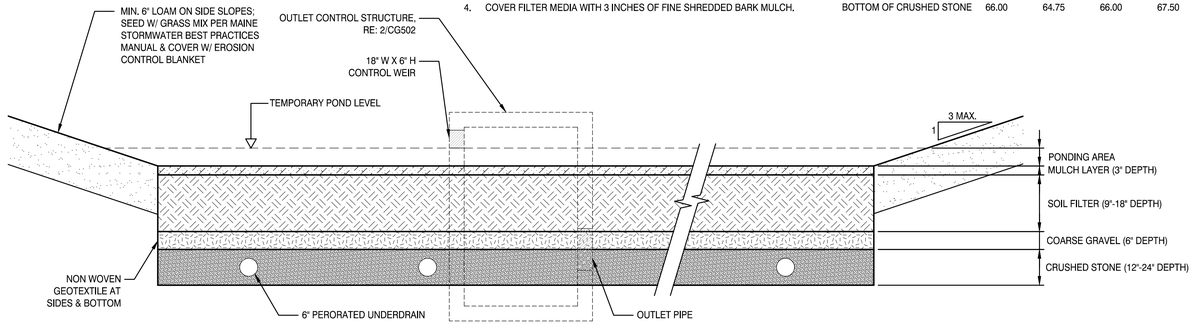


2 BIORETENTION OUTLET CONTROL STRUCTURE

NOT TO SCALE

BIORETENTION CELL NOTES:
1. BIORETENTION CELLS SHALL MEET MAINE STORMWATER BEST PRACTICE MANUAL SECTION 7.2 REQUIREMENTS.
2. STORMWATER DISCHARGES SHALL NOT BE DIRECTED TO BIORETENTION CELLS UNTIL ALL THE CONTRIBUTING AREAS ARE STABILIZED.
3. SOIL FILTER BED SHALL MEET SECTION 7.2 OF MAINE STORMWATER BEST PRACTICE MANUAL. OWNER SHALL TO SELECT FILTER MEDIA OPTION 1 OR 2.
4. COVER FILTER MEDIA WITH 3 INCHES OF FINE SHREDDED BARK MULCH.

ELEVATION	BR-1	BR-2	BR-3	BR-4
TOP OF POND AREA	72.00	71.00	71.00	74.00
TOP OF MULCH	70.25	68.25	69.25	71.75
BOTTOM OF MULCH	70.00	68.00	69.00	71.50
BOTTOM OF SOIL FILTER	68.50	67.25	68.00	69.00
BOTTOM OF COARSE GRAVEL	68.00	66.75	67.50	68.50
INVERT OF UNDERDRAIN	67.50	65.50	67.05	68.00
BOTTOM OF CRUSHED STONE	66.00	64.75	66.00	67.50



1 BIORETENTION FILTER CELL

NOT TO SCALE

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12/31/25

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ISSUED FOR MAJOR DEVELOPMENT REVIEW

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SMRT PROJECT #:	24040	DRAWN BY:	SLM

CG502

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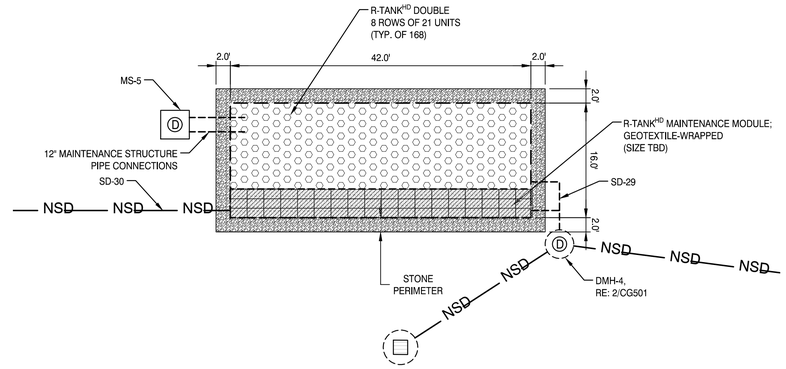
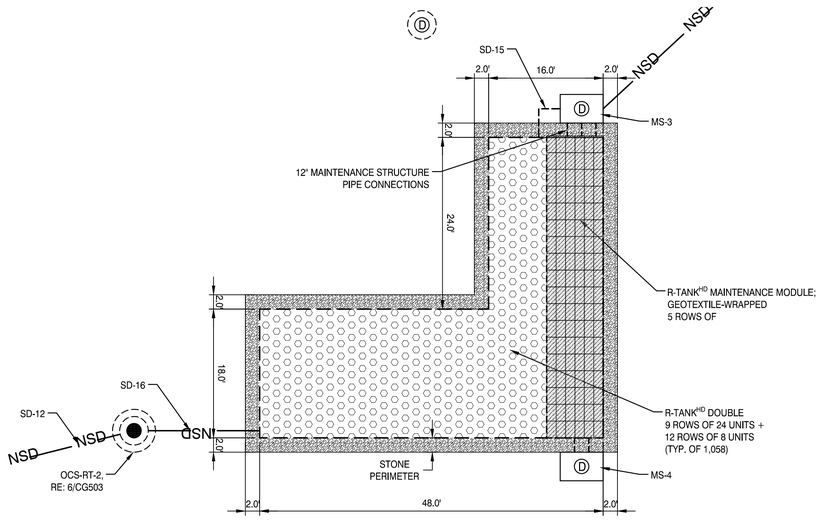
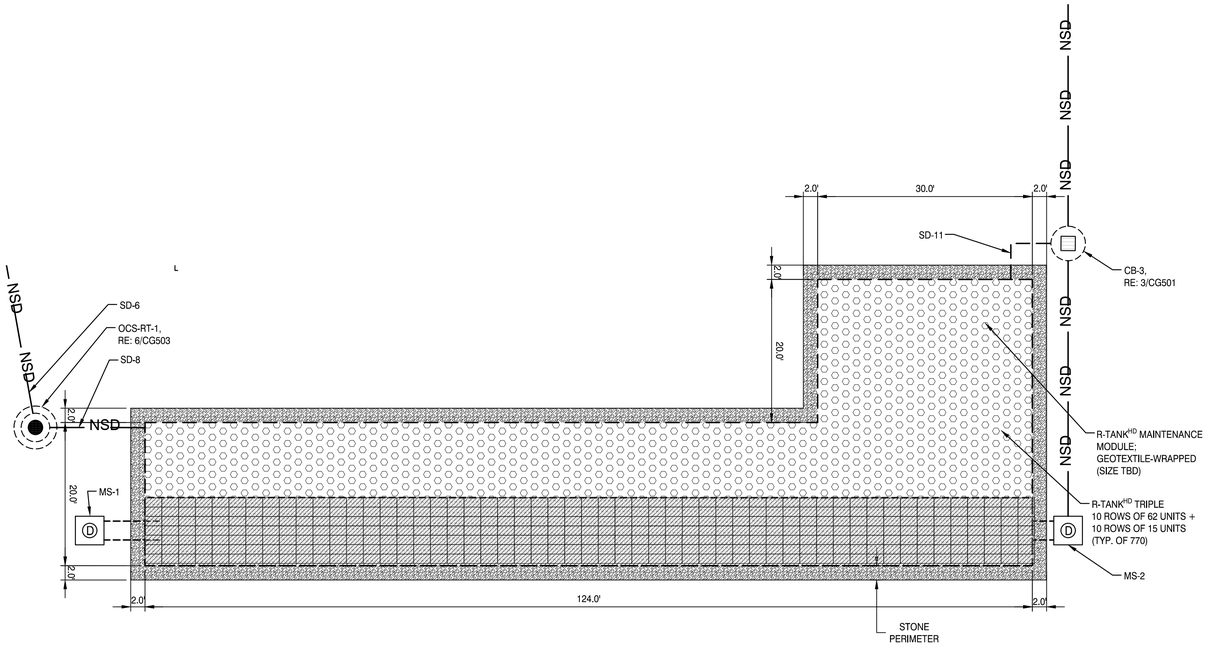


3 R-TANK (RT-3) PLAN VIEW
1"= 10'



2 R-TANK (RT-2) PLAN VIEW
NOT TO SCALE



1 R-TANK (RT-1) PLAN VIEW
1" = 10'

1" = 200' 400' 200' 0
1" = 100' 200' 100' 50' 0
1" = 60' 120' 60' 30' 0
1" = 50' 100' 50' 25' 0
1" = 40' 80' 40' 20' 0
1" = 30' 60' 30' 15' 0
1" = 20' 40' 20' 10' 0
1" = 10' 20' 10' 5' 0

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STATE OF MAINE
MELISSA ANN FLYNN
15831
LICENSED PROFESSIONAL ENGINEER
12/31/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

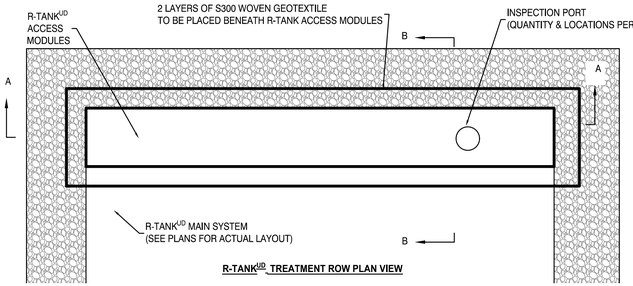
GRADING & DRAINAGE DETAILS

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

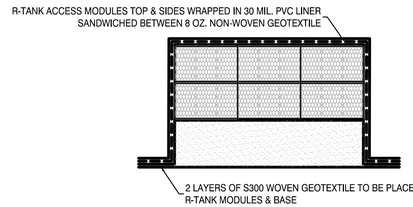
SCALE:	AS SHOWN	DESIGNED BY:	MAF
SMRT PROJECT #:	24040	DRAWN BY:	SLM

CG503

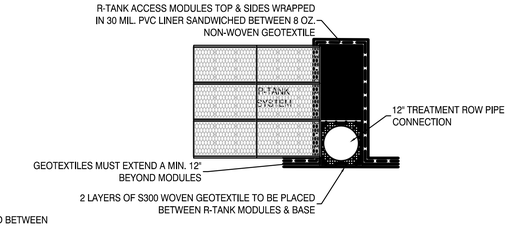
NOT FOR CONSTRUCTION



R-TANK[HD] TREATMENT ROW PLAN VIEW



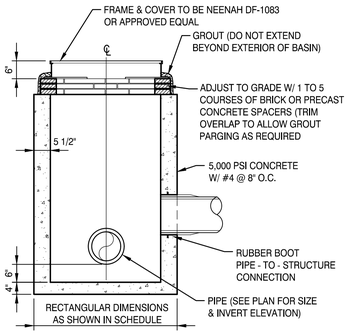
R-TANK TREATMENT ROW SECTION A-A

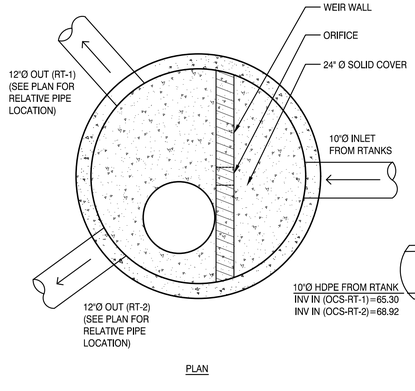


R-TANK TREATMENT ROW SECTION B-B

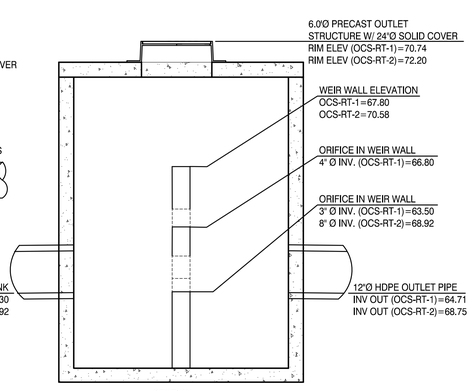
8 R-TANK TREATMENT MODULES

NOT TO SCALE



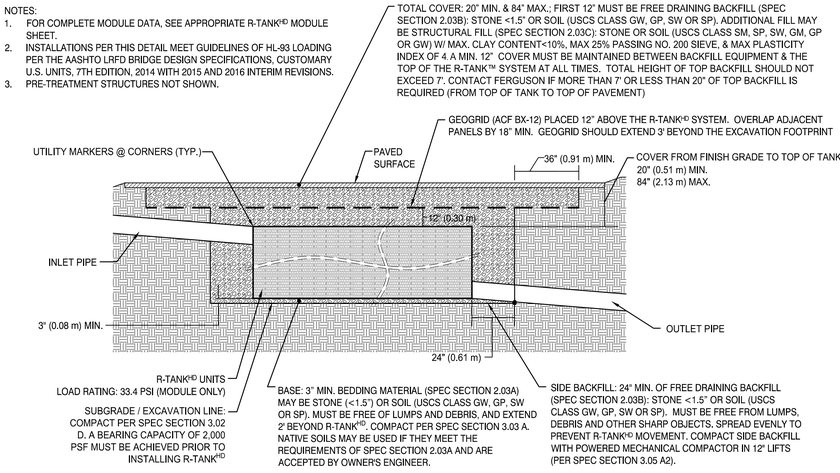


PLAN



SECTION

NOTES:
1. FOR COMPLETE MODULE DATA, SEE APPROPRIATE R-TANK[HD] MODULE SHEET.
2. INSTALLATIONS PER THIS DETAIL MEET GUIDELINES OF HL-93 LOADING PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, CUSTOMARY U.S. UNITS, 7TH EDITION, 2014 WITH 2015 AND 2016 INTERIM REVISIONS.
3. PRE-TREATMENT STRUCTURES NOT SHOWN.

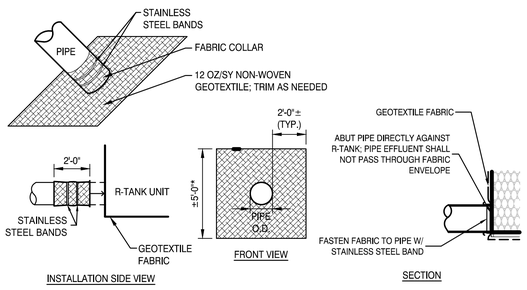


7 MAINTENANCE STRUCTURE

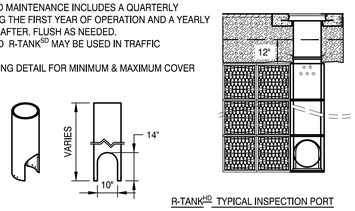
NOT TO SCALE

6 R-TANK OUTLET CONTROL STRUCTURE

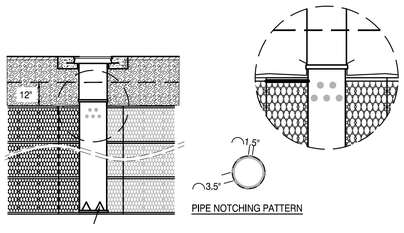
NOT TO SCALE



NOTES
1. THE INSPECTION PORT IS USED IN THE MAINTENANCE MODULE TO INSPECT THE LEVEL OF SEDIMENT ACCUMULATION.
2. THE MAINTENANCE PORT IS USED TO PUMP WATER INTO THE SYSTEM AND RE-SUSPEND ACCUMULATED SEDIMENT SO THAT IT MAY BE PUMPED OUT.
3. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.
4. ONLY R-TANK[HD] AND R-TANK[HD] MAY BE USED IN TRAFFIC APPLICATIONS.
5. SEE TRAFFIC LOADING DETAIL FOR MINIMUM & MAXIMUM COVER REQUIREMENTS.



R-TANK[HD] TYPICAL INSPECTION PORT



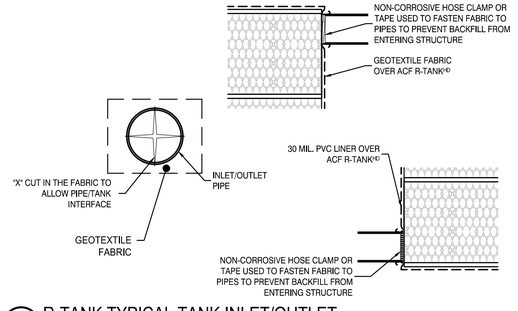
PIPE NOTCHING PATTERN

R-TANK[HD] TYPICAL MAINTENANCE PORT

2 R-TANK GEOTEXTILE PIPE BOOT

NOT TO SCALE

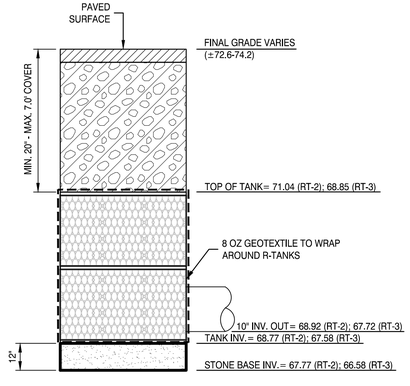
END VIEW OF PIPE/FABRIC CONNECTION. CUT AN "X" IN THE FABRIC SLIGHTLY LARGER THAN PIPE, PULL THE FABRIC AROUND THE PIPE TO CREATE THE "BOOT" AND THEN SECURE WITH A HOSE-CLAMP.



5 R-TANK SECTION VIEW

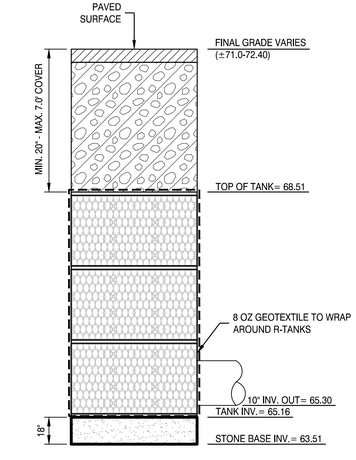
NOT TO SCALE

TABLE 7.3.2 MEDOT AGGREGATE #703.01	
SIEVE SIZE	% BY WEIGHT
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#60	10-30
#100	2-10
#200	0-5 (8-10 PREFERRED)



STORAGE SYSTEM ELEVATION DOUBLE R-TANK[HD]

TABLE 7.3.2 MEDOT AGGREGATE #703.01	
SIEVE SIZE	% BY WEIGHT
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#60	10-30
#100	2-10
#200	0-5 (8-10 PREFERRED)



STORAGE SYSTEM ELEVATION TRIPLE R-TANK[HD]

4 R-TANK TYPICAL MAINTENANCE AND INSPECTION PORTS

NOT TO SCALE

3 R-TANK TYPICAL TANK INLET/OUTLET

NOT TO SCALE

2 R-TANK SECTION (DOUBLE)

NOT TO SCALE

1 R-TANK SECTION (TRIPLE)

NOT TO SCALE

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15831
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12/5/25

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12-31-25

SHEET TITLE:

GRADING & DRAINAGE DETAILS

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Section 33 46 23 MODULAR STORMWATER STORAGE UNITS

PART 1 GENERAL

1.01 SUMMARY

A. This section includes specifications or the supply and installation of modular stormwater storage units, specifically the R-Tank^{HD}, R-Tank^{SD}, R-Tank^{MD}, R-Tank^{UD} or R-Tank^{XD} system (hereafter called R-Tank).

1.02 REFERENCES

A. **ASTM D698** - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3)).

B. **ASTM D2412** - Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading.

C. **ASTM F2418** - Standard Specification for Polypropylene (PP) Corrugated Wall Stormwater Collection Chambers.

D. Manufacturer's product literature and guidelines for R-Tank product.

1.03 QUALITY CONTROL

A. **Manufacturer Qualifications:** The R-Tank modular stormwater storage units shall be supplied by Ferguson Waterworks and manufactured in ISO certified facilities.
   a. Manufacturer samples shall be provided to the client & contractor for review upon request.
   b. A manufacturer's representative is available for pre-installation conference, per Section 1.06A & site review, upon request.

B. **Installer Qualifications:** Installation shall be performed by a contractor experienced in the installation of modular stormwater storage units.
   a. A minimum of three R-Tank or equivalent projects completed within 2 years; and,
   b. A minimum of 25,000 cubic feet of subsurface storage volume completed within 2 years.
   c. Contractor experience requirement may be waived if the manufacturer's representative provides on-site training and review during construction.
   d. Installation Contractor shall demonstrate knowledge and experience in the installation of subsurface storage system. Work shall be performed only by skilled workers with experience in bulk earthworks, pipe, chamber, or pond/landfill construction projects of comparable size and quality.

1.04 SUBMITTALS

A. Submit product data, installation guidelines, and product certifications for the R-Tank modular stormwater storage units.
   a. R-Tank layout drawings, including typical sections, details as well as the required base elevation of stone and tanks, minimum cover requirements and tank configuration.
   b. R-Tank product data, including compressive strength, and installation guidelines.
   c. Accessory material documentation / certificates for geotextile, geogrid, base course and backfill materials.

B. Any proposed equal alternative product substitution to this specification must be submitted for review and approved prior to bid opening. Review package should include third party reviewed performance data that meets or exceeds criteria in Table 2.01 B.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect R-Tank and other materials from damage during delivery and offloading. Handling is to be performed with equipment appropriate to the materials and site conditions.

B. Storage of materials should be on smooth surfaces, free from dirt, mud and debris, and away from any open flame, welding operations, or other potential heat sources. UV sensitive materials and R-Tank units should be stored under a tarp to protect from sunlight when time from delivery to installation exceeds two weeks.

C. When handling and installing product in cold weather:
   a. When the air temperature is 40° F or below, care must be taken when handling plastics to ensure no cracking. Do not use frozen materials, or materials coated with ice or frost.
   b. Do not build on frozen ground or wet, saturated or muddy subgrade.

1.06 PREINSTALLATION CONFERENCE.

A. Prior to the start of the installation, a pre-installation conference shall occur with the representatives from the design team, the general contractor, the excavation contractor, the R-Tank installation contractor, and the manufacturer's representative.

B. The pre-installation conference shall review the layout drawings, pre-construction checklist, and discuss key steps of the process. The pre-construction checklist shall be signed and dated by all participants.

1.07 PROJECT CONDITIONS

A. Coordinate installation for the R-Tank system with other on-site activities to eliminate all non-installation related construction traffic over the completed R-Tank system.

B. Protect adjacent work from damage during R-Tank system installation.

C. Provide proper sediment controls to prevent sediment intrusion, if the system is operational during construction.

D. Contractor is responsible for any damage to the system during construction.

E. All pre-treatment systems must be in place and functional prior to operation of the R-Tank system.

PART 2 PRODUCTS

2.01 R-TANK UNITS

A. Injection molded plastic tank components assembled to form a modular structure of predesigned height.

B. R-Tank units shall meet the following Physical & Chemical Characteristics:

PROPERTY	DESCRIPTION	R-Tank^{HD} VALUE	R-Tank^{SD} VALUE	R-Tank^{MD} VALUE	R-Tank^{UD} VALUE	R-Tank^{XD} VALUE
Void Area	Volume available for water storage	95%	95%	95%	95%	90%
Surface Void Area	Percentage of exterior available for infiltration	90%	90%	90%	90%	90%
Vertical Compressive Strength	ASTM D 2412 / ASTM F 2418	33.0 psi	42.0 psi	64.0 psi	134.0 psi	220.0 psi
Lateral Compressive Strength	ASTM D 2412 / ASTM F 2418	20.0 psi	22.0 psi	35.0 psi	19.0 psi	N/A
HS-20 Minimum Cover	Cover required to support HS-20 loads	20"	18"	15"	12"	6"
Maximum Cover	Maximum allowable cover depth	< 7 feet	< 10 feet	< 10 feet	< 7 feet	< 10 feet
Unit Weight	Weight of plastic per cubic foot of tank	3.62 lbs/cf	3.96 lbs/cf	3.53 lbs/cf	4.33 lbs/cf	7.55 lbs/cf

2.02 GEOSYNTHETICS

A. Geotextile
   a. Standard Application: The standard geotextile shall be an 8 oz per square yard nonwoven geotextile.
   b. Infiltration Applications: When water must infiltrate/exfiltrate through the geotextile as a function of the system design, a woven monofilament shall be used. In specialty applications, a microgrid/mesh may be approved as an alternative separation fabric, in consultation with the manufacturer's representative.
   c. Lined Applications: When water must be retained within the tanks to prevent infiltration/exfiltration, an impermeable liner shall be used. The liner material and thickness shall be specified by the project design engineer. This liner should be installed per liner manufacturer specifications and industry accepted techniques.

B. Geogrid
   a. For installations subject to traffic loads, install geogrid to reinforce backfill above the R-Tank system.
   b. Geogrid is not required for R-Tank^{XD} and is often not required for non-traffic load applications.

2.03 BEDDING, BACKFILL & COVER MATERIALS

A. All materials shall be free from lumps, debris, and any sharp objects that could cut the geotextile.

B. **Bedding Materials:** Stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System) shall be used below the R-Tank system (3" minimum and 12" maximum). For infiltration applications bedding material shall be free draining.

C. **Side and Top Backfill:** Recommended backfill material should be clean and free of debris, with a particle size distribution that is appropriate for the specific application. Identical backfill material shall be used on the side and top of the units.
   a. Traffic Applications: Backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System).
   b. Non-Traffic Applications - For all R-Tank modules installed in green spaces and not subjected to vehicular loads, backfill materials may either follow the guidelines for Traffic Applications above, or the top backfill layer may consist of AASHTO #57 stone blended with 30-40% (by volume) topsoil to aid in establishing vegetation.
   c. Biofiltration / Bioretention Applications - Backfill materials shall be in accordance with the cross-section for the specific biofiltration/bioretention application and media. A layer of bridging stone shall separate the soil media from the R-Tank units.

D. **Additional Cover Materials:** Additional cover material shall be structural fill meeting the gradational requirements of SM, SP, SW, GM, GP, or GW as classified by the Unified Soil Classification System. Structural fill shall be specified by the engineer of record.

2.04 OTHER MATERIALS

A. **Utility Marker:** Install metallic tape at corners of R-Tank system to mark the area for future utility detection.

PART 3 EXECUTION

3.01 EXCAVATION PREPARATION

A. Verify the site conditions are suitable for product storage and installation per guidelines.

B. All excavations must meet OSHA safety standards for slopes or shoring.

C. Stake out, excavate, and prepare the subgrade area per geotechnical engineer's recommendations and/or as shown on the design drawings, to provide adequate support for project design loads.
   a. Ensure that the excavation is at least 2 feet greater than R-Tank dimensions in each direction allowing for installation of geotextile filter fabric, R-Tank modules, and free draining backfill materials.
   b. Base of the excavation shall be uniform, level, and free of lumps or debris and soft or yielding subgrade areas.

D. **Unsuitable Soils or Conditions:** All questions about the base of the excavation shall be directed to the owner's engineer. The owner's engineer shall determine the required bearing capacity of the R-Tank subgrade; however, in no case shall a bearing capacity of less than 2,000 pounds per square foot be provided.

3.02 BEDDING PREPARATION

A. Where a geotextile wrap is specified between the native soil and stone base, cut strips to length, and install in excavation, removing wrinkles so material lays flat.
   a. Overlap geotextile a minimum 12" or as recommended by manufacturer. Use tape, special adhesives, sandbags, or other ballast to secure overlaps.
   b. Where an impervious liner is specified, install the liner per manufacturer's recommendations and the contract documents. The liner should be sandwiched between layers of non-woven geotextile at a minimum.
   c. As geotextiles can be damaged by extreme heat, smoking is not permissible on/near the geotextile, and tools using a flame to tack the overlaps, such as propane torches, are prohibited.

B. Place a thin layer (3" unless otherwise specified) of bedding material (Section 2.03A), within ½" (+/- ¼") of level or as shown on the plans. Vibratory tamp or static roll to prepare bedding materials until they are firm and unyielding.

C. Outline the footprint of the R-Tank system on the excavation floor using spray paint or chalk line to ensure a 2' perimeter is available around the R-Tank system for proper installation and compaction of backfill.

3.03 LAYOUT AND INSTALLATION OF R-TANK UNITS

A. Install a geotextile wrap by cutting strips to length and removing wrinkles so material lays flat.
   a. Overlap geotextile a minimum 12" or as recommended by manufacturer. Use tape, special adhesives, sandbags, or other ballast to secure overlaps.
   b. Where an impervious liner is specified, install the liner per manufacturer's recommendations and the contract documents. The liner should be sandwiched between layers of non-woven geotextile at a minimum.
   c. As geotextiles can be damaged by extreme heat, smoking is not permissible on/near the geotextile, and tools using a flame to tack the overlaps, such as propane torches, are prohibited.

B. Mark or outline the unit area to ensure a square and straight installation.

C. Assemble R-Tank units in accordance with the R-Tank drawings and installation guidelines.

D. Install R-Tank modules by placing side by side, in accordance with the design drawings. The modules are to be oriented as per the design drawing with required depth as shown on plans.
   a. For HD and SD installations, the large side plate of the tank should be placed on the perimeter of the system. This will typically require that the ends of the tank area will have a row of tanks placed perpendicular to all other tanks. Refer to R-Tank drawings and installation guide for more details.
   b. For MD, UD, and XD installations, there is no perpendicular end row required.
   c. For MD installation, external side panels shall be installed around the perimeter of the system. Stacking clips shall be installed in each tier and each direction, as shown on design drawing details.
   d. For XD installations, install stacking clips as specified in design drawings.

3.03 LAYOUT AND INSTALLATION OF R-TANK UNITS (CONTINUED)

E. Completely encapsulate the R-Tank units in the specified geotextile to prevent backfill entry into the system. Overlap geotextile 12" or as recommended by manufacturer. Take great care to avoid damage to geotextile (and, if specified, impervious liner) during placement.

F. Identify any inlet(s) or outlet(s) locations. The geotextile fabric shall be cut to enable hydraulic continuity between the connections and the R-Tank units. These connections shall be secured using pipe boots with stainless steel pipe clamps. Support pipe in trenches during backfill operations to prevent pipe from settling and damaging the geotextile wrap or pipe. Ensure end of pipe is installed snug against R-Tank system.

G. Install inspection and ventilation ports in locations noted on plans. At a minimum one maintenance port shall be installed within 10' of each inlet & outlet connection, and with a maximum spacing of approximately 50' on center. Install all ports as noted in the R-Tank Installation Guide.

3.04 BACKFILLING OF THE R-TANK UNITS

A. Backfill with materials in accordance with Section 2.03C and project specifications
   a. Place material around the perimeter of the units in lifts with a maximum thickness of 12" and compacted with walk behind compaction equipment.
      i. Each lift shall be placed around the entire perimeter such that each lift is no more than 24" higher than the side backfill along any other location on the perimeter of the R-Tank system.
      ii. No fill shall be placed over top of tanks until the side backfill has been completed.
      iii. Each lift shall be compacted project specifications or until no further densification is observed (for self-compacting stone materials). Even when "self-compacting" backfill materials are selected, a walk behind vibratory compactor must be used.
      iv. Take care to ensure that the compaction process does not allow the machinery to contact the modules due to the potential for damage to the geotextile and R-Tank units.
      v. No compaction equipment is permissible to operate directly on the R-Tank modules.
   b. Place a top backfill layer on the units to the thickness specified in the R-Tank drawings and in accordance with project specifications.
      i. Only low-pressure track vehicles shall be operated over the R-Tank system during construction. Dump Trucks and Pans shall not be operated within the R-Tank system footprint at any time. Heavy equipment should unload in an area adjacent to the R-Tank system and the material should be moved over the system using low ground pressure tracked equipment.
      ii. Lightly compacted using a walk-behind trench roller. Alternately, a roller (maximum gross vehicle weight of 6 tons) may be used. Roller must remain in static mode until a minimum of 24" of cover has been placed over the modules. Sheep foot rollers should not be used.

B. If specified, completely encapsulate the backfill in the specified geotextile. Overlap geotextile 12" or as recommended by manufacturer. Take great care to avoid damage to geotextile (and, if specified, impervious liner) during placement.

C. If required, install a geogrid as shown on plans. Geogrid shall extend a minimum of 3 feet beyond the limits of the excavation wall. In cases of limitations such as curb, property line, etc. consult a manufacturer's representative about reducing the minimum extension length.

D. Following placement and compaction of the initial cover, subsequent lifts of structural fill (Section 2.03D) shall be placed and compacted per engineer of record specifications. Do not exceed maximum cover depths listed in Table 2.01B.

E. Ensure that all unrelated construction traffic is kept away from the limits of excavation until the project is complete and final surface materials are in place. It is recommended that high visibility tape or other devices be placed around the system to prevent traffic access.

F. Place surfacing materials, such as groundcovers (no large trees), or paving materials over the structure with care to avoid displacement of cover fill and damage to surrounding areas.

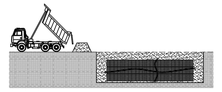
3.05 MAINTENANCE REQUIREMENTS

A. A routine maintenance effort is required to ensure proper performance of the R-Tank system. The Maintenance program should be focused on pretreatment systems. Ensuring these structures are clean and functioning properly will reduce the risk of contamination of the R-Tank system and stormwater released from the site. Maintain as needed using acceptable practices or following manufacturer's guidelines (for proprietary systems).

B. All inlet pipes and Inspection and/or Maintenance Ports in the R-Tank system will need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter.

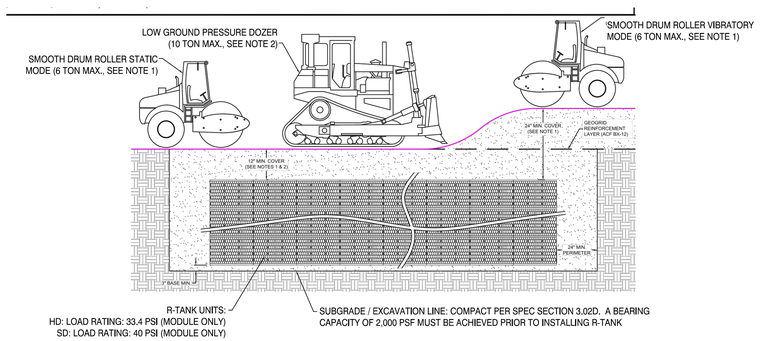
C. If sediment has accumulated to the level noted in the R-Tank Operation and Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.

3.06 END OF SECTION



DUMP TRUCK DETAIL (SEE NOTE 3)
DUMP TRUCKS & PANS SHALL NOT OPERATE OVER THE SYSTEM EXCAVATION AREA. BACKFILL MATERIAL TO BE UNLOADED OUTSIDE OF THE SYSTEM EXCAVATION AREA.

CONSTRUCTION EQUIPMENT COVER DETAIL - VEHICULAR TRAFFIC



1 R-TANK NOTES & SPECIFICATIONS
NOT TO SCALE

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BRUNSWICK EXPANSION

192 Admiral Fitch Avenue, Brunswick Landing, Brunswick, Maine

SMRT

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In Association With

STATE OF MAINE
MELISSA ANN ELVIN
15831
LICENSED PROFESSIONAL ENGINEER
12/31/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

GRADING & DRAINAGE DETAILS

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE:	AS SHOWN	DESIGNED BY:	WSM
SMRT PROJECT #:	24040	DRAWN BY:	SLM

CG505

NOT FOR CONSTRUCTION

STRUCTURE ID	RIM ELEVATION	INVERT IN (N)	INVERT IN (E)	INVERT IN (S)	INVERT IN (W)	INVERT OUT	STRUCTURE SIZE
CB-1	71.78	68.92	66.11	66.18	-	66.00	4 FT DIA.
CB-2	71.35	-	-	-	-	65.30	4 FT DIA.
CB-3	70.10	68.00	-	-	-	68.00	4 FT DIA.
CB-4	73.21	-	67.65	67.65	-	67.55	4 FT DIA.
CB-5	72.85	-	-	-	-	70.35	4 FT DIA.
CB-6	72.90	-	-	-	-	70.40	4 FT DIA.
CB-7	72.50	-	-	69.43	-	69.43	4 FT DIA.
CB-8	73.68	69.02	69.04	68.95	-	68.95	4 FT DIA.
CB-9	72.50	68.91	68.91	-	-	68.91	4 FT DIA.
CB-10	72.64	-	69.16 (EX. 12" E)	66.64 (EX. 6" S)	-	69.16	4 FT DIA.
CB-11	72.38	-	-	-	69.87	69.87	4 FT DIA.
DMH-1	71.66	-	65.80	-	-	65.70	4 FT DIA.
DMH-2	71.12	64.85	65.15		65.50	64.85	6 FT DIA.
DMH-3	70.83	64.39	64.50	64.39	-	64.39	6 FT DIA.
DMH-4	72.97	-	69.35	-	70.00	70.00	4 FT DIA.
DMH-5	71.96	-	67.46	-	-	67.36	4 FT DIA.
DMH-6	74.28	-	71.50	-	-	71.25	4 FT DIA.
DMH-7	71.52	66.64	66.54	-	-	66.54	4 FT DIA.
DMH-8	72.73	68.10	-	-	-	68.10	4 FT DIA.
ECB-1	70.80	66.10	66.10	66.10 (EX. 12"E)	-	66.10 (EX. 12")	EX.
ECB-2	71.40	-	-	-	-	69.90	EX.
ECB-3	72.10	67.98	-	-	-	67.98 (EX. 12")	EX.
ECB-4	73.54	-	-	69.95	-	67.64	EX.
ECB-5	72.39	-	-	-	-	70.23	EX.
EDMH-1	70.33	EX. 12"	-	-	EX. 12"	66.43	EX.
FI-1	74.85	72.50	-	-	-	72.40	3 FT DIA.
MS-1	70.81	-	65.16	-	-	65.16	4 FT SQUARE
MS-2	70.84	67.10				65.16	4 FT SQUARE
MS-3	74.08	-	71.25	-	-	71.25	4 x 6
MS-4	73.86	68.77	-	-	-	68.77	4 x 6
MS-5	72.59	-	67.58	-	-	67.58	4 FT SQUARE
OCS-BR-1	72.00	-	-	67.50 UD	-	67.00	4 FT SQUARE
OCS-BR-2	71.00	-	65.50 UD	-	-	65.50	4 FT SQUARE
OCS-BR-3	71.00	67.05 UD	67.05 UD	-	-	67.05	4 FT SQUARE
OCS-BR-4	74.00	-	68.00 UD	68.00	68.00 UD	68.00	4 FT SQUARE
OCS-RT-1	70.74	-	65.30	-	-	64.50	6 FT DIA.
OCS-RT-2	72.20	-	68.92	-	-	68.75	6 FT DIA.

2 STORM DRAIN STRUCTURE SCHEDULE

PIPE ID	PIPE TYPE	PIPE DIA.	START STRUCTURE	START INVERT	END STRUCTURE	END INVERT	APPROX. PIPE LENGTH	PIPE SLOPE
SD-1	HDPE	18"	CB-1	66.00	DMH-1	65.80	20	0.0100
SD-2	HDPE	18"	DMH-1	65.70	DMH-2	64.85	200	0.0043
SD-3	HDPE	18"	EDMH-1	66.43	DMH-2	65.50	51	0.0182
SD-4	HDPE	12"	CB-2	65.30	DMH-2	65.15	13	0.0115
SD-5	HDPE	18"	DMH-2	64.85	DMH-3	64.39	93	0.0049
SD-6	HDPE	12"	OCS-RT-1	64.71	DMH-3	64.39	64	0.0050
SD-7	HDPE	18"	OCS-BR-2	65.50	DMH-3	64.39	51	0.0218
SD-8	HDPE	10"	RT-1	65.30	OCS-RT-1	65.30	6	0.0000
SD-9	HDPE	18"	OCS-BR-1	67.00	CB-1	66.18	42	0.0195
SD-10	HDPE	18"	CB-4	67.55	CB-1	66.11	288	0.0050
SD-11	HDPE/90DEG	6"	CB-3	68.50	RT-2	68.50	11	0.0000
SD-12	HDPE	18"	OCS-RT-2	68.75	DMH-5	67.46	115	0.0112
SD-13	HDPE	18"	DMH-5	67.36	DMH-7	66.64	126	0.0057
SD-14	HDPE	12"	OCS-BR-3	67.05	ECB-1	66.10	94	0.0101
SD-15	HDPE/90 DEG	10"	DMH-6	71.25	RT-2	71.25	2	0.0000
SD-16	HDPE	10"	RT-2	68.92	OCS-RT-2	68.92	13	0.0000
SD-17	HDPE	12"	CB-5	70.35	DMH-4	70.00	22	0.0159
SD-18	HDPE	8"	OCS-BR-4	68.00	CB-4	67.65	29	0.0121
SD-19	HDPE	8"	FI-1	72.40	MS-3	71.50	54	0.0167
SD-20	HDPE	12"	CB-6	70.40	DMH-4	69.35	128	0.0082
SD-21	HDPE	18"	CB-8	68.95	CB-4	67.65	220	0.0059
SD-22	HDPE	6"	ECB-2	69.90	CB-7	69.43	36	0.0131
SD-23	HDPE	12"	CB-7	69.43	CB-8	68.95	107	0.0045
SD-24	HDPE	12"	ECB-5	70.23	CB-11	69.87	72	0.0050
SD-25	HDPE	12"	CB-11	69.87	CB-9	68.91	149	0.0064
SD-26	HDPE	18"	CB-10	69.16	CB-9	68.91	57	0.0044
SD-27	HDPE	18"	CB-9	68.91	DMH-8	68.10	227	0.0036
SD-28	HDPE	24"	DMH-8	68.10	ECB-3	67.98	35	0.0034
SD-29	HDPE/90 DEG	12"	DMH-4	70.00	RT-3	70.00	11	0.0000
SD-30	HDPE	12"	RT-3	67.72	DMH-7	66.54	124	0.0095
SD-31	HDPE	12"	DMH-7	66.54	ECB-1	66.10	44	0.0100
SD-32	HDPE	12"	CB-3	68.00	MS-2	67.10	36.00	0.0250
RD-1	HDPE	6"	ROOF DRAIN	71.50	BR-1	71.25	21.00	0.0119
RD-2	HDPE	12"	ROOF DRAIN	70.50	BR-2	69.75	69.00	0.0109
RD-3	HDPE	12"	ROOF DRAIN	68.89	CB-3	68.00	61.00	0.0146
RD-4	HDPE	8"	ROOF DRAIN	73.23	FI-1	72.50	59.00	0.0124
RD-5	HDPE	16"	ROOF DRAIN	70.00	OCS-BR-4	68.00	97.00	0.0206
RD-6	HDPE	8"	ROOF DRAIN	71.00	BR-4	68.00	99.00	0.0303
RD-7	HDPE	6"	ROOF DRAIN	73.80	FI-1	72.50	69.00	0.0188

1 STORM DRAIN PIPE SCHEDULE

1" = 10' 0 5' 10'
1" = 20' 0 10' 20'
1" = 30' 0 15' 30' 60'
1" = 40' 0 20' 40' 80'
1" = 50' 0 25' 50' 100'
1" = 60' 0 30' 60' 120'
1" = 100' 0 50' 100' 200'
1" = 200' 0 100' 200' 400'

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STATE OF MAINE
MELISSA ANN FLYNN
15831
LICENSED PROFESSIONAL ENGINEER
12/31/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
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ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

DRAINAGE SCHEDULES

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SCALE: **AS SHOWN** | DESIGNED BY: **WSM**
SMRT PROJECT #: **24040** | DRAWN BY: **SLM**

CG601

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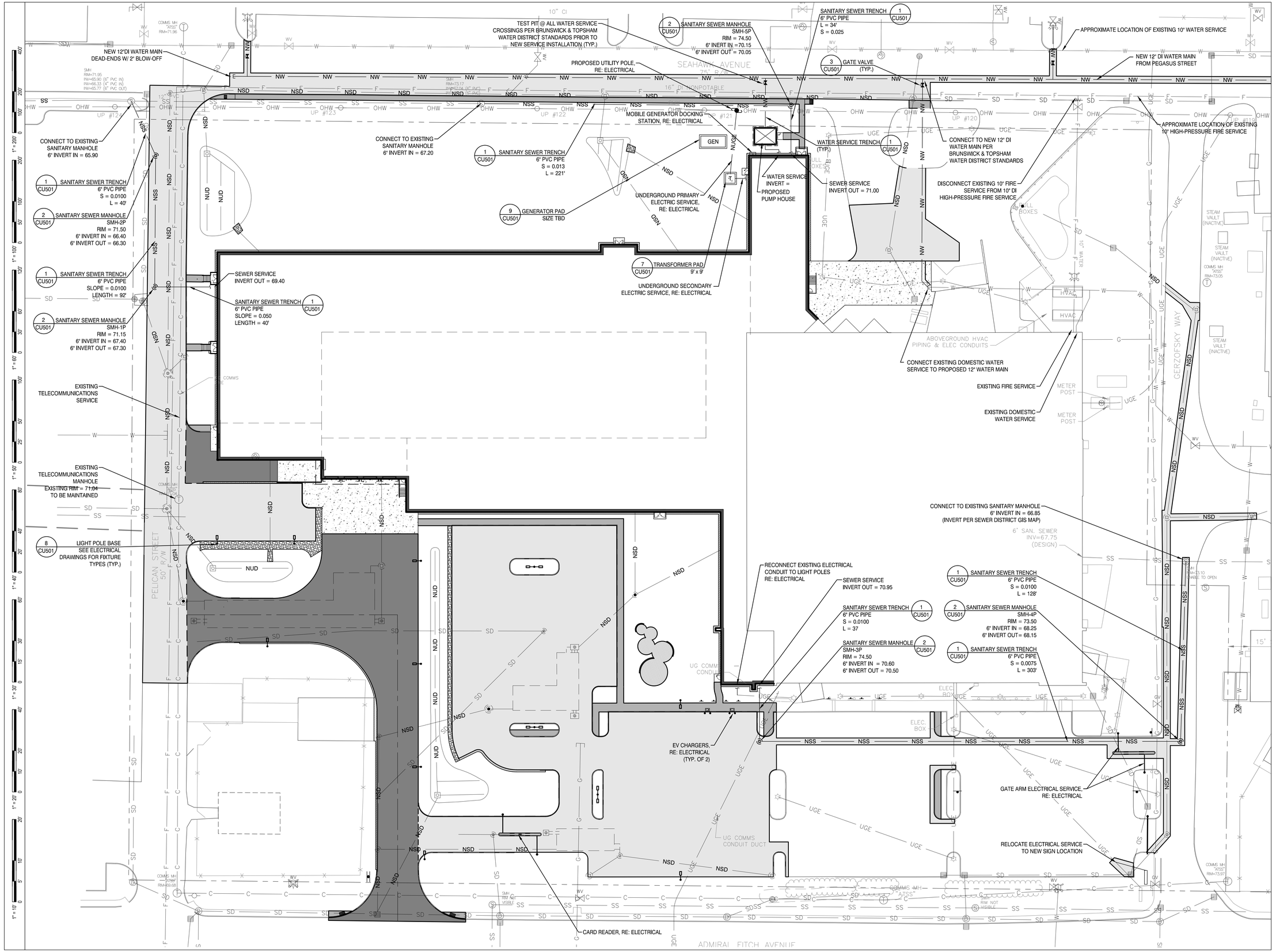

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15831
LICENSED PROFESSIONAL ENGINEER
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ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

UTILITY PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE: **1" = 30'** | DESIGNED BY: **WSM**

SMRT PROJECT #: **24040** | DRAWN BY: **SLM**

CU101

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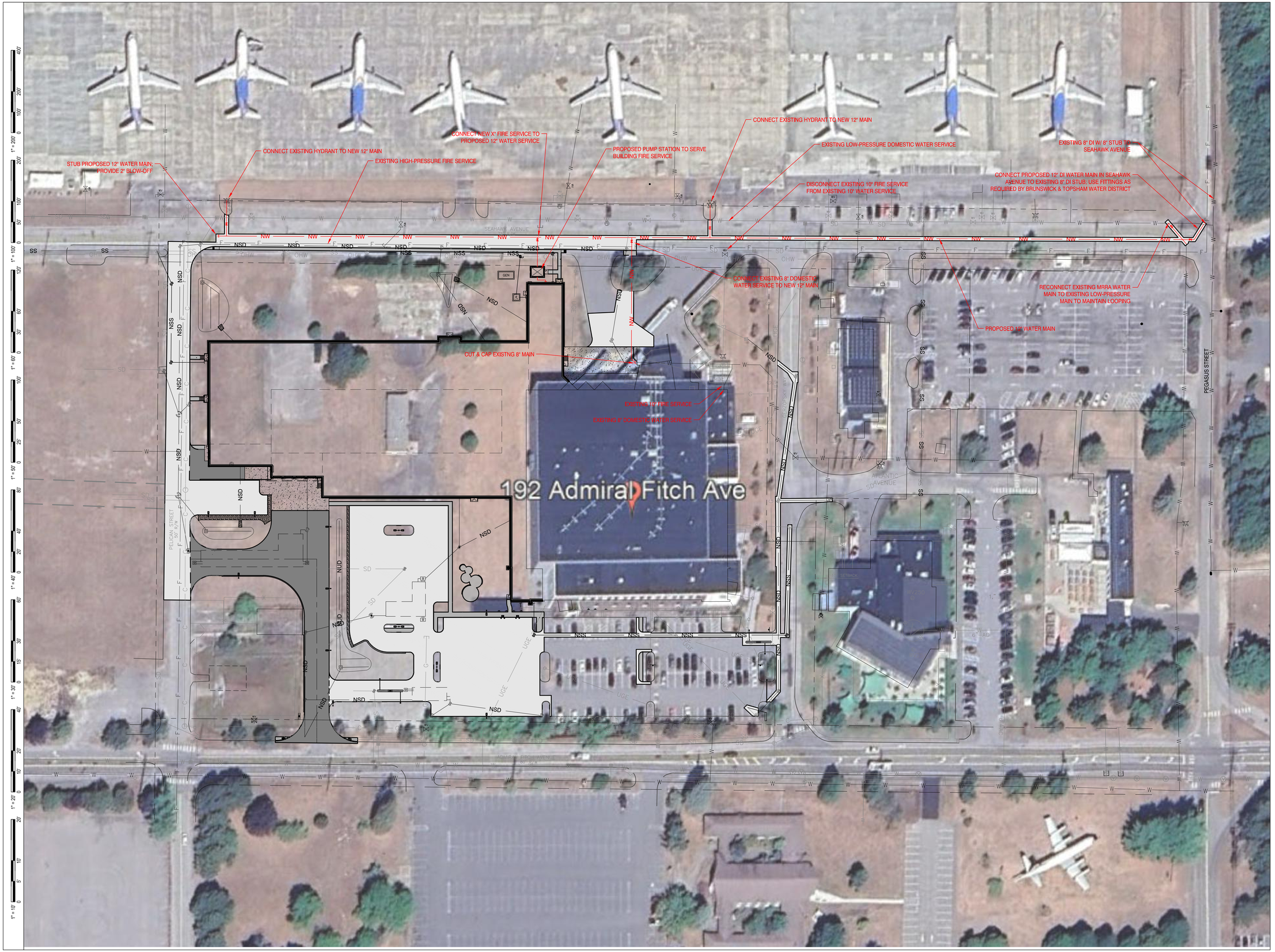

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15831
LICENSED PROFESSIONAL ENGINEER
12/31/25

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ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

WATER MAIN PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING.
Sheet is intended to be PRINTED IN COLOR

SCALE:	1" = 50'	DESIGNED BY:	WSM
SMRT PROJECT #:	24040	DRAWN BY:	SLM

CU102

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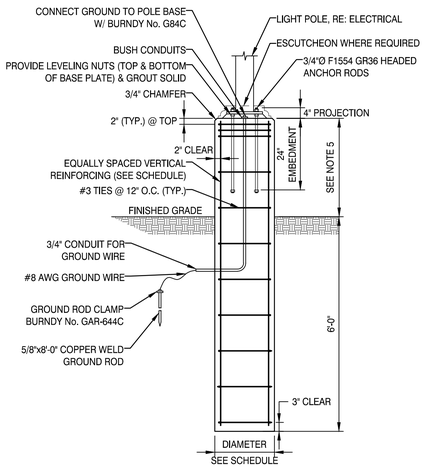
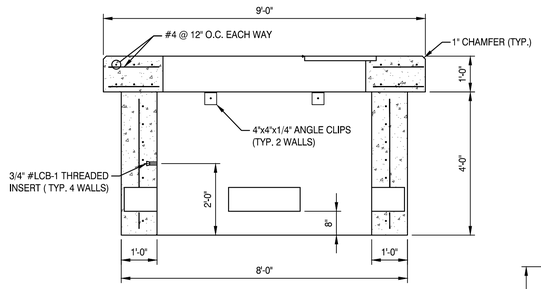


LIGHT POLE BASE SCHEDULE		
HEIGHT OF POLE (H)	PIER DIAMETER	VERTICAL REINFORCING
H≤ 12 FT	16"	(8) #5
12 FT < H ≤ 20 FT	20"	(12) #5
20 FT < H ≤ 30 FT	24"	(12) #6

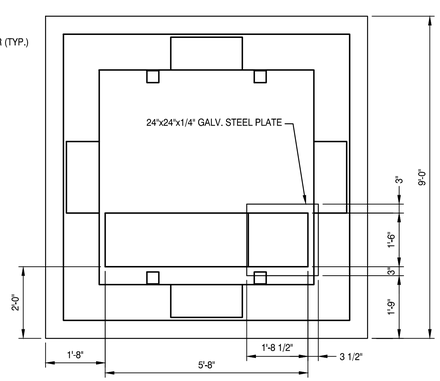
NOTES:
1. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 4,500 psi AND AIR ENTRAINED.
2. MINIMUM ALLOWABLE SOIL BEARING CAPACITY TO BE 1,500 PSF.
3. CONCRETE SHALL BE NO MORE THAN 3'-0" ABOVE FINISHED GRADE.
4. PROVIDE SMOOTH FINISH.
5. POLES TO HAVE THE FOLLOWING REVEALS: 6 INCHES WHERE LOCATED IN PLANTING BEDS OR LAWNS; 36 INCHES WHERE LOCATED IN VEHICLE PAVEMENT; 2 INCHES WHERE LOCATED IN WALKWAYS.

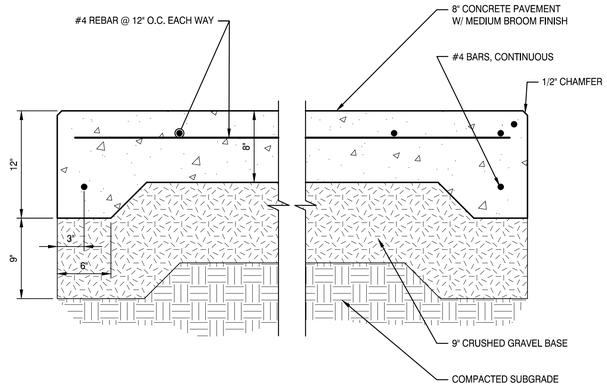
8 LIGHT POLE BASE
NOT TO SCALE



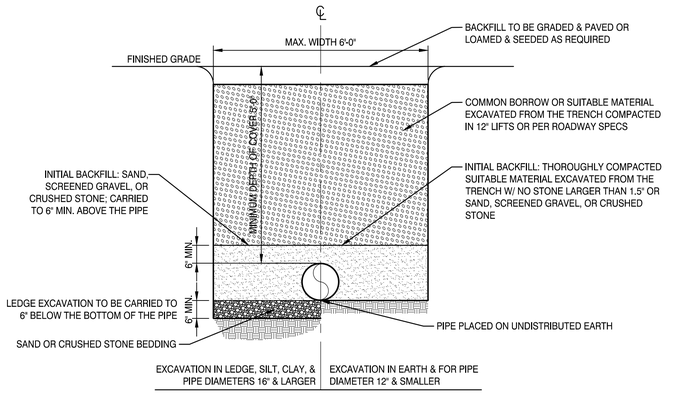
NOTES:
1. CONCRETE TO BE 5,000 PSI.
2. PAD AND REINFORCING TO BE IN ACCORDANCE WITH LOCAL UTILITY SPECIFICATIONS.
3. PROVIDE ONE 8" X 12" KNOCKOUT AT EACH WALL, MIN., OR AS REQUIRED.

7 TRANSFORMER PAD
NOT TO SCALE





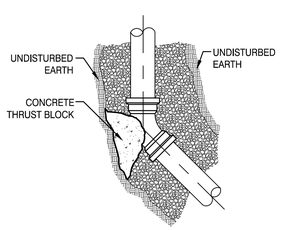
9 GENERATOR PAD
NOT TO SCALE



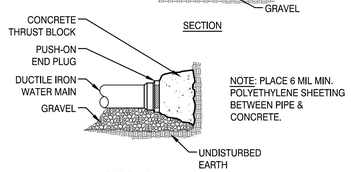
5 WATER SERVICE TRENCH
NOT TO SCALE

CONCRETE THRUST BLOCK SIZE REQUIREMENTS				
		SQ FT OF BEARING ON UNDISTURBED SOIL		
FITTINGS		90° BENDS	45° BENDS	TEES AND PLUGS
PIPE SIZE	6"	4.0	2.0	3.0
	8"	8.0	4.0	6.0
	12"	15	9	12
	16"	26	14	19
	20"	40	22	28

BASED ON SOIL BEARING PRESSURE OF 200 psf & 100 psi, LINE PRESSURE COMPACT COURSE TO FINE SANDS & CLAYS REQUIRE ENGINEERED BLOCKS. ENGINEERED BLOCKS WILL TYPICALLY REQUIRE REINFORCING STEEL OF #5 @ 12".

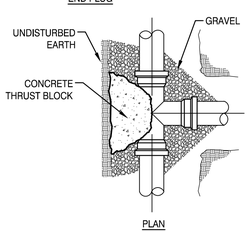


45° BEND

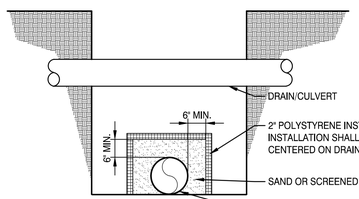


NOTE: PLACE 6 MIL MIN. POLYETHYLENE SHEETING BETWEEN PIPE & CONCRETE.

END PLUG



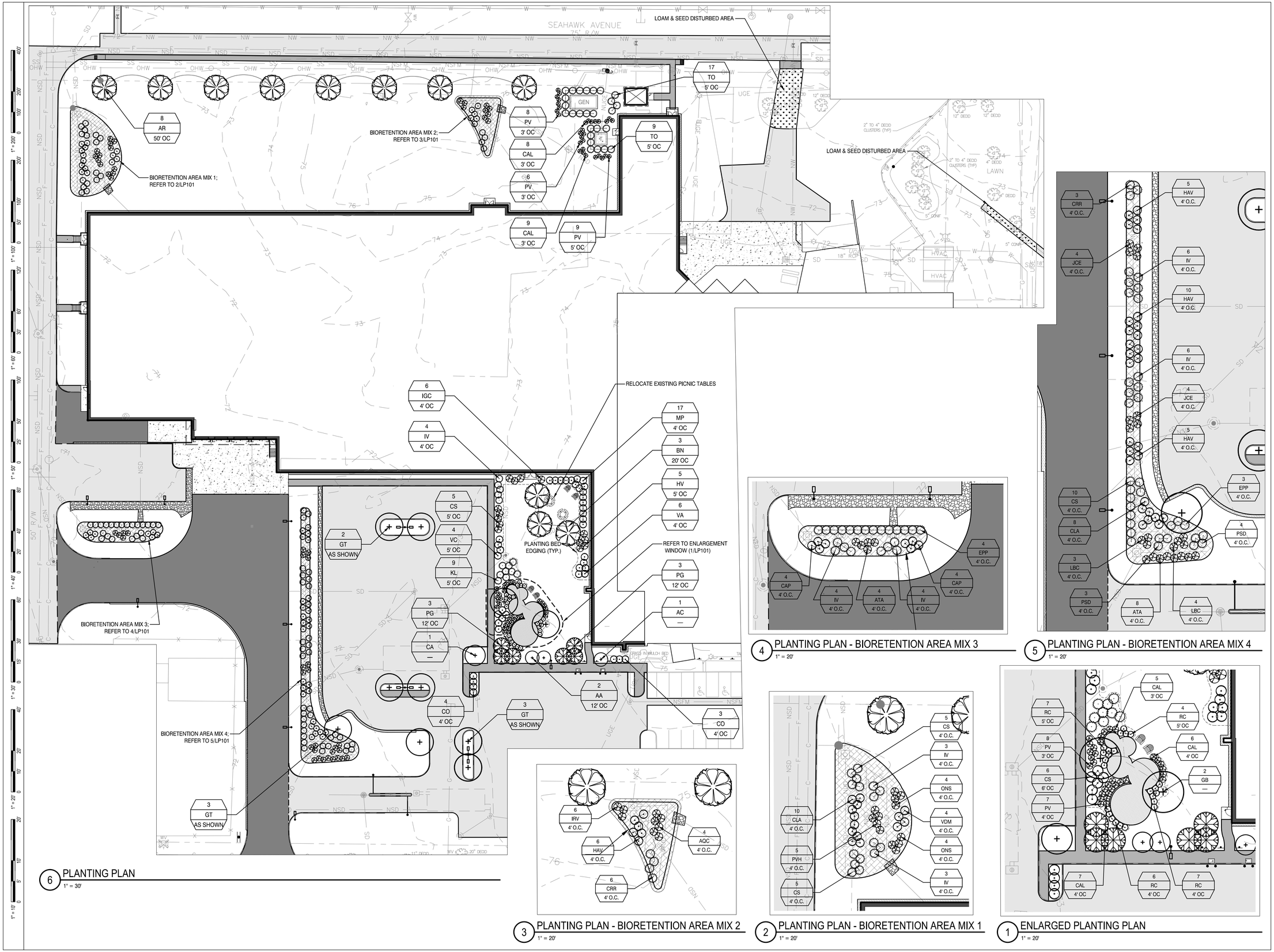
PLAN



SECTION

4 THRUST BLOCKS
NOT TO SCALE

SECTION



6 PLANTING PLAN
1" = 30'

4 PLANTING PLAN - BIORETENTION AREA MIX 3
1" = 20'

5 PLANTING PLAN - BIORETENTION AREA MIX 4
1" = 20'

3 PLANTING PLAN - BIORETENTION AREA MIX 2
1" = 20'

2 PLANTING PLAN - BIORETENTION AREA MIX 1
1" = 20'

1 ENLARGED PLANTING PLAN
1" = 20'

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TRUE NORTH

LICENSED LANDSCAPE ARCHITECT
KENNETH DAVID CORDELLO
No. 5058
STATE OF MAINE
12.18.25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

PLANTING & LANDSCAPING PLANS

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE:	1" = 30'	DESIGNED BY:	KDC
SMRT PROJECT #:	24040	DRAWN BY:	SLM

LP101

NOT FOR CONSTRUCTION

1. THE LANDSCAPE CONTRACTOR SHALL SUPPLY AND INSTALL ALL PLANTS IN SUFFICIENT QUANTITIES TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS. DISCREPANCIES BETWEEN QUANTITIES NOTED ON THE DRAWINGS AND THOSE GRAPHICALLY SHOWN SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT AND SHALL NOT ENTITLE THE CONTRACTOR TO ADDITIONAL REMUNERATION.
2. THE LANDSCAPE CONTRACTOR IS ADVISED THAT BELOW GROUND UTILITIES EXIST ON SITE, THE LOCATIONS OF WHICH SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF OPERATIONS (SEE GENERAL NOTES REGARDING DIGSAFE). SHOULD THE LOCATION OF ANY PROPOSED PLANTING CONFLICT WITH ANY UTILITY, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY FOR DECISION.
3. ANY AND ALL PAVING, CURBING, UTILITIES, LAWNS, ETC., DAMAGED AS A RESULT OF THE LANDSCAPE CONTRACTOR'S OPERATIONS SHALL BE REPLACED OR REPAIRED TO ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. LOCATIONS OF PROPOSED PLANTINGS AND BED LINES SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
5. PLANTS SHALL BE PLACED NO CLOSER THAN ONE-HALF THE NOTED SPACING TO PAVEMENT EDGES, BED LINES, OR STRUCTURE FACES, UNLESS NOTED OR SHOWN OTHERWISE.
6. PLANT MASSES SHALL BE LAID OUT AND INSTALLED STARTING AT THE PRINCIPAL, FORM-DEFINING PERIMETER, THEN FILLING INWARD IN DOUBLE-ROW-STAGGERED FASHION, UNLESS NOTED OR SHOWN OTHERWISE.
7. ALL PLANTING BEDS INCLUDING TREE AND SHRUB PITS AS INDICATED SHALL RECEIVE 3" APPROVED CLEAN, UNIFORMLY GROUND OR SHREDDED PINE OR HEMLOCK BARK MULCH.
8. HE LANDSCAPE CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE ARCHITECT ON FINAL LAYOUT OF PLANT MATERIALS PRIOR TO STARTING PLANT INSTALLATION.
9. ALL PLANT MATERIALS CALLED FOR AND INSTALLED SHALL MEET OR EXCEED SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" (LATEST EDITION) AS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
10. ALL PLANTING BEDS SHALL BE DEFINED BY A NEAT, SHOVEL-CUT BED LINE. BED LINES SHALL BE TRUE TO FORM AS SHOWN ON THE DRAWINGS, CONSISTING OF SMOOTH CURVES AND SHARP LINES AND CORNERS.
11. IF, BECAUSE OF CULTURE REQUIREMENTS, AVAILABILITY, OR OTHER CIRCUMSTANCES, THE LANDSCAPE CONTRACTOR BELIEVES A PARTICULAR PLANT CALLED FOR IS INAPPROPRIATE, THE LANDSCAPE CONTRACTOR SHALL REPORT THE SITUATION IMMEDIATELY TO THE LANDSCAPE ARCHITECT FOR DECISION.
12. ALL DISTURBED AREAS TO RECEIVE 6" TOPSOIL AND SEED.
13. ALL SOIL IN SHRUB/PERENNIAL BEDS SHALL BE OVER-EXCAVATED AND REPLACED WITH PLANTING SOIL TO DEPTHS INDICATED.

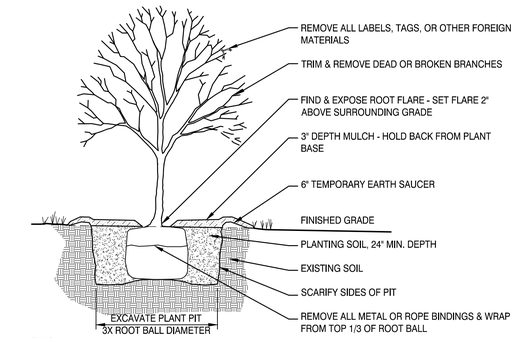
7 PLANTING NOTES

MARK	SCIENTIFIC NAME / COMMON NAME	CALIPER	MIN. SIZE HEIGHT	ROOT	REMARKS
BIORETENTION AREAS					
ATA	Athyrium angustum / Northern Lady Fern	#2	~	CONTAINER	
AQC	Aquilegia canadensis / Columbine	#2	~	CONTAINER	
CAP	Carex pensylvanica / Pennsylvania Sedge	#2	~	CONTAINER	
CLA	Clethra alnifolia / Summersweet Clethra	~	3.0'	CONTAINER	
CRR	Cornus racemosa / Gray Dogwood	~	3.0' - 4.0'	CONTAINER	
CS	Cornus sericea / Red-osier Dogwood	~	3.0' - 4.0'	CONTAINER	
EPP	Eupatorium purpureum 'Baby Joe' / Dwarf Joe Pye Weed	#2	~	CONTAINER	
HAV	Hammamelis virginiana 'Little Suzie' / Little Suzie Witchhazel	~	3.0' - 4.0'	CONTAINER	
IV	Ilex verticillata / Winterberry	~	3.0' - 4.0'	CONTAINER	
IRV	Iris versicolor / Blue Flag Iris	#2	~	CONTAINER	
JCE	Juncus effusus / Common Rush	#2	~	CONTAINER	
LBC	Lobelia cardinalis / Cardinal Flower	#2	~	CONTAINER	
ONS	Onoclea sensibilis / Sensitive Fern	#2	~	CONTAINER	
PVH	Panicum virgatum 'Heavy Metal' / Heavy Metal Blue Switch Grass	#2	~	CONTAINER	
PSD	Penstemon digitalis / Foxglove Beardtongue	#2	~	CONTAINER	
VDM	Vibernum dentatum / Arrowwood Viburnum	#3	3'	CONTAINER	

6 BIORETENTION AREA PLANTING SCHEDULE

MARK	SCIENTIFIC NAME / COMMON NAME	CALIPER	MIN. SIZE HEIGHT	ROOT	REMARKS
TREES					
AA	Amelanchier arborea / Downy Serviceberry	2.5" MIN.	-	B & B	
AC	Amelanchier canadensis / Eastern Serviceberry	2.5" MIN.	-	B & B	
AR	Acer rubrum / Red Maple	3.5" MIN.	-	B & B	
BN	Betula nigra / River Birch	3.5" MIN.	-	B & B	Multi-leader Specimens Only
CA	Cornus alternifolia / Pagoda Dogwood	2.5" MIN.	-	B & B	
GB	Ginkgo biloba 'Autumn Gold' / Autumn Gold Ginkgo	3.5" MIN.	-	B & B	Male Specimens Only
GT	Gleditsia triacanthos var. inermis / Thornless Common Honeylocust	3.5" MIN.	-	B & B	
PG	Picea glauca / White Spruce	-	10.0'-12.0' MIN.	B & B	
SHRUBS					
CO	Cephalanthus occidentalis / Buttonbush	-	3.0'	CONTAINER	
CS	Cornus sericea / Red-osier Dogwood	-	3.0'	CONTAINER	
HV	Hamamelis virginiana / American Witch Hazel	-	3.0'	CONTAINER	
IGC	Ilex glabra 'Compacta' / Compact Inkberry	-	3.0'	CONTAINER	
IV	Ilex verticillata / Winterberry	-	3.0'	CONTAINER	
KL	Kalmia latifolia / Mountain Laurel	-	3.0'	CONTAINER	
MP	Myrica pensylvanica / Northern Bayberry	-	3.0'	CONTAINER	
RC	Rosa carolina / Carolina Rose	-	3.0'	CONTAINER	
TO	Thuja occidentalis 'Smaragd' / Emerald Green Arborvitae	-	4.0'	CONTAINER	
VA	Viburnum acerifolium / Mapleleaf Viburnum	-	3.0'	CONTAINER	
VC	Vaccinium corymbosum / Highbush Blueberry	-	3.0'	CONTAINER	
GRASSES					
CAL	Calamagrostis x acutiflora / Feather Reed Grass ' Karl Foerster'	-	2.0'	CONTAINER	
PV	Panicum virgatum / Switchgrass	-	2.0'	CONTAINER	

5 PLANTING SCHEDULE

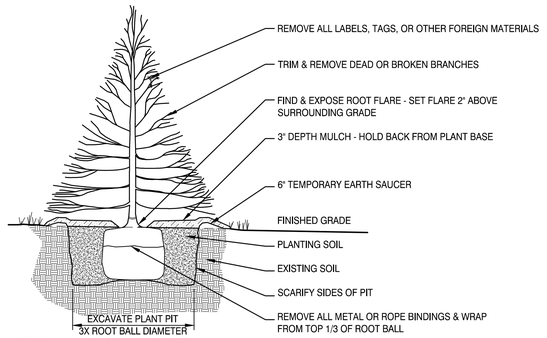


NOTES:

1. TREE TO BE SET PLUMB.
2. SECURE TREE AS MAY BE REQUIRED ACCORDING TO TREE SIZE, LOCATION, & WIND/WEATHER CONDITIONS.
3. IF USING ROOTBALL STABILIZATION, FOLLOW MANUFACTURER'S RECOMMENDATIONS.

4 DECIDUOUS TREE PLANTING

3/8"=1'

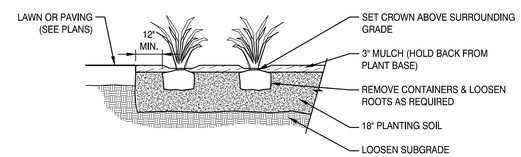


NOTES:

1. TREE TO BE SET PLUMB.
2. SECURE TREE AS MAY BE REQUIRED ACCORDING TO TREE SIZE, LOCATION, & WIND/WEATHER CONDITIONS.
3. IF USING ROOT BALL STABILIZATION, FOLLOW MANUFACTURER'S RECOMMENDATIONS.

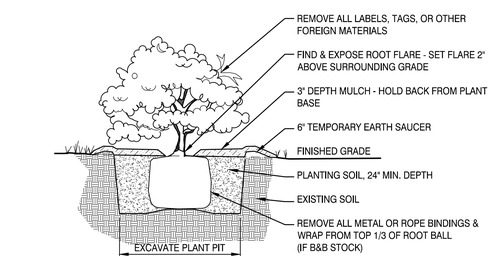
3 EVERGREEN TREE PLANTING

3/8"=1'



2 PERENNIAL SHRUB PLANTING

3/8"=1'



NOTES:

1. SHRUB TO BE SET PLUMB.

1 STANDARD TREE SHRUB

3/8"=1'

Mölnlycke®

MOLNLYCKE

BRUNSWICK EXPANSION

192 Admiral Fitch Avenue, Brunswick Landing, Brunswick, Maine

SMRT

SMRT, Inc.
75 Washington Ave., Suite 3A
Portland, Maine 04101

1.877.700.7678
www.smrtinc.com

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In Association With

LICENSED LANDSCAPE ARCHITECT
KENNETH DAVID COSELLO
No. 505B
STATE OF MAINE
12/31/25

#	REVISION	DATE
2	MAJOR DEVELOPMENT REVIEW	12-31-25
1	ISSUED FOR MRRA APPROVAL	12-4-25
0	ISSUED FOR DEP PERMITTING	10-31-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

PLANTING DETAILS, NOTES, & SCHEDULE

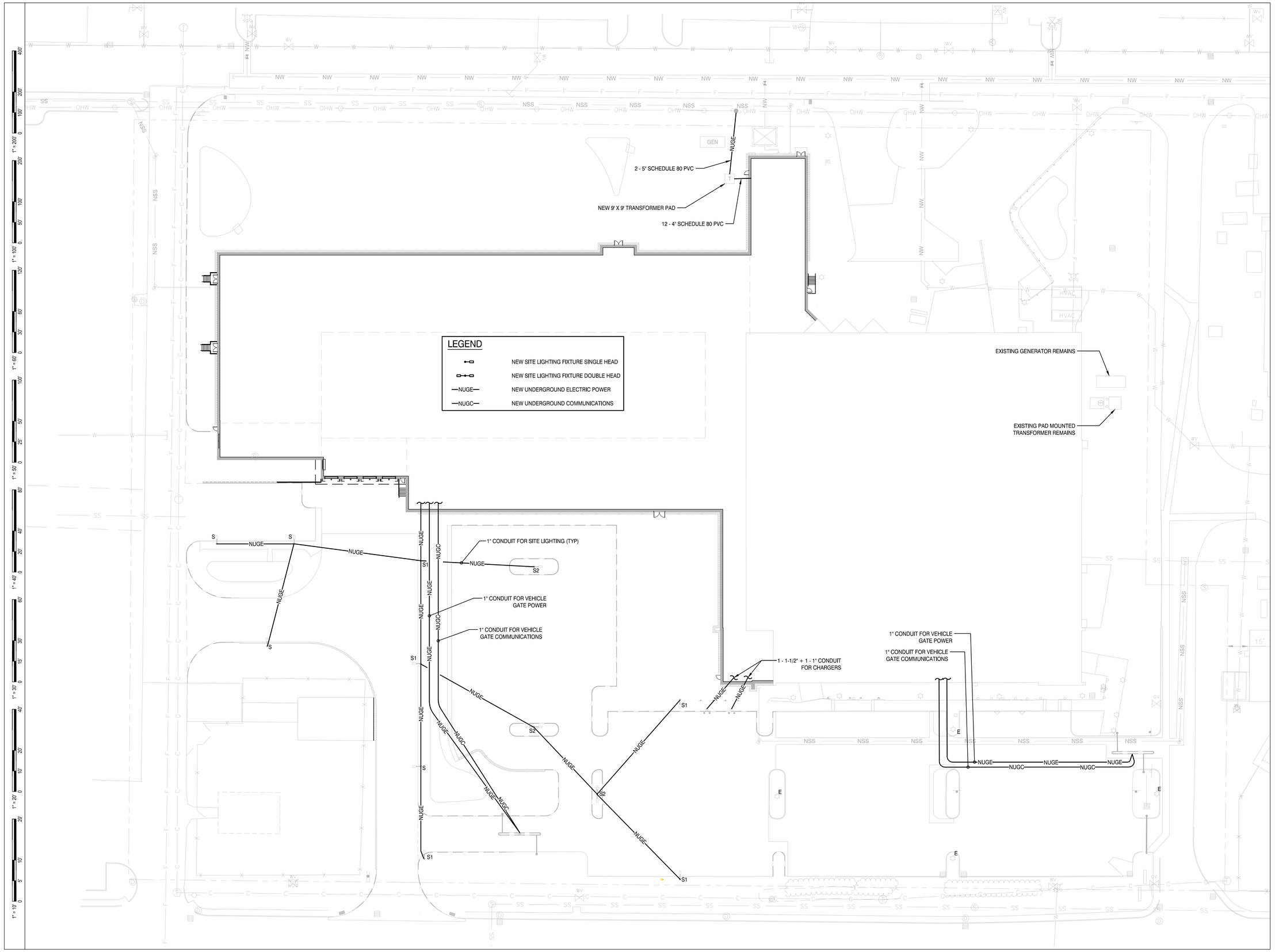
Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE: **NOT TO SCALE** | DESIGNED BY: **JM**
SMRT PROJECT #: **24040** | DRAWN BY: **SLM**

LP501

NOT FOR CONSTRUCTION

1" = 400' 200' 0 200' 400'
1" = 200' 100' 0 100' 200'
1" = 100' 50' 0 50' 100'
1" = 60' 30' 0 30' 60' 120'
1" = 50' 25' 0 25' 50' 100'
1" = 40' 20' 0 20' 40' 80'
1" = 30' 15' 0 15' 30' 60'
1" = 20' 10' 0 10' 20' 40'
1" = 10' 5' 0 5' 10' 20'



MOLNLYCKE

BRUNSWICK EXPANSION

192 Admiral Fitch Avenue, Brunswick Landing, Brunswick, Maine

SMRT, Inc.
75 Washington Ave., Suite 3A
Portland, Maine 04101

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TRUE NORTH

#	REVISION	DATE
1	MAJOR DEVELOPMENT REVIEW	12-18-25
0	ISSUED FOR MRRA APPROVAL	12-4-25

ISSUED FOR MAJOR DEVELOPMENT REVIEW

12-31-25

SHEET TITLE:

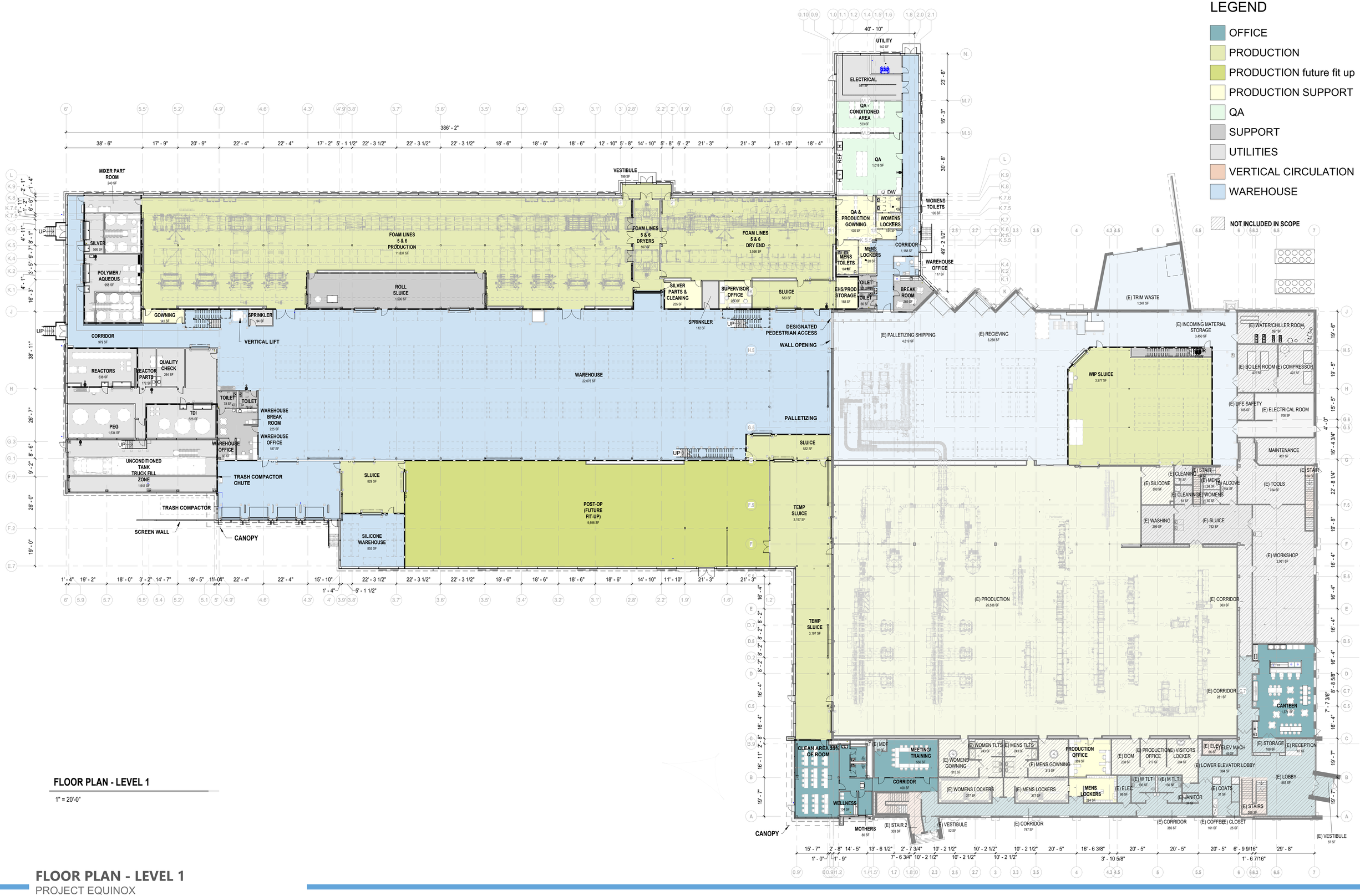
ELECTRICAL SITE PLAN

Original drawing is 24" x 36" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR.

SCALE:	1" = 30'	DESIGNED BY:	WH
SMRT PROJECT #:	24040	DRAWN BY:	DVS

ES101

NOT FOR CONSTRUCTION



FLOOR PLAN - LEVEL 1

1" = 20'-0"

FLOOR PLAN - LEVEL 1

PROJECT EQUINOX

12-04-25

SMRT

LEGEND

- OFFICE
- PRODUCTION
- PRODUCTION SUPPORT
- SUPPORT
- UTILITIES
- VERTICAL CIRCULATION

NOT INCLUDED IN SCOPE

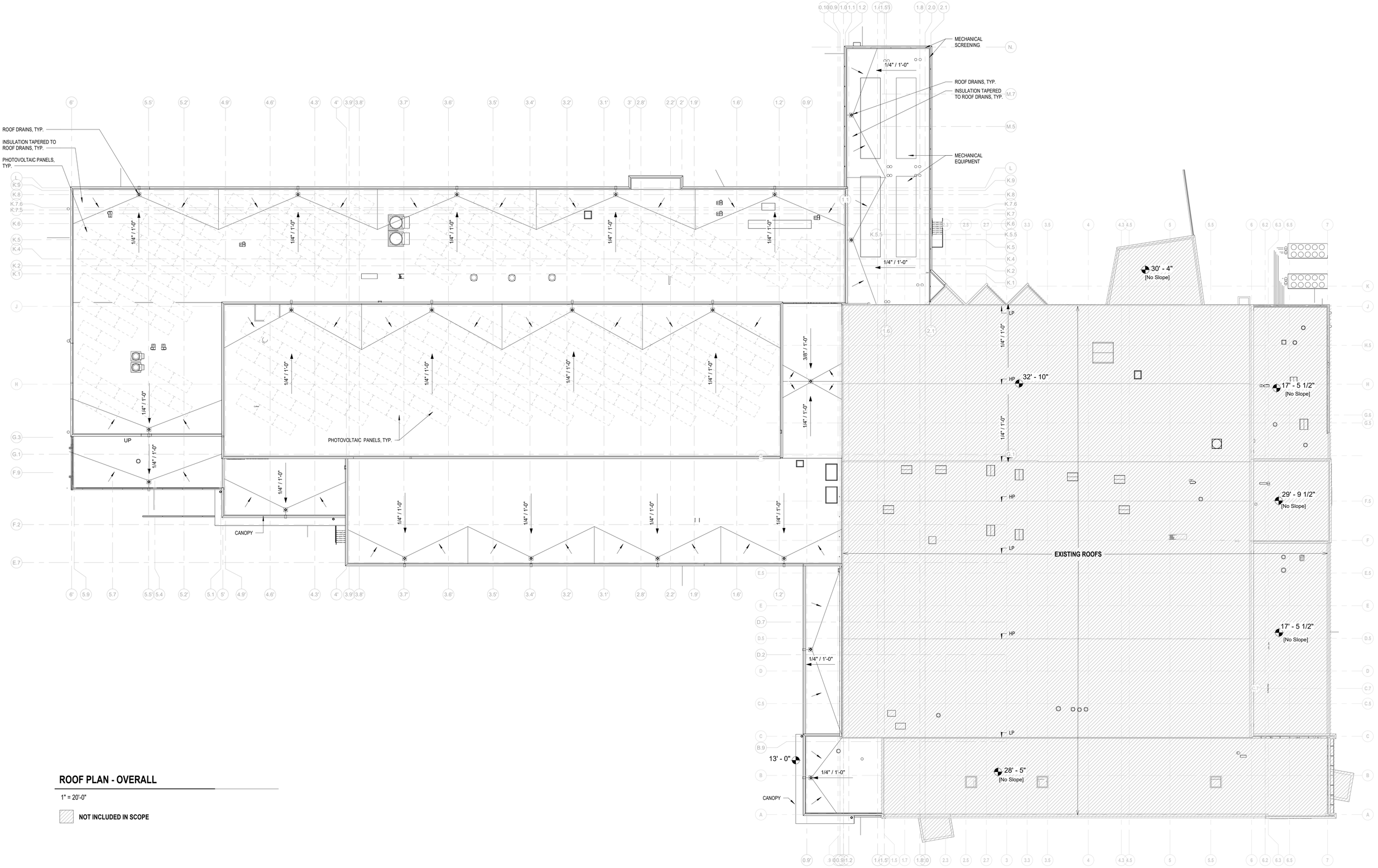
OPEN TO CORRIDOR BELOW
OPEN TO ROOMS BELOW
SECOND FLOOR MECHANICAL 15,540 SF
17' - 0"
RACK MAINTENANCE 435 SF
IDF 120 SF
THERMO-FLUID UNITS 1,086 SF
OPEN TO DRYERS BELOW
MECHANICAL ROOM 1,925 SF
MECHANICAL SCREENING
ROOFTOP MECHANICAL EQUIPMENT
ROOF
ROOF
UP
MECH. EQUIPMENT PLATFORM 1,111 SF
15' - 0"
OPEN TO ROOMS BELOW
MECH. EQUIPMENT PLATFORM 719 SF
15' - 0"
ROOF
ROOF
OPEN TO BELOW
OPEN TO WAREHOUSE BELOW
OPEN TO BELOW
MEZZANINE 3,916 SF
15' - 0"
UP
OPEN TO PALLETIZING SHIPPING BELOW
MEZZANINE 1,772 SF
15' - 0"
OPEN TO BELOW
OPEN TO BELOW
(E) ROOF BELOW
(E) MECHANICAL 7,056 SF
15' - 0"
(E) COMM 64 SF
UP
(E) FILES 144 SF
R&D 641 SF
R&D 505 SF
UP
(E) STAIR 103 SF
(E) CORRIDOR 365 SF
(E) WALKABLE CEILING 15,823 SF
OPEN TO PRODUCTION BELOW
(E) ROOF BELOW
(E) WALKWAY BRIDGE 918 SF
ROOF
15' - 0"
OFFICE 120 SF
OFFICE 175 SF
OFFICE 117 SF
OFFICE 120 SF
OPEN OFFICE 800 SF
(E) SERVER/ MDF ROOM 246 SF
(E) HALL 196 SF
(E) OFFICE 117 SF
(E) HALL 1,185 SF
(E) PRIVACY ROOM 99 SF
(E) OPEN OFFICE 2,381 SF
(E) JANITOR 31 SF
(E) STAIR 2 254 SF
(E) OFFICE 111 SF
(E) MEN 131 SF
(E) WOMEN 131 SF
(E) FILE ROOM 227 SF
(E) CONFERENCE 220 SF
(E) CONFERENCE 256 SF
(E) ELEV 68 SF
(E) UPPER ELEVATOR LOBBY 348 SF
(E) CORRIDOR 965 SF
OPEN TO BELOW
(E) OFFICE 117 SF
(E) OFFICE 117 SF
(E) OFFICE 117 SF
(E) OFFICE 117 SF
(E) OFFICE 117 SF
(E) ADMIN ASSISTANT 132 SF
(E) OFFICE 227 SF

386' - 2"
40' - 10"
23' - 6"
16' - 3"
30' - 8"
49' - 2 1/2"
38' - 11"
26' - 7"
26' - 0"
19' - 0"
32' - 8"
16' - 11"
19' - 6"
19' - 5"
15' - 5"
4' - 0"
16' - 4 3/4"
22' - 8 1/4"
16' - 4"
16' - 4"
16' - 4"
16' - 4"
8' - 8 5/8"
23' - 11 3/8"
19' - 7"
19' - 7"

FLOOR PLAN - LEVEL 2

1" = 20'-0"

SMRT



ROOF PLAN - OVERALL

1" = 20'-0"

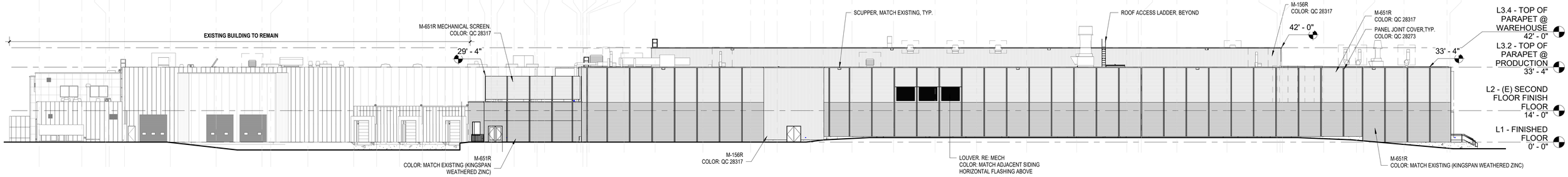
NOT INCLUDED IN SCOPE

ROOF PLAN

PROJECT EQUINOX

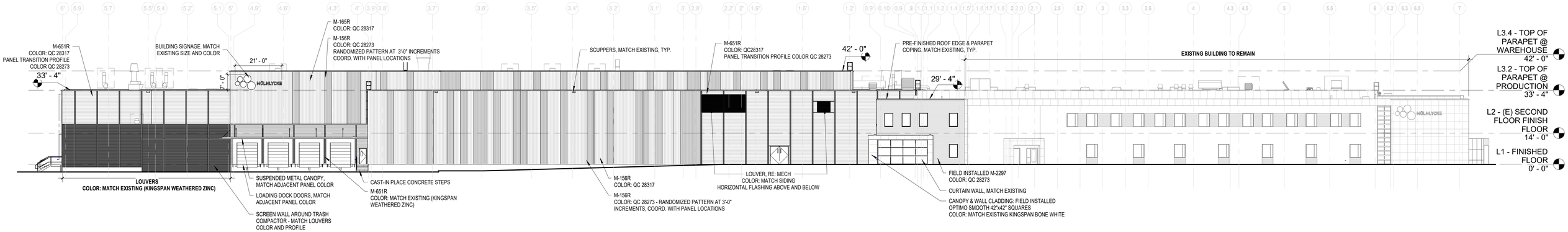
12-04-25

SMRT



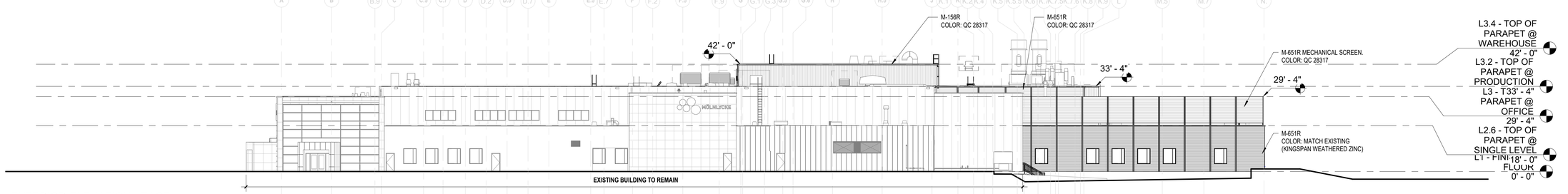
EXTERIOR ELEVATION - NORTH

1" = 20'-0"



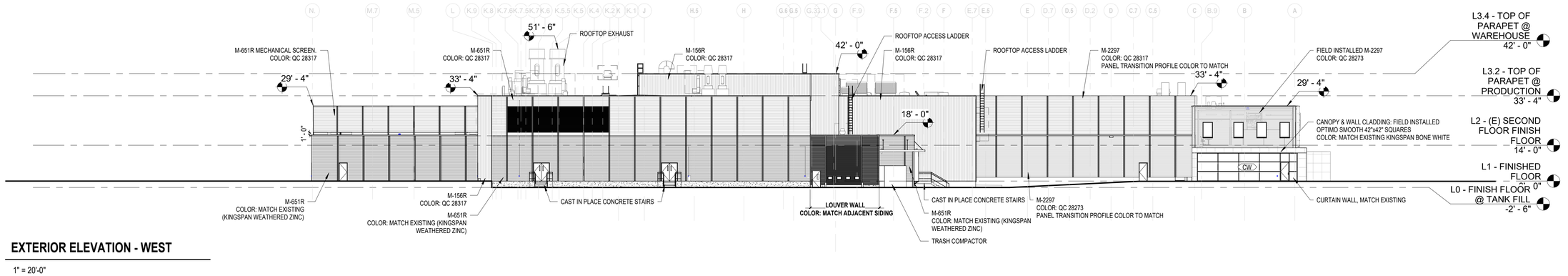
EXTERIOR ELEVATION - SOUTH

1" = 20'-0"



EXTERIOR ELEVATION - EAST

1" = 20'-0"



EXTERIOR ELEVATION - WEST

1" = 20'-0"

EXTERIOR ELEVATIONS

PROJECT EQUINOX

12-04-25

VIEW FROM ADMIRAL FITCH AVE

VIEW FROM PARKING LOT

EXTERIOR AXONOMETRIC

VIEW FROM PELICAN STREET

Renderings are for representation purposes only. Refer to contract documents for project requirements.

TERRADYN
CONSULTANTS, LLC

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info@terradynconsultants.com
www.terradynconsultants.com

January 5, 2026 Project #25-34

Julie Erdman, Planning Director
Town of Brunswick
85 Union Street
Brunswick, ME 04011

Garnet Ridge Subdivision
Waiver Request Submission
119 Moody Road, Brunswick, Maine

Dear Julie

Terradyn Consultants, on behalf of **Alex and Stefanie Hallett**, is pleased to submit the enclosed updated materials related to the proposed Garnet Ridge Subdivision off 119 Moody Road. The intent of this submission is to request a vote from the planning board on the two waiver requests required for the proposed subdivision:

- **Dead-end road length greater than maximum permitted length:**
  1,725 LF private subdivision road + 2,775 LF public Moody Road = 4,500 LF
  4,500 LF total length - 1,500 LF allowed dead-end length = 3,000 LF exceedance
  (58% of the exceedance is the proposed road, 42% exists)
- **Increase in number of housing units served by a dead-end road:**
  12 proposed subdivision units + 37 existing/approved Moody Road units = 49 total units
  49 Moody Road units – 25 allowed dead-end units = 24 unit exceedance
  (50% of the exceedance is the proposed subdivision, 50% exists)

Meeting History:

A Planning Board meeting was held on October 21st to review the Sketch Plan for the original subdivision proposal. This plan included 22 lots and a total of 33 new housing units along a 2,525 linear-foot private dead-end road. During the meeting, the board expressed concerns about the overall size of the development and its potential impact on natural resources. One of the primary concerns was the proposed road alignment, which would have fragmented the habitat of two Significant Vernal Pools.

The plan was modified and submitted for a workshop meeting with the planning board on December 9, 2025. The plan was modified to reduce the scale of development and at the 12/9/25 meeting included 13 lots, comprising a total of 17 housing units, and the length of the private dead-end road has been shortened to 1,725 linear feet. Importantly, the revised design eliminated road and lot impacts to the Significant Vernal Pool Habitat by relocating the road alignment.

Feedback received at the workshop meeting led to further modifications of the proposed subdivision as outlined in this letter. Most significantly, the number of units has been further decreased to 13 units (12 new). This letter also includes a 3rd party Traffic Impact Assessment.

Proposed Development

The applicant now proposes to subdivide the property into 13 lots, summarized below:

- One single family lot around the existing house with access & frontage from Moody Road.
- Seven single-family lots for sale.
- One single-family lot to be retained by the developer for their new home.
- Four single-family lots to be retained by the developer and units rented.
- This is a total of 12 new residential units and 1 existing residential unit. The 12 new units will gain frontage and access from the proposed dead-end road.

Duplexes and accessory dwelling units are no longer part of the development plan. Despite the reduction in overall size, the proposed number of housing units will still require a waiver from the Planning Board, as it exceeds the maximum allowed for a dead-end street when added to the other existing homes on Moody Road. However, the subdivision is now approximately half the size of the original proposal. Stand alone the development has only 12 units on a dead-end road.

Roadway, Vernal Pools and Wetlands:

The road will meet private road standards and is designed to follow the outer edge of the 250-foot terrestrial habitat surrounding the Significant Vernal Pool, rather than splitting between two such pools. This redesign ensures that there will be no impact to the Significant Vernal Pool habitat from either the road or the lots. The IF&W Vernal Pool Assessment review was completed and is included in Attachment 1.

The total length of the road is approximately 1,725 linear feet, which is 800 feet shorter than the sketch design. Nonetheless, a waiver from the Planning Board will still be required, as the road length exceeds the maximum permitted length for a dead-end street when added to the existing Moody Road dead-end length. A summary of the current design compared to the sketch and workshop plans is provided below:

	Sketch Subdivision Plan	Workshop Subdivision Plan	Current Subdivision Plan
Lots	22 Lots	13 Lots	13 Lots
Total Housing Units (Including existing house)	34 Units	17 Units	13 Units
New Housing Units	33 Units	16 Units	12 Units
Single Family	15	8	12
Duplex	6 (12 Units)	4 (8 Units)	0
ADU	6	0	0
Length of Road	2,525 LF	1,725 LF	1,725 LF
Impacts to SVP	46,677 SF	0 SF	0 SF
Impacts to Wetlands	5,658 SF	8,766 SF	8,021 SF
Open Space %	47.64%	69.14%	72.65%

The wetland impacts were reduced in this current plan by designing the wetland crossing adjacent to the vernal pool habitat. The roadway crosses 125 LF of wetlands at approximate Sta 11+00. The crossing design includes three open bottom 36" culverts embedded 12" for hydraulic and habitat connectivity. The roadway section was designed to reduce wetland impacts by implementing 2:1 side slopes and curb. The wetland impacts at this crossing are 6,659 SF. An additional 24 LF wetland crossing is anticipated at Sta 5+50 that will result in approximately 1,362 SF of impacts. The total wetland impacts resulting from this project are 8,021 SF.

Disturbance Restrictions:

Disturbance restrictions have been added to the subdivision to ensure limited clearing and limited impacts to the wildlife block. The disturbance restrictions are shown on the subdivision and site plans included with this submission. A note indicating the maximum disturbed area on each lot is included on the subdivision plan, which will be recorded. These maximum disturbed areas will also be included in the legal documents for the HOA. Below is a summary of the restrictions:

- Lot 1 is existing
- Lot 2-4 will have a disturbance limit of 15,000 SF
- Lots 5-8 & 10-13 will have a disturbance limit of 20,000 SF
- Lot 9 (owner lot) will have a total disturbance limit of 50,000 SF (including an area for the house, lawn, greenhouse, and longer driveway)

Open Space:

The redesigned subdivision is proposed as an Open Space Development and will adhere to the dimensional standards outlined in Table 4.2.5.C(5). The minimum lot size in the revised plan is approximately 25,000 square feet. The remaining land within the subdivision will be conserved as open space. In accordance with the ordinance, which requires 45% open space in the RF district, the updated plan surpasses this requirement by providing 72.65% open space. The 57.91 acres of open space will be conserved in perpetuity and owned by the existing homeowner/developer. The open space conservation is outlined in the HOA documents, attached to this letter. These documents will be legally recorded to ensure conservation in perpetuity. A portion of the open space 20.13 acres will be granted to the HOA members of the subdivision for access and enjoyment through an easement. The remaining portion of the open space surrounding the most sensitive areas (WOSS, Inland Waterfowl and Wading Bird Habitat, Shoreland Zone, and 250' wetland setback in Shoreland Zone) will remain in the private open space to limit disturbance by humans and protect the natural wildlife habitat. This private open space area is also closest to the wildlife habitat block that extends off-site. Both portions of open space will be conserved in perpetuity with access on trails for enjoyment of nature, as outlined in Attachment 2.

Wildlife Block:

A portion of the subdivision parcel is situated within a designated wildlife habitat block, which encompasses approximately 74.40 acres (93%) of the subdivision parcel. After accounting for disturbance restrictions on proposed residential lots, potential stormwater areas and the road right-of-way, 8.635 acres or 11.61% of the block area within the parcel **could** potentially be disturbed. According to the Table 2.3.5.E, the project qualifies for a density bonus; however, as

the allowable density is 25.43 units and only 13 units are proposed, so the density bonus is not necessary.

The contiguous Wildlife Block area that the subdivision parcel is part of is 1,579.25 acres. The project is proposing to impact a maximum of 8.635 acres out of the 1,579.25 acres contiguous Wildlife Block, which represents only 0.5% of the total area. This is achieved by implementing careful engineering design and imposing lot restrictions to safeguard environmental and wildlife resources as much as possible, while still permitting responsible development and providing needed housing. A figure showing the wildlife block and development area is provided in Attachment 3.

Traffic

A third-party Traffic Impact Assessment was completed by Barton and Loguidice, and is provided in Attachment 4. A summary of that assessment is provided below:

The proposed Garnet Ridge Subdivision will add 12 single-family homes and is expected to generate 11–16 vehicle trips during peak hours, which is well below the threshold requiring a MaineDOT Traffic Movement Permit. A Safety analysis of the area found no high-crash locations along Moody and Durham Road, and the study concluded that there are no speed concerns along Moody Road. Sight distance measurements at the intersection with Durham Road meet MaineDOT requirements and sight distance at the proposed intersection with Moody Road can be improved to meet state standards with minor vegetation trimming and regrading. The study concludes that the development will have minimal impact on local traffic flow, with all approaches maintaining Level of Service A and only slight increases in vehicle queues, ensuring the existing road network can safely and efficiently accommodate the additional traffic.

Additionally, Terradyn is collaborating with the Brunswick School Department to assess the feasibility of establishing a bus turn-around at the proposed subdivision road entrance. The proposed road entrance has been designed to accommodate public works vehicles, and an easement will be granted to the Town for vehicle turning. This same area could be used by the bus as a turn-around and bus stop, which would allow the bus to travel down Moody and stop at a safer location than today. At present, the bus stops only along Durham Road for students residing on Moody Road, as it does not travel down Moody due to a lack of right-of-way for a turnaround. This situation poses safety risks for students who must board the bus on the much busier Durham Road. Permitting the school department to utilize the planned Town easement area at the start of the subdivision road for turnarounds would enhance student safety by providing a secure and efficient location for buses to operate.

Maine DEP Permitting

The proposed subdivision requires a Maine DEP Chapter 500 Stormwater Permit due to the amount of developed and impervious areas created. The subdivision includes 13 single-family lots on a 79.7 acre parcel, so does not trigger a Site Location of Development Permit (SLODA). Previously the project did trigger SLODA due to a larger number of units and duplex units. With the reduction in scale of this development, we are also reducing the level of permitting with DEP. However, we believe it is important to complete some of the SLODA required studies for this site given the site location and concerns of the community. We intend to still complete assessments

on wastewater disposal as required under Site Law including a nitrate-nitrogen impact assessment.

The project will be designed to meet Maine DEP and Town of Brunswick stormwater management requirements, and a full stormwater report will be submitted to Maine DEP and the Town. Erosion and Sediment Control standards will also be met.

Natural Resource Protection Act permitting is also required for the wetland impacts (Tier 1) and two stream crossings (Permit by Rule). IF&W, MNAP, MHPC, and Army Corps will all be involved in this permitting and provided assessments of the site. Responses from IF&W, MNAP and MHPC have already been received and were previously sent to the Town and Planning Board in our October 7th, 2025 sketch plan submission.

If the board would like to discuss any specific studies for this project ahead of our final submission, please let us know at the upcoming meeting so we can plan accordingly.

Closure

We look forward to further discussing this project with the Staff Review Committee at their 01/14/26 Meeting, and with the Planning Board at their 01/27/26 meeting. Please contact me with any questions or comments you have or if you need additional information.

Sincerely,
TERRADYN CONSULTANTS, LLC

Matthew Pelletier, P.E.
Project Engineer

cc: Alex & Stefanie Hallett

Attachment 1: MIFW Vernal Pool Verification
Attachment 2: HOA Documents
Attachment 3: Wildlife Block Figure
Attachment 4: Traffic Impact Assessment

ATTACHMENT 1

MIFW Vernal Pool Verification

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

October 10, 2025

Alex and Stephanie Hallett
119 Moody Road
Brunswick, ME 04011

Re: Vernal Pool Significance Determination, Pool ID #s 5734, 5735, 5737, 5738–Brunswick

Dear Alex and Stephanie Hallett:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

After conducting a field survey at your request, it has been determined that the vernal pools identified above on your property are NOT SIGNIFICANT because either: 1. the features do not meet the definition of a vernal pool under the Significant Wildlife Habitat rules, 06-096 CMR 335(9) or 2. the vernal pools do not meet the biological standards for exceptional wildlife use of the Significant Wildlife Habitat rules, 06-096 CMR 335(9)(B). Therefore, activities within 250 feet of the pools are not regulated under the Natural Resources Protection Act (NRPA) unless there are other protected natural resources nearby such as streams or freshwater wetlands. I have attached a copy of the database printout that verifies the State's findings with respect to your survey.

I want to also advise you that the pool areas on your property can be considered freshwater wetlands and therefore direct pool alterations may require permitting under the NRPA.

If you have any questions or need further clarification, please contact Mark Stebbins at 207-592-4810 or email at: Mark.N.Stebbins@maine.gov

Sincerely,

Robert Wood
Director, Bureau of Land Resources

cc. town file

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
207-941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

WEBSITE: www.maine.gov/dep

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Thursday, October 9, 2025

IFW's Pool ID: 5733 Twp: Brunswick
Observer's ID: VP-1
UTM Coordinates of Pool Center: 417104 E, 4864086 N
ProjectType: Moody Road Sub

Landowner:	Contact:
Alex and Stephanie Hallett	Erik Lema - Basswood Environmental LLC
119 Moody Road	32 Brentwood Road
Brunswick, ME 04011	Cape Elizabeth, ME 04107
(202) 276-6900 alexhallett13@gmail.com	(207) 518-8442 erik@basswoodenv.com

Survey Date: 5/1/2025
IFW's Recommendation: GREEN: SIGNIFICANT
IFW Comments: Pool provides significant habitat for spotted salamander.

IFW's Pool ID: 5734 Twp: Brunswick
Observer's ID: VP-2
UTM Coordinates of Pool Center: 416995 E, 4863980 N
ProjectType: Moody Road Sub

Landowner:	Contact:
Alex and Stephanie Hallett	Erik Lema - Basswood Environmental LLC
119 Moody Road	32 Brentwood Road
Brunswick, ME 04011	Cape Elizabeth, ME 04107
(202) 276-6900 alexhallett13@gmail.com	(207) 518-8442 erik@basswoodenv.com

Survey Date: 5/1/2025 Additional Survey Dates: 05/12/2025
IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria
IFW Comments: Pool provides some habitat for wood frog but does not meet the biological criteria for significance.

IFW's Pool ID: 5735 Twp: Brunswick
Observer's ID: VP-3
UTM Coordinates of Pool Center: 417003 E, 4864051 N
ProjectType: Moody Road Sub

Landowner:	Contact:
Alex and Stephanie Hallett	Erik Lema - Basswood Environmental LLC
119 Moody Road	32 Brentwood Road
Brunswick, ME 04011	Cape Elizabeth, ME 04107
(202) 276-6900 alexhallett13@gmail.com	(207) 518-8442 erik@basswoodenv.com

Survey Date: 5/1/2025 Additional Survey Dates: 05/12/2025
IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria
IFW Comments: Pool provides some habitat for spotted salamander but does not meet the biological criteria for significance.

IFW's Pool ID: 5736 Twp: Brunswick
Observer's ID: VP-4
UTM Coordinates of Pool Center: 416975 E, 4864069 N
ProjectType: Moody Road Sub

Landowner:	Contact:
Alex and Stephanie Hallett	Erik Lema - Basswood Environmental LLC
119 Moody Road	32 Brentwood Road
Brunswick, ME 04011	Cape Elizabeth, ME 04107
(202) 276-6900 alexhallett13@gmail.com	(207) 518-8442 erik@basswoodenv.com

Survey Date: 5/1/2025
IFW's Recommendation: GREEN: SIGNIFICANT
IFW Comments: Straddler pool with 100% surveyed. Pool provides significant habitat for spotted salamander and some habitat for wood frog.

IFW's Pool ID: 5737 Twp: Brunswick
Observer's ID: VP-5
UTM Coordinates of Pool Center: 417100 E, 4864249 N
ProjectType: Moody Road Sub

Landowner:	Contact:
Alex and Stephanie Hallett	Erik Lema - Basswood Environmental LLC
119 Moody Road	32 Brentwood Road
Brunswick, ME 04011	Cape Elizabeth, ME 04107
(202) 276-6900 alexhallett13@gmail.com	(207) 518-8442 erik@basswoodenv.com

Survey Date: 5/1/2025 Additional Survey Dates: 05/12/2025
IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria
IFW Comments: Straddler pool with 100% surveyed. Pool provides some habitat for spotted salamander but does not meet the biological criteria for significance.

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Thursday, October 9, 2025

IFW's Pool ID: 5738 Twp: Brunswick
Observer's ID: VP-6

UTM Coordinates of Pool Center: 417222 E, 4864166 N
ProjectType: Moody Road Sub

Landowner:	Alex and Stephanie Hallett	Contact:	Erik Lema - Basswood Environmental LLC
	119 Moody Road		32 Brentwood Road
	Brunswick, ME 04011		Cape Elizabeth, ME 04107
	(202) 276-6900 alexhallett13@gmail.com		(207) 518-8442 erik@basswoodenv.com

Survey Date: 5/1/2025 Additional Survey Dates: 05/12/2025

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria

IFW Comments: Straddler pool with 100% surveyed. Pool provides some habitat for spotted salamander but does not meet the biological criteria for significance.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

October 10, 2025

Alex and Stephanie Hallett
119 Moody Road
Brunswick, ME 04011

Re: Vernal Pool Significance Determination, Pool ID #s 5733, 5736–Brunswick

Dear Alex and Stephanie Hallett:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

After conducting a field survey at your request, it has been determined that the vernal pools identified above on your property are SIGNIFICANT. I have attached a copy of the database printout that verifies the State's findings with respect to our surveys.

As significant vernal pools, all areas on your property within 250 feet of the vernal pool depressions, known as the "critical terrestrial habitat", will be subject to the requirements of the Natural Resources Protection Act, 38 M.R.S.A. §§480-A to 480-FF, and the Significant Wildlife Habitat rules, 06-096 CMR 335.

The Department will ensure that the vernal pools' location and status is entered and mapped in the State's vernal pool database. Note that if the pool depression (only) crosses two or more property boundaries the abutter(s) are similarly subject to the requirements of the Natural Resources Protection Act and the Significant Wildlife Habitat rules.

If you have any questions or need further clarification, please contact Mark Stebbins at 207-592-4810 or email at: Mark.N.Stebbins@maine.gov

Sincerely,

Robert Wood
Director, Bureau of Land Resources

cc. town file

IFW Recommendations for Significant Vernal Pool Determinations

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UTM Coordinates of Pool Center: 416995 E, 4863980 N
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Landowner:	Contact:
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Landowner:	Contact:
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119 Moody Road	32 Brentwood Road
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Survey Date: 5/1/2025
IFW's Recommendation: GREEN: SIGNIFICANT
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IFW's Pool ID: 5737 Twp: Brunswick
Observer's ID: VP-5
UTM Coordinates of Pool Center: 417100 E, 4864249 N
ProjectType: Moody Road Sub

Landowner:	Contact:
Alex and Stephanie Hallett	Erik Lema - Basswood Environmental LLC
119 Moody Road	32 Brentwood Road
Brunswick, ME 04011	Cape Elizabeth, ME 04107
(202) 276-6900 alexhallett13@gmail.com	(207) 518-8442 erik@basswoodenv.com

Survey Date: 5/1/2025 Additional Survey Dates: 05/12/2025
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UTM Coordinates of Pool Center: 417222 E, 4864166 N
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	Brunswick, ME 04011		Cape Elizabeth, ME 04107
	(202) 276-6900 alexhallett13@gmail.com		(207) 518-8442 erik@basswoodenv.com

Survey Date: 5/1/2025 Additional Survey Dates: 05/12/2025

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria

IFW Comments: Straddler pool with 100% surveyed. Pool provides some habitat for spotted salamander but does not meet the biological criteria for significance.

ATTACHMENT 2

HOA Documents

DECLARATION OF PROTECTIVE COVENANTS, CONDITIONS and RESTRICTIONS, made this _____ day of _____, 2026, by [_____, LLC], a Maine limited liability company with offices in Brunswick, Maine, hereinafter referred to as “Declarant”.

WHEREAS, Declarant is the owner of certain lots or parcels of land situated off Moody Road, in the Town of Brunswick, County of Cumberland and State of Maine, pursuant to deeds recorded in the Cumberland County Registry of Deeds in Plan Book _____, Page _____ and in Plan Book _____, Page _____ (the “Property”);

WHEREAS, a Member of Declarant submitted plans and specifications of the Property for subdivision approval, which development is known as the "Garnet Ridge Subdivision", and is more particularly portrayed in [a Plan entitled ["Overall Subdivision Plan" prepared by Terradyn, LLC dated _____, 2026, revised to _____, 2026 and approved by the Town of Brunswick Planning Board on _____, 2026 and recorded in the Cumberland County Registry of Deeds in Plan Book _____, Page _____] (the “Plans"); and

WHEREAS, the Declarant desires to create a residential area of the Subdivision providing for the greatest possible degree of health, safety, environmental beauty, and amenity for the property owners and inhabitants thereof, and to accomplish the foregoing purposes, desires to subject the property to protective covenants and common easements and to further provide a Homeowners Association for the administration and enforcement of same, and provide the maintenance and improvement of certain common facilities, and the establishment, collection and disbursement of assessments, all as set forth hereinafter, each and all of which are for the benefit of the property and of each Lot subject to the protective covenants and easements hereinafter set forth, maintaining and improving certain rights of way and other common facilities, and otherwise carrying out the functions of a homeowners association and the provisions and objectives of this Declaration.

NOW, THEREFORE, Declarant hereby declares that the Lots portrayed on the Plans shall be held, occupied, improved, transferred, sold, leased and conveyed subject to the protective covenants and restrictions, the reservations and exceptions, the common rights and easements, and the provisions of the Homeowners Association hereinafter set forth, all of which are declared to be in furtherance of a uniform scheme for the development of the Property and that said protective covenants, reservations, common easements, and provisions for a homeowners association are intended to enhance and protect the value and desirability of the property as a whole, to mutually benefit each of the parcels located thereon, to create mutual equitable servitudes upon each of the parcels in favor for each and all other parcels therein and to create reciprocal rights and privities of contract and estate between all persons acquiring or owning any interest in any portion of the property including Declarant, and Declarant's grantees, successors, administrators, and assigns and shall be deemed to run with the land and be a burden and benefit to and enforceable by the Declarant (so long as the Declarant is the owner of a Lot), the Homeowners Association and the owner of a Lot.

ARTICLE I
Definitions

The following words, shall, as used herein, have the following meanings, unless the context plainly requires otherwise:

a. Road. [Insert Name of Road] and the roads and ways as shown on the Subdivision Plan;
b. Association. The Homeowners Association named "Garnet Ridge Homeowners Association," which Declarant shall organize as a nonprofit corporation for the purpose of administering and enforcing the protective covenants and easements hereinafter set forth, maintaining and improving certain rights of way and other common facilities, including maintenance of the road and otherwise carrying out the functions of a homeowners association and the provisions and objectives of this Declaration. Each lot owner shall be a member of the Association by reason of the ownership of that owner's lot. Membership shall cease upon sale of the lot.
c. Declarant. [_____, LLC], and any successor to all of Declarant's rights, title and interest in and to the property.
d. Owner. The record owner, whether one or more persons or entities, of the title to any parcel, but not including Declarant.
e. Lot or Parcel. Any one of the numbered lots within the property as shown upon the Plan, which may hereafter be conveyed by Declarant or subsequent owners.
f. Plan. The Plans for ["Garnet Ridge Subdivision, Moody Road, Brunswick, Maine" prepared for Alex Hallett & Stefanie Hallett by Terradyn, LLC, dated _____, 2026, and revised to _____, 2026, approved by the Town of Brunswick Planning Board on _____, 2026 and recorded in the Cumberland County Registry of Deeds in Plan Book _____, Page _____].
g. Subdivision. Garnet Ridge Subdivision as shown on the above-referenced Plan.

ARTICLE II
Amended Declarations

This Declaration may be amended from time to time by Amended Declarations duly executed by Declarant, or by the Garnet Ridge Homeowners Association, pursuant to a vote of the owners in accordance with the Bylaws of the Garnet Ridge Homeowners Association, and any amendment must be recorded in the Cumberland County Registry of Deeds. No such amendment shall render invalid any use of subdivision land within the property existing in accordance with this Declaration at the time of recording such Amended Declaration, and any such amendment shall be reasonably consistent with the uniform scheme of development established by this Declaration. The areas labeled "Conservation Land to be Retained by Owner" on the Plans shall not be altered without the approval of the Town of Brunswick Planning Board.

ARTICLE III
Reservations and Easements

There is hereby excepted and reserved to the Declarant, for so long as it owns any portion of the numbered parcels, and thereafter to the Association the following:

a. Road. A right of way for all purposes over, across and through [Insert Road Name], together with the right to install and maintain utility poles and lines adjacent to, within or under the traveled portion of said roads. The Declarant shall convey the road to the Association, which shall be responsible for maintenance. The Declarant also specifically reserves the right to extend a driveway, together with all utilities, from the end of the proposed road for a driveway to the land retained by Alex Hallett and Stefanie Hallett.

b. Underground Utilities. Declarant reserves the right to grant easements for utility purposes to enter onto any lot within fifteen (15) feet of the road lot line for the purpose of constructing, reconstructing, installing, replacing, and maintaining any and all underground or aboveground utilities therein and to extend, connect to, and use in common any previously installed utility by the lot owner providing that promptly after such entry, the surface of the ground shall be restored to substantially the same condition as it was in prior to such entry. For the purposes of this reservation of rights, "utilities" shall mean all utilities such as power, television, cable, phone, water and any other utility typically serving a residence.

c. Other. The right to exercise through the property any rights or powers hereinafter conferred upon the Association by an amended Declaration.

ARTICLE IV
Common Rights and Easements

Each conveyance of a parcel shall be deemed to include as appurtenant to said parcel, subject to such reasonable regulations as may be established from time to time by the Association, the following:

a. Access. A right of way for all purposes over and along [Insert Road Name], in the Subdivision, as said is shown on the Plan, in common with Declarant and in common with the owners of the other parcels.

b. Stormwater Treatment and Buffer Areas. As shown on the Subdivision Plan, the level lip spreaders provided for stormwater treatment and buffers will be located within easements to the Association for future maintenance and repair of these areas.

ARTICLE V
Fire Cisterns

As part of the development, two (2) 10,000-gallon fire cisterns each with a hydrant will be installed along the proposed Subdivision road to provide fire protection service. The cisterns, hydrants and all associated piping and appurtenances shall comply with the requirements of the Brunswick Fire Department as the same may be amended from time to time. At the

date of this Declaration the requirements are as follows: **[BRUNSWICK FIRE TO UPDATE THIS LIST]**

1. All tanks and associated equipment shall be installed and maintained in accordance with Standards for Water Tanks for Protection adopted by the State of Maine.
2. Usage: The Brunswick Fire Department will have unlimited usage of any and all underground fire storage tanks located within the Town of Brunswick for firefighting/public safety operations and or any other use deemed appropriate by the Fire Chief or his/her designee.
3. Inspection: The Town of Brunswick shall be permitted to visually or physically inspect underground tanks as they deem appropriate to ensure proper operation of tanks and tank components prior to burial.
4. Construction: Construction must be designed to safely withstand the service to which they are subjected. This includes pressure of the earth and pavement above the tank.
5. Materials: Suitable or acceptable materials include concrete, stainless steel, fiberglass, or lined concrete.
6. Installation: Tanks should be set on firm foundations and surrounded with appropriate backfill, well compacted into place. Tanks must be anchored or weighted to prevent floating in locations where the water table is high or may rise. Underground tanks must be protected against damaging loads.
7. Hardware: Each tank will be provided with two appropriately, permanently, and obviously labeled connections. These connections shall be labeled as "Suction" and "Fill"

   Suction: The connection labeled "suction" shall be a 6" NST female thread swivel with a male cap and located within 6 feet of pavement or hard surface suitable for support of fire apparatus. The center to cap elevation shall be 30" from final grade. The piping for this connection shall be constructed from 6" schedule 80 PVC from the bottom of the tank to the top of the water level, then a minimum of schedule 40 6" ID iron pipe from the top of the tank to the fire department connection. Piping must be constructed to pass through the interior of the tank and not through the end or underside.

   Fill: The connection labeled "fill" shall be a 4" fire department connection (stortz) that is remotely located from the suction. It shall be accessible and face in such direction as to ease operation. The connection shall require a stainless steel screen with a safety latch cap. This connection shall be permitted to terminate at the top of the tank.

   Vent: An appropriate vent must be provided for normal operation (1000 GPM) of any tank to permit filling and emptying and for the maximum expansion or contraction of the tank contents with changes in temperature. A screen shall be provided to prevent clogged vents, which may result in the rupturing of tanks from the internal pressure or collapse due to internal vacuum. Inadequate sized vents may have the same results. The vent shall be a minimum of 6 inches in circumference, be constructed of schedule 80 PVC pipe and terminate a minimum of 6 feet above grade.

   Site Gauge: All tanks shall be equipped with a site/water level gauge.

Pipe Materials: Pipe materials that are resistant to corrosion and have adequate strength to withstand the maximum service pressure, shall be used. Threaded or welded connections are acceptable.

8. Two tanks may be connected, or the connection of several tanks to hold the required gallons if approved by the town engineers. There shall be 3 (8") cross connections at the bottom of the tanks of (8") schedule 80 PVC pipe. There shall be 2 top cross connection vents of (6") schedule 80 PVC pipe.
9. The Declarant shall insure in writing to the Director of Planning and the Brunswick Fire Department, that the water in the tank and vertical lift of the hydrant will be protected from freezing.
10. The Declarant shall be responsible for any and all maintenance of the tank and all associated components to include snow/debris removal.
11. The Declarant shall be responsible for routine site inspections to verify physical condition of the tanks visible components and water level of tank. It shall be the responsibility of the owner or contractor to provide documentation of such inspections when requested.
12. A bolted inspection cover shall be provided that will allow any required maintenance to be done from the inside.
13. Dry hydrants (so called) are allowed in lieu of holding tanks if the Town Engineer and the Fire Department approve the water source.
14. There must be 6' of level ground around the Fire Department connection.
15. Protective bollards shall be installed in areas of potential physical damage. Bollard construction and design is sight specific and shall be approved prior to installation by the Authority Having Jurisdiction.
16. Tanks are required to be re-inspected internally by installer 30 days after installation.
17. The developer will be responsible for pumping any existing water, completely remove any foreign material of any kind i.e. gasket material, dirt, leaves, concrete dust, etc., prior to on site inspection by the Fire Department.
18. The developer will be responsible for filling the tank (under Fire Department supervision if desired by Fire Department).
19. An 18" concrete collar around the Fire Department connection shall be poured in place.

ARTICLE VI
Maintenance of Stormwater Collection Facilities

The stormwater collection facilities, i.e., ditches within the road right of way and level lip spreaders, will be maintained by Association in a clean operating condition by street sweeping and/or removing debris from roadside ditches as necessary to maintain flow.

The general requirements for this stormwater maintenance management manual will meet the standards of [Chapter 500], Stormwater Management Rules from the Maine Department of Environmental Protection, specific to the water quality feature concerned. In addition, the

specific maintenance requirements described in the Stormwater Inspection & Maintenance Manual attached to this Declaration.

ARTICLE VII
Protective Covenants and Restrictions

a. These Covenants apply to Lots 1-13.
b. No lot may be further divided.
c. The clearing on each lot shall be limited to the clearing windows shown on the approved subdivision plans [and each such window shall not exceed [20,000] square feet per lot]. Any deviation from this clearing window shall be approved by the Homeowner's Association and the Town of Brunswick Planning Department. The corners of the clearing windows will be demarcated on the ground by a licensed surveyor prior to any clearing of the individual lots. [The first seventy-five (75) feet of each lot abutting the Subdivision road shall not be cleared except as necessary to construct and maintain a driveway.]
d. No trailer, motor home, truck campers or similar temporary structures may be stored, placed or maintained on a lot as a dwelling structure.
e. Minimum sq ft living area of any dwelling to be erected on a lot shall be 1,300 sq ft for single story and 1,500 for two story.
f. No mobile homes will be permitted on any lot.
g. No lot shall be used for any purpose other than a single family residence. In law apartments and accessory dwelling units will be allowed with an increase in minimum sq ft of living area to 1,800 for single-story and 2,000 for two-story.
h. All homes shall be constructed on permanent concrete foundations.
i. No outside clotheslines shall be visible from any road.
j. No livestock or poultry of any kind shall be kept or raised on any lot. Only normal household pets are allowed. Dogs shall be permitted if leashed or otherwise restrained at all times. No exotic or banned pets will be allowed.
k. Trash, garbage, and other waste shall be kept in a concealed covered sanitary container.
l. All exterior construction work on any buildings or other construction shall be completed within one year from the date of the construction begins.
m. Unregistered motor vehicles and/or trailers are not to be used or stored on the property.
n. All exterior lighting shall be installed such that is does not create a nuisance for other lot owners.
o. All power to residences is to be underground from the lot line.
p. The home exteriors shall be sided with vinyl, composite, wood, metal, brick or stone.
q. All grounds are to be seeded and loamed within 1-year of the start of construction.
r. All buffer zones as listed on deeds will be maintained and no clearing other than normal maintenance will be done. All trees within buffer zones will be left, with no cutting without approval of the Homeowners Association.

s. All porches and decks on the front or side of the houses, or visible from the road, must have a covered roof.

t. Final design of new construction will be approved by the Declarant.

u. All lots will be assessed a monthly fee which will help cover the plowing and maintenance of the road [and private trash removal], and to cover the taxes and maintenance of the common/conservation land held, and for such other purposes as the Homeowners Association may deem necessary and appropriate.

v. No cutting, erecting of buildings, or altering of any of the common land/conservation land is permitted without Declarant approval.

w. Snow removed from any-onsite or off-site areas shall not be directed to, or stored within, any stormwater buffer or level lip spreader.

x. The Declarant shall not be responsible for lot assessments until such time as a building permit is issued, if Declarant owns a Lot at that time. A lot owner, other than the Declarant, shall be responsible for assessments from the time that owner purchases the lot.

y. The Declarant shall have the right to connect recreational trails on adjacent land to the recreational trails on the Property and to grant easement(s) to others for the use of designated recreational trails on the Property.

ARTICLE VIII
Severability

Each and every provision contained herein shall be considered to be independent and separate and in the event that any one or more shall for any reason be held to be invalid and unenforceable, all the remainder hereof shall, nevertheless, remain in full force and effect.

IN WITNESS WHEREOF, [_____, LLC] has executed this instrument this _____ day of _____, 2026.

Witness

_____

[_____, LLC]

By: _____
Stefanie Hallett, Manager

STATE OF MAINE
_____, ss

_____, 2026

Personally appeared the above-named Stefanie Hallett, in her capacity as Manager of [_____, LLC], and acknowledged the foregoing instrument to be her free act and deed in said capacity.

Before me,

_____

Notary Public/Attorney-at-Law

Declaration of Restrictive Covenants and Easements made this _____ day of _____, 2026 by Alex Hallett and Stefanie Hallett, of Brunswick, Maine, hereinafter referred to as “Declarant”.

WHEREAS, Declarant is the owner of certain property off Moody Road in the Town of Brunswick, County of Cumberland and State of Maine, which is a portion of that property described in a deed recorded in the Cumberland County Registry of Deeds at Book _____, Page ____; and

WHEREAS, Declarant submitted plans and specifications of the property for subdivision approval, which development is known as the "Garnet Ridge Subdivision", and is more particularly portrayed in a Plan entitled ["Overall Subdivision Plan" prepared by Terradyn Consultants, LLC dated _____, 2026, revised to _____, 2026 and approved by the Town of Brunswick Planning Board on _____, 2026 and recorded in the Cumberland County Registry of Deeds in Plan Book _____, Page _____] (the “Plans"); and

WHEREAS, in the ["Conditions of Approval", paragraph #____], the Declarant is required to record this Declaration to protect the areas labeled "Conservation Area Land to be Retained by Owner" on the Plans (hereinafter "Conservation Area").

NOW THEREFORE, per the requirements of Section 4.2.5.C of the Brunswick Zoning Ordinance, consistent with the objectives of the open space plan of the Town of Brunswick, the Conservation Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth below (collectively referred to "Restrictions") in perpetuity. The Restrictions shall run with the land and shall be binding on all parties having any right, title or interest in and to the property, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the premises or any portion thereof, by the acceptance of a deed of conveyance shall be deemed to have accepted the property subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. The Conservation Area shall be used only for conservation, low-impact outdoor recreation, and natural resource management activities that do not adversely affect its rural and scenic character. All trails shall be for non-motorized recreational uses only including walking, running, hiking, biking, snowshoeing, cross-country skiing, foraging and horseback riding; provided that recreational snowmobile use is also allowed on designated trails.

2. The Conservation Area shall be kept in its substantially natural forested condition and woodland shall only be cut in order to remove hazards to human safety; prevent or control fire, disease or insect infestation; to remove invasive species; to restore native species; to remove dead vegetation as deemed reasonable; to create and maintain trails; to sustainably harvest cord wood for non-commercial, personal use by the Declarant; to mark boundaries;

or to enhance the wildlife habitat, provided that all such vegetation and forest management shall be limited and conducted in a manner to preserve the ecological health and scenic and rural character of the property.

3. No additional structures, temporary or permanent, may be constructed on the Conservation Area except as necessary to enhance the opportunity for low impact outdoor recreation, nature observation and study such as but not limited to, boundary markers; horse jumps; bog bridges; seats and benches; trail improvements; boardwalks; markers; footbridges; wetland crossings; and such other minor structures necessary for safety, erosion control, protection of fragile resources or enhancement of low impact use of the property.

4. The Conservation Area shall remain in their current configuration, as an entirety under single ownership, and shall not be further subdivided.

5. Declarant, and its successors and assigns, shall have access rights to the Conservation Area through Garnet Ridge Subdivision for the uses and purposes set forth herein and for purposes of monitoring the property and to comply with Declarant's maintenance and management duties as the owner of the property. Public access to the Conservation Area shall not be permitted. The lot owners of Garnet Ridge Subdivision shall have access rights to and over that approximately [_____-acre] portion of the Conservation Area identified on Exhibit 1 attached hereto (such portion, the "Shared Conservation Area"), but not to any other portion of the Conservation Area, which access rights shall be appurtenant to and shall be conveyed with any such lot in the Garnet Ridge Subdivision. Such lot owners and their invitees may access the Shared Conservation Area through the Garnet Ridge Subdivision and utilize such property for low impact outdoor recreation and nature observation subject to these Restrictions and any additional limitations and restrictions that the Declarant may impose on the Conservation Area as the owner. Declarant shall have the right to connect recreational trails on adjacent land to the recreational trails on the Conservation Area and to grant easement(s) to others for the use of designated recreational trails on the Conservation Area.

6. Any forested buffers that are located within the Conservation Areas on the approved Subdivision Plan shall be demarcated and protected from future disturbance.

7. The Declarant, the Garnet Ridge Subdivision Homeowners Association and/or Town of Brunswick shall have the right to access the Conservation Area on reasonable notice to determine if it is being maintained per the requirements of this Deed Restriction in the event of any failure to maintain the Conservation Area per the terms and conditions hereof. The Garnet Ridge Subdivision Homeowners Association and/or the Town of Brunswick may initiate enforcement and may require replanting of trees, a fine, and any other enforcement actions that are deemed necessary. Declarant shall be solely responsible for all costs of remediation, restoration, or other corrective action, including but not limited to, reasonable attorney's fees of the part(ies) bringing a successful enforcement action.

8. These Restrictions shall be in addition to, not in lieu of, any restrictions imposed on the Conservation Area by local, state and/or federal laws, including without limitation, the applicable Town of Brunswick zoning overlay districts that affect all or a portion of the property (e.g., wildlife habitat, aquifer protection and shoreland protection).

Each of the above restrictions and covenants shall be deemed a land use restriction running with the land as a burden and upon the title to the Conservation Area. The invalidity or enforcement of any of the provisions of these restrictions in whole or in part shall not affect the validity or enforceability of any other provisions or any valid or enforceable part of a provision of these restrictions.

Reserving to the Declarant, for the benefit of the lot owners in Garnet Ridge Subdivision, the right to access the property, subject to the restrictions set forth above and any other restrictions and conditions that may be imposed on the property.

[signatures/notaries on following page(s)]

IN WITNESS WHEREOF, Alex Hallett has executed this instrument this _____ day of _____, 2026.

Witness

_____ _____

Alex Hallett

STATE OF MAINE

_____, ss _____, 2026

Personally appeared the above-named Alex Hallett and acknowledged the foregoing instrument to be his free act and deed.

Before me,

_____

Notary Public/Attorney-at-Law

IN WITNESS WHEREOF, Stefanie Hallett has executed this instrument this _____ day of _____, 2026.

Witness

_____ _____

Stefanie Hallett

STATE OF MAINE

_____, ss _____, 2026

Personally appeared the above-named Stefanie Hallett and acknowledged the foregoing instrument to be his free act and deed.

Before me,

_____

Notary Public/Attorney-at-Law

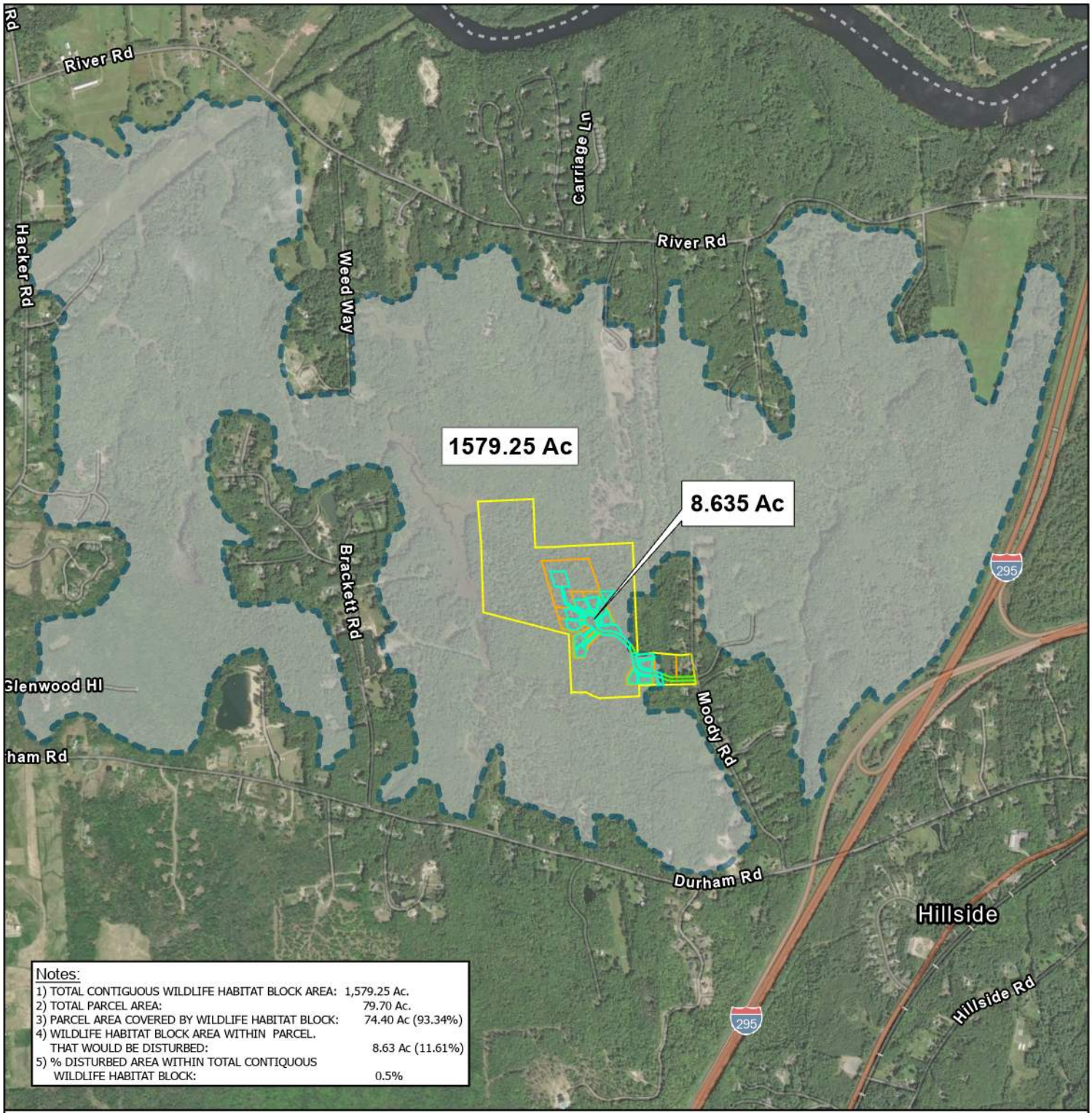
Exhibit 1

Description of Shared Conservation Area

[to be attached]

ATTACHMENT 3

Wildlife Block Figure



Notes:

1) TOTAL CONTIGUOUS WILDLIFE HABITAT BLOCK AREA: 1,579.25 Ac.
2) TOTAL PARCEL AREA: 79.70 Ac.
3) PARCEL AREA COVERED BY WILDLIFE HABITAT BLOCK: 74.40 Ac (93.34%)
4) WILDLIFE HABITAT BLOCK AREA WITHIN PARCEL. THAT WOULD BE DISTURBED: 8.63 Ac (11.61%)
5) % DISTURBED AREA WITHIN TOTAL CONTIQUOUS WILDLIFE HABITAT BLOCK: 0.5%

Legend

- Development Area - 8.635 Ac
- Parcel Boundary
- Road ROW
- Interior Property Lines
- Contiguous Wildlife Protection Block - 1579.25 Ac

Service Layer Credits

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Esri, Vantor, Earthstar Geographics, and the GIS User Community

HABITAT BLOCK DEVELOPMENT IMPACTS

PROJECT:
GARNET RIDGE SUBDIVISION
119 MOODY ROAD, BRUNSWICK

PREPARED FOR:
ALEX AND STEFANIE HALLET
119 MOODY ROAD
BRUNSWICK, MAINE 04011

TERRADYN CONSULTANTS, LLC

PINELAND
41 CAMPUS DRIVE SUITE 301
NEW GLOUCESTER, ME 04260

PORTLAND
565 CONGRESS STREET, SUITE 201
PORTLAND, ME 04101

AUBURN
95 MAIN STREET, 2ND FLOOR
AUBURN, ME 04210

207.926.5111 - Info@terradynconsultants.com - www.terradynconsultants.com

PROJECT NO: 25-34
DATE: 1/5/2026
SCALE: 1 IN = 1,800 FT

N E S W

SHEET: 1
OF: 1

ATTACHMENT 4

Traffic Impact Assessment

Barton & Loguidice

TRAFFIC IMPACT STUDY

FOR PROPOSED

Garnet Ridge Subdivision

119 Moody Rd, Brunswick, Maine

Prepared For: **Terradyn Consultants, LLC**
Prepared By: Barton & Loguidice, LLC

January 5, 2026

4502.006.001

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119 Moody Road, Brunswick, Maine

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APPENDIX 11

1 INTRODUCTION

The applicant is proposing the development of 12 single-family homes on the parcel addressed 119 Moody Road in the town of Brunswick. Refer to Image 1 for the location of the proposed development. Moody Road is a dead end road which intersects with Durham Road just west of the I-295 overpass.

The existing site is occupied by a single-family home that is older than 10 years, and is provided access by a residential driveway entrance that intersects with the western side of Moody Road. The existing dwelling unit and its access will remain with the development of the project. Access to the proposed dwelling units will be provided via an internal roadway which intersects with Moody Road at a proposed intersection with the western side of Moody Road, opposite Crossman Drive.

The purpose of this traffic impact study is to examine existing traffic conditions at the site's proposed intersection with Moody Road and the existing intersection of Moody Road and Durham Road, estimate the total number of site trips generated by the project, and determine whether the existing transportation system can safely accommodate the added traffic generated by the project.

Image 1 - Development Site

2 EXISTING CONDITIONS

2.1 Existing Development Site

The existing site is located on the parcel addressed 119 Moody Road in the town of Brunswick. The parcel is occupied by an existing single-family home that is older than 10 years. The existing site is provided access by a 34-foot wide, 75-foot long residential driveway.

2.2 Study Intersection

For this traffic impact study, we have identified the unsignalized **intersection of Moody Road and Durham Road** as the project's study intersection. Moody Road is stop-controlled, and Durham Road is free-flowing.

Durham Road, fronting Moody Road, is a 2-lane bi-directional roadway, posted at 45mph.

Moody Road is a dead-end residential roadway that is paved up to a point just past the proposed site driveway. To the left of the site driveway, the Town's jurisdiction ends, and Moody Road turns into a narrow gravel driveway.

MaineDOT's Map Viewer system indicates that Moody Road is unposted. However, our field review shows that Moody Road is posted at 30mph, which seems reasonable given the characteristics of the roadway. Moody Road is approximately 21 feet wide, and its narrow width, along with its vertical and horizontal curves, are expected to help keep vehicle speeds down.

2.3 Existing Traffic Conditions

Turning movement counts were collected at the study intersection on November 5th, 2025, during the weekday AM and PM commuter time periods. All traffic entering the study intersection was recorded in 15-minute intervals between 7 and 9 AM, and between 3 and 6 PM. The turning movement counts are attached in *Section A of the appendix*.

A summary of the turning movement counts shows that the AM peak hour begins at 7 AM, and the PM peak hour begins at 4:15 PM. The peak hour traffic volumes are shown in **Figure 1**, attached in *Section A of the appendix*.

3 BACKGROUND TRAFFIC

3.1 Seasonal Adjustments

Traffic data collected during the month of November requires a seasonal adjustment to reflect the "peak" travel conditions typically found during the summer months of July and August. MaineDOT provides Weekly Mean Factors for adjusting traffic volumes collected outside of the peak months.

MaineDOT utilizes highway classifications of I, II, or III for all State and Local roadways. MaineDOT's 2023 Count Book classifies Durham Road as a Group I roadway, defined as "*roadways or urban roads are those which carry commuter traffic and exhibit little seasonal change in traffic volumes."* In accordance with MaineDOT's 2024 Weekly Group Mean Factors, a seasonal adjustment of **1.08** has been applied to the traffic volumes recorded at the study intersection.

3.2 Future Traffic Growth

This traffic impact study has been prepared based on a projected build-out year of 2026. MaineDOT's 2023 *Count Book* recorded an annual average daily traffic (AADT) volume of 4,630 in 2019 and an AADT of 4,520 in 2022 on Durham Road at a point northwest of US 1. The AADT counts show that traffic volumes on Durham Road have decreased by approximately 1% annually. For the purposes of this study, we will assume that a 1% annual growth will occur on Durham Road and Moody Road.

Figure 2, attached in *Section A of the appendix,* depicts the 2026 design hour traffic volumes. This figure has been prepared by applying the seasonal and annual adjustments to the peak hour traffic volumes shown in Figure 1.

3.3 Other Development Traffic

The town of Brunswick, Planning Department, has been contacted and was requested to identify all pending or approved other development projects whose trips may impact the intersection of Moody Road and Durham Road. At this time, no confirmation of other development trips has been provided. For the purposes of this traffic study, and to be conservative, we will assume that the background traffic volumes entering and exiting Moody Road will increase by a substantial 25% due to other development traffic on Moody Road. We have assumed that the through volumes on Durham Road will increase by 5%.

Figure 3, attached in *Section A of the appendix*, illustrates the other development trips.

3.4 2026 Pre-Development Traffic

Figure 4, attached in *Section A of the appendix*, illustrates the 2026 pre-development traffic volumes. This figure has been prepared by combining the 2026 design hour traffic volumes shown in Figure 2 with the other development trips shown in Figure 3.

4 PROPOSED CONDITIONS

4.1 Development

The applicant is proposing the development of a 12 single-family homes.

4.2 Site Access

Access to the development site will be provided via a proposed entrance, which intersects with the western side of Moody Road, opposite Crossman Drive.

4.3 Proposed Site Trip Generation

Daily and peak hour site trip generation estimates have been prepared for the proposed development based on the trip generation tables presented in the 11th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The ITE Manual provides numerous land use codes (LUC) and the volume of site generated trips produced by each category.

Trip generation calculations for the proposed subdivision have been prepared using LUC #210 – Single-Family Detached Housing. The trip generation calculations for the 12 single-family homes are provided below in Table 4A.

Table 4A
ITE Trip Generation Calculations

Land Use	Single-Family Detached Housing - LUC 210						
Time Period	**Dwelling Units (X)**	**R^2**	**Fitted Curve Equation**	**Trips Generated (T)**	**Distribution Entering / Exiting**	**Enter**	**Exit**
Weekday	12	0.95	Ln(T) = 0.92 Ln(X) + 2.68	143	50% / 50%	72	71
AM Weekday Peak Hour (Street)	12	0.90	Ln(T) = 0.91 Ln(X) + 0.12	11	26% / 74%	3	8
PM Weekday Peak Hour (Street)	12	0.92	Ln(T) = 0.94 Ln(X) + 0.27	14	63% / 37%	9	5
AM Weekday Peak Hour (Generator)	12	0.91	T = 0.71(X) + 7.23	16	26% / 74%	4	12
PM Weekday Peak Hour (Generator)	12	0.92	Ln(T) = 0.93 Ln(X) + 0.36	14	64% / 36%	9	5

Table 4A shows that the proposed subdivision is expected to generate 11 trips during the AM peak hour of the adjacent street, and 14 trips during the PM peak hour of the adjacent street. During the peak hours of the generator, the project is shown to generate 16 trips and 14 trips during the AM and PM peak hours, respectively.

4.4 Trip Assignment

Traffic generated by the proposed development has been assigned through the intersection of Moody Road and Durham Road, based on actual volumes entering and exiting Moody Road.

Figure 5, attached in *Section A of the appendix,* illustrates the site trip assignment.

4.5 2026 Post-Development Traffic

The 2026 post-development traffic volumes are provided in **Figure 6**, attached in *Section A of the appendix*. The figure has been prepared by combining the 2026 pre-development traffic volumes shown in Figure 4 with the site trip assignment shown in Figure 5.

5 ANALYSES

5.1 Intersection Sight Distance

Intersection sight distances were recorded at the proposed site driveway's intersection with Moody Road, and from the Moody Road approach at the Durham Road intersection, in accordance with the criteria established within the MaineDOT's *Highway Driveway and Entrance Rules* publication, which require the following minimum sight distance for non-mobility roadways based upon the posted speed limit:

MaineDOT Sight Distance Standards	
Posted Speed Limit	**Minimum Sight Distance**
25 mph	200 feet
30 mph	**250 feet**
35 mph	305 feet
40 mph	360 feet
45 mph	425 feet
50 mph	495 feet

The section of Moody Road fronting the proposed development is posted at 30mph, requiring an unobstructed sight distance of 250 feet. Durham Road fronting Moody Road is posted at 45mph, requiring an unobstructed sight distance of 425 feet. In accordance with the *Highway Driveway and Entrance Rules,* sight distance measurements were recorded using the following procedures: "*Sight distance is measured to and from the point on the centerline of the proposed access that is located 10-feet from the edge of traveled way. The height of the hypothetical person's view is considered to be 3½ feet above the pavement and the height of the object being viewed is considered to be 4¼ feet above the pavement.*"

Proposed Driveway: Looking to the right, we recorded a sight distance of over 425 feet.

Looking left, a sightline of approximately 150 feet is provided through the end of the public way and onto the private 10-foot-wide gravel extension. This sightline can be increased by removing some trees located to the left of the proposed driveway and trimming the arborvitae located on the right side of the

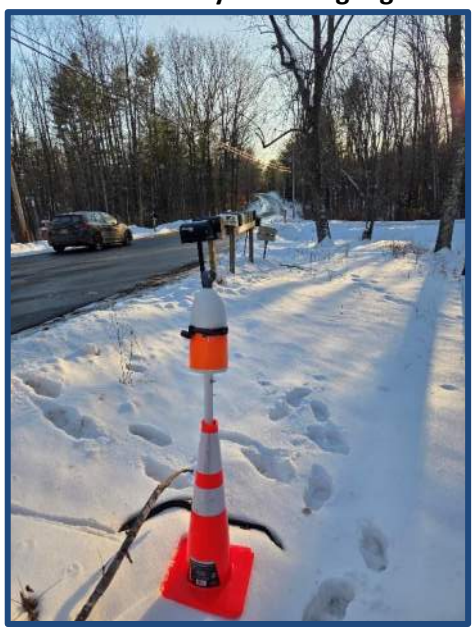
lot's existing driveway. Minor grading along the front of the existing units' lot is also recommended. Once the trees are removed, the arborvitae are trimmed, and the lot is regraded, we recommend that the sight distance be re-measured to confirm that the 250-foot sightline is met, looking left onto the private Moody Road extension. See photos below.

Moody Road at Durham Road: Sight distance measurements were recorded from the Moody Road approach, looking directionally onto Durham Road to confirm that adequate sight distances were provided. Looking both left and right, we recorded sightlines in excess of 450 feet. See photos below.

Photos:

Site Driveway – Looking Left

Site Driveway – Looking Right



Durham Road – Looking Left

Durham Road – Looking Right

5.2 Crash Analysis

Crash data for the latest three-year time period (2022-2024) was provided by MaineDOT's Crash Records Section for Moody Road, and the section of Durham Road between and including the intersections at Brackett Road and Merryman Lane. MaineDOT's crash report is attached in *Section B of the appendix*, and summarized below in Table 5A:

Table 5A
2022 - 2024 Crash Summary
Washington Ave btw. Fox St and Eastern Promenade

#	Location	Total Crashes	Critical Rate Factor
1	Durham Rd at Merryman Ln	0	0.00
2	Durham Rd at Moody Rd	1	0.49
3	Durham Rd at Brackett Rd	1	0.55
4	Moody Rd at the Dead-End	0	0.00
5	Durham Rd between Brackett Rd and Moody Rd	9	0.49
6	Durham Rd between Moody Rd and Merryman Ln	3	0.29
7	Moody Rd between Durham Rd and Dead-End	0	0.00

MaineDOT considers any roadway segment a high crash location if both of the following criteria are met:

- ***8 or more crashes in the most recent three-year period***
- ***A Critical Rate Factor (CRF) greater than or equal to 1.00***

The data presented in Table 5A indicate that there are no high-crash locations within the general vicinity of the site, nor are there any crash patterns at the intersection of Moody Road and Durham Road that may be exacerbated by the project's development. Additionally, no crashes were identified on Moody Road.

5.3 Capacity Analysis

A capacity analysis has been conducted for the intersection of Moody Road and Durham Road, comparing the 2026 pre-development (no-build) and 2026 post-development (full-build) traffic conditions.

Within the capacity analysis, we will review the level of service (LOS) for each lane at the study intersection. LOS is a measurement of the delay experienced by stopped vehicles at an intersection. LOS rankings are similar to the academic grading system, where an "A" is very good with little delay, and an "F" represents very poor conditions. The following chart presents the relationship between delay and LOS for unsignalized intersections.

Level of Service Criteria for Unsignalized Intersections	
Level of Service	**Total Control Delay (sec/veh)**
A	Up to 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater Than 50.0

The capacity analysis was performed using Synchro v12 inputs and SimTraffic v12 reporting outputs. The results are based upon 7 SimTraffic runs, averaging 5 runs with the lowest and highest run removed. The SimTraffic reports are included in *Section C of the appendix.* Table 5C, below, summarizes the results of the analysis completed for the weekday AM and PM peak hours of the pre- and post-development traffic conditions.

The following capacity analysis shows that there is a slight improvement in LOS in some lanes between the pre- and post-development analyses. The SimTraffic modeling software that we utilized for our analysis generally provides a reasonable and accurate depiction of the traffic conditions that we model. However, because SimTraffic is a microsimulation tool, there can sometimes be some very minor variations with individual traffic lanes. When we run our traffic models, there are 7 runs completed, with each run being 60 minutes. During that time, vehicles travel through the intersections over and over, and each time, the travel patterns are slightly different. This can lead to some very minor variations in results when comparing pre- and post-development travel conditions, especially when dealing with low volume movements. When this condition is observed, it is assumed that the pre- and post-development conditions are very similar.

Table 5C
Level of Service Summary

Intersection/Lane	2026 Pre-Development				2026 Post-Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS
Durham Road at Moody Road								
Durham Rd - EB LT	1.3	A	0.9	A	1.3	A	1.0	A
Durham Rd - WB TR	0.9	A	1.6	A	0.9	A	1.7	A
Moody Rd - SB LR	8.5	A	9.2	A	8.2	A	9.3	A
Overall	***1.5***	***A***	***1.5***	***A***	***1.5***	***A***	***1.7***	***A***

Table 5C shows that the intersection will continue to operate satisfactorily during the analyzed post-development AM and PM peak hours. At the study intersection of Durham Road and Moody Road, all lanes are shown to operate at LOS A with little to no change in average delay.

5.4 Vehicle Queue Analysis

In addition to outputting the vehicle delay, SimTraffic also provides vehicle queue reports, which show the expected average queue, 95th percentile queues, and maximum queues. The 95th percentile vehicle queues for the pre- and post-development conditions are summarized below in Table 5D, and the average and maximum queues are included in the SimTraffic reports.

Table 5D
95th Percentile Vehicle Queue Summary

Intersection/Lane	2026 Pre-Development		2026 Post-Development	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Veh. Queue (ft)	Veh. Queue (ft)	Veh. Queue (ft)	Veh. Queue (ft)
Durham Road at Moody Road				
Durham Rd - EB LT	0	16	0	18
Durham Rd - WB TR	0	0	0	0
Moody Rd - SB LR	44	31	47	37

Similar to what was shown in the level of service, the vehicle queueing analysis shows that the proposed development has little to no impact on traffic operations at the intersection of Durham Road and Moody Road. In the pre- and post-development traffic conditions, the vehicle queueing analysis reports a vehicle queue of approximately 1 vehicle on the eastbound Durham Road approach in the PM peak hour, and a vehicle queue of approximately 1 to 2 vehicles on the Moody Road approach in the AM and PM peak hours, assuming a vehicle length of 25 feet.

Overall, with the development of the project, the vehicle queues are expected to only slightly increase at the study intersection. This increase is minimal and is expected to have minimal impact on traffic operations.

6 Summary

6.1 Trip Generation

The proposed site trip generation includes 11 trips during the AM peak hour of the adjacent street and 14 trips during the PM peak hour of the adjacent street. During the peak hours of the generator, the proposed development is expected to generate 16 trips in the AM peak hour and 14 trips during the PM peak hour. Overall, the proposed development will remain well below the 100-trip threshold required to trigger a MaineDOT Traffic Movement Permit.

6.2 Intersection Sight Distance

Intersection sight distance measurements were recorded from the proposed site driveway approach, looking directionally onto Moody Road, and from the Moody Road approach, looking directionally onto Durham Road, to confirm that the existing sightlines met MaineDOT's requirements. The section of Moody Road fronting the proposed development is posted at 30mph, which seems reasonable given the characteristics of the roadway. Moody Road is approximately 21 feet wide, and its narrow width, along with its vertical and horizontal curves, are expected to help keep vehicle speeds down. Based on the 30mph posted speed limit, the site driveway requires an unobstructed sight distance of 250 feet.

Durham Road fronting Moody Road is posted at 45mph, requiring an unobstructed sight distance of 425 feet.

Proposed Driveway: Looking to the right, we recorded a sight distance of over 425 feet.

Looking left, a sightline of approximately 150 feet is provided through the end of the public way and onto the private 10-foot-wide gravel extension. This sightline can be increased by removing some trees located to the left of the proposed driveway and trimming the arborvitae located on the right side of the lot's existing driveway. Minor grading along the front of the existing units' lot is also recommended. Once the trees are removed, the arborvitae are trimmed, and the lot is regraded, we recommend that the sight distance be re-measured to confirm that the 250-foot sightline is met, looking left onto the private Moody Road extension.

Moody Road at Durham Road: Sight distance measurements were recorded from the Moody Road approach, looking directionally onto Durham Road to confirm that adequate sight distances were provided. Looking both left and right, we recorded sightlines exceeding 450 feet.

6.3 Crash Analysis

Crash data for the latest three-year time period (2022-2024) was provided by MaineDOT's Crash Records Section for Moody Road and the Section of Durham Road between and including the intersections at Brackett Road and Merryman Lane. The crash analysis shows no high-crash locations within the general vicinity of the site, nor are there any crash patterns at the intersection of Moody Road and Durham Road that will be exacerbated by the project's development. Additionally, no crashes were identified on Moody Road.

6.4 Capacity Analysis

A capacity analysis was conducted for the intersection of Moody Road and Durham Road, examining the 2026 pre-development and post-development traffic conditions during the AM and PM peak hour time periods.

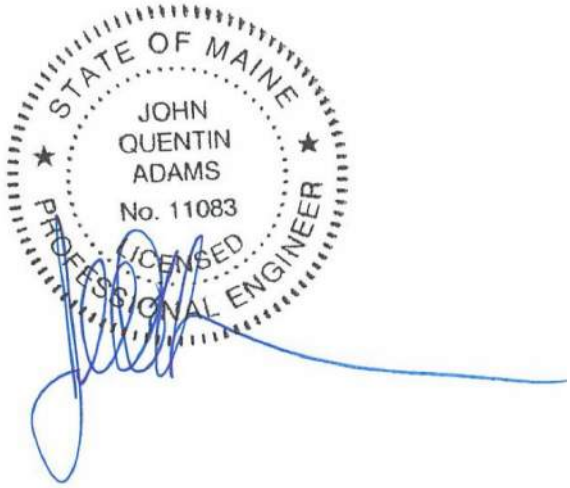
The capacity analysis shows that the proposed project will have minimal impact on the intersection of Moody Road and Durham Road. All approaches will continue to operate at LOS A with little to no change in average delay.

6.5 Vehicle Queue Analysis

A vehicle queueing analysis was conducted for the intersection of Moody Road and Durham Road, examining the 2026 pre-development and post-development traffic conditions during the AM and PM peak hour time periods.

The analysis shows that the proposed development has little to no impact on traffic operations at the intersection of Durham Road and Moody Road. In the pre- and post-development traffic conditions, the vehicle queueing analysis reports a vehicle queue of approximately 1 vehicle on the eastbound Durham Road approach in the PM peak hour, and a vehicle queue of approximately 1 to 2 vehicles on the Moody Road approach in the AM and PM peak hours, assuming a vehicle length of 25 feet.

Overall, with the development of the project, the vehicle queues are expected to slightly increase at the study intersection. This increase is minimal and is expected to have minimal impact on traffic operations.



John Q. Adams, P.E, PTOE
January 5, 2026

APPENDIX

A. TRAFFIC FIGURES & TRAFFIC COUNTS

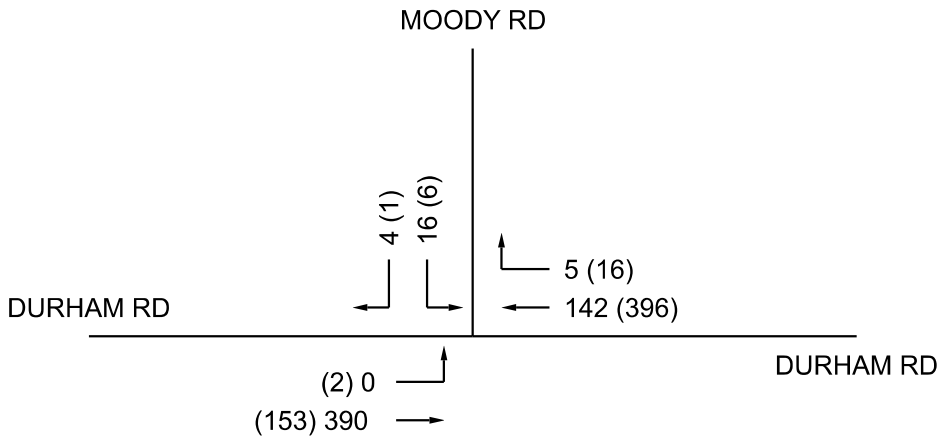
B. MAINEDOT CRASH DATA

C. SIMTRAFFIC REPORTS

APPENDIX A

TRAFFIC FIGURES & TRAFFIC COUNTS

AM PEAK HOUR BEGINS AT 7:00 AM
PM PEAK HOUR BEGINS AT 4:15 PM

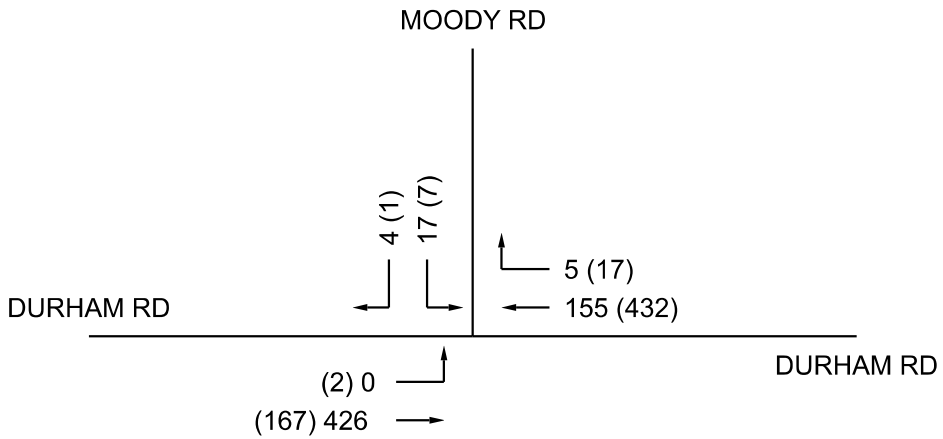


2025 PEAK HOUR TRAFFIC COUNT SUMMARY
FIGURE 1

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

GARNET RIDGE SUBDIVISION
119 MOODY RD, BRUNSWICK, ME
4502.006.001 DATE: DEC., 2025

Barton & Loguidice

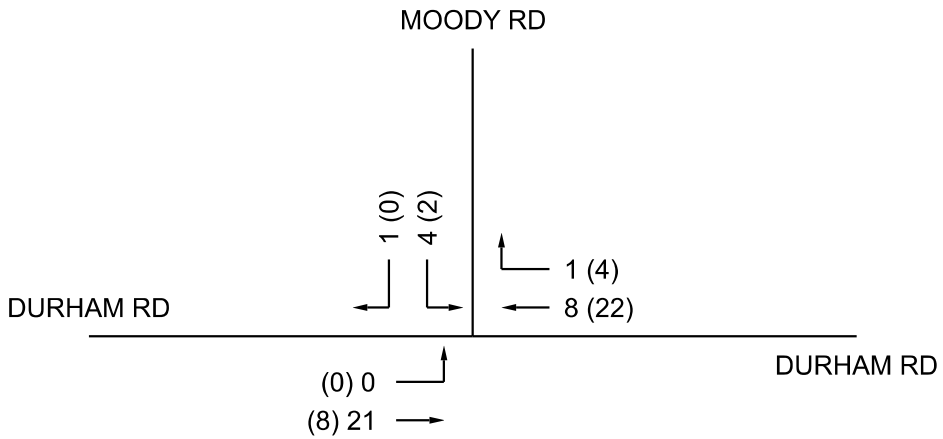


2026 DESIGN HOUR TRAFFIC VOLUMES
FIGURE 2

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

GARNET RIDGE SUBDIVISION
119 MOODY RD, BRUNSWICK, ME
4502.006.001 DATE: DEC., 2025

Barton & Loguidice

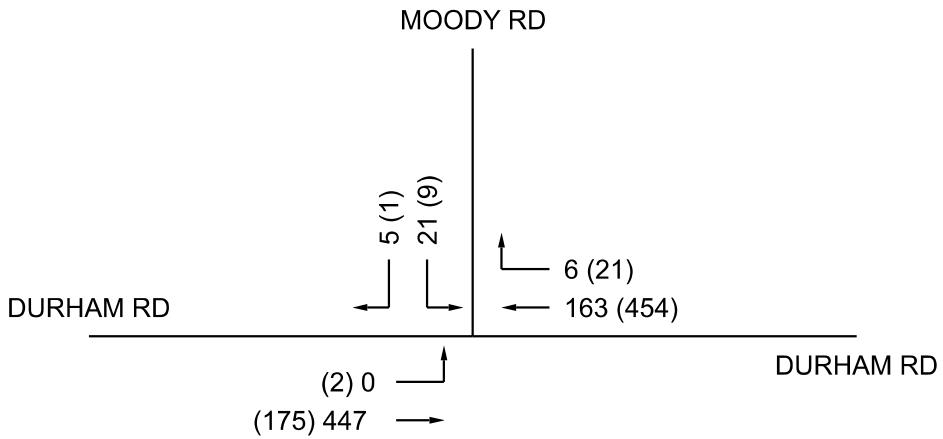


OTHER DEVELOPMENT TRAFFIC VOLUMES
FIGURE 3

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

GARNET RIDGE SUBDIVISION
119 MOODY RD, BRUNSWICK, ME
4502.006.001 DATE: DEC., 2025

Barton & Loguidice

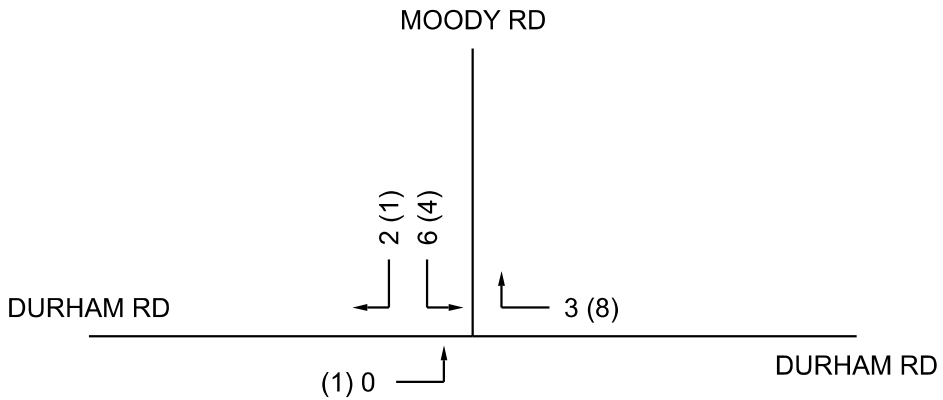


2026 PRE-DEVELOPMENT TRAFFIC VOLUMES
FIGURE 4

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

GARNET RIDGE SUBDIVISION
119 MOODY RD, BRUNSWICK, ME
4502.006.001 DATE: DEC., 2025

Barton & Loguidice

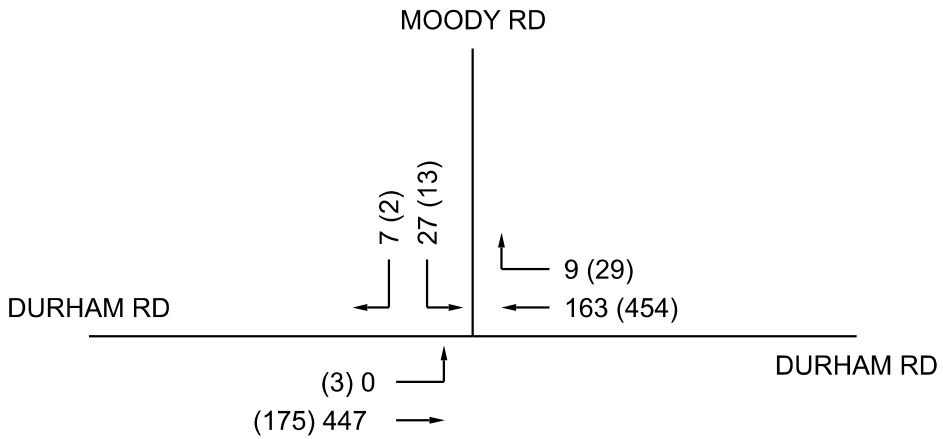


SITE TRIP ASSIGNMENT
FIGURE 5

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

GARNET RIDGE SUBDIVISION
119 MOODY RD, BRUNSWICK, ME
4502.006.001 DATE: DEC., 2025

Barton & Loguidice



2026 POST-DEVELOPMENT TRAFFIC VOLUMES
FIGURE 6

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

GARNET RIDGE SUBDIVISION
119 MOODY RD, BRUNSWICK, ME
4502.006.001 DATE: DEC., 2025

Barton & Loguidice

SUMMARY	
Project	Barton & Loguidice
Project Code	12273
Site Name	12273-1
Intersection Name	Moody Road & Durham Road
Legs and Movements	All Processed Legs & Movements
Count Interval	15
Start Time	07:00
End Time	17:45
Location	12273-1
Latitude and Longitude	(43.915539, -70.031879)

	START	END	PHF
AM PEAK	**11-05-2025 07:00:00**	**11-05-2025 08:00:00**	**0.88**
PM PEAK	**11-05-2025 16:15:00**	**11-05-2025 17:15:00**	**0.93**
Mid-Day PEAK			
Forced Peak AM			
Forced Peak PM			

Tri-State Traffic Data, Inc.

www.TSTData.com

Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

TURNING MOVEMENT DATA

Leg	Durham Road						Durham Road						Moody Road						
Direction	EastBound						WestBound						SouthBound						
Start Time	Left	Thru	U-Turn	App Total	Peds CW	Peds CCW	Thru	Right	U-Turn	App Total	Peds CW	Peds CCW	Left	Right	U-Turn	App Total	Peds CW	Peds CCW	Int Total
07:00	0	96	0	96	0	0	29	1	0	30	0	0	6	1	0	7	0	0	133
07:15	0	113	0	113	0	0	39	0	0	39	0	0	6	1	0	7	0	0	159
07:30	0	84	0	84	0	0	37	0	0	37	0	0	3	1	0	4	0	0	125
07:45	0	97	0	97	0	0	37	4	0	41	0	0	1	1	0	2	0	0	140
Hourly Total	0	390	0	390	0	0	142	5	0	147	0	0	16	4	0	20	0	0	557
08:00	1	62	0	63	0	0	28	2	0	30	0	0	5	1	0	6	6	0	99
08:15	0	62	0	62	0	0	36	2	0	38	0	0	3	0	0	3	0	0	103
08:30	1	72	0	73	0	0	37	3	0	40	0	0	3	0	0	3	0	0	116
08:45	0	52	0	52	0	0	29	0	0	29	0	0	2	1	0	3	0	0	84
Hourly Total	2	248	0	250	0	0	130	7	0	137	0	0	13	2	0	15	6	0	402
15:00	1	24	0	25	0	0	69	0	0	69	0	0	7	0	0	7	0	0	101
15:15	0	33	0	33	0	0	56	4	0	60	0	0	1	1	0	2	0	0	95
15:30	1	36	0	37	0	0	80	2	0	82	0	0	0	0	0	0	0	1	119
15:45	0	36	0	36	0	0	85	0	0	85	0	0	1	1	0	2	0	5	123
Hourly Total	2	129	0	131	0	0	290	6	0	296	0	0	9	2	0	11	0	6	438
16:00	0	37	0	37	0	0	93	1	0	94	0	0	0	0	0	0	0	0	131
16:15	0	39	0	39	0	0	109	5	0	114	0	0	2	0	0	2	0	1	155
16:30	1	31	0	32	0	0	108	5	0	113	0	0	2	0	0	2	0	0	147
16:45	1	39	0	40	0	0	92	2	0	94	0	0	1	0	0	1	0	0	135
Hourly Total	2	146	0	148	0	0	402	13	0	415	0	0	5	0	0	5	0	1	568
17:00	0	44	0	44	0	0	87	4	0	91	0	0	1	1	0	2	0	0	137
17:15	0	34	0	34	0	0	91	0	0	91	0	0	2	1	0	3	0	0	128
17:30	0	36	0	36	0	0	58	3	0	61	0	0	0	0	0	0	0	0	97
17:45	0	19	0	19	0	0	60	1	0	61	0	0	0	0	0	0	0	0	80
Hourly Total	0	133	0	133	0	0	296	8	0	304	0	0	3	2	0	5	0	0	442
Grand Total	6	1046	0	1052	0	0	1260	39	0	1299	0	0	46	10	0	56	6	7	2407
Approach %	0	99	0	100	0	0	96	3	0	100	0	0	82	17	0	100	10	12	300
Total %	0	43	0	43	0	0	52	1	0	53	0	0	1	0	0	2	0	0	100
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motorcycles %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars & Light Goods	4	1007	0	1011	0	0	1215	38	0	1253	0	0	44	9	0	53	0	0	2317
Cars & Light Goods	66	96	0	0	0	0	96	97	0	0	0	0	95	90	0	0	0	0	96
Single Unit Trucks	2	29	0	31	0	0	41	1	0	42	0	0	2	1	0	3	0	0	76
Single Unit Trucks	33	2	0	0	0	0	3	2	0	0	0	0	4	10	0	0	0	0	3
Articulated Trucks	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

Tri-State Traffic Data, Inc.

www.TSTData.com

Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

TURNING MOVEMENT DATA

Leg	Durham Road						Durham Road						Moody Road						
Direction	EastBound						WestBound						SouthBound						
Start Time	Left	Thru	U-Turn	App Total	Peds CW	Peds CCW	Thru	Right	U-Turn	App Total	Peds CW	Peds CCW	Left	Right	U-Turn	App Total	Peds CW	Peds CCW	Int Total
Articulated Trucks %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	0	7	0	7	0	0	4	0	0	4	0	0	0	0	0	0	0	0	11
Buses %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle on Road	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bicycle on Road %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	0
Pedestrian %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0
Bicycle on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle on Crosswalk %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Tri-State Traffic Data, Inc.

www.TSTData.com

Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

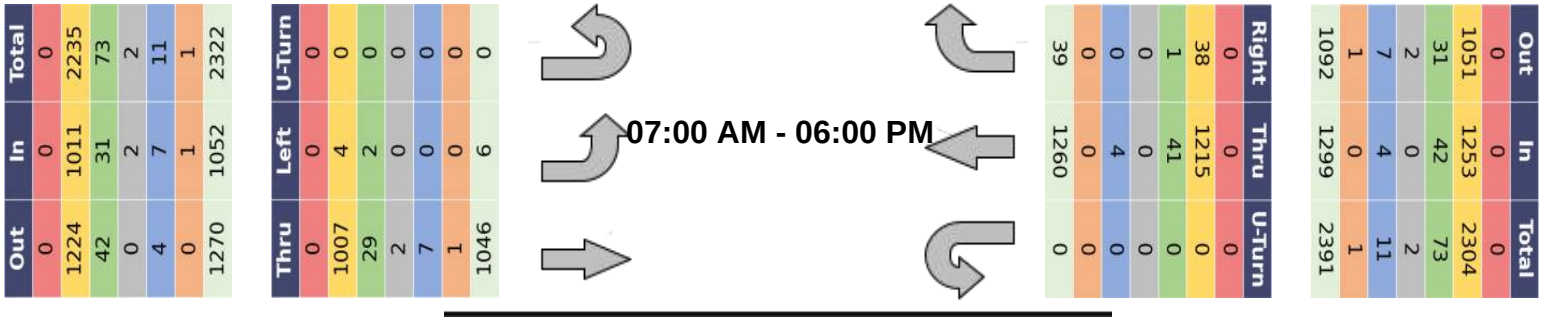
Date: 11-05-2025

Turning Movement Data

Out	In	Total
0	0	0
42	53	95
3	3	6
0	0	0
0	0	0
0	0	0
45	56	101

Right	Left	U-Turn
0	0	0
9	44	0
1	2	0
0	0	0
0	0	0
0	0	0
10	46	0

Class
Motorcycles
Cars & Light Goods
Single Unit Trucks
Articulated Trucks
Buses
Bicycle on Road
Total

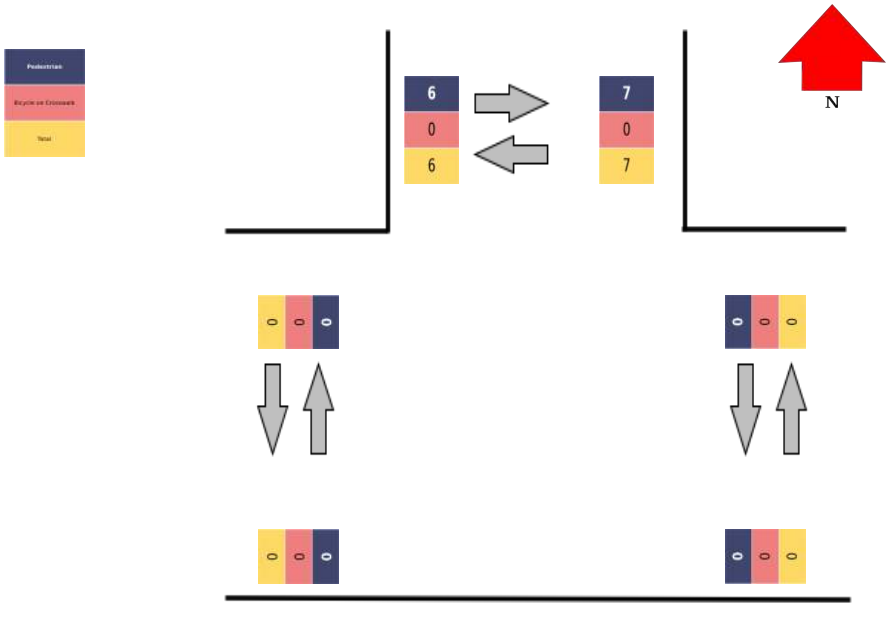


Out	In	Total
0	0	0
1224	1011	2235
42	31	73
0	2	2
4	7	11
0	1	1
1270	1052	2322

Thru	Left	U-Turn
0	0	0
1007	4	0
29	2	0
2	0	0
7	0	0
1	0	0
1046	6	0

Right	Thru	U-Turn
39	1260	0
0	0	0
0	4	0
0	0	0
1	41	0
38	1215	0
0	0	0

Out	In	Total
0	0	0
1051	1253	2304
31	42	73
2	0	2
7	4	11
1	0	1
1092	1299	2391



Tri-State Traffic Data, Inc.

www.TSTData.com

Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

TURNING MOVEMENT AM PEAK HOUR

Leg	Durham Road						Durham Road						Moody Road						
Direction	EastBound						WestBound						SouthBound						
Start Time	Left	Thru	U-Turn	App Total	Peds CW	Peds CCW	Thru	Right	U-Turn	App Total	Peds CW	Peds CCW	Left	Right	U-Turn	App Total	Peds CW	Peds CCW	Int Total
07:00:00	0	96	0	96	0	0	29	1	0	30	0	0	6	1	0	7	0	0	133
07:15:00	0	113	0	113	0	0	39	0	0	39	0	0	6	1	0	7	0	0	159
07:30:00	0	84	0	84	0	0	37	0	0	37	0	0	3	1	0	4	0	0	125
07:45:00	0	97	0	97	0	0	37	4	0	41	0	0	1	1	0	2	0	0	140
Grand Total	0	390	0	390	0	0	142	5	0	147	0	0	16	4	0	20	0	0	557
Approach %	0	100	0	100	0	0	97	3	0	100	0	0	80	20	0	100	0	0	300
Total %	0	70	0	70	0	0	25	1	0	26	0	0	3	1	0	4	0	0	100
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motorcycles %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars & Light Goods	0	376	0	376	0	0	132	5	0	137	0	0	15	4	0	19	0	0	532
Cars & Light Goods	0	96	0	0	0	0	93	100	0	0	0	0	94	100	0	0	0	0	96
Single Unit Trucks	0	11	0	11	0	0	9	0	0	9	0	0	1	0	0	1	0	0	21
Single Unit Trucks	0	3	0	0	0	0	6	0	0	0	0	0	6	0	0	0	0	0	4
Articulated Trucks	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Articulated Trucks %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	0	2	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3
Buses %	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Bicycle on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle on Road %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle on Crosswalk %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.0	0.86	0.0	0.86	0.0	0.0	0.91	0.31	0.0	0.9	0.0	0.0	0.67	1.0	0.0	0.71	0.0	0.0	0.88

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Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

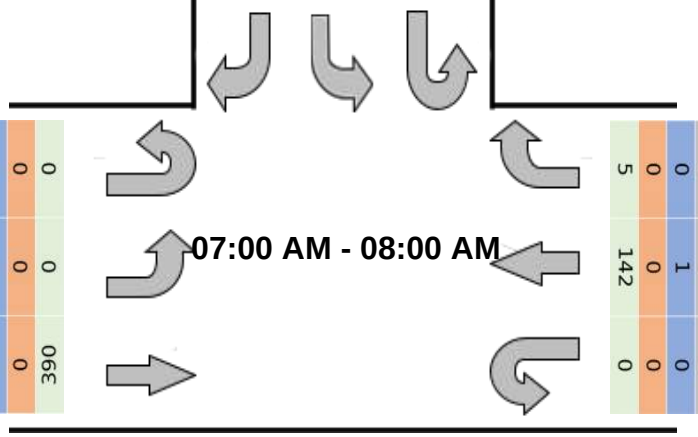
Date: 11-05-2025

AM Peak Turning Movement Data Summary

Out	In	Total
0	0	0
5	19	24
0	1	1
0	0	0
0	0	0
0	0	0
5	20	25

Class
Motorcycles
Cars & Light Goods
Single Unit Trucks
Articulated Trucks
Buses
Bicycle on Road
Total

Right	Left	U-Turn
0	0	0
4	15	0
0	1	0
0	0	0
0	0	0
0	0	0
4	16	0

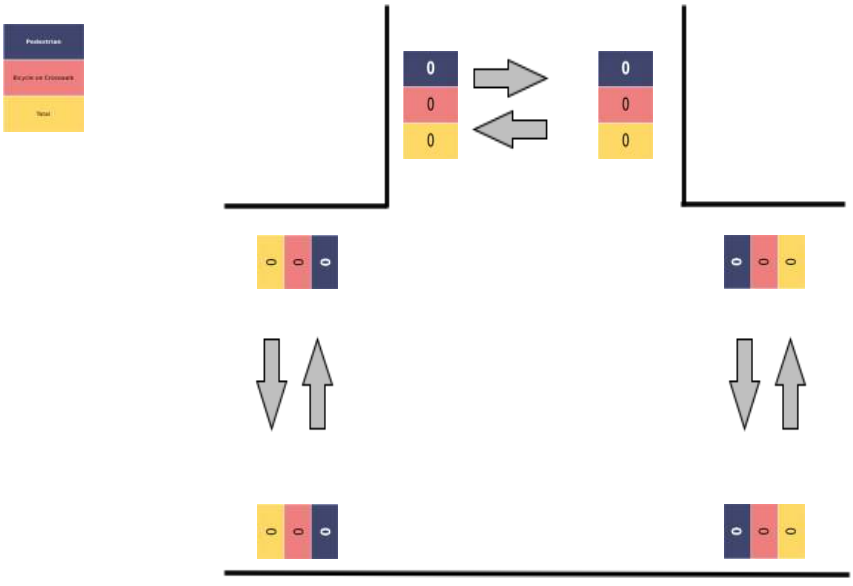


Out	0	136	9	0	1	0	146
In	0	376	11	1	2	0	390
Total	0	512	20	1	3	0	536

Thru	0	376	11	1	2	0	390
Left	0	0	0	0	0	0	0
U-Turn	0	0	0	0	0	0	0

Right	0	0	0	0	5	0	5
Thru	0	1	0	0	9	132	142
U-Turn	0	0	0	0	0	0	0

Out	0	2	1	12	391	0	406
In	0	1	0	9	137	0	147
Total	0	3	1	21	528	0	553



Tri-State Traffic Data, Inc.

www.TSTData.com

Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

TURNING MOVEMENT PM PEAK HOUR

Leg	Durham Road						Durham Road						Moody Road						
Direction	EastBound						WestBound						SouthBound						
Start Time	Left	Thru	U-Turn	App Total	Peds CW	Peds CCW	Thru	Right	U-Turn	App Total	Peds CW	Peds CCW	Left	Right	U-Turn	App Total	Peds CW	Peds CCW	Int Total
16:15:00	0	39	0	39	0	0	109	5	0	114	0	0	2	0	0	2	0	1	155
16:30:00	1	31	0	32	0	0	108	5	0	113	0	0	2	0	0	2	0	0	147
16:45:00	1	39	0	40	0	0	92	2	0	94	0	0	1	0	0	1	0	0	135
17:00:00	0	44	0	44	0	0	87	4	0	91	0	0	1	1	0	2	0	0	137
Grand Total	2	153	0	155	0	0	396	16	0	412	0	0	6	1	0	7	0	1	574
Approach %	1	99	0	100	0	0	96	4	0	100	0	0	86	14	0	100	0	14	300
Total %	0	27	0	27	0	0	69	3	0	72	0	0	1	0	0	1	0	0	100
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motorcycles %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars & Light Goods	2	149	0	151	0	0	388	16	0	404	0	0	6	1	0	7	0	0	562
Cars & Light Goods	100	97	0	0	0	0	98	100	0	0	0	0	100	100	0	0	0	0	98
Single Unit Trucks	0	3	0	3	0	0	8	0	0	8	0	0	0	0	0	0	0	0	11
Single Unit Trucks	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated Trucks %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Buses %	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle on Road %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Pedestrian %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle on Crosswalk %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.5	0.87	0.0	0.88	0.0	0.0	0.91	0.8	0.0	0.9	0.0	0.0	0.75	0.25	0.0	0.88	0.0	0.25	0.93

Tri-State Traffic Data, Inc.

www.TSTData.com

Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

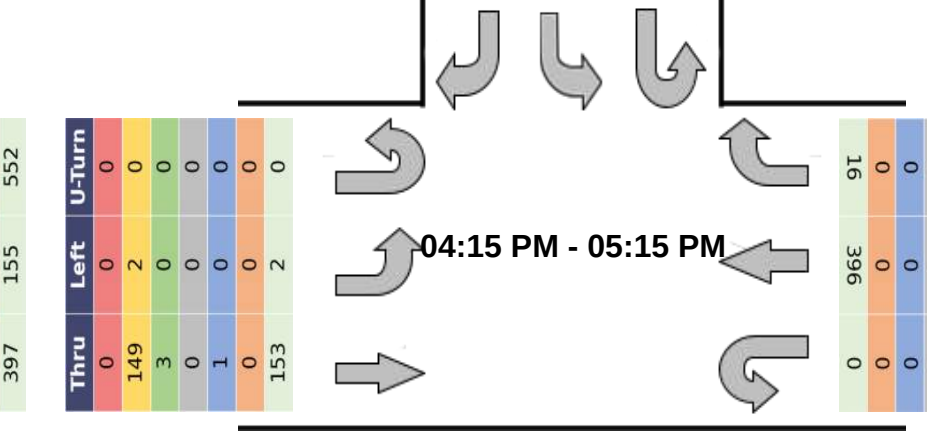
Date: 11-05-2025

PM Peak Turning Movement Data Summary

Out	In	Total
0	0	0
18	7	25
0	0	0
0	0	0
0	0	0
0	0	0
18	7	25

Class
Motorcycles
Cars & Light Goods
Single Unit Trucks
Articulated Trucks
Buses
Bicycle on Road
Total

Right	Left	U-Turn
0	0	0
1	6	0
0	0	0
0	0	0
0	0	0
0	0	0
1	6	0

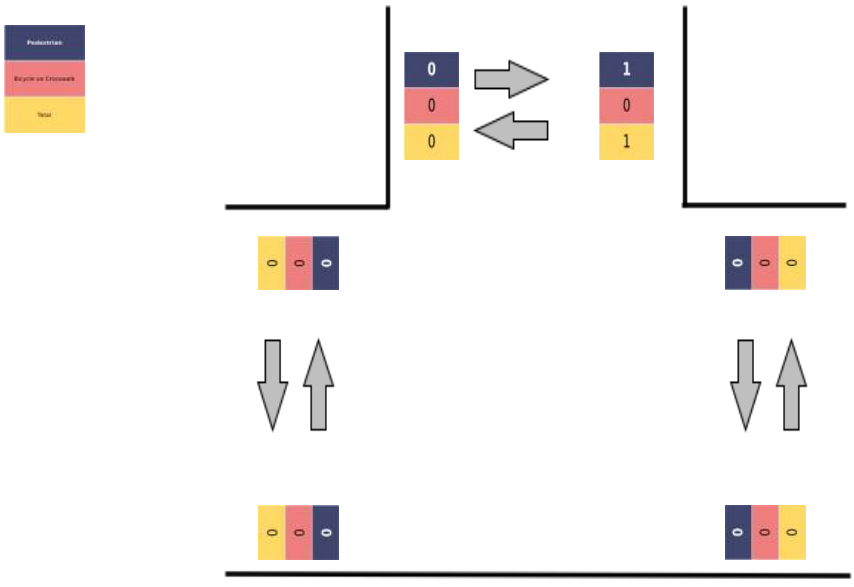


Total	In	Out
0	0	0
540	151	389
11	3	8
0	0	0
1	1	0
0	0	0
552	155	397

U-Turn	Left	Thru
0	0	0
0	2	149
0	0	3
0	0	0
0	0	1
0	0	0
0	2	153

Right	Thru	U-Turn
0	0	0
16	388	0
0	8	0
0	0	0
0	0	0
0	0	0
16	396	0

Out	In	Total
0	0	0
155	404	559
3	8	11
0	0	0
1	0	1
0	0	0
159	412	571



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Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

Motorcycles

Leg	Durham Road					Durham Road					Moody Road					
Direction	EastBound					WestBound					SouthBound					
Start Time	Left	Thru	U-Turn	Peds CW	Peds CCW	Thru	Right	U-Turn	Peds CW	Peds CCW	Left	Right	U-Turn	Peds CW	Peds CCW	Int Total
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

Cars & Light Goods

Leg	Durham Road					Durham Road					Moody Road					
Direction	EastBound					WestBound					SouthBound					
Start Time	Left	Thru	U-Turn	Peds CW	Peds CCW	Thru	Right	U-Turn	Peds CW	Peds CCW	Left	Right	U-Turn	Peds CW	Peds CCW	Int Total
07:00	0	89	0	0	0	24	1	0	0	0	5	1	0	0	0	120
07:15	0	111	0	0	0	38	0	0	0	0	6	1	0	0	0	156
07:30	0	81	0	0	0	36	0	0	0	0	3	1	0	0	0	121
07:45	0	95	0	0	0	34	4	0	0	0	1	1	0	0	0	135
Hourly Total	0	376	0	0	0	132	5	0	0	0	15	4	0	0	0	532
08:00	0	61	0	0	0	25	2	0	0	0	5	1	0	0	0	94
08:15	0	59	0	0	0	32	2	0	0	0	3	0	0	0	0	96
08:30	1	70	0	0	0	32	2	0	0	0	3	0	0	0	0	108
08:45	0	50	0	0	0	28	0	0	0	0	1	1	0	0	0	80
Hourly Total	1	240	0	0	0	117	6	0	0	0	12	2	0	0	0	378
15:00	1	24	0	0	0	66	0	0	0	0	7	0	0	0	0	98
15:15	0	28	0	0	0	56	4	0	0	0	1	1	0	0	0	90
15:30	0	35	0	0	0	76	2	0	0	0	0	0	0	0	0	113
15:45	0	33	0	0	0	81	0	0	0	0	1	0	0	0	0	115
Hourly Total	1	120	0	0	0	279	6	0	0	0	9	1	0	0	0	416
16:00	0	34	0	0	0	91	1	0	0	0	0	0	0	0	0	126
16:15	0	38	0	0	0	108	5	0	0	0	2	0	0	0	0	153
16:30	1	28	0	0	0	107	5	0	0	0	2	0	0	0	0	143
16:45	1	39	0	0	0	88	2	0	0	0	1	0	0	0	0	131
Hourly Total	2	139	0	0	0	394	13	0	0	0	5	0	0	0	0	553
17:00	0	44	0	0	0	85	4	0	0	0	1	1	0	0	0	135
17:15	0	33	0	0	0	91	0	0	0	0	2	1	0	0	0	127
17:30	0	36	0	0	0	57	3	0	0	0	0	0	0	0	0	96
17:45	0	19	0	0	0	60	1	0	0	0	0	0	0	0	0	80
Hourly Total	0	132	0	0	0	293	8	0	0	0	3	2	0	0	0	438
Total	4	1007	0	0	0	1215	38	0	0	0	44	9	0	0	0	2317

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Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

Single Unit Trucks

Leg	Durham Road					Durham Road					Moody Road					
Direction	EastBound					WestBound					SouthBound					
Start Time	Left	Thru	U-Turn	Peds CW	Peds CCW	Thru	Right	U-Turn	Peds CW	Peds CCW	Left	Right	U-Turn	Peds CW	Peds CCW	Int Total
07:00	0	4	0	0	0	5	0	0	0	0	1	0	0	0	0	10
07:15	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
07:30	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4
07:45	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	11	0	0	0	9	0	0	0	0	1	0	0	0	0	21
08:00	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	4
08:15	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	6
08:30	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0	6
08:45	0	2	0	0	0	1	0	0	0	0	1	0	0	0	0	4
Hourly Total	1	5	0	0	0	12	1	0	0	0	1	0	0	0	0	20
15:00	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
15:15	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
15:30	1	1	0	0	0	4	0	0	0	0	0	0	0	0	0	6
15:45	0	2	0	0	0	2	0	0	0	0	0	1	0	0	0	5
Hourly Total	1	7	0	0	0	9	0	0	0	0	0	1	0	0	0	18
16:00	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4
16:15	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
16:30	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
16:45	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	13
17:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
17:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4
Total	2	29	0	0	0	41	1	0	0	0	2	1	0	0	0	76

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Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

Articulated Trucks

Leg	Durham Road					Durham Road					Moody Road					
Direction	EastBound					WestBound					SouthBound					
Start Time	Left	Thru	U-Turn	Peds CW	Peds CCW	Thru	Right	U-Turn	Peds CW	Peds CCW	Left	Right	U-Turn	Peds CW	Peds CCW	Int Total
07:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2

Tri-State Traffic Data, Inc.

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Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

Buses

Leg	Durham Road					Durham Road					Moody Road					
Direction	EastBound					WestBound					SouthBound					
Start Time	Left	Thru	U-Turn	Peds CW	Peds CCW	Thru	Right	U-Turn	Peds CW	Peds CCW	Left	Right	U-Turn	Peds CW	Peds CCW	Int Total
07:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Hourly Total	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
08:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
08:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3
16:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	7	0	0	0	4	0	0	0	0	0	0	0	0	0	11

Tri-State Traffic Data, Inc.

www.TSTData.com

Site: 12273-1

Intersection Name: Moody Road & Durham Road

GPS: 43.915539, -70.031879

Date: 11-05-2025

Bicycle on Road

Leg	Durham Road					Durham Road					Moody Road					
Direction	EastBound					WestBound					SouthBound					
Start Time	Left	Thru	U-Turn	Peds CW	Peds CCW	Thru	Right	U-Turn	Peds CW	Peds CCW	Left	Right	U-Turn	Peds CW	Peds CCW	Int Total
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1

APPENDIX B

MAINEDOT CRASH DATA

Bracket Rd
12288
Durham Rd
Christina Dr
12263
Moody Rd
Jasper Dr
BRUNSWICK
Sergeant Ln
Sisters Wy
Bagatelle Ln
Mill Stream
Autumn View Ln
Durham Rd
12262
1142
6286
9968
28
19228
12264
6287
5685
295
12265
Bluegrass Dr
Ledge Brook Xing
Scale: 1:8469
600ft

Maine Department Of Transportation - Office of Safety, Crash Records Section

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ **Crash Summary I** ☐ **Section Detail** ☑ **Crash Summary II** ☐ **1320 Public** ☐ **1320 Private** ☐ **1320 Summary**

REPORT DESCRIPTION

Brunswick
Moody Rd-Durham Rd area

REPORT PARAMETERS

Year 2022, Start Month 1 through Year 2024 End Month: 12

Route: **0500334**	Start Node: **12288**	Start Offset: **0**	☐ **Exclude First Node**
	End Node: **12265**	End Offset: **0**	☐ **Exclude Last Node**
Route: **0500339**	Start Node: **12262**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **12263**	End Offset: **0**	☐ **Exclude Last Node**

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
12265	0500334 - 2.93	Int of DURHAM RD MERRYMAN LN	1	0	0	0	0	0	0	0.0	1.645	0.00	0.42	0.00
												Statewide Crash Rate:	0.12	
12262	0500334 - 2.49	Int of DURHAM RD MOODY RD	1	1	0	0	0	0	1	0.0	1.563	0.21	0.43	0.00
												Statewide Crash Rate:	0.12	
12288	0500334 - 1.45	Int of BRACKETT RD DURHAM RD	1	1	0	0	0	0	1	0.0	1.406	0.24	0.44	0.00
												Statewide Crash Rate:	0.12	
12263	0500339 - 0.55	End of MOODY RD	1	0	0	0	0	0	0	0.0	0.033	0.00	-2.11	0.00
												Statewide Crash Rate:	0.12	
Study Years:	3.00	**NODE TOTALS:**		2	0	0	0	0	2	0.0	4.647	0.14	0.32	0.44

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
12262	12288	186550	0 - 1.04	0500334 - 1.45	1.04	1	9	0	0	0	1	8	11.1	0.01496	200.48	411.08	0.49
Int of DURHAM RD	MOODY RD			RD INV 05 00334											Statewide Crash Rate: 235.60		
12262	12265	5088354	0 - 0.44	0500334 - 2.49	0.44	1	3	0	0	1	0	2	33.3	0.00714	140.11	482.46	0.00
Int of DURHAM RD	MOODY RD			RD INV 05 00334											Statewide Crash Rate: 235.60		
12262	12263	5088353	0 - 0.55	0500339 - 0	0.55	1	0	0	0	0	0	0	0.0	0.00036	0.00	975.27	0.00
Int of DURHAM RD	MOODY RD			RD INV 05 00339											Statewide Crash Rate: 235.60		
Study Years:	3.00			**Section Totals:**	2.03		12	0	0	1	1	10	16.7	0.02246	178.08	380.50	0.47
				Grand Totals:	2.03		14	0	0	1	1	12	14.3	0.02246	207.76	411.86	0.50

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
12262	12288	186550	0 - 1.04	0500334 - 1.45	9	0	0	0	1	8	2023-1556	01/16/2023	1.57	C
											2022-654	01/05/2022	1.71	PD
											2023-33715	11/16/2023	1.81	PD
											2022-8625	03/15/2022	1.81	PD
											2022-17310	06/18/2022	1.82	PD
											2022-40149	11/10/2022	1.87	PD
											2022-6447	02/25/2022	2.01	PD
											2022-29175	10/07/2022	2.36	PD
											2023-7113	03/02/2023	2.38	PD
12262	12265	5088354	0 - 0.44	0500334 - 2.49	3	0	0	1	0	2	2022-21419	07/27/2022	2.50	PD
											2024-21582	08/07/2024	2.79	PD
											2024-17200	06/25/2024	2.84	B
12262	12263	5088353	0 - 0.55	0500339 - 0	0	0	0	0	0	0				
				Totals:	12	0	0	1	1	10				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												PM													
	Hour of Day																									
Day Of Week	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Un**	**Tot**
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
TUESDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
WEDNESDAY	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	4
FRIDAY	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Totals	0	0	1	0	0	0	0	1	1	1	1	0	0	0	2	0	3	1	1	1	1	0	0	0	0	**14**

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	9	23-Bicyclist	0
2-(Sport) Utility Vehicle	3	24-Witness	3
3-Passenger Van	0	25-Other	0
4-Cargo Van (10K lbs or Less)	0	26-Construction	0
5-Pickup	3	27-Farm Vehicle	0
6-Motor Home	0	28-Horse and Buggy	0
7-School Bus	0	**Total**	**18**
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	0		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	6	1	0	0	0	0	7
Ran Off Roadway	3	0	0	0	0	0	3
Failed to Yield Right-of-Way	0	0	0	0	0	0	0
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	1	0	0	0	0	0	1
Drove Too Fast For Conditions	4	0	0	0	0	0	4
Improper Turn	0	0	0	0	0	0	0
Improper Backing	0	0	0	0	0	0	0
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	0	0	0	0	0	0	0
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0
Total	**14**	**1**	**0**	**0**	**0**	**0**	**15**

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	12	1	0	0	0	0	13
Physically Impaired	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	1	0	0	0	0	0	1
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	**14**	**1**	**0**	**0**	**0**	**0**	**15**

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	3	0	0	0	0	3
20-24	1	0	0	0	0	1
25-29	1	0	0	0	0	1
30-39	3	0	0	0	0	3
40-49	3	0	0	0	0	3
50-59	3	0	0	0	0	3
60-69	0	0	0	0	0	0
70-79	1	0	0	0	0	1
80-Over	0	0	0	0	0	0
Unknown	0	0	0	0	0	0
Total	**15**	**0**	**0**	**0**	**0**	**15**

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	1	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	1	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	**Total**	**15**
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	6		
13-Motor Vehicle in Transport	3		
14-Parked Motor Vehicle	0		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	1		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	1		
33-Traffic Sign Support	1		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	1		
37-Other Post, Pole, or Support	0		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	1	1
C	1	1
PD	12	0
Total	**14**	**2**

Road Character

Road Grade	Total
1-Level	7
2-On Grade	7
3-Top of Hill	0
4-Bottom of Hill	0
5-Other	0
Total	**14**

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	0
2-Traffic Signals (Flashing)	0
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	1
6-Yield Sign	0
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	1
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	12
14-Other	0
Total	**14**

Light

Light Condition	Total
1-Daylight	8
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	0
5-Dark - Not Lighted	6
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	**14**

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2022	2023	2024	Total
JANUARY	1	1	0	2
FEBRUARY	1	0	1	2
MARCH	1	1	0	2
APRIL	0	0	0	0
MAY	0	0	0	0
JUNE	1	0	1	2
JULY	1	0	0	1
AUGUST	0	0	1	1
SEPTEMBER	0	0	0	0
OCTOBER	1	0	0	1
NOVEMBER	2	1	0	3
DECEMBER	0	0	0	0
Total	**8**	**3**	**3**	**14**

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	6	0	1	0	0	0	0	0	0	0	0	0	0	0	7
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	5	0	1	0	0	0	0	0	0	0	0	0	0	0	6
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**12**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	5	0	0	0	0	0	0	0	0	0	0	5
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	4	0	0	0	0	0	0	0	0	0	0	4
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	1	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	2	0	0	0	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**9**	**1**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**1**	**14**

APPENDIX C

SIMTRAFFIC REPORTS

Summary of All Intervals

Run Number	2	3	4	6	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4
Vehs Entered	649	640	643	641	671	648
Vehs Exited	647	643	644	641	672	650
Starting Vehs	5	8	7	7	4	5
Ending Vehs	7	5	6	7	3	6
Travel Distance (mi)	197	194	195	195	204	197
Travel Time (hr)	6.0	6.0	6.0	6.0	6.3	6.1
Total Delay (hr)	0.4	0.4	0.4	0.4	0.4	0.4
Total Stops	23	28	26	22	29	25
Fuel Used (gal)	5.0	4.9	5.0	4.9	5.1	5.0

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	2	3	4	6	7	Avg
Vehs Entered	173	158	194	175	199	180
Vehs Exited	172	160	195	177	185	178
Starting Vehs	5	8	7	7	4	5
Ending Vehs	6	6	6	5	18	9
Travel Distance (mi)	52	49	59	54	58	54
Travel Time (hr)	1.6	1.5	1.9	1.7	1.8	1.7
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	11	9	8	9	11	10
Fuel Used (gal)	1.3	1.3	1.5	1.4	1.4	1.4

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	2	3	4	6	7	Avg
Vehs Entered	145	175	138	147	175	157
Vehs Exited	150	173	140	150	186	159
Starting Vehs	6	6	6	5	18	9
Ending Vehs	1	8	4	2	7	4
Travel Distance (mi)	45	52	42	45	55	48
Travel Time (hr)	1.4	1.6	1.3	1.4	1.7	1.5
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	5	10	4	3	6	5
Fuel Used (gal)	1.1	1.3	1.0	1.1	1.4	1.2

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	2	3	4	6	7	Avg
Vehs Entered	170	155	154	151	147	155
Vehs Exited	166	157	151	150	150	155
Starting Vehs	1	8	4	2	7	4
Ending Vehs	5	6	7	3	4	5
Travel Distance (mi)	51	48	46	45	44	47
Travel Time (hr)	1.6	1.5	1.4	1.4	1.4	1.4
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	4	5	7	2	6	5
Fuel Used (gal)	1.3	1.2	1.2	1.1	1.1	1.2

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	2	3	4	6	7	Avg
Vehs Entered	161	152	157	168	150	157
Vehs Exited	159	153	158	164	151	156
Starting Vehs	5	6	7	3	4	5
Ending Vehs	7	5	6	7	3	6
Travel Distance (mi)	49	46	48	51	46	48
Travel Time (hr)	1.5	1.4	1.5	1.6	1.4	1.5
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	3	4	7	8	6	5
Fuel Used (gal)	1.2	1.2	1.2	1.3	1.2	1.2

3: Durham Rd & Moody Rd Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	1.3	0.9	8.5	1.5

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	1.9

Intersection: 3: Durham Rd & Moody Rd

Movement	SB
Directions Served	LR
Maximum Queue (ft)	44
Average Queue (ft)	18
95th Queue (ft)	44
Link Distance (ft)	603
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	4	5	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4
Vehs Entered	724	665	676	646	659	675
Vehs Exited	717	668	668	645	662	671
Starting Vehs	2	8	4	3	7	4
Ending Vehs	9	5	12	4	4	6
Travel Distance (mi)	218	203	204	196	200	204
Travel Time (hr)	6.6	6.2	6.2	6.0	6.1	6.2
Total Delay (hr)	0.4	0.4	0.4	0.4	0.4	0.4
Total Stops	14	6	16	14	11	12
Fuel Used (gal)	5.6	5.0	5.2	4.9	5.2	5.2

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	4	5	7	Avg
Vehs Entered	206	183	187	182	195	190
Vehs Exited	204	182	181	181	195	188
Starting Vehs	2	8	4	3	7	4
Ending Vehs	4	9	10	4	7	6
Travel Distance (mi)	62	56	56	55	59	58
Travel Time (hr)	1.9	1.7	1.7	1.7	1.8	1.8
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	6	2	5	1	3	3
Fuel Used (gal)	1.6	1.4	1.4	1.4	1.5	1.5

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	4	5	7	Avg
Vehs Entered	172	156	155	184	168	166
Vehs Exited	171	158	163	185	169	169
Starting Vehs	4	9	10	4	7	6
Ending Vehs	5	7	2	3	6	5
Travel Distance (mi)	52	48	48	56	51	51
Travel Time (hr)	1.6	1.4	1.5	1.7	1.6	1.6
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	1	0	1	7	3	1
Fuel Used (gal)	1.3	1.2	1.2	1.4	1.3	1.3

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	4	5	7	Avg
Vehs Entered	165	171	149	135	133	151
Vehs Exited	158	170	147	136	134	149
Starting Vehs	5	7	2	3	6	5
Ending Vehs	12	8	4	2	5	5
Travel Distance (mi)	49	52	45	41	40	45
Travel Time (hr)	1.5	1.6	1.4	1.2	1.2	1.4
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	3	0	7	3	2	3
Fuel Used (gal)	1.2	1.3	1.1	1.1	1.1	1.2

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	4	5	7	Avg
Vehs Entered	181	155	185	145	163	166
Vehs Exited	184	158	177	143	164	165
Starting Vehs	12	8	4	2	5	5
Ending Vehs	9	5	12	4	4	6
Travel Distance (mi)	55	47	55	44	50	50
Travel Time (hr)	1.6	1.5	1.7	1.3	1.5	1.5
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	4	4	3	3	3	3
Fuel Used (gal)	1.4	1.2	1.4	1.1	1.3	1.3

3: Durham Rd & Moody Rd Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	0.9	1.6	9.2	1.5

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	1.9

Intersection: 3: Durham Rd & Moody Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	42	34
Average Queue (ft)	2	9
95th Queue (ft)	16	31
Link Distance (ft)	709	603
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	2	3	4	6	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4
Vehs Entered	664	655	643	641	671	656
Vehs Exited	663	657	644	641	672	655
Starting Vehs	6	8	7	7	4	6
Ending Vehs	7	6	6	7	3	6
Travel Distance (mi)	201	198	195	195	204	199
Travel Time (hr)	6.2	6.1	6.0	6.0	6.3	6.2
Total Delay (hr)	0.4	0.4	0.4	0.4	0.4	0.4
Total Stops	30	35	28	28	33	31
Fuel Used (gal)	5.1	5.1	5.0	4.9	5.1	5.0

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	2	3	4	6	7	Avg
Vehs Entered	183	158	194	175	199	181
Vehs Exited	183	160	195	177	185	180
Starting Vehs	6	8	7	7	4	6
Ending Vehs	6	6	6	5	18	9
Travel Distance (mi)	55	49	59	54	58	55
Travel Time (hr)	1.7	1.5	1.8	1.7	1.8	1.7
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	14	10	8	12	11	11
Fuel Used (gal)	1.4	1.3	1.5	1.4	1.4	1.4

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	2	3	4	6	7	Avg
Vehs Entered	145	180	138	147	175	157
Vehs Exited	150	178	140	150	186	161
Starting Vehs	6	6	6	5	18	9
Ending Vehs	1	8	4	2	7	4
Travel Distance (mi)	45	53	42	45	55	48
Travel Time (hr)	1.4	1.7	1.3	1.4	1.8	1.5
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	6	10	4	6	8	7
Fuel Used (gal)	1.1	1.4	1.0	1.1	1.4	1.2

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	2	3	4	6	7	Avg
Vehs Entered	175	165	154	151	147	158
Vehs Exited	166	168	151	150	150	157
Starting Vehs	1	8	4	2	7	4
Ending Vehs	10	5	7	3	4	5
Travel Distance (mi)	51	51	46	45	44	48
Travel Time (hr)	1.6	1.6	1.4	1.4	1.4	1.5
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	7	11	8	2	8	7
Fuel Used (gal)	1.3	1.3	1.2	1.1	1.2	1.2

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	2	3	4	6	7	Avg
Vehs Entered	161	152	157	168	150	158
Vehs Exited	164	151	158	164	151	158
Starting Vehs	10	5	7	3	4	5
Ending Vehs	7	6	6	7	3	6
Travel Distance (mi)	50	46	48	51	46	48
Travel Time (hr)	1.5	1.4	1.5	1.6	1.4	1.5
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	3	4	8	8	6	6
Fuel Used (gal)	1.3	1.2	1.2	1.3	1.2	1.2

3: Durham Rd & Moody Rd Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	1.3	0.9	8.2	1.5

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	2.0

Intersection: 3: Durham Rd & Moody Rd

Movement	SB
Directions Served	LR
Maximum Queue (ft)	53
Average Queue (ft)	20
95th Queue (ft)	47
Link Distance (ft)	603
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	2	3	4	5	7	Avg
Start Time	6:45	6:45	6:45	6:45	6:45	6:45
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4
Vehs Entered	685	707	692	654	675	682
Vehs Exited	688	710	684	653	678	683
Starting Vehs	8	8	4	3	7	6
Ending Vehs	5	5	12	4	4	6
Travel Distance (mi)	208	214	208	198	205	207
Travel Time (hr)	6.4	6.6	6.4	6.1	6.3	6.4
Total Delay (hr)	0.5	0.5	0.5	0.4	0.5	0.5
Total Stops	14	18	20	18	15	17
Fuel Used (gal)	5.2	5.5	5.4	5.1	5.4	5.3

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	2	3	4	5	7	Avg
Vehs Entered	191	204	192	184	197	193
Vehs Exited	191	206	185	183	197	193
Starting Vehs	8	8	4	3	7	6
Ending Vehs	8	6	11	4	7	5
Travel Distance (mi)	58	62	57	56	60	58
Travel Time (hr)	1.8	1.9	1.8	1.7	1.8	1.8
Total Delay (hr)	0.1	0.2	0.1	0.1	0.1	0.1
Total Stops	5	9	9	5	3	6
Fuel Used (gal)	1.5	1.6	1.5	1.4	1.5	1.5

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	2	3	4	5	7	Avg
Vehs Entered	160	162	160	190	174	169
Vehs Exited	161	162	168	191	175	172
Starting Vehs	8	6	11	4	7	5
Ending Vehs	7	6	3	3	6	5
Travel Distance (mi)	49	49	49	58	53	52
Travel Time (hr)	1.5	1.5	1.5	1.8	1.7	1.6
Total Delay (hr)	0.1	0.1	0.1	0.2	0.1	0.1
Total Stops	2	2	1	7	5	2
Fuel Used (gal)	1.2	1.3	1.3	1.5	1.4	1.3

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	2	3	4	5	7	Avg
Vehs Entered	178	174	153	135	137	156
Vehs Exited	175	175	152	136	138	155
Starting Vehs	7	6	3	3	6	5
Ending Vehs	10	5	4	2	5	5
Travel Distance (mi)	54	53	46	41	41	47
Travel Time (hr)	1.7	1.6	1.4	1.2	1.3	1.4
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	2	2	7	3	3	3
Fuel Used (gal)	1.3	1.3	1.2	1.1	1.1	1.2

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	2	3	4	5	7	Avg
Vehs Entered	156	167	187	145	167	164
Vehs Exited	161	167	179	143	168	164
Starting Vehs	10	5	4	2	5	5
Ending Vehs	5	5	12	4	4	6
Travel Distance (mi)	48	51	55	44	51	50
Travel Time (hr)	1.5	1.5	1.7	1.3	1.5	1.5
Total Delay (hr)	0.1	0.1	0.1	0.1	0.1	0.1
Total Stops	5	5	3	3	4	4
Fuel Used (gal)	1.2	1.3	1.5	1.1	1.4	1.3

3: Durham Rd & Moody Rd Performance by lane

Lane	EB	WB	SB	All
Movements Served	LT	TR	LR	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	1.0	1.7	9.3	1.7

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	2.1

Intersection: 3: Durham Rd & Moody Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	34	34
Average Queue (ft)	2	13
95th Queue (ft)	18	37
Link Distance (ft)	709	603
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

GENERAL NOTES

1. The purpose of this plan is to depict the results of a Boundary Retracement Survey and Existing Condition/Topographic Survey of the subject parcels.
2. All Book and Page numbers refer to the Cumberland County Registry of Deeds, unless otherwise noted.
3. The record owner of the subject parcels is Stefanie M. Hallett & Alex C. Hallett by the following deeds:

Map	Lot	Date	Book	Page
14	13-A	9-17-2017	48397	297
10	4	9-22-2023	40385	29
10	5	9-22-2023	40385	29

4. The subject parcel is located in the Rural Farm & Forest District.
5. Space and bulk standards for the Rural Farm & Forest District as of the date of this plan are as follows:

Min. Lot Size:	2 acres
Min. Lot Width:	150 ft.
Min. Front Setback:	25 ft.
Min. Side Setback:	30 ft.
Min. Rear Setback:	30 ft.
Max. Building Height:	40 ft.

6. Total area of the subject parcel is 79.705 acres.
7. Boundary information shown hereon is based on an on-the-ground survey conducted by Terradyn Consultants, LLC in June of 2025.
8. Plan References:
   - A. "Subdivision Plan Section 1" Prepared for Harold Sandelin & Joseph Klocheck by Sitelines P.A. Dated August 2005. Recorded as Plan Book 205, Page 606.
   - B. "Subdivision Plan Section 2" Prepared for Harold Sandelin & Daniel D. Pender by Sitelines P.A. Dated September 2009. Recorded as Plan Book 215, Page 321.
   - C. "Wood Pond Village" Prepared for Robert Cole by Thomas J. Churchill. Dated January 1985. Recorded as Plan Book 165, Page 68.
   - D. "Boundary Survey" Prepared for Gerard Potvin by Sitelines P.A. Dated April 2007. Unrecorded.
   - E. "Standard Boundary Survey of Land off Moody Road" Prepared for Charles W. Given by MidCoast Survey Co. Dated August 2003.
   - F. "Subdivision of Dunlap's Farm" prepared by Edwin Tounsand dated 1864 and recorded in Plan Book 2, Page 40.
9. Plan orientation is Grid North, Maine State Plane Coordinate System, West Zone 1802-NAD83. Elevations depicted hereon are NAVD88, based on dual-frequency GPS observations.
10. The subject parcel is located in with Zone X, Areas of Minimal Flood Hazard, as delineated on the Flood Insurance Rate Map for the Town of Brunswick, Cumberland County, Community-Panel Number 23005C0346F & 23005C0347F, having an Effective Date of June 20, 2024.
11. A wetland delineation was preformed on this project site by Basswood Environmental LLC on June, 2025. This wetlands delineation conforms to the standards and methods outlined in the 1987 Wetland Delineation Manual and Northeast Regional Supplement authored and published by the U.S. Army Corps of Engineers. All wetland flags were located using Global Positioning System (GPS) technology capable of decimeter accuracy.
12. The depth, size, location, existence or nonexistence of underground utilities and/or structures were not investigated as part of this survey. Utilities depicted hereon may not necessarily represent all existing utilities. Owners, contractors, and/or designers need to contact Dig-Safe Systems, Inc. (CALL 811) and field verify existing utilities prior to digging or breaking ground.

NOTES

LOT DISTURBANCE LIMITS:

- LOTS 2-4 WILL HAVE A DISTURBANCE LIMIT OF 15,000 SF
- LOTS 5-8 & 10-13 WILL HAVE A DISTURBANCE LIMIT OF 20,000 SF
- LOT 9 WILL HAVE A TOTAL DISTURBANCE LIMIT OF 50,000 SF

WILDLIFE HABITAT BLOCK CALCULATIONS

% OF WILDLIFE HABITAT BLOCK AREA WITHIN ORIGINAL PARCEL THAT WOULD BE DISTURBED*:	11.61%
% OF ORIGINAL PARCEL AREA COVERED BY WILDLIFE HABITAT BLOCK:	93.34%
ELIGIBLE DENSITY BONUS %**:	15%

*INCLUDES THE ROAD ROW AND POTENTIAL STORMWATER AREAS WITHIN THE HABITAT BLOCK AND LOT IMPACTS WITHIN LIMITS OF DISTURBANCE.
**DENSITY BONUS NOT UTILIZED FOR THIS PROJECT

SPACE AND BULK CRITERIA

RURAL FARM AND FOREST ZONE (RF ZONE)

	BASE DEVELOPMENT	OPEN SPACE DEVELOPMENT
MIN. LOT SIZE:	2 AC	N/A*
MIN. LOT WIDTH:	150 FT	75 FT
MIN. LOT WIDTH: (CUL-DE-SAC):	50 FT	50 FT
MIN. FRONT SETBACK:	25 FT	N/A**
MIN. SIDE YARD:	30 FT	10 FT
MIN. REAR YARD:	30 FT	20 FT
MAX. IMPERVIOUS SURFACE COVERAGE:	20%	N/A
MAX. FOOTPRINT PER STRUCTURE:	10,000 SF	N/A
MIN. BUILDING HEIGHT:	40 FT	40 FT

*AREA MUST BE SUFFICIENT TO ACCOMMODATE SEPTIC AND/OR WELLS (20,000 SF PER 10-144 CMR CH.243) AND MUST BE SETBACK FROM ANY LOT LINE 15'
**THIS MAY BE REDUCED FURTHER IN ACCORDANCE WITH SUBSECTION 4.2.5.B(4)a OF THE TOWN OF BRUNSWICK ZONING ORDINANCE

NET RESIDENTIAL AREA AND DENSITY CALCULATION
RURAL FORM ZONE (RF ZONE)

TOTAL PARCEL AREA:	79.70 AC
STEEP SLOPE AREA:	0.00 AC
WETLANDS:	15.77 AC
WATER BODY:	0.09 AC
PUBLIC STREET OR PRIVATE RIGHT-OF-WAY:	2.29 AC
ENDANGERED OR THREATENED SPECIES HABITAT:	2.71 AC
MNAP RARE OR ENDANGERED PLANTS:	0.00 AC
NRPA HABITAT OR VERNAL POOLS:	7.98 AC
NET SITE AREA:	50.87 AC
MAXIMUM DENSITY:	1 UNIT/2 AC
DENSITY (#UNITS):	25.43
UNITS PROPOSED (#UNITS):	12
UNITS EXISTING (#UNITS):	1
TOTAL UNITS (#UNITS):	13
TOTAL LOTS (#LOTS):	13
PRIVATE OPEN SPACE:	37.78 AC
HOA EASEMENT OPEN SPACE:	20.13 AC
TOTAL OPEN SPACE AREA:	57.91 AC
TOTAL OPEN SPACE %:	72.65%
MIN. OPEN SPACE REQUIRED:	45%

ZONING OVERLAY AREAS WITHIN PARCEL

SHORELAND ZONE:	10.42 AC
INLAND WATERFOWL AND WADING BIRD HABITAT:	6.58 AC
AQUIFER PROTECTION OVERLAY:	55.54 AC
WILDLIFE PROTECTION BLOCK:	74.40 AC

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	LOCUS PROPERTY LINE	
	PROPERTY LINE	
	INTERIOR PROPERTY LINE	
	SETBACK LINE	
	EASEMENT LINE	
	MONUMENT	
	IRON PIPE	
	BUILDING	
	BITUMINOUS PAVEMENT	
	CURBING	
	STONE WALL	
	WETLAND AREA	
	CATCH BASIN	
	SANITARY MANHOLE	
	HYDRANT	
	CURB STOP	
	TRANSFORMER	
	LIMITS OF DISTURBANCE	

APPROVAL: CITY OF AUBURN PLANNING BOARD

DATE

CHAIRPERSON

STATE OF MAINE

ANDROSCOGGIN COUNTY REGISTRY OF DEEDS

RECEIVED _____ 20__

AT ___h ____m _____M. AND RECORDED IN PLAN BOOK _____ PAGE _____.

ATTEST _____ REGISTER

GRAPHIC SCALE
120 0 60 120 240
(IN FEET)
1 INCH = 120FT.

PROPERTY CURVE TABLE

CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C11	43.00'	25.00'	N 75°24'16" E	37.89'
C12	35.34'	25.00'	N 14°49'21" W	32.47'
C13	40.61'	100.00'	S 43°41'23" E	40.33'
C14	60.92'	150.00'	S 43°41'23" E	60.50'
C15	53.80'	175.00'	N 40°51'49" W	53.59'
C16	38.43'	125.00'	N 40°51'49" W	38.28'
C17	169.19'	125.00'	S 11°38'09" E	156.57'
C18	118.35'	175.00'	S 30°58'58" E	116.11'
C19	86.21'	175.00'	S 2°30'15" W	85.34'
C20	32.14'	175.00'	S 21°52'42" W	32.10'
C21	226.06'	325.00'	N 7°12'50" E	221.53'
C22	191.44'	275.00'	N 7°11'49" E	187.60'
C23	192.48'	275.00'	N 31°56'28" W	188.58'
C24	157.49'	225.00'	N 31°56'28" W	154.29'
C25	87.74'	100.00'	S 26°51'25" E	84.95'
C26	55.05'	150.00'	S 41°28'43" E	54.75'
C27	76.93'	150.00'	S 16°16'15" E	76.09'
C28	27.54'	185.00'	S 2°32'38" W	27.51'
C29	50.00'	185.00'	S 14°33'03" W	49.85'
C30	34.05'	185.00'	S 27°34'00" W	34.00'
C31	15.95'	70.00'	N 26°18'46" E	15.91'
C32	50.00'	70.00'	N 0°40'37" W	48.94'
C33	50.00'	70.00'	N 41°36'09" W	48.94'
C34	50.00'	70.00'	N 82°31'41" W	48.94'
C35	60.34'	70.00'	S 52°18'56" W	58.49'
C36	52.16'	70.00'	S 6°16'28" W	50.96'
C37	25.91'	70.00'	S 25°40'38" E	25.76'
C38	36.59'	185.00'	N 30°36'54" W	36.53'
C39	74.63'	185.02'	N 13°23'37" W	74.12'

CENTERLINE TABLE

LINE	DIRECTION	DISTANCE
L11	N 55°19'25" W	323.43'
L12	N 32°03'21" W	145.10'
L13	N 49°40'21" W	103.35'
L14	N 27°08'25" E	83.81'
L15	N 11°53'22" W	86.35'
L16	N 51°59'35" W	63.81'

PROPERTY LINE TABLE

LINE	DIRECTION	DISTANCE
L21	N 55°19'25" W	208.48'
L22	S 55°19'25" E	287.12'
L23	N 55°19'25" W	63.52'
L24	N 32°03'21" W	145.10'
L25	S 32°03'21" E	145.10'
L26	N 49°40'17" W	4.85'
L27	S 49°40'17" E	12.61'
L28	N 49°40'17" W	98.18'
L29	S 49°40'17" E	90.26'
L30	N 27°08'25" E	37.31'
L31	S 27°08'25" W	83.65'
L32	N 27°08'25" E	46.34'
L33	N 11°53'22" W	86.16'
L34	S 11°53'22" E	86.35'
L35	N 51°59'35" W	63.81'
L36	S 51°59'35" E	63.81'

PROPERTY LINE TABLE

LINE	DIRECTION	DISTANCE
L1	S 25°40'43" W	39.89'
L2	S 31°01'47" E	14.73'
L3	S 62°53'18" E	87.52'
L4	S 53°55'40" E	56.82'
L5	N 73°34'00" W	28.66'
L6	N 51°27'47" W	102.16'
L7	N 60°27'35" W	57.68'
L8	N 24°42'30" W	90.46'
L9	N 34°19'54" W	102.71'

CENTERLINE CURVE TABLE

CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C1	50.76'	125.00'	S 43°41'23" E	50.41'
C2	46.12'	150.00'	N 40°51'49" W	45.94'
C3	202.05'	152.05'	S 11°36'15" E	187.51'
C4	208.84'	300.00'	N 7°11'49" E	204.65'
C5	174.99'	250.00'	N 31°56'28" W	171.44'
C6	109.68'	125.00'	S 26°51'25" E	106.19'
C7	126.67'	210.00'	S 15°33'34" W	124.76'
C8	195.66'	45.00'	S 88°16'46" W	74.12'
C9	126.67'	210.00'	N 19°00'03" W	124.76'

MATTHEW PELLETIER 10256 REGISTERED PROFESSIONAL ENGINEER STATE OF MAINE

DATE: 01/05/2026

NO.	DATE	REVISIONS
5	01/05/2026	WAIVER REQUEST SUBMISSION
4	12/03/2025	UPDATED SITE PLAN FOR PLANNING BOARD WORKSHOP
3	10/07/2025	UPDATED SKETCH PLAN SUBMISSION
2	9/22/2025	UPDATED SITE PLAN TO TOWN OF BRUNSWICK
1	8/12/2025	SKETCH PLAN SUBMISSION

ADDRESS: 41 CAMPUS DRIVE, SUITE 301, NEW GLOUCESTER, ME 04260
PHONE: (207) 926-5111
WEB SITE: www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Surveying | Geomatics
Stormwater Design | Land Planning | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GARNET RIDGE SUBDIVISION
119 MOODY ROAD, BRUNSWICK, MAINE 04011

SHEET TITLE: SUBDIVISION PLAN

CLIENT: ALEX & STEFANIE HALLETT
119 MOODY ROAD
BRUNSWICK, ME 04011

DATE: 8/12/2025
SCALE: 1" = 120'
JOB NO: 25-34
SHEET: C-1.0

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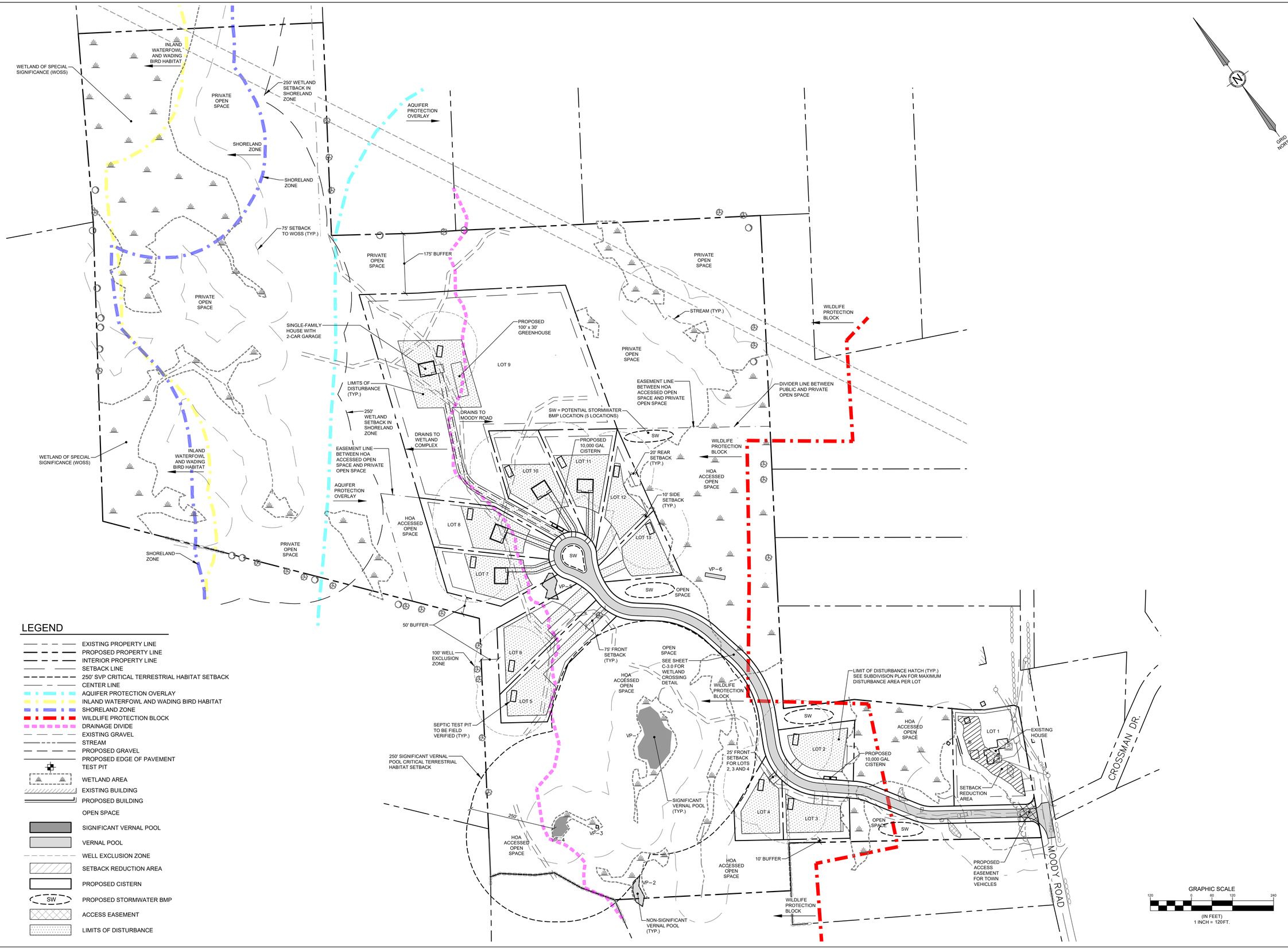

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- INTERIOR PROPERTY LINE
- SETBACK LINE
- 250' SVP CRITICAL TERRESTRIAL HABITAT SETBACK
- CENTER LINE
- AQUIFER PROTECTION OVERLAY
- INLAND WATERFOWL AND WADING BIRD HABITAT
- SHORELAND ZONE
- WILDLIFE PROTECTION BLOCK
- DRAINAGE DIVIDE
- EXISTING GRAVEL
- STREAM
- PROPOSED GRAVEL
- PROPOSED EDGE OF PAVEMENT
- TEST PIT
- WETLAND AREA
- EXISTING BUILDING
- PROPOSED BUILDING
- OPEN SPACE
- SIGNIFICANT VERNAL POOL
- VERNAL POOL
- WELL EXCLUSION ZONE
- SETBACK REDUCTION AREA
- PROPOSED CISTERN
- SW — PROPOSED STORMWATER BMP
- ACCESS EASEMENT
- LIMITS OF DISTURBANCE

GRAPHIC SCALE
120 0 60 120 240
(IN FEET)
1 INCH = 120FT.

STATE OF MAINE — MATTHEW PELLETIER — 21603 — REGISTERED PROFESSIONAL ENGINEER

DATE: 01/05/2026

NO.	DATE	REVISIONS
5	01/05/2026	WAIVER REQUEST SUBMISSION
4	12/03/2025	UPDATED SITE PLAN FOR PLANNING BOARD WORKSHOP
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TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Surveying | Geomatics
Stormwater Design | Land Planning | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GARNET RIDGE SUBDIVISION
119 MOODY ROAD, BRUNSWICK, MAINE 04011

SHEET TITLE: OVERALL SITE PLAN

CLIENT: ALEX & STEFANIE HALLETT
119 MOODY ROAD
BRUNSWICK, ME 04011

DATE: 8/12/2025
SCALE: 1" = 120'
JOB NO: 25-34
SHEET: C-2.0

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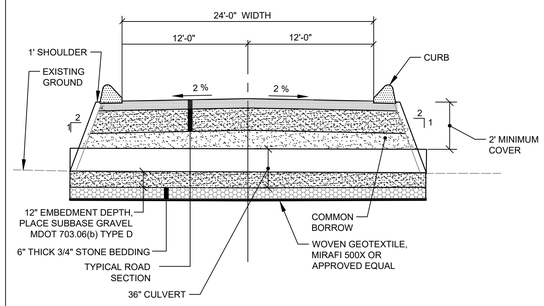
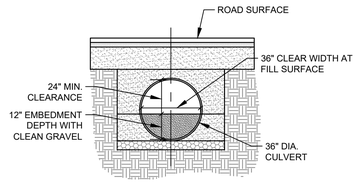


CROSS SECTION



PIPE TRENCH

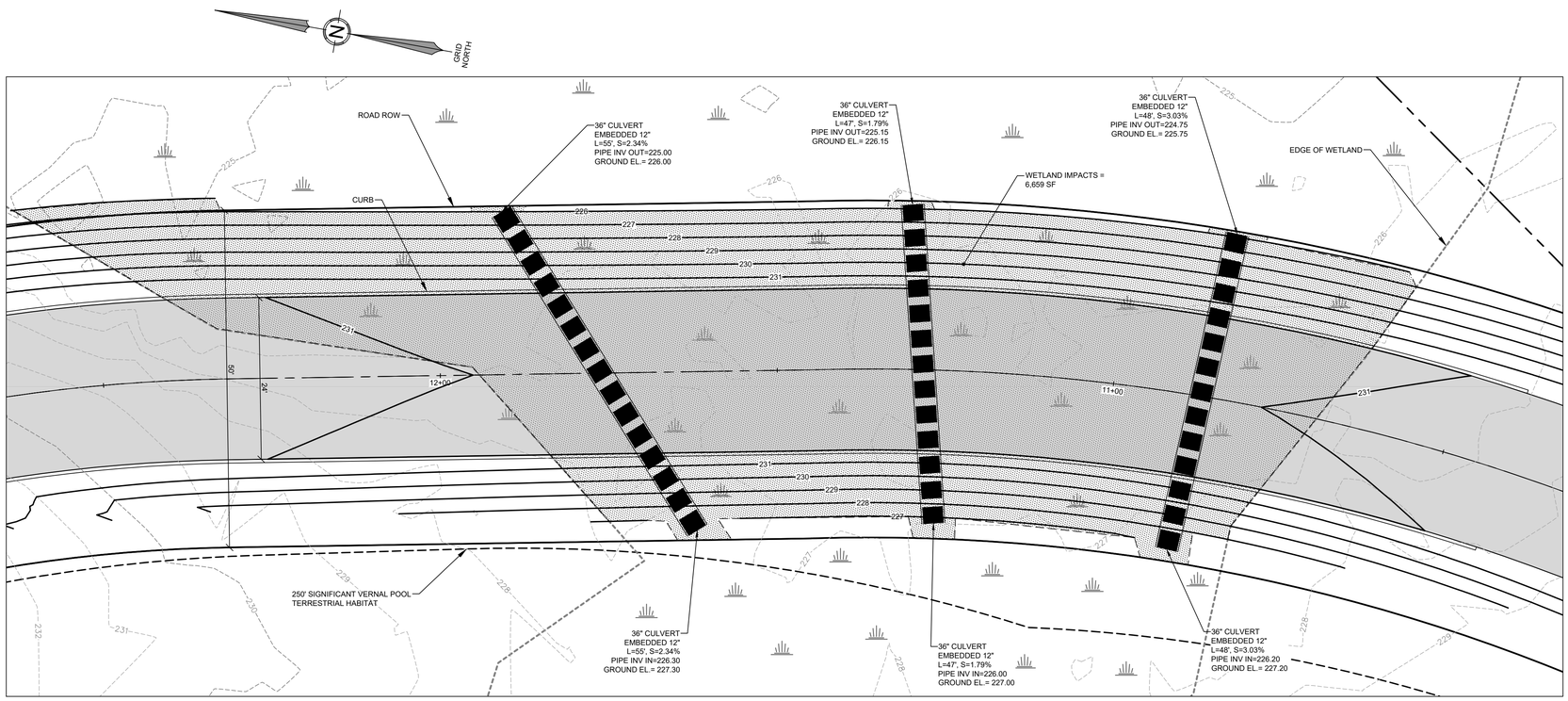
NOTES:
1. THIS DETAIL TO BE USED WHERE THE ROAD CROSSES WETLAND AREAS.
2. SEE TYPICAL TRENCH DETAIL FOR BACKFILL REQUIREMENTS

WETLAND CROSSING DETAIL

NOT TO SCALE

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY LINE	
	INTERIOR PROPERTY LINE	
	CENTER LINE	
	SETBACK LINE	
	EASEMENT LINE	
	SIGNIFICANT VERNAL POOL	
124	MINOR CONTOUR LINE	124
130	MAJOR CONTOUR LINE	130
	BITUMINOUS PAVEMENT	
	CURBING	
	STORM DRAIN	
	WETLAND AREA	
	PROPOSED PAVEMENT	
	WETLAND IMPACTS	



NOTES:
1. WETLAND CROSSING CULVERTS ARE LESS THEN 50' APART FROM EACH OTHER AND LESS THAN 50' FROM EITHER SIDE OF THE DELINEATED WETLAND PER ARMY CORP OF ENGINEER RULES.

PLAN VIEW

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 INCH = 10 FT.

STATE OF MAINE
MATTHEW PELLETIER
PROFESSIONAL ENGINEER

DATE: 01/05/2026

NO.	DATE	REVISIONS
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PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GARNET RIDGE SUBDIVISION
119 MOODY ROAD, BRUNSWICK, MAINE 04011

SHEET TITLE: CULVERT SECTION SCHEMATIC

CLIENT: ALEX & STEFANIE HALLETT
119 MOODY ROAD
BRUNSWICK, ME 04011

DATE: 8/12/2025
SCALE: NOT TO SCALE
JOB NO: 25-34
SHEET: C-3.0

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Town of Brunswick, Maine
INCORPORATED 1739
DEPARTMENT OF PLANNING AND DEVELOPMENT
85 UNION STREET
BRUNSWICK, MAINE 04011-1583
TELEPHONE 207-725-6660
FAX 207-725-6663

BRUNSWICK PLANNING BOARD
DEVELOPMENT REVIEW PACKET

This Packet Includes:

I. Summary of Development Review Applicability and Process
II. Minor Development Review Application Form
III. Sketch Plan Major Development Review Application Form
IV. Final Plan Major Development Review Application Form

Note that this review process summary and the submission checklist are provided only as a ready reference for your convenience. For a complete reading of the provisions governing development review in Brunswick, the applicant must refer to the Brunswick Zoning Ordinance, copies of, which are available for a fee from the Department of Planning and Development.

PURPOSE

The purpose of Development Review for site plans and subdivisions is to ensure that the development of land occurs in a manner that conforms to the Brunswick Zoning Ordinance (Zoning Ordinance) and reasonably protects public facilities, the natural environment and neighboring uses. Development review includes subdivision and site plan reviews. Applicants are advised that a building, electrical or plumbing permit may be required in addition to Development Review. For further information, contact the Department of Planning and Development at 207-725-6660.

DEVELOPMENT REVIEW CATEGORIES AND THRESHOLDS

Development review applications are classified into "Minor" and "Major" review. Major Reviews are conducted by the Planning Board, and Minor Reviews are conducted by the Staff Review Committee. **Development review thresholds and procedures are detailed in Section 5.2.9 of the Brunswick Zoning Ordinance.** Briefly,

Minor Plan: For developments of lesser scale, the plan includes the final drawings on which the applicant's subdivision or site plan is presented to the Staff Review Committee for approval and which, if approved, would be recorded at the Cumberland County Registry of Deeds.

Major Review Components:

> **Sketch Plan:** Includes conceptual maps, renderings and supportive data describing the project proposed by the applicant for initial Staff Review Committee review and recommendation to the Planning Board, followed by the review and action by the Planning Board.
>
> **Final Plan:** Includes the final drawings on which the applicant's subdivision or site plan is first presented to the Staff Review Committee for review and recommendation to the Planning Board, followed by review and action by the Planning Board.

Complete Major Review applications may be eligible for concurrent sketch plan and final plan review. The staff review committee will evaluate the submission and make a formal determination to send it to the planning board as one or two applications.

REVIEW PROCESS AND TIMEFRAME

Development Review shall be conducted in accordance with the Development Review Time and Processing Requirements in the Zoning Ordinance. All time limits are expressed in calendar days.

APPLICABLE FEES

Application Fees

The following application fees shall be paid for any project undergoing development review. For projects that require a public hearing or projects for which the Planning Board schedules a public hearing an additional $300.00 fee will be assessed to cover the costs of advertising the public hearing.

Major or Minor Subdivision:

SKETCH PLAN: $300 per lot/unit ($150 lot/unit Affordable Housing)
FINAL PLAN: $300 per lot proposed ($150 lot/unit Affordable Housing)

Major or Minor Site Plan:

SKETCH PLAN:

- For projects with new building construction of more than 2,500 square feet the cost equals the total amount of square footage for all buildings multiplied by $0.25.
- For all other developments the fee is $500.00.

FINAL PLAN:

- For projects with new building construction of more than 2,500 square feet the cost equals the total amount of square footage for all buildings multiplied by $0.50.
- For all other developments the fee is $750.00.

Impact Fees

Impact fees may apply depending upon the type of proposed development and will be determined during the development review process.

Peer Review

Peer review is a professional evaluation conducted by a consultant of the Review Authority to assist in determining whether an application submission satisfies the Review Criteria set forth in Subsection 5.2.9.O. The Staff Review Committee or Planning Board may, by majority vote, select a consultant to perform a peer review for the Staff Review Committee or the Planning Board at the applicant's expense. Peer review shall not be undertaken unless it is necessary for an informed review of the application materials and its costs are reasonable, considering the nature and the scope of the application. Estimated costs for peer review shall be disclosed to the applicant prior to undertaking such review. The Town shall require an applicant to deposit funds into an escrow account to be held for the purpose of reimbursing the peer review costs. The applicant shall be entitled to an accounting of the use of all funds and shall be entitled to a refund of all funds not expended upon final approval, denial or withdrawal of an application. The Review Authority reserves the right to deny any application due to a lack of information necessary to deem the proposal in compliance with Subsection 5.2.9.O.

DEVELOPMENT REVIEW APPLICATION

1. Development Review application type (refer to **Appendix D**):

- [ ] **Minor Development Review**
- [x] Major Development Review: **Sketch Plan**
- [ ] Major Development Review: **Final Plan**

2. Project Name: TEN TWO LLC SUBDIVISION

3. Project Applicant

Name:	TEN TWO LLC
Address:	97 LEDGE BROOK CROSSING
	BRUNSWICK, ME 04101
Phone Number:	207-751-4313
Email:	jsnell@jaidenlandscaping.com

4. Property Owner (name on deed)

Name:	TEN TWO LLC
Address:	97 LEDGE BROOK CROSSING
	BRUNSWICK, ME 04101
Phone Number:	207-751-04101
Email:	jsnell@jaidenlandscaping.com

5. Authorized Representative

Name:	JAY RAITT / LITTLE RIVER LAND SURVEYING
Address:	16 CATTAIL LANE
	LISBON, ME 04250
Phone Number:	207-841-0056
Email:	JRAITT@LRLS.NET

6. List of Design Consultants. Indicate the registration number, address and phone number, email for any additional project engineers, surveyors, architects, landscape architects or planners:

   1. JERAMIAH J. RAITT, SURVEYOR, ME 2376
   2. _____
   3. _____

7. Physical location of property: MOODY ROAD, BRUNSWICK

8. Lot Size: 17.43 ACRES

9. Zoning District: RURAL FARM & FOREST DISTRICT

10. Overlay Zoning District(s): AQUIFER PROTECTION OVERLAY ZONE & WILDLIFE HABITAT BLOCK

11. Indicate the interest of the applicant in the property and abutting property. For example, is the applicant the owner of the property and abutting property? If not, who owns the property subject to this application? If property owner is an organization, what is the applicant's affiliation?
PROPERTY OWNER

12. Assessor's Tax Map 10 Lot Number 10 of subject property.

13. Brief description of proposed use/subdivision:
3 LOT SUBDIVISION, NO NEW INFRASTRUCTURE PROPOSED

14. Describe specific physical improvements to be done:
THREE HOUSES, DRIVEWAYS, SEPTIC SYSTEMS AND WELLS

Property Owner Signature: FOR TEN TWO LLC Date: 11-17-2025

Property Owner Name Printed:
TEN TWO LLC

Applicant Signature: FOR TEN TWO LLC Date: 11-17-2025

Applicant Name & Title Printed:
TEN TWO LLC

DEVELOPMENT REVIEW APPLICATION REQUIREMENTS

The submission requirements contained in Appendix D of the Brunswick Zoning Ordinance (attached in checklist format for each application category) shall apply to all Minor Development, Major Development, and Streamlined Major Development Review unless a waiver is granted. Proposed development applications shall be submitted to the Director of Planning and Development.

For each item listed in Appendix D the applicant shall either submit the requested information or request a waiver from the information requirement pursuant to Subsection 5.2.9.M of the Zoning Ordinance.

REQUIREMENTS FOR SKETCH PLAN APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Sketch Plan
General	Application form and fee	X
	Name of development	X
	Existing zoning district and overlay designations	X
	Location map (Project property and surrounding area for context)	X
	Location of features, natural and artificial, such as water bodies, wetlands, streams, important habitats, vegetation, railroads, ditches and buildings	X
	Documentation of Right, Title and Interest	X
	Draft performance guarantee or conditional agreement	N/A?
	List of anticipated permits required (federal, state, local)	N/A
Survey, Topography, & Existing Conditions	Scale, date, north point, and area	X
	Existing easements associated with the development	X
	Existing locations of sidewalks	N/A
	Approximate locations of dedicated public open space, areas protected by conservation easements and recreation areas	N/A
	When applicable, a table indicating the maximum number of lots permitted based upon the applicable dimensional requirements, the number of lots proposed, and the number of lots permitted to be further subdivided.	N/A?
	Building envelopes showing acceptable locations for principal and accessory structures, setbacks and impervious coverage	X
Proposed Development Plan	Number of lots if a subdivision	X
	If proposing 15 or more units of rental housing, describe how affordability requirements will be met.	N/A

REQUIREMENTS FOR FINAL PLAN & MINOR DEVELOPMENT REVIEW APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Final Plan	Minor	Staff
General	Application form and fee			
	Name of development			
	Existing zoning district and overlay designations			
	Location map (Project property and surrounding area for context)			
	Location of features, natural and artificial, such as water bodies, wetlands, streams, important habitats, vegetation, railroads, ditches and buildings			
	Documentation of Right, Title and Interest			
	Draft performance guarantee or conditional agreement			
	Disclosure of permits required (federal, state, local); if permit has been granted or application submitted, provide a copy			
	Drafts of legal documents appropriate to the application, including: deeds, easements, conservation easements, deed restrictions or covenants, home/property owners association declarations and by-laws, and such other agreements or documents as are necessary to show the manner in which common areas will be owned, maintained, and protected			
	Narrative including Chapter 4 development standards and any applicable overlay standards and how they are being addressed			
	Written response to all Staff Review Committee comments received			
Survey, Topography, & Existing Conditions	Scale, date, north point, and area			
	A survey submitted by a professional land surveyor with a current license by the State of Maine Board of Licensure for Professional Surveyors. Surveys must be stamped for final plan approval.			
	Boundaries of all lots and tracts with accurate distances and bearings, locations of all permanent monuments on the property identified as existing or proposed.			
	Location of existing utilities; water, sewer, electrical lines, and profiles of underground facilities			
	Existing easements associated with the development			
	Existing locations of sidewalks			
	Approximate locations of dedicated public open space, areas protected by conservation easements and recreation areas			
	When applicable, a table indicating the maximum number of lots permitted based upon the applicable dimensional requirements, the number of lots proposed, and the number of lots permitted to be further subdivided.			
	Building envelopes showing acceptable locations for principal and accessory structures, setbacks and impervious coverage			
	Existing location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability			
	Topography with contour intervals of not more than two (2) feet			
	A delineation of wetlands, floodplains, important habitats, and other environmentally sensitive areas			
	A Medium Intensity Soil Survey, available from the Cumberland County Soil and Water Conservation District. The Planning Board may require a Class A (high intensity) Soil Survey, prepared in accordance with the standards of the Maine Association of Professional Soil Scientists, if issues of water quality, wetlands or other natural constraints are noted.			

REQUIREMENTS FOR FINAL PLAN & MINOR DEVELOPMENT REVIEW APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Final Plan	Minor	Staff
Infrastructure - Proposed	Name, location, width of paving and rights-of-way, profile, cross-section dimensions, curve radii of existing and proposed streets; profiles of center-lines of proposed streets, at a horizontal scale of one (1) inch = 50 feet and vertical scale of one (1) = five (5) feet, with all evaluations referred to in U.S.G.S. datum			
	Proposed easements associated with the development			
	Kind, location, profile and cross-section of all proposed drainage facilities, both within and connections to the proposed development, and a storm-water management plan in accordance with Section 4.5.4			
	Location of proposed utilities; water, sewer, electrical lines, and profiles of underground facilities. Tentative locations of private wells.			
	Proposed location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability			
	Proposed locations, widths and profiles of sidewalks			
	Locations, dimensions, and number of proposed vehicular and bicycle parking spaces, including proposed shared parking arrangement if applicable.			
	Grading, erosion control, and landscaping plan; proposed finished grades, slopes, swells, and ground cover or other means of stabilization			
	Storm water management plan for the proposed project prepared by a professional engineer			
	The size and proposed location of water supply and sewage disposal systems			
	A statement from the General Manager of the Brunswick Sewer District as to conditions under which the Sewer District will provide public sewer and approval of the proposed sanitary sewer infrastructure			
	A statement from the General Manager of the Brunswick and Topsham Water District as to conditions under which public water will be provided and approval of the proposed water distribution infrastructure			
Proposed Development Plan	Lighting plan showing details of all proposed lighting and the location of that lighting in relation to the site			
	Reference to special conditions stipulated by the Review Authority			
	Proposed ownership and approximate location and dimensions of open spaces for conservation and recreation. Dedicated public open specs, areas protected by conservation easements, and existing and proposed open spaces or recreation areas and potential connectivity to adjoining open space.			
	When applicable, a table indicating the maximum number of lots permitted based upon the applicable dimensional requirements, the number of lots proposed, and the number of lots permitted to be further subdivided.			
	Building envelopes showing acceptable locations for principal and accessory structures, setbacks and impervious coverage			
	Disclosures of any required permits. If a permit has been granted or an application for one submitted, provide a copy of the permit application.			
	A statement from the General Manager of the Brunswick and Topsham Water District regarding the proposed development if located within an Aquifer Protection Zone			
	A plan of all new construction, expansion and/or redevelopment of existing facilities, including type, size, footprint, floor layout, setback, elevation of first floor slab, storage and loading areas			

REQUIREMENTS FOR FINAL PLAN & MINOR DEVELOPMENT REVIEW APPLICATION SUBMITTAL Please mark box with one of the following: "W" (Waiver); "P" (Pending); "X" (Submitted) or "N/A" (Not applicable)		Final Plan	Minor	Staff
Proposed Development Plan	An elevation view of all sides of each building proposed indicating height, color, bulk, surface treatment, signage and other features as may be required by specific design standards [Cooks Corner or Village Review]			
	A circulation plan describing all pedestrian and vehicle traffic flow on surrounding road systems			
	Traffic: A trip generation report			
	A site landscaping plan indicating grade change, vegetation to be preserved, new plantings used to stabilize areas of cut and fill, screening, the size, locations and purpose and type of vegetation			
	Number of lots if a subdivision			
	A plan showing all ten (10) inch caliper trees to be removed as a result of the development proposal			
	All applicable materials necessary for the Review Authority to review the proposal in accordance with the criteria of Chapter 5.			
	Any additional studies required by the Review Authority			

FINANCIAL CAPACITY EXPLAINED

Applicants shall demonstrate compliance with the following:

A. **General Standard:**

The applicant shall have financial capacity to design, construct, operate, and maintain the development. Evidence of financial capacity must be provided prior to a decision on an application, except that the applicable review authority may defer a final finding on financial capacity by placing a condition on an approval that requires the applicant to provide final evidence of financial capacity satisfactory to the Director of Planning and Development before the issuance of any building permit.

B. **Specific Standard:**

(1) The applicant must show that they have right, title, or interest in the development parcel.

(2) The application for approval of a proposed development must include evidence that affirmatively demonstrates that the developer has the financial capacity to design, construct, operate, and maintain the proposed development, except in cases in which the review authority defers a final determination as set forth in Section (A) above. Evidence of financial capacity must include, but is not limited to, the following information:

a. Cost estimates. Accurate and complete estimates of the development, including all proposed phases. The itemization of major costs may include but is not limited to, the cost of the following activities: land purchase, erosion control, roads, sewers, structures, water supply, utilities, pollution abatement, landscaping, and restoration of the site, if applicable.

b. Time schedule. The time schedule for construction of all phases proposed.

c. Evidence of Funds. Evidence such as the following:

i. Letter of commitment or intent to fund. A letter from a financial institution, governmental agency, or other funding source indication a commitment to provide to the applicant a specified amount of funds and the uses for which the funds may be utilized. In cases where funding is required but her can be no commitment of money until approvals are received, an applicant may submit a letter of "intent to fund' from an appropriate funding institution indicating the amount of funds intended to be provided to the applicant and the specified uses for which the funds are intended.

In cases where one or more entities are part of the applicant's business structure, evidence must be submitted describing the applicant's business structure and demonstrating that the proposed financing is clearly linked from the financing institution to the applicant.

ii. Self-financing

(A) The most recent corporate annual report or financial statements indicating availability of sufficient funds to finance the development together with material

explaining the report, and evidence that funds have been set aside for the proposed development. The financial information in any annual report and any financial statement should be audited, or an explanation provided why audited reports are not available.

(B) Copies of bank statements of accounts held by the applicant or other evidence indicating that funds are available and have been set aside for the proposed development.

iii. Government agency

(A) Evidence that funds to complete the development have been included in an approved budget and that grant money or other funds have been obtained to cover the development costs.

(B) In cases where funding is required but there can be no commitment of money until approvals are received, a detailed plan outlining how funds for the development will be obtained and evidence that legal authority exists to implement the plan.

iv. Non-profit organization

(A) Evidence that funds to complete the development have been included in an approved budget and that grant money or other funds have been obtained to cover the development costs.

(B) In cases where funding is required but there can be no commitment of money until approvals are received, a detailed plan outlining how funds for the development will be obtained, including projections for and status of any fund raising.

d. Phased Development. In cases of phased development or long-term construction projects, the department may find that the applicant has demonstrated adequate financial capacity to comply with department requirements provided (a) the applicant has demonstrated financial capacity for a separate first phase, and (b) the permit is conditioned to require that evidence of financial capacity adequate for review and approval be submitted to the Department prior to construction of each subsequent phase. Construction of each subsequent phase may not begin prior to approval of financial capacity for that phase.

e. If the applicant is an entity registered with the Secretary of State of any state, provide a Certificate of Good Standing or other evidence of existence and good standing satisfactory to the Planning Board.

MAINE REAL ESTATE TAX-Paid

TRUSTEE'S DEED

DLN: 2510657

MARK J. FISHER, CURRENT TRUSTEE OF THE JANICE K. FISHER TRUST DATED APRIL 20, 1999, of Portland, County of Cumberland, and State of Maine, for consideration paid, grants to **TEN TWO LLC**, a Maine limited liability company with its principal place of business in Brunswick, County of Cumberland, and State of Maine, having a mailing address of 97 Ledge Brook Crossing, Brunswick, ME 04011, the real property in the Town of Brunswick, County of Cumberland, and State of Maine, more particularly described as follows:

BEGINNING on the westerly line of Moody Road at the southerly corner of land now or formerly of Jade Stuart and Samuel Stuart as described in a deed dated May 27, 2001 and recorded in book 38263, page 303;

THENCE S 23° 07' 27" W along Moody Road a distance of 234.56 feet to a point;

THENCE S 21° 16' 40" W along Moody Road a distance of 85.27 feet to a point;

THENCE S 12° 33' 47" W along Moody Road a distance of 160.93 feet to the easterly corner of land recently conveyed by this grantor;

THENCE N 58° 10' 29" W along land recently conveyed by this grantor a distance of 599.71 feet to a point;

THENCE S 81° 37' 00" W along land recently conveyed by this grantor a distance of 785.12 feet to a point in the easterly line of land now or formerly Brenda C. Masse and Patrick J. Masse as described in a deed dated September 8, 1997 and recorded in book 13337, page 263;

THENCE N 32° 37' 50" E along the land of Brenda C. Masse and Patrick J. Masse a distance of 567.44 feet to a point;

THENCE N 09° 57' 29" E along the land of Brenda C. Masse and Patrick J. Masse a distance of 112.62 feet to a point;

THENCE N 11° 51' 57" E along the land of Brenda C. Masse and Patrick J. Masse a distance of 437.16 feet to the westerly corner of land now or formerly of Stefanie M. Hallett and Alex C. Hallett as described in a deed dated September 22, 2023 and recorded in book 40385, page 29;

THENCE S 56° 56' 56" E along the land of Stefanie M. Hallett and Alex C. Hallett a distance of 516.19 feet to a point in the northwesterly line of land of Jade Stuart and Samuel Stuart;

THENCE S 33° 20' 46" W along the land of Jade Stuart and Samuel Stuart a distance of 99.96 feet to a point;

THENCE S 58° 06' 13" E along the land of Jade Stuart and Samuel Stuart a distance of 92.07 feet to a point;

THENCE S 58° 22' 51" E along the land of Jade Stuart and Samuel Stuart a distance of 203.47 feet to a point;

THENCE S 58° 36' 52" E along the land of Jade Stuart and Samuel Stuart a distance of 46.71 feet to a point;

THENCE S 58° 24' 54" E along the land of Jade Stuart and Samuel Stuart a distance of 148.75 feet to a point;

THENCE S 58° 37' 54" E along the land of Jade Stuart and Samuel Stuart a distance of 101.15 feet to a point;

THENCE S 58° 14' 41" E along the land of Jade Stuart and Samuel Stuart a distance of 172.76 feet to the Point of Beginning of the parcel herein described.

This parcel includes 17.43 acres, more or less.

This being the remaining portion of the premises described in a deed to Janice Fisher, Trustee of the Janice Fisher Trust, dated April 20, 1999 and recorded in book 14704, page 106.

This property is conveyed subject to any easements or rights of way of record.

Bearings used herein are referenced to the State Plane Coordinate System of 1983, Maine West Zone.

Reference may be made to a "Survey Of Proposed Division Of Property of Mark J. Fisher, Co-Trustee Of The Janice K. Fisher Trust" dated August 13, 2024 and revised through August 22, 2024 by Little River Land Surveying, Inc.

Mark J. Fisher, Trustee of the Janice K. Fisher Trust, dated April 20, 1999 hereby certifies the following:

1. This Certificate is made pursuant to Title 18-B M.R.S. § 1013 of the Maine Trust Code by Mark J. Fisher, as current Trustee of the Janice K. Fisher Trust dated April 20, 1999.

DOC :9670 BK:41340 PG:87
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
03/21/2025, 02:46:31P
Register of Deeds Jessica M. Spaulding E-RECORDED

2. I, Mark J. Fisher, am the current Trustee of The Janice K. Fisher Trust, dated April 20, 1999, of which the prior Co-Trustee and Settlor, Janice K. Fisher, died on November 28, 2021, leaving me as sole Trustee.

3. That said Trust has not been altered, revoked, amended or changed and I have remained a Co-Trustee and now the sole current Trustee.

4. The Janice K. Fisher Trust dated April 20, 1999, has not been revoked, or further modified or amended in any manner that would cause the representations contained in this certification to be incorrect.

5. The powers of the Trustee, under said Trust Agreement, include the authority to convey trust assets, including real property.

IN WITNESS WHEREOF, the said MARK J. FISHER, in his capacity as TRUSTEE OF THE JANICE K. FISHER TRUST dated April 20, 1999, has caused this instrument to be executed.

Witness my hand and seal this 21st day of March, 2025.

Witness

The Janice K. Fisher Trust dated April 20, 1999

By: Mark J. Fisher, Trustee

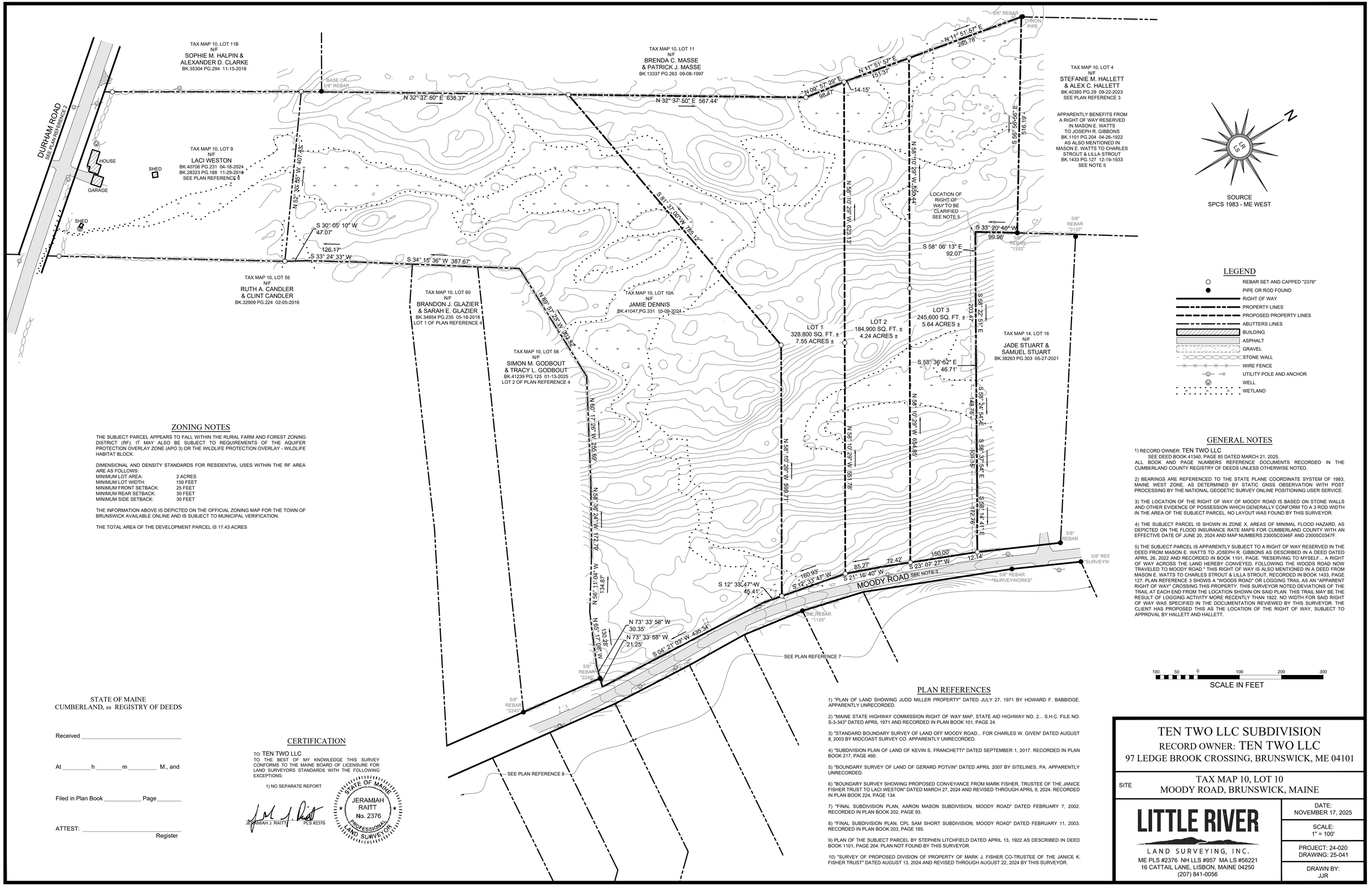
STATE OF MAINE
COUNTY OF CUMBERLAND, ss. March 21, 2025

Then personally appeared before me the above-named MARK J. FISHER in said capacity as current Trustee of the Janice K. Fisher Trust dated April 20, 1999 and acknowledged the foregoing instrument to be his free act and deed in said capacity.

Before me,

Notary Public / ~~Attorney-at-Law~~
My Commission Expires:

GAIL G. FRASER
NOTARY PUBLIC
State of Maine
My Commission Expires
August 26, 2028



ZONING NOTES

THE SUBJECT PARCEL APPEARS TO FALL WITHIN THE RURAL FARM AND FOREST ZONING DISTRICT (RF). IT MAY ALSO BE SUBJECT TO REQUIREMENTS OF THE AQUIFER PROTECTION OVERLAY ZONE (APO 3) OR THE WILDLIFE PROTECTION OVERLAY - WILDLIFE HABITAT BLOCK.

DIMENSIONAL AND DENSITY STANDARDS FOR RESIDENTIAL USES WITHIN THE RF AREA ARE AS FOLLOWS:

MINIMUM LOT AREA:	2 ACRES
MINIMUM LOT WIDTH:	150 FEET
MINIMUM FRONT SETBACK:	25 FEET
MINIMUM REAR SETBACK:	30 FEET
MINIMUM SIDE SETBACK:	30 FEET

THE INFORMATION ABOVE IS DEPICTED ON THE OFFICIAL ZONING MAP FOR THE TOWN OF BRUNSWICK AVAILABLE ONLINE AND IS SUBJECT TO MUNICIPAL VERIFICATION.

THE TOTAL AREA OF THE DEVELOPMENT PARCEL IS 17.43 ACRES

GENERAL NOTES

1) RECORD OWNER: TEN TWO LLC
SEE DEED BOOK 41340, PAGE 85 DATED MARCH 21, 2025.
ALL BOOK AND PAGE NUMBERS REFERENCE DOCUMENTS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS UNLESS OTHERWISE NOTED.

2) BEARINGS ARE REFERENCED TO THE STATE PLANE COORDINATE SYSTEM OF 1983, MAINE WEST ZONE, AS DETERMINED BY STATIC GNSS OBSERVATION WITH POST PROCESSING BY THE NATIONAL GEODETIC SURVEY ONLINE POSITIONING USER SERVICE.

3) THE LOCATION OF THE RIGHT OF WAY OF MOODY ROAD IS BASED ON STONE WALLS AND OTHER EVIDENCE OF POSSESSION WHICH GENERALLY CONFORM TO A 3 ROD WIDTH IN THE AREA OF THE SUBJECT PARCEL. NO LAYOUT WAS FOUND BY THIS SURVEYOR.

4) THE SUBJECT PARCEL IS SHOWN IN ZONE X, AREAS OF MINIMAL FLOOD HAZARD, AS DEPICTED ON THE FLOOD INSURANCE RATE MAPS FOR CUMBERLAND COUNTY WITH AN EFFECTIVE DATE OF JUNE 20, 2024 AND MAP NUMBERS 23005C0346F AND 23005C0347F.

5) THE SUBJECT PARCEL IS APPARENTLY SUBJECT TO A RIGHT OF WAY RESERVED IN THE DEED FROM MASON E. WATTS TO JOSEPH R. GIBBONS AS DESCRIBED IN A DEED DATED APRIL 26, 2022 AND RECORDED IN BOOK 1101, PAGE: "RESERVING TO MYSELF... A RIGHT OF WAY ACROSS THE LAND HEREBY CONVEYED, FOLLOWING THE WOODS ROAD NOW TRAVELED TO MOODY ROAD." THIS RIGHT OF WAY IS ALSO MENTIONED IN A DEED FROM MASON E. WATTS TO CHARLES STROUT & LILLA STROUT, RECORDED IN BOOK 1433, PAGE 127. PLAN REFERENCE 3 SHOWS A "WOODS ROAD" OR LOGGING TRAIL AS AN "APPARENT RIGHT OF WAY" CROSSING THIS PROPERTY. THIS SURVEYOR NOTED DEVIATIONS OF THE TRAIL AT EACH END FROM THE LOCATION SHOWN ON SAID PLAN. THIS TRAIL MAY BE THE RESULT OF LOGGING ACTIVITY MORE RECENTLY THAN 1922. NO WIDTH FOR SAID RIGHT OF WAY WAS SPECIFIED IN THE DOCUMENTATION REVIEWED BY THIS SURVEYOR. THE CLIENT HAS PROPOSED THIS AS THE LOCATION OF THE RIGHT OF WAY, SUBJECT TO APPROVAL BY HALLETT AND HALLETT.

PLAN REFERENCES

1) "PLAN OF LAND SHOWING JUDD MILLER PROPERTY" DATED JULY 27, 1971 BY HOWARD F. BABBIDGE. APPARENTLY UNRECORDED.

2) "MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP, STATE AID HIGHWAY NO. 2... S.H.C. FILE NO. S-3-343" DATED APRIL 1971 AND RECORDED IN PLAN BOOK 101, PAGE 24.

3) "STANDARD BOUNDARY SURVEY OF LAND OFF MOODY ROAD... FOR CHARLES W. GIVEN" DATED AUGUST 8, 2003 BY MIDCOAST SURVEY CO. APPARENTLY UNRECORDED.

4) "SUBDIVISION PLAN OF LAND OF KEVIN S. FRANCHETTI" DATED SEPTEMBER 1, 2017. RECORDED IN PLAN BOOK 217, PAGE 460.

5) "BOUNDARY SURVEY OF LAND OF GERARD POTVIN" DATED APRIL 2007 BY SITELINES, PA. APPARENTLY UNRECORDED.

6) "BOUNDARY SURVEY SHOWING PROPOSED CONVEYANCE FROM MARK FISHER, TRUSTEE OF THE JANICE FISHER TRUST TO LACI WESTON" DATED MARCH 27, 2024 AND REVISED THROUGH APRIL 9, 2024. RECORDED IN PLAN BOOK 224, PAGE 134.

7) "FINAL SUBDIVISION PLAN, AARON MASON SUBDIVISION, MOODY ROAD" DATED FEBRUARY 7, 2002. RECORDED IN PLAN BOOK 202, PAGE 93.

8) "FINAL SUBDIVISION PLAN, CPL SAM SHORT SUBDIVISION, MOODY ROAD" DATED FEBRUARY 11, 2003. RECORDED IN PLAN BOOK 203, PAGE 185.

9) PLAN OF THE SUBJECT PARCEL BY STEPHEN LITCHFIELD DATED APRIL 13, 1922 AS DESCRIBED IN DEED BOOK 1101, PAGE 204. PLAN NOT FOUND BY THIS SURVEYOR.

10) "SURVEY OF PROPOSED DIVISION OF PROPERTY OF MARK J. FISHER CO-TRUSTEE OF THE JANICE K. FISHER TRUST" DATED AUGUST 13, 2024 AND REVISED THROUGH AUGUST 22, 2024 BY THIS SURVEYOR.

STATE OF MAINE
CUMBERLAND, ss REGISTRY OF DEEDS

Received _____

At _____h _____m _____ M., and

Filed in Plan Book _____ Page _____

ATTEST: _____
Register

CERTIFICATION

TO: TEN TWO LLC
TO THE BEST OF MY KNOWLEDGE THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR LAND SURVEYORS STANDARDS WITH THE FOLLOWING EXCEPTIONS:

1) NO SEPARATE REPORT

JERAMIAH J. RAITT PLS #2376

STATE OF MAINE
JERAMIAH RAITT
No. 2376
PROFESSIONAL LAND SURVEYOR

TEN TWO LLC SUBDIVISION

RECORD OWNER: TEN TWO LLC
97 LEDGE BROOK CROSSING, BRUNSWICK, ME 04101

SITE: TAX MAP 10, LOT 10
MOODY ROAD, BRUNSWICK, MAINE

LITTLE RIVER
LAND SURVEYING, INC.
ME PLS #2376 NH LLS #957 MA LS #56221
16 CATTAIL LANE, LISBON, MAINE 04250
(207) 841-0056

DATE: NOVEMBER 17, 2025
SCALE: 1" = 100'
PROJECT: 24-020
DRAWING: 25-041
DRAWN BY: JJR