



MAIN-LAND

DEVELOPMENT
CONSULTANTS, INC.

ENGINEERS, SURVEYORS, SCIENTISTS

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

September 22, 2026

State of Maine Land Use Planning Commission
Attn: Tim Carr, Acting Chief Planner & David Hediger, Senior Planner
18 Elkins Lane, 22 State House Station
Augusta, Maine 04333

SUBJECT: 25-040 Loaf Land Subdivision - Comment Response

Mr. Carr & Mr. Hediger,

Thank you for your continued review of the Subdivision Application Permit (SP 4103) for Loaf Land Subdivision in Coplin Plt.. The team recently received the additional review comments from LUPC in regard to this application, dated August 27, 2026. These comments can be seen below in *italic*, followed by Main-Land's response in regular typeset. Updated or amended exhibits have been provided as attachments.

- *Property Information Form (p.3 of the application PDF File)*
 - *The Brief Description refers to a moderate-density subdivision with one lot having access from Hedgehog Trail. These details are inconsistent with all other information submitted*

The project description from the application has been amended to be consistent with the project narrative and respective plans.

- *Deed, Lease, Sales Contract, or Easement*
 - *Provide evidence of title, right, or interest allowing loaf Land development LLC to place a culvert under Mountain Rd.*

The team has reached out to a few contacts and at this time are still working through addressing this comment. We wanted to provide you with the additional materials in regard to the other received comments in the meantime and will keep you updated with any progress on this item. .

- *Financial Capacity (Ex. 5)*
 - *Clarify whether the estimated project cost includes the following and update the estimate as needed:*
 - *Costs for materials and installation of the 24-inch culvert proposed to cross under Mountain Rd*
 - *Inspection of roads and phosphorus and stormwater control measures during construction*
 - *Applicant's costs for inspection and maintenance of phosphorus and stormwater control measures after installation*

Note that under Chapter 10 §10.25(L)(4)(b) of the Commission's rules, structural measures for phosphorus control are allowed under certain circumstances, including that an applicant has "financial capabilities to properly design, construct, and provide for... long-term inspection and maintenance" of the structural measures.

- *Include the April 15, 2026, letter from Mr. Diebler regarding project financing.*

Given the financial information provided in Exhibit 5, including the banking and financial documentation of Mr. Diebler, these additional costs are a small fraction of the overall project budget as well as the applicant's financial resources. These documents support that the applicant has sufficient financial capacity to design, construct, inspect, maintain, and if necessary, repair or replace the proposed stormwater and phosphorus control measures.

The letter from Mr. Diebler has been included in this submission.

- *Site Plans (Ex. 10)*
 - *Provide a drainage plan that shows the soil types and boundaries to facilitate evaluation of the phosphorus export coefficients used (see Sebago Technics review comment III.2).*
 - *Sebago Response: Worksheet 2 lists 4 Lots for FP2 and 6 lots for FP3 whereas the narrative lists 5 lots for both Filter Ponds. Additionally, the 2 August 21, 2026 Loaf Land Subdivision – Coplin Plantation, ME LUPC Phosphorus Review drainage plan does not show the soil types and boundaries, so it is difficult to evaluate whether the correct export coefficients are being used for the lots. Below you can see for FP2 Lots HSG-C 4 lots (6th row), and on the Line FP4- Lots HGS C , 2 lots are listed (last row). These differ from the narrative and should be clarified in the report.*

Pond 2 & Pond 3 both treat 5 lots each, as listed in the narrative and depicted in the Drainage Plan. The ponds were sized approximately. Worksheet 2 has updated to reflect this. In addition, the soils have been overlaid onto the Drainage Plan with color for clarity.

- *Provide plans for the filter ponds that show the forebays, including notes on elevation (see Sebago Technics review comment III.6.e).*
 - *Sebago Response: Based on the updated calculations the forebays should be included for all the filter ponds shown. Currently, we can only see pond 1 showing the forebay location, and all ponds for treatment should include the installment of forebays. In some cases the presence of two channels entering one pond should be addressed as to how the engineer plans to place forebays in line to collect heavier sediment and reduce velocities prior to entering the actual pond filter containment. The data to support the forebay sizing was included, but not shown on the plan where it would be installed upstream of all the proposed filter ponds.*

Sediment forebays and elevations have been added to the plans.

- *On Plan C5.3 (Stream Plan & Profile), clarify the design of the wingwall and how wetland impacts will be avoided during construction (see Sebago Technics review comment IV.11 on Sheet C5.3).*
 - *Sebago Response: The stream profile appears to indicate the need for a 7 foot-tall wing wall on the outlet side. The plans should better depict the design intent of this wingwall and how wetland impacts will be avoided during its construction. Silt fence is also shown through the wetland in this area with no stated wetland impact in this area. Additionally, the design plans include lengths of side slopes that are at 2H:1V or steeper. It should be shown on the grading plan which slope stabilizing measures are to be used and their extents where the side slope exceeds 3H:1V.*

The design plans have been updated accordingly. The wing wall design has been reduced to consist of a 4' wall, an acceptable height for a boulder wall installation by the contractor. The



siltfence and grading has been adjusted to provide more clearance adjacent to wetland. Lastly, the steeper sections have been indicated on C3.1 Grading Plan.

- *On Plan C3.1 (Grading & Erosion Control Plan), wherever side slopes exceed 3H:1V, show the planned slope stabilizing measures and their extents (see Sebago Technics review comment IV.11 on Sheet C5.3).*
 - *Sebago Response: The stream profile appears to indicate the need for a 7 foot-tall wing wall on the outlet side. The plans should better depict the design intent of this wingwall and how wetland impacts will be avoided during its construction. Silt fence is also shown through the wetland in this area with no stated wetland impact in this area. Additionally, the design plans include lengths of side slopes that are at 2H:1V or steeper. It should be shown on the grading plan which slope stabilizing measures are to be used and their extents where the side slope exceeds 3H:1V.*

The design plans have been updated accordingly to reflect those areas.

- *On Plan C5.1 (Road Plan and Profile), consider moving the proposed underground electrical conduit to either side of the ditch (see Sebago Technics review comment IV.12 on Sheet C5.1).*
 - *Sebago Response: The proposed electrical conduit is shown running down the centerline of the roadside ditch for Mountain Village Road. The designer should consider moving the conduit to either side of the ditch to avoid shallow cover and water intrusion.*

No exception has been taken to this recommendation and it is reflected in the associated documents.

- *Subdivision Layout and Design (Ex. 14)*
 - *Ensure that the Table of Lot Specifications and the Site Plan are consistent. Inconsistencies noted include:*
 - *Lot 1: 0.10 acres (4,452 sq ft, Lot Table) vs 1.02 acres (Site Plan)*
 - *Lot 3: 2.65 acres (115,434 sq ft, Lot Table) vs 2.59 acres (Site Plan)*
 - *Lot 4: 2.35 acres (102,366 sq ft, Lot Table) vs 2.42 acres (Site Plan)*
 - *Lots 5 and 6 do not have a road frontage requirement because they are located at the end of a road. Chapter 10 § 10.26(C)(1)(b). The layout also makes it impossible to determine road frontage following the LUPC's requirement that "frontage must be measured along the traveled portion of the road between the points of intersection of side lot lines with the traveled portion of the road." Chapter 10 § 10.26(C)(1)(c). Please change the road frontage entries for Lots 5 and 6 to "NA" to help avoid confusion.*
 - *Provide the amount of vegetation clearing on each lot for structural stormwater and phosphorus controls.*

Table of Lot Specifications have been updated to address the comments above and the plan updates.

- *Subdivision Lot Deed or Lease Covenants (Ex. 16)*
 - *LUPC staff recommend removing reference to Subdivision Permit SP3001 in the Declaration of Covenants, Easements, and Restrictions (see Section 8, Rules and Regulations, last sentence). Per the communication relayed from the Applicant's attorney in Maine-Land's April 14, 2026, letter to the LUPC, the Applicant determined that it was more cost-effective to comply with the Declaration of Covenants and Restrictions of Hedge Hog Mountain Village II than to remove the restrictions from the chain of title. This conclusion does not imply that compliance with the conditions of SP3001 is required, and the LUPC agrees (see AR 23-11). Incorporating the*

conditions of SP3001 into the Loaf Land Subdivision Declaration may conflict with the current plans and impose an increased burden on future lot owners.

- *Section 2, Clearing of Lots:*
 - *This section does not include the 1,750 sq ft clearing allowance for driveways mentioned in the response cover letter. Clarify whether the covenants and restrictions will include the driveway clearing allowance.*
 - *Correct the statement about clearing for wellhead areas. To be consistent with Chapter 10 § 10.25(Q)(3)(c)(1), the wellhead areas may not be mowed or cut down more than once per calendar year.*

The restriction is intended to be 1,750 sq ft of driveway area, not the cleared area related to the driveway, per the Maine Stormwater Management Design Manual, Phosphorus Control Manual Volume II. This amendment and other LUPC recommendations have been updated in the attached updated deed covenants and restrictions.

- *Wastewater Disposal (Ex. 21)*
 - *Lot 12 must have a test pit located within the building envelope.*

S2.1 Subdivision Plan has been amended to include a septic test boring within the building envelope.

- *Harmonious Fit and Natural Character (Ex. 24)*
 - *Provide the methods for determining the viewshed depicted in Image 1 (p. 104).*

The narrative in Exhibit 24 has been updated to encompass this comment.

- *Address Sebago Technics review comment IV.1 regarding discharge from Filter Pond 1 and potential downgradient impact. Other exhibits may also need to be modified to address this comment.*
 - *Sebago Response: Based on the installation of two 24 inch diameter culverts at this location and the discharge for the underdrained treated volume from FP-1, we are still unable to assess if this point discharge will have any impact on downgradient properties. We did not receive computations to review for pre or post development conditions looking at flooding conditions so it is difficult to assess if the rerouting from the existing condition will have any detrimental downgradient impacts onto abutting lands. The applicant states they are installing a level-lipped spreader to be located in the Mountain Road ROW but we did not see that improvement located on the plans. It is possible that runoff was channeling in the existing road trail and may have detrimental impacts at the intersection during large rain events, but based on the contours and plans attached for review it is difficult to 6 August 21, 2026 Loaf Land Subdivision – Coplin Plantation, ME LUPC Phosphorus Review assess the volume. The applicant shall provide appropriate culvert sizing to select the two-24 inch culverts to cross the new road and Mountain Road. The inclusion of the underdrained discharge from the treated runoff from the 4-inch line exiting the pond is likely a minimal influence on the final flow through the last 24-inch culvert. That evidence or statement of downstream impacts, eventual discharge from the parcel property lines, and next water course that the proposed drainage enters should be stated and presented by the applicant. We can decipher from the pond discharge in Hydrocad sheets included, that the larger flooding flows exit on the westerly side of the pond and discharge into an offsite wet area on the abutting property (Fish Jr and Jenny Burch land) which does by the ACME Land Surveying, LLC plan indicates by the topography provided. In principle we agree with the improvements but need calculations, evidence, and*



engineering statement that the discharge point does not negatively impact downstream landowners, then currently in the existing condition.

To provide further evidence indicating no adverse impacts, we have modeled pre- & post-condition at the Filter Pond 1 area and Mountain Road cross culvert. Attached in this response are drainage exhibits and HydroCAD modeling. This modeling represents the 25-year storm event and a slight decrease of flows at both analysis points.

- *Address Sebago Technics review comment III.6.d regarding slope stability and energy reducing measures for the spillways.*
 - *Sebago Response: Acknowledged. The submitted hydrographs show that the emergency spillway is being activated for all the Ponds in the 10-year storm event. We would like to reiterate the importance of slope stability and energy reducing measures for these spillways.*

Stone berm level-lip spreaders have been added to each pond design to slow down and distribute flow evenly.

- *Erosion, Sedimentation, and Drainage Control Measures (Ex. 29)*
 - *Under Temporary Erosion Control, Section E. Topsoil Stockpile, the language should be amended to be consistent with Chapter 10 § 10.25(M)(2)(f): “Effective, temporary stabilization of all disturbed and stockpiled soil shall be completed at the end of each workday.”*

No exception is taken to this recommendation and it has been added to the associated documents.

- *For the Post-Construction Stormwater Inspection and Maintenance Plan:*
 - Ensure that the Narrative and Inspection sections of the plan are consistent with regard to responsibility for inspection and maintenance.*
 - Include in the Inspection/Maintenance Responsibility section:*
 - *That the HOA, once formed, will assume responsibility for inspection and maintenance;*
 - *That the HOA must maintain detailed records of the inspections and maintenance performed; and*
 - During transfer of responsibility from the Applicant to the HOA, the Applicant must provide the HOA with copies of the logs for inspection and maintenance performed during the Applicant’s period of oversight.*

The Inspection and Maintenance Plan has been clarified to specify that the applicant will be responsible for all required inspections and maintenance activities until the Homeowners Association (HOA) is established, at which time these responsibilities will be transferred to the HOA.

- *Phosphorus Control (Ex. 33)*
 - *Clarify the number of lots served by Filter Ponds 2 and 3. The narrative states that Filter Ponds 2 and 3 serve five lots each. Sheet #5 (Maine DEP Phosphorus Worksheet #2) shows Filter Pond 2 serving four lots and Filter Pond 3 serving 6 lots (see Sebago Technics review comment III.2).*
 - *Sebago Response: Worksheet 2 lists 4 Lots for FP2 and 6 lots for FP3 whereas the narrative lists 5 lots for both Filter Ponds. Additionally, the 2 August 21, 2026 Loaf Land Subdivision – Coplin Plantation, ME LUPC Phosphorus Review drainage plan does not show the soil types and boundaries, so it is difficult to evaluate whether the correct export coefficients are being used for the lots. Below you can see for FP2 Lots HSG-C 4*



lots (6th row), and on the Line FP4- Lots HGS C , 2 lots are listed (last row). These differ from the narrative and should be clarified in the report.

Pond 2 & Pond 3 both treat 5 lots each, as listed in the narrative and depicted in the Drainage Plan. The ponds were sized approximately. Worksheet 2 has been updated to reflect this. In addition, the soils have been overlaid onto the Drainage Plan with color for clarity.

- *On the Filter Design calculation worksheets, include the elevation at which the desired water quality volume is achieved for each Filter Pond (see Sebago Technics review comment III.6.c)*
 - *Sebago Response: Acknowledged. The Filter Design calculation worksheets should include at what elevation the desired water quality volume is achieved for each Filter Pond.*

The elevation has been added to the Filter Pond Design worksheets for reference.

- *Wetland Alteration Supplement (Ex. 35)*
 - *Clarify the amount of wetland impact proposed. The Subdivision Plan (Ex. 10, S2.1) shows 354 sq ft (Note 11), the Grading Plan (Ex. 10, C3.1) shows 374 sq ft, and the Wetland Alterations Supplement (S-3) shows 514 sq ft proposed (Q. 7).*

There is 990 sf of Forested Wetland impact and 160 sf of Stream impact, resulting in a total of 1,150 sf. All plan denotations have been updated to match the updated Form S-3.

- *LUPC staff recommend including the 636 sq ft mapped wetland in Lot 5 (Wetland ID W-9) in the cumulative wetland impact. If that area is not included and this proposal is permitted, the Applicant or a future lot owner would need to apply for a permit amendment to impact that area.*

No exception is taken to this recommendation and it has been added to the associated documents.

- *Clarify whether the diameter of the culvert planned for the stream crossing is 4 ft (Ex. 5, Ex. 10 C5.3) or 5 ft (Ex. 2, Ex. 9). The Erosion and Sedimentation Control Plan (Ex. 29) states that “all culverts have been sized to handle the peak flows generated by a 25-year, 24-hour rainstorm” (Section 4.A).*

The stream crossing is 4' in diameter. Ex. 2 and Ex. 9 have been updated.

Correct, all culverts have been sized for the 25-Year Storm event. The stream crossing has been sized for the 100-Year Storm event. HydroCAD modeling of these culverts have been provided in this submission.

- *If you are planning responses to any of the agency review comments provided earlier, please include them with this next submission of application materials.*

No further correspondences anticipated at this time.

To summarize the resubmitted or additional documentation, here is a list of the attachments:

- Subdivision Application
- Exhibit 2 – Updated Project Description
- Exhibit 5 – Letter from Mr. Diebler
- Exhibit 9 – Updated Structures Table
- Exhibit 10 – Updated or New Site Plans
 - S2.1 Subdivision Plan

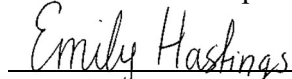


- C3.1 Grading & Erosion Control
- C5.1 Road Plan & Profile
- C5.2 Road Plan & Profile
- C5.3 Stream Plan & Profile
- C6.1 Filter Pond 1 Plan & Profile
- C6.2 Filter Pond 2 Plan & Profile
- C6.3 Filter Pond 3 Plan & Profile
- C6.4 Filter Pond 4 Plan & Profile
- D2.1 Pond Drainage Plan
- Exhibit 14 – Updated Lot Information Table
- Exhibit 16 – Updated Deed Restrictions & Covenants
- Exhibit 24 – Updated Narrative for Harmonious Fit and Natural Character
- Exhibit 29 – Updated Narratives
 - Erosion & Sedimentation Control Plan
 - Inspection & Maintenance Plan
- Exhibit 33 – Updated Phosphorus Control sections
 - Narrative
 - Export Table (Worksheet 2)
 - Filter Pond Sizing Worksheets
- Exhibit 35 – Updated Wetland Alteration Form
- Supplementary Information:
 - Pre- & Post- Drainage Exhibits for Filter Pond 1 & cross culvert under Mountain Road
 - Pre- & Post- HydroCAD Modeling for the 25-Year Storm Event
 - 25-Year Storm Event Modeling at each culvert
 - 100-Year Storm Event Modeling at stream crossing

Please let us know if you have any questions regarding this resubmittal. We look forward to continuing the review and permitting process.

Sincerely,

Main-Land Development Consultants, Inc.



Emily J. Hastings, PE
Senior Project Engineer



For office use:

Tracking No.

SP

Permit No.

Fee Received

Property Information - LUPC Subdivision Application

PROPERTY INFORMATION. Provide the following details about your property location. Tax map, plan, and lot numbers are listed on your property tax bill. If you lease your property, check your lease to find out whether any unique lease lot numbers have been assigned to the property.

Applicant Loaf Land Development, LLC	Township, Town or Plantation Coplin Plantation	County Franklin
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Tax Map, Plan, and Lot Numbers *[list all applicable; check tax bill(s)]*

Tax Map 7, Lots 2 and 12

Lot size *(in acres, or in square feet if less than 1 acre)*

24.5 Acres

Deed Book and Page #'s, and lease information if applicable *(include any lessor or lease lot numbers assigned by a property owner)*

Book: 4611 Page: 256

All Zoning on Property *(check the LUPC Land Use Guidance Map)*

DRS: Residential

Zoning at Development Site

DRS: Residential

Road Frontage: List the name(s) and frontage(s) (in feet) for any public or private roads, or other rights-of-way adjacent to your lot:

Road #1 Hedgehog Trail Frontage 511 ft.

Road #2 Mountain Road Frontage 145 ft.

Water Frontage: List the name(s) and frontage(s) (in feet) for any lakes, ponds, rivers, streams (named and unnamed), or coastal wetlands on or adjacent to your lot:

Waterbody #1 _____ Frontage _____ ft.

Waterbody #2 _____ Frontage _____ ft.

If there is no road frontage, describe the access for the property.

LUPC Approved Subdivision: If the lot is part of an LUPC approved subdivision, provide the subdivision permit and lot numbers:

Subdivision Permit # _____ and Lot # _____ *(usually included in deed description)*

BRIEF PROJECT SUMMARY *(include proposed zoning if submitting an application for zone change; include proposed project name, if applicable)*

To create 12 lot single family residential subdivision. The lots will vary in size and be categorized as a high-density subdivision in LUPC's definitions. The majority of the lots will be accessed via a new road designed to LUPC standards from Mountain Road.

APPLICATION FEE *(see the [Application Fee](#) exhibit for more information, including surcharges if paying online)*

Please check **one** of the boxes below:

☒ I have enclosed a check or money order to pay my application fee.

☐ I would like to pay my application fee online. Please contact me with the necessary information.

Section 2: Project Description

Main-Land Development Consultants, Inc. is representing Loaf Land Development, LLC with their Subdivision Application for the Land Use Planning Commission.

The approximately 24.5-acre parcel has frontage on Mountain Road and Hedgehog Trail in Coplin Plantation. The property is labelled as Lots 2 & 12 on Coplin Plantation Tax Map 7. The existing site is primarily undeveloped and wooded. Main-Land has completed a natural resource delineation for the property and located pockets of forested wetlands as well as some stream segments.

The project proposes the development of a new 12-lot, high-density single-family residential subdivision. The majority of the lots, with the exception of proposed lots 1 & 2, are proposed to be accessed from two new interior roads, with a single entrance off Mountain Road. Proposed lots 1 & 2 are to be accessed from an existing gravel road that provides access to an upper portion of the subject parcel from an existing entrance off Mountain Road. The lots are to be served by new private leach fields and wells. Septic test boring logs have been prepared by Main-Land for each proposed lot and are included as part of this application. The new lots are proposed to be served by new underground power, sourcing from an existing pole located along Mountain Road. Lots 1 & 2 will be responsible for bringing in power from Mountain Road.

The project includes a stream crossing, which is achieved through a new 4'-diameter HDPE culvert. A self-verification notification form has been submitted to the United States Army Corps of Engineers for the stream crossing.

Stormwater/Phosphorus Management is achieved through multiple proposed grassed underdrained filter ponds. Please see Section 33 of this application for additional details regarding management for the project.

Daniel Dibeler

1080 Devereux lane

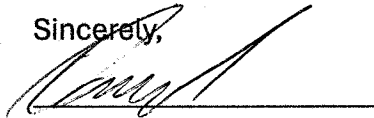
Mechanicsburg, PA 17050

RE: Loaf Land Development LLC access to Dibeler Personal funds

To Whom it may concern;

I, Daniel Dibeler, will be personally financing the Development project for Land Loaf Development LLC (referred to as LLD in rest of Letter). On my Net worth statement we have it listed as having \$115,000 in assets because that is what we have the value of the land booked at plus a minimal bank account. As expenses come due, I will be making capital contributions to LLD to cover any and all expenses till the point that LLD becomes Solvent on its own through Sale of Lots, houses, or rental or any other income is produced. Any and All of my non retirement signified accounts (ira's or other retirement tax benefited accounts to be excluded) will and can be used to satisfy any and all expenses for LLD. These assets give or take are worth around 15 million dollars depending on daily volatility, I also have access approximately another 10 million if necessary in the form of a PCL (personal co-latorised loan) against my brokerage assets if necessary. On any given day I normally have around \$500,000.00 in cash assets readily available for any immediate expenses. I hope this covers everything that is needed.

Sincerely,



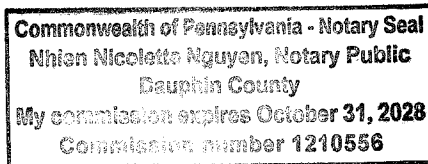
Daniel W Dibeler

date 4/15/26

Notary Public



04/15/2026



For Use with [Exhibit 9](#): Structures Table

Applicant/Project Name: _____

Refer to [Structures, Features, Uses \(Exhibit 9\)](#) for instructions. Name structures consistent with the labeling used on the [Site Plans \(Exhibit 10\)](#).

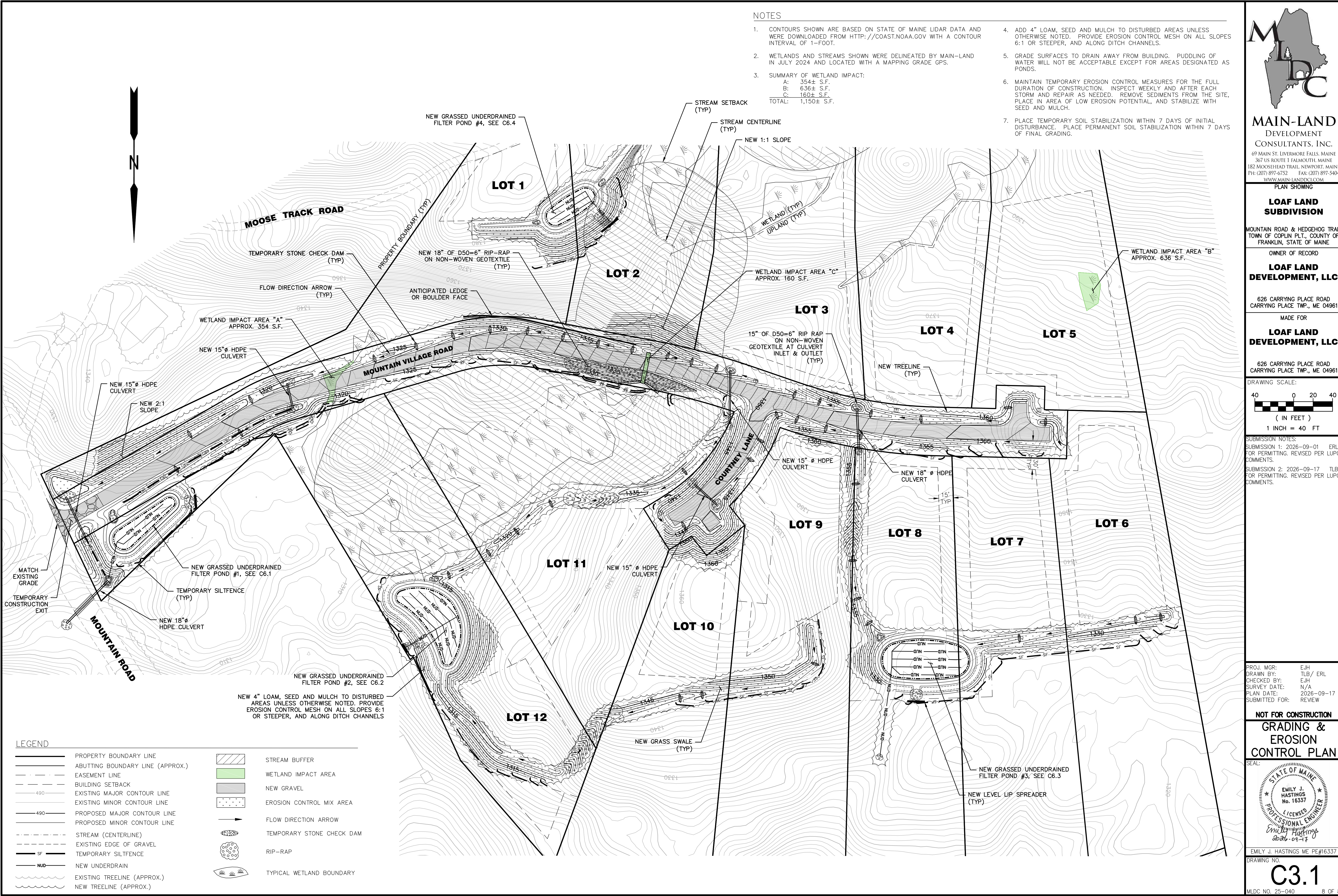
Structure Type and Use (specify if temporary)	Year Built or Duration (if temporary)	Proposed alterations (check all that apply)									Exterior Dimensions (LxWxH) in ft Indicate Current (C) & Proposed (P)	Type of Foundation	Number of:		Distance (in feet) of structure from nearest:					
		Other	Change Dimensions or Setbacks	Enclose deck or porch	Relocate or Remove	Permanent foundation	Reconstruct or Replace	Expand or Add On	New Construction	Change in Use			Plumbing or water fixtures	Bedrooms	Road	Property line	Lake or pond	River or stream	Wetland	Ocean/Coastal Wetland
<u>Existing Structures</u>		☐	☐	☐	☐	☐	☐	☐	☐	☐										
		☐	☐	☐	☐	☐	☐	☐	☐	☐										
		☐	☐	☐	☐	☐	☐	☐	☐	☐										
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		☐	☐	☐	☐	☐	☐	☐	☐	☐										
<u>Proposed Structures</u>		☐	☐	☐	☐	☐	☐	☐	☐	☐										
		☐	☐	☐	☐	☐	☐	☐	☐	☐										
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For Use with [Exhibit 9](#): Infrastructure Table

Applicant/Project Name: _____

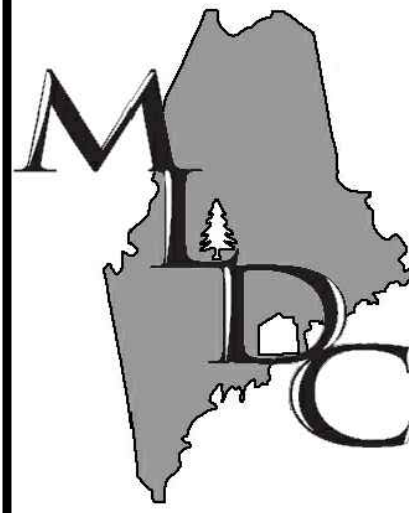
Refer to [Structures, Features, Uses \(Exhibit 9\)](#) for instructions. Name infrastructure consistent with the labeling used on the [Site Plans \(Exhibit 10\)](#).

Infrastructure Type and Use (specify if temporary)	Proposed alterations (check all that apply)							Dimensions (LxW) in ft	Year Built or Duration (if temporary)	Average Slope (%)	Max. Sustain. Slope (%)	Distance (in feet) of infrastructure from nearest:					
	Change in Use	New Construction	Change Dimensions	Reconstruct or Replace	Relocate	Change Setbacks	Other					Road	Property line	Lake or pond	River or stream	Wetland	Ocean/Coastal Wetland
<u>Existing Infrastructure</u>																	
Gravel Turnoff	☐	☐	☐	☐	☐	☐	☒	65ft X 8ft	unknown	7.7%	Varies	0	0	>1 mile	170	125	N/A
	☐	☐	☐	☐	☐	☐	☐										
	☐	☐	☐	☐	☐	☐	☐										
	☐	☐	☐	☐	☐	☐	☐										
	☐	☐	☐	☐	☐	☐	☐										
	☐	☐	☐	☐	☐	☐	☐										
<u>Proposed Infrastructure</u>																	
Road	☐	☒	☐	☐	☐	☐	☐	14' wide x 1080'		4.4%	Varies	0	0	>1 mile	0	0	N/A
Road	☐	☒	☐	☐	☐	☐	☐	14' wide x 164'		3.0%	Varies	700	380	>1 mile	100	100	N/A
Stream Crossing Culvert	☐	☒	☐	☐	☐	☐	☐	4' diameter		30%	30%	655	265	>1 mile	0	30	N/A
	☐	☐	☐	☐	☐	☐	☐										
	☐	☐	☐	☐	☐	☐	☐										



NOTES

1. CONTOURS SHOWN ARE BASED ON STATE OF MAINE LIDAR DATA AND WERE DOWNLOADED FROM HTTP://COAST.NOAA.GOV WITH A CONTOUR INTERVAL OF 1-FOOT.
2. WETLANDS AND STREAMS SHOWN WERE DELINEATED BY MAIN-LAND IN JULY 2024 AND LOCATED WITH A MAPPING GRADE GPS.
3. SUMMARY OF WETLAND IMPACT:
A: 354± S.F.
B: 636± S.F.
C: 160± S.F.
TOTAL: 1,150± S.F.
4. ADD 4" LOAM, SEED AND MULCH TO DISTURBED AREAS UNLESS OTHERWISE NOTED. PROVIDE EROSION CONTROL MESH ON ALL SLOPES 6:1 OR STEEPER, AND ALONG DITCH CHANNELS.
5. GRADE SURFACES TO DRAIN AWAY FROM BUILDING. PUDDLING OF WATER WILL NOT BE ACCEPTABLE EXCEPT FOR AREAS DESIGNATED AS PONDS.
6. MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. INSPECT WEEKLY AND AFTER EACH STORM AND REPAIR AS NEEDED. REMOVE SEDIMENTS FROM THE SITE, PLACE IN AREA OF LOW EROSION POTENTIAL, AND STABILIZE WITH SEED AND MULCH.
7. PLACE TEMPORARY SOIL STABILIZATION WITHIN 7 DAYS OF INITIAL DISTURBANCE. PLACE PERMANENT SOIL STABILIZATION WITHIN 7 DAYS OF FINAL GRADING.



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69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
182 MOOSEHEAD TRAIL, NEWPORT, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

PLAN SHOWING

LOAF LAND
SUBDIVISION

MOUNTAIN ROAD & HEDGEHOG TRAIL
TOWN OF COPUN PLT., COUNTY OF
FRANKLIN, STATE OF MAINE

OWNER OF RECORD

LOAF LAND
DEVELOPMENT, LLC

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., ME 04961

MADE FOR

LOAF LAND
DEVELOPMENT, LLC

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., ME 04961

DRAWING SCALE:



SUBMISSION NOTES:
SUBMISSION 1: 2026-09-01 ERL
FOR PERMITTING. REVISED PER LUPC
COMMENTS.
SUBMISSION 2: 2026-09-17 TLB
FOR PERMITTING. REVISED PER LUPC
COMMENTS.

PROJ. MGR: E/JH
DRAWN BY: TLB / ERL
CHECKED BY: E/JH
SURVEY DATE: N/A
PLAN DATE: 2026-09-17
SUBMITTED FOR: REVIEW

NOT FOR CONSTRUCTION

GRADING &
EROSION
CONTROL PLAN

SEAL:



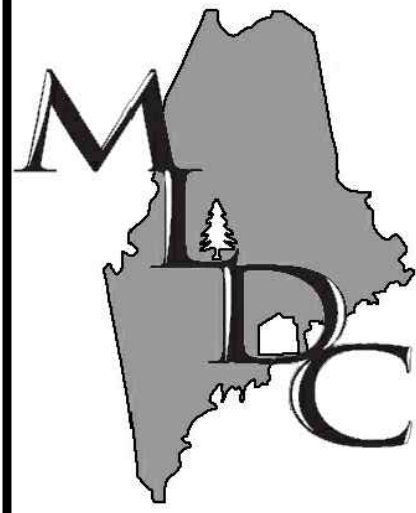
EMILY J. HASTINGS ME PE#16337

DRAWING NO.

C3.1

MLDC NO. 25-040

8 OF 8



MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
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PROJECT

**LOAF LAND
SUBDIVISION**

MOUNTAIN ROAD & HEDGEHOG TRAIL
COPLIN PLT. MAINE

OWNER OF RECORD

**LOAF LAND
DEVELOPMENT, LLC**

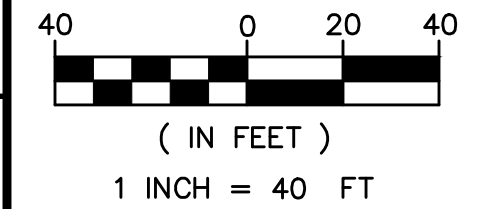
626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

MADE FOR

**LOAF LAND
DEVELOPMENT, LLC**

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

DRAWING SCALE:



SUBMISSION NOTES:
SUBMISSION 1: 2025-09-23 ERL
FOR REVIEW.
SUBMISSION 2: 2026-04-09 TLB
FOR REVIEW.
SUBMISSION 3: 2026-07-31 TLB
FOR REVIEW.
SUBMISSION 4: 2026-09-17 TLB
FOR REVIEW.

PROJ. MGR: E.J.H.
DRAWN BY: TLB/ERL
CHECKED BY: E.J.H.
SURVEY DATE: N/A
PLAN DATE: 2026-09-17
SUBMITTED FOR: REVIEW

NOT FOR CONSTRUCTION

**ROAD PLAN
AND PROFILE**

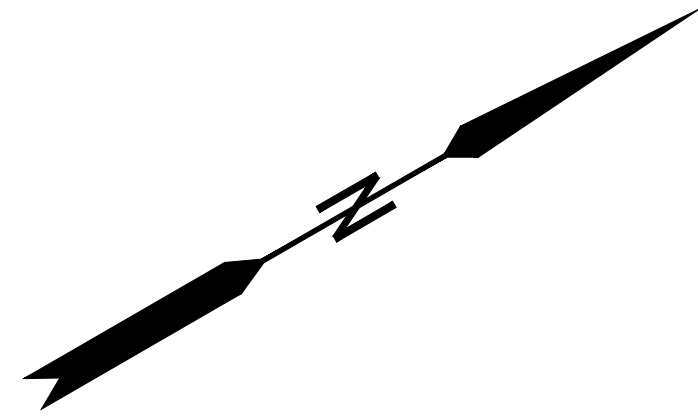


EMILY J. HASTINGS ME PE#16337

DRAWING NO.

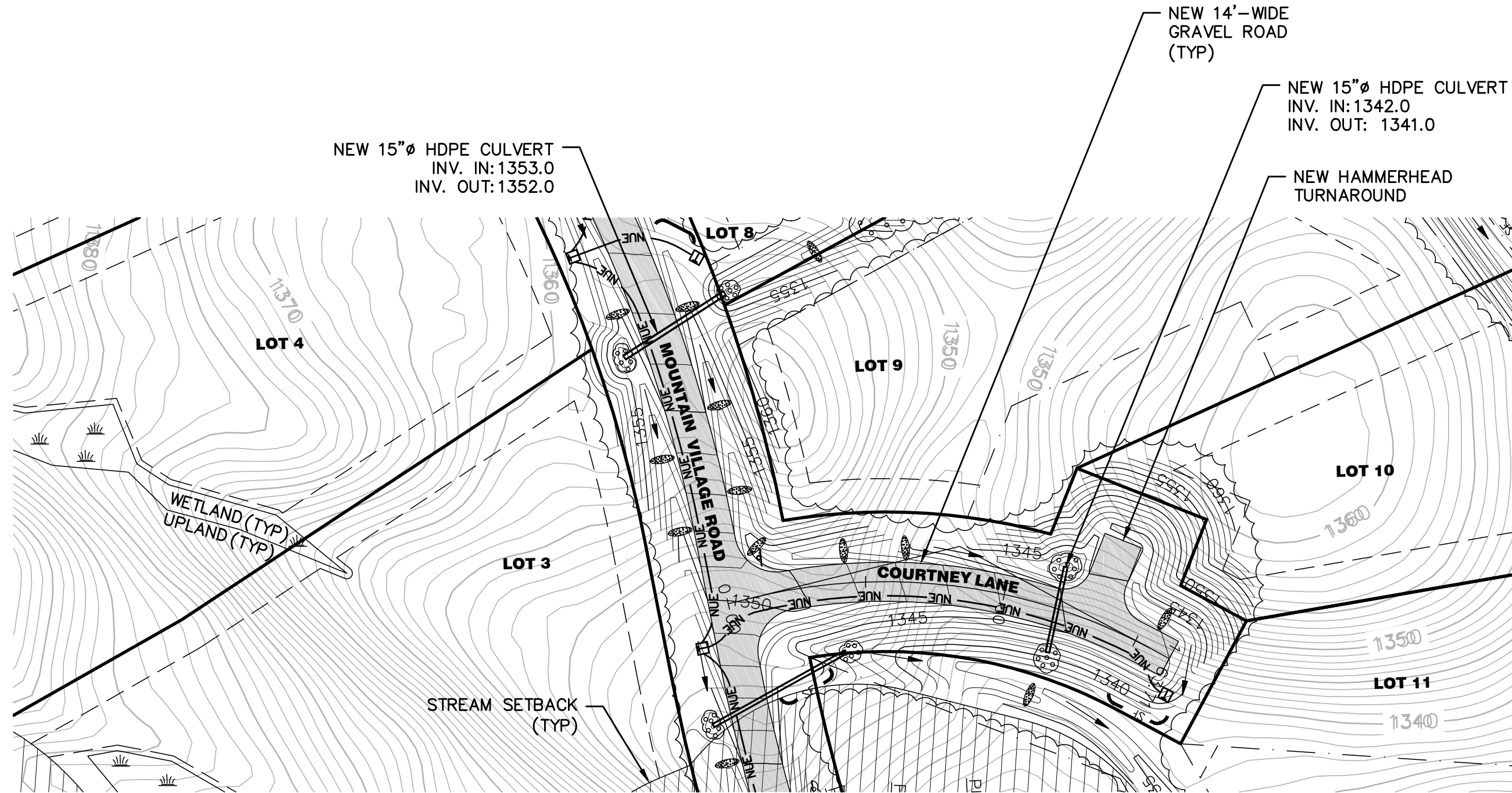
C5.2

MLDC NO. 25-040 1 OF 1



LEGEND

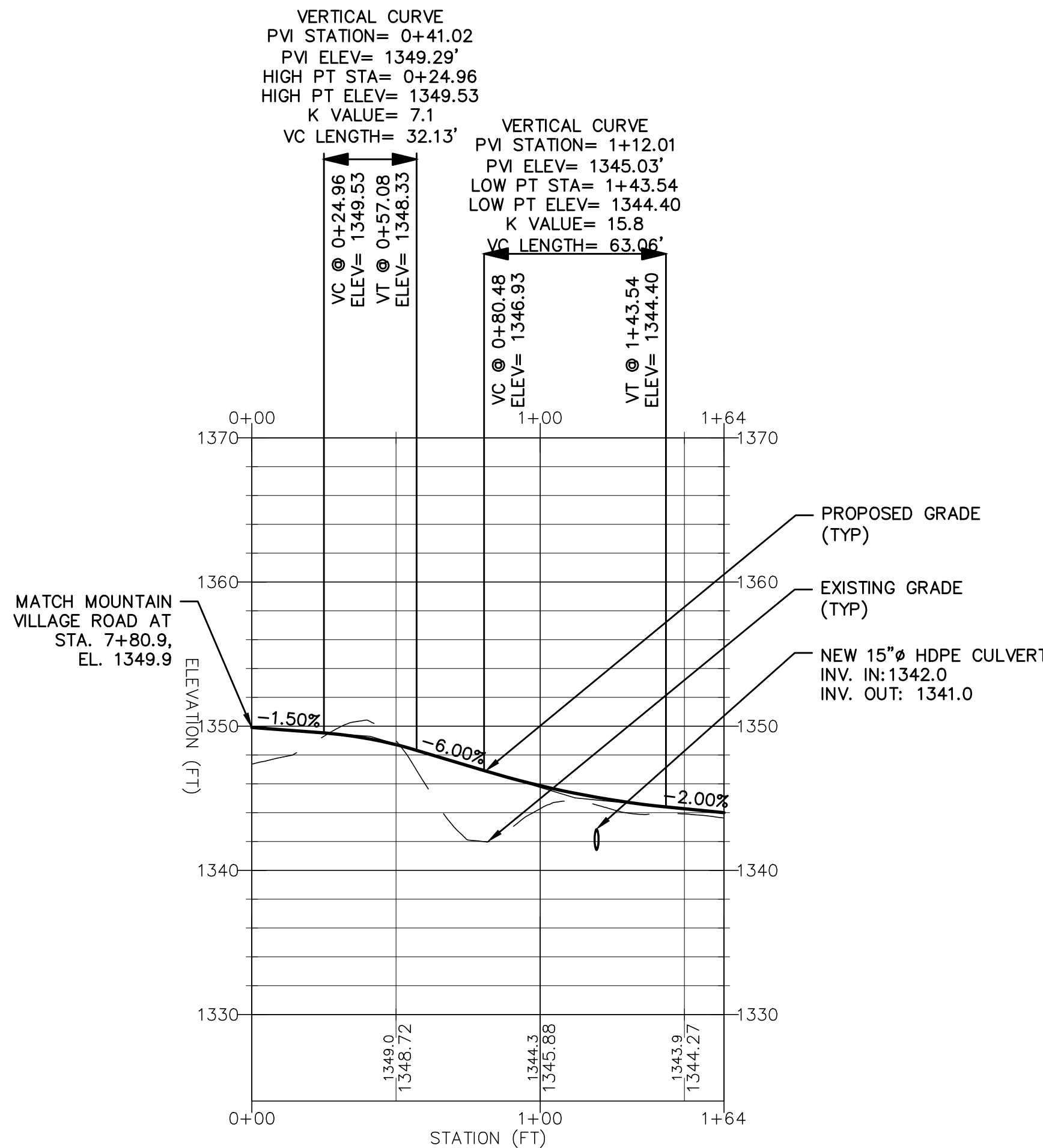
- PROPERTY BOUNDARY LINE
- ABUTTING BOUNDARY LINE (APPROX.)
- BUILDING SETBACK LINE
- EASEMENT LINE
- EXISTING MAJOR CONTOUR LINE
- EXISTING MINOR CONTOUR LINE
- PROPOSED MAJOR CONTOUR LINE
- PROPOSED MINOR CONTOUR LINE
- STREAM (CENTERLINE)
- NEW TREELINE (APPROX.)
- TEMPORARY SILTFENCE
- NEW UNDERGROUND ELECTRIC
- OVERHEAD UTILITY
- TYPICAL WETLAND BOUNDARY
- NEW GRAVEL SURFACE
- STREAM SETBACK
- FLOW ARROW
- CHECK DAM
- EXISTING UTILITY POLE
- RIP-RAP



COURTNEY LANE PLAN

SCALE: 1"=40'

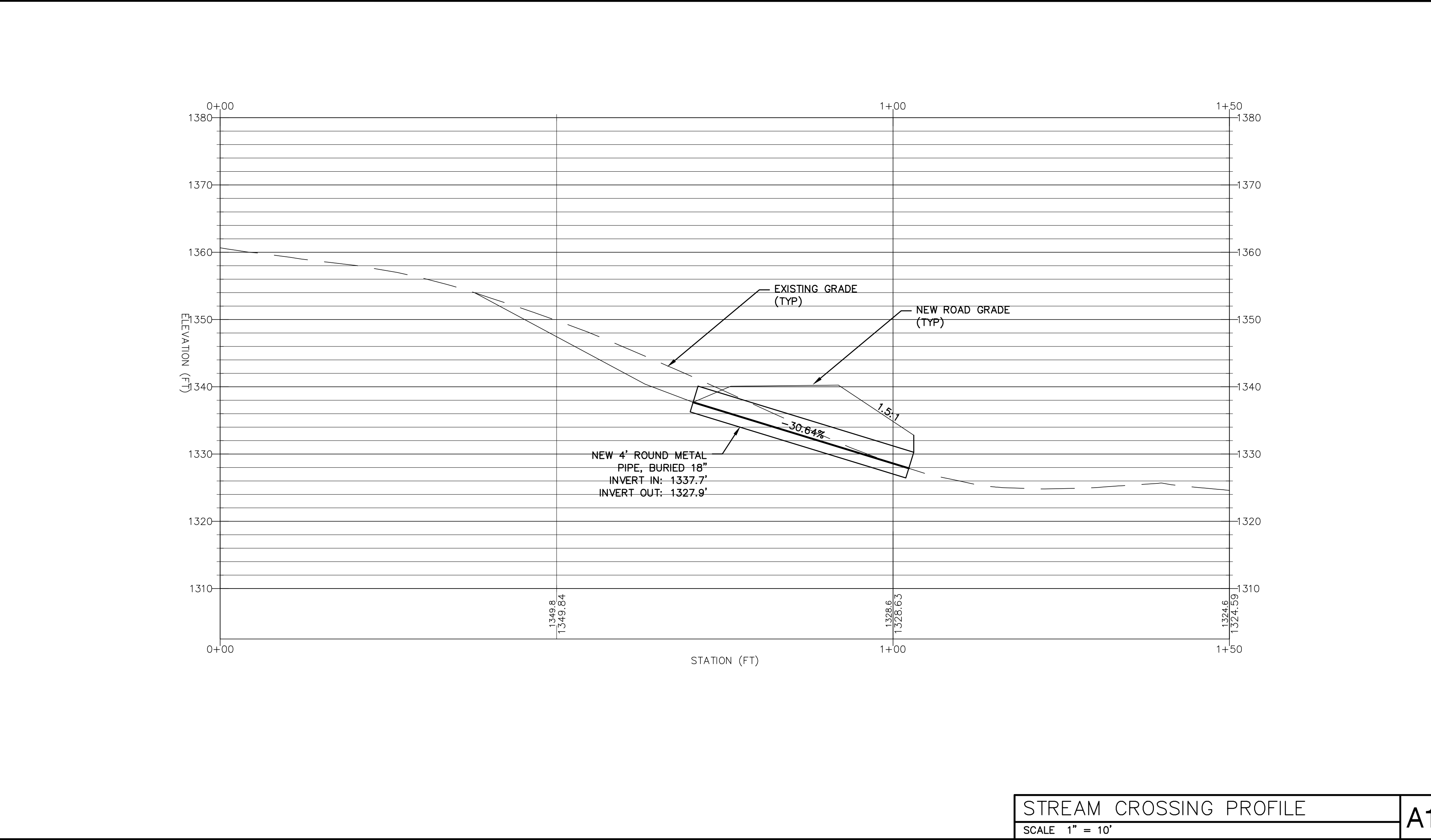
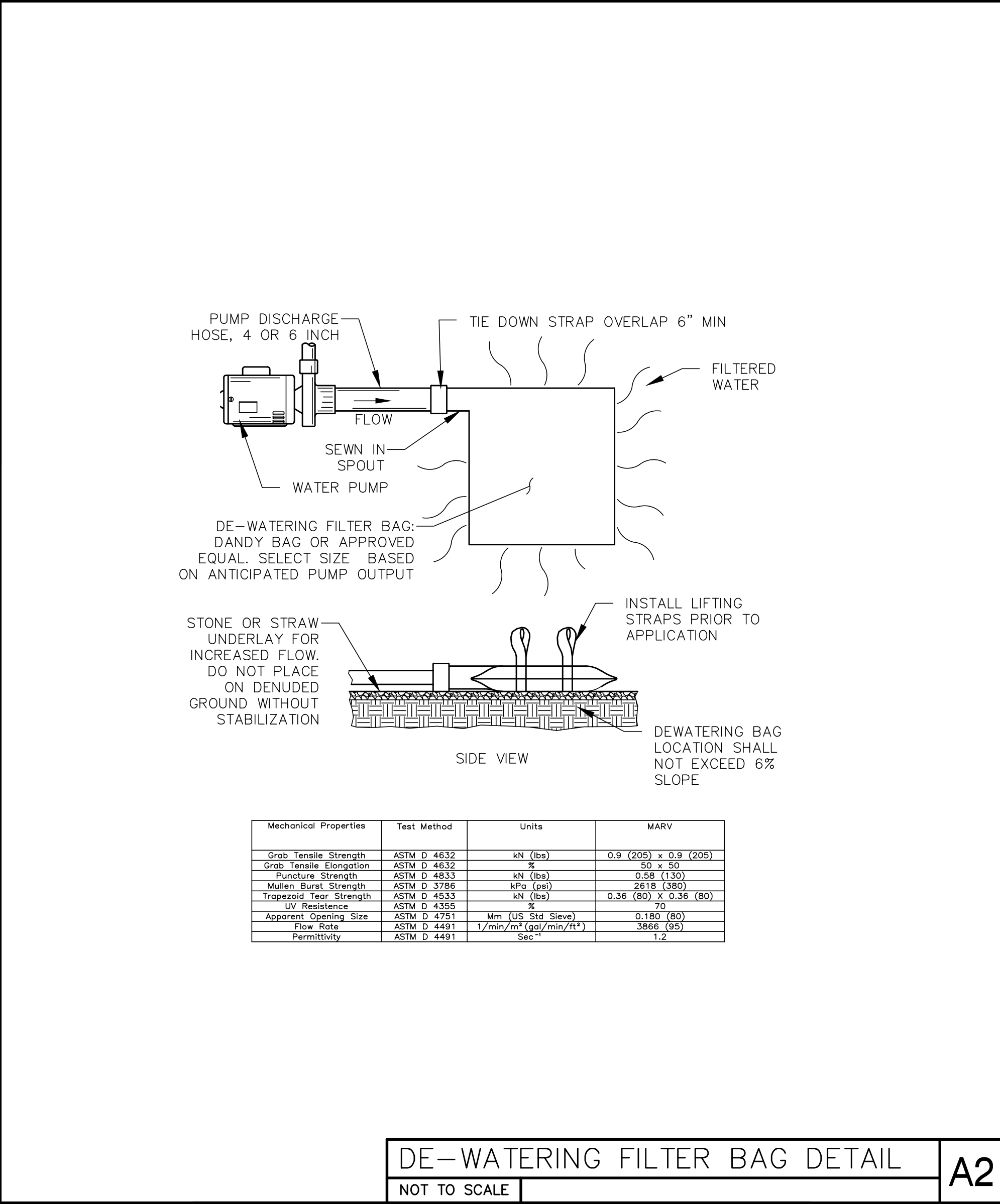
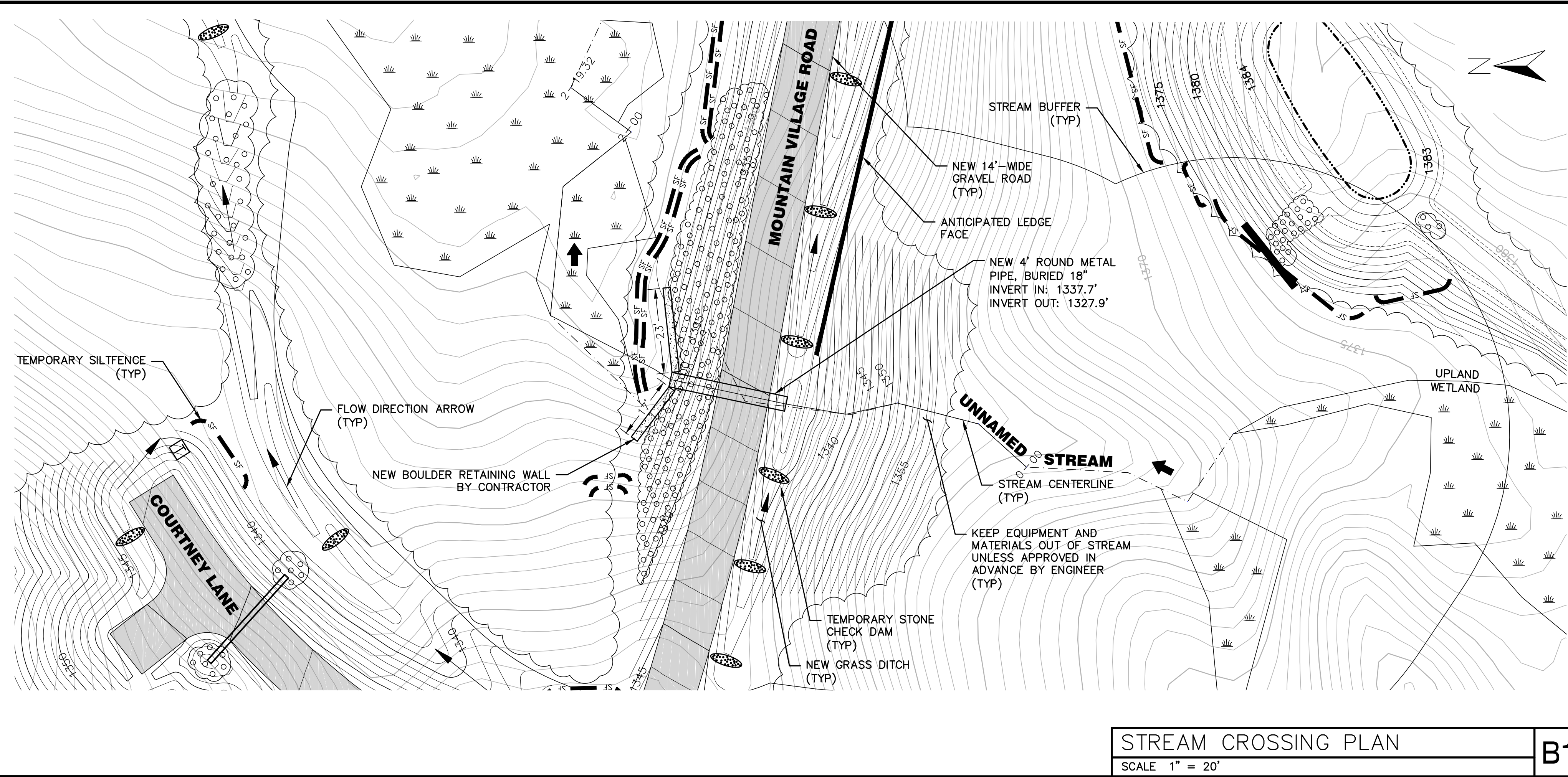
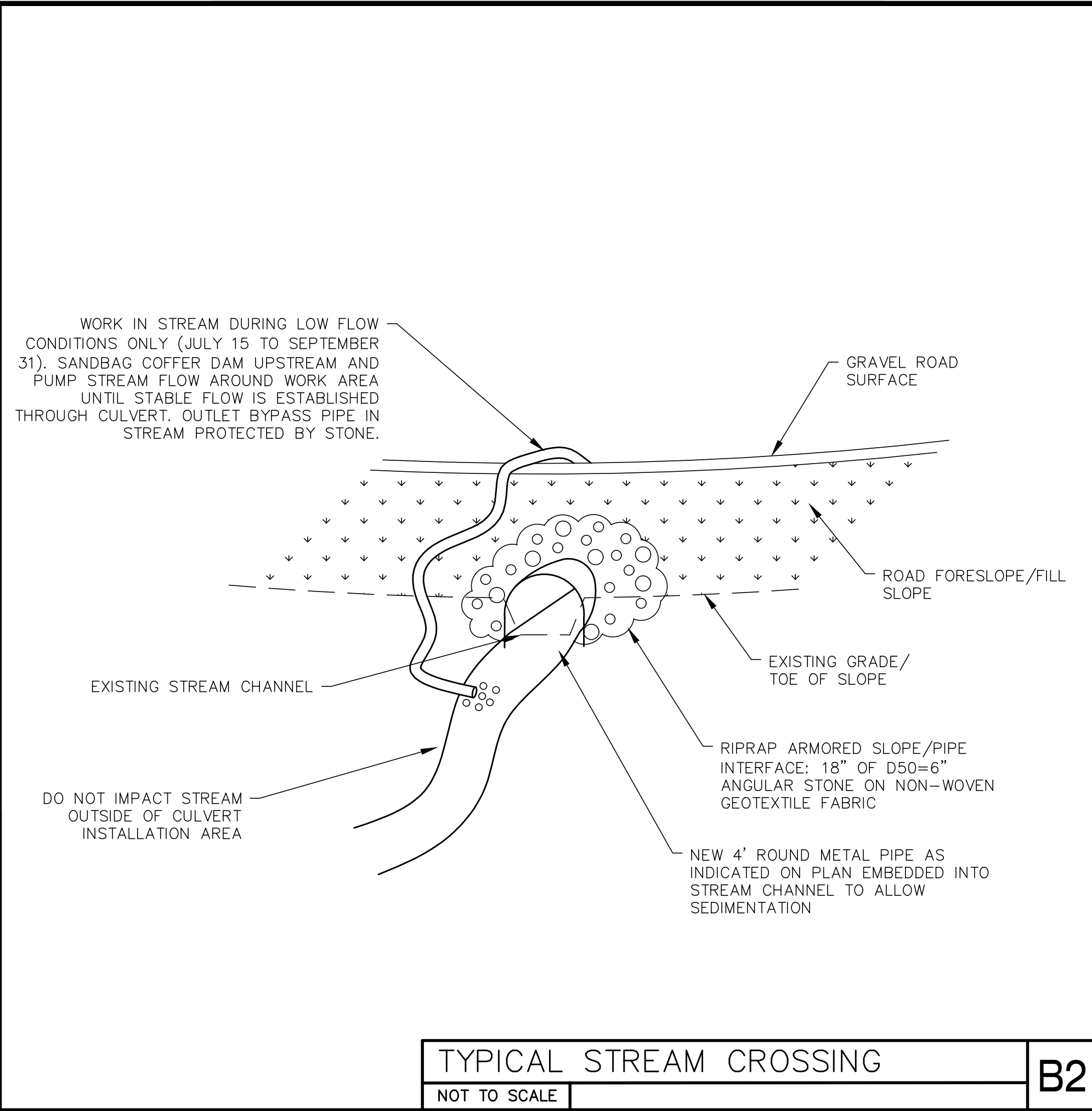
B1



COURTNEY LANE PROFILE

HORIZONTAL SCALE 1" = 40' VERTICAL SCALE 1" = 8'

A1



MAIN-LAND
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PROJECT
**RESIDENTIAL
SUBDIVISION**

MOUNTAIN ROAD & HEDGEHOG TRAIL
COPLIN PLT., MAINE

OWNER OF RECORD
**LOAF LAND
DEVELOPMENT, LLC**

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

MADE FOR
**LOAF LAND
DEVELOPMENT, LLC**

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

DRAWING SCALE:

20 0 10 20
(IN FEET)
1 INCH = 20 FT

SUBMISSION NOTES:
SUBMISSION 1: 2025-09-23 ERL FOR PERMITTING
SUBMISSION 2: 2026-07-31 TLB FOR PERMITTING. REVISED PER LUPC COMMENTS.
SUBMISSION 3: 2026-09-17 TLB FOR PERMITTING. REVISED PER LUPC COMMENTS.

PROJ. MGR: E:JH
DRAWN BY: ERL
CHECKED BY: E:JH
SUBMISSION NO. 3
SURVEY DATE: N/A
SUBMISSION DATE: 2026-09-17
SUBMITTED FOR: REVIEW

NOT FOR CONSTRUCTION

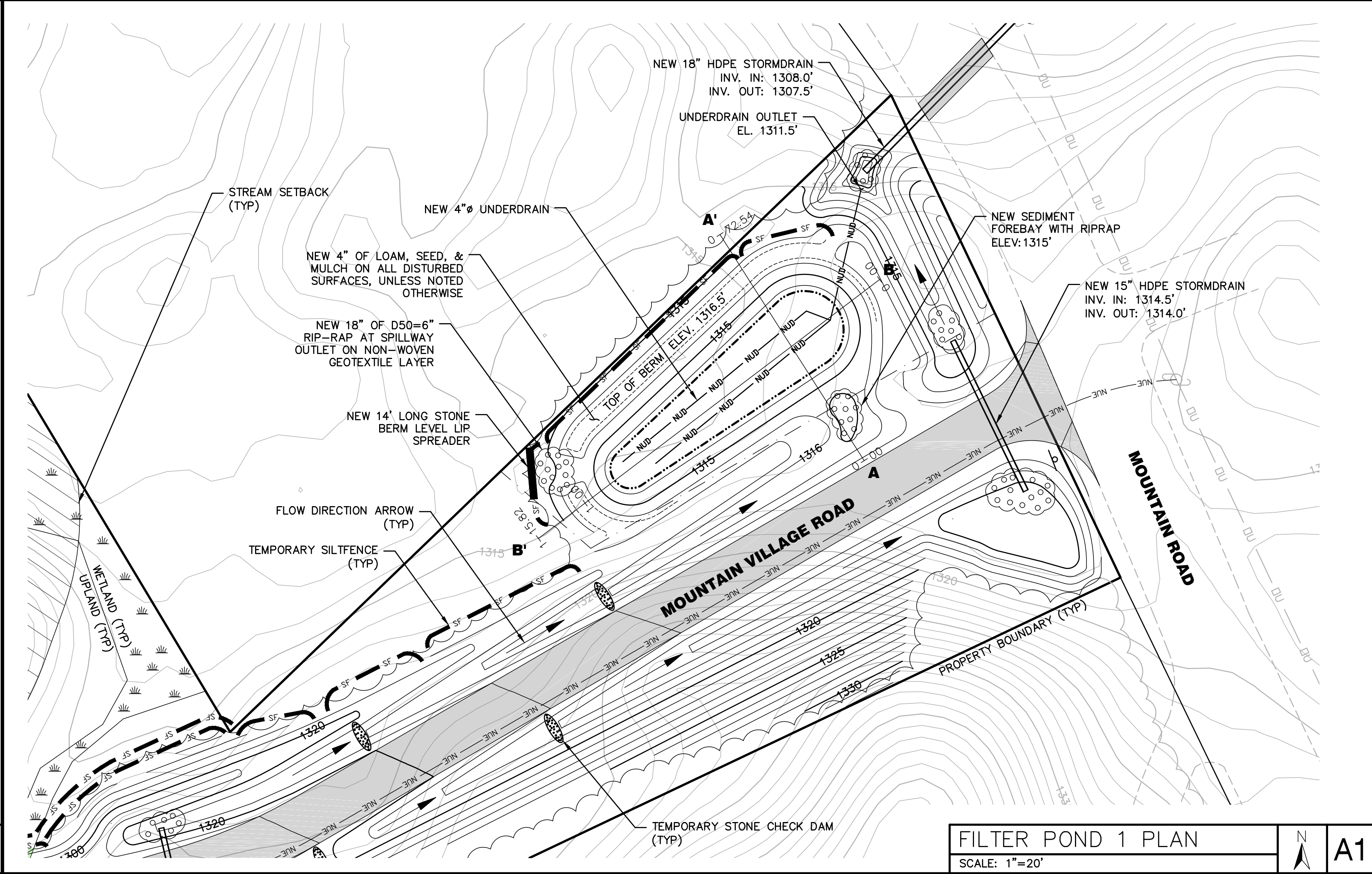
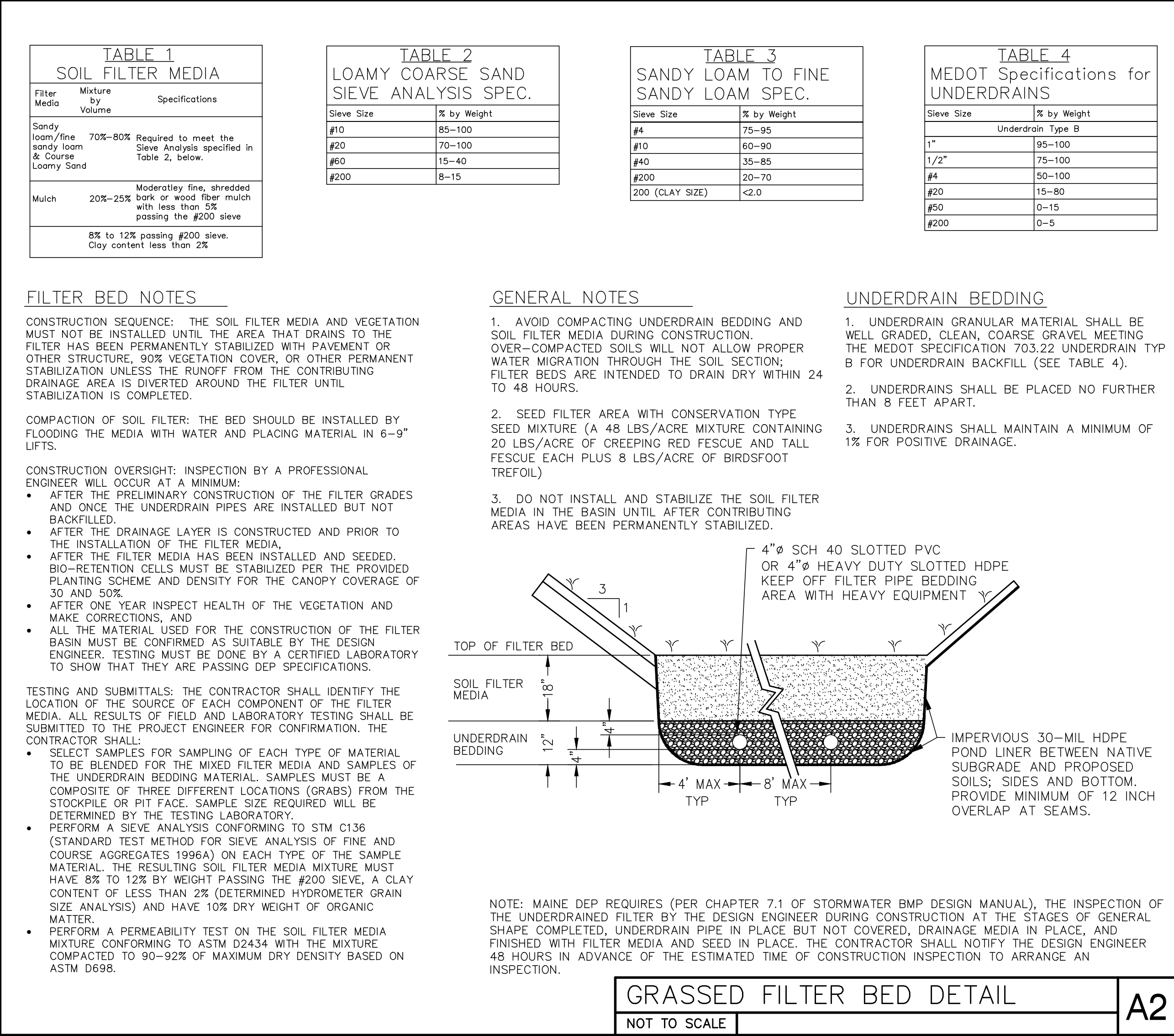
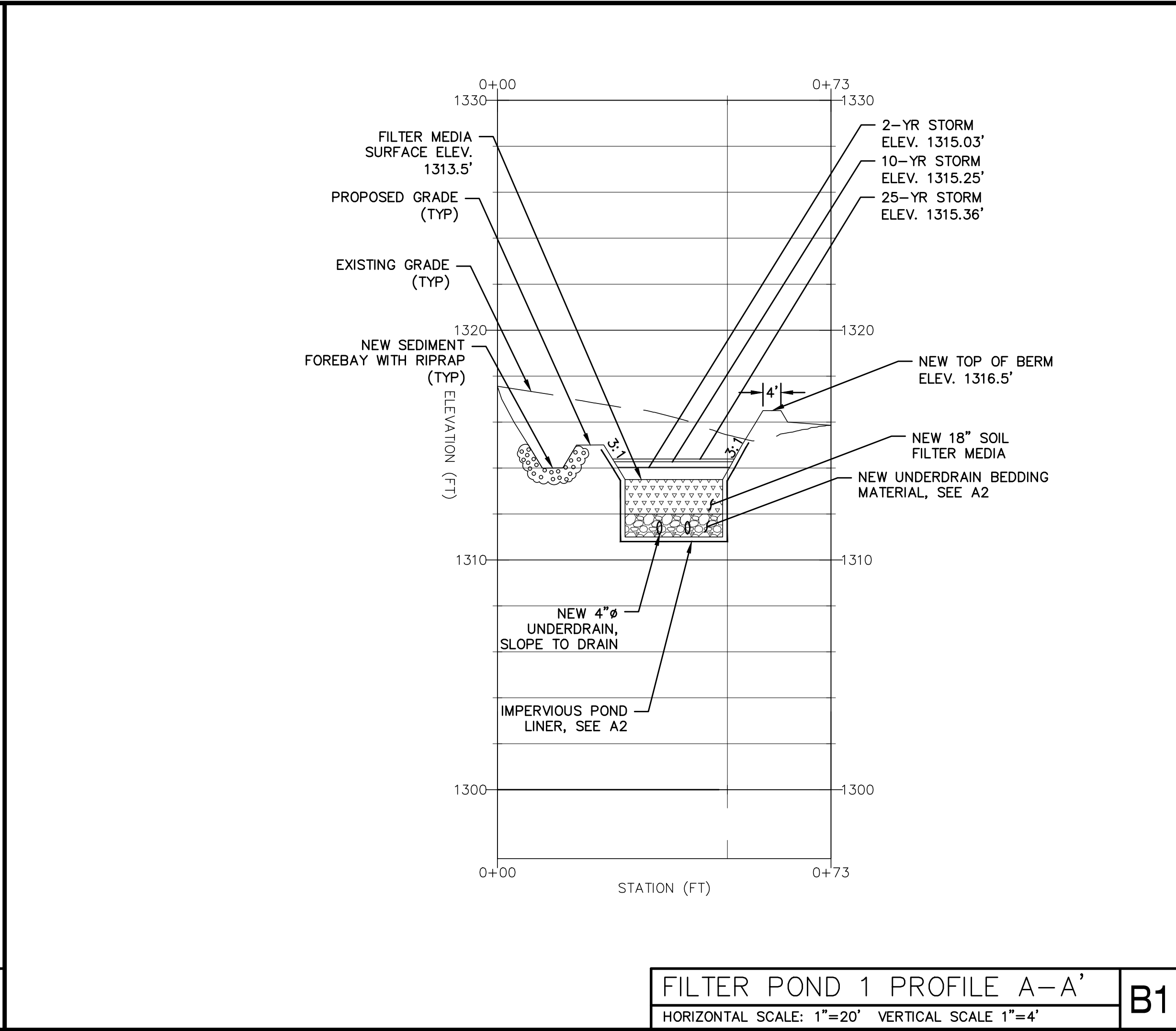
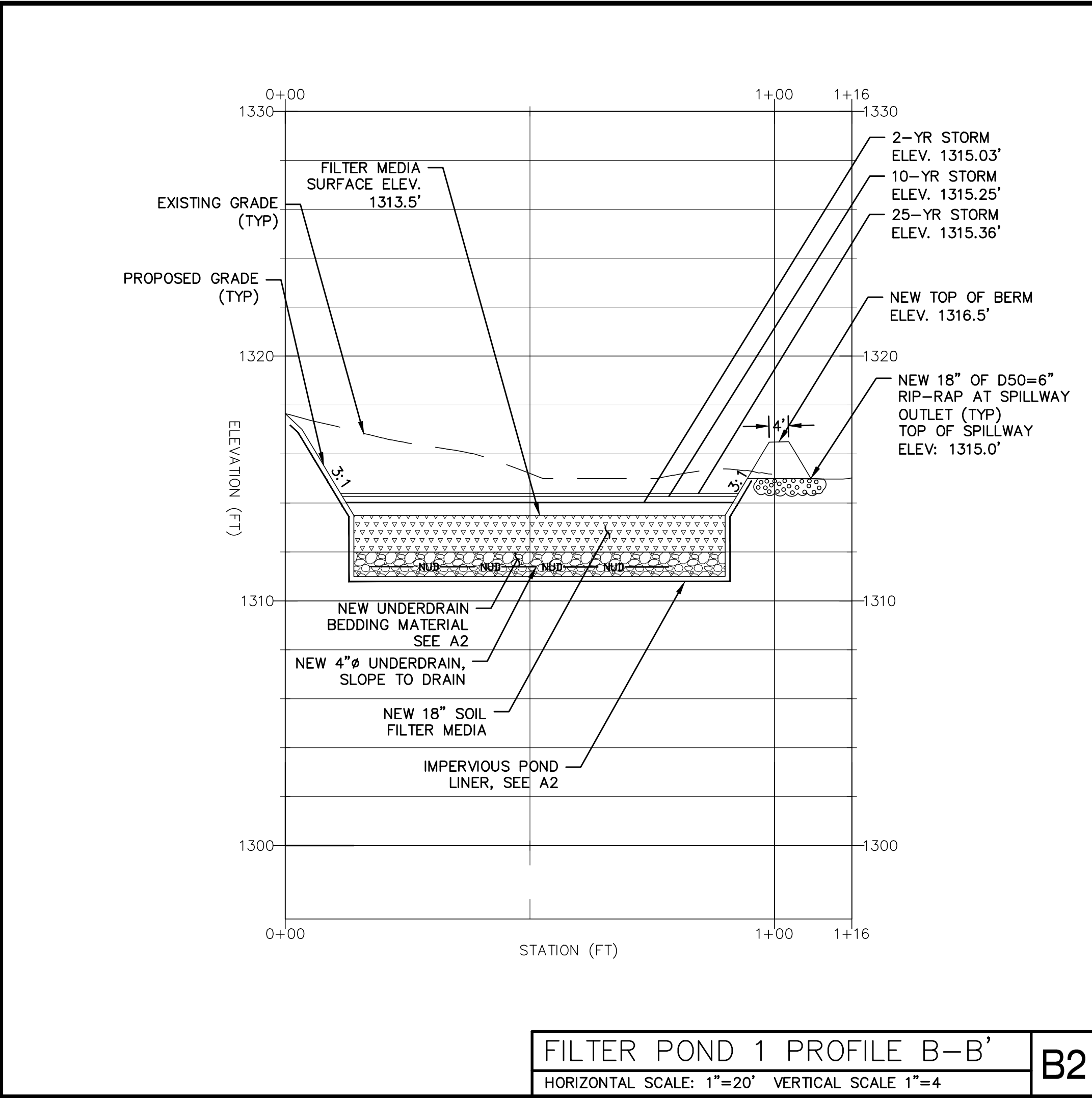
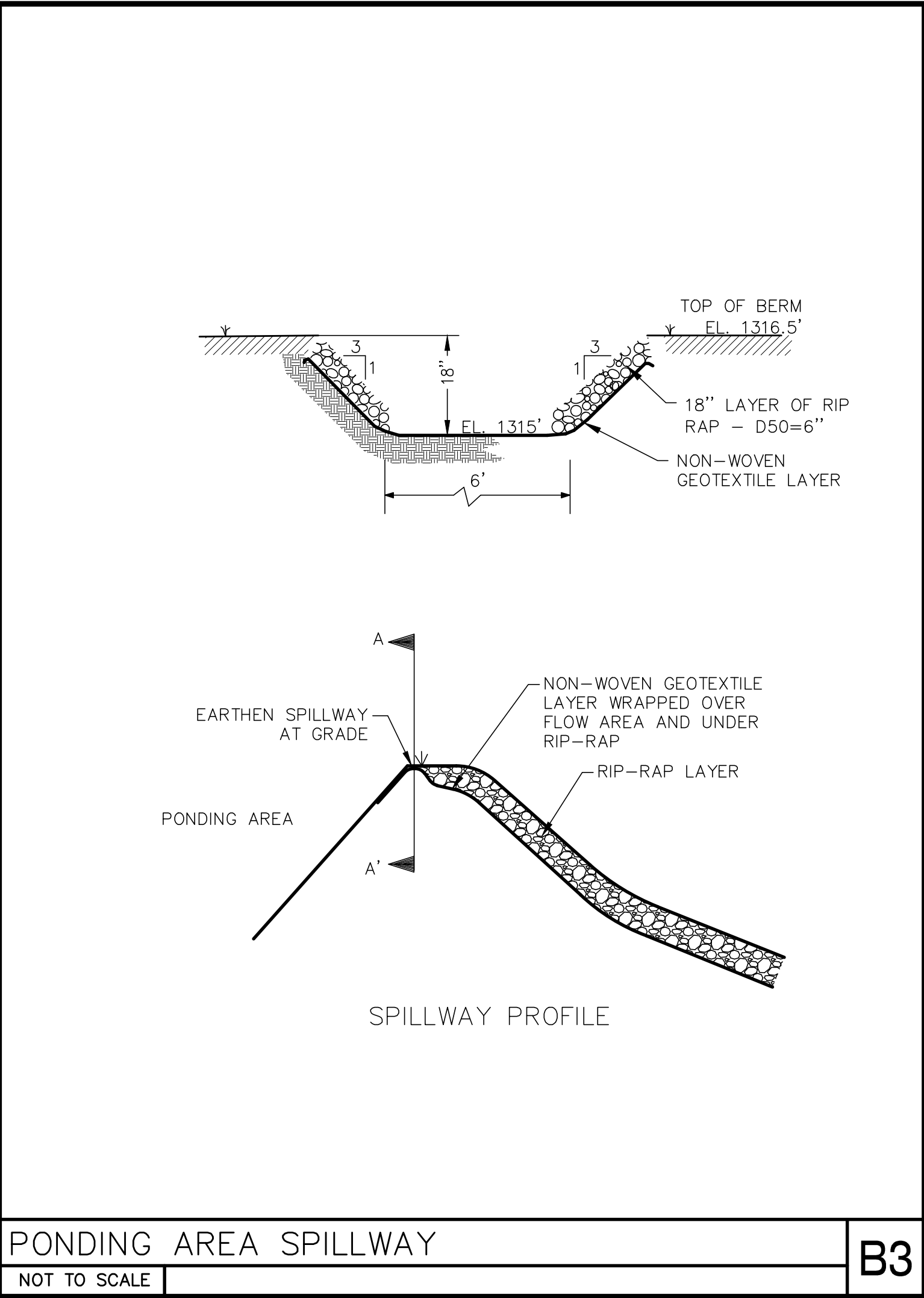
**STREAM PLAN &
PROFILE**

SEAL:

EMILY J. HASTINGS ME PE#16337

DRAWING NO.
C5.3

MLDC NO. 21-211 1 OF 1



MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.

69 MAIN ST. LIVERMORE FALLS, MAINE
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PROJECT

**LOAF LAND
SUBDIVISION**

MOUNTAIN ROAD & HEDGEHOG TRAIL
COPLIN PLT., MAINE

OWNER OF RECORD

**LOAF LAND
DEVELOPMENT, LLC**

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

MADE FOR

**LOAF LAND
DEVELOPMENT, LLC**

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

DRAWING SCALE:

20 0 10 20
(IN FEET)
1 INCH = 20 FT

SUBMISSION NOTES:

SUBMISSION 1: 2025-08-12 ERL FOR REVIEW.

SUBMISSION 2: 2026-04-09 TLB FOR REVIEW.

SUBMISSION 3: 2026-07-31 TLB FOR REVIEW.

SUBMISSION 4: 2026-09-17 TLB FOR REVIEW. REVISED PER LUPC COMMENTS.

PROJ. MGR: E.JH
DRAWN BY: TLB/ERL
CHECKED BY: E.JH
SURVEY DATE: N/A
PLAN DATE: 2026-09-17
SUBMITTED FOR: REVIEW

NOT FOR CONSTRUCTION

**FILTER POND #1
PLAN & PROFILES**

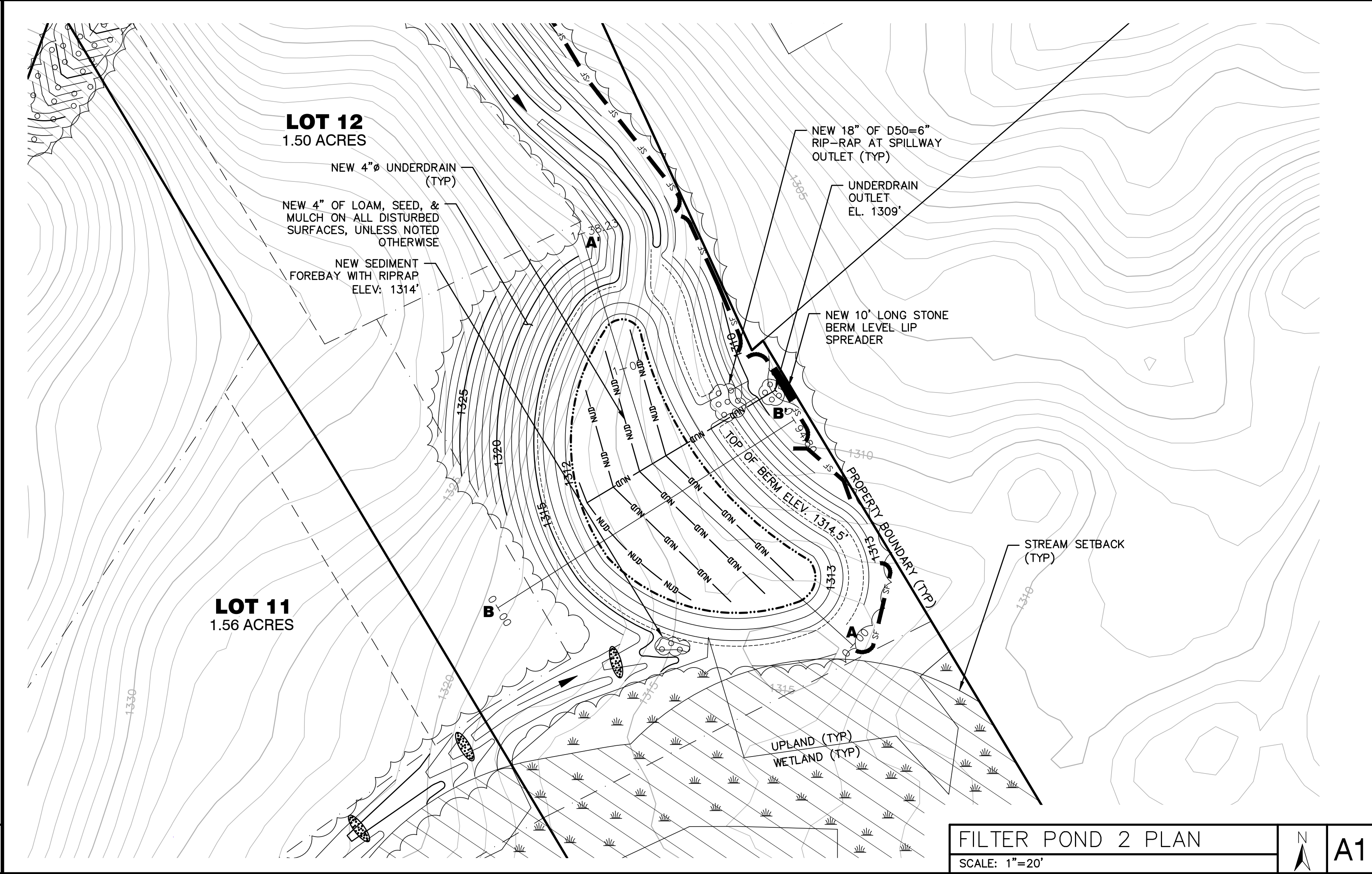
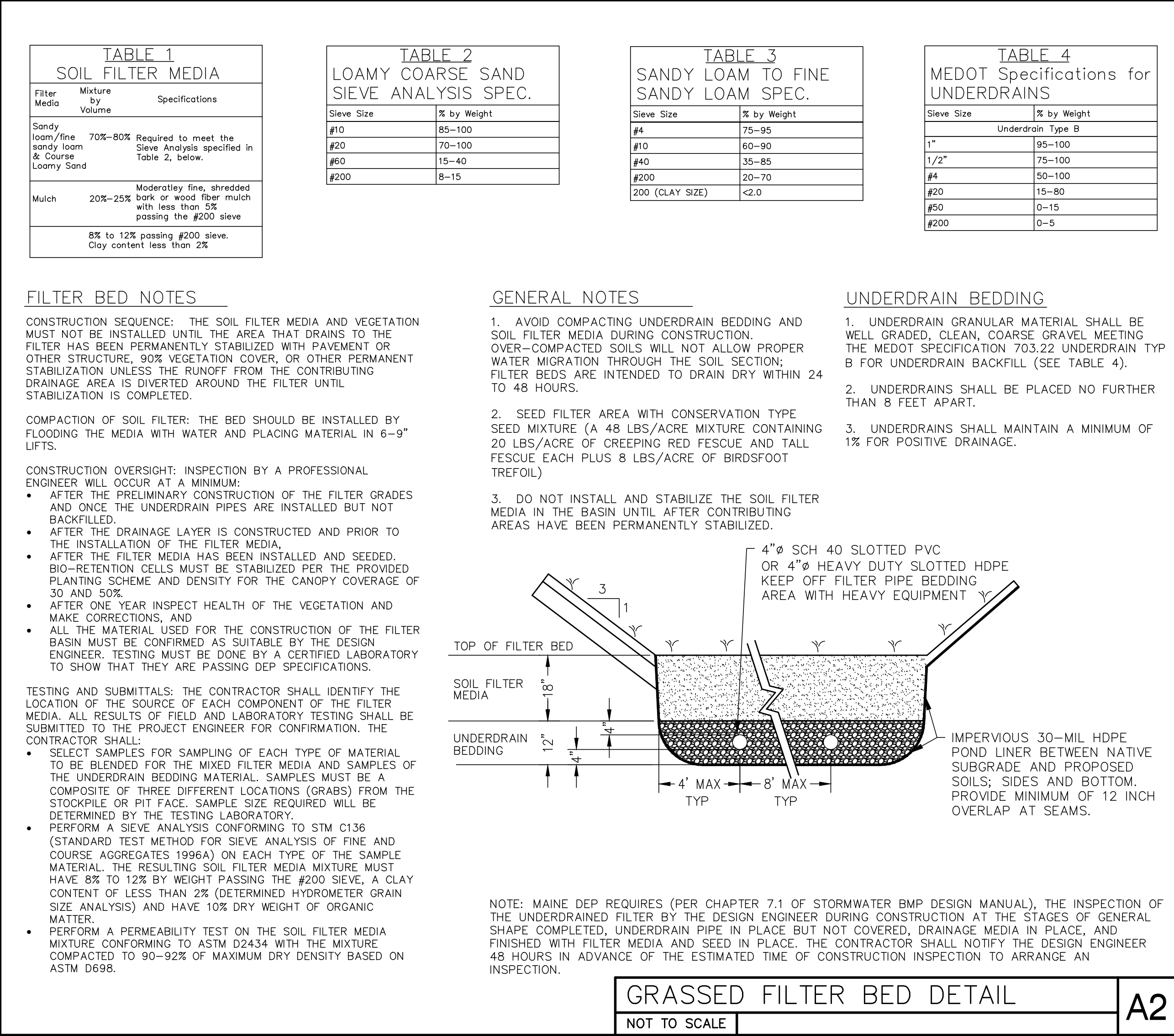
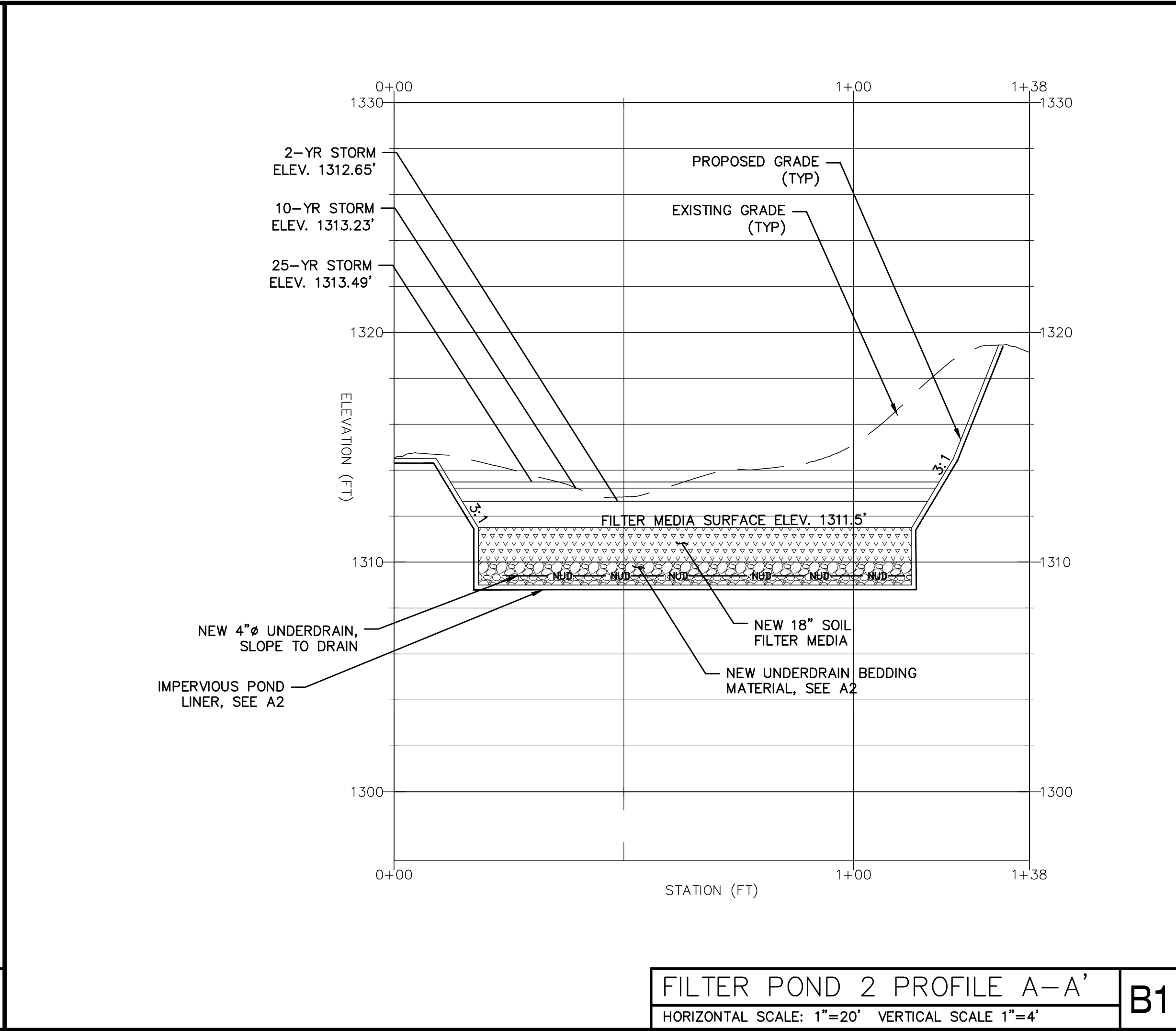
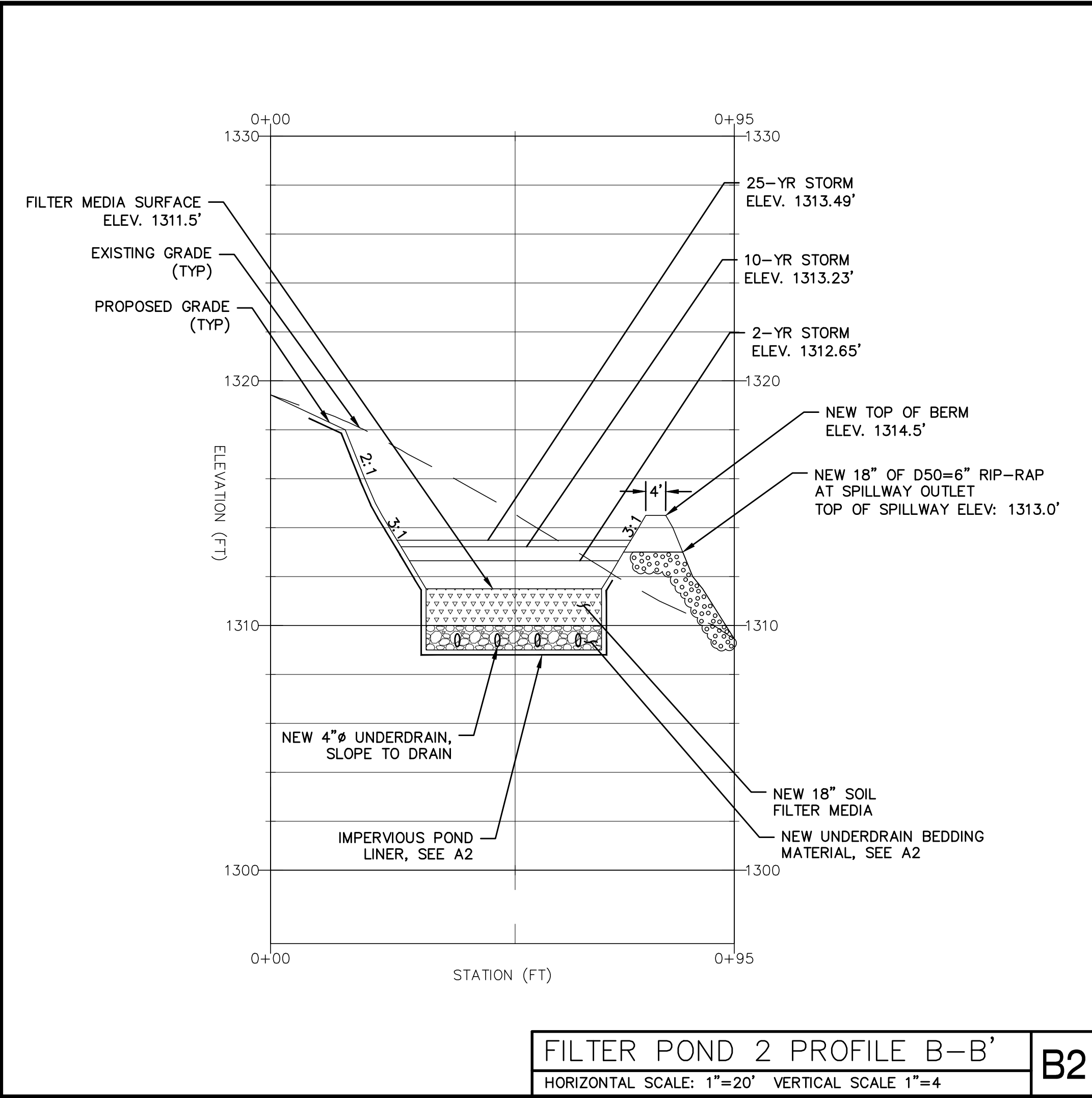
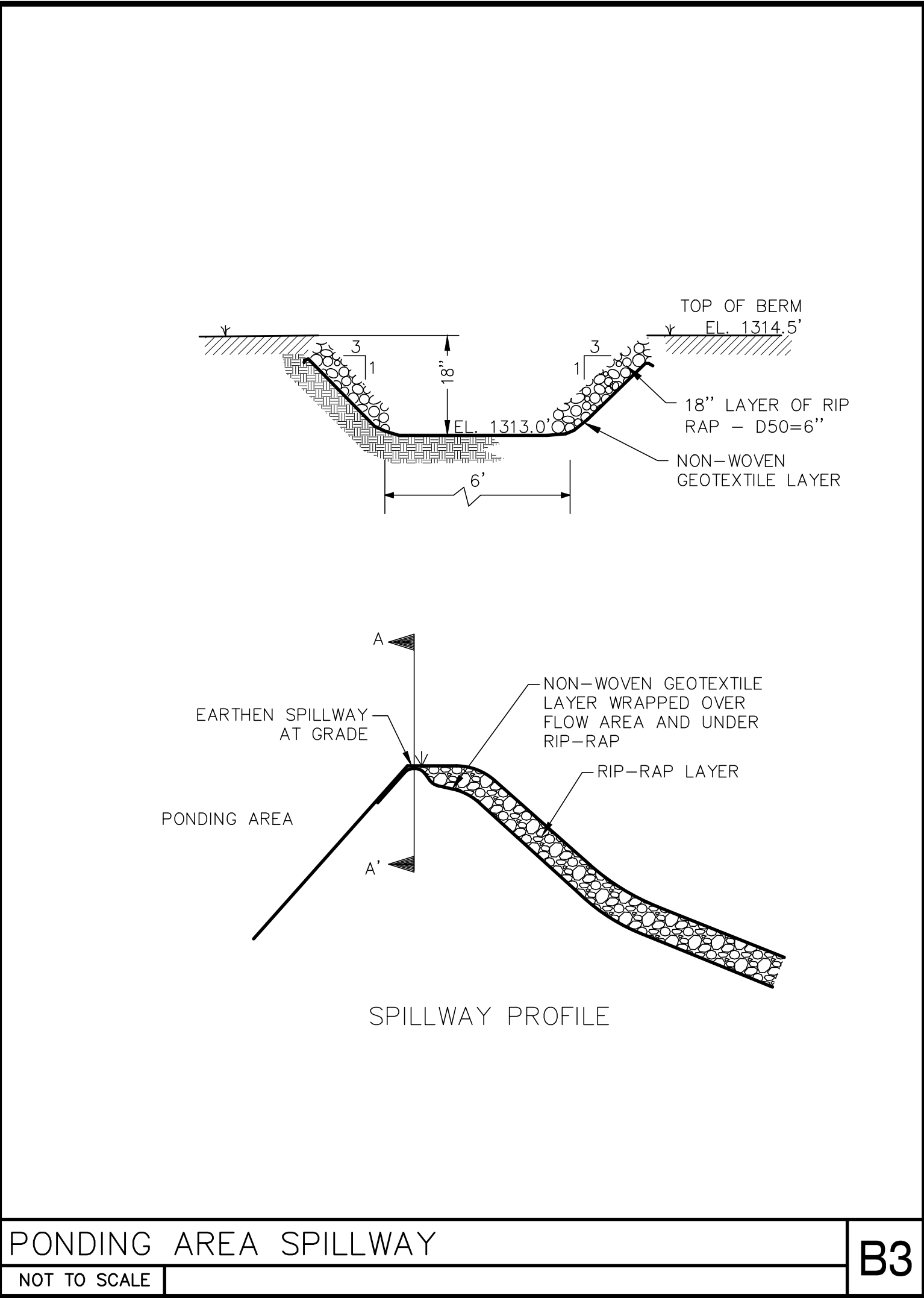
SEAL:

EMILY J. HASTINGS ME PE#16337

DRAWING NO.

C6.1

MLDC NO. 25-040 1 OF 4



MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.

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PROJECT

**LOAF LAND
SUBDIVISION**

MOUNTAIN ROAD & HEDGEHOG TRAIL
COPLIN PLT., MAINE

OWNER OF RECORD

**LOAF LAND
DEVELOPMENT, LLC**

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

MADE FOR

**LOAF LAND
DEVELOPMENT, LLC**

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

DRAWING SCALE:

20 0 10 20
(IN FEET)
1 INCH = 20 FT

SUBMISSION NOTES:

SUBMISSION 1: 2025-08-12 ERL FOR REVIEW.

SUBMISSION 2: 2026-04-09 TLB FOR REVIEW.

SUBMISSION 3: 2026-07-31 E.J.H FOR REVIEW

SUBMISSION 4: 2026-09-17 TLB FOR REVIEW. REVISED PER LUPC COMMENTS.

PROJ. MGR: E.J.H
DRAWN BY: TLB/ERL
CHECKED BY: E.J.H
SURVEY DATE: N/A
PLAN DATE: 2026-09-17
SUBMITTED FOR: REVIEW

NOT FOR CONSTRUCTION

**FILTER POND #2
PLAN & PROFILES**

SEAL:

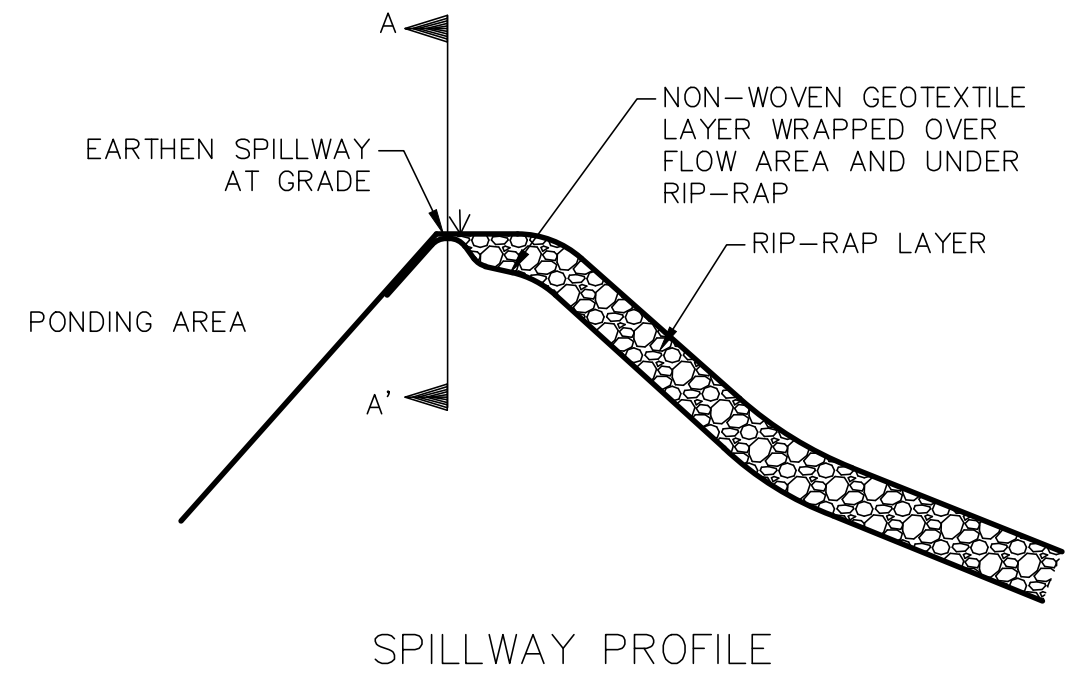
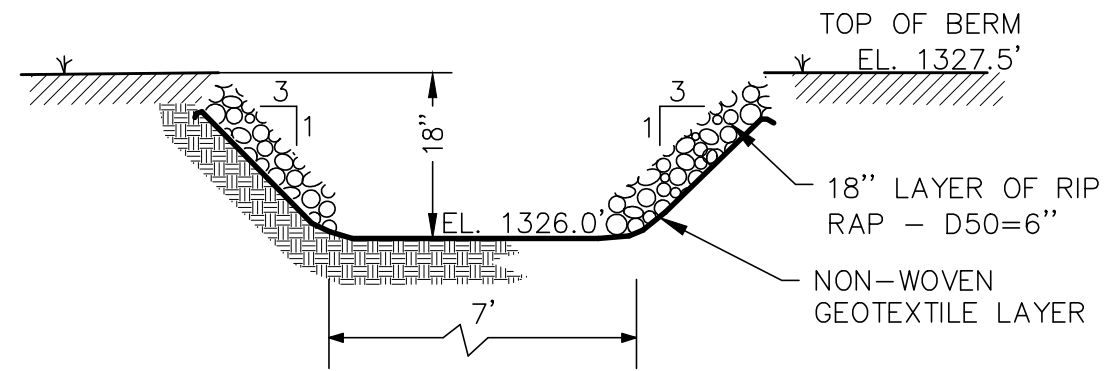
STATE OF MAINE
EMILY J. HASTINGS
No. 16337
PROFESSIONAL ENGINEER
2026-09-17

EMILY J. HASTINGS ME PE#16337

DRAWING NO.

C6.2

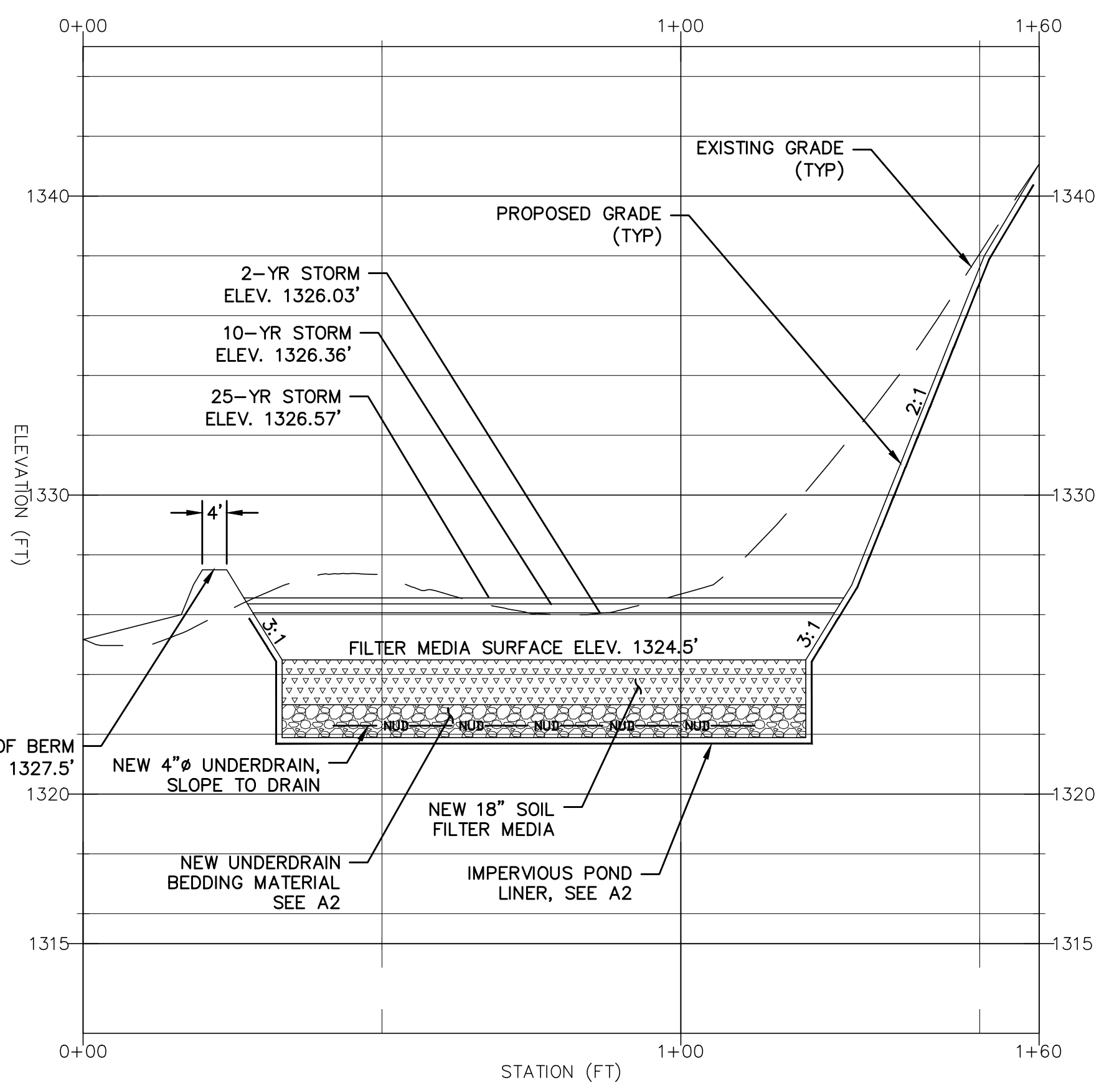
MLDC NO. 25-040 2 OF 4



PONDING AREA SPILLWAY

NOT TO SCALE

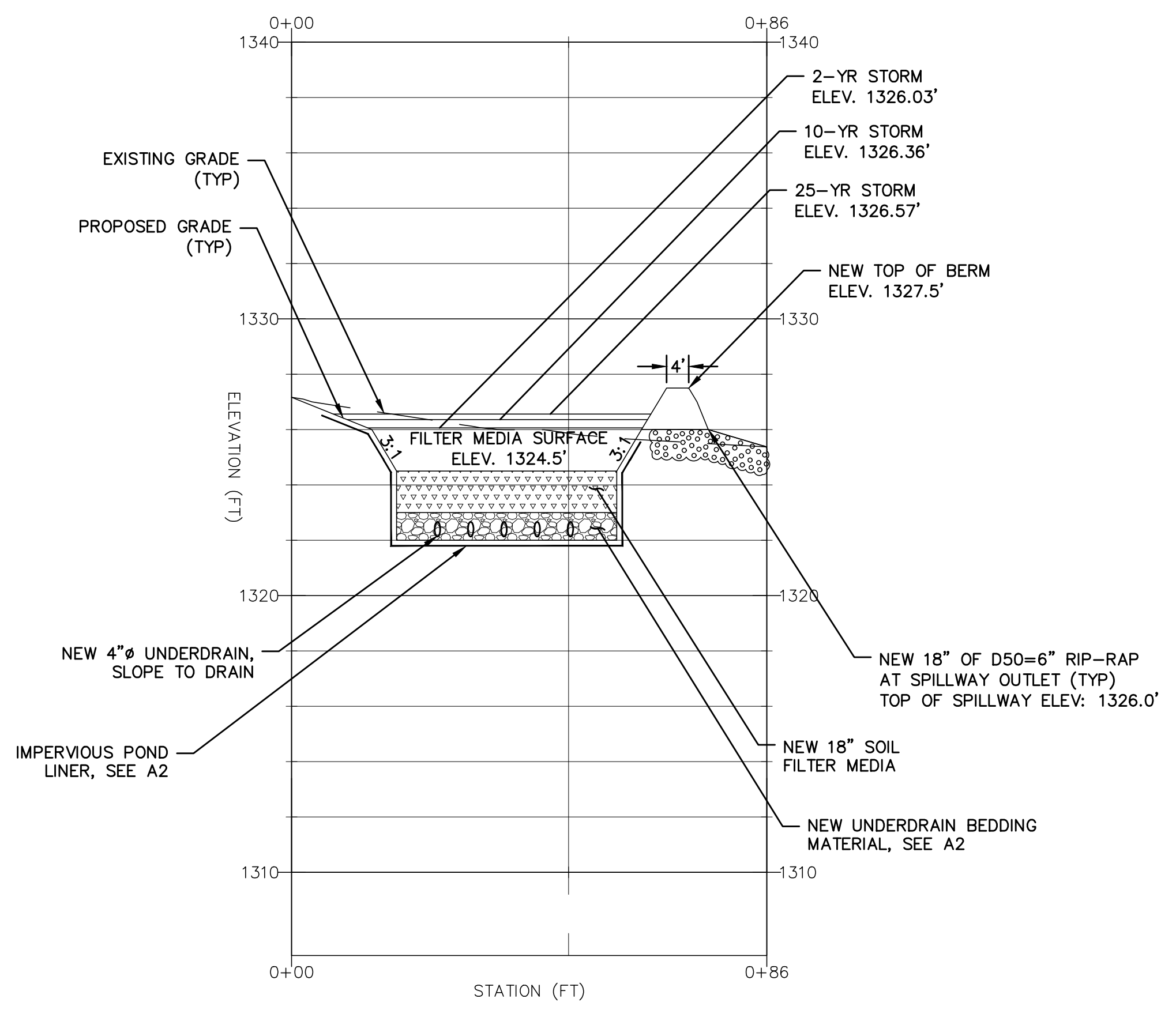
B3



FILTER POND 3 PROFILE B-B'

HORIZONTAL SCALE: 1"=20' VERTICAL SCALE 1"=4'

B2



FILTER POND 3 PROFILE A-A'

HORIZONTAL SCALE: 1"=20' VERTICAL SCALE 1"=4'

B1

TABLE 1 SOIL FILTER MEDIA		
Filter Media	Mixture by Volume	Specifications
Sandy loam/fine & coarse loamy sand	70%-80%	Required to meet the Sieve Analysis specified in Table 2, below.
Mulch	20%-25%	Moderately fine, shredded bark or wood fiber mulch with less than 25% passing the #200 sieve.
		8% to 12% passing #200 sieve. Clay content less than 2%.

TABLE 2 LOAMY COARSE SAND SIEVE ANALYSIS SPEC.		
Sieve Size	% by Weight	
#10	85-100	
#20	70-100	
#60	15-40	
#200	8-15	

TABLE 3 SANDY LOAM TO FINE SANDY LOAM SPEC.		
Sieve Size	% by Weight	
#4	75-95	
#10	60-90	
#20	35-85	
#60	20-70	
#200 (CLAY SIZE)	<2.0	

TABLE 4 MEDOT Specifications for UNDERDRAINS		
Sieve Size	% by Weight	
Underdrain Type B		
1"	95-100	
1/2"	75-100	
#4	50-100	
#20	15-80	
#50	0-15	
#200	0-5	

FILTER BED NOTES

CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.

COMPACTION OF SOIL FILTER: THE BED SHOULD BE INSTALLED BY FLOODING THE MEDIA WITH WATER AND PLACING MATERIAL IN 6-9" LIFTS.

CONSTRUCTION OVERSIGHT: INSPECTION BY A PROFESSIONAL ENGINEER WILL OCCUR AT A MINIMUM:

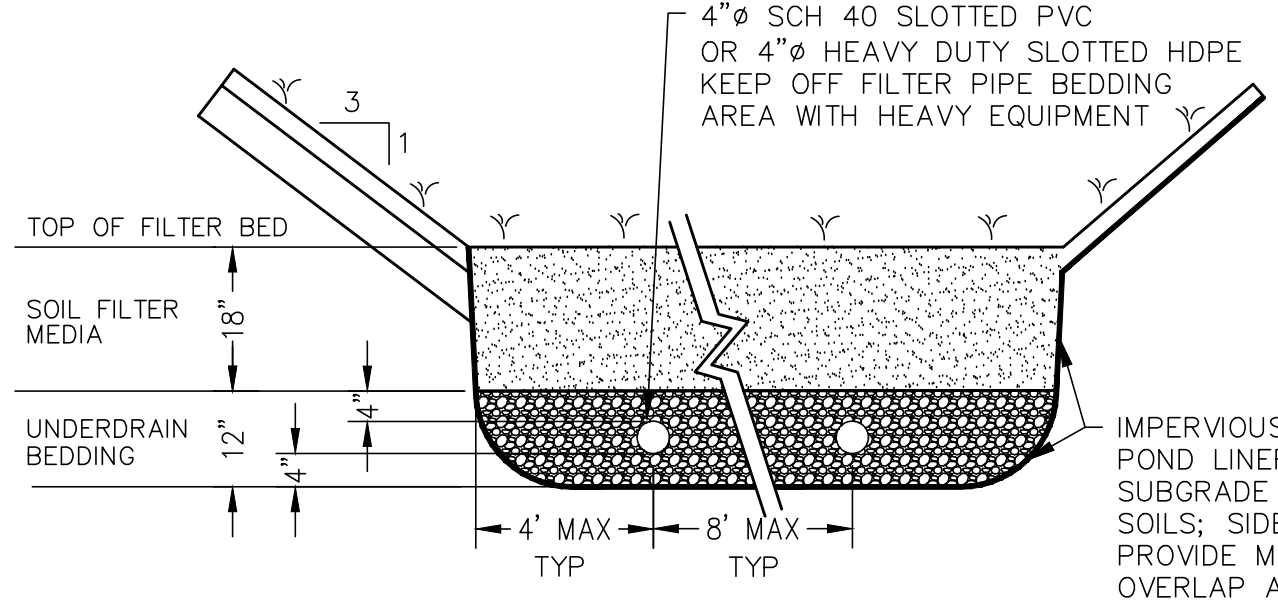
- AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED.
- AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA.
- AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEEDED. BIO-RETENTION CELLS MUST BE STABILIZED PER THE PROVIDED PLANTING SCHEME AND DENSITY FOR THE CANOPY COVERAGE OF 30 AND 50%.
- AFTER ONE YEAR INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS, AND
- ALL THE MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER. TESTING MUST BE DONE BY A CERTIFIED LABORATORY TO SHOW THAT THEY ARE PASSING DEP SPECIFICATIONS.

TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:

- SELECT SAMPLES FOR SAMPLING OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
- PERFORM A SIEVE ANALYSIS CONFORMING TO STM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
- PERFORM A PERMEABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698.

GENERAL NOTES

1. AVOID COMPACTING UNDERDRAIN BEDDING AND SOIL FILTER MEDIA DURING CONSTRUCTION. OVER-COMPACTED SOILS WILL NOT ALLOW PROPER WATER MIGRATION THROUGH THE SOIL SECTION; FILTER BEDS ARE INTENDED TO DRAIN DRY WITHIN 24 TO 48 HOURS.
2. SEED FILTER AREA WITH CONSERVATION TYPE SEED MIXTURE (A 48 LBS/ACRE MIXTURE CONTAINING 20 LBS/ACRE OF CREEPING RED FESCUE AND TALL FESCUE EACH PLUS 8 LBS/ACRE OF BIRDSFOOT TREFOLI)
3. DO NOT INSTALL AND STABILIZE THE SOIL FILTER MEDIA IN THE BASIN UNTIL AFTER CONTRIBUTING AREAS HAVE BEEN PERMANENTLY STABILIZED.

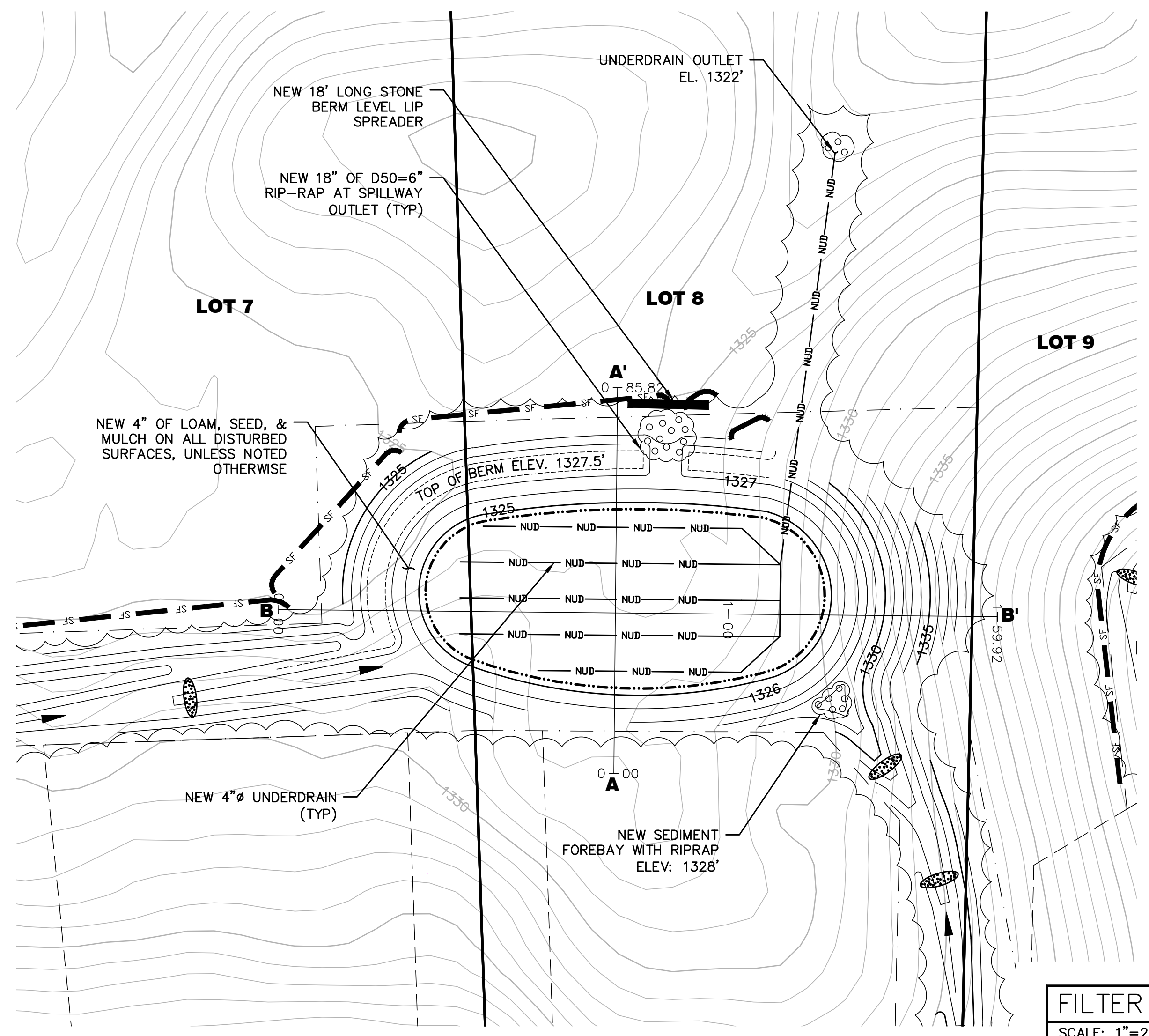


NOTE: MAINE DEP REQUIRES (PER CHAPTER 7.1 OF STORMWATER BMP DESIGN MANUAL), THE INSPECTION OF THE UNDERDRAINED FILTER BY THE DESIGN ENGINEER DURING CONSTRUCTION AT THE STAGES OF GENERAL SHAPE COMPLETED, UNDERDRAIN PIPE IN PLACE BUT NOT COVERED, DRAINAGE MEDIA IN PLACE, AND FINISHED WITH FILTER MEDIA AND SEED IN PLACE. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER 48 HOURS IN ADVANCE OF THE ESTIMATED TIME OF CONSTRUCTION INSPECTION TO ARRANGE AN INSPECTION.

GRASSED FILTER BED DETAIL

NOT TO SCALE

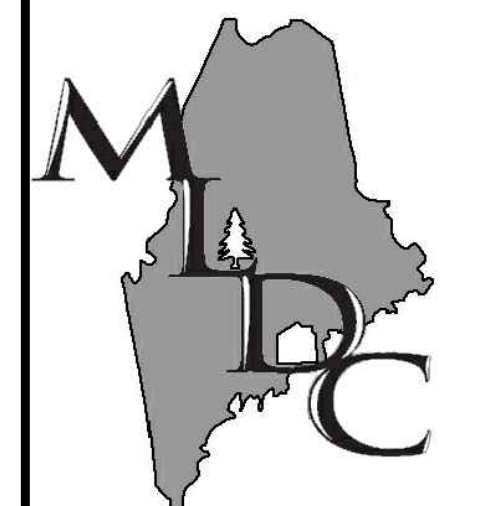
A2



FILTER POND 3 PLAN

SCALE: 1"=20'

A1



MAIN-LAND

DEVELOPMENT
CONSULTANTS, INC.

69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
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WWW.MAIN-LANDDC.COM

PROJECT

LOAF LAND
SUBDIVISION

MOUNTAIN ROAD & HEDGEHOG TRAIL
COPLIN PLT., MAINE

OWNER OF RECORD

LOAF LAND
DEVELOPMENT, LLC

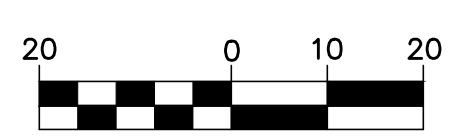
626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

MADE FOR

LOAF LAND
DEVELOPMENT, LLC

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

DRAWING SCALE:



(IN FEET)
1 INCH = 20 FT

SUBMISSION NOTES:
SUBMISSION 1: 2025-08-12 ERL FOR REVIEW.
SUBMISSION 2: 2026-04-09 TLB FOR REVIEW.
SUBMISSION 3: 2026-07-31 EJH FOR REVIEW.
SUBMISSION 4: 2026-09-17 TLB FOR REVIEW. REVISED PER LUPC COMMENTS.

PROJ. MGR: E/JH
DRAWN BY: TLB/ERL
CHECKED BY: E/JH
SURVEY DATE: N/A
PLAN DATE: 2026-09-17
SUBMITTED FOR: REVIEW

NOT FOR CONSTRUCTION

FILTER POND #3
PLAN & PROFILES

SEAL:

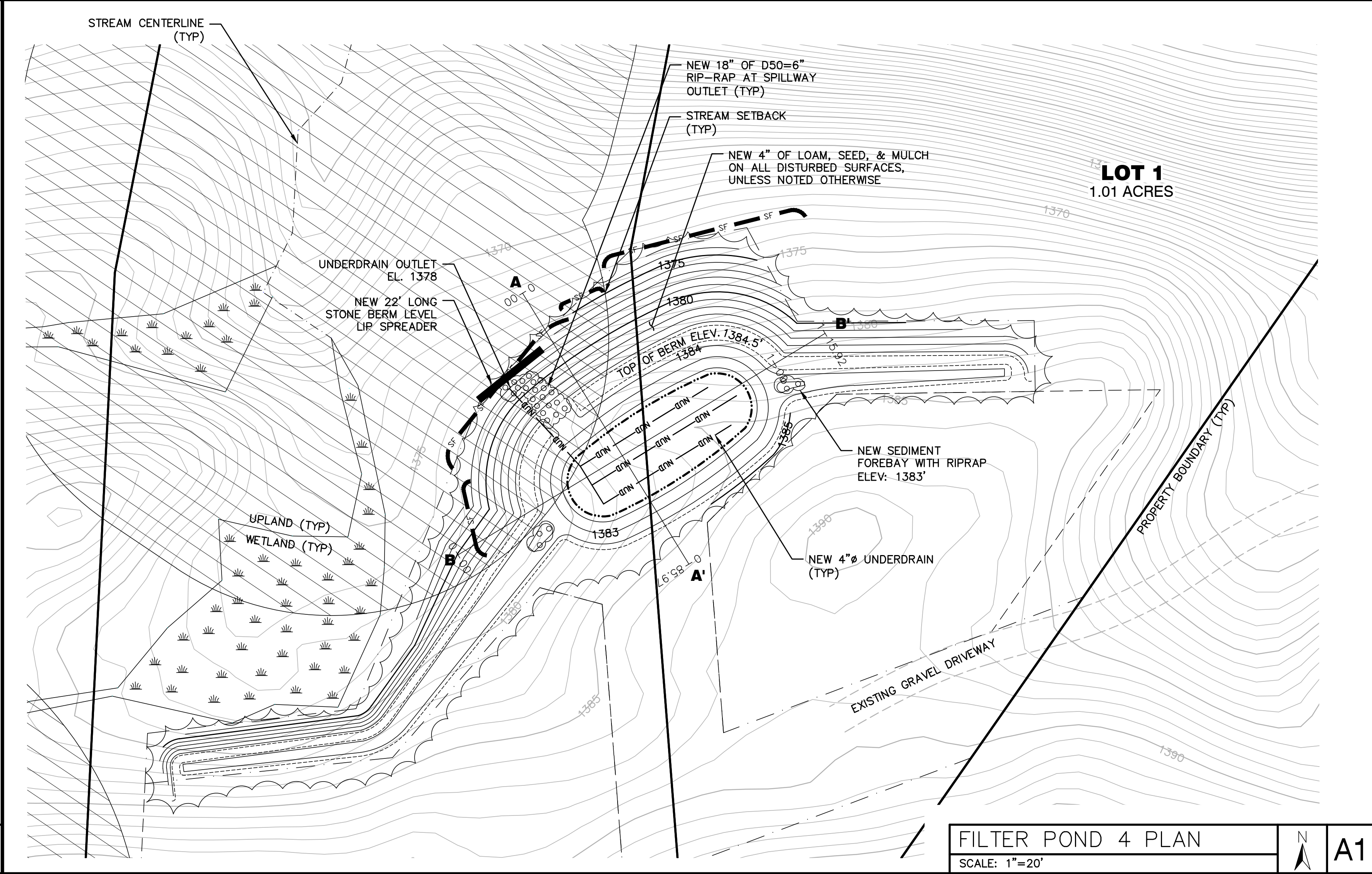
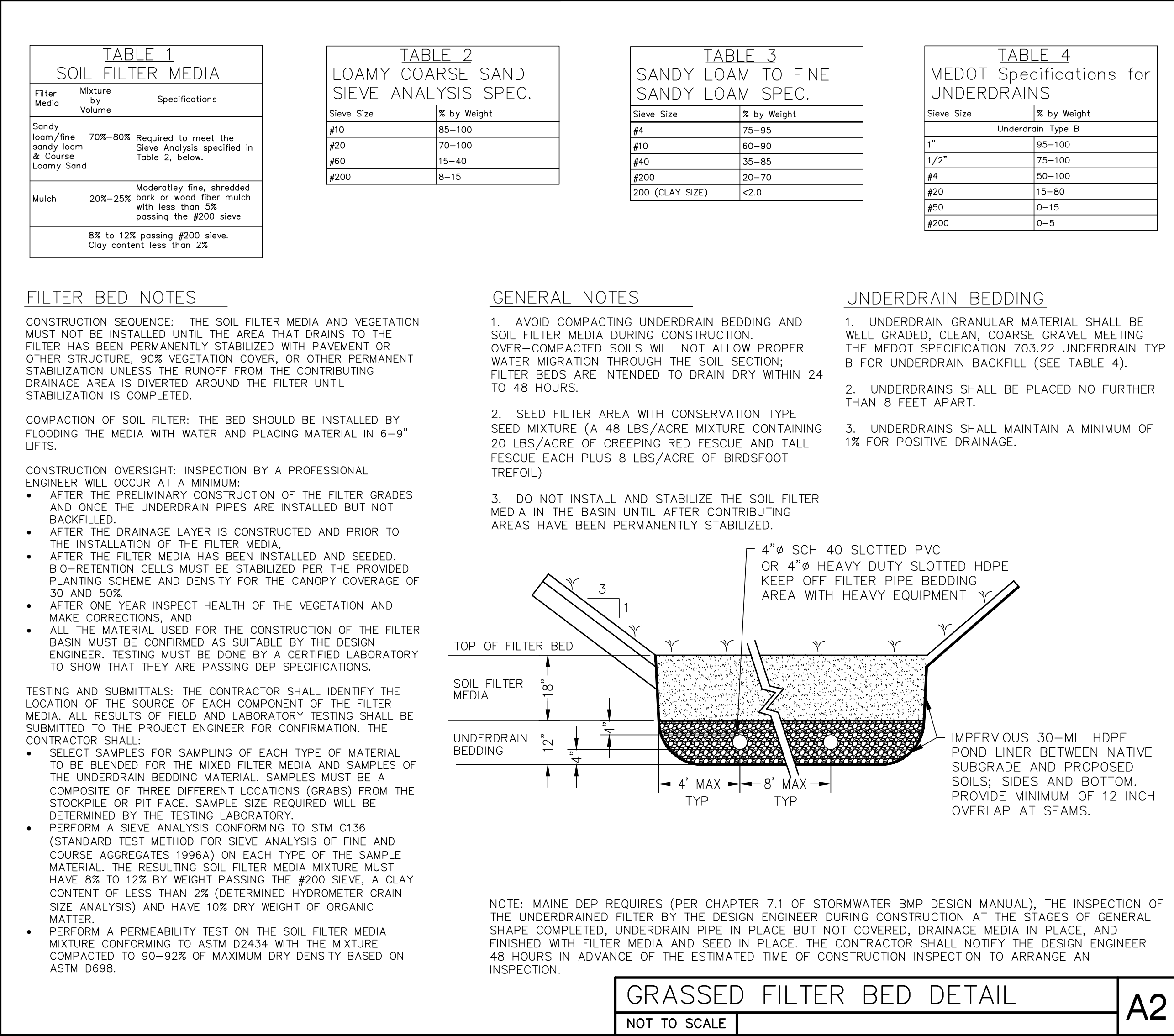
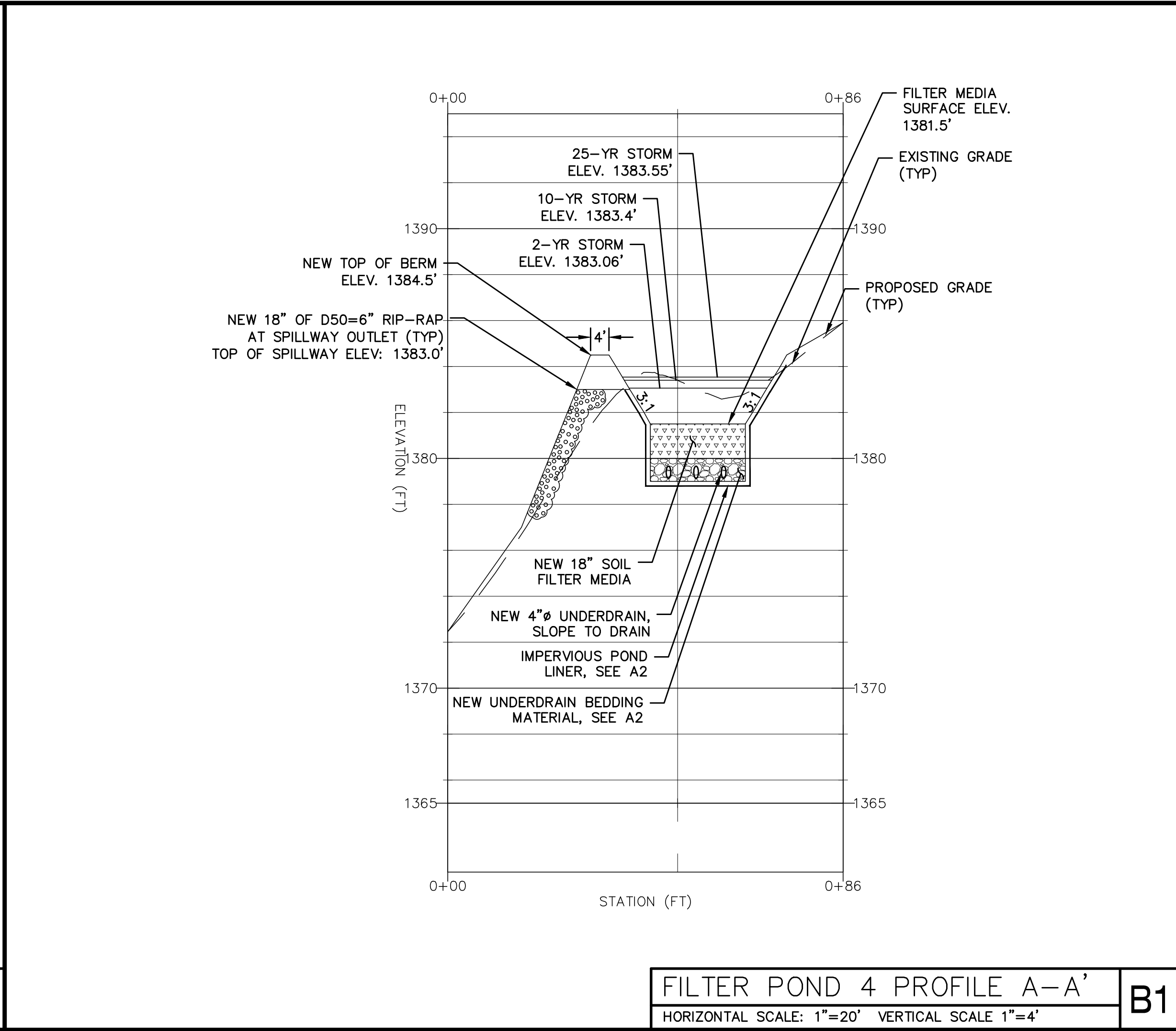
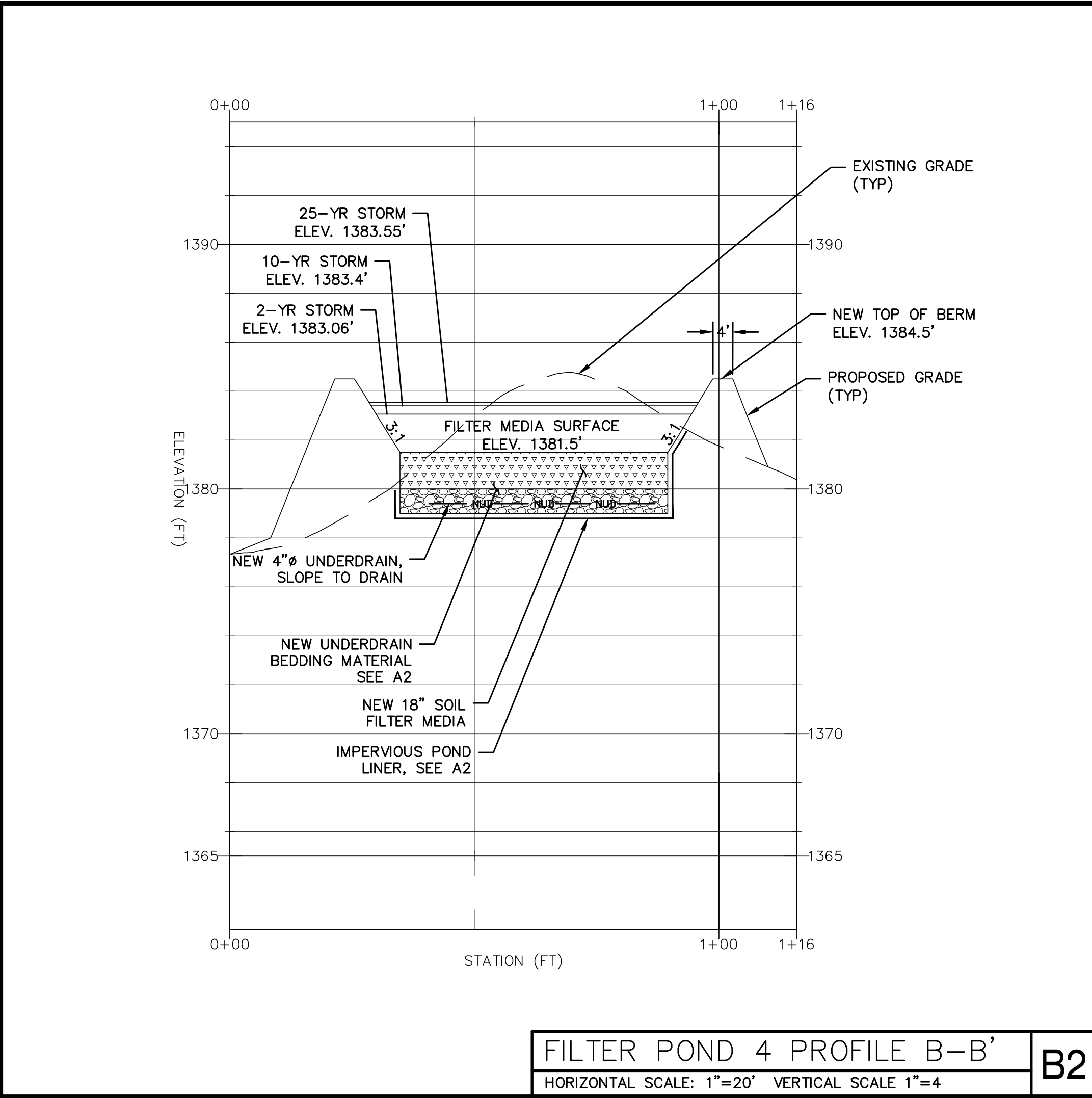
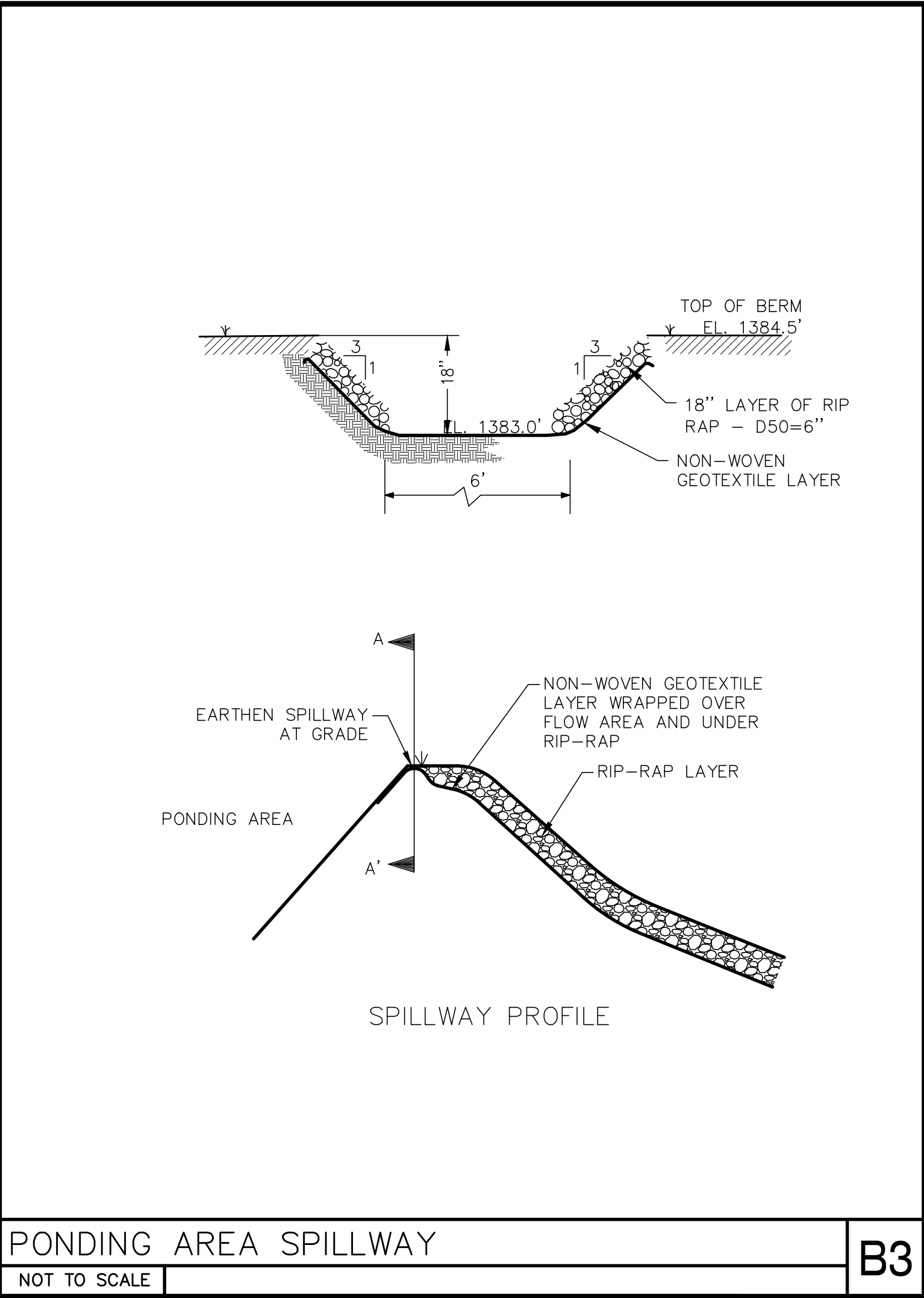


EMILY J. HASTINGS ME PE#16337

DRAWING NO.

C6.3

MLDC NO. 25-040 3 OF 4



MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.

69 MAIN ST. LIVERMORE FALLS, MAINE
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PROJECT
**LOAF LAND
SUBDIVISION**

MOUNTAIN ROAD & HEDGEHOG TRAIL
COPLIN PLT., MAINE

OWNER OF RECORD
**LOAF LAND
DEVELOPMENT, LLC**

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CARRYING PLACE TWP., MAINE 04961

MADE FOR
**LOAF LAND
DEVELOPMENT, LLC**

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CARRYING PLACE TWP., MAINE 04961

DRAWING SCALE:

20 0 10 20
(IN FEET)
1 INCH = 20 FT

SUBMISSION NOTES:
SUBMISSION 1: 2025-08-12 ERL FOR REVIEW.
SUBMISSION 2: 2026-04-09 TLB FOR REVIEW.
SUBMISSION 3: 2026-07-31 E.J.H FOR REVIEW
SUBMISSION 4: 2026-09-17 TLB FOR REVIEW. REVISED PER LUPC COMMENTS.

PROJ. MGR: E.J.H
DRAWN BY: TLB/ERL
CHECKED BY: E.J.H
SURVEY DATE: N/A
PLAN DATE: 2026-09-17
SUBMITTED FOR: REVIEW

NOT FOR CONSTRUCTION

**FILTER POND #4
PLAN & PROFILES**

SEAL:

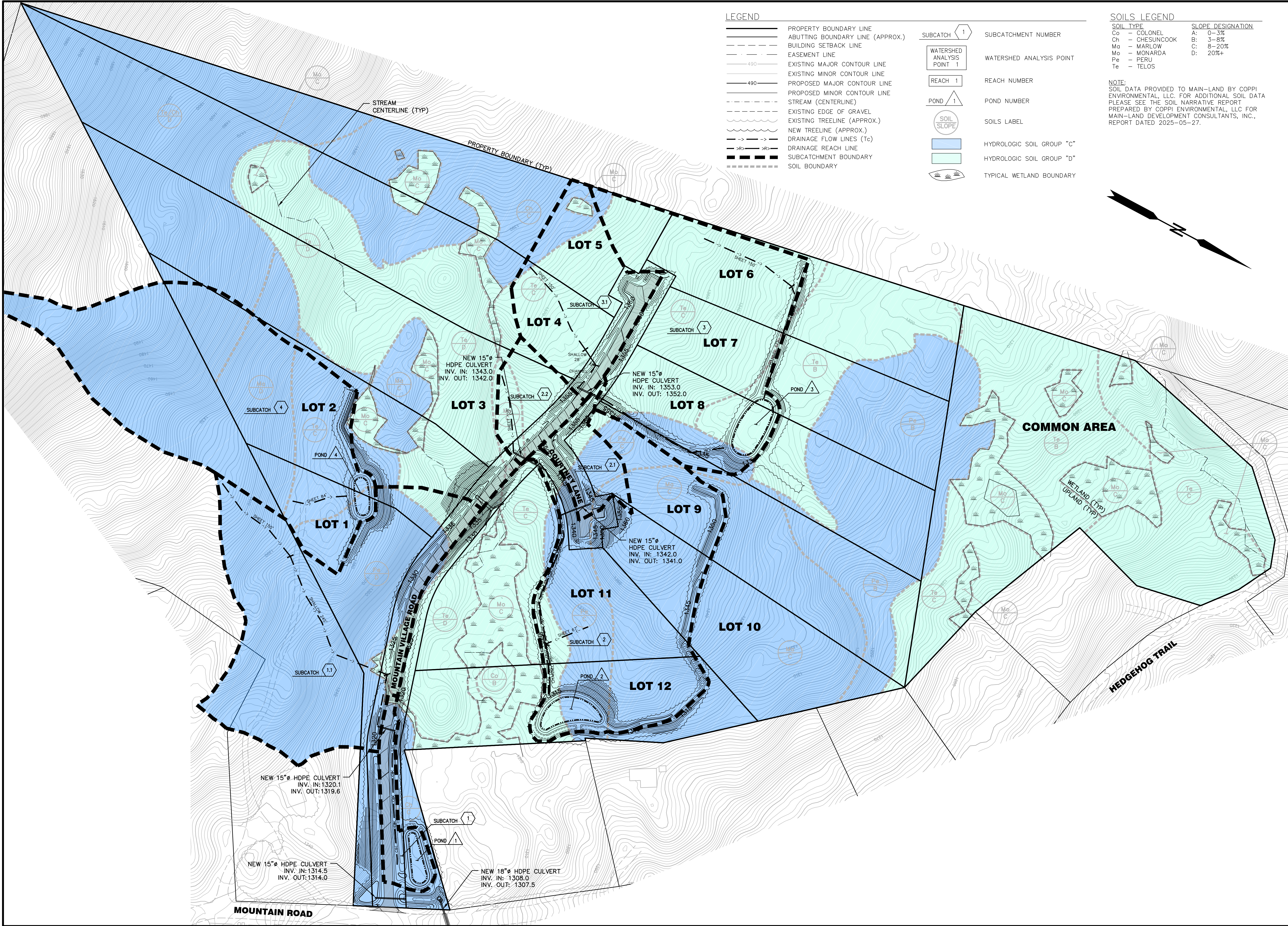
STATE OF MAINE
EMILY J. HASTINGS
No. 16337
PROFESSIONAL ENGINEER
2026-09-17

EMILY J. HASTINGS ME PE#16337

DRAWING NO.

C6.4

MLDC NO. 25-040 4 OF 4



MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
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PROJECT

LOAF LAND SUBDIVISION

MOUNTAIN ROAD & HEDGEHOG TRAIL
COPLIN PLT. MAINE

OWNER OF RECORD

LOAF LAND DEVELOPMENT, LLC

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

MADE FOR

LOAF LAND DEVELOPMENT, LLC

626 CARRYING PLACE ROAD
CARRYING PLACE TWP., MAINE 04961

DRAWING SCALE:

60 0 30 60
(IN FEET)
1 INCH = 60 FT

SUBMISSION NOTES:
SUBMISSION 1: 2025-09-23 ERL FOR REVIEW.
SUBMISSION 2: 2026-04-09 TLB FOR REVIEW.
SUBMISSION 3: 2026-07-31 E/JH FOR REVIEW.
SUBMISSION 4: 2026-09-17 TLB FOR REVIEW. ADDITION OF SOIL DATA.

PROJ. MGR: E/JH
DRAWN BY: TLB/ERL
CHECKED BY: E/JH
SURVEY DATE: N/A
PLAN DATE: 2026-09-17
SUBMITTED FOR: REVIEW

NOT FOR CONSTRUCTION

POND DRAINAGE PLAN

SEAL:

EMILY J. HASTINGS ME PE#16337

DRAWING NO.

D2.1

MLDC NO. 25-040 1 OF 1

For Use with [Exhibit 14](#): Subdivision Lot Specifications TableApplicant/Project Name: Loaf Land SubdivisionRefer to [Subdivision Layout and Design \(Exhibit 14\)](#) for instructions. Use lot numbers consistent with the numbering on the [Site Plans \(Exhibit 10\)](#).

Lot no.	Lot width x depth (ft.)	Lot size (sq. ft.)	Building envelope width x depth (ft.)	Building envelope size (sq. ft.)	Shore frontage (ft.)	Road frontage (ft.)	Will remain undeveloped? (Y/N)	NRCS soils low density development potential rating(s)	Detailed description of lot characteristics (wooded, open field, stream, steep slopes, etc.)
1	280'x160'	43,874	90'x85'	6,803	0'	570'	No	Very Limited	Forested, some wetlands, some steep slopes. Approx. cleared area for stormwater management infrastructure: 4,335 s.f.
2	160'x440'	70,850	80'x130'	9,202	0'	135'	No	Very Limited	Forested, stream, some wetlands, some steep slopes. Approx. cleared area for stormwater management infrastructure: 5,896 s.f.
3	140'x700'	98,928	120'x150'	18,035	0'	183'	No	Very Limited	Forested, stream, some wetlands, some steep slopes. Approx. cleared area for stormwater management infrastructure: 0 s.f.
4	130'x900'	117,160	100'x150'	16,044	0'	110'	No	Very Limited	Forested, stream, some wetlands, some steep slopes. Approx. cleared area for stormwater management infrastructure: 0 s.f.
5	100'x900'	78,569	130'x190'	22,810	0'	N/A	No	Very Limited	Forested, some wetlands, some steep slopes. Approx. cleared area for stormwater management infrastructure: 0 s.f.
6	140'x900'	57,646	80'x200'	15,717	0'	N/A	No	Very Limited	Forested, some steep slopes. Approx. cleared area for stormwater management infrastructure: 2,784 s.f.
7	120'x960'	54,258	70'x160'	12,508	0'	100'	No	Very Limited	Forested, some steep slopes. Approx. cleared area for stormwater management infrastructure: 3,790 s.f.
8	120'x660'	59,517	70'x150'	12,612	0'	100'	No	Very Limited	Forested, some steep slopes. Approx. cleared area for stormwater management infrastructure: 10,855 s.f.
9	130'x660'	73,816	80'x200'	13,536	0'	202'	No	Very Limited	Forested, some steep slopes. Approx. cleared area for stormwater management infrastructure: 5,243 s.f.
10	130'x420'	53,472	70'x120'	7,542	0'	102'	No	Very Limited	Forested, some steep slopes. Approx. cleared area for stormwater management infrastructure: 2,791 s.f.
11	320'x370'	67,817	85'x110'	10,455	0'	559'	No	Very Limited	Forested, stream, some wetlands, some steep slopes. Approx. cleared area for stormwater management infrastructure: 3,707 s.f.
12	120'x470'	65,339	65'x120'	9,104	0'	356'	No	Very Limited	Forested, stream, some wetlands, some steep slopes. Approx. cleared area for stormwater management infrastructure: 15,673 s.f.
Open Space	540'x350'	161,462	N/A	N/A	0'	115'	Yes	Very Limited	Forested, stream, some wetlands, some steep slopes. Approx. cleared area for stormwater management infrastructure: 0 s.f.

**DECLARATION OF COVENANTS,
EASEMENTS AND RESTRICTIONS
LOAF LAND SUBDIVISION
COPLIN PLANTATION, MAINE**

KNOW ALL MEN BY THESE PRESENTS, that

WHEREAS, Loaf Land Development, LLC, (hereinafter referred to as “Declarant”) is the owner of certain real estate situated in the Town of Coplin Plantation, Maine, which premises were conveyed to the Declarant dated January 22, 2024, and recorded in Book 4611, Page 256 of the Franklin County Registry of Deeds (the “Property”); and

WHEREAS, the above-referenced premises has been subdivided as shown on Plan of Loaf Land Subdivision, dated _____ and recorded in Plan Book _____, Pages _____ of the Franklin County Registry of Deeds (the “Plan”);

WHEREAS, Declarant desires to ensure that the numbered lots as shown on the Plan, those being Lots 1-12 (the “Lots”) shall be developed in an attractive and compatible manner for residential uses so as to enhance the purchasers’ use and enjoyment of their property and the value thereof and to comply with the requirements of the Land Use Planning Commission of the State of Maine; and

WHEREAS, to accomplish the foregoing Declarant intends to impose certain restrictions on the development of the Property.

NOW, THEREFORE, the Lots shall be subject to and benefited by the following restrictions which shall be deemed to run with the land, of which restrictions may be enforced by the Declarant and any subsequent owner of any of the Lots, intending to create a common scheme of restrictions for the benefit of all said Lots:

1. **Creation of an Association.** The real estate as depicted on the Plan shall be governed by a homeowners’ association (the “Association”) to be created by the Declarant prior to the first sale of any lot in the Plan.

- a. Each owner of a Lot shall automatically be a member of the Association and each Lot shall be allocated only one (1) vote.
- b. The purpose of the Association shall be to take title to the Roads (as defined below) and the Common Area (as depicted in the Plan, the “Common Area”) upon conveyance by the Declarant to the Association pursuant to Section 3 below, and to maintain, repair and replace (i) the Roads which shall include, but not be limited to snow plowing and snow removal, and (ii) stormwater infrastructure.
- c. The Association shall be governed by a Board of Directors (the “Board”) who shall be authorized to do all such acts and things necessary for the administration of the affairs of the Association, except those acts which by law or the Association’s Bylaws may not be delegated to the Board.

- d. Notwithstanding the foregoing, the Declarant shall have all powers of the Association until the earlier of: (i) the date on which the last of the Lots have been conveyed by the Declarant to its successor or purchasers of such Lots; of (ii) following the sale of at least five (5) Lots, the date on which the Declarant, in its sole discretion, turns over management of the Roads and the Common Area to the Association.

2. **Lot Development Restrictions.** The clearing of trees or any forested areas on each Lot shall not exceed a total of 12,000 square feet per Lot. All clearing shall be limited to areas that consist of building envelopes and the driveways for each Lot. Notwithstanding the foregoing, minimal clearing may occur outside of the building envelope for (a) the establishment of stormwater and phosphorus control infrastructure or (b) the establishment and maintenance of a wellhead provided that (i) such clearing is done in minimal amount needed for such wellhead and (ii) the vegetation in such area of the Lot shall not be mowed or cut down below six (6) inches of height more than once per calendar year. Driveways on each lot shall not exceed a total of 1,750 square feet of impervious surface per Lot.

3. **Roads and Common Space.** For as long as Declarant owns any portion of the Lots, Declarant hereby excepts and reserves a right of way for all purposes over, across and through all roads depicted on the Plan, together with the right to install and maintain all utilities and lines, water systems, storm drainage lines and ditches adjacent to, with or under the traveled portion of said road. Until the Declarant relinquishes the powers it holds pursuant to Section 1(d), the Declarant shall be responsible for the maintenance of the Roads and Common Space and thereafter the Declarant shall transfer all right title and interest to the Roads and the Common Space, excepting the aforementioned right of way, to the Association.

4. **Road Maintenance.** The roads depicted on the Plan as Mountain Village Road and Courtney Lane (the "Roads") shall be maintained by the Declarant until the Roads are transferred to the Association, unless and until the roads are accepted by the Town of Coplin Plantation, after which the road will be maintained by the Town of Coplin Plantation in accordance with its policies and procedures. The Declarant or the Association, as applicable, shall maintain the entire roadway and stormwater and erosion control infrastructure to include, but not limited to, roadway travel surface, roadside ditching, underground/aboveground utilities, swales and ponds maintenance, snow plowing and all repairs and maintenance thereto. Notwithstanding the foregoing, the owners of Lots 1 and 2 as depicted in the Plan shall not be responsible for any portion of maintenance to the Roads and the owners of Lots 1 and 2 shall be responsible for the foregoing maintenance and repairs necessary for ingress and egress over that certain right of way referred to in the Plan as Moose Track Road and the costs shall be shared equally by the owners of Lots 1 and 2. In the event there is any dispute regarding any proposed plan of repairs or maintenance and the sharing of costs associated with Moose Track Road, such dispute shall be resolved by the Declarant (in the event Declarant still hold the powers of the Association) or the disinterested members of the Board of the Association.

5. **Shared Driveway Maintenance.** The shared driveways maintained and created in those certain areas depicted on the Plan where "Driveway Easement" is referenced on Lot 1 (for the shared driveway of Lot 1 and Lot 2), Lot 9 (for the shared driveway of Lot 9 and 10) and Lot 11 (for the shared driveway of Lot 11 and Lot 12) shall be maintained by the owners of the Lots that each driveway benefits and such maintenance costs shall be, unless agreed to otherwise by such owners, shared equally by such owners. For as long as Declarant owns any of the numbered Lots mentioned in this Section 5, it shall not be responsible for the shared driveway maintenance costs.

6. **Common Area.** Each owner of the Lots shall have a non-exclusive right to use the Common Area as shown on the Plan. Use of the Common Area shall be subject to any rules and regulations established from time to time by the Declarant or the Board. The Common Area shall be used only for non-commercial recreation, agriculture or conservation purposes. Without limited the foregoing, the Common Area may include a trail for public use and/or snowmobile or other motorized vehicle use, subject to any rules and regulations as may be established by the Declarant or the Board from time to time. No permanent structure shall be built or constructed on the Common Area and temporary structures shall be limited to tents, canopies or other similar structures which shall be permitted to be erected for not more than thirty-six (36) continuous hours.

7. **Maintenance of Lots.** All Lots and improvements on the Lots shall be kept and maintained by the owner thereof in clean, safe attractive and pleasant condition and in good repair, subject to the rights of the Declarant and/or the Association to provide maintenance services consistent with this Declaration, and the Association contracts and budgets. All permanently maintained cleared openings and structures on such Lots must be located within the building envelope (as depicted in the Plan) of such Lot.

8. **Rules and Regulations.** Declarant and the Association may from time to time adopt, modify and revoke in whole or in part, such reasonable rules and regulations governing the conduct of persons on the Property as it may deem necessary and methods of procedures for enforcing compliance with the Declaration. In addition, the Board of Directors of the Association may from time to time adopt, modify and revoke in whole or in part such reasonable rules and regulations, provided, however, that said modification and/or revocations shall not apply to any rules and regulations that have been adopted, modified or revoked by Declarant. Any such creation, amendment, modification or revocation of the rules or regulations shall be promptly delivered to each owner of the Lots. The rules and regulations adopted by the Declarant and the Association shall incorporate those applicable conditions and restrictions currently imposed against the Property as more particularly set forth in that certain Declaration of Restrictions on Residential Lots in Hedge Hog Mountain Village II, Coplin Planation, Maine dated February 8, 1977, but effective as of February 12, 1976, by Robert H. Tague, and recorded in said Registry of Deeds in Book 507, Page 5, and that certain Land Use Regulation Commission Subdivision Permit #3001 recorded in said Registry of Deeds in Book 507, Page 1.

IN WITNESS WHEREOF, Declarant has set its hand this _____ day of _____, 20__.

LOAF LAND DEVELOPMENT, LLC

By: _____

STATE OF MAINE

COUNTY OF _____, ss _____, 20__

Personally appeared the above named _____, and acknowledge the above instrument to be their free act and deed in their said capacities and the free act and deed of Loaf Land Development, LLC

Before me

Notary Public

Printed Name: _____

My Commission Expires: _____

Section 24: Harmonious Fit and Natural Character

The proposed project has been designed to minimize disturbance to the natural character as much as feasible. The subject parcel contains a variety of site features, such as steep slopes, stream segments, and wetland areas. Due to this, the road had to be designed in such a way that impacts to the natural resources are avoided, or minimized where avoidance was not feasible. This resulted in certain areas of the proposed road design to generate cut/fill slopes, which have been designed as a reinforced 2:1 slope to minimize impacts and mimic surrounding topography.

The building envelopes for the proposed lots have been placed to ensure that the majority of the subject parcel remains wooded to preserve a visual buffer to the surrounding areas. Staggering of building envelope was not always possible on this subdivision due to soil constraints regarding the phosphorus control design, but the small scale of the envelopes will help minimize visual impacts as well. It is important to highlight that the residential single family lots fit well with characteristics of the current development in that area.

Below are details on a specific layout features and how they relate to visuality:

- Lots 1 & 2 building envelopes are sited the highest in elevation. However, they have a large stretch, ranging from approximately 90' to 165' of wooded buffer directly downhill. These lots have about 20' of vertical change within the envelope. Mature trees, often 20' to 30' in height within this buffer will shield the development.
- Lot 9/10 and Lot 11/12 proposed to have shared driveways, in an effort to limit new infrastructure, each of the driveway easements traverse along the contours to minimize grading impacts.
- Mountain View Road at the highest elevation is approximately 1362' (at the very end, less elsewhere) and there is knoll, located down gradient that the road traverse around is also 1362'. The knoll doesn't block the entirety of the road length but a large portion. Towards the beginning of the road there are also a few smaller knolls having the same effect.
- Courtney Lane traverses along the contour grades at the base of knoll. This knoll will shield views of the road towards Flagstaff Lake.
- Each lot will have a clearing limit.
- The upper, steepest portion of the property has no proposed development.

- On an even more micro level, each lot owner who develops these lots will also be subject to a LUPC residential building permit where the department can focus on specific layout and building material at that point in time.

On a wider scale, due to the topography and orientation in this area, there is a large portion within 3 miles of the development will not be visible. See image below that indicates the approximate non-visible area, represented by the red line. This line was approximated by following the topography around the same elevation on either side of the site until it reaching a point where directional the site would not be visible due to angle. From there traverse up in elevation to the peaks. The site is shown with the blue boundary. The topographic maps were downloaded from USGS. The remaining 3 miles radius is not shown as it is out of the viewshed. Please note this does not take into account vegetation which much of the viewshed area has mature forest.

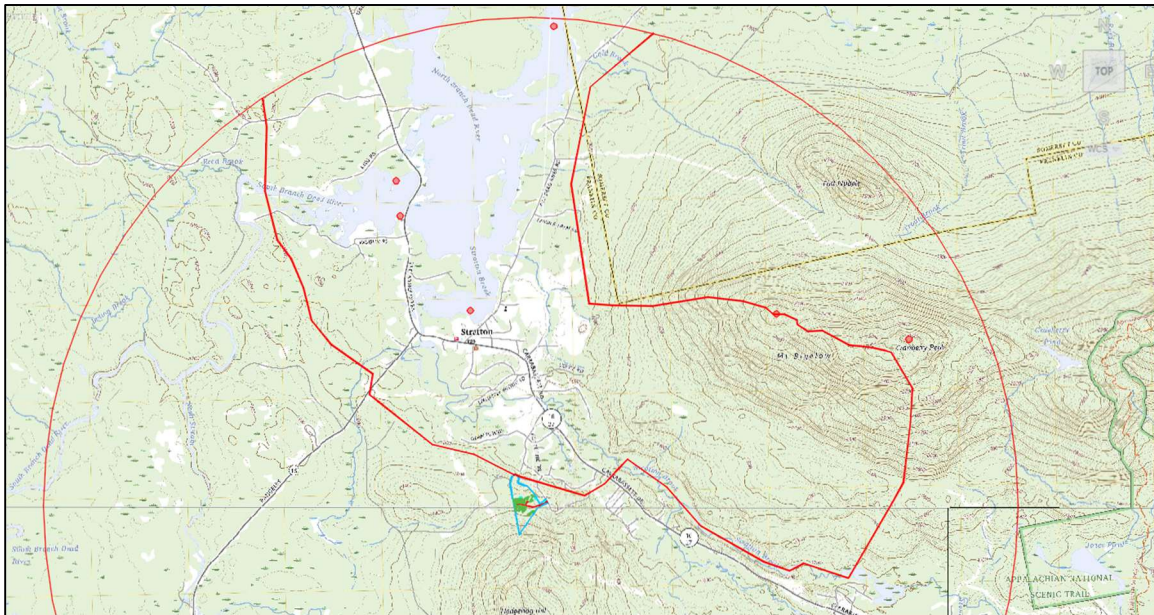


Image 1: Potential area that the project may be visual based on USGS Topographic Map

Also shown on Image 1 are red dots, these indicate potential areas of interest and have a corresponding Google Earth Image below. In the Google Earth images, the blue represents the outer property boundary, green is the lot building envelopes, and red lines are the roads.

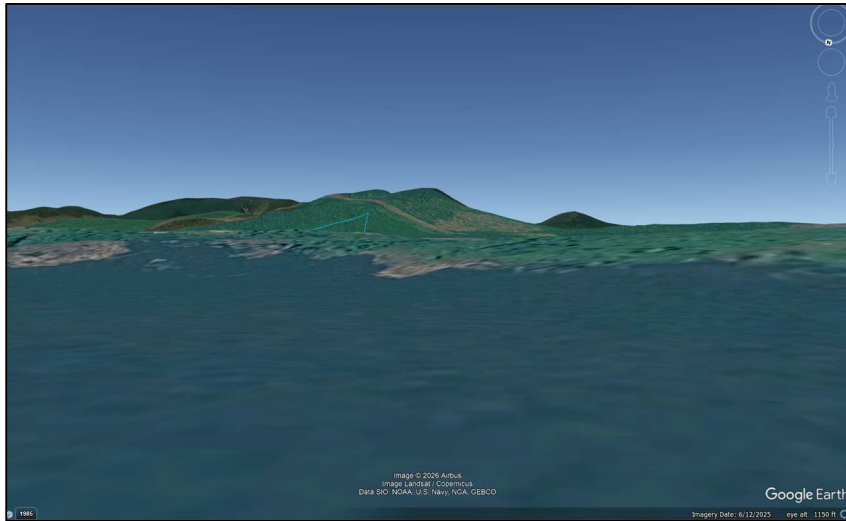


Image 2: On Flagstaff Lake in the cove near the Town of Stratton. Only the top, undeveloped portion of the property is visible.

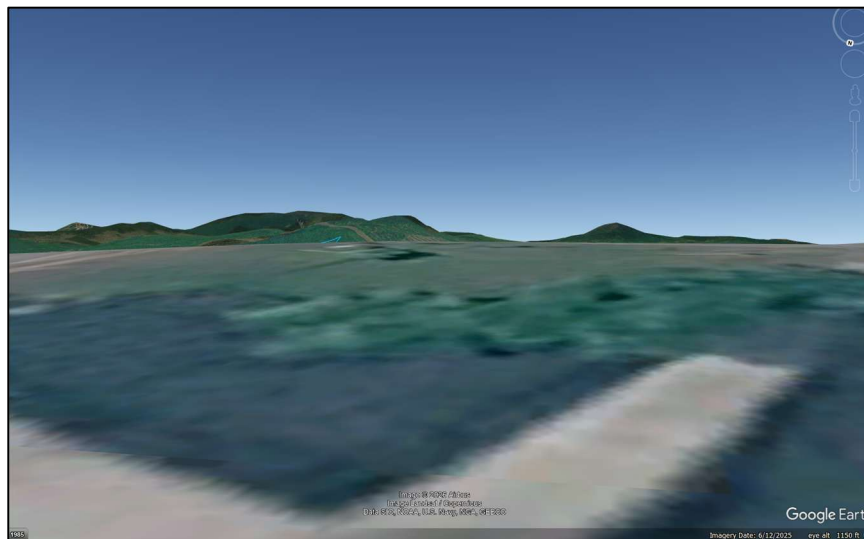


Image 3: At the Flagstaff Lake public boat launch on Route 27. Only the top, undeveloped portion of the property is visible.

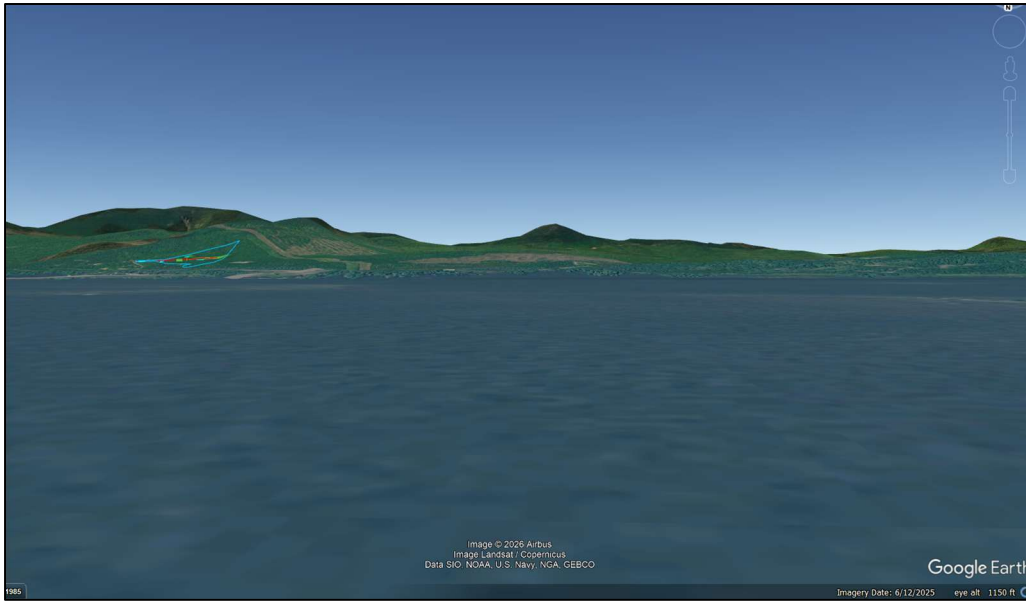


Image 4: On Flagstaff Lake, opposite side of the cove from the public boat launch on Route 27. The project is visible, however, as mentioned above there are other visual barriers located on the site to help shield the development.

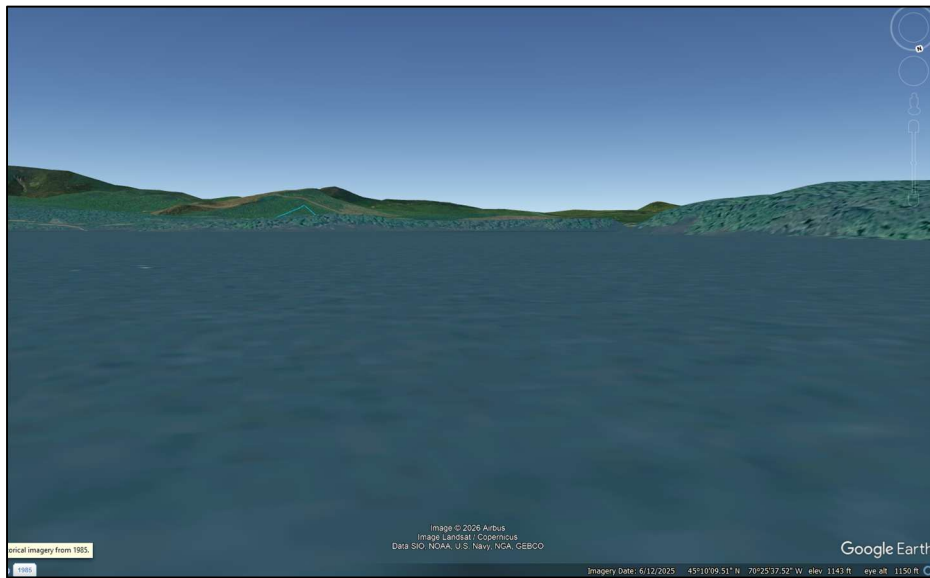


Image 5: At Flagstaff Lake near the 3 mile distance, in the channel before the lake opens up. Only the top, undeveloped portion of the property is visible.

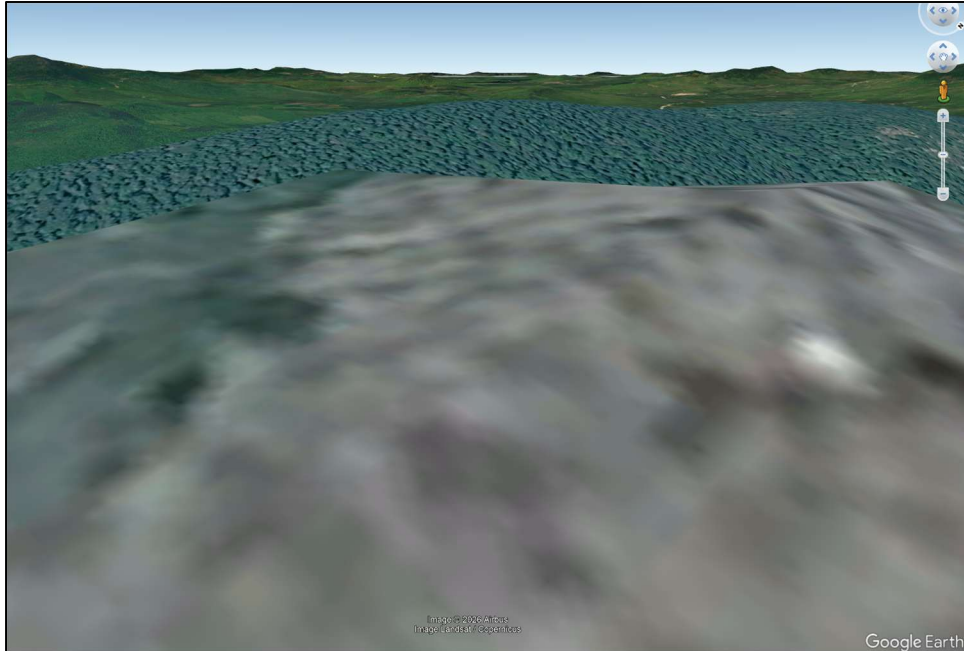


Image 6: At the summit of Cranberry Peak. As shown, there is a knoll that shields the proposed project elevational and will not be visible. The higher terrain portion of the trail traverses along back side of the ridge so will not be visible. There is a slight chance in open areas during winter months it would be visible, see Image 7 below.

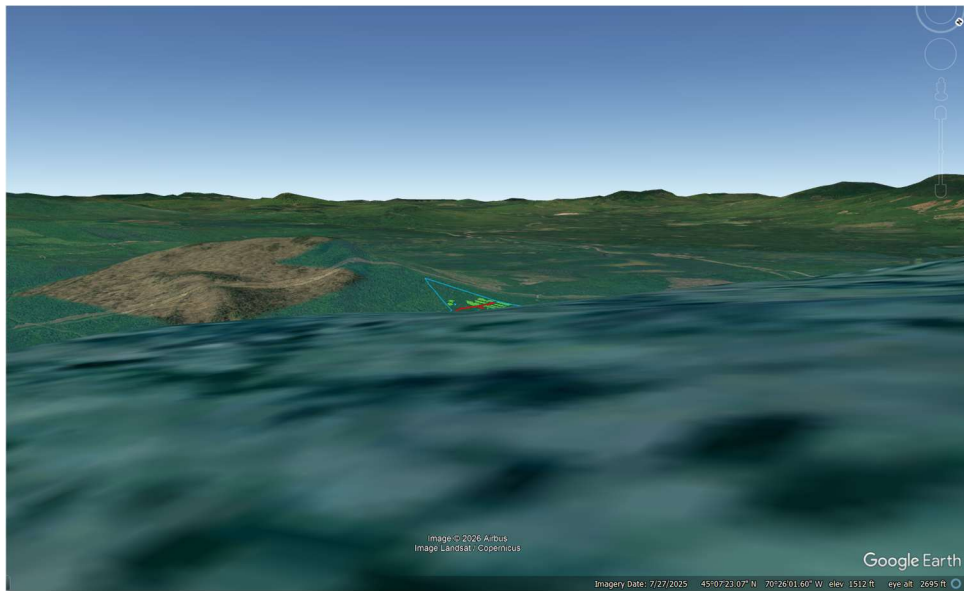


Image 7: This is a knoll adjacent to the Cranberry Peak Trail. Looking at the Trail Map, below, it is believed the trail traverse on the opposite site of this knoll. If that is the case, the project would not be visible from the trail. See trail map below.

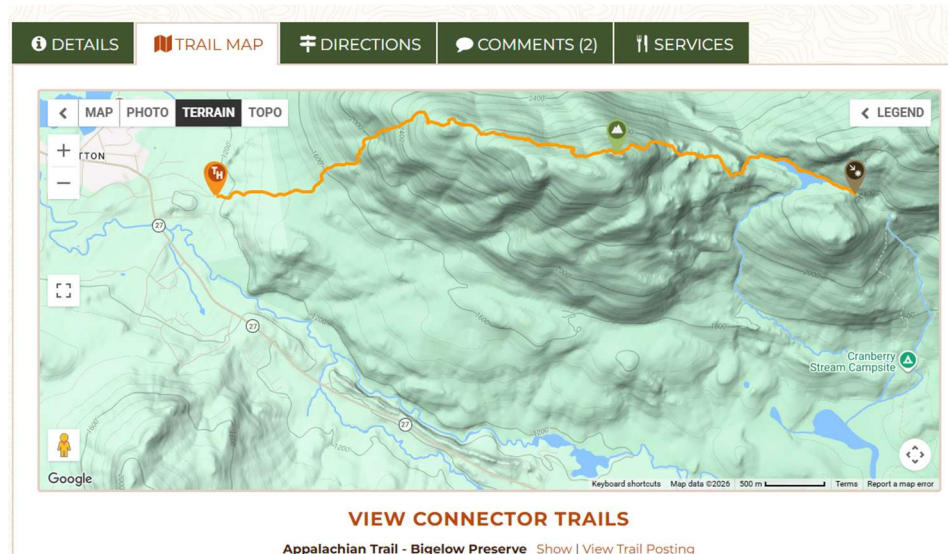


Image 8: Cranberry Peak Trail from Maine Trailer Finder

Other notable recreational areas in the region:

- The Appalachian National Scenic Trail is further than 3miles away and due to topography and direction, will not be visible from the trail.
- Sugarloaf Mountain is further than 3miles away and due to orientation the project will not be visible from the mountain.

Stormwater management for hillside resources was achieved through the use of four new grassed underdrained filter ponds and associated drainage swales. Each of the proposed filter ponds were sized and designed in accordance with the standards outlined in the Maine Department of Environmental Protection's Best Management Practices Manual. The goal, in addition to providing treatment for quality of the runoff, is the filter ponds also provide short-term retention of runoff, slowing runoff and reducing peak flows exiting the site. The filter ponds discharge into already natural water ways.

EROSION AND SEDIMENTATION CONTROL PLAN

Loaf Land Subdivision
Mountain Road, Coplin Plantation, Maine

Prepared By:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
Livermore Falls, Maine

1. INTRODUCTION:

“A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 M.R.S.A. §480-B. Sediment 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.” – Maine DEP Chapter 500 Rules, Appendix A.

This Plan has been developed to ensure that construction activities on this project site utilize sound erosion and sedimentation control measures. These measures will prevent or reduce the potential for the deposition of sediments downstream of site. The methods of control consist of preventive measures and remedial measures. Preventive measures are aimed at keeping the soils in their present location through mulching and through the re-establishment of vegetation. Remedial measures deal with the trapping and/or filtering of sediment laden stormwater run-off. Both types of measures will be utilized on this project.

The Erosion and Sedimentation Control Plan is best broken down into Temporary Measures, Winter Stabilization, and Permanent Measures.

2. TEMPORARY EROSION CONTROL:

Temporary control measures may consist of a combination of measures where appropriate and/or as shown on the plans.

A. Sediment Filter Berms:

Sediment Filter Berms are the preferred filtering device but may not be used in wetland areas. The berms shall be placed down slope of all earth moving activities, where water from these disturbed areas will run off. These berms will be placed along an even contour, be at least 24 inches tall, and 3 feet wide at the base. Turn the ends of the berm up-grade to avoid runoff flowing around the berm. In areas of high erosion potential, the berm will be backed by hay bales or silt fencing, as shown on the filter berm detail.

B. Silt Fencing:

Silt fencing may be used in place of, or together with, the sediment filter barriers. The silt fencing will also be anchored at least four inches into the ground and placed along an even contour. Turn the ends of the fence up-grade to avoid runoff flowing around the fence. During frozen conditions, furnish and install Sediment Filter Berms in lieu of silt fencing or hay bales if frozen soil prevents the proper installation of silt fences and hay bales.

C. Stone Check Dams:

Stone check dams shall be placed in the center of ditches immediately following excavation to provide a means of trapping sediments. (If the ditch has been immediately armored with rip-rap, check dams are not necessary.) The dams shall consist of small stone placed across the ditch, with a depression at the top of the dam to allow water over the top of the dam, should it become clogged with sediment. See the specifications on the Typical Details Plan for construction details of this measure.

D. Temporary Mulch:

Temporary mulch shall be placed on all disturbed areas where seeding, construction or stabilization activities will not take place for over 7 consecutive days. Temporary mulch will also be placed on areas within 75 feet of a natural resource (wetland, stream, etc.) where seeding will not take place for over 48 hours, and on all bare soils outside the road base prior to any predicted significant rain event. A significant rain event is considered to be at least ½ inch of rain or more. Temporary mulch may be hay and shall be applied at a rate of two bales per 1,000 square feet. Soil must not be visible upon completion of application, regardless of rate of application.

E. Topsoil Stockpiles:

Topsoil, removed as part of the construction, will be stockpiled on site for use in areas to be re-vegetated. The location of topsoil stockpiles must not be within 75 feet of a defined natural resource (wetland, stream, etc.), or within 75 feet of a swale or ditch.

Effective, temporary stabilization of all disturbed and stockpiled soil shall be completed at the end of each workday. Stockpiles shall be mulched with hay at two bales per 1,000 square feet. The area down slope from any stockpile areas will be protected by a sediment filter berm or silt fence placed directly below or down gradient from the stockpile. If the stockpile must be left for more than 30 days, the pile will be seeded with rye grass at a rate of two pounds per 1,000 square feet and mulched in accordance with this paragraph.

F. Trench Dewatering and Temporary Stream Diversion

Water from construction trench dewatering or temporary stream diversion will pass first through a proprietary product filter bag or secondary containment structure (e.g. hay bale and fabric lined pool) prior to discharge. The discharge site shall be selected to avoid flooding, icing, and sediment discharges to a protected resource. In no case shall the filter bag or containment structure be located within 100 feet of a protected natural resource.

G. Maintenance of Temporary Measures:

All temporary measures described above shall be inspected weekly and before/after every significant storm event (1/2 inch of rain or greater) throughout the construction of the project. Repairs or replacements of temporary measures will be made as necessary. Once the site is stable, all temporary devices such as hay bale barriers and silt fencing will be removed.

A log shall be kept summarizing the inspections and any corrective action taken. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicles access points to the parcel. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

The log must be made accessible to department staff and a copy must be provided upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

3. WINTER STABILIZATION:

The winter construction period is from November 1 through April 15. If the construction site is not stabilized with a combination of pavement, a road gravel base, 90% mature vegetation cover or riprap by November 1 then the site needs to be protected with winter stabilization.

Winter excavation and earthwork shall be completed such that no more than 1 acre of the site is denuded at any one time. Limit the exposed area to those areas in which work is expected to be undertaken during the following 15 days. Exposed area shall not be so large that it cannot be mulched in one day prior to any snow event.

Areas shall be considered to be denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed and mulched. Hay and straw mulch rate shall be a minimum of 200 lbs./1,000 s.f. (3 tons/acre) and shall be properly anchored.

The contractor must install any added measures which may be necessary to control erosion/sedimentation from the site dependent upon the actual site and weather conditions.

Continuation of earthwork operations on additional areas shall not begin until the exposed soil surface on the area being worked has been stabilized, in order to minimize areas without erosion control protection.

A. Soil Stockpiles

Stockpiles of soil or subsoil will be mulched for over winter protection with hay or straw at twice the normal rate or at 200 lbs/1,000 s.f. (3 tons per acre) or with a four-inch layer of woodwaste erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

Any new soil stockpile will not be placed (even covered with hay or straw) within 100 feet of any natural resources.

B. Natural Resource Protection

Any areas within 100 feet from any natural resources, if not stabilized with a minimum of 90 % mature vegetation catch, shall be mulched by December 1 and anchored with plastic netting or protected with erosion control mats.

During winter construction, a double line of sediment barriers (i.e. silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area. Silt fencing may not be placed on frozen ground.

Projects crossing the natural resource shall be protected a minimum distance of 100 feet on either side from the resource. Existing projects not stabilized by December 1 shall be protected with the second line of sediment barrier to ensure functionality during the spring thaw and rains.

C. Mulching

Areas shall be considered denuded until loamed, seeded and mulched. Hay and straw mulch shall be applied at a rate of 200 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate) and shall be properly anchored. Mulch shall not be spread on top of

snow. The snow will be removed down to a one-inch depth or less prior to application.

An area shall be considered stabilized when exposed surfaces have been either mulched with straw or hay at a rate of 200 lb. per 1,000 square feet and adequately anchored, such that the ground surface is not visible through the mulch.

Between the dates of November 1 and April 15, all mulch shall be anchored by either peg line, mulch netting, or wood cellulose fiber. The ground surface shall not be visible through the mulch.

After November 1st, mulch and anchoring of all bare soil shall occur at the end of each final grading workday.

D. Mulching on Slopes and Ditches

Slopes shall not be left exposed for more than 7 days unless fully mulched and anchored. Slopes within 75 feet of a natural resource shall not be left exposed for more than 48 hours. Mulching shall be applied at a rate of 300 lbs/1,000 sq ft on all slopes greater than 8%. Erosion Control mesh shall be used to anchor mulch in all drainage ways and ditches, for slopes exposed to direct winds, and for all other slopes greater than 8 %. Erosion control blanket and check dams (or permanent Rip-Rap) shall be used in lieu of mulch in all drainage ways with slopes of 8 % or more.

A six-inch layer of erosion control mix can be used to substitute erosion control blankets on all slopes except ditches.

E. Seeding

Between the dates of October 15 and April 1st, loam or seed will not be required. During periods of above freezing temperatures, finished areas shall be fine graded and either protected with mulch or temporarily seeded (see table below) and mulched until such time as the final treatment can be applied. If after November 1st the exposed area has been final graded and loamed, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

TEMPORARY SEED MIX

TYPE	% BY WEIGHT	% PURITY	% GERMINATION
Domestic Rye Grass	60	69.75	90
Perennial Rye Grass	20	28.00	85
Aroostook Rye Grass	20	28.00	85

Dormant seeding may be placed prior to the placement of mulch and fabric netting anchored with staples.

If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5lbs/1000 s.f. All areas seeded during the winter will be inspected in the spring for adequate catch. Areas not sufficiently vegetated (less than 90 % catch) shall be revegetated by replacing loam, seed and mulch.

If dormant seeding is not used, all disturbed areas shall be revegetated in the spring.

F. Trench Dewatering and Temporary Stream Diversion

Water from construction trench dewatering or temporary stream diversion will pass first through a filter bag or secondary containment structure (e.g. hay bale lined pool) prior to discharge. The discharge site shall be selected to avoid flooding, icing, and sediment discharges to a protected resource. In no case shall the filter bag or containment structure be located within 100 feet of a protected natural resource.

G. Inspection and Monitoring

Maintenance measures shall be applied as needed during the entire construction season. After each rainfall, snowstorm or period of thawing and runoff, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to ensure their continuous function.

In the spring, following the temporary/final seeding and mulching, the contractor shall inspect and repair any damages and/ or un-established spots. Established vegetative cover means a minimum of 90 % of areas vegetated with vigorous growth.

H. Standard for the timely stabilization of ditches and channels

All stone-lined ditches and channels shall be constructed and stabilized by November 1. All grass-lined ditches and channels shall be constructed and stabilized by September 1. Failure to stabilize a ditch or channel to be grass-lined by September 1, will require one of the following actions to stabilize the ditch for late fall and winter.

Install a sod lining in the ditch – Sod lining shall be installed in ditches by October 1. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, watering the sod to promote root growth into the disturbed soil, and anchoring the sod with jute or plastic mesh to prevent the sod strips from sloughing during flow conditions.

Install a stone lining in the ditch –Ditches shall be lined with stone riprap by November 1, as presented below. If necessary, the applicant will regrade the ditch prior to placing

the stone lining so to prevent the stone lining from reducing the ditch's cross-sectional area.

I. Standard for the timely stabilization of disturbed slopes

Construct and stabilize stone-covered slopes by November 1. The applicant will Seed and mulch all slopes to be vegetated by September 1. Slopes will be considered any area having a grade greater than 15% (6H:1V). If the applicant fails to stabilize any slope to be vegetated by September 1, then the applicant will take one of the following actions to stabilize the slope for late fall and winter.

Stabilize the soil with temporary vegetation and erosion control mats -- Seed the disturbed slope with winter rye at a seeding rate of 3 pounds per 1000 square feet and apply erosion control mats over the mulched slope October 1. The applicant will monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or cover at least 90% of the disturbed slope by November 1, cover the slope with a layer of wood waste compost or with stone riprap as described below.

Stabilize the slope with sod -- Stabilize the disturbed slope with properly installed sod by October 1. Proper installation includes pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. Sod stabilization shall not be used late season to stabilize slopes having a grade greater than 33% (3H:1V).

Stabilize the slope with wood waste compost (erosion control mix) --Place a six-inch layer of wood waste compost on the slope by November 1. Prior to placing the wood waste compost, remove any snow accumulation on the disturbed slope. Wood waste compost will not be used to stabilize slopes having grades greater than 50% (2H:1V) or having groundwater seeps on the slope face.

Stabilize the slope with stone riprap -- Place a layer of stone riprap on the slope by November 1, similar to the Stone Lined Ditch the permanent erosion control section.

J. Standard for the timely stabilization of disturbed soils

Seed and mulch all disturbed soils on areas having a slope less than 15% by September 1. Failure to stabilize these soils by this date will require one of the following actions to stabilize the soil for late fall and winter.

Stabilize the soil with temporary vegetation -- Seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1000 square feet, lightly mulch the seeded soil with hay or straw at 75 pounds per 1000 square feet, and anchor the mulch with plastic netting by October 1. Growth of the rye will require monitoring over the following 30 days. If the

rye fails to grow at least three inches or cover at least 75% of the disturbed soil before November 1, then mulch the area for over-winter protection as described below.

Stabilize the soil with sod -- Stabilize the disturbed soil with properly installed sod by October 1. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.

Stabilize the soil with mulch -- Mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1000 square feet on the area so that no soil is visible through the mulch by November 1. Prior to applying the mulch, remove any snow accumulation on the disturbed area. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

4. PERMANENT EROSION CONTROL:

Permanent measures will consist of the placement of culverts; culvert inlet/outlet stabilization; the construction of grass/stone lined ditches; and the re-vegetation of all areas outside the traveled way of the road, and those areas designated as stone lined ditches.

A. Culverts:

All culverts have been sized to handle the peak flows generated by a 25-year, 24-hour rainstorm. The locations and sizes of the culverts are shown on the Site Plans.

The inlets and outlets of the culverts will be armored with riprap to prevent scouring. This armoring will consist of placing stone possessing a D50 of 6 inches to a depth of 18 inches to the following dimensions: width equal to twice the diameter of the culvert; length equal to three times the diameter of the culvert, unless noted otherwise.

B. Ditches:

Ditches on the project have been designed based on expected flow rates and velocities for the 25-year, 24-hour storm event and the slope of the ditch. Where water velocities are expected to exceed 3.5 feet per second, the ditch has been designed to be stone lined. Ditches with water velocities of less than 3.5 feet per second have been designed to be grass lined.

Grass Lined Ditches:

Grass lined ditches will possess the same final dimensions as the stone lined ditches. The flow area of the ditch will be armored by placing a biodegradable matting or netting (such as American Excelsior Curlex Blanket or equal) in the bottom of the ditch. Placement of this material must take place after seeding. Install according to the manufacturers' recommendations.

Seeding and mulching of grass lined ditches will follow the specifications stated below for re-vegetation.

C. Re-vegetation Measures:

All areas to be permanently re-vegetated with grass will first be covered with loam and then fertilized.

Loam will be placed on all areas to be re-vegetated. Loam will be placed to a minimum depth of 4 inches. Loam will be the stockpiled topsoil, if possible.

Test the loam samples for nutrients at a proficient testing laboratory (The University of Maine provides this service). The areas with loam will then be fertilized with the recommended application rate. Lime will also be applied at a rate of 50 pounds per 1,000 square feet. Both the lime and the fertilizer will be mixed thoroughly with the soil.

All areas to be re-vegetated with permanent grass are to be seeded with the seed mix shown on the table below. This mixture will be applied at a rate of 2 pounds per 1,000 square feet.

General Lawn Areas	Chewing Fescue "Dignity"	35%
	Pennlawn Creeping Red Fescue	35%
	Perennial Rye "Tourstar" (Nutrite)	30%

Mulch will then be spread on all seeded areas at a rate of two bales per 1,000 square feet. Regardless of application rate the soil shall not be visible through the mulch.

Seed and mulch will be placed within five days of final grading of topsoil.

Seeded areas will be inspected after 30 days to determine the success of the seeding. If the ground cover is less than 90%, the area will be reseeded.

D. Critical Areas:

Slopes in excess of 15% will require the placement of a biodegradable netting or matting over the mulch and seed (if the netting has no mulch in it). If stabilization is to take place after October 1, slopes over 8% will be treated with the matting.

E. Maintenance of Permanent Measures:

All measures will be inspected weekly and before and after every significant storm event during construction, and then at least once annually to ensure proper function. Any damaged areas will be repaired or replaced as necessary. Any ditches or culverts not functioning as designed will be redesigned and reconstructed according to specifications prepared by a Professional Engineer.

In any event, seeding should take place either between May 1 and June 15, or August 15 and September 1.

POST-CONSTRUCTION STORMWATER INSPECTION & MAINTENANCE PLAN

Loaf Land Subdivision

Coplin Plt., Maine

Narrative

The following outlines the proposed BMP's and their required inspection, maintenance, and reporting.

Inspections and maintenance will be the responsibility of the Applicant and then transferred to the Loaf Land Homeowners Association once formed. Written reports of inspections and maintenance work will be kept to show the work has been completed as proposed. These reports will be kept by the HOA.

Contacts:

Design Engineer: Emily Hastings, P.E.
Main-Land Development Consultants, INC
P.O. Box Q, 69 Main Street
Livermore Falls, Maine 04254

Applicant & Owner: Loaf Land Development, LLC
626 Carrying Place Road
Carrying Place Township, Maine 04961

Post Construction Stormwater Inspector:

Contractors:

Inspection

The Applicant will be responsible for inspection and maintenance during construction and post-construction. Once a Homeowners Association is established, it will become responsible for upkeep and compliance.

Purpose

The purpose of this Plan is to ensure proper function of the infrastructure constructed as part of this project. The infrastructure will include the stormwater control devices including but not limited to: roads; embankments; drainage ditches; filter ponds and culverts. The tasks detailed in this Plan are the responsibility of the applicant.

Definitions

Significant Period of Rain: 1" or more of rain in a 24-hour period.

Inspection Scope

All areas of the site shall be inspected based on the criteria discussed for each site item or stormwater control measure as found later in the plan. See the plan set for identifying locations of measures requiring inspection.

Inspection Frequency

Complete site inspections at the frequency listed in the following Inspection Summary.

Inspection Qualifications

For Post-Development Inspections, the qualified post-construction stormwater inspector with knowledge of erosion and stormwater control, including the standards and conditions of the project permit shall be retained by the Applicant.

Inspection/Maintenance Responsibility

It shall be the responsibility of the Applicant to retain the services of a Post-Construction Stormwater Inspector and provide for the repair and maintenance noted by inspections, if any. When maintenance is required by inspection, the Applicant shall perform the required maintenance and/or repairs in a timely fashion and notify the Inspector when the maintenance is complete. The Applicant shall maintain detailed records for the inspections and maintenance performed.

Once the HOA is formed it will assume the responsibility for inspection and maintenance. Additionally, the HOA must maintain detailed records of the inspections and maintenance performed. During the transfer of responsibility from the Applicant to the HOA, the Applicant must provide the HOA with copies of the logs for inspection and maintenance performed during the Applicant's period of oversight.

Documentation

Post Construction inspection forms and documentation of corrective actions shall be maintained for at least (5) years.

Inspection and Maintenance Plan

The site will be inspected and maintained according to the following schedule and procedures.

INSPECTION SUMMARY
Loaf Land Subdivision

<u>Inspections of</u>	<u>Schedule</u>
- Roads	Annual
- Filter Ponds	Annual
- Embankments	Annual
- Drainage Ditches	Annual
- Culverts	Annual

Roads:

Inspection:

The roads will be inspected at least annually to ensure proper function and to ensure structural integrity. This inspection will take place in September. Road inspections will be simple visual inspections, looking at the road surface and shoulders for rutting, washboard, potholes, and erosion.

Maintenance:

Road maintenance will include the re-grading of the gravel travel ways when necessary to prevent or repair erosion and to ensure safe drivability. This should be performed twice a year at a minimum, and shall occur in April or May and in September. Additional grading may be necessary. When grading is necessary, grade each travel lane with a two (2) percent slope. Areas with evidence of excessive potholing, wash-boarding, or other erosion will be repaired. If the addition of surface gravel is necessary, the area shall be prepped by scarifying the existing road or shoulder surface to a minimum depth of two inches. The repaired area shall be compacted using a roller or whacker plate. It is anticipated that gravel should be added approximately every five (5) years.

Filter Ponds:

Inspection:

The inspection will include a review of the structural integrity of each device, a review of the inlet and outlet of the pond, and a review of the downstream discharge areas of all pipes and channels. Inspections should include a check for signs of snow storage and prohibited vehicle traffic including ATV's and riding lawnmowers or tractors.

For the first three months after construction, inspect the filter bed monthly to verify the filter bed is draining within 24 - 48 hours. Thereafter, inspect semi-annually in May and October.

Maintenance:

If water ponds on the filter bed surface for more than 72 hours following a rain event, replace the top three inches of filter media. Dispose of clogged filter media soil according to the erosion and sedimentation control plan. Remove sediments annually in October. Filters with grass surfaces shall be mowed no more than twice per growing season using a push mower or weed whacker to maintain a grass height of no less than 6 inches.

Embankments:

Inspection:

Embankments and steep slopes will be inspected at least annually to look for erosion rill and proper vegetation growth. This inspection will take place in September.

Maintenance:

Embankment maintenance includes: mowing where grass is preferred to woody vegetation; repair of erosion where applicable; and reseeding and mulching where bare soil is encountered.

Drainage Ditches:

Inspection:

Inspect drainage ditches annually to look for erosion, obstruction, debris, or damage to erosion armoring, such as rip-rap.

Maintenance:

The drainage ditches shall be re-shaped and re-stabilized if found to be eroding. Accumulated sediment should also be removed from the flow line of the ditch, if it exists.

Rip-Rapped channels with damage shall be repaired by resetting stones into place to provide a uniform stone thickness. Replace smaller stones with larger stones in areas that experience recurring damage.

Culverts and Storm Drains:

Inspection:

The stormwater control devices will be inspected on an annual basis in September of each year. The inspection will include a review of the structural integrity of each device, a review of the inlets and outlets of the ponds, and a review of the downstream discharge areas of all pipes and channels.

Culvert and storm drain inspections should include a review of the condition of the inlets and outlets of each culvert, the integrity of the pipe, and the stability of the upstream and downstream areas around each culvert.

Maintenance:

The inlets and outlets of the culverts and storm drains should be cleaned on a regular basis to ensure that sediment does not discharge downstream or does not clog the pipe. If necessary, sediment should be removed from within the culvert.

INSPECTION AND MAINTENANCE LOG
Loaf Land Subdivision
Post Construction Stormwater
Inspection & Maintenance Log

Date of Inspection: _____
Inspected by: _____

Purpose of Inspection: Monthly, Yearly, Significant Rainfall (circle one)

Roads

Description of Conditions:

Maintenance & Date of Repairs:

Follow Up Needed:

Filter Pond

Description of Conditions:

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor for Sump Cleaning:

Follow Up Needed/Additional Comments:

Embankments

Description of Conditions:

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor for Sump Cleaning:

Follow Up Needed/Additional Comments:

Drainage Ditches

Description of Conditions:

Maintenance & Date of Repairs:

Follow Up Needed/Additional Comments:

Culverts

Description of Conditions:

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor for Sump Cleaning:

Follow Up Needed/Additional Comments:

Section 33: Phosphorous Control

The phosphorus budget for the subject parcel was calculated to be 0.929 lbs P/year, using the per acre budget of 0.047 lbs P/year for Flagstaff Lake in Coplin Plantation, per direction from Maine Department of Environmental Protection. This correspondence is included in this section of the application. The site contains approximately 4.73 acres of steep slope area and does not contain any National Wetland Inventory wetland area. As detailed in the Pre-PPE & Post PPE Calculations, included as part of this submission, the Post-Treatment export for the site was calculated at 0.905 lbs P/year, which is below the allowable budget for the site. This is achieved through the use of multiple grassed underdrain soil filters.

To treat runoff from the proposed development, four new grassed underdrained filter ponds are proposed throughout the subdivision. Filter Pond 1 treats a large portion of the proposed subdivision road and a section of the existing gravel drive that leads to Proposed Lots 1 & 2. Filter Pond 2 provides treatment for Proposed Lots 3, 9, 10, 11, & 12, as well as a small portion of proposed subdivision road. Filter Pond 3 provides treatment for Proposed Lots 4, 5, 6, 7 & 8 as well as the final stretch of proposed subdivision road. Lastly, Filter Pond 4 provides treatment for Proposed Lots 1 & 2. To manage subcatchment areas for the proposed ponds, a series of drainage swales are proposed adjacent to buildable areas for the proposed lots.

The filter ponds have been designed with a greater capacity than required by the Maine DEP Best Management Practices Manual to achieve increased phosphorus treatment factors, as seen in Table 1 below.

Table 1: Filter Pond Treatment Factor Summary

Filter Pond	Designed Treatment Factor
Filter Pond 1	0.3
Filter Pond 2	0.25
Filter Pond 3	0.27
Filter Pond 4	0.25

As previously mentioned, Filter Pond 1 treats a segment of an existing gravel access drive located on the adjacent lot, seen in Subcatchment 1.1. This area is being claimed as mitigation credit as a pre-existing source that is being treated by a new device. The approximately 0.038 acres of gravel results in a mitigation credit of 0.0235 lbs P.

Pre-PPE and Post-PPE Calculations

Calculate phosphorus export from development for before and after treatment

Use as many sheets as needed for each development type (commercial, roads, residential lots, etc.)

Project name: LoafLand Subdivision

Development type: SFR Residential

Sheet # 5

Land Surface Type or Lot #(s) with description	Acres or # of lots	Export Coef.	Pre-treat. Export (lbs P/year)	Treat. Factor	Post-treat. Export (lbs P/year)	Description of BMPs
Untreated - Road (High Export)	0.042	1.750	0.074	1.000	0.074	No BMP
Untreated - Lots, HSG D	0.000	0.230	0.000	1.000	0.000	No BMP
FP1 - Road (High Export)	0.192	1.750	0.336	0.300	0.101	Filter Pond #1
FP1 - Lots, HSG C	0.000	0.200	0.000	0.300	0.000	Filter Pond #1
FP2 - Road (High Export)	0.104	1.750	0.182	0.250	0.046	Filter Pond #2
FP2 - Lots, HSG C	4.000	0.200	0.800	0.250	0.200	Filter Pond #2
FP2 - Lots, HSG D	1.000	0.230	0.230	0.250	0.058	Filter Pond #2
FP3 - Road (High Export)	0.087	1.750	0.152	0.270	0.041	Filter Pond #3
FP3 - Lots, HSG D	5.000	0.230	1.150	0.270	0.311	Filter Pond #3
FP4 - Lots, HSG C	2.000	0.200	0.400	0.250	0.100	Filter Pond #4
			0.000		0.000	
			0.000		0.000	
	12.425	Pre-PPE	3.324	Post PPE	0.929	
After Mitigation:					0.905	

FILTER DESIGNS

Filter 1

Channel Protection Volume	acres:		
Impervious Area	0.21	1" Volume=	751 cf
Developed non-impervious area	0.48	0.4" Volume=	700 cf
		Total Volume=	1451 cf

Area Sizing	sq. ft:	
5% of the Impervious Area	451	
2% of the Developed non-impervious Area	420	
Total surface area of the filter media top:	871	square feet

Sediment Forebay	
Impervious area to be sanded:	0.20702479 acres
Sand Application Rate, per storm	500 lbs per acre
Sand Density, +/-	90 pcf
Number of Storms	10 annually
Forebay Size	12 cf

Designed Treatment Factor:	0.3
Required Volume (0.4/TF*Vol):	1935 cf
Required Filter Area	1161 sf
Designed Volume:	2394 cf
Channel Protection Volume Elevation	1315
Designed Filter Area:	1187 sf

Level Spreader Design	
Peak Runoff at 10-year Event	3.18 cfs
Required Spreader Length (1 foot per 0.25 cfs)	13 ft
Designed Length	14 ft

Filter 2

Channel Protection Volume	acres:		
Impervious Area	0.34	1" Volume=	1246 cf
Developed non-impervious area	1.00	0.4" Volume=	1452 cf
		Total Volume=	2698 cf

Area Sizing	sq. ft:	
5% of the Impervious Area	747	
2% of the Developed non-impervious Area	871	
Total surface area of the filter media top:	1619	square feet

Sediment Forebay	
Impervious area to be sanded:	0.34315886 acres
Sand Application Rate, per storm	500 lbs per acre
Sand Density, +/-	90 pcf
Number of Storms	10 annually
Forebay Size	19 cf

Designed Treatment Factor:	0.25	
Required Volume (0.4/TF*Vol):	4316	cf
Required Filter Area	2590	sf
Designed Volume:	5363	cf
Channel Protection Volume Elevation	1313	
Designed Filter Area:	2999	sf

Level Spreader Design	
Peak Runoff at 10-year Event	4.33 cfs
Required Spreader Length (1 foot per 0.25 cfs)	9 ft
Designed Length	10 ft

WORKSHEET FOR EVALUATING STORMWATER BMP's

LoafLand Subdivision

FILTER DESIGNS

Filter 3

Channel Protection Volume	acres:		
Impervious Area	0.39	1" Volume=	1403 cf
Developed non-impervious area	1.00	0.4" Volume=	1452 cf
		Total Volume=	2855 cf

Area Sizing	sq. ft:	
5% of the Impervious Area	842	
2% of the Developed non-impervious Area	871	
Total surface area of the filter media top:	1713	square feet

Sediment Forebay	
Impervious area to be sanded:	0.38654729 acres
Sand Application Rate, per storm	500 lbs per acre
Sand Desity, +/-	90 pcf
Number of Storms	10 annually
Forebay Size	21 cf

Designed Treatment Factor:	0.27	
Required Volume (0.4/TF*Vol):	4230	cf
Required Filter Area	2538	sf
Designed Volume:	5259	cf
Channel Protection Volume Elevation	1326	
Designed Filter Area:	2993	sf

Level Spreader Design	
Peak Runoff at 10-year Event	4.33 cfs
Required Spreader Length (1 foot per 0.25 cfs)	17 ft
Designed Length	18 ft

Filter 4

Channel Protection Volume	acres:		
Impervious Area	0.12	1" Volume=	436 cf
Developed non-impervious area	0.40	0.4" Volume=	581 cf
		Total Volume=	1016 cf

Area Sizing	sq. ft:	
5% of the Impervious Area	261	
2% of the Developed non-impervious Area	348	
Total surface area of the filter media top:	610	square feet

Sediment Forebay

Impervious area to be sanded:	0.12 acres
Sand Application Rate, per storm	500 lbs per acre
Sand Density, +/-	90 pcf
Number of Storms	10 annually
Forebay Size	7 cf

Designed Treatment Factor:	0.25
Required Volume (0.4/TF*Vol):	1626 cf
Required Filter Area	976 sf
Designed Volume:	2032 cf
Channel Protection Volume Elevation	1383
Designed Filter Area:	1030 sf

Level Spreader Design

Peak Runoff at 10-year Event	5.08 cfs
Required Spreader Length (1 foot per 0.25 cfs)	21 ft
Designed Length	22 ft

WATER BODY AND WETLAND ALTERATIONS

Supplement S-3

WHO SHOULD SUBMIT THIS FORM?

If your project requires a permit *and* involves disturbing any amount of land area that:

- i) Is within a P-WL protection subdistrict shown on the Commission's official Land Use Guidance Map;
- ii) Is located below the normal high water mark of a lake, pond, river, or stream;
- iii) Has been identified as wetland based on a required on-site wetland delineation; or
- iv) Has been identified as wetland by LUPC staff based on National Wetland Inventory maps or a field visit.

WHERE CAN I GET HELP TO COMPLETE THIS FORM?

To save time, please read the attached instructions for completing this form. Depending on the size of the project and the type of wetland involved, different levels (or tiers) of permit review apply. Question #8 (on the second page) of the application form will help you to decide which tier of review applies to your project. The application instructions are divided into sections and color coded as follows:

- WHITE - General Application Instructions for all projects
- YELLOW - Instructions for Tier 1 Projects
- BLUE - Instructions for Tier 2 and Tier 3 Projects



When reviewing this form electronically, the color code for the page is shown at the top of the page.

If you have questions, please call the LUPC regional office that serves your area and ask to speak to one of our regional representatives. See the main application form for the project for contact information. Also, you can visit our website www.maine.gov/dacf/lupc/ to browse through our laws and rules, reports and publications, and other valuable information.

APPLICABLE STANDARDS

The Land Use Planning Commission (the Commission or LUPC) standards for water body and wetland alterations are primarily found in the Commission's Chapter 10 rules, *Land Use Districts and Standards*, Section 10.25,P. To obtain a copy of these rules, visit the Commission's website or contact the LUPC regional office that serves your area.

OTHER PERMITS YOU MAY NEED

If your activity involves State-owned submerged lands (below mean low water), it may require a lease or easement from the Department of Agriculture, Conservation and Forestry, Bureau of Parks & Lands (BPL). Any questions about submerged lands should be directed to BPL at (207) 287-3061.

Some projects may require a permit from the U.S. Army Corps of Engineers. It is the applicant's responsibility to ensure that all required permits are obtained for the project. If your project affects any wetlands or waterways, contact the Army Corps of Engineers at (207) 623-8367.

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For office use:

Tracking No.

Permit No.

Supplement S-3

Water Body and Wetland Alterations

PROJECT INFORMATION

1. Applicant Name(s): Loaf Land Development, LLC	2. Project Location (Township, Plantation, or Town): Coplin Plantation, ME
3. How was the water body or wetland(s) identified on the property? (Check all that apply.) ☐ P-WL subdistrict shown on the Commission's official Land Use Guidance Map ☒ Wetland delineation ☐ LUPC staff (based on National Wetlands Inventory maps) ☐ LUPC staff (based on staff field visit) ☐ Other, please explain _____	
4. Describe the water body or wetland alteration (include the purpose of and need for the project): Proposed direct impact fill for road/access into the interior of the proposed subdivision	
5. Has any water body or wetland area previously been altered on the property? ☐ YES ☒ NO If YES, provide the date, purpose, and amount of previous alteration, and whether permits were obtained.	

TYPE AND AMOUNT OF ALTERATION

6. What type of water body or wetland(s) will be altered? (Check all that apply.)							
7. Provide the amount of area (in square feet) that will be altered for each category below and calculate the total. If the "other" category is used, please explain <u>this area is for unplanned future development in lot 5</u> .							
6. Wetland Type	7. Impact Type in Square Feet						TOTAL
	Structure	Fill	Vegetation Removal	Dredging or Dewatering	Shoreland Stabilization	Other	
☒ River, Stream or Brook (P-WL1)		160					160
☐ Lake or Pond (P-WL1)							0
☐ Coastal Wetland (P-WL1)							0
☐ Freshwater Wetland (P-WL1) (Wetland of Special Significance)							0
☐ Shrub Scrub Wetland (P-WL2)							0
☒ Forested Wetland (P-WL3)		354				636	990
TOTAL	0	514	0	0	0	636	1150

LEVEL OF REVIEW AND REQUIRED EXHIBITS

8. Determine the level of review required for your project (<i>check only one option</i>) and submit all necessary exhibits with this form (<i>see instructions for each level attached</i>).	Level of Review	Required Exhibits
☒ Altering less than 4,300 sq. ft. of a P-WL2 or P-WL3 wetland.	None	
☐ Altering 4,300 to 14,999 sq. ft. of a P-WL2 or P-WL3 wetland. ☐ Altering a P-WL1 wetland (S1 or S2 natural community only) <i>*See General Instructions, attached.</i>	Tier 1	☐ 1. Plan or drawing ☐ 2. Photos of area ☐ 3. Statement of avoidance & minimization
☐ Altering 15,000 to 43,560 sq. ft. of a P-WL2 or P-WL3 wetland.	Tier 2	☒ All Tier 1 exhibits ☒ 4. Wetland delineation report ☒ 5. Alternatives analysis
☐ Altering 43,560 sq. ft. or more of a P-WL2 or P-WL3 wetland. ☒ Altering a P-WL1 wetland of any size	Tier 3	☐ 6. Functional assessment, if required ☐ 7. Compensation plan, if required

⚠ Please read. If you determined that the level of wetland review for your project is Tier 2 or Tier 3, contact the LUPC for guidance on how to proceed. Some projects may qualify for a lower tier of review if certain criteria are met. For large projects affecting wetlands, or projects of any size affecting P-WL1 wetlands, a pre-application meeting with the LUPC staff is strongly encouraged. Contact the LUPC office that serves your area to set up an appointment.

GENERAL APPLICATION INSTRUCTIONS

(WHITE)

APPLICATION FORMS

Please answer every application question. If additional information is required to fully answer the question, label the question number on a separate sheet and organize the extra information and exhibits in numerical order.

INSUFFICIENT OR MISSING INFORMATION IN THE APPLICATION IS A COMMON CAUSE OF DELAY. APPLICATIONS WITH MISSING INFORMATION OR EXHIBITS CANNOT BE PROCESSED. PLEASE CALL YOUR REGIONAL OFFICE IF YOU HAVE QUESTIONS.

PROJECT INFORMATION (QUESTIONS 1-5)

Questions 1 and 2. Please write in the name of the applicant; and the township, plantation, or town where the proposed project is located.

Question 3. Check all boxes that apply to show how the water body or wetland was identified on the property. If “other” is checked, please explain. Examples of “other” identifiers include LUPC protection subdistricts such as Shoreland Protection Subdistrict (P-SL) or Great Pond Protection Subdistrict (P-GP).

Question 4. Describe the purpose of and need for the project, in detail. What will it be used for and why? Also, describe the type(s) of activity involved in the alteration. Alterations include removing or displacing soil, sand, vegetation or other materials, dredging, bulldozing, draining or dewatering, filling, or any other construction, repair, or alteration of a permanent structure.

Question 5. If any water body or wetland area was altered on the property before this application was submitted, check “YES.” In deciding whether water bodies or wetlands have been previously altered, consider all known alterations that occurred in your project area or in its general vicinity. There are many different types of water body and wetland alterations. For example, consider whether there is an old dock, boat house, boat launch, area of disturbed or filled soils, drainage ditches, or impoundments near your project. Provide, to the extent known, the date, purpose and size of the previous water body or wetland alteration, and whether state or federal permits were obtained for the activity.

WATER BODY OR WETLAND TYPE, AND AMOUNT OF ALTERATION (QUESTIONS 6 AND 7)

Question 6. Indicate what type of water body or wetland(s) will be altered by checking all boxes that apply. P-WL subdistricts include lakes, ponds, rivers, streams, bogs, marshes, intertidal areas and other types of wetlands. These subdistricts usually are identified on the Commission’s zoning maps as P-WL1, P-WL2, or P-WL3 subdistricts. However, small streams are considered P-WL1 subdistricts, even if they are not shown on the Commission’s maps. The legend on the maps will help you interpret the symbols. If a wetlands professional visited your site to identify wetland boundaries, the professional will determine the wetland type(s). For each type of wetland that will be altered, write down the area (in square feet) that will be impacted.

Question 7. Indicate the types of impacts involved with the project by checking all boxes that apply. Enter the amount of water body or wetland that will be altered for each of the impact types checked. For shoreland stabilization projects, such as riprap or retaining walls, the amount is the total square feet altered below the normal high water mark of the water body.

Then, total the amounts in each column for impact amounts. The totals for each of the columns should match.

 Please remember:

1. To include all parts of your project that are within the water body or wetland when you calculate the size of the area to be altered. Also, include any areas below the normal high-water mark of a lake, pond, river, stream, or intertidal area.
2. If your project involves more than one type of impact, please do not double count the area to be altered when you complete the table.

LEVEL OF REVIEW, AND REQUIRED EXHIBITS (QUESTION 8)

Question 8. Using the answers to Questions #6 and #7, determine the level of review required for your project. **Select only one box here!** Based on the level of review required for your project, identify which exhibits must be included with your application form.

In cases where LUPC staff has identified the wetland on your property, please request the applicable level of review from your LUPC Regional Representative.

*** Note:** Alterations of P-WL1 wetlands where the wetland is included as a P-WL1 wetland of special significance solely on the basis of its containing an S1 or S2 natural community are reviewed under a Tier 1 level of review. All other alterations of P-WL1 wetlands are reviewed under a Tier 3 level of review, unless otherwise determined by the Commission.

 If you determined that the level of wetland review for your project is Tier 2 or Tier 3, contact the LUPC for guidance on how to proceed. Some projects may qualify for a lower tier of review if certain criteria are met. For large projects affecting wetlands, or projects of any size affecting P-WL1 wetlands, a pre-application meeting with the LUPC staff is strongly encouraged. Contact the LUPC office that serves your area to set up an appointment.

INSTRUCTIONS FOR TIER 1 EXHIBITS

(YELLOW)

1. PLAN OR DRAWING

For projects requiring Tier 1 wetland review, submit a plan, drawn to scale, that indicates the types and locations of wetlands within the project area; the proposed wetland alterations; and locations of streams and other natural features. Also, show the distance between the proposed structure or disturbed area, and any nearby lakes, ponds, streams, rivers, intertidal areas, or wetlands.

2. PHOTOS OF AREA

Include color photos showing the wetland in the activity area. Label each photo with the applicant's name, township where the activity is located, and the date taken. Photographs may be taken from the air or the ground but should be taken during the growing season, if possible. Try to include landmarks in the photos, such as existing structures, large rocks or trees, lakes, etc.

3. STATEMENT OF AVOIDANCE & MINIMIZATION

Avoidance: Each applicant must provide a statement that indicates the alteration of wetlands on the property has been avoided to the extent possible based on the overall purpose of the project. In determining whether an alternative exists consider: use of other sites; reducing the size, scope, design, or density of activity; developing alternative activity designs; and demonstrating the need for the proposed project.

Minimization: The applicant must demonstrate that the area of wetland to be altered will be limited to the minimum amount necessary to complete the project. Include in the statement a discussion about how the project was designed to reduce wetland impacts (e.g., 2:1 side slopes for fill instead of 3:1; or orienting a structure to minimize wetland impacts).

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INSTRUCTIONS FOR TIER 2 & 3 EXHIBITS

(BLUE)

ALL TIER 1 EXHIBITS:

Provide all the exhibits required for a Tier 1 level of review. See the required exhibits list and the Tier 1

Instructions.

4. WETLANDS DELINEATION REPORT

Submit a wetland delineation, conducted by a qualified wetland professional, along with a report describing the physical characteristics of the wetland. The wetland delineation must be conducted using the methods described in the "Corps of Engineers Wetlands Delineation Manual," U.S. Army Corps of Engineers (1987) and the "Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region," U.S. Army Corps of Engineers (Version 2.0, January 2012).

For a Tier 2 review, a map must show the wetland boundaries, but the associated field sheets (sample plot logs) do not have to be submitted with this supplement (the LUPC may request field sheets to be submitted on some projects, depending upon the types of resources to be impacted, the amount of proposed impact, or the nature of the proposal).

For a Tier 3 review, a map and field sheets (sample plot logs) must be submitted with this form.

5. ALTERNATIVES ANALYSIS

The alternatives analysis is a narrative that explains how your project has been designed to have the least amount of impact on the wetland. In addition to explaining how your project will alter the least amount of wetland possible, you also need to explain why other alternatives to the project are not feasible, including the "no action" alternative (that is, not doing the project at all). As you plan your project, remember to lay it out and use construction techniques that will have the least amount of effect on the wetland. Do not fill or disturb any area of wetland if there is a way to do your project that will avoid it. For example, do not plan to place a structure in a wetland if it can be placed on upland, or plan to drive heavy machinery on the wetland if it can be avoided.

In discussing whether a practicable alternative exists, include information on the feasibility of:

- Utilizing, managing, or expanding one or more other sites that would avoid the wetland impact;
- Reducing the size, scope, layout, or density of the project as proposed, thereby avoiding or reducing the wetland impact; and
- Developing alternative project designs, such as cluster development, that avoid or lessen the wetland impact.

 Under the Commission's standards for wetland alterations, a project must not cause a loss in wetland area, functions, and values if there is a practicable alternative to the project that would be less damaging to the environment.

6. FUNCTIONAL ASSESSMENT

A functional assessment is an evaluation of the functions and values of a wetland that is prepared by a qualified wetland professional. The functional assessment must be conducted in accordance with Section 10.25,P,2,f,(2) of the Commission's rules and be sufficient to allow the Commission to evaluate whether the proposed wetland alteration will cause a loss or degradation of wetland functions.

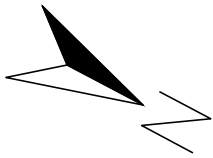
 Certain projects are exempt from the functional assessment and compensation plan requirements. See Sections 10.25,P,2,b,(3),(f) and (g) of the Commission's rules. Contact the LUPC office that serves your area for guidance on which projects are exempt from these requirements.

7. COMPENSATION PLAN

Wetland compensation is required for certain projects where the functional assessment has shown that the wetland alteration will cause wetland functions and values to be lost or degraded. Because the compensation plan is tied to the results of the functional assessment, the need for a compensation plan is determined either during a pre-application meeting with the LUPC, or in consultation with the LUPC once the functional assessment has been submitted. If compensation is required, the compensation plan must meet the standards found in the Commission's Chapter 10 rules. See Section 10.25,P,2,b,(3) for more information on compensation and Section 10.25,P,2,c for wetland compensation standards.

Unless the compensation plan includes use of an existing wetland mitigation bank or in lieu fee, a compensation plan must include the following:

- A plan of the proposed compensation area showing proposed boundaries and characteristics of the compensation site, including boundaries of any existing and proposed wetland areas.
- A narrative describing the specific goals of the compensation project in terms of particular wetland functions and values as related to those of the lost or degraded wetland. The narrative also should identify the criteria that will be used to measure success of the compensation project.
- If the project includes wetland restoration or creation, include:
 - A narrative describing the available literature or experience to date (if any) for carrying out the compensation work;
 - Proposed implementation and management procedures;
 - A description of the short-term and long-term sources of water for the wetland;
 - Plans for re-planting, including a description of plant species, sizes and sources of plant material, numbers of each species/size, proposed spacing, and an explanation of how, when, and where seeding or planting will take place;
 - Proposed buffers or protective measures such as sediment control methods;
 - Plans for monitoring the compensation work, identifying criteria which require mid-course corrections and possible remediation measures; and
 - Plans for control of non-indigenous plant species.
- Provisions for long-term protection of the compensation site. For projects involving a covenant and restriction or conservation easement, the proposed deed or easement language must be submitted. Also, any agreements or terms necessary to execute the restriction or easement, such as an agreement for the holder of the easement, also must be included.



LEGEND

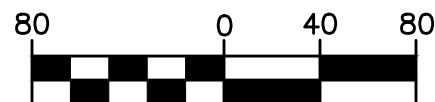
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	ABUTTING BOUNDARY LINE (APPROX.)
	BUILDING SETBACK LINE
	EXISTING MAJOR CONTOUR LINE
	DRAINAGE FLOW LINES (Tc)
	SUBCATCHMENT BOUNDARY
	SOIL BOUNDARY
	EXISTING TREELINE (APPROX.)
	SUBCATCHMENT NUMBER
	WATERSHED ANALYSIS POINT
	SOILS LABEL

SOILS LEGEND

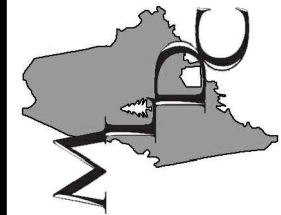
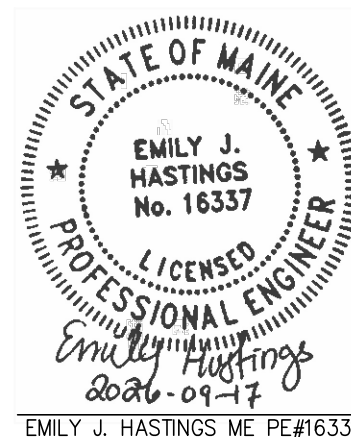
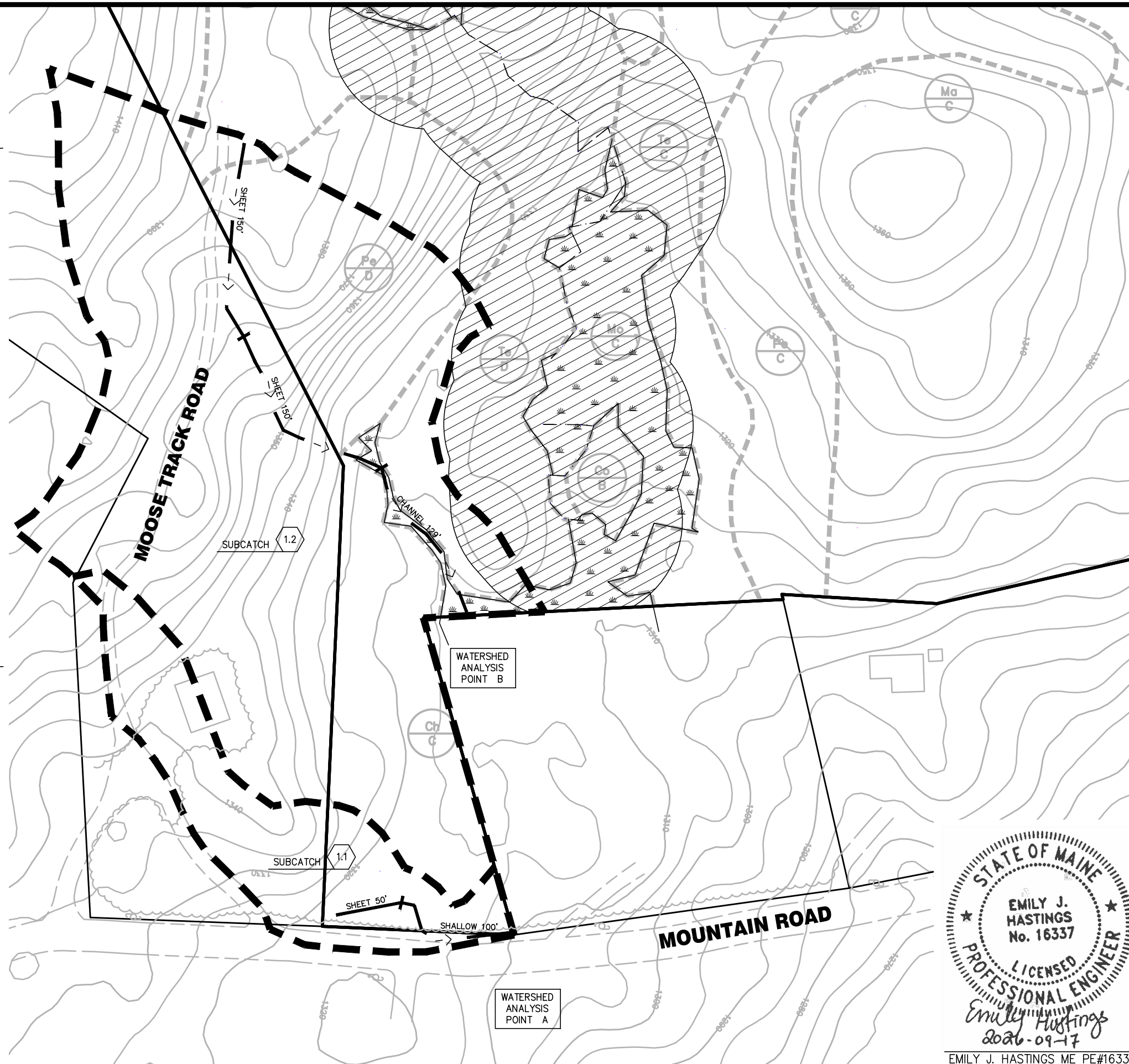
SOIL TYPE	SLOPE DESIGNATION
Co - COLONEL	A: 0-3%
Ch - CHESUNCOOK	B: 3-8%
Ma - MARLOW	C: 8-20%
Mo - MONARDA	D: 20%+
Pe - PERU	
Te - TELOS	

NOTES

- SOIL DATA PROVIDED TO MAIN-LAND BY COPPI ENVIRONMENTAL, LLC. FOR ADDITIONAL SOIL DATA PLEASE SEE THE SOIL NARRATIVE REPORT PREPARED BY COPPI ENVIRONMENTAL, LLC FOR MAIN-LAND DEVELOPMENT CONSULTANTS, INC., REPORT DATED 2025-05-27.
- PLAN INTENT IS FOR DEPICTING PRE-DEVELOPMENT DRAINAGE AT PROPOSED ENTRANCE. SEE PLAN SET FOR DESIGN DETAIL.



(IN FEET)
1 INCH = 80 FT



MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
182 MOOSEHEAD TRAIL, NEWPORT, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

MLDC NO.	25-040
PROJ. MGR:	EJH
DRAWN BY:	TLB
CHECKED BY:	EJH
SURVEY DATE:	N/A
ISSUE DATE:	2026-09-17
ISSUED FOR:	REVIEW

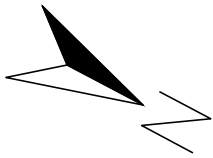
NOT FOR CONSTRUCTION

ENTRANCE DRAINAGE ANALYSIS
PRE-DEVELOPMENT
PROJECT
LOAF LAND SUBDIVISION
MOUNTAIN ROAD & HEDGEHOG TRAIL, COPLIN PLT. MAINE
MADE FOR
LOAF LAND DEVELOPMENT, LLC
626 CARRYING PLACE ROAD, CARRYING PLACE TWP., MAINE 04961

DRAWING NO.

D3.1

1 OF 1



LEGEND

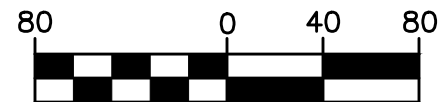
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	BUILDING SETBACK LINE
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	NEW TREELINE (APPROX.)
	SUBCATCHMENT NUMBER
	WATERSHED ANALYSIS POINT
	REACH NUMBER
	POND NUMBER
	SOILS LABEL

SOILS LEGEND

SOIL TYPE	SLOPE DESIGNATION
Co - COLONEL	A: 0-3%
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Pe - PERU	
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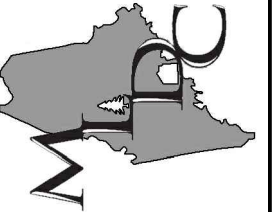
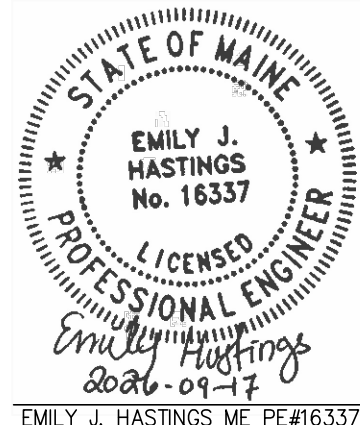
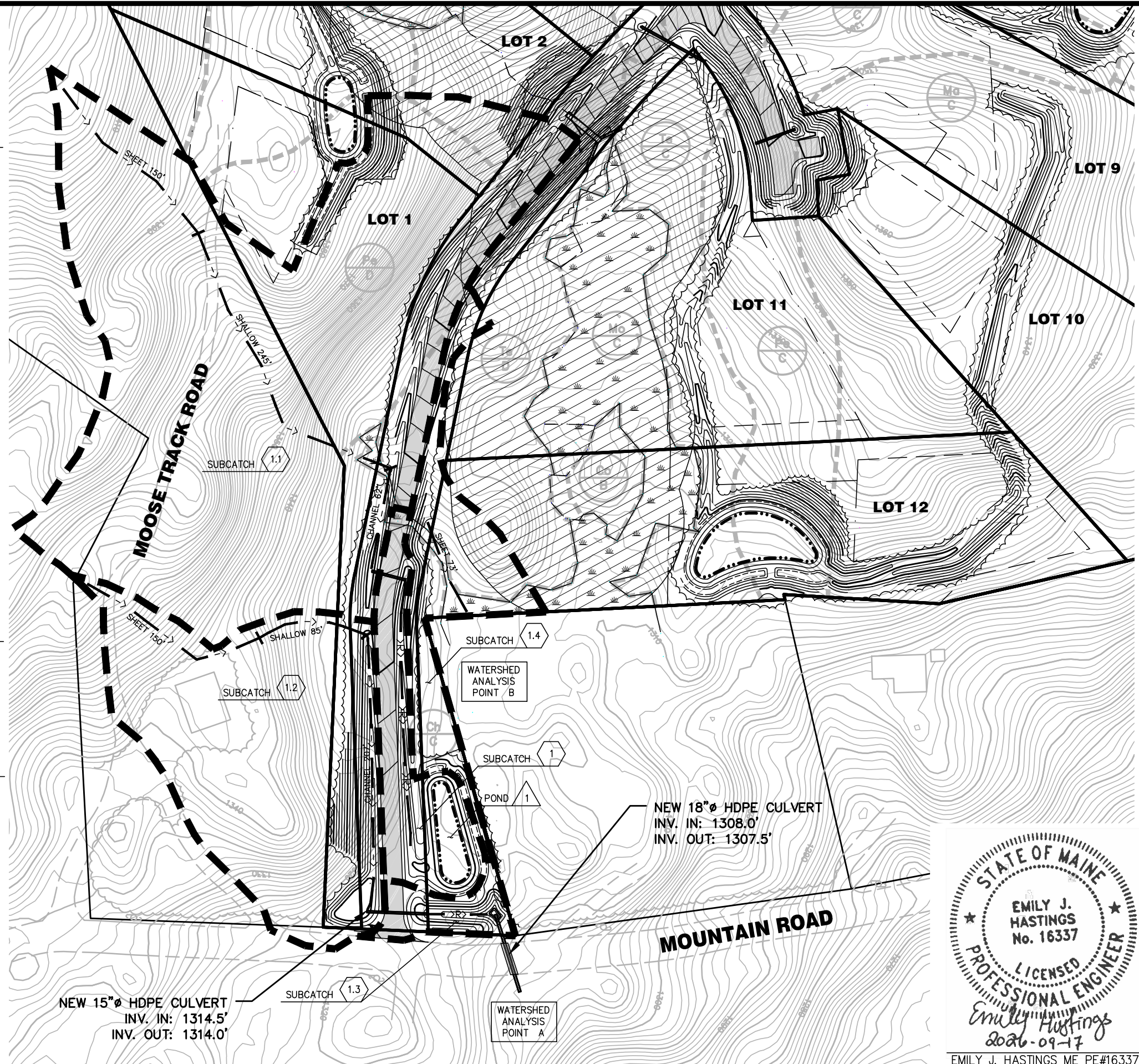
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(IN FEET)

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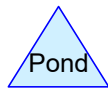
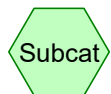
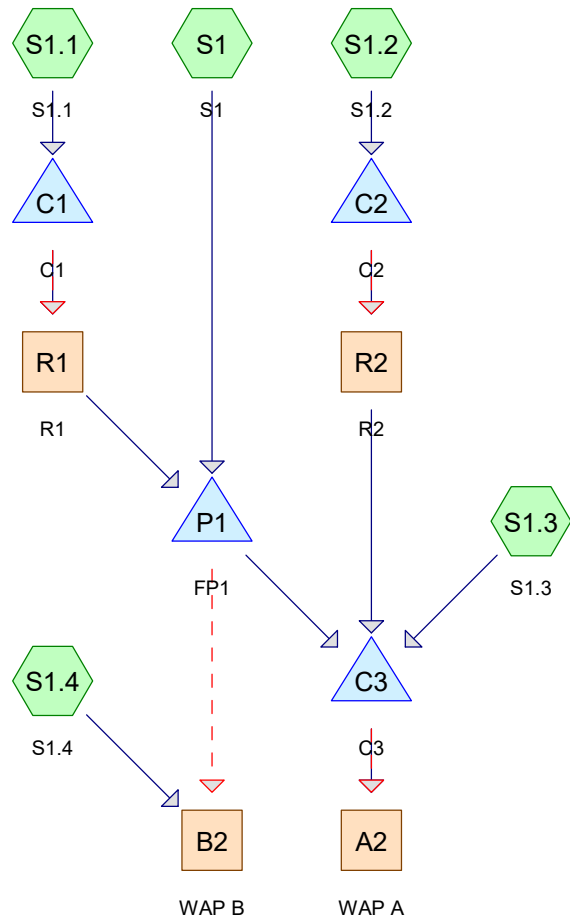
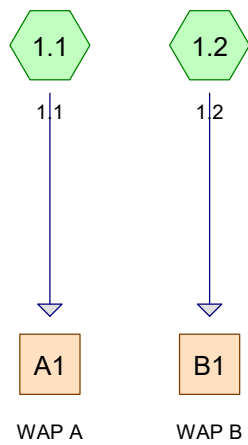
MAIN-LAND
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ENTRANCE DRAINAGE ANALYSIS
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LOAF LAND DEVELOPMENT, LLC
626 CARRYING PLACE ROAD, CARRYING PLACE TWP., MAINE 04961

DRAWING NO.
D3.2
1 OF 1



Pre-Development - woods

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.861	74	>75% Grass cover, Good, HSG C (1.1, 1.2, S1, S1.1, S1.2, S1.3, S1.4)
0.090	80	>75% Grass cover, Good, HSG D (S1.1, S1.4)
0.090	89	Gravel roads, HSG C (S1)
0.211	91	Gravel roads, HSG D (S1.1, S1.2, S1.3)
0.118	96	Gravel surface, HSG C (1.1, 1.2)
0.055	98	Roofs, HSG C (1.1, 1.2, S1.2)
5.076	70	Woods, Good, HSG C (1.2, S1.1, S1.2, S1.3, S1.4)
0.878	77	Woods, Good, HSG D (1.1, 1.2, S1.1, S1.4)
7.379	73	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
6.200	HSG C	1.1, 1.2, S1, S1.1, S1.2, S1.3, S1.4
1.179	HSG D	1.1, 1.2, S1.1, S1.2, S1.3, S1.4
0.000	Other	
7.379		TOTAL AREA

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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	0.861	0.090	0.000	0.951	>75% Grass cover, Good	1.1, 1.2, S1, S1.1, S1.2, S1.3, S1.4
0.000	0.000	0.090	0.211	0.000	0.301	Gravel roads	S1, S1.1, S1.2, S1.3
0.000	0.000	0.118	0.000	0.000	0.118	Gravel surface	1.1, 1.2
0.000	0.000	0.055	0.000	0.000	0.055	Roofs	1.1, 1.2, S1.2
0.000	0.000	5.076	0.878	0.000	5.954	Woods, Good	1.1, 1.2, S1.1, S1.2, S1.3, S1.4
0.000	0.000	6.200	1.179	0.000	7.379	TOTAL AREA	

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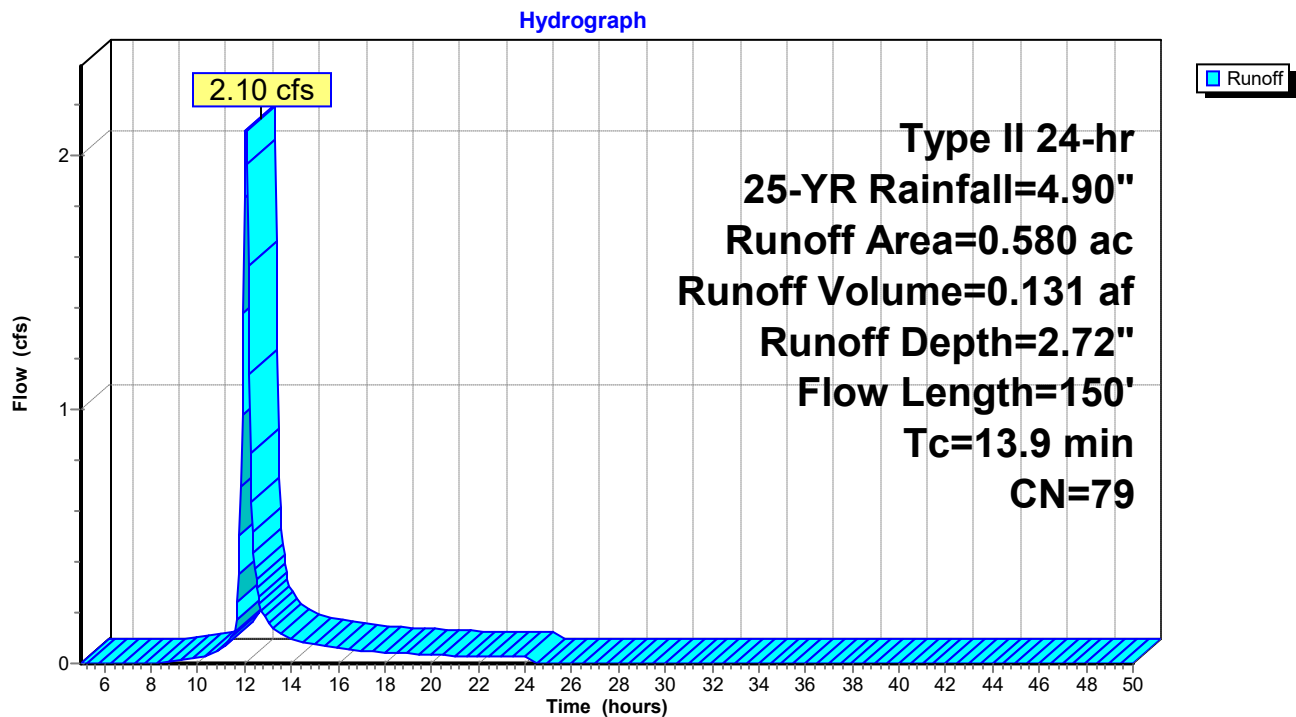
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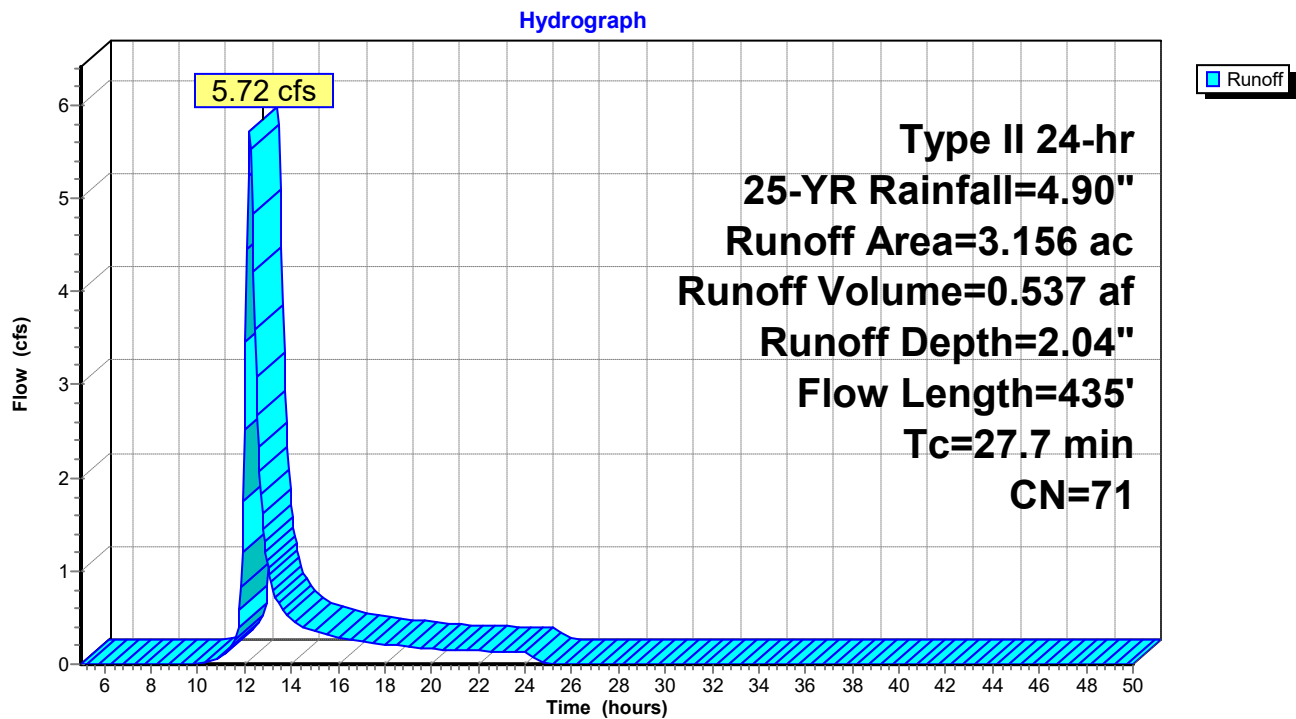
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Page 5

Subcatchment 1.1: 1.1



Subcatchment 1.2: 1.2



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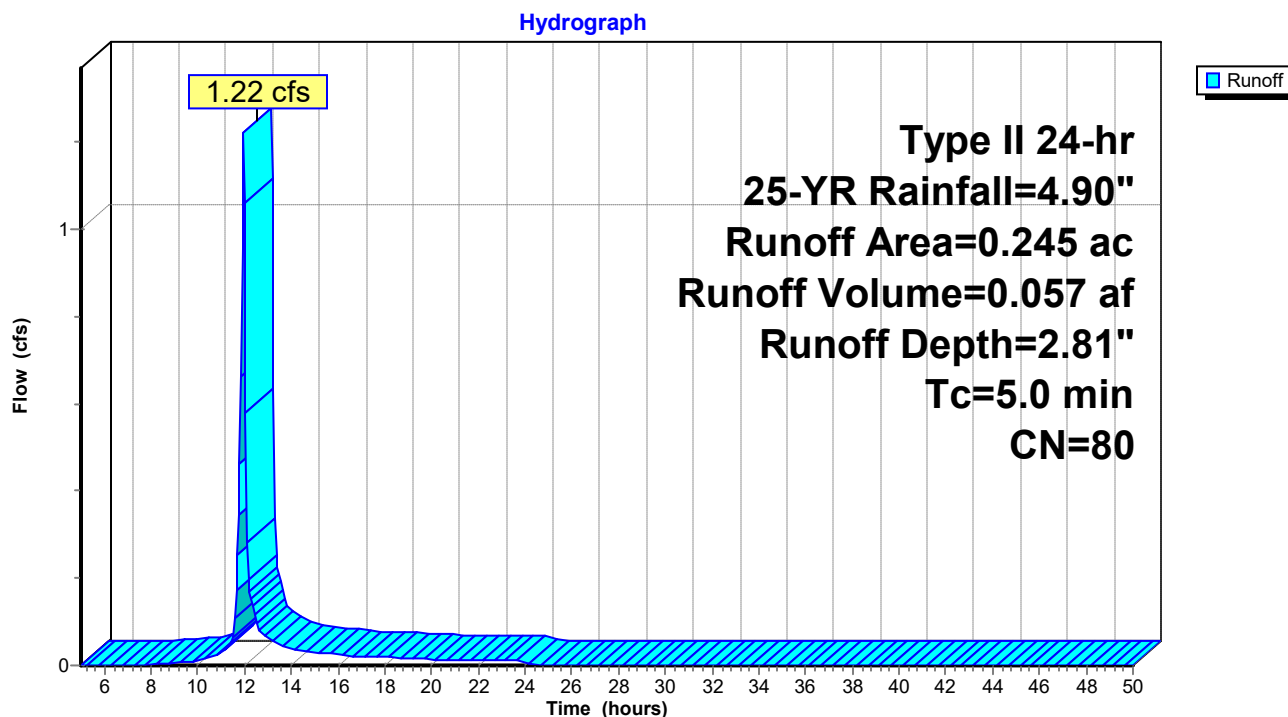
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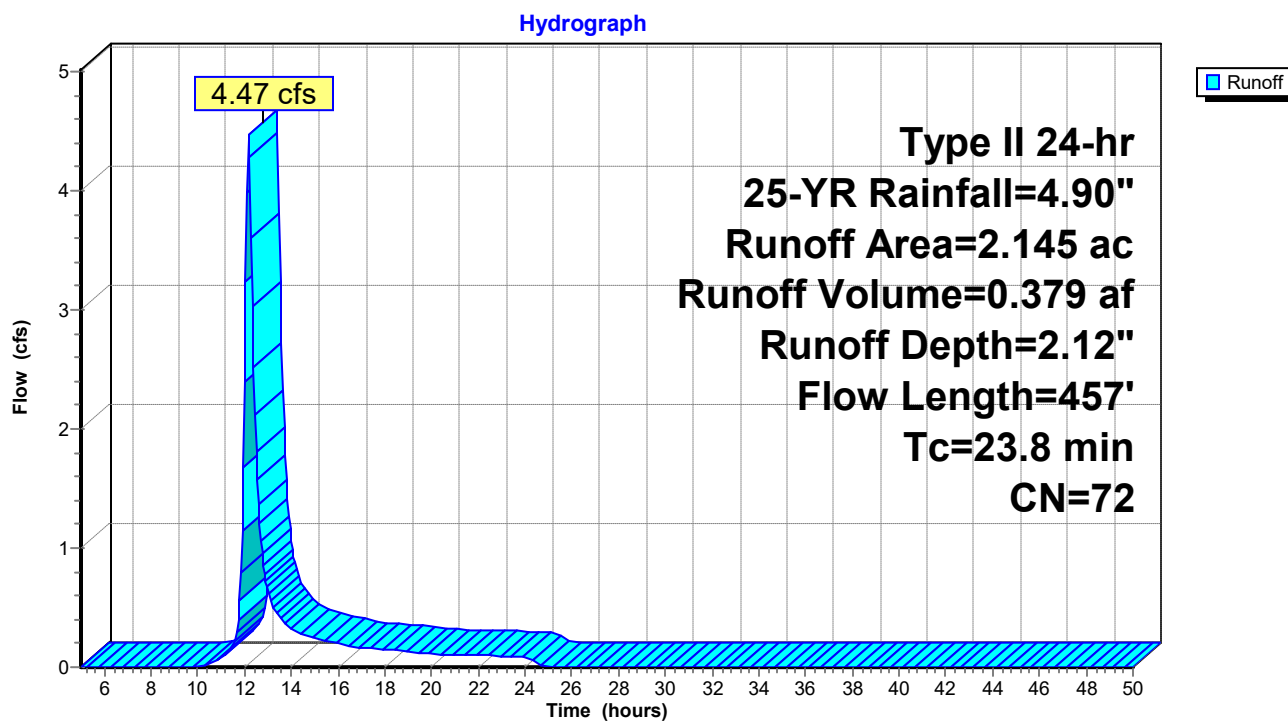
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Page 6

Subcatchment S1: S1



Subcatchment S1.1: S1.1



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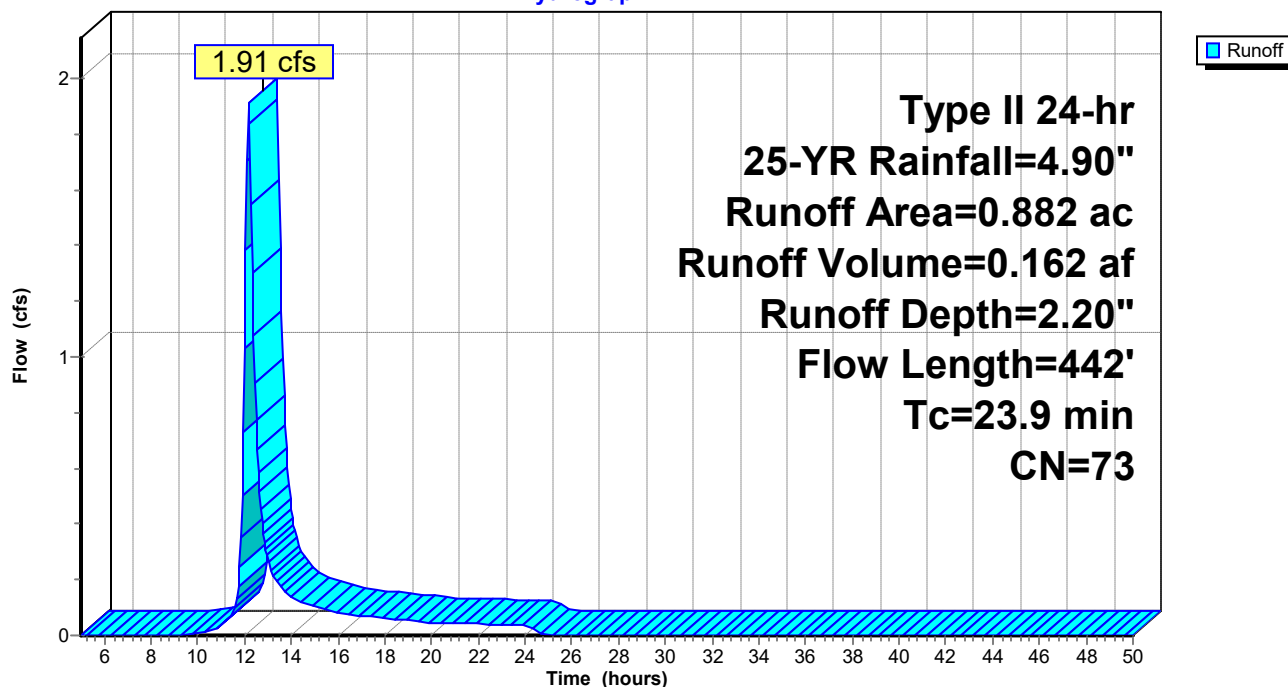
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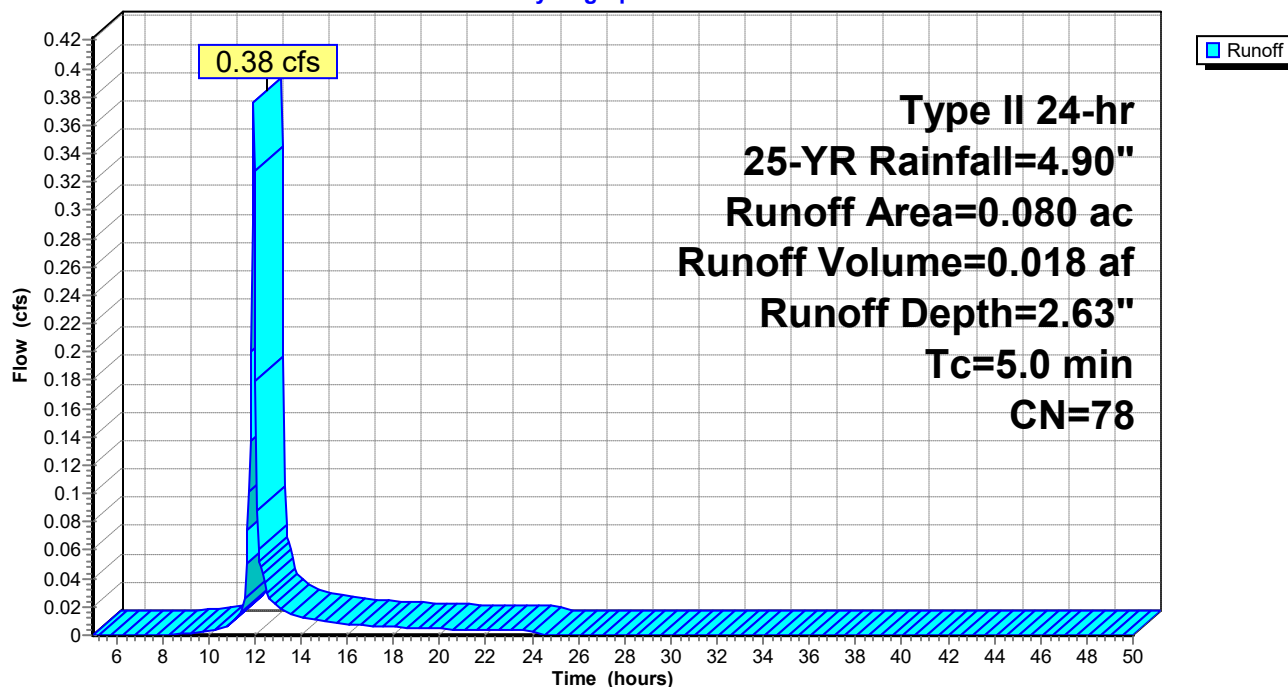
Subcatchment S1.2: S1.2

Hydrograph



Subcatchment S1.3: S1.3

Hydrograph



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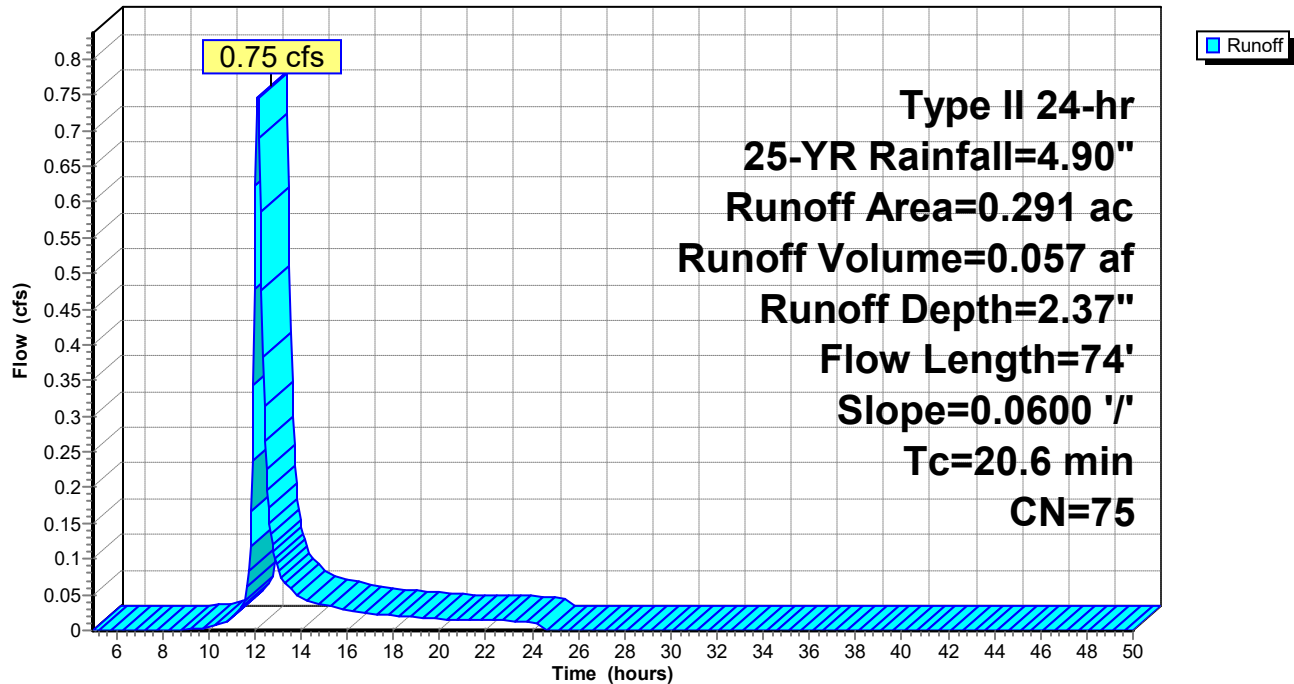
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Page 8

Subcatchment S1.4: S1.4

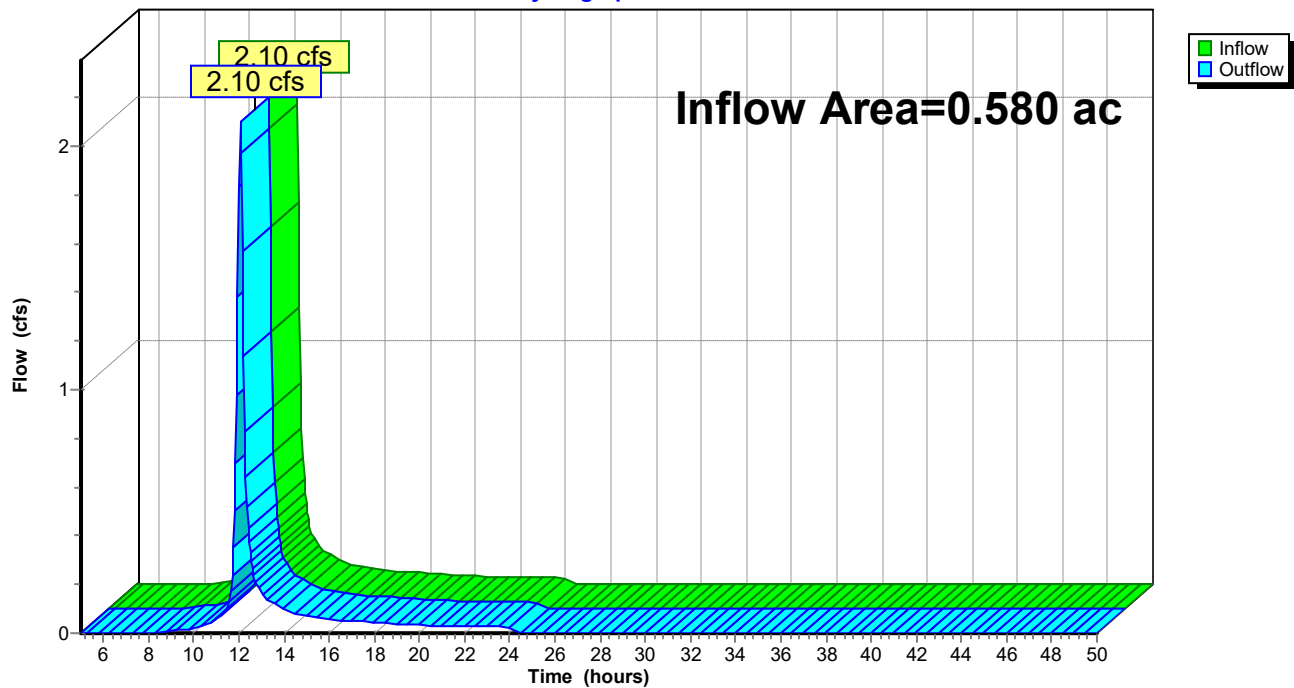
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Reach A1: WAP A

Pre - WAP A

Hydrograph



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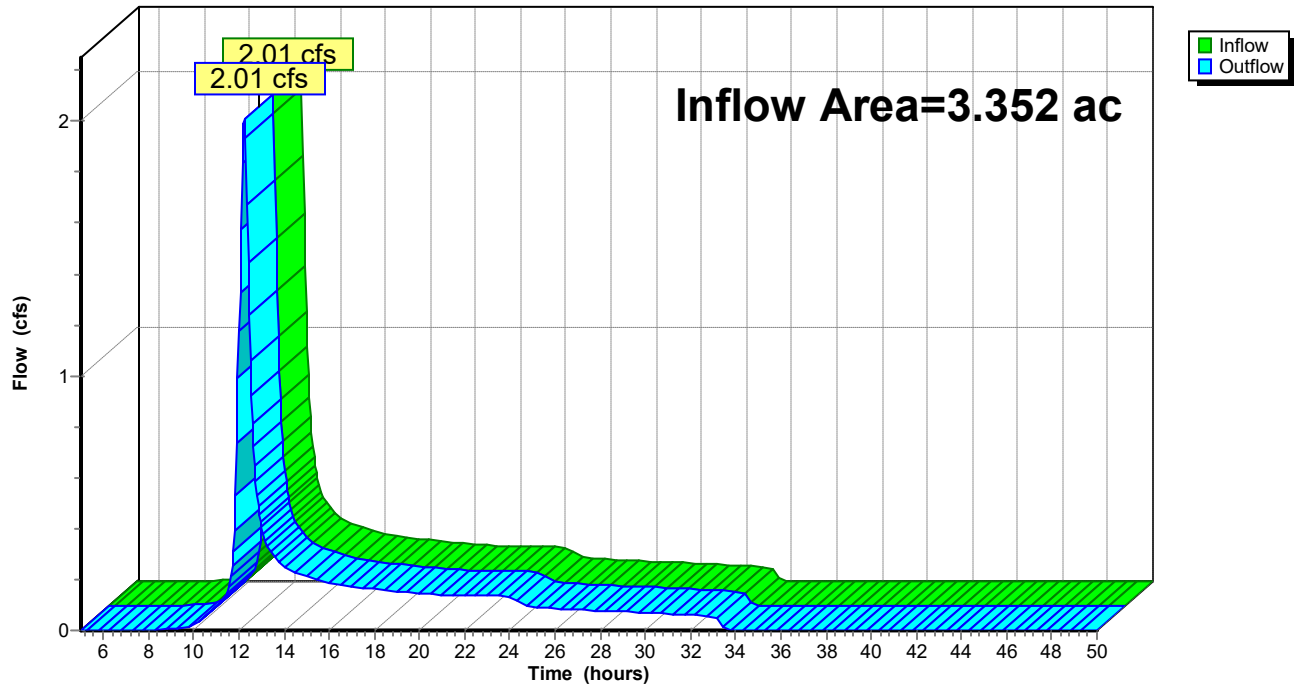
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Reach A2: WAP A

Post - WAP A

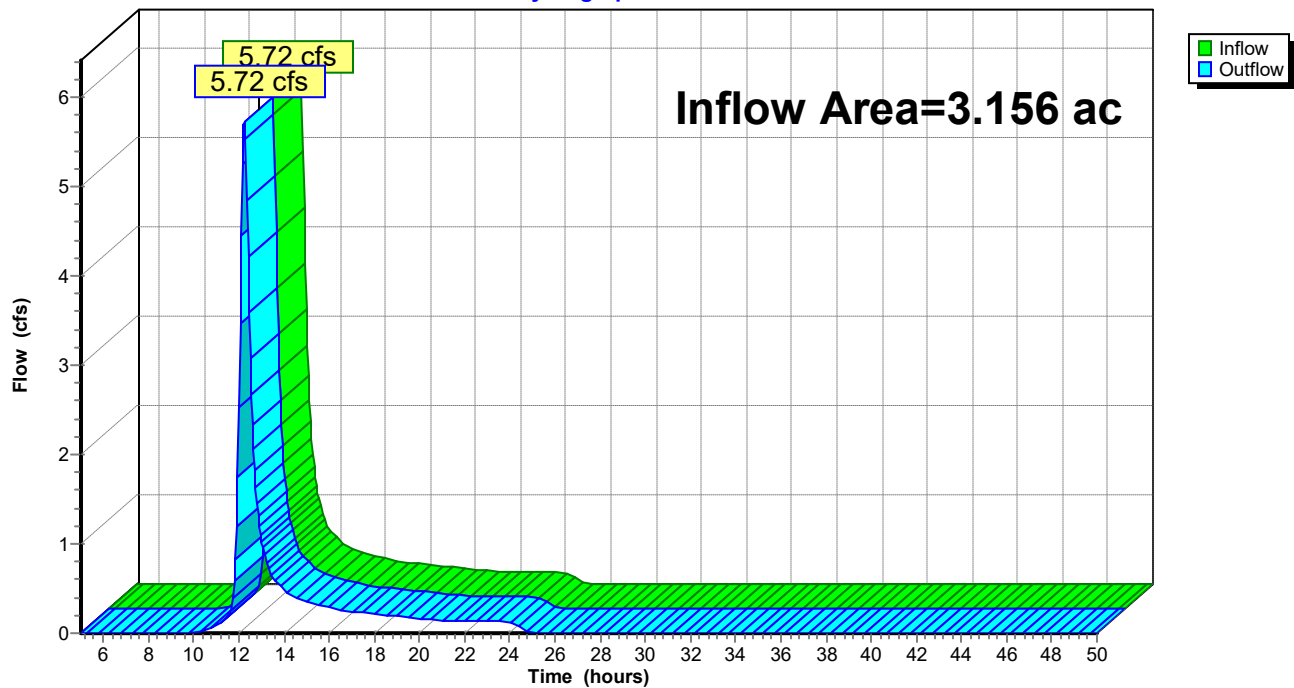
Hydrograph



Reach B1: WAP B

Pre - WAP B

Hydrograph



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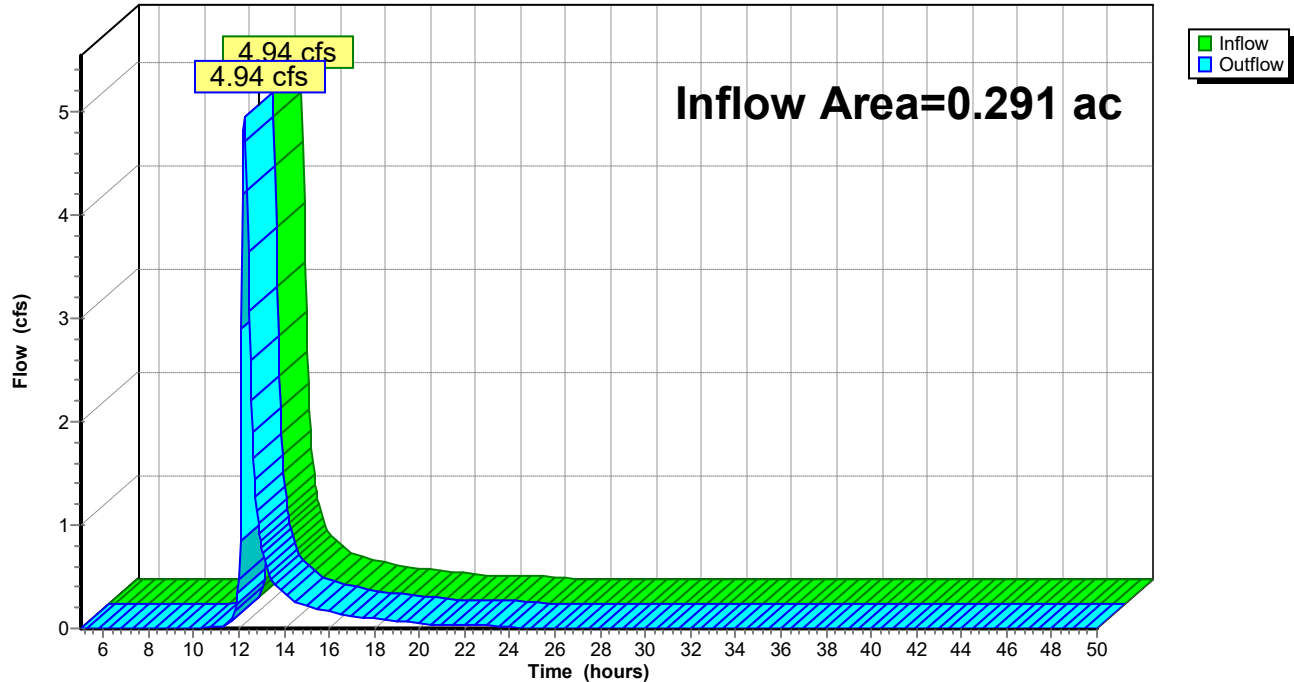
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Page 10

Reach B2: WAP B

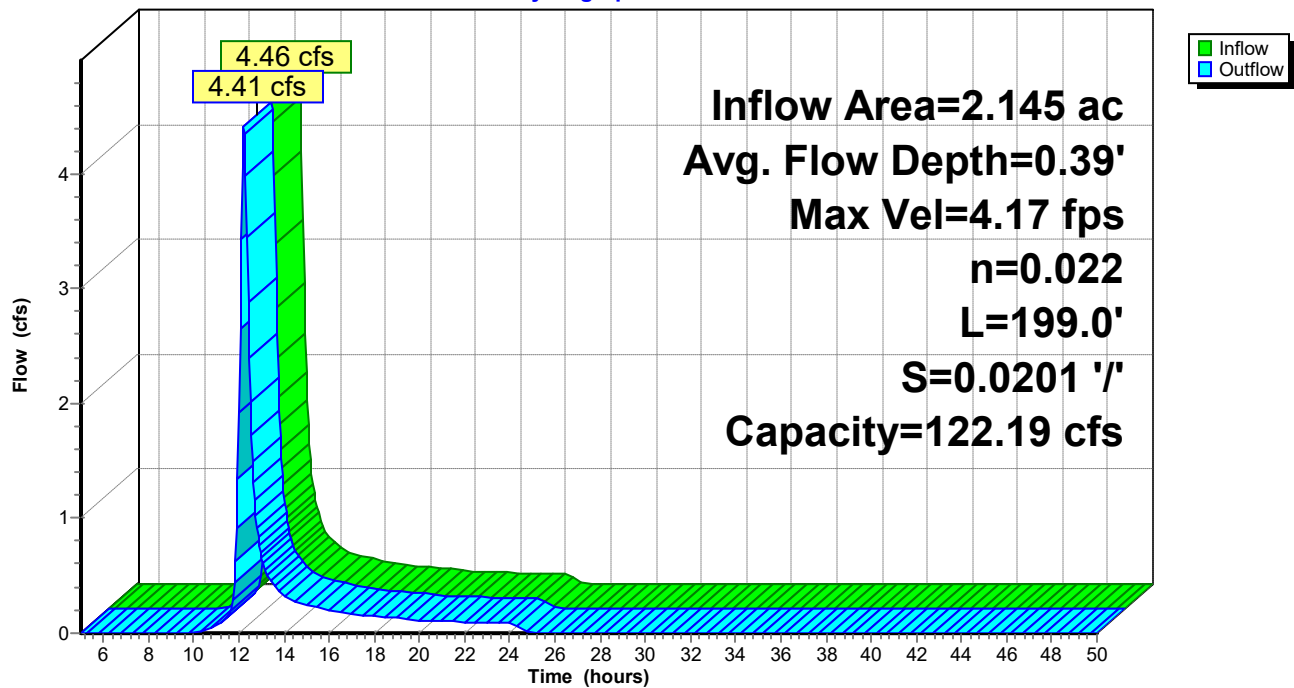
Post - WAP B

Hydrograph



Reach R1: R1

Hydrograph



Pre-Development - woods

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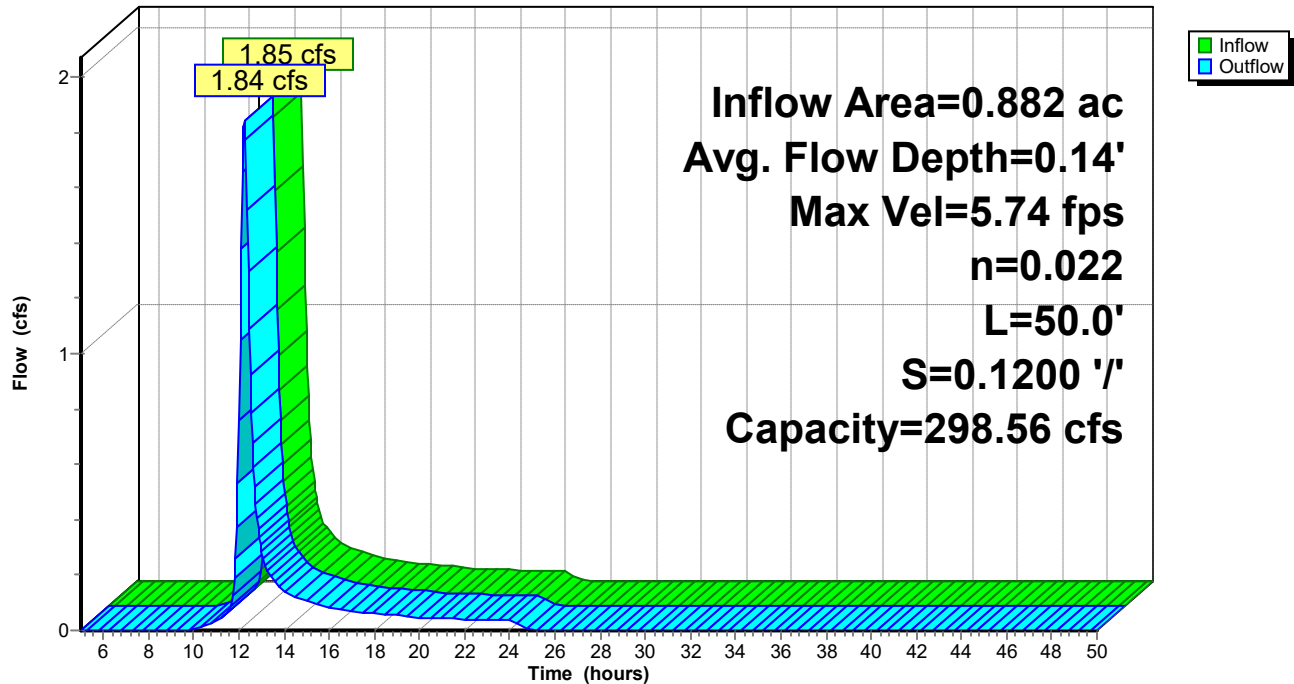
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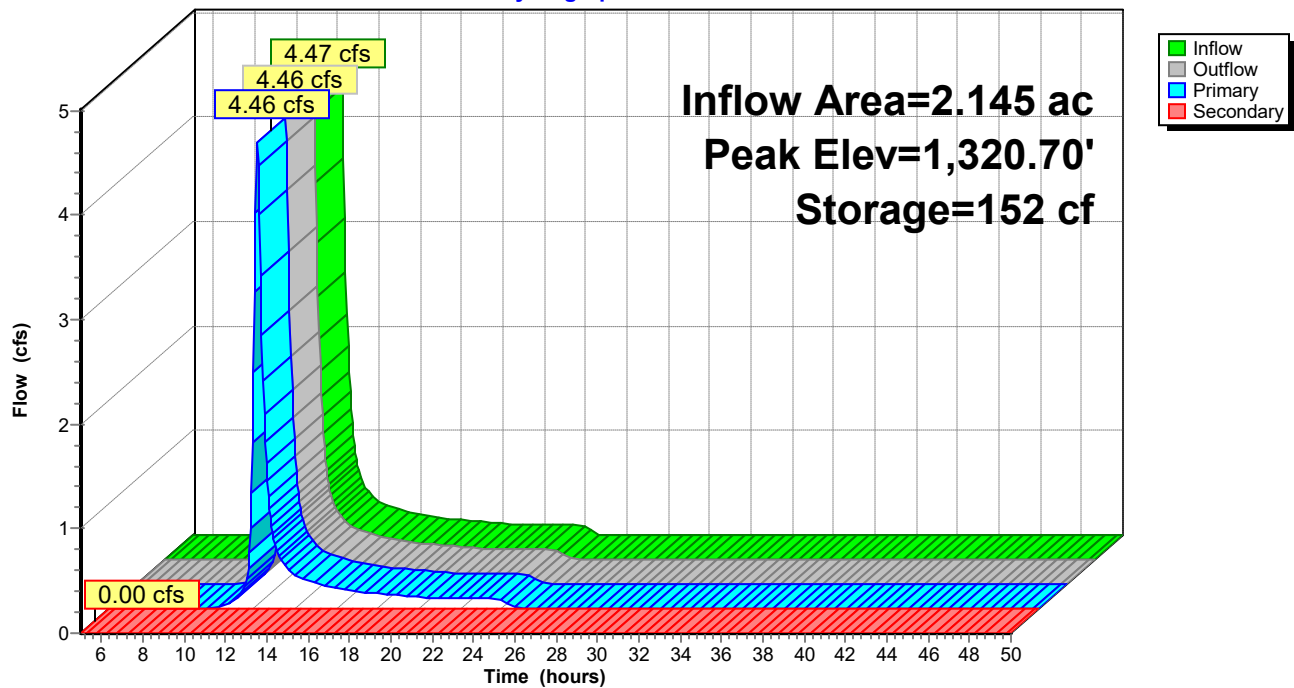
Reach R2: R2

Hydrograph



Pond C1: C1

Hydrograph



Pre-Development - woods

Prepared by Main-Land Development Consultant

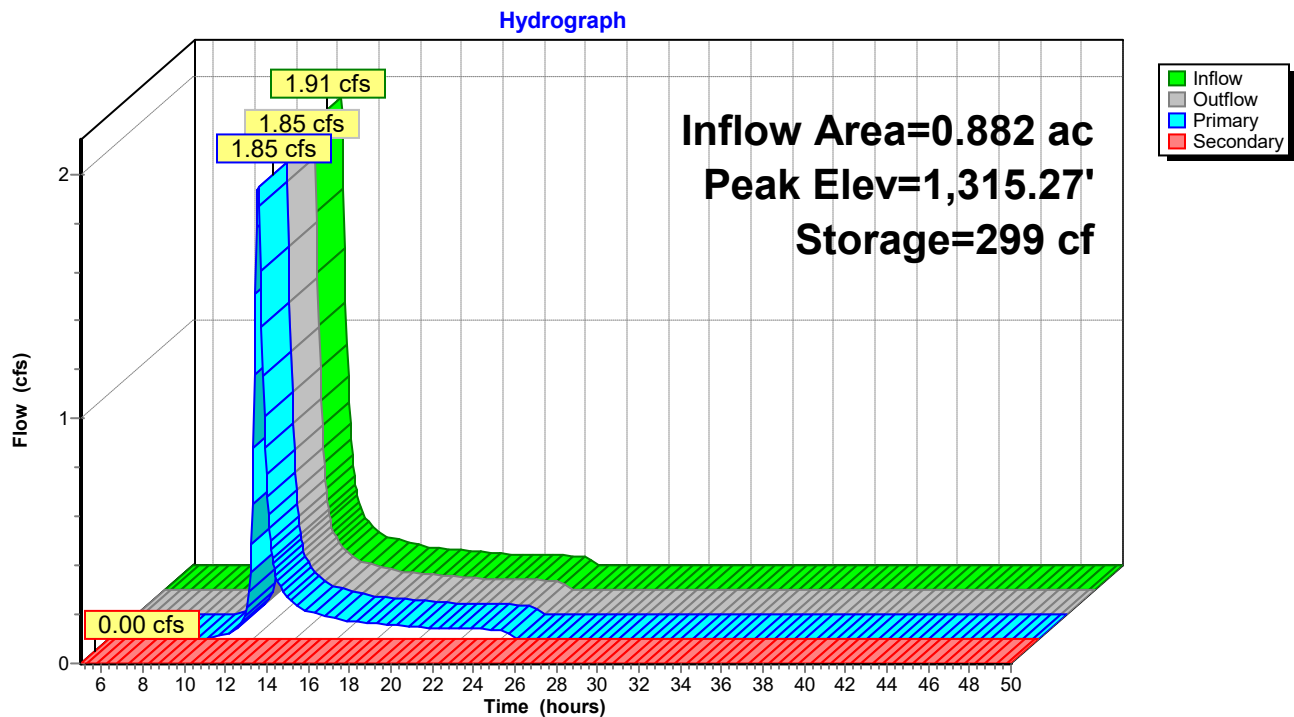
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Type II 24-hr 25-YR Rainfall=4.90"

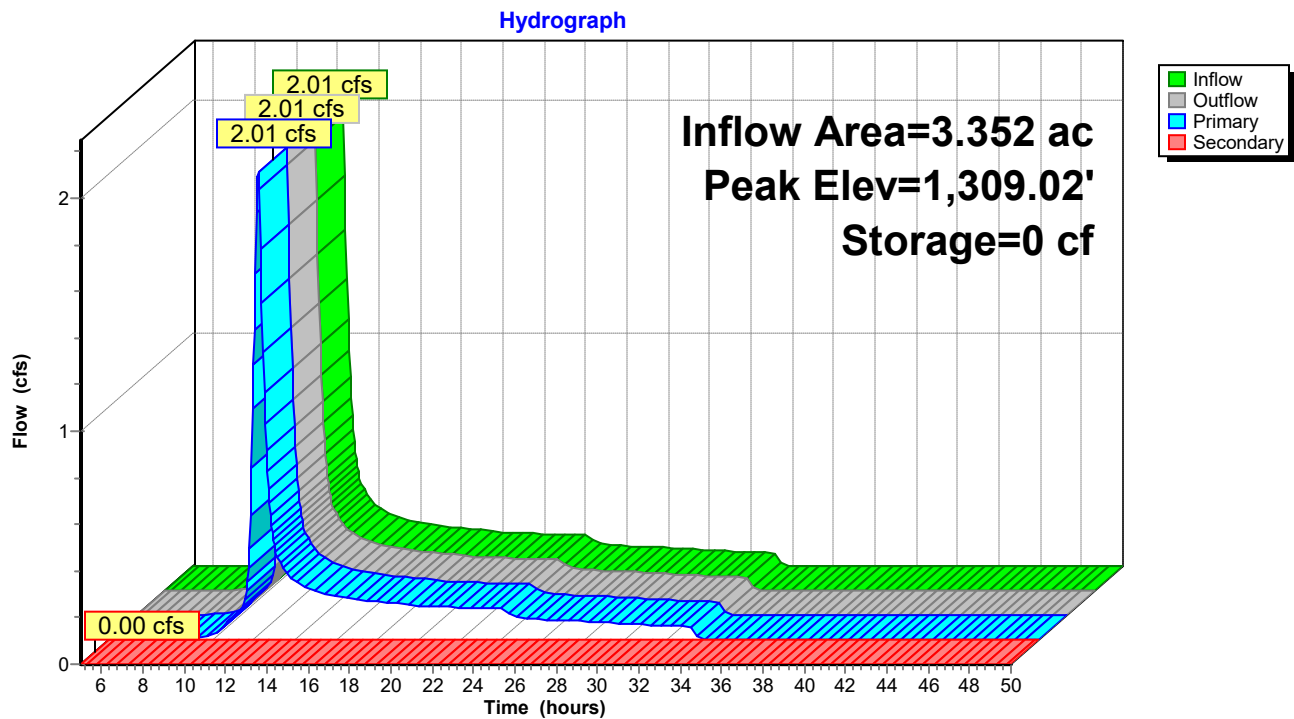
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Pond C2: C2



Pond C3: C3



Pre-Development - woods

Prepared by Main-Land Development Consultant

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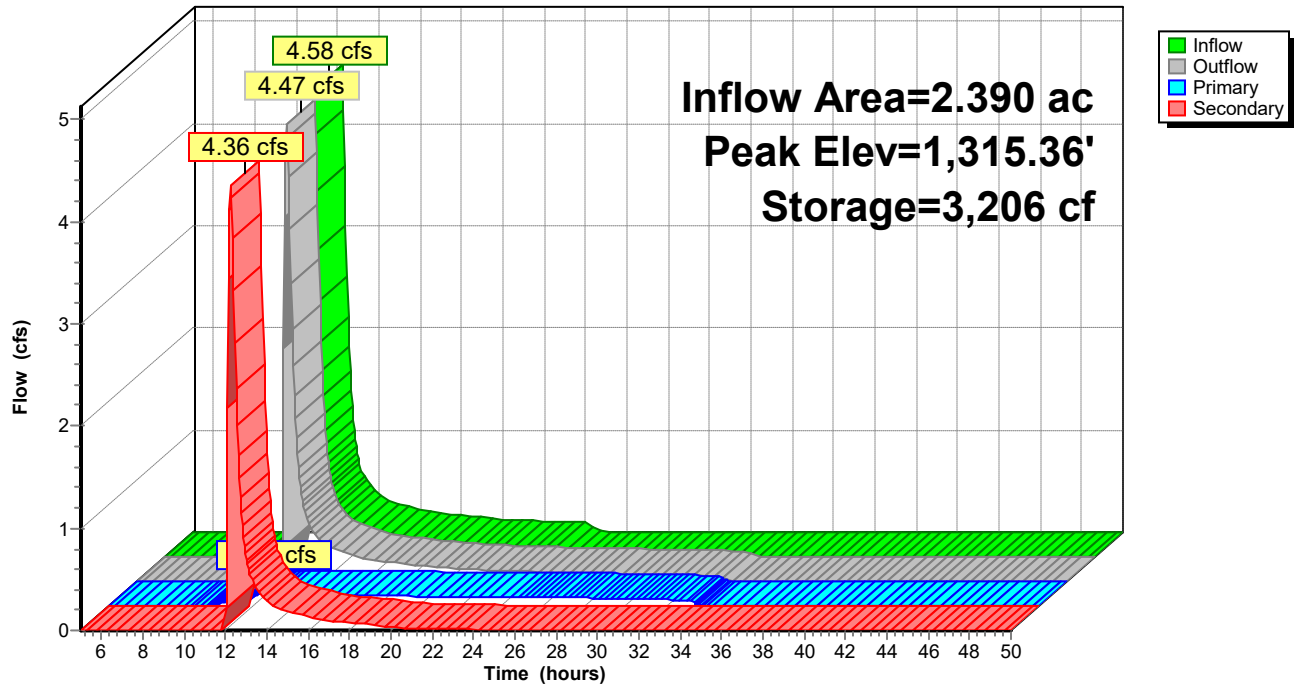
Type II 24-hr 25-YR Rainfall=4.90"

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Pond P1: FP1

Hydrograph



Courtney Lane, STA 1+20

 Pond C2.1: C2.1 - Post-Development

Summary Hydrograph Discharge Storage Profile Events Sizing

Inflow Area = 0.282 ac, 0.00% Impervious, Inflow Depth = 2.45" for 25-YR event
Inflow = 1.24 cfs @ 11.96 hrs, Volume= 0.058 af
Outflow = 1.23 cfs @ 11.96 hrs, Volume= 0.058 af, Atten= 1%, Lag= 0.2 min
Primary = 1.23 cfs @ 11.96 hrs, Volume= 0.058 af
Routed to Reach R2.1 : R2.1
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach R2.1 : R2.1

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Peak Elev= 1,342.61' @ 11.96 hrs Surf.Area= 42 sf Storage= 17 cf

Plug-Flow detention time= 0.5 min calculated for 0.058 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (829.7 - 829.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,342.00'	987 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,342.00	14	0	0
1,343.00	61	38	38
1,344.00	196	129	166
1,345.00	630	413	579
1,345.50	1,000	408	987

Device	Routing	Invert	Outlet Devices
#1	Primary	1,342.00'	15.0" Round Culvert L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,342.00' / 1,341.00' S= 0.0323 ' S= 0.0323 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Secondary	1,345.00'	14.0' long x 0.50' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=1.20 cfs @ 11.96 hrs HW=1,342.60' (Free Discharge)
↑1=Culvert (Inlet Controls 1.20 cfs @ 2.07 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,342.00' (Free Discharge)
↑2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Mountain Road, Cross Culvert



Pond C3: C3 - Post-Development

Summary

Hydrograph

Discharge

Storage

Profile

Events

Sizing

[44] Hint: Outlet device #1 is below defined storage

Inflow Area = 2.390 ac, 0.00% Impervious, Inflow Depth = 0.82" for 25-YR event
Inflow = 0.11 cfs @ 12.26 hrs, Volume= 0.162 af
Outflow = 0.11 cfs @ 12.26 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 12.26 hrs, Volume= 0.162 af
Routed to Reach A : WAP A
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach A : WAP A

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Peak Elev= 1,309.00' @ 12.26 hrs Surf.Area= 16 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 0.162 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (1,275.7 - 1,275.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,309.00'	451 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,309.00	16	0	0
1,310.00	38	27	27
1,311.00	73	56	83
1,312.00	177	125	208
1,313.00	309	243	451

Device	Routing	Invert	Outlet Devices
#1	Primary	1,308.00'	18.0" Round Culvert L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,308.00' / 1,307.50' S= 0.0082 ' S= 0.0082 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Secondary	1,312.50'	6.0' long x 0.50' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=3.37 cfs @ 12.26 hrs HW=1,309.00' (Free Discharge)

↑1=Culvert (Inlet Controls 3.37 cfs @ 2.69 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,309.00' (Free Discharge)

↑2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Mountain Village Road, STA 0+25

 Pond C2: C2 - Pre-Development - woods

Summary | Hydrograph | Discharge | Storage | Profile | Events | Sizing

Inflow Area = 0.882 ac, 3.06% Impervious, Inflow Depth = 2.20" for 25-YR event
Inflow = 1.91 cfs @ 12.18 hrs, Volume= 0.162 af
Outflow = 1.85 cfs @ 12.22 hrs, Volume= 0.162 af, Atten= 3%, Lag= 2.8 min
Primary = 1.85 cfs @ 12.22 hrs, Volume= 0.162 af
Routed to Reach R2 : R2
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach R2 : R2

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Peak Elev= 1,315.27' @ 12.22 hrs Surf.Area= 670 sf Storage= 299 cf

Plug-Flow detention time= 2.6 min calculated for 0.162 af (100% of inflow)
Center-of-Mass det. time= 2.6 min (857.0 - 854.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,314.50'	5,153 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,314.50	10	0	0
1,315.00	544	139	139
1,316.00	1,019	782	920
1,317.00	1,723	1,371	2,291
1,318.00	4,000	2,862	5,153

Device	Routing	Invert	Outlet Devices
#1	Primary	1,314.50'	15.0" Round Culvert L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,314.50' / 1,314.00' S= 0.0111 1' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Secondary	1,317.50'	14.0' long x 0.50' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=1.83 cfs @ 12.22 hrs HW=1,315.26' (Free Discharge)
↑1=Culvert (Inlet Controls 1.83 cfs @ 2.34 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,314.50' (Free Discharge)
↑2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Mountain Village Road, STA 2+75

 Pond C1: C1 - Post-Development

Summary

Hydrograph

Discharge

Storage

Profile

Events

Sizing

Inflow Area = 2.145 ac, 0.00% Impervious, Inflow Depth = 2.12" for 25-YR event
Inflow = 4.47 cfs @ 12.18 hrs, Volume= 0.379 af
Outflow = 4.46 cfs @ 12.20 hrs, Volume= 0.379 af, Atten= 0%, Lag= 1.1 min
Primary = 4.46 cfs @ 12.20 hrs, Volume= 0.379 af
Routed to Reach R1 : R1
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Reach R1 : R1

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Peak Elev= 1,320.70' @ 12.20 hrs Surf.Area= 327 sf Storage= 152 cf

Plug-Flow detention time= 0.4 min calculated for 0.379 af (100% of inflow)
Center-of-Mass det. time= 0.4 min (857.2 - 856.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,319.50'	990 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,319.50	10	0	0
1,320.00	59	17	17
1,321.00	443	251	268
1,322.00	1,000	722	990

Device	Routing	Invert	Outlet Devices
#1	Primary	1,319.50'	18.0" Round Culvert L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,319.50' / 1,319.00' S= 0.0156 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Secondary	1,321.50'	14.0' long x 0.50' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=4.44 cfs @ 12.20 hrs HW=1,320.70' (Free Discharge)
↑1=Culvert (Inlet Controls 4.44 cfs @ 2.94 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,319.50' (Free Discharge)
↑2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Mountain Village Road, STA 7+45

 Pond C2.2: C2.2 - Post-Development

Summary	Hydrograph	Discharge	Storage	Profile	Events	Sizing
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Inflow Area = 0.328 ac, 18.29% Impervious, Inflow Depth = 3.28" for 25-YR event
Inflow = 1.65 cfs @ 12.00 hrs, Volume= 0.090 af
Outflow = 1.65 cfs @ 12.00 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.1 min
Primary = 1.65 cfs @ 12.00 hrs, Volume= 0.090 af
Routed to Reach R2.2 : R2.2

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Peak Elev= 1,343.72' @ 12.00 hrs Surf.Area= 21 sf Storage= 8 cf

Plug-Flow detention time= 0.1 min calculated for 0.089 af (100% of inflow)
Center-of-Mass det. time= 0.1 min (808.1 - 808.0)

Volume	Invert	Avail.Storage	Storage Description
#1	1,343.00'	130 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,343.00	2	0	0
1,344.00	29	16	16
1,345.00	200	115	130

Device	Routing	Invert	Outlet Devices
#1	Primary	1,343.00'	15.0" Round Culvert L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,343.00' / 1,342.00' S= 0.0185 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.64 cfs @ 12.00 hrs HW=1,343.71' (Free Discharge)
1=Culvert (Inlet Controls 1.64 cfs @ 2.27 fps)

Mountain Village Road, STA 8+80

 Pond C3.1: C3.1 - Post-Development

Summary Hydrograph Discharge Storage Profile Events Sizing

Inflow Area = 0.892 ac, 13.45% Impervious, Inflow Depth = 2.99" for 25-YR event
Inflow = 3.30 cfs @ 12.08 hrs, Volume= 0.222 af
Outflow = 3.31 cfs @ 12.09 hrs, Volume= 0.222 af, Atten= 0%, Lag= 0.3 min
Primary = 3.31 cfs @ 12.09 hrs, Volume= 0.222 af
Routed to Reach R3.1 : R3.1

Routing by Stor-Ind method, Time Span= 5.00-50.00 hrs, dt= 0.05 hrs
Peak Elev= 1,353.99' @ 12.09 hrs Surf.Area= 77 sf Storage= 49 cf

Plug-Flow detention time= 0.5 min calculated for 0.222 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (823.8 - 823.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,353.00'	177 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,353.00	22	0	0
1,354.00	78	50	50
1,355.00	175	127	177

Device	Routing	Invert	Outlet Devices
#1	Primary	1,353.00'	18.0" Round Culvert L= 43.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,353.00' / 1,352.50' S= 0.0116 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=3.26 cfs @ 12.09 hrs HW=1,353.98' (Free Discharge)
↑**1=Culvert** (Inlet Controls 3.26 cfs @ 2.66 fps)