Planning Board Meeting
March 12, 2024 – 7:00 PM
Town Office Conference Room

Meeting Materials

Planning Board
Tuesday, March 12, 2024
7:00 PM – Town Office Conference Room

CALL TO ORDER

MINUTES
February 27, 2024

COMMUNICATIONS

OLD BUSINESS
Formal Site Plan – Jonathan MacLean, JEM Property Management, LLC – 1505 Maine Street – Map 15 Lot 7

NEW BUSINESS
Formal Site Plan Review – Town of Poland – 1211 Maine Street – Map: 40 Lots: 2 and 3

Formal Shoreland Zoning application – Pamela Booth – 26 Cliff Lane – Map: 20 Lot: 20

Road Name Application – Timothy and Amanda McAlister – Off Kinney Woods Lane – Map: 10 Lot: 82 Sublot: 5E

ANY OTHER BUSINESS

ADJOURNMENT

POLAND PLANNING BOARD
MINUTES OF MEETING
February 27, 2024
Approved on _____, 2024

CALL TO ORDER – Chairperson James Porter called the meeting to order at 7:00pm with Members George Greenwood, Cheryl Skilling, Jon Gilson, James Walker, Alternate Member Heather Ryan, and CEO Scott Neal present. Alternate Member Heather Ryan is a voting member for this meeting. Member James Walker was late to the meeting. Alternate Member Heather Ryan was a voting member for part of the meeting.

PUBLIC HEARING – CLUC Amendments 2024 – Member Greenwood moved to open the public hearing at 6:33 p.m. Member Gilson seconded the motion. Discussion: None Vote: 5-yes 0-no (Alternate Member Ryan is a voting member for this vote as Member Walker is not present.)

The Board and members of the public discussed the proposed amendments for 2024.

Member Gilson moved to adjourn the public hearing at 7:07 p.m. Member Skilling seconded the motion. Discussion: None Vote: 5-yes 0-no

MINUTES – February 13, 2024 – Member Greenwood moved to approve the minutes. Member Gilson seconded the motion. Discussion: None Vote: 5-yes 0-no (Member Skilling did not vote as she was not present at the February 13th meeting. Alternate Member Ryan voted.)

COMMUNICATIONS – None

OLD BUSINESS – None

NEW BUSINESS – Vote on CLUC Amendments 2024

Article "A" – Member Greenwood moved to recommend the amendment. Member Gilson seconded the motion. Discussion: None Vote – 5-yes 0-no

Article "B" – Member Greenwood moved to recommend the amendment. Member Skilling seconded the motion. Discussion: None Vote: 4-yes 1- no

Article "C" – Member Greenwood moved to recommend the amendment. Member Skilling seconded the motion. Discussion: None Vote: 5-yes 0- no

Article "D" – Member Greenwood moved to recommend the amendment. Member Skilling seconded the motion. Discussion: None Vote: 5-yes 0- no

Article "E" – Member Greenwood moved to recommend the amendment. Member Skilling seconded the motion. Discussion: None Vote: 5-yes 0- no

ANY OTHER BUSINESS – None

ADJOURN – Member Gilson moved to adjourn the meeting at 7:34 p.m. Member Greenwood seconded the motion. Discussion: None Vote: 5-yes 0-no

Recorded by: Sarah Merrill

Planning Board

_____	_____
James Porter, Chairperson	George Greenwood, Vice Chairperson
_____	_____
Jonahan Gilson, Secretary	Cheryl Skilling, Member
_____	_____
James Wlaker, Jr., Member	Heather Ryan, Alternate Member

Davis Land Surveying, LLC
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March 12, 2024

Town of Poland
Planning Board
1231 Maine Street
Poland, ME 04274

RE: Jonathan MacLean, 1505 Maine Street ~ Site Plan Review Application

Dear Planning Board Chairperson and Members,

A formal Site Plan Review Application and supporting documents for property at 1505 Maine Street in the Town of Poland currently owned by JEM Property Management, LLC was submitted to the Planning Board on October 10, 2023. As presented, the applicant is proposing to use the site for a Dock Manufacturing business and a retail space. Three new buildings are proposed: 1) New building 30' x 50' to house retail space; 2) New building 54' x 74' to house construction/fabrication area for boat docks and 3) Building will be constructed on the existing cement pad (30.5' x 50.3') to be used for storage of materials.

The property lies within the Downtown Village Zoning District for the Town of Poland and contains 2.2 acres. The lot currently has 263.12' of frontage on Maine Street (Route 26) and 285.35' of frontage on Bakerstown Road (Route 11). MDOT permit #30693 has been issued for the driveway access to the site from the southwesterly sideline of Maine Street to be moved approximately 70' southerly to allow for traffic to turn left and right. Access to the site from Maine Street (Route 26) will be used for the retail / office space and the access to the property from Bakerstown Road (Route 11) will be used for deliveries only and retail customers. MDOT permit #38754 has been issued for the Route 11 (Bakerstown Road) access upgrade (attached). As designed, the site provides 15 parking spaces for the retail space area and 5 parking spaces for the manufacturing building.

As previously presented, the proposed development will be serviced with public water tied to the Mechanic Falls Water District (MFWD) lines. The water district has the capacity to accommodate the water needs for the proposed development.

Test Pit analysis by Nicholas Adams, LSE#432 indicates that the property contains a suitable site for a subsurface wastewater disposal system. A private sub-surface wastewater treatment system will be installed for sewage disposal.

The buildings will be constructed in compliance with all fire and safety codes. In the event of a fire, the site is located within a couple miles from the Town of Poland Fire Station. Electric, cable and phone lines will be underground. Any solid waste will be disposed of in accordance with applicable laws.

Signage will be placed on the property along Maine Street (Route 26) in compliance the Town of Poland's requirements. Signage will also be placed along Route 11 entrance for ingress and egress for deliveries only and not allow large delivery trucks to exit onto Route 26. Customer ingress and egress will also be allowed from the Route 11 entrance.

A Stormwater Management Report has been prepared by Terradyn Consultants LLC to address stormwater, drainage, and erosion & sedimentation control for the development (Exhibit 10). As noted, the project will disturb more than one acre of land and requires a stormwater permit pursuant to the Stormwater Management Law 38 M.R.S. §420-D. An application was submitted to MDEP by Terradyn Consultants. MDEP Order #L-30317-NJ-A-N was issued on August 7, 2023. The stormwater runoff generated onsite is proposed to be treated by a large gravel wetland. The time frame for approval allows for construction to begin with 4 years of approval. If construction has started within that time frame, the permit is valid for 7 years.

Once all permit approvals have been secured, it is anticipated that construction will commence in the late Spring or Summer of 2024. Mr. Maclean will be self-financing this project with no bank financing being asked for at this time. Due to the nature of his business in removing and installing docks during the Fall and Spring seasons, full buildout of the project could possibly take three years or more. Per Town of Poland Land Use Code Section 303.2.F.3, the ordinance allows for construction spread over a 3-year period of time or until such time the project has moved forward to a "substantial start" and/or completion.

The project would begin by doing necessary site improvements as designed; grading of said lot; construction and installation of stormwater structures; construction of the Storage Building on the existing concrete pad (30.5' x 50.3') for storage of product; and construction of the 54' x 74' fabrication shop for design and construction of dock sections. Proposed signage will also be placed. Until the Retail Shop is designed and built, a temporary small office area within the Storage Building (30.5' x50.3') will be designated for retail sales. Also, until the proposed Retail Shop is built, dock sections for sale may be placed outside the 30-foot front setback on Rte. 26 and displayed in an area of about 30' x 80' alongside proposed retail store extending southeasterly towards entrance off Rte. 26 (see plan). Any and all sales will be based on phone/email inquiries with no employees involved until such time that a Retail Shop is constructed and opened.

At this point, Mr. Maclean has provided a hand drawn design for the proposed 30.5' x 50.3' building. No other building designs have been generated for the two remaining proposed buildings. The proposed building will comply with 508.30 Downtown Design Standards.

A. Design standards applicable for new nonresidential structures.
   1) Pitched roof with a minimum pitch of 5/12 shall be used.

2) Building façade colors shall be nonreflective, subtle, neutral or earth tone. *Neutral Colors – pictures to be provided*
3) Exterior building materials shall be of comparable aesthetic quality on all sides.
4) Public entryways shall be clearly defined. *See Plan*
5) Building's architecture shall reflect traditional New England building forms.
6) Dumpster area shall be screened so that it will not be visible from public areas and shall meet the minimum setback for accessory structures. *See Plan*
7) No fencing is proposed. *Except for around dumpster area. Existing perimeter fence belongs to School Department.*
8) No loading docks are proposed.
9) No interconnections between adjacent properties are proposed.

Mr. Maclean would like to discuss with the Planning Board as a possible condition of approval, that he be able to provide Building Designs/Elevations for the remaining two structures at such time each building is designed and/or when a building permit application is submitted. Would additional Design Plans for the last two structures need to be reviewed by either the CEO (Scott Neal), 3rd Party Review or does Mr. Maclean need to come back before the Planning Board each time as buildings get designed?

The proposed improvements as shown have been designed in conformance with your Land Use Code requirements and we look forward to the opportunity to discuss the project with the Planning Board and welcome any comments and suggestions.

Respectfully Submitted,

Stuart Davis, ME PLS #2208

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Auburn, ME 04210

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(207) 240-9949 cell
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RESPONSES TO ENGINEERING REVIEW COMMENTS
PREPARED BY JAMES SEYMOUR, PE FOR APPLICATION SUBMITTED
TO TOWN OF POLAND ON SEPTEMBER 12, 2023

OWNER: JEM Property Management LLC
LOCATED: 1026 Bakerstown Road, Poland, ME
PARCEL ID: 0015-007
ZONING DISTRICT: Down Village District

A. Preservation of Landscape:
The site plans reflect tree locations prepared by Davis Land Surveying, LLC. Site is pretty much cleared of large vegetation/tress except those as shown and remaining area of small wooded areas, as shown. The tree line has been added to the Site Plan.

B. Relation of Proposed Buildings to Environment:
The proposed garage is intended for vehicles from Route 11 to be able to pull in off of Route 11 into the garage to unload items and to use the existing slab. Vehicle turning figures have been included in information provided by Terradyn, showing appropriate vehicle maneuvering. Approximate finish floor elevations have been added to the Site Plan for the 54' x 74' building and the 30' x 50' retail building.

C. Compatibility with Residential Areas:
The project is not located within a residential area.

D. Vehicular Access:
MDOT entrance permit #30693 dated 4/20/2022 has been granted for access from Route 26 and MDOT entrance permit #38754 has been granted for access from Route 11 (Bakerstown Road). Vehicle turning figures have been included in information provided by Terradyn. Details have been added for sidewalk and also for handicap detectable warning plate.

E. Access to Route 26 and Route 11:
MDOT entrance permit #30693 dated 4/20/2022 has been granted for access from Route 26 and MDOT entrance permit #38754 has been granted for access from Route 11 (Bakerstown Road). Vehicle turning figures have been included in information provided by Terradyn.

F. Surface water:
The watershed as described in the Stormwater Management Report (SMR) is the correct watershed for the proposed development. The site drains to the existing Maine DOT infrastructure which ultimately drains to the Waterhouse Brook before discharging into the Little Androscoggin River.

The attached SMR is sealed by Craig Sweet, PE for Terradyn Consultants.

Gravel Wetland Details are included within the submission materials from Terradyn Consultants.

The gravel wetland is proposed to be lined due to well-draining soils within the property.

The pre-development conditions have been adjusted from poor to good. Revised HydroCAD and plans are included in the submission material from Terradyn Consultants. The curve numbers have been updated to better reflect the conditions of the site.

Gravel wetland planning/ seed mixture is specified within the gravel wetland details.

Evidence of an executed maintenance agreement will be provided to the Town.

Maine DEP order #L-30317-NJ-A-N dated August 7, 2023 in included in the materials submitted from Terradyn Consultants.

G. Conservation, Erosion and Sediment Control:
The project avoids impacts to adjacent wetlands, and the plan set includes erosion control notes and details on sheet C-3.0. Locations of proposed erosion and sedimentation controls are shown in plan view on sheet 2.0.

H. Phosphorus Export:
The project is not located within the Tripp Pond watershed. The watershed as described in the Stormwater Management Report (SMR) is the correct watershed for the proposed development. The site drains to the existing Maine DOT infrastructure which ultimately drains to the Waterhouse Brook before discharging into the Little Androscoggin River.

I. Site Conditions:
Cleared vegetation will be legally disposed of offsite. The contractor will monitor conditions during site construction and sweep streets as necessary.

J. Signs:
No signage is proposed new or to be altered above what is shown on the proposed site plans

K. Special Features:
No loading dock are proposed, mechanical equipment will be building mounted or located on roofs, dumpster location and snow storage is shown on the attached plans.

Gravel areas will need to be inspected and maintained by the owner at a minimum annual and repaired as necessary. Sidewalk and curbing details for Route 26 have been added to the plan set. No additional grading is proposed around the entrance to be closed off of Route 26; the entrance is no longer in use and appears to have been modified prior to the start of this project.

Parking was sized based upon 1 space per 250 sf of retail space for which requires 6 spaces, for industrial/manufacturing use, 1 space for 500 sf was utilized for a total of 11 parking spaces. For a total of 17 spaces required, 19 spaces are provided on the plans.

L. Exterior Lighting:
Example of exterior is provided.

M. Emergency Vehicle Access:
Vehicle turning plans are included in the information provided by Terradyn Consultants.

N. Municipal Services:
Comment acknowledged.

O. Water Supply:
The location of the new service is shown on the attached plan set.

Q. Air Emissions:
It is our understanding that all fabrication will be conducted within the proposed buildings, and there would be no air emissions as it would be handled as necessary by building mechanical equipment.

R. Odor Control:
It is our understanding that all fabrication will be conducted within the proposed buildings and there will be no undue odor from the proposed development.

S. Noise:
It is our understanding that all fabrication will be conducted within the proposed buildings and there will be no undue noise from the proposed development.

T. Sewage Disposal:
The location of the sub-surface wastewater treatment system is shown on the attached plans, HHE-200 forms prepared by Nicholas Adams, SE#432 and submitted to the Planning Board.

U. Waste Disposal:
A dumpster location has been added to the plans, the dumpster will have a fenced enclosure to screen it from view.

V. Buffer Areas:
Existing trees and tree lines are shown on the attached plans. A landscaping plan was provided to the Planning Board.

Maine Department of Transportation

Janet T. Mills
Governor

Driveway/Entrance Permit

Bruce A. Van Note
Commissioner

Permit Number: 38754 - **Entrance ID:** 1

OWNER

Name:	**Jonathan MacLean**
Address:	**1026 Bakerstown Road**
	Poland, ME 04274
Telephone:	**(207)831-2397**

Date Printed: **November 17, 2023**

LOCATION

Route:	**0026X, Bakerstown Road**
Municipality:	**Poland**
County:	**Androscoggin**
Tax Map:	**15** Lot Number: **7**
Culvert Size:	**15 inches**
Culvert Type:	**plastic**
Culvert Length:	**68 feet**
Date of Permit:	**November 17, 2023**
Approved Entrance Width:	**28 feet**

In accordance with rules promulgated under 23 M.R.S.A., Chapter 13, Subchapter I, Section 704, the Maine Department of Transportation (MaineDOT) approves a permit and grants permission to perform the necessary grading to construct, in accordance with sketch or attached plan, **an Entrance** to **Dock Business: Sales and Fabrication** at a point **326** feet **South** from **Route 26/Main Street**, subject to the Chapter 299 Highway Driveway and Entrance Rules, standard conditions and special conditions (if any) listed below.

Conditions of Approval:

This Permittee acknowledges and agrees to comply with the Standard Conditions and Approval attached hereto and to any Specific Conditions of Approval shown here.

(G = GPS Location; W = Waiver; S = Special Condition)

G - THE ENTRANCE SHALL BE LOCATED AT GPS COORDINATES: 44.074508N, -70.416951W.

S - In the town of Poland on the easterly side of Route 11, the centerline being approximately 326 feet southwesterly of the centerline of Route 26 and approximately 14 feet southwesterly of utility pole 702.

S - The culvert shall be HDPE smoothbore plastic pipe. The property owner must contact MaineDOT at (207) 998-4281 prior to culvert and entrance installation to review procedures and arrange an inspection

S - All signage must be installed outside of the Right of Way.

Approved by: Van Tall Date: 11-17-2023

STANDARD CONDITIONS AND APPROVAL

1. Provide, erect and maintain all necessary barricades, lights, warning signs and other devices as directed by MaineDOT to properly safeguard traffic while the construction is in progress.

2. At no time cause the highway to be closed to traffic

3. Where the driveway is located within a curb, curb and gutter, and/or sidewalk section, completely remove the existing curb, curb and gutter, and/or sidewalk as may be required to create the driveway and restore drainage. All driveways abutting sidewalk sections shall meet the requirements set forth in the Americans with Disabilities Act of 1990, 42 U.S.C. Sec. 12131 et seq.

4. Obtain, have delivered to the site, and install any culverts and/or drainage structures which may be necessary for drainage, the size, type and length as called for in the permit pursuant to 23 M.R.S.A. Sec. 705. All culverts and/or drainage structures shall be new.

5. Start construction of the proposed driveway within twenty-four (24) months of the date of permit issuance and substantially complete construction of the proposed driveway within twelve months of commencement of construction.

6. Comply with all applicable federal, state and municipal regulations and ordinances.

7. Do not alter, without the express written consent of the MaineDOT, any culverts or drainage swales within the MaineDOT right of way.

8. File a copy of the approved driveway permit with the affected municipality or LURC, as appropriate within 5 business days of receiving the MaineDOT approval.

9. Construct and maintain the driveway side slopes to be no steeper than the adjacent roadway side slopes, but in no case to be steeper than 3 horizontal to 1 vertical, unless the side slope is behind existing roadway guardrail, in which case it shall be no steeper than 2 horizontal to 1 vertical.

10. Notify the MaineDOT of a proposed change of use served by the driveway when increase in traffic flow is expected to occur. This does not exempt the need for obtaining a Traffic Movement Permit (TMP) if trip generation meets or exceeds 100 passenger car equivalents (PCE) during the peak hour of the day.

11. Construct or implement and maintain erosion and sedimentation measures sufficient to protect MaineDOT facilities.

12. Driveways shall be designed such that all maneuvering and parking of any vehicles will take place outside the highway right-of-way and where vehicles will exit the premises without backing onto the highway traveled way or shoulders. All driveways will have a turnaround area to accomodate vehicles using the premises.

13. Closing any portion of a highway or roadway including lanes, shoulders, sidewalks, bike lanes, or ATV access routes is not permitted without MaineDOT approval.

FURTHER CONDITION OF THE PERMIT

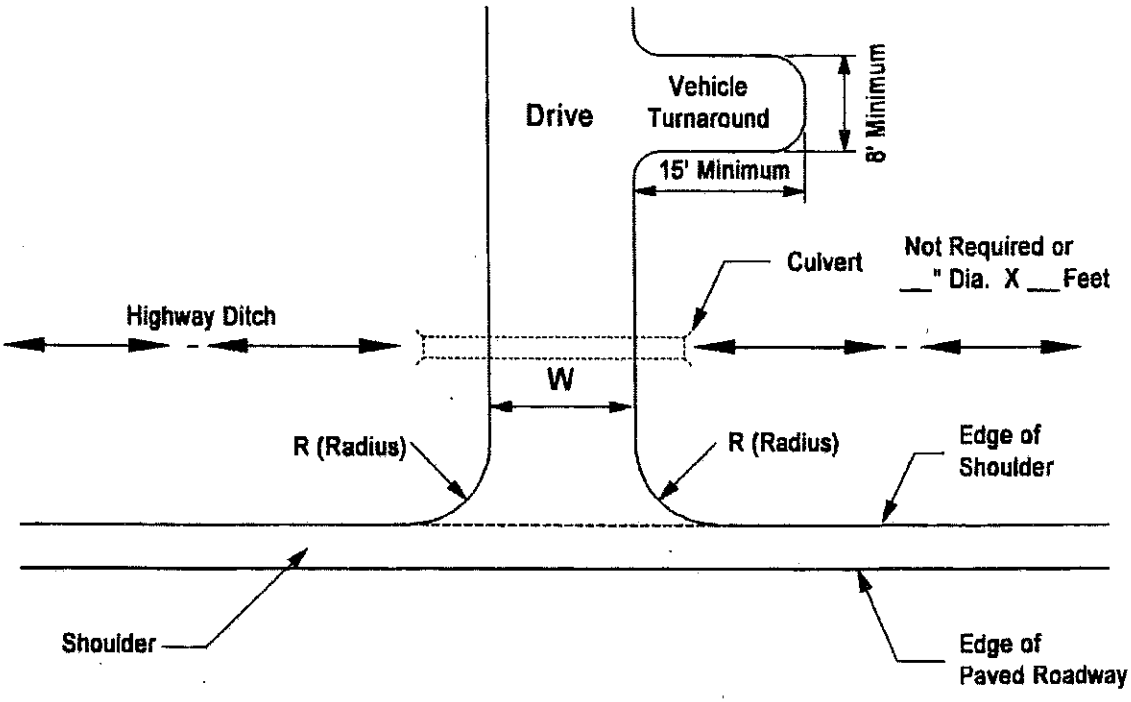
The owner shall assume, the defense of, and pay all damages, fines, and penalties for which he/she shall become liable, and shall indemnify and safe harmless said Department, its representatives, agents and employees from liability, actions against all suits, claims, damages for wrongful death, personal injuries or property damage suffered by any person or association which results from the willful or negligent action or inaction of the owner/applicant (agent) and in proceedings of every kind arising out of the construction and maintenance of said entrance(s), including snow removal.

Nothing herein shall, nor is intended to, waive any defense, immunity or limitation of liability which may be available to the MaineDOT, their officers, agents or employees under the Maine Tort Claims Act or any other privileges and/or immunities provided by law. It is a further condition that the owner will agree to keep the right of way inviolate for public highway purposes and no signs (other than traffic signs and signals), posters, billboards, roadside stands, culvert end walls or private installations shall be permitted within Right of Way limits.

State of Maine
Department of Transportation

Entrance / Driveway Details

PLAN

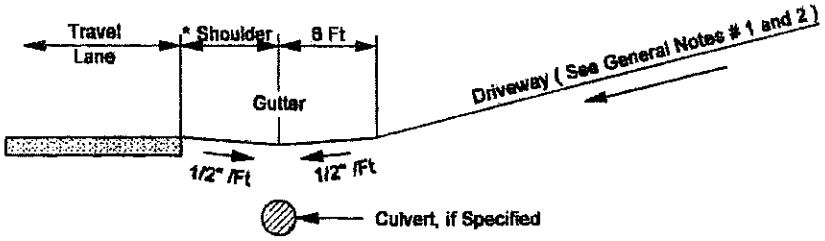


GENERAL NOTES -

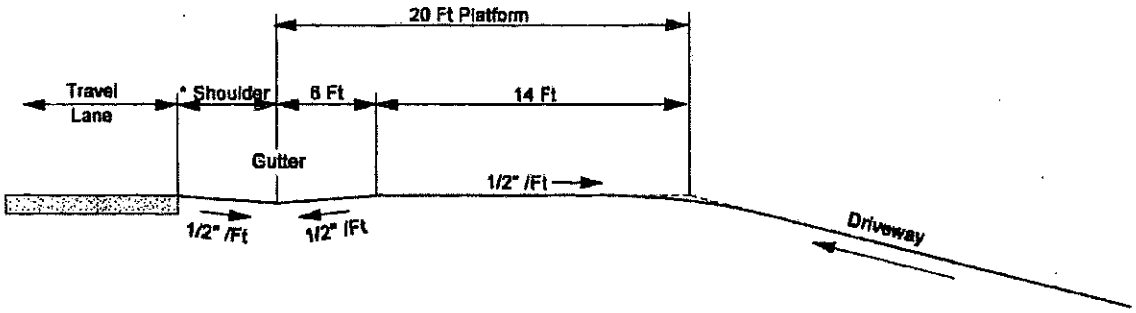
1. ALL RESIDENTAL OR COMMERCIAL DRIVES WITH 10% GRADE OR MORE SLOPING DOWN TOWARDS THE HIGHWAY SHALL BE PAVED TO THE RIGHT OF WAY LINE, AS A MINIMUM, INCUDING SHOULDER, IF GRAVEL AND HAVE DITCHES TO CONTROL RUNOFF.
2. DRIVES SLOPING TO THE HIGHWAY SHALL BE CROWNED (1/2" PER FT. MINIMUM).
3. TO THE MAXIMUM EXTENT PRACTICAL, THE ENTRANCE MUST BE CONSTRUCTED PERPENDICULAR TO THE HIGHWAY AT THE POINT OF ACCESS. EXCEPT WHERE CURBING EXISTS OR IS PROPOSED, THE MINIMUM RADIUS ON THE EDGES OF THE ENTRANCE MUST BE 10 FEET OR AS OTHERWISE REQUIRED AS SHOWN.
4. ENTRANCES/DRIVEWAYS WILL BE BUILT WITH AN ADEQUATE TURN-AROUND AREA ON SITE TO ALLOW ALL VEHICLES TO MANUVER AND PARK WITHOUT BACKING ONTO THE HIGHWAY. THIS TURN-AROUND SHALL BE AT LEAST 8 FEET WIDE BY 15 FEET LONG.
5. ENTRANCES/DRIVEWAYS AND OTHER ASSOCIATED SITE WORK WHICH DIRECTS WATER (RUNOFF) TOWARD THE HIGHWAY MUST BE CONSTRUCTED, CROWNED STABILIZED AND MAINTAINED WITH MATERIALS AND APPROPRIATE TEMPORARY/PERMANENT EROSION CONTROL MATERIALS IN ACCORDANCE WITH MDOT BEST MANAGEMENT PRACTICES.
6. THE PROFILE OF THE ENTRANCES MUST COMPLY WITH THE DETAILS SHOWN ON PAGE 2.

MDOT Entrance / Driveway Details, Continued

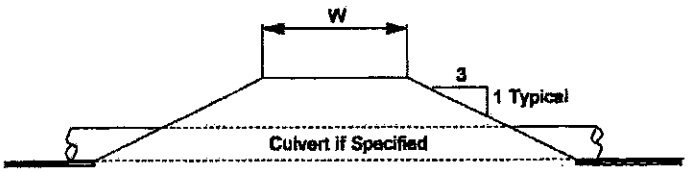
PROFILE
Details



NOTE :
Grade of Existing Shoulder Should Be Maintained To Create A Gutter With a Minimum Of Three Inches Below The Edge Of Traveled Way.
* Distance Of The Gutter From The Edge Of Traveled Way Should Be The Same As Existing Shoulder Or A Minimum Of 4 Feet.

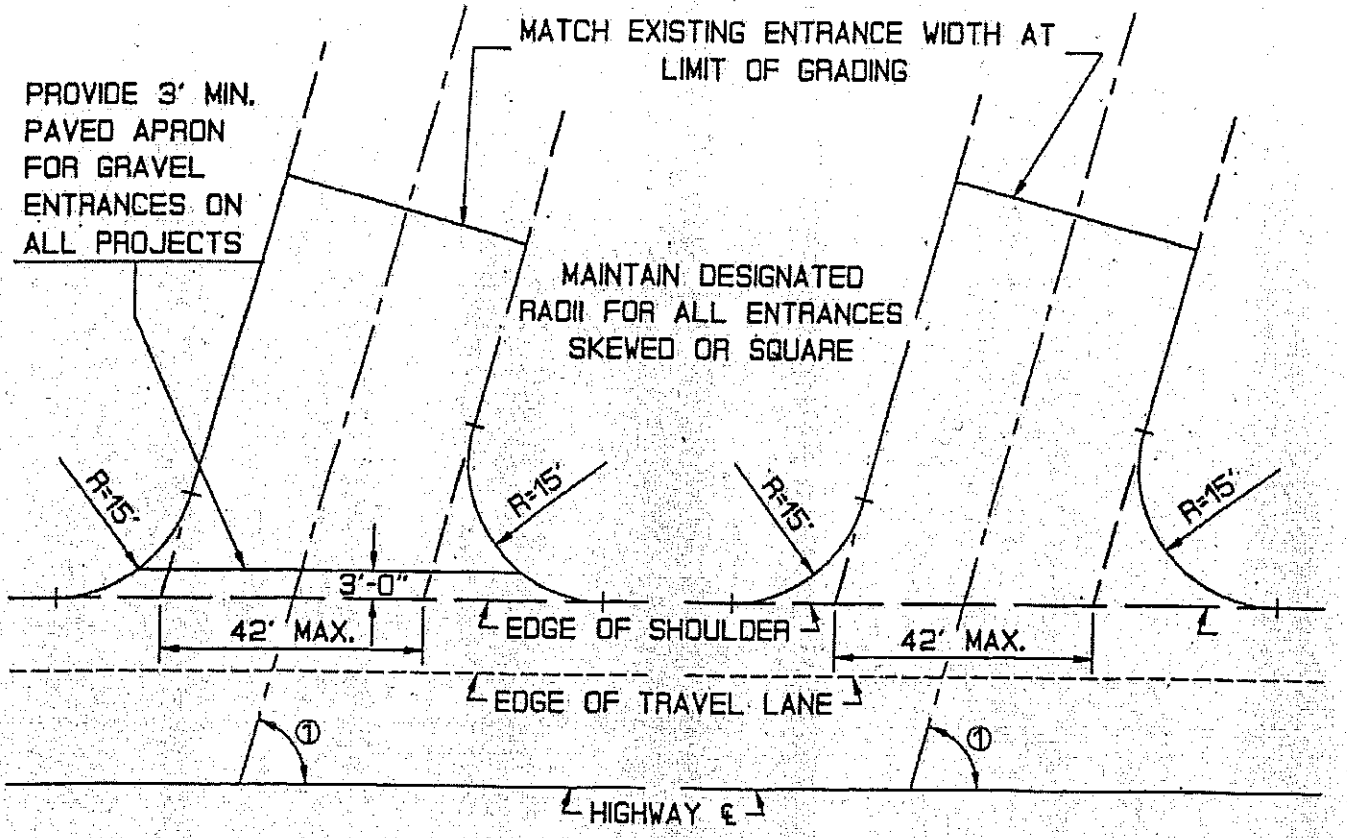


Driveway Cross Section



F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTA SHEET
1	MAINE			

ENTRANCES WITH HIGH NUMBER OF TRUCK MOVEMENTS MAY BE DESIGNED ON AN INDIVIDUAL BASIS



GRAVEL ENTRANCE

PAVED ENTRANCE

① ENTRANCE ANGLE SHOULD NOT BE LESS THAN 45°

COMMERCIAL/INDUSTRIAL ENTRANCE ONTO UNCURBED HIGHWAY

(PAVED SHOULDERS)

EN004

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

DEPARTMENT ORDER

IN THE MATTER OF

JEM PROPERTY MANAGEMENT, LLC	) STORMWATER MANAGEMENT LAW
Poland, Androscoggin County	)
COMMERCIAL DEVELOPMENT	)
L-30317-NJ-A-N (approval)	) FINDINGS OF FACT AND ORDER

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

1. PROJECT DESCRIPTION:

A. Summary: The applicant proposes to construct a stormwater management system associated with the development of three buildings, associated gravel parking and staging area for the fabrication and sale of dock products. The proposed project will result in approximately 2.15 acres of developed area, of which 1.26 acres will be impervious area. The proposed project is shown on a set of plans, the first of which is titled "Pre Development," prepared by Terradyn Consultants, LLC and dated March 2, 2023. The project site is located at the intersection of Bakerstown Road and Maine Street in the Town of Poland.

B. Current Use of the Site: The site of the proposed project is a 2.15-acre lot that is primarily undeveloped and contains both forested and grassed areas. A single concrete slab is located near the center of the lot. The parcel is identified as Lot 7 on Map 15 of the Town of Poland's tax maps.

2. STORMWATER STANDARDS:

The proposed project includes approximately 2.15 acres of developed area, of which 1.26 acres are impervious area. It lies within the watershed of Waterhouse Brook. The applicant submitted a stormwater management plan based on the Basic and General Standards contained in Department Rules, Chapter 500, *Stormwater Management* (06-096 Ch. 500, last amended August 12, 2015). The proposed stormwater management system consists of one gravel wetland.

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 (BMPs) 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. This plan was reviewed by, and revised in response to the comments of, BLR. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. The applicant will be responsible for the maintenance of all facilities including the stormwater management system.

Storm 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 500(4)(B).

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 that must control runoff from no less than 95% of the impervious area and no less than 80% of the developed area. The applicant's stormwater management plan includes general treatment measures that will mitigate 99% of the total impervious area and 99% of the new developed area.

The stormwater management system proposed by the applicant was reviewed by 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 engineer oversee the construction of the gravel wetland 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. BLR also requested that the applicant submit as-built (record) drawings for the stormwater BMPs to the BLR for review.

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 General Standards contained in Chapter 500, (4)(C) provided that the applicant meets the inspection and reporting requirements and as-built drawings are submitted within six months of completion of construction of the stormwater management system to the BLR, all as outlined above.

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 rules:

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 stormwater structures during maintenance activities are disposed of in compliance with the Maine Solid Waste Management Rules.

B. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards provided that a professional engineer is retained to inspect and document the installation of stormwater components and that as-built drawings of stormwater BMPs are submitted to the BLR, as outlined in Finding 2B.

THEREFORE, the Department APPROVES the above noted application of JEM PROPERTY MANAGEMENT, LLC to construct a stormwater management system as described above in Poland, 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 or previous orders, 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. Storm sewer grit and sediment materials removed from stormwater control structures shall be disposed of in compliance with the Maine Solid Waste Management Rules.

5. The applicant shall retain the design engineer or other qualified professional to oversee the construction of the stormwater management system according to the details and notes specified on the approved plans. 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.

6. 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 7th DAY OF AUGUST, 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
For: Melanie Loyzim, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

JS/L30317AN/ATS#90900

FILED
August 7th, 2023
State of Maine
Board of Environmental Protection

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.

HUBBELL Outdoor Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Wall

RWL1/RWL2 LED WALLPACK

FEATURES

- Low profile LED wall luminaire with a variety of IES distributions for lighting applications such as retail, commercial and industrial building mount
- Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™, Wiscape and 7-Pin with networked controls
- Battery Backup options available for emergency code compliance
- Quick-mount adapter allows easy installation/maintenance
- 347V and 480V versions for industrial applications and Canada
- Stock versions available in 3500lm and 5500lm configurations at 4000K

C US

BUY AMERICAN SOLUTIONS
See Certification Specifications

DLC QPL LISTED

DLC QPL LISTED PREMIUM

RELATED PRODUCTS

Ratio Family | Ratio Area | Ratio Flood

CONTROL TECHNOLOGY

SiteSync LIGHTING CONTROL | NX DISTRIBUTED™ INTELLIGENCE | wiSCAPE™

SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish
- Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating.

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 48 or 160 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI/80 CRI) CCT
- Zero uplight distributions
- LED optics provide IES type II, III and IV distributions. Type II only available in RWL2 configurations.

INSTALLATION

- Quick-mount adapter provides easy installation to wall or to recessed junction boxes (4" square junction box)
- Designed for direct j-box mount.
- Integral back box contains 1/2" conduit hubs
- Integral back box standard with Dual Driver, Dual Power Feed, NX, Wiscape and battery versions (battery versions for RWL1 only)

ELECTRICAL

- 120V-277V universal voltage 50/60Hz 0-10V dimming drivers
- 347V and 480V dimmable driver option for all wattages above 35W.

ELECTRICAL (CONTINUED)

- Ambient operating temperature -40˚C to 40˚C
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion
- Driver RoHS and IP66
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised
- Dimming drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than 6" standard.

CONTROLS

- Photo control, occupancy sensor and wireless available for complete on/off and dimming control
- Button photocontrol is suitable for 120-277V operation
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor wiSCAPE® available with in fixture wireless control module, features dimming and occupancy sensor
- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress
- Battery Backup suitable for operating temperatures -25˚C to 40˚C

CONTROLS (CONTINUED)

- Dual Driver and Dual Power Feed options creates product configuration with 2 internal drivers for code compliance
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application.

CERTIFICATIONS

- Listed to UL1598 and CSAC22.2#250.0-24 for wet locations
- IP65 rated housing
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See Buy American Solutions
- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org

WARRANTY

- 5 year limited warranty
- See HLI Standard Warranty for additional information

KEY DATA	
Lumen Range	1,300–18,800
Wattage Range	10–155
Efficacy Range (LPW)	119–148
Fixture Projected Life (Hours)	L70>60K
Weights lbs. (kg)	6.5/16.5 (2.9/7.5)

HUBBELL Lighting

HUBBELL Outdoor Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO WALL

RWL1/RWL2 LED WALLPACK

ORDERING GUIDE

Example: RWL1–48L-10–3K7–2–UNV–BLS–E

CATALOG #

ORDERING INFORMATION

Series		# LEDs - Wattage		CCT/CRI		Distribution		Voltage		Color	
RWL1	Ratio Wall 1	**48L-10**	1,000 Lumens[4]	**3K7**	3000K, 70 CRI	**2**	IES TYPE II[1]	**UNV**	120-277V	**BLT**	Black Matte Textured
		48L-15	2,000 Lumens[4]	**4K7**	4000K, 70 CRI	**3**	IES TYPE III	**120**	120V	**BLS**	Black Gloss Smooth
		48L-20	2,500 Lumens[4]	**5K7**	5000K, 70 CRI	**4W**	IES TYPE IV	**208**	208V	**DBT**	Dark Bronze Matte Textured
		48L-25	3,500 Lumens[4]					**240**	240V	**DBS**	Dark Bronze Gloss Smooth
		48L-35	4,500 Lumens					**277**	277V	**GTT**	Graphite Matte Textured
		48L-45	5,500 Lumens					**347**	347V	**LGS**	Light Grey Gloss Smooth
RWL2	Ratio Wall 2	**160L-45**	6,500 Lumens					**480**	480V	**LGT**	Light Grey Matte Textured
		160L-50	7,500 Lumens							**PSS**	Platinum Silver Smooth
		160L-65	9,500 Lumens							**WHT**	White Matte Textured
		160L-80	11,000 Lumens							**WHS**	White Gloss Smooth
		160L-95	13,000 Lumens							**VGT**	Verde Green Textured
		160L-115	15,000 Lumens							**Color Option**	
		160L-135	17,500 Lumens							**CC**	Custom Color
		160L-155	19,500 Lumens								

Control Options Network	
NXWE	NX Wireless Enabled (module + radio)[4,7]
NXSPW_F	NX Wireless, PIR Occ. Sensor, Daylight Harvesting[4,5,7]
NXSP_F	NX, PIR Occ. Sensor, Daylight Harvesting[4,5,7]
WIR	Wireless Controls, wiSCAPE™[2,6]
Stand Alone Sensors	
SCP-8F	Remote control programmable line voltage sensor[3,4]
SCP-20F	Remote control programmable line voltage sensor[3,4]
Control Options	
7PR_	7-Pin Receptacle[6]

Options	
F	Fusing[3]
E	Emergency Battery Backup[7,8,9]
EH	Emergency Battery w/ Heater Option[7,8]
2DR	Dual Driver[4,6]
2PF	Dual Power Feed[4,6]
PC	Button Photocontrol[8]

Notes:
1. Only available with RWL2
2. wiSCAPE Gateway required for system programming
3. Specific voltage selection is required
4. Not available with 347/480V
5. Replace "_" with "14" for up to 14' mounting height, "40" for up to 40' mounting height
6. This item is located in the integral backbox which will be automatically added onto the fixture if chosen.
7. This item is located in the integral backbox for RWL1 configurations only.
8. Option only available at 120 or 277V

STOCK ORDERING INFORMATION

Catalog Number	Lumens	Wattage	LED Count	CCT/CRI	Voltage	Distribution	Finish
RWL1-48L-25-4K-3	3500lm	25	48L	4000K/70CRI	120-277V	Type III	Dark Bronze Textured
RWL1-48L-25-4K-4W	3500lm	25	48L	4000K/70CRI	120-277V	Type IV Wide	Dark Bronze Textured
RWL1-48L-45-4K-3	5500lm	45	48L	4000K/70CRI	120-277V	Type III	Dark Bronze Textured
RWL1-48L-45-4K-4W	5500lm	45	48L	4000K/70CRI	120-277V	Type IV Wide	Dark Bronze Textured

CONTROLS

Control Options	
Standalone	
SCPREMOTE	Order at least one per project location to program and control

ACCESSORIES AND REPLACEMENT PARTS - MADE TO ORDER

	Catalog Number	Description
☐	**WP-BB-XXX**	Accessory for conduit entry[1]

Notes:
1. replace "xxx" with color option

HUBBELL Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO WALL

RWL1/RWL2 LED WALLPACK

PERFORMANCE DATA

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RWL1	10	10.1	3	1362	135	0	0	1	1355	134	0	0	1	1303	129	0	0	1
			4W	1343	133	0	0	1	1336	132	0	0	1	1285	127	0	0	1
	15	14.5	3	1972	136	1	0	1	1962	135	1	0	1	1887	130	1	0	1
			4W	1945	134	0	0	1	1935	133	0	0	1	1861	128	0	0	1
	20	19.9	3	2722	137	1	0	1	2709	136	1	0	1	2605	131	1	0	1
			4W	2685	135	1	0	1	2672	134	1	0	1	2569	129	1	0	1
	25	28.0	3	3749	134	1	0	1	3732	133	1	0	1	3588	128	1	0	1
			4W	3698	132	1	0	1	3680	131	1	0	1	3538	126	1	0	1
	35	36.9	3	4751	129	1	0	2	4728	128	1	0	2	4546	123	1	0	1
			4W	4685	127	1	0	2	4663	126	1	0	2	4483	121	1	0	2
	45	46.5	3	5812	125	1	0	2	5784	124	1	0	2	5562	120	1	0	2
			4W	5731	123	1	0	2	5704	123	1	0	2	5485	118	1	0	2
RWL2	45	46.1	2	6701	145	1	0	2	6668	145	1	0	2	6412	139	1	0	2
			3	6812	148	1	0	2	6780	147	1	0	2	6519	141	1	0	2
			4W	6678	145	1	0	2	6646	144	1	0	2	6390	139	1	0	2
	50	54.0	2	7747	143	1	0	2	7710	143	1	0	2	7413	137	1	0	2
			3	7876	146	1	0	2	7838	145	1	0	2	7537	140	1	0	2
			4W	7720	143	1	0	2	7683	142	1	0	2	7388	137	1	0	2
	65	67.2	2	9539	142	1	0	2	9494	141	1	0	2	9129	136	1	0	2
			3	9699	144	2	0	2	9652	144	2	0	2	9281	138	2	0	2
			4W	9507	141	2	0	2	9461	141	2	0	2	9097	135	2	0	2
	80	80.8	2	11228	139	2	0	2	11174	138	2	0	2	10745	133	2	0	2
			3	11416	141	2	0	2	11361	141	2	0	2	10924	135	2	0	2
			4W	11190	138	2	0	2	11136	138	2	0	2	10708	133	2	0	2
	95	93.2	2	13148	141	2	0	2	13085	140	2	0	2	12582	135	2	0	2
			3	13368	143	2	0	2	13304	143	2	0	2	12792	137	2	0	2
			4W	13103	141	2	0	2	13040	140	2	0	2	12539	135	2	0	2
	115	109.8	2	15102	138	2	0	3	15030	137	2	0	3	14452	132	2	0	3
			3	15354	140	2	0	3	15281	139	2	0	3	14693	134	2	0	3
			4W	15050	137	2	0	3	14978	136	2	0	3	14402	131	2	0	3
	135	137.1	2	17533	128	2	0	3	17449	127	2	0	3	16778	122	2	0	3
			3	17826	130	2	0	3	17740	129	2	0	3	17058	124	2	0	3
			4W	17473	127	2	0	3	17389	127	2	0	3	16720	122	2	0	3
	155	156.8	2	19495	124	2	0	3	19402	124	2	0	3	18656	119	2	0	3
			3	19821	126	2	0	3	19726	126	2	0	3	18967	121	2	0	3
			4W	19542	125	2	0	3	19448	124	2	0	3	18700	119	2	0	3

HUBBELL Outdoor Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO WALL

RWL1/RWL2 LED WALLPACK

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98
50°C	122°F	0.97

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	TM-21-11 L90 36,000	50,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

ELECTRICAL DATA

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RWL1	10	120	0.08	10.1
		208	0.05	
		240	0.04	
		277	0.04	
		347	0.03	
		480	0.02	
	15	120	0.12	14.5
		208	0.07	
		240	0.06	
		277	0.05	
		347	0.04	
		480	0.03	
	20	120	0.17	19.9
		208	0.10	
		240	0.08	
		277	0.07	
		347	0.06	
		480	0.04	
	25	120	0.23	28.0
		208	0.13	
		240	0.12	
		277	0.10	
		347	0.08	
		480	0.06	
	35	120	0.31	36.9
		208	0.18	
		240	0.15	
		277	0.13	
		347	0.11	
		480	0.08	
	45	120	0.39	46.5
		208	0.22	
		240	0.19	
		277	0.17	
		347	0.13	
		480	0.10	

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RWL2	45	120	0.38	46.1
		208	0.22	
		240	0.19	
		277	0.17	
		347	0.13	
		480	0.10	
	50	120	0.45	54.0
		208	0.26	
		240	0.23	
		277	0.19	
		347	0.16	
		480	0.11	
	65	120	0.56	67.2
		208	0.32	
		240	0.28	
		277	0.24	
		347	0.19	
		480	0.14	
	80	120	0.67	80.8
		208	0.39	
		240	0.34	
		277	0.29	
		347	0.23	
		480	0.17	
	95	120	0.78	93.2
		208	0.45	
		240	0.39	
		277	0.34	
		347	0.27	
		480	0.19	
	115	120	0.92	109.8
		208	0.53	
		240	0.46	
		277	0.40	
		347	0.32	
		480	0.23	
	135	120	1.14	137.1
		208	0.66	
		240	0.57	
		277	0.49	
		347	0.40	
		480	0.29	
	155	120	1.31	156.8
		208	0.75	
		240	0.65	
		277	0.57	
		347	0.45	
		480	0.33	

HUBBELL Lighting

HUBBELL Outdoor Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

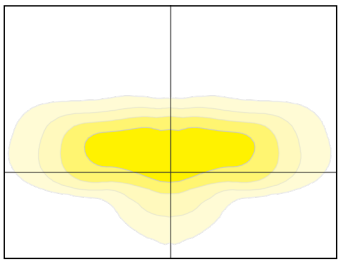
RATIO WALL

RWL1/RWL2 LED WALLPACK

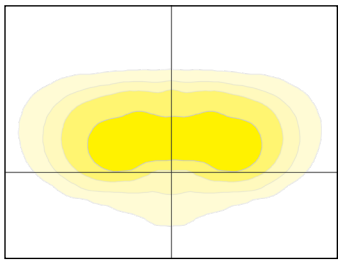
PHOTOMETRY

Mounting Height: 30ft

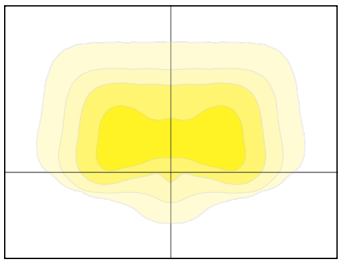
Type II



Type III

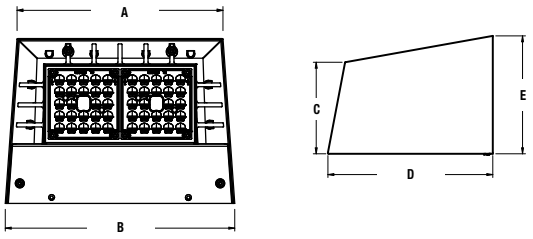


Type VI



DIMENSIONS

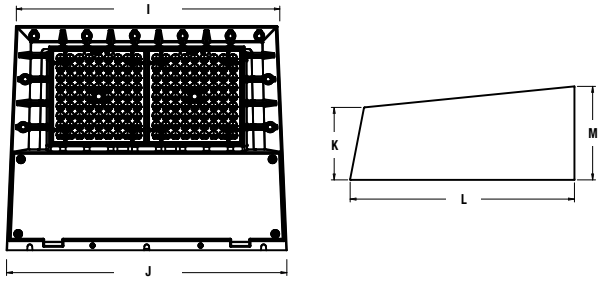
RWL1



A	B	C	D	E
8.7"	9.7"	3.9"	7.0"	5.0"
221mm	246mm	99mm	178mm	127mm

Weight
6.5 lbs (2.95 kgs)

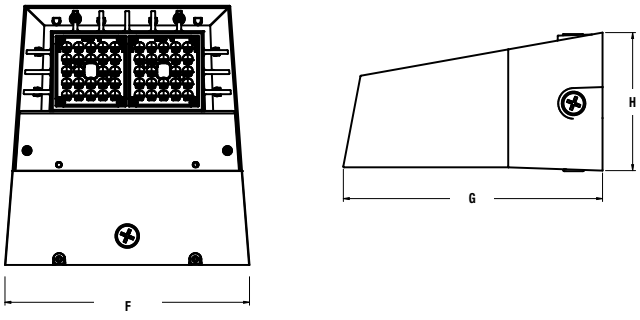
RWL2



I	J	K	L	M
14.0"	15.0"	3.9"	12.0"	5.0"
356mm	381mm	99mm	305mm	127mm

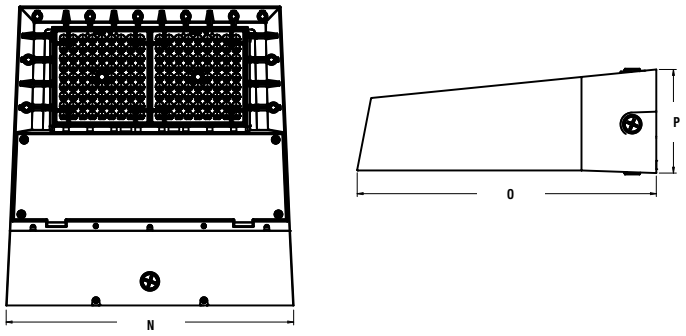
Weight
16.5 lbs (7.48 kgs)

RWL1 with Integral Back Box



F	G	H
10.4"	11.0"	5.9"
264mm	279mm	150mm

RWL2 with Integral Back Box



N	O	P
15.4"	16.0"	5.5"
391mm	406mm	140mm

HUBBELL Lighting

HUBBELL Outdoor Lighting

DATE: LOCATION:

TYPE: PROJECT:

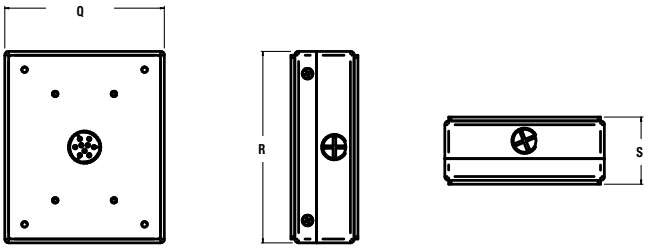
CATALOG #:

RATIO WALL

RWL1/RWL2 LED WALLPACK

DIMENSIONS (CONTINUED)

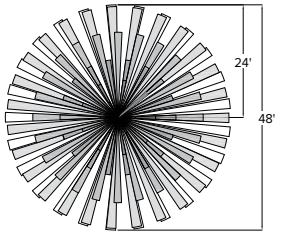
Back Box Accessory

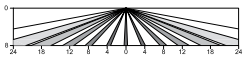


Q	R	S
4.9" 124mm	5.9" 150mm	2.1" 53mm

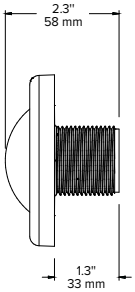
ADDITIONAL INFORMATION

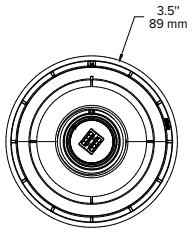
NXSP-14F





Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens





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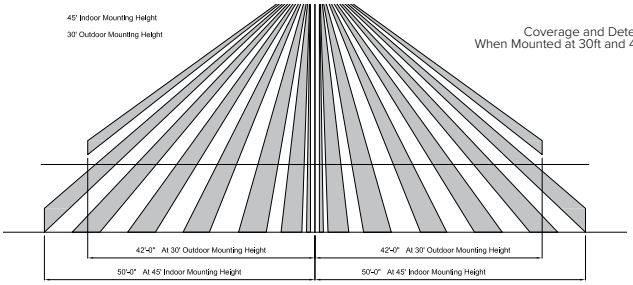
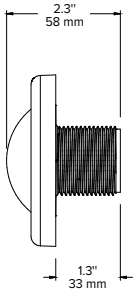
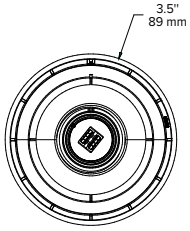
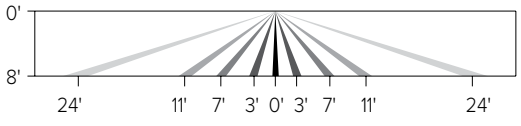


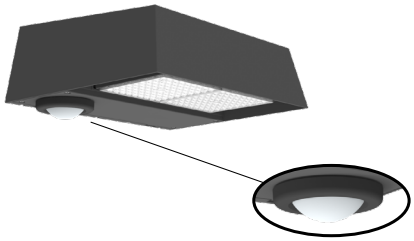
Coverage and Detection Patterns
When Mounted at 30ft and 45ft with Standard Lens

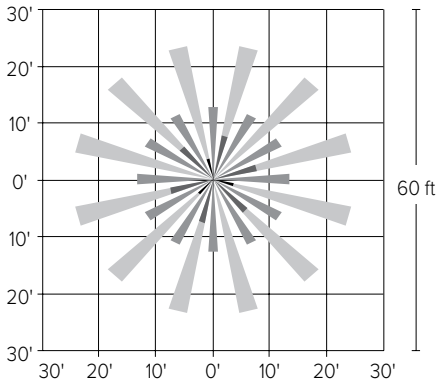


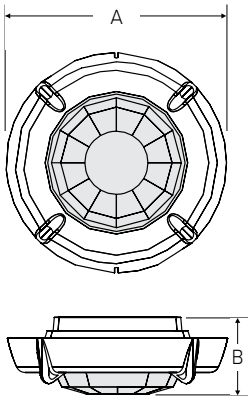


SCP-8F









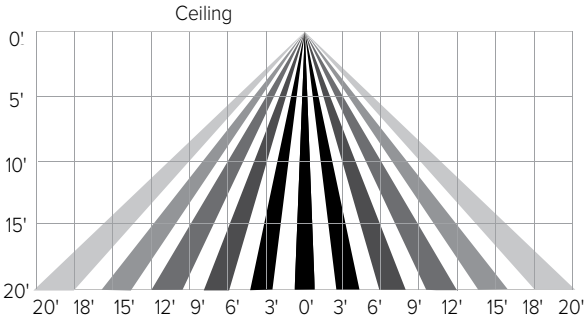
A	B
2.3" (59mm)	.8" (20mm)

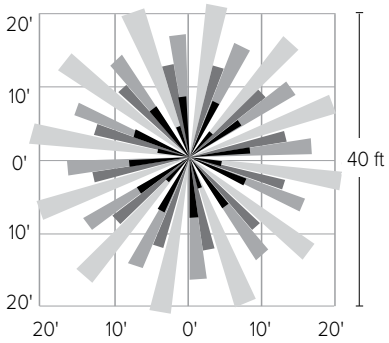
HUBBELL Lighting

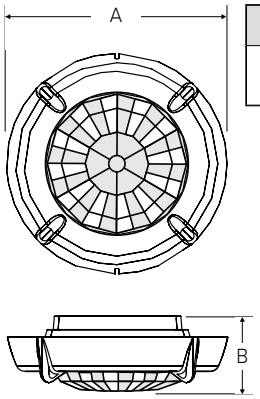
RATIO WALL

RWL1/RWL2 LED WALLPACK

SCP-20F

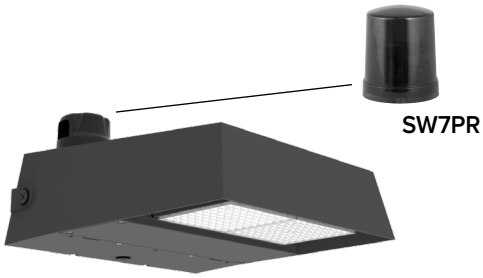






A	B
2.3" (59mm)	.8" (20mm)

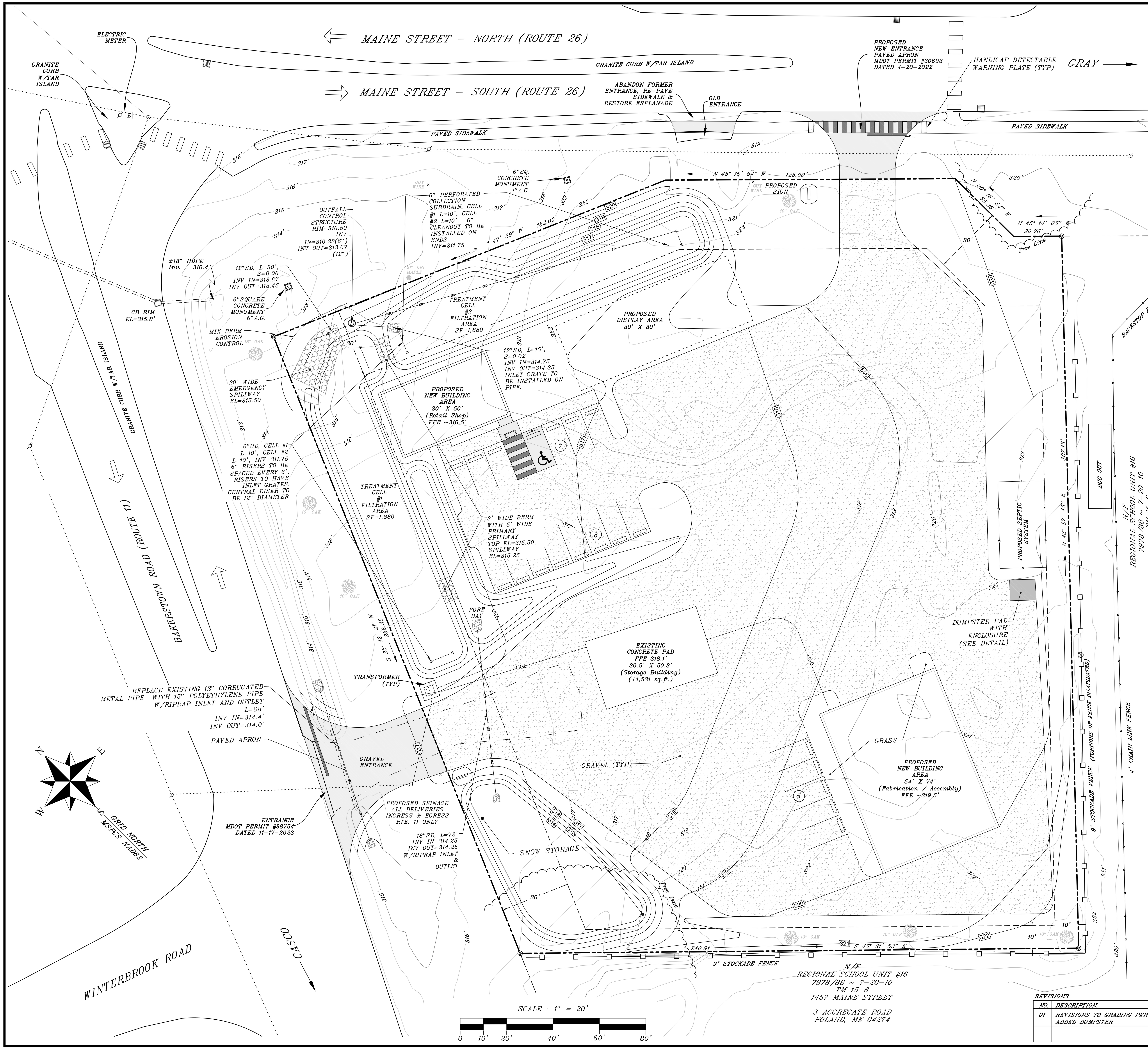
SITESYNC 7-PIN MODULE

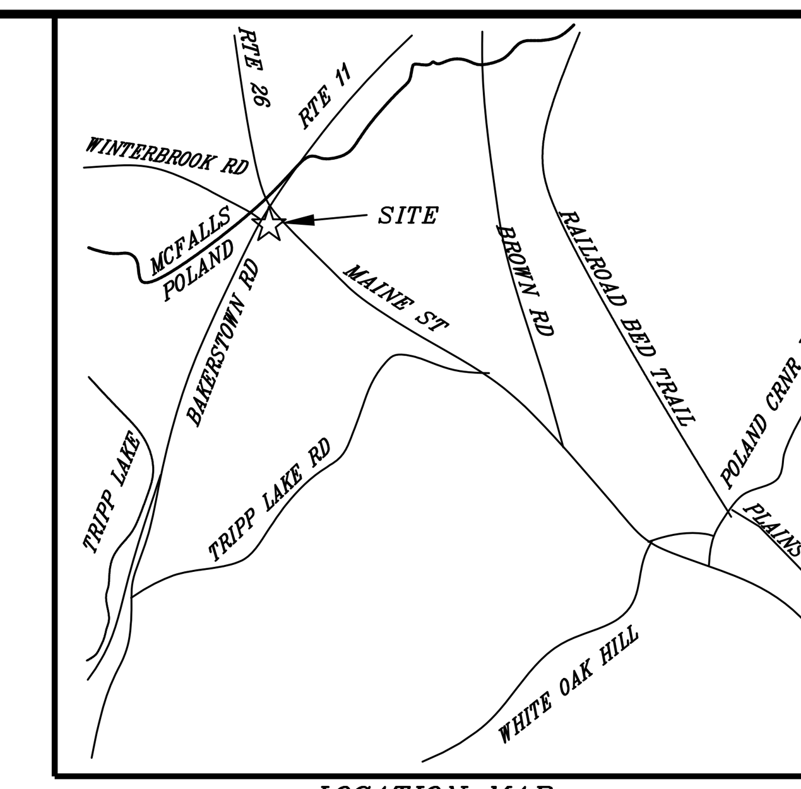


SW7PR

SiteSync™ LIGHTING CONTROL

- SiteSync features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)


MAINE STREET - NORTH (ROUTE 26)
MAINE STREET - SOUTH (ROUTE 26)
GRAY
PROPOSED NEW ENTRANCE PAVED APRON MDOT PERMIT #30693 DATED 4-20-2022
HANDICAP DETECTABLE WARNING PLATE (TYP)
ABANDON FORMER ENTRANCE, RE-PAVE SIDEWALK & RESTORE ESPLANADE
OLD ENTRANCE
PAVED SIDEWALK
GRANITE CURB W/TAR ISLAND
ELECTRIC METER
BAKERSTOWN ROAD (ROUTE 11)
WINTERBROOK ROAD
CASCO
PROPOSED NEW BUILDING AREA 30' X 50' (Retail Shop) FFE ~316.5'
PROPOSED DISPLAY AREA 30' X 80'
EXISTING CONCRETE PAD FFE 318.1' 30.5' X 50.3' (Storage Building) (±1,531 sq.ft.)
PROPOSED NEW BUILDING AREA 54' X 74' (Fabrication / Assembly) FFE ~319.5'
PROPOSED SEPTIC SYSTEM
DUMPSTER PAD WITH ENCLOSURE (SEE DETAIL)
TREATMENT CELL #1 FILTRATION AREA SF=1,880
TREATMENT CELL #2 FILTRATION AREA SF=1,880
GRAVEL ENTRANCE
PAVED APRON
ENTRANCE MDOT PERMIT #38754 DATED 11-17-2023
SNOW STORAGE
GRAVEL (TYP)
GRASS
N/F REGIONAL SCHOOL UNIT #16 7978/88 ~ 7-20-10 TM 15-6 1457 MAINE STREET
3 AGGREGATE ROAD POLAND, ME 04274
9' STOCKADE FENCE
BACKSTOP FENCE
4' CHAIN LINK FENCE
DUG OUT
GRID NORTH MSPCS NAD83
SCALE : 1" = 20'



-- LOCATION MAP --
-- NOT TO SCALE --

LEGEND

- PROPERTY LINES
- RIGHT OF WAY/ABUTTING LOT LINES
- SETBACKS (FRONT 30', SIDE & REAR 10')
- CONTOURS (NAVD88 VERTICAL DATUM)
- PROPOSED CONTOURS
- 5/8" CAPPED REBAR #2208 SET 7-13-2022
- IRON PIN FOUND
- UTILITY POLE
- CATCH BASIN

NOTES:

1. BEARINGS ARE REFERENCED TO GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD83 (2011)
2. DEED REFERENCES ARE MADE TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS
3. THE PARCEL IS LOCATED IN THE DOWNTOWN VILLAGE ZONING DISTRICT.
   MINIMUM LOT SIZE: 20,000 SQ. FT.
   MINIMUM ROAD FRONTAGE: 100 FEET
   MAXIMUM IMPERVIOUS: 75%
   MINIMUM PRINCIPAL & ACCESSORY STRUCTURES SETBACKS
   FRONT: 30 FEET
   REAR: 10 FEET
   SIDE: 10 FEET
4. THIS PROPERTY IS LOCATED IN THE AQUIFER PROTECTION OVERLAY 1 DISTRICT.
5. THE PARCEL IS NOT LOCATED WITHIN A 100-YEAR FLOOD HAZARD AREA AS SHOWN ON THE F.E.M.A. FLOOD INSURANCE RATE MAP COMMUNITY PANEL 23001C0283E, EFFECTIVE DATE 7-8-2013.
6. CONTOURS BASED ON TOPOGRAPHIC SURVEY PERFORMED IN JULY 2022 BY DAVIS LAND SURVEYING. VERTICAL DATUM REFERENCED TO NAVD88.
7. SITE IMPROVEMENTS BASED ON ENGINEERING BY TERRADYN CONSULTANTS, LLC. SEE PLAN SET OF SITE IMPROVEMENTS - 1505 MAINE STREET, POLAND, MAINE PREPARED FOR JEM PROPERTY MANAGEMENT, LLC PREPARED BY TERRADYN CONSULTANTS, LLC.
8. SITE WILL BE SERVICED WITH PUBLIC WATER.
9. SITE WILL BE SERVICED WITH PRIVATE SUB-SURFACE WASTEWATER TREATMENT SYSTEM.

REFERENCES:

1. MAINE STATE HIGHWAY COMMISSION, RIGHT OF WAY MAP, STATE HIGHWAY "135" & "16", POLAND-MECHANIC FALLS, FEDERAL AID PROJECT NO. S-0135(4), DATED FEBRUARY, 1966, S.H.C FILE NO. 1-83. ANDROSCOGGIN COUNTY VOL 2, PAGE 146 AND VOL. 5, PAGE 73.
2. STANDARD BOUNDARY SURVEY, PLAN OF PROPERTY AT FIVE CORNERS, STATE ROUTES 11 AND 26, POLAND, MAINE MADE FOR JOSEPH F. CIMINO BY JKL LAND SURVEYING DATED MARCH 30, 1996.

CONDITIONS OF APPROVAL

TOWN OF POLAND PLANNING BOARD: DATE:

CHAIRPERSON:

OWNER OF RECORD:

JEM PROPERTY MANAGEMENT, LLC
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

TAX MAP 15, LOT 7
BOOK 11069, PAGE 84
MARCH 31, 2022

AREA:

93,603.6 SQ. FT.
2.2 ACRES

REVISIONS:

NO.	DESCRIPTION:	DATE:
01	REVISIONS TO GRADING PER ENGINEER ADDED DUMPSTER	2-29-2024

RECORDING INFORMATION:

STATE OF MAINE, ANDROSCOGGIN, ss
REGISTRY OF DEEDS

RECEIVED ______________ 20__
AT__HR __MIN. _M. AND RECORDED
IN PLAN BOOK ____, PAGE ____

ATTEST: ____________________
REGISTER

CERTIFICATION:

TO THE BEST OF MY KNOWLEDGE, I HAVE USED ORDINARY AND PRUDENT CONDUCT EXPECTED OF PROFESSIONAL LAND SURVEYORS AND THE RESULTS SHOWN HERE REPRESENT THE LICENSEE'S RESPONSIBILITY TO THE PUBLIC AS REQUIRED UNDER THE STANDARDS OF PRACTICE AS DEFINED BY THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS (M.R.S.A. TITLE 32, CHAPTER 121 DATED APRIL, 2001).

EXCEPT AS FOLLOWS:
1) NO WRITTEN REPORT TO DATE.
2) NO DEED DESCRIPTION TO DATE.

PLAN PREPARED BY: S.A.D. & D.H.H.

PLAN CHECKED BY: S.A.D. THIS PLAN IS NOT VALID UNLESS EMBOSSED ABOVE

STATE OF MAINE * PROFESSIONAL LAND SURVEYOR * STUART A. DAVIS 2208

DAVIS LAND SURVEYING, LLC
990 MINOT AVENUE
AUBURN, MAINE 04210
OFFICE (207) 345-9991 ~ (207) 782-3685 ~ CELL (207) 240-9949
EMAIL: stuart@davislandsurveying.net
WEBSITE: www.davislandsurveying.net
SEPTEMBER 11, 2023, REVISED FEBRUARY 29, 2024

--- SITE PLAN ---
PROPOSED DEVELOPMENT

1505 BAKERSTOWN ROAD
POLAND, MAINE

JEM PROPERTY MANAGEMENT, LLC

1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

JOB NO.: 22-028
FILE NO.: 569

TERRADYN
CONSULTANTS, LLC

Pineland
Cumberland Hall
41 Campus Drive, Suite 301
New Gloucester, ME 04260

Portland
565 Congress Street, Suite 310
Portland, ME 04101

February 26, 2024 22-138

Scott Neal
1231 Maine Street
Poland, ME 04274

Response to Comments
1505 Maine Street
Poland ME

Dear Scott,

On behalf of Jem Property Management LLC, Terradyn Consultants, LLC is pleased to submit responses to peer comments 1505 Maine Street Property project. The information enclosed was prepared in response to comments from Sebago Technics provided on September 12, 2023.

Comment Responses#

The following response to comments are from the information provided. The original comments are in *Italics*:

Comments from James Seymour dated September 12, 2023:

Surface water:

1. *The Stormwater Management Report (SMR) describes the watershed as Waterhouse Brook. The Formal Site Plan Review application lists the watershed as Tripp Pond- a DEP Chapter 502 Late Most at Risk from New Development. The applicant shall clarify the project's watershed.*

   Comment Response: The watershed as described in the SMR is the correct watershed for the proposed development.

2. *The SMR needs to be sealed by a Professional Engineer*

   Comment Response: The attached SMR is sealed.

3. *Gravel Wetland comments:*
    a. *Plan sheet 2.1 Gravel Wetland Details have not been included with the revised submission. The applicant needs to submit the revised plan sheets for review.*

    Comment Response: Details are included within this submission.

    b. *Test pits identifying separation to seasonal high groundwater have not been included with the submission. A low permeability liner may be required to prevent infiltration or loss of moisture to sustain vegetation.*

    Comment Response: The gravel wetland is proposed to be lined due to well-draining soils within the property.

    c. *The pre-development HydroCAD model indicates poor woods/grass surface. The Post development HydroCAD model indicates good woods/grass ground surface. The designer should provide reasoning for the ground surface conditions or correct the pre-development condition to good.*

    Comment Response: The pre-development conditions have been adjusted from poor to good. Revised HydroCAD and plans are attached to this letter. The curve numbers have been updated to better reflect the conditions of the site.

    d. *The landscape plan does not include wetland species plantings and locations within the gravel wetlands.*

    Comment Response: Gravel wetland planning/ seed mixture is specified within the gravel wetland details.

4. *The applicant shall provide the Town with evidence of an executed maintenance agreement for the BMP's*

    Comment Response: Evidence of an executed maintenance agreement will be provided to the Town.

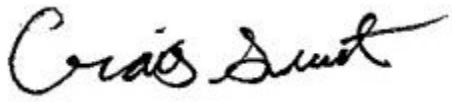
5. *The applicant shall provide the Town with a copy of the DEP submission and approval.*

    Comment Response: Please see the attached Maine DEP approval letter.

CLOSURE

We trust that the above responses and attached materials address the comments. Please contact me directly with any additional questions or concerns.

Sincerely,
TERRADYN CONSULTANTS, LLC



Craig Sweet, P.E.

ATTACHMENT 1

Revised Plans

SITE IMPROVEMENTS - 1505 MAINE STREET

MAINE STREET, POLAND, MAINE

PREPARED BY:

CIVIL ENGINEER:
TERRADYN CONSULTANTS, LLC
41 CAMPUS DR. SUITE 101
NEW GLOUCESTER, MAINE 04260
(207)926-5111

SURVEYOR:
DAVIS LAND SURVEYING, LLC.
990 MINOT AVENUE
AUBURN, MAINE 04210
(207)345-9991

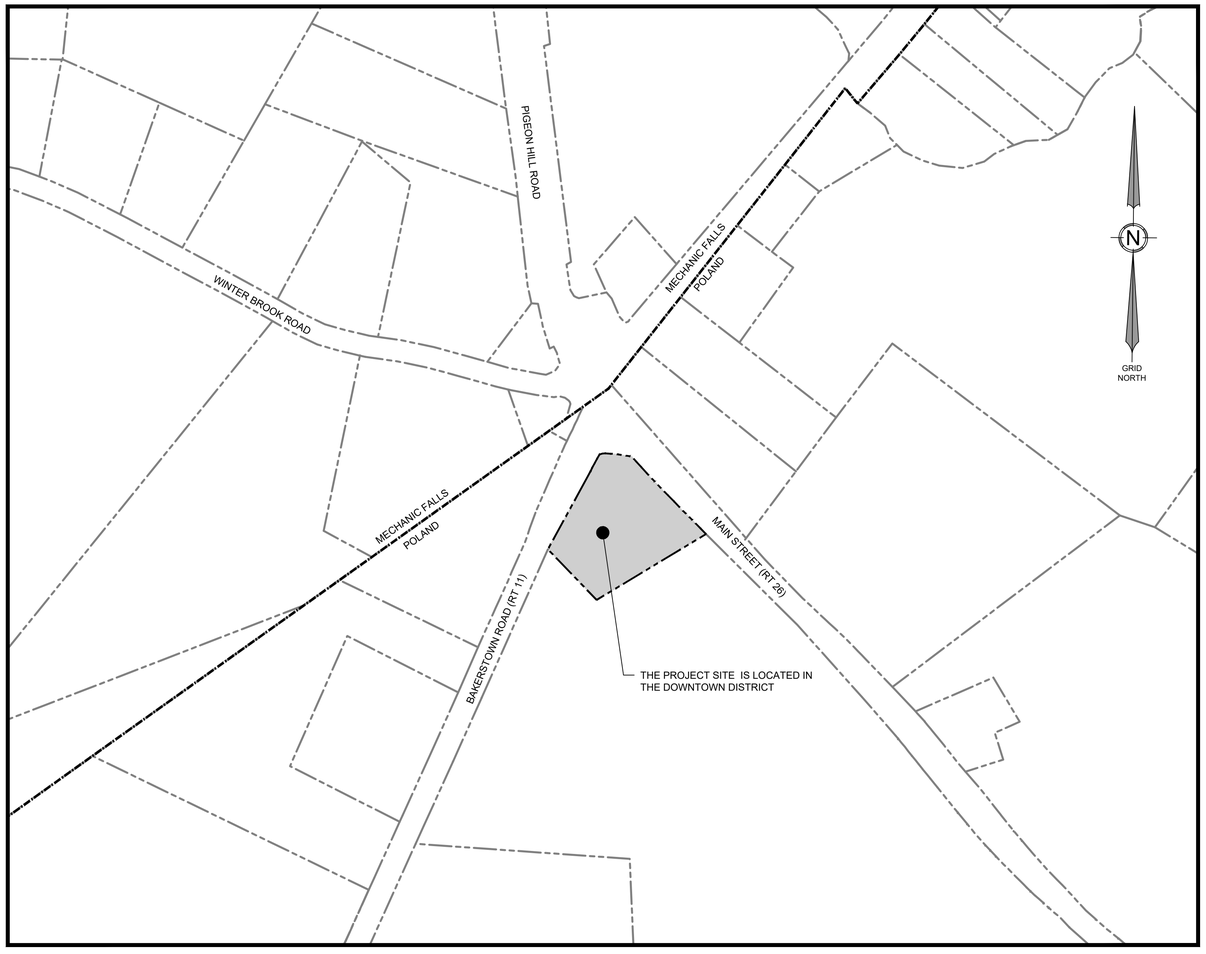
APPLICANT/OWNER:

JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

PROJECT PARCEL SITE

TOWN OF POLAND TAX ASSESSOR'S MAP & LOT NUMBERS

MAP 15 LOT 7



LOCATION MAP
1" = 200'

SHEET INDEX

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- EXISTING SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- ROAD CENTERLINE
- 124 EXISTING MINOR CONTOUR
- 124 EXISTING MAJOR CONTOUR
- 124 PROPOSED CONTOUR
- SD EXISTING STORMDRAIN
- SD PROPOSED STORMDRAIN
- OHE EXISTING OVERHEAD ELECTRIC & TELEPHONE
- OHE PROPOSED OVERHEAD ELECTRIC & TELEPHONE
- UGE EXISTING UNDERGROUND ELECTRIC & TELEPHONE
- UGE PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
- EXISTING EDGE OF PAVEMENT
- PROPOSED EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF GRAVEL
- EXISTING TREE LINE
- PROPOSED TREE LINE
- CHAIN LINK FENCE
- PROPOSED FENCE
- EXISTING GUARDRAIL
- PROPOSED GUARDRAIL
- MB MIX BERM
- PROPOSED TRANSFORMER
- PROPOSED LIGHT POLE
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- PROPOSED CATCH BASIN
- 30.20 EXISTING SPOT GRADE
- 30.20 PROPOSED SPOT GRADE
- EXISTING SIGN
- PROPOSED SIGN
- TP-A TEST PIT
- EXISTING BUILDING
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED GRAVEL
- RIPRAP

APPROVED: TOWN OF POLAND
PLANNING BOARD

_____ DATE

_____

_____

_____

_____

_____

_____

_____

STATE OF MAINE
CRAIG M. SWEET
No. 15060
LICENSED PROFESSIONAL ENGINEER

DATE: 2/27/2024
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
3	02-27-2024	RESPONSE TO TOWN COMMENTS	CMS
2	08-11-2023	REVISED PROJECT SCOPE	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

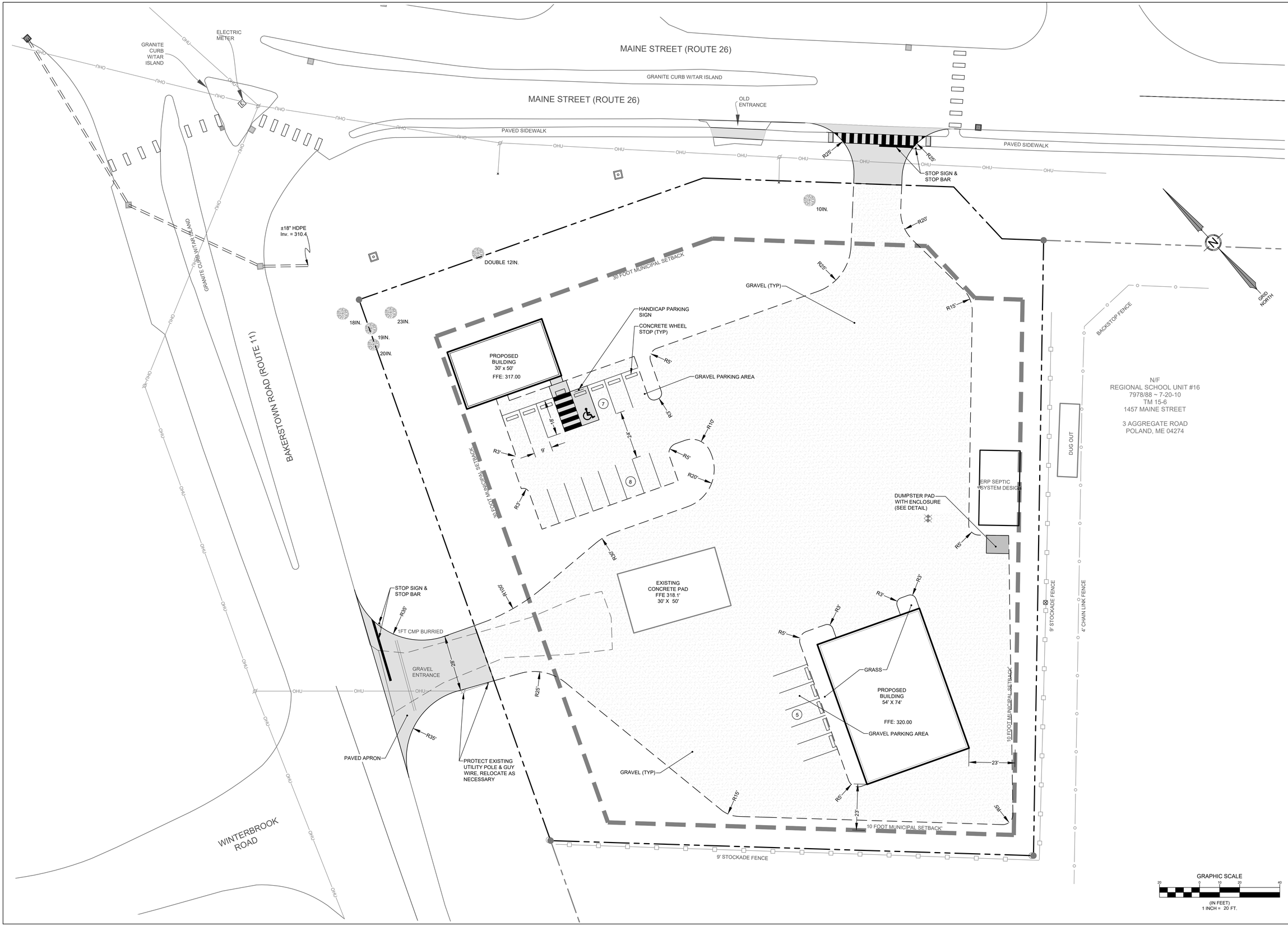
PROJECT:
1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE:
COVER/LOCATION MAP

CLIENT:
JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	8/11/2023
SCALE:	AS NOTED
DESIGNED:	
JOB NO:	22-138
SHEET	C-0.0

C:\OD\Terradyn Consultants\Project Folders - Documents\2022 Jobs\22-138 Mac's Dock Poland\CAD\Permitting\22-138 C.dwg



GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 INCH = 20 FT.

STATE OF MAINE
CRAIG M. SWEET
No. 15060
LICENSED PROFESSIONAL ENGINEER

DATE: 8/11/2023
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
2	08-11-2023	REVISED PROJECT SCOPE	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE, SUITE 301, NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com
565 CONGRESS STREET, SUITE 201, PORTLAND, ME 04102

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: 1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

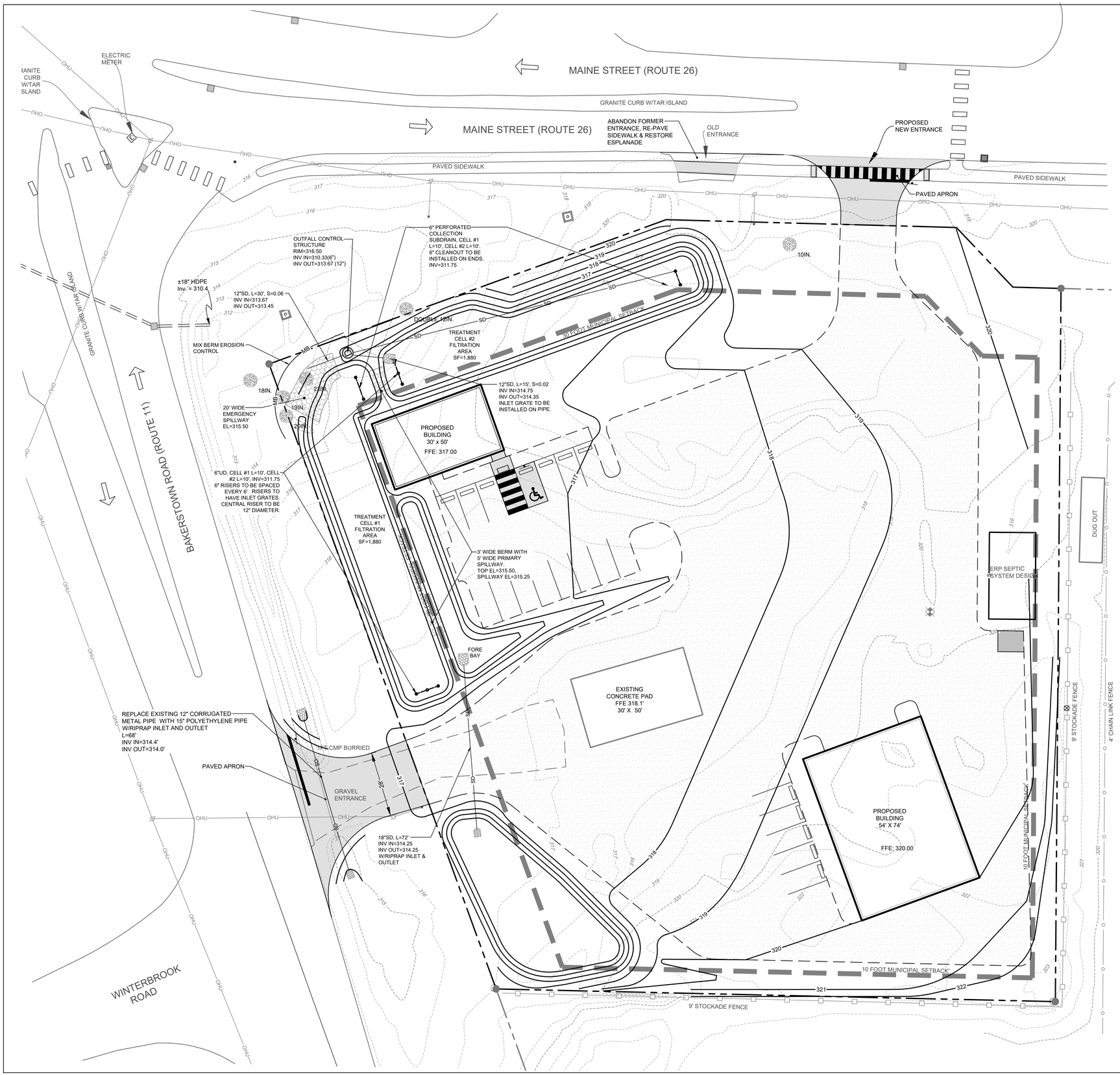
SHEET TITLE: SITE LAYOUT PLAN

CLIENT: JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	8/9/2022
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138

SHEET C-1.0

C:\OD\Terradyn Consultants\Project Folders - Documents\2022 Jobs\22-138 Mac's Dock Poland\CAD\Permitting\22-138 B.dwg



GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 INCH = 20 FT.

CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.

4. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.

6. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.

7. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.

8. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2016 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

10. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.

11. CONTRACTOR SHALL BE AWARE THAT DIG SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. WHEN NOTIFIED, DIG SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE TOWN OR CITY WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES, AS WELL AS USG PUBLIC WORKS SYSTEMS.

12. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.

13. ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.

14. ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.

15. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.

16. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE A M.D.O.T. PERMIT AS WELL AS PERMITS FROM THE TOWN AS APPLICABLE.

17. THE PROPOSED LIMITS OF CLEARING SHOWN HEREON ARE APPROXIMATE BASED UPON THE PROPOSED LIMITS OF SITE GRADING. THE APPLICANT RESERVES THE RIGHT TO PERFORM NORMAL FOREST MANAGEMENT ACTIVITIES OUTSIDE OF THE CLEARING LIMIT AS SHOWN. TREE REMOVAL OUTSIDE OF THE LIMITS OF CLEARING MAY BE NECESSARY TO REMOVE DEAD OR DYING TREES OR TREE LIMBS. THIS REMOVAL IS DUE TO POTENTIAL SAFETY HAZARDS AND TO PROMOTE PROPER FOREST GROWTH.

18. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.

19. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.

20. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.

21. WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGMENT OF TERRADYN CONSULTANTS, LLC.

22. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.

23. THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.

24. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.

25. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.

26. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.

STATE OF MAINE
CRAIG M. SWEET
No. 15060
REGISTERED PROFESSIONAL ENGINEER
LICENSED

DATE: 8/11/2023
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
2	08-11-2023	REVISED PROJECT SCOPE	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 305
NEW GLOUCESTER, ME 04260

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www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: 1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE: GRADING PLAN

CLIENT: JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	8/9/2022
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138
SHEET	C-2.0

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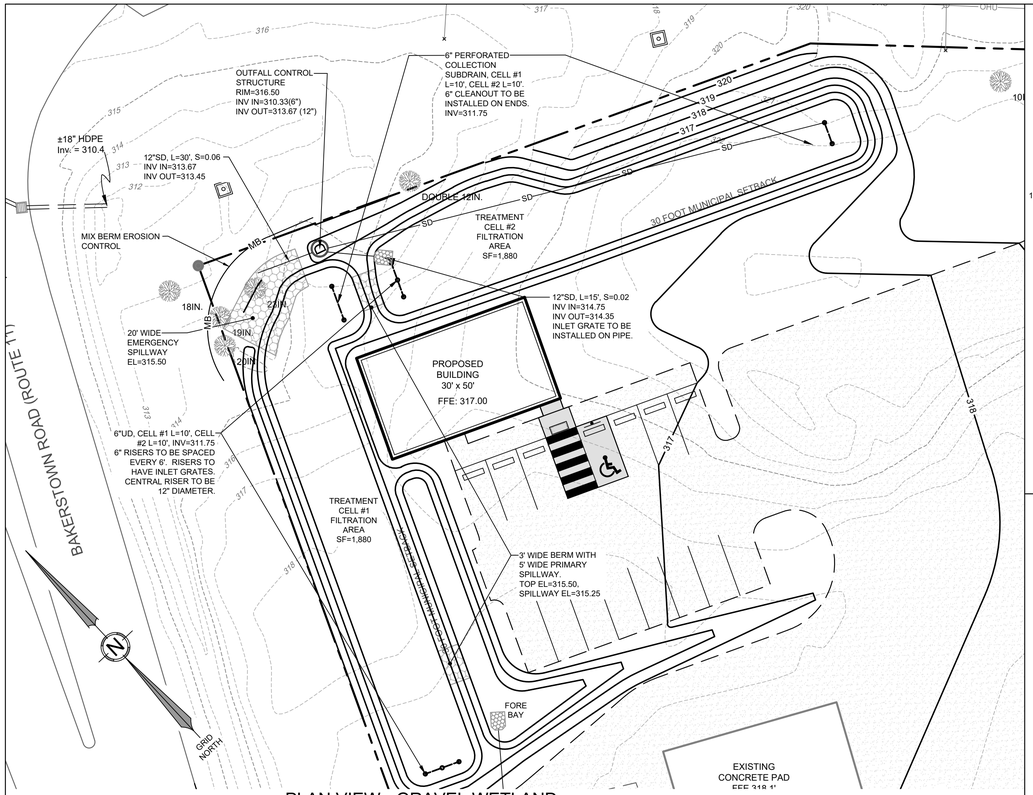
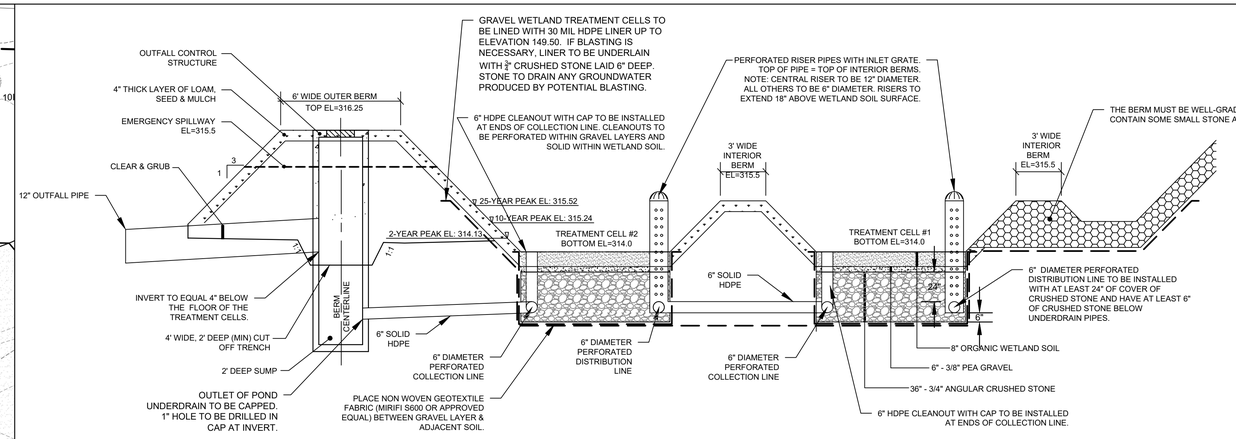


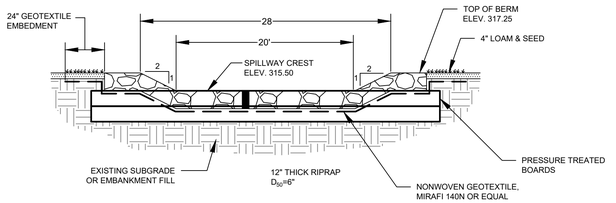
PLAN VIEW - GRAVEL WETLAND

SCALE: 1"=20'



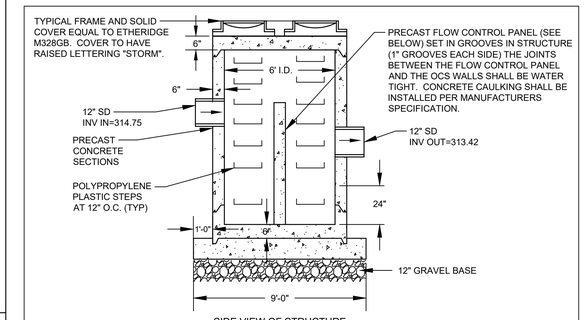
CROSS SECTION VIEW - GRAVEL WETLAND

NOT TO SCALE

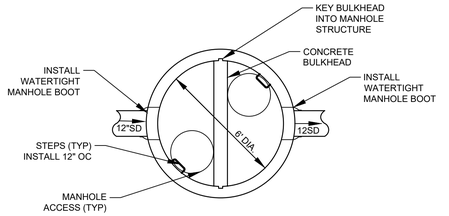


EMERGENCY SPILLWAY CROSS SECTION

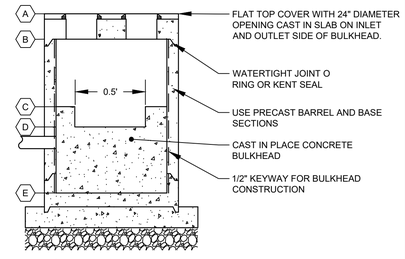
NOT TO SCALE



SIDE VIEW OF STRUCTURE



TOP VIEW OF STRUCTURE



SIDE VIEW & WEIR WALL

NOTES:
1. SUBMIT SHOP DRAWINGS FOR OWNER/ ENGINEER APPROVAL.
2. STRUCTURE SHALL BE DESIGNED FOR H-20 LOADING.
3. CASTINGS SHALL PROVIDE FOR A 24" CLEAR OPENING.

SCHEDULE A
OUTLET CONTROL STRUCTURE

ITEM DESCRIPTION		DIMENSION / ELEVATION
A.	TOP OF STRUCTURE	316.50
B.	UNDERSIDE OF SLAB	316.00
C.	TOP OF CONCRETE BULKHEAD	316.00
D.	BOTTOM OF WEIR SLOT	315.25
E.	BOTTOM OF STRUCTURE	311.25

OUTLET CONTROL STRUCTURE (OCS)

NOT TO SCALE

GRAVEL WETLAND INSTALLATION NOTES:

1. THE MINIMUM SPACING BETWEEN THE SUBSURFACE PERFORATED DISTRIBUTION LINE AND THE SUBSURFACE PERFORATED COLLECTION DRAIN AT EITHER END OF THE GRAVEL IN EACH TREATMENT CELL IS 15 FT.

2. THERE SHOULD BE A MINIMUM HORIZONTAL TRAVEL DISTANCE OF 15 FT WITHIN THE GRAVEL LAYER IN EACH CELL.

3. VERTICAL PERFORATED OR SLOTTED RISER PIPES DELIVER WATER FROM THE SURFACE DOWN TO THE SUBSURFACE, PERFORATED OR SLOTTED DISTRIBUTION LINES. THESE RISERS SHALL HAVE A MAXIMUM SPACING OF 10 FEET.

4. SLOTTED VERTICAL RISERS SHALL HAVE A MINIMUM DIAMETER OF 12" FOR THE CENTRAL RISER AND 6" FOR END RISERS. THE VERTICAL RISERS SHALL NOT BE CAPPED, BUT RATHER COVERED WITH AN INLET GRATE.

5. VERTICAL CLEANOUTS CONNECTED TO THE DISTRIBUTION AND COLLECTION SUBDRAINS, AT EACH END, SHALL BE PERFORATED OR SLOTTED ONLY WITHIN THE GRAVEL LAYER, AND SOLID WITHIN THE WETLAND SOIL AND STORAGE AREA ABOVE.

6. TREATMENT CELL FLOOR TO BE GRADED FLAT.

7. BERMS AND WEIRS SEPARATING THE FOREBAY AND TREATMENT CELLS SHOULD BE CONSTRUCTED WITH CLAY, OR NON-CONDUCTIVE SOILS, AND/OR A FINE GEOTEXTILE, OR SOME COMBINATION THEREOF, TO AVOID WATER SEEPAGE AND SOIL PIPING THROUGH THESE EARTHEN DIVIDERS.

8. THE SYSTEM SHOULD BE PLANTED TO ACHIEVE A RIGOROUS ROOT MAT WITH GRASSES, FORBS, AND SHRUBS WITH OBLIGATE AND FACULTATIVE WETLAND SPECIES.

9. THE SUBAREA DRAINING TO A CREATED WETLAND MUST BE COMPLETELY STABLE BEFORE RUNOFF IS DIRECTED TO THE BASIN TO PREVENT SEDIMENTATION OF THE DRAINAGE LAYER; OR ALL RUNOFF SHOULD BE RE-DIRECTED UNTIL CONSTRUCTION IS FINALIZED. THE VEGETATION WITHIN THE STRUCTURE IS EQUALLY IMPORTANT AND MUST BE WELL ESTABLISHED BEFORE IT CAN ACCEPT ANY RUNOFF.

10. GRAVEL WETLAND STORMWATER AREA TO BE SEEDED WITH "NEW ENGLAND WETMIX" AS DISTRIBUTED BY NEW ENGLAND WETLAND PLANTS, INC., 820 WEST STREET, AMHERST, MA 01002, PHONE 413-548-8000, EMAIL INFO@NEWP.COM, OR APPROVED EQUIVALENT. APPLY AT A RATE OF 1 LB/2,500 SF.

11. THE SEEDS WILL NOT GERMINATE UNDER INUNDATED CONDITIONS. IF PLANTED DURING THE FALL MONTHS THE SEED MIX WILL GERMINATE THE FOLLOWING SPRING. DURING THE FIRST SEASON OF GROWTH SEVERAL SPECIES WILL PRODUCE SEEDS WHILE OTHER SPECIES WILL PRODUCE SEEDS AFTER THE SECOND GROWING SEASON. NOT ALL SPECIES WILL GROW IN ALL WETLAND SITUATIONS. THIS MIX IS COMPRISED OF THE WETLAND SPECIES MOST LIKELY TO GROW IN CREATED/RESTORED WETLANDS AND SHOULD PRODUCE MORE THAN 75% GROUND COVER IN TWO FULL GROWING SEASONS.

12. THE WETLAND SEEDS IN THIS MIX CAN BE SOWN BY HAND, WITH A HAND-HELD SPREADER, OR HYDRO-SEEDED ON LARGE OR HARD TO REACH SITES. LIGHTLY RAKE TO ENSURE GOOD SEED-TO-SOIL CONTACT. SEEDING CAN TAKE PLACE ON FROZEN SOIL, AS THE FREEZING AND THAWING WEATHER OF LATE FALL AND LATE WINTER WILL WORK THE SEED INTO THE SOIL. IF SPRING CONDITIONS ARE DRIER THAN USUAL, WATERING MAY BE REQUIRED. IF SOWING DURING THE SUMMER MONTHS, SUPPLEMENTAL WATERING WILL LIKELY BE REQUIRED UNTIL GERMINATION. A LIGHT MULCH OF CLEAN, WEED FREE STRAW IS RECOMMENDED.

13. THE POND CONSTRUCTION SHOULD BE ONLY CONSTRUCTED UNDER THE SUPERVISION OF THE DESIGN ENGINEER.

POND CONSTRUCTION NOTES:
1. CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ORGANIC MATERIAL FROM EMBANKMENT AND POND CONSTRUCTION AREA.
2. SCARIFY SUBGRADE TO ESTABLISH INTERFACE FOR ALL FILLS.
3. CONSTRUCTION MATERIAL SHALL MEET M.D.O.T. SPEC 703.18
4. COMPACT IN 12" LIFTS TO 92% OF MAXIMUM DRY DENSITY.
5. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED.
6. LOAM, SEED & STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN & NOTES.

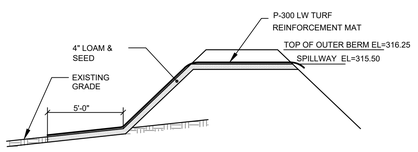
CONSTRUCTION INSPECTION NOTES:
INSPECTION BY A PROFESSIONAL ENGINEER WILL CONSIST OF WEEKLY VISITS TO THE SITE TO INSPECT THE INSTALLATION OF EACH POND'S EMBANKMENT CONSTRUCTION, STORMWATER INLET, UNDERDRAINS, FILTER MATERIAL MAKEUP AND PLACEMENT, OUTLET CONTROL STRUCTURE, CLAY LINER (IF APPLICABLE), AND EMERGENCY SPILLWAY CONSTRUCTION FROM INITIAL GROUND DISTURBANCE TO FINAL STABILIZATION OF THE POND. AN INSPECTION OF THE UNDERDRAINED GRAVEL OUTLET SHALL ALSO BE PERFORMED ONE YEAR AFTER THE FINAL STABILIZATION OF THE POND.

ORGANIC WETLAND SOIL MIXTURE:
THE WETLAND SOIL SHOULD HAVE A LOW HYDRAULIC CONDUCTIVITY (0.1-0.01 FT/DAY). THIS SOIL CAN BE MANUFACTURED USING COMPOST, SAND AND FINE SOILS, INTO A BLEND WITH MORE THATN 15% ORGANIC MATTER. IT SHOULD CONTAIN MORE THAN 15% SILT (PASSING THE #200 SIEVE); BUT WITH A CLAY SIZE PORTION THAT IS LESS THAN 15%. DO NOT USE GEOTEXTILES BETWEEN THE HORIZONTAL LAYERS OF THIS SYSTEM AS THEY WILL CLOG DUE TO FINES AND MAY RESTRICT ROOT GROWTH.

WETLAND SOIL GRADATION

SIEVE SIZE	% PASSING BY WEIGHT
1/2 IN	100
NO. 10	75-90
NO. 100	40-50
NO. 200	25-50

EMBANKMENT CONSTRUCTION:
1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION 703.
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.



SPILLWAY EMBANKMENT SECTION

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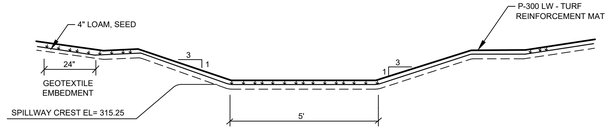

INTERNAL BERM SPILLWAY CROSS-SECTIONS

NOT TO SCALE

STATE OF MAINE — CRAIG M. SWEET — No. 15060 — LICENSED PROFESSIONAL ENGINEER

DATE: 8/11/2023
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
2	08-11-2023	REVISED PROJECT SCOPE	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

TERRADYN CONSULTANTS, LLC
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565 CONGRESS STREET, SUITE 201, PORTLAND, ME 04102

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: 1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE: GRAVEL WETLAND DETAILS

CLIENT: JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	8/9/2023
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138
SHEET	C-2.1

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EROSION AND SEDIMENT CONTROL PLAN

PRE-CONSTRUCTION PHASE

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 MRSA § 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. THE SITE MUST BE MAINTAINED TO PREVENT UNREASONABLE EROSION AND SEDIMENTATION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE.

BMP CONSTRUCTION PHASE

A. SEDIMENT BARRIERS. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE EDGE OF ANY DOWNGRADIENT DISTURBED AREA AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE PROPOSED DISTURBED AREA. MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

B. CONSTRUCTION ENTRANCE: PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE INTERSECTION WITH THE PROPOSED ACCESS DRIVE AND THE EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

C. RIPRAP: SINCE RIPRAP IS USED WHERE EROSION POTENTIAL IS HIGH, CONSTRUCTION MUST BE SEQUENCED SO THAT THE RIPRAP IS PUT IN PLACE WITH THE MINIMUM DELAY. DISTURBANCE OF AREAS WHERE RIPRAP IS TO BE PLACED SHOULD BE UNDERTAKEN ONLY WHEN FINAL PREPARATION AND PLACEMENT OF THE RIPRAP CAN FOLLOW IMMEDIATELY BEHIND THE INITIAL DISTURBANCE. WHERE RIPRAP IS USED FOR OUTLET PROTECTION, THE RIPRAP SHOULD BE PLACED BEFORE OR IN CONJUNCTION WITH THE CONSTRUCTION OF THE PIPE OR CHANNEL SO THAT IT IS IN PLACE WHEN THE PIPE OR CHANNEL BEGINS TO OPERATE. MAINTAIN TEMPORARY RIPRAP, SUCH AS TEMPORARY CHECK DAMS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

D. TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEEDING, MULCH, OR OTHER NON-ERODABLE COVER ANY EXPOSED SOILS THAT WILL REMAIN UNWORKED FOR MORE THAN 14 DAYS EXCEPT, STABILIZE AREAS WITHIN 100 FEET OF A WETLAND OR WATERBODY WITHIN 7 DAYS OR PRIOR TO A PREDICTED STORM EVENT, WHICHEVER COMES FIRST. IF HAY OR STRAW MULCH IS USED, THE APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SF OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE. HAY MULCH MUST BE KEPT MOIST OR ANCHORED TO PREVENT WIND BLOWING. AN EROSION CONTROL BLANKET OR MAT SHALL BE USED AT THE BASE OF GRASSED WATERWAYS, STEEP SLOPES (15% OR GREATER) AND ON ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND WETLANDS. GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE SECOND PHASE, AND SO ON.

E. VEGETATED WATERWAY. UPON FINAL GRADING, THE DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED TO PERMANENT VEGETATION AND MULCHED AND WILL NOT BE USED AS OUTLETS UNTIL A DENSE, VIGOROUS VEGETATIVE COVER HAS BEEN OBTAINED. ONCE SOIL IS EXPOSED FOR WATERWAY CONSTRUCTION, IT SHOULD BE IMMEDIATELY SHAPED, GRADED AND STABILIZED. VEGETATED WATERWAYS NEED TO BE STABILIZED EARLY DURING THE GROWING SEASON (PRIOR TO SEPTEMBER 15). IF FINAL SEEDING OF WATERWAYS IS DELAYED PAST SEPTEMBER 15, EMERGENCY PROVISIONS SUCH AS SOD OR RIPRAP MAY BE REQUIRED TO STABILIZE THE CHANNEL. WATERWAYS SHOULD BE FULLY STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

PERMANENT STABILIZATION DEFINED

A. SEEDED AREAS. FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS AN 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.

G. DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIPRAP, 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.

GENERAL CONSTRUCTION PHASE

THE FOLLOWING EROSION CONTROL MEASURES SHALL BE FOLLOWED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION OF THIS PROJECT:

A. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEEDED WITH RYE AT 3 POUNDS/1,000 SF AND MULCHED, AND REUSED AS REQUIRED. SILT FENCING SHALL BE PLACED DOWN GRADIENT FROM THE STOCKPILED LOAM. STOCKPILE TO BE LOCATED BY DESIGNATION OF THE OWNER AND INSPECTING ENGINEER.

B. THE INSPECTING ENGINEER AT HIS/HER DISCRETION, MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AND/OR SUPPLEMENTAL VEGETATIVE PROVISIONS TO MAINTAIN STABILITY OF EARTHWORKS AND FINISH GRADED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY SUPPLEMENTAL MEASURES AS DIRECTED BY THE INSPECTING ENGINEER. FAILURE TO COMPLY WITH THE ENGINEER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.

C. EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISH SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.

D. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE ADEQUATELY STABILIZED.

E. ALL EROSION, AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

F. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS.

G. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.

H. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

I. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.

J. EXCEPT FOR APPROVED LANDFILLS OR NON-STRUCTURAL FILLS, FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS.

K. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS.

L. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.

M. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY.

N. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

O. REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

PERMANENT VEGETATION

PERMANENT VEGETATIVE COVER SHOULD BE ESTABLISHED ON DISTURBED AREAS WHERE PERMANENT, LONG LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL, TO REDUCE DAMAGES FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE ENVIRONMENT.

SEEDBED PREPARATION

A. GRADE AS FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.

B. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF MAINE SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P2O5-K2O) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQ. FT).

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.D. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.

E. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.

F. PERMANENT SEEDING SHOULD BE MADE 45 DAYS PRIOR TO THE FIRST KILLING FROST OR AS A DORMANT SEEDING WITH MULCH AFTER THE FIRST KILLING FROST AND BEFORE SNOWFALL. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, MULCH ACCORDING TO THE TEMPORARY MULCHING BMP AND OVERWINTER STABILIZATION AND CONSTRUCTION TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

G. FOLLOWING SEED BED PREPARTATION, SWALE AREAS, FILL AREAS AND BACK SLOPES SHALL BE SEEDED AT A RATE OF 3 LBS./1,000 S.F. WITH A MIXTURE OF 35% CREEPING RED FESCUE, 6% RED TOP, 24% KENTUCKY BLUEGRASS, 10% PERENNIAL RYEGRASS, 20% ANNUAL RYEGRASS AND 5% WHITE DUTCH CLOVER.

I. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.

J. AREAS WHICH CANNOT BE SEEDED WITHIN THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION AND THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE GROWING SEASON.

WINTER CONSTRUCTION PHASE

IF AN AREA IS NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES BY NOVEMBER 15, THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES.

A. PERMANENT STABILIZATION CONSISTS OF AT LEAST 90% VEGETATION, PAVEMENT/GRAVEL BASE OR RIPRAP.

B. DO NOT EXPOSE SLOPES OR LEAVE SLOPES EXPOSED OVER THE WINTER OR FOR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY PROTECTED WITH MULCH.

C. APPLY HAY MULCH AT TWICE THE STANDARD RATE (150 LBS. PER 1,000 SF). THE MULCH MUST BE THICK ENOUGH SUCH THAT THE GROUND SURFACE WILL NOT BE VISIBLE AND MUST BE ANCHORED.

D. USE MULCH AND MULCH NETTING OR AN EROSION CONTROL MULCH BLANKET OR ALL SLOPES GREATER THAN 8 % OR OTHER AREAS EXPOSED TO DIRECT WIND.

E. INSTALL AN EROSION CONTROL BLANKET IN ALL DRAINAGEWAYS (BOTTOM AND SIDES) WITH A SLOPE GREATER THAN 3 %.

F. SEE THE VEGETATION MEASURES FOR MORE INFORMATION ON SEEDING DATES AND TYPES.

G. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SO THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

H. AN AREA WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIER.

I. TEMPORARY MULCH MUST BE APPLIED WITHIN 7 DAYS OF SOIL EXPOSURE OR PRIOR TO ANY STORM EVENT, BUT AFTER EVERY WORKDAY IN AREAS WITHIN 100 FEET FROM A PROTECTED NATURAL RESOURCE.

J. AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE PERMANENTLY MULCHED THAT SAME DAY.

K. IF SNOWFALL IS GREATER THAN 1 INCH (FRESH OR CUMULATIVE), THE SNOW SHALL BE REMOVED FROM THE AREAS DUE TO BE SEEDED AND MULCHED.

L. LOAM SHALL BE FREE OF FROZEN CLUMPS BEFORE IT IS APPLIED.

M. 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.

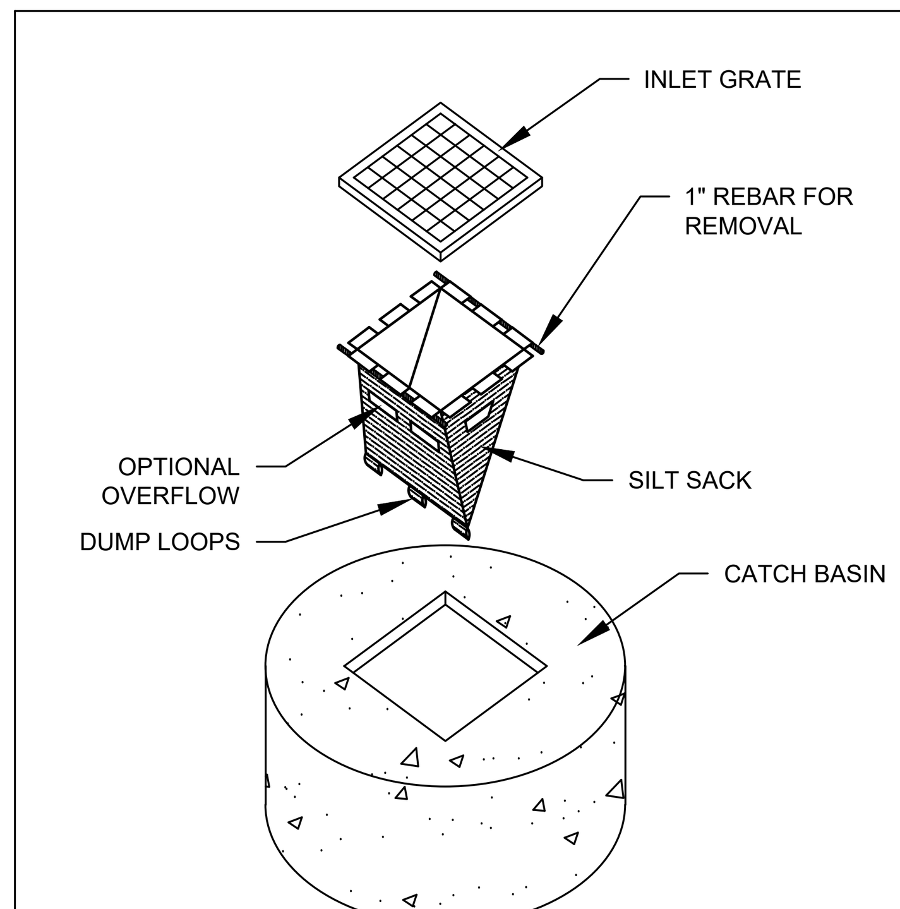
MAINTENANCE AND INSPECTION PHASE

A. MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE

B. A LOG (REPORT) MUST BE KEPT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, 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 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.

DEWATERING

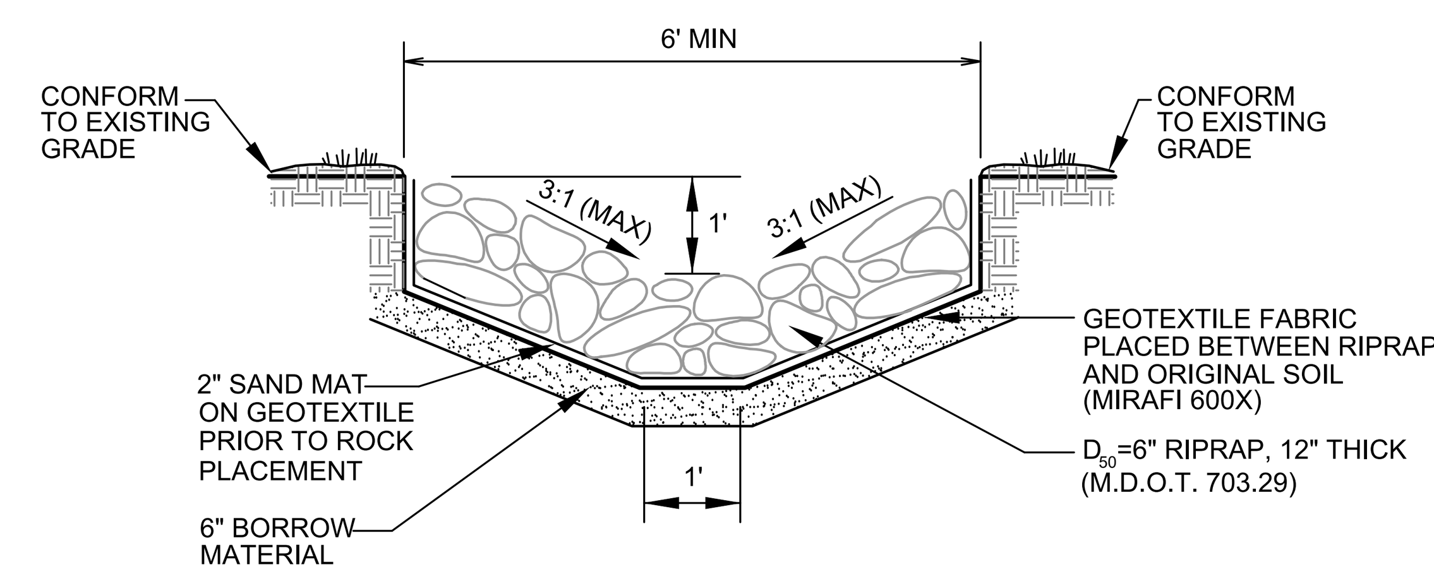
A DEWATERING PLAN IS NEEDED TO ADDRESS EXCAVATION DE-WATERING FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION MAY INTERCEPT THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWNGRADIENT EROSION AND OFFSITE SEDIMENTATION OR WITHIN A RESOURCE.



NOTES:
1. SILT SACKS TO BE INSTALLED IN ALL CATCH BASINS RECEIVING RUNOFF FROM DISTURBED AREA
2. SILT SACK TO BE MAINTAINED UNTIL TRIBUTARY ARE IS FULLY STABILIZED

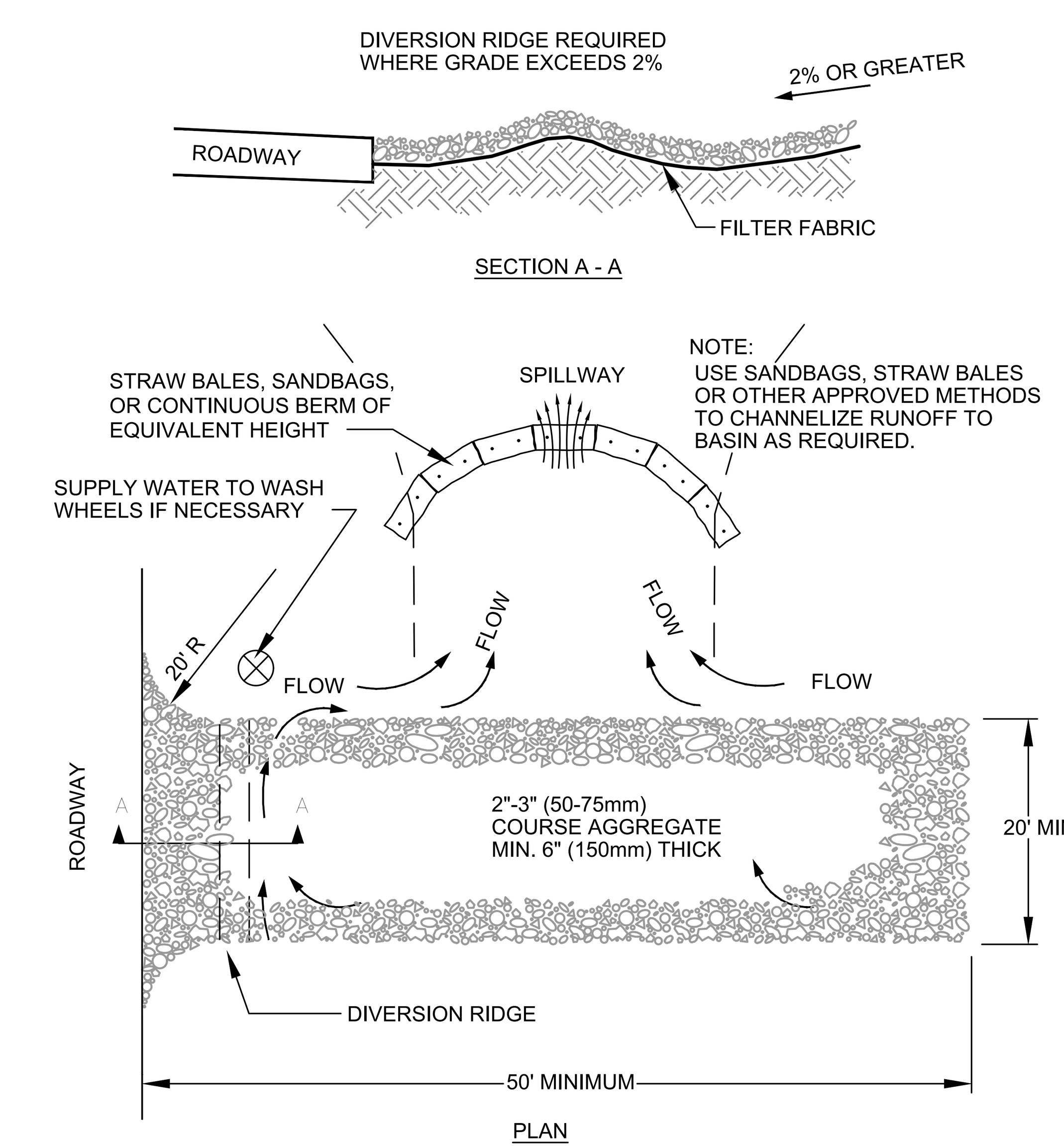
SILT SACK DETAIL

NOT TO SCALE



RIPRAP SWALE

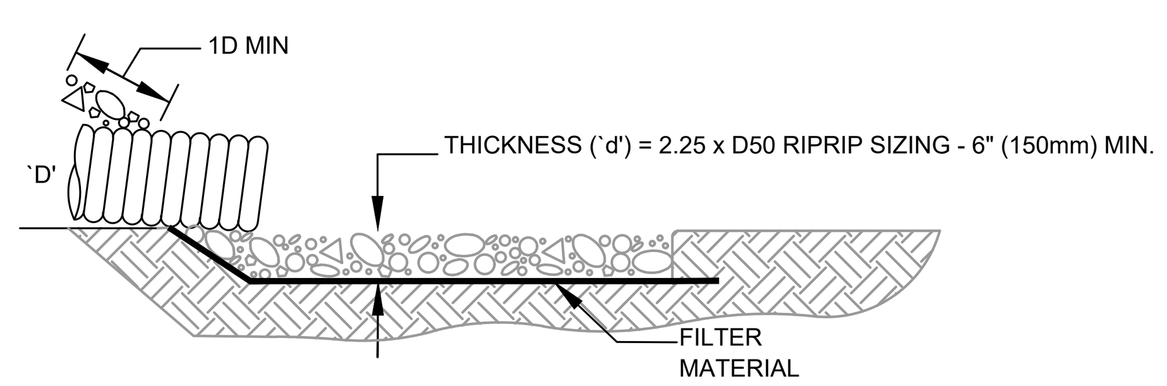
NOT TO SCALE



NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

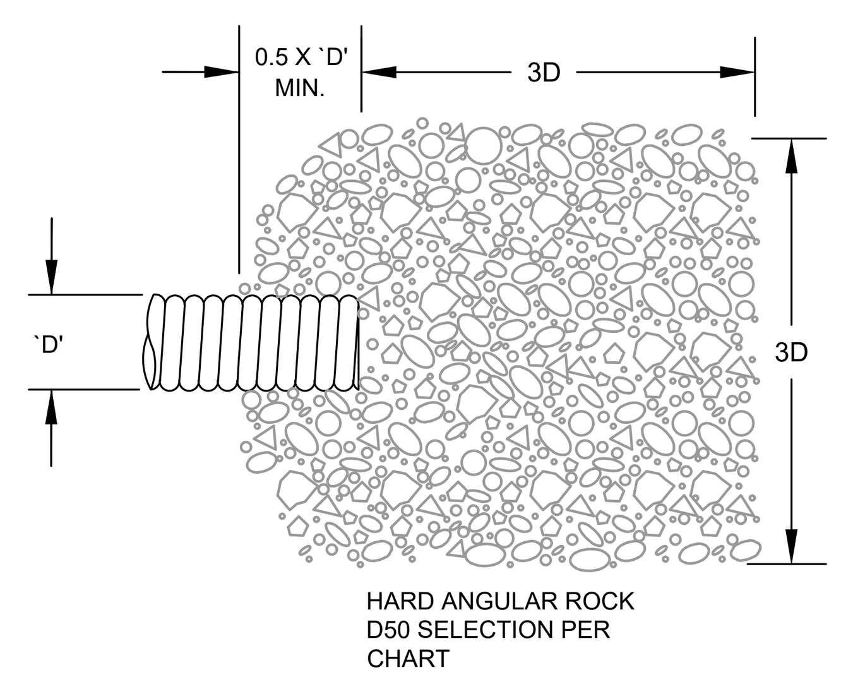
STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



NOTE:
1. GEOTEXTILE FILTER FABRIC BENEATH STONE BASED ON UNDISTURBED SOILS, OR 6" OF 4" MINUS BAN RUN GRAVEL FREE OF FINES, CLAYS, SILTS.
2. GEOTEXTILE TO BE MIRAFI 600X OR APPROVED EQUAL.

SECTION



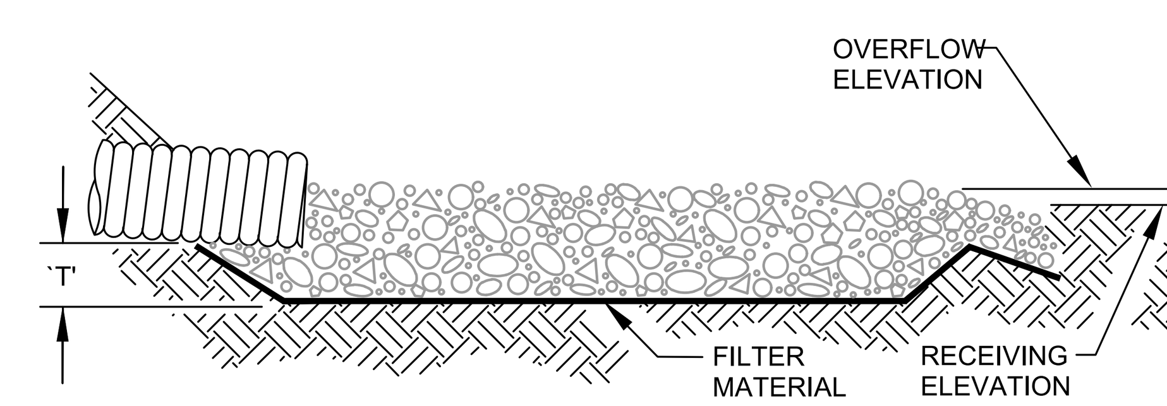
PLAN

PIPE INLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	RIRAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.0	1.5
12	5	3.5	3.0
15	6	4.5	3.75
18	8	5.25	4.5
24	10	7.0	6.0
30	12	8.75	7.5
36	14	10.5	9.0

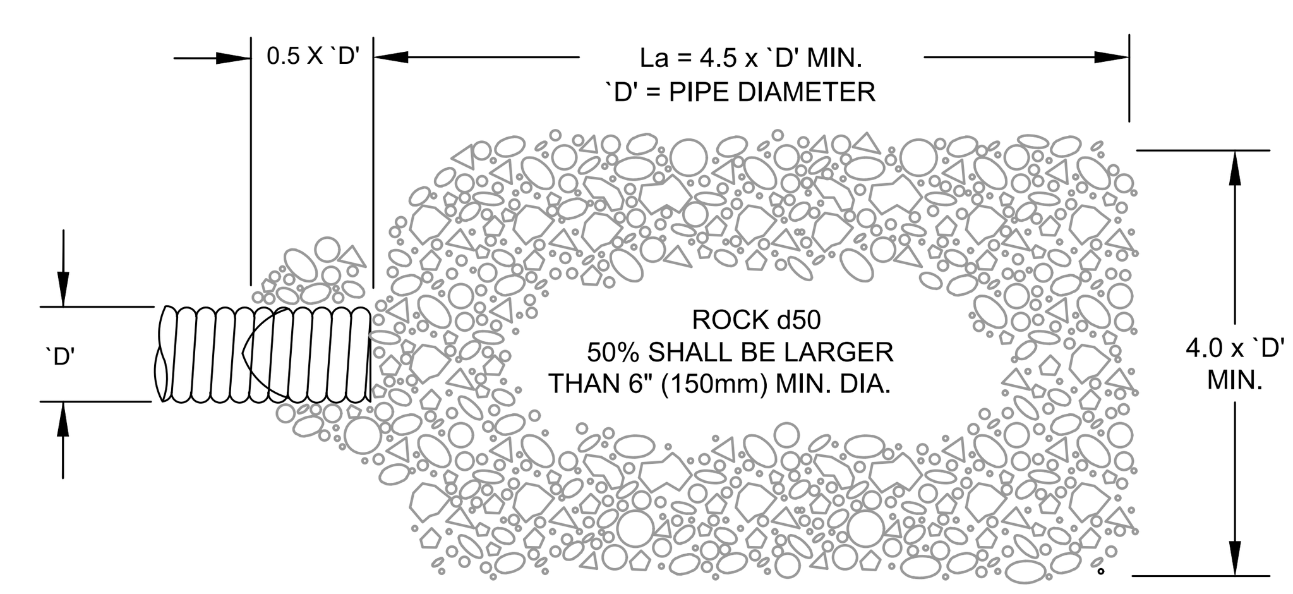
NOTES:
1. IN DEFINED CHANNELS, APRON SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. HEADWATER OR UP TO BANK FULL, WHICHEVER IS LESS.

PIPE INLET PROTECTION



THICKNESS ('T') = 2.25 x D50 RIPRAP SIZING - 6" (150mm) MIN.

SECTION



PLAN

PIPE OUTLET PROTECTION SIZING TABLE

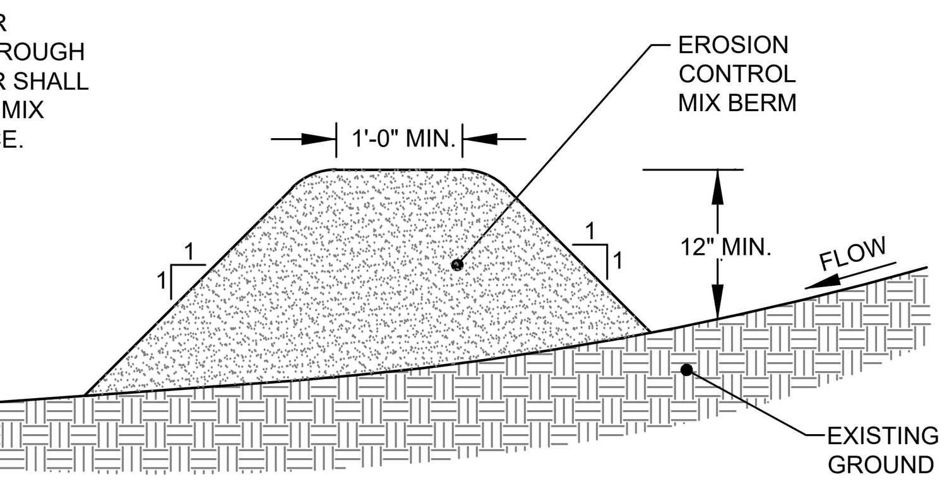
PIPE SIZE (IN)	RIP RAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.5	2.0
12	5	5.0	4.0
15	6	6.25	5.0
18	8	7.5	6.0
24	10	10.0	8.0
30	12	13.0	10.0
36	14	15.0	12.0

NOTES:
1. 'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC (MIRAFI 600X OR APPROVED EQUAL) OR 6" (150mm) THICK MINIMUM GRADED GRAVEL LAYER.

PIPE OUTLET PROTECTION

NOT TO SCALE

NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.

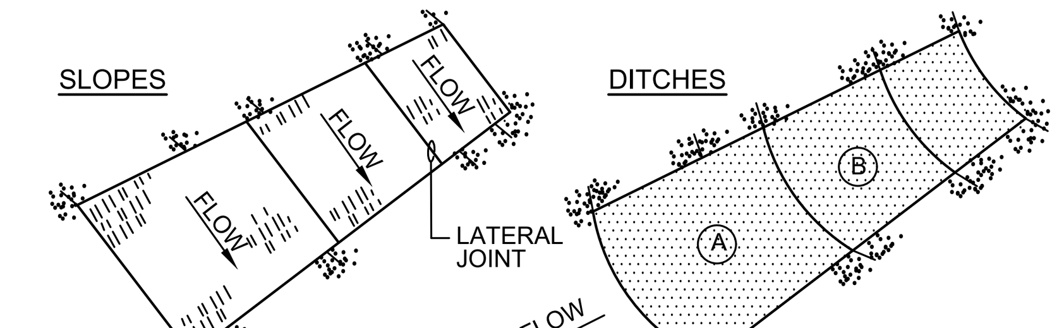


EROSION CONTROL MIX:

EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% - 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- ph SHALL FALL BETWEEN 5.0 - 8.0.

EROSION CONTROL MIX BERM

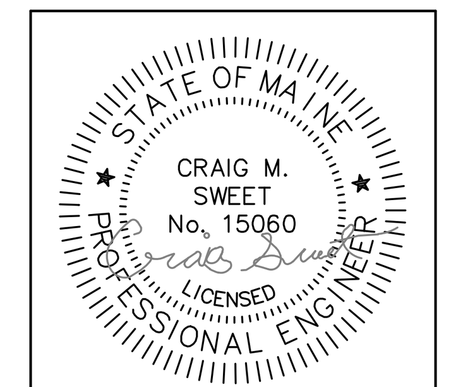
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1-2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER..

EROSION CONTROL BLANKET

NOT TO SCALE



DATE: 2/27/2024
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
3	02-27-2024	RESPONSE TO TOWN COMMENTS	CMS
2	08-11-2023	REVISED PROJECT SCOPE	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

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www.terradynconsultants.com
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

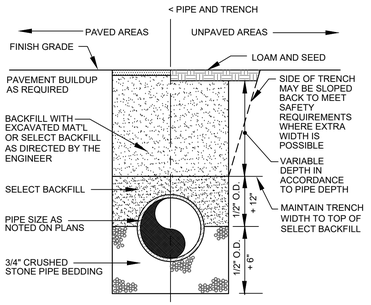
PROJECT:
1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE:
EROSION CONTROL NOTES & DETAILS

CLIENT:
JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

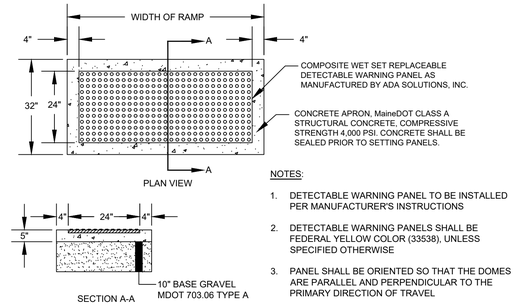
DATE:	8/11/2023
SCALE:	AS NOTED
DESIGNED:	
JOB NO:	22-138
SHEET	C-3.0

C:\OD\Terradyn Consultants\Project Folders - Documents\2022 Jobs\22-138 Mac's Dock Poland\CAD\Permitting\22-138 D.dwg



TYPICAL TRENCH SECTION

NOT TO SCALE

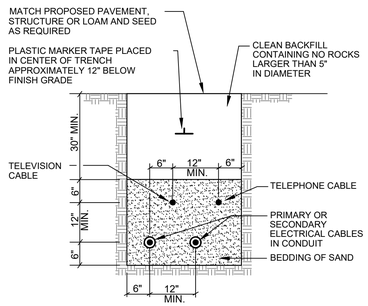


NOTES:

1. DETECTABLE WARNING PANEL TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS
2. DETECTABLE WARNING PANELS SHALL BE FEDERAL YELLOW COLOR (33538), UNLESS SPECIFIED OTHERWISE
3. PANEL SHALL BE ORIENTED SO THAT THE DOMES ARE PARALLEL AND PERPENDICULAR TO THE PRIMARY DIRECTION OF TRAVEL

COMPOSITE DETECTABLE WARNING PANEL DETAIL

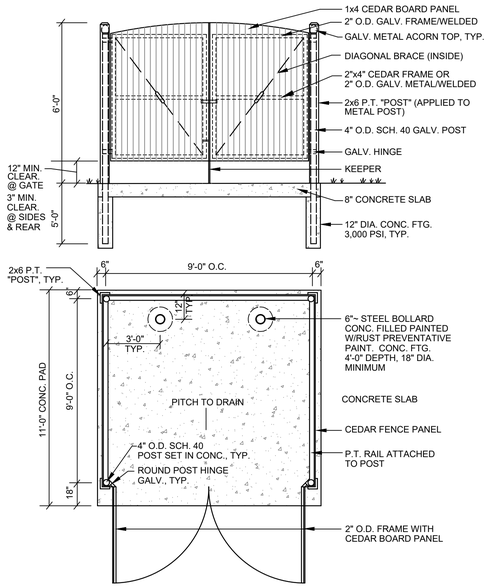
NOT TO SCALE



CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS.

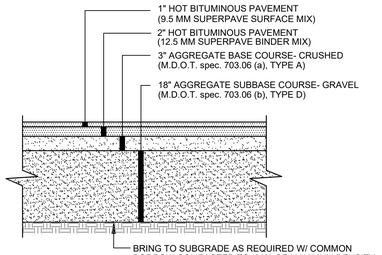
TYPICAL UNDERGROUND CABLE INSTALLATION

NOT TO SCALE



TYPICAL DUMPSTER ENCLOSURE

NOT TO SCALE

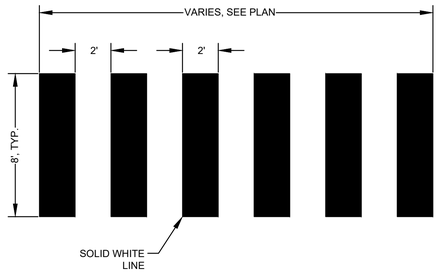


NOTES:

1. COMPACT GRAVEL SUBBASE COURSE TO 92% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

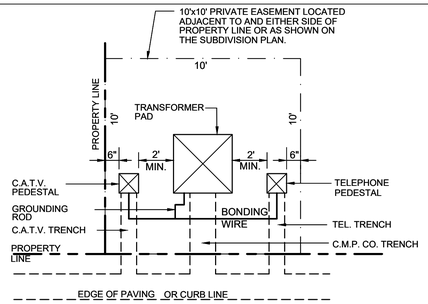
PAVEMENT SECTION

NOT TO SCALE



CROSSWALK STRIPING DETAIL

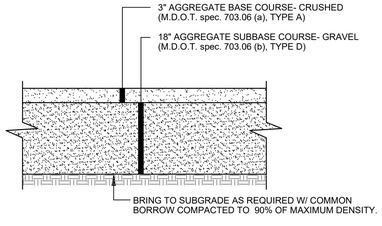
NOT TO SCALE



NOTE:
TRANSFORMER PAD AND COVER TO BE FIBERGLASS MEETING CENTRAL MAINE POWER SPECIFICATIONS.

TRANSFORMER DETAIL

NOT TO SCALE



NOTES:

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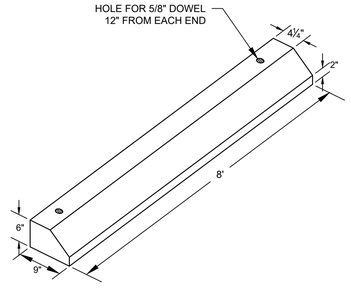
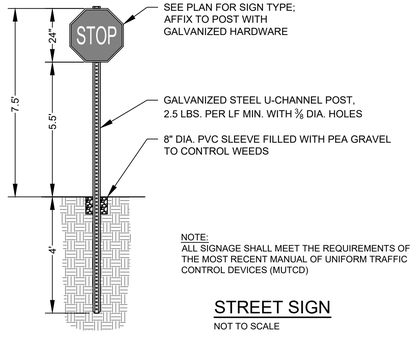
GRAVEL SECTION

NOT TO SCALE



PRECAST CURB WHEEL STOP

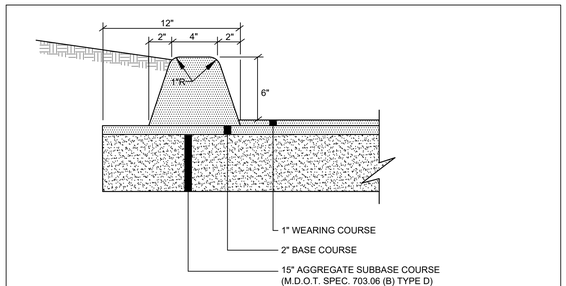
NOT TO SCALE



NOTE:
ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE MOST RECENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

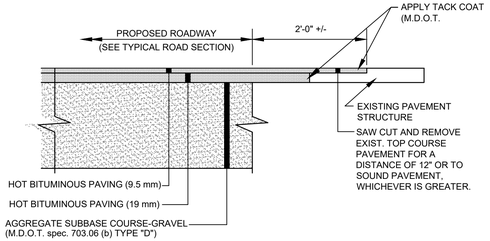
STREET SIGN

NOT TO SCALE



TYPE 3 -BITUMINOUS CURB(MOLD #1) SECTION

NOT TO SCALE



TYPICAL PAVEMENT JOINT

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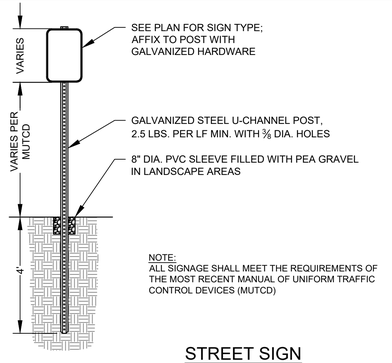
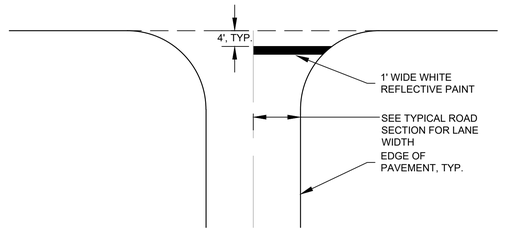


NOTE:
ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE MOST RECENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

STREET SIGN

NOT TO SCALE



STOP BAR DETAIL

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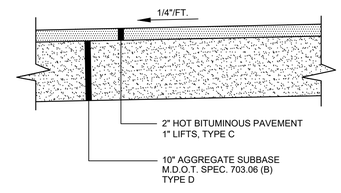


BITUMINOUS SIDEWALK

NOT TO SCALE

STATE OF MAINE
CRAIG M. SWEET
No. 15060
REGISTERED PROFESSIONAL ENGINEER

DATE: 2/27/2024
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
3	02-27-2024	RESPONSE TO TOWN COMMENTS	CMS
2	08-11-2023	REVISED PROJECT SCOPE	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 301
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE:
SITE DETAILS

CLIENT:
JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	8/11/2023
SCALE:	AS NOTED
DESIGNED:	
JOB NO:	22-138

SHEET
C-3.1

C:\OD\Terradyn Consultants\Project Folders - Documents\2022 Jobs\22-138 Mac's Dock Poland\CAD\Permitting\22-138 D.dwg

ATTACHMENT 2

Stormwater Management Report

TERRADYN CONSULTANTS, LLC

Pineland
Cumberland Hall
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Portland
565 Congress Street, Suite 201
Portland, ME 04101

1505 Maine Street
POLAND, MAINE

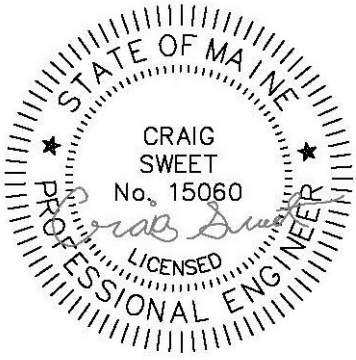
STORMWATER MANAGEMENT REPORT

PREPARED FOR:

JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

PREPARED BY:

TERRADYN CONSULTANTS LLC



February 28, 2023

Revised February 27, 2024

Introduction

The following Stormwater Management Plan has been prepared for the proposed development at 1505 Maine Street in Poland.

Site Calculations

Total Property Area	2.15 Ac (+/-)
Total New Impervious Area	1.26 Ac
Landscaped Area	0.90 Ac
Total Developed Area	2.15 Ac

Existing Project Site

The project site is approximately 2.15 acres in size and is depicted on the Town of Poland Assessor's Map as lot 7 on map 15. The site drains into the existing Maine DOT infrastructure which ultimately drains to the Waterhouse Brook before discharging into the Little Androscoggin River.

The development area is not located within an area of flood hazard, according to the Federal Insurance Rate Map 23001C0283E.

The following existing conditions figures are provided in Appendix 1:

Figure 1	USGS Topographic Map
Figure 2	NRCS Medium Intensity Soil Survey
Figure 3	Federal Insurance Rate Map

Proposed Project

The proposed project includes the construction of 3 buildings onsite with a gravel parking/staging area for the sale and fabrication of dock products. The stormwater runoff generated onsite is proposed to be treated by a large gravel wetland.

Applicable Design Standards

The project will disturb more than one acre of land area and requires a stormwater permit pursuant to the Stormwater Management Law 38 M.R.S §420-D. The project must meet the following standards of Chapter 500:

> Basic Standards: These standards include erosion and sediment control, inspection and maintenance, and housekeeping requirements.

Basic Standards

A site specific Erosion & Sedimentation Control Plan has been developed for the project. Means and methods to control erosion and sedimentation during and after construction are detailed in the erosion control plan narrative and construction details, which are included directly on the project drawings for ease of reference during construction.

Requirements for inspection and maintenance of the stormwater management system are provided in the stormwater management system inspection and maintenance plan located in Appendix 2

Housekeeping requirements are included in the Erosion & Sediment Control Narrative located on the project drawings.

General Standards

The General Standard requires that a project's stormwater management system includes measures that will provide pollutant removal from runoff and mitigate for the increased frequency of channels erosive flows due to runoff from smaller storms and potential temperature impacts.

Best Management Practices (BMPs) will be implemented to reduce the impacts of site development on downstream water quality. BMP sizing calculations are attached to this report.

Water Quality (BMP Standard)

The water quality requirements will be met by a large gravel wetland.

Project Developed area: The project will result in the creation of approximately 1.26 Ac of new impervious area. The proposed BMPs will result in the treatment of approximately 99% of the new impervious area.

Percentage of Treatment of the Impervious Area =99% (95% req'd)

Project Developed Area: The project will result in the creation of approximately 2.15 AC of developed area. The proposed BMPs will result in the treatment of approximately 99% of the area.

Percentage of Treatment of the Developed Area =99% (80% required)

Housekeeping and Maintenance & Inspection guidelines are attached to this report.

Stormwater Quantity Control

The level spreaders & buffers implemented to provide stormwater treatment will also provide stormwater quantity control to reduce the impact of peak rates of runoff leaving the site. A hydrologic analysis of pre-development and post-development conditions was conducted based upon the methodology contained in the USDA Soil Conservation Service's Technical Releases No. 22 and 55 (SCS TR-20 and TR-55). For Androscoggin County, Maine a 24-hour SCS Type III Storm distribution was used for the analysis using the following storm frequencies and rainfall amounts, per Maine DEP Chapter 500:

Storm Event	24-Hour Rainfall
2–Year Storm	3.0 inches
10–Year Storm	4.3 inches
25–Year Storm	5.4 inches

Runoff curve numbers, time of concentration, and travel time data were established based on methods outlined in the USDA TR-55 manual.

A minimum time of concentration of 6 minutes was used in the models. A maximum sheet flow distance of 150 linear feet was used in the models.

Pre-Development Conditions

The pre-development HydroCAD model includes three (1) subcatchments and study points:

Study Point SP1 – Located at the northern corner of the property at the intersection of Rt. 11 and Rt. 36.

A Pre-Development Watershed Map, showing sub-watershed boundaries, time of concentration flow paths, and Study Points is provided in Appendix 4. The Pre-development HydroCAD model is attached in Appendix 5.

Existing condition peak rates of runoff at the Study Points are as follows:

Pre-Development Peak Rates of Runoff (cfs)			
	2-Year	10-Year	25-Year
SP1	0.0	0.0	0.3

The pre-development peak rates of runoff are a baseline used for comparison to the post-development condition.

Post-Development Conditions

The proposed post-development HydroCAD model includes twelve (2) subcatchments and (1) study point. The study point remain the same from the pre-development model. A Post-development Watershed Map showing sub-watershed boundaries, time of concentration flow paths, and Study Points is provided in Appendix 4. The Post-development HydroCAD model is attached in Appendix 6.

Proposed condition peak rates of runoff at the Study Points are as follows:

Post-Development Peak Rates of Runoff (cfs)			
	2-Year	**10-Year**	**25-Year**
SP1	0.0	0.0	0.3

Stormwater Analysis

The results of the pre-development and post-development models were analyzed at the defined Study Points described above. The direct comparison of the pre-development and post-development conditions at the Study Points are as follows:

Peak Runoff Flow Rates Comparison		
Storm Event	**Pre-Development (cfs)**	**Post-Development (cfs)**
	Study Point SP1	
2-Year	0.0	0.0
10-Year	0.0	0.0
25-Year	0.3	0.3

The peak rates at each of the study points will remain the same or decrease. There will be no increased runoff generated from the proposed development.

Summary

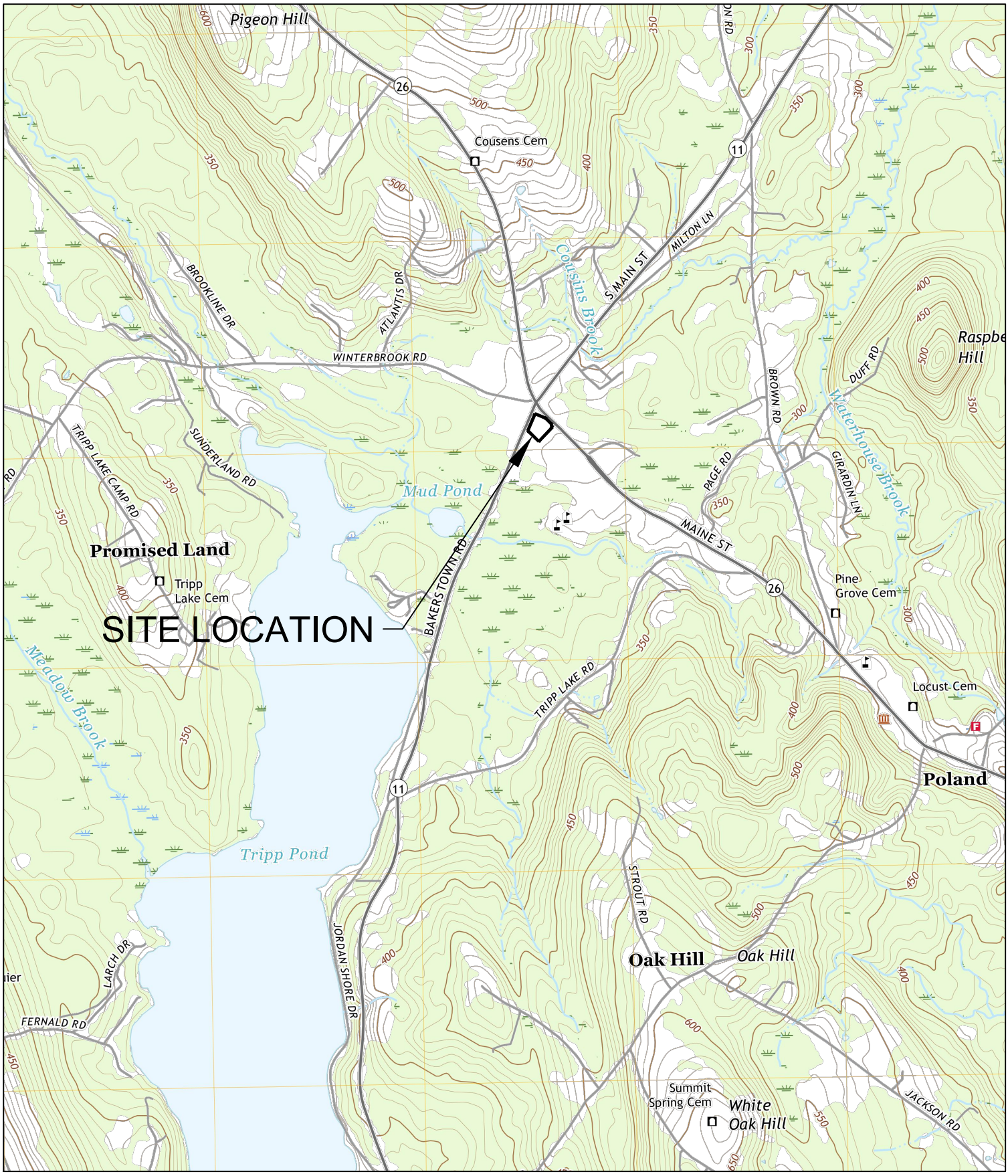
Based upon the results of this evaluation, the proposed stormwater design is not expected to cause flooding, erosion, or other significant adverse effects downstream of the site.

Appendices

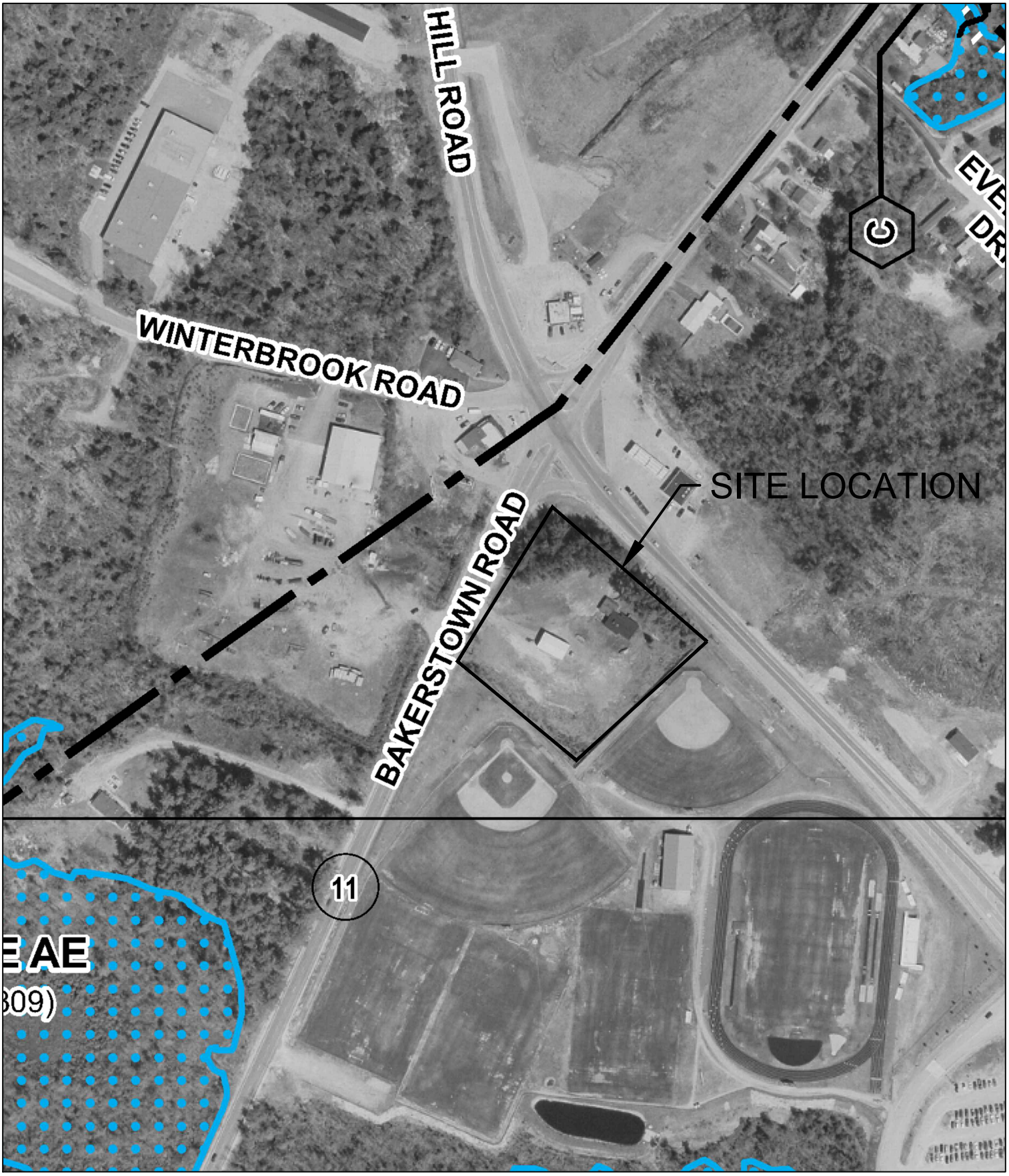
1 – Existing Conditions Figures
2 – Stormwater Infrastructure Inspection & Maintenance Manual
3 – BMP Design Calculations
4 – Watershed Maps
5 – Pre-Development HydroCAD Model
6 – Post-Development HydroCAD Model

APPENDIX 1

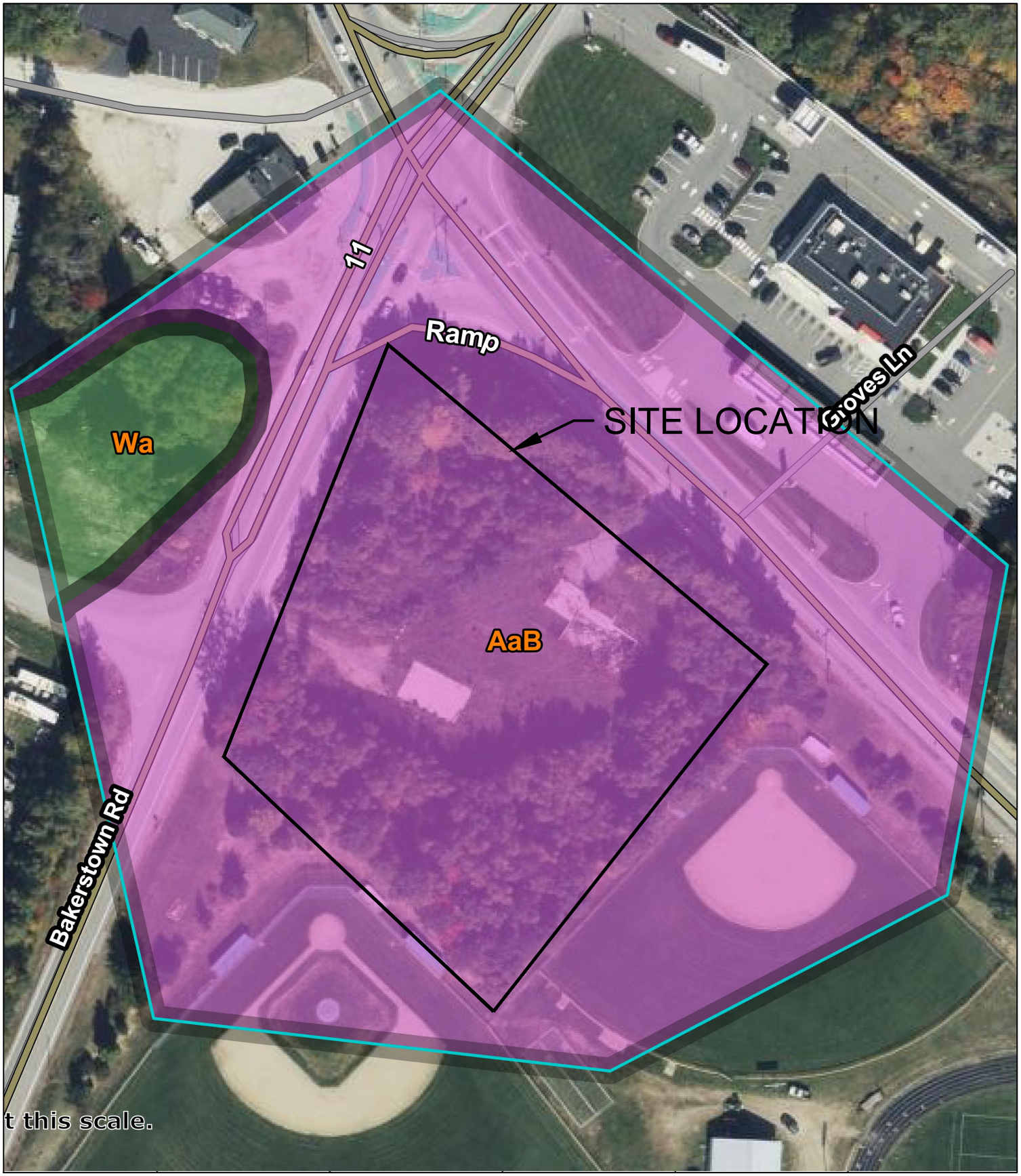
EXISTING CONDITIONS FIGURES



USGS QUADRANGLE MAP	TERRADYN CONSULTANTS, LLC	PROJECT NO. 22-138	SHEET 1
PROJECT: 1505 Maine Street	PINELAND 41 CAMPUS DRIVE, SUITE 101 NEW GLOUCESTER, ME 04260	DATE 03/01/2022	OF 1
PREPARED FOR: JONATHAN MACLEAN	PORTLAND 565 CONGRESS STREET, SUITE 201 PORTLAND, ME 04101	SCALE 1"=2,000'	
	207.926.5111 • info@terradynconsultants.com • www.terradynconsultants.com		



FEMA MAP	TERRADYN CONSULTANTS, LLC	PINELAND 41 CAMPUS DRIVE, SUITE 101 NEW GLOUCESTER, ME 04260 PORTLAND 565 CONGRESS STREET, SUITE 201 PORTLAND, ME 04101	PROJECT NO. 22-03	SHEET 1
PROJECT: 1505 Maine Street			DATE 01/10/2022	OF 1
PREPARED FOR: JONATHAN MACLEAN	207.926.5111 • info@terradynconsultants.com • www.terradynconsultants.com		SCALE 1"=700'	



SOILS MAP PROJECT: 1505 Maine Street PREPARED FOR: JONATHAN MACLEAN	TERRADYN CONSULTANTS, LLC 207.926.5111 • info@terradynconsultants.com • www.terradynconsultants.com	PINELAND 41 CAMPUS DRIVE, SUITE 101 NEW GLOUCESTER, ME 04260 PORTLAND 565 CONGRESS STREET, SUITE 201 PORTLAND, ME 04101	PROJECT NO. 22-03 DATE 01/10/2022 SCALE 1"=100	SHEET 1 OF 1

APPENDIX 2

STORMWATER INFRASTRUCTURE INSPECTION & MAINTENANCE MANUAL

TERRADYN
CONSULTANTS, LLC

Pineland
Cumberland Hall
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Portland
565 Congress Street, Suite 201
Portland, ME 04101

1505 Maine Street
POLAND, MAINE
STORMWATER MANAGEMENT SYSTEM INSEPCTION & MAINTENANCE PLAN

Project Owner/Developer: Jonathan MacLean
1026 Bakerstown Road
Poland, ME 04274

Responsible Party: Jonathan MacLean
1026 Bakerstown Road
Poland, ME 04274

Prepared By: Craig Sweet, P.E.
Terradyn Consultants, LLC
41 Campus Drive, Suite 101
New Gloucester, Maine 04260
(207) 926-5111

INTRODUCTION:

Regular inspection and maintenance of the entire stormwater management system is crucial to the long-term effectiveness of the system. The responsible party must provide regular inspection and maintenance of all permanent erosion control measures and stormwater management structures, establish any contract services required to implement the program, and keep records and a maintenance log book of inspection and maintenance activities. At a minimum, the inspection and maintenance activities outlined herein should be performed at the recommended intervals.

All measures must be maintained in effective operating condition. A person with knowledge of erosion and sedimentation practices, stormwater management, and the standards and conditions of all local, state and federal permits for the project shall conduct the inspections. The following areas, facilities, and measures must be inspected and identified deficiencies must be corrected.

INSPECTION TASKS

1. Inspect **vegetated areas**, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

2. Inspect **ditches, swales and other open stormwater channels** in the spring, in late fall, and after heavy rains to remove any obstructions to flow, remove accumulated sediments and debris, to control vegetated growth that could obstruct flow, and to repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or sideslopes.

3. Inspect **culverts** in the spring, in late fall, and after heavy rains 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 culvert's inlet and outlet.

4. Inspect **gravel wetlands** semiannually. The plant biomass should be harvested annually, and accumulated sediment removed at intervals of 5-10 years. These activities may disrupt the wetlands system and may require some vegetation re-establishment. The riser pipes may clog and will require annual clean-out (it should be done in the winter time when one can walk on the wetland).

    a. First Year Post-Construction: Inspection frequency should occur after every major storm in the first year following construction.
        i. Inspect that the system drains within 24-48 hours.
        ii. The plants may need watering if necessary during the first growing season. Revegetate if the vegetation is poorly establishing.
        iii. Identify areas of erosion and make timely repairs.
        iv. Check all inlets, outlets and subdrains for proper functioning. Risers may need to be cleaned.
    b. Post-Construction: Inspection frequency should occur at least every 6 months and after every major storm. Activities are expected to include:
        i. Check the basin for a dense root mat establishment of wetland vegetation.
        ii. Check and clean the risers if there is evidence of standing water, discolored water or accumulated sediments in the cells.
        iii. Check and clean the forebay for sediments, trash and debris. When sediments have accumulated to a depth of 12 inches, standing water is persistent or wetland vegetation become established, the forebay will need to be excavated and reformed.
        iv. Verify that the cells drain within 24-48 hours. Sediment will need to be removed when an accumulation of 4 inches is evident over the wetland surface.

v. Check and clean all outlets and overflow spillway if blocked or there is evidence of structural damage or erosion.
vi. Remove decaying vegetation, litter and debris.
vii. Check for foreign species. Particular care must be used to avoid the unintended introduction of invasive species such as purple loosestrife (Lythrum salicaria) and common reed (Phragmites australis). It is recommended that a qualified wetland biologist be consulted when these are found in the area of the gravel wetland.

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.

Conveyance & Distribution Systems: (Stormwater Channels & Culverts, etc.)

1. Inspection schedule:

a. Inspect ditches, swales and other open stormwater channels in the spring, in late fall, and after heavy rains (one inch of rain in 24 hours) to remove any obstructions to flow, remove accumulated sediments and debris, to control vegetated growth that could obstruct flow, and to repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any

slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or side-slopes.

b. Inspect culverts in the spring, in late fall, and after heavy rains 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 culvert's inlet and outlet.

c. Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

2. Mowing: Grass should not be trimmed extremely short, as this will reduce the filtering effect of the swale (MPCA, 1989). The cut vegetation should be removed to prevent the decaying organic litter from adding pollutants to the discharge from the swale. The mowed height of the grass should be 2-4 inches taller than the maximum flow depth of the design water quality storm. A minimum mow height of 6 inches is generally recommended (Galli, 1993).

3. Erosion: It is important to install erosion and sediment control measures to stabilize this area as soon as possible and to retain any organic matter in the bottom of the trench.

4. Fertilization: Routine fertilization and/or use of pesticides is strongly discouraged. If complete re-seeding is necessary, half the original recommended rate of fertilizer should be applied with a full rate of seed.

5. Sediment Removal: The level of sediment deposition in the channel should be monitored regularly, and removed from grassed channels before permanent damage is done to the grassed vegetation, or if infiltration times are longer than 12 hours. Sediment should be removed from riprap channels when it reduces the capacity of the channel.

Roadway Surfaces:

Paved surfaces shall be swept or vacuumed at least once annually in the Spring to remove all Winter sand, and periodically during the year on an as-needed basis to minimize transportation of sediment during rainfall events.

Vegetated Swales:

Mowing: Grass should not be trimmed extremely short, as this will reduce the filtering effect of the swale (MPCA, 1989). The cut vegetation should be removed to prevent the decaying organic litter from adding pollutants to the discharge from the swale. The mowed height of the grass should be 2-4 inches taller than the maximum flow depth of the design water quality storm. A minimum mow height of 6 inches is generally recommended (Galli, 1993).

Routine Maintenance and Inspection: The area should be inspected for failures following heavy rainfall (one inch of rain in 24 hours) and repaired as necessary for newly formed channels or gullies, reseeding/sodding of bare spots, removal of trash, leaves and/or accumulated sediments, the control of woody or other undesirable vegetation and to check the condition and integrity of the check dams.

Aeration: The buffer strip may require periodic mechanical aeration to restore infiltration capacity. This aeration must be done during a time when the area can be reseeded and mulched prior to any significant rainfall.

Erosion: It is important to install erosion and sediment control measures to stabilize this area as soon as possible and to retain any organic matter in the bottom of the trench.

Fertilization: Routine fertilization and/or use of pesticides is strongly discouraged. If complete re-seeding is necessary, half the original recommended rate of fertilizer should be applied with a full rate of seed.

Sediment Removal: The level of sediment deposition in the channel should be monitored regularly, and removed from grassed channels before permanent damage is done to the grassed vegetation, or if infiltration times are longer than 12 hours. Sediment should be removed from riprap channels when it reduces the capacity of the channel.

DOCUMENTATION

Keep a log (report) summarizing inspections, maintenance, and any corrective actions taken. The log must include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. The log must be made accessible to Department of Environmental Protection staff and a copy provided to the Department upon request. The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization.

The log attached at the end of this plan is from the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers (May 2016)*. The log may be used or adapted for this project.

ATTACHMENTS:
Stormwater Management Facilities Inspection & Maintenance Log

Stormwater Management Facilities
Inspection & Maintenance Log
1505 Maine Street

General Information:		
Inspected by:	Date:	Weather:
Reason for Inspection: (Regular Inspection) (Major Rain Event)		

BMP	Conditions Observed	Repairs Needed?
1. Vegetated Areas		
2. Ditches, Swales, Open Channels		
3. Culverts		
5. Gravel Wetland		

Detailed Repair Notes:

BMP Type	Date	Description of Repairs & Sediment Disposal

Notes:
If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. A copy of this log shall be retained for a period of at least five years from the completion of permanent stabilization. The log must be made accessible to Department of Environmental Protection staff and a copy provided to the Department upon request.

APPENDIX 3

BMP DESIGN CALCULATIONS

STAGE STORAGE CALCULATIONS

GRAVEL WETLAND #1

WATERSHED IMPERVIOUS AREA=	54711	SF
WATERSHED LANDSCAPED AREA=	38892	SF
REQUIRED WQV=	5856	CF
PROVIDED WQV=	7078	CF
REQUIRED SA=	3513.0	
PROVIDED SA=	3760	

Forebay

STAGE (FT)	AREA (SF)	STORAGE (CF)
314	352	0
315	976	664
315.25	1145	929

Cell #1

STAGE (FT)	AREA (SF)	STORAGE (CF)
314	1880	0
315	2806	2343
315.25	3047	3075

Cell #2

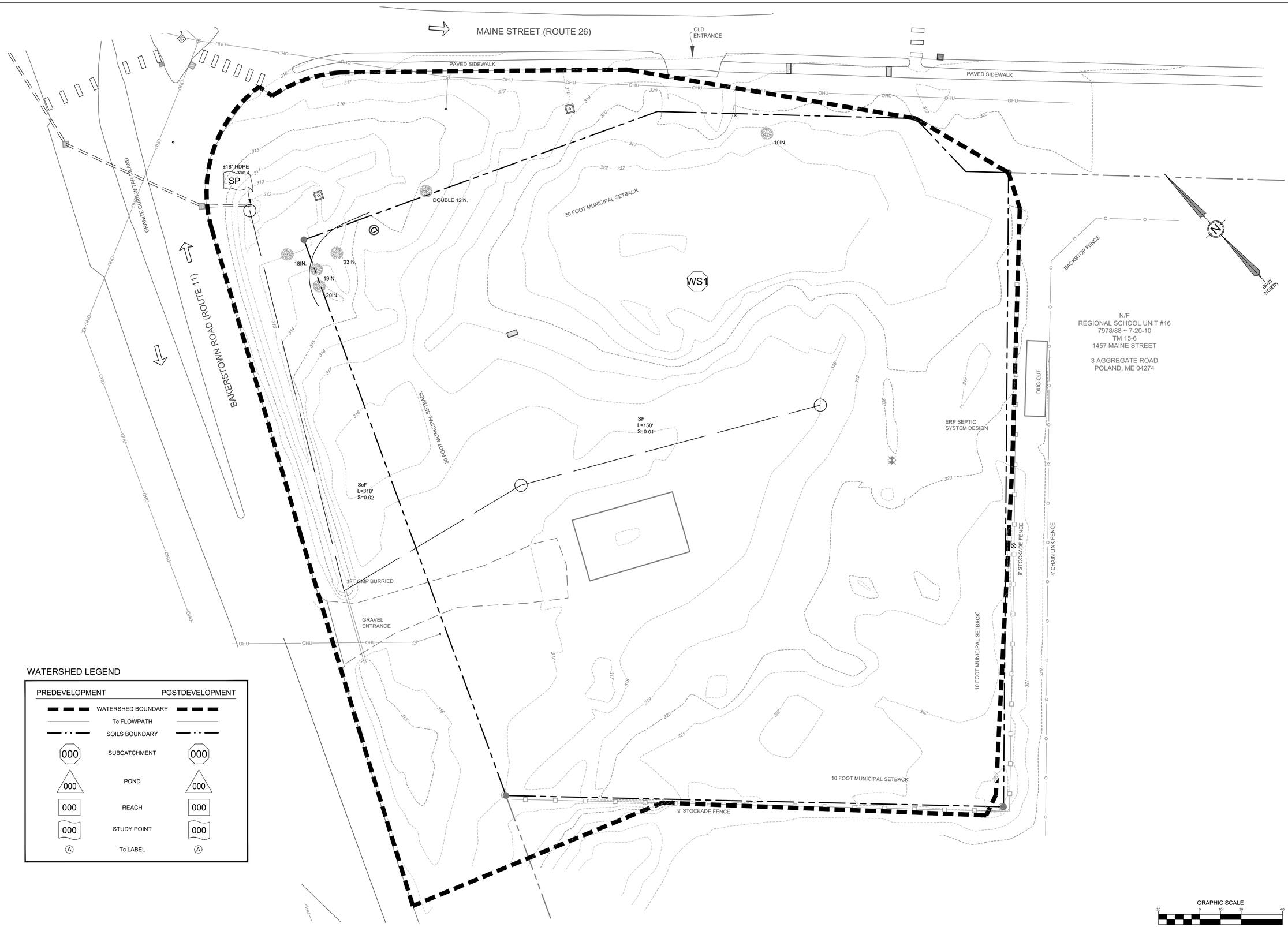
STAGE (FT)	AREA (SF)	STORAGE (CF)
314	1880	0
315	2806	2343
315.25	3047	3075

Total Pond

STAGE (FT)	AREA (SF)	STORAGE (CF)
314	4112	0
315	6588	5350
315.25	7239	7078
315.5	7883	7078
316	8260	11114

APPENDIX 4

WATERSHED MAPS



WATERSHED LEGEND

PREDEVELOPMENT		POSTDEVELOPMENT
	WATERSHED BOUNDARY	
	Tc FLOWPATH	
	SOILS BOUNDARY	
000	SUBCATCHMENT	000
000	POND	000
000	REACH	000
000	STUDY POINT	000
A	Tc LABEL	A

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

STATE OF MAINE
CRAIG M. SWEET
No. 15060
LICENSED PROFESSIONAL ENGINEER

DATE: 8/11/2023
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
2	08-11-2023	REVISED PROJECT SCOPE	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE, SUITE 301, NEW GLOUCESTER, ME 04260
565 CONGRESS STREET, SUITE 201, PORTLAND, ME 04102
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

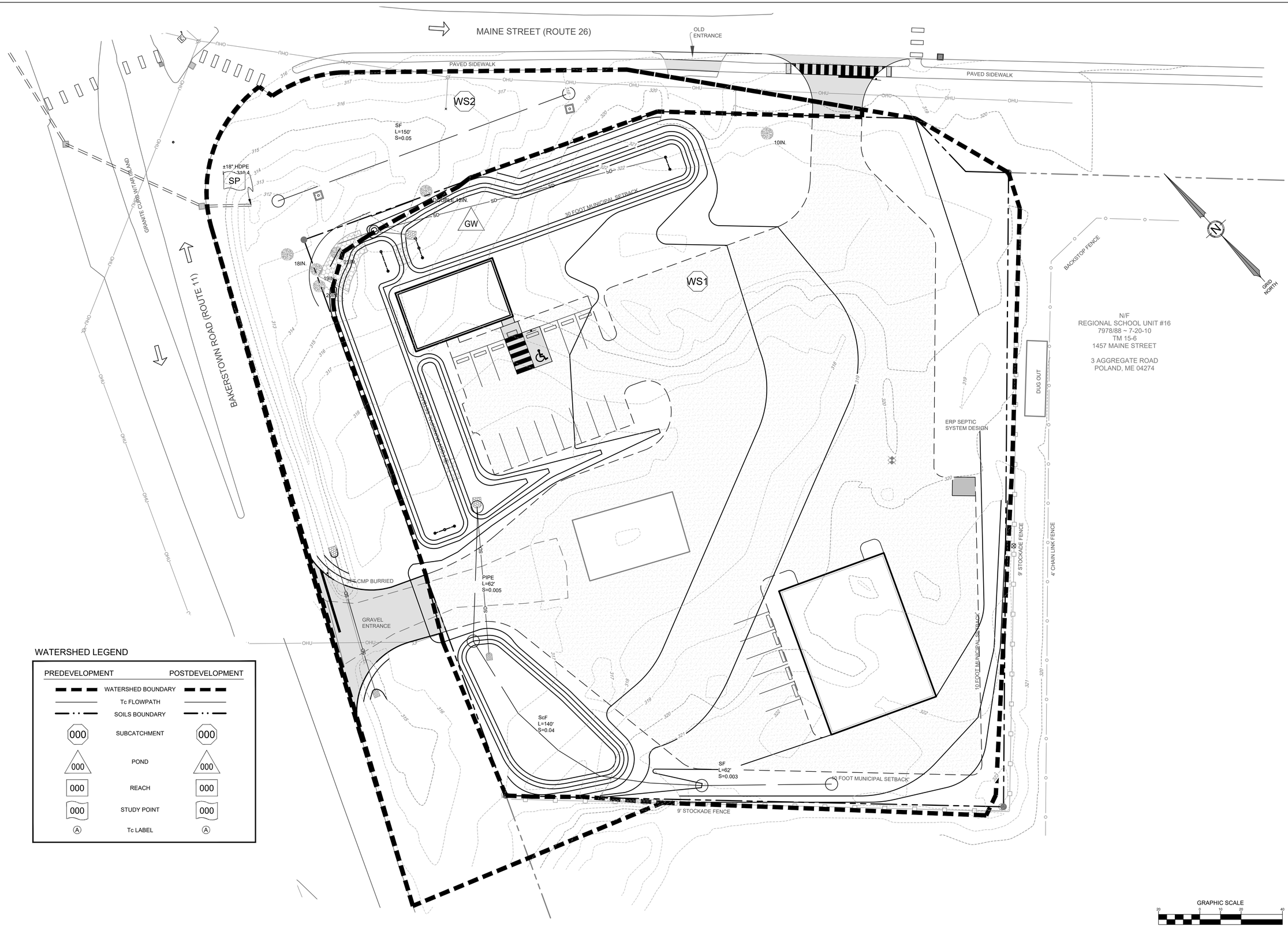
PROJECT: 1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE: PRE DEVELOPMENT

CLIENT: JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	8/11/2023
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138
SHEET	PRE

C:\OD\Terradyn Consultants\Project Folders - Documents\2022 Jobs\22-138 Mac's Dock Poland\CAD\Permitting\22-138 SW.dwg



WATERSHED LEGEND

PREDEVELOPMENT		POSTDEVELOPMENT
	WATERSHED BOUNDARY	
	Tc FLOWPATH	
	SOILS BOUNDARY	
000	SUBCATCHMENT	000
000	POND	000
000	REACH	000
000	STUDY POINT	000
Ⓐ	Tc LABEL	Ⓐ

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

STATE OF MAINE
CRAIG M. SWEET
No. 15060
LICENSED
PROFESSIONAL ENGINEER

DATE: 2/27/2024
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
3	02-27-2024	RESPONSE TO TOWN COMMENTS	CMS
2	08-11-2023	REVISED PROJECT SCOPE	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE
SUITE 201
NEW GLOUCESTER, ME 04260
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565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

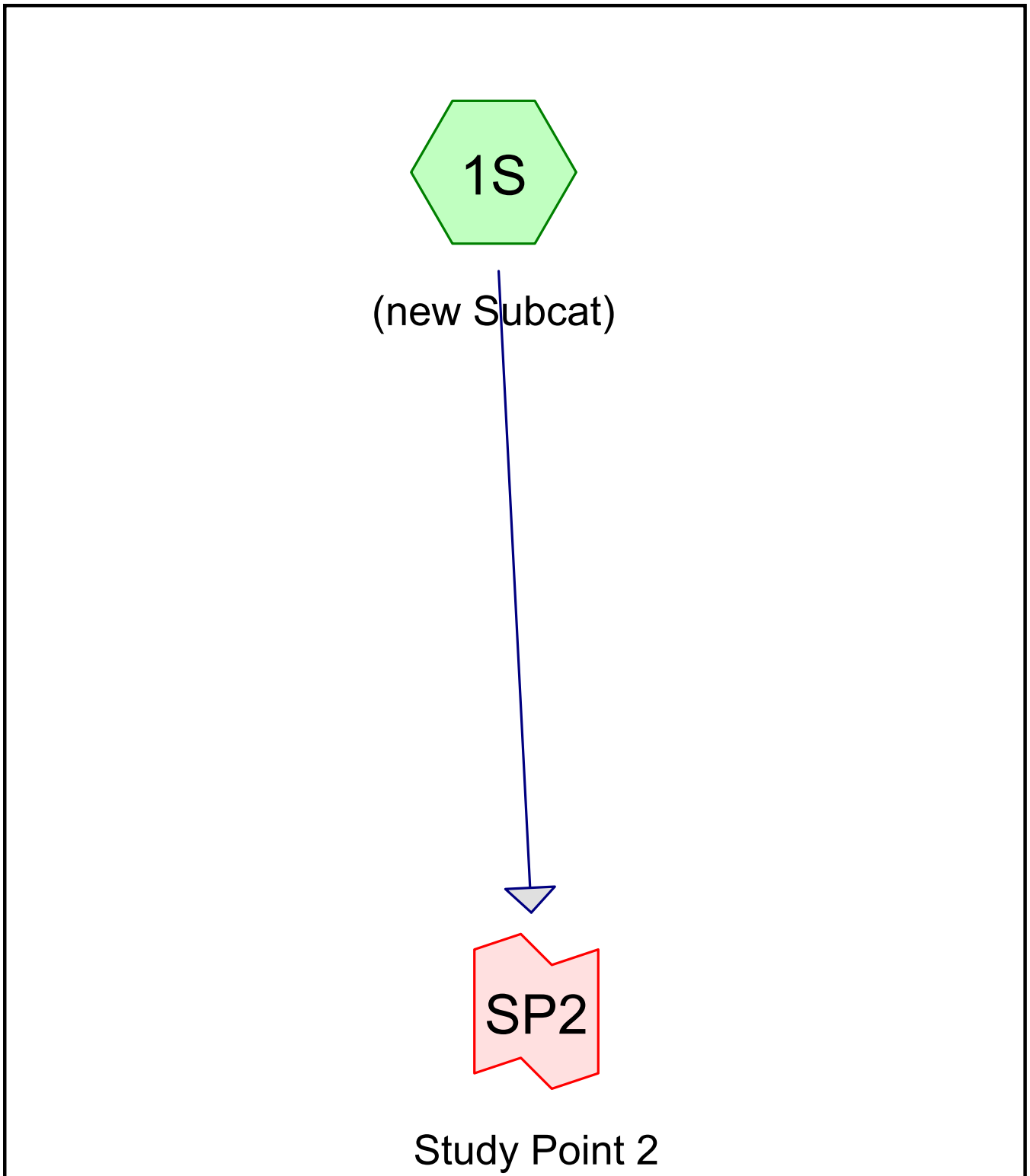
PROJECT: 1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE
SHEET TITLE: POST DEVELOPMENT
CLIENT: JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	8/11/2023
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138
SHEET	POST

C:\OD\Terradyn Consultants\Project Folders - Documents\2022 Jobs\22-138 Mac's Dock Poland\CAD\Permitting\22-138 SW.dwg

APPENDIX 5

PRE-DEVELOPMENT HYDROCAD MODEL



Routing Diagram for 22-16 PRE
Prepared by {enter your company name here}, Printed 2/27/2024

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.092	98	(1S)
2.791	39	Pasture/grassland/range, Good, HSG A (1S)
2.883	**41**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
2.791	HSG A	1S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.092	Other	1S
2.883		**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
0.000	0.000	0.000	0.000	0.092	0.092		1S
2.791	0.000	0.000	0.000	0.000	2.791	Pasture/grassland/range, Good	1S
2.791	**0.000**	**0.000**	**0.000**	**0.092**	**2.883**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: (new Subcat) Runoff Area=125,597 sf 3.19% Impervious Runoff Depth=0.00"
Flow Length=468' Tc=31.9 min CN=41 Runoff=0.0 cfs 0.000 af

Link SP2: Study Point 2 Inflow=0.0 cfs 0.000 af
Primary=0.0 cfs 0.000 af

Total Runoff Area = 2.883 ac Runoff Volume = 0.000 af Average Runoff Depth = 0.00"
96.81% Pervious = 2.791 ac 3.19% Impervious = 0.092 ac

Summary for Subcatchment 1S: (new Subcat)

[45] Hint: Runoff=Zero

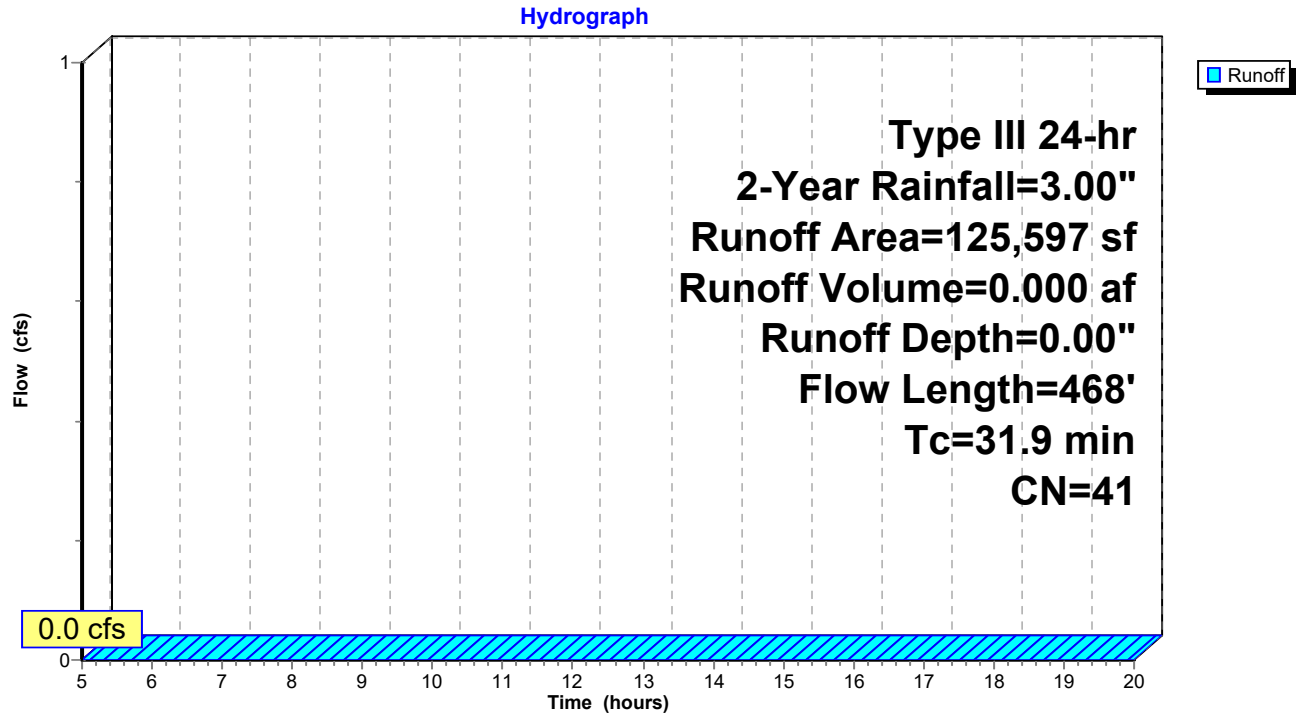
Runoff = 0.0 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

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=3.00"

	Area (sf)	CN	Description
	121,593	39	Pasture/grassland/range, Good, HSG A
*	4,004	98	
	125,597	41	Weighted Average
	121,593		96.81% Pervious Area
	4,004		3.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.5	150	0.0100	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"
5.4	318	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
31.9	468	Total			

Subcatchment 1S: (new Subcat)

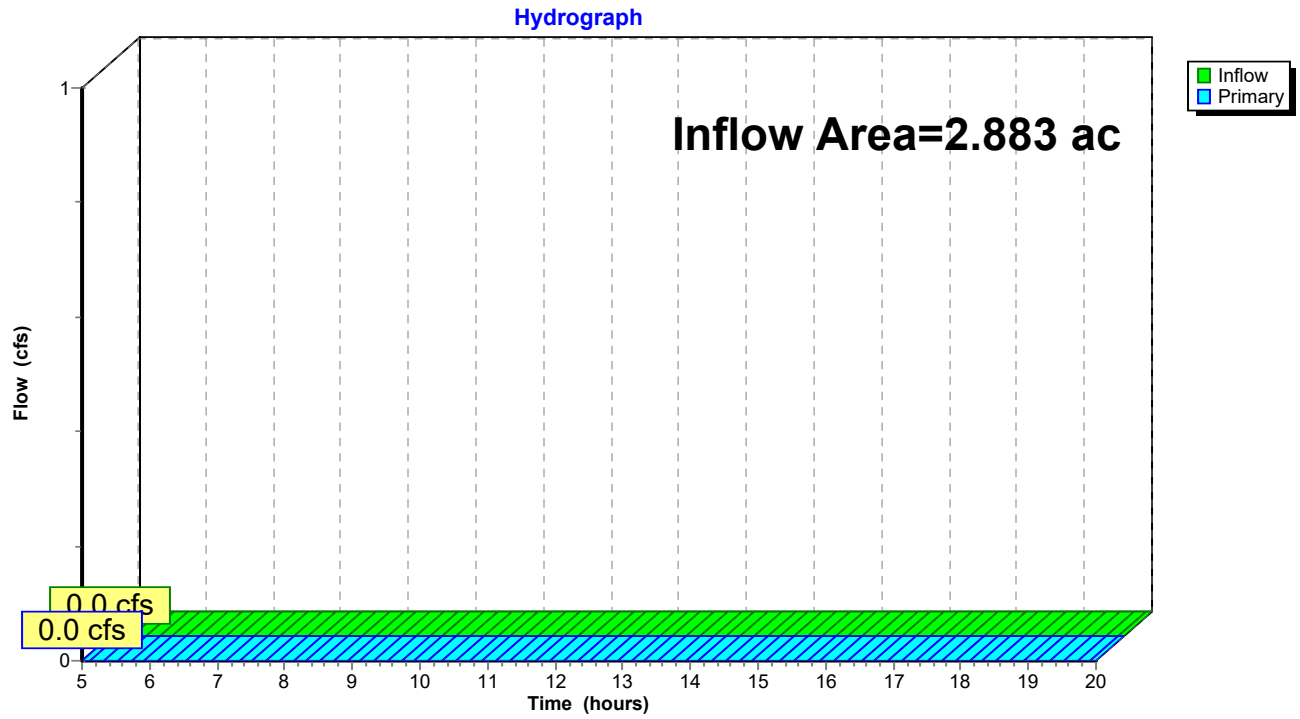


Summary for Link SP2: Study Point 2

Inflow Area = 2.883 ac, 3.19% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.0 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.0 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link SP2: Study Point 2



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: (new Subcat) Runoff Area=125,597 sf 3.19% Impervious Runoff Depth>0.09"
Flow Length=468' Tc=31.9 min CN=41 Runoff=0.0 cfs 0.023 af

Link SP2: Study Point 2 Inflow=0.0 cfs 0.023 af
Primary=0.0 cfs 0.023 af

Total Runoff Area = 2.883 ac Runoff Volume = 0.023 af Average Runoff Depth = 0.09"
96.81% Pervious = 2.791 ac 3.19% Impervious = 0.092 ac

Summary for Subcatchment 1S: (new Subcat)

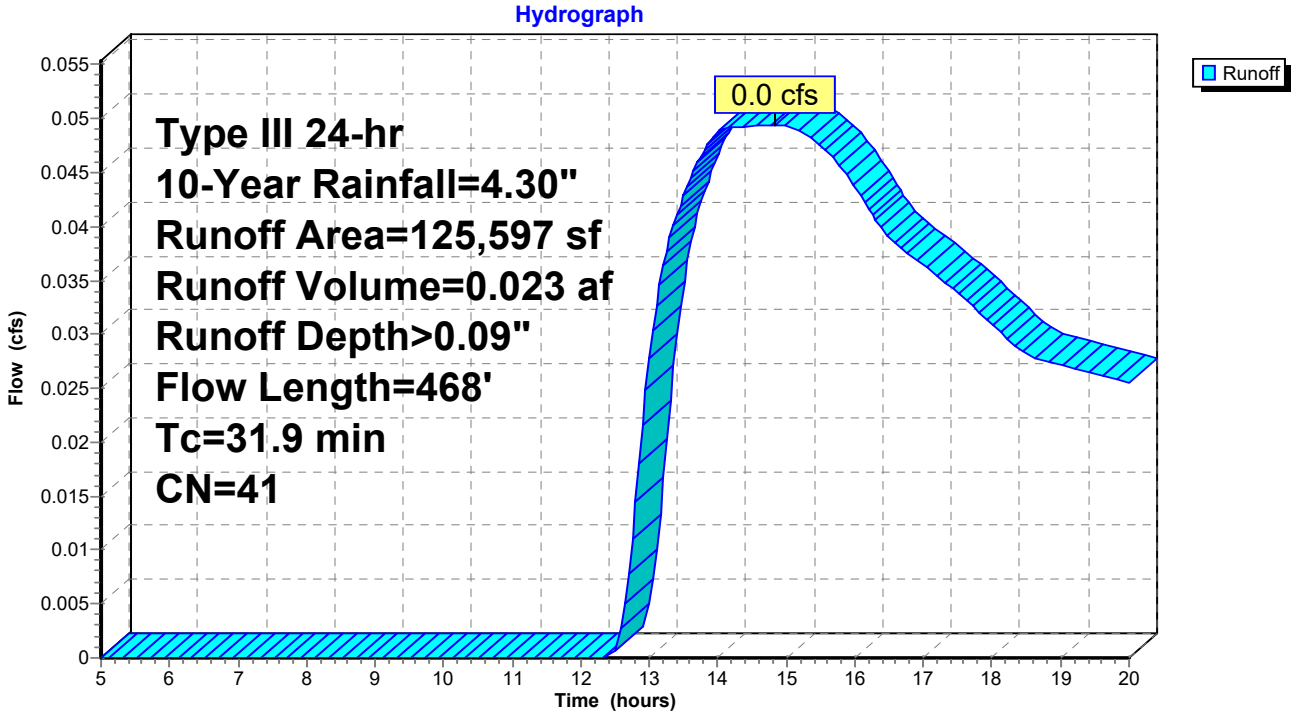
Runoff = 0.0 cfs @ 14.83 hrs, Volume= 0.023 af, Depth> 0.09"

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=4.30"

	Area (sf)	CN	Description
	121,593	39	Pasture/grassland/range, Good, HSG A
*	4,004	98	
	125,597	41	Weighted Average
	121,593		96.81% Pervious Area
	4,004		3.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.5	150	0.0100	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"
5.4	318	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
31.9	468	Total			

Subcatchment 1S: (new Subcat)

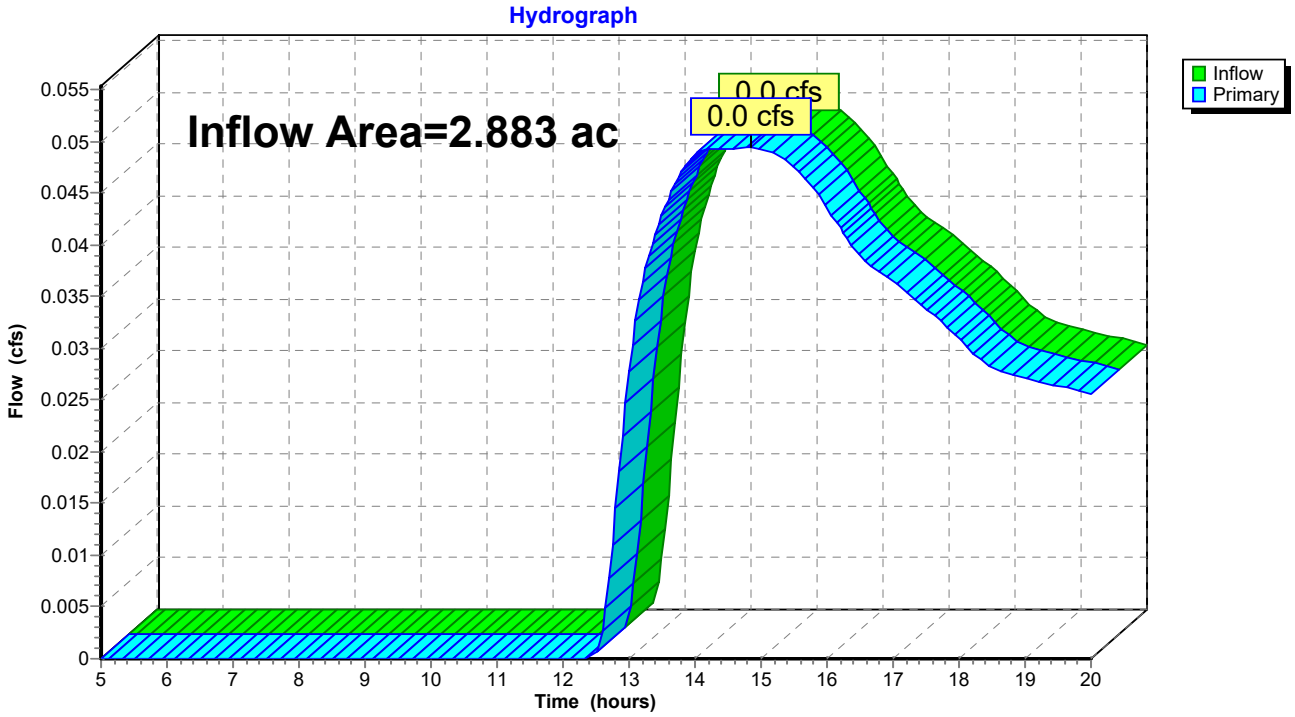


Summary for Link SP2: Study Point 2

Inflow Area = 2.883 ac, 3.19% Impervious, Inflow Depth > 0.09" for 10-Year event
Inflow = 0.0 cfs @ 14.83 hrs, Volume= 0.023 af
Primary = 0.0 cfs @ 14.83 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link SP2: Study Point 2



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: (new Subcat) Runoff Area=125,597 sf 3.19% Impervious Runoff Depth>0.31"
Flow Length=468' Tc=31.9 min CN=41 Runoff=0.3 cfs 0.073 af

Link SP2: Study Point 2 Inflow=0.3 cfs 0.073 af
Primary=0.3 cfs 0.073 af

Total Runoff Area = 2.883 ac Runoff Volume = 0.073 af Average Runoff Depth = 0.31"
96.81% Pervious = 2.791 ac 3.19% Impervious = 0.092 ac

Summary for Subcatchment 1S: (new Subcat)

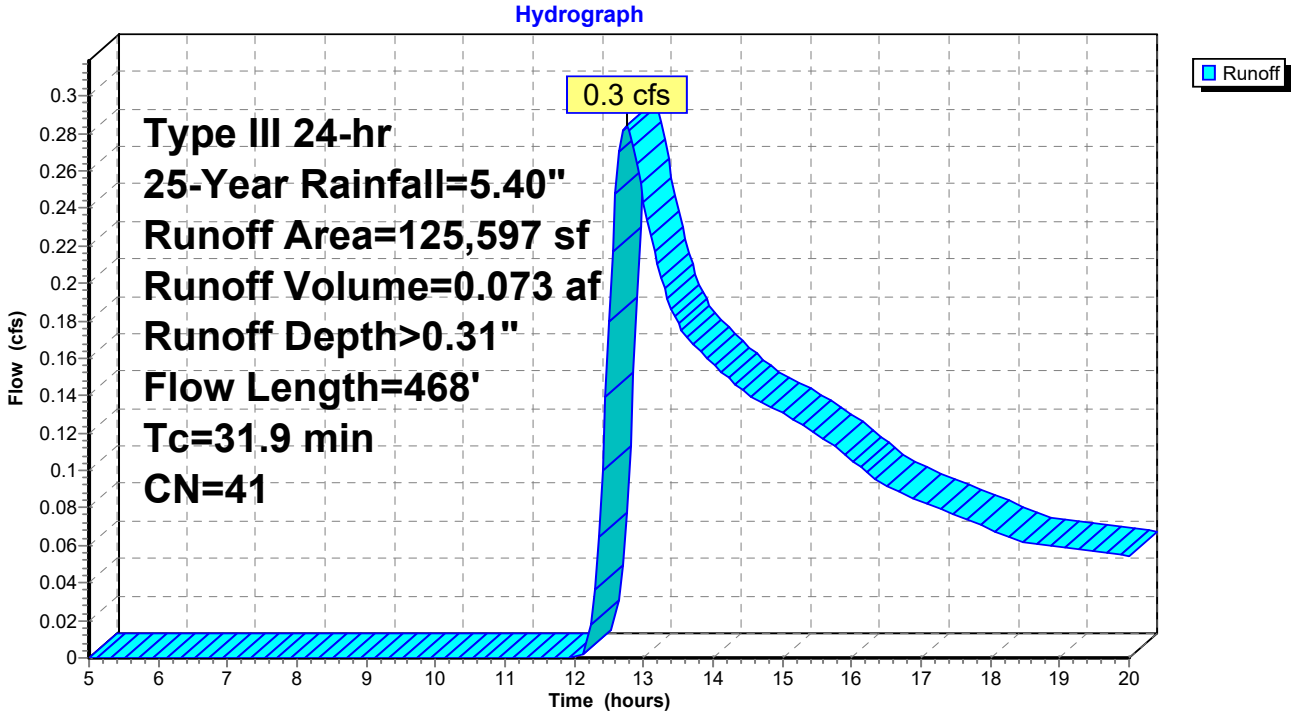
Runoff = 0.3 cfs @ 12.75 hrs, Volume= 0.073 af, Depth> 0.31"

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=5.40"

	Area (sf)	CN	Description
	121,593	39	Pasture/grassland/range, Good, HSG A
*	4,004	98	
	125,597	41	Weighted Average
	121,593		96.81% Pervious Area
	4,004		3.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.5	150	0.0100	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"
5.4	318	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
31.9	468	Total			

Subcatchment 1S: (new Subcat)

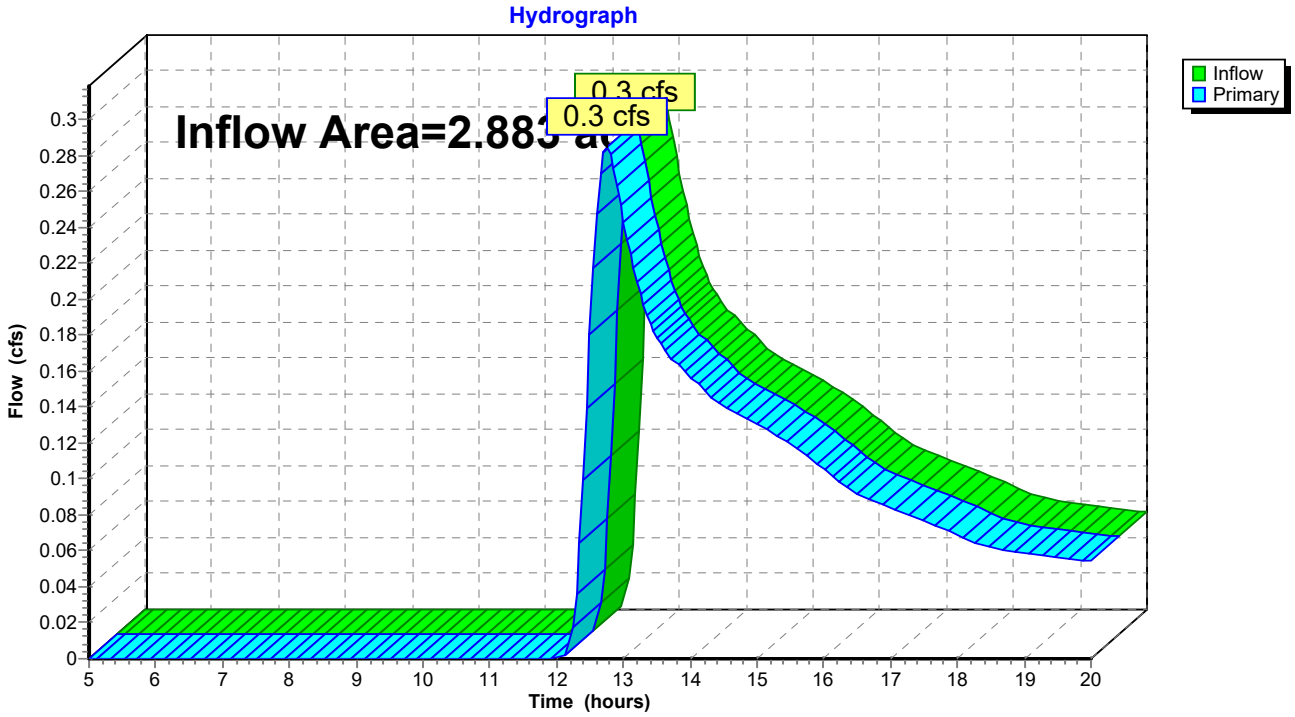


Summary for Link SP2: Study Point 2

Inflow Area = 2.883 ac, 3.19% Impervious, Inflow Depth > 0.31" for 25-Year event
Inflow = 0.3 cfs @ 12.75 hrs, Volume= 0.073 af
Primary = 0.3 cfs @ 12.75 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min

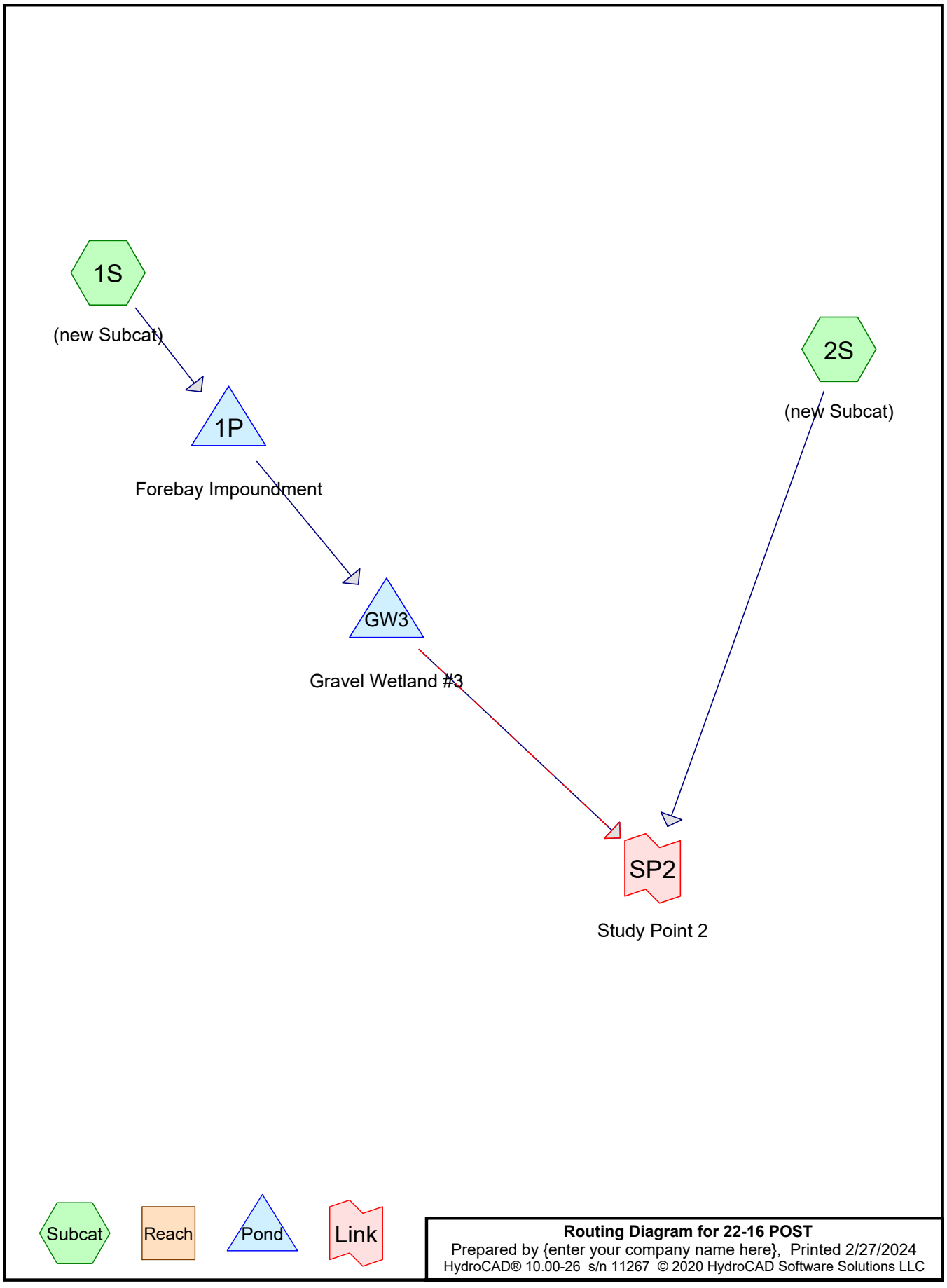
Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link SP2: Study Point 2



APPENDIX 6

POST-DEVELOPMENT HYDROCAD MODEL



Routing Diagram for 22-16 POST
Prepared by {enter your company name here}, Printed 2/27/2024
HydroCAD® 10.00-26 s/n 11267 © 2020 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
64,830	98	(1S, 2S)
30,691	39	>75% Grass cover, Good, HSG A (1S)
30,076	39	Pasture/grassland/range, Good, HSG A (2S)
125,597	**69**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
60,767	HSG A	1S, 2S
0	HSG B	
0	HSG C	
0	HSG D	
64,830	Other	1S, 2S
125,597		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	0	0	64,830	64,830	
30,691	0	0	0	0	30,691	>75% Grass cover, Good
30,076	0	0	0	0	30,076	Pasture/grassland /range, Good
60,767	**0**	**0**	**0**	**64,830**	**125,597**	**TOTAL AREA**

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1S	0.00	0.00	62.0	0.0050	0.013	15.0	0.0	0.0
2	GW3	313.42	313.22	25.0	0.0080	0.012	12.0	0.0	0.0
3	GW3	314.75	314.35	20.0	0.0200	0.012	12.0	0.0	0.0

Time span=5.00-44.00 hrs, dt=0.05 hrs, 781 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: (new Subcat) Runoff Area=93,603 sf 67.21% Impervious Runoff Depth=1.19"
Flow Length=264' Tc=16.5 min CN=79 Runoff=2.1 cfs 9,270 cf

Subcatchment 2S: (new Subcat) Runoff Area=31,994 sf 5.99% Impervious Runoff Depth=0.01"
Flow Length=150' Slope=0.0500 '/' Tc=13.9 min CN=43 Runoff=0.0 cfs 24 cf

Pond 1P: Forebay Impoundment Peak Elev=315.32' Storage=4,889 cf Inflow=2.1 cfs 9,270 cf
Discarded=0.0 cfs 4,242 cf Primary=0.2 cfs 2,804 cf Outflow=0.3 cfs 7,046 cf

Pond GW3: Gravel Wetland #3 Peak Elev=314.13' Storage=2,073 cf Inflow=0.2 cfs 2,804 cf
Primary=0.0 cfs 2,251 cf Secondary=0.0 cfs 0 cf Outflow=0.0 cfs 2,251 cf

Link SP2: Study Point 2 Inflow=0.0 cfs 2,275 cf
Primary=0.0 cfs 2,275 cf

Total Runoff Area = 125,597 sf Runoff Volume = 9,294 cf Average Runoff Depth = 0.89"
48.38% Pervious = 60,767 sf 51.62% Impervious = 64,830 sf

Summary for Subcatchment 1S: (new Subcat)

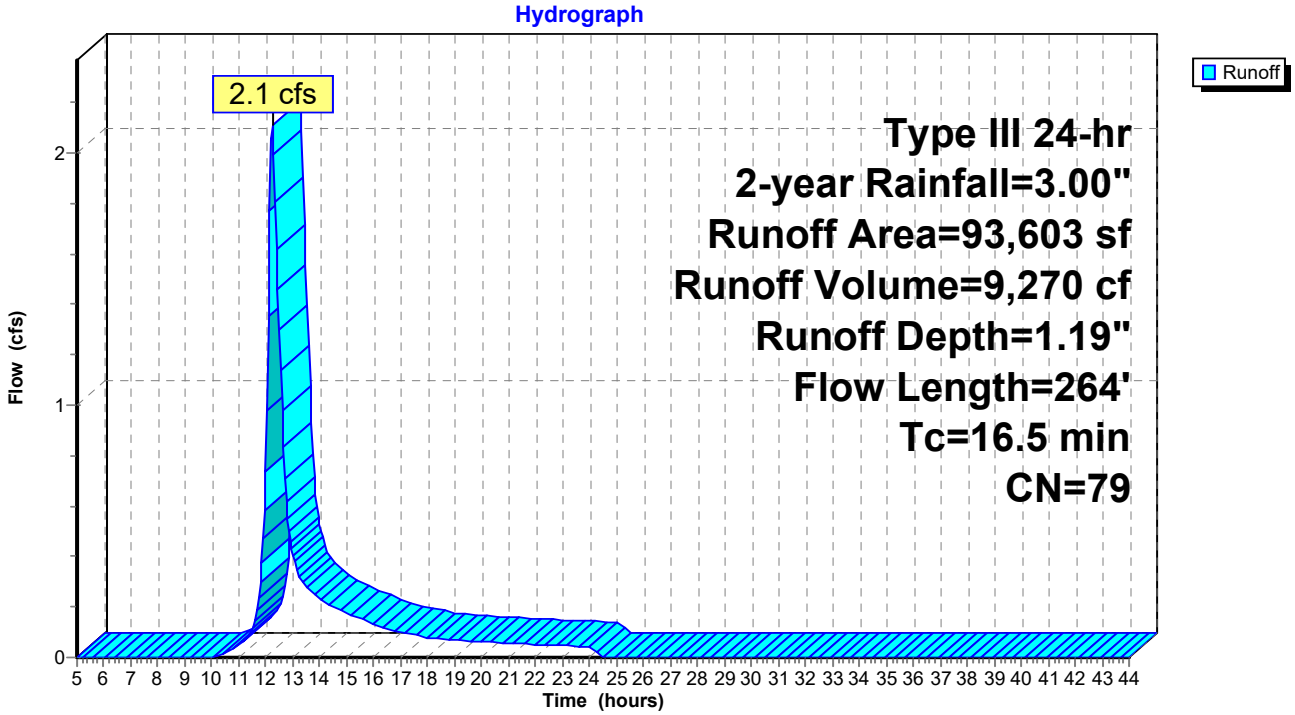
Runoff = 2.1 cfs @ 12.24 hrs, Volume= 9,270 cf, Depth= 1.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.00"

	Area (sf)	CN	Description
	30,691	39	>75% Grass cover, Good, HSG A
*	62,912	98	
	93,603	79	Weighted Average
	30,691		32.79% Pervious Area
	62,912		67.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	62	0.0030	0.07		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
1.7	140	0.0400	1.40		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	62	0.0050	3.72	4.57	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
16.5	264	Total			

Subcatchment 1S: (new Subcat)



Summary for Subcatchment 2S: (new Subcat)

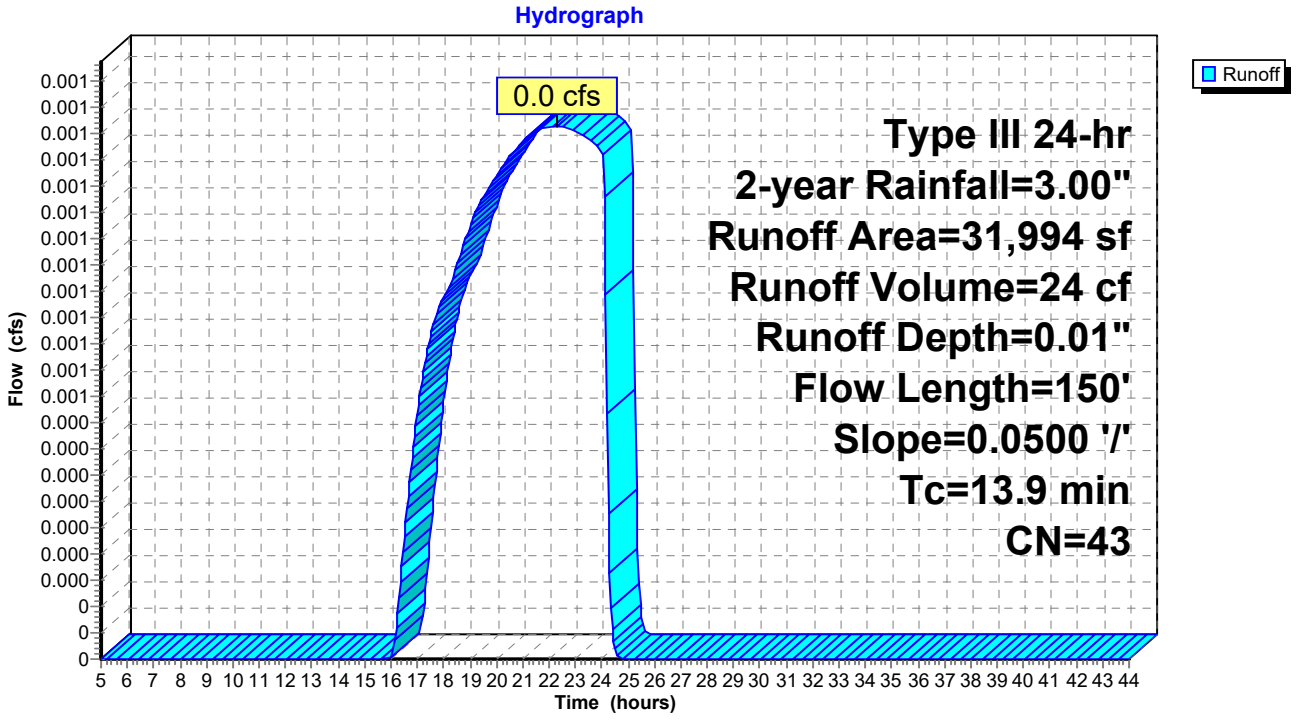
Runoff = 0.0 cfs @ 22.30 hrs, Volume= 24 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.00"

	Area (sf)	CN	Description
	30,076	39	Pasture/grassland/range, Good, HSG A
*	1,918	98	
	31,994	43	Weighted Average
	30,076		94.01% Pervious Area
	1,918		5.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.9	150	0.0500	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"

Subcatchment 2S: (new Subcat)



Summary for Pond 1P: Forebay Impoundment

Inflow Area = 93,603 sf, 67.21% Impervious, Inflow Depth = 1.19" for 2-year event
Inflow = 2.1 cfs @ 12.24 hrs, Volume= 9,270 cf
Outflow = 0.3 cfs @ 13.56 hrs, Volume= 7,046 cf, Atten= 87%, Lag= 79.1 min
Discarded = 0.0 cfs @ 13.56 hrs, Volume= 4,242 cf
Primary = 0.2 cfs @ 13.56 hrs, Volume= 2,804 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Peak Elev= 315.32' @ 13.56 hrs Surf.Area= 4,290 sf Storage= 4,889 cf

Plug-Flow detention time= 566.6 min calculated for 7,037 cf (76% of inflow)
Center-of-Mass det. time= 478.4 min (1,337.6 - 859.2)

Volume	Invert	Avail.Storage	Storage Description
#1	314.00'	8,006 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

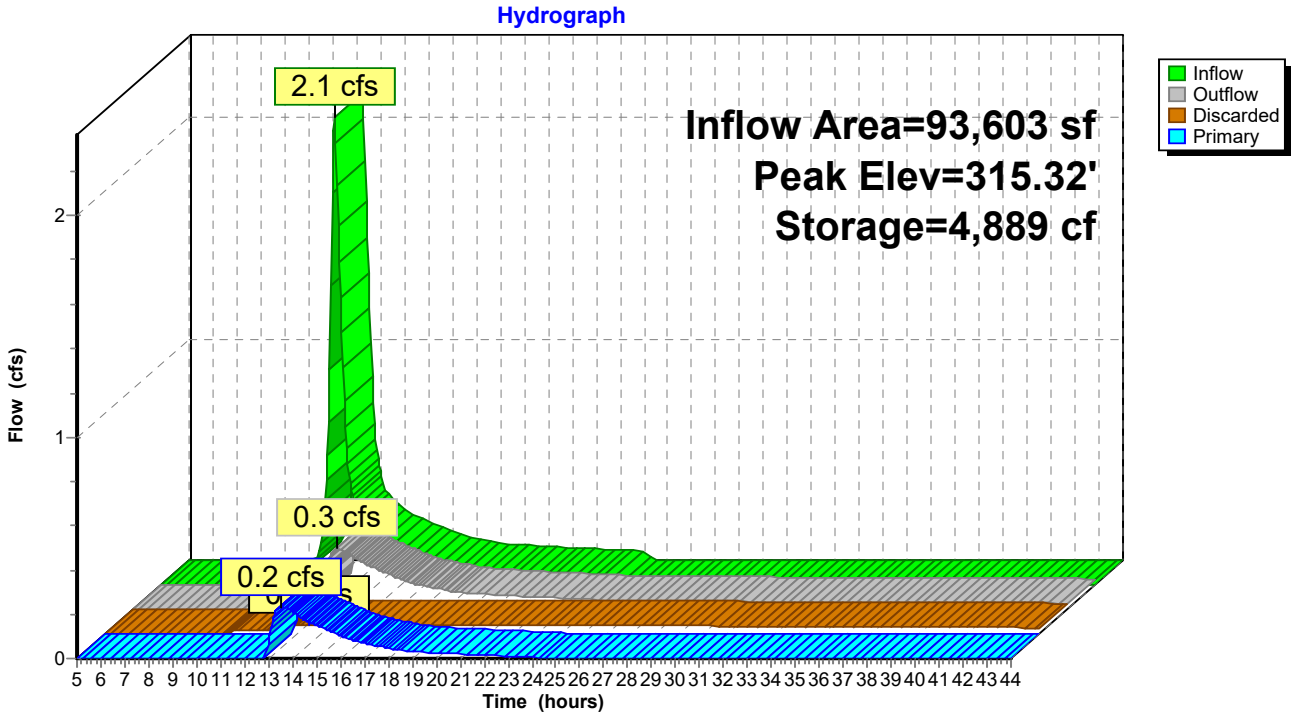
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
314.00	3,115	0	0	3,115
315.00	4,008	3,552	3,552	4,033
316.00	4,915	4,454	8,006	4,970

Device	Routing	Invert	Outlet Devices
#1	Primary	315.25'	**5.0' long x 7.0' 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 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65 2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.78
#2	Discarded	314.00'	**0.200 in/hr Exfiltration over Wetted area** Conductivity to Groundwater Elevation = 313.00'

Discarded OutFlow Max=0.0 cfs @ 13.56 hrs HW=315.32' (Free Discharge)
↑**2=Exfiltration** (Controls 0.0 cfs)

Primary OutFlow Max=0.2 cfs @ 13.56 hrs HW=315.32' TW=313.82' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.65 fps)

Pond 1P: Forebay Impoundment



Summary for Pond GW3: Gravel Wetland #3

[44] Hint: Outlet device #2 is below defined storage

Inflow Area = 93,603 sf, 67.21% Impervious, Inflow Depth = 0.36" for 2-year event
Inflow = 0.2 cfs @ 13.56 hrs, Volume= 2,804 cf
Outflow = 0.0 cfs @ 20.48 hrs, Volume= 2,251 cf, Atten= 90%, Lag= 415.3 min
Primary = 0.0 cfs @ 20.48 hrs, Volume= 2,251 cf
Secondary = 0.0 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Peak Elev= 314.13' @ 20.48 hrs Surf.Area= 5,666 sf Storage= 2,073 cf

Plug-Flow detention time= 798.4 min calculated for 2,251 cf (80% of inflow)
Center-of-Mass det. time= 739.3 min (1,684.5 - 945.2)

Volume	Invert	Avail.Storage	Storage Description
#1	313.75'	15,326 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

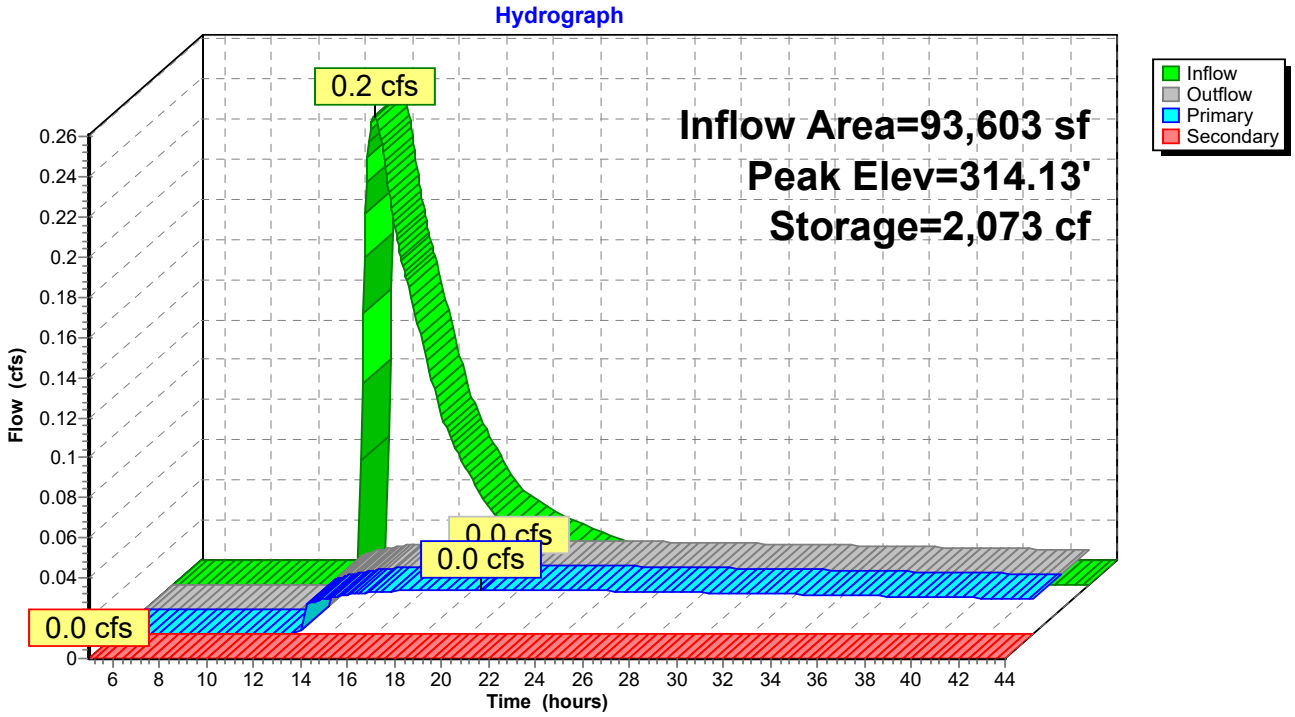
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
313.75	5,180	0	0
314.00	5,495	1,334	1,334
315.00	6,784	6,140	7,474
316.00	8,920	7,852	15,326

Device	Routing	Invert	Outlet Devices
#1	Primary	313.42'	**12.0" Round Culvert** L= 25.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 313.42' / 313.22' S= 0.0080 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	311.50'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	315.25'	**0.5' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)
#4	Device 3	314.75'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 314.75' / 314.35' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#5	Secondary	315.52'	**10.0' long x 13.0' 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) 2.60 2.64 2.70 2.66 2.65 2.66 2.65 2.63

Primary OutFlow Max=0.0 cfs @ 20.48 hrs HW=314.13' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.0 cfs of 1.4 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.0 cfs @ 4.06 fps)
  - **3=Sharp-Crested Vee/Trap Weir** (Controls 0.0 cfs)
    - **4=Culvert** (Controls 0.0 cfs)

Secondary OutFlow Max=0.0 cfs @ 5.00 hrs HW=313.75' TW=0.00' (Dynamic Tailwater)
- **5=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond GW3: Gravel Wetland #3

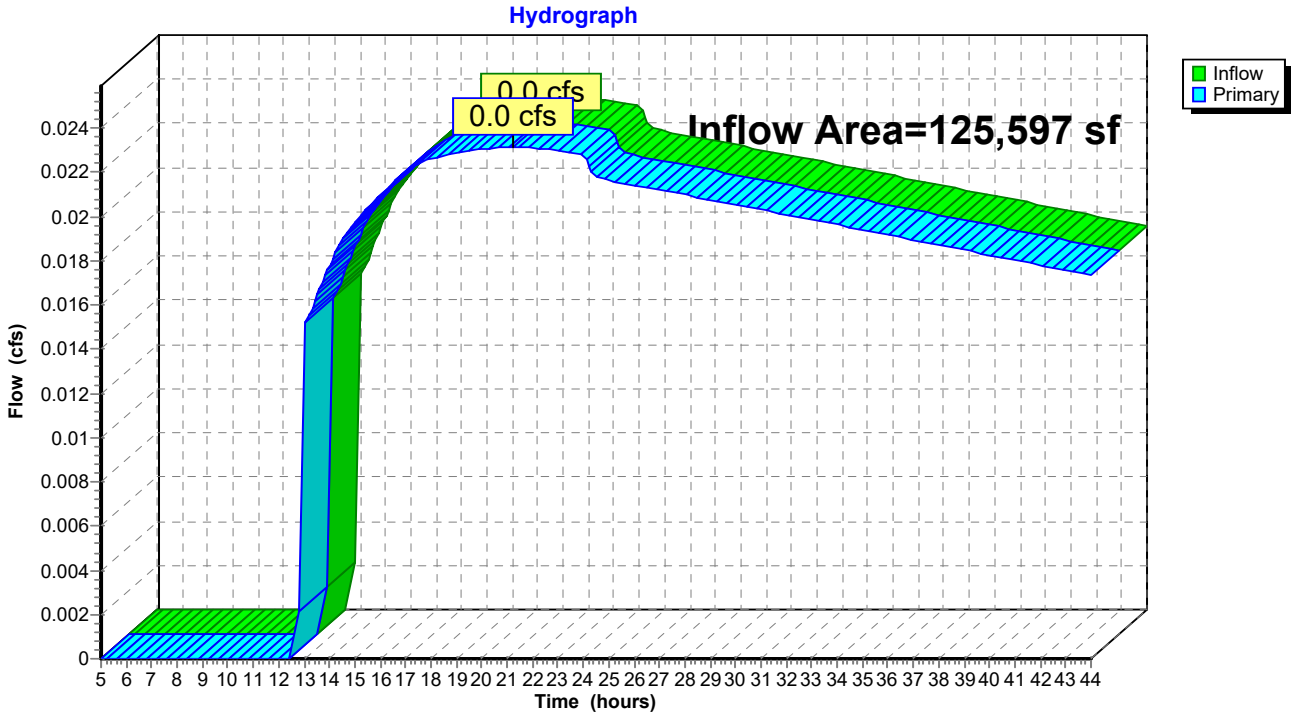


Summary for Link SP2: Study Point 2

Inflow Area = 125,597 sf, 51.62% Impervious, Inflow Depth > 0.22" for 2-year event
Inflow = 0.0 cfs @ 21.24 hrs, Volume= 2,275 cf
Primary = 0.0 cfs @ 21.24 hrs, Volume= 2,275 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs

Link SP2: Study Point 2



Time span=5.00-44.00 hrs, dt=0.05 hrs, 781 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: (new Subcat) Runoff Area=93,603 sf 67.21% Impervious Runoff Depth=2.21"
Flow Length=264' Tc=16.5 min CN=79 Runoff=4.0 cfs 17,236 cf

Subcatchment 2S: (new Subcat) Runoff Area=31,994 sf 5.99% Impervious Runoff Depth=0.18"
Flow Length=150' Slope=0.0500 '/' Tc=13.9 min CN=43 Runoff=0.0 cfs 486 cf

Pond 1P: Forebay Impoundment Peak Elev=315.58' Storage=6,039 cf Inflow=4.0 cfs 17,236 cf
Discarded=0.0 cfs 4,404 cf Primary=2.4 cfs 10,580 cf Outflow=2.4 cfs 14,983 cf

Pond GW3: Gravel Wetland #3 Peak Elev=315.24' Storage=9,135 cf Inflow=2.4 cfs 10,580 cf
Primary=0.0 cfs 3,835 cf Secondary=0.0 cfs 0 cf Outflow=0.0 cfs 3,835 cf

Link SP2: Study Point 2 Inflow=0.0 cfs 4,321 cf
Primary=0.0 cfs 4,321 cf

Total Runoff Area = 125,597 sf Runoff Volume = 17,722 cf Average Runoff Depth = 1.69"
48.38% Pervious = 60,767 sf 51.62% Impervious = 64,830 sf

Summary for Subcatchment 1S: (new Subcat)

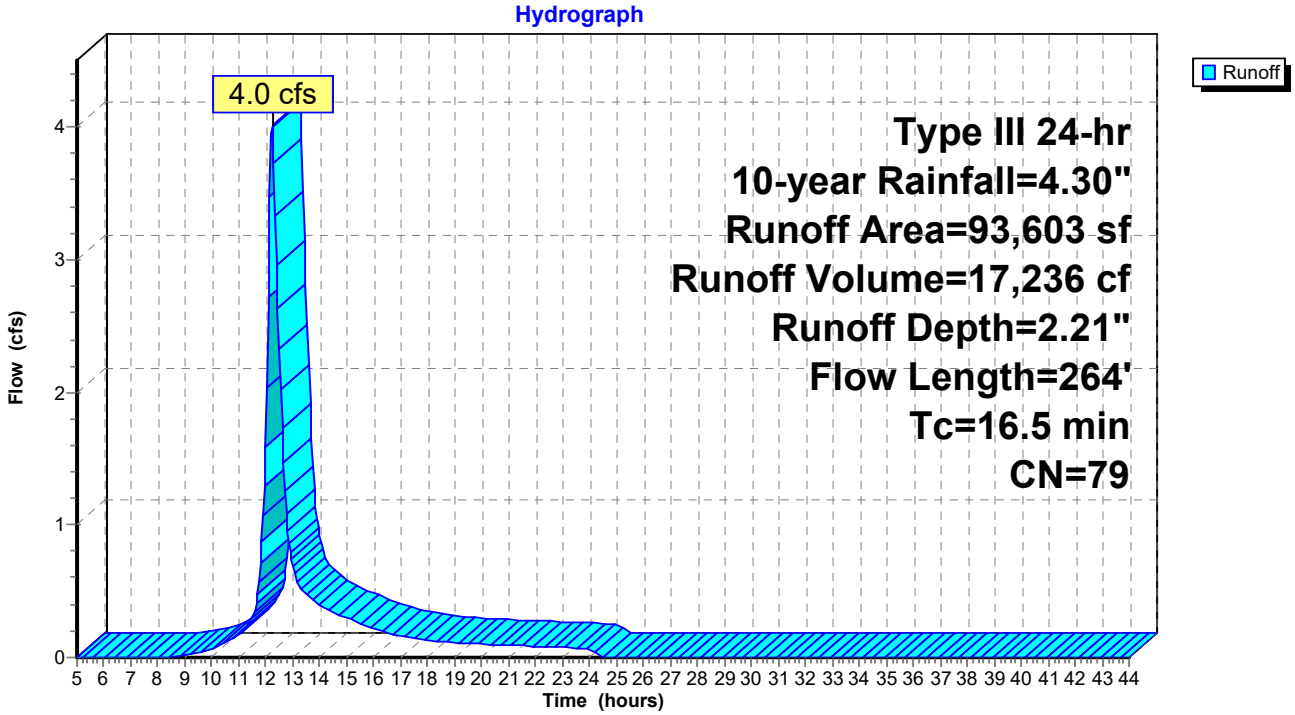
Runoff = 4.0 cfs @ 12.23 hrs, Volume= 17,236 cf, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.30"

	Area (sf)	CN	Description
	30,691	39	>75% Grass cover, Good, HSG A
*	62,912	98	
	93,603	79	Weighted Average
	30,691		32.79% Pervious Area
	62,912		67.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	62	0.0030	0.07		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
1.7	140	0.0400	1.40		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	62	0.0050	3.72	4.57	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
16.5	264	Total			

Subcatchment 1S: (new Subcat)



Summary for Subcatchment 2S: (new Subcat)

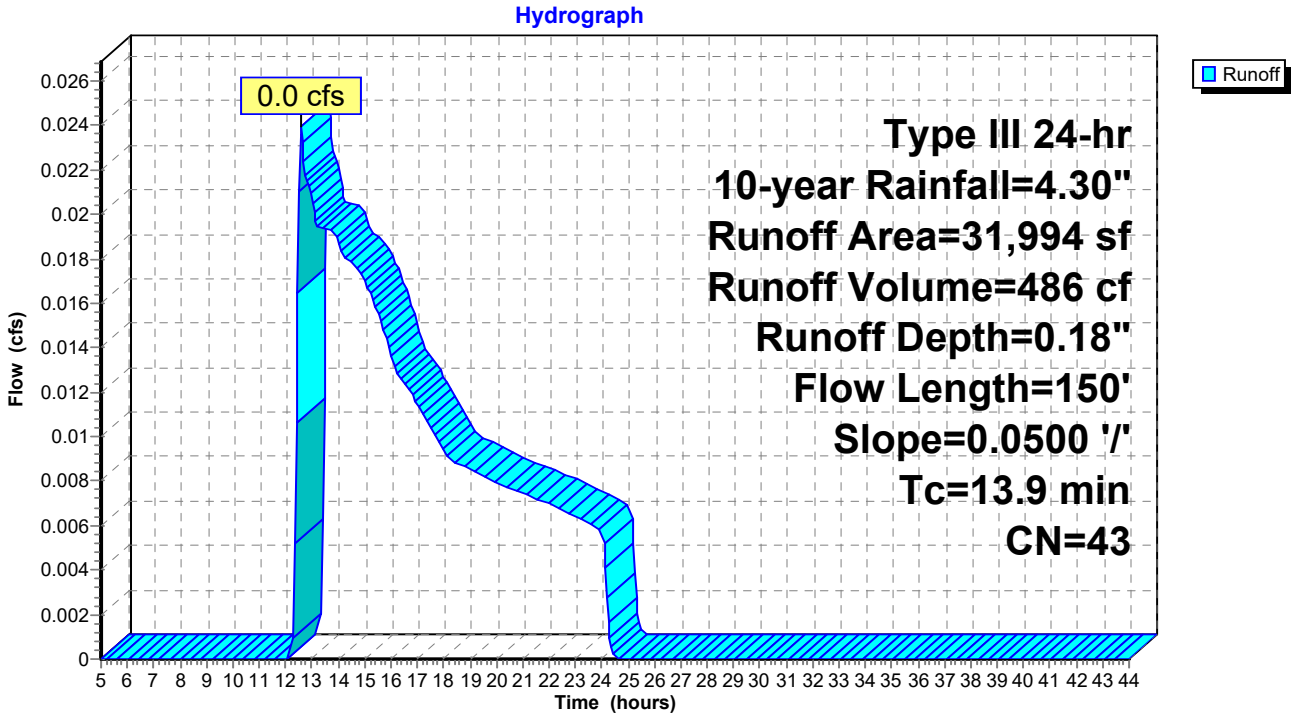
Runoff = 0.0 cfs @ 12.59 hrs, Volume= 486 cf, Depth= 0.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.30"

	Area (sf)	CN	Description
	30,076	39	Pasture/grassland/range, Good, HSG A
*	1,918	98	
	31,994	43	Weighted Average
	30,076		94.01% Pervious Area
	1,918		5.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.9	150	0.0500	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"

Subcatchment 2S: (new Subcat)



Summary for Pond 1P: Forebay Impoundment

Inflow Area = 93,603 sf, 67.21% Impervious, Inflow Depth = 2.21" for 10-year event
Inflow = 4.0 cfs @ 12.23 hrs, Volume= 17,236 cf
Outflow = 2.4 cfs @ 12.49 hrs, Volume= 14,983 cf, Atten= 40%, Lag= 15.3 min
Discarded = 0.0 cfs @ 12.49 hrs, Volume= 4,404 cf
Primary = 2.4 cfs @ 12.49 hrs, Volume= 10,580 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Peak Elev= 315.58' @ 12.49 hrs Surf.Area= 4,526 sf Storage= 6,039 cf

Plug-Flow detention time= 295.0 min calculated for 14,964 cf (87% of inflow)
Center-of-Mass det. time= 237.3 min (1,078.3 - 841.0)

Volume	Invert	Avail.Storage	Storage Description
#1	314.00'	8,006 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

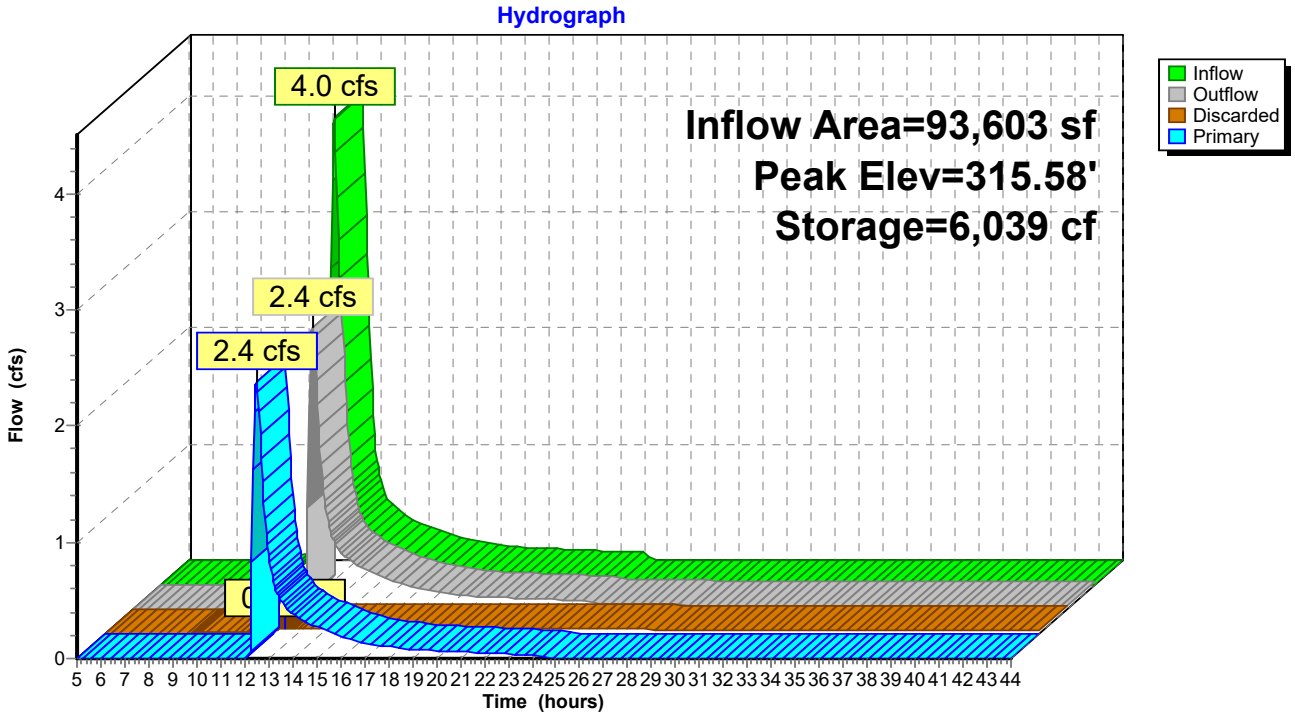
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
314.00	3,115	0	0	3,115
315.00	4,008	3,552	3,552	4,033
316.00	4,915	4,454	8,006	4,970

Device	Routing	Invert	Outlet Devices
#1	Primary	315.25'	**5.0' long x 7.0' 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 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65 2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.78
#2	Discarded	314.00'	**0.200 in/hr Exfiltration over Wetted area** Conductivity to Groundwater Elevation = 313.00'

Discarded OutFlow Max=0.0 cfs @ 12.49 hrs HW=315.58' (Free Discharge)
2=Exfiltration (Controls 0.0 cfs)

Primary OutFlow Max=2.4 cfs @ 12.49 hrs HW=315.58' TW=314.00' (Dynamic Tailwater)
1=Broad-Crested Rectangular Weir (Weir Controls 2.4 cfs @ 1.43 fps)

Pond 1P: Forebay Impoundment



Summary for Pond GW3: Gravel Wetland #3

[44] Hint: Outlet device #2 is below defined storage

Inflow Area = 93,603 sf, 67.21% Impervious, Inflow Depth = 1.36" for 10-year event
Inflow = 2.4 cfs @ 12.49 hrs, Volume= 10,580 cf
Outflow = 0.0 cfs @ 23.48 hrs, Volume= 3,835 cf, Atten= 99%, Lag= 659.8 min
Primary = 0.0 cfs @ 23.48 hrs, Volume= 3,835 cf
Secondary = 0.0 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Peak Elev= 315.24' @ 23.48 hrs Surf.Area= 7,288 sf Storage= 9,135 cf

Plug-Flow detention time= 935.0 min calculated for 3,830 cf (36% of inflow)
Center-of-Mass det. time= 815.3 min (1,690.0 - 874.6)

Volume	Invert	Avail.Storage	Storage Description
#1	313.75'	15,326 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

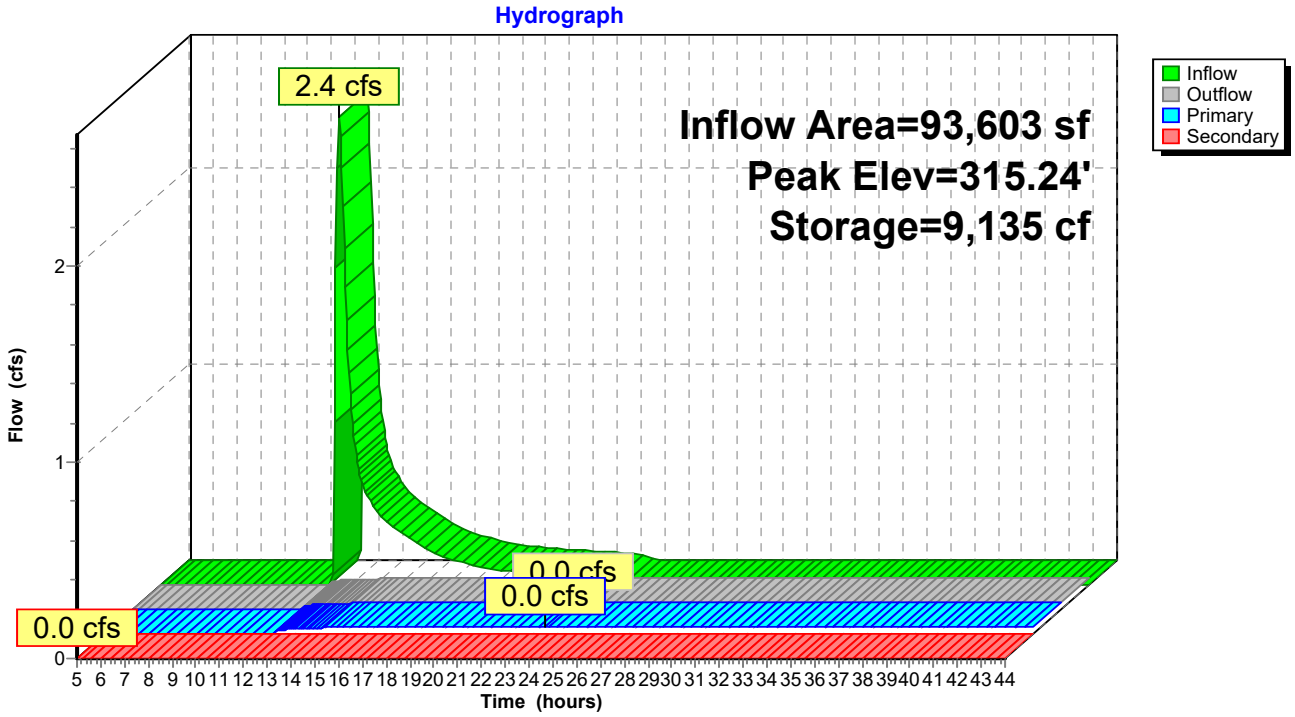
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
313.75	5,180	0	0
314.00	5,495	1,334	1,334
315.00	6,784	6,140	7,474
316.00	8,920	7,852	15,326

Device	Routing	Invert	Outlet Devices
#1	Primary	313.42'	**12.0" Round Culvert** L= 25.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 313.42' / 313.22' S= 0.0080 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	311.50'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	315.25'	**0.5' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)
#4	Device 3	314.75'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 314.75' / 314.35' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#5	Secondary	315.52'	**10.0' long x 13.0' 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) 2.60 2.64 2.70 2.66 2.65 2.66 2.65 2.63

Primary OutFlow Max=0.0 cfs @ 23.48 hrs HW=315.24' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.0 cfs of 4.3 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.0 cfs @ 6.49 fps)
  - **3=Sharp-Crested Vee/Trap Weir** (Controls 0.0 cfs)
    - **4=Culvert** (Controls 0.0 cfs)

Secondary OutFlow Max=0.0 cfs @ 5.00 hrs HW=313.75' TW=0.00' (Dynamic Tailwater)
- **5=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond GW3: Gravel Wetland #3

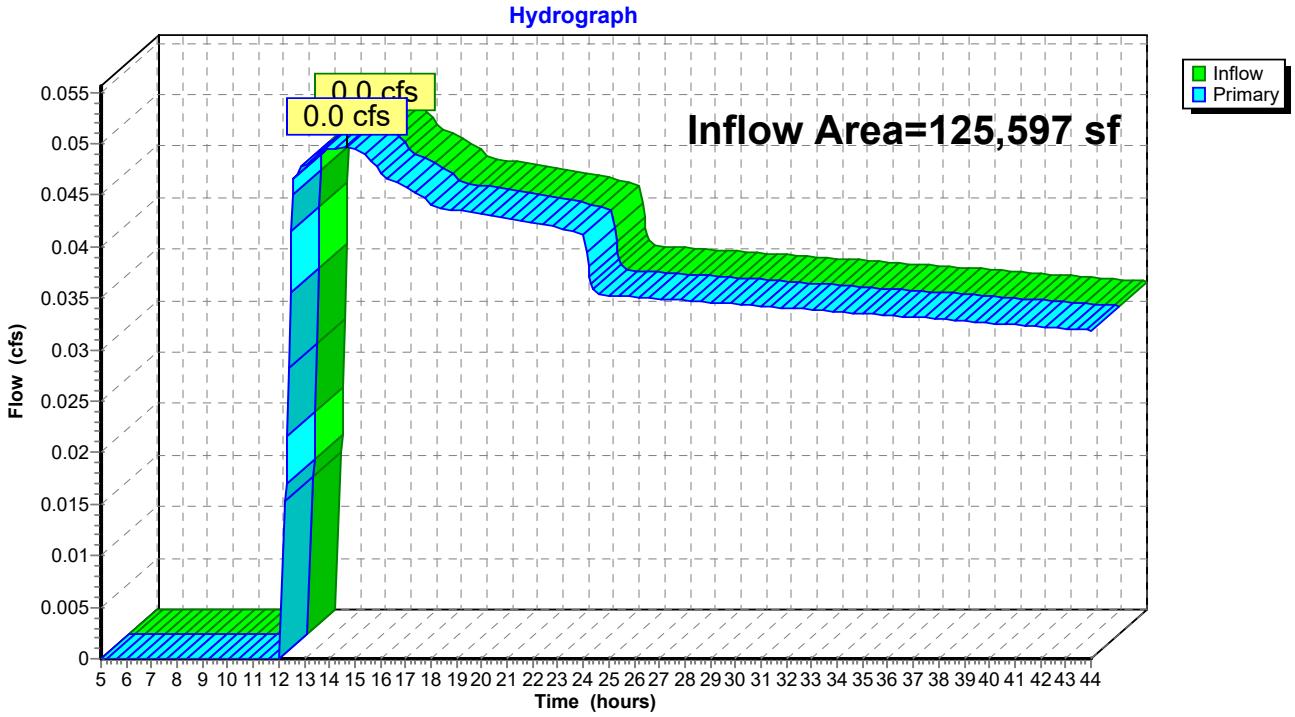


Summary for Link SP2: Study Point 2

Inflow Area = 125,597 sf, 51.62% Impervious, Inflow Depth > 0.41" for 10-year event
Inflow = 0.0 cfs @ 14.71 hrs, Volume= 4,321 cf
Primary = 0.0 cfs @ 14.71 hrs, Volume= 4,321 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs

Link SP2: Study Point 2



Time span=5.00-44.00 hrs, dt=0.05 hrs, 781 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: (new Subcat) Runoff Area=93,603 sf 67.21% Impervious Runoff Depth=3.15"
Flow Length=264' Tc=16.5 min CN=79 Runoff=5.7 cfs 24,563 cf

Subcatchment 2S: (new Subcat) Runoff Area=31,994 sf 5.99% Impervious Runoff Depth=0.47"
Flow Length=150' Slope=0.0500 '/' Tc=13.9 min CN=43 Runoff=0.1 cfs 1,259 cf

Pond 1P: Forebay Impoundment Peak Elev=315.75' Storage=6,826 cf Inflow=5.7 cfs 24,563 cf
Discarded=0.1 cfs 4,758 cf Primary=4.7 cfs 17,284 cf Outflow=4.7 cfs 22,042 cf

Pond GW3: Gravel Wetland #3 Peak Elev=315.52' Storage=11,271 cf Inflow=4.7 cfs 17,284 cf
Primary=0.3 cfs 9,973 cf Secondary=0.0 cfs 0 cf Outflow=0.3 cfs 9,973 cf

Link SP2: Study Point 2 Inflow=0.3 cfs 11,231 cf
Primary=0.3 cfs 11,231 cf

Total Runoff Area = 125,597 sf Runoff Volume = 25,821 cf Average Runoff Depth = 2.47"
48.38% Pervious = 60,767 sf 51.62% Impervious = 64,830 sf

Summary for Subcatchment 1S: (new Subcat)

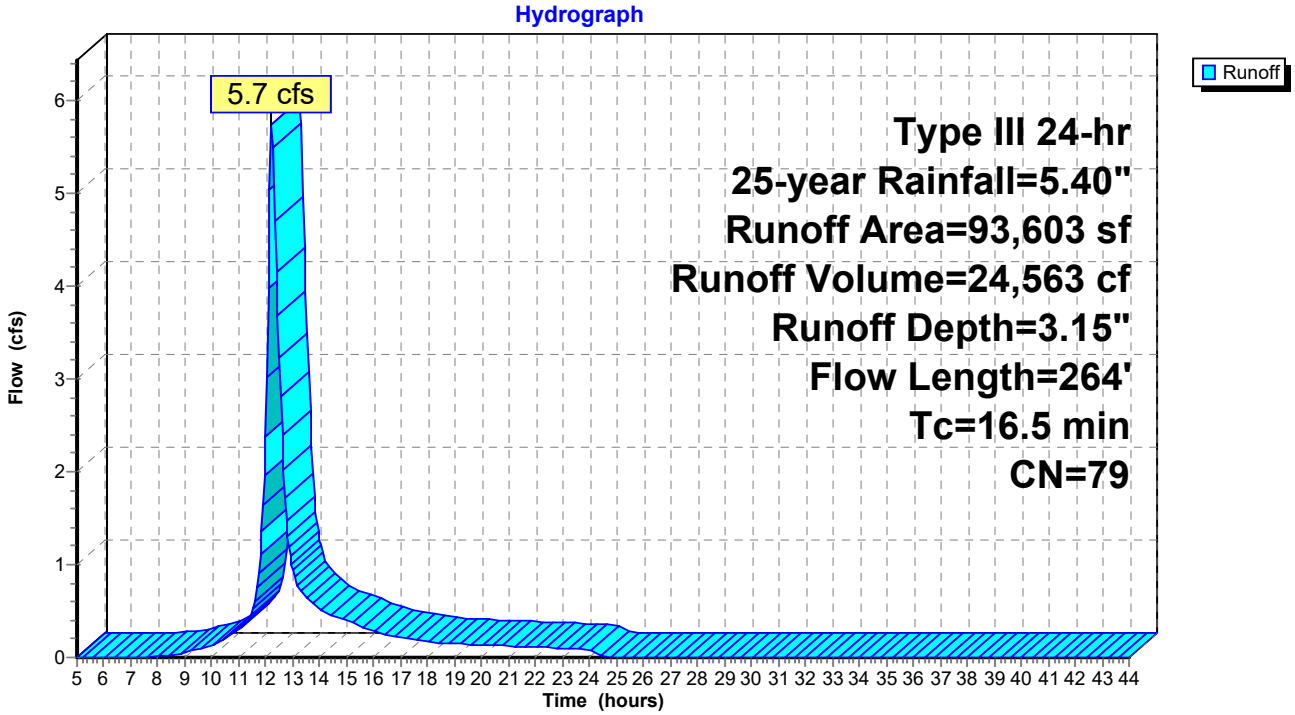
Runoff = 5.7 cfs @ 12.23 hrs, Volume= 24,563 cf, Depth= 3.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.40"

	Area (sf)	CN	Description
	30,691	39	>75% Grass cover, Good, HSG A
*	62,912	98	
	93,603	79	Weighted Average
	30,691		32.79% Pervious Area
	62,912		67.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	62	0.0030	0.07		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.10"
1.7	140	0.0400	1.40		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	62	0.0050	3.72	4.57	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
16.5	264	Total			

Subcatchment 1S: (new Subcat)



Summary for Subcatchment 2S: (new Subcat)

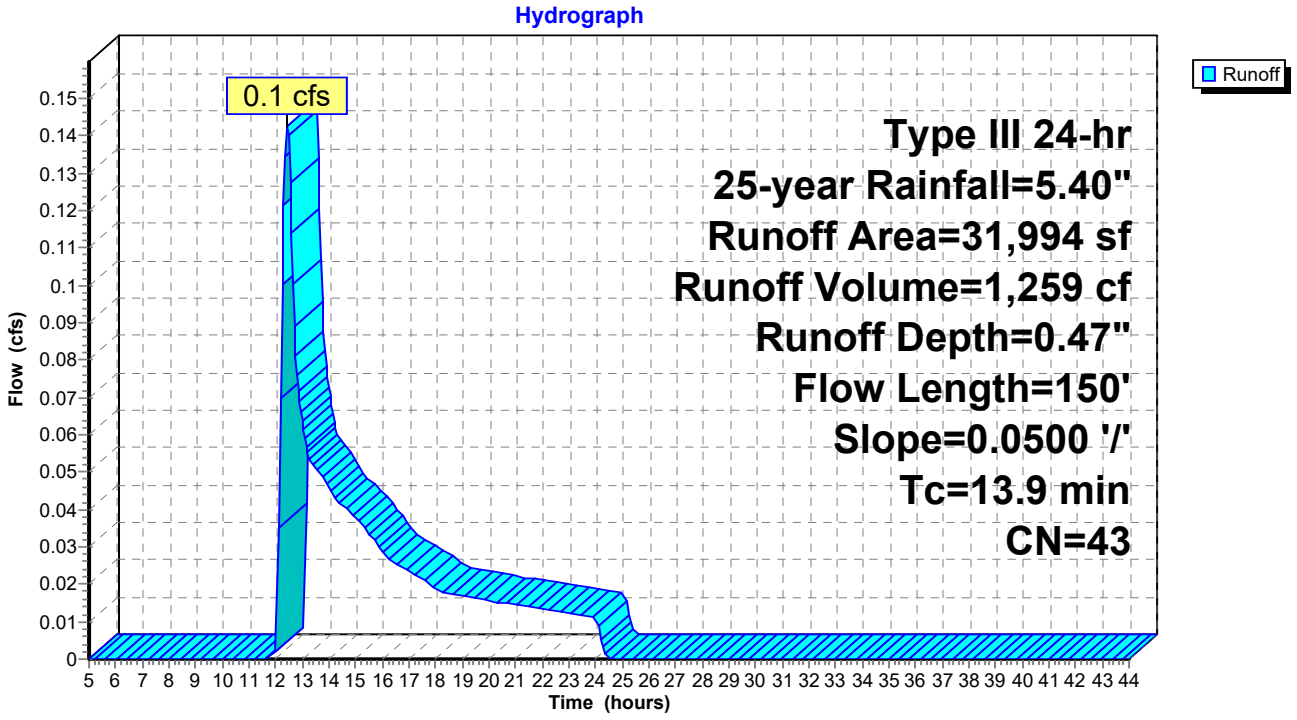
Runoff = 0.1 cfs @ 12.43 hrs, Volume= 1,259 cf, Depth= 0.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.40"

	Area (sf)	CN	Description
	30,076	39	Pasture/grassland/range, Good, HSG A
*	1,918	98	
	31,994	43	Weighted Average
	30,076		94.01% Pervious Area
	1,918		5.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.9	150	0.0500	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.10"

Subcatchment 2S: (new Subcat)



Summary for Pond 1P: Forebay Impoundment

Inflow Area = 93,603 sf, 67.21% Impervious, Inflow Depth = 3.15" for 25-year event
Inflow = 5.7 cfs @ 12.23 hrs, Volume= 24,563 cf
Outflow = 4.7 cfs @ 12.36 hrs, Volume= 22,042 cf, Atten= 18%, Lag= 7.6 min
Discarded = 0.1 cfs @ 12.36 hrs, Volume= 4,758 cf
Primary = 4.7 cfs @ 12.36 hrs, Volume= 17,284 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Peak Elev= 315.75' @ 12.36 hrs Surf.Area= 4,683 sf Storage= 6,826 cf

Plug-Flow detention time= 229.7 min calculated for 22,014 cf (90% of inflow)
Center-of-Mass det. time= 181.7 min (1,012.6 - 830.9)

Volume	Invert	Avail.Storage	Storage Description
#1	314.00'	8,006 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

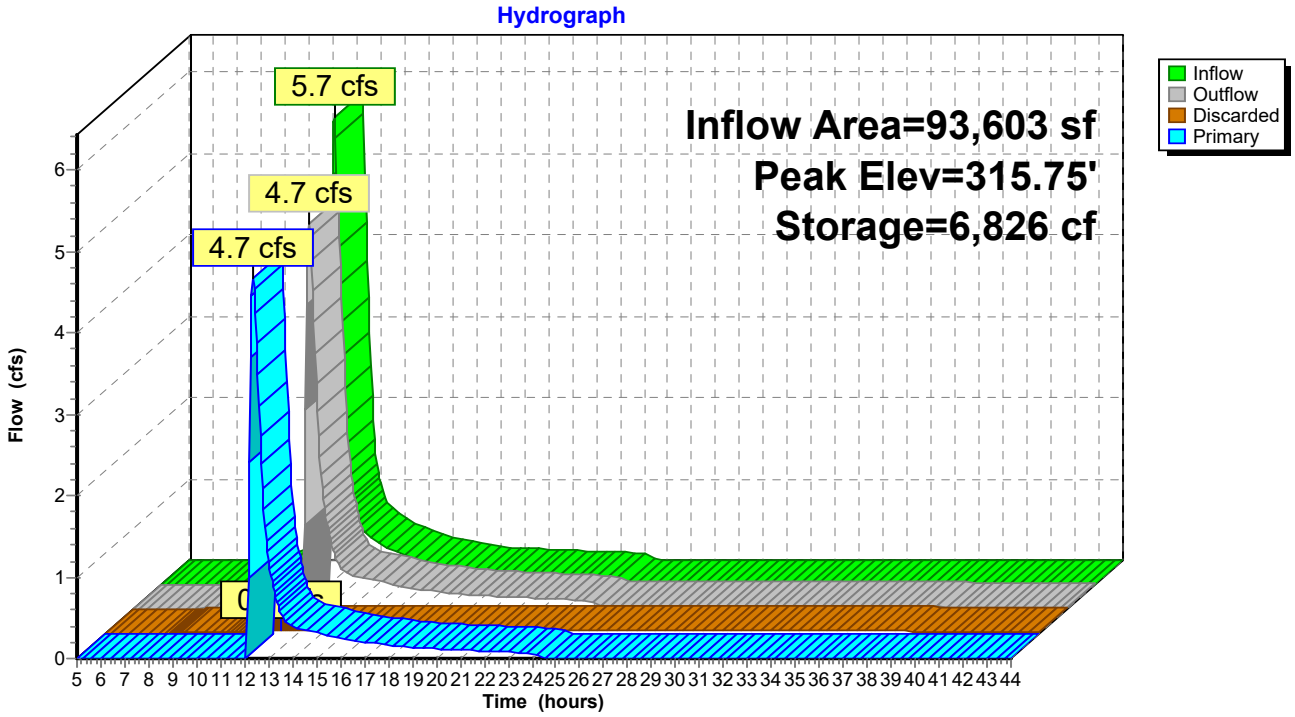
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
314.00	3,115	0	0	3,115
315.00	4,008	3,552	3,552	4,033
316.00	4,915	4,454	8,006	4,970

Device	Routing	Invert	Outlet Devices
#1	Primary	315.25'	**5.0' long x 7.0' 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 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65 2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.78
#2	Discarded	314.00'	**0.200 in/hr Exfiltration over Wetted area** Conductivity to Groundwater Elevation = 313.00'

Discarded OutFlow Max=0.1 cfs @ 12.36 hrs HW=315.75' (Free Discharge)
↑**2=Exfiltration** (Controls 0.1 cfs)

Primary OutFlow Max=4.7 cfs @ 12.36 hrs HW=315.75' TW=314.22' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 4.7 cfs @ 1.85 fps)

Pond 1P: Forebay Impoundment



Summary for Pond GW3: Gravel Wetland #3

[44] Hint: Outlet device #2 is below defined storage
[80] Warning: Exceeded Pond 1P by 0.03' @ 28.35 hrs (0.0 cfs 338 cf)

Inflow Area =	93,603 sf,	67.21% Impervious,	Inflow Depth =	2.22"	for 25-year event
Inflow =	4.7 cfs @	12.36 hrs,	Volume=	17,284 cf	
Outflow =	0.3 cfs @	15.79 hrs,	Volume=	9,973 cf,	Atten= 94%, Lag= 206.0 min
Primary =	0.3 cfs @	15.79 hrs,	Volume=	9,973 cf	
Secondary =	0.0 cfs @	5.00 hrs,	Volume=	0 cf	

Routing by Dyn-Stor-Ind method, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs
Peak Elev= 315.52' @ 15.79 hrs Surf.Area= 7,889 sf Storage= 11,271 cf

Plug-Flow detention time= 570.5 min calculated for 9,960 cf (58% of inflow)
Center-of-Mass det. time= 460.9 min (1,326.4 - 865.5)

Volume	Invert	Avail.Storage	Storage Description
#1	313.75'	15,326 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

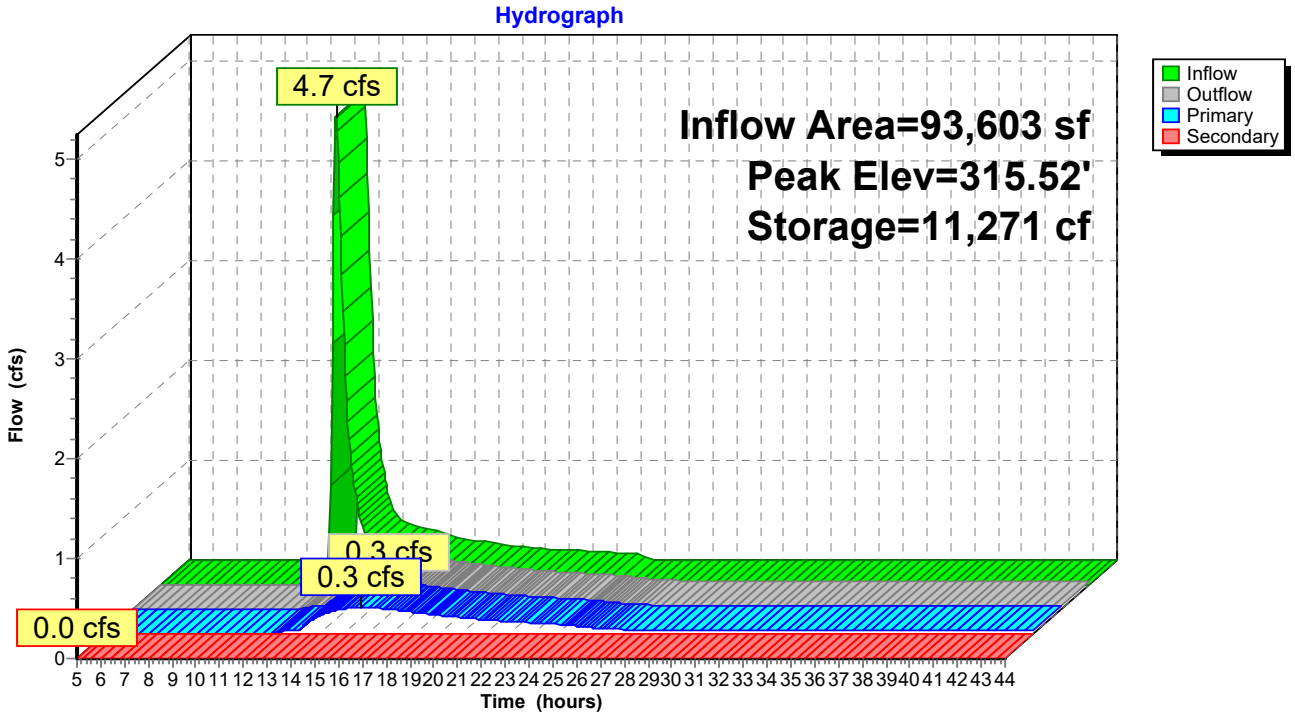
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
313.75	5,180	0	0
314.00	5,495	1,334	1,334
315.00	6,784	6,140	7,474
316.00	8,920	7,852	15,326

Device	Routing	Invert	Outlet Devices
#1	Primary	313.42'	**12.0" Round Culvert** L= 25.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 313.42' / 313.22' S= 0.0080 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	311.50'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	315.25'	**0.5' long Sharp-Crested Vee/Trap Weir** Cv= 2.62 (C= 3.28)
#4	Device 3	314.75'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 314.75' / 314.35' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#5	Secondary	315.52'	**10.0' long x 13.0' 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) 2.60 2.64 2.70 2.66 2.65 2.66 2.65 2.63

Primary OutFlow Max=0.3 cfs @ 15.79 hrs HW=315.52' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.3 cfs of 4.8 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.0 cfs @ 6.97 fps)
  - **3=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.2 cfs @ 1.69 fps)
    - **4=Culvert** (Passes 0.2 cfs of 1.3 cfs potential flow)

Secondary OutFlow Max=0.0 cfs @ 5.00 hrs HW=313.75' TW=0.00' (Dynamic Tailwater)
- **5=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond GW3: Gravel Wetland #3

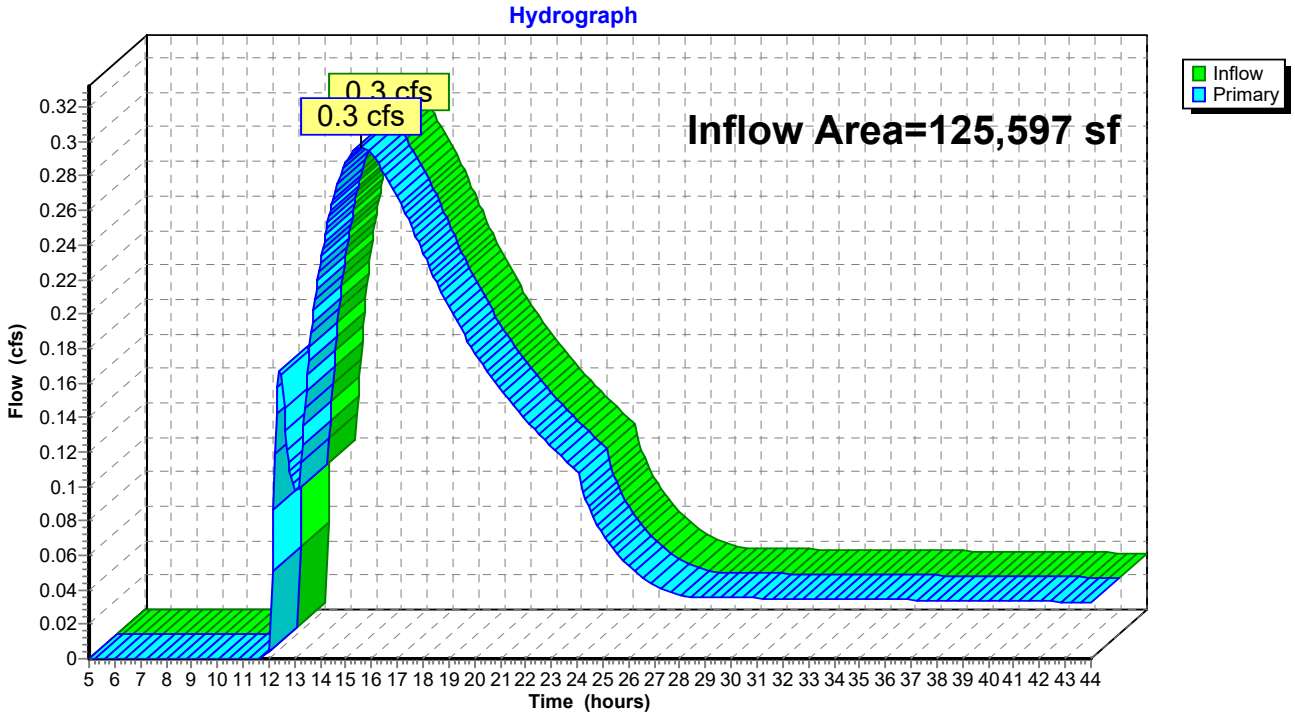


Summary for Link SP2: Study Point 2

Inflow Area = 125,597 sf, 51.62% Impervious, Inflow Depth > 1.07" for 25-year event
Inflow = 0.3 cfs @ 15.58 hrs, Volume= 11,231 cf
Primary = 0.3 cfs @ 15.58 hrs, Volume= 11,231 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-44.00 hrs, dt= 0.05 hrs

Link SP2: Study Point 2



ATTACHMENT 3

Maine DEP approvals

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

DEPARTMENT ORDER

IN THE MATTER OF

JEM PROPERTY MANAGEMENT, LLC	) STORMWATER MANAGEMENT LAW
Poland, Androscoggin County	)
COMMERCIAL DEVELOPMENT	)
L-30317-NJ-A-N (approval)	) FINDINGS OF FACT AND ORDER

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

1. PROJECT DESCRIPTION:

A. Summary: The applicant proposes to construct a stormwater management system associated with the development of three buildings, associated gravel parking and staging area for the fabrication and sale of dock products. The proposed project will result in approximately 2.15 acres of developed area, of which 1.26 acres will be impervious area. The proposed project is shown on a set of plans, the first of which is titled "Pre Development," prepared by Terradyn Consultants, LLC and dated March 2, 2023. The project site is located at the intersection of Bakerstown Road and Maine Street in the Town of Poland.

B. Current Use of the Site: The site of the proposed project is a 2.15-acre lot that is primarily undeveloped and contains both forested and grassed areas. A single concrete slab is located near the center of the lot. The parcel is identified as Lot 7 on Map 15 of the Town of Poland's tax maps.

2. STORMWATER STANDARDS:

The proposed project includes approximately 2.15 acres of developed area, of which 1.26 acres are impervious area. It lies within the watershed of Waterhouse Brook. The applicant submitted a stormwater management plan based on the Basic and General Standards contained in Department Rules, Chapter 500, *Stormwater Management* (06-096 Ch. 500, last amended August 12, 2015). The proposed stormwater management system consists of one gravel wetland.

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 (BMPs) 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. This plan was reviewed by, and revised in response to the comments of, BLR. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. The applicant will be responsible for the maintenance of all facilities including the stormwater management system.

Storm 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 500(4)(B).

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 that must control runoff from no less than 95% of the impervious area and no less than 80% of the developed area. The applicant's stormwater management plan includes general treatment measures that will mitigate 99% of the total impervious area and 99% of the new developed area.

The stormwater management system proposed by the applicant was reviewed by 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 engineer oversee the construction of the gravel wetland 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. BLR also requested that the applicant submit as-built (record) drawings for the stormwater BMPs to the BLR for review.

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 General Standards contained in Chapter 500, (4)(C) provided that the applicant meets the inspection and reporting requirements and as-built drawings are submitted within six months of completion of construction of the stormwater management system to the BLR, all as outlined above.

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 rules:

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 stormwater structures during maintenance activities are disposed of in compliance with the Maine Solid Waste Management Rules.

B. The applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards provided that a professional engineer is retained to inspect and document the installation of stormwater components and that as-built drawings of stormwater BMPs are submitted to the BLR, as outlined in Finding 2B.

THEREFORE, the Department APPROVES the above noted application of JEM PROPERTY MANAGEMENT, LLC to construct a stormwater management system as described above in Poland, 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 or previous orders, 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. Storm sewer grit and sediment materials removed from stormwater control structures shall be disposed of in compliance with the Maine Solid Waste Management Rules.

5. The applicant shall retain the design engineer or other qualified professional to oversee the construction of the stormwater management system according to the details and notes specified on the approved plans. 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.

6. 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 7th DAY OF AUGUST, 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
For: Melanie Loyzim, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

JS/L30317AN/ATS#90900

FILED
August 7th, 2023
State of Maine
Board of Environmental Protection

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

Appealing a Department Licensing Decision

Dated: August 2021 **Contact: (207) 314-1458**

SUMMARY

This document provides information regarding a person's rights and obligations in filing an administrative or judicial appeal of a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner.

Except as provided below, there are two methods available to an aggrieved person seeking to appeal a licensing decision made by the DEP Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)) or 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 Organization and Powers, 38 M.R.S. §§ 341-D(4) and 346; the Maine Administrative Procedure Act, 5 M.R.S. § 11001; and the DEP's *Rule Concerning the Processing of Applications and Other Administrative Matters* (Chapter 2), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

Not more than 30 days following the filing of a license decision by the Commissioner with the Board, an aggrieved person may appeal to the Board for review of the Commissioner's decision. The filing of an appeal with the Board, in care of the Board Clerk, is complete when the Board receives the submission by the close of business on the due date (5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board, as determined by the received time stamp on the document or electronic mail). Appeals filed after 5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board will be dismissed as untimely, absent a showing of good cause.

HOW TO SUBMIT AN APPEAL TO THE BOARD

An appeal to the Board may be submitted via postal mail or electronic 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
ruth.a.burke@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; and if a hearing was held on the application, (3) any intervenors in that hearing proceeding. **Please contact the DEP at 207-287-7688 with questions or for contact information regarding a specific licensing decision.**

REQUIRED APPEAL CONTENTS

A complete appeal must contain the following information at the time the appeal is submitted.

1. *Aggrieved status*. The appeal must explain how the appellant has standing to bring the appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error*. The appeal must identify the specific findings of fact, conclusions of law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing criteria that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license to changes in specific license conditions.
5. *All the matters to be contested*. The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for hearing must be filed as part of the notice of appeal, and it must include an offer of proof regarding the testimony and other evidence that would be presented at the hearing. The offer of proof must consist of a statement of the substance of the evidence, its relevance to the issues on appeal, and whether any witnesses would testify. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed supplemental evidence must be submitted with the appeal. The Board may allow new or additional evidence to be considered in an appeal only under limited circumstances. The proposed supplemental evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Requirements for supplemental evidence are set forth in Chapter 2 § 24.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made accessible by the DEP. Upon request, the DEP will make application materials available to review and photocopy during normal working hours. There may be a charge for copies or copying services.

2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing the appeal.* DEP staff will provide this information upon request and answer general questions regarding the appeal process.
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 stay of the decision is requested and granted, a licensee may proceed with a project pending the outcome of an appeal, but the licensee runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will acknowledge receipt of an appeal, and it will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials admitted by the Board as supplementary evidence, any materials admitted in response to the appeal, relevant excerpts from the DEP's administrative record for the application, and the DEP staff's recommendation, in the form of a proposed Board Order, will be provided to Board members. The appellant, the licensee, and parties of record are notified in advance of the date set for the Board's consideration of an appeal or request for a hearing. The appellant and the licensee will have an opportunity to address the Board at the Board meeting. The Board will decide whether to hold a hearing on appeal when one is requested before deciding the merits of the appeal. The Board's decision on appeal may be to affirm all or part, affirm with conditions, order a hearing to be held as expeditiously as possible, reverse all or part of the decision of the Commissioner, or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the licensee, and parties of record of its decision on appeal.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see 38 M.R.S. § 346(1); 06-096 C.M.R. ch. 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A party's appeal 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 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).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board Clerk at 207-287-2811 or the Board Executive Analyst at 207-314-1458 bill.hinkel@maine.gov, 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 regulatory provisions referred to herein, is provided to help a person to understand their rights and obligations in filing an administrative or judicial appeal. The DEP provides this information sheet for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

ATTACHMENT 4

Turing Template figures

MAINE STREET (ROUTE 26)

GRANITE CURB W/TAR ISLAND

ELECTRIC METER

GRANITE CURB W/TAR ISLAND

MAINE STREET (ROUTE 26)

OLD ENTRANCE

CURB TIP DOWN

HANDICAP DETECTABLE WARNING PLATE (TYP)

WB-62 - Interstate Semi-Trailer

PAVED SIDEWALK

PAVED SIDEWALK

REPLACE EXISTING CURBING AND SIDEWALK AT EXISTING ENTRANCE

10IN.

±18" HDPE
Inv. = 310.4

DOUBLE 12IN.

30 FOOT MUNICIPAL SETBACK

18IN.

23IN.

19IN.

20IN.

GRANITE CURB W/TAR ISLAND

BAKERSTOWN ROAD (ROUTE 11)

30 FOOT MUNICIPAL SETBACK

ERP SEPTIC SYSTEM DESIGN

BACKSTOP FENCE

DUG OUT

4' CHAIN LINK FENCE

9' STOCKADE FENCE

10 FOOT MUNICIPAL SETBACK

1FT CMP BURIED

ENTRANCE

10 FOOT MUNICIPAL SETBACK

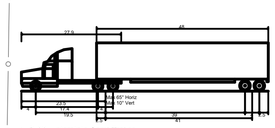
9' STOCKADE FENCE

WINTERBROOK ROAD

GRID NORTH

N/F
REGIONAL SCHOOL UNIT #16
7978/88 ~ 7-20-10
TM 15-6
1457 MAINE STREET

3 AGGREGATE ROAD
POLAND, ME 04274



WB-62 - Interstate Semi-Trailer	
Overall Length	69.000ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

DATE: 6/20/2023
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	BY	APP'D
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS	

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE
SUITE 201
NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111
www.terradynconsultants.com
565 CONGRESS STREET
SUITE 301
PORTLAND, ME 04102
FAX: (207) 221-1317

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: 1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE: SITE LAYOUT PLAN

CLIENT: JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	9/9/2023
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138
SHEET	C-1.0

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MAINE STREET (ROUTE 26)

GRANITE CURB W/TAR ISLAND

ELECTRIC METER

GRANITE CURB W/TAR ISLAND

MAINE STREET (ROUTE 26)

OLD ENTRANCE

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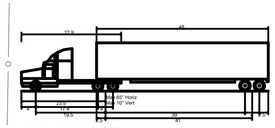

WB-62 - Interstate Semi-Trailer

Overall Length	69.000ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

DATE: 6/20/2023
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE
SUITE 305
NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com
565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE:
SITE LAYOUT PLAN

CLIENT:
JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	9/9/2022
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138

SHEET
C-1.0

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SITE IMPROVEMENTS - 1505 MAINE STREET

MAINE STREET, POLAND, MAINE

PREPARED BY:

CIVIL ENGINEER:
TERRADYN CONSULTANTS, LLC
41 CAMPUS DR. SUITE 101
NEW GLOUCESTER, MAINE 04260
(207)926-5111

SURVEYOR:
DAVIS LAND SURVEYING, LLC.
990 MINOT AVENUE
AUBURN, MAINE 04210
(207)345-9991

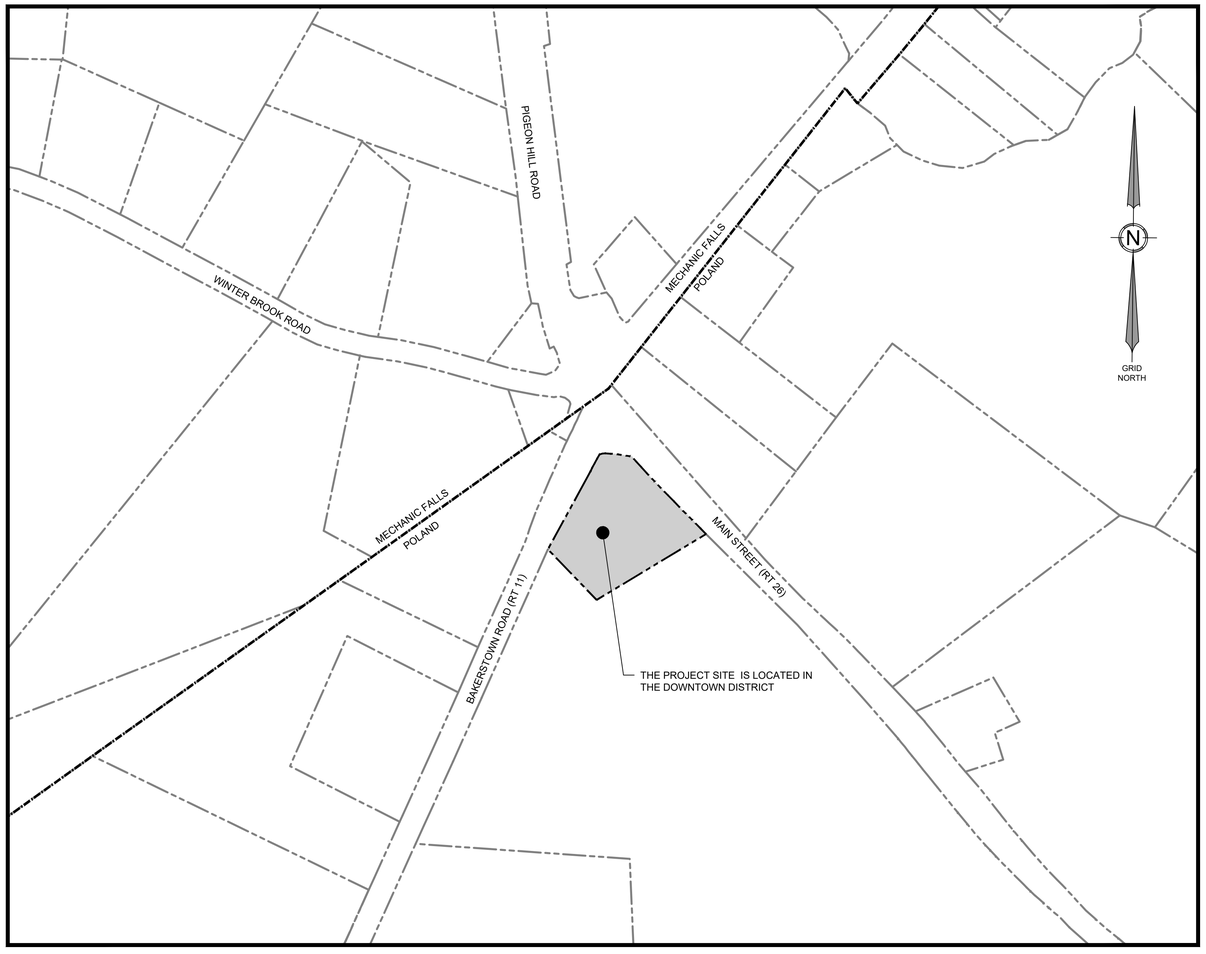
APPLICANT/OWNER:

JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

PROJECT PARCEL SITE

TOWN OF POLAND TAX ASSESSOR'S MAP & LOT NUMBERS

MAP 15 LOT 7



LOCATION MAP
1" = 200'

SHEET INDEX

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- EXISTING SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- ROAD CENTERLINE
- 124 EXISTING MINOR CONTOUR
- 124 EXISTING MAJOR CONTOUR
- 124 PROPOSED CONTOUR
- SD EXISTING STORMDRAIN
- SD PROPOSED STORMDRAIN
- OHE EXISTING OVERHEAD ELECTRIC & TELEPHONE
- OHE PROPOSED OVERHEAD ELECTRIC & TELEPHONE
- UGE EXISTING UNDERGROUND ELECTRIC & TELEPHONE
- UGE PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
- EXISTING EDGE OF PAVEMENT
- PROPOSED EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF GRAVEL
- EXISTING TREE LINE
- PROPOSED TREE LINE
- CHAIN LINK FENCE
- PROPOSED FENCE
- EXISTING GUARDRAIL
- PROPOSED GUARDRAIL
- MB MIX BERM
- PROPOSED TRANSFORMER
- PROPOSED LIGHT POLE
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- PROPOSED CATCH BASIN
- 30.20 EXISTING SPOT GRADE
- 30.20 PROPOSED SPOT GRADE
- EXISTING SIGN
- PROPOSED SIGN
- TP-A TEST PIT
- EXISTING BUILDING
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED GRAVEL
- RIPRAP

APPROVED: TOWN OF POLAND
PLANNING BOARD

_____ DATE

_____

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_____

STATE OF MAINE
CRAIG M. SWEET
No. 15060
LICENSED PROFESSIONAL ENGINEER

DATE: 2/27/2024
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
3	02-27-2024	RESPONSE TO TOWN COMMENTS	CMS
2	08-11-2023	REVISED PROJECT SCOPE	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

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PROJECT:
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COVER/LOCATION MAP

CLIENT:
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1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	2/27/2024
SCALE:	AS NOTED
DESIGNED:	
JOB NO:	22-138

SHEET
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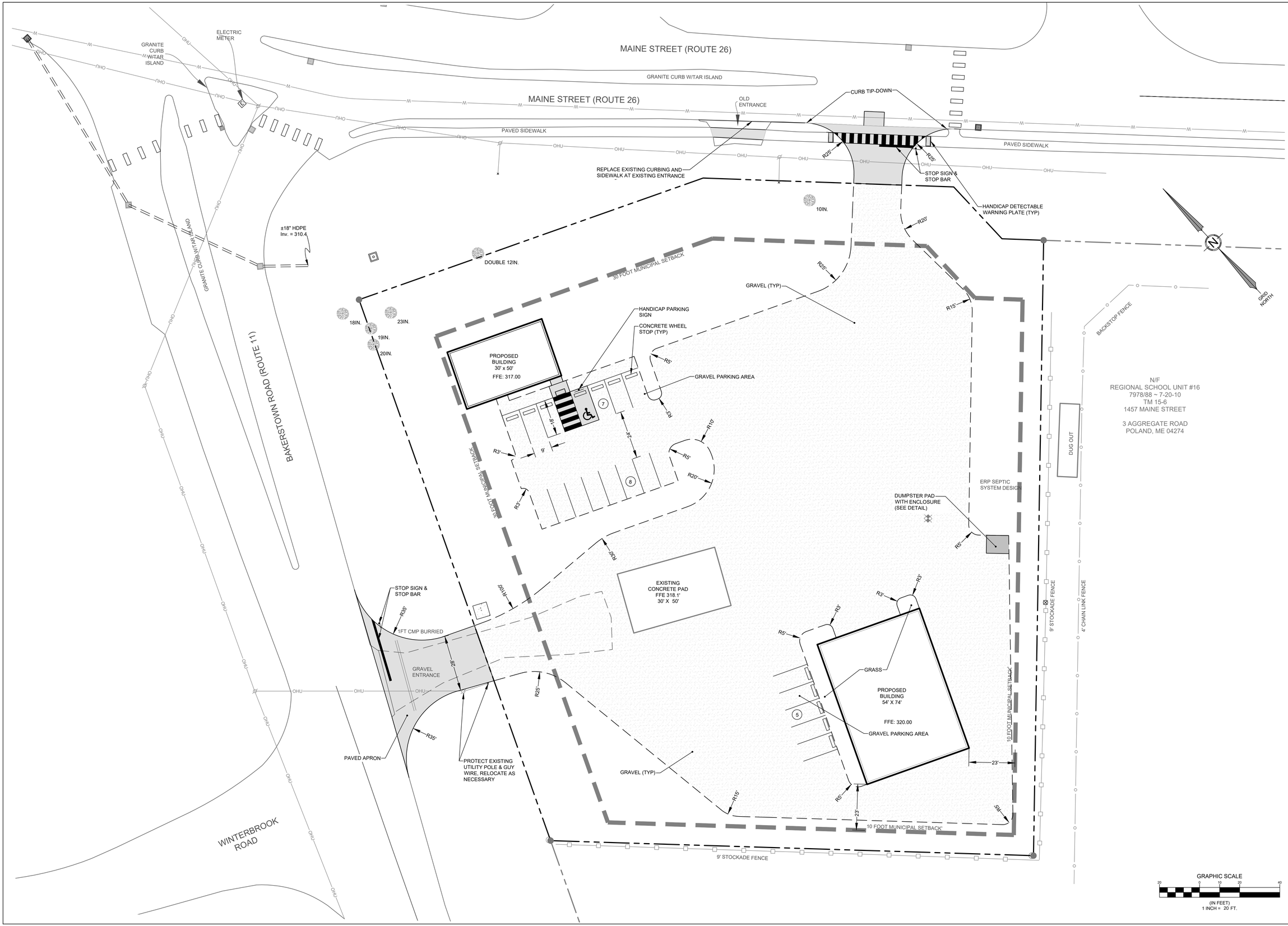

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 INCH = 20 FT.

STATE OF MAINE
CRAIG M. SWEET
No. 15060
LICENSED PROFESSIONAL ENGINEER

DATE: 2/27/2024
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	APP'D BY
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS
2	08-11-2023	REVISED PROJECT SCOPE	CMS
3	02-27-2024	RESPONSE TO TOWN COMMENTS	CMS

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE, SUITE 301, NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com
565 CONGRESS STREET, SUITE 201, PORTLAND, ME 04102

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: 1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE: SITE LAYOUT PLAN

CLIENT: JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	2/27/2024
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138

SHEET C-1.0

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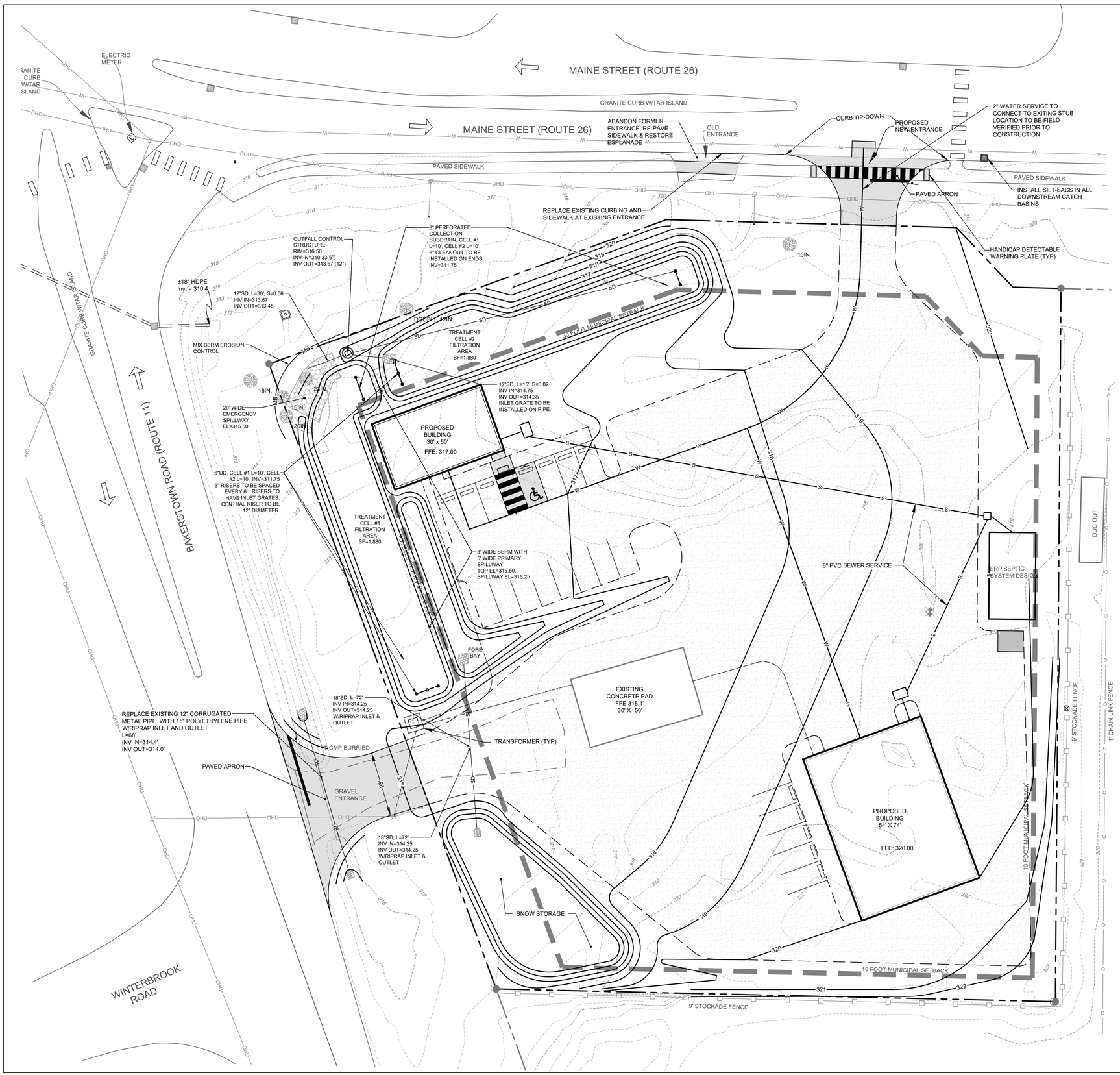

CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.

4. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.

6. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.

7. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.

8. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2016 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

10. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.

11. CONTRACTOR SHALL BE AWARE THAT DIG SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. WHEN NOTIFIED, DIG SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE TOWN OR CITY WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES, AS WELL AS USG PUBLIC WORKS SYSTEMS.

12. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.

13. ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.

14. ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.

15. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.

16. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE A M.D.O.T. PERMIT AS WELL AS PERMITS FROM THE TOWN AS APPLICABLE.

17. THE PROPOSED LIMITS OF CLEARING SHOWN HEREON ARE APPROXIMATE BASED UPON THE PROPOSED LIMITS OF SITE GRADING. THE APPLICANT RESERVES THE RIGHT TO PERFORM NORMAL FOREST MANAGEMENT ACTIVITIES OUTSIDE OF THE CLEARING LIMIT AS SHOWN. TREE REMOVAL OUTSIDE OF THE LIMITS OF CLEARING MAY BE NECESSARY TO REMOVE DEAD OR DYING TREES OR TREE LIMBS. THIS REMOVAL IS DUE TO POTENTIAL SAFETY HAZARDS AND TO PROMOTE PROPER FOREST GROWTH.

18. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.

19. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.

20. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.

21. WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGMENT OF TERRADYN CONSULTANTS, LLC.

22. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.

23. THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.

24. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.

25. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.

26. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.

STATE OF MAINE
CRAIG M. SWEET
No. 15060
LICENSED PROFESSIONAL ENGINEER

DATE: 2/27/2024
P.E.: CRAIG M. SWEET

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Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: 1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE: GRADING PLAN

CLIENT: JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	2/27/2024
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138
SHEET	C-2.0

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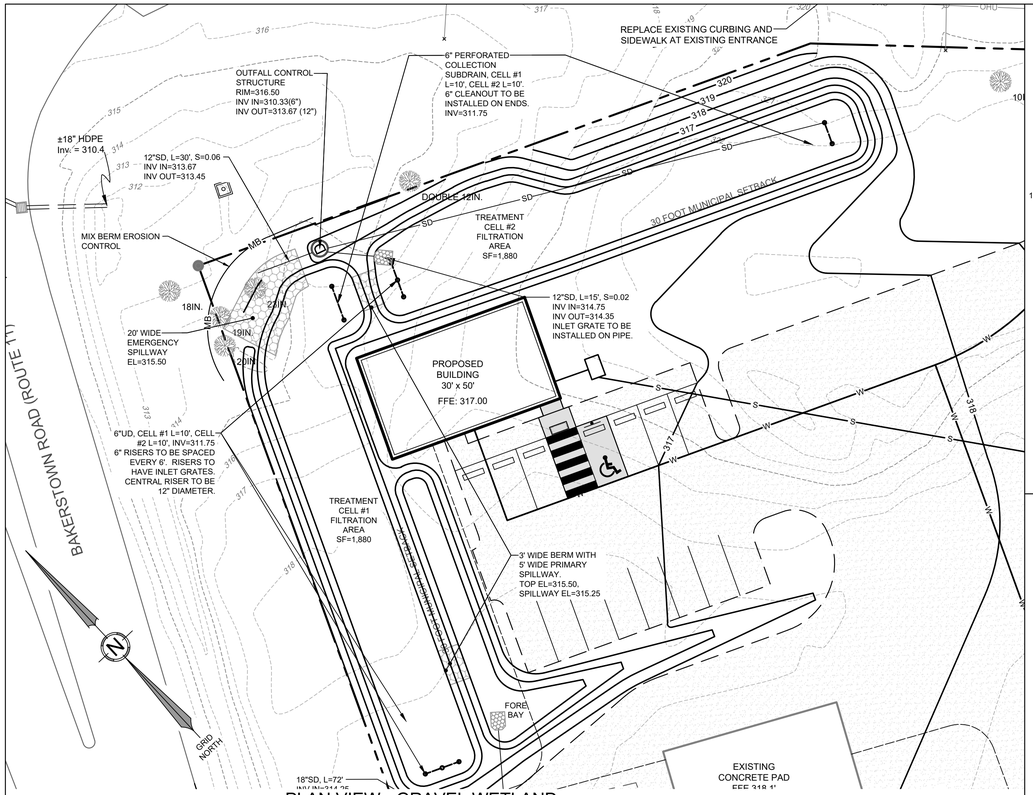
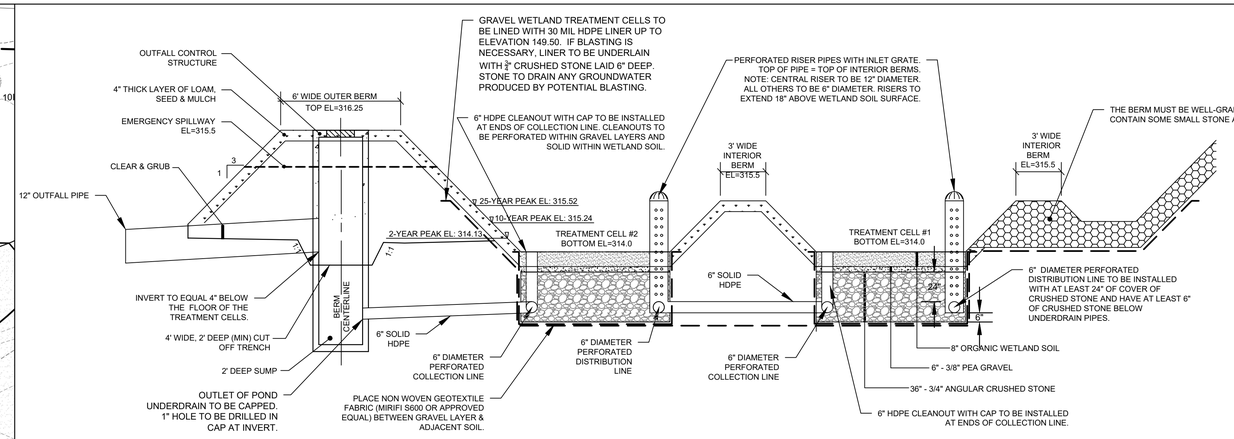


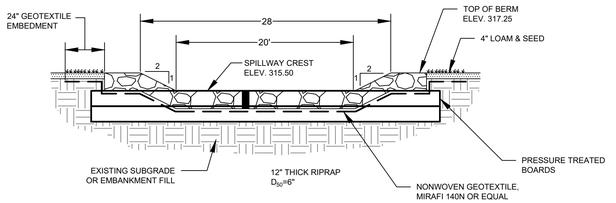
PLAN VIEW - GRAVEL WETLAND

SCALE: 1"=20'



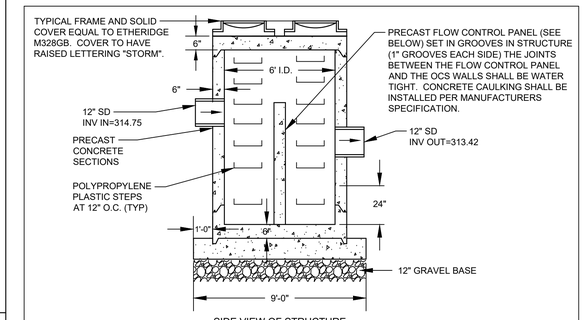
CROSS SECTION VIEW - GRAVEL WETLAND

NOT TO SCALE

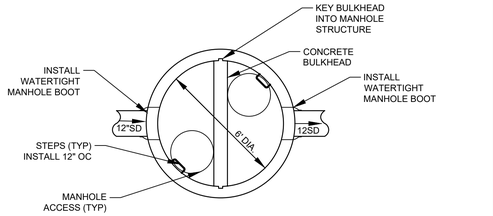


EMERGENCY SPILLWAY CROSS SECTION

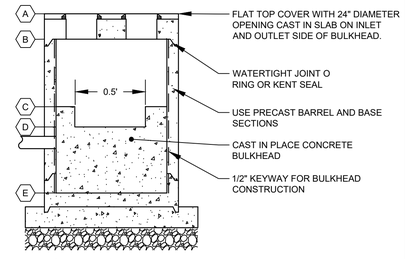
NOT TO SCALE



SIDE VIEW OF STRUCTURE



TOP VIEW OF STRUCTURE



SIDE VIEW & WEIR WALL

NOTES:
1. SUBMIT SHOP DRAWINGS FOR OWNER/ ENGINEER APPROVAL.
2. STRUCTURE SHALL BE DESIGNED FOR H-20 LOADING.
3. CASTINGS SHALL PROVIDE FOR A 24" CLEAR OPENING.

SCHEDULE A
OUTLET CONTROL STRUCTURE

ITEM DESCRIPTION		DIMENSION / ELEVATION
A.	TOP OF STRUCTURE	316.50
B.	UNDERSIDE OF SLAB	316.00
C.	TOP OF CONCRETE BULKHEAD	316.00
D.	BOTTOM OF WEIR SLOT	315.25
E.	BOTTOM OF STRUCTURE	311.25

OUTLET CONTROL STRUCTURE (OCS)

NOT TO SCALE

GRAVEL WETLAND INSTALLATION NOTES:

1. THE MINIMUM SPACING BETWEEN THE SUBSURFACE PERFORATED DISTRIBUTION LINE AND THE SUBSURFACE PERFORATED COLLECTION DRAIN AT EITHER END OF THE GRAVEL IN EACH TREATMENT CELL IS 15 FT.

2. THERE SHOULD BE A MINIMUM HORIZONTAL TRAVEL DISTANCE OF 15 FT WITHIN THE GRAVEL LAYER IN EACH CELL.

3. VERTICAL PERFORATED OR SLOTTED RISER PIPES DELIVER WATER FROM THE SURFACE DOWN TO THE SUBSURFACE, PERFORATED OR SLOTTED DISTRIBUTION LINES. THESE RISERS SHALL HAVE A MAXIMUM SPACING OF 10 FEET.

4. SLOTTED VERTICAL RISERS SHALL HAVE A MINIMUM DIAMETER OF 12" FOR THE CENTRAL RISER AND 6" FOR END RISERS. THE VERTICAL RISERS SHALL NOT BE CAPPED, BUT RATHER COVERED WITH AN INLET GRATE.

5. VERTICAL CLEANOUTS CONNECTED TO THE DISTRIBUTION AND COLLECTION SUBDRAINS, AT EACH END, SHALL BE PERFORATED OR SLOTTED ONLY WITHIN THE GRAVEL LAYER, AND SOLID WITHIN THE WETLAND SOIL AND STORAGE AREA ABOVE.

6. TREATMENT CELL FLOOR TO BE GRADED FLAT.

7. BERMS AND WEIRS SEPARATING THE FOREBAY AND TREATMENT CELLS SHOULD BE CONSTRUCTED WITH CLAY, OR NON-CONDUCTIVE SOILS, AND/OR A FINE GEOTEXTILE, OR SOME COMBINATION THEREOF, TO AVOID WATER SEEPAGE AND SOIL PIPING THROUGH THESE EARTHEN DIVIDERS.

8. THE SYSTEM SHOULD BE PLANTED TO ACHIEVE A RIGOROUS ROOT MAT WITH GRASSES, FORBS, AND SHRUBS WITH OBLIGATE AND FACULTATIVE WETLAND SPECIES.

9. THE SUBAREA DRAINING TO A CREATED WETLAND MUST BE COMPLETELY STABLE BEFORE RUNOFF IS DIRECTED TO THE BASIN TO PREVENT SEDIMENTATION OF THE DRAINAGE LAYER; OR ALL RUNOFF SHOULD BE RE-DIRECTED UNTIL CONSTRUCTION IS FINALIZED. THE VEGETATION WITHIN THE STRUCTURE IS EQUALLY IMPORTANT AND MUST BE WELL ESTABLISHED BEFORE IT CAN ACCEPT ANY RUNOFF.

10. GRAVEL WETLAND STORMWATER AREA TO BE SEEDED WITH "NEW ENGLAND WETMIX" AS DISTRIBUTED BY NEW ENGLAND WETLAND PLANTS, INC., 820 WEST STREET, AMHERST, MA 01002, PHONE 413-548-8000, EMAIL INFO@NEWP.COM, OR APPROVED EQUIVALENT. APPLY AT A RATE OF 1 LB/2,500 SF.

11. THE SEEDS WILL NOT GERMINATE UNDER INUNDATED CONDITIONS. IF PLANTED DURING THE FALL MONTHS THE SEED MIX WILL GERMINATE THE FOLLOWING SPRING. DURING THE FIRST SEASON OF GROWTH SEVERAL SPECIES WILL PRODUCE SEEDS WHILE OTHER SPECIES WILL PRODUCE SEEDS AFTER THE SECOND GROWING SEASON. NOT ALL SPECIES WILL GROW IN ALL WETLAND SITUATIONS. THIS MIX IS COMPRISED OF THE WETLAND SPECIES MOST LIKELY TO GROW IN CREATED/RESTORED WETLANDS AND SHOULD PRODUCE MORE THAN 75% GROUND COVER IN TWO FULL GROWING SEASONS.

12. THE WETLAND SEEDS IN THIS MIX CAN BE SOWN BY HAND, WITH A HAND-HELD SPREADER, OR HYDRO-SEEDED ON LARGE OR HARD TO REACH SITES. LIGHTLY RAKE TO ENSURE GOOD SEED-TO-SOIL CONTACT. SEEDING CAN TAKE PLACE ON FROZEN SOIL, AS THE FREEZING AND THAWING WEATHER OF LATE FALL AND LATE WINTER WILL WORK THE SEED INTO THE SOIL. IF SPRING CONDITIONS ARE DRIER THAN USUAL, WATERING MAY BE REQUIRED. IF SOWING DURING THE SUMMER MONTHS, SUPPLEMENTAL WATERING WILL LIKELY BE REQUIRED UNTIL GERMINATION. A LIGHT MULCH OF CLEAN, WEED FREE STRAW IS RECOMMENDED.

13. THE POND CONSTRUCTION SHOULD BE ONLY CONSTRUCTED UNDER THE SUPERVISION OF THE DESIGN ENGINEER.

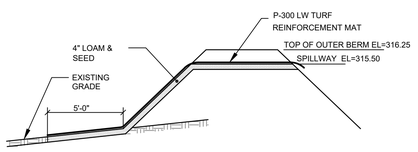
POND CONSTRUCTION NOTES:
1. CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ORGANIC MATERIAL FROM EMBANKMENT AND POND CONSTRUCTION AREA.
2. SCARIFY SUBGRADE TO ESTABLISH INTERFACE FOR ALL FILLS.
3. CONSTRUCTION MATERIAL SHALL MEET M.D.O.T. SPEC 703.18
4. COMPACT IN 12" LIFTS TO 92% OF MAXIMUM DRY DENSITY.
5. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED.
6. LOAM, SEED & STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN & NOTES.

CONSTRUCTION INSPECTION NOTES:
INSPECTION BY A PROFESSIONAL ENGINEER WILL CONSIST OF WEEKLY VISITS TO THE SITE TO INSPECT THE INSTALLATION OF EACH POND'S EMBANKMENT CONSTRUCTION, STORMWATER INLET, UNDERDRAINS, FILTER MATERIAL MAKEUP AND PLACEMENT, OUTLET CONTROL STRUCTURE, CLAY LINER (IF APPLICABLE), AND EMERGENCY SPILLWAY CONSTRUCTION FROM INITIAL GROUND DISTURBANCE TO FINAL STABILIZATION OF THE POND. AN INSPECTION OF THE UNDERDRAINED GRAVEL OUTLET SHALL ALSO BE PERFORMED ONE YEAR AFTER THE FINAL STABILIZATION OF THE POND.

ORGANIC WETLAND SOIL MIXTURE:
THE WETLAND SOIL SHOULD HAVE A LOW HYDRAULIC CONDUCTIVITY (0.1-0.01 FT/DAY). THIS SOIL CAN BE MANUFACTURED USING COMPOST, SAND AND FINE SOILS, INTO A BLEND WITH MORE THATN 15% ORGANIC MATTER. IT SHOULD CONTAIN MORE THAN 15% SILT (PASSING THE #200 SIEVE); BUT WITH A CLAY SIZE PORTION THAT IS LESS THAN 15%. DO NOT USE GEOTEXTILES BETWEEN THE HORIZONTAL LAYERS OF THIS SYSTEM AS THEY WILL CLOG DUE TO FINES AND MAY RESTRICT ROOT GROWTH.

WETLAND SOIL GRADATION	
SIEVE SIZE	% PASSING BY WEIGHT
1/2 IN	100
NO. 10	75-90
NO. 100	40-50
NO. 200	25-50

EMBANKMENT CONSTRUCTION:
1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION 703.
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.



SPILLWAY EMBANKMENT SECTION

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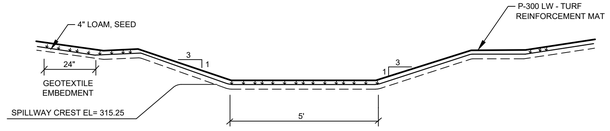

INTERNAL BERM SPILLWAY CROSS-SECTIONS

NOT TO SCALE

STATE OF MAINE
CRAIG M. SWEET
No. 15060
REGISTERED PROFESSIONAL ENGINEER
LICENSED

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P.E.: CRAIG M. SWEET

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PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: 1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE: GRAVEL WETLAND DETAILS

CLIENT: JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	2/27/2024
SCALE:	1"=20'
DESIGNED:	
JOB NO:	22-138
SHEET	C-2.1

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EROSION AND SEDIMENT CONTROL PLAN

PRE-CONSTRUCTION PHASE
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 MRSA § 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. THE SITE MUST BE MAINTAINED TO PREVENT UNREASONABLE EROSION AND SEDIMENTATION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE.

BMP CONSTRUCTION PHASE
A. SEDIMENT BARRIERS. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE EDGE OF ANY DOWNGRADIENT DISTURBED AREA AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE PROPOSED DISTURBED AREA. MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

B. CONSTRUCTION ENTRANCE: PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE INTERSECTION WITH THE PROPOSED ACCESS DRIVE AND THE EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

C. RIPRAP: SINCE RIPRAP IS USED WHERE EROSION POTENTIAL IS HIGH, CONSTRUCTION MUST BE SEQUENCED SO THAT THE RIPRAP IS PUT IN PLACE WITH THE MINIMUM DELAY. DISTURBANCE OF AREAS WHERE RIPRAP IS TO BE PLACED SHOULD BE UNDERTAKEN ONLY WHEN FINAL PREPARATION AND PLACEMENT OF THE RIPRAP CAN FOLLOW IMMEDIATELY BEHIND THE INITIAL DISTURBANCE. WHERE RIPRAP IS USED FOR OUTLET PROTECTION, THE RIPRAP SHOULD BE PLACED BEFORE OR IN CONJUNCTION WITH THE CONSTRUCTION OF THE PIPE OR CHANNEL SO THAT IT IS IN PLACE WHEN THE PIPE OR CHANNEL BEGINS TO OPERATE. MAINTAIN TEMPORARY RIPRAP, SUCH AS TEMPORARY CHECK DAMS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

D. TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEEDING, MULCH, OR OTHER NON-ERODABLE COVER ANY EXPOSED SOILS THAT WILL REMAIN UNWORKED FOR MORE THAN 14 DAYS EXCEPT, STABILIZE AREAS WITHIN 100 FEET OF A WETLAND OR WATERBODY WITHIN 7 DAYS OR PRIOR TO A PREDICTED STORM EVENT, WHICHEVER COMES FIRST. IF HAY OR STRAW MULCH IS USED, THE APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SF OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE. HAY MULCH MUST BE KEPT MOIST OR ANCHORED TO PREVENT WIND BLOWING. AN EROSION CONTROL BLANKET OR MAT SHALL BE USED AT THE BASE OF GRASSED WATERWAYS, STEEP SLOPES (15% OR GREATER) AND ON ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND WETLANDS. GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE SECOND PHASE, AND SO ON.

E. VEGETATED WATERWAY. UPON FINAL GRADING, THE DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED TO PERMANENT VEGETATION AND MULCHED AND WILL NOT BE USED AS OUTLETS UNTIL A DENSE, VIGOROUS VEGETATIVE COVER HAS BEEN OBTAINED. ONCE SOIL IS EXPOSED FOR WATERWAY CONSTRUCTION, IT SHOULD BE IMMEDIATELY SHAPED, GRADED AND STABILIZED. VEGETATED WATERWAYS NEED TO BE STABILIZED EARLY DURING THE GROWING SEASON (PRIOR TO SEPTEMBER 15). IF FINAL SEEDING OF WATERWAYS IS DELAYED PAST SEPTEMBER 15, EMERGENCY PROVISIONS SUCH AS SOD OR RIPRAP MAY BE REQUIRED TO STABILIZE THE CHANNEL. WATERWAYS SHOULD BE FULLY STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

PERMANENT STABILIZATION DEFINED
A. SEEDED AREAS. FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS AN 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.

G. DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIPRAP, 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.

GENERAL CONSTRUCTION PHASE
THE FOLLOWING EROSION CONTROL MEASURES SHALL BE FOLLOWED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION OF THIS PROJECT:

A. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEEDED WITH RYE AT 3 POUNDS/1,000 SF AND MULCHED, AND REUSED AS REQUIRED. SILT FENCING SHALL BE PLACED DOWN GRADIENT FROM THE STOCKPILED LOAM. STOCKPILE TO BE LOCATED BY DESIGNATION OF THE OWNER AND INSPECTING ENGINEER.

B. THE INSPECTING ENGINEER AT HIS/HER DISCRETION, MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AND/OR SUPPLEMENTAL VEGETATIVE PROVISIONS TO MAINTAIN STABILITY OF EARTHWORKS AND FINISH GRADED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY SUPPLEMENTAL MEASURES AS DIRECTED BY THE INSPECTING ENGINEER. FAILURE TO COMPLY WITH THE ENGINEER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.

C. EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISH SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.

D. ALL DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE ADEQUATELY STABILIZED.

E. ALL EROSION, AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

F. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS.

G. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.

H. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

I. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.

J. EXCEPT FOR APPROVED LANDFILLS OR NON-STRUCTURAL FILLS, FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS.

K. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS.

L. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.

M. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY.

N. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

O. REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

PERMANENT VEGETATION
PERMANENT VEGETATIVE COVER SHOULD BE ESTABLISHED ON DISTURBED AREAS WHERE PERMANENT, LONG LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL, TO REDUCE DAMAGES FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE ENVIRONMENT.

SEEDBED PREPARATION
A. GRADE AS FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.

B. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF MAINE SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P2O5-K2O) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT
A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQ. FT).

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.D. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.

E. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.

F. PERMANENT SEEDING SHOULD BE MADE 45 DAYS PRIOR TO THE FIRST KILLING FROST OR AS A DORMANT SEEDING WITH MULCH AFTER THE FIRST KILLING FROST AND BEFORE SNOWFALL. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, MULCH ACCORDING TO THE TEMPORARY MULCHING BMP AND OVERWINTER STABILIZATION AND CONSTRUCTION TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

G. FOLLOWING SEED BED PREPARTATION, SWALE AREAS, FILL AREAS AND BACK SLOPES SHALL BE SEEDED AT A RATE OF 3 LBS./1,000 S.F. WITH A MIXTURE OF 35% CREEPING RED FESCUE, 6% RED TOP, 24% KENTUCKY BLUEGRASS, 10% PERENNIAL RYEGRASS, 20% ANNUAL RYEGRASS AND 5% WHITE DUTCH CLOVER.

I. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.

J. AREAS WHICH CANNOT BE SEEDED WITHIN THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION AND THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE GROWING SEASON.

WINTER CONSTRUCTION PHASE
IF AN AREA IS NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES BY NOVEMBER 15, THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES.

A. PERMANENT STABILIZATION CONSISTS OF AT LEAST 90% VEGETATION, PAVEMENT/GRAVEL BASE OR RIPRAP.

B. DO NOT EXPOSE SLOPES OR LEAVE SLOPES EXPOSED OVER THE WINTER OR FOR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY PROTECTED WITH MULCH.

C. APPLY HAY MULCH AT TWICE THE STANDARD RATE (150 LBS. PER 1,000 SF). THE MULCH MUST BE THICK ENOUGH SUCH THAT THE GROUND SURFACE WILL NOT BE VISIBLE AND MUST BE ANCHORED.

D. USE MULCH AND MULCH NETTING OR AN EROSION CONTROL MULCH BLANKET OR ALL SLOPES GREATER THAN 8 % OR OTHER AREAS EXPOSED TO DIRECT WIND.

E. INSTALL AN EROSION CONTROL BLANKET IN ALL DRAINAGEWAYS (BOTTOM AND SIDES) WITH A SLOPE GREATER THAN 3 %.

F. SEE THE VEGETATION MEASURES FOR MORE INFORMATION ON SEEDING DATES AND TYPES.

G. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SO THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

H. AN AREA WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIER.

I. TEMPORARY MULCH MUST BE APPLIED WITHIN 7 DAYS OF SOIL EXPOSURE OR PRIOR TO ANY STORM EVENT, BUT AFTER EVERY WORKDAY IN AREAS WITHIN 100 FEET FROM A PROTECTED NATURAL RESOURCE.

J. AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE PERMANENTLY MULCHED THAT SAME DAY.

K. IF SNOWFALL IS GREATER THAN 1 INCH (FRESH OR CUMULATIVE), THE SNOW SHALL BE REMOVED FROM THE AREAS DUE TO BE SEEDED AND MULCHED.

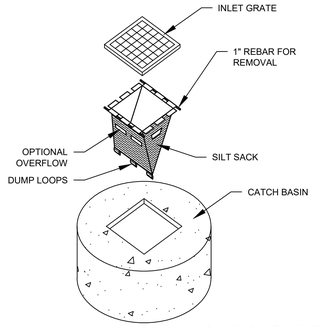
L. LOAM SHALL BE FREE OF FROZEN CLUMPS BEFORE IT IS APPLIED.

M. 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.

MAINTENANCE AND INSPECTION PHASE
A. MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE

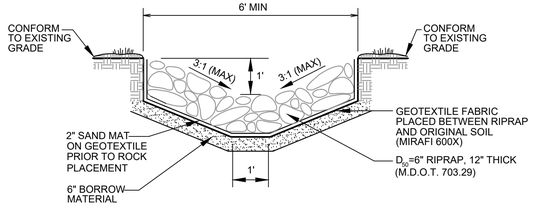
B. A LOG (REPORT) MUST BE KEPT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, AND MAJOR OBSERVATIONS RELATING TO OPERATION OF EROSION AND SEDIMENTATION CONTROLS AND POLLUTION PREVENTION MEASURES. MAJOR OBSERVATIONS 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 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.

DEWATERING
A DEWATERING PLAN IS NEEDED TO ADDRESS EXCAVATION DE-WATERING FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION MAY INTERCEPT THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWNGRADIENT EROSION AND OFFSITE SEDIMENTATION OR WITHIN A RESOURCE.

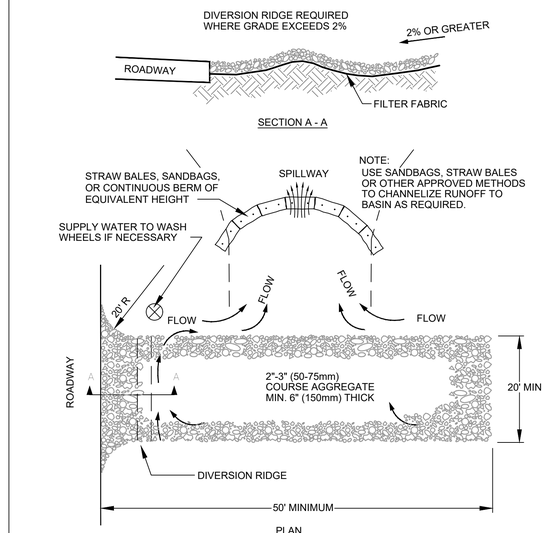


NOTES:
1. SILT SACKS TO BE INSTALLED IN ALL CATCH BASINS RECEIVING RUNOFF FROM DISTURBED AREA
2. SILT SACK TO BE MAINTAINED UNTIL TRIBUTARY ARE IS FULLY STABILIZED

SILT SACK DETAIL
NOT TO SCALE



RIPRAP SWALE
NOT TO SCALE

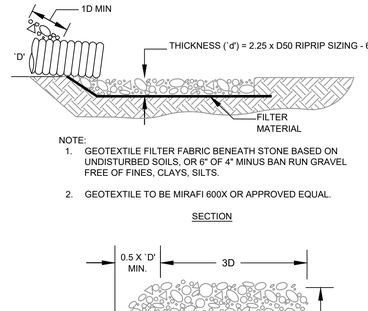


NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

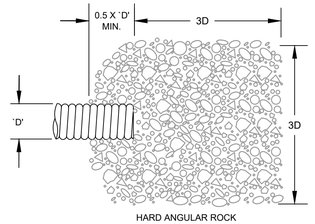
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



NOTE:
1. GEOTEXTILE FILTER FABRIC BENEATH STONE BASED ON UNDISTURBED SOILS, OR 6" OF 4" MINUS BAN RUN GRAVEL FREE OF FINES, CLAYS, SILTS.
2. GEOTEXTILE TO BE MIRAFI 600X OR APPROVED EQUAL.

SECTION



HARD ANGULAR ROCK D50 SELECTION PER CHART

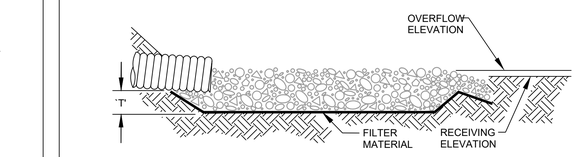
PLAN

PIPE INLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	RIRAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.0	1.5
12	5	3.5	3.0
15	6	4.5	3.75
18	8	5.25	4.5
24	10	7.0	6.0
30	12	8.75	7.5
36	14	10.5	9.0

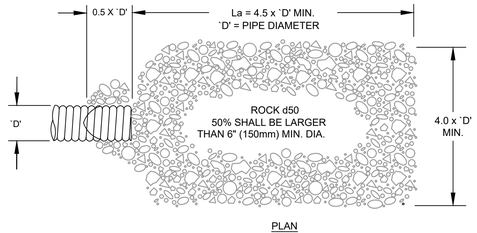
NOTES:
1. IN DEFINED CHANNELS, APRON SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. HEADWATER OR UP TO BANK FULL, WHICHEVER IS LESS.

PIPE INLET PROTECTION



THICKNESS (`T') = 2.25 x D50 RIPRAP SIZING - 6" (150mm) MIN.

SECTION



PLAN

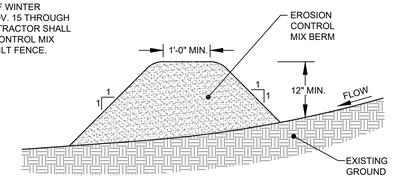
PIPE OUTLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	RIP RAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.5	2.0
12	5	5.0	4.0
15	6	6.25	5.0
18	8	7.5	6.0
24	10	10.0	8.0
30	12	13.0	10.0
36	14	15.0	12.0

NOTES:
1. `La' = LENGTH OF APRON. DISTANCE `La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC (MIRAFI 600X OR APPROVED EQUAL) OR 6" (150mm) THICK MINIMUM GRADED GRAVEL LAYER.

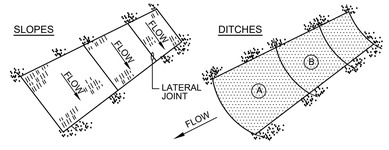
PIPE OUTLET PROTECTION
NOT TO SCALE

NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% - 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- ph SHALL FALL BETWEEN 5.0 - 8.0.

EROSION CONTROL MIX BERM
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1-2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER..

EROSION CONTROL BLANKET
NOT TO SCALE

CRAIG M. SWEET
No. 15060
LICENSED PROFESSIONAL ENGINEER
STATE OF MAINE

NO.	DATE	REVISIONS	BY
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS
2	08-11-2023	REVISED PROJECT SCOPE	CMS
3	02-27-2024	RESPONSE TO TOWN COMMENTS	CMS

DATE: 2/27/2024
P.E.: CRAIG M. SWEET

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565 CONGRESS STREET, SUITE 301, PORTLAND, ME 04102

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: 1505 MAINE STREET, 1505 MAINE STREET, POLAND, MAINE
SHEET TITLE: EROSION CONTROL NOTES & DETAILS
CLIENT: JONATHAN MACLEAN, 1026 BAKERSTOWN ROAD, POLAND, MAINE 04274

DATE:	2/27/2024
SCALE:	AS NOTED
DESIGNED:	
JOB NO:	22-138

SHEET C-3.0

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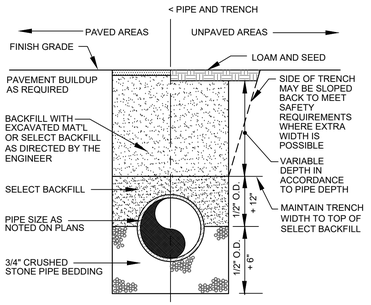
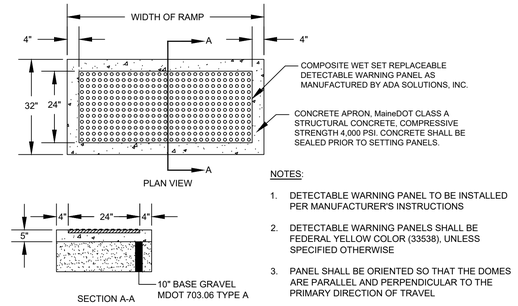


TYPICAL TRENCH SECTION

NOT TO SCALE

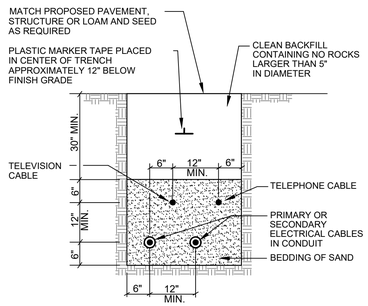


NOTES:

1. DETECTABLE WARNING PANEL TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS
2. DETECTABLE WARNING PANELS SHALL BE FEDERAL YELLOW COLOR (33538), UNLESS SPECIFIED OTHERWISE
3. PANEL SHALL BE ORIENTED SO THAT THE DOMES ARE PARALLEL AND PERPENDICULAR TO THE PRIMARY DIRECTION OF TRAVEL

COMPOSITE DETECTABLE WARNING PANEL DETAIL

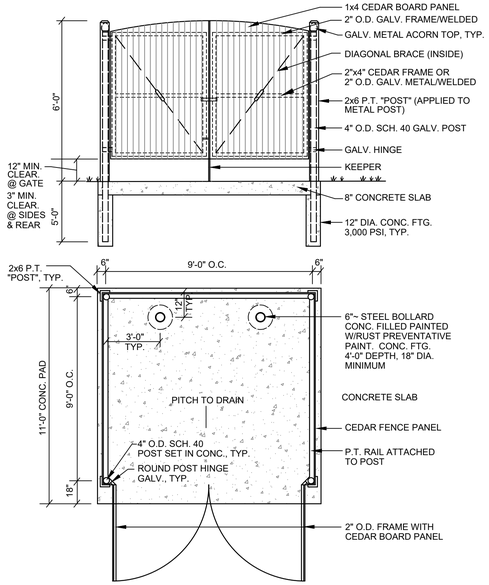
NOT TO SCALE



CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS.

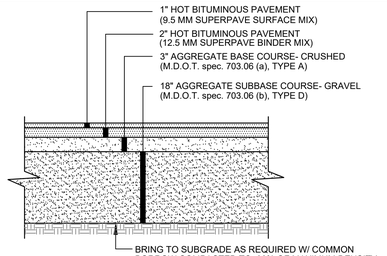
TYPICAL UNDERGROUND CABLE INSTALLATION

NOT TO SCALE



TYPICAL DUMPSTER ENCLOSURE

NOT TO SCALE

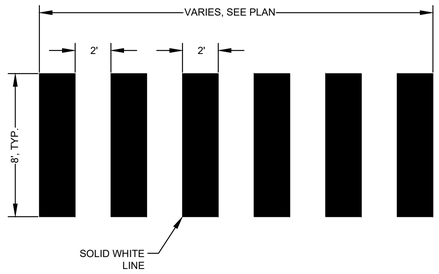


NOTES:

1. COMPACT GRAVEL SUBBASE COURSE TO 92% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

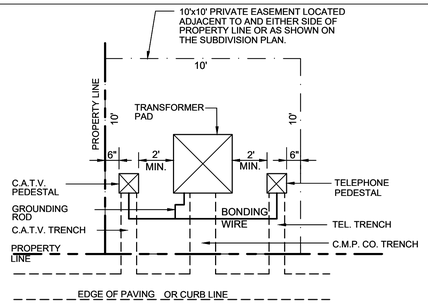
PAVEMENT SECTION

NOT TO SCALE



CROSSWALK STRIPING DETAIL

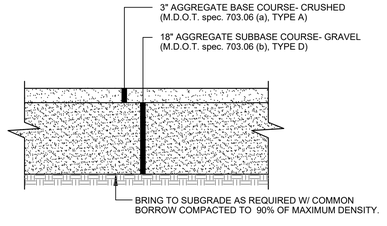
NOT TO SCALE



NOTE:
TRANSFORMER PAD AND COVER TO BE FIBERGLASS MEETING CENTRAL MAINE POWER SPECIFICATIONS.

TRANSFORMER DETAIL

NOT TO SCALE



NOTES:

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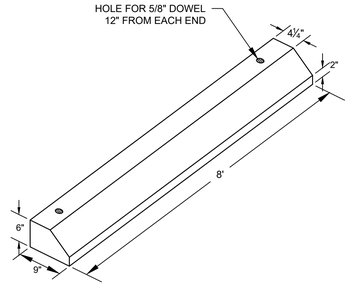
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

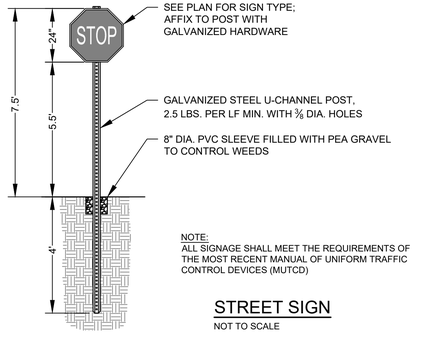
GRAVEL SECTION

NOT TO SCALE



PRECAST CURB WHEEL STOP

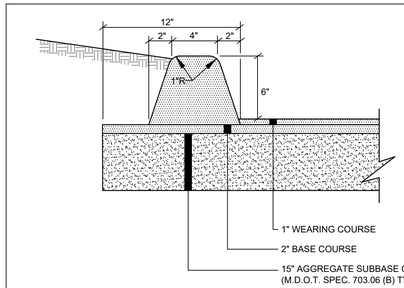
NOT TO SCALE



NOTE:
ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE MOST RECENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

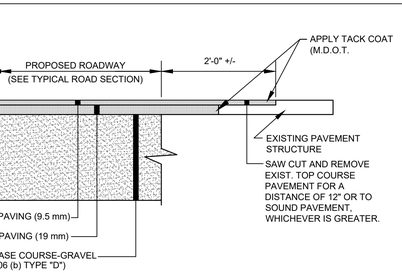
STREET SIGN

NOT TO SCALE



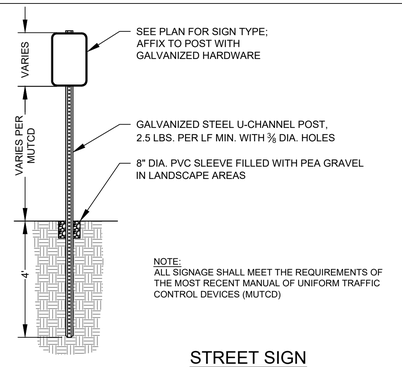
TYPE 3 -BITUMINOUS CURB(MOLD #1) SECTION

NOT TO SCALE



TYPICAL PAVEMENT JOINT

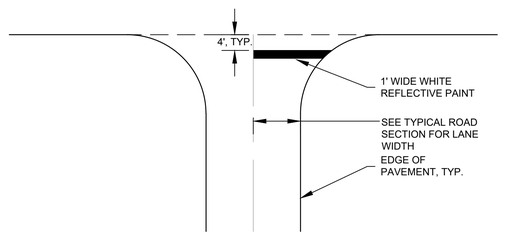
NOT TO SCALE



NOTE:
ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE MOST RECENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

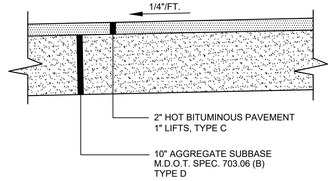
STREET SIGN

NOT TO SCALE



STOP BAR DETAIL

NOT TO SCALE



BITUMINOUS SIDEWALK

NOT TO SCALE

STATE OF MAINE
CRAIG M. SWEET
No. 15060
REGISTERED PROFESSIONAL ENGINEER

DATE: 2/27/2024
P.E.: CRAIG M. SWEET

NO.	DATE	REVISIONS	BY	APP'D
3	02-27-2024	RESPONSE TO TOWN COMMENTS	CMS	CMS
2	08-11-2023	REVISED PROJECT SCOPE	CMS	CMS
1	04-20-2023	REVISE PER REVIEW COMMENTS	CMS	CMS

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 301
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
1505 MAINE STREET
1505 MAINE STREET, POLAND, MAINE

SHEET TITLE:
SITE DETAILS

CLIENT:
JONATHAN MACLEAN
1026 BAKERSTOWN ROAD
POLAND, MAINE 04274

DATE:	2/27/2024
SCALE:	AS NOTED
DESIGNED:	
JOB NO:	22-138

SHEET
C-3.1

C:\OD\Terradyn Consultants\Project Folders - Documents\2022 Jobs\22-138 Mac's Dock Poland\CAD\Permitting\22-138 D.dwg

Engineering Review Memorandum

To: Town of Poland Planning Board (STI # 230249)

From: James Seymour, P.E., Engineering Consultant, Sebago Technics, Inc.

Date: March 6, 2024

Subject: March 12, 2024 Planning Board Meeting

Project: 1505 Maine Street Property Project (Tax Map 15 Lot 7)

Applicant: Jem Property Management LLC, 1026 Bakerstown Road, Poland, ME 04247

I. Project Description and Background

This project qualifies as Site Plan application as it entails the construction of three proposed buildings – a 1,500 square foot retail building, a 3,996 square foot fabrication and assembly building, and a 1,534 square foot storage building. The development proposes gravel parking and circulation areas, paved driveway aprons, a paved ADA parking space, and a paved ADA-accessible route to the retail building entrance. The application indicates that the improvements will include approximately 1.25 acres of new impervious area that will be retained and treated on-site by a proposed gravel wetland. A Maine Department of Environmental Protection (DEP) permit #L-30317-NJ-A-N was issued on August 7, 2023 for the project.

The project is in the Downtown Village District and Aquifer Protection Overlay 1 District, consisting of 2.2 acres. The Route 11 entrance site has been previously reviewed by MDOT for potential traffic impacts with the existing entrance, but due to the relatively minor increases in vehicle trip generation based on previously approved uses, there are few concerns with traffic safety.

We have prepared the following memorandum review comments to facilitate better understanding of the building and site plan requirements and needed information to assist the Planning Board in its deliberations.

II. Technical Review

To assist the Planning Board, we have provided our engineering review comments following the General Review Standards outlined in section 509.9 of the Poland CLUC. We have only provided comments for the section we felt lacked detail, or the Board may have questions. In addition, we have added comments or responses as to how the project also meets the Downtown District Design Standards as listed under Section 508.30.

Site Plan Review:
The site design for the project proposes approximately 2.15 acres of the site for the development that includes the construction of the buildings and associated paved areas.

SITE PLAN REVIEW STANDARDS

A. Preservation of Landscape:
The applicant states they has provided a Landscape Plan prepared by Davis Land Surveying, LLC sealed by a Professional Land Surveyor. The plan was noted to have been updated to show the existing tree line and the development proposes a minimal amount of tree clearing. Although stated one has been provided to the Planning Board, we have not been provided a landscape plan for the site to review.

B. Relation of Proposed Buildings to Environment:
The project proposes three new structures located on a high-visibility corner in the Downtown District. The applicant has provided a vehicle turning figure to demonstrate appropriate vehicle maneuvering. The applicant has indicated that hand drawn designs have been generated for the 30.5' x 50.3' building but the other remaining proposed buildings have not yet been generated. The proposed buildings shall be designed to comply with the 508.30 Downtown Design Standards.

C. Compatibility with Residential Areas:
The proposed project is not located within or adjacent to a residential area.

D. Vehicular Access:
The applicant proposes to develop a parcel with 500 feet or more of frontage on public streets. A Maine DOT entrance permit for the Route 11 curb cut to support the change in use and alteration of driveway geometry has been included with the application materials. A vehicle turning figure and details for the sidewalk and handicap detectable warning plate have been included in the application. The applicant has provided the proper application materials for this section.

E. Access to Route 26 and Route 11:
The applicant has provided the Maine DOT entrance permits for the entrances proposed on Route 11 and Route 26 as well as a vehicle turning figure that demonstrates proper maneuvering and access from the site.

F. Surface Water:
The project proposes to collect and treat on-site stormwater runoff with a gravel wetland located along the eastern and northern property boundaries. Comments were provided in the last submission to request additional clarification and revisions for the Stormwater Management Report. All stormwater comments have been addressed by the applicant.

G. Conservation, Erosion and Sediment Control:
The project avoids impacts to wetlands, and the plan set includes erosion control notes and details on sheet C-3.0. Locations of proposed erosion and sedimentation controls are shown in plan view on sheet 2.0.

H. Phosphorus Export:
The applicant has confirmed that the correct watershed for the project is Waterhouse Brook and not Tripp Pond. No phosphorus mitigation is required for this project.

I. Site Conditions:
The applicant has confirmed that cleared vegetation will be legally disposed of offsite and that the contractor will monitor conditions and perform street sweeping during site construction.

J. Signs:
The applicant has indicated that no new signage will be added or altered in addition to what is shown on the site plans.

K. Special Features:
The applicant has indicated that no loading docks are proposed and mechanical equipment is proposed to be building mounted or located on roofs. The plans have been updated to show a proposed dumpster location with fence enclosure and snow storage locations.

L. Exterior Lighting:
The applicant has provided cut sheets for the provided lighting fixtures to be used on this project. A photometric plan shall be provided that shows that the site lighting meets the Town Standards (≤ 0.5 foot-candles at property line). The Planning Board may wish to waive the requirement as the lighting spillover from nearby Town Ballfields may already exceed the Town required levels.

M. Emergency Vehicle Access:
The applicant has provided a vehicle turning figure to demonstrate appropriate vehicle access through the site.

N. Municipal Services:
Applicable Town Department should provide comments on the development.

O. Water Supply:
The water service connection into Maine Street is shown on the Grading Plan sheet C-2.0.

P. Ground Water:
The parcel is located within an aquifer protection overlay district and Maine Geological Survey mapped significant aquifer. Maine Department of Environmental Protection Chapter

700 restricts commercial or industrial facilities that perform, plating, polishing, anodizing, coloring, and/or coating operations on metals within a significant sand and gravel aquifer. The applicant should provide a narrative describing metal operations or treatment for any wood surfaces associated with the developments use, and if any processing, applications of solvents, or manufacturing processes may be undertaken by the proposed use. If solvents or any processes are applied as noted above, what preventative measures are going to be utilized to mitigate groundwater or soil intrusions to eliminate contaminates reaching ground water.

Q. Air Emissions:

The applicant has indicated that all fabrication will be conducted inside the buildings and all air emissions will be handled as necessary by the building equipment.

R. Odor Control:

The applicant has indicated that all fabrication will be conducted in the proposed buildings and there will be no odor from air emissions anticipated with the daily operations.

S. Noise

The applicant has indicated that all fabrication will be conducted in the proposed buildings and there will be no undue noise anticipated with the daily operations.

T. Sewage Disposal

The septic system design layout is included on Sheet C-2.0 and shown ten feet off the property line abutting the ball field. A test pit has been performed by Nicholas Adams, LSE #432 that indicates suitable soils for a subsurface wastewater disposal system. However, the initial HHE-200 Form only included wastewater being originated from the building closest to the road corner, and the new plan indicates that the second building will also add wastewater. The HHE form shall be updated, and or include appropriate sizing to include added flows, if necessary, from the new building, size appropriate sewer line (force main?) and then assure the D box is appropriate for both lines of entry. Does the 120gal/day include both buildings or just the first building?

U. Waste Disposal

A dumpster pad with enclosure has been added to the plan and called out on Sheet C-1.0. A fenced enclosure is provided around the dumpster and a detail is provided on Sheet C-3.1.

V. Buffer Areas

The applicant has stated that a Landscaping plan has been submitted to the planning board. We were not submitted a copy for review. The planning board shall determine that the landscaping plan provides appropriate buffers, screening, or barriers to protect school children from accessing the property, and if there are ample plantings for the street frontages now that most of the trees on the property were cut.

W. Adequate Financial and Technical Capacity

The application materials indicate the project is "owner financed" and includes a request to phase the project due to "financial constraints". A cost analysis of the project needs to be submitted along with proof of financial capability. As located under Section 303 2.F) 3 regarding phasing the applicant has a right to phase but "any escrow accounts required for the construction of the project shall be maintained for the entire duration of the project. This project has a substantial amount of stormwater infrastructure work that is necessary for the entire site. We recommend that if the gravel surfaces and infrastructure for all drainage is installed in the first phase that the Town may release any guarantees for the site. We do feel some form of escrow should be included due to extensive gravel wetlands and drainage work and grading necessary.

X. Conformance with the Comprehensive Plan

The proposed project will have to comply with Section 508.30 Downtown District Design Standards before determining if it is in conformance with the Comprehensive Plan.

The following is a review of the Downtown District Design Standards based on the review of the plans provided and meeting Section 508.30 of the Poland CLUC. The following items are our responses to the standards that the Planning Board could consider:

508. 30 Downtown Design Standards

A. Design Standards applicable to all new nonresidential structures.

(Sections 1-5 require detailed building plan views to address architecture compliancy)

1. Building elevations required. Refer to applicant's requested condition of approval.
2. Building elevations required. Refer to applicant's requested condition of approval.
3. Building elevations required. Refer to applicant's requested condition of approval.
4. Building elevations required. Refer to applicant's requested condition of approval.
5. Building elevations required. Refer to applicant's requested condition of approval.
6. A proposed dumpster location is called out on Sheet C-1.0 with screening provided.
7. No chain-link fencing is currently proposed except for the dumpster enclosure area.
8. Loading dock areas are not currently proposed.
9. Interconnection between adjacent properties has not been proposed. It appears interconnection is not feasible.

B. The Additional Design standards are applicable to retail sales establishments that exceed 2,500 SF gross floor area.

1. Building façades do not exceed 75 feet in length.
2. Building elevations must be submitted for review. Refer to applicant's requested condition of approval.
3. Building elevations must be submitted for review. Refer to applicant's requested condition of approval.
4. Not applicable.
5. Building floor plans must be submitted for review.

6. Asphalt parking provides safer, more convenient, and attractive parking. The applicant shall review parking treatments.
7. Applicant to provide statement related to this section requirements.
8. Applicant shall submit a photometric analysis to support the project.
9. The applicant specified that a Landscape plan has been submitted to the planning board.
10. Not applicable.
11. Photometric plan must be submitted for review.
12. Photometric plan must be submitted for review.
13. Photometric plan must be submitted for review.
14. Building elevations must be submitted for review. Refer to the applicant's requested condition of approval.
15. Building elevations must be submitted for review. Refer to the applicant's requested condition of approval.

C. The following apply to retail sales establishments over 10,000 SF of gross floor area.

1. Not applicable.
2. Not applicable.

D. The following apply to all new and expanded non-residential structures and uses.

1. Applicant states they have included a landscape plan. We did not receive to review.
2. Asphalt parking provides safer, more convenient, and attractive parking. The applicant shall review parking treatments. Specifically, the ADA parking requirements and markings will need to occur on pavement or concrete, and will not work on gravel as proposed.
3. Not applicable.
4. Access from public roads appears sufficient for the development. The applicant has provided a Maine DOT entrance permit for the Route 11 entrance.
5. Buildings appear to be located outside of zoning district setbacks.

Final Design points:

1. **the rear building ahs not been planned nor final designed. We recommend that if the applicant wishes to include the pad location, they do so but add a note that "the site, utilities, and impervious coverages have been completed to account for a future structure. The location is only approximate and the final layout and building review will be subject to Planning Board review for any future building." I would have the outline of the building dashed with a clear note "potential future building not yet approved" and see the above note recommended.**
2. **We recommend more spot grades as with both buildings the finish floor grade is close to the outside grading where runoff is passing by. The outside elevation/grade of the future building in the rear, is set at the same grade as the outside, which could flood the building. The parking design could also add some spot grades for the contractor to know exactly where grade breaks should occur.**

3. **The site will consist of an open expanse of gravel. Maintenance will be important as will at times dust control. The applicant shall be clear that all responsibility for and dust emissions or mud tracking form the parking area to the public ways will be the responsibility of the owner to address for public safety purposes.**
4. **Some paved areas will be required specifically for ADA parking and access. The Board should require hard non gravel or rock surfaces for wheelchair accessibility.**
5. **There are islands proposed in the parking areas and it is not clear how those will be protected and or if landscaped. A few spaces are near sudden drop offs into swales and may need a barrier or guardrail.**
6. **While it may have been previously discussed, will temporary storage area for materials or product be necessary. If so, they should be identified as to assure adequate emergency vehicle maneuverability can be maintained throughout the site.**

Based on our review there are several items missing from the application package to provide a complete review. We suggest the applicant provide additional materials for review prior to any formal approval action from the Board.

As always, we leave final approval process and decisions with the Planning Board and offer these items of our interpretations for discussion of compliance to Town requirements and standards.

Respectfully Submitted,

SEBAGO TECHNICS, INC.

James R. Seymour, P.E.
Engineering Consultant

Town of Poland, Maine
Planning Board

Formal Site Plan Review

Instructions:

1. Read every part of this document. Failure to follow requirements can and will delay the Planning Board's decisions.
2. Fill out the forms on pages 1 through 6. Obtain or get copies of information as required by the application on these pages.
3. Use the "Submission Checklist" on pages 5 and 6 to make sure submission requirements are met.
   a. The checklist is a summary of the standard requirements in Section 509.8 of the Comprehensive Land Use Code.
      i. The actual Code wording may be found on-line at www.polandtownoffice.org. Go to the "Code Enforcement" page, select "Comprehensive Land Use Code" at that bottom of the page. Hardcopies are available for purchase at the town office.
   b. Make sure all waiver requests have a written statement for each request. Check with the Code Enforcement Office to make sure items stated as "On File" are indeed in the town office.
   c. Some requirements may need only a one paragraph or one sentence statement. Make sure all requests are answered.
4. NUMBER OF COPIES OF THE APPLICATION AND DUE DATE
   a. A total of at least ten (10) copies of the plans and one PDF copy (on either cd or usb) are needed. Be sure to make a copy for yourself.
   b. The Code Enforcement Office must receive the original application, an additional 9 copies, and a digital PDF copy (either cd or usb) with appropriate fees by 1:00 p.m. eleven (11) days before the stated meeting to be put on the upcoming agenda.
   c. If review for missing information by the Code Enforcement Officer is desired, a copy must be submitted to the CEO at least 14 days prior to the meeting.
   d. The application must be on file for public review for at least 10 days prior to the meeting. Applications received after the Agenda is posted may not be reviewed by the Board for your scheduled meeting date.
5. Check with this office to make sure that all departments have responded to your application prior to the meeting.

PROJECT NAME: _____

Date of Planning Board Review: ____/____/____ Application # _____

LOT INFORMATION:

Tax Assessor's Map # 40 Lot # 2 & 3 Sub lot # _____

Watershed: Waterhouse Brook

Property's Road Location: 1211 Maine Street

Lot Size: 2.8 ac Acres or Sq. Ft. Road Frontage: 253.5 Ft.

Year lot created: _____ *(If unknown, give best estimate with "est." after date)*

Zoning District(s): Downtown Flood Zone: N/A Aquifer Overlay: Aquifer Protection Overlay 1

Current use of lot: Governmental - Library

LAND OWNER(s):

Name(s) Town of Poland

Company _____

Mail Address: 1231 Maine Street Poland, ME 04274 Main Phone 207-998-4601

Town/State/Zip Poland, Maine 04274 Alternate Phone: _____

APPLICANT or CONTACT PERSON:

Applicant is: X Landowner ___Contractor ___Renter ___Buyer

If landowner, write "Same" below and continue to next block below. If not the landowner, submit a letter of permission to construct on or use the land, or copy of a contract to buy from the landowner, along with the following information:

Name(s): Same

Company Same

Mail Address: Same Main Phone: Same - -

Town/State/Zip Same Alternate Phone: - -

THIS APPLICATION IS FOR: (*Check all that apply*)

- ___ Commercial
- ___ Industrial
- ___ Institutional
- X Governmental
- ___ Open Space
- X New Development
- ___ Change In Use
- X Expansion of Use
- ___ Expansion of Structure(s)
- ___ Resumption of Use

EXISTING LOT CONDITIONS:

(This page is to describe what is on your lot currently)

1. General
   - Does this lot have any development? *(If No, go to "Proposed Development")* X Yes ___No
   - a. Is there an existing Well ___Yes X No
   - b. Is there an existing Septic System ___Yes X No
     - i) *If yes, submit a copy of a septic permit, or drawing(s) showing size & location.*
   - c. Is there an existing Road Entry X Yes ___No
     - i) If yes, will there be any changes/modifications? ___Yes X No
     - ii) *(If no, submit copy of appropriate road entry application if entrance is onto a state or town road.)*
   - d. Any structures to be removed ___Yes X No
     - i) *If yes, submit information about the structure to be removed and how any debris will be disposed of.*
2. Existing Land Development & Improvements NOT Including Buildings
   - a. Size of lawns or Acres 101,197 Sq. Ft.
   - b. Size of fields or Acres N/A Sq. Ft.
   - c. Size of driveways/roads 19,953 Sq. Ft.
   - d. Size of other non-vegetated areas N/A Sq. Ft.
   - e. Wetlands already filled N/A Sq. Ft.
3. Existing Main Structure
   - a. Ground Footprint 3,997 Sq. Ft.
   - b. Total Gross Floor Space *(exterior dimensions of all floors)* 6,000 Sq. Ft.
   - c. Road Frontage Setback 32 Ft.

d. Side Setback 46 Ft.
e. Rear Setback 366 Ft.
f. Distance to Great Pond X Not applicable (over 250') Ft.
g. Distance to Stream X Not applicable (over 250') Ft.
h. Distance to Wetlands X Not applicable (over 250') Ft.

4. Foundation Type X Full Basement ___ Frost Walls ___ Slab ___ Piers

5. Existing Accessory Structure(s)
   a. Total Number of Structures N/A
   b. Total Ground Footprint N/A Sq. Ft.
   c. Total Floor Space N/A Sq. Ft.
   d. Closest Road Setback N/A Ft.
   e. Closest Side Setback N/A Ft.
   f. Closest Rear Setback N/A Ft.
   g. Distance to Great Pond X Not applicable (over 250') Ft.
   h. Distance to Streams X Not applicable (over 250') Ft.
   i. Distance to Wetlands X Not applicable (over 250') Ft.

6. Total Existing Impervious Surfaces 23,950 Sq. Ft.
   a. *Add 2c +2d + 3a + 5b*

PROPOSED DEVELOPMENT:

1. Wetlands to be impacted 0 Sq. Ft.
2. New footprint(s) and developed area(s):
   a. Changes in building footprint(s) 1,000 Sq. Ft.
   b. Changes in driveway/roadway 24,558 Sq. Ft.
   c. Changes in patios, walkways, etc. 4,156 Sq. Ft.
   d. TOTAL *(2a+2b+2c)* 29,714 Sq. Ft.
3. Percentage of lot covered by impervious surfaces: 24.5 %
   a. *(Equals [areas on line 6 page 2 + line 2d above] / [Total lot area measured in sq. ft.] * 100%)*

SUBMISSIONS:

1. Attach drawings and/or statements describing the following items, if applicable:
   a. Provide a copy of deed and Tax Assessor's information card.
   b. Provide a map of the general area showing land features within at least ½ mile of this lot.
   c. Provide site plan(s) of your lot with existing development and its dimensions shown.
   d. Provide site plan(s) of your lot with proposed development and its dimensions shown.
      i. *(May be combined on existing development drawing.)*
   e. Provide detailed plans of proposed structural development and changes.
   f. Provide statements or drawings of methods of infrastructure:
      i. Water supply
      ii. Sewage disposal
      iii. Fire protection
      iv. Electricity
      v. Solid waste disposal
   g. Type, size, and location of signs.
   h. Number of parking spaces.
   i. Provide phosphorus loading calculation if in a great pond watershed area.
   j. Anticipated date for start of construction.
   k. Anticipated date for completion of construction.
   l. Standard submissions requirements shall follow Section 509.8 of the Comprehensive Land Use Code. Copies of the Code are available for viewing at the Town Office and Library. Copies are available for purchase ($25.00) in the Code Enforcement Office.
      i. *(Use checklist starting on page 6 for summary of usual requirements.)*
   m. Other requirements unique to your project added by the Planning Board.

2. List all state and federal approvals, permits, and licenses required, if any, for the project:
   This includes but is not limited to the following:
   1. State highway entrance permit.
   2. Soil disturbances involving more than one acre.
   3. Impact on more than 4,300 square feet of any type wetland.
   4. Soil disturbances within 100 feet of lakes, rivers or streams.
   5. Activity within 75 feet, over the water, or in the water of lakes, rivers, or streams.
   6. Timber harvesting.
   7. Flood zones.
   8. Discharges and emissions

DISCLOSURE: *(READ BEFORE SIGNING)*

1. I hereby acknowledge that I have read this application and pertinent sections of the ordinances, and state that the information in this document is to the best of my knowledge true and accurate. I agree to comply with all the Town of Poland's ordinances and the State of Maine's statutes regulating the activities sought in this application as well as any permit(s) approved for this application.
2. I understand that all construction of structures shall conform to or exceed the minimum requirements of the Maine Uniform Building and Energy Code, and the NFPA-101 Life Safety Code, 2009
3. I understand that any approval is valid for only the use(s) as specified in this application. The permitting authority must approve any change(s) made to the use(s) sought in the application. Any approval issued for this application is approved on the basis of truthful information provided by the applicant(s), and as allowed by the ordinances of the town.
4. I understand that it is my responsibility to assure that the lot description herein accurately describes its ownership, its boundary lines, and the setback measurements from the legal boundary lines.
5. I understand that I have the burden of proof as to the legal right to use the property, and that approval of this application in no way relieves me of this burden. Any approval issued does not constitute a resolution in favor of me or the landowner in any matters regarding the property boundaries, ownership, or similar titles.
6. I understand that all necessary Building and Use Permits shall be secured from the Code Enforcement Office after the Planning Board grants approval of this application.
7. I understand that a Certificate of Occupancy or Compliance shall be required prior to the start of any use or occupancy associated with this application unless a signed written waiver is issued with the permit. Fines and penalties may be issued if use or occupancy is started prior to the issuance of the certificate.
8. I understand that the approval becomes invalid if construction or use has not commenced within twelve (12) months of the Planning Board's approval date, construction is suspended for more than six (6) months and no notice for just cause is submitted prior to the end of the six (6) months, or it is found that false statements have been furnished in this application.
9. I understand that if I fail to comply with the aforementioned statements, a "STOP WORK" order may be issued for which I will immediately halt any construction and/or use(s) that are approved for this application. This failure may also require that I return the property to its natural state or as closely thereto before the use(s) was/were approved.
10. I understand that failure to follow these requirements will lead to Violation Notices and Citations that have fines and penalties. This in turn can lead to civil proceedings in District and/or Superior Court.
11. I understand that all state and federal permits are my responsibility as the applicant and/or owner and will secure the same prior to the start of the project.

Summit Geoengineering Services, Inc. on behalf of Town of Poland — 2/13/2024

Applicant's Signature(s) — *Date*

Submission CHECKLIST

The following list is a short summary of the information required in Chapter 509.8 of the Comprehensive Land Use Code for the Town of Poland, Maine. Please checkmark or place an "X" in the left-hand columns if the information has been provided, if you request a waiver from submitting the information, or you believe the information is not applicable to your application. If a waiver(s) is requested, or the information is not applicable, a written explanation is required. Columns on the right are for the Planning Board's use.

For Applicant Use				For Planning Board Use			
Provided	Waiver Request	Not Applicable	Section 509.8.A Submission requirements	Received	On File	Waived	Not Applicable
X			1. Site Plan Drawings				
X			2. Signed copy of application				
X			3.a. Name & address of owner				
X			Name of development				
X			Name & address of abutters within 500' of lot for development				
X			Map of general location				
X			Show all contiguous properties				
X			Names, Map, & lot #'s on drawings				
X			Copy of deeds, agreements				
X			Engineer/ designer of plans				
X			Existing Conditions (Site Plan)				
X			Zoning Districts on and/or abutting project's lot shown				
X			Bearings & Distances shown on drawings				
X			Location of utilities, culverts, drains				
X			Location, name of existing r/w				
X			Location, dimensions of existing structures				
X			Location, dimensions of existing roads, walks, parking, loading, etc.				
		X	Location of intersection within 200'				
		X	Location of open drains, wetlands, wildlife areas, historic sites, etc.				
		X	Direction of surface drainage				
		X	100-yr. Floodplain				
		X	Signs				
X			Easement, covenants, restrictions				
X			Proposed Development (Site Plan)				
X			Location & dimensions of all new structures. New development delineated from existing development				
		X	Setback dimensions shown & met				
		X	Exterior lighting (Will meet full cutoff requirements)				
		X	Incineration devices				
		X	Noise of machinery and operations				
		X	Type of odors generated				
		X	Septic system and other soils reports				
		X	Water supply				
		X	Raw & finished materials stored outside				
X			Contours shown at PB specified intervals				
X			Curbs, sidewalks, drives, fences, retaining walls, parking, etc.				
X			Landscaping plan				
X			Easements, r/w, legal restrictions				
X			Abutters' property lines, names				
			TRAFFIC DATA				

For Applicant Use				For Planning Board Use			
Provided	Waiver Request	Not Applicable	Section 509.8.A Submission requirements	Received	On File	Waived	Not Applicable
		X	Peak hour traffic				
		X	Traffic counts				
		X	Traffic accident data				
		X	Road capacities				
		X	Traffic signs, signals				
			STORMWATER & EROSION				
X			Method for handling stormwater shown				
X			Flow direction				
X			Catch basins, dry wells, ditches, etc.				
X			Engineering Analysis of stormwater				
X			Erosion control measures				
		X	Hydrologist groundwater impact				
X			Utility plans for all utilities				
		X	Cross-section profile of roads, walks				
X			Construction drawings of roads, utilities				
X			Cost analysis of project and financial capability demonstrated				
		X	Phosphorus control plan if in watershed of a great pond				
X			Submission of waiver requests				
X			Copies of state, federal applications, permits, &/or licenses required for this project.				
			Condition A.				
			Condition B.				
			Condition C.				
			Condition D.				
			Condition E.				

This application was first looked at by the Planning Board on___/ / ___but does not create vested rights in the initiation of the review process.

By vote of the Board this application requires an on-site inspection: _____Yes _____No
If yes, an onsite inspection is scheduled for _____/_____/_____at____:_____ ___AM ___PM

By vote of the Board this application requires a public hearing: _____Yes _____No
If yes, public hearing is scheduled for _____/_____/_____at____:_____ ___AM ___PM

Conditions of Approval for Formal Site Review: _____

_____

_____

_____

_____

_____ _____/_____/_____

Planning Board Chair *Date*

Site Review and Shoreland Zoning Review Fees:

Type of fee	Fee	Units or Comments
Application – sketch plans, Rough design	$75.00	Each application (no other fees)
Application – formal	$150.00	Each application + fees below
Notification of Abutters	$0.75 per	All abutters within 500 ft. of the property must be notified.
Approval extension, Planning Board Approval only	$50.00	One extension only (no other fees)
Escrow, minimum amount	$700.00	When required by Planning Board
Extension of approval	$100.00	Before approval expires
Auto graveyards, recycle business	$5.00	Per vehicle storage slot (parking space)
Junkyard, Storage Lots	$1.50	Per ft of outside storage
Residential Towers	$20.00 + $5.00 per $1,000.00	Based on Cost of Work
Commercial Towers	$20.00 + $10.00 per $1,000.00	Based on Cost of Work
Notifications	$.75	Each Notification, First Class Mail sent by Town

1. Building and Structures may include up to five times the footprint area of the building for grounds improvements, exclusive of the building footprint, as part of the building review fee.
2. Building and Grounds Improvement Fees. The sum of these two fees may be limited to $2,500.00 per application at the discretion of the Planning Board. (Junkyards, auto graveyards, recycling business, and towers excluded.
3. Reduced Fees: The Planning Board may, upon application therefore, allow a reduced total site review fees to $50.00 in any case which it determines that the work for which the permit is sought will be performed within the Shoreland Zone. The project shall be intended solely for the purpose of protecting a Great Pond, Stream, River, or other Natural Resources through the implementation of Conservation, Best Management Practices, or other environmental safeguards. Also, the project shall not result in the enlargement of any building or structure or an intensification of the existing use of the property.
4. Review Escrow Funds may be used by the Town to pay for professional reviews an advice requested by the Planning Board or Code Enforcement Officer related to the applicant's proposed development. Review escrow funds deposited by the applicant not spent during the course of the Town's review shall be returned to the developer within sixty days after the Planning Board's decision on the application is final. If Professional review and advice fees exceed the amount deposited, the developer shall pay the amount outstanding before final approval or any permit is granted.

Town of Poland, Maine
PLANNING BOARD AGENDA REQUEST

Date of meeting you are requesting to be scheduled for: 3 / 12 / 2024 Meetings are normally conducted from 7:00 to 10:00 PM in the Municipal Conference Room at the Town Office

Map 40 Lot 2 & 3 Sub-lot _____

Applicant's Name: Town of Poland
Mailing Address: 1211 Maine Street
Town, State, Zip: Poland, Maine 04247

Home Phone: 207-998-4601 Hours: _____
Work Phone: _____ Hours: _____

Type of application: ___ Sketch Plan X Site Review ___ Shoreland ___ Subdivision ___ Informational

Road location for project: 1211 Maine Street (Route 26)

Zoning: Downtown, Aquifer Protection Overlay - 1 Lake Watershed: Waterhouse Brook Nature of business to be discussed *(Brief description):* Formal Site Plan Review for proposed A.B. Ricker Library Expansion and Municipal Park

IMPORTANT - READ CAREFULLY:

This Office must receive the original application, plus nine (9) copies, a digital PDF copy (on either cd or usb), and appropriate fees by Friday at 1:00 p.m., eleven (11) days before the stated meeting to be put on the upcoming agenda.

- New business is scheduled on the agenda in the order this office receives this form.
- If you want your application reviewed for contents prior to the meeting, it must be in this office 14 days before the meeting.
- Should the Board choose to adjourn before all business is addressed, all remaining business will be tabled until the next available meeting.
- Unfinished business is conducted before new business is addressed.

Applicant's Signature: Faith Adams Summit Geoengineering Services, Inc. Date: 1 / 11 / 2022
on behalf of Landowner Charles & Sheila Foley

OFFICE USE ONLY:
Request Taken By: _____ Date: ___/___/___ Time: ___:___ a.m. p.m.

SUMMIT
GEOENGINEERING SERVICES

Section 1

Right, Title or Interest

Office: 210 Maine Avenue, Farmingdale, ME 04344
Mailing: PO Box 515, Gardiner, ME 04345

Bk 8620 Pg348 #4181
03-08-2013 @ 11:44a

WARRANTY DEED

KNOW ALL BY THESE PRESENTS That **Linda L. McConaghy**, of 1217 Main Street, Poland, in the County of Androscoggin and State of Maine 04274, for consideration, grant to **Town of Poland,** with a mailing address of 1231 Maine Street, Poland, in the County of Androscoggin and State of Maine 04274, with Warranty Covenants, the following described real property in the Town of Poland, County of Androscoggin and State of Maine:

A certain lot or parcel of land situated in the Village of Poland Corner, so-called, in Poland, bounded and described as follows: Beginning on the road leading from Poland Corner so-called to Oxford at an Iron Hub at the southeasterly corner of the Town House lot and running nearly a southwesterly course on the line of said Town House lot one hundred and eighty (180') feet; thence in a nearly southeasterly course along land now or formerly of Fred H. Sleeper, one hundred and two (102') feet, to an Iron Hub; thence in a nearly northeasterly course along land now or formerly of Fred H. Sleeper one hundred eighty (180') feet, to an Iron Hub on the westerly limits of said road; thence in a nearly northwesterly course along said Road, one hundred and two (102') feet to an Iron Hub, the first mentioned bounds, or the point begun at.

Also - another certain lot or parcel of land and appurtenances thereto belonging and situated in the Village of Poland Corner, so-called in the Town of Poland, bounded and described as follows: Beginning on the line dividing land owned now or formerly by Fred H. Sleeper from land owned by W. S. Mills at a point one hundred nine (109') feet, southeast from land owned by George W. F. Webber, i. e., one hundred and nine (109') feet "more or less" from said Webber's land; thence running in a northeasterly direction twenty (20') feet; thence running in a southeasterly direction along land now or formerly of Fred H. Sleeper twenty (20') feet; thence in a southwesterly direction along land now or formerly of Fred H. Sleeper twenty (20') feet to land owned by said Mills; thence along land of said Mills twenty (20') feet, to point begun at. Said lot or parcel of land contains a well. Also, embodied in this deed is the pipe leading from this well, lying or placed on land now or formerly of Fred H. Sleeper, also the right-of-way through said Sleeper's land where the pipe is now laid and the right-of-way to lay pipe where the easterly end of said pipe terminates to land owned by Aloysia M. Barnes; also the right to relay or repair the pipe along this line whenever necessary.

Being the same premises conveyed to Robert W. Walker by Warranty Deed of Jennie Emery dated May 3, 1939 and recorded in the Androscoggin County Registry of Deeds in Book 494, Page 201.

Also - another certain lot or parcel of land situated in Poland, County of Androscoggin, State of Maine, bounded and described as follows:

MAINE REAL ESTATE TRANSFER TAX PAID

Beginning at a point on the southwesterly line of State Route #26 leading from Portland to Gorham which point of beginning is fourteen (14') feet, southeasterly from the most easterly corner of a parcel of land conveyed by Jennie Emery to Robert W. Walker by deed dated May 3, 1939, recorded in the Androscoggin County Registry of Deeds, Book 494, Page 201, and which point of beginning is one hundred thirty-three and five tenths (133.5') feet, northwesterly from the most northerly corner of a parcel of land conveyed by Robert Fernald to Poland Telephone Company by deed recorded in said Registry, Book 584, Page 453; thence the line runs South 63 degrees West (S 63° W) along land deeded by Charles W. Ricker to the Town of Poland four hundred ninety-six (496') feet, more or less, to a stone wall; thence the line turns and runs in a northwesterly direction along said stone wall one hundred sixteen (116') feet, to another stone wall at land owned by the Town of Poland; thence North sixty-three degrees East (N 63° E) along said land of the Town of Poland to said land of Robert W. Walker; thence the line turns and runs in a southeasterly direction along said land of Robert W. Walker one hundred two (102') feet, to a point; thence the line turns and runs in a northeasterly direction along land of Robert W. Walker one hundred eighty (180') feet, to said line of said road; thence the line turns and runs South twenty-six degrees East (S 26° E) along said line of said road fourteen (14') feet, to the point of beginning.

There is excepted from this conveyance a 20 x 20 foot parcel of land at the northwesterly corner of the premises hereby conveyed which parcel of land was conveyed by Fred H. Sleeper to Jeannette Owen Stevens by deed dated June 15, 1915, recorded in said Registry, Book 262, Page 43, which parcel of land is now owned by Linda McConaghy.

Being the same premises conveyed to Linda McConaghy by deed of Judith W. Day, Personal Representative of the Estate of Robert W. Walker, Sr., dated November 10, 2007 and recorded in the Oxford County Registry of Deeds, in Book 7305, Page 90.

WITNESS my hand and seal this 6th day of March, 2013.

Rhonda Kenney
Witness

Linda L. McConaghy
Linda L. McConaghy

STATE OF MAINE

Androscoggin, ss. **March 6, 2013**

Then personally appeared the above-named, Linda L. McConaghy, and acknowledged the foregoing instrument to be her free act and deed.

Before me; K. Alexander Visbaras
K. Alexander Visbaras, Attorney at Law

ANDROSCOGGIN COUNTY
TINA M CHOUINARD
REGISTER OF DEEDS

(101)

Know all Men by these Presents,

BOOK 856 PAGE 169

THAT I, CHARLES W. RICKER, of Portland, County of Cumerland, State of Maine

in consideration of One dollar and other valuable consideration

paid by THE INHABITANTS OF THE TOWN OF POLAND, a Municipal corporation duly created by law and being located in the County of Androscoggin, State of Maine

the receipt whereof I do hereby acknowledge, do hereby REMISE, RELEASE, BARGAIN, SELL

AND CONVEY, and forever QUIT-CLAIM unto the said THE INHABITANTS OF THE TOWN OF POLAND, its successors ~~heirs~~ and assigns forever,

a certain lot or parcel of land situated in Poland, County of Androscoggin, State of Maine, bounded and described as follows:

BEGINNING at a point on the southwesterly line of Route 26 leading from Portland to Gorham, New Hampshire, at the most northerly corner of a parcel of land described in a certain deed given by Robert Fernald to the Poland Telephone Company, which deed is dated February 23, 1947 and recorded in the Androscoggin County Registry of Deeds, Book 534, Page 453; thence the line runs south 63° west along the northwesterly line of said land described in said deed 123.75 feet to a point; thence the line continues south 63° west along the northwesterly line of land conveyed of even date by this Grantor to said Poland Telephone Company 343 feet, more or less, to a stone wall at land of W. Raymond Wade and Arline Wade; thence the line runs in a northwesterly direction along said stone wall 133.50 feet to a point; thence the line runs north 63° east 496 feet, more or less, to a point in the said southwesterly line of said road which is 14 feet southeasterly from the most easterly corner of a parcel of land described in a certain deed given by Jennie Emery to Robert W. Walker which deed is dated May 3, 1939 and recorded in the Androscoggin County Registry of Deeds, Book 494, Page 201; thence the line runs south 26° east along said line of said road 133.50 feet to the point of beginning.

The above described premises are part of the premises described in a certain deed given to this Grantor by the inhabitants of the Town of Poland dated October 14, 1957, to be recorded.

This conveyance is made subject to the express condition that the above said premises are to be used as the site for a public library for the Town of Poland. If the proposed library building has not been erected within five years from date, or if, at any time after having been erected within said five year period, the building is no longer used for public library purposes then the title to the above said premises shall revert in fee to this Grantor and to his heirs.

TO HAVE AND TO HOLD the same, together with all the privileges and appurtenances thereunto belonging, to the said THE INHABITANTS OF THE TOWN OF POLAND, its successors ~~heirs~~ and assigns forever.

AND I do COVENANT with the said Grantee, its successors ~~heirs~~ and assigns, that I will WARRANT and FOREVER DEFEND the premises to it the said Grantee, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons claiming by, through or under me.

IN WITNESS WHEREOF, I the said CHARLES W. RICKER and I, BERTRUDE S. RICKER, wife of the said CHARLES W. RICKER

joining in this deed as Grantor, and relinquishing and conveying my right by descent and all other rights in the above described premises, have hereunto set our hands and seals this 23rd day of August in the year of our Lord one thousand nine hundred and sixty-one.

SIGNED, SEALED AND DELIVERED IN PRESENCE OF

Angela L. Locke — Charles W. Ricker

Angela L. Locke — Bertrude S. Ricker

STATE OF MAINE, Androscoggin ss. August 23, 1961 Personally appeared the above named CHARLES W. RICKER and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Wm. B. Skelton, Jr.

Justice of the Peace ~~Notary Public~~

STATE OF MAINE, ANDROSCOGGIN ss. REGISTRY OF DEEDS

Received SEP -6 1961 at 1 H. 31 M. P M., and recorded from the original in Book 856 Page 169

ATTEST ..... REGISTER

AGENT AUTHORIZATION FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. 2 & 3 MAP NO. 40 PARCEL ID: 0040-0002 & 0040-0003

STREET ADDRESS: 1211 & 1217 Maine Street, Poland, Maine

Property Owner/Representative: Town of Poland, ATTN: Matt Garside

The undersigned, registered property owners of the above noted property, do hereby authorize

Faith Thomas, P.E. & Bill Peterlein, P.E. , of Summit Geoengineering Services, Inc.
(Contractor / Agent) (Name of consulting firm)

to act on my behalf and take all actions necessary for the processing, issuance and acceptance of this permit or certification and any and all standard and special conditions attached.

Property Owner's Address (if different than property above):

1231 Maine Street, Poland, Maine

Telephone: 207-998-4601

We hereby certify the above information submitted in this application is true and accurate to the best of our knowledge.

Authorized Signature: Matthew Smith

Date: 12/18/2023

SUMMIT
GEOENGINEERING SERVICES

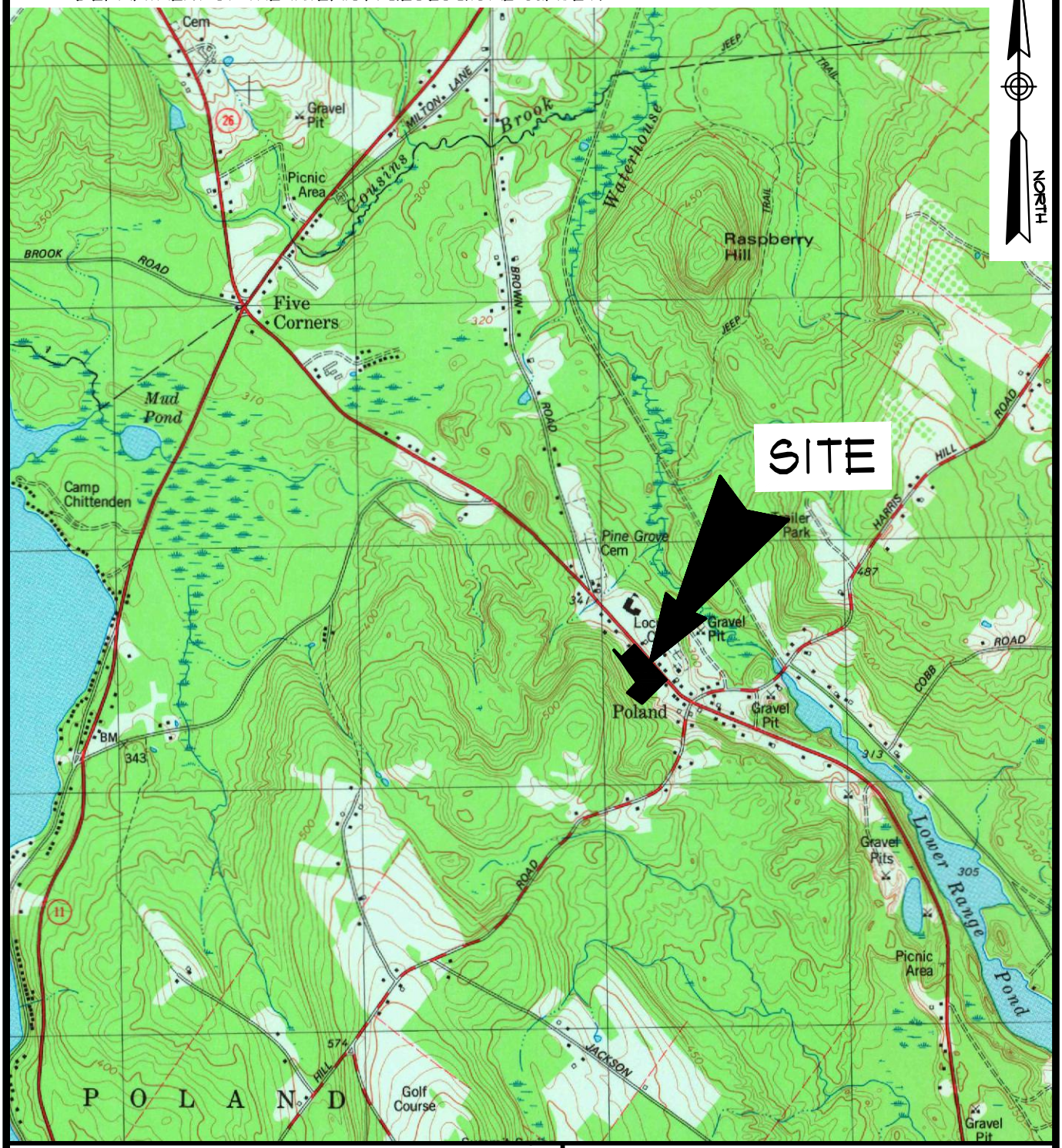
Section 2

Location Plan, Tax Map, Tax Card, Abutter List, and FIRM Map

Office: 210 Maine Avenue, Farmingdale, ME 04344
Mailing: PO Box 515, Gardiner, ME 04345

PLAN REFERENCES

1. TOPOGRAPHIC PLAN TITLED "MECHANIC FALLS QUADRANGLE, MAINE 7.5 MINUTE SERIES", DATED JUNE 3, 1981 FROM THE UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY.



LOCATION MAP
NEW TOWN PARK

1211 MAINE STREET, POLAND, ME 04274

PREPARED FOR

TOWN OF POLAND

DATE: 12-18-23	DRAWN BY: FRT	CHECKED BY: WMP
JOB: 22107	SCALE: 1" = 2000'	FILE: 22107 SITE

OFFICE: 210 MAINE AVENUE
FARMINGDALE, MAINE
TEL.: (207) 446-3360

MAIL: P.O. BOX 515
GARDINER, ME 04345

SUMMIT
GEOENGINEERING SERVICES
www.summitgeoeng.com

C:\Users\FaithThomas\OneDrive - Summit Geoengineering Services\22107 Poland SW study recreational park Poland\CAD related\22107 SITE_PLUNGE POOL.dwg, 12/20/2023 6:56:04 PM

MAPS PREPARED BY:
SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM

Legend
05 Abutting Tax Map Number
3-1 Subdivision Lot Number
8-33B Tax Parcel Lot Number
Waterbodies/Wetlands
Property Tie Hooks
Easement/Right of Ways
Former Lot Lines
Cemetery
16 Building and Building Number
Travelled Way

PROPERTY MAP
TOWN OF POLAND, MAINE
APRIL 1, 2016

UPDATES
SEBAGO TECHNICS 2015 UPDATES
O'DONNELL & ASSOCIATES 2014 UPDATES AND TAX MAPS

0 50 100 200 300 Feet

MAP 40

Property Card: **1211 MAINE ST.**

Poland, ME

Parcel ID: 0040-0002
Trio Account #: 2632

Owner: POLAND, TOWN OF
Co-Owner:
Mailing Address: 1231 MAINE ST.
POLAND, ME 04274

Valuation	Building Sketch
Card Number: 1 **Acreage:** 1.47 **Land Value:** $100,120 **Building Value:** $436,390 **Total Value:** $436,390 **Taxes:** $0	NO SKETCH AVAILABLE

Building Information

Year Built: 1962 **Remodled:** 0 **Living Area (sqft):** 3000 **Basement:** Full Basement **Finished Basement:** 3000 **Number of Rooms:** 8 **Number of Bedrooms:** 0 **Number of Full Baths:** 0 **Number of Half Baths:** 2	**Stories:** **Exterior Walls:** BRICK/STONE **Roofing Materials:** Asphalt Shingles **Foundation:** Concrete **Insulation:** Full **Fireplace:** 0 **Heating:** Hot Water BB **A/C:** None **Attic:** None

Property Card: **1217 MAINE ST.**

Poland, ME

Parcel ID: 0040-0003
Trio Account #: 2633

Owner: POLAND, TOWN OF
Co-Owner:
Mailing Address: 1231 MAINE ST.
POLAND, ME 04274

Valuation

Card Number: 1
Acreage: 1.38
Land Value: $50,110
Building Value: $122,760
Total Value: $122,760
Taxes: $0

Building Sketch

NO SKETCH AVAILABLE

Building Information

Year Built: 1910 **Remodled:** 0

Living Area (sqft): 0
Basement: Full Basement
Finished Basement: 0
Number of Rooms: 7
Number of Bedrooms: 4
Number of Full Baths: 1
Number of Half Baths: 0

Stories:
Exterior Walls: Tâ€”lll
Roofing Materials: Asphalt Shingles
Foundation: Concrete
Insulation: Minimal
Fireplace: 1
Heating: Radiator
A/C: None
Attic: None

500 feet Abutters List Report

Poland, ME
December 17, 2023

Subject Property:

Parcel Number:	0040-0002	Mailing Address:	POLAND, TOWN OF
CAMA Number:	0040-0002		1231 MAINE ST.
Property Address:	1211 MAINE ST.		POLAND, ME 04274

Abutters:

Parcel Number:	0010-0024A	Mailing Address:	DUCHARME, L PAUL
CAMA Number:	0010-0024A		69 WHITE OAK HILL RD
Property Address:	WHITE OAK HILL RD.		POLAND, ME 04274
Parcel Number:	0010-0025	Mailing Address:	KAHKONEN, KEVIN A
CAMA Number:	0010-0025		30 WHITE OAK HILL ROAD
Property Address:	29 WHITE OAK HILL RD.		POLAND, ME 04274
Parcel Number:	0010-0026	Mailing Address:	POLAND, TOWN OF
CAMA Number:	0010-0026		1231 MAINE ST.
Property Address:	OFF MAINE ST.		POLAND, ME 04274
Parcel Number:	0010-0028	Mailing Address:	POLAND, TOWN OF
CAMA Number:	0010-0028		1231 MAINE ST.
Property Address:	33 POLAND CORNER RD.		POLAND, ME 04274
Parcel Number:	0010-0028	Mailing Address:	POLAND, TOWN OF
CAMA Number:	0010-0028-0001		1231 MAINE ST.
Property Address:	POLAND CORNER RD.		POLAND, ME 04274
Parcel Number:	0039-0001	Mailing Address:	RAISING THE ROOF, LLC
CAMA Number:	0039-0001		1416 MAINE ST
Property Address:	1202 MAINE ST.		POLAND, ME 04274
Parcel Number:	0039-0002	Mailing Address:	ROSE, CHARLOTTE
CAMA Number:	0039-0002		1198 MAINE ST.
Property Address:	1198 MAINE ST.		POLAND, ME 04274 7324
Parcel Number:	0039-0003	Mailing Address:	DAVIGNON, SPRING D
CAMA Number:	0039-0003		7 POLAND CORNER ROAD
Property Address:	7 POLAND CORNER RD.		POLAND, ME 04274
Parcel Number:	0039-0004	Mailing Address:	BEACH, PETER A
CAMA Number:	0039-0004		11 POLAND CORNER ROAD
Property Address:	11 POLAND CORNER RD.		POLAND, ME 04274
Parcel Number:	0039-0008	Mailing Address:	KIMBALL RE HOLDING LLC
CAMA Number:	0039-0008		756 MEGQUIER HILL ROAD
Property Address:	1184 MAINE ST.		POLAND, ME 04274

500 feet Abutters List Report

Poland, ME
December 17, 2023

Parcel Number:	0039-0023	Mailing Address:	G W PROPERTIES, LLC
CAMA Number:	0039-0023		41 GABRIEL WOODS RD.
Property Address:	6 WHITE OAK HILL RD.		NEW GLOUCESTER, ME 04260
Parcel Number:	0039-0027	Mailing Address:	SKILLINGS, MARK
CAMA Number:	0039-0027		13 WHITE OAK HILL RD.
Property Address:	13 WHITE OAK HILL RD.		POLAND, ME 04274 6721
Parcel Number:	0039-0029	Mailing Address:	RELIC, LLC
CAMA Number:	0039-0029		47 COOK RD
Property Address:	1195 MAINE ST.		OTISFIELD, ME 04270
Parcel Number:	0039-0030	Mailing Address:	RELIC, LLC
CAMA Number:	0039-0030		47 COOK RD
Property Address:	1197 MAINE ST.		OTISFIELD, ME 04270
Parcel Number:	0039-0031	Mailing Address:	MILLER, DAWN
CAMA Number:	0039-0031		P O BOX 271
Property Address:	1199 MAINE ST.		MINOT, ME 04258
Parcel Number:	0040-0001	Mailing Address:	CONSOLIDATED COMMUNICATIONS OF MAINE
CAMA Number:	0040-0001		2116 SOUTH 17TH STREET C/O TAX DEPARTMENT
Property Address:	1207 MAINE ST.		MATTOON, IL 61938
Parcel Number:	0040-0003	Mailing Address:	POLAND, TOWN OF
CAMA Number:	0040-0003		1231 MAINE ST.
Property Address:	1217 MAINE ST.		POLAND, ME 04274
Parcel Number:	0040-0003A	Mailing Address:	POLAND, TOWN OF
CAMA Number:	0040-0003A		1231 MAINE ST.
Property Address:	1219 MAINE ST.		POLAND, ME 04274
Parcel Number:	0040-0004	Mailing Address:	POLAND, TOWN OF
CAMA Number:	0040-0004		1231 MAINE ST.
Property Address:	1231 MAINE ST.		POLAND, ME 04274
Parcel Number:	0040-0014	Mailing Address:	ST. MARY'S REGIONAL MEDICAL CENTER
CAMA Number:	0040-0014		P. O. BOX 291
Property Address:	1230 MAINE ST.		LEWISTON, ME 04240 0291
Parcel Number:	0040-0015	Mailing Address:	FOLEY, SHEILA MARIE
CAMA Number:	0040-0015		277 POLAND CORNER RD
Property Address:	1220 MAINE ST.		POLAND, ME 04274
Parcel Number:	0040-0016	Mailing Address:	ELLIS, MICHAEL E
CAMA Number:	0040-0016		1216 MAINE ST
Property Address:	1216 MAINE ST.		POLAND, ME 04274

500 feet Abutters List Report

Poland, ME
December 17, 2023

Parcel Number:	0040-0017	Mailing Address:	POLAND COMMUNITY FOOD BANK
CAMA Number:	0040-0017		1208 MAINE STREET
Property Address:	1212 MAINE ST.		POLAND, ME 04274

Parcel Number:	0040-0017	Mailing Address:	POLAND COMMUNITY FOOD BANK
CAMA Number:	0040-0017-ON		1208 MAINE STREET
Property Address:	1208 MAINE ST.		POLAND, ME 04274

Parcel Number:	0040-0018	Mailing Address:	LOCUST CEMETERY
CAMA Number:	0040-0018		
Property Address:	MAINE ST.		POLAND, ME 04274

National Flood Hazard Layer FIRMette

FEMA

70°24'1"W 44°3'54"N

70°23'24"W 44°3'29"N

Feet

0 250 500 1,000 1,500 2,000

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 12/20/2023 at 7:08 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.

SUMMIT
GEOENGINEERING SERVICES

STORMWATER REPORT

A.B Ricker Library Expansion and Municipal Park
1211 Maine Street
Map 40, Lot 2 & 3
Poland, Maine

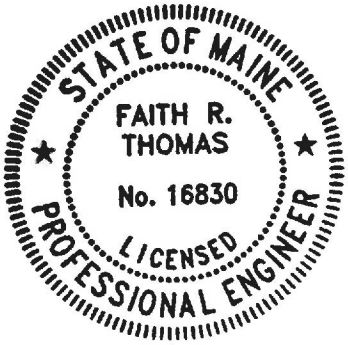
Prepared for:

Town of Poland
1231 Maine Street
Poland, Maine 04274

Prepared by:

Summit Geoengineering Services, Inc
210 Maine Avenue
Farmingdale, Maine

Project #22107
February 2024



Section 1: Project Description

Section 1.1 Existing Conditions

The property subject to the proposed development is located at 1211 & 1217 Maine Street in Poland, Maine (Map 40, Lot 2, & 3) and has a total parcel area of roughly 2.8-acres. Based upon a Plan titled *"Plan of Land of Town of Poland, Maine Street, Poland, Maine" (dated November 28, 2017)* the site has 253.5-feet of road frontage along Maine Street. According to the Town of Poland GIS, the parcel resides in the Downtown Zoning District and Aquifer Protection Overlay District-1.

Based on the USDA Web Soil Survey, the existing soils on-site include Adams loamy sand and Charlton very stony fine sandy loam (8-15% & 15-25% slopes), of the Hydrologic Soil Group A (refer to Appendix A: Web Soil Survey for additional information).

Section 1.2 Proposed Conditions

The proposed development at the site will consist of a new, Town recreational park, a 1,000-square foot library addition, subsequent parking and stormwater detention pond.

The proposed work will disturb & develop a total of approximately 43,480-square feet of area, which includes the stone dust path construction, detention pond construction, and storm drain piping trenches. The project will create 14,314-square feet of new impervious area, for a new total impervious area of 28.3% of the lot area.

This application has been prepared to address the Flooding Standards, per the Town of Poland Comprehensive Land Use Code (CLUC), Section 509.85(p)(IV).

Section 2 - Flooding Standards

Surface water runoff from the property is directed to one control point, located at the existing Route 26 catch basin. This control point and the hydrologic model are graphically presented on the Post-Development Watershed Plan, found in Appendix C: Watershed Plan.

Per Section 509.8A(5)(p)(IV) of the CLUC, the hydrologic conditions for the existing and proposed conditions were both modelled using HydroCAD v10.10. The results of the

analysis for both existing and proposed conditions for the 2-year, 10-year, 25-year, and 50-year rain events are summarized in the tables below. Please refer to Appendix C: HydroCAD Computations for additional information.

Section 2.1: Pre-Development Watershed

The pre-development watershed depicted on the Pre-Development Watershed Plan (SW-1) was delineated based on the elevation data obtained from the Plan titled *"Plan of Land of Town of Poland, Maine Street, Poland, Maine,"* referenced above in Section 1.1: Existing Conditions. Please refer to the table below for a summary of the peak runoff quantities for the designated rain events.

EXISTING CONDITIONS - PEAK RUNOFF QUANTITIES (cfs)				
Location	**2-year**	**10-year**	**25-year**	**50-year**
Watershed 1	0.01	0.22	0.74	1.44
*Values have been rounded to the nearest hundredth				

Section 2.2: Post-Development Watershed

The post-development watershed depicted on the Post-Development Watershed Plan (Sheet SW-2) was also delineated based on the elevation data obtained from the Plan titled *"Plan of Land of Town of Poland, Maine Street, Poland, Maine."*

At Control Point #1, the peak runoff quantities only increased by 0.01-cfs during the 2-year event. Peak runoff quantities decreased during the 10-year, 25-year, and 50-year events. Please refer to chart below for additional information.

WATERSHED 1 - SUMMARY								
PEAK RUNOFF QUANTITIES (cfs)								
Location	**Existing**	**Proposed**	**Existing**	**Proposed**	**Existing**	**Proposed**	**Existing**	**Proposed**
	2-year	**2-year**	**10-year**	**10-year**	**25-year**	**25-year**	**50-year**	**50-year**
Control Point #1	0.01	0.02	0.22	0.11	0.74	0.56	1.44	1.01
*Values have been rounded to the nearest hundredth								

SUMMIT
GEOENGINEERING SERVICES

APPENDIX A:
WEB SOIL SURVEY

Office: 210 Maine Avenue, Farmingdale, ME 04344
Mailing: PO Box 515, Gardiner, ME 04345

Map Scale: 1:2,390 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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Androscoggin and Sagadahoc Counties, Maine
Survey Area Data: Version 23, Aug 30, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 11, 2021—Oct 29, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AaB	Adams loamy sand, 0 to 8 percent slopes	A	5.4	41.9%
ChC	Charlton very stony fine sandy loam, 8 to 15 percent slopes	A	2.6	20.2%
ChD	Charlton very stony fine sandy loam, 15 to 25 percent slopes	A	4.8	37.9%
Totals for Area of Interest			**12.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

SUMMIT
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APPENDIX B:
WATERSHED PLAN

Office: 210 Maine Avenue, Farmingdale, ME 04344
Mailing: PO Box 515, Gardiner, ME 04345

SOILS LEGEND

- AaB — ADAMS LOAMY SAND, 0-8% SLOPES
- ChC — CHARLTON VERY STONY FINE SANDY LOAM, 8-15% SLOPES
- ChD — CHARLTON VERY STONY FINE SANDY LOAM, 15-25% SLOPES

NORTH

LIMIT OF CONSERVATION EASEMENT

CONSERVATION EASEMENT

GARAGE

SHED

TOWN HALL

POLICE/ REC. DEPT

LIBRARY

ICE SKATING AREA (APPROX.)

MAINE TELEPHONE CO.

GRAVEL ROAD

REMOVE GRAVEL

LIGHT POLE

CB RIM=341.87
NO PIPES
BOT EL.=332.5

RIM=341.92
INV. IN=338.12
INV. OUT=338.02

RIM=342.22

RIM=342.13

RIM=342.15

15" HDPE

8D

RIM=338.96
15" INV. IN=333.81
18" INV. IN=333.76
INV. OUT=333.81

3" SPRUCE

LIGHT POST

FLAG POLE

10" APPLE

LANDSCAPE AREA

9" APPLE

384'±

BENCHMARK
TOP OF HYDRANT
EL.=342.32

18" HDPE

6' WIDE R.O.W.

MAINE STREET

120'±

133.5'±

DEED LINE

¾" IPF (12" TALL)

LIMIT OF CONSERVATION EASEMENT

¾" IPF (16" TALL)

31" PINE

50" CHERRY

12" OAK

36" PINE

24" PINE

18" PINE

16" PINE

12" PINE

A

B

C

D

E

F

SHEET FLOW
L: 46'
S: 39%
WOODS DENSE UNDERBRUSH
HSG A

SHEET FLOW
L: 104'
S: 7%
GRASS (SHORT)
HSG A

SHALLOW CONCENTRATED FLOW (SCF): 45'
S: 5%
SHORT GRASS PASTURE
HSG A

SCF: 58'
S: 4%
UNPAVED
HSG A

SCF: 196'
S: 2%
SHORT GRASS PASTURE
HSG A

SCF: 114'
S: 02%
PAVED
HSG A

POA #1

RIM=337.34
18" INV. IN=331.74
INV. OUT=331.54

18" HDPE

N54°06'13" W

458'±

¾" IPF (20" TALL)

1" IPF (22" TALL)

¾" IRF (CAP #2216)

24" ASH

36" PINE

12" OAK

16" MAPLE

11" ASPEN

12" ASPEN

10" PINE

11" HEMLOCK

20" PINE

10" ASPEN

11" ASPEN

12" ASPEN

48" MAPLE

3" CHERRY

16" MAPLE

18" MAPLE

REMOVE 18" MAPLE

REMOVE 8" MAPLE

8" APPLE

7" CEDAR

5" APPLE

2" MAPLE

10" CEDAR

7" CEDAR

AaB

ChC

ChD

WATERSHED = 98,046 SF
WOODS (HSG A) = 11,533 SF
GRASS (HSG A) = 71,672 SF
IMPERVIOUS = 14,841 SF

SCALE : 1" = 20'

0 10 20 40 60 80

NO.	REVISION	DATE
1	PLANNING BOARD SUBMISSION	2/13/2024

SHEET TITLE:
PRE-DEVELOPMENT WATERSHED PLAN

SCALE: AS NOTED
DATE: DEC. 3, 2023

DRAWN BY: FRT
CHECKED BY: WMP

PROJECT:
A.B RICKER LIBRARY EXPANSION AND MUNICIPAL PARK
121 MAINE STREET - POLAND, MAINE

CLIENT:
TOWN OF POLAND
123 MAINE STREET - POLAND, MAINE 04274

SUMMIT
GEOENGINEERING SERVICES
MAIL: P.O. BOX 515, GARDINER, ME 04345
OFFICE: 210 MAINE AVENUE FARMINGDALE, ME
TEL: (207) 446-3360

JOB NO. - 22107

SHEET SW-1

SOILS LEGEND

- AaB — ADAMS LOAMY SAND, 0-8% SLOPES
- ChC — CHARLTON VERY STONY FINE SANDY LOAM, 8-15% SLOPES
- ChD — CHARLTON VERY STONY FINE SANDY LOAM, 15-25% SLOPES

NORTH

LIMIT OF CONSERVATION EASEMENT

CONSERVATION EASEMENT

GARAGE

SHED

TOWN HALL

POLICE/ REC. DEPT

GRAVEL ROAD

LIGHT POLE

CB RIM=341.87
NO PIPES
BOT EL.=332.5

RIM=341.92
INV. IN=338.12
INV. OUT=338.02

RIM=342.22

RIM=342.13

RIM=342.15

15" HDPE

18" HDPE

RIM=338.96
15" INV. IN=333.81
18" INV. IN=333.76
INV. OUT=333.81

BENCHMARK
TOP OF HYDRANT
EL.=342.32

LANDSCAPE AREA

FLAG POLE

3" SPRUCE

LIGHT POST

10" APPLE

9" APPLE

384'±

6" WIDE R.O.W.

MAINE STREET

DEED LINE

¾" IPF (16" TALL)

¾" IPF (12" TALL)

LIMIT OF CONSERVATION EASEMENT

N54°06'13"W

458'±

¾" IRF (20" TALL)

1" IPF (22" TALL)

⅝" IRF (CAP "2216")

133.5'±

120'±

AaB

ChC

ChD

WATERSHED = 98,046 SF
WOODS (HSG A) = 11,533 SF
GRASS (HSG A) = 58,546 SF
IMPERVIOUS = 27,967 SF

SHEET FLOW
L: 76'
S: 9%
GRASS (SHORT)
HSG A

SHEET FLOW
L: 74'
S: 25%
WOODS DENSE UNDERBRUSH
HSG A

SHALLOW-CONCENTRATED FLOW
L: 81'
S: 5.6%
SHORT GRASS PASTURE
HSG A

GRASSED WATERWAY
L: 103'
S: 19%

A1 B1 C1 D1

ICE SKATING AREA (APPROX.)

FUTURE ADDITION 1000 SF

LIBRARY

MAINE TELEPHONE CO.

FOA #1

RIM=337.34
18" INV. IN=331.74
INV. OUT=331.54

18" HDPE

SCALE : 1" = 20'

0 10 20 40 60 80

NO.	REVISION	DATE
1	PLANNING BOARD SUBMISSION	2/13/2024

SHEET TITLE: **POST-DEVELOPMENT WATERSHED PLAN**

SCALE: AS NOTED
DATE: DEC. 3, 2023

DRAWN BY: FRT
CHECKED BY: WMP

PROJECT: **A.B RICKER LIBRARY EXPANSION AND MUNICIPAL PARK**
1211 MAINE STREET - POLAND, MAINE

CLIENT: TOWN OF POLAND
1231 MAINE STREET - POLAND, MAINE 04274

SUMMIT
GEOENGINEERING SERVICES
MAIL: P.O. BOX 515, GARDINER, ME 04345
OFFICE: 210 MAINE AVENUE, FARMINGDALE, ME
TEL.: (207) 446-3360

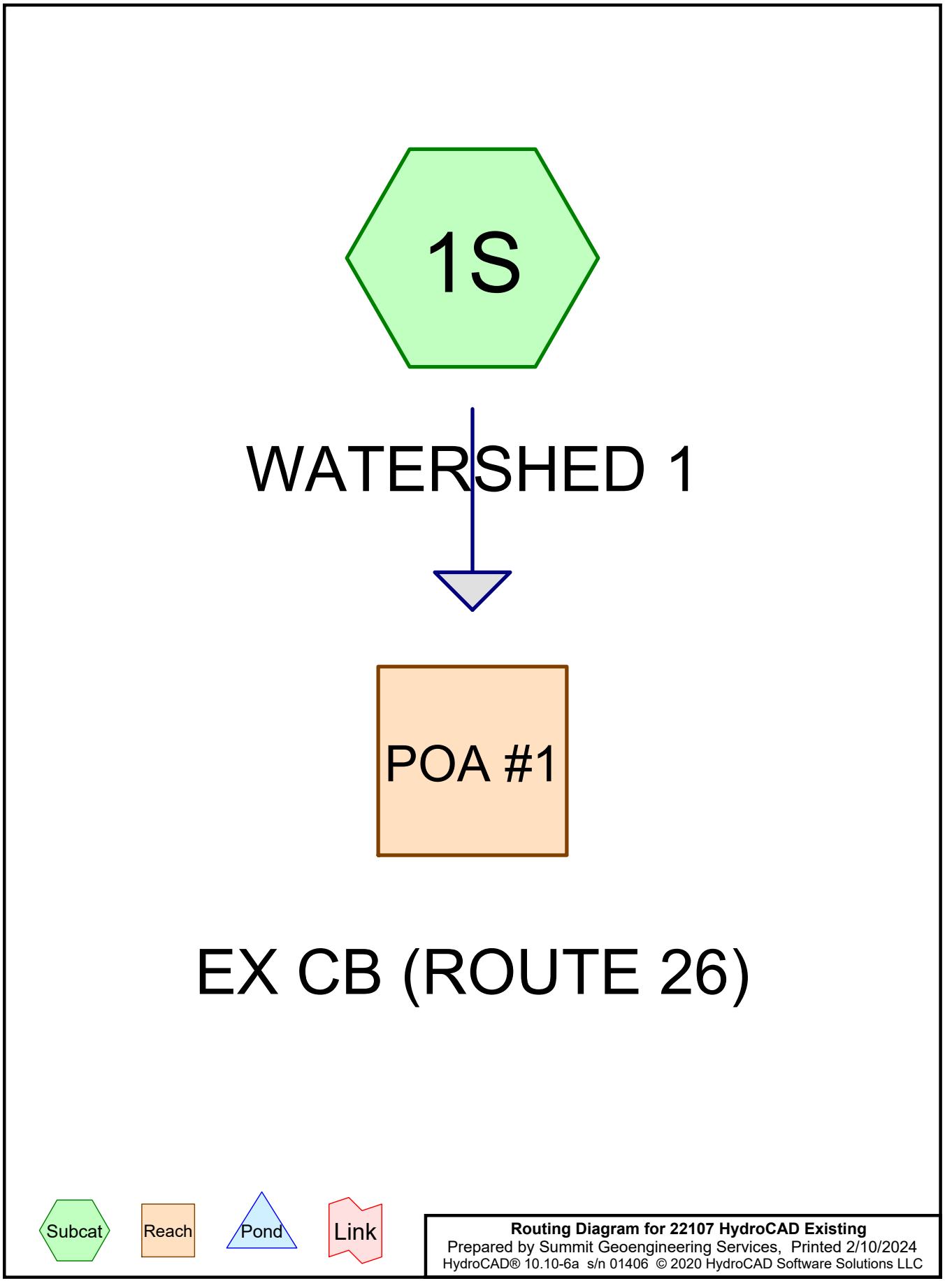
JOB NO. - 22107

SHEET SW-2

SUMMIT
GEOENGINEERING SERVICES

APPENDIX C:
HYDROCAD COMPUTATIONS

Office: 210 Maine Avenue, Farmingdale, ME 04344
Mailing: PO Box 515, Gardiner, ME 04345



Routing Diagram for 22107 HydroCAD Existing
Prepared by Summit Geoengineering Services, Printed 2/10/2024

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	3.00	2
2	10 YEAR	Type III 24-hr		Default	24.00	1	4.30	2
3	25 YEAR	Type III 24-hr		Default	24.00	1	5.40	2
4	50 YEAR	Type III 24-hr		Default	24.00	1	6.40	2

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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 1S: WATERSHED 1 Runoff Area=98,046 sf 15.14% Impervious Runoff Depth>0.03"
Flow Length=563' Tc=21.7 min CN=47 Runoff=0.01 cfs 0.006 af

Reach POA #1: EX CB (ROUTE 26) Inflow=0.01 cfs 0.006 af
Outflow=0.01 cfs 0.006 af

Total Runoff Area = 2.251 ac Runoff Volume = 0.006 af Average Runoff Depth = 0.03"
84.86% Pervious = 1.910 ac 15.14% Impervious = 0.341 ac

Summary for Subcatchment 1S: WATERSHED 1

Runoff = 0.01 cfs @ 15.48 hrs, Volume= 0.006 af, Depth> 0.03"
Routed to Reach POA #1 : EX CB (ROUTE 26)

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=3.00"

	Area (sf)	CN	Description
	71,672	39	>75% Grass cover, Good, HSG A
	11,533	30	Woods, Good, HSG A
*	14,841	98	ROOFS, GRAVEL PARKING, PAVED PARKING
	98,046	47	Weighted Average
	83,205		84.86% Pervious Area
	14,841		15.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	46	0.3900	0.12		**Sheet Flow, A-B** Woods: Dense underbrush n= 0.800 P2= 3.00"
9.2	104	0.0700	0.19		**Sheet Flow, B-C** Grass: Dense n= 0.240 P2= 3.00"
0.5	45	0.0500	1.57		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	58	0.0400	3.22		**Shallow Concentrated Flow, D-E** Unpaved Kv= 16.1 fps
3.3	196	0.0200	0.99		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
2.1	114	0.0020	0.91		**Shallow Concentrated Flow, F-G** Paved Kv= 20.3 fps
21.7	563	Total			

Summary for Reach POA #1: EX CB (ROUTE 26)

Inflow Area = 2.251 ac, 15.14% Impervious, Inflow Depth > 0.03" for 2 YEAR event
Inflow = 0.01 cfs @ 15.48 hrs, Volume= 0.006 af
Outflow = 0.01 cfs @ 15.48 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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 1S: WATERSHED 1 Runoff Area=98,046 sf 15.14% Impervious Runoff Depth>0.26"
Flow Length=563' Tc=21.7 min CN=47 Runoff=0.22 cfs 0.049 af

Reach POA #1: EX CB (ROUTE 26) Inflow=0.22 cfs 0.049 af
Outflow=0.22 cfs 0.049 af

Total Runoff Area = 2.251 ac Runoff Volume = 0.049 af Average Runoff Depth = 0.26"
84.86% Pervious = 1.910 ac 15.14% Impervious = 0.341 ac

Summary for Subcatchment 1S: WATERSHED 1

Runoff = 0.22 cfs @ 12.58 hrs, Volume= 0.049 af, Depth> 0.26"
Routed to Reach POA #1 : EX CB (ROUTE 26)

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=4.30"

	Area (sf)	CN	Description
	71,672	39	>75% Grass cover, Good, HSG A
	11,533	30	Woods, Good, HSG A
*	14,841	98	ROOFS, GRAVEL PARKING, PAVED PARKING
	98,046	47	Weighted Average
	83,205		84.86% Pervious Area
	14,841		15.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	46	0.3900	0.12		**Sheet Flow, A-B** Woods: Dense underbrush n= 0.800 P2= 3.00"
9.2	104	0.0700	0.19		**Sheet Flow, B-C** Grass: Dense n= 0.240 P2= 3.00"
0.5	45	0.0500	1.57		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	58	0.0400	3.22		**Shallow Concentrated Flow, D-E** Unpaved Kv= 16.1 fps
3.3	196	0.0200	0.99		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
2.1	114	0.0020	0.91		**Shallow Concentrated Flow, F-G** Paved Kv= 20.3 fps
21.7	563	Total			

Summary for Reach POA #1: EX CB (ROUTE 26)

Inflow Area = 2.251 ac, 15.14% Impervious, Inflow Depth > 0.26" for 10 YEAR event
Inflow = 0.22 cfs @ 12.58 hrs, Volume= 0.049 af
Outflow = 0.22 cfs @ 12.58 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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 1S: WATERSHED 1 Runoff Area=98,046 sf 15.14% Impervious Runoff Depth>0.59"
Flow Length=563' Tc=21.7 min CN=47 Runoff=0.74 cfs 0.111 af

Reach POA #1: EX CB (ROUTE 26) Inflow=0.74 cfs 0.111 af
Outflow=0.74 cfs 0.111 af

Total Runoff Area = 2.251 ac Runoff Volume = 0.111 af Average Runoff Depth = 0.59"
84.86% Pervious = 1.910 ac 15.14% Impervious = 0.341 ac

Summary for Subcatchment 1S: WATERSHED 1

Runoff = 0.74 cfs @ 12.46 hrs, Volume= 0.111 af, Depth> 0.59"
Routed to Reach POA #1 : EX CB (ROUTE 26)

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=5.40"

	Area (sf)	CN	Description
	71,672	39	>75% Grass cover, Good, HSG A
	11,533	30	Woods, Good, HSG A
*	14,841	98	ROOFS, GRAVEL PARKING, PAVED PARKING
	98,046	47	Weighted Average
	83,205		84.86% Pervious Area
	14,841		15.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	46	0.3900	0.12		**Sheet Flow, A-B** Woods: Dense underbrush n= 0.800 P2= 3.00"
9.2	104	0.0700	0.19		**Sheet Flow, B-C** Grass: Dense n= 0.240 P2= 3.00"
0.5	45	0.0500	1.57		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	58	0.0400	3.22		**Shallow Concentrated Flow, D-E** Unpaved Kv= 16.1 fps
3.3	196	0.0200	0.99		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
2.1	114	0.0020	0.91		**Shallow Concentrated Flow, F-G** Paved Kv= 20.3 fps
21.7	563	Total			

Summary for Reach POA #1: EX CB (ROUTE 26)

Inflow Area = 2.251 ac, 15.14% Impervious, Inflow Depth > 0.59" for 25 YEAR event
Inflow = 0.74 cfs @ 12.46 hrs, Volume= 0.111 af
Outflow = 0.74 cfs @ 12.46 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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 1S: WATERSHED 1 Runoff Area=98,046 sf 15.14% Impervious Runoff Depth>0.98"
Flow Length=563' Tc=21.7 min CN=47 Runoff=1.44 cfs 0.183 af

Reach POA #1: EX CB (ROUTE 26) Inflow=1.44 cfs 0.183 af
Outflow=1.44 cfs 0.183 af

Total Runoff Area = 2.251 ac Runoff Volume = 0.183 af Average Runoff Depth = 0.98"
84.86% Pervious = 1.910 ac 15.14% Impervious = 0.341 ac

Summary for Subcatchment 1S: WATERSHED 1

Runoff = 1.44 cfs @ 12.39 hrs, Volume= 0.183 af, Depth> 0.98"
Routed to Reach POA #1 : EX CB (ROUTE 26)

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 50 YEAR Rainfall=6.40"

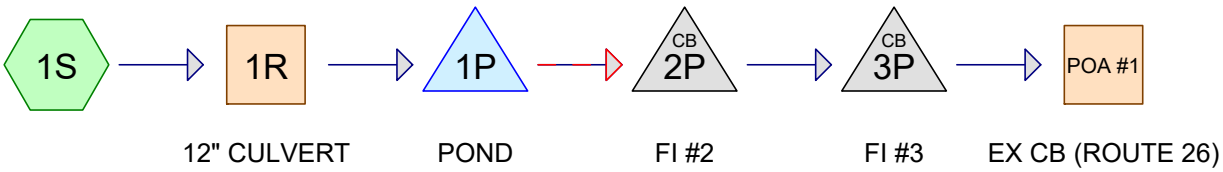
	Area (sf)	CN	Description
	71,672	39	>75% Grass cover, Good, HSG A
	11,533	30	Woods, Good, HSG A
*	14,841	98	ROOFS, GRAVEL PARKING, PAVED PARKING
	98,046	47	Weighted Average
	83,205		84.86% Pervious Area
	14,841		15.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	46	0.3900	0.12		**Sheet Flow, A-B** Woods: Dense underbrush n= 0.800 P2= 3.00"
9.2	104	0.0700	0.19		**Sheet Flow, B-C** Grass: Dense n= 0.240 P2= 3.00"
0.5	45	0.0500	1.57		**Shallow Concentrated Flow, C-D** Short Grass Pasture Kv= 7.0 fps
0.3	58	0.0400	3.22		**Shallow Concentrated Flow, D-E** Unpaved Kv= 16.1 fps
3.3	196	0.0200	0.99		**Shallow Concentrated Flow, E-F** Short Grass Pasture Kv= 7.0 fps
2.1	114	0.0020	0.91		**Shallow Concentrated Flow, F-G** Paved Kv= 20.3 fps
21.7	563	Total			

Summary for Reach POA #1: EX CB (ROUTE 26)

Inflow Area = 2.251 ac, 15.14% Impervious, Inflow Depth > 0.98" for 50 YEAR event
Inflow = 1.44 cfs @ 12.39 hrs, Volume= 0.183 af
Outflow = 1.44 cfs @ 12.39 hrs, Volume= 0.183 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Subcat Reach Pond Link

Routing Diagram for 22107 HydroCAD Proposed
Prepared by Summit Geoengineering Services, Printed 2/11/2024

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	3.00	2
2	10 YEAR	Type III 24-hr		Default	24.00	1	4.30	2
3	25 YEAR	Type III 24-hr		Default	24.00	1	5.40	2
4	50 YEAR	Type III 24-hr		Default	24.00	1	6.40	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.355	39	>75% Grass cover, Good, HSG A (1S)
0.632	98	ROOFS, GRAVEL PARKING, PAVED PARKING (1S)
0.265	30	Woods, Good, HSG A (1S)
2.251	**54**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.619	HSG A	1S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.632	Other	1S
2.251		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover
1.355	0.000	0.000	0.000	0.000	1.355	>75% Grass cover, Good
0.000	0.000	0.000	0.000	0.632	0.632	ROOFS, GRAVEL PARKING, PAVED PARKING
0.265	0.000	0.000	0.000	0.000	0.265	Woods, Good
1.619	**0.000**	**0.000**	**0.000**	**0.632**	**2.251**	**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)
1	1R	340.50	340.00	65.0	0.0077	0.012	0.0	12.0	0.0
2	1P	335.40	334.00	74.0	0.0189	0.010	0.0	10.0	0.0
3	2P	333.90	331.94	113.0	0.0173	0.010	0.0	12.0	0.0
4	3P	331.84	331.64	13.0	0.0154	0.010	0.0	12.0	0.0

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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 1S: Runoff Area=98,046 sf 28.06% Impervious Runoff Depth>0.14"
Flow Length=342' Tc=17.6 min CN=54 Runoff=0.10 cfs 0.026 af

Reach 1R: 12" CULVERT Avg. Flow Depth=0.12' Max Vel=1.93 fps Inflow=0.10 cfs 0.026 af
12.0" Round Pipe n=0.012 L=65.0' S=0.0077 '/' Capacity=3.39 cfs Outflow=0.10 cfs 0.026 af

Reach POA #1: EX CB (ROUTE 26) Inflow=0.02 cfs 0.005 af
Outflow=0.02 cfs 0.005 af

Pond 1P: POND Peak Elev=336.63' Storage=922 cf Inflow=0.10 cfs 0.026 af
Discarded=0.00 cfs 0.000 af Primary=0.02 cfs 0.005 af Outflow=0.02 cfs 0.005 af

Pond 2P: FI #2 Peak Elev=333.98' Inflow=0.02 cfs 0.005 af
12.0" Round Culvert n=0.010 L=113.0' S=0.0173 '/' Outflow=0.02 cfs 0.005 af

Pond 3P: FI #3 Peak Elev=331.92' Inflow=0.02 cfs 0.005 af
12.0" Round Culvert n=0.010 L=13.0' S=0.0154 '/' Outflow=0.02 cfs 0.005 af

Total Runoff Area = 2.251 ac Runoff Volume = 0.026 af Average Runoff Depth = 0.14"
71.94% Pervious = 1.619 ac 28.06% Impervious = 0.632 ac

Summary for Subcatchment 1S:

Runoff = 0.10 cfs @ 12.57 hrs, Volume= 0.026 af, Depth> 0.14"
Routed to Reach 1R : 12" CULVERT

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=3.00"

	Area (sf)	CN	Description
	59,004	39	>75% Grass cover, Good, HSG A
	11,533	30	Woods, Good, HSG A
*	27,509	98	ROOFS, GRAVEL PARKING, PAVED PARKING
	98,046	54	Weighted Average
	70,537		71.94% Pervious Area
	27,509		28.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	74	0.2500	0.11		**Sheet Flow, A1-B1** Woods: Dense underbrush n= 0.800 P2= 3.00"
4.5	76	0.0900	0.28		**Sheet Flow, B1-C1** Grass: Short n= 0.150 P2= 3.00"
0.8	81	0.0550	1.64		**Shallow Concentrated Flow, C1-D1** Short Grass Pasture Kv= 7.0 fps
1.2	111	0.0110	1.57		**Shallow Concentrated Flow, D1-E1** Grassed Waterway Kv= 15.0 fps
17.6	342	Total			

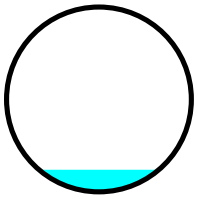
Summary for Reach 1R: 12" CULVERT

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.14" for 2 YEAR event
Inflow = 0.10 cfs @ 12.57 hrs, Volume= 0.026 af
Outflow = 0.10 cfs @ 12.59 hrs, Volume= 0.026 af, Atten= 1%, Lag= 1.1 min
Routed to Pond 1P : POND

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.93 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 0.8 min

Peak Storage= 3 cf @ 12.58 hrs
Average Depth at Peak Storage= 0.12' , Surface Width= 0.65'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.39 cfs

12.0" Round Pipe
n= 0.012 Corrugated PP, smooth interior
Length= 65.0' Slope= 0.0077 '/'
Inlet Invert= 340.50', Outlet Invert= 340.00'



Summary for Reach POA #1: EX CB (ROUTE 26)

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.03" for 2 YEAR event
Inflow = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af
Outflow = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: POND

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.14" for 2 YEAR event
Inflow = 0.10 cfs @ 12.59 hrs, Volume= 0.026 af
Outflow = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af, Atten= 79%, Lag= 419.9 min
Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af
Routed to Pond 2P : FI #2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 336.63' @ 19.59 hrs Surf.Area= 1,088 sf Storage= 922 cf
Flood Elev= 340.00' Surf.Area= 2,790 sf Storage= 7,707 cf

Plug-Flow detention time= 354.6 min calculated for 0.005 af (18% of inflow)
Center-of-Mass det. time= 201.9 min (1,115.7 - 913.9)

Volume	Invert	Avail.Storage	Storage Description
#1	335.50'	7,707 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
335.50	557	0	0
336.00	786	336	336
337.00	1,269	1,028	1,363
338.00	1,817	1,543	2,906
339.00	2,497	2,157	5,063
340.00	2,790	2,644	7,707

Device	Routing	Invert	Outlet Devices
#1	Primary	335.40'	**10.0" Round OCS OUTLET** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 335.40' / 334.00' S= 0.0189 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#2	Device 1	336.50'	**2.0" Vert. ORIFICE - 2YR** C= 0.600 Limited to weir flow at low heads
#3	Device 1	337.50'	**6.0" Vert. ORIFICE - 1OYR** C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.60'	**24.0" Horiz. OCS GRATE - 25YR** C= 0.600 Limited to weir flow at low heads
#5	Discarded	339.10'	**8.6' long x 6.9' breadth EMERGENCY SPILLWAY** 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 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65 2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.79

Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=335.50' (Free Discharge)
└─**5=EMERGENCY SPILLWAY** (Controls 0.00 cfs)

Primary OutFlow Max=0.02 cfs @ 19.59 hrs HW=336.63' (Free Discharge)
└─**1=OCS OUTLET** (Passes 0.02 cfs of 1.86 cfs potential flow)
  ├─**2=ORIFICE - 2YR** (Orifice Controls 0.02 cfs @ 1.21 fps)
  ├─**3=ORIFICE - 1OYR** (Controls 0.00 cfs)
  └─**4=OCS GRATE - 25YR** (Controls 0.00 cfs)

Summary for Pond 2P: FI #2

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.03" for 2 YEAR event
Inflow = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af
Outflow = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min
Primary = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af
Routed to Pond 3P : FI #3

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 333.98' @ 19.59 hrs
Flood Elev= 338.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	333.90'	**12.0" Round Culvert** L= 113.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 333.90' / 331.94' S= 0.0173 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.02 cfs @ 19.59 hrs HW=333.98' (Free Discharge)
1=Culvert (Inlet Controls 0.02 cfs @ 0.74 fps)

Summary for Pond 3P: FI #3

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.03" for 2 YEAR event
Inflow = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af
Outflow = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min
Primary = 0.02 cfs @ 19.59 hrs, Volume= 0.005 af
Routed to Reach POA #1 : EX CB (ROUTE 26)

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 331.92' @ 19.59 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	331.84'	**12.0" Round Culvert** L= 13.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 331.84' / 331.64' S= 0.0154 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.02 cfs @ 19.59 hrs HW=331.92' (Free Discharge)
1=Culvert (Inlet Controls 0.02 cfs @ 0.75 fps)

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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 1S: Runoff Area=98,046 sf 28.06% Impervious Runoff Depth>0.53"
Flow Length=342' Tc=17.6 min CN=54 Runoff=0.74 cfs 0.099 af

Reach 1R: 12" CULVERT Avg. Flow Depth=0.32' Max Vel=3.45 fps Inflow=0.74 cfs 0.099 af
12.0" Round Pipe n=0.012 L=65.0' S=0.0077 '/' Capacity=3.39 cfs Outflow=0.74 cfs 0.099 af

Reach POA #1: EX CB (ROUTE 26) Inflow=0.11 cfs 0.059 af
Outflow=0.11 cfs 0.059 af

Pond 1P: POND Peak Elev=337.55' Storage=2,138 cf Inflow=0.74 cfs 0.099 af
Discarded=0.00 cfs 0.000 af Primary=0.11 cfs 0.059 af Outflow=0.11 cfs 0.059 af

Pond 2P: FI #2 Peak Elev=334.08' Inflow=0.11 cfs 0.059 af
12.0" Round Culvert n=0.010 L=113.0' S=0.0173 '/' Outflow=0.11 cfs 0.059 af

Pond 3P: FI #3 Peak Elev=332.02' Inflow=0.11 cfs 0.059 af
12.0" Round Culvert n=0.010 L=13.0' S=0.0154 '/' Outflow=0.11 cfs 0.059 af

Total Runoff Area = 2.251 ac Runoff Volume = 0.099 af Average Runoff Depth = 0.53"
71.94% Pervious = 1.619 ac 28.06% Impervious = 0.632 ac

Summary for Subcatchment 1S:

Runoff = 0.74 cfs @ 12.36 hrs, Volume= 0.099 af, Depth> 0.53"
Routed to Reach 1R : 12" CULVERT

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=4.30"

	Area (sf)	CN	Description
	59,004	39	>75% Grass cover, Good, HSG A
	11,533	30	Woods, Good, HSG A
*	27,509	98	ROOFS, GRAVEL PARKING, PAVED PARKING
	98,046	54	Weighted Average
	70,537		71.94% Pervious Area
	27,509		28.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	74	0.2500	0.11		**Sheet Flow, A1-B1** Woods: Dense underbrush n= 0.800 P2= 3.00"
4.5	76	0.0900	0.28		**Sheet Flow, B1-C1** Grass: Short n= 0.150 P2= 3.00"
0.8	81	0.0550	1.64		**Shallow Concentrated Flow, C1-D1** Short Grass Pasture Kv= 7.0 fps
1.2	111	0.0110	1.57		**Shallow Concentrated Flow, D1-E1** Grassed Waterway Kv= 15.0 fps
17.6	342	Total			

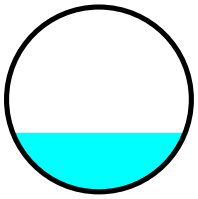
Summary for Reach 1R: 12" CULVERT

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.53" for 10 YEAR event
Inflow = 0.74 cfs @ 12.36 hrs, Volume= 0.099 af
Outflow = 0.74 cfs @ 12.37 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.6 min
Routed to Pond 1P : POND

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.45 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.01 fps, Avg. Travel Time= 0.5 min

Peak Storage= 14 cf @ 12.36 hrs
Average Depth at Peak Storage= 0.32' , Surface Width= 0.93'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.39 cfs

12.0" Round Pipe
n= 0.012 Corrugated PP, smooth interior
Length= 65.0' Slope= 0.0077 '/'
Inlet Invert= 340.50', Outlet Invert= 340.00'



Summary for Reach POA #1: EX CB (ROUTE 26)

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.32" for 10 YEAR event
Inflow = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af
Outflow = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: POND

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.53" for 10 YEAR event
Inflow = 0.74 cfs @ 12.37 hrs, Volume= 0.099 af
Outflow = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af, Atten= 85%, Lag= 199.8 min
Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af
Routed to Pond 2P : FI #2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 337.55' @ 15.69 hrs Surf.Area= 1,568 sf Storage= 2,138 cf
Flood Elev= 340.00' Surf.Area= 2,790 sf Storage= 7,707 cf

Plug-Flow detention time= 204.4 min calculated for 0.059 af (60% of inflow)
Center-of-Mass det. time= 115.3 min (980.1 - 864.8)

Volume	Invert	Avail.Storage	Storage Description
#1	335.50'	7,707 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
335.50	557	0	0
336.00	786	336	336
337.00	1,269	1,028	1,363
338.00	1,817	1,543	2,906
339.00	2,497	2,157	5,063
340.00	2,790	2,644	7,707

Device	Routing	Invert	Outlet Devices
#1	Primary	335.40'	**10.0" Round OCS OUTLET** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 335.40' / 334.00' S= 0.0189 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#2	Device 1	336.50'	**2.0" Vert. ORIFICE - 2YR** C= 0.600 Limited to weir flow at low heads
#3	Device 1	337.50'	**6.0" Vert. ORIFICE - 1OYR** C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.60'	**24.0" Horiz. OCS GRATE - 25YR** C= 0.600 Limited to weir flow at low heads
#5	Discarded	339.10'	**8.6' long x 6.9' breadth EMERGENCY SPILLWAY** 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 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65 2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.79

Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=335.50' (Free Discharge)
└─**5=EMERGENCY SPILLWAY** (Controls 0.00 cfs)

Primary OutFlow Max=0.11 cfs @ 15.69 hrs HW=337.55' (Free Discharge)
└─**1=OCS OUTLET** (Passes 0.11 cfs of 2.73 cfs potential flow)
  ├─**2=ORIFICE - 2YR** (Orifice Controls 0.10 cfs @ 4.73 fps)
  ├─**3=ORIFICE - 1OYR** (Orifice Controls 0.01 cfs @ 0.73 fps)
  └─**4=OCS GRATE - 25YR** (Controls 0.00 cfs)

Summary for Pond 2P: FI #2

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.32" for 10 YEAR event
Inflow = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af
Outflow = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af
Routed to Pond 3P : FI #3

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 334.08' @ 15.69 hrs
Flood Elev= 338.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	333.90'	**12.0" Round Culvert** L= 113.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 333.90' / 331.94' S= 0.0173 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 15.69 hrs HW=334.08' (Free Discharge)
1=Culvert (Inlet Controls 0.11 cfs @ 1.14 fps)

Summary for Pond 3P: FI #3

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.32" for 10 YEAR event
Inflow = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af
Outflow = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 15.69 hrs, Volume= 0.059 af
Routed to Reach POA #1 : EX CB (ROUTE 26)

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 332.02' @ 15.69 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	331.84'	**12.0" Round Culvert** L= 13.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 331.84' / 331.64' S= 0.0154 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 15.69 hrs HW=332.02' (Free Discharge)
1=Culvert (Inlet Controls 0.11 cfs @ 1.14 fps)

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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 1S: Runoff Area=98,046 sf 28.06% Impervious Runoff Depth>0.99"
Flow Length=342' Tc=17.6 min CN=54 Runoff=1.70 cfs 0.186 af

Reach 1R: 12" CULVERT Avg. Flow Depth=0.50' Max Vel=4.31 fps Inflow=1.70 cfs 0.186 af
12.0" Round Pipe n=0.012 L=65.0' S=0.0077 '/' Capacity=3.39 cfs Outflow=1.69 cfs 0.186 af

Reach POA #1: EX CB (ROUTE 26) Inflow=0.56 cfs 0.139 af
Outflow=0.56 cfs 0.139 af

Pond 1P: POND Peak Elev=337.96' Storage=2,831 cf Inflow=1.69 cfs 0.186 af
Discarded=0.00 cfs 0.000 af Primary=0.56 cfs 0.139 af Outflow=0.56 cfs 0.139 af

Pond 2P: FI #2 Peak Elev=334.32' Inflow=0.56 cfs 0.139 af
12.0" Round Culvert n=0.010 L=113.0' S=0.0173 '/' Outflow=0.56 cfs 0.139 af

Pond 3P: FI #3 Peak Elev=332.26' Inflow=0.56 cfs 0.139 af
12.0" Round Culvert n=0.010 L=13.0' S=0.0154 '/' Outflow=0.56 cfs 0.139 af

Total Runoff Area = 2.251 ac Runoff Volume = 0.186 af Average Runoff Depth = 0.99"
71.94% Pervious = 1.619 ac 28.06% Impervious = 0.632 ac

Summary for Subcatchment 1S:

Runoff = 1.70 cfs @ 12.30 hrs, Volume= 0.186 af, Depth> 0.99"
Routed to Reach 1R : 12" CULVERT

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=5.40"

	Area (sf)	CN	Description
	59,004	39	>75% Grass cover, Good, HSG A
	11,533	30	Woods, Good, HSG A
*	27,509	98	ROOFS, GRAVEL PARKING, PAVED PARKING
	98,046	54	Weighted Average
	70,537		71.94% Pervious Area
	27,509		28.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	74	0.2500	0.11		**Sheet Flow, A1-B1** Woods: Dense underbrush n= 0.800 P2= 3.00"
4.5	76	0.0900	0.28		**Sheet Flow, B1-C1** Grass: Short n= 0.150 P2= 3.00"
0.8	81	0.0550	1.64		**Shallow Concentrated Flow, C1-D1** Short Grass Pasture Kv= 7.0 fps
1.2	111	0.0110	1.57		**Shallow Concentrated Flow, D1-E1** Grassed Waterway Kv= 15.0 fps
17.6	342	Total			

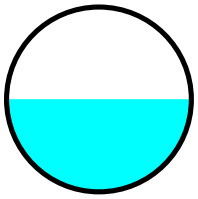
Summary for Reach 1R: 12" CULVERT

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.99" for 25 YEAR event
Inflow = 1.70 cfs @ 12.30 hrs, Volume= 0.186 af
Outflow = 1.69 cfs @ 12.30 hrs, Volume= 0.186 af, Atten= 0%, Lag= 0.5 min
Routed to Pond 1P : POND

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= 0.3 min
Avg. Velocity = 2.35 fps, Avg. Travel Time= 0.5 min

Peak Storage= 26 cf @ 12.30 hrs
Average Depth at Peak Storage= 0.50' , Surface Width= 1.00'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.39 cfs

12.0" Round Pipe
n= 0.012 Corrugated PP, smooth interior
Length= 65.0' Slope= 0.0077 '/'
Inlet Invert= 340.50', Outlet Invert= 340.00'



Summary for Reach POA #1: EX CB (ROUTE 26)

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.74" for 25 YEAR event
Inflow = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af
Outflow = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: POND

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.99" for 25 YEAR event
Inflow = 1.69 cfs @ 12.30 hrs, Volume= 0.186 af
Outflow = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af, Atten= 67%, Lag= 34.3 min
Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af
Routed to Pond 2P : FI #2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 337.96' @ 12.88 hrs Surf.Area= 1,794 sf Storage= 2,831 cf
Flood Elev= 340.00' Surf.Area= 2,790 sf Storage= 7,707 cf

Plug-Flow detention time= 123.7 min calculated for 0.139 af (75% of inflow)
Center-of-Mass det. time= 59.5 min (906.7 - 847.2)

Volume	Invert	Avail.Storage	Storage Description
#1	335.50'	7,707 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
335.50	557	0	0
336.00	786	336	336
337.00	1,269	1,028	1,363
338.00	1,817	1,543	2,906
339.00	2,497	2,157	5,063
340.00	2,790	2,644	7,707

Device	Routing	Invert	Outlet Devices
#1	Primary	335.40'	**10.0" Round OCS OUTLET** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 335.40' / 334.00' S= 0.0189 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#2	Device 1	336.50'	**2.0" Vert. ORIFICE - 2YR** C= 0.600 Limited to weir flow at low heads
#3	Device 1	337.50'	**6.0" Vert. ORIFICE - 1OYR** C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.60'	**24.0" Horiz. OCS GRATE - 25YR** C= 0.600 Limited to weir flow at low heads
#5	Discarded	339.10'	**8.6' long x 6.9' breadth EMERGENCY SPILLWAY** 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 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65 2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.79

Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=335.50' (Free Discharge)
└─**5=EMERGENCY SPILLWAY** (Controls 0.00 cfs)

Primary OutFlow Max=0.56 cfs @ 12.88 hrs HW=337.96' (Free Discharge)
└─**1=OCS OUTLET** (Passes 0.56 cfs of 3.03 cfs potential flow)
  ├─**2=ORIFICE - 2YR** (Orifice Controls 0.12 cfs @ 5.65 fps)
  ├─**3=ORIFICE - 1OYR** (Orifice Controls 0.43 cfs @ 2.30 fps)
  └─**4=OCS GRATE - 25YR** (Controls 0.00 cfs)

Summary for Pond 2P: FI #2

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.74" for 25 YEAR event
Inflow = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af
Outflow = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af, Atten= 0%, Lag= 0.0 min
Primary = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af
Routed to Pond 3P : FI #3

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 334.32' @ 12.88 hrs
Flood Elev= 338.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	333.90'	**12.0" Round Culvert** L= 113.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 333.90' / 331.94' S= 0.0173 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.56 cfs @ 12.88 hrs HW=334.32' (Free Discharge)
1=Culvert (Inlet Controls 0.56 cfs @ 1.75 fps)

Summary for Pond 3P: FI #3

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 0.74" for 25 YEAR event
Inflow = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af
Outflow = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af, Atten= 0%, Lag= 0.0 min
Primary = 0.56 cfs @ 12.88 hrs, Volume= 0.139 af
Routed to Reach POA #1 : EX CB (ROUTE 26)

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 332.26' @ 12.88 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	331.84'	**12.0" Round Culvert** L= 13.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 331.84' / 331.64' S= 0.0154 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.56 cfs @ 12.88 hrs HW=332.26' (Free Discharge)
1=Culvert (Inlet Controls 0.56 cfs @ 1.75 fps)

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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 1S: Runoff Area=98,046 sf 28.06% Impervious Runoff Depth>1.50"
Flow Length=342' Tc=17.6 min CN=54 Runoff=2.77 cfs 0.281 af

Reach 1R: 12" CULVERT Avg. Flow Depth=0.69' Max Vel=4.80 fps Inflow=2.77 cfs 0.281 af
12.0" Round Pipe n=0.012 L=65.0' S=0.0077 '/' Capacity=3.39 cfs Outflow=2.75 cfs 0.281 af

Reach POA #1: EX CB (ROUTE 26) Inflow=1.01 cfs 0.231 af
Outflow=1.01 cfs 0.231 af

Pond 1P: POND Peak Elev=338.57' Storage=4,059 cf Inflow=2.75 cfs 0.281 af
Discarded=0.00 cfs 0.000 af Primary=1.01 cfs 0.231 af Outflow=1.01 cfs 0.231 af

Pond 2P: FI #2 Peak Elev=334.49' Inflow=1.01 cfs 0.231 af
12.0" Round Culvert n=0.010 L=113.0' S=0.0173 '/' Outflow=1.01 cfs 0.231 af

Pond 3P: FI #3 Peak Elev=332.43' Inflow=1.01 cfs 0.231 af
12.0" Round Culvert n=0.010 L=13.0' S=0.0154 '/' Outflow=1.01 cfs 0.231 af

Total Runoff Area = 2.251 ac Runoff Volume = 0.281 af Average Runoff Depth = 1.50"
71.94% Pervious = 1.619 ac 28.06% Impervious = 0.632 ac

Summary for Subcatchment 1S:

Runoff = 2.77 cfs @ 12.27 hrs, Volume= 0.281 af, Depth> 1.50"
Routed to Reach 1R : 12" CULVERT

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 50 YEAR Rainfall=6.40"

	Area (sf)	CN	Description
	59,004	39	>75% Grass cover, Good, HSG A
	11,533	30	Woods, Good, HSG A
*	27,509	98	ROOFS, GRAVEL PARKING, PAVED PARKING
	98,046	54	Weighted Average
	70,537		71.94% Pervious Area
	27,509		28.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	74	0.2500	0.11		**Sheet Flow, A1-B1** Woods: Dense underbrush n= 0.800 P2= 3.00"
4.5	76	0.0900	0.28		**Sheet Flow, B1-C1** Grass: Short n= 0.150 P2= 3.00"
0.8	81	0.0550	1.64		**Shallow Concentrated Flow, C1-D1** Short Grass Pasture Kv= 7.0 fps
1.2	111	0.0110	1.57		**Shallow Concentrated Flow, D1-E1** Grassed Waterway Kv= 15.0 fps
17.6	342	Total			

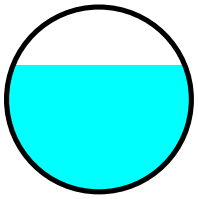
Summary for Reach 1R: 12" CULVERT

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 1.50" for 50 YEAR event
Inflow = 2.77 cfs @ 12.27 hrs, Volume= 0.281 af
Outflow = 2.75 cfs @ 12.28 hrs, Volume= 0.281 af, Atten= 1%, Lag= 0.6 min
Routed to Pond 1P : POND

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.80 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.55 fps, Avg. Travel Time= 0.4 min

Peak Storage= 37 cf @ 12.28 hrs
Average Depth at Peak Storage= 0.69' , Surface Width= 0.93'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.39 cfs

12.0" Round Pipe
n= 0.012 Corrugated PP, smooth interior
Length= 65.0' Slope= 0.0077 '/'
Inlet Invert= 340.50', Outlet Invert= 340.00'



Summary for Reach POA #1: EX CB (ROUTE 26)

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 1.23" for 50 YEAR event
Inflow = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af
Outflow = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: POND

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 1.50" for 50 YEAR event
Inflow = 2.75 cfs @ 12.28 hrs, Volume= 0.281 af
Outflow = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af, Atten= 63%, Lag= 29.1 min
Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af
Routed to Pond 2P : FI #2

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 338.57' @ 12.77 hrs Surf.Area= 2,206 sf Storage= 4,059 cf
Flood Elev= 340.00' Surf.Area= 2,790 sf Storage= 7,707 cf

Plug-Flow detention time= 93.4 min calculated for 0.231 af (82% of inflow)
Center-of-Mass det. time= 44.1 min (881.2 - 837.1)

Volume	Invert	Avail.Storage	Storage Description
#1	335.50'	7,707 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
335.50	557	0	0
336.00	786	336	336
337.00	1,269	1,028	1,363
338.00	1,817	1,543	2,906
339.00	2,497	2,157	5,063
340.00	2,790	2,644	7,707

Device	Routing	Invert	Outlet Devices
#1	Primary	335.40'	**10.0" Round OCS OUTLET** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 335.40' / 334.00' S= 0.0189 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#2	Device 1	336.50'	**2.0" Vert. ORIFICE - 2YR** C= 0.600 Limited to weir flow at low heads
#3	Device 1	337.50'	**6.0" Vert. ORIFICE - 1OYR** C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.60'	**24.0" Horiz. OCS GRATE - 25YR** C= 0.600 Limited to weir flow at low heads
#5	Discarded	339.10'	**8.6' long x 6.9' breadth EMERGENCY SPILLWAY** 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 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65 2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.79

Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=335.50' (Free Discharge)
└─**5=EMERGENCY SPILLWAY** (Controls 0.00 cfs)

Primary OutFlow Max=1.00 cfs @ 12.77 hrs HW=338.57' (Free Discharge)
└─**1=OCS OUTLET** (Passes 1.00 cfs of 3.44 cfs potential flow)
  ├─**2=ORIFICE - 2YR** (Orifice Controls 0.15 cfs @ 6.79 fps)
  ├─**3=ORIFICE - 1OYR** (Orifice Controls 0.86 cfs @ 4.36 fps)
  └─**4=OCS GRATE - 25YR** (Controls 0.00 cfs)

Summary for Pond 2P: FI #2

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 1.23" for 50 YEAR event
Inflow = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af
Outflow = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min
Primary = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af
Routed to Pond 3P : FI #3

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 334.49' @ 12.77 hrs
Flood Elev= 338.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	333.90'	**12.0" Round Culvert** L= 113.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 333.90' / 331.94' S= 0.0173 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.00 cfs @ 12.77 hrs HW=334.49' (Free Discharge)
1=Culvert (Inlet Controls 1.00 cfs @ 2.07 fps)

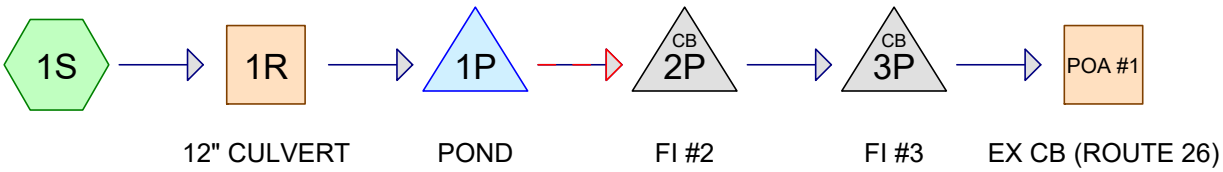
Summary for Pond 3P: FI #3

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 1.23" for 50 YEAR event
Inflow = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af
Outflow = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min
Primary = 1.01 cfs @ 12.77 hrs, Volume= 0.231 af
Routed to Reach POA #1 : EX CB (ROUTE 26)

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 332.43' @ 12.77 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	331.84'	**12.0" Round Culvert** L= 13.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 331.84' / 331.64' S= 0.0154 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.00 cfs @ 12.77 hrs HW=332.43' (Free Discharge)
1=Culvert (Inlet Controls 1.00 cfs @ 2.07 fps)



Subcat Reach Pond Link

Routing Diagram for 22107 HydroCAD Proposed_EMERGENCY SPILLWAY

Prepared by Summit Geoengineering Services, Printed 2/10/2024

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	100 YEAR	Type III 24-hr		Default	24.00	1	7.60	2

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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 1S: Runoff Area=98,046 sf 28.06% Impervious Runoff Depth>2.19"
Flow Length=342' Tc=17.6 min CN=54 Runoff=4.22 cfs 0.410 af

Reach 1R: 12" CULVERT Avg. Flow Depth=1.00' Max Vel=4.91 fps Inflow=4.22 cfs 0.410 af
12.0" Round Pipe n=0.012 L=65.0' S=0.0077 '/' Capacity=3.39 cfs Outflow=3.46 cfs 0.410 af

Reach POA #1: EX CB (ROUTE 26) Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond 1P: POND Peak Elev=339.39' Storage=6,065 cf Inflow=3.46 cfs 0.410 af
Outflow=3.34 cfs 0.286 af

Pond 2P: FI #2 Peak Elev=0.00'
12.0" Round Culvert n=0.010 L=113.0' S=0.0173 '/' Primary=0.00 cfs 0.000 af

Pond 3P: FI #3 Peak Elev=331.84' Inflow=0.00 cfs 0.000 af
12.0" Round Culvert n=0.010 L=13.0' S=0.0154 '/' Outflow=0.00 cfs 0.000 af

Total Runoff Area = 2.251 ac Runoff Volume = 0.410 af Average Runoff Depth = 2.19"
71.94% Pervious = 1.619 ac 28.06% Impervious = 0.632 ac

Summary for Subcatchment 1S:

Runoff = 4.22 cfs @ 12.27 hrs, Volume= 0.410 af, Depth> 2.19"
Routed to Reach 1R : 12" CULVERT

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=7.60"

	Area (sf)	CN	Description
	59,004	39	>75% Grass cover, Good, HSG A
	11,533	30	Woods, Good, HSG A
*	27,509	98	ROOFS, GRAVEL PARKING, PAVED PARKING
	98,046	54	Weighted Average
	70,537		71.94% Pervious Area
	27,509		28.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	74	0.2500	0.11		**Sheet Flow, A1-B1** Woods: Dense underbrush n= 0.800 P2= 3.00"
4.5	76	0.0900	0.28		**Sheet Flow, B1-C1** Grass: Short n= 0.150 P2= 3.00"
0.8	81	0.0550	1.64		**Shallow Concentrated Flow, C1-D1** Short Grass Pasture Kv= 7.0 fps
1.2	111	0.0110	1.57		**Shallow Concentrated Flow, D1-E1** Grassed Waterway Kv= 15.0 fps
17.6	342	Total			

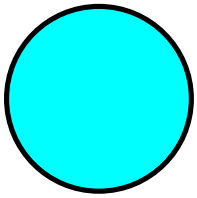
Summary for Reach 1R: 12" CULVERT

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 2.19" for 100 YEAR event
Inflow = 4.22 cfs @ 12.27 hrs, Volume= 0.410 af
Outflow = 3.46 cfs @ 12.60 hrs, Volume= 0.410 af, Atten= 18%, Lag= 20.1 min
Routed to Pond 1P : POND

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.91 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.72 fps, Avg. Travel Time= 0.4 min

Peak Storage= 51 cf @ 12.20 hrs
Average Depth at Peak Storage= 1.00'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.39 cfs

12.0" Round Pipe
n= 0.012 Corrugated PP, smooth interior
Length= 65.0' Slope= 0.0077 '/'
Inlet Invert= 340.50', Outlet Invert= 340.00'



Summary for Reach POA #1: EX CB (ROUTE 26)

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth = 0.00" for 100 YEAR event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: POND

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth > 2.19" for 100 YEAR event
Inflow = 3.46 cfs @ 12.60 hrs, Volume= 0.410 af
Outflow = 3.34 cfs @ 12.60 hrs, Volume= 0.286 af, Atten= 3%, Lag= 0.0 min
Discarded = 3.34 cfs @ 12.60 hrs, Volume= 0.286 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 339.39' @ 12.60 hrs Surf.Area= 2,612 sf Storage= 6,065 cf
Flood Elev= 340.00' Surf.Area= 2,790 sf Storage= 7,707 cf

Plug-Flow detention time= 116.2 min calculated for 0.286 af (70% of inflow)
Center-of-Mass det. time= 46.3 min (875.3 - 828.9)

Volume	Invert	Avail.Storage	Storage Description
#1	335.50'	7,707 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
335.50	557	0	0
336.00	786	336	336
337.00	1,269	1,028	1,363
338.00	1,817	1,543	2,906
339.00	2,497	2,157	5,063
340.00	2,790	2,644	7,707

Device	Routing	Invert	Outlet Devices
#1	Discarded	339.10'	**8.6' long x 6.9' breadth EMERGENCY SPILLWAY** 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 5.00 5.50 Coef. (English) 2.40 2.52 2.70 2.68 2.68 2.67 2.66 2.65 2.65 2.65 2.66 2.65 2.66 2.68 2.70 2.73 2.79

Discarded OutFlow Max=3.31 cfs @ 12.60 hrs HW=339.39' (Free Discharge)
↑**1=EMERGENCY SPILLWAY** (Weir Controls 3.31 cfs @ 1.32 fps)

Summary for Pond 2P: FI #2

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth = 0.00" for 100 YEAR event
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Pond 3P : FI #3

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 0.00' @ 0.00 hrs
Flood Elev= 338.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	333.90'	**12.0" Round Culvert** L= 113.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 333.90' / 331.94' S= 0.0173 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=0.00' (Free Discharge)
1=Culvert (Controls 0.00 cfs)

Summary for Pond 3P: FI #3

Inflow Area = 2.251 ac, 28.06% Impervious, Inflow Depth = 0.00" for 100 YEAR event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach POA #1 : EX CB (ROUTE 26)

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 331.84' @ 5.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	331.84'	**12.0" Round Culvert** L= 13.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 331.84' / 331.64' S= 0.0154 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=331.84' (Free Discharge)
1=Culvert (Controls 0.00 cfs)

SUMMIT
GEOENGINEERING SERVICES

Section 4

Traffic/Parking Summary

Office: 210 Maine Avenue, Farmingdale, ME 04344
Mailing: PO Box 515, Gardiner, ME 04345

SUMMIT
GEOENGINEERING SERVICES

Traffic/Parking Summary

The existing site has approximately twenty-two (22) standard parking spaces (9-ft x 18-ft). Per the Comprehensive Land Use Code, Table 508.21.M: Minimum Parking Standards, a "Library" use requires a minimum of 1 space for every 150-square feet (ft) of gross floor area. Per the Tax Card (refer to Section 2), the existing Library has approximately 6,000-sf of gross floor area (3,000-sf for basement & first floor), which results in a minimum of forty (40) standard parking spaces.

The proposed library addition includes an increase of 2,000-sf of gross floor area (1,000-sf each for basement & first floor), which results in a total gross floor area amount of 8,000-sf. Using the same requirement as listed above, the proposed conditions require a minimum of fifty-three (53) parking spaces. The proposed site modifications include a total of sixty-three (63) parking spaces; therefore, exceeding the minimum parking space requirement.

The existing conditions are providing only 55% of the required minimum parking spaces; therefore, we believe that by increasing the provided parking spaces to exceed the minimum standard, there will be more than sufficient spaces to accommodate both the new park and library usage. In addition, the likelihood of simultaneous events occurring at both the park & library are deemed highly improbable.

PARKING SUMMARY		
	Required	**Provided**
Existing	40	22
Proposed	53	63

SUMMIT
GEOENGINEERING SERVICES

Section 5

Cost Estimate

Office: 210 Maine Avenue, Farmingdale, ME 04344
Mailing: PO Box 515, Gardiner, ME 04345

Poland New Park Preliminary Cost Estimate

	Unit	Quantity	Unit ($)	Total ($)
Common Excavation (Box Cut - New Paved Area)	CY	1200	$25.00	$30,000.00
Common Excavation (Pond - CUT)	CY	660	$25.00	$16,500.00
Aggregate Base - MDOT 703.06 Type A	CY	250	$50.00	$12,500.00
Aggregate Subbase - MDOT 703.06 Type D	CY	950	$45.00	$42,750.00
3/4" Crushed Stone	CY	150	$50.00	$7,500.00
2" Rigid Insulation	SF	500	$5.00	$2,500.00
Mirafi 140N Geotextile Fabric (Pond)	SF	2500	$3.00	$7,500.00
Mirafi 140N Geotextile Fabric (Stone Dust Path)	SF	4200	$3.00	$12,600.00
Machine Placed HMA, 9.5mm	TON	160	$125.00	$20,000.00
Machine Placed HMA, 19mm	TON	240	$115.00	$27,600.00
1/4" Stone Dust	CY	60	$125.00	$7,500.00
Rip-Rap	CY	120	$75.00	$9,000.00
Loam & Seed	SY	350	$15.00	$5,250.00
4-ft Dia. Field Inlet	EACH	3	$3,500.00	$10,500.00
4-ft Dia. Outlet Control Structure/Catch Basin	EACH	2	$5,000.00	$10,000.00
4" SDR35 Perforated PVC Pipe	LF	20	$45.00	$900.00
4" SDR35 Solid PVC Pipe	LF	30	$50.00	$1,500.00
6" SDR35 Solid PVC Pipe	LF	90	$80.00	$7,200.00
10" SDR35 Solid PVC Pipe	LF	90	$100.00	$9,000.00
12" SDR35 Solid PVC Pipe	LF	250	$110.00	$27,500.00
12" ADS N-12 Dual Wall Pipe	LF	66	$120.00	$7,920.00
ADA Signage	EACH	3	$450.00	$1,350.00
Concrete Wheel Stops	EACH	9	$300.00	$2,700.00
Erosion Control	LUMP SUM	1	$2,000.00	$2,000.00
Mobilization	LUMP SUM	1	$20,000.00	$20,000.00
			STORMWATER-RELATED ITEMS	**$122,770.00**
			TOTAL	**$301,770.00**
ALTERNATE - Substitute Reclaim for Pavement				
Reclaim Pavement (6" Layer)	CY	350	$65.00	$22,750.00
			STORMWATER-RELATED ITEMS	**$122,770.00**
			TOTAL	**$276,920.00**

SUMMIT
GEOENGINEERING SERVICES

Section 6

Building Elevations

Office: 210 Maine Avenue, Farmingdale, ME 04344
Mailing: PO Box 515, Gardiner, ME 04345

TOWN OF POLAND

1231 Maine Street
Poland, ME 04274
www.polandtownoffice.org
(207) 998-4601

February 8, 2024

Poland Planning Board
1231 Maine Street
Poland, Maine 04274

Dear Planning Board,

We are looking forward to moving ahead with the A.B. Ricker Library expansion project and construction of a Municipal Park.

The site plan you will review shows the proposed expansion of the A.B. Ricker Library and construction of the Municipal Park. Since both the Library and Park projects occupy portions of adjoining parcels, we have included a drainage plan that encompasses the entire area.

The drainage plan proposes tying into the MDOT storm water drain on RT 26. We have reached out to MDOT to tie into their storm water drain, but have not yet received approval. We understand that should the Planning Board approve the site plan, receiving MDOT permission to tie into their system would likely be a condition of approval.

Sincerely,

Joanne Messer

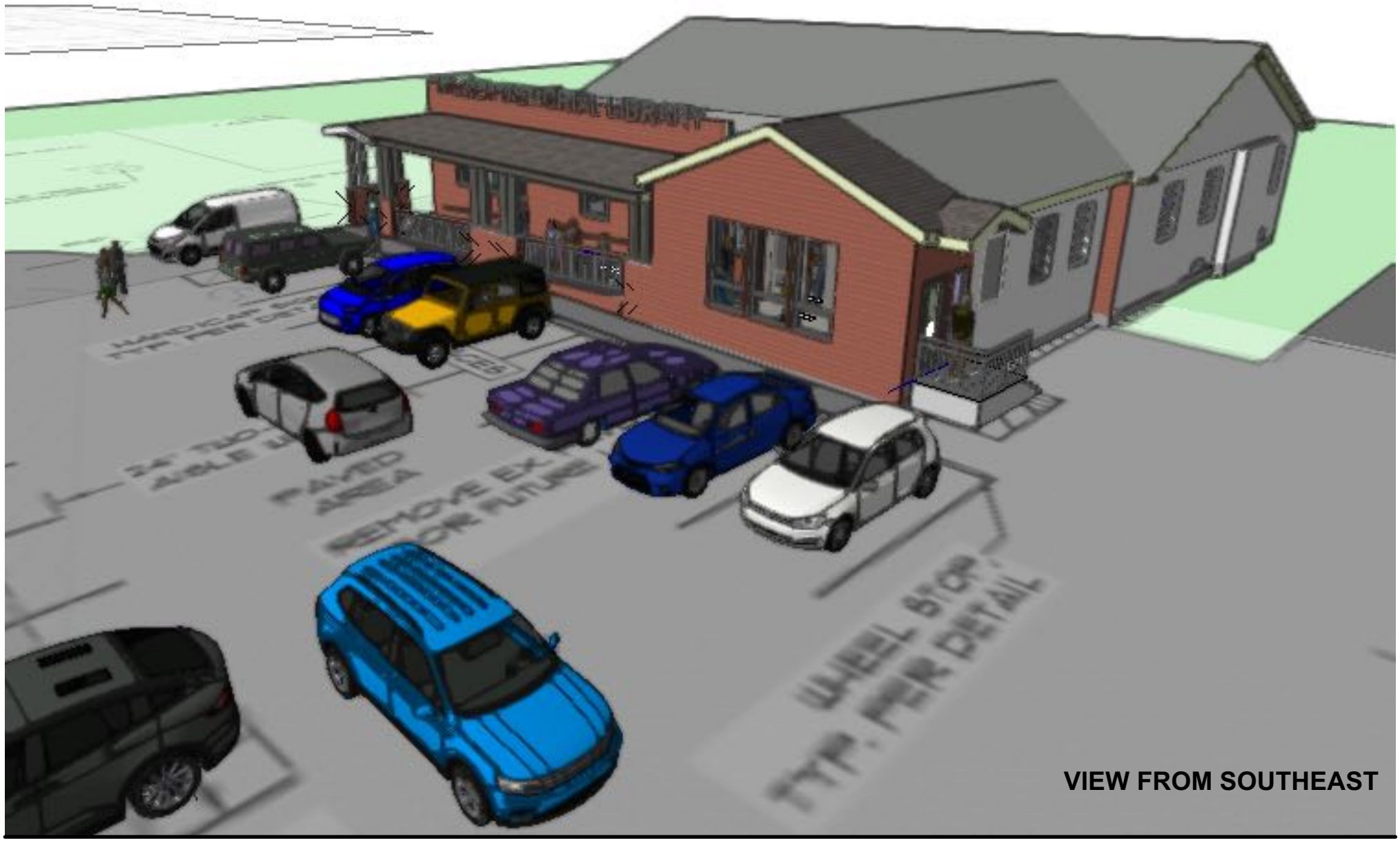
Joanne Messer
A.B. Ricker Library Director

Scott M Segal

Scott Segal
Poland Parks and Recreation Director

Matthew Garside

Matthew Garside
Poland Town Manager



MICHEL GIASSON AIA - ARCHITECT
PO BOX 381- AUBURN ME. 207.240.1969. MG@GIASSON.NET

PROPOSED LIBRARY ADDITION

RICKER MEMORIAL LIBRARY POLAND. ME #22004 **2024.02.08**

VIEW FROM SOUTHWEST

MICHEL GIASSON AIA - ARCHITECT
PO BOX 381- AUBURN ME. 207.240.1969. MG@GIASSON.NET

PROPOSED LIBRARY ADDITION

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PO BOX 381- AUBURN ME. 207.240.1969. MG@GIASSON.NET

PROPOSED LIBRARY ADDITION

RICKER MEMORIAL LIBRARY POLAND. ME #22004 **2024.02.08**

LEGEND

- BOUNDARY LINE (SUBJECT PARCEL)
- IRON ROD OR PIPE FOUND
- N/F — NOW OR FORMERLY
- 2356/89 — BOOK AND PAGE NUMBER
- UTILITY POLE WITH OVERHEAD WIRES
- SD — EXISTING STORM DRAIN LINE
- NEW STORM DRAIN
- S — EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- NEW FIELD INLET
- D — NEW OUTLET CONTROL STRUCTURE
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- 243 — EXISTING CONTOUR
- 242 — NEW CONTOUR
- X 342.5 — NEW SPOT GRADE
- EXISTING BUILDING
- NEW BUILDING
- EXISTING PAVEMENT
- NEW PAVEMENT
- EXISTING TREE
- PROPOSED TREE
- NEW STONE DUST PATH
- PROPOSED SILT FENCE OR EROSION CONTROL MULCH

NOTES

1) THIS IS NOT A BOUNDARY SURVEY. BOUNDARY AND TOPOGRAPHIC INFORMATION WAS TAKEN FROM A PLAN ENTITLED "PLAN OF LAND OF TOWN OF POLAND, MAINE STREET, POLAND, MAINE", DATED NOVEMBER 28, 2017, PREPARED BY JONES ASSOCIATES, INC.

2) ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS.

3) OWNER OF RECORD - TOWN OF POLAND DEED REFERENCES:
   3.1) BK. 8620, PG. 348, BK. 856, PG. 169
   3.2) TAX MAP 40, LOT 2 & 3

4) THE PARCEL IS LOCATED IN THE DOWNTOWN ZONING DISTRICT & AQUIFER OVERLAY PROTECTION DISTRICT-1.

5) THE PARCEL IS NOT LOCATED WITHIN A 100-YEAR FLOOD HAZARD AREA AS SHOWN ON THE F.E.M.A. FLOOD INSURANCE RATE MAP COMMUNITY PANEL #23001 0292E, DATED JULY 8, 2013.

6) THE LOCATION, DEPTH, SIZE & EXISTENCE OF ALL UNDERGROUND UTILITY LINES, TANKS, AND OR STRUCTURES WAS NOT VERIFIED. CONTRACTOR SHALL CONTACT DIGSAFE/ON-TARGET TO DETERMINE ACTUAL LOCATIONS OF ALL PUBLIC AND PRIVATE UNDERGROUND UTILITY LINES, TANKS, AND/OR STRUCTURES PRIOR TO EXCAVATION.

7) THIS PLAN EXCLUDES DETAILS ON THE CONSTRUCTION OF PARK BUILDINGS, WHICH WILL BE PREPARED BY OTHERS.

IMPERVIOUS AREA TABULATION (WITHIN PROPERTY LINE)

TYPE	EXISTING (SF)	PROPOSED (SF)
PAVEMENT	10,401	24,558
BUILDING ROOF	3,997	5,553
GRAVEL	5,555	0
STONE DUST PATH	0	4,156
TOTAL	19,953	34,267
LOT AREA	121,150	121,150
% COVERAGE	16.5%	28.3%

PLANT LEGEND

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
AR	7	ACER RUBRUM	RED MAPLE	2" CAL
NS	1	NYSSA SALVATICA	BLACK TUPELO	2" CAL
QR	1	QUERCUS RUBRUM	RED OAK	2" CAL

STATE OF MAINE — FAITH R. THOMAS — LICENSED PROFESSIONAL ENGINEER

N/F TOWN OF POLAND
9664/95
TAX MAP 10, LOT 26
CONSERVATION EASEMENT

N/F TOWN OF POLAND
TAX MAP 40, LOT 3A
365/587

N/F TOWN OF POLAND
TAX MAP 40, LOT 3
8620/348

N/F KEVIN KAHKONEN
TAX MAP 10, LOT 25
3621/248

N/F TOWN OF POLAND
TAX MAP 40, LOT 2
856/169

N/F MAINE TELEPHONE CO.
TAX MAP 40, LOT 1
3303/222

TOWN HALL — POLICE/REC. DEPT — GARAGE — SHED — GAZEBO — NEW STAGE — AMPITHEATRE — PLAYGROUND — ICE SKATING AREA (APPROX.) — LIBRARY — FUTURE ADDITION 1,000 SF — MAINE TELEPHONE CO.

MAINE STREET ROUTE 26

LOCATION MAP

SCALE : 1" = 20'
0 10 20 40 60 80

NORTH

1	PLANNING BOARD SUBMISSION	2/13/2024
NO.	REVISION	DATE

SHEET TITLE: **SITE PLAN**

DRAWN BY: FRT
CHECKED BY: WMP
SCALE: 1" = 20'
DATE: DEC. 17, 2023

PROJECT:
A.B RICKER LIBRARY EXPANSION AND MUNICIPAL PARK
1211 MAINE STREET - POLAND, MAINE

CLIENT:
TOWN OF POLAND
1231 MAINE STREET - POLAND, MAINE 04274

SUMMIT GEOENGINEERING SERVICES
MAIL: P.O. BOX 515, GARDINER, ME 04345
OFFICE: 120 MAINE AVENUE, FARMINGDALE, ME
TEL: (207) 446-3360

JOB NO. - 22107
SHEET 1

LEGEND

- BOUNDARY LINE (SUBJECT PARCEL)
- IRON ROD OR PIPE FOUND
- N/F — NOW OR FORMERLY
- 2356/89 — BOOK AND PAGE NUMBER
- UTILITY POLE WITH OVERHEAD WIRES
- EXISTING STORM DRAIN LINE
- NEW STORM DRAIN
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- NEW FIELD INLET
- NEW OUTLET CONTROL STRUCTURE
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- 243 — EXISTING CONTOUR
- 242 — NEW CONTOUR
- 242.3 — NEW SPOT GRADE
- EXISTING BUILDING
- NEW BUILDING
- EXISTING PAVEMENT
- NEW PAVEMENT
- EXISTING TREE
- PROPOSED TREE
- NEW STONE DUST PATH
- PROPOSED SILT FENCE OR EROSION CONTROL MULCH

NOTES

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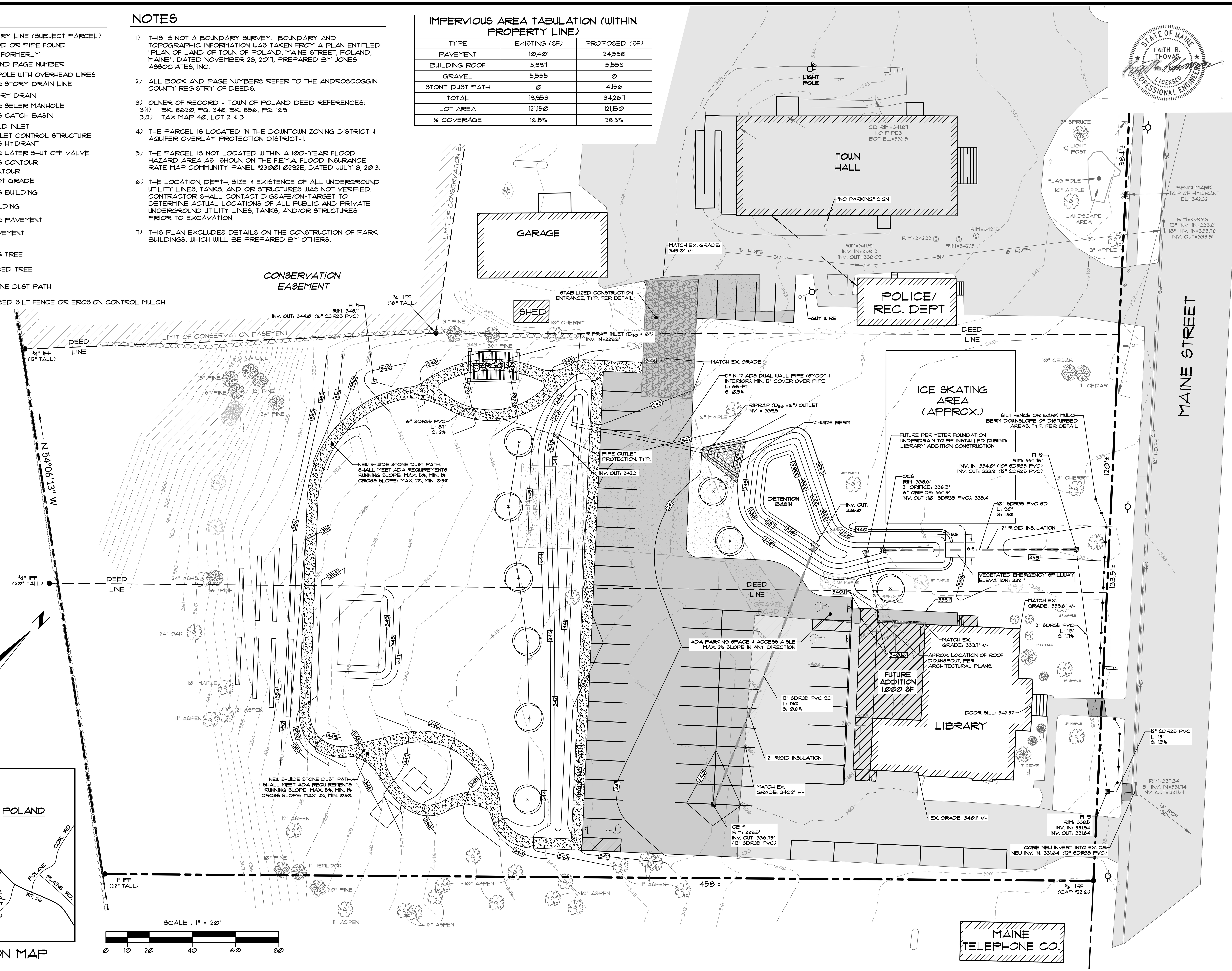
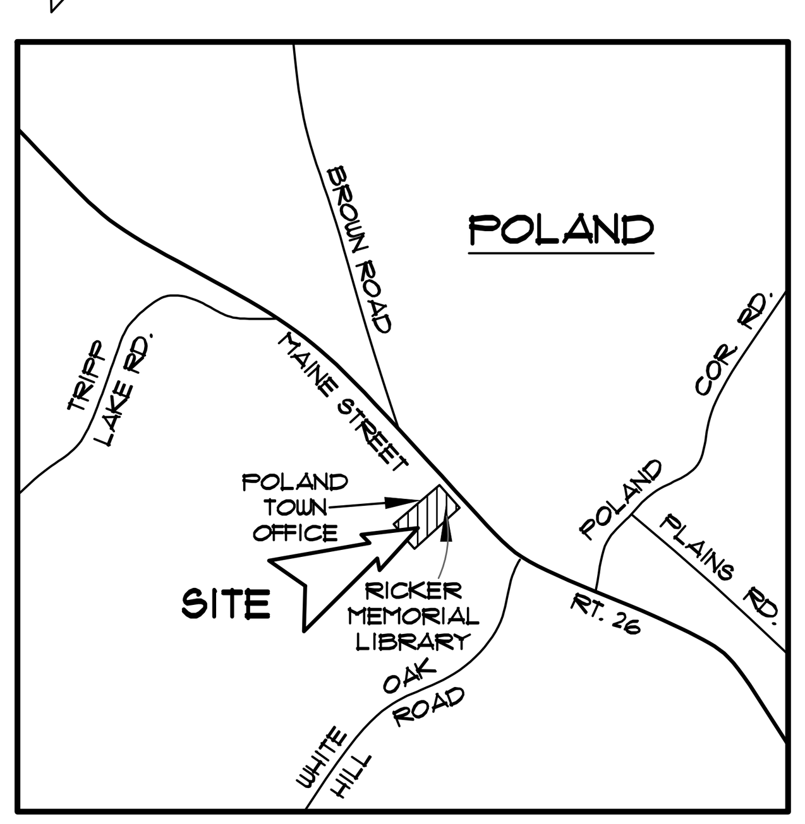
7) THIS PLAN EXCLUDES DETAILS ON THE CONSTRUCTION OF PARK BUILDINGS, WHICH WILL BE PREPARED BY OTHERS.

IMPERVIOUS AREA TABULATION (WITHIN PROPERTY LINE)

TYPE	EXISTING (SF)	PROPOSED (SF)
PAVEMENT	10,401	24,558
BUILDING ROOF	3,997	5,553
GRAVEL	5,555	0
STONE DUST PATH	0	4,156
TOTAL	19,953	34,267
LOT AREA	121,150	121,150
% COVERAGE	16.5%	28.3%





LOCATION MAP

1	PLANNING BOARD SUBMISSION — 2/13/2024
NO.	REVISION — DATE

SHEET TITLE: **GRADING PLAN**

SCALE: 1" = 20' DRAWN BY: FRT
DATE: DEC. 17, 2023 CHECKED BY: WMP

PROJECT: **A.B RICKER LIBRARY EXPANSION AND MUNICIPAL PARK**
1211 MAINE STREET - POLAND, MAINE

CLIENT: TOWN OF POLAND
1231 MAINE STREET - POLAND, MAINE 04274

OFFICE: 210 MAINE AVENUE FARMINGDALE, MAINE TEL.: (207) 446-3360
MAIL: P.O. BOX 515 GARDINER, ME 04345
SUMMIT GEOENGINEERING SERVICES

JOB NO. - 22107
SHEET 2

GENERAL CONSTRUCTION NOTES

1) THE CONTRACT WORK TO BE PERFORMED ON THIS PROJECT CONSISTS OF FURNISHING ALL REQUIRED LABOR, MATERIALS, EQUIPMENT, IMPLEMENTS, PARTS AND SUPPLIES NECESSARY FOR OR APPURTENANT TO, THE INSTALLATION OF CONSTRUCTION IMPROVEMENTS IN ACCORDANCE WITH THESE DRAWINGS AND AS FURTHER ELABORATED IN ANY ACCOMPANYING SPECIFICATIONS.

2) THE WORK SHALL BE PERFORMED IN A THOROUGH WORKMANLIKE MANNER. ALL CONTRACTORS TO CONFORM TO ALL APPLICABLE OSHA STANDARDS. ANY REFERENCE TO A SPECIFICATION OR DESIGNATION OF THE AMERICAN SOCIETY FOR TESTING MATERIALS, FEDERAL SPECIFICATIONS, OR OTHER STANDARDS, CODES OR ORDERS, REFERS TO THE MOST RECENT OR LATEST SPECIFICATION OR DESIGNATION.

3) ALL CONSTRUCTION WITHIN THE TOWN OF POLAND OR M.D.O.T. RIGHTS OF WAY SHALL COMPLY WITH TOWN PUBLIC WORKS AND/OR MDOT STANDARDS.

4) THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED BY THE TOWN OF POLAND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE TOWN OF POLAND REQUIRED TO PERFORM ALL THE WORK (STREET OPENINGS, BUILDING PERMIT, ETC.). THE CONTRACTOR SHALL POST ALL BONDS AS REQUIRED, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.

5) PRIOR TO CONSTRUCTION, THE SITE CONTRACTOR IS TO INFORM ALL AREA UTILITY COMPANIES AND GOVERNMENTAL AGENCIES OF PLANNED CONSTRUCTION. THE SITE CONTRACTOR IS REQUIRED TO CONTACT DIG-SAFE (1-800-225-4977) AT LEAST 3 BUSINESS DAYS PRIOR TO ANY EXCAVATION TO VERIFY ALL UNDERGROUND AND OVERHEAD UTILITY LOCATIONS.

6) THE PROJECT DRAWINGS ARE GENERALLY SCHEMATIC AND INDICATE THE POSSIBLE LOCATION OF EXISTING UNDERGROUND UTILITIES. INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING SITE GRADING PLANS PREPARED BY JKL LAND SURVEYING IN 2021. IT IS NOT GUARANTEED TO BE CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES AS APPROPRIATE. THE CONTRACTOR IS TO PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING THE EXCAVATING AND BACKFILLING OPERATIONS. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED UTILITIES BE FOUND, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH THE WORK IN THIS AREA.

7) IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLANS, APPROVALS, AND DETAILS FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL THE SITE CONDITIONS IN THE FIELD AND CONTACT THE DESIGN ENGINEER IF THERE ARE ANY DISCREPANCIES REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT AN APPROPRIATE REVISION CAN BE MADE PRIOR TO BIDDING.

8) ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED IN WRITING BY THE OWNER, DESIGN ENGINEER, AND APPROPRIATE GOVERNMENTAL AGENCY PRIOR TO INSTALLATION.

9) ALL EXCAVATION SHALL BE BACKFILLED TO EXISTING GRADE BEFORE THE END OF THE DAY OR ADEQUATELY PROTECTED FROM DANGER TO HUMANS AND ANIMALS.

10) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FIELD LAYOUT. THE OWNER WILL PROVIDE A BENCH MARK AT THE CONSTRUCTION SITE FROM WHICH TO BEGIN LAYOUT.

11) THE CONTRACTOR SHALL FURNISH ELECTRICAL POWER, WATER, AND SANITARY FACILITIES FOR HIS EXCLUSIVE USE AT THE CONSTRUCTION SITE SHOULD THE CONTRACTOR DEEM THIS ESSENTIAL FOR THE PROPER PERFORMANCE OF THE CONTRACT.

12) WORK MAY PROGRESS MONDAY THROUGH FRIDAY 7:00 AM TO 7:00 PM. WORK AT OTHER TIMES MAY PROCEED UPON WRITTEN APPROVAL BY THE OWNER AND THE TOWN OF POLAND.

13) THE CONTRACTOR SHALL GUARANTEE THE FAITHFUL REMEDY OF ANY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP AND GUARANTEES PAYMENT FOR ANY RESULTING DAMAGE WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT.

14) THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF CONSTRUCTION.

15) PROPER IMPLEMENTATION AND MAINTENANCE OF EROSION CONTROL MEASURES ARE OF PARAMOUNT IMPORTANCE FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER, THEIR REPRESENTATIVES, OR STATE/LOCAL/FEDERAL INSPECTORS AT NO ADDITIONAL COST TO THE OWNER.

16) CONTRACTOR SHALL PROVIDE THE FOLLOWING SUBMITTALS FOR REVIEW:

- OUTLET CONTROL STRUCTURE
- WOVEN GEOTEXTILE
- FIELD INLET
- THE CONTRACTOR SHALL SUBMIT LABORATORY GRADATION ANALYSIS AND MOISTURE DENSITY TESTS ON THE FOLLOWING MATERIALS:
  - ¾" CRUSHED STONE (MDOT 703.13 (2020))
  - TYPE A & D GRAVEL (MDOT 703.06 (2020)
  - ASPHALT MIX DESIGNS

EROSION & SEDIMENTATION CONTROL NOTES

1) THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING THE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS, DEPARTMENT OF ENVIRONMENTAL PROTECTION, DATED 2014. ADDITIONAL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY DURING ON-SITE INSPECTIONS BY THE OWNER, THEIR REPRESENTATIVES OR STATE/LOCAL/FEDERAL INSPECTORS AT NO ADDITIONAL COST TO THE OWNER.

2) THE CONTRACTOR SHALL INSPECT EROSION & SEDIMENT CONTROL MEASURES WEEKLY, BEFORE AND AFTER RAIN EVENTS Ø.5" OR GREATER, AND PRIOR TO COMPLETING STABILIZATION THROUGHOUT THE DURATION OF THE PROJECT INCLUDING WEEKENDS AND HOLIDAYS.

3) PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE DOWN GRADIENT EDGE OF THE DISTURBED AREA AND ADJACENT TO DRAINAGE CHANNELS WITHIN THIS AREA. SILT FENCE LOCATIONS SHOWN ARE APPROXIMATE. INSTALL WHERE APPROPRIATE TO CONTROL SEDIMENTATION ON AND OFF SITE. SILT FENCE SHALL BE REMOVED AFTER THE SITE IS STABILIZED WITH AT LEAST 90% VEGETATED GROWTH.

4) THE FOLLOWING GENERAL PRACTICES SHALL BE FOLLOWED:

- NATURAL VEGETATION WILL BE MAINTAINED TO THE GREATEST EXTENT PRACTICAL.
- SEDIMENT BARRIERS (E.G., SILT FENCE) SHALL BE INSTALLED PRIOR TO BEGINNING SOIL DISTURBANCE ACTIVITIES (E.G., GRUBBING, GRADING) AT THE PERIMETER OF THE PROPERTY. SEDIMENT BARRIERS WILL BE MAINTAINED UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.
- EXPOSED SOILS THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS WILL BE STABILIZED WITH MULCH OR OTHER NON-ERODIBLE COVER
- EROSION AND SEDIMENT CONTROL FEATURES WILL BE INSPECTED AND REPAIRED WEEKLY AND BEFORE AND AFTER EVERY STORM EVENT.
- TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.
- EXCAVATED MATERIALS TO BE HAULED OFF SITE AND PROPERLY DISPOSED. IT IS NOT ANTICIPATED THAT MATERIALS WILL BE STOCKPILED ON SITE DURING CONSTRUCTION ACTIVITIES. IN THE CASE OF AN URGENT SITUATION, TEMPORARY STOCKPILES WILL BE LIMITED TO UNPAVED & FLAT AREAS OF THE SITE AND THE PERIMETER WILL BE SURROUNDED WITH A ROW OF SILT FENCE.

5) 4" OF LOAM (MINIMUM) SHALL BE SPREAD OVER THE DISTURBED AREA AND SMOOTHED TO A UNIFORM SURFACE. SOIL TESTS ARE RECOMMENDED TO DETERMINE THE APPROPRIATE APPLICATION RATE OF LIME AND FERTILIZER. IF SOIL TESTING IS NOT FEASIBLE, THEN FERTILIZER CAN BE APPLIED AT A RATE OF 15 POUNDS PER 1000 SQUARE FEET OF 10-20-20 (N-P2Ø5-K2Ø) OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 150 POUNDS PER 1000 SQUARE FEET. BOTH THE LIME AND FERTILIZER SHOULD BE WORKED INTO THE GROUND TO A DEPTH OF 4" AS PRACTICAL. THE SEEDBED SHOULD BE SUBSEQUENTLY ROLLED TO FIRM PRIOR TO SEEDING. MULCH WILL BE APPLIED AT 2 BALES (70-90 POUNDS) PER 1000 SQUARE FEET TO COVER 75-90% OF THE GROUND SURFACE. MULCH WILL BE KEPT MOIST OR ANCHORED IN PLACE TO PREVENT WIND DISTURBANCE. EROSION CONTROL MIX & CHEMICAL MULCHES w/BINDER CAN BE ALSO USED ON SITE IF APPLIED IN ACCORDANCE WITH MDEP's BMPs.

6) IN THE EVENT THAT CONSTRUCTION OCCURS AFTER 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCTOBER 15th), DORMANT SEEDING WILL BE PERFORMED. THE PERMANENT SEED MIXTURE DESCRIBED ABOVE WOULD BE DOUBLED. IF HYDROSEEDING IS USED LIME AND FERTILIZER MAY BE ADDED WITH SEED AND APPLIED SIMULTANEOUSLY. THE USE OF STRAW MULCH AND ADHESIVE MATERIAL OR 500 POUNDS OF WOOD FIBER MULCH PROVIDES SUFFICIENT EROSIVE PROTECTION. SEEDING RATES SHALL BE INCREASED BY 10% IF HYDROSEEDING PRACTICES ARE EMPLOYED.

7) BETWEEN THE DATES OF OCTOBER 15TH THROUGH APRIL 15TH, THE FOLLOWING SEEDING AND STABILIZATION MEASURES SHALL BE IMPLEMENTED:

- FINE GRADE SLOPES AND PROTECT WITH MULCH AND DORMANT SEED. DORMANT SEEDING SHALL BE APPLIED AT A RATE 200% HIGHER THAN SPECIFIED FOR PERMANENT SEEDING (SEE LOAM & SEED DETAIL FOR PERMANENT SEED MIX).
- MULCH WILL BE ANCHORED BY PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, OR WOOD CELLULOSE FIBER.
- IF THE VEGETATIVE GROWTH COVERS LESS THAN 90% OF THE SURFACE AREA BY JUNE 1ST, PERMANENT SEEDING WILL BE APPLIED TO THE ENTIRE AREA AS DESCRIBED ABOVE.

8) DUST CONTROL METHODS WILL BE EMPLOYED ON-SITE TO PREVENT MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES THAT COULD POTENTIALLY CREATE HAZARDS TO WILDLIFE, HUMANS OR PLANT LIFE, BOTH ON SITE AND OFFSITE. DUST GENERATED BY ACTIVITIES AT THE SITE, INCLUDING DUST ASSOCIATED WITH TRAFFIC TO AND FROM THE SITE, WILL BE CONTROLLED BY SWEEPING, PAVING, WATERING OR OTHER BEST MANAGEMENT PRACTICES FOR CONTROL OF FUGITIVE EMISSIONS. PREVENTATIVE MEASURES INCLUDE THE FOLLOWING, AS NEEDED:

- TRAFFIC WILL BE RESTRICTED TO PREDETERMINED ROUTES (EXISTING DRIVEWAYS). EXIT AND ENTRANCE DURING CONSTRUCTION WILL BE LIMITED TO THESE LOCATIONS.
- NATURAL VEGETATION WILL BE MAINTAINED TO THE GREATEST EXTENT PRACTICAL.
- EXCAVATION ACTIVITIES WILL BE CONDUCTED IN PHASES TO REDUCE THE AREA OF LAND DISTURBED AT ONE TIME.
- MULCHING AND VEGETATIVE PRACTICES (E.G. TEMPORARY AND PERMANENT MULCHING, TEMPORARY AND PERMANENT VEGETATIVE COVER) WILL BE EMPLOYED TO REDUCE THE NEED FOR DUST CONTROL.
- PAVED SURFACES AND ROADWAYS WILL BE VACUUMED AND SWEPT WHERE NECESSARY TO REMOVE DUST BUILDUP.

9) DURING AND AFTER CONSTRUCTION, GOOD HOUSEKEEPING PRACTICES WILL BE EMPLOYED TO MINIMIZE POTENTIAL ENVIRONMENTAL IMPACTS, SPECIFICALLY:

- SPILL PREVENTION. BOTH PETROLEUM AND NON-PETROLEUM PRODUCTS UTILIZED DURING CONSTRUCTION WILL BE STORED IN COMPATIBLE AND PROPERLY LABELED CONTAINERS. WHEN NOT IN USE, THESE CONTAINERS WILL BE CLOSED AND STORED IN A SECURE AREA. A SPILL KIT WILL BE KEPT IN CLOSE PROXIMITY TO THE SECURED AREA. TEMPORARY FUEL STORAGE TANKS MOBILIZED TO THE SITE FOR CONSTRUCTION WILL BE DOUBLE-WALLED. BOTH PREVENTATIVE AND ROUTINE MAINTENANCE WILL BE CONDUCTED TO MINIMIZE THE POTENTIAL FOR FUEL RELEASES. THESE ACTIVITIES WILL BE CONDUCTED OFFSITE DURING CONSTRUCTION.

- FUGITIVE SEDIMENT AND DUST DURING CONSTRUCTION, TRACKING OF MUD FROM CONSTRUCTION VEHICLES INTO THE PUBLIC ROAD WILL BE MINIMIZED. DURING WET PERIODS, THE PUBLIC ROAD WILL BE SWEPT WEEKLY, AT A MINIMUM, TO CONTROL THE AMOUNT OF MUD LEAVING THE SITE. DURING DRY PERIODS, FUGITIVE SEDIMENT AND DUST WILL BE CONTROLLED ON SITE USING A WATER TRUCK, OR SIMILAR, AS NEEDED.

WINTER CONSTRUCTION NOTES

1) WINTER CONSTRUCTION IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM OCTOBER 15TH - APRIL 15TH. IF DISTURBED AREAS ARE NOT STABILIZED WITH PERMANENT MEASURES (E.G. PAVEMENT, GRAVEL ROAD BASE, 95% MATURE VEGETATION COVER, EROSION CONTROL MULCH OR RIPRAP) 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.

2) SITE STABILIZATION

- HAY MULCH WILL BE APPLIED AT TWICE THE STANDARD TEMPORARY STABILIZATION RATE (OVERWINTER RATE: 150 POUNDS PER 1000 SQUARE FEET OR 3 TONS PER ACRE) AND ANCHORED WITH NETTING (PEG AND TWINE) OR A TACKIFIER TO PREVENT MULCH DISPLACEMENT BEFORE FREEZING CONDITIONS. NO SOIL SHOULD BE VISIBLE THROUGH THE MULCH 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.
- DORMANT SEEDING AND MULCH SHOULD BE APPLIED AT 3 TIMES THE SPECIFIED AMOUNT AFTER THE FIRST KILLING FROST. ALL DORMANT SEEDING BEDS SHOULD BE COVERED WITH OVERWINTER HAY MULCH OR AN ANCHORED EROSION CONTROL BLANKET.
- TEMPORARY VEGETATION SHOULD BE APPLIED BY OCTOBER 1ST WITH WINTER RYE AT 3 POUNDS PER 1000 SQUARE FEET, AND MULCHED WITH ANCHORED HAY AT 75 POUNDS PER 1000 SQUARE FEET OR WITH EROSION CONTROL BLANKETS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES AND HAVE 75% COVERAGE BY NOVEMBER 1ST, THE AREA SHOULD BE STABILIZED FOR OVERWINTER PROTECTION.

3) SEDIMENT BARRIERS - ALL AREAS WITHIN 75' OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS.

4) SLOPES - 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.

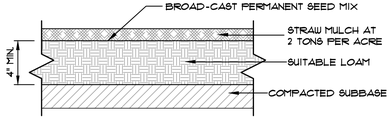
MAINTENANCE (DETENTION BASIN)

1) BASINS SHOULD BE INSPECTED ANNUALLY FOR EROSION, DESTABILIZATION OF SIDE SLOPES, EMBANKMENT SETTLING AND OTHER SIGNS OF STRUCTURAL FAILURE, AND LOSS OF STORAGE VOLUME DUE TO SEDIMENT ACCUMULATION. CORRECTIVE ACTION SHOULD BE TAKEN IMMEDIATELY UPON IDENTIFICATION OF PROBLEMS.

2) INLET & OUTLET INSPECTIONS: THE INLET AND OUTLET OF THE BASIN SHOULD BE CHECKED PERIODICALLY TO ENSURE THAT FLOW STRUCTURES ARE NOT BLOCKED BY DEBRIS. INSPECTIONS SHOULD BE CONDUCTED MONTHLY DURING WET WEATHER CONDITIONS (MARCH TO NOVEMBER). FLOW STRUCTURES SHOULD BE EASILY ACCESSIBLE FOR INSPECTION AND THE REMOVAL OF DEBRIS BLOCKAGE DURING STORM CONDITIONS.

3) EMBANKMENT MAINTENANCE: EMBANKMENTS SHOULD BE MAINTAINED TO PRESERVE THEIR INTEGRITY AS IMPOUNDMENT STRUCTURES, INCLUDING: MOWING, CONTROL OF WOODY VEGETATION, RODENT, AND OUTLET MAINTENANCE AND REPAIR. BASINS SHOULD BE MOWED NO MORE THAN TWICE A YEAR DURING THE GROWING SEASON TO MAINTAIN MAXIMUM GRASS HEIGHTS LESS THAN 12 INCHES. ALL ACCUMULATED TRASH AND DEBRIS SHOULD BE REMOVED.

4) SEDIMENT REMOVAL: SEDIMENT SHOULD BE REMOVED FROM THE PRETREATMENT STRUCTURE AT LEAST ANNUALLY AND FROM THE BASIN WHEN NECESSARY.



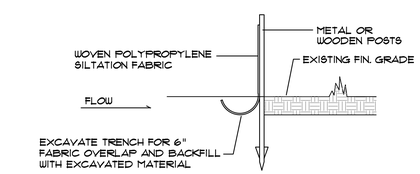
PERMANENT SEED MIX	
SEED MIXTURE	lbs. PER 1,000 sq. ft.
KENTUCKY BLUEGRASS	Ø.5
CREEPING RED FESCUE	Ø.5
PERENNIAL RYEGRASS	Ø.1

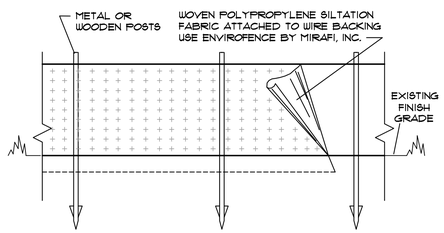
NOTE:

1. PLACE LOAM & SEED ON ALL DISTURBED AREAS NOT TO BE RIP RAPPED OR GRAVELED.

LOAM & SEED DETAIL

NOT TO SCALE

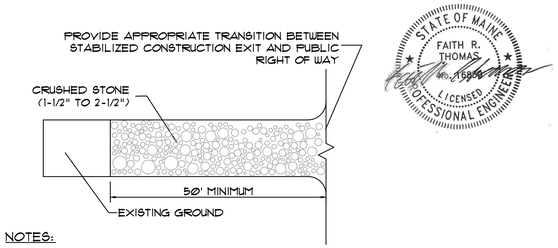




NOTE: SILTATION FABRIC WITH INTEGRAL MESH AND POSTS MAY BE USED

SILT FENCE DETAIL

NOT TO SCALE



NOTES:

1. STONE SIZE - AASHTO DESIGNATION M 43, SIZE #2 (2½" - 1½") USE CRUSHED STONE
2. LENGTH - AS EFFECTIVE BUT NOT LESS THAN 50'
3. RADIUS - AS EFFECTIVE
4. THICKNESS - NOT LESS THAN 6"
5. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS
6. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS, OR OTHER APPROVED METHODS.
7. MAINTENANCE - THE STABILIZED CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT OF WAYS MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION EXIT DETAIL

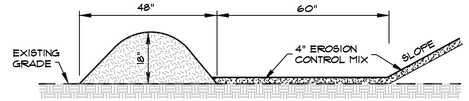
NOT TO SCALE

THE FILTER BERM SHALL CONSIST OF A WOOD WASTE COMPOST/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 ¾" 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).



BARK MULCH BERM DETAIL

NOT TO SCALE

STATE OF MAINE
FAITH R. THOMAS
LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	DATE
1	PLANNING BOARD SUBMISSION	2/13/2024

SHEET TITLE: SITE DETAILS - 1

SCALE: 1" = 20' | DRAWN BY: FRT
DATE: DEC. 17, 2023 | CHECKED BY: WMP

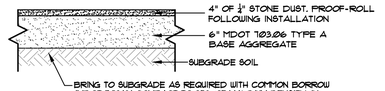
PROJECT:
A.B RICKER LIBRARY EXPANSION AND MUNICIPAL PARK
1211 MAINE STREET - POLAND, MAINE

CLIENT:
TOWN OF POLAND
1231 MAINE STREET - POLAND, MAINE Ø4274

MAIL: P.O. BOX 515
GARDINER, ME Ø4345
OFFICE: 310 MAINE AVENUE
FARMINGDALE, MAINE
TEL: (7Ø7) 446-3360
SUMMIT
GEOENGINEERING SERVICES

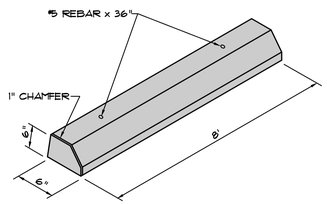
JOB NO. - 22107

SHEET 3



STONE DUST PATH

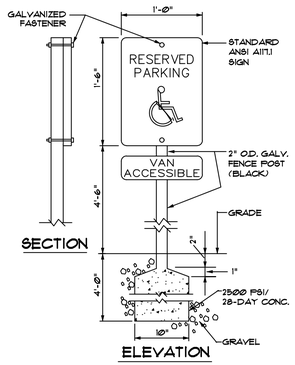
NOT TO SCALE



PROVIDE THREE CONCRETE WHEEL STOPS AT THE THREE PARKING SPACES IN FRONT OF THE STORE ENTRY VESTIBULE (SEE SHEET 1). PLACE BACK OF WHEEL STOP 2' FROM BUILDING WALL.

CONCRETE WHEEL STOP

NOT TO SCALE



HANDICAP SIGN DETAIL

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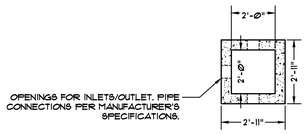
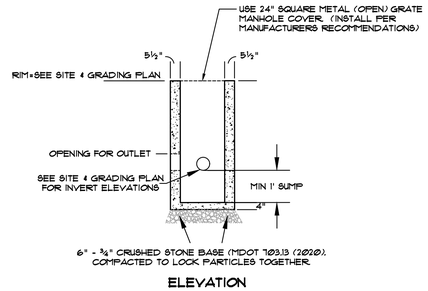


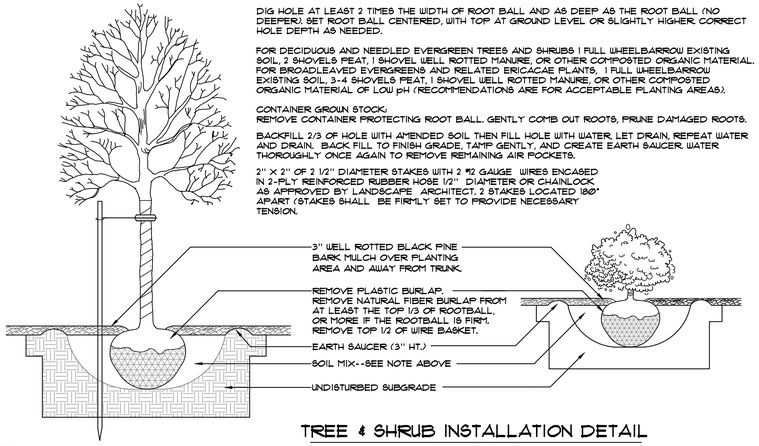
PLAN VIEW



ELEVATION

PRECAST CONCRETE FIELD INLET

NOT TO SCALE



DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.

FOR DECIDUOUS AND NEEDLED EVERGREEN TREES AND SHRUBS 1 FULL WHEELBARROW EXISTING SOIL, 2 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL. FOR BROADLEAVED EVERGREENS AND RELATED ERICACEAE PLANTS, 1 FULL WHEELBARROW EXISTING SOIL, 3-4 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL OF LOW pH (RECOMMENDATIONS ARE FOR ACCEPTABLE PLANTING AREAS).

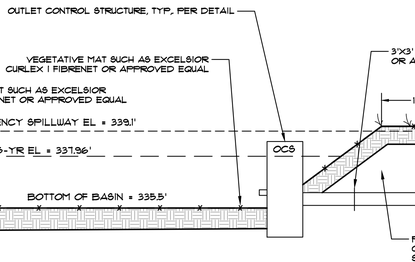
CONTAINER GROWN STOCK:
REMOVE CONTAINER PROTECTING ROOT BALL. GENTLY COMB OUT ROOTS, PRUNE DAMAGED ROOTS.

BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER, LET DRAIN, REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE, TAMP GENTLY, AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.

2" X 2" OF 2 1/2" DIAMETER STAKES WITH 2 #12 GAUGE WIRES ENCASED IN 2-PLY REINFORCED RUBBER HOSE 1/2" DIAMETER OR CHAINLOCK AS APPROVED BY LANDSCAPE ARCHITECT. 2 STAKES LOCATED 180° APART (STAKES SHALL BE FIRMLY SET TO PROVIDE NECESSARY TENSION.

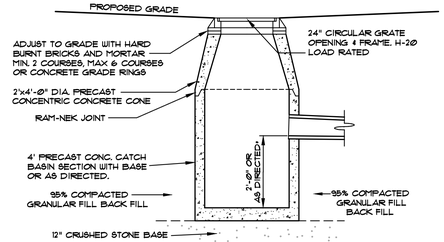
TREE & SHRUB INSTALLATION DETAIL

NOT TO SCALE



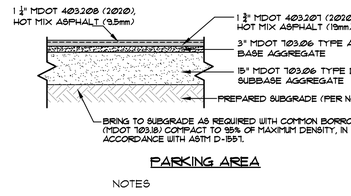
DETENTION BASIN DETAIL

NOT TO SCALE

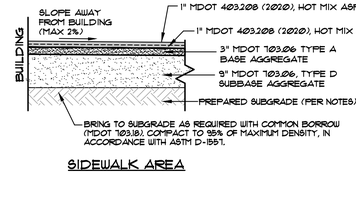


4'-Ø" DIA. CATCH BASIN

NOT TO SCALE



PARKING AREA



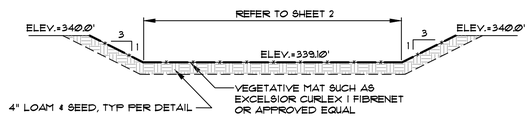
SIDEWALK AREA

NOTES

1) PROOF-ROLL THE SUBGRADE SOILS BENEATH THE SUBBASE AGGREGATE BY MAKING A MINIMUM OF 4 PASSES IN EACH OF TWO PERPENDICULAR DIRECTIONS WITH A VIBRATORY ROLLER WITH A MINIMUM OPERATING WEIGHT OF 10-TONS.
2) PLACE SUBBASE AGGREGATE IN 6-INCH TO 12-INCH LIFTS & COMPACT TO A MINIMUM OF 95% IN ACCORDANCE WITH ASTM D-1557.
3) COMPACT AGGREGATE BASE COURSE TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557.
4) HOT MIX ASPHALT PAVEMENT MUST BE COMPACTED TO 92%-97% OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D-2041.
5) A TACK COAT MUST BE USED BETWEEN SUCCESSIVE LIFTS OF BITUMINOUS PAVEMENT.
6) CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.
7) ANY OVEREXCAVATION REQUIRED TO REMOVE ORGANICS, SOFT, WET OR OTHER UNSUITABLE MATERIALS EXPOSED DURING EXCAVATIONS SHOULD BE BACKFILLED WITH TYPE D OR ¾" CRUSHED STONE (2020 MDOT 703.13).

PAVED AREA CROSS SECTION

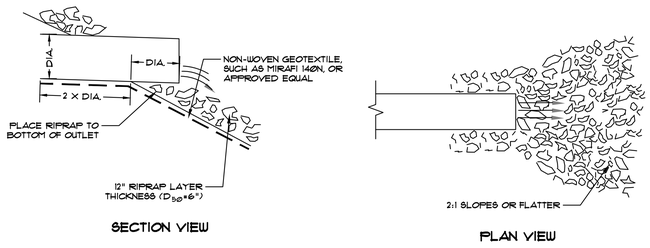
NOT TO SCALE



EMERGENCY SPILLWAY DETAIL

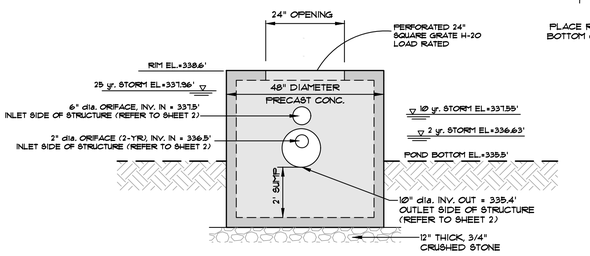
NOT TO SCALE

RIPRP SIZING (MINIMUM)				
PIPE SIZE	RIPRAP SIZING (D50)	WIDTH (AT PIPE OUTLET)	LENGTH (FOR SLOW FLOWS)	LENGTH (FOR HIGH FLOWS)
12" OR SMALLER	5"	3-4'	4-6'	8-10'
18"	8"	4-6'	6-8'	12-18'
24"	10"	6-8'	8-10'	18-22'
30"	12"	8-10'	12-14'	22-28'
36"	14"	10-12'	14-16'	28-32'
*THE DIA. OF THE LARGEST STONE SIZE SHOULD BE 1 ½ X D50 AND THE SMALLEST STONE SIZE SHOULD BE ½ X D50				



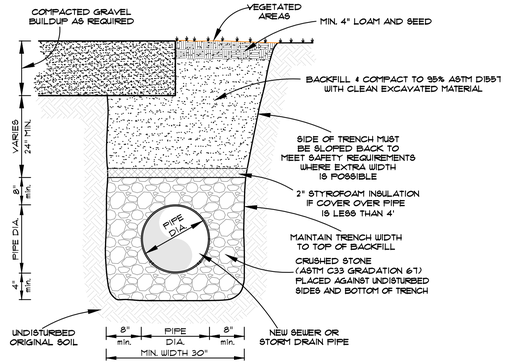
INLET/OUTLET PROTECTION DETAIL

NOT TO SCALE



OUTLET CONTROL STRUCTURE (OCS)

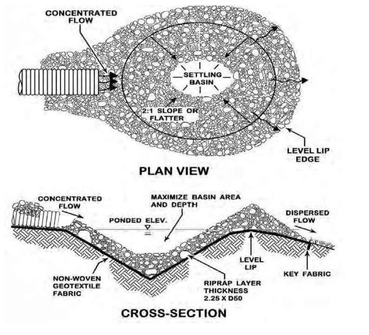
(NOT TO SCALE)



STORM DRAIN & SEWER TRENCH DETAIL

NOT TO SCALE

NOTES:
1) RIPRAP SIZE: D_{50}=5"
2) RIPRAP THICKNESS: 9"
3) PLUNGE POOL MIN. WIDTH: 3-4'
4) PLUNGE POOL MIN. LENGTH: 4'-6'
5) NON-WOVEN GEOTEXTILE - MIRAFI 140N OR APPROVED EQUAL



SEDIMENT FOREBAY DETAIL

NOT TO SCALE

STATE OF MAINE
FAITH R. THOMAS
LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	DATE
1	PLANNING BOARD SUBMISSION	2/13/2024

SHEET TITLE: **SITE DETAILS - 2**

SCALE: 1" = 20' | DRAWN BY: FRT
DATE: DEC. 17, 2023 | CHECKED BY: WMP

PROJECT:
A.B RICKER LIBRARY EXPANSION AND MUNICIPAL PARK
1211 MAINE STREET - POLAND, MAINE

CLIENT:
TOWN OF POLAND
1231 MAINE STREET - POLAND, MAINE 04274

SUMMIT
GEOENGINEERING SERVICES
MAILL P.O. BOX 515
GARDINER, ME 04345
OFFICE: 210 MAINE AVENUE
FARMINGDALE, ME
TEL: (207) 446-3360

JOB NO. - 22107

SHEET 4

Engineering Review Memorandum

To: Town of Poland Planning Board (STI # 240120)

From: James Seymour, P.E., Engineering Consultant, Sebago Technics, Inc.

Date: February 27, 2024

Subject: March 12, 2024 Planning Board Meeting

Project: A. B. Ricker Library Expansion and Municipal Park (Tax Map 40 Lots 2 & 3)

Applicant: Town of Poland, 1211 Maine Street, Poland, ME 04247

I. Project Description and Background

This project qualifies as Site Plan application as it entails the construction of a proposed expansion to the A.B. Ricker Library and a municipal park on Maine Street (Route 26) in Poland. The project is in the Downtown Zoning District and the Aquifer Protection Overlay 1 District, consisting of 2.80 acres. The development proposes a 1,000 square foot building expansion with additional parking spaces and a new Town recreational park. The application indicates that the improvements will include approximately 14,314 of new impervious area that will be treated on site by a proposed detention pond.

We have prepared the following memorandum review comments to facilitate better understanding of the building and site plan requirements and needed information to assist the Planning Board in its deliberations.

II. Technical Review

We have reviewed the submission package dated February 13, 2024 from Summit Geoengineering Services including Poland's site plan application and supporting documentation and plans issued for site plan review, dated February 13, 2024 for the purposes of determining if the project is compliant with the Site Plan Standards and meets the requirements as applied for the proposed development.

Site Plan Review:
The site design for the project proposes approximately 43,480 square feet of the site for the development of the library expansion that includes the construction of the building, associated paved areas, and municipal park.

SITE PLAN REVIEW STANDARDS

A. Preservation of Landscape:

The project proposes the removal of a few trees required for the building and parking expansion. The Site Plan includes notes that call for existing trees to be undisturbed in various locations and minimal tree removal is proposed. Additional trees will be planted along the edge of the open area in front of the performance stage.

B. Relation of Proposed Buildings to Environment:

The project proposes a new building expansion on a high visibility area in the Downtown District. Application materials include preliminary renderings of the proposed building expansion. We have provided separate comments regarding the building's relationship to the environment under section 508.30 below.

C. Compatibility with Residential Areas:

The proposed project is not located immediately nearby or adjacent to a residential dwelling or area. It is located in a Village District and may project noise in a direction to affect some neighbors/ or nearby commercial uses.

However, there may be concerns with noise levels during events if there are sound systems for stage performances. It is located in a Village District and may project noise in a direction to affect some neighbors/ or nearby commercial uses.
The Planning Board shall determine what the intensity and timing limitations are for public events at the venue.

D. Vehicular Access:

The applicant proposes to develop a parcel with less than 500 feet of frontage on public streets. An access plan addressing the overall anticipated external traffic flow of the parcel is not required. The project proposes to utilize the existing entrance on Maine Street/Route 26. We do have a concern that with potential use of the performance area that the entrance on the south side of the property narrows to less than 20ft width. Ideally that width should be at least 24 feet to accommodate deliveries, and most truck or larger SUV type vehicles with a larger turn radius, such it can safely access on a two entrance on or off a busy Rt 26.

E. Access to Route 26 and Route 11:

The applicant proposes to utilize the existing curb cut on Route 26 as described in Section D Vehicular Access. No additional curb cuts are proposed with the building and parking expansion. We do feel that some minor consideration be made for the entrance access curve near the sidewalk. Work is being done there for drainage purposes and makes some sense to widen the approach curve from the north side to allow wider access. Also, the

sidewalk shall be appropriately marked for a sidewalk crossing via surface markings, ADA detectable waring surfaces, and signs.

F. Surface Water:

The project proposes to collect stormwater runoff with the use of drainage swales and treat on site with the use of a proposed detention basin. Runoff will be collected into proposed on site catch basins conveyed via drain pipes into Rt 26 (MDOT drainage system). The State of Maine MDOT shall be required to approve the proposed connection and the applicant must follow MDOT design standards for such a connection into their drainage system. Currently there is no direct pipe connection and runoff merely sheet flows to the gutter of the street, and with the direct connection MDOT shall be consulted.

The stone dust walkway along the upper south corner of the expanded parking lot, will be problematic for erosion the way it is designed. The grading will concentrate runoff over the walk and erode into the parking lot near the handicap parking stall. This area shall be reviewed to determine alternative ways for diverting or collecting run-off to minimize erosion potential, or review to use improved materials. The other concern, will be with the impact of runoff at this location it will make ADA access difficult with any changes to the surface elevation for wheelchair access.

Finally, how will the proposed new roof section drain? It appears it will sheet off the roof onto the walkway, creating potential issues of pooling or icing. If gutters are proposed then downspout or tie in locations into the drain system should be shown. IS it possible to tie roof and foundation drains together?

G. Conservation, Erosion and Sediment Control:

The project avoids impacts to wetlands, and the plan set includes erosion control notes and details on Sheets 3 and 4. Locations of proposed erosion and sedimentation (E&S) controls are shown in plan view on Sheet 2.

H. Phosphorus Export:

The parcel is not located within a watershed most at risk. The watershed resources are noted as Waterhouse Brook, so the phosphorus export standard does not apply.

I. Site Conditions:

The plan includes notes on Sheet 3 that require the site to be backfilled to existing grade before the end of the day. The project includes a stabilized construction entrance. We recommend the contractor is made responsible for periodic street sweeping during construction.

J. Signs:

The plans call out handicap signs for associated parking with the project. A “Handicap Sign Detail” is included on Sheet 4. Handicap signs shall be placed behind the curb stops or walk way line edges. They should not be in the actual parking spaces, as they will be damaged during snow removal.

K. Special Features:
There are no special features associated with this project.

L. Exterior Lighting:
A photometric plan was not included with the application materials. The applicant needs to submit a photometric plan depicting proposed lighting locations and proposed lighting levels that meet Town Standards (≤ 0.5 foot-candles at property line). Lighting shall be full cut off and the lighting element not visible from a public way or any residential use.

More importantly is the need to understand what utilities especially power. Will there be a power supply feed to the stage area? We do not recommend the use of extension cords near any pedestrian access or vehicular accessed areas. Given the stage area it is highly likely that electricity will be required. No services, panels, or distribution boxes for electrical use are shown on the plans.

M. Emergency Vehicle Access:
The application materials do not include emergency vehicle turning plans documenting adequate access. The Fire Department and Board need additional information to satisfy the criteria.

N. Municipal Services:
Applicable Town Department should provide comments on the development.

O. Water Supply:
The proposed building expansion does not include any additional water fixtures.

P. Ground Water:
The project will not create any adverse effects on groundwater quality.

Q. Air Emissions:
This is not a concern for this development.

R. Odor Control:
This is not a concern for this development.

S. Noise
This is not a concern for this development during construction. There will potentially be minor noise due to construction activity. However, it is not clear what events could be played on the stage or during performance events. The Town shall discuss noise levels and hours of operations for events. No information was shared as to the activities or programs planned for the outdoor venue.

T. Sewage Disposal
The proposed building expansion does not include any additional sewer fixtures.

U. Waste Disposal

A proposed dumpster location is not identified on the plans. The dumpster cannot be openly visible from the public ways. The applicant should describe any additional operational waste generation and management anticipated with the project. The Board may wish to discuss the potential for any hazardous waste generation and management associated with the proposed use.

V. Buffer Areas

This is not a concern for this development.

W. Adequate Financial and Technical Capacity

A cost estimate is provided with the application; however, the applicant shall provide a letter of financial and technical capacity.

X. Conformance with the Comprehensive Plan

The proposed project will have to comply with Section 508.30 Downtown District Design Standards before determining if it is in conformance with the Comprehensive Plan.

508. 28 Aquifer Protection Overlay District Requirements

The project site is located in the Aquifer Protection Overlay District 1 which means that the requirements for this overlay district shall be met. The planning board shall review the submission and determine whether the applicant is required to submit a hydrogeologic impact study. The intended use for this project does not fall within the prohibited commercial, industrial, and home occupation uses per section 508.28(F).

The following is a review of the Downtown District Design Standards based on the review of the plans provided and meeting Section 508.30 of the Poland CLUC. The following items are our responses to the standards that the Planning Board could consider:

508. 30 Downtown Design Standards

A. Design Standards applicable to all new nonresidential structures.

(Sections 1-5 require detailed building plan views to address architecture compliancy)

1. Building expansion matches the existing pitched roof layout, and is mainly on the backside of the structure away form most public street view.

2. Building façade meets the color requirements.

3. Proposed exterior building materials are consistent on all sides.

4. Locations of public entryways are defined on the Architectural plans with preliminary locations of canopies and overhangs.

5. The proposed expansion appears to meet the traditional New England building forms.

6. Trash collection areas are not indicated on the plans or otherwise described in application materials.

7. No chain-link fencing is currently proposed.

8. Loading dock areas are not currently proposed.

9. Interconnection currently takes place between the existing library (Lots 2 & 3) and the Town office (Lot 3A). The existing gravel interconnection will be widened and paved to allow easier access between the two lots.

B. The Additional Design standards are applicable to retail sales establishments that exceed 2,500 SF gross floor area.

1. Building façades do not exceed 75 feet in length.
2. Not applicable.
3. Not applicable.
4. Not applicable.
5. Not applicable.
6. The location of the parking expansion is proposed along the rear of the site and is visually separated from the street by the existing building and the proposed landscaping.
7. Applicant to provide statement related to this section requirements.
8. Applicant shall submit a photometric analysis to support the project.
9. Landscaping is called out on the Site Plan with a planting legend.
10. Not applicable.
11. Photometric plan and lighting cut sheets must be submitted for review.
12. Photometric plan and lighting cut sheets must be submitted for review.
13. Photometric plan and lighting cut sheets must be submitted for review.
14. Building elevations that show these proposed items must be submitted for review.
15. Building elevations that show these proposed items must be submitted for review.

C. The following apply to retail sales establishments over 10,000 SF of gross floor area.

1. Not applicable.
2. Not applicable.

D. The following apply to all new and expanded non-residential structures and uses.

1. Applicant has included proposed landscape items and a planting legend, see Site Plan for more information.
2. Parking spaces are proposed as close to the building expansion as feasible. The additional spaces proposed along the interconnection provide close parking for the future town park.
3. Not applicable.
4. The existing entrance is being utilized for the proposed expansion and no additional entrances are proposed. However, for safer two-way traffic widening is recommended.
5. Buildings appear to be located within zoning district setbacks.

Based on our review there are several items missing from the application package to provide a complete review. We suggest the applicant provide additional materials for review prior to any formal approval action from the Board.

As always, we leave final approval process and decisions with the Planning Board, and offer these items of our interpretations for discussion of compliance to Town requirements and standards.

Plan Requirements:
We feel that many of the basic site plan requirements are not included on the submitted plans. Below are our opinions on plan generation requirement requests for this project:

- **A.** Utility connections to services will need to be shown. Our understanding is the power will be overhead but we recommend underground services from an existing street pole, water and sewer will be served from the existing building. No utilities are shown to provide service to the stage area at this time. We recommend the Town consider some installation for that location's potential electrical needs. All fire prevention concerns shall be conducted by the Fire Department's review.
- **B.** Traffic: There is minimal concern with safety with traffic proposed and an entrance already on Maine Street. MDOT appears not to have yet reviewed for an entrance. It appears that the project will not require a traffic movement permit (TMP) as it generates less than 100 peak hr. trips.
- **C.** ADA Handicap Accessibility: The public improvement shall review the ADA accessibly rules and regulations as it pertains to public improvments. We believe that the event location will need to designate specific wheelchair locations to meet the ADA requirements for a public seating venue. That may include specific aisle clearances, clear area access, and grades/surface types acceptable for wheelchair accessibility. We have noted that the stone dust surface may require ample maintenance to assure proper ADA accessibility for even surfaces, and wheelchair maneuverability. The handicap seating amounts shall be the appropriate ratio to normal public seating under the US ADA act.

III. Recommendations:

Upon review of the information provided in the submitted plans and documentations through February 13, 2024, we would recommend that the submission requirements be completed and reviewed as suggested. We feel that the applicant can resolve most these issues with Town Staff, with additional information or plan revisions.

Respectfully Submitted,

SEBAGO TECHNICS, INC.

James R. Seymour, P.E.
Engineering Consultant

Town of Poland

Planning Board

DEPARTMENTAL REVIEW OF PROPOSED SITE APPLICATION

Date: 2 / 12 / 2024

To: Tom Printup, Fire/Rescue Chief
1231 Maine Street
Poland, ME 04274

In accordance with Chapter 606, Site Review, of the Comprehensive Land Use Code for the Town of Poland, an applicant for development approval is required to ask that Municipal Departments to comment on their capacity of capital facilities to serve a proposed development. Therefore, the Planning Board, by way of the applicant, is notifying you of the following proposed project and requests your comments

Applicant: Town of Poland
Address: 1231 Maine Street, Poland, ME 04274

Location: Map # 40 Lot # 2 & 3 Sublot #
Road Location: 1211 Maine Street (Route 26)
Project overview: A.B. Ricker Library expansion and Municipal Park.

Scheduled Planning Board Meeting Date 3 / 12 / 2024

Applicants:

1. Should attach all relevant sections of their plans to prevent delays.
2. Mail this form letter along with a copy of the application so that each department head receives it at least fourteen days prior to the scheduled meeting. (See reverse for list of Department Heads)
3. Confirm with the department heads that they have delivered their response to the Planning Board Office in time for the meeting.

For the Department Head

I have reviewed this application and provide the following:

_____ The project has no impact on the Department.
_____ The Department has adequate existing capital facilities to serve the project.
_____ The Department does not have adequate existing capital facilities to serve the project for the reasons listed. (Please submit reasons on department letterhead)
X I need more information on the application.

Signed: TL R Pu Lmp Date: 2 / 29 / 2024
Head of Department

RETURN THIS FORM TO:

Please return by: Date: 3 / 4 / 2024

Planning Board Office
Town of Poland
1231 Maine Street
Poland, Maine 04274-7328

POLAND FIRE RESCUE

Chief Thomas Printup

Phone: 207-998-4689
Fax: 207-998-5277

1231 Maine Street
Poland, Maine 04274

tprintup@polandtownoffice.org

In reference to the site plan review for the Library and the Park located at 1211 Maine Street I do have some concerns that I would like addressed.

1. The parking area when you pull into the library once you enter the new gravel parking area is of concern with radius turning for emergency apparatus turning right towards the recreation garage. In addition to the radius turning, how is the complex going to depict correct parking areas to keep fire lanes open with a gravel roadway and parking area?

2. Is there going to stop mechanism like a bump stop for parking spaces or a raised sidewalk for pedestrian safety?

3. There doesn't appear to be lighting on the drawings for the parking area which needs to be illuminated.

4. What is the plan for snow removal to maintain proper spacing for emergency apparatus as well as allowing patrons to access the library and the park?

Thank you,

Tom Printup

Town of Poland

Planning Board

DEPARTMENTAL REVIEW OF PROPOSED SITE APPLICATION

Date: 2 / 12 / 2024

To: Chief Deputy William Gagne, ASO
1231 Maine Street
Poland, ME 04274

In accordance with Chapter 606, Site Review, of the Comprehensive Land Use Code for the Town of Poland, an applicant for development approval is required to ask that Municipal Departments to comment on their capacity of capital facilities to serve a proposed development. Therefore, the Planning Board, by way of the applicant, is notifying you of the following proposed project and requests your comments

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Address: 1231 Maine Street, Poland, ME 04274

Location: Map # 40 Lot # 2 & 3 Sublot #
Road Location: 1211 Maine Street (Route 26)
Project overview: A.B. Ricker Library expansion and Municipal Park.

Scheduled Planning Board Meeting Date 3 / 12 / 2024

Applicants:
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3. Confirm with the department heads that they have delivered their response to the Planning Board Office in time for the meeting.

For the Department Head

I have reviewed this application and provide the following:

A The project has no impact on the Department.
____ The Department has adequate existing capital facilities to serve the project.
____ The Department does not have adequate existing capital facilities to serve the project for the reasons listed. (Please submit reasons on department letterhead)
____ I need more information on the application.

Signed: [signature] Date: 2 / 28 / 2024
Head of Department

RETURN THIS FORM TO:

Please return by: Date: 3 / 4 / 2024

Planning Board Office
Town of Poland
1231 Maine Street
Poland, Maine 04274-7328

Town of Poland

Planning Board

DEPARTMENTAL REVIEW OF PROPOSED SITE APPLICATION

Date: 2 / 12 / 2024

To: Adam Strout, Road Commissioner
1231 Maine Street
Poland, ME 04274

In accordance with Chapter 606, Site Review, of the Comprehensive Land Use Code for the Town of Poland, an applicant for development approval is required to ask that Municipal Departments to comment on their capacity of capital facilities to serve a proposed development. Therefore, the Planning Board, by way of the applicant, is notifying you of the following proposed project and requests your comments

Applicant: Town of Poland
Address: 1231 Maine Street, Poland, ME 04274

Location: Map # 40 Lot # 2 & 3 Sublot #
Road Location: 1211 Maine Street (Route 26)
Project overview: A.B. Ricker Library expansion and Municipal Park.

Scheduled Planning Board Meeting Date 3 / 12 / 2024

Applicants:
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For the Department Head

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__X__ The Department has adequate existing capital facilities to serve the project.
____ The Department does not have adequate existing capital facilities to serve the project for the reasons listed. (Please submit reasons on department letterhead)
____ I need more information on the application.

Signed: _____ Date: 3, 4, 24
Head of Department

RETURN THIS FORM TO:

Please return by: Date: 3 / 4 / 2024

Planning Board Office
Town of Poland
1231 Maine Street
Poland, Maine 04274-7328

SHORELAND ZONING APPLICATION
POLAND TAX MAP 20 LOT 20

PREPARED FOR:

PAMELA BOOTH
9377 SW 56TH LOOP
OCALA, FLORIDA 34481

REGARDING PROPERTY LOCATED AT:

26 CLIFF LANE
POLAND, MAINE

PREPARED BY:

DAVIS LAND SURVEYING
STUART A. DAVIS
PROFESSIONAL LAND SURVEYOR #2208
990 MINOT AVENUE
AUBURN, MAINE 04210

JOB #23-057

MAERIALS SUBMITTED: FEBRUARY 29, 2024

PLANNING BOARD MEETING DATE: MARCH 12,2024

Davis Land Surveying, LLC
990 Minot Avenue
Auburn, ME 04210

(207) 345-9991 office
(207) 782-3685 office
(207) 240-9949 cell
Email: stuart@davislandsurveying.net
www.davislandsurveying.net

March 12, 2024

Town of Poland
Planning Board
1231 Maine Street
Poland, ME 04274

RE: Shoreland Zoning Application, 26 Cliff Lane, Poland, Maine

Dear Planning Board members,

Enclosed please find a Shoreland Zoning Application (Exhibit 1) and supporting documents regarding an expansion of use for an existing structure on 26 Cliff Lane in Poland.

The property is located at 26 Cliff Lane and being shown as Lot 20 on the Town of Poland Tax Map 20 (Exhibit 6). The property is currently owned by Pamela Bascom Booth as described in a deed dated June 24, 2021 in Book 10789, Page 232 (Exhibit 8). The property contains 29,487.7 SF. consisting of ±100' of frontage on Cliff Lane and ±110' of shore frontage on Thompson Lake and is located within the Limited Residential District and Rural Residential 1 District. The total existing impervious area within said lot consists of ±3,856.1 SF which includes the existing structure w/decks, eaves, stairs, landing, gravel pad and existing gravel / paved drive and being at ±13.1%.

The current existing improvements consist of the house structure, attached decks, steps, ramp & eaves (1,240.3 SF); shed with overhang and steps (195.1 SF); shared drive (broken pavement/gravel) and paved driveway (2,376.0 SF); and paths and other unvegetated areas (44.6 SF) for a total of 3,856.1 SF and being shown on the Site Plan (Exhibit 10). Most of the improvements are located 100+ feet from the shoreline, except for a small portion (376.6 SF) of the existing structure and paved drive (95.5 SF) that fall within 75 feet – 100 feet from the shoreline. There are no portions of existing improvements that fall within 0' – 75' from the shoreline.

Previous Approved Improvements

On January 25, 2022, the Poland Planning Board approved proposed improvements outside the 100 feet from the shoreline which included removing a portion of the main deck, removing wooden decking & covered shed and constructing an enclosed side 10' x 15' addition

to the existing house totaling 146.8 SF including eaves. A very small portion of the addition (3.3 SF) was located within 75' – 100' from the shoreline where wooden decking was to be removed. Total impervious/lot coverage with new improvements was 3,853.4 SF divided by the lot size of 29,487.7 SF for a total percentage of 13.1%. The plan was recorded at the Androscoggin County Registry of Deeds (ACRD) in Plan Book 54, Page 17.

On July 12, 2022, the Poland Planning Board approved proposed improvements to extend the addition 8' towards the shoreline and add stairs to the southerly side of the remaining main deck. Proposed improvements outside the 100 feet from the shoreline included extending the approved 10' x 15' addition towards the shoreline an additional 8'. A portion of the proposed addition (78.2 SF) was located within 75' – 100' from the shoreline. The remaining portion (14.65 SF) of the addition and the new stairs were located beyond 100' from the shoreline. Total impervious/lot coverage with approved and new improvements was 3,936.2 SF divided by the lot size of 29,487.7 SF for a total percentage of 13.3%. The plan was recorded at the ACRD in Plan Book 54, Page 73.

Proposed Improvements

The applicant is now proposing to replace the existing camp with a new camp on a full foundation (36' x 28') with an enclosed porch on piers (36' x 8'). The new camp will be located approximately 5' back from the existing camp. A portion of the proposed new camp (1,256.82 SF) will be located beyond the 100' from the shoreline. The remaining portion (300.22 SF) will be located within 75' – 100' from the shoreline. Additionally, an 8" wide retaining wall 10.7' long not taller than 3' will be installed at the westerly lake side corner of the new foundation for grading purposes (7.17 SF). As shown on the plan, the proposed wall extends to the driveway. However, based on field determination, the wall may be shorter. Total proposed impervious/lot coverage is calculated as 4,048.17 SF divided by the lot size of 29,487.7 SF for a total percentage of 13.7%.

The current existing roof height at the peak is 15.4' based on an average of the lowest adjacent grades. The proposed roof height for the new camp will be 10.5' higher.

A portion of the property falls within a Special Flood Hazard Zone 23001C0287E with an effective date of July 8, 2013 (Exhibit 8); however, none of the existing buildings and or current improvements fall within the flood zone. All proposed improvements will not be impacted by said flood zone and there are no known wetlands and or any other impacts within the lot.

This project will generate demolition and construction debris. All waste associated with the removal of the existing camp and construction of the new camp will be disposed of at a Maine licensed facility that will accept said waste.

SCHEDULE OF AREAS

	EXISTING			EXISTING + PROPOSED			
IMPERVIOUS AREAS (SF)	75-100	100+	**TOTAL**	75-100	100+	**TOTAL**	**NET CHANGE**
SHARED DRIVE (BROKEN PVMNT & GRAVEL)	-	1,104.91	**1,104.91**	-	1,104.91	**1,104.91**	**-**
PAVED DRIVE	95.46	1,175.66	**1,271.12**	95.46	1,043.81	**1,139.27**	**(131.85)**
PAVED DRIVE ENCROACHMENT		21.14	**21.14**		21.14	**21.14**	**-**
SEWER COVER		23.50	**23.50**		23.50	**23.50**	**-**
HOUSE WITH COVERED PORCH	284.85	534.50	**819.35**			**-**	**(819.35)**
HOUSE EAVES (EXISTING)	47.54	45.15	**92.69**			**-**	**(92.69)**
ATTACHED RAMP		24.00	**24.00**			**-**	**(24.00)**
ATTACHED MAIN DECK, STAIRS & DECKING	5.30	205.91	**211.21**			**-**	**(211.21)**
ATTACHED SIDE DECK & STAIRS	36.24		**36.24**			**-**	**(36.24)**
CONRETE PAD AT BASE OF SIDE STEPS	5.71	8.72	**14.43**			**-**	**(14.43)**
ATTACHED COVERED SHED		42.38	**42.38**			**-**	**(42.38)**
NEW HOUSE W/ATTACHED SUNROOM			**-**	193.69	1,102.31	**1,296.00**	**1,296.00**
NEW HOUSE STEPS & LANDING			**-**	68.00	23.04	**91.04**	**91.04**
NEW HOUSE EAVES			**-**	38.53	131.47	**170.00**	**170.00**
NEW RETAINING WALL (10.7'x.67')			**-**	7.17		**7.17**	**7.17**
SHED W/OVERHANG & STEPS		195.14	**195.14**		195.14	**195.14**	**-**
TOTAL	475.10	3,381.01	**3,856.11**	402.85	3,645.32	**4,048.17**	**192.06**

SUMMARY IMPERVIOUS SCHEDULE	EXISTING			EXISTING + PROPOSED			**NET CHANGE**
2C DRIVEWAY	95.46	2,280.57	**2,376.03**	95.46	2,148.72	**2,244.18**	**(131.85)**
2D PATHS & OTHER UNVEGETATED AREAS	-	44.64	**44.64**	7.17	44.64	**51.81**	**7.17**
3A GROUND MAIN STRUCTURE	379.64	860.66	**1,240.30**	300.22	1,256.82	**1,557.04**	**316.74**
4B GROUND FOOTPRINT ACCESS. STRUCTURE	-	195.14	**195.14**	-	195.14	**195.14**	**-**
TOTAL IMPERVIOUS	475.10	3,381.01	**3,856.11**	402.85	3,645.32	**4,048.17**	**192.06**
GROSS FLOOR AREA HOUSE (does not include eaves, attached decks & attached shed)	284.85	534.50	**819.35**	193.69	1,102.31	**1,296.00**	**476.65**

SCHEDULE OF IMPERVIOUS AREA & ALLOWED %	ALLOWED	EXISTING	PROPOSED	
LOT AREA	29,487.70	29,487.70	29,487.70	SF
IMPERVIOUS AREA	4,423.16	3,856.11	4,048.17	SF
% OF IMPERVIOUS AREA	15.0%	13.1%	13.7%	

PHOTOS OF EXISTING STRUCTURE

View from Shore
Photo Taken 10/15/2021 – Stuart Davis

View of Shed from Driveway
Photo Taken 10/15/2021 – Stuart Davis

View from Road
Photo Taken 10/15/2021 – Stuart Davis

The proposed improvements as shown have been designed in conformance with your Land Use Code requirements and we look forward to the opportunity to discuss the project with the Planning Board and welcome any comments and suggestions in hopes of securing an approval, with conditions, if necessary.

Respectfully Submitted,

Stuart Davis, PLS 2208

PAMELA BOOTH
SHORELAND ZONING APPLICATION
POLAND TAX MAP 20, LOT 20
26 CLIFF LANE

TABLE OF CONTENTS

Application

PARCEL INFORMATION:			
Parcel ID:	Tax Map 20, Lot 20		
Lake Watershed:	Thompson Lake		
Road Location:	Cliff Lane		
Lot Size:	29,487.7 (sq. ft.)	**Year Created:**	
Shore Frontage:	+/-110 (ft.)	**Road Frontage:**	+/-100 (ft.)
Zone:	Limited Res. & Rural Res. 1	**Flood Zone:**	23001C0287E (AE 328')
Aquifer Overlay:	N/A	**Current Use:**	Seasonal Camp

OWNER INFORMATION:	
Name:	Pamela Booth
Mailing Address:	9377 SW 56th Loop, Ocala, FL 34481
Phone #:	207-345-9991 (Agent)

APPLICANT INFORMATION:	
Applicant Is:	■ Landowner ☐ Contractor ☐ Renter ☐ Buyer *If applicant is landowner, write "SAME" below. **If not the landowner, please submit a letter of permission to construct on or use the land**, and complete below.
Name:	Same
Mailing Address:	
Phone #:	

THIS APPLICATION IS FOR:

- ☐ New Development
- ☐ Change of Use
- ■ Expansion of Use
- ☐ Expansion/Replacement of Structure(s)
- ☐ Resumption of Use

Existing Lot Conditions

1. GENERAL	
A. Does this lot have any development? (If no, go to proposed development)	■ YES ☐ NO
B. Is there an existing well?	■ YES ☐ NO
C. Is there an existing Septic System?	■ YES ☐ NO
D. Is there an existing road entry? • If YES include any changes or modifications on plans. • If NO please submit a copy of appropriate Road/Entrance Application.	■ YES ☐ NO
E. Will there be any existing structures removed? • If YES, submit information about the structure and how it will be disposed of.	■ YES ☐ NO Construction & Demolition Debris
2. EXISTING LAND DEVELOPMENT & IMPROVEMENTS NOT INCLUDING BUILDINGS	
A. Size of lawns:	+/-10,535 (sq. ft.)
B. Size of fields:	N/A (sq. ft.)
C. Size of driveways/roads:	2,376.1 (sq. ft.)
D. Size of paths or other non-vegetated areas:	+/-44.6 (sq. ft.)
E. Size of wetlands already filled	N/A (sq. ft.)

3. EXISTING MAIN STRUCTURE		
A. Ground Footprint:	1,240.3	(sq. ft.)
B. Total gross floor space (exterior dimensions of all floors):	819.4	(sq. ft.)
C. Road frontage setback:	+/-50	(ft.)
D. Side setback:	+/-29.4	(ft.)
E. Rear setback:	N/A	(ft.)
F. Distance to Great Pond:	+/-85.7	(ft.)
G. Distance to stream:	N/A	(ft.)
H. Distance to wetlands:	N/A	(ft.)
Foundation: ☐ Full Basement ☐ Frost Walls ☐ Slab ☐ Piers		
4. EXISTING ACCESSORY STRUCTURE		
A. Total number of structures:	1	
B. Total ground footprint:	+/-195.1	(sq. ft.)
C. Total floor space:	+/-195.1	(sq. ft.)
D. Closest road setback:	+/-28	(ft.)
E. Closest side setback:	+/-2	(ft.)
F. Closest rear setback:	N/A	(ft.)
G. Distance to Great Pond:	+/-144	(ft.)
H. Distance to Streams:	N/A	(ft.)
I. Distance to Wetlands:	N/A	(ft.)
5. TOTAL EXISTING IMPERVIOUS SURFACES		
A. Add 2c + 2d + 3a + 4b:	+/-3,856.1	(sq. ft.)
B. Divide this by lot size in square feet x 100%:	13.1	%
	***This number cannot exceed 15%**	

Proposed Development

1. WETLANDS TO BE IMPACTED:	N/A	(sq. ft.)
2. CHANGES IN LANDSCAPE(Can be negative value for size reduction)		
A. Changes in lawn size:	N/A	(sq. ft.)
B. Changes in buffers:	N/A	(sq. ft.)
C. Changes in naturally wooded areas:	N/A	(sq. ft.)
D. Total opening in forest canopy:	N/A	(sq. ft.)
3. CHANGES IN FOOTPRINT(S) AND DEVELOPED AREA(S)		
A. Changes in building footprint(s):	316.7	(sq. ft.)
B. Changes in driveway/roadway:	-131.85	(sq. ft.)
C. Changes in patios, walkways, etc:	7.17	(sq. ft.)
D. Total changes to impervious surfaces (3a + 3b + 3c):	192.06	(sq. ft.)
4. PERCENTAGE OF LOT COVERED BY IMPERVIOUS SURFACES		
A. 5. (Total existing impervious surfaces) + 3d (above)/total lot square footage x 100%	13.7	%
	***This number cannot exceed 15%**	

Required Submissions

Attach drawings and/or statements describing the following items if applicable:

- Provide a copy of deed and Tax Assessors Information Card.
- Provide a map of the general area showing land features within at least a ½ mile of this lot.
- Provide site plans(s) of your lot with existing development and its dimensions shown.

- *Include: Dimensions, location, and distances of lot lines. Lawns, wooded areas, roadways, high water lines, driveways, septic system, walkways, and structures.*
- *Show names of roads and water bodies*

- Provide site plan(s) of your lot with proposed development and its dimensions shown (*may be combined on existing development drawing*).
- Provide detailed plans of proposed structural development and changes.
- Provide phosphorus loading calculations.
- Provide prepared buffer plan if needed for building expansion.
- Anticipated date for start of construction.
- Anticipated date for completion of construction.
- Submission requirements shall follow sections 508.30 and 509.8 of the Comprehensive Land Use Code. Copies of the code are available for viewing at the Town Office, Library, and on the Code Enforcement page of the website, www.polandtownoffice.org. Copies can be purchased in the Code Enforcement Office.
- Use Checklist on page five for a summary of usual requirements.
- Any other requirements unique to your project added by the Planning Board.

Please list all state and federal approvals, permits, and licenses required for the project:

_____

_____

_____

Disclosure

1. I hereby acknowledge that I have read this application and pertinent sections of the ordinances, and state that the information in this document is to the best of my knowledge true and accurate. I agree to comply with all of the Town of Poland's ordinances and the State of Maine's statues regulating the activities sought in this application as well as any permit(s) approved for this application.
2. I understand that all construction of structures shall conform to the *Maine Uniform Building and Energy Code* and the *NFPA 101 Life Safety Code, 2009*.
3. I understand that any approval is valid for only the use(s) as specified in this application. The permitting authority must approve any change(s) made to the use(s) sought in the application. Any approval issued for this application is approved on the basis of truthful information provided by the applicant(s), and as allowed by the ordinances of the town.
4. I understand that it is my responsibility to assure that the lot description herein accurately describes its ownership, its boundary lines, and the setback measurements from the legal boundary lines.
5. I understand that I have the burden of proof as to the legal right to use the property, and that approval of this application in no way relieves me of this burden. Any approval issued does not constitute a resolution in favor of me or the landowner in any matters regarding the property boundaries, ownership, or similar ties.
6. I understand that all necessary **Building and Use Permits** shall be secured from the Code Enforcement Office after the Planning Board grants approval of this application.
7. I understand that a **Certificate of Occupancy** shall be required prior to the start of any use or occupancy associated with this application unless a signed written waiver is issued with the permit. Fines and penalties may be issued if use or occupancy is stated prior to the issuance of the certificate.
8. I understand that the approval becomes invalid if construction or use has not commenced within twelve (12) months of the approval date, construction is suspended for more than six (6) months and no notice for just cause is submitted prior to the end of the six (6) months, or it is found that false statements have been furnished in this application.
9. I understand that if I fail to comply with the aforementioned statements, a **"STOP WORK"** order may be issued for which I will immediately halt any construction and/or use(s) that are approved for this application. This failure may also require that I return the property to its natural state or as closely thereto before the use(s) was/were approved.
10. I understand that failure to follow these requirements will lead to **Violation Notices** and Citations that have fines and penalties. This in turn can lead to civil proceedings in District Court.
11. I understand that all **state and federal permits** are my responsibility as the applicant and/or owner.

Applicant Signature:	Stuart Davis Agent	**Date:** March 12, 2024

Submissions Checklist

The following list is the information required by section 508.30 and 509.8 of the Comprehensive Land Use Code for the Town of Poland. Please check in the column on the left if the information has been provided, a waiver has been requested, or you believe the information is not applicable to your application. If a waiver has been requested, or the information is not applicable, a written explanation is required.

FOR APPLICANT USE				FOR PLANNING BOARD USE			
Provided	**Waiver**	**N/A**	**Section 509.8A *"Submission Requirements"***	**Received**	**On File**	**Waived**	**N/A**
X			**Site Plan drawings**				
X			**Signed copy of application**				
X			**Name & Address of owner**				
X			**Name & Address of all abutters within 500 feet of your lot**				
X			**Map of general location**				
X			**Show all adjacent properties**				
X			**Name, Map & Lot numbers on drawings**				
X			**Copy of Deeds & Agreements**				
X			**Name of designer on plans**				
			Section 508.30 Shoreland Areas				
X			**Structure & Site Plan drawing**				
X			**New structure set back 100' from lake, 75' from streams & wetlands**				
		X	**Water dependent structures indicated**				
X			**Setbacks or structures shown in drawings**				
X			**Show all structures**				
X			**Side and road setbacks shown**				
		X	**Need for larger than required setbacks**				
X			**Steep slopes shown**				
		X	**Multiple Principle Structures have required land area**				
			Piers, Wharves, Bridges				
		X	**Shore access soils described**				
X			**Locations of development and natural beaches shown**				
		X	**Effect on fish & wildlife**				
		X	**Dimensions of structures shown**				
		X	**Superstructure on piers**				
		X	**Use of pier superstructures**				
		X	**Permanent structures have DEP permit**				
		X	**Individual Private Campsites**				
			Show land area for each site				
			Campsite setbacks are shown				
			Type of development for sites				
			Amount of clearing for vegetation				
			Sewage disposal plan				
			SSWS approved if used > 120 days				
		X	**Parking Areas**				
			Parking areas setbacks shown				
			Parking areas sized & designed for storm water				
			(Part one) Driveways Only				

FOR APPLICANT USE				FOR PLANNING BOARD USE			
Provided	**Waiver**	**N/A**	**Section 509.8A *"Submission Requirements"***	**Received**	**On File**	**Waived**	**N/A**
			Setbacks as required				
		X	**State reasons for location in Resource Protection**				
		X	**Culverts**				
		X	**(Part two) Road Only**				
			Setbacks as required				
			Reasons stated for location in Resource Protection				
			Road expansion according to Chapter 8				
			Road slopes shown < 2H:1V				
			Road Grades < 10%				
			Buffer plan between road and water body				
			Ditch relief shown				
			Turnout spacing shown				
			Drainage dips when < 10% slope				
			Culverts shown				
			Show relief sizing and stabilization				
		X	**Storm water runoff**				
			Plans show storm water runoff and retaining areas				
		X	**Clearing of vegetation for development OR individual campsites**				
		X	**Cutting of vegetation < 100' from shoreline**				
		X	**Preservation of buffer strip**				
		X	**Plan showing existing trees and planned cutting**				
		X	**Clearing < 40% basal area in any 10 year period**				
		X	**Preservation of vegetation < 3' high**				
		X	**Pruning of limbs on lower 1/3 of trees**				
		X	**Plan of removal and replacement of dead and diseased trees**				
		X	**Tree removal plan > 100' and < 250 ' from shoreline**				
X			**Non-conforming lot legally existing**				
		X	**Fields reverted to woodlands follow forested rules**				
			Shoreland Access Held In Common				
		X	**Proper water frontage for number of lots that hold access in common**				
		X	**Single Family Home in Resource Protection District**				
			No place on lot outside Resource Protection where home can be located				
X			**Lot undeveloped**				
X			**Location of all improvements**				
X			**Slopes > 20%**				
X			**Development 1 ft. above 100 year floodplain**				
X			**Development outside floodplain**				
X			**Total ground footprint < 1500 sq. ft.**				
X			**Structures > 150 ft. from waterline**				
X			**Phosphorus Calculations**				
		X	**Copies of state, federal permits (if applicable)**				

This application was first looked at by the Planning Board on____/ /___but does not create vested rights in the initiation of the review process.

By vote of the Board this application requires an on-site inspection: _____Yes _____No
If yes, an onsite inspection is scheduled for _____/_____/_____at____:_____ ___AM ___PM
By vote of the Board this application requires a public hearing: _____Yes _____No
If yes, public hearing is scheduled for _____/_____/_____at____:_____ ___AM ___PM

Conditions of Approval: _____

_____

_____

_____

_____

_____ _____/_____/_____

Planning Board Chair *Date*

CODE ENFORCEMENT

Phosphorus Calculation Form

The Code Enforcement Officer or Planning Board shall review and approve a Phosphorus Management Control Application based on one of the following methods.

POINT SYSTEM
The Applicant shall meet or exceed thirty (30) points based on the following schedule:

PROPOSED PHOSPHORUS CONTROL MEASURES (Check those proposed)	**POINTS ALLOWED** (By CEO or Planning Board)
10 Points for correcting an existing erosion problem on the project site.	
10 Points for a clearing limitation of <15,000 sq. ft. or <20% of lot.	
15 Points for a clearing limitation of <10,000 sq. ft. or <15% of lot.	15
15 Points for the installation of rock lined drip edges or other infiltration system to serve the new construction.	15
20 Points for a 50 foot wide buffer.	
25 Points for a 75 foot wide buffer.	
30 Points for a 100 foot wide buffer.	
TOTAL	30

Authorized Signature:	**Date:**
	Code Enforcement Officer or Planning Board Chair

Pamela Booth
9377 SW 56th Loop
Ocala, FL 34481

March 12, 2024

Town Of Poland
Planning Board
1231 Maine Street
Poland, ME 04274

Dear Board Members,

I authorize Stuart Davis of Davis Land Surveying, LLC to act as my agent for Shoreland Zoning Application for proposed improvements at 26 Cliff Lane, in Poland.

Sincerely,

Pamela B. Booth

Abutters w/in 500 Ft of TM 20-20

Town of Poland, ME

1 inch = 500 Feet

CAI Technologies
Precision Mapping. Geospatial Solutions.
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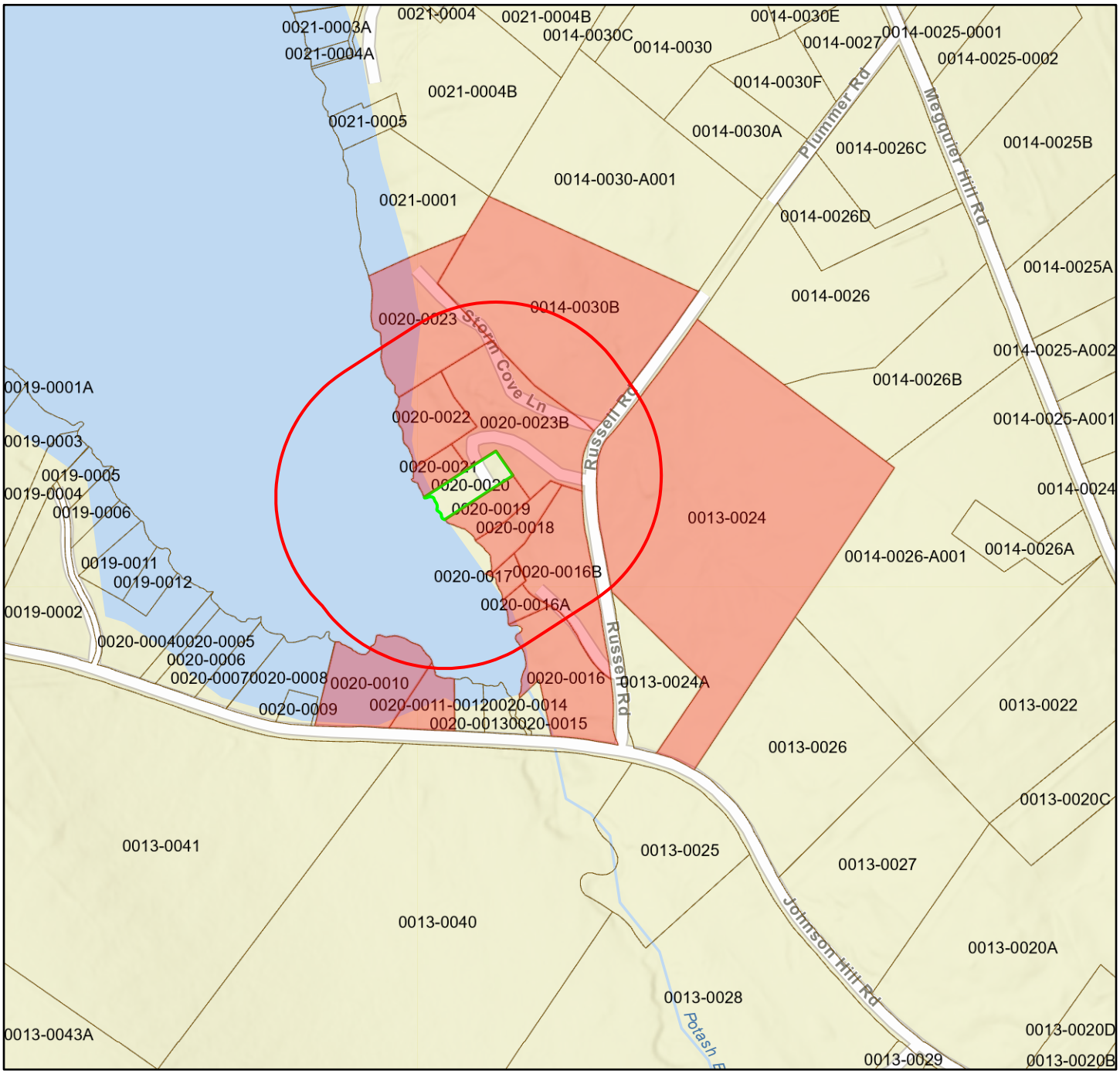
February 27, 2024

0 500 1000 1500



Parcel - Poly

Parcel Lines - No Orthos

World Hillshade

500 feet Abutters List Report

Poland, ME
February 27, 2024

Subject Property:

Parcel Number:	0020-0020	Mailing Address:	BOOTH, TRUSTEE, PAMELA BASCOM
CAMA Number:	0020-0020		9377 SW 56TH LOOP
Property Address:	26 CLIFF LANE		OCALA, FL 34481

Abutters:

Parcel Number:	0013-0024	Mailing Address:	BECKER, KURT H
CAMA Number:	0013-0024		P. O. BOX 92
Property Address:	46 RUSSELL ROAD		WEST POLAND, ME 04291 0092
Parcel Number:	0014-0030B	Mailing Address:	COTE, PAUL W
CAMA Number:	0014-0030B		P. O. BOX 85
Property Address:	55 RUSSELL RD.		WEST POLAND, ME 04291 0085
Parcel Number:	0020-0010	Mailing Address:	GARRELTS, TIMOTHY R
CAMA Number:	0020-0010		8 LINNEA LANE
Property Address:	187 JOHNSON HILL RD.		KILLINGWORTH, CT 06419
Parcel Number:	0020-0011-0012	Mailing Address:	GAROFALO, AUSTIN E
CAMA Number:	0020-0011-0012		38 ROBIN ROAD
Property Address:	179 JOHNSON HILL RD.		WAKEFIELD, MA 01880
Parcel Number:	0020-0016	Mailing Address:	WOO, LARAINE L
CAMA Number:	0020-0016		121 Summer St.
Property Address:	7 RUSSELL RD.		Andover, MA 01810
Parcel Number:	0020-0016A	Mailing Address:	O'KEEFE, KEVIN P
CAMA Number:	0020-0016A		52 RIVER STREET
Property Address:	15 POTASH LANE		QUINCY, MA 02169
Parcel Number:	0020-0016B	Mailing Address:	O'SHAUGHNESSY, ELENI Trustee
CAMA Number:	0020-0016B		33 WAMPANOAG DRIVE
Property Address:	POTASH LANE		FRANKLIN, MA 02038
Parcel Number:	0020-0017	Mailing Address:	O'SHAUGHNESSY, KIERAN K
CAMA Number:	0020-0017		33 WAMPANOAG DRIVE
Property Address:	19 POTASH LANE		FRANKLIN, MA 02038
Parcel Number:	0020-0018	Mailing Address:	VERREAULT, COLLEEN
CAMA Number:	0020-0018		5 CLIFF LANE
Property Address:	5 CLIFF LANE		POLAND, ME 04274 7561
Parcel Number:	0020-0019	Mailing Address:	THE VERREAULT FAMILY REVOCABLE TRUST
CAMA Number:	0020-0019		43 WHITMAN DR.
Property Address:	29 CLIFF LANE		FREEMONT, NH 03044

500 feet Abutters List Report

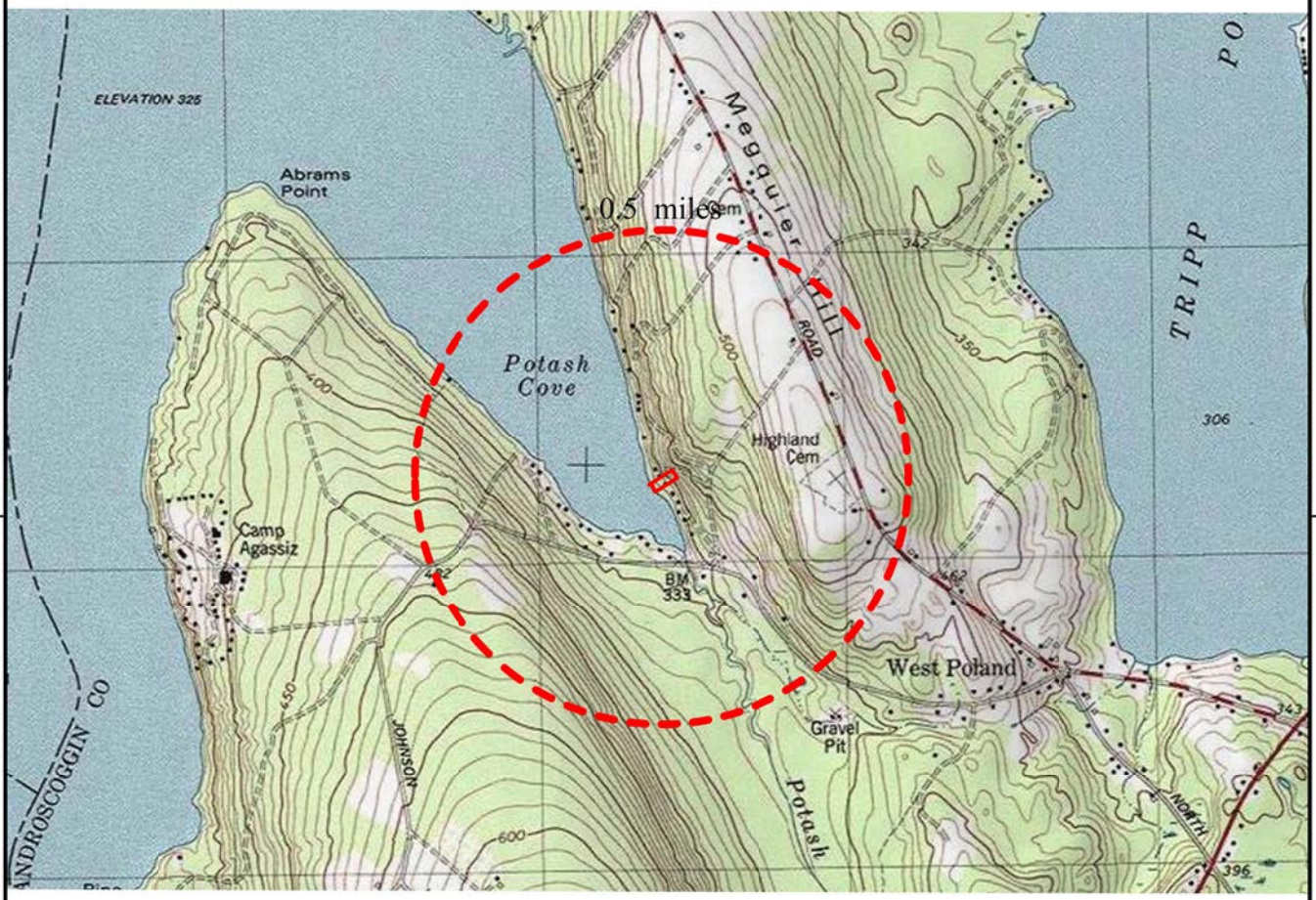
Poland, ME
February 27, 2024

Parcel Number:	0020-0021	Mailing Address:	MARTIN, JOHN J
CAMA Number:	0020-0021		86 GATEWAY COMMONS DRIVE
Property Address:	22 CLIFF LANE		GORHAM, ME 04038
Parcel Number:	0020-0022	Mailing Address:	HUNT, NATHANIEL
CAMA Number:	0020-0022		755 HALLOWELL RD.
Property Address:	20 CLIFF LANE		POWNAL, ME 04069
Parcel Number:	0020-0023	Mailing Address:	MATUSKA SIMMS REVOCABLE TRUST
CAMA Number:	0020-0023		39 STORM COVE LANE
Property Address:	39 STORM COVE LANE		POLAND, ME 04274
Parcel Number:	0020-0023B	Mailing Address:	BRYANT, SEAN B
CAMA Number:	0020-0023B		13 STORM COVE LANE
Property Address:	13 STORM COVE LANE		POLAND, ME 04274

2870000 ft

2880000 ft

Map of General Area Within 1/2 Mile of Pamela Booth Property 26 Cliff Lane Poland, Maine TM 20-20



440000 ft

440000 ft

0 mi 0.5 mi 1 mi

2870000 ft

2880000 ft

Property Card: **26 CLIFF LANE**

Poland, ME

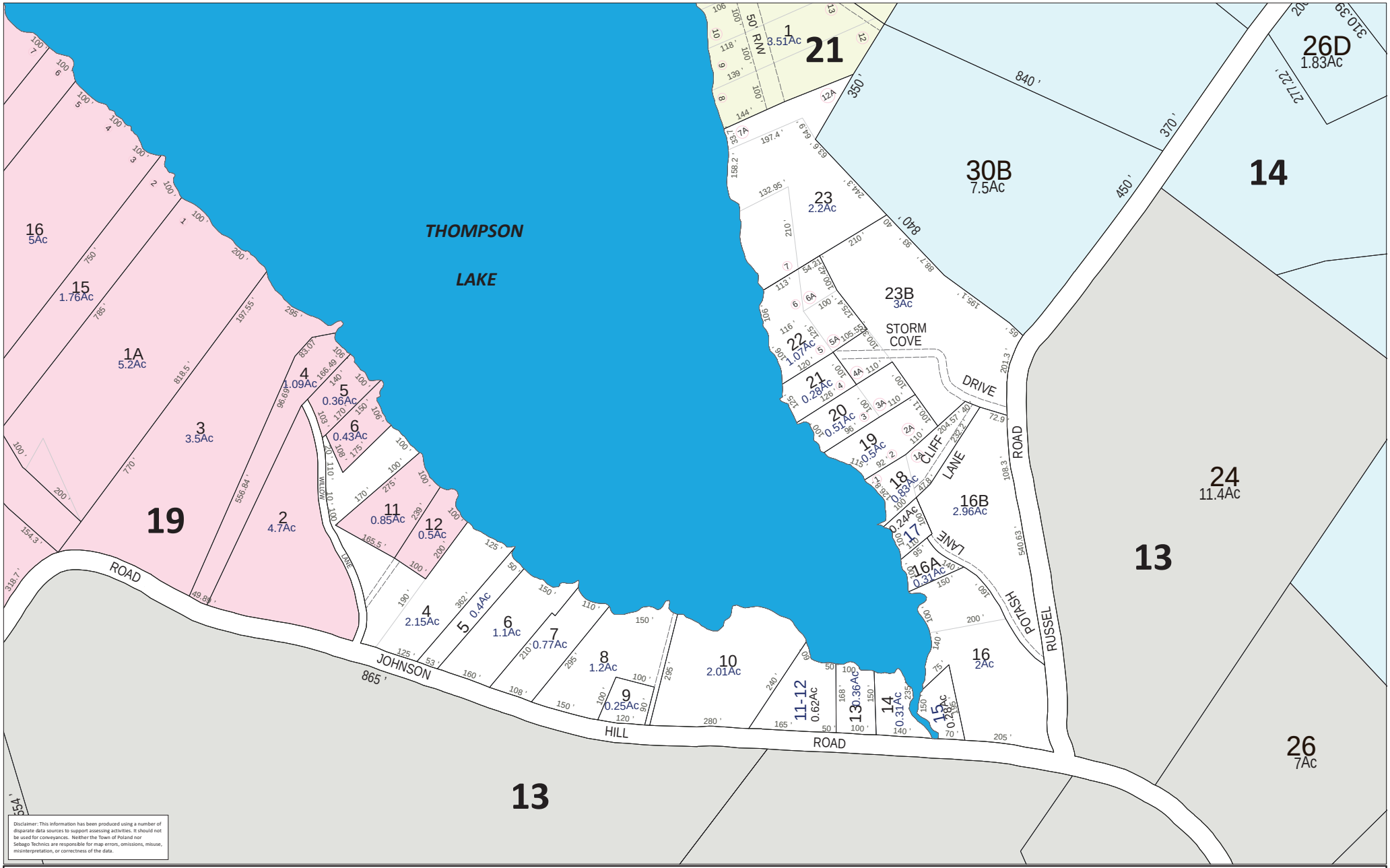
Parcel ID: 0020-0020
Trio Account #: 2091

Owner: BOOTH, CY K
Co-Owner:
Mailing Address: 9377 SW 56 LOOP
OCALA, FL 34481

Valuation	Building Sketch
Card Number: 1 **Acreage:** 0.51 **Land Value:** $233,030 **Building Value:** $38,340 **Total Value:** $38,340 **Taxes:** $3,853	NO SKETCH AVAILABLE

Building Information

Year Built: 1960 **Remodled:** 0 **Living Area (sqft):** 0 **Basement:** No Basement **Finished Basement:** 0 **Number of Rooms:** 0 **Number of Bedrooms:** 0 **Number of Full Baths:** 1 **Number of Half Baths:** 0	**Stories:** **Exterior Walls:** Tâ€”lll **Roofing Materials:** Asphalt Shingles **Foundation:** Piers **Insulation:** Full **Fireplace:** 0 **Heating:** Not Heated **A/C:** None **Attic:** None



Disclaimer: This information has been produced using a number of disparate data sources to support assessing activities. It should not be used for conveyances. Neither the Town of Poland nor Sebago Technics are responsible for map errors, omissions, misuse, misinterpretation, or correctness of the data.

MAPS PREPARED BY:

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. - Suite 1A
South Portland, ME 04106
Tel. 207-200-2100
260 Goddard Rd. - Suite 8
Lewiston, ME 04240
Tel. 207-782-6640

Legend

- 05 Abutting Tax Map Number
- 31 Subdivision Lot Number
- 8-338 Tax Parcel Lot Number
- Waterbodies/Wetlands
- Property Tie Hooks
- Easement/Right of Ways
- Former Lot Lines
- Cemetery
- 16 Building and Building Number
- Travelled Way

PROPERTY MAP

TOWN OF POLAND, MAINE

APRIL 1, 2016

UPDATES

SEBAGO TECHNICS 2015 UPDATES
O'DONNELL & ASSOCIATES 2014 UPDATES AND TAX MAPS

0 50 100 200 300 Feet

MAP 20

Zoning Map

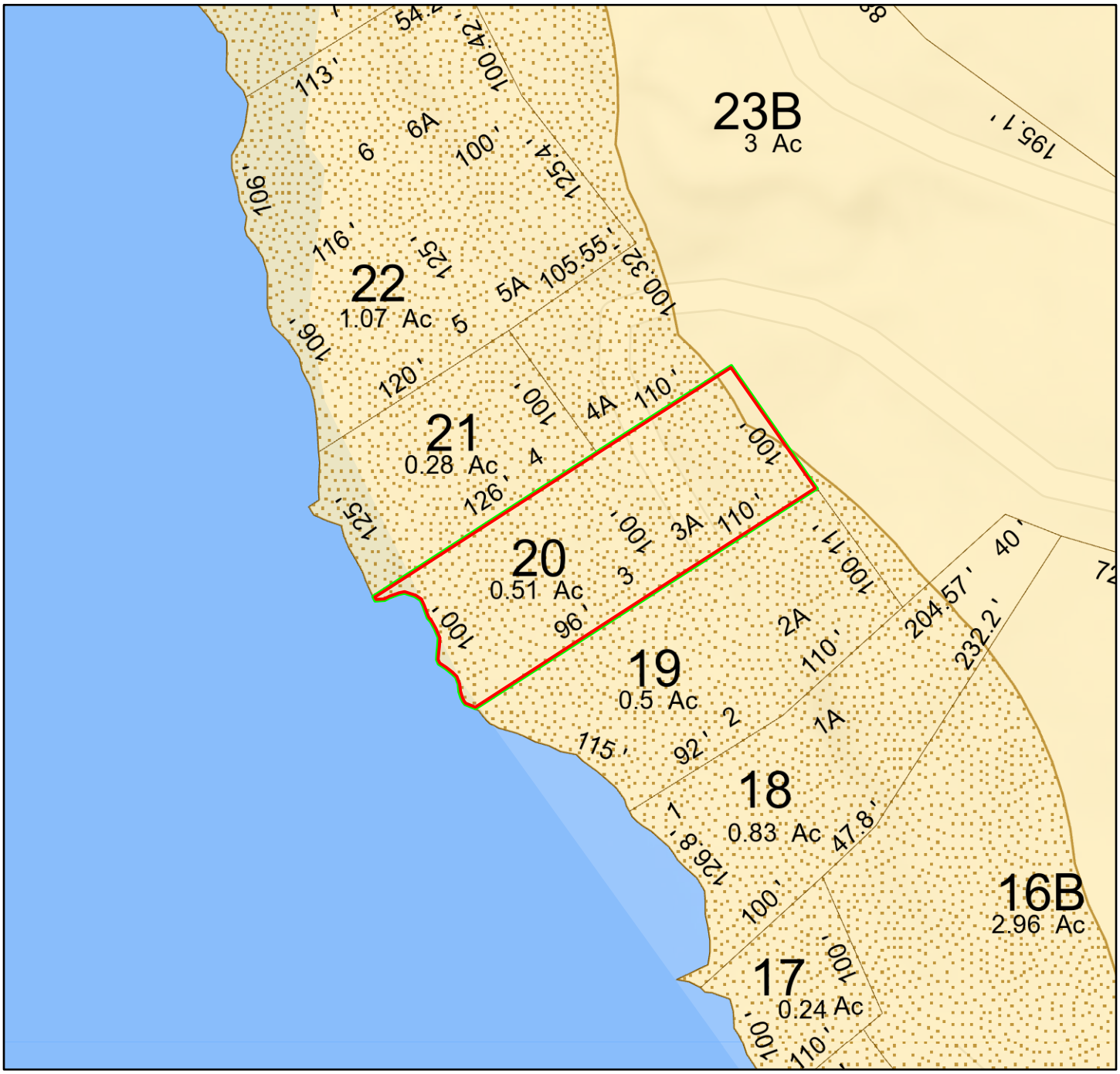
Poland Tax Map 20-20

1 inch = 100 Feet

0 100 200 300

February 27, 2024

CAI Technologies
Precision Mapping. Geospatial Solutions.
www.cai-tech.com



- Parcel Lines - No Orthos
- Limited Residential
- WATER
- Rural Residential 1 (R-1)
- World Hillshade

Bk 10789 Pg232 #14195
06-29-2021 @ 09:30a

DEED OF DISTRIBUTION
BY PERSONAL REPRESENTATIVE

KNOW ALL PERSONS BY THESE PRESENTS,

THAT I, PAMELA BASCOM BOOTH, of the City of Ocala, County of Marion, State of Florida, and having a mailing address of 9377 SW 56th Loop, Ocala, FL 34481, duly appointed and acting Personal Representative of the **ESTATE OF CY K. BOOTH (a/k/a CY BOOTH),** deceased, as shown by the probate records of Androscoggin County, Maine, by the powers conferred by the Maine Probate Code, and every other power,

in distribution of the estate,

grant **to PAMELA BASCOM BOOTH, TRUSTEE of THE BOOTH REVOCABLE TRUST dated March 2, 2017**, with a mailing address of 9377 SW 56th Loop, Ocala, FL 34481, being the person entitled to distribution, land in Poland, Androscoggin County, State of Maine, to wit:

A certain lot or parcel of land, together with the buildings thereon, situated in the Town of Poland, County of Androscoggin, State of Maine, being the same premises as conveyed to Milton booth and Lois K. booth by Warranty Deed of Richard G. Boyle et ux, dated July 30, 1970, and recorded in the Androscoggin County Registry of Deeds in Book 1021, Page 526 on August 3, 1970. Reference is also made to the Deed from Milton booth and Lois K. booth to the IRREVOCABLE LIVING TRUST OF MILTON A. BOOTH AND LOIS K. BOOTH DATED April 28, 1986, which Deed is dated August 7, 1991, and recorded in the Androscoggin County Registry of Deeds in book 2721, Page 209.

Meaning and intending to convey and herein conveying the same premises conveyed by Steven H. Booth and Cy K. Booth Co-Trustees of the Irrevocable Living Trust Agreement of Milton A. Booth and Lois K. booth dated April 17, 1986 to Cy K. booth on August 23, 2011 and recorded in the Androscoggin County Registry of Deeds Book 8232, Page 310. Reference is made to Androscoggin County Probate Docket # 2021-192.

WITNESS my hand and seal this 24th day of June, 2021.

Signed, sealed and delivered in the presence of:

Pamela B. Booth

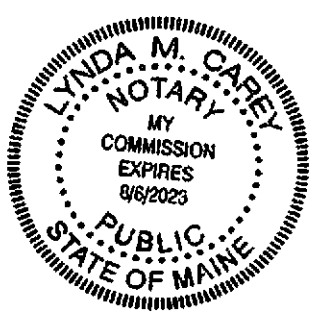
Pamela Bascom Booth, as Personal Representative of the Estate of Cy K. Booth

STATE/COMMONWEALTH Maine
COUNTY OF Androscoggin, **ss.**

June 24Th, 2021

Then personally appeared the above-named, **Pamela Bascom Booth,** as Personal Representative of the **Estate of Cy K. Booth (a/k/a Cy Booth),** and acknowledged the foregoing instrument to be her free act and deed in her said capacity.

Before me,



Lynda M. Carey

Attorney-at-Law/Notary Public
Print Name: Lynda M. Carey
My Commission Expires: 08/06/2023

No Transfer Tax Paid
TINA M. CHOUINARD, REGISTER
ANDROSCOGGIN COUNTY MAINE E-RECORDED

National Flood Hazard Layer FIRMette

FEMA

70°27'36"W 44°2'41"N

70°26'58"W 44°2'15"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
- 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 2/28/2024 at 8:46 AM 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.

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

DRAWING SCHEDULE

AREA SCHEDULE

NAME	AREA
FOOTPRINT (USED FOR ESTIMATING)	1008 sq ft.
FIRST FLOOR	1008 sq ft.

"ATTENTION HOMEOWNERS, BUILDERS, DESIGNERS & ARCHITECTS"

ALL WORK SHALL CONFORM TO STATE AND LOCAL BUILDING CODES

THE BUILDING CODE IS THE MINIMUM REQUIREMENT, ALWAYS CONSULT WITH THE LOCAL AUTHORITIES FOR AMENDMENTS OR IMPROVEMENTS TO THE CODE

ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD

ALL FOOTINGS ARE TO REST ON UNDISTURBED SOIL AND EXTEND BELOW THE FROST LINE

ALL LUMBER EXPOSED TO THE WEATHER OR IN DIRECT CONTACT WITH CONCRETE MUST BE PRESSURE TREATED

SMOKE ALARMS ARE TO BE HARDWIRED, INTERCONNECTED AND INSTALLED IN THE FOLLOWING LOCATIONS:
-EACH SLEEPING AREA
-OUTSIDE EACH SEPERATE SLEEPING AREA IN THE VICINITY OF THE BEDROOMS
-ON EACH ADDITIONAL STORY INCLUDING BASEMENT AND HABITABLE ATTICS
-NOT LESS THAN 3' HORIZONTALLY FROM A BATHROOM DOOR CONTAINING A SHOWER OR A BATHTUB

A GARAGE CEILING WITH HABITABLE SPACE ABOVE MUST BE PROTECTED WITH 5/8" TYPE X GYPSUM

COMMON WALL BETWEEN HOUSE AND GARAGE MUST HAVE NO LESS THAN 1/2" GYPSUM ON THE GARAGE SIDE

OPENINGS BETWEEN THE RESIDENCE AND GARAGE SHALL BE PROTECTED WITH A 20 MIN. FIRE RATE DOOR EQUIPPED WITH A SELF-CLOSING DEVICE.

GARAGE SLAB MUST BE AN APPROVED NON-COMBUSTIBLE MATERIAL AND BE SLOPED TO FACILITATE THE MOVEMENT OF LIQUIDS TO A FLOOR DRAIN OR THE MAIN VEHICLE ENTRY DOOR

MAX SILL HEIGHT FOR EGRESS WINDOWS IS 44"

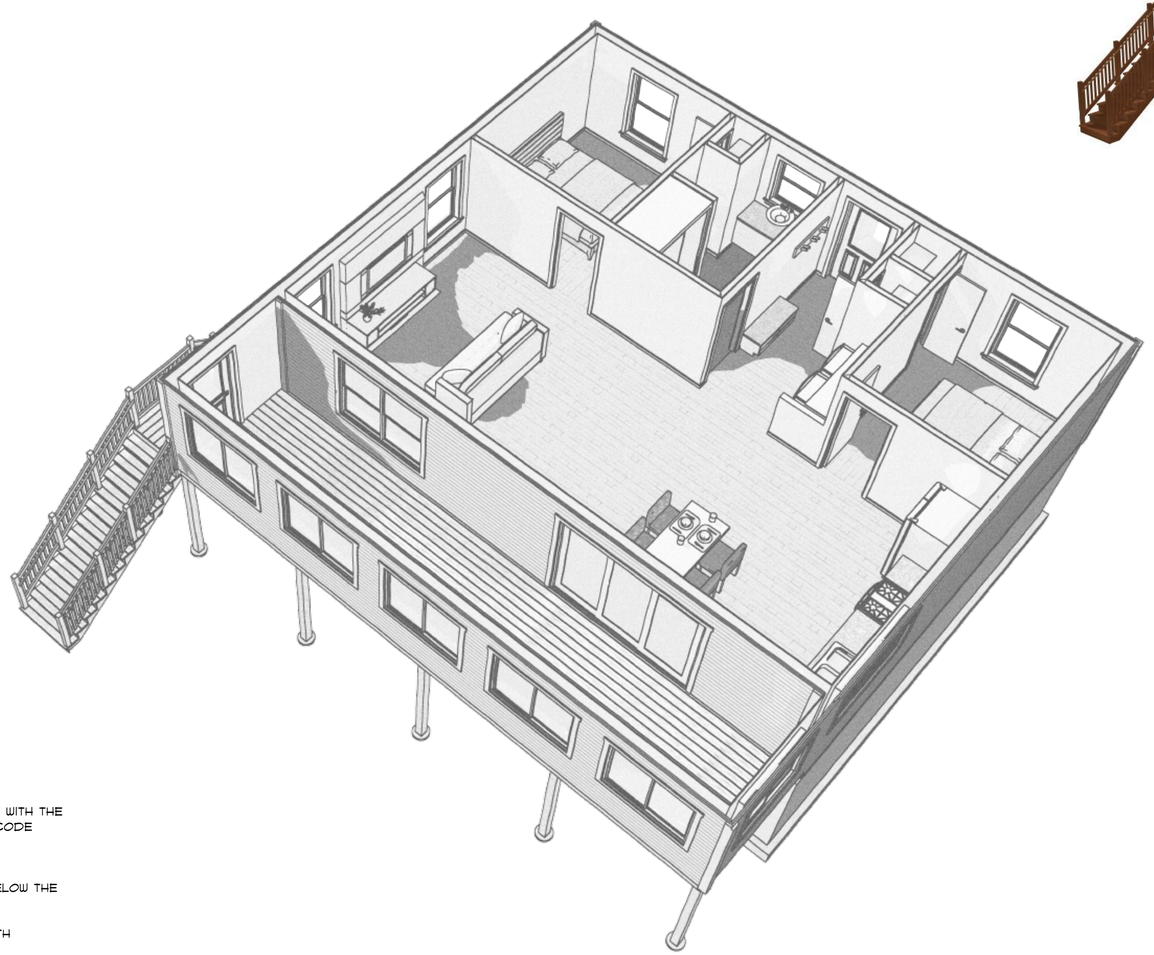
FOR EGRESS, TEMPERED GLASS, SASH LIMITER OR WOCD (WINDOW OPENING CONTROL DEVICE) PLEASE REFER TO 2015 IRC

REFER TO IRC TABLE R602.3(1) FOR FASTENING SCHEDULE

REFER TO IRC R602.7(2) FOR INTERIOR GIRDER SPANS

REVISION SCHEDULE

NUMBER	DATE	REVISION NOTE
1	8.28.23	ADD 1' WALK-OUT CRAWL SPACE, MAKE PORCH A SUNROOM
		ADJUST BATHROOM SIZE
2	11.2.23	MOVE BATHROOM DOOR, REMOVE LINEN CL, 5' SHOWER, MOVE TOILET
		SIDE BY SIDE W/D, LARGER KITCHEN WINDOW, MOVE FRIDGE
		REMOVE STAIRS FLATTEN PROPERTY FOR WALKWAY,
		ADD TWO WINDOWS LEFT SIDE



OPENING SCHEDULE

LIBRARY NAME	PRODUCT CODE	COUNT	EGRESS
SPI\EXTERIOR\HINGED\1 LITE	3068R	2	Yes
SPI\EXTERIOR\SLIDER	9068 NRN	1	Yes
SPI\INTERIOR\HINGED	1668 L	1	No
SPI\INTERIOR\HINGED	2068 L	1	No
SPI\INTERIOR\HINGED	2068 R	1	No
SPI\INTERIOR\HINGED	2868 L	2	No
SPI\INTERIOR\HINGED	2868 R	1	No
SPI\WINDOWS\ANDERSEN\400 SERIES\CASEMENT	CXW245	1	Yes
SPI\WINDOWS\ANDERSEN\400 SERIES\GLIDING	G54 RN	6	No
SPI\WINDOWS\ANDERSEN\400 SERIES\TILT-WASH DOUBLE HUNG\1 WIDE	TW210410	4	Yes
SPI\WINDOWS\ANDERSEN\400 SERIES\CASEMENT	CXW235	1	No
SPI\WINDOWS\ANDERSEN\400 SERIES\TILT-WASH DOUBLE HUNG\2 WIDE	TW210410-2	1	Yes
SPI\WINDOWS\ANDERSEN\400 SERIES\TILT-WASH DOUBLE HUNG\1 WIDE	TW2832	1	No
Window\Specialty	30 ROUND	2	No

FRONT VIEW

LEFT VIEW

REAR VIEW

22 LOCATIONS ACROSS MAINE & NEW HAMPSHIRE

AUBURN · BANGOR · BAR HARBOR · BELFAST · BELGRADE
BLUE HILL · BOOTHBAY HARBOR · BRUNSWICK · BUCKSPORT
CALAIS · CAMDEN · CHERRYFIELD · DAMARISCOTTA · ELLSWORTH
FAIRFIELD · FARMINGTON · GREENVILLE · MACHIAS · PORTLAND
ROCHESTER (NH) · ROCKLAND · SKOWHEGAN

WWW.HAMMONDLUMBER.COM

Hammond Lumber Company

CA23127T

1 OF 4

	RMF	SPR	AUB
		Friday, November 3, 2023	
8.8.23			
8.28.23			
11.2.23			

SCALE = AS NOTED

HEATH BOOTH

20X30 CAMP

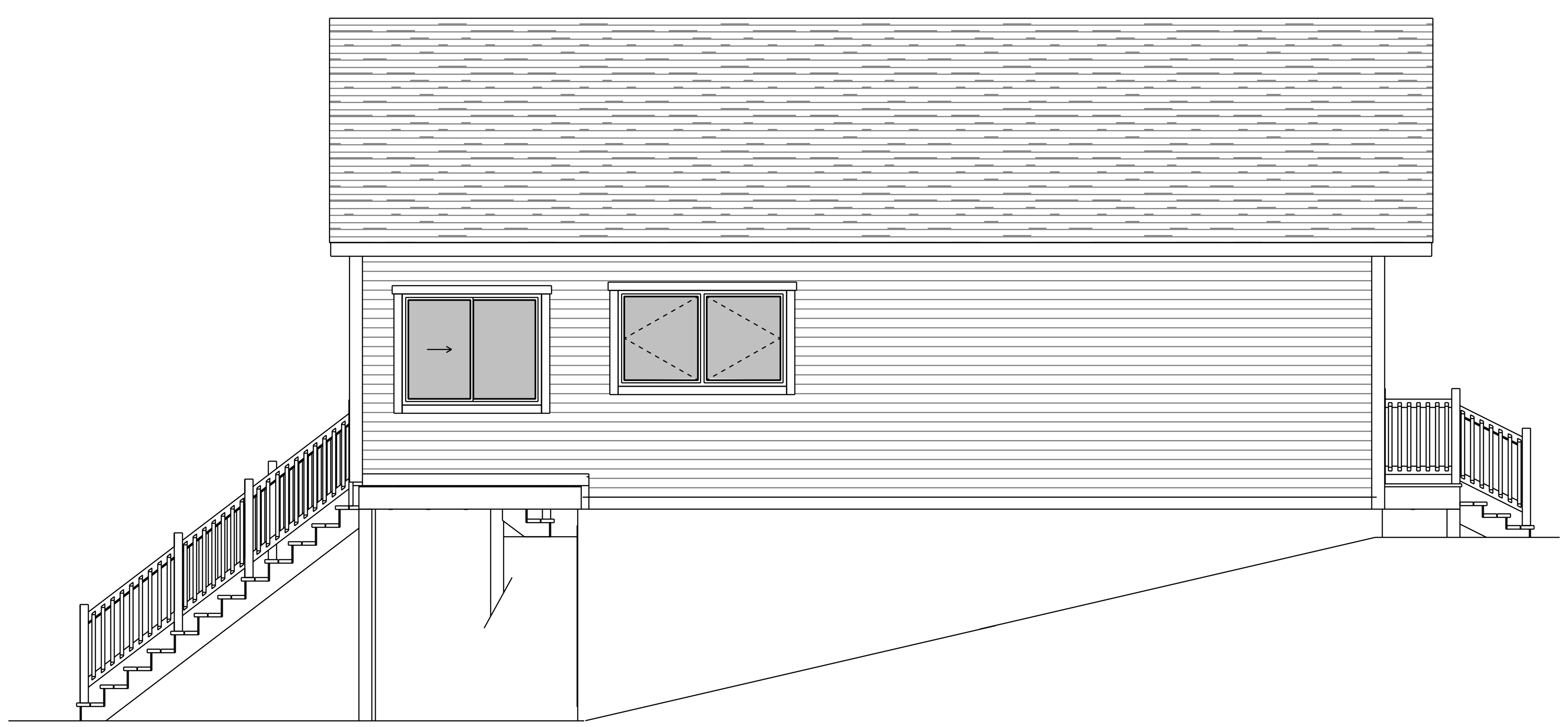
POLAND

OWN

HOME PLANNING CENTER
A Division of Hammond Lumber Company

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

FRONT ELEVATION
SCALE: 1/4" = 1'-0"



RIGHT ELEVATION
SCALE: 1/4" = 1'-0"

LEFT ELEVATION
SCALE: 1/4" = 1'-0"

22 LOCATIONS ACROSS MAINE & NEW HAMPSHIRE
AUBURN · BANGOR · BAR HARBOR · BELFAST · BELGRADE
BLUE HILL · BOOTHBAY HARBOR · BRUNSWICK · BUCKSPORT
CALAIS · CAMDEN · CHERRYFIELD · DAMARISCOTTA · ELLSWORTH
FAIRFIELD · FARMINGTON · GREENVILLE · MACHIAS · PORTLAND
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Hammond Lumber Company

CA2312TT
2 OF 4

HEATH BOOTH

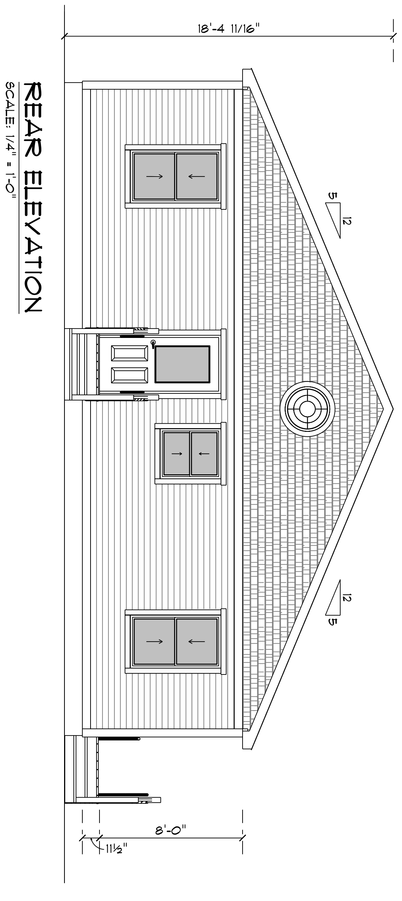
OWN	RMF	SPR	AUB	8.8.23 / 8.28.23
20X30 CAMP	Friday, November 3, 2023			11.2.23
POLAND	SCALE = AS NOTED			

HOME PLANNING CENTER
A Division of Hammond Lumber Company

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

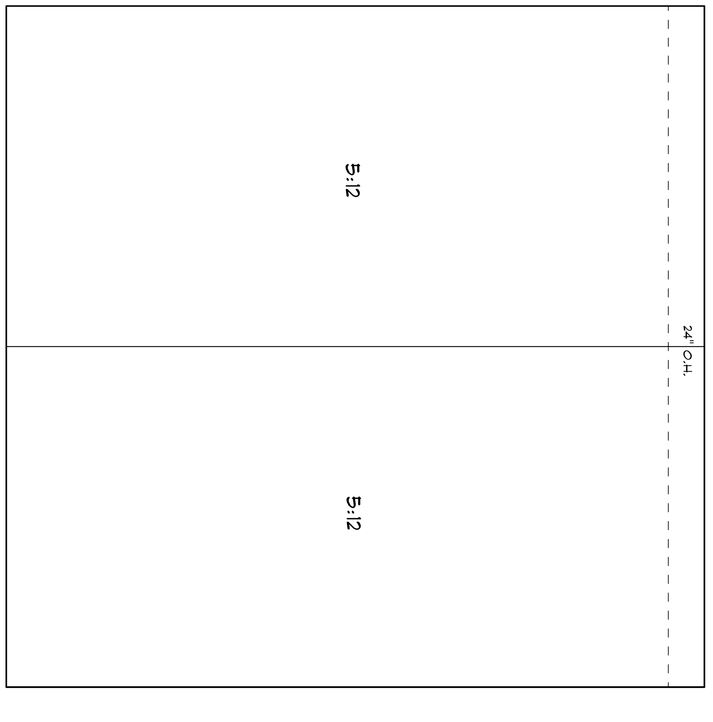
REAR ELEVATION

SCALE: 1/4" = 1'-0"



ROOF VIEW

SCALE: 1/4" = 1'-0"



HEATH BOOTH

OWN	RMF	SPR	AUB	8.8.23	
				8.28.23	
20X30 CAMP	Friday, November 3, 2023			11.2.23	CA2312T1
POLAND	SCALE = AS NOTED				3 OF 4

HOME PLANNING CENTER
A Division of Hammond Lumber Company

Hammond Lumber Company

22 LOCATIONS ACROSS MAINE & NEW HAMPSHIRE

AUBURN · BANGOR · BAR HARBOR · BELFAST · BELGRADE
BLUE HILL · BOOTHBAY HARBOR · BRUNSWICK · BUCKSPORT
CALAIS · CAMDEN · CHERRYFIELD · DAMARISCOTTA · ELLSWORTH
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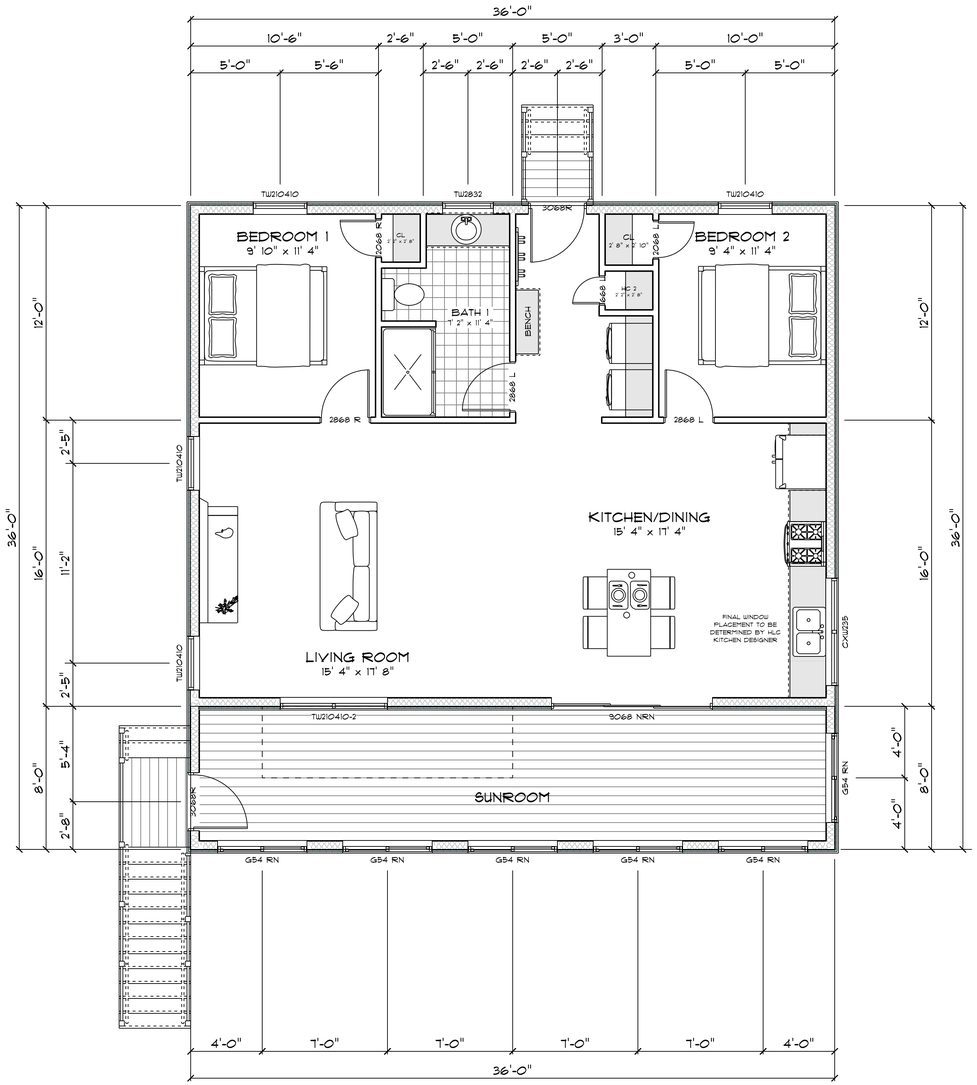
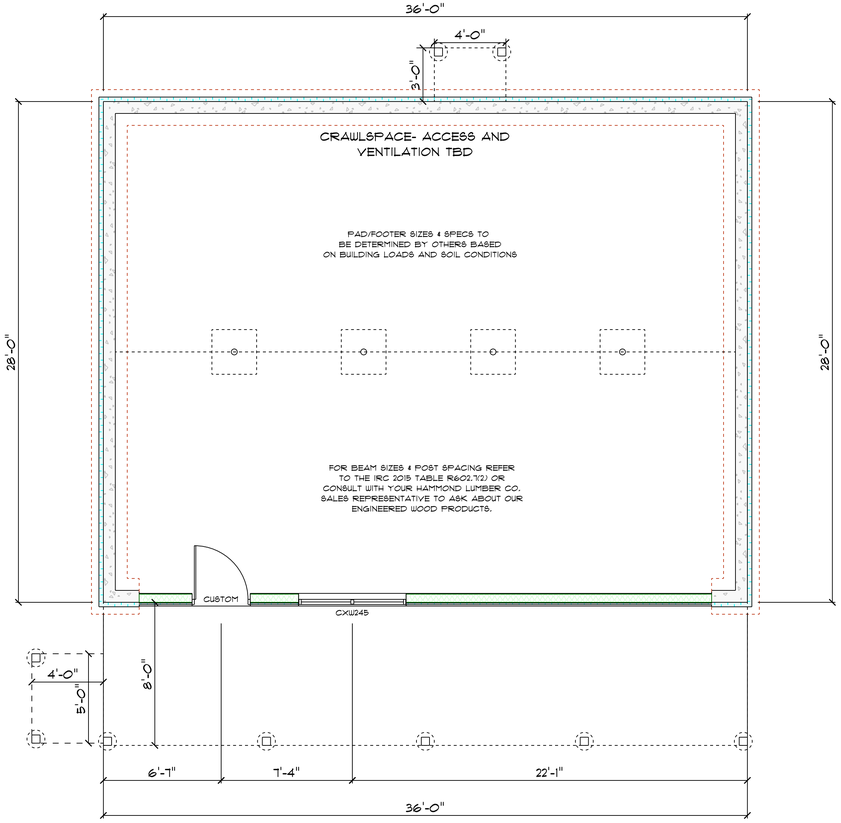
PRELIMINARY DRAWING
NOT FOR CONSTRUCTION



FIRST FLOOR

SCALE: 1/4" = 1'-0"



FOUNDATION

SCALE: 1/4" = 1'-0"

22 LOCATIONS ACROSS MAINE & NEW HAMPSHIRE

AUBURN · BANGOR · BAR HARBOR · BELFAST · BELGRADE
BLUE HILL · BOOTHBAY HARBOR · BRUNSWICK · BUCKSPORT
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ROCHESTER (NH) · ROCKLAND · SKOWHEGAN

WWW.HAMMONDLUMBER.COM

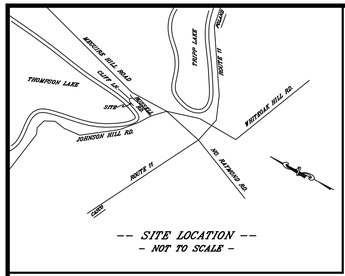
HEATH BOOTH

OWN	RMF	SFR	AUB	8.8.23
				8.28.23
20X30 CAMP	Friday, November 3, 2023			11.1.23
POLAND	SCALE = AS NOTED			

CA23127T

4 OF 4

HOME PLANNING CENTER
A Division of Hammond Lumber Company



-- SITE LOCATION --
- NOT TO SCALE -

ZONING: LIMITED RESIDENTIAL
SHORELAND ZONING

CHAPTER 5, SECTION 508.27
LAND USE PERFORMANCE STANDARDS,
SHORELAND AREAS

MINIMUM LOT AREA: 60,000 SQ.FT.
MINIMUM SHORE FRONTAGE: 200'
MAXIMUM LOT COVERAGE: 20%

SETBACKS FROM LOT LINES: 20'
SETBACKS FROM HWM: 100'

HOWEVER, PER SECTION 504, STRUCTURES ON THIS LOT ARE NON-CONFORMING AND SHALL COMPLY WITH SAID SECTION 504.

LEGEND

- PROPERTY LINES
- RIGHT OF WAY/ABUTTING LOT LINES
- STONE WALL
- 5/8" CAPPED REBAR SET #2208
- IRON PIN / REBAR / PIPE FOUND (AS NOTED)
- UTILITY POLE
- FB — PROPOSED FILTER BARRIER (APPROX. LOCATION) SILT FENCE OR EROSION CONTROL BERM (SEE DETAILS)
- ZONING LINE
- ELEV. NAVD88 — CONTOURS (LIDAR)
- LOT ~ ## — LOT PER PLAN REF. #1
- SETBACKS FROM SHORELINE (AS NOTED)

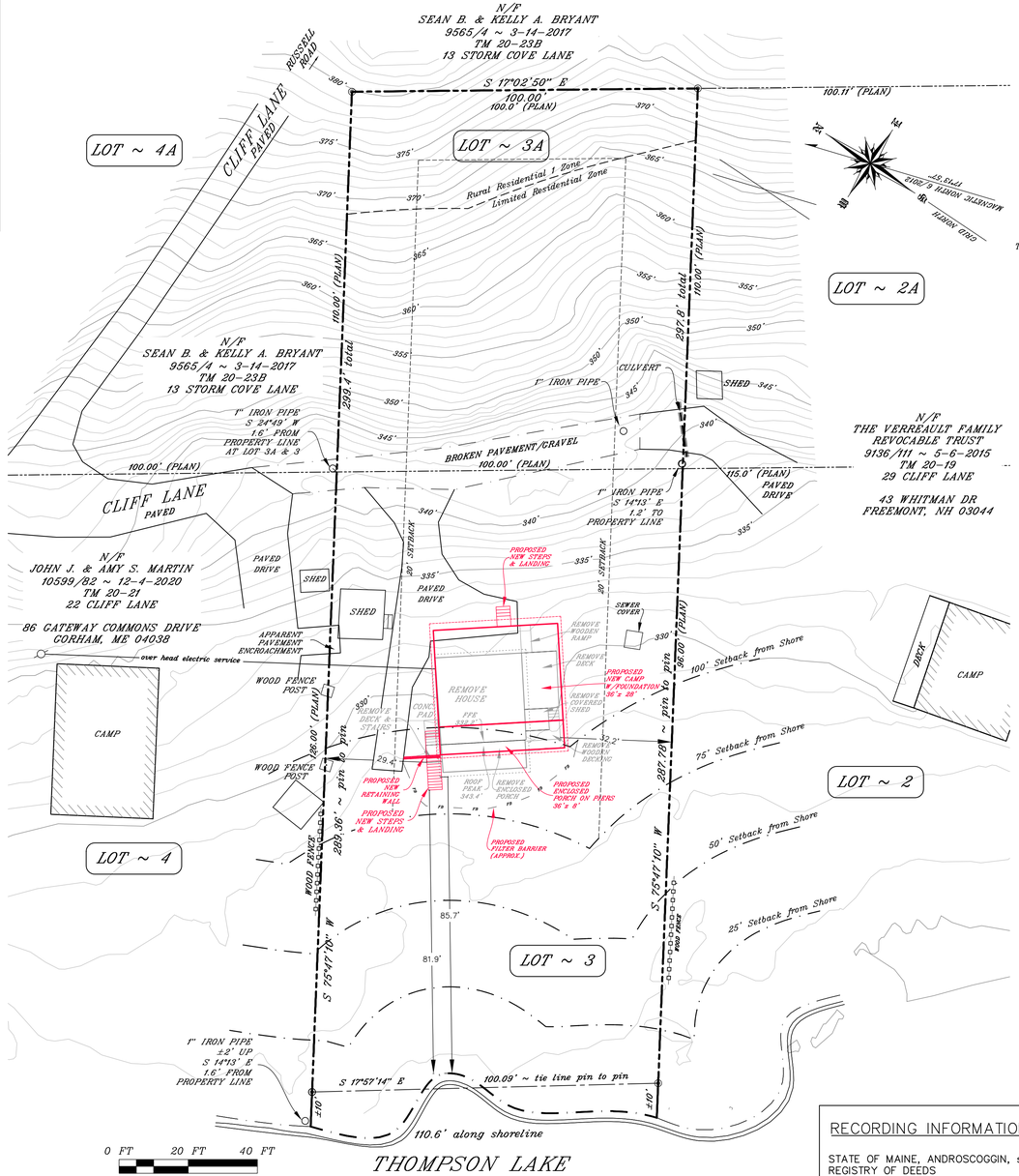
CRBR	CAPPED REBAR
SHOT AT BASE	SAB
SHOT ON TOP	SOT
ABOVE GROUND	A.G.

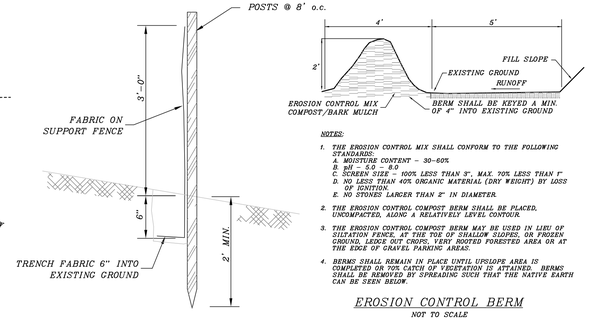
NOTES:

1. BEARINGS ARE REFERENCED TO MAGNETIC NORTH AS OBSERVED JUNE 2012.
2. DEED REFERENCES ARE MADE TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS – AUBURN, MAINE.
3. PROPERTY CONVEYED WITH SPRING RIGHTS AS CONVEYED IN BOOK 1021, PAGE 526. SPRING LOCATED BEHIND LOT 3A AND ON LAND OF BRYANT. LOCATION OF SPRING NOT SHOWN ON SURVEY.
4. LOT NUMBERS AND DISTANCES AS SHOWN BASED ON PLANS AS REFERENCED.
5. A PORTION OF THE PARCEL IS LOCATED WITHIN A 100-YEAR FLOOD HAZARD AREA AS SHOWN ON THE F.E.M.A. FLOOD INSURANCE RATE MAP COMMUNITY PANEL 23001C0287E, EFFECTIVE DATE 7-8-2013. THOMPSON LAKE IS LOCATED WITHIN ZONE AE WITH AN ELEVATION OF 328 FEET (NAVD88).
6. PROPERTY IS LOCATED IN THE SHORELAND ZONE, LIMITED RESIDENTIAL DISTRICT.
7. CONTOURS OBTAINED FROM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) DIGITAL COAST DATA ACCESS VIEWER. CUSTOM PROCESSING OF "2009 USGS LIDAR: ANDROSCOGGIN COUNTY (ME)". CHARLESTON, SC: NOAA OFFICE FOR COASTAL MANAGEMENT. ACCESSED NOV 02, 2021 AT HTTPS://COAST.NOAA.GOV/DATAVIEWER. VERTICAL DATUM IS NAVD88.

REFERENCES:

1. PLAN OF PROPERTY DATED 8-25-1960 FOR PAUL H. ANDERSON BY GEO H. BARRON CO., ENGR'S – LEWISTON, MAINE RECORDED AT THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS IN PLAN BOOK 14, PAGE 749.
2. ADDITION TO PLAN OF PROPERTY DATED 12-9-1965 FOR PAUL H. ANDERSON BY GEO H. BARRON CO., ENGR'S – LEWISTON, MAINE RECORDED AT THE SAID REGISTRY OF DEEDS IN PLAN BOOK 17, PAGE 08.
3. ADDITION TO PLAN OF PROPERTY DATED 3-16-1966 FOR PAUL H. ANDERSON BY GEO H. BARRON CO., ENGR'S – LEWISTON, MAINE RECORDED AT THE SAID REGISTRY OF DEEDS IN PLAN BOOK 17, PAGE 17.
4. STANDARD BOUNDARY SURVEY OF 26 CLIFF LANE, POLAND, MAINE PREPARED FOR CY & PAMELA BOOTH DATED JUNE 15, 2012 PREPARED BY DAVIS LAND SURVEYING, LLC.
5. SITE PLAN SHORELAND ZONING, PLAN OF PROPERTY AT 26 CLIFF LANE, POLAND, MAINE PREPARED FOR PAMELA BOOTH DATED DECEMBER 30, 2021 RECORDED AT THE SAID REGISTRY OF DEEDS IN PLAN BOOK 54, PAGE 17.
6. SITE PLAN SHORELAND ZONING, PLAN OF PROPERTY AT 26 CLIFF LANE, POLAND, MAINE PREPARED FOR PAMELA BOOTH DATED DECEMBER 30, 2021, REVISED 6-23-2022 RECORDED AT THE SAID REGISTRY OF DEEDS IN PLAN BOOK 54, PAGE 73.



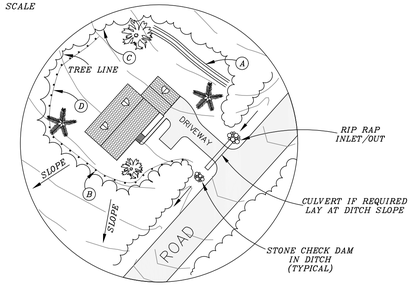


NOTES:

1. THE EROSION CONTROL MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:
   A. MOISTURE CONTENT – 30–60%
   B. pH – 5.0 – 8.0
   C. SCREEN SIZE – 100% LESS THAN 3", MAX. 70% LESS THAN 1"
   D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION.
   E. NO STONES LARGER THAN 2" IN DIAMETER.
2. THE EROSION CONTROL COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.
3. THE EROSION CONTROL COMPOST BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
4. BERMS SHALL REMAIN IN PLACE UNTIL UPSLOPE AREA IS COMPLETED OR 70% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT THE NATIVE EARTH CAN BE SEEN BELOW.

EROSION CONTROL BERM
NOT TO SCALE

SILT FENCE
NOT TO SCALE



HOUSE SITE EROSION CONTROL
NOT TO SCALE

NOTE:
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."

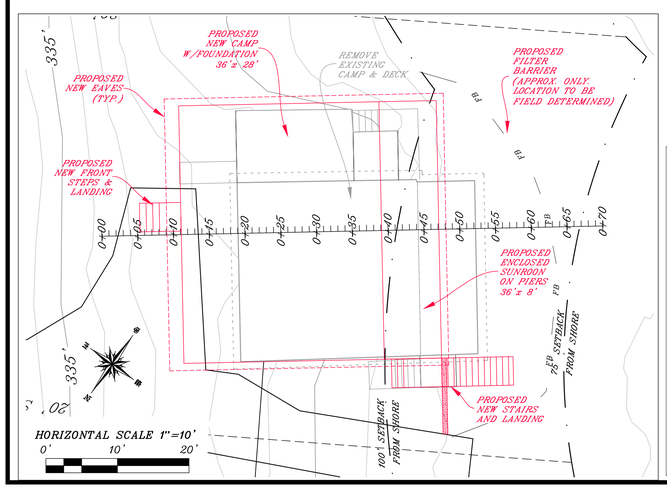
A. CONSTRUCT DIVERSION DITCH TO KEEP UPSLOPE DRAINAGE AREA FROM ENTERING SITE.
B. INSTALL SEDIMENT BARRIERS BELOW ALL DISTURBED AREAS
C. KEEP CLEARING TO A MINIMUM.
D. RE-SEED ALL DISTURBED AREAS.

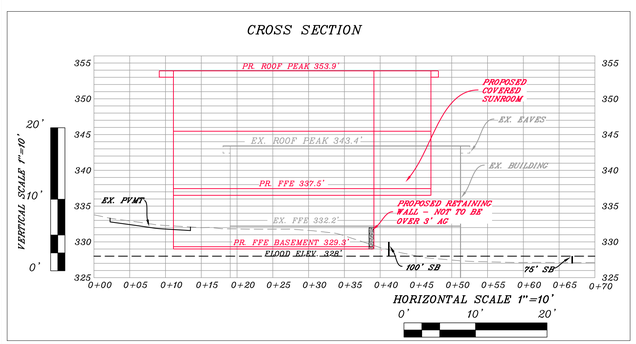
SCHEDULE OF EXISTING IMPERVIOUS AREAS				
IMPERVIOUS AREAS (SF)	0–75	75–100	100+	TOTAL
SHARED DRIVE (BROKEN PVMT & GRAVEL)	–	–	1,104.91	1,104.91
PAVED DRIVE		95.46	1,175.66	1,271.12
PAVED DRIVE ENCROACHMENT			21.14	21.14
SEWER COVER			23.50	23.50
CAMP WITH COVERED PORCH		284.85	534.50	819.35
CAMP EAVES (EXISTING)			47.54	45.15	92.69
ATTACHED RAMP				24.00	24.00
ATTACHED MAIN DECK, STAIRS & DECKING		5.30	205.91	211.21
ATTACHED SIDE DECK & STAIRS		36.24		36.24
CONRETE PAD AT BASE OF SIDE STEPS		5.71	8.72	14.43
ATTACHED COVERED SHED			42.38	42.38
SHED W/OVERHANG & STEPS			195.14	195.14
TOTAL	–	475.10	3,381.01	3,856.11

SCHEDULE OF PROPOSED IMPERVIOUS AREAS				
IMPERVIOUS AREAS (SF)	0–75	75–100	100+	TOTAL
SHARED DRIVE (BROKEN PVMT & GRAVEL)	–	–	1,104.91	1,104.91
PAVED DRIVE		95.46	1,043.81	1,139.27
PAVED DRIVE ENCROACHMENT			21.14	21.14
SEWER COVER			23.50	23.50
SHED W/OVERHANG & STEPS			195.14	195.14
NEW CAMP W/ATTACHED SUNROOM		193.69	1,102.31	86.67
NEW CAMP STEPS & LANDING		68.00	23.04	24.00
NEW CAMP EAVES		38.53	131.47	100.81
NEW RETAINING WALL	–	7.17		100.81
TOTAL	–	402.85	3,645.32	4,048.17

SCHEDULE OF DEVELOPMENT WITHIN 100' OF SHORELAND	EXISTING
DEVELOPMENT ALLOWED W/IN 100' (SF)	1,500.00
EXISTING DEVELOPMENT (SF)	475.10
REMAINING AREA ALLOWED FOR DEVELOPMENT	1,024.30

SCHEDULE OF IMPERVIOUS AREA & ALLOWED %		ALLOWED	EXISTING	PROPOSED
LOT AREA	29,487.70			
IMPERVIOUS AREA IN SQ. FT.		4,423.12	3,856.11	4,048.17
% OF IMPERVIOUS AREA		15.0%	13.1%	13.7%





RECORDING INFORMATION:

STATE OF MAINE, ANDROSCOGGIN, ss
REGISTRY OF DEEDS

RECEIVED _____ 20__
AT__HR __MIN. _M. AND RECORDED
IN PLAN BOOK _____, PAGE _____

ATTEST: _____
REGISTER

TOWN OF POLAND PLANNING BOARD: DATE:
CHAIRPERSON:

AREA:

29,487.7 SQ. FT.
±0.7 ACRES

OWNER OF RECORD:

PAMELA BASCOM BOOTH, TRUSTEE OF THE
BOOTH REVOCABLE TRUST DATED MARCH 2, 2017
9377 SW 56TH LOOP
OCALA, FL 34481

TAX MAP 20, LOT 20
BOOK 10789, PAGE 232
JUNE 24, 2021

REVISIONS:

NO.	DESCRIPTION:	DATE:

CERTIFICATION:
TO THE BEST OF MY KNOWLEDGE, INFO AND BELIEF, THE SURVEY AND PLAN SHOWN HEREON IS CORRECTLY REPRESENTED. THE SURVEY RESULTS SHOWN HERE REPRESENT THE LICENSEE'S RESPONSIBILITY TO THE PRACTICE AS REQUIRED UNDER THE STANDARDS OF PRACTICE AS ADOPTED BY THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS (M.R.S.A. TITLE 32, CHAPTER 121 DATED APRIL 2002)

EXCEPT AS FOLLOWS:
1) NO WRITTEN REPORT TO DATE
2) NO DEED DESCRIPTION TO DATE

PLAN PREPARED BY: SAB ♦ DAVE
PLAN CHECKED BY: SAB THIS PLAN IS NOT VALID UNLESS EMBOSSED ABOVE

PRELIMINARY

DAVIS LAND SURVEYING, LLC
990 MINOT AVENUE
AUBURN, MAINE 04210
OFFICE (207) 345-9891 ~ CELL (207) 240-9849
EMAIL: stuart@davislandsurveying.net
WEBSITE: www.davislandsurveying.net
MARCH 12, 2024

- SITE PLAN SHORELAND ZONING -
PLAN OF PROPERTY
26 CLIFF LANE
POLAND, MAINE

PAMELA BOOTH
9377 SW 56TH LOOP
OCALA, FL 34481

JOB NO.: 23-057
FILE NO.: 624

TOWN OF POLAND

Road Name Application

Parcel ID #:	0010-0082-00051E
Closest Existing Road:	Kinney Woods Lane

Property Owner/Applicant Information

Owner Name:	Timothy and Amanda McAlister
Mailing Address:	26 Front Run New Gloucester ME 04260
Phone Number:	207-333-8108
Email Address:	TimMcAlister33@Gmail.com

Name request for new road:

1st Choice: McAlister Lane

2nd Choice: Woods Road

3rd Choice: Not McAlister Lane

I hereby acknowledge that I have read this application and pertinent sections of the ordinances, and state that the information in this document is to the best of my knowledge true and accurate.

Applicant Signature: [signature] **Date:** 2/28/24

CEO STATEMENT

I have checked the Town of Poland road names and find the following:

- ✓ None of the names suggested are in use or similar to other road names
- __ Another road is using one of the names: _____
- __ One or more of the names is similar to an existing road: _____

CEO Signature: [signature] Date: 3-6-24

PLANNING BOARD

The Planning Board recommends the following name: _____

Chairperson Signature: _____ Date: _____

BOARD OF SELECTPERSONS

The Board of Selectpersons Approves the following name: _____

Chairperson Signature: _____ Date: _____