TRILLIUM ENGINEERING GROUP

189 Main Street, Suite 200
Yarmouth, ME 04096

February 27, 2024

Town of Cumberland
290 Tuttle Rd
Cumberland Center, ME 04021

Re: Harris Road Subdivision – Proposed Subdivision
Project Narrative for Planning Board Workshop

To Whom it May Concern:

Trillium Engineering Group is providing this project narrative for the Harris Road Subdivision Planning Board Workshop. The project proposes the division of the lot into 8 individual lots, each having a minimum lot size of 1.18 acres, and a 36 foot ROW connecting to Harris Road with a cul-de-sac style turnaround. Potential stormwater areas have been shown on the plans along with proposed snow storage areas.

This project satisfies the 50% minimum open space requirement (total lot area (21.22 acres/2 = 10.61 acres) required by the ordinance. This includes the 75 foot buffer strip around the property perimeter required by the ordinance and some natural areas in between the proposed lots. We are also proposing a 30 foot wide easement from the proposed cul-de-sac to the adjacent property to the east of the property. Our lot design attempts to maximize the individual lots and also avoid wetlands and other natural features to the maximum extent possible. Please refer to C101 "Conservation Subdivision Overall Plan" for a detailed overview of our calculations. We are also proposing the 36 foot wide right of way since we are serving only 5 lots from our proposed roadway. This allows us to be below the 50 vehicle trips (10 per lot) for the proposed roadway. See the attached application and supporting documents for additional project information.

Thank you for taking the time to review this. Should you have any further questions or require any additional information, please do not hesitate to ask.

Sincerely,

Eric Dube, PE
Trillium Engineering Group

APPENDIX E

CONSERVATION SUBDIVISION APPLICATION,
SUBMISSION REQUIREMENTS AND CHECKLIST

The information listed below will be required for submissions of preliminary and final applications for Conservation Subdivisions. Please review Section 250 (Subdivision of Land) in the Cumberland Code for complete information on the processes for review.

Prior to submission of plans for Planning Board review, a pre-application meeting with the Town Planner and Code Enforcement Officer is required. The date of this meeting ~~is scheduled for:~~ February 11, 2024 at 2:00 p.m. a.m./p.m.
occurred on:

A: APPLICATION

Proposed Project Name: Harris Road Subdivision

Project Address: 96 Harris Road, Cumberland, Maine

Accessor's Tax Map and Lot Number(s): Map R03, Lot 38A

Property Owner's Contact Information
Name: DWGroundbreakers LLC
Mailing Address: 5 Clipper Street, Cumberland Foreside, ME 04110
Email Address: jessiedemersrealtor@gmail.com
Office Phone: (720) 320-1391
Cell Phone:

Consultant's Contact Information.
Name: Trillium Engineering Group, Eric Dube
Professional Designation (e.g., P.E., LLA) P.E., Principal
Mailing Address: 189 Main St. Suite 200
Yarmouth, ME 04096
Email Address: ericd@trilliumeg.com
Office Phone: (207) 307-0872
Cell Phone:

Has evidence of right, title or interest in the property been provided?: See attached deed

Has evidence of acting as owner's agent letter been provided? Included in submission

Date of Submission: 02/27/24

Gross Site Acreage: 21.22 Acres

Estimated or actual area of wetlands: 2.29 Acres

Estimated Net Residential Acreage: 18.03 Acres

Proposed number of lots: 8 lots

Proposed Subdivision Name: TBD

Proposed Subdivision Address: 96 Harris Road, Cumberland Maine

Will the proposed subdivision be served by:

Check the ones that apply:

Public Water ___
Public Sewer ___
Private Septic X
Private Wells X

Submittal Requirements:

Provide all plans and supporting information in electronic format.
Provide 2 full size paper plan sets and supporting information.
Submit review fee as required.

B: BASE INFORMATION/PLAN:

The base information shall be used for the preparation of the plan for the Workshop Meeting with the Planning Board:

The base information must include the following:

a. Scale: 1" = 10' to 1" = 30'
b. Vicinity Map
c. North Arrow
d. Aerial Photo showing existing vegetation.
e. Significant natural features (rock formations, ponds, streams, water courses, etc.)
f. Existing Contours
g. Approximate location of any existing trails on the subject property and the adjacent properties.

C. SITE CONDITIONS:

Describe in detail the present condition of the subject property, including any water frontage, the general slope and topography of the ground (flat, steep, percent slope, etc., any history of vegetation clearing and timber harvesting activities and whether portions of the site are subject to flooding or ponding, etc.

1) Water Frontage: None
2) Slope and Topography: Avg. slope of 9.2%
3) Existing Vegetation: Meadow/Wooded

4) Hydrogeologic Features: None
5) Flood Zone Designation: Zone C
6) Special Natural Areas: None
7) Historic Features: None

D. EXISTING AND PROPOSED ZONING, USES AND STRUCTURES:

Zoning District(s): Rural Residential 2 (RR 2)

Current Use: X Undeveloped/forested; ___Residential; _____Commercial; ____ Industrial; _____Public/Civic. OTHER: _____

Is the parcel in a zoning overlay district? If so, specify which one: None

Is a mixed use (residential and commercial) development proposed? If yes, list number of residential units N/A and non-residential units: N/A

E. ACCESS:

Is there a suitable entrance location identified that meets required sight distance or any applicable MDOT regulations? Yes: X NO: _____

F. CONNECTIVITY:

Is there an opportunity to connect this subdivision with an adjacent subdivision? If yes, describe: No adjacent subdivisions

G. AFFORDABILITY:

Will the subdivision include any lots for affordable housing? No

Is there an opportunity for a Low Impact Development (LID)? No

H. SCENIC CHARACTER, NATURAL AND HISTORIC FEATURES:

(i) How will the development be located, designed and landscaped to minimize any visual impacts on the scenic character of the surrounding area:
(ii) Will structures be visible from the existing roadways or shorelines?

I. PRIMARY CONSERVATION AREAS: (List below and show on plan)

Primary conservation area will consist of 10.6 +/- acres of forest and forested wetlands

TRILLIUM ENGINEERING GROUP

189 Main Street, Suite 200
Yarmouth, ME 04096

February 27, 2024

To Whom It May Concern:

We hereby authorize

Trillium Engineering Group
189 Main Street
Yarmouth, ME 04096

As our agent to act on our behalf in all matter relating to all processes required in the proposed subdivision at 96 Harris road in Cumberland, Maine.

This certification commences on the date of signing and is valid for two years from February 27, 2024 to February 27, 2026.

This certificate will become null and void unless it is agreed between both parties to make an extension.

Sincerely,

Eric Dube, P.E.
Trillium Engineering Group

DocuSigned by:
Jessie Pinkham Demers
B870E1175D5240A...
_____
Signature of Owner

_____
Signature of Agent
Eric Dube, P.E.

Know all Men by these Presents,

That I, Alberta V. Haynes of Portland, in the County of Cumberland and State of Maine

in consideration of One Dollar and other valuable considerations

paid by Alberta V. Haynes and Nelson B. Haynes of 74 Summit Park Avenue, Portland, in the County of Cumberland and State of Maine

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said

Alberta V. Haynes and Nelson B. Haynes

as joint tenants and not as tenants in common, their heirs and assigns forever, ~~a certain lot or parcel of land~~ four certain lots or parcels of land on the southeasterly side of the Harris Road in the Town of Cumberland, County of Cumberland and State of Maine, making up one parcel bounded northwesterly by said Harris Road; northeasterly by land of Eda Sawyer; southeasterly by land of JOhn Bjon; and southwesterly by land of Charles Morrill.

Being the same premises Niels Andresen Gram conveyed to Martin Christensen by warranty deed dated April 6,1926 recorded in Cumberland County Registry of Deeds Book 1226, Page 395, and the same premises conveyed to Martin Christensen and Christine M. Christensen by warranty deed dated September 8, 1954 recorded in said Registry Book 2195, Page 327. Excepting and reserving however, that portion of said premises conveyed by Christine M. Christensen to Arthur R. Day et al by warranty deed dated November 8,1965 recorded in said Registry Book 2933, Page 40; also excepting and reserving a fifty foot strip of land northeasterly of said Day property conveyed by Christine M. Christensen to Norman C. Christensen et al by deed of June 1966 recorded in said Registry.

Being the same premises Christine M. Christensen conveyed to Alberta V. Haynes by deed dated June 10, 1966 and recorded in said Registry Book 2960, Page 703.

To have and to hold the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said

Albert V. Haynes and Nelson B. Haynes

as joint tenants and not as tenants in common, their heirs and assigns, to their own use and behoof forever.

And I do covenant with the said Grantees, as aforesaid, that I am lawfully seized in fee of the premises, that they are free of all encumbrances;

that I have good right to sell and convey the same to the said Grantees to hold as aforesaid; and that I and my heirs shall and will Warrant and Defend the same to the said Grantees, their heirs and assigns against the lawful claims and demands of all persons.

In Witness Whereof. We the said Alberta V. Haynes

and Nelson B. Haynes

~~wifex~~ husband of the said Alberta V. Haynes

joining in this deed as Grantors, and relinquishing and conveying our right by descent and all other rights in the above described premises, have hereunto set our hands and seals this Twenty-fifth day of February in the year of our Lord one thousand nine hundred and seventy-two

Signed, Sealed and Delivered
in presence of

Beth A. Gardner
to Beth

Alberta V. Haynes
Nelson B. Haynes

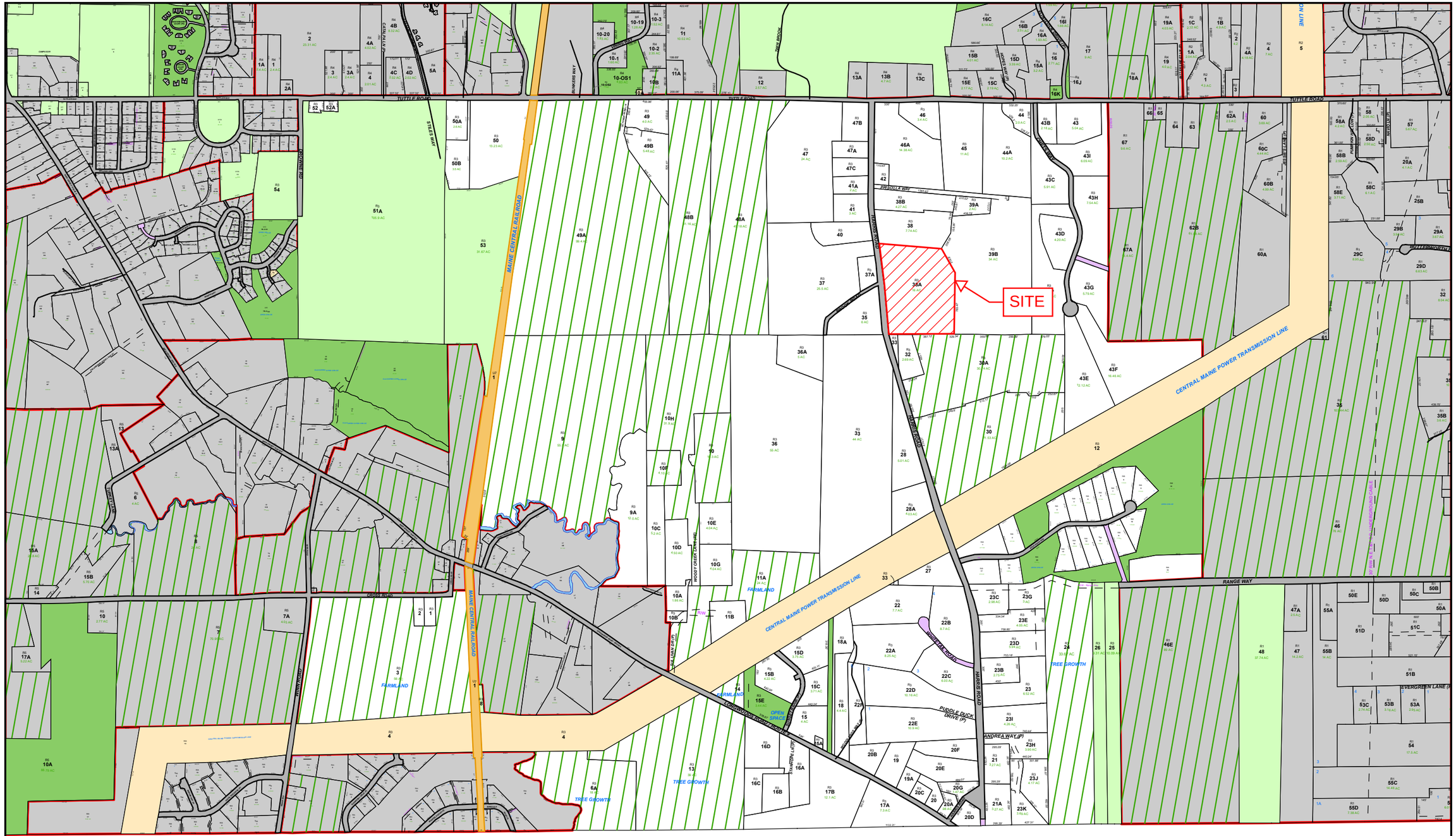
State of Maine. Cumberland ss. February 25, 1972

Personally appeared the above named Alberta V. Haynes

and acknowledged the foregoing instrument to be her free act and deed.

Before me, Beth A. Gardner
Justice of the Peace.
Notary Public.

FEB 28 1972
REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE
Received at 3 H52 M P M, and recorded in
BOOK 3213 PAGE 866 Wilfred Mills Clerk Register



Maps Prepared by:

Spatial Alternatives
207.846.2355
www.spatialalternatives.com

Tax Sheets are intended for assessing purposes only.
Boundary locations are approximate and should not be used for conveyance of property.

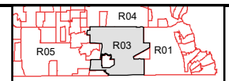
Legend

- ROW/Easements
- **Tax Parcels**
- Parcels
- Farmland and Tree Growth
- Town Owned or Cemetery
- Open Space
- ROW
- Utility
- Railroad
- Roads
- Water

Town of Cumberland, Maine

1,100
Feet

Index Map



N

Cumberland Tax Map
R03

Map updated to: April 1, 2021

TRILLIUM ENGINEERING GROUP

189 Main Street, Suite 200
Yarmouth, ME 04096

Abutters within 1,000'

Tax Map	Lot	Owner
R03	38	THE LEBLANC GROUP, LLC 547 RIVERSIDE ST PORTLAND, ME 04102
R03	38B	CONKLIN CORY A CONKLIN KIMBERLY D 44 HARRIS ROAD CUMBERLAND, ME 04021
R03	39A	TARDIFF, MICHAEL S MCLEOD-TARDIFF, VICTORIA P 48 PRISCILLA WAY CUMBERLAND, ME 04021
R03	39B	THIBEAULT, RACHEL C 52 PRISCILLA DR CUMBERLAND, ME 04021
R03	40	HIGGINS, COLLEEN 59 HARRIS RD CUMBERLAND CTR, ME 04021
R03	41	MCMONAGLE LESLIE G 43 HARRIS ROAD CUMBERLAND, ME 04021
R03	41A	MILLER, CHARLOTTE K MILLER, DAVID S 39 HARRIS RD CUMBERLAND, ME 04021
R03	42	FISHER CHRISTOPHER A FISHER ADEENA B 34 HARRIS RD CUMBERLAND, ME 04021
R03	44A	EDSON BETTY L BOHMAN PETER J 53 PLOSSAY SHORES NO MONMOUTH, ME 04265
R03	45	FORBES NORMAJEAN 154 TUTTLE ROAD PO BOX 502 CUMBERLAND, ME 04021
R03	46A	LEE, ADAM LEE, DIANA C 10 HARRIS RD CUMBERLAND, ME 04021
R03	47	GREEN GARY L GREEN SANDRA J 186 TUTTLE ROAD CUMBERLAND, ME 04021
R03	47C	BELMONT KYLE B 29 HARRIS ROAD CUMBERLAND, ME 04021-3725

HARRIS ROAD SUBDIVISION

96 HARRIS ROAD, CUMBERLAND, MAINE

AERIAL PHOTOGRAPH

CLIENT:

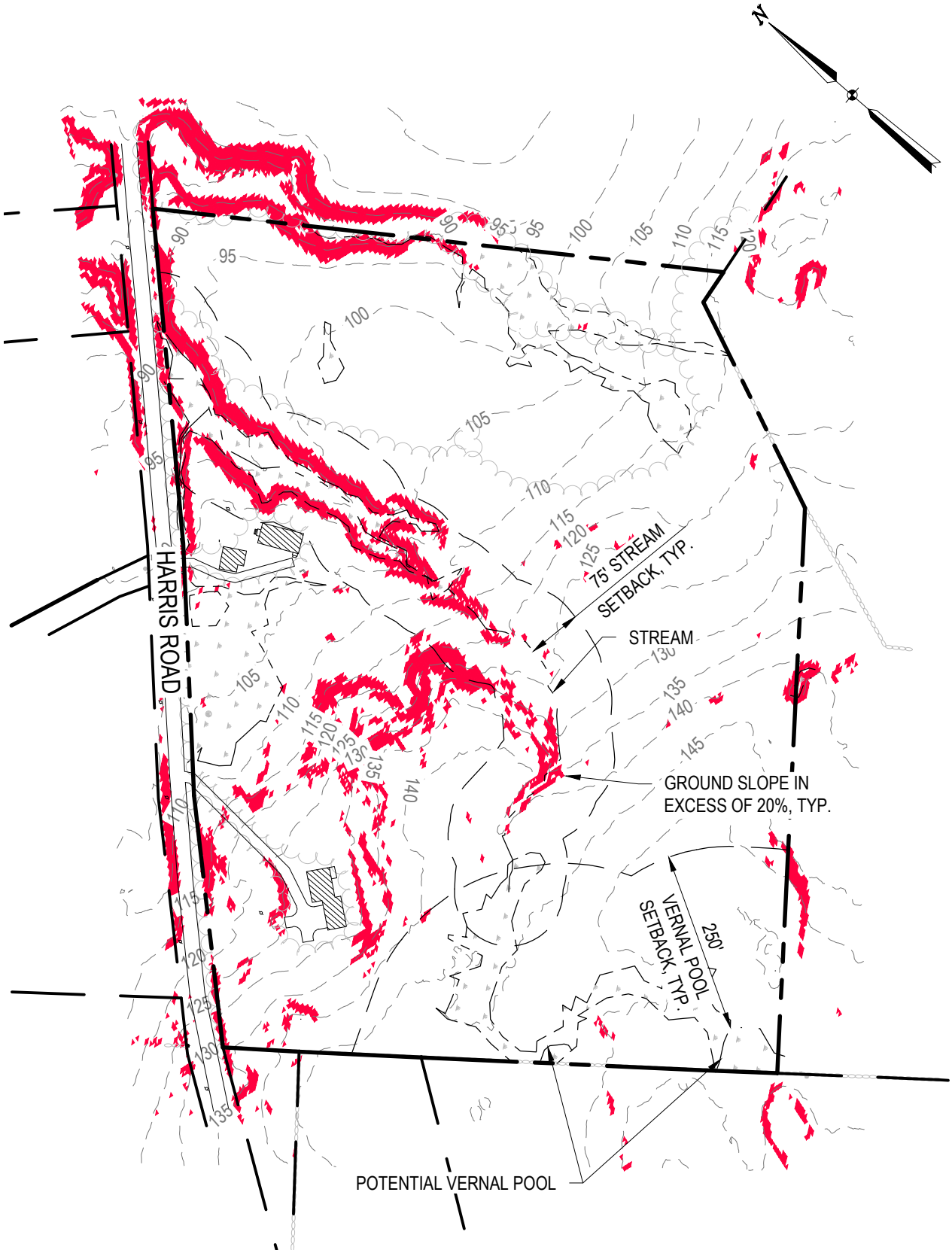
DWGROUNDBREAKERS, LLC.

5 CLIPPER STREET
CUMBERLAND FORESIDE, ME 04110

TRILLIUM ENGINEERING GROUP
180 MAIN STREET SUITE 200
YARMOUTH, ME 04096

SCALE:	1" = 200'
DESIGNED:	BVD
DRAWN:	BVD
DATE:	2/22/2024
PROJECT NUMBER:	23-369

SA-1



HARRIS ROAD SUBDIVISION

96 HARRIS ROAD, CUMBERLAND, MAINE

EXISTING TOPOGRAPHY MAP

CLIENT:

DWGROUNDBREAKERS, LLC.

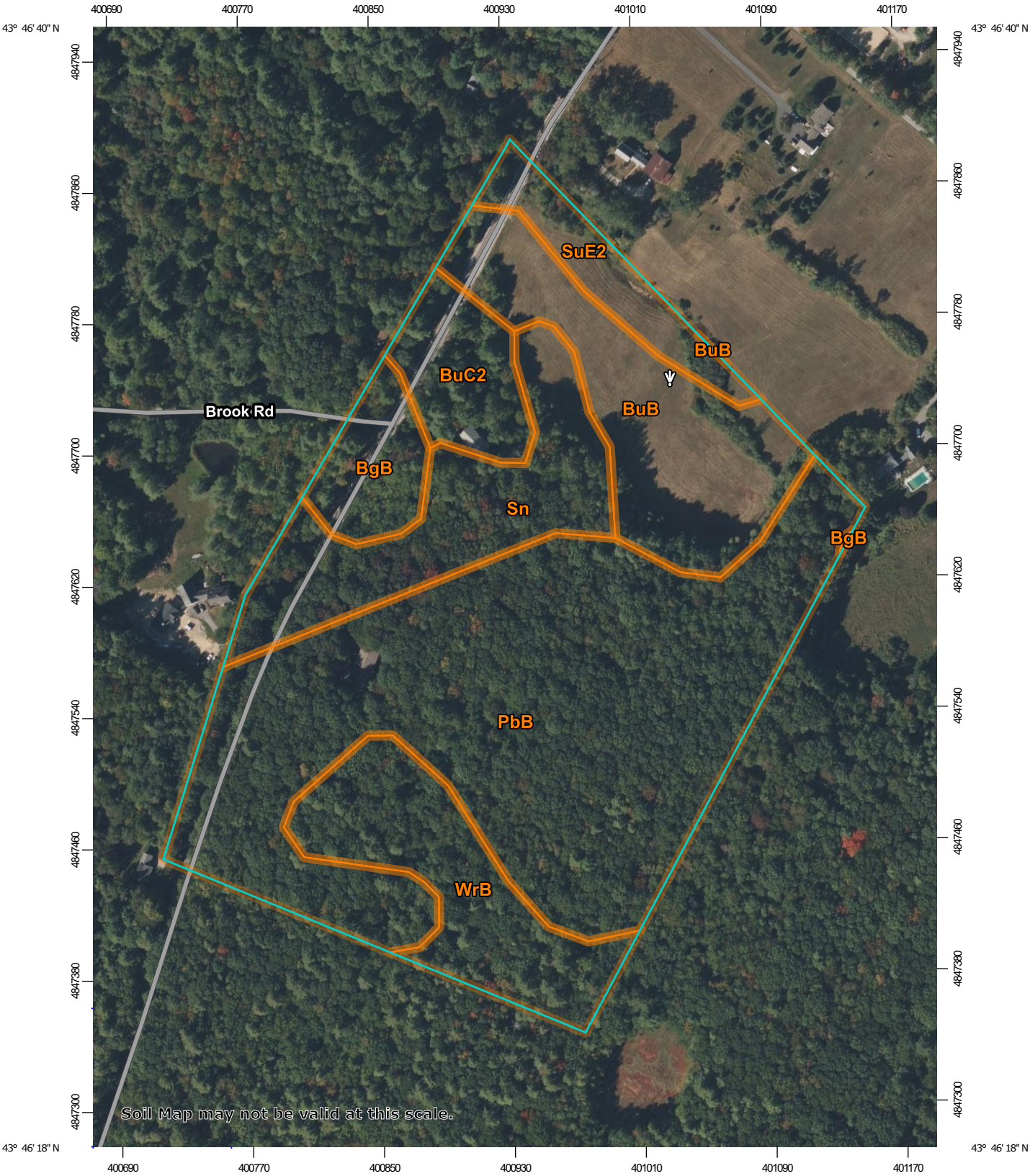
5 CLIPPER STREET
CUMBERLAND FORESIDE, ME 04110

TRILLIUM ENGINEERING GROUP
180 MAIN STREET SUITE 200
YARMOUTH, ME 04096

SCALE:	1" = 200'
DESIGNED:	BVD
DRAWN:	BVD
DATE:	2/22/2024
PROJECT NUMBER:	23-369

SA-2

Soil Map—Cumberland County and Part of Oxford County, Maine
(96 Harris Road, Cumberland Maine)



Map Scale: 1:3,320 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 20, Sep 5, 2023

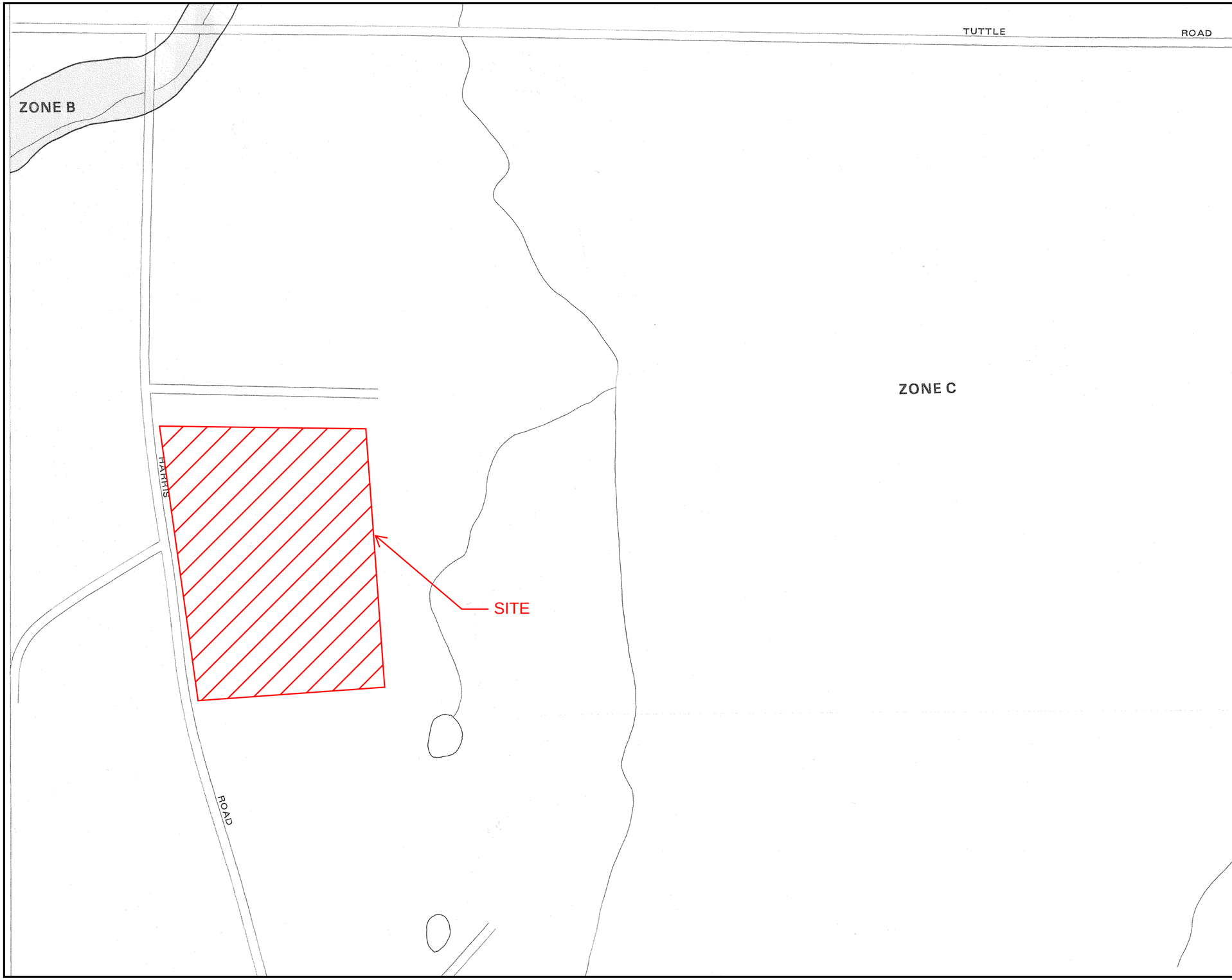
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	1.3	4.2%
BuB	Lamoine silt loam, 3 to 8 percent slopes	4.4	13.9%
BuC2	Buxton silt loam, 8 to 15 percent slopes	1.7	5.2%
PbB	Paxton fine sandy loam, 3 to 8 percent slopes	15.4	48.6%
Sn	Scantic silt loam, 0 to 3 percent slopes	3.9	12.4%
SuE2	Suffield silt loam, 25 to 45 percent slopes, eroded	1.4	4.5%
WrB	Woodbridge fine sandy loam, 0 to 8 percent slopes	3.5	11.1%
Totals for Area of Interest		**31.7**	**100.0%**



APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
CUMBERLAND, MAINE
CUMBERLAND COUNTY

PANEL 18 OF 25
(SEE MAP INDEX FOR PANELS NOT PRINTED)

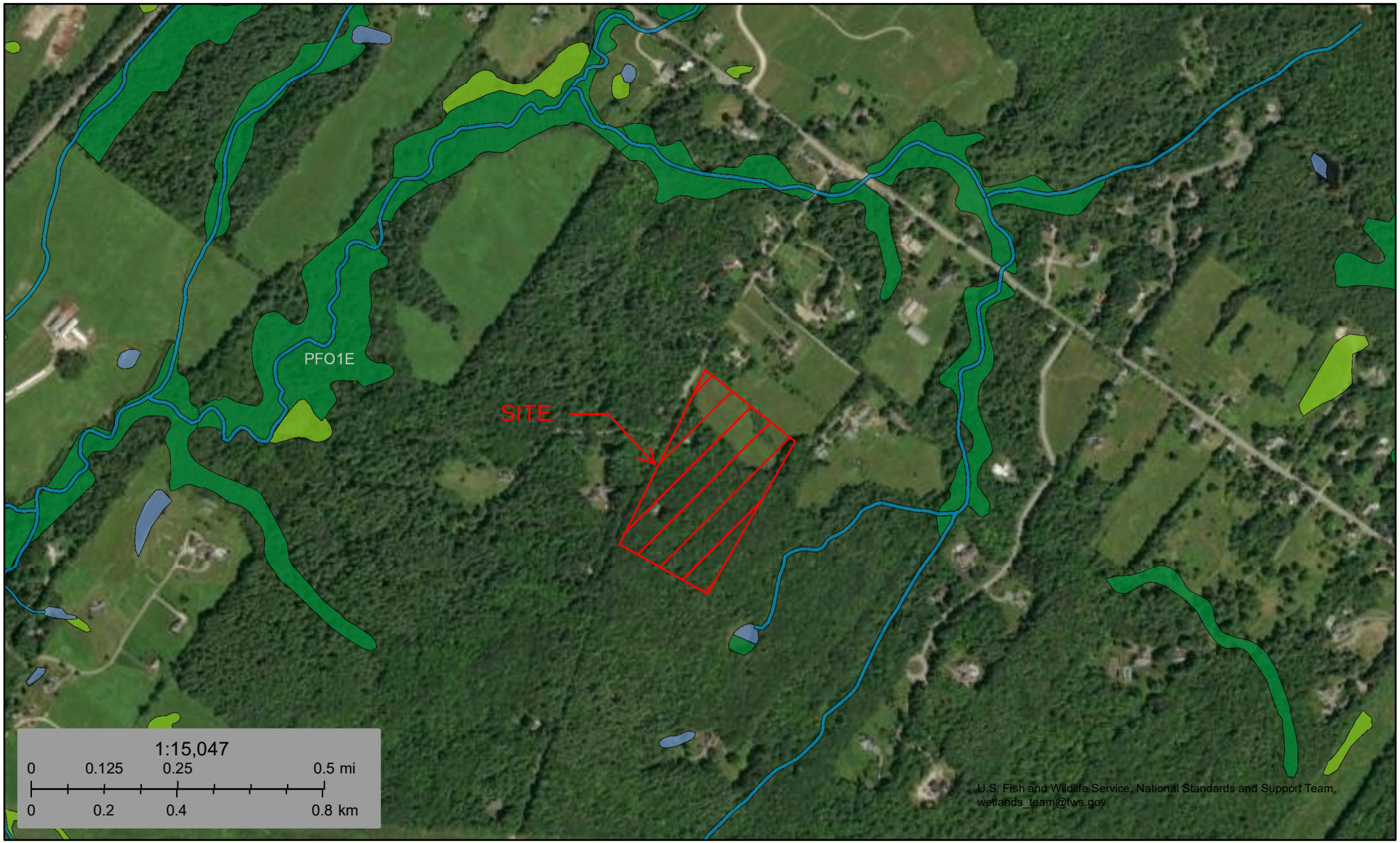
COMMUNITY-PANEL NUMBER
230162 0018 C

MAP REVISED:
OCTOBER 15, 1985

Federal Emergency Management Agency

U.S. Fish and Wildlife Service
National Wetlands Inventory

NWI Surface Waters and Wetlands



February 19, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

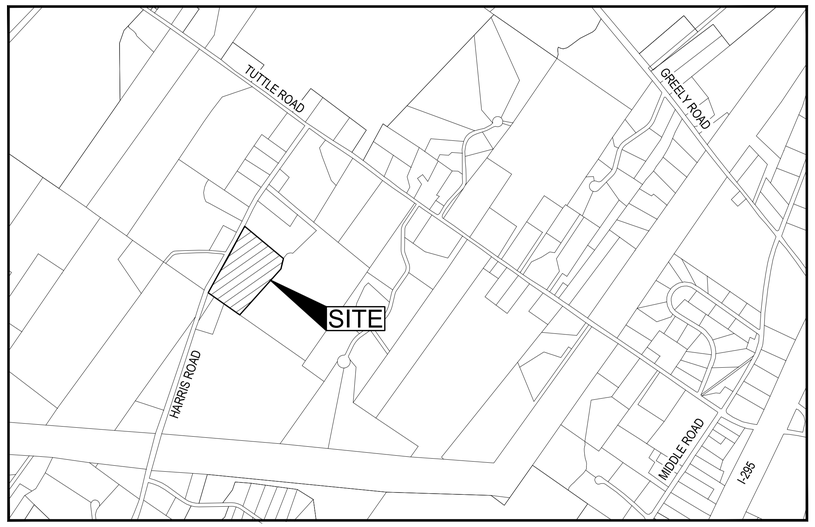
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

HARRIS ROAD SUBDIVISION OF LAND

CUMBERLAND, MAINE

FEBRUARY 27, 2024



LOCUS MAP
1" = 1,000'

DRAWING LIST

OWNER:

DWGROUNDBREAKERS, LLC.
5 CLIPPER STREET
CUMBERLAND FORESIDE, ME 04110

CONSULTANTS:

TRILLIUM ENGINEERING GROUP
189 MAIN STREET
YARMOUTH, ME 04096

TRILLIUM
ENGINEERING GROUP
189 MAIN STREET SUITE 200
YARMOUTH, ME 04096

CLIENT:
DWGROUNDBREAKERS, LLC.

5 CLIPPER STREET
CUMBERLAND FORESIDE, ME 04110

PRELIMINARY

HARRIS ROAD
SUBDIVISION OF LAND

96 HARRIS ROAD
CUMBERLAND, MAINE

ISSUED

NUMBER	DESCRIPTION	BY	DATE
A	SKETCH PLAN REVIEW	ED	2/7/2024
B	PLANNING BOARD WORKSHOP SUBMISSION	ED	2/27/2024

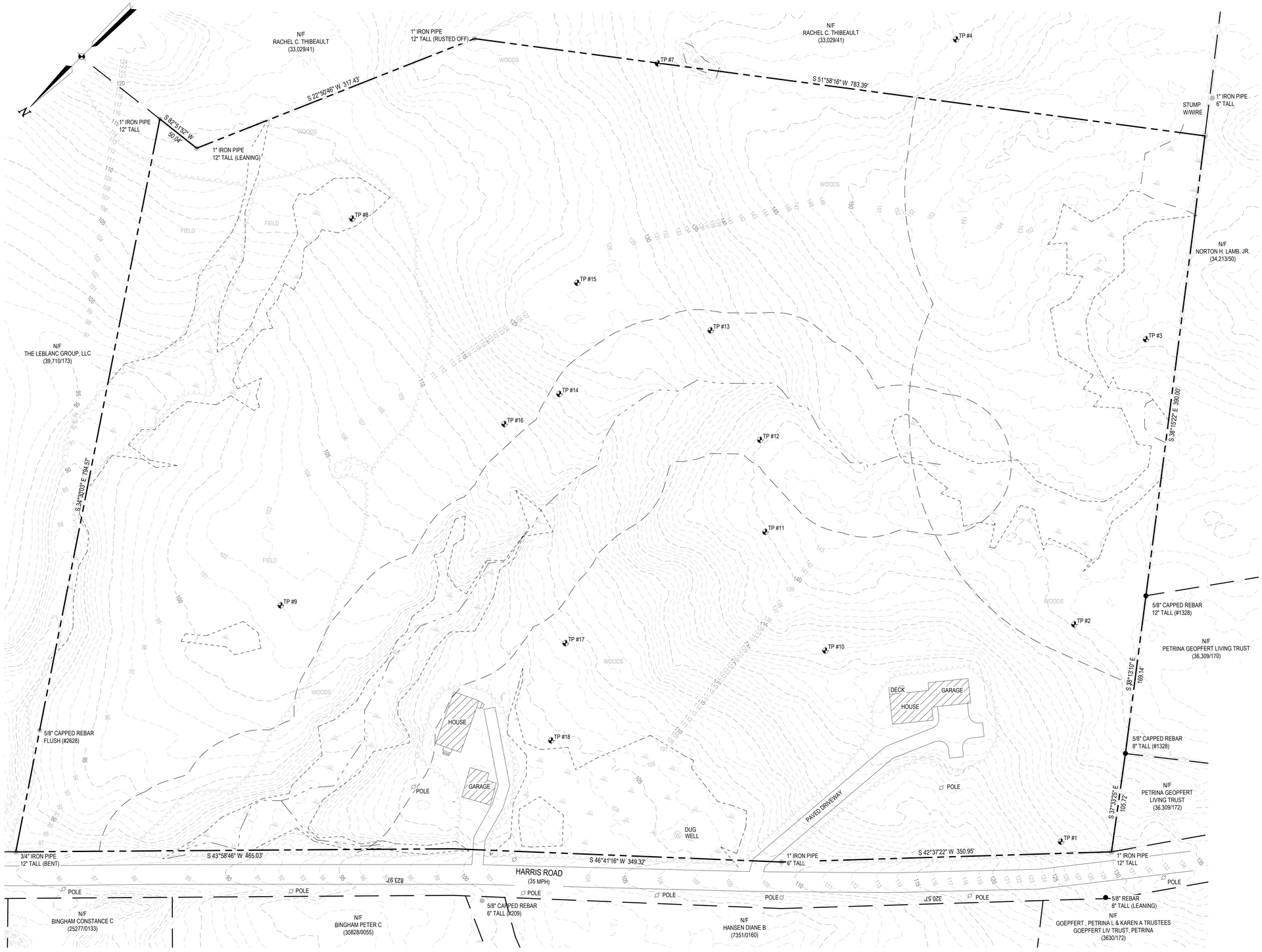
SHEET TITLE:

COVER SHEET

DESIGNED BY:	BVD
DRAWN BY:	BVD
PROJECT NUMBER:	23-369

C001

Z:\01 - PROJECTS\2023\23-369 HARRIS ROAD SUBDIVISION\03 - DWG\23-369 - C100.DWG - 2/27/2024 - BRAD VAN DAMM



1 EXISTING SITE PLAN

1" = 50'

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 INCH = 50 FT.

LOCATION MAP

NOT TO SCALE

TAX MAP R03, LOT 38A

TOWN OF CUMBERLAND
PLANNING BOARD APPROVAL:

CHAIR: DATE:

LEGEND	
EXISTING	DESCRIPTION
□	GRANITE MONUMENT - 3' OFFSET
IPF	IRON PIN FOUND/SET
IRF	IRON ROD FOUND
CIRF	CAPPED IRON ROD FOUND
DHF	DRILL HOLE FOUND
MON	GRANITE MONUMENT FOUND
	STREET LINE
	LOT SETBACKS
	PROPERTY LINE
	ABUTTER LINE
	WETLANDS
	TREE LINE
	STREAM
	VERNAL POOL (TO BE VERIFIED)

TRILLIUM
ENGINEERING GROUP
189 MAIN STREET SUITE 200
YARMOUTH, ME 04096

CLIENT:
DWGROUNDBREAKERS, LLC.

5 CLIPPER STREET
CUMBERLAND FORESIDE, ME 04110

PRELIMINARY

HARRIS ROAD
SUBDIVISION OF LAND

96 HARRIS ROAD
CUMBERLAND, MAINE

ISSUED

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A	SKETCH PLAN REVIEW	ED	2/7/2024
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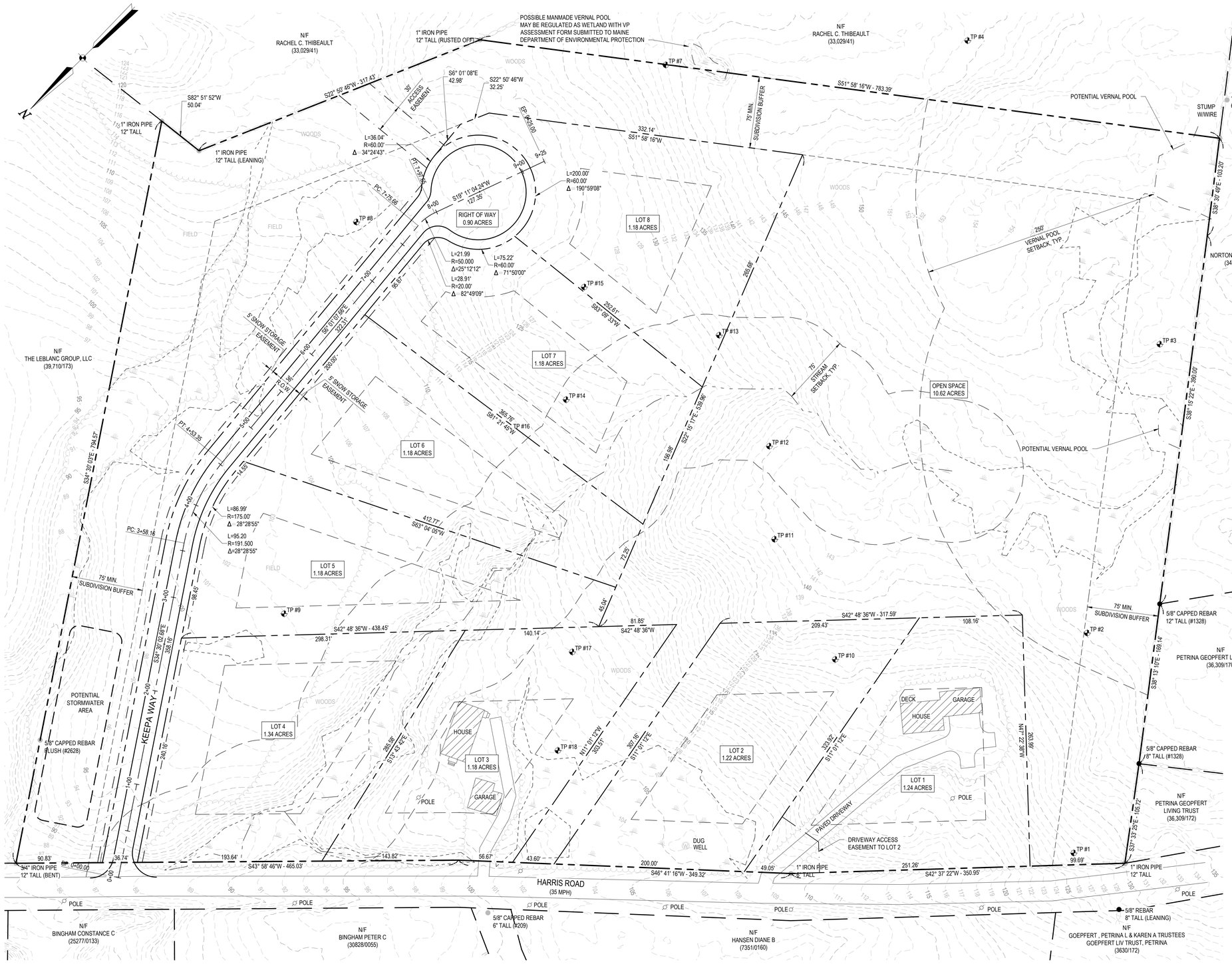
SHEET TITLE:

EXISTING SITE PLAN

DESIGNED BY: BVD
DRAWN BY: BVD
PROJECT NUMBER: 23-369

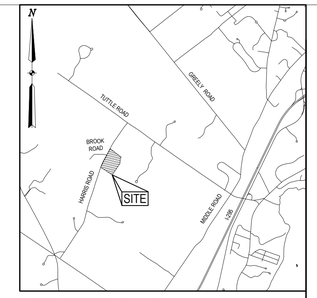
C100

Z:\01 - PROJECTS\2023\23-369 HARRIS ROAD SUBDIVISION\03 - DWG\23-369 - C100.DWG - 2/27/2024 - BRAD VAN DAMM



1 CONSERVATION SUBDIVISION PLAN
1" = 50'

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 INCH = 50 FT.



LOCATION MAP

NOT TO SCALE

TAX MAP R03, LOT 38A

ROAD STANDARDS:

RESIDENTIAL ACCESS <= 50 VPD
ROW WIDTH = 36' + 5' EASEMENTS ON BOTH SIDES
PAVEMENT WIDTH = 18' (9' LANES)
SHOULDER WIDTH = 2'

TOWN OF CUMBERLAND
PLANNING BOARD APPROVAL:

CHAIR: DATE:

TOWN OF CUMBERLAND ZONING SUMMARY
RR2 (RURAL RESIDENTIAL 2)

	EXISTING	PROPOSED
MIN. LOT AREA	1.18 ACRES	>/= 1.18 ACRES
STREET FRONTAGE	200'	>/= 200'
MIN. FRONT SEBACK	50'	50'
MIN. REAR SETBACK	75'	75'
MIN. SIDE SETBACK	30'*	30'*
MIN. OPEN SPACE AREA	50% OF TOTAL LOT AREA = 10.61 ACRES	462,187 S.F. / 10.61 ACRES

* SIDE SETBACKS SHALL HAVE A MINIMUM COMBINED WIDTH OF 75'

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	GRANITE MONUMENT - 3' OFFSET	
IPF	IRON PIN FOUND/SET	IPS
IRF	IRON ROD FOUND	
CIRF	CAPPED IRON ROD FOUND	
DHF	DRILL HOLE FOUND	
MON	GRANITE MONUMENT FOUND	
	STREET LINE	
	LOT SETBACKS	
	PROPERTY LINE	
	ABUTTER LINE	
	WETLANDS	
	TREE LINE	
	STREAM	
	VERNAL POOL (TO BE VERIFIED)	

NET RESIDENTIAL DENSITY:

TOTAL LOT SIZE =	924,374 S.F. = 21.22 ACRES
CONTIGUOUS SLOPES OVER 20%, LARGER THAN 30,000 S.F.=	0.0 S.F.
RIGHT-OF-WAY AREA =	39,340 S.F.
WETLANDS AREA =	99,704 S.F.
NUMBER OF LOTS:	
(TOTAL AREA - (SLOPES OVER 20% + ROW + WETLANDS)) / MIN. LOT SIZE	
(924,374 S.F. - (0 S.F. + 39,340 S.F. + 99,704 S.F.))/87,120 S.F./LOT = 9.01 =	9 LOTS
MIN. LOT SIZE:	
(TOTAL AREA / 2) / NUMBER OF LOTS	
(924,374 S.F. TOTAL AREA / 2) / 9 LOTS = 51,354 S.F. PER LOT =	1.18 ACRES PER LOT

TRILLIUM
ENGINEERING GROUP
189 MAIN STREET SUITE 200
YARMOUTH, ME 04096

CLIENT:
DWGROUNDBREAKERS, LLC.

5 CLIPPER STREET
CUMBERLAND FORESIDE, ME 04110

PRELIMINARY

HARRIS ROAD SUBDIVISION OF LAND

96 HARRIS ROAD
CUMBERLAND, MAINE

ISSUED

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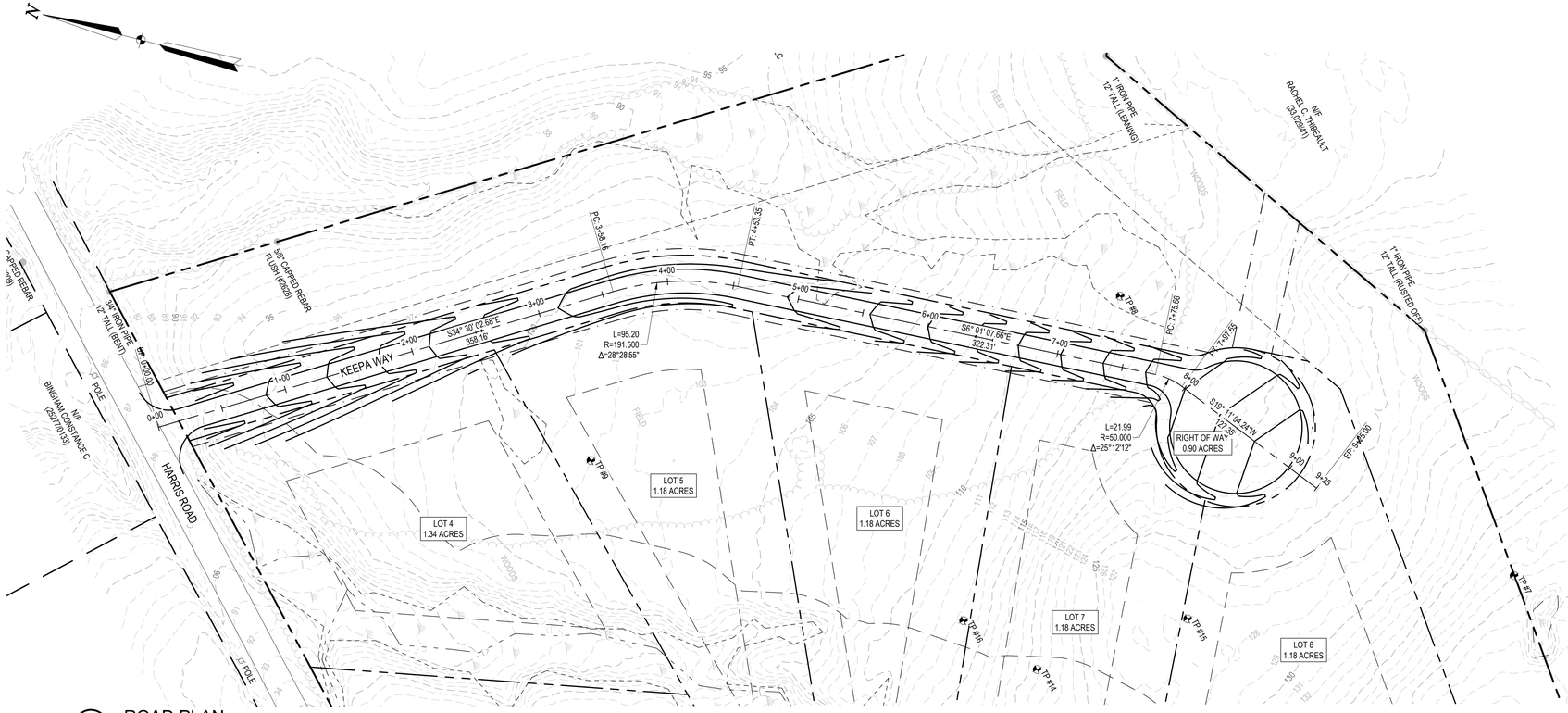
SHEET TITLE:

CONSERVATION SUBDIVISION PLAN

DESIGNED BY: BVD
DRAWN BY: BVD
PROJECT NUMBER: 23-369

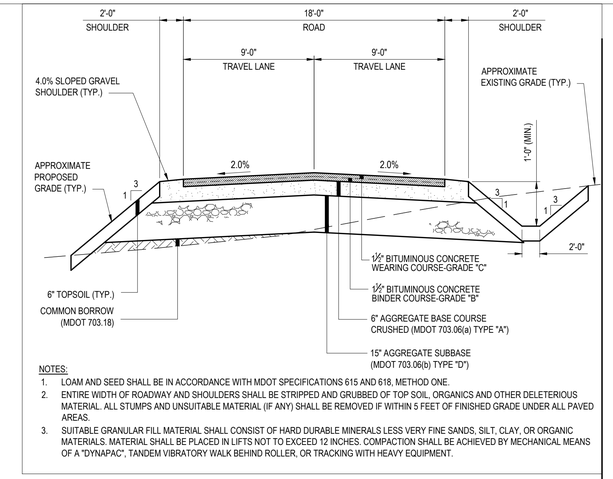
C101

Z:\01 - PROJECTS\2023\23-369 HARRIS ROAD SUBDIVISION\03 - DWG\23-369 - C100.DWG - 2/27/2024 - BRAD VAN DAMM



1 ROAD PLAN

1" = 50'



NOTES:

1. LOAM AND SEED SHALL BE IN ACCORDANCE WITH MDOT SPECIFICATIONS 615 AND 618, METHOD ONE.
2. ENTIRE WIDTH OF ROADWAY AND SHOULDERS SHALL BE STRIPPED AND GRUBBED OF TOP SOIL, ORGANICS AND OTHER DELETERIOUS MATERIAL. ALL STUMPS AND UNSUITABLE MATERIAL (IF ANY) SHALL BE REMOVED IF WITHIN 5 FEET OF FINISHED GRADE UNDER ALL PAVED AREAS.
3. SUITABLE GRANULAR FILL MATERIAL SHALL CONSIST OF HARD DURABLE MINERALS LESS VERY FINE SANDS, SILT, CLAY, OR ORGANIC MATERIALS. MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 12 INCHES. COMPACTION SHALL BE ACHIEVED BY MECHANICAL MEANS OF A "DYNAPAC", TANDEM VIBRATORY WALK BEHIND ROLLER, OR TRACKING WITH HEAVY EQUIPMENT.

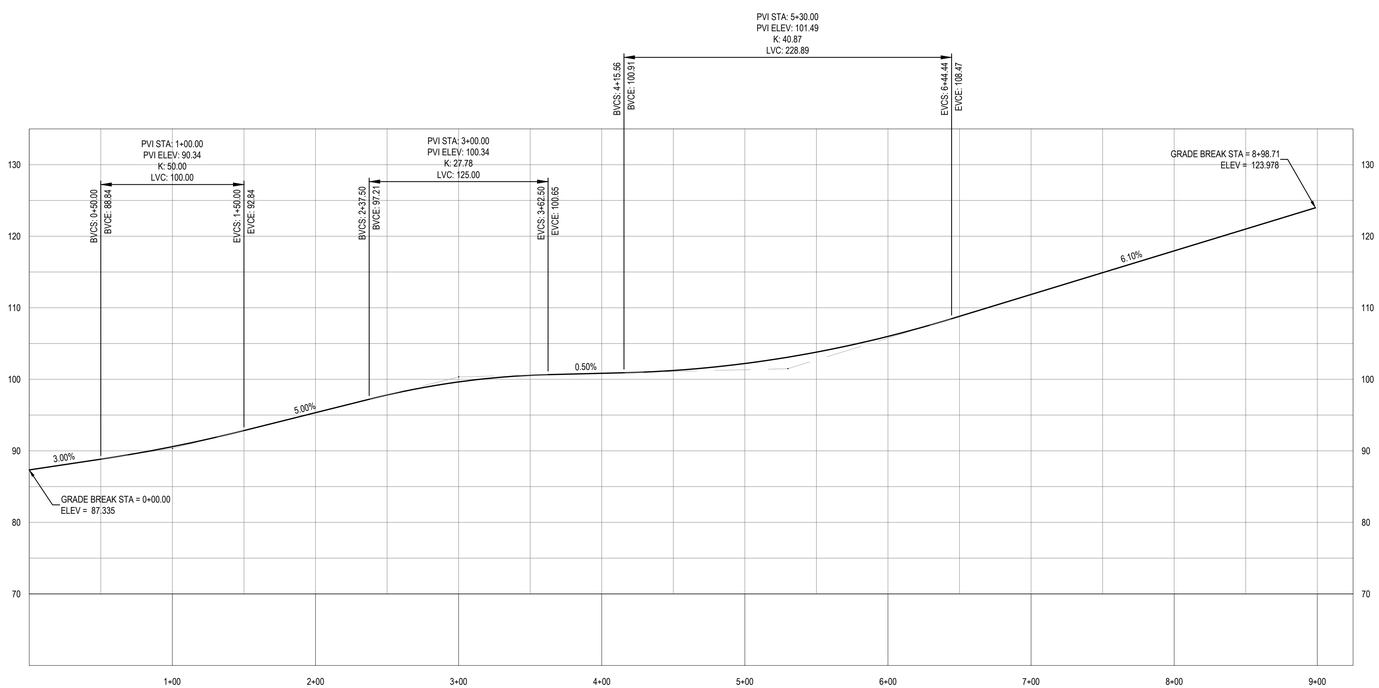
3 TYPICAL ROAD SECTION

NTS

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 INCH = 50 FT.



2 ROAD PROFILE

HORIZ.: 1" = 50' / VERT.: 1" = 10'

TRILLIUM
ENGINEERING GROUP
189 MAIN STREET SUITE 200
YARMOUTH, ME 04096

CLIENT:
DWGROUNDBREAKERS, LLC.

5 CLIPPER STREET
CUMBERLAND FORESIDE, ME 04110

PRELIMINARY

HARRIS ROAD
SUBDIVISION OF LAND

96 HARRIS ROAD
CUMBERLAND, MAINE

ISSUED

NUMBER	DESCRIPTION	BY	DATE
A	SKETCH PLAN REVIEW	ED	2/7/2024
B	PLANNING BOARD WORKSHOP SUBMISSION	ED	2/27/2024

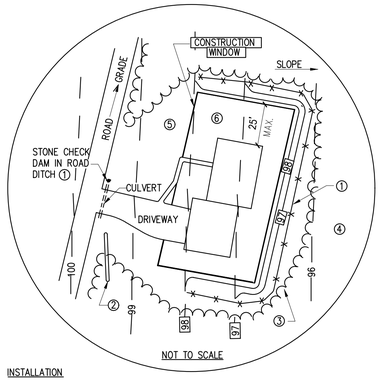
SHEET TITLE:

CONSERVATION
SUBDIVISION
ROAD PLAN AND
PROFILE CONCEPT

DESIGNED BY: BVD
DRAWN BY: BVD
PROJECT NUMBER: 23-369

C102

Z:\01 - PROJECTS\2023\23-369 HARRIS ROAD SUBDIVISION\03 - DWG\23-369 - C100.DWG - 2/27/2024 - BRAD VAN DAMM



INSTALLATION

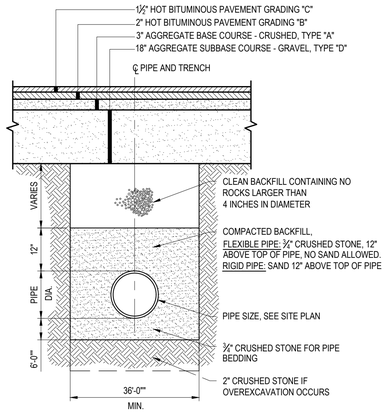
1. INSTALL SEDIMENT BARRIERS ON YOUR SITE BEFORE DISTURBING SOILS. SEE THE "SEDIMENT BARRIERS" MEASURE FOR DETAILS ON INSTALLATION AND MAINTENANCE.
2. CONSTRUCT A DIVERSION DITCH TO KEEP UPSLOPE RUNOFF OUT OF WORK AREA.
3. MARK CLEARING LIMITS ON THE SITE TO KEEP EQUIPMENT OUT OF AREAS WITH STEEP SLOPES, 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. THESE PROBLEMS SHALL BE FIXED AS SOON AS POSSIBLE. EACH SPRING REMOVE ANY ACCUMULATION OF DEBRIS OR WINTER SAND THAT WOULD IMPEDE RUNOFF FROM ENTERING A BUFFER OF DITCH.

HOUSE LOT EROSION CONTROL
N.T.S.

1 HOUSE LOT EROSION CONTROL
NTS

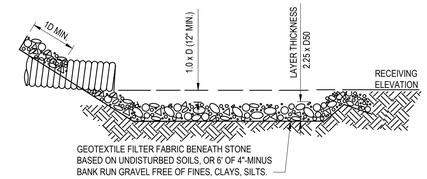


NOTE:
ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED BY THE CITY.

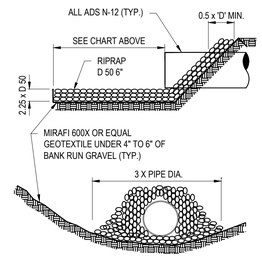
2 TYPICAL UNDERGROUND PIPE TRENCH SECTION
NTS

INLET/OUTLET PROTECTION APRON SIZING CHART

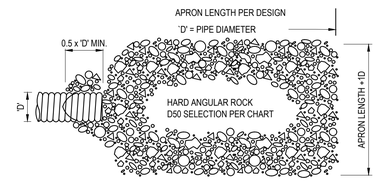
DIAMETER	'L' LENGTH	'W' WIDTH	'A'	D_{50}	REMARKS
12"/15"	6'-0"	8'-0"	12"	6"	
18"	10'-0"	12'-0"	15"	6"	
24"	-	-	-	-	
36"	27'-0"	24'-0"	24"	8"	



SECTION



CULVERT INLET DETAIL
NOT TO SCALE

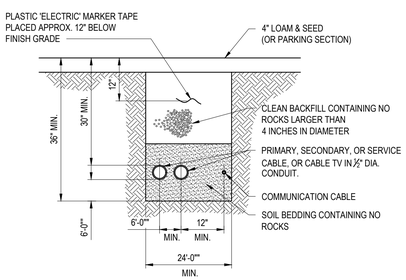


PLAN

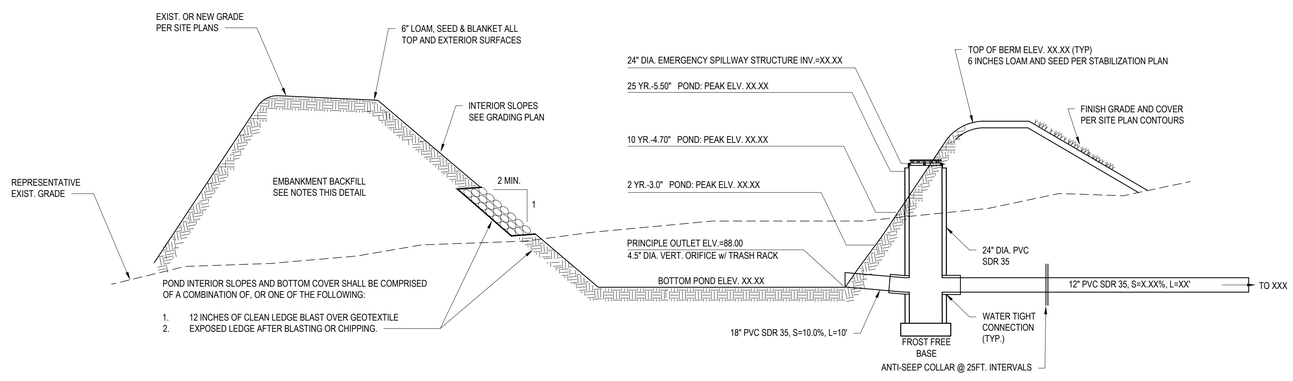
NOTES:
1. CONSULT WITH IF&W IF FISH PASSAGE WILL BE INHIBITED DURING LOW FLOWS.
2. REFER TO DESIGN NOTES AND LIMITATIONS IN TEXT ON PIPE OUTLET PROTECTION.
3. IN DEFINED CHANNELS, APRON SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. TAILWATER OR UP TO BANK FULL, WHICHEVER IS LESS.

CULVERT OUTLET DETAIL
NOT TO SCALE

3 CULVERT INLET/OUTLET PROTECTION DETAIL
NTS



4 TYPICAL UNDERGROUND WIRE TRENCH SECTION
NTS



5 TYPICAL POND SECTION
NTS

TRILLIUM ENGINEERING GROUP
189 MAIN STREET SUITE 200
YARMOUTH, ME 04096

CLIENT:
DWGROUNDBREAKERS, LLC.

5 CLIPPER STREET
CUMBERLAND FORESIDE, ME 04110

PRELIMINARY
NOT FOR CONSTRUCTION

HARRIS ROAD SUBDIVISION OF LAND

96 HARRIS ROAD
CUMBERLAND, MAINE

ISSUED

NUMBER	DESCRIPTION	BY	DATE
A	SKETCH PLAN REVIEW	ED	2/7/2024
B	PLANNING BOARD WORKSHOP SUBMISSION	ED	2/27/2024

SHEET TITLE:

SITE DETAILS

DESIGNED BY: BVD
DRAWN BY: BVD
PROJECT NUMBER: 23-369

C200

EROSION AND SEDIMENTATION NOTES

1. THIS PLAN HAS BEEN DEVELOPED TO PROVIDE A STRATEGY FOR DEALING WITH SOIL EROSION AND SEDIMENTATION DURING AND AFTER PROJECT CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARD AND SPECIFICATIONS FOR EROSION PREVENTION AS CONTAINED IN THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: "MAINE EROSION AND SEDIMENT CONTROL BMPs" PUBLISHED BY THE MAINE DEP, LATEST EDITION.

GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES

1. EROSION/SEDIMENT CONTROL DEVICES

THE FOLLOWING EROSION SEDIMENTATION CONTROL DEVICES ARE PROPOSED FOR CONSTRUCTION ON THIS PROJECT. INSTALL THESE DEVICES AS INDICATED ON THE PLANS.

1.1. SILT FENCE: SILT FENCE WILL BE INSTALLED ALONG THE DOWN GRADING EDGES OF DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL THE SITE IS STABILIZED. IN AREAS WHERE STORMWATER DISCHARGES THE SILT FENCE WILL BE REINFORCED WITH HAY BALES TO HELP MAINTAIN THE INTEGRITY OF THE SILT FENCE AND TO PROVIDE ADDITIONAL TREATMENT.

1.2. HAY BALES TO BE PLACED IN LOW FLOW DRAINAGE SWALES AND PATHS TO TRAP SEDIMENTS AND REDUCE RUNOFF VELOCITIES. DO NOT PLACE HAY BALES IN FLOWING WATER OR STREAMS.

1.3. RIPRAP: PROVIDE RIPRAP IN AREAS WHERE CULVERTS DISCHARGE OR AS SHOWN ON THE PLANS.

1.4. LOAM, SEED, & MULCH: ALL DISTURBED AREAS, WHICH ARE NOT OTHERWISE TREATED, SHALL RECEIVE PERMANENT SEEDING AND MULCH TO STABILIZE THE DISTURBED AREAS. THE DISTURBED AREAS WILL BE REVEGETATED WITHIN 5 DAYS OF FINAL GRADING. SEEDING REQUIREMENTS ARE PROVIDED AT THE END OF THIS SPECIFICATION.

1.5. STRAW AND HAY MULCH; USED TO COVER DENUDED AREAS UNTIL PERMANENT SEED OR EROSION CONTROL MEASURES ARE IN PLACE. MULCH BY ITSELF CAN BE USED ON SLOPES LESS THAN 15% IN SUMMER AND 8% IN WINTER. ALL OTHER SLOPES MUST BE COVERED WITH JUTE MESH OVER MULCH, OR CURLEX II OR EXCELSIOR MAY BE USED IN PLACE OF JUTE MESH AND MULCH OVER LOAM AND SEED.

1.6. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%. VEGETATED DRAINAGE SWALES SHALL BE LINED WITH EXCELSIOR OR CURLEX.

2. TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES

PROVIDE THE FOLLOWING TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION OF THE DEVELOPMENT:

2.1. SILTATION FENCE ALONG THE DOWNGRADIENT SIDE OF THE PARKING AREAS AND OF ALL FILL SECTIONS. THE SILTATION FENCE WILL REMAIN IN PLACE UNTIL THE SITE IS 85% REVEGETATED.

2.2. HAY BALES PLACED AT KEY LOCATIONS TO SUPPLEMENT THE SILT FENCE.

2.3. PROTECT TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION AS FOLLOWS:

A. SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.

B. AVOID PLACING TEMPORARY STOCKPILES IN AREAS WITH SLOPES OVER 10 PERCENT, OR NEAR DRAINAGE SWALES. SEE ITEM 3 IN CONSTRUCTION PHASE NOTES BELOW.

C. STABILIZE STOCKPILES WITHIN 15 DAYS BY TEMPORARILY SEEDING WITH A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH.

D. SURROUND STOCKPILE SOIL WITH SILTATION FENCE AT BASE OF PILE.

2.1. ALL DENUDED AREAS WHICH HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN THE BUILDING PAD, OR PARKING AND DRIVEWAY SUBBASE AREA SHALL RECEIVE MULCH WITHIN 30 DAYS OF INITIAL DISTURBANCE OF SOIL OR WITHIN 15 DAYS AFTER COMPLETING THE ROUGH GRADING OPERATIONS. IN THE EVENT THE CONTRACTOR COMPLETES FINAL GRADING AND INSTALLATION OF LOAM AND SOD WITHIN THE TIME PERIODS PRESENTED ABOVE, INSTALLATION OF MULCH AND NETTING, WHERE APPLICABLE, IS NOT REQUIRED.

2.2. IF WORK IS CONDUCTED BETWEEN OCTOBER 15 AND APRIL 15, ALL DENUDED AREAS ARE TO BE COVERED WITH HAY MULCH, APPLIED AT TWICE THE NORMAL APPLICATION RATE, AND ANCHORED WITH FABRIC NETTING. THE PERIOD BETWEEN FINAL GRADING AND MULCHING SHALL BE REDUCED TO A 15 DAY MAXIMUM.

2.3. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILIZED OR IN AREAS WHERE PERMANENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

3. PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT CONTROL MEASURES ARE REQUIRED BY THIS EROSION/SEDIMENTATION CONTROL PLAN:

3.1. ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.), WILL BE LOAMED, LIMED, FERTILIZED AND SEEDED. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.

3.2. SLOPES GREATER THAN 2:1 WILL RECEIVE RIPRAP.

CONSTRUCTION PHASE

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION DURING CONSTRUCTION OF THIS PROJECT.

1. ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN AN UNTREATED OR UNVEGETATED CONDITION. IF FINAL GRADING, LOAMING AND SEEDING WILL NOT OCCUR WITHIN 15 DAYS, SEE ITEM NO. 4.
2. PRIOR TO THE START OF CONSTRUCTION IN A SPECIFIC AREA, SILT FENCING AND/OR HAY BALES WILL BE INSTALLED AT THE TOE OF SLOPE AND IN AREAS AS LOCATED ON THE PLANS TO PROTECT AGAINST ANY CONSTRUCTION RELATED EROSION. IMMEDIATELY FOLLOWING CONSTRUCTION OF CULVERTS AND SWALES, RIP RAP APRONS SHALL BE INSTALLED, AS SHOWN ON THE PLANS.
3. TOPSOIL WILL BE STOCKPILED WHEN NECESSARY IN AREAS WHICH HAVE MINIMUM POTENTIAL FOR EROSION AND WILL BE KEPT AS FAR AS POSSIBLE FROM THE EXISTING DRAINAGE COURSE. NO STOCKPILE SHALL BE CLOSER THEN 100' OF A RESOURCE INCLUDING, BUT NOT LIMITED TO, WETLANDS, STREAMS, AND OPEN WATER BODIES. ALL STOCKPILES SHALL HAVE A SILTATION FENCE BELOW THEM REGARDLESS OF TIME OF PRESENCE. ALL STOCKPILES EXPECTED TO REMAIN LONGER THAN 15 DAYS SHALL BE:
   A. TREATED WITH ANCHORED MULCH (WITHIN 5 DAYS OF THE LAST DEPOSIT OF STOCKPILED SOIL).
   B. SEEDED WITH CONSERVATION MIX AND MULCHED IMMEDIATELY.
   C. INSTALL SILT FENCE AROUND STOCKPILE AT BASE OF PILE.

   STOCKPILES TO HAVE SILT FENCE INSTALLED AT TIME OF ESTABLISHMENT AT BASE OF PILE.
4. ALL DISTURBED AREAS EXPECTED TO REMAIN LONGER THAN 30 DAYS SHALL BE EITHER:
   A. TREATED WITH ANCHORED MULCH IMMEDIATELY, OR
   B. SEEDED WITH CONSERVATION MIX OF ANNUAL RYE GRASS (0.9 LBS/1000 SQ. FT) AND MULCHED IMMEDIATELY.
5. ALL GRADING WILL BE HELD TO A MAXIMUM 2:1 SLOPE WHERE PRACTICAL. ALL SLOPES WILL BE STABILIZED WITH PERMANENT SEEDING, OR WITH STONE, WITHIN 5 DAYS AFTER FINAL GRADING IS COMPLETE. (SEE POST-CONSTRUCTION REVEGETATION FOR SEEDING SPECIFICATION.)
6. ALL CULVERTS WILL BE PROTECTED WITH STONE RIPRAP (D50 = 6" UNLESS OTHERWISE SPECIFIED) AT INLETS AND OUTLETS.

POST-CONSTRUCTION REVEGETATION

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION AS SOON AS AN AREA IS READY TO UNDERGO FINAL GRADING.

1. A MINIMUM OF 4" OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND NATURAL APPEARANCE, OR STONE WILL BE PLACED ON SLOPES TO STABILIZE SURFACES.
2. IF FINAL GRADING IS REACHED DURING THE NORMAL GROWING SEASON (4/15 TO 9/15), PERMANENT SEEDING WILL BE DONE AS SPECIFIED BELOW. PRIOR TO SEEDING, LIMESTONE SHALL BE APPLIED AT A RATE OF 138 LBS/1000 SQ. FT. AND 10:20:20 FERTILIZER AT A RATE OF 18.4 LBS/1000 SQ.FT WILL BE APPLIED. BROADCAST SEEDING AT THE FOLLOWING RATES:

LAWNS	SWALES
KENTUCKY BLUEGRASS 0.46 LBS/1000 SF.	RED TOP 0.05 LBS/1000 SF.
CREEPING RED FESCUE 0.46 LBS/1000 SF.	TALL FESCUE 0.46 LBS/1000 SF.
PERENNIAL RYE GRASS 0.11 LB/1000 SF.	

3. AN AREA SHALL BE MULCHED IMMEDIATELY AFTER IS HAS BEEN SEEDED. MULCHING SHALL CONSIST OF HAY MULCH, HYDRO-MULCH, JUTE NET OVER MULCH, PRE-MANUFACTURED EROSION MATS OR ANY SUITABLE SUBSTITUTE DEEMED ACCEPTABLE BY THE DESIGNER.
   A. HAY MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. HAY MULCH SHALL BE SECURED BY EITHER: (NOTE: SOIL SHALL NOT BE VISIBLE)
   I. BEING DRIVEN OVER BY TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS.
   II. BLANKETED BY TACKED PHOTODEGRADABLE/BIODEGRADABLE NETTING, OR WITH SPRAY, ON GRADES GREATER THAN 5%.
   III. SEE NOTE 6, GENERAL NOTES, AND NOTE 8, WINTER CONSTRUCTION.
   B. HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF EITHER ASPHALT, WOOD FIBER OR PAPER FIBER AND WATER SPRAYED OVER A SEEDED AREA. HYDRO-MULCH SHALL NOT BE USED BETWEEN 9/15 AND 4/15.
4. CONSTRUCTION SHALL BE PLANNED TO ELIMINATE THE NEED FOR SEEDING BETWEEN SEPTEMBER 15 AND APRIL 15. SHOULD SEEDING BE NECESSARY BETWEEN SEPTEMBER 15 AND APRIL 15 THE FOLLOWING PROCEDURE SHALL BE FOLLOWED. ALSO REFER TO NOTE 9 OF WINTER CONSTRUCTION.
   A. ONLY UNFROZEN LOAM SHALL BE USED.
   B. LOAMING, SEEDING AND MULCHING WILL NOT BE DONE OVER SNOW OR ICE COVER. IF SNOW EXISTS, IT MUST BE REMOVED PRIOR TO PLACEMENT OF SEED.
   C. WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1000 SQ.FT) SHALL BE ADDED TO THE PREVIOUSLY NOTED AREAS.
   D. WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.6 LBS/1000 SQ. FT.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.
   E. FERTILIZING, SEEDING AND MULCHING SHALL BE APPLIED TO LOAM THE DAY THE LOAM IS SPREAD BY MACHINERY.
   F. ALTERNATIVE HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE NETTING. TRACKING BY MACHINERY ALONE WILL NOT SUFFICE.
5. FOLLOWING FINAL SEEDING, THE SITE WILL BE INSPECTED EVERY 30 DAYS UNTIL 85% COVER HAS BEEN ESTABLISHED. RESEEDING WILL BE CARRIED OUT BY THE CONTRACTOR WITHIN 10 DAYS OF NOTIFICATION BY THE ENGINEER THAT THE EXISTING CATCH IS INADEQUATE.

MONITORING SCHEDULE

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MONITORING, MAINTAINING, REPAIRING, REPLACING AND REMOVING ALL OF THE EROSION AND SEDIMENTATION CONTROLS OR APPOINTING A QUALIFIED SUBCONTRACTOR TO DO SO. MAINTENANCE MEASURES WILL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, A VISUAL INSPECTION WILL BE MADE OF ALL EROSION AND SEDIMENTATION CONTROLS AS FOLLOWS:

1. HAY BALE BARRIERS, SILT FENCE, AND STONE CHECK DAMS SHALL BE INSPECTED AND REPAIRED ONCE A WEEK OR IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REDISTRIBUTED TO AREAS UNDERGOING FINAL GRADING. SHOULD THE HAY BALE BARRIERS PROVE TO BE INEFFECTIVE, THE CONTRACTOR SHALL INSTALL SILT FENCE BEHIND THE HAY BALES.
2. VISUALLY INSPECT RIPRAP ONCE A WEEK OR AFTER EACH SIGNIFICANT RAINFALL AND REPAIR AS NEEDED. REMOVE SEDIMENT TRAPPED BEHIND THESE DEVICES ONCE IT ATTAINS A DEPTH EQUAL TO 1/2 THE HEIGHT OF THE DAM OR RISER. DISTRIBUTE REMOVED SEDIMENT OFF-SITE OR TO AN AREA UNDERGOING FINAL GRADING.
3. REVEGETATION OF DISTURBED AREAS WITHIN 25' OF DRAINAGE-COURSE/STREAM WILL BE SEEDED WITH THE "MEADOW AREA MIX" AND INSPECTED ON A WEEKLY BASIS OR AFTER EACH SIGNIFICANT RAINFALL AND RESEEDED AS NEEDED. EXPOSED AREAS WILL BE RESEEDED AS NEEDED UNTIL THE AREA HAS OBTAINED 100% GROWTH RATE. PROVIDE PERMANENT RIPRAP FOR SLOPES IN EXCESS OF 3:1 AND WITHIN 25' OF DRAINAGE COURSE.

EROSION CONTROL DURING WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
2. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
3. EXPOSED AREA SHALL BE LIMITED TO THOSE AREAS TO BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. AT THE END OF EACH WORK WEEK NO AREAS MAY BE LEFT UNSTABILIZED OVER THE WEEKEND.
4. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1000 S.F. (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ANCHORED SUCH THAT SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH. NOTE: AN AREA IS ALSO CONSIDERED STABLE IF SODDED, COVERED WITH GRAVEL (PARKING LOTS) OR STRUCTURAL SAND.
6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1 AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW, DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY, SILT FENCE OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS SHOWN ON THE DESIGN DRAWINGS. NOTE: DORMANT SEEDING SHOULD NOT BE ATTEMPTED UNLESS SOIL TEMPERATURE REMAINS BELOW 50 DEGREES AND DAY TIME TEMPERATURES REMAIN IN THE 30'S.
7. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%. VEGETATED DRAINAGE SWALES SHALL BE LINED WITH EXCELSIOR OR CURLEX.
8. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1 THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
9. BETWEEN THE DATES OF OCTOBER 15 TO NOVEMBER 1, WINTER RYE IS RECOMMENDED FOR STABILIZATION. AFTER NOVEMBER 1, WINTER RYE IS NOT EFFECTIVE. AROUND NOVEMBER 15 OR LATER, ONCE TEMPERATURES OF THE AIR AND SOIL PERMIT, DORMANT SEEDING IS EFFECTIVE.
10. IN THE EVENT OF SNOWFALL (FRESH OR CUMULATIVE) GREATER THAN 1 INCH DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM THE AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

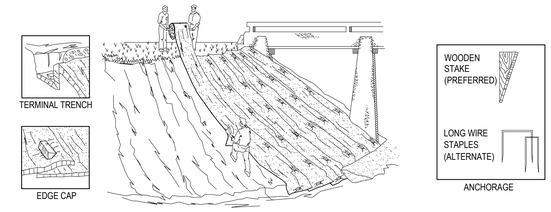
SITE INSPECTION AND MAINTENANCE

1. WEEKLY INSPECTIONS, AS WELL AS ROUTINE INSPECTIONS FOLLOWING RAIN FALLS, SHALL BE CONDUCTED BY THE GENERAL CONTRACTOR OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES UNTIL FINAL ACCEPTANCE OF THE PROJECT (85% GRASS CATCH). NECESSARY REPAIRS SHALL BE MADE TO CORRECT UNDERMINING OR DETERIORATION. FINAL ACCEPTANCE SHALL INCLUDE A SITE INSPECTION TO VERIFY THE STABILITY OF ALL DISTURBED AREAS AND SLOPES. UNTIL FINAL INSPECTION, ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL IMMEDIATELY BE CLEANED, AND REPAIRED BY THE GENERAL CONTRACTOR AS REQUIRED. DISPOSAL OF ALL TEMPORARY EROSION AND CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

   IT IS RECOMMENDED THAT THE OWNER HIRE THE SERVICES OF THE DESIGN ENGINEER TO PROVIDE COMPLIANCE INSPECTIONS (DURING ACTIVE CONSTRUCTION) RELATIVE TO IMPLEMENTATION OF THE STORMWATER AND EROSION CONTROL PLANS. SUCH INSPECTIONS SHOULD BE LIMITED TO ONCE A WEEK OR AS NECESSARY AND BE REPORTABLE TO THE OWNER, TOWN AND DEP.
2. SHORT-TERM SEDIMENTATION MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAN OUT ALL SWALES AND STRUCTURES PRIOR TO TURNING PROJECT OVER TO THE CITY.

MAINTENANCE AFTER CONSTRUCTION

1. LONG-TERM PROVISIONS FOR PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL FACILITIES AFTER ACCEPTANCE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE OWNER OR THEIR DESIGNEE. SUCH RESPONSIBILITIES INCLUDE BUT ARE NOT LIMITED TO THOSE DETAILED AS FOLLOWS:
   A. PARKING LOT SHALL BE MECHANICALLY SWEPT TWICE PER YEAR. THE FIRST SHALL TAKE PLACE IN THE MID WINTER (JANUARY THAW) TO REMOVE ACCUMULATED SANDS FROM WINTER SANDING TO THIS POINT. THE SECOND SWEEPING SHALL TAKE PLACE AFTER WINTER SANDING OPERATIONS TERMINATE BUT PRIOR TO MAY 1.
   B. INSPECTION OF STORMWATER OUTLET STRUCTURE SHOULD BE CONDUCTED TWICE PER YEAR. ACCESS TO THE STRUCTURE IS THROUGH THE TOP. THE OIL/WATER SEPARATOR UNIT SHALL BE PUMPED DOWN AND THE SEDIMENT AND TRASH SHALL BE REMOVED AT THE TIME OF THE INSPECTION. THE REMOVAL OF ALL SEDIMENT AND TRASH WILL HELP MINIMIZE VOLUME LOSS.
2. THE OWNER SHALL FILE A YEARLY MAINTENANCE REPORT TO THE CITY DOCUMENTING THE REQUIRED MAINTENANCE FOR THE STORMWATER SYSTEM.



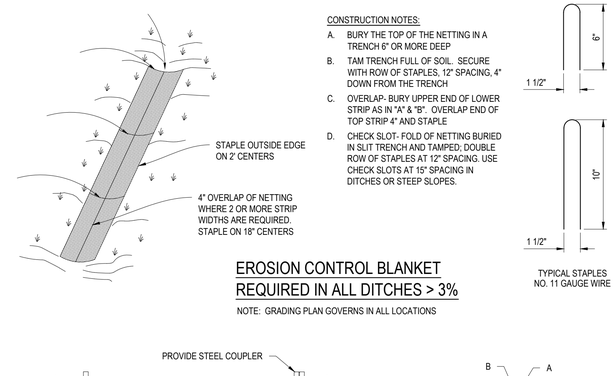
- UNROLL MAT ONTO GROUND IN DIRECTION OF WATER FLOW.
- MAT SHOULD LIE FLAT. DO NOT STRETCH MAT OVER GROUND. STRETCHING MAY CAUSE MAT TO BRIDGE DEPRESSIONS IN THE SURFACE AND ALLOW EROSION UNDERNEATH.
- BURY TRANSVERSE TERMINAL ENDS OF MAT TO SECURE AND PREVENT EROSIVE FLOW UNDERNEATH.
- SECURE MAT SNUGLY INTO ALL TRANSVERSE CHECK SLOTS.
- BACKFILL AND COMPACT TRENCHES AND CHECK SLOTS AFTER STAKING THE MAT IN BOTTOM OF TRENCH.
- OVERLAP ROLL ENDS BY THREE (3) FEET (MIN.) WITH UPSLOPE MAT ON TOP TO PREVENT UPLIFT OF MAT END BY WATER FLOW. IF INSTALLING IN THE DIRECTION OF A CONCENTRATED WATER FLOW, START NEW ROLLS IN A TRANSVERSE DITCH.
- OVERLAP ADJACENT EDGES OF MAT BY THREE (3) INCHES (MIN.) AND STAKE.
- WOOD STAKES ARE RECOMMENDED FOR PINNING MAT TO THE GROUND SURFACE. STAKES SHOULD BE 1" X 3" NOMINAL STOCK CUT IN A TRIANGULAR SHAPE. STAKES SHOULD BE 12" TO 18" LONG, DEPENDING ON SOIL DENSITY.
- DRIVE WOODEN STAKES TO WITHIN THREE (3) INCHES OF GROUND SURFACE. DO NOT DRIVE FLUSH TO SURFACE.
- IN ALL TRANSVERSE TERMINAL TRENCHES AND CHECK SLOTS, STAKE EACH MAT AT ITS CENTER AND OVERLAP EDGES BEFORE BACKFILLING AND COMPACTING.
- STAKE OVERLAPS LONGITUDINALLY AT THREE (3) TO FIVE (5) FOOT INTERVALS.
- FOLLOW COLORED DOT PATTERNS BY MANUFACTURER

  REQUIRED ON ALL SLOPES > 8% (WINTER CONSTRUCTION)

  REQUIRED ON ALL SLOPES > 15% (SUMMER CONSTRUCTION)

EROSION CONTROL BLANKET GENERAL INSTALLATION GUIDELINES ON SLOPES

NTS



CONSTRUCTION NOTES:

A. BURY THE TOP OF THE NETTING IN A TRENCH 6" OR MORE DEEP

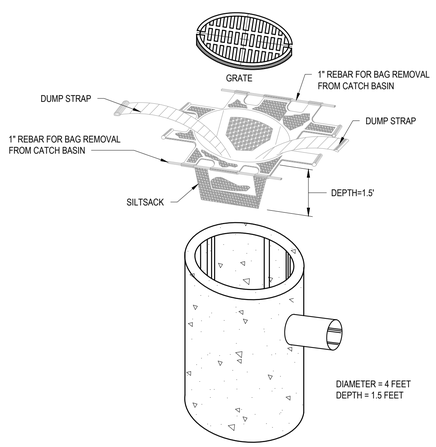
B. TAM TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES, 12" SPACING, 4" DOWN FROM THE TRENCH

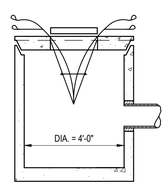
C. OVERLAP- BURY UPPER END OF LOWER STRIP AS IN "A" & "B". OVERLAP END OF TOP STRIP 4" AND STAPLE

D. CHECK SLOT- FOLD OF NETTING BURIED IN SLIT TRENCH AND TAMPED; DOUBLE ROW OF STAPLES AT 12" SPACING. USE CHECK SLOTS AT 15" SPACING IN DITCHES OR STEEP SLOPES.

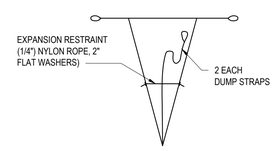
EROSION CONTROL BLANKET REQUIRED IN ALL DITCHES > 3%

NOTE: GRADING PLAN GOVERNS IN ALL LOCATIONS





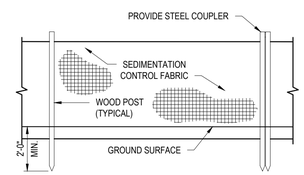
INSTALLATION DETAIL

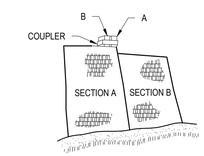


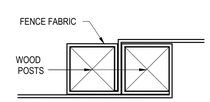
BAG DETAIL

"SILTSACK" INSTALLATION INSTRUCTION

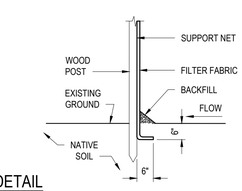
1. REMOVE THE CATCH BASIN GRATE AND PLACE THE SACK INTO THE OPENING. HOLD OUT APPROXIMATELY SIX (6) INCHES OF THE SACK BEYOND THE BASIN FRAME TO ALLOW ACCESS TO THE "SILTSACK" LIFTING STRAPS. REPLACING THE GRATE BACK INSIDE OF ITS FRAME WILL HOLD THE SACK IN PLACE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING AND MAINTAINING THIS SEDIMENT CONTROL DEVICE. THE SACK IS CONSIDERED FULL AND READY TO EMPTY WHEN THE THE "RESTRAINT CORD" IS NO LONGER VISIBLE.
3. THE "SILTSACK" IS REMOVED BY PLACING TWO (2) PIECES IF 1 INCH DIAMETER REBAR THROUGH THE LIFTING LOOPS LOCATED ON EACH SIDE OF THE SACK AND LIFTING WITH AN APPROPRIATE PIECE OF CONSTRUCTION EQUIPMENT. THE LIFTING STRAPS ARE CONNECTED TO THE BOTTOM OF THE SACK AND THE LIFTING ACTION WILL CAUSE THE SACK TO TURN INSIDE OUT, AND EMPTYING THE CONTENTS. THE SACK SHOULD THEN BE CLEANED, RINSED AND RETURNED TO ITS ORIGINAL SHAPE AND PLACED BACK IN THE BASIN.
4. THE "SILTSACK" IS REUSABLE, THEREFORE, ONCE THE CONSTRUCTION CYCLE IS COMPLETE, REMOVE THE SACK FROM THE BASIN, CLEAN AND STORE OUT OF DIRECT SUNLIGHT UNTIL ITS NEXT USE.
5. THE "SILTSACK" SEDIMENT CONTROL DEVICE IS MANUFACTURED BY: ACF ENVIRONMENTAL







NOTE:
BOTTOM OF SILT FENCE MUST BE TOED INTO GROUND

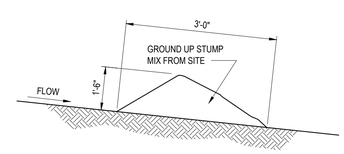


SILTATION FENCE DETAIL

NTS

SILTATION FENCE INSTALLATION

1. EXCAVATE A 6"x6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM. JOIN SECTION AS SHOWN ABOVE.
4. 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.
5. BARRIER SHALL BE MIRAFI SILT FENCE OR APPROVED EQUAL.



MAY BE USED IN LIEU OF SILT FENCE

EROSION CONTROL MIX DETAIL

N.T.S.

TRILLIUM ENGINEERING GROUP
189 MAIN STREET SUITE 200
YARMOUTH, ME 04096

CLIENT:
DWGROUNDBREAKERS, LLC.

5 CLIPPER STREET
CUMBERLAND FORESIDE, ME 04110

PRELIMINARY
NOT FOR CONSTRUCTION

HARRIS ROAD SUBDIVISION OF LAND

96 HARRIS ROAD
CUMBERLAND, MAINE

ISSUED

NUMBER	DESCRIPTION	BY	DATE
A	SKETCH PLAN REVIEW	ED	2/7/2024
B	PLANNING BOARD WORKSHOP SUBMISSION	ED	2/27/2024

SHEET TITLE:

EROSION CONTROL DETAILS

DESIGNED BY: BVD
DRAWN BY: BVD
PROJECT NUMBER: 23-369

C300

From: denison gallaudet
To: William Longley
Cc: Carla Nixon; Christina Silberman; Mike Schwindt; John Jensenius
Subject: Harris Road workshop
Date: Saturday, March 16, 2024 5:45:44 PM
Attachments: uUCGJHiz6AJq1UXp.png

Hi Bill

In response to your memo below and copied to me, I will be attending the 3/19/2024 Harris Road workshop and representing the Lands and Conservation Commission in order to fulfill its duties under 250-7 (f) namely:

> **F.** Other conservation-oriented uses, such as a community garden, compatible with the purposes of this chapter, as determined by the Planning Board in consultation with the Cumberland Lands and Conservation Commission.

In addition to a community garden other proposed conservation-oriented uses might include:

- clear cutting of woodland for intensive agricultural production
- motorbike trails
- establishment of sports fields
- silviculture practices that conflict with the Cumberland Forest Management Guiding Principles

Regards,

Denny Gallaudet

On 3/14/2024 3:14 PM, William Longley wrote:

Christina,

As I understand it Denny will be at the Harris Road workshop for the conservation subdivision. I'm not aware of any LCC requirement to comment on a subdivision that does not involve Town property or trails. The LCC was going to discuss at their last meeting, and I did not attend. Maybe Denny or Mike can answer if different. Anyone can attend and give comment if they wish, I just don't know of a charge to require it. This is preliminary information and there will be other meetings is they are required to prior the final approval.

From: Colleen H
To: Christina Silberman
Subject: planning board workshop Nelson Haynes property
Date: Tuesday, March 19, 2024 5:37:13 AM
Attachments: image.png
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Hello Planning Board members,
I will be unable to attend today's Planning Board meeting since I will be working, but I am very concerned about the Harris Road Subdivision project that is the subject of your preapplication workshop.

Back in the 80's, that side of the road was zoned for 2 acre house lots and my side was for 4 acre lots due to all the wetlands. Previous lots were grandfathered at that time. I realize the contractor has asked for a conservation subdivision--perhaps as a way around the zoning requirements. However, the wetlands are still there and should preclude the developer from subdividing at this density. The wetlands and associated stormwater management are my biggest concerns. The proposed roadway for the 5 new homes will abut the stream, sending all the runoff into the stream that traverses my property downstream. The culvert is medium sized but may not be able to handle all the new runoff from all the new pavement. The culvert that empties into my property is almost occluded at the opposite side of the road and has some erosion under the pavement near that. Please see attached pictures. That whole area will need to be addressed and improved, if this goes as proposed. Please require the developer to demonstrate how runoff will be adequately managed to avoid impacting downstream properties, and include conditions of approval to ensure ongoing proper maintenance of all stormwater control systems after the project is constructed.

Recently, the home on the lot directly to the NE of the subject property was demolished and rebuilt. Since then, flooding has increased substantially on my property, which I believe is from the work done on that lot given that it sits at a higher elevation than mine, and before the rebuild. I have attached pictures. My driveway has only flooded over twice since I've lived here since 1977, until this year. Once dry, the flooded area leaves a lot of silt laying on top of the soil. Also, my basement is flooding with each of the rain storms this year, which is not normal. I don't know who approved the permits for the groundwork across the road, but it has already impacted my property and I am concerned about what will happen with substantially more development next door. Also, if you could give me the name of what department I should follow up to ask about the approved groundwork on that lot, I'd appreciate it.

I also have concerns about the increased traffic flow from the homes that will be built on these new lots. Since the road was made as a throughway, traffic increase and speed has never been followed up on as promised by the Town officials, that I'm aware.

I am also concerned about the new lighting associated with the road and/or future development on these lots, and request that the Board require conditions of approval to ensure that any new lighting doesn't impact wildlife, birds and the current neighbors.

This whole project will change the character of this neighborhood and is very disappointing. I realize "progress" can't be stopped but perhaps it can be lessened or spread into the current wood area more, which could reduce visual and character impacts to the neighborhood.

My final concern is that some of the exhibits that are in the application package are based on old information and should really be updated to better show accuracy. They should reflect that there is already one large home being built in the back attached field with the possibility of a second, meaning that in reality there are a total of 7 new homes in the fields. The Board should consider the cumulative impacts of this subdivision combined with other development on adjacent lots and ensure stormwater, traffic and safety, wildlife, lighting, and character impacts are fully mitigated.
.
Finally, will this workshop be recorded? If so, where can I access it? Please also include me on all future public notices about this project.

Thank you for listening,
Colleen Higgins, Lot 40