MAIN-LAND
DEVELOPMENT CONSULTANTS, INC.
ENGINEERS, SURVEYORS, SCIENTISTS
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WWW.MAIN-LANDDCI.COM

April 26, 2024

Town of Readfield Maine Planning Board
Attn: Chip Stephens, Code Enforcement Officer
8 Old Kents Hill Road
Readfield, ME 04355

SUBJECT: 16-063 – Menatoma Woodlands Subdivision
Response to Comments from the Planning Board

Members of the Board,

Main-Land Development Consultants, Inc. (Main-Land) represented the Applicant, Lovejoy Ventures, LLC and it's project, the Menatoma Woodlands Subdivision at the April 9th, 2024 Planning Board meeting. During that meeting, the Board identified several items they would need to determine the application complete. Below is a summary of submittals requested by the board. The items listed are in no order or precedence. Please except this submittal of the requested documents and supporting information.

1. Agent Authorization.
The board asked for proof that John Lawrence is a principal owner of Lovejoy Ventures, LLC. The agent authorization letter included as part of the original application listed Main-Land as the authorized agent of "John Lawrence". The official Applicant of this project is Lovejoy Ventures, LLC. Included in this submittal is a copy of the Maine Secretary of State's, Certificate of Good Standing which lists John Lawrence as the point of contact for that entity. Main-Land interprets that fact as proof that John Lawrence may make decisions and generally represent Lovejoy Ventures, LLC. Also included in this submittal is a LLC Resolution provided by the Applicant.

2. Fire Chief Review.
Shane Howley of Main-Land spoke with Chief Mank via phone on April 25th, 2024 to discuss and review this project in terms of emergency vehicle access and fire safety. An email was sent to the Fire Chief to summarize the discussion. That email is included as part of this submittal.

3. Supporting Septic and Soil Information.
On February 26, 2024 Main-Land performed test borings on each proposed lot in order to confirm the feasibility of septic systems on each individual lot. All proposed lots contain suitable soils for a private, single-family residential septic system. In 2015, Vaughn Smith Associates, performed a similar investigation. The report from 2015 and boring logs from 2024 are included as part of this submittal.

4. Natural Resources and Environmental.
The board asked that we verify the presence or absence of vernal pools on the project property. A Natural Resources Survey was performed by Main-Land. No vernal pools are present on site. Main-Land's Natural Resources Report is included as part of this submittal.

5. Maintenance Agreement.
During the April meeting, the Board requested that the Applicant provide proof of correspondence with the Menatoma Homeowners Association. That documentation is included in this submittal.

6. Stormwater Calculations.
The change to a 9-Lot subdivision reduced the assumed developed area from residential lots. Additionally, the merge of Lots 2 and 3 as shown on the subdivision plan dated 2024-02-28 allowed for shortening of the reconstructed portion of "North Wayne Road" by 465 ft. These changes to the developed area and road design necessitated an update to the stormwater model. As such, the revised stormwater flow and phosphorus export calculations are provided. Please note, the design changes reduced the development area such that the project now meets the phosphorus standard. No Rain Gardens are proposed on any lot. A revised stormwater narrative is included as part of this submission. This narrative is intended to supersede the one included in the original application and describes the new stormwater regime.

7. Vegetation Plan.
A plan which delineates vegetated cover type and building envelopes is provided. Please see L1.0 Building Envelope and Vegetation Plan.

8. Revised Subdivision Plan.
During the April meeting, the Applicant decided to change the subdivision plan from a 10-Lot concept to a 9-Lot concept. The revised plan set is provided.

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

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Mon Apr 22 2024 13:57:50. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
LOVEJOY VENTURES, LLC	20160535DC	LIMITED LIABILITY COMPANY	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
08/10/2015	N/A	MAINE

Other Names	(A=Assumed ; F=Former)
NONE	

Principal Home Office Address

Physical	Mailing

Clerk/Registered Agent

Physical	Mailing
JOHN T. LAWRENCE 103 BRUNSWICK AVENUE, SUITE 1 GARDINER, ME 04345	JOHN T. LAWRENCE 103 BRUNSWICK AVENUE, SUITE 1 GARDINER, ME 04345

LOVEJOY VENTURES, LLC

UNANIMOUS CONSENT OF CO-MANAGERS / MEMBERS

Pursuant to that certain Operating Agreement between and among co-managers and members of this limited liability company (the "Company"), the undersigned, being the holders of all the membership interests of the Company, hereby adopt the following resolutions:

RESOLVED: That the Company shall be, and hereby is authorized to develop into a 9 lot residential subdivision, the property located on the Lane Road and North Wayne Road, in the Town of Readfield, County of Kennebec, State of Maine, and more particularly identified as Tax Map 111, Map 32.

RESOLVED: That the Company shall be, and hereby is authorized to execute any and all documents that may be required in connection with a Town of Readfield, Land Use Permit Application in connection with said property.

RESOLVED: That Lovejoy Ventures, LLC, by and through John Lawrence, as co-manager of the Company, James M. Amendolara, as co-manager of the Company, and Main-Land Development Consultants, Inc, its authorized agent, shall be and hereby are, jointly and / or singularly authorized and empowered and directed to act on behalf of the Company in executing and delivering any and all documents or instruments deemed by said managers as necessary or convenient in carrying out the forgoing resolutions, all on terms and conditions deemed by said co-managers to be in the best interest of the Company.

This Consent of Co-Managers shall be filed with the minutes of Lovejoy Ventures, LLC.

Dated at Gardiner, Maine this 23 day of April, 2024.

Witness

LOVEJOY VENTURES, LLC

By: John T. Lawrence, Co-Manager / Member

STATE OF MAINE
COUNTY OF KENNEBEC, SS

April 23, 2024

Then personally appeared the above named John T. Lawrence, Co-Manager / Member of Lovejoy Ventures, LLC, and acknowledged the foregoing instrument to be his free act and deed, in his said capacity, and the free act and deed of Lovejoy Ventures, LLC

Before me,

Notary Public / Attorney at Law
Printed Name: Debra S. Dill
Commission Expires: 10-01-2030

Debra Sue Dill
NOTARY PUBLIC
State of Maine
My Commission Expires 10/01/2030

James M. Amendolara

By: James M. Amendolara, Co-Manager / Member

STATE OF MAINE
COUNTY OF YORK, SS

April 24, 2024

Then personally appeared the above named James M. Amendolara, Co-Manager / Member of Lovejoy Ventures, LLC, and acknowledged the foregoing instrument to be his free act and deed, in his said capacity, and the free act and deed of Lovejoy Ventures, LLC

Before me,

Nancy M. Caron

Notary Public / Attorney at Law
Printed Name: Nancy M. Caron
Commission Expires: 07/27/2029

NANCY M. CARON
NOTARY PUBLIC
State of Maine
My Commission Expires
July 27, 2029

NANCY M. CARON
NOTARY PUBLIC
MAINE

Shane

From: Shane
Sent: Thursday, April 25, 2024 3:19 PM
To: mank125@aol.com
Subject: Menatoma Woodland Subdivision 16-063
Attachments: 2024-04-25 C2.1 Subdivision Layout Plan.pdf; 2024-04-25 C5.1 NORTH WAYNE ROAD PLAN & PROFILE.pdf; 2024-04-25 C5.2 NORTH WAYNE ROAD PLAN & PROFILE.pdf; 2024-04-25 C5.3 NORTH WAYNE ROAD PLAN & PROFILE.pdf; 2024-02-15 Tax Map.pdf

Chief Mank,

Thank you again for your time and it was great speaking with you today. I'd like to summarize our phone call in an email which I'll use as evidence that we spoke and to capture your comments. I've attached the current plan set and tax map for your reference. As I noted in the call, the proposed road sections meet at least the minimum road standards in the Town of Readfield. I'll also note that I've run vehicle turning paths for a design emergency vehicle (fire truck). Based on my model, the proposed roads are able to accommodate travel and turnaround of emergency vehicles.

During our call, you expressed an interest for the project to provide a fire pond with a dry hydrant as there are few water sources available in that general area. I've made note of that and will discuss with the owner and will look for the Planning Board's input.

If upon review of the subdivision plans, you have any questions or concerns, please don't hesitate to contact me.

Thank you again!

Main-Land Development Consultants, Inc.
Main-Land Camp Solutions
Shane Howley, P.E.
Project Engineer
Tel: 207-897-6752
Cel: 207-500-8144
Fax: 207-897-5404
www.main-landdci.com

FORM E Rev. 07/11

SOIL CONDITIONS SUMMARY TABLE

SUMMARY LOG OF SUBSURFACE EXPLORATIONS AT PROJECT SITES

Project Name: North Wayne Rd. Subdivision | Applicant Name: Mr. John Lawrence | Project Location (municipality): Readfield, ME

Lot No.	Exploration Symbol (TP 1, B 2, etc.)	✗ if at SSWD Field	Description of subsurface materials by: • Soil profile/condition (if by S.E.), • Soil series name (if by C.S.S.), or by • Geologic unit (if by C.G.)	Depths to (inches): Redoximorphic Features	Bedrock	Hydraulically Restrictive Layer	Limit of Exploration	Ground Surface Slope (%)	Ground Surface Elevation
3	TB-A	☑	3D	13"	None	None	46"	4-6	513'±
4	TB-B	☑	3C	20"	None	33"	33"	4-6	526'±
7	TB-C	☑	3D	12"	None	25"	25"	4-6	537'±
2	TB-D	☑	3D	12	None	38"	38"	5-7	520'±
8	TB-E	☑	3C	19"	None	38"	38"	6-8	550'±
9	TB-F	☑	3D	11"	None	27"	27"	5-7	555'±
6	TB-G	☑	3D	13"	None	29"	29"	5-7	540'±
5	TB-H	☑	3D	13"	None	37"	37"	5-7	536'±
1	TB-I	☑	3D	10"	None	33"	33"	7-9	520'±
		☐							
		☐							
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INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Scott R. Dixon | Date: 2/26/24

Name Printed: Scott R. Dixon | Cert/Lic/Reg. #: LSE 406

Qualification: ☑ Licensed Site Evaluator ☐ Certified Soil Scientist ☑ Certified Geologist ☑ Other: Maine P.E.

STATE OF MAINE SCOTT R. DIXON LSE 406 SITE EVALUATOR

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
North Wayne Rd. Subdivision	Mr. John Lawrence	Readfield, ME

Exploration Symbol # TB-A ☐ Test Pit ☑ Boring ☐ Probe

1 " Organic horizon thickness Ground surface elev. 513' ±

46 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Loam		Dark orange-brown	None
Fine sandy Loam	Friable grading to Medium Firm	Brown ± Light brown	
		Dark gray-brown	Faint, rare

Soil Details by S.E.: Soil Classification: 3 Profile, D Condition; Slope: 4-6 Percent; Limiting Factor: 13 " Depth; ☑ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

Exploration Symbol # TB-B ☐ Test Pit ☑ Boring ☐ Probe

1 " Organic horizon thickness Ground surface elev. 526' ±

33 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Fine sandy Loam	Friable to Medium	Brown	None
		Light brown	
Fine sandy Loam, with gravel	Firm	Gray-brown	Few, faint

Soil Details by S.E.: Soil Classification: 3 Profile, C Condition; Slope: 4-6 Percent; Limiting Factor: 20 " Depth; ☑ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

Exploration Symbol # TB-C ☐ Test Pit ☑ Boring ☐ Probe

1 " Organic horizon thickness Ground surface elev. 537' ±

25 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Fine Sandy Loam	Friable	Dark brown	None
		Light brown	
	Firm	Light gray-brown	Few, faint

Soil Details by S.E.: Soil Classification: 3 Profile, D Condition; Slope: 4-6 Percent; Limiting Factor: 12 " Depth; ☑ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

Exploration Symbol # TB-D ☐ Test Pit ☑ Boring ☐ Probe

2 " Organic horizon thickness Ground surface elev. 520' ±

38 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Texture	Consistency	Color	Redox Features
Loam		Dark brown	None
Fine sandy Loam, with gravel	Friable	Light brown and brown	
		Light gray-brown	Few, faint
	Firm		

Soil Details by S.E.: Soil Classification: 3 Profile, D Condition; Slope: 5-7 Percent; Limiting Factor: 12 " Depth; ☑ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Scott R. Dixon	Date: 2/26/24
Name Printed: Scott R. Dixon	Cert/Lic/Reg. #: LSE 406

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

STATE OF MAINE
SCOTT R. DIXON
LSE 406
SITE EVALUATOR

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
North Wayne Rd. Subdivision	Mr. John Lawrence	Readfield, ME

Exploration Symbol # TB-E ☐ Test Pit ☑ Boring ☐ Probe

3 " Organic horizon thickness — Ground surface elev. 550' ±

38 " Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
Loam	Friable	Dark brown	None
Fine sandy Loam, with gravel	Friable	Brown and light brown	None
Fine sandy Loam, with gravel	Friable	Light gray-brown	Few, faint (reduced)
	Firm		

Depth below mineral soil surface (inches): 0, 10, 20, 30, 40, 50, 60

Soil Details by S.E.: Soil Classification 3 Profile, C Condition; Slope 6-8 Percent; Limiting Factor 19 " Depth; ☑ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

Exploration Symbol # TB-F ☐ Test Pit ☑ Boring ☐ Probe

2 " Organic horizon thickness — Ground surface elev. 555' ±

27 " Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
Loam	Friable	Dark brown	None
Fine sandy Loam, with gravel	Friable	Light brown and brown	None
Fine sandy Loam, with gravel	Friable	Light brown-gray	Few, faint (reduced)
	Firm		

Depth below mineral soil surface (inches): 0, 10, 20, 30, 40, 50, 60

Soil Details by S.E.: Soil Classification 3 Profile, D Condition; Slope 5-7 Percent; Limiting Factor 11 " Depth; ☑ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

Exploration Symbol # TB-G ☐ Test Pit ☑ Boring ☐ Probe

1 " Organic horizon thickness — Ground surface elev. 540' ±

29 " Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
Loam	Friable	Dark brown	None
Fine sandy Loam, with gravel	Friable	Brown and Light brown	None
Fine sandy Loam, with gravel	Friable	Light gray-brown	Common, distinct
	Firm		

Depth below mineral soil surface (inches): 0, 10, 20, 30, 40, 50, 60

Soil Details by S.E.: Soil Classification 3 Profile, D Condition; Slope 5-7 Percent; Limiting Factor 13 " Depth; ☑ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

Exploration Symbol # TB-H ☐ Test Pit ☑ Boring ☐ Probe

1 " Organic horizon thickness — Ground surface elev. 536' ±

37 " Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
Loam	Friable	Dark brown	None
Fine Sandy Loam	Friable	Light brown and brown	None
Fine Sandy Loam	Friable	Light gray-brown	Few, faint (reduced)
	Firm		

Depth below mineral soil surface (inches): 0, 10, 20, 30, 40, 50, 60

Soil Details by S.E.: Soil Classification 3 Profile, D Condition; Slope 5-7 Percent; Limiting Factor 13 " Depth; ☑ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Scott R. Dixon	Date: 2/26/24
Name Printed: Scott R. Dixon	Cert/Lic/Reg. #: LSE 406

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

STATE OF MAINE
SCOTT R. DIXON
LSE 406
SITE EVALUATOR

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
North Wayne Rd. Subdivision	Mr. John Lawrence	Readfield, ME

Exploration Symbol # TB-I ☐ Test Pit ☑ Boring ☐ Probe

1 " Organic horizon thickness — Ground surface elev. 520' ±

33 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Loam		Dark brown / ~~Lt. or. brown~~	None
10	Fine sandy loam	Friable	Light brown	↓
20		↓	Light gray-brown	Few, faint (reduced)
30		Firm		
40				
50				
60				

Soil Details by S.E.:

Soil Classification		Slope	Limiting Factor	
3 (Profile)	D (Condition)	7-9 Percent	10 " Depth	☑ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

Exploration Symbol # ____ ☐ Test Pit ☐ Boring ☐ Probe

____ " Organic horizon thickness — Ground surface elev. ____

____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E.: Soil Classification: ____ Profile ____ Condition; Slope: ____ Percent; Limiting Factor: ____ " Depth ☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

Exploration Symbol # ____ ☐ Test Pit ☐ Boring ☐ Probe

____ " Organic horizon thickness — Ground surface elev. ____

____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E.: Soil Classification: ____ Profile ____ Condition; Slope: ____ Percent; Limiting Factor: ____ " Depth ☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

Exploration Symbol # ____ ☐ Test Pit ☐ Boring ☐ Probe

____ " Organic horizon thickness — Ground surface elev. ____

____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E.: Soil Classification: ____ Profile ____ Condition; Slope: ____ Percent; Limiting Factor: ____ " Depth ☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

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

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Scott R. Dixon	Date: 2/26/24
Name Printed: Scott R. Dixon	Cert/Lic/Reg. #: LSE 406

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

STATE OF MAINE
SCOTT R. DIXON
LSE 406
SITE EVALUATOR

VSA
VAUGHN SMITH ASSOCIATES
Septic Design • Wetland Analysis • Soil Mapping

July 10, 2013

COPY

John Lawrence
103 Brunswick Avenue
Gardiner, Me 04345

RE: Preliminary Soil Investigation and Site Walk, off Lane Road and North Wayne Road, Readfield

Dear John:

On July 06, 2015, per your request, I conducted a Preliminary Soil Investigation and Site Walk at the abovementioned parcel. The purpose of the investigation was to determine the general suitability for the potential to develop 4 to 5 house lots on the parcel.
A couple of test pits were observed along the frontage of Lane Road and a few potential areas for subsurface wastewater disposal were found on this portion of the property.
Next, we walked down the extension of the North Wayne Road. Again, I conducted some soil investigations and found 4 or 5 areas that appeared suitable for subsurface wastewater disposal.
In general, the parcel is a westerly facing, moderate to gently sloping forest with 'pit and mound' topography, whereas, the 'pits' tend to be wetter and the 'mounds' slightly drier. The soils were found to be moderately textured, loamy (fine sandy loam) 3 D profile and condition with restrictive features at 9 to 13 inches. A minimum of 9 inches free of restrictive features such as seasonal water table, hardpan, and ledge is required for soils outside of Shoreland Zoning. These suitable areas may be limited to the close vicinity of the test pits and shall not be disturbed prior to construction. The landscape had a large amount of 'sheet flow,' where the seasonal water table breaks out in multiple places down slope due to the uniformity of the slope. Small rills and drainage patterns develop into wetland areas.
Prior to receiving subdivision approval, additional information will be required, such as all the wetlands on the property are to be mapped and shown on a subdivision plan. Other studies and permits may also be required, such as a phosphorus study, due to proximity to Lovejoy Pond.

I hope this information is sufficient for your current needs. Please do not hesitate to call if you have any questions or if I can be of further assistance.

Sincerely,
Vaughn Smith ASSOCIATES

Vaughn L. Smith
Site Evaluator #226

STATE OF MAINE
VAUGHN L. SMITH 226
LICENSED SITE EVALUATOR

MAIN-LAND
DEVELOPMENT CONSULTANTS, INC.

ENGINEERS, SURVEYORS, SCIENTISTS
P.O. BOX Q LIVERMORE FALLS, ME 04254
367 US ROUTE 1, S. BUILDING, FALMOUTH, ME 04105
TEL: (207) 897-6752/FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

Natural Resource Mapping
Lawrence Property
Readfield, ME
April 22, 2024

INTRODUCTION

A wetland, stream and cursory vernal pool delineation was previously performed and completed by Main-Land Development consultants, (Main-Land) in 2016 to determine potential natural resource features on the project site. A Northern Spring Salamander Survey was recently completed by Main-Land in the Spring of 2024. The project site consists of one parcel located off Lane Road in Readfield, Maine, and can be seen as Lot 32 on Town Tax Map 111. The proposed project consists of the creation of a single-family residential subdivision. The lots are to be accessed via shared driveways off one proposed private road.

SUMMARY

Two freshwater wetland complexes were identified within the subject parcel. Both wetlands are classified as seasonally saturated/flooded, broad-leaved deciduous forested wetlands (PFO1E). PFO wetlands are characterized by woody vegetation that is at least 20 feet in height.

Two NRPA streams were identified within the project site. The stream near the north of the project site was determined to be a perennial stream, while the stream further south on the project site was determined to be an intermittent riverine system. No Northern Spring Salamanders were identified in either stream. For more details, please see the associated report.

No potential vernal pools were identified on the project site.

Please see the associated Site Plan C2.1, *Subdivision Layout Plan* which depicts locations of environmental features identified by Main-Land.

Hunter Dalton

Hunter R. Dalton
Staff Environmental Scientist

Gmail

Lovejoy Ventures, LLC <lovejoyventuresllc@gmail.com>

Email from Lovejoy Ventures, LLC / RE: North Wayne Road Subdivision

Lovejoy Ventures, LLC <lovejoyventuresllc@gmail.com> Mon, Apr 29, 2024 at 2:34 PM
To: "japhet.els@gmail.com" <japhet.els@gmail.com>, mboenke@pillaroma.com
Bcc: "James M. Amendolara Esq." <james.amendolara@gmail.com>, ICE-John Tyler Lawrence <jlawrence.me@gmail.com>

To: Japhet Els / President, Menatoma Association
To: Mark Boenke / Member, Menatoma Association
Re: Subdivision on the North Wayne Road
Cc: Lovejoy Ventures, LLC
Date: April 29, 20024

COPY

==

Dear Japhet and Mark:

As you both know, Lovejoy Ventures, LLC owns 50 acres of land in the neighborhood near the Menatoma Association.

We have prepared a subdivision plan, in consultation with Main-Lane Development (Livermore Falls) for the remaining parcel that the LLC still owns (38 acres). (One lot with access off the Lane Road was sold last fall.)

At our initial planning board meeting last month several members of the Menatoma Association attended, including Mark. Mark texted me after the meeting and kindly offered to act as a liaison between the Menatoma Association and our LLC.

Naturally we are happy to discuss any concerns that the Menatoma Association or any individual member may have in regard to the proposed subdivision.

Please communicate to us if you do indeed have any concerns in regard to this project. We look forward to addressing them in a prompt manner and look forward to being good neighbors.

Sincerely,

John Lawrence, Member / Lovejoy Ventures, LLC
James Amendolara, Member / Lovejoy Ventures, LLC

North Wayne Road Subdivision – Stormwater Management Plan
North Wayne Road
Readfield, ME

Prepared by,
Main-Land Development Consultants, Inc.
P.O. Box Q, Livermore Falls, ME

April 26, 2024

Site Overview:
The applicant, Lovejoy Ventures, LLC, proposes the development of a 9-lot, single-family subdivision along North Wayne Road. The 49.28 acres parcel is undeveloped and wooded. The site will be accessed by North Wayne Road, a road which has been abandoned by the town of Readfield nearly 40 years ago. Natural Resources were delineated by Main-Land in 2016 and confirmed in 2024. The Natural Resources Survey delineated large areas of wetland and two streams which cross the site. No wetland impacts are proposed. However, the road reconstruction will require a replacement of the existing stream crossing. During a site visit by Main-Land in April 2024, the existence of an existing stream crossing structure was confirmed. However, its size and material were not determined due to the structure being nearly buried by sediment.

The site slopes at approximately 5-6% from east to west and drains to Lovejoy Pond. Soils on site are generally considered to be Hydrologic Soil Group (HSG) C/D. Given this prevalence of wetlands on the site, the HSG was assumed to be D.

Proposed Development:
The proposed developed areas include approximately 1,485 linear feet of road, overhead electric line, stormwater features including culverts, ditches and a level spreader with forested buffer. In total, this project proposes 0.68 acres of new impervious area in the form of gravel road, and 1.35 acres of new grassed and riprap ditches. Although, the configuration of individual house lots in uncertain, assumptions of lot area coverage were made for the purpose of stormwater calculations. Each lot was assumed to have 0.06 acres of impervious area and 0.2 acres of lawn. This approximately accounts for a 100’ x 10’ driveway, a 2,000 S.F. house and corresponding lawn area.

Stormwater Management:
The purpose of a stormwater management plan is to ensure that stormwater leaving the development does not have a significant adverse impact on receiving waterbodies or downstream infrastructure. The project proposes less than one acre of new impervious area and less than five acres of developed area; as such a Maine DEP Stormwater Permit-By-Rule is required. Peak stormwater flow calculations are not required as part of that permit. They are however, required by the town and for sizing of drainage infrastructure. The 2, 10, and 25-year storm events were utilized in peak runoff calculations and the 25-year storm event was used for capacity design of drainage infrastructure. The only exception is the stream crossing which was designed to pass the 100-year storm event. In order to compare flow rates during the pre- and post-development site

conditions, Main-Land identified four Watershed Analysis Points (WAP), all located along the downhill (western) property boundary.

Drainage Summary:
Below is a summary of pre- versus post-development flows in the 2, 10 and 25-year storm events over the project property as a whole.

DRAINAGE SUMMARY TABLE			
Storm Event	Pre-Develop. (cfs)	Post-Develop. (cfs)	(cfs)
2-year	30.52	30.32	-0.2
10-year	66.54	65.60	-0.94
25-year	94.7	93.08	-1.62

In the pre-development condition, runoff from the southern portion of the site, from the proposed stream crossing to Lane Road, flows westward toward Lovejoy Pond and passes under Menatoma Camp Road and North Wayne Road through four culverts (including the stream crossing). This flow pattern is maintained in the post-development condition. The area located north of the existing stream crossing flows freely across the North Wayne Road right-of-way and onto the adjacent parcels. In the post-development condition, that area contains much of the new development. Flow from that side of the development is captured in the roadside ditch and channeled to a level spreader and forested buffer. The buffer purpose is capturing channelized flow and routing it to the level spreader and buffer to increase the flow time such that the post-development peak flow rate is below the pre-development flow.

Two locations experience a slight increase in flow post-development.

1. The first location is the proposed stream crossing. The stream crossing location experiences a negligible increase from 11.90 cfs to 11.95 cfs in the 2-year storm. The 0.4% increase occurs during the 10 and 25-year storms as well.
2. The second location is the culvert which runs under the intersection of Menatoma Camp Road and Lane Road. That location experiences an increase from 5.64 cfs to 5.82 cfs during the 2-year storm event. The culvert at that location was modeled and can accommodate the slight flow increase up to at least the 25-year storm.

Both increases are very small, immeasurable in the field and below the tolerances of the model assumptions.
As stated previously, the level spreader and buffer sees most of the flow from the development. That location experiences a significant decrease, the highest of which occurs during the 25-year storm where the flow decreases from 26.5 cfs to 24.47 cfs (-2.03 cfs).

Phosphorus Management:
As stated, the project is located within the watershed of Lovejoy Pond. This pond is not listed on Maine DEP's as a Lake Most At Risk From New Development. As a requirement of the town,

phosphorus export was calculated for this project. Maine DEP's Appendix C, lists Lovejoy Pond's per acre phosphorus allocation as **0.055** lbs P / acre/ year. This results in a project phosphorus budget of **2.71** lbs P / year. The pre-treatment, post-development export was calculated to be **2.52** lbs P/ year. The post-development phosphorus export is *below* the budget. Thus, this project meets the phosphorus standard as designed. No stormwater treatment for phosphorus is proposed (though, the buffer will provide some treatment for which this project doesn't account.)

PROJECT PHOSPHORUS BUDGET

Menatoma Woodlands Subdivision
Watershed: Lovejoy Pond
Town: Readfield

Standard Calculation			
Watershed per acre phosphorus budget (Appendix C):	**PAPB**	0.055	lbs P / acre / year
Total acreage of development parcel:	**TA**	49.28	acres
NWI wetland acreage:	**WA**	0	acres
Steep slope acreage:	**SA**	0	acres
Project acreage: A = TA - (WA + SA)	**A**	49.28	acres
Project Phosphorus Budget: PPB = P x A	**PPB**	2.7104	**lbs P/year**

Small Watershed Adjustment			
If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.			
Small Watershed Threshold (Appendix C):	**SWT**		acres
Project acreage:	**A**		acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	**FC**		lbs P/year
Area available for development (Appendix C):	**AAD**		acres
Ratio of A to AAD	**R**		

Project Phosphorus Budget			
If R < 0.5, Project Phosphorus Budget PPB = [(FC x R)/2] + [FC/4]	**PPB**		**lbs P/year**
If R> 0.5, Project Phosphorus Budget PPB = FC x R	**PPB**		**lbs P/year**

Pre-PPE and Post-Phosphorus Calculations

North Wayne Road Subdivision

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
Lot Driveways Untreated	0.18	1.25	0.225	1	0.225	
Lot Roofs Untreated	0.36	0.5	0.18	1	0.18	
Lot Lawn Untreated	1.8	0.4	0.72	1	0.72	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
Road	0.68	1.25	0.85	1	0.85	
Ditching	1.35	0.4	0.54	1	0.54	
		Pre-PPE	2.515	Post PPE	2.515	Budget = 2.710

Individual Lot Areas Assumption	Ac Per Lot	X9 Lots
Driveway	0.02	0.18
Roof	0.04	0.36
Lawn	0.2	1.8

Project Phosphorus Export Summary

North Wayne Road Subdivision

Project Phosphorus Budget	**PPB**	**2.71**	**lbs P / year**
Roads			lbs P / year
Ditches			lbs P / year
Lots			lbs P / year
Other		2.52	lbs P / year
Total Pre-treatment phosphorus export	**Pre-PPE**	**2.52**	**lbs P / year**
Roads			lbs P / year
Ditches			
Lots			lbs P / year
Other		2.52	lbs P / year
Total Post-treatment phosphorus export	**Post-PPE**	**2.52**	**lbs P / year**
Total Phosphorus Mitigation Credit	**TMC**	**0.00**	**lbs P / year**
Project Phosphorus Export (Post PPE-TMC)	**PPE**	**2.515**	**lbs P / year**

Is the Project Phosphorus Export ≤ the Project Phosphorus Budget (PPE≤PPB)		
*If **YES,** PPE is less than or equal to PPB and the project meets is Phosphorus Budget* *If **NO**, PPE is greater than PPB, more reduction is phoshorus export is required or the payment of a compensation fee may be an option*	**YES**	
The amount of Phosphorus that needs further treatment or compensation		**lbs P / year**

Has Project Phosphorus Export been sufficiently reduced? *Is (Pre-PPE - Post-PPE)/Pre-PPE greater than 0.60?*		
*If **Yes**, in some watersheds the compensation fee is an available option* *If **No**, more treatment must be provided. PPE must be further reduced*		
*The post-treatment phosphorus export must be less than 40% of the pre-treatment export (Post-PPE < 0.4*Pre-PPE)*		%

If the project is located in a watershed that is eligible for a compensation fee (or is a residentail subdivision with buffers) a compensation fee may be appropriate as follows:		
If Project Export has been reduced by greater than 60% and less than 75%, $25,000 per pound minus $833 per 1% Percent Export		
If Project Export has been reduced by greater than 75%, $12,500 per pound minus %500 per 1% Project Export		

PLAN REFERENCES

1. "LOVEJOY HEIGHTS", DATED NOVEMBER 1988, MADE FOR PETER N. AND SANDRA C. BETHANIS, SURVEYED BY THAYER ENGINEERING CO. AND RECORDED IN PLAN BOOK E 98, PAGE 40.
2. "PLAN AMENDMENT CAMP MENATOMA", DATED JULY 1, 2003, SURVEYED BY THAYER ENGINEERING CO. & RECORDED IN PLAN BOOK E2003, PAGE 85.

LEGEND

	UTILITY POLE
OU	OVERHEAD UTILITY
	BOUNDARY LINE (SURVEYED)
	ABUTTING BOUNDARY LINES (APPROX.)
	STREAM (CENTERLINE)
	NEW GRAVEL ROAD SURFACE
	TYPICAL WETLAND BOUNDARY
	75' STREAM BUFFER
	EDGE OF GRAVEL
490	MAJOR CONTOUR LINE
	MINOR CONTOUR LINE
TB TB-A	SOIL TEST BORING
	BUILDABLE AREA
	NON-BUILDABLE AREA / NATURAL VEGETATION
	FORESTED WETLAND WITHIN BUILDING ENVELOPE
	NEW GRAVEL ROAD

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
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PLAN SHOWING

MENATOMA WOODLANDS SUBDIVISION

LANE ROAD AND MENATOMA CAMP ROAD, TOWN OF READFIELD, COUNTY OF KENNEBEC, STATE OF MAINE

OWNER OF RECORD

LOVEJOY VENTURES, LLC.

C/O JOHN LAWRENCE
103 BRUNSWICK AVENUE, SUITE1,
GARDNER, MAINE, 04345

MADE FOR

JOHN LAWRENCE

103 BRUNSWICK AVENUE, SUITE 1,
GARDNER, MAINE, 04345

DRAWING SCALE:

100 0 50 100

(IN FEET)

1 INCH = 100 FT

SUBMISSION NOTES:
SUBMISSION 1: 2024-04-18 SDH FOR REVIEW.

PROJ. MGR:	RLB
DRAWN BY:	SDH
CHECKED BY:	RLB
REVISION NO.	1
SURVEY DATE:	2016-12-08
ISSUE DATE:	2024-04-18
ISSUED FOR:	REVIEW

BUILDING ENVELOPE AND VEGETATION PLAN

DRAWING NO.

L1.0

MLDC NO. 16-063

PLAN REFERENCES

1. "LOVEJOY HEIGHTS", DATED NOVEMBER 1988, MADE FOR PETER N. AND SANDRA C. BETHANIS, SURVEYED BY THAYER ENGINEERING CO. AND RECORDED IN PLAN BOOK E 98, PAGE 40.
2. "PLAN AMENDMENT CAMP MENATOMA", DATED JULY 1, 2003, SURVEYED BY THAYER ENGINEERING CO. & RECORDED IN PLAN BOOK E2003, PAGE 85.

LEGEND

- UTILITY POLE
- OU — OVERHEAD UTILITY
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- STREAM (CENTERLINE)
- NEW GRAVEL ROAD SURFACE
- TYPICAL WETLAND BOUNDARY
- 75' STREAM BUFFER
- EDGE OF GRAVEL
- 490 — MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- TB TB-A — SOIL TEST BORING
- PROPOSED UTILITY POLE
- NAE — NEW AERIAL ELECTRIC LINE

APPROVED BY THE TOWN OF READFIELD, MAINE PLANNING BOARD.

DATE: ____________

CHAIRMAN: ____________

____________ ____________

____________ ____________

____________ ____________

CONDITIONS OF APPROVAL:

____

____

____

____

____

____

KENNEBEC COUNTY SS REGISTRY OF DEEDS

RECEIVED: ____________________

AT ___ H ___ M ___ M ___

RECORDED IN PLAN BOOK _____, PAGE _______

ATTEST: ____________________

REGISTER

NOTES

1. OWNER OF RECORD AT TIME OF SURVEY: LOVEJOY VENTURES: BOOK 12086, PAGE 115.
2. TOTAL AREA: 49.28 ACRES, MORE OR LESS.
3. ALL BOOK AND PAGES AND PLAN REFERENCES REFER TO THE KENNEBEC COUNTY REGISTRY OF DEEDS.
4. TOWN OF READFIELD: TAX MAP 111, LOT 32.
5. CONTOURS SHOWN ARE FROM TOPOGRAPHIC SURVEY BY MAIN-LAND AND LIDAR DOWNLOAD FROM WWW.MAINE.GOV/MEGIS.
6. WETLANDS AND STREAMS SHOWN WERE DELINEATED BY MAIN-LAND AND LOCATED WITH A TRIMBLE GEO XH GPS.
7. TEST PITS PERFORMED BY HUNTER DALTON OF MAIN-LAND.
8. THE FORMER TOWN WAY KNOWN AS THE NORTH WAYNE ROAD BETWEEN LANE ROAD AND ROUTE 17 WAS DECLARED ABANDONED BY A VOTE OF THE READFIELD BOARD OF SELECTMAN ON JUNE 5, 1984 AND A PUBLIC EASEMENT FOR PASSAGE OF MOTOR VEHICLES WAS RETAINED. PLAN REFERENCE 2 ALSO RESERVES A 50'X50' PUBLIC EASEMENT ON LOT 9 FOR A TURNAROUND.
9. PORTIONS OF THE NORTHERLY HALF OF THE SURVEYED PARCEL IS CURRENTLY BEING UTILIZED BY KENTS HILL SCHOOL FOR SNOWSHOE TRAILS. NO DEEDED EASEMENT FOUND, IT IS UNKNOW IF KENTS HILL HAS RECEVIED A VERBAL AUTHORIZATION. THE EXACT LOCATION OT THE TRAILS WAS NOT LOCATED.

MAIN-LAND
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PLAN SHOWING

MENATOMA WOODLANDS SUBDIVISION

LANE ROAD AND MENATOMA CAMP ROAD, TOWN OF READFIELD, COUNTY OF KENNEBEC, STATE OF MAINE

OWNER OF RECORD

LOVEYJOY VENTURES, LLC.

C/O JOHN LAWRENCE
103 BRUNSWICK AVENUE, SUITE1,
GARDNER, MAINE, 04345

MADE FOR

JOHN LAWRENCE

103 BRUNSWICK AVENUE, SUITE 1,
GARDNER, MAINE, 04345

DRAWING SCALE:

100 0 50 100

(IN FEET)

1 INCH = 100 FT

SUBMISSION NOTES:

SUBMISSION 1: 2024-02-28 SDH FOR REVIEW.

SUBMISSION 2: 2024-04-25 SDH FOR REVIEW.

PROJ. MGR:	RLB
DRAWN BY:	SDH
CHECKED BY:	RLB
REVISION NO.	2
SURVEY DATE:	2016-12-08
ISSUE DATE:	2024-04-25
ISSUED FOR:	REVIEW

SUBDIVISION LAYOUT PLAN

SEAL:

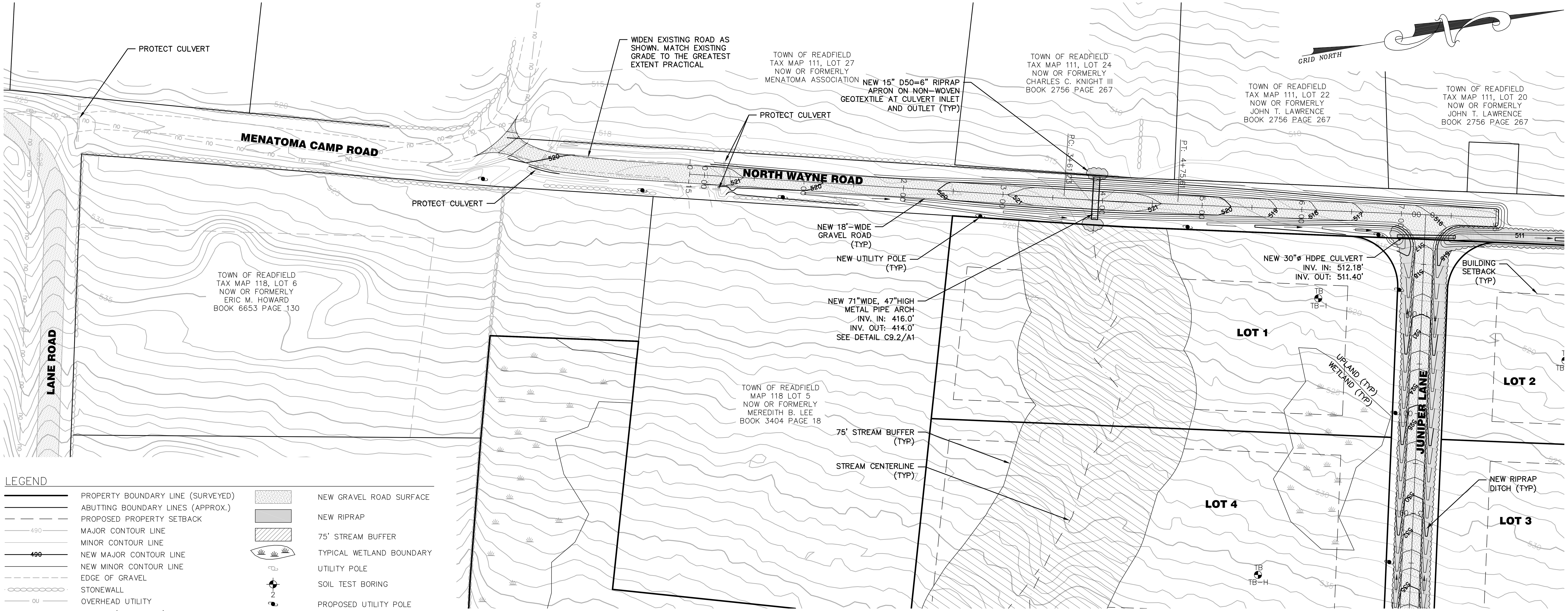
STATE OF MAINE
SHANE D. HOWLEY
No. 17341
LICENSED PROFESSIONAL ENGINEER
2024-04-25

SHANE D. HOWLEY ME PE #17341

DRAWING NO.

C2.1

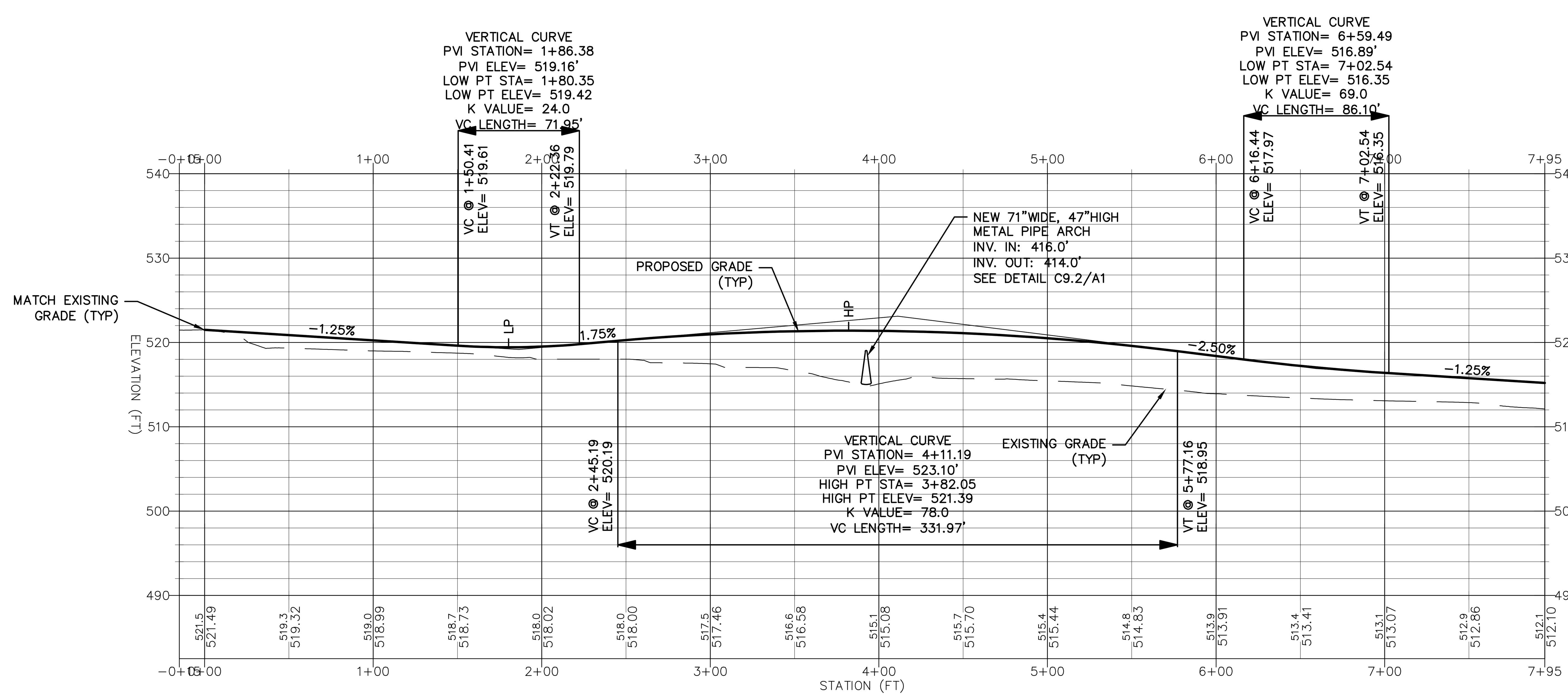
MLDC NO. 16-063



LEGEND

	PROPERTY BOUNDARY LINE (SURVEYED)		NEW GRAVEL ROAD SURFACE
	ABUTTING BOUNDARY LINES (APPROX.)		NEW RIPRAP
	PROPOSED PROPERTY SETBACK		75' STREAM BUFFER
490	MAJOR CONTOUR LINE		TYPICAL WETLAND BOUNDARY
	MINOR CONTOUR LINE		UTILITY POLE
490	NEW MAJOR CONTOUR LINE		SOIL TEST BORING
	NEW MINOR CONTOUR LINE		PROPOSED UTILITY POLE
	EDGE OF GRAVEL		
	STONEWALL		
OU	OVERHEAD UTILITY		
	STREAM (CENTERLINE)		

NORTH WAYNE ROAD PLAN
SCALE: 1"=50'
B1



NORTH WAYNE ROAD PROFILE
HORIZONTAL SCALE 1" = 50' VERTICAL SCALE 1" = 10'
A1

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WWW.MAIN-LANDDCI.COM

PROJECT
MENATOMA WOODLANDS SUBDIVISION
LANE ROAD AND MENATOMA CAMP ROAD
READFIELD, MAINE 04355

OWNER OF RECORD
LOVEYJOY VENTURES, LLC.
C/O JOHN LAWRENCE
103 BRUNSWICK AVENUE, SUITE 1
GARDNER, MAINE 04345

MADE FOR
JOHN LAWRENCE
103 BRUNSWICK AVENUE, SUITE 1
GARDNER, MAINE 04345

DRAWING SCALE:
50 0 25 50
(IN FEET)
1 INCH = 50 FT

SUBMISSION NOTES:
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PROJ. MGR:	RLB
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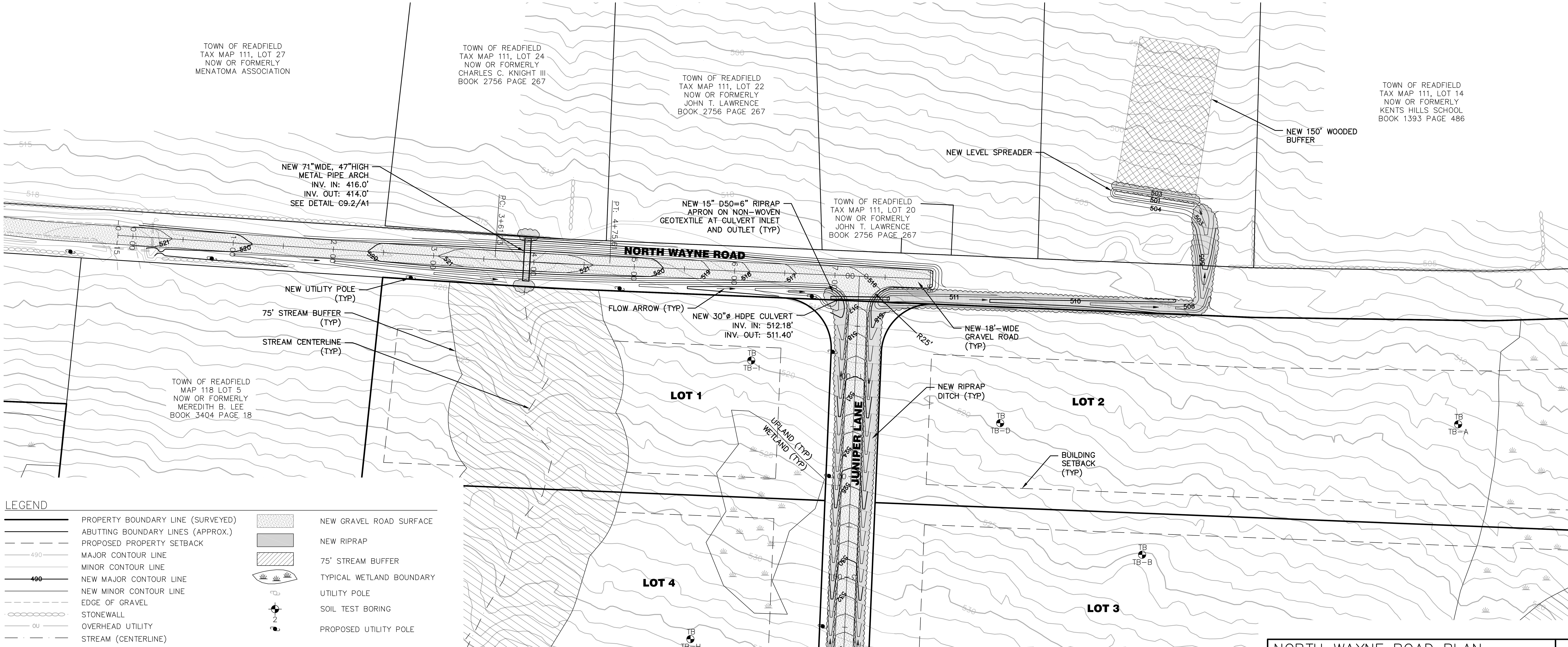
REVISION NO.	2
SURVEY DATE:	2016-12-08
ISSUE DATE:	2024-04-25
ISSUED FOR:	REVIEW

NOT FOR CONSTRUCTION

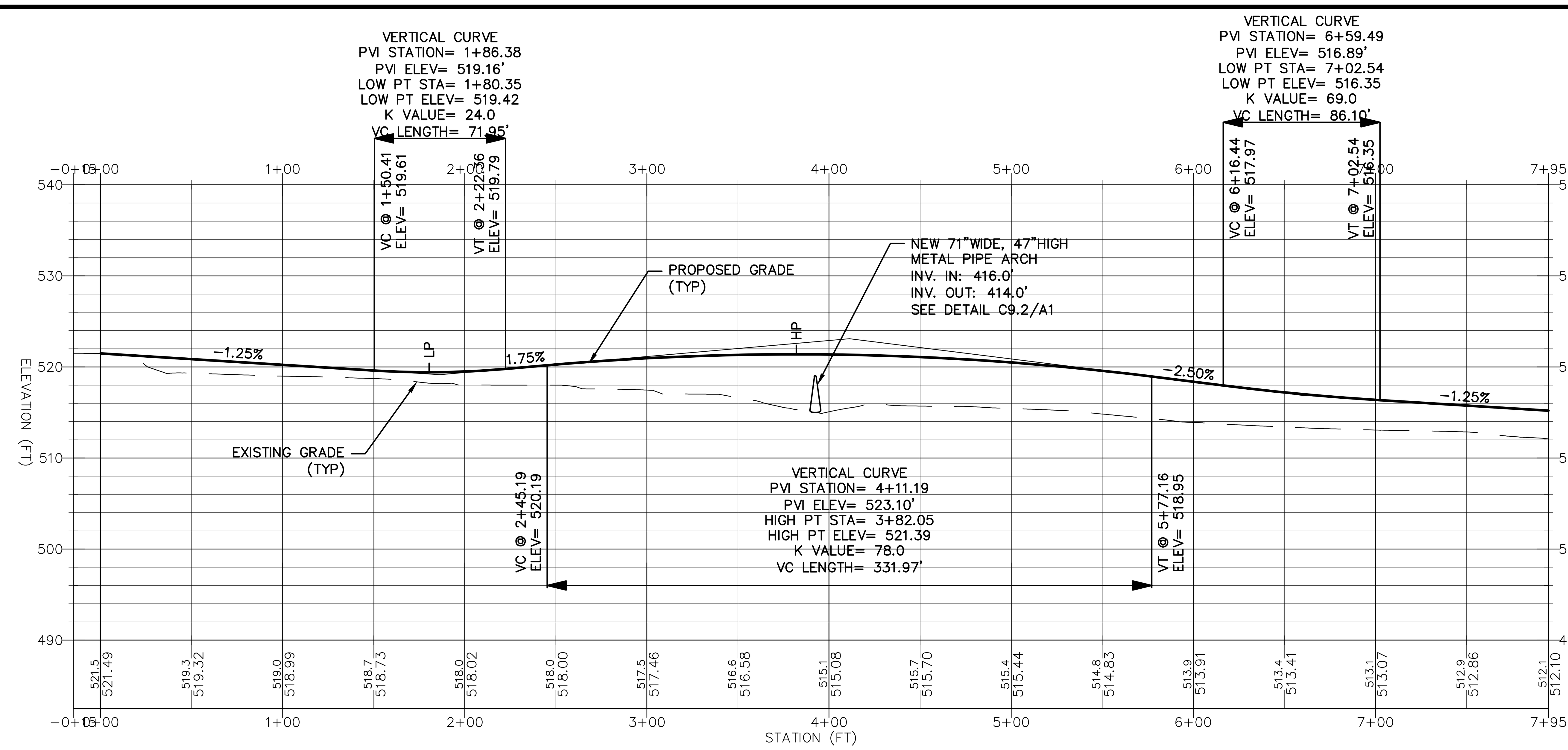
NORTH WAYNE ROAD PLAN & PROFILE

SEAL:
STATE OF MAINE
SHANE D. HOWLEY
No. 17341
LICENSED PROFESSIONAL ENGINEER
2024-04-25
SHANE D. HOWLEY ME PE #17341

DRAWING NO.
C5.1
MLDC NO. 16-063
2 OF 6



NORTH WAYNE ROAD PLAN B1
SCALE: 1"=50'



NORTH WAYNE ROAD PROFILE A1
HORIZONTAL SCALE 1" = 50' VERTICAL SCALE 1" = 10'

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DRAWING SCALE:
50 0 25 50
(IN FEET)
1 INCH = 50 FT

SUBMISSION NOTES:
SUBMISSION 1: 2024-02-28 SDH FOR REVIEW.
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PROJ. MGR:	RLB
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NORTH WAYNE ROAD PLAN & PROFILE

SEAL:
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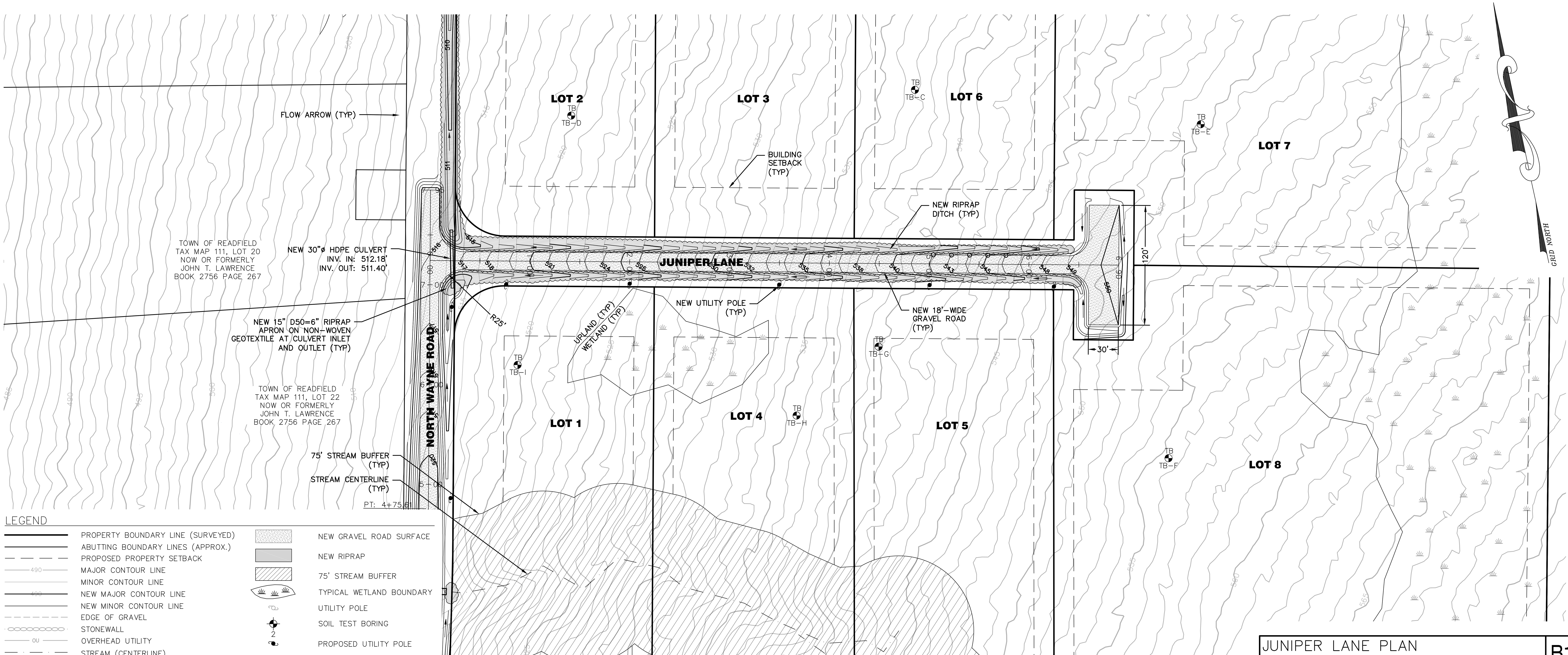
2024-04-25
SHANE D. HOWLEY ME PE #17341

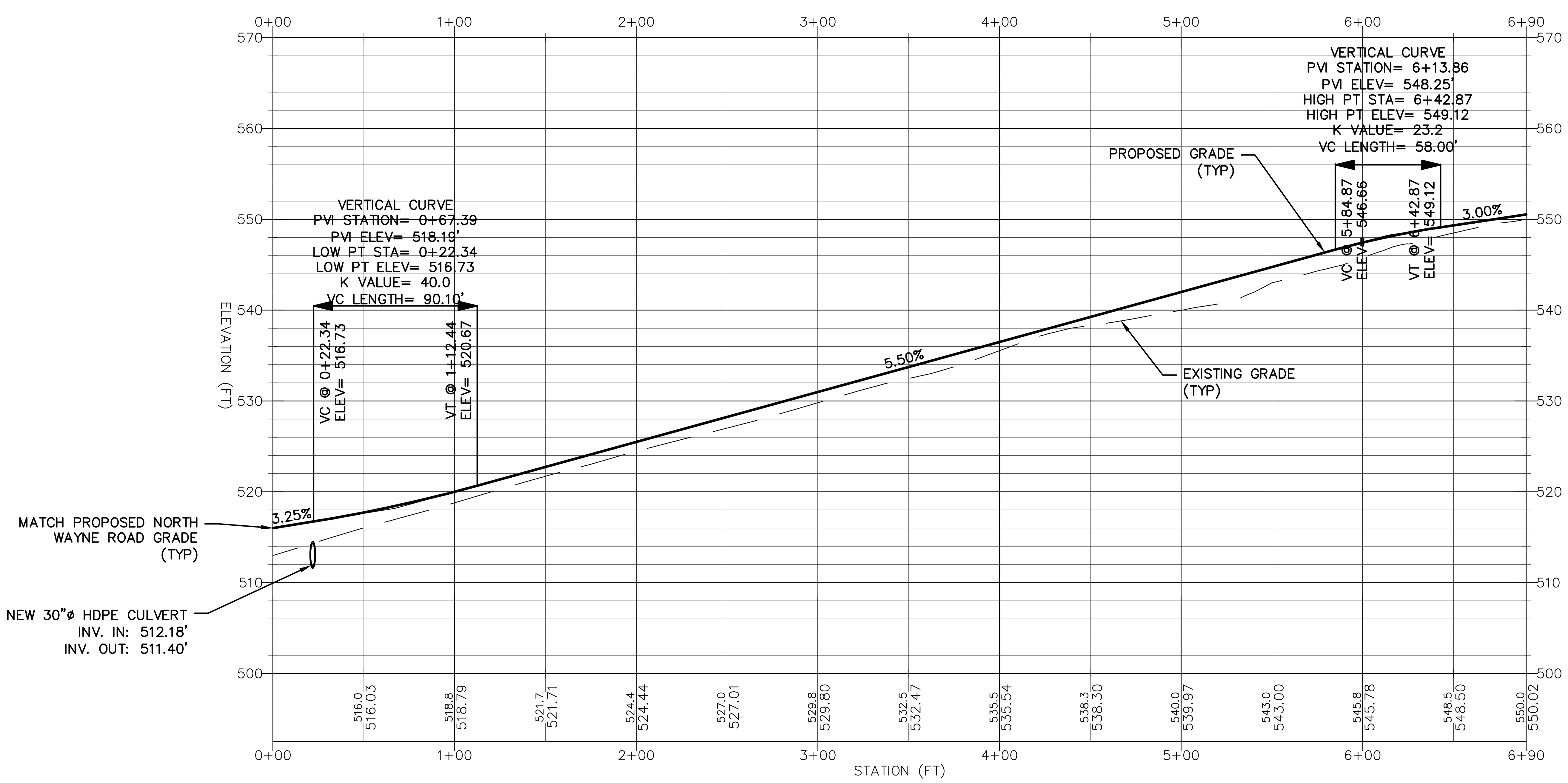
DRAWING NO.
C5.2
MLDC NO. 16-063 3 OF 6



JUNIPER LANE PLAN

SCALE: 1"=50'

B1



JUNIPER LANE PROFILE

HORIZONTAL SCALE 1" = 50' VERTICAL SCALE 1" = 10'

A1

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.

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PROJECT

MENATOMA WOODLANDS SUBDIVISION

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MADE FOR

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DRAWING SCALE:

50 0 25 50

(IN FEET)
1 INCH = 50 FT

SUBMISSION NOTES:
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MENATOMA WOODLANDS ROAD PLAN & PROFILE

SEAL:

STATE OF MAINE
SHANE D. HOWLEY
No. 17341
LICENSED PROFESSIONAL ENGINEER
2024-04-25

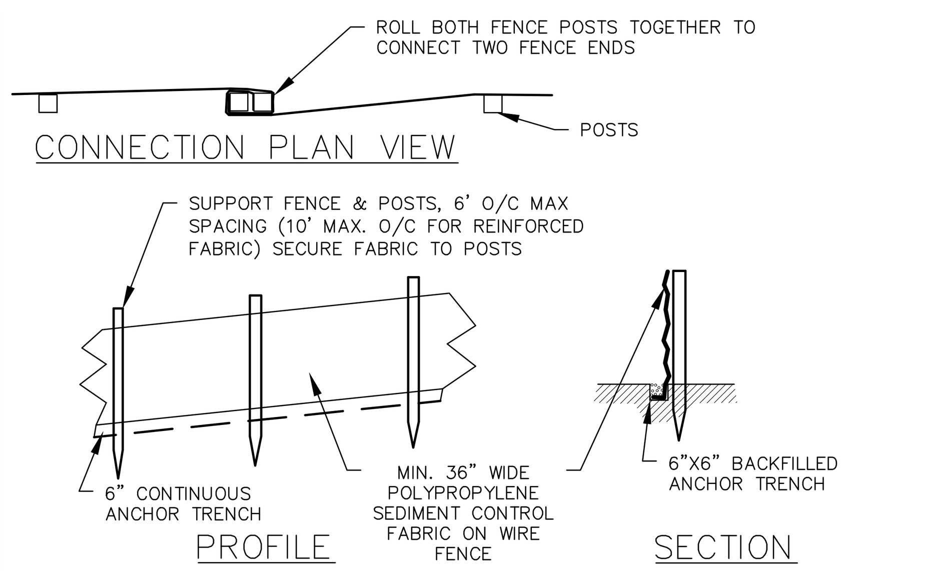
SHANE D. HOWLEY ME PE #17341

DRAWING NO.

C5.3

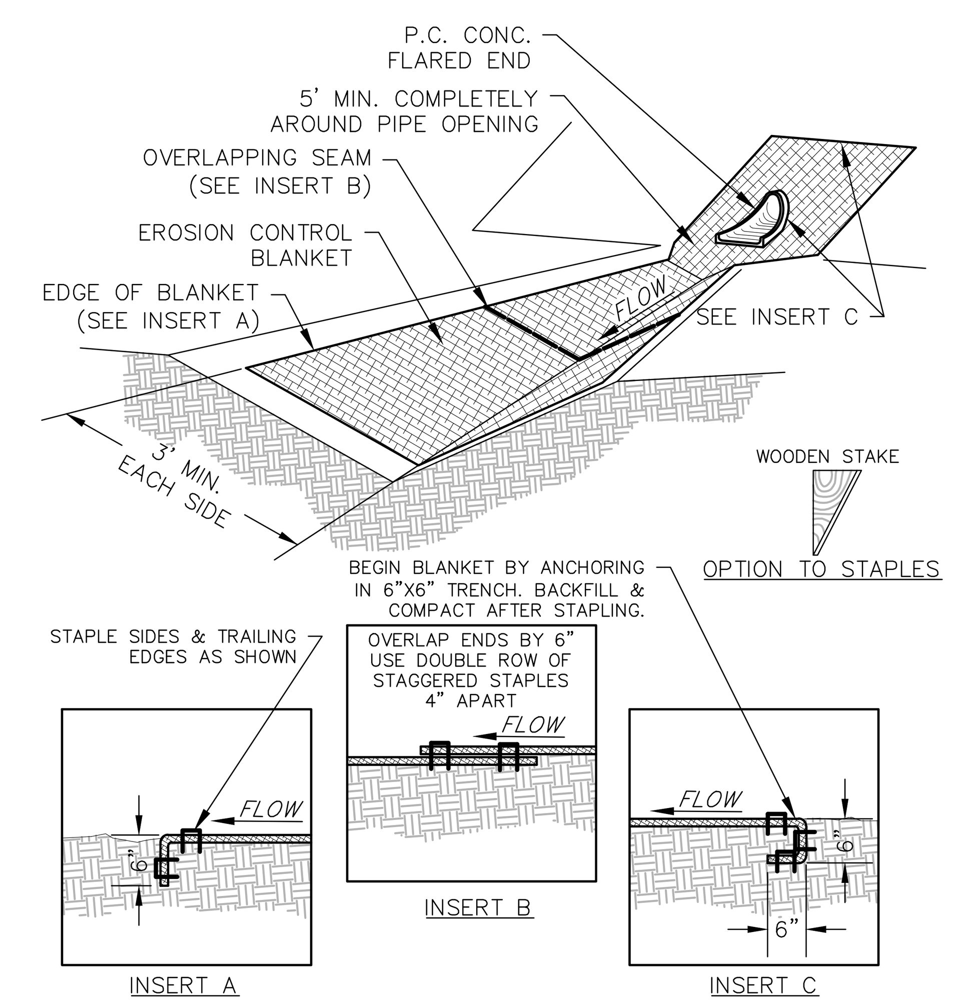
MLDC NO. 16-063 4 OF 6

TPLN-ROAD PLAN & PROFILE.dwg - PLOTTED ON 4/25/2024 3:58 PM BY SHANE HOWLEY

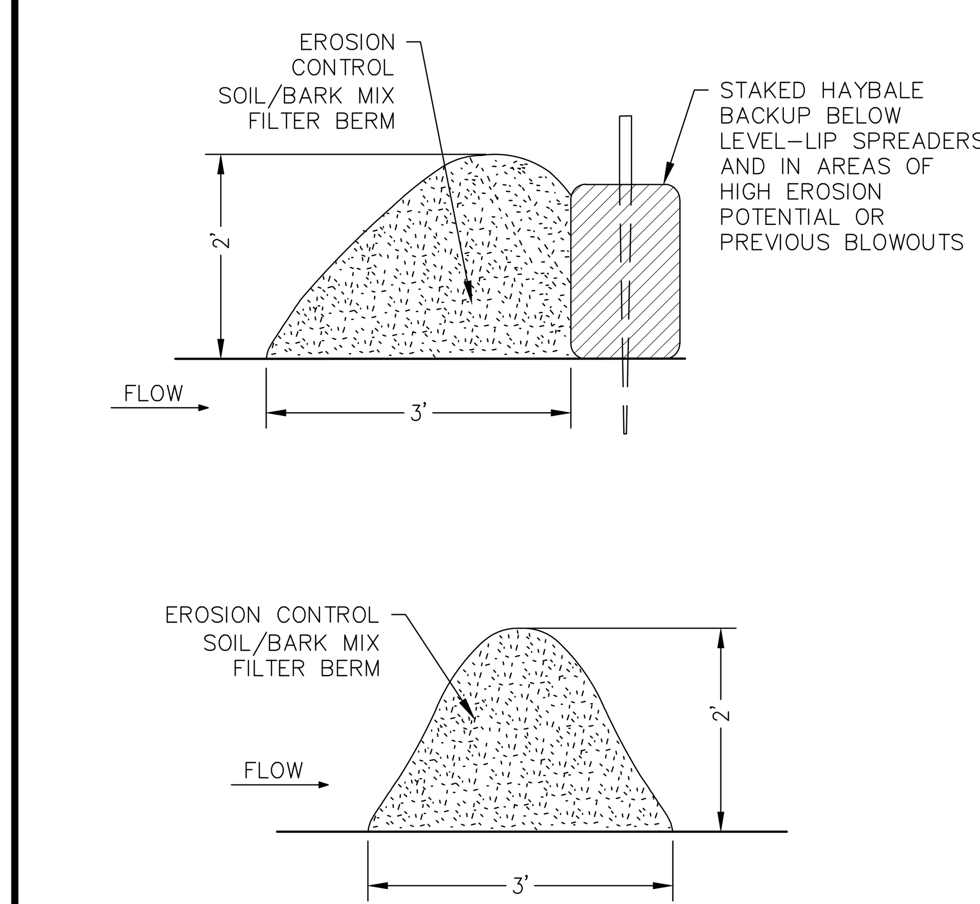


NOTES:
1. PLACE SILT FENCE OR FILTER BERMS ALONG UNIFORMLY SLOPED SURFACE.
2. EROSION CONTROL MIX FILTER BERM MAY BE SUBSTITUTED FOR A SILTFENCE. SEE THE SITE GRADING AND EROSION CONTROL PLAN.
3. EXCAVATE A 6"X6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
4. UNROLL ONE SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
5. DRIVE THE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM. JOIN SECTIONS AS SHOWN ABOVE.
6. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPLISHED BY AN INTERCEPTION DITCH.
7. BARRIER SHALL BE MIRAFI SILT FENCE OR APPROVED EQUAL.

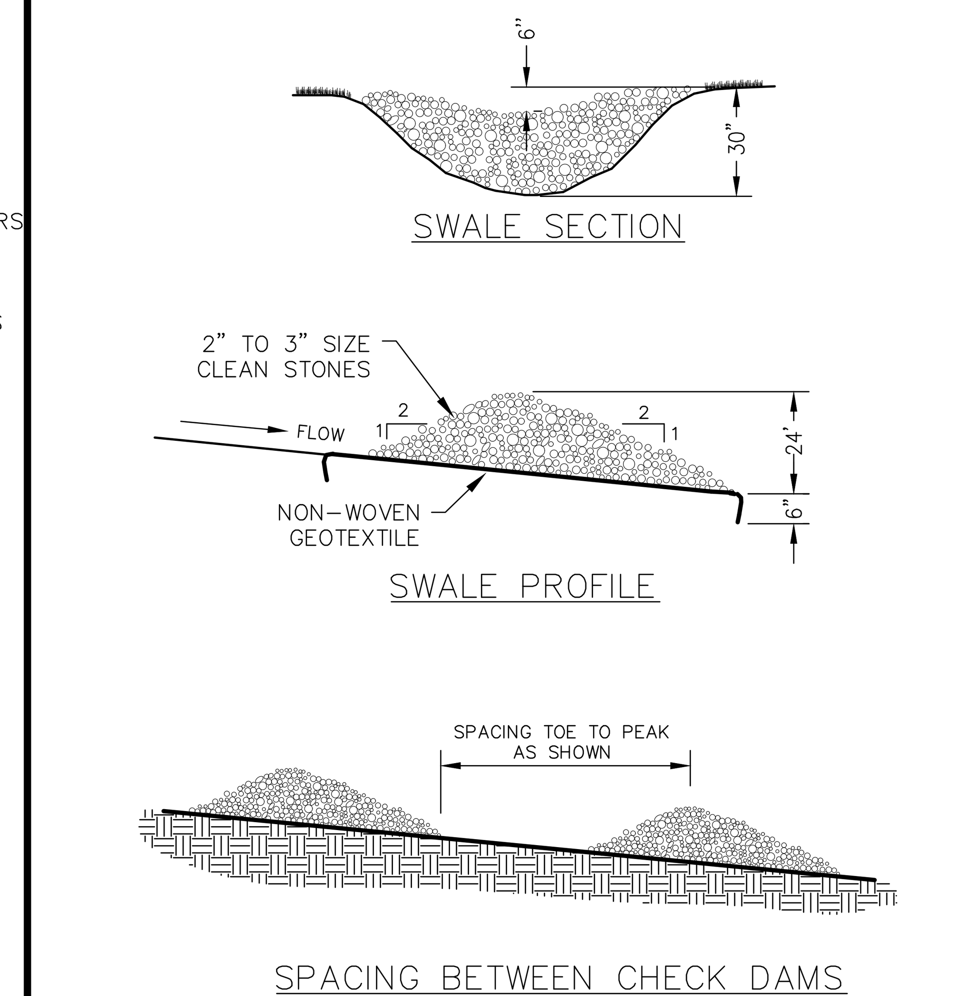
SILT FENCE — C5
NOT TO SCALE



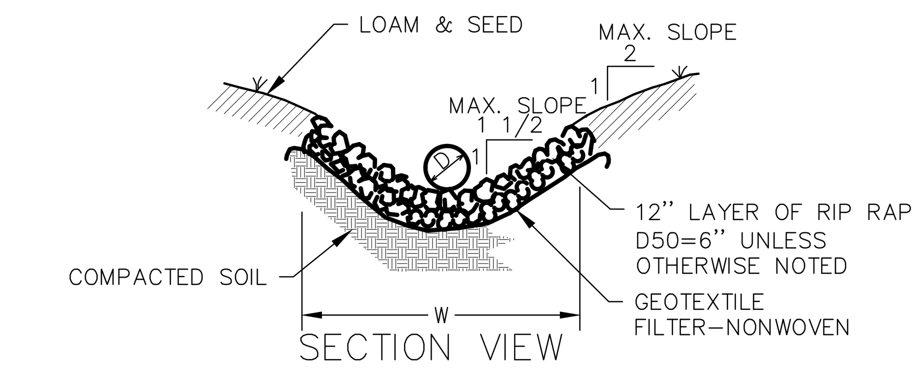
EROSION CONTROL BLANKET — C4
NOT TO SCALE



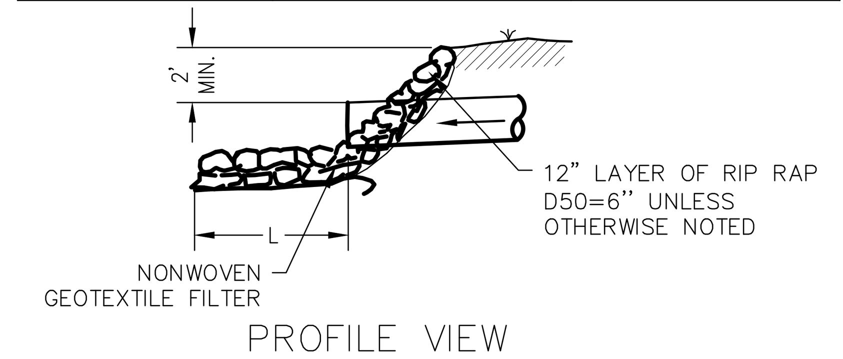
SEDIMENT FILTER BERM — C3
NOT TO SCALE



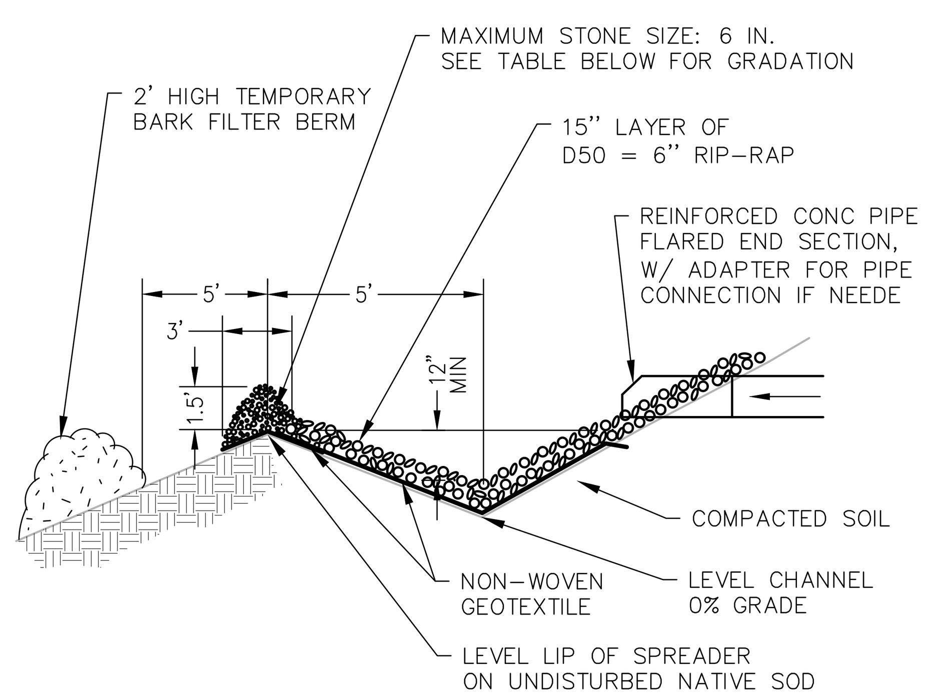
SWALE/DITCH STONE CHECK DAM — C2
NOT TO SCALE



PIPE DIAMETER (IN)	APRON WIDTH W (FT)	APRON LENGTH L (FT)
12	5	10
15	6	12
18	8	15
24	10	20
30	15	30
36	17	35



STORM DRAIN INLET/OUTET RIP-RAP — C1
NOT TO SCALE



BERM STONE GRADATION

SIEVE SIZE	% PASSING
12 IN / 300 mm	100
6 IN / 150 mm	84–100
3 IN / 75 mm	63–83
1 IN / 25.4 mm	42–55
No. 4 / 4.75 mm	8–12

LEVEL-LIP SPREADER SECTION — B5
NOT TO SCALE

NOTE:
TYPE A SHALL BE CRUSHED LEDGE OR CRUSHED GRAVEL. TYPE A AGGREGATE FOR BASE SHALL ONLY CONTAIN PARTICLES OF ROCK WHICH PASS THE 2 INCH SIEVE. AT LEAST 50 PERCENT OF THE MATERIAL RETAINED ON THE NO. 4 SIEVE SHALL HAVE AT LEAST 1 FRACTURED FACE AS TESTED BY AASHTO T 335.

NOTE:
TYPE B SHALL BE CRUSHED LEDGE OR CRUSHED GRAVEL. TYPE B AGGREGATE FOR BASE SHALL ONLY CONTAIN PARTICLES OF ROCK WHICH PASS THE 4 INCH SIEVE.

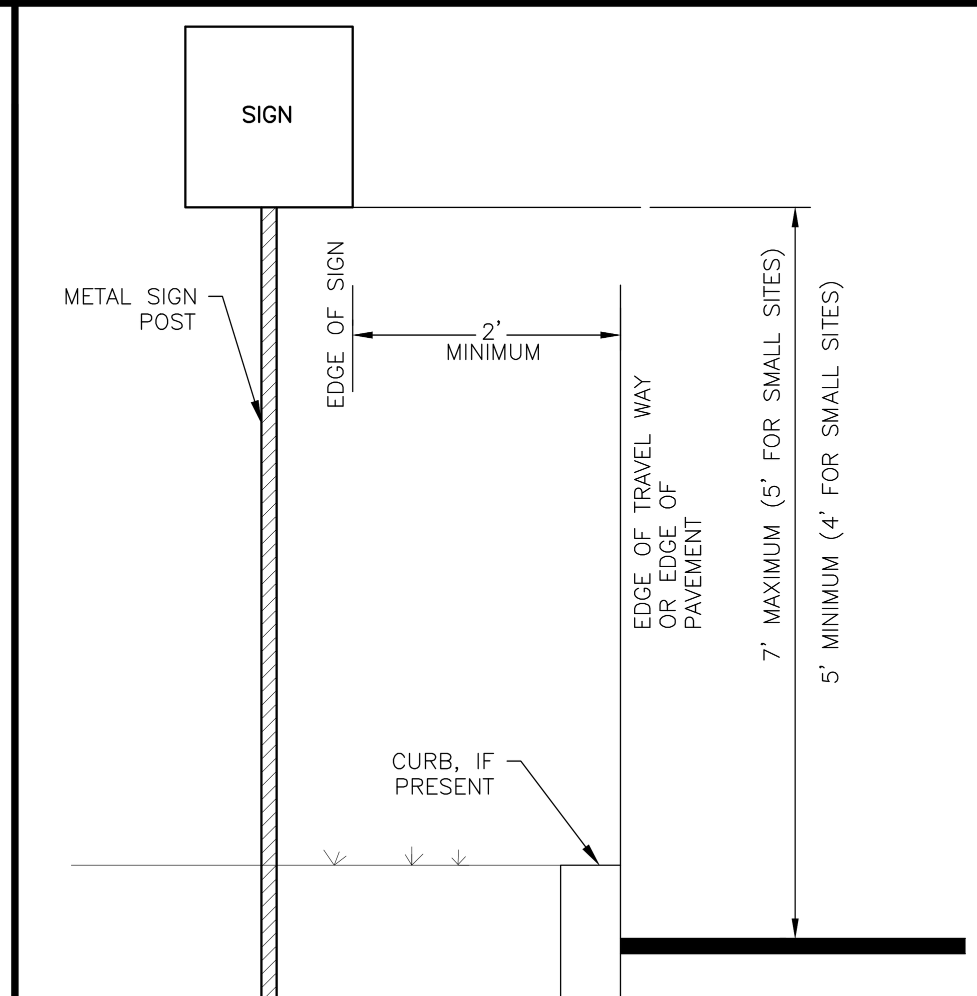
NOTE:
TYPE C SHALL BE CRUSHED LEDGE OR CRUSHED GRAVEL AND AGGREGATE FOR BASE SHALL ONLY CONTAIN PARTICLES OF ROCK WHICH PASS THE 6 INCH SIEVE. AT LEAST 50 PERCENT OF THE MATERIAL RETAINED ON THE NO. 4 SIEVE SHALL HAVE AT LEAST 1 FRACTURED FACE AS TESTED BY AASHTO T 335.

NOTE:
AGGREGATE FOR SUB-BASE SHALL BE SAND OR GRAVEL OF HARD DURABLE PARTICLES FREE OF VEGETABLE MATTER, LUMPS OF CLAY, AND OTHER DELETERIOUS SUBSTANCES. AGGREGATE FOR SUB-BASE SHALL NOT CONTAIN PARTICLES THAT DO NOT PASS THE 6 INCH SIEVE.

MDOT GRAVEL SPECIFICATIONS SECTION 703.06

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES				
	TYPE A	TYPE B	TYPE C	TYPE D	TYPE E
4 INCH			100		
3 INCH			90–100		
2 INCH			75–100		
1 INCH			50–80		
1/2 INCH	45–70	35–75	30–60	35–80	
1/4 INCH	30–55	25–60		25–65	25–100
NO. 4			15–40		
NO. 40	0–20	0–25		0–30	0–50
NO. 200	0–6.0	0–6.0	0–6.0	0–7.0	0–7.0

TYPICAL MAINE DOT GRAVEL SPECS — B3
NOT TO SCALE



NOTE: LOCATE SIGNS AS DETAILED, UNLESS NOTED OTHERWISE ON PLAN.

TRAFFIC SIGN DETAIL — B2
NOT TO SCALE

EXISTING CONDITIONS AND DEMOLITION

E1. TOPOGRAPHIC AND BOUNDARY SURVEY INFORMATION SHOWN ON THIS DRAWING PERFORMED AND SUPPLIED BY MAIN-LAND DEVELOPMENT CONSULTANTS, INC (MAIN-LAND) AND SUPPLEMENTED WITH NOAA LIDAR DATA.

E2. CONTRACTOR SHALL VERIFY SITE CONDITIONS, INCLUDING TEST PITS FOR LOCATIONS AND INVERTS OF UTILITIES, AND REPORT ANY DISCREPANCIES TO MAIN-LAND PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.

E3. PRIOR TO REMOVAL OF UTILITIES, VERIFY UTILITY FUNCTION, MATERIAL, USE, AND CURRENT ACTIVITY. REPORT DISCREPANCIES TO MAIN-LAND FOR DIRECTION PRIOR TO COMMENCING THE WORK ON THAT UTILITY.

E4. EXCAVATE AND STOCKPILE TOPSOIL ON-SITE. TOPSOIL IS TO REMAIN THE PROPERTY OF THE OWNER. NO TOPSOIL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

E5. RELOCATE EXISTING TBM INFORMATION ONTO NEW TBM OF CONTRACTORS CHOICE FOR CONSTRUCTION USE PRIOR TO REMOVAL OF EXISTING TBM.

E6. PRIOR TO BEGINNING DEMOLITION OR SITE WORK, THE GENERAL CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE TOWN OF READFIELD TO DISCUSS THE INSPECTION PROCESS AND PROJECT SCHEDULE.

SITE LAYOUT AND MATERIALS

L1. DIMENSIONS ARE TO EDGE OF GRAVEL UNLESS NOTED OTHERWISE.

L2. PROVIDE TRAFFIC CONTROL SIGNAGE AND STRIPING AS SHOWN AND IN ACCORDANCE WITH U.S.D.O.T. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

GRADING AND EROSION CONTROL

G1. ADD 6" 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.

G2. GRADE SURFACES TO DRAIN OFF OF ROADWAYS. PUDDLING OF WATER IN PAVED OR UNPAVED AREAS WILL NOT BE ACCEPTABLE EXCEPT FOR AREAS DESIGNATED AS PONDS.

G3. 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.

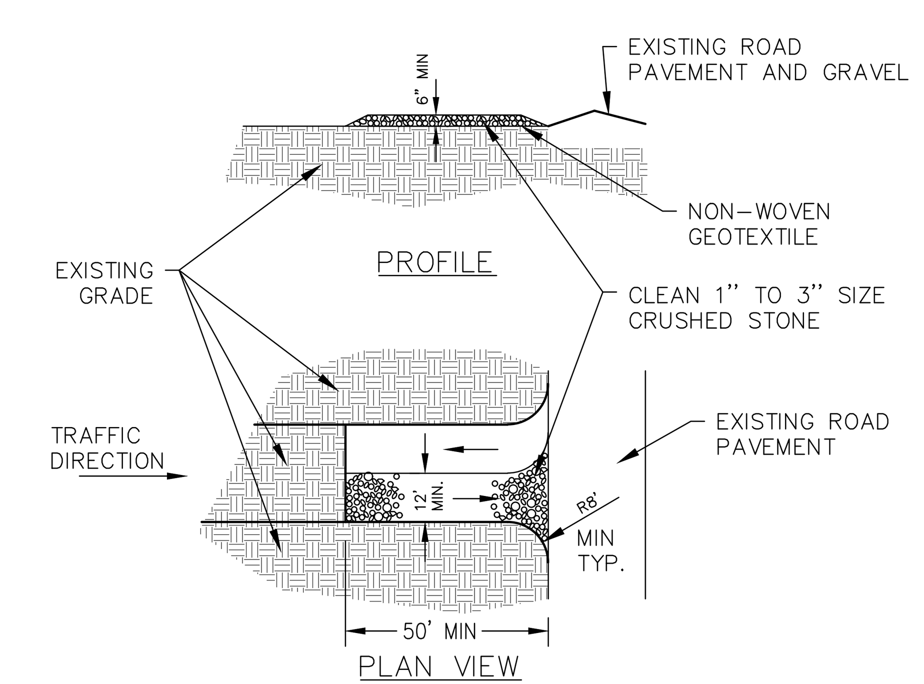
G4. PLACE TEMPORARY SOIL STABILIZATION WITHIN 7 DAYS OF INITIAL DISTURBANCE. PLACE PERMANENT SOIL STABILIZATION WITHIN 7 DAYS OF FINAL GRADING.

UTILITIES

U1. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO MAIN-LAND PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.

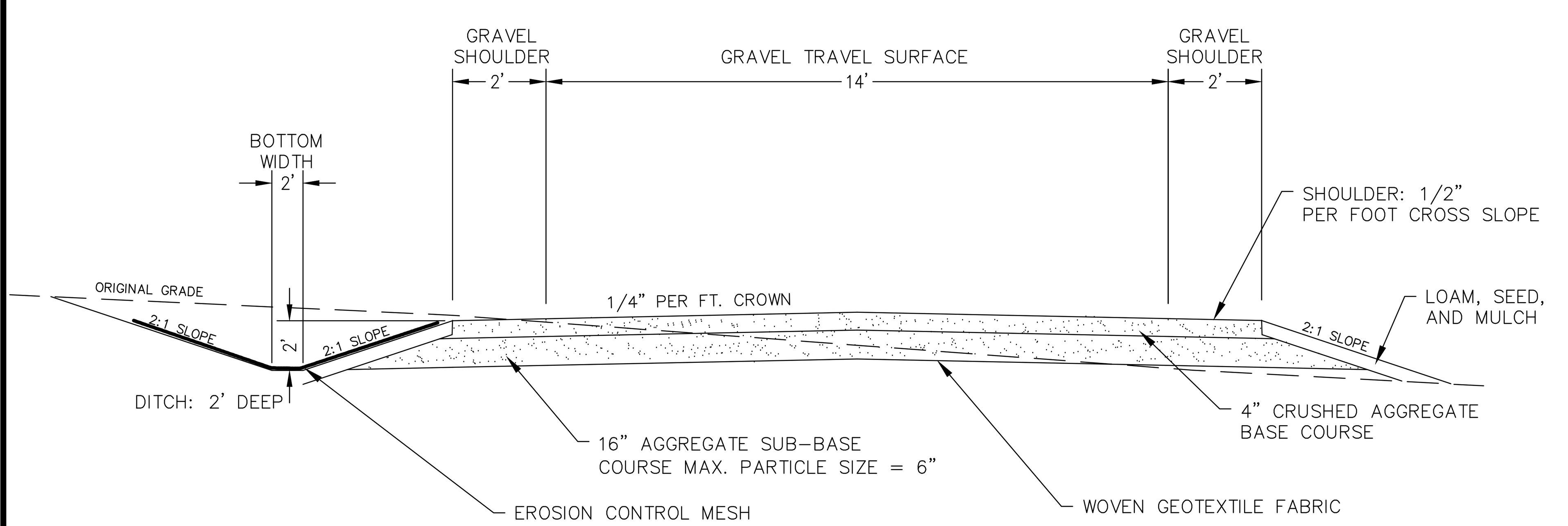
U2. COORDINATE WORK ON UTILITY LINES OR WITHIN ROAD RIGHT-OF-WAY WITH THE UTILITY COMPANIES AND TOWN ROAD DEPARTMENT.

GENERAL NOTES — A1
NOT TO SCALE



NOTES:
1. STONE SIZE: 2½" TO 1½" USE CRUSH STONE.
2. THICKNESS: MINIMUM OF 8".
3. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC TRAVELED WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE.

TEMP. STABILIZED CONSTRUCTION EXIT — A5
NOT TO SCALE



TYPICAL GRAVEL ROAD SECTION — A3
NOT TO SCALE

UTILITY LOCATION REQUIREMENTS

PRIOR TO EXCAVATION, VERIFY THE UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND FACILITIES. PROVIDE THE FOLLOWING MINIMUM MEASURES.

A. PRE-MARK THE BOUNDARIES OF YOUR PLANNED EXCAVATION WITH WHITE PAINT, FLAGS, OR STAKES SO UTILITY CREWS KNOW WHERE TO MARK THEIR LINES.

B. CALL DIG SAFE, AT 1-888-DIGSAFE, AT LEAST THREE BUSINESS DAYS – BUT NO MORE THAN 30 CALENDAR DAYS – BEFORE STARTING WORK. DON'T ASSUME SOMEONE ELSE WILL MAKE THE CALL.

C. IF BLASTING, NOTIFY DIG SAFE AT LEAST ONE BUSINESS DAY IN ADVANCE.

D. WAIT THREE BUSINESS DAYS FOR LINES TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS, OR STAKES. NOTE THE COLOR OF THE MARKS AND THE TYPE OF UTILITIES THEY INDICATE. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.

E. CONTACT THE LANDOWNER AND OTHER 'NON-MEMBER' UTILITIES (WATER, SEWER, GAS, ETC) FOR THEM TO MARK THE LOCATIONS OF THEIR UNDERGROUND FACILITIES. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.

F. RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING, OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY, OR ANY OTHER REASON.

G. HAND DIG WITHIN 18 INCHES IN ANY DIRECTION OF ANY UNDERGROUND LINE UNTIL THE LINE IS EXPOSED. MECHANICAL METHODS MAY BE USED FOR INITIAL SITE PENETRATION, SUCH AS REMOVAL OF PAVEMENT OR ROCK.

H. DIG SAFE REQUIREMENTS ARE IN ADDITION TO TOWN, CITY, AND/OR STATE D.O.T. STREET OPENING PERMIT REQUIREMENTS.

I. FOR COMPLETE DIG SAFE REQUIREMENTS, CALL THE P.U.C. OR VISIT THEIR WEBSITE.

J. IF YOU DAMAGE, DISLOCATE, OR DISTURB ANY UNDERGROUND UTILITY LINE, IMMEDIATELY NOTIFY THE AFFECTED UTILITY. IF DAMAGE CREATES SAFETY CONCERNS, CALL THE FIRE DEPARTMENT AND TAKE IMMEDIATE STEPS TO SAFEGUARD HEALTH AND PROPERTY.

K. ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED, OR IF LINES ARE IMPROPERLY MARKED, YOU MUST FILE AND INCIDENT REPORT WITH THE P.U.C.. FOR AN INCIDENT REPORT FORM VISIT WWW.STATE.ME.US/MPUC OR CALL THE P.U.C. AT 1-800-452-4699.

UTILITY LOCATION REQUIREMENTS — A2
NOT TO SCALE

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

PROJECT
MENATOMA WOODLANDS SUBDIVISION
LANE ROAD AND MENATOMA CAMP ROAD
READFIELD, MAINE 04355

OWNER OF RECORD
LOVEYJOY VENTURES, LLC.
C/O JOHN LAWRENCE
103 BRUNSWICK AVENUE, SUITE 1
GARDNER, MAINE 04345

MADE FOR
JOHN LAWRENCE
103 BRUNSWICK AVENUE, SUITE 1
GARDNER, MAINE 04345

DRAWING SCALE:
NOT TO SCALE

SUBMISSION NOTES:
SUBMISSION 1: 2024-02-28 SDH FOR REVIEW.
SUBMISSION 2: 2024-04-25 SDH FOR REVIEW.

PROJ. MGR:	RLB
DRAWN BY:	SDH
CHECKED BY:	RLB
REVISION NO.	2
SURVEY DATE:	2016-12-08
ISSUE DATE:	2024-04-25
ISSUED FOR:	REVIEW

NOT FOR CONSTRUCTION

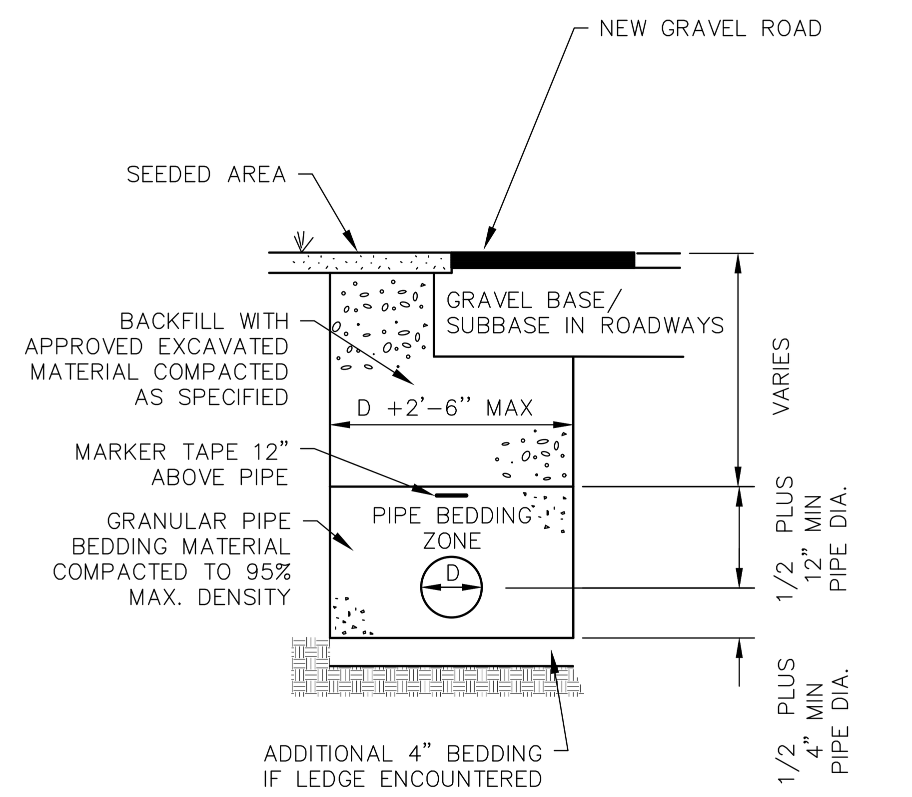
DETAILS SHEET

SEAL:
STATE OF MAINE
SHANE D. HOWLEY
No. 17341
LICENSED PROFESSIONAL ENGINEER
2024-04-25

SHANE D. HOWLEY ME PE #17341

DRAWING NO.
C9.1
MLDC NO. 16-063 5 OF 6

PIPE TRENCH (C3)



PIPE TRENCH
NOT TO SCALE
C3

HOUSE SITE: EROSION & SEDIMENTATION CONTROL PLAN (C1)

INSTALLATION

1. INSTALL SEDIMENT BARRIERS ON YOUR SITE BEFORE DISTURBING SOILS. SEE THE "SEDIMENT BARRIERS" MEASURE FOR DETAILS ON INSTALLATION AND MAINTENANCE.

2. CONSTRUCT A DIVERSION DITCH TO KEEP UPSLOPE RUNOFF OUT OF WORK AREA.

3. MARK CLEARING LIMITS ON THE SITE TO KEEP EQUIPMENT OUT OF AREAS WITH STEEP SLOPES, CHANNELIZED FLOW, OR ADJACENT SURFACE WATERS AND WETLANDS.

4. PRESERVE BUFFERS BETWEEN THE WORK AREA AND ANY DOWNSTREAM SURFACE WATERS AND WETLANDS. SEE THE "BUFFERS" MEASURE FOR BUFFER PRESERVATION.

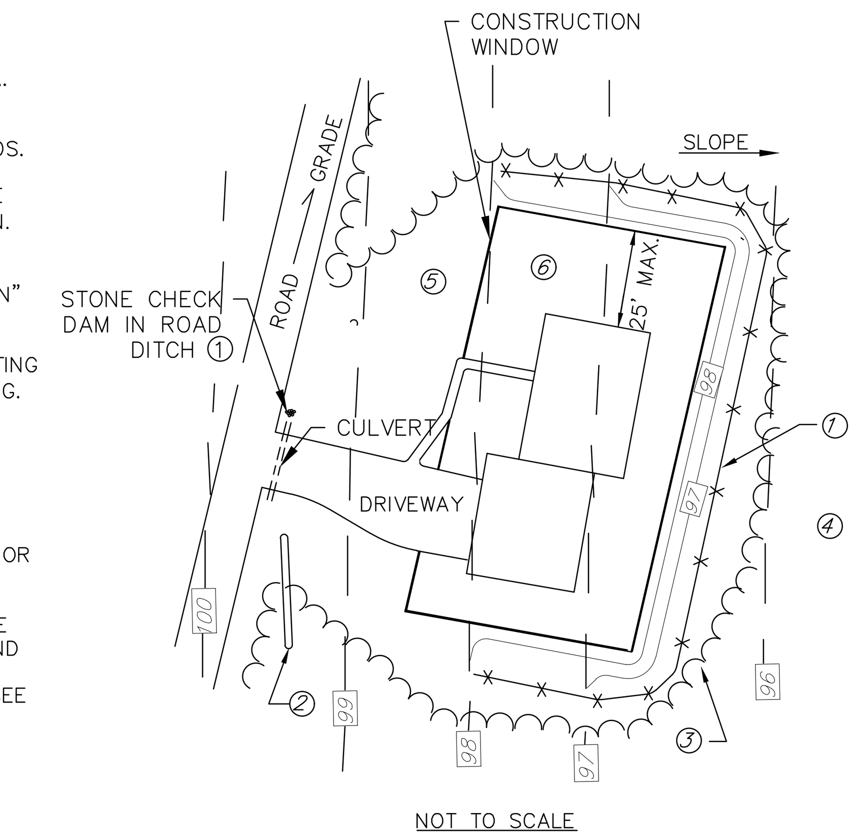
5. USE TEMPORARY MULCH AND RYE–SEED TO PROTECT DISTURBED SOILS OUTSIDE THE ACTIVE CONSTRUCTION AREA. SEE THE "MULCHING" MEASURE AND "VEGETATION" MEASURE FOR DETAILS AND SPECIFICATIONS FOR THESE CONTROLS.

6. PERMANENTLY SEED AREAS NOT TO BE PAVED WITHIN SEVEN DAYS OF COMPLETING FINAL GRADING. SEE "VEGETATION" MEASURE FOR INFORMATION ON PROPER SEEDING.

MAINTENANCE

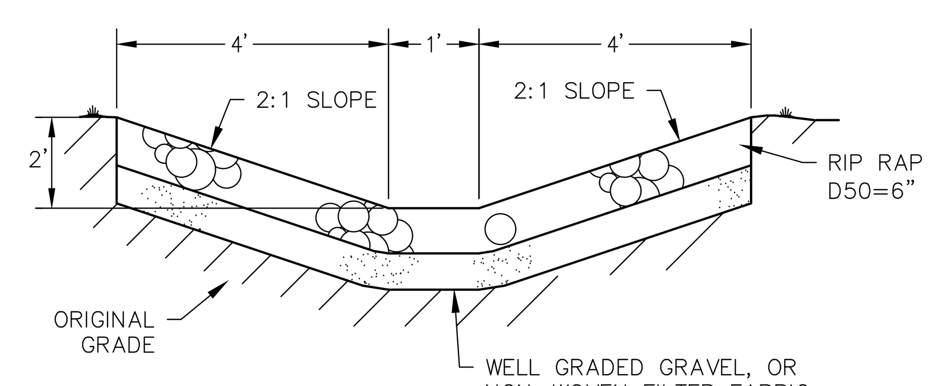
EVERY MONTH THE FIRST YEAR AFTER CONSTRUCTION AND YEARLY THEREAFTER, INSPECT FOR AREAS SHOWING EROSION OR POOR VEGETATION GROWTH. FIX THESE PROBLEMS AS SOON AS POSSIBLE. EACH SPRING REMOVE ANY ACCUMULATION OF DEBRIS OR WINTER SAND THAT WOULD IMPEDE RUNOFF FROM ENTERING A BUFFER OR DITCH.

NOTE: INSPECTION BY A PROFESSIONAL ENGINEER WILL CONSIST OF A VISIT TO THE SITE PRIOR TO CONSTRUCTION TO CONSULT WITH THE EARTHWORK CONTRACTOR AND A POST CONSTRUCTION MEETING TO CONFIRM GRADING ON LOTS AND FOR ALL DRIVEWAYS TO ENSURE RUNOFF IS DIRECTED ACCORDING TO PLANS AND TO OVERSEE THE RESTABILIZATION OF THE LOT INTO A VEGETATED COVER.



HOUSE SITE: EROSION & SEDIMENTATION CONTROL PLAN
NOT TO SCALE
C1

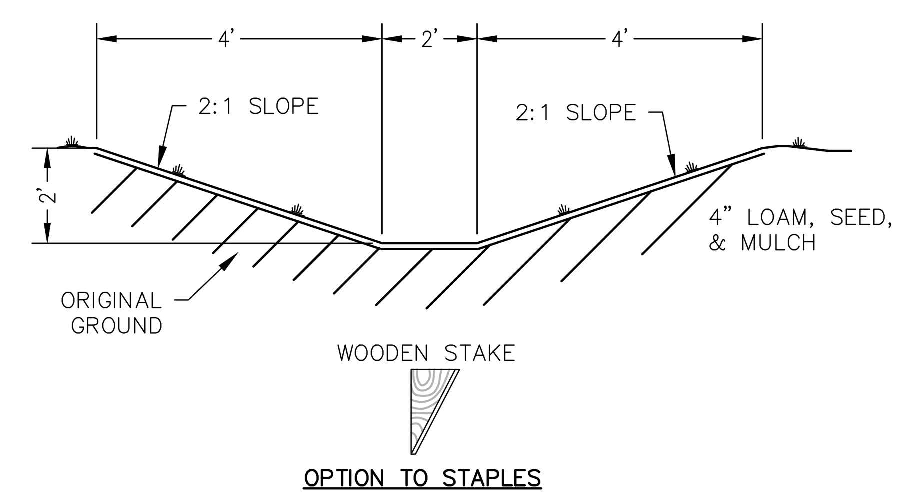
TYPICAL RIP RAP DITCH (B3)



NOTE: PERMANENT DITCH LINING SHALL BE INSTALLED WITHIN 48 HOURS OF FINAL DITCH GRADING.

TYPICAL RIP RAP DITCH
NOT TO SCALE
B3

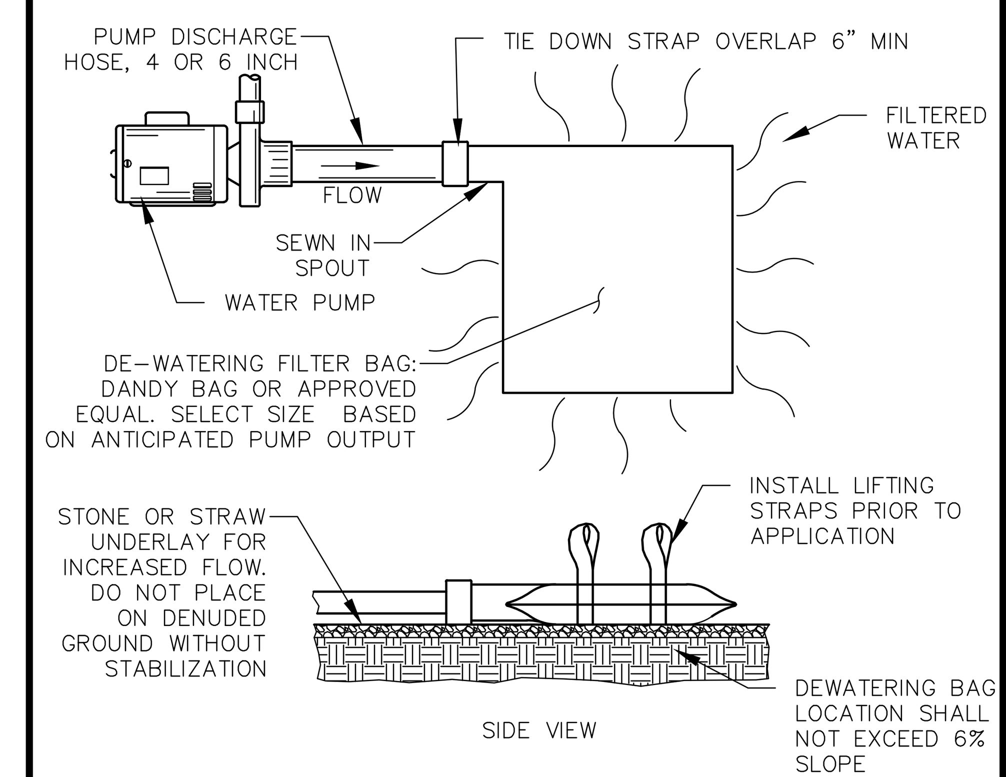
TYPICAL GRASS DITCH (B2)



NOTES:
1. FLOW AREA OF GRASS DITCH TO BE LINED WITH AMERICAN EXCELSIOR CURLEX BANKMENT OR EQUAL, INSTALLED PER MANUFACTURER'S RECOMMENDATION WITHIN 48 HOURS OF FINAL DITCH GRADING.
2. BURY THE TOP OF THE NETTING IN A TRENCH 6" OR MORE DEEP.
3. TAM TRENCH FULL OF SOIL, SECURE WITH ROW OF STAPLES (OR WOOD STAKES), 12" SPACING, 4" DOWN FROM THE TRENCH.
4. OVERLAP–BURY UPPER END OF LOWER STRIP AS IN "A" & "B" OVERLAP END OF TOP STRIP 4" AND STAPLE OR WOOD STAKE.
5. CHECK SLOT–FOLD OF NETTING BURIED IN SLIT TRENCH TAMPED; DOUBLE ROW OF STAPLES (OR WOOD STAKES) AT 12" SPACING, USE CHECK SLOTS AT 15" SPACING IN DITCHES OR STEEP SLOPES.

TYPICAL GRASS DITCH
NOT TO SCALE
B2

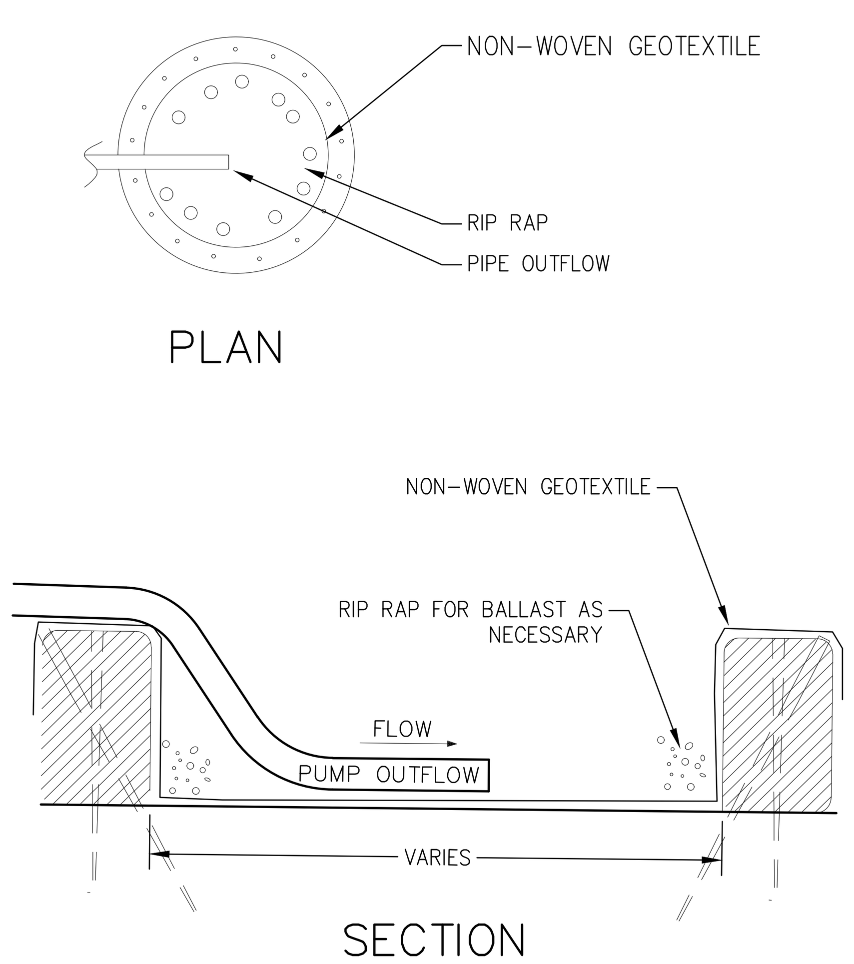
DE–WATERING FILTER BAG DETAIL (B1)



Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	0.9 (205) x 0.9 (205)
Grab Tensile Elongation	ASTM D 4632	%	50 x 50
Puncture Strength	ASTM D 4833	kN (lbs)	0.58 (130)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	2618 (380)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.36 (80) X 0.36 (80)
UV Resistence	ASTM D 4355	%	70
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.180 (80)
Flow Rate	ASTM D 4491	$1/min/m^2$ ($gal/min/ft^2$)	3866 (95)
Permittivity	ASTM D 4491	Sec^{-1}	1.2

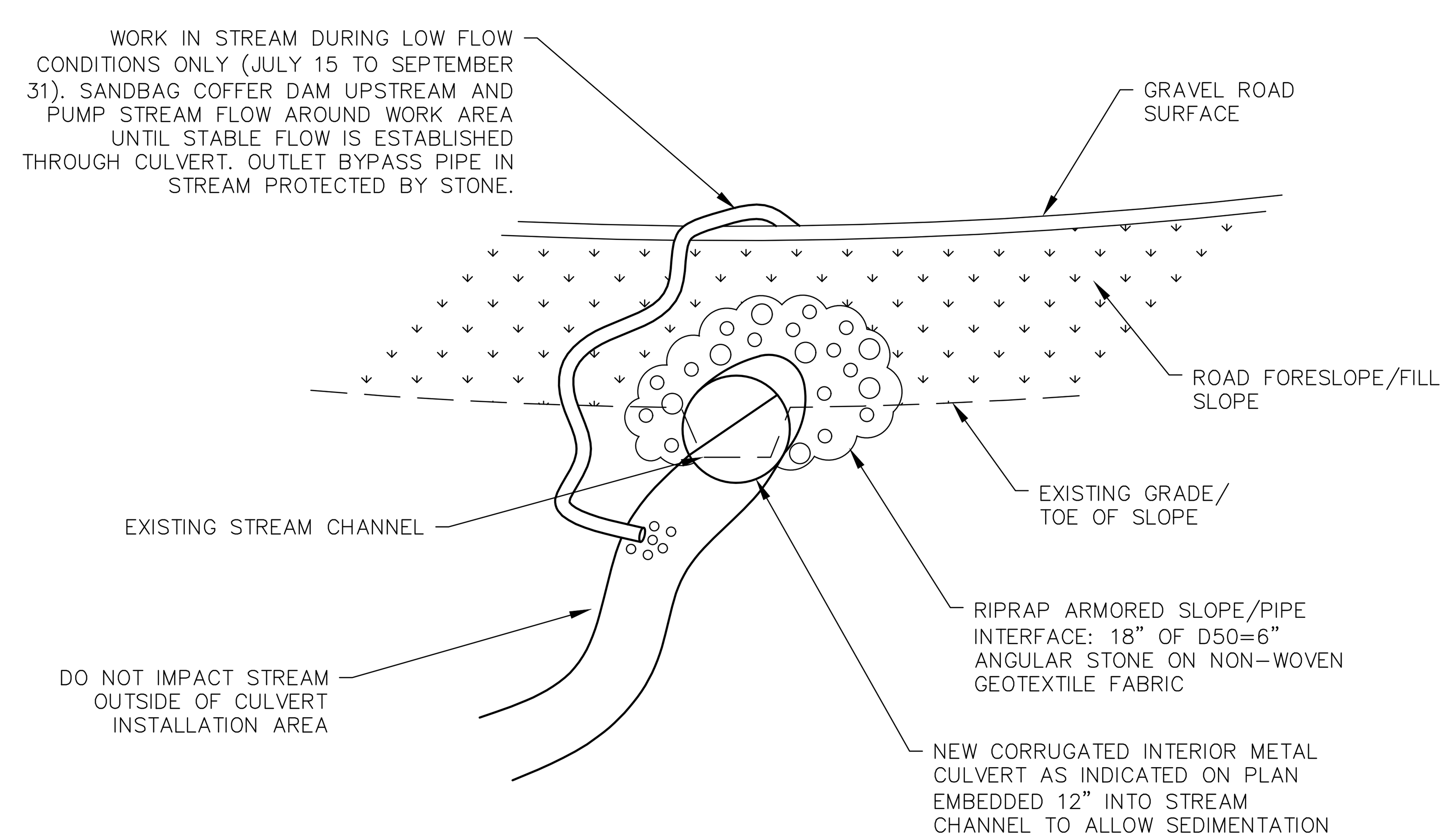
DE–WATERING FILTER BAG DETAIL
NOT TO SCALE
B1

DEWATERING SEDIMENT FILTER (A5)



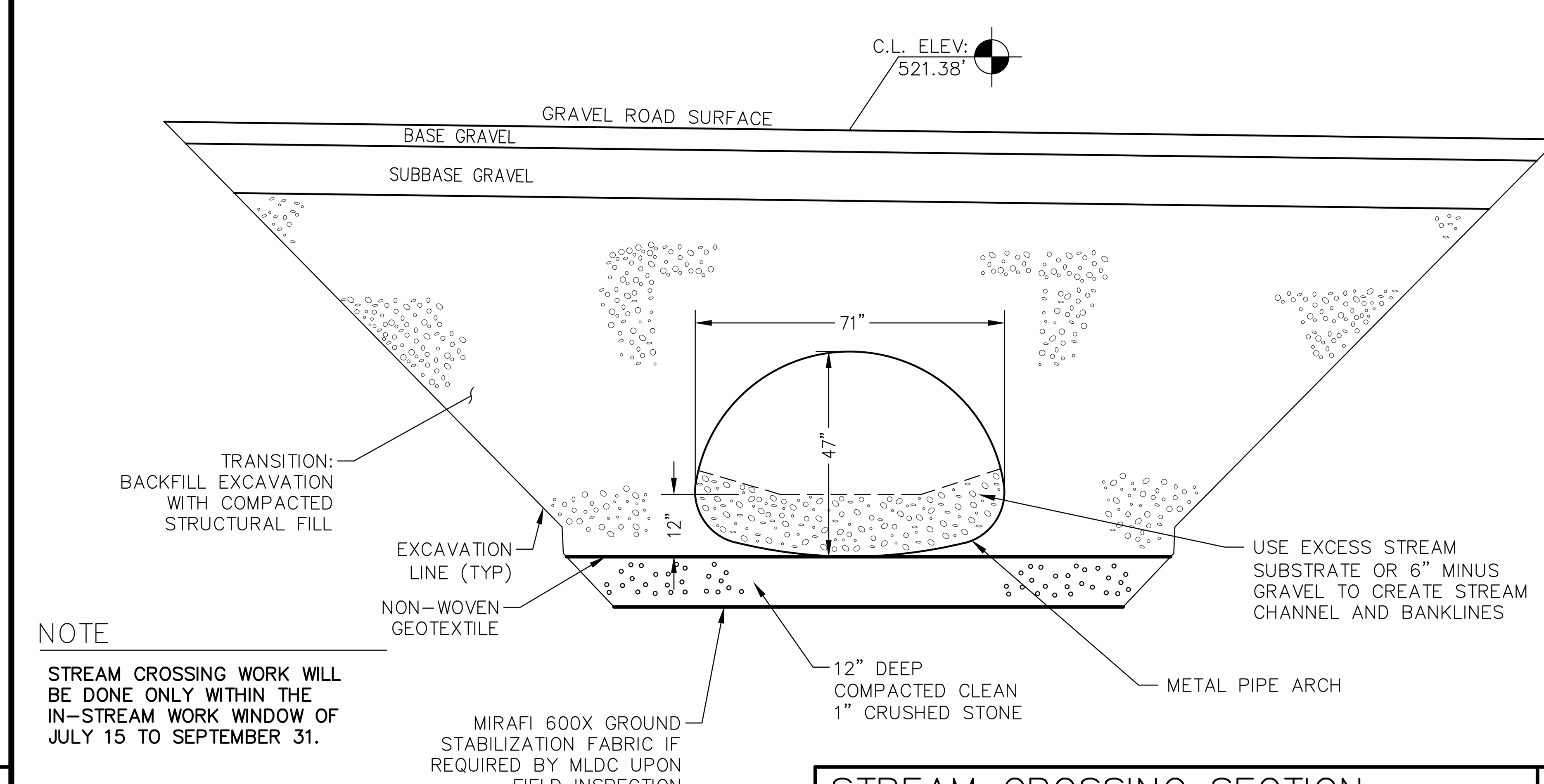
DEWATERING SEDIMENT FILTER
NOT TO SCALE
A5

TYPICAL STREAM CROSSING (A3)



TYPICAL STREAM CROSSING
NOT TO SCALE
A3

STREAM CROSSING SECTION (A1)



NOTE

STREAM CROSSING WORK WILL BE DONE ONLY WITHIN THE IN–STREAM WORK WINDOW OF JULY 15 TO SEPTEMBER 31.

STREAM CROSSING SECTION
NOT TO SCALE
A1

MLDC
MAIN–LAND
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69 MAIN ST. LIVERMORE FALLS, MAINE
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