

4 Blanchard Road, P.O. Box 85A Cumberland, ME 04021 Tel: 207.829.5016 • Fax: 207.829.5692 info@sme-engineers.com sme-engineers.com

February 20, 2024

Carla Nixon, Town Planner Cumberland Town Hall 290 Tuttle Road Cumberland, ME 04021

Subject: Chebeague and Cumberland Land Trust

Read Property Parking Lot, Blanchard Road

Updated Response to Peer Review Comments dated February 8, 2024

Dear Carla,

As part of our previous response to peer review comments for this project, SME reached out to the Portland Water District (PWD) and Cumberland Fire Department (CFD) to review the proposed location of protective bollards for the existing fire hydrant.

The attached project plan set includes site entrance modifications requested by PWD to provide additional clearance from the existing hydrant to the proposed edge of pavement at the relocated site entrance. The updated site entrance was shifted approximately 6 feet to the southeast to provide the requested clearance. Copies of the emails from the PWD and CFD outlining their satisfaction with the modifications are attached for reference.

If you have any questions or comments, please do not hesitate to contact me. We look forward to reviewing the comments with the Planning Board at the meeting on February 20, 2024.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Jeffrey T. Read, P.E. Senior Civil Engineer

Attachment: PWD Email dated 2/16/2024

CFD Email dated 2/20/2024

**Updated Plan Set** 

From: Robert Bartels

To: <u>Joseph P. Parent</u>; <u>Jeffrey Read</u>

Subject: RE: CCLT Parking Area - Blanchard Road, Cumberland

**Date:** Friday, February 16, 2024 12:03:14 PM

Attachments: <u>image002.png</u>

image003.png image004.png image005.png image006.png image007.png image008.png image009.png

Phone 223ae454-93d7-49cd-a6ff-c6b3f6771a32.png Envelope 01e51944-8e48-4eab-9cd3-85f555862fe6.png Web f9738a30-9efc-4f48-8727-bc60554c3569.png

PWDlogoCMYK finalhorzwaveandtagline 805ff89e-b71e-453e-9acc-ec30c963a648.png

Facebook\_029ff86a-eef2-441a-a2e2-e87d9e072e45.png Linedin\_3a2597ae-b197-4488-b0b0-8b9f3d581365.png Youtube\_a37e753a-5442-4998-83f9-aa8e55933873.png Xlogo2email\_bf573aae-16ef-43ac-b631-1018580e1842.png

I have nothing further to add. This project does not need to go through our MEANS group. Thanks,

### ROBERT BARTELS, P.E.

Senior Project Engineer



207-699-5144



rbartels@pwd.org https://www.pwd.org/









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### Please consider the environment before printing this email

From: Joseph P. Parent <jparent@pwd.org>
Sent: Friday, February 16, 2024 11:47 AM
To: Jeffrey Read <jtr@smemaine.com>
Cc: Robert Bartels <rbartels@pwd.org>

Subject: RE: CCLT Parking Area - Blanchard Road, Cumberland

Hi Jeff.

I am satisfied with those changes thank you.

Joe

From: Jeffrey Read < jtr@smemaine.com > Sent: Friday, February 16, 2024 11:29 AM

**To:** Joseph P. Parent 

Cc: Robert Bartels <<pre>
rbartels@pwd.org>

Subject: RE: CCLT Parking Area - Blanchard Road, Cumberland

ATTENTION: This email did NOT originate from Portland Water District. This email is from an external source outside of the District. Exercise EXTREME caution when opening external attachments or links from unknown senders.

Hi Joe,

We updated the access location to provide approximately 4.5 feet between the existing hydrant and proposed access drive radius. We also reduced the bollard installation to a single unit located approximately 3 feet from the hydrant and 1.5 feet from the edge of gravel. Please review the attached. If you have any questions or need additional information, please do not hesitate to call.

Jeff

Regards,

**Jeffrey T. Read, P.E.** *Senior Civil Engineer* 



4 Blanchard Road, P.O. Box 85A Cumberland. ME 04021

Office: 207.829.5016 Cell: 207.671.8027 Fax: 207.829.5692

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From: Joseph P. Parent <<u>jparent@pwd.org</u>>
Sent: Thursday, February 15, 2024 2:48 PM
To: Jeffrey Read <<u>jtr@smemaine.com</u>>
Cc: Robert Bartels <<u>rbartels@pwd.org</u>>

Subject: RE: CCLT Parking Area - Blanchard Road, Cumberland

### Hi Jeff,

• We would want at least 3-4' behind the edge of pavement. It looks like the CMP pole is further back from the road so that would be less of a hazard for turning traffic so I think we could cheat the entrance that direction some.

Thanks, Joe

From: Jeffrey Read < itr@smemaine.com > Sent: Thursday, February 15, 2024 1:41 PM
To: Joseph P. Parent < iparent@pwd.org > Cc: Robert Bartels < rbartels@pwd.org >

Subject: RE: CCLT Parking Area - Blanchard Road, Cumberland

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Hi Joe,

The further south we move, the more wetland impacts increase from the entrance drive. We're also limited to the south by the existing utility pole. How much separation will you need from the edge of gravel? Thanks.

Jeff

Regards,

**Jeffrey T. Read, P.E.** *Senior Civil Engineer* 

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ENGINEERS
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From: Joseph P. Parent < <u>iparent@pwd.org</u>>
Sent: Thursday, February 15, 2024 1:35 PM
To: Jeffrey Read < <u>itr@smemaine.com</u>>
Cc: Robert Bartels < <u>rbartels@pwd.org</u>>

Subject: CCLT Parking Area - Blanchard Road, Cumberland

Hi Jeff,

• Bobby sent me over your request for the new driveway entrance in close proximity to our fire hydrant. The proposed location is an unnecessary risk that would cause damage to vehicles and potentially our hydrant. Can this new driveway entrance be shifted South to allow adequate separation to our fire hydrant? This would be a benefit to the developer as well because the bollards wouldn't be necessary either if the shift of the entrance could take place.

Thanks, Joe

Hi Bob,

Thanks for looking at this. As described in my message, we want to make sure the bollard layout proposed for the existing hydrant at the site entrance is acceptable to the PWD. If you have any questions or need additional information, please do not hesitate to call. Thanks.

Jeff

Regards,

Jeffrey T. Read, P.E. Senior Civil Engineer

SEVEE & MAHER **ENGINEERS** Sevee & Maher Engineers, Inc.

4 Blanchard Road, P.O. Box 85A Cumberland, ME 04021

Office: 207.829.5016 Cell: 207.671.8027 Fax: 207.829.5692

This electronic message contains information

### JOSEPH P. PARENT

Utility Asset Coordinator - Water





https://www.pwd.org/







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Please consider the environment before printing this email

From: <u>Dan Small</u>
To: <u>Jeffrey Read</u>

Subject: Re: CCLT Parking Area - Blanchard Road

Date: Tuesday, February 20, 2024 12:19:44 PM

Attachments: <u>image002.png</u>

### Looks good

### Get Outlook for iOS

From: Jeffrey Read <jtr@smemaine.com>
Sent: Tuesday, February 20, 2024 10:06:12 AM
To: Dan Small <dsmall@cumberlandmaine.com>
Subject: RE: CCLT Parking Area - Blanchard Road

WARNING: This is an external email that originated outside of our email system. DO NOT CLICK links or open attachments unless you recognize the sender and know that the content is safe!

Hi Dan,

Just following up on this. Have you had a chance to review the latest layout? Please call with any questions.

Jeff

Regards,

Jeffrey T. Read, P.E. Senior Civil Engineer



### Sevee & Maher Engineers, Inc.

4 Blanchard Road, P.O. Box 85A

Cumberland, ME 04021 Office: 207.829.5016 Cell: 207.671.8027 Fax: 207.829.5692

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From: Jeffrey Read

**Sent:** Friday, February 16, 2024 11:31 AM

**To:** Dan Small <dsmall@cumberlandmaine.com> **Subject:** RE: CCLT Parking Area - Blanchard Road

Hi Dan,

Thanks again for your help with this. We updated the access location to provide approximately 4.5 feet between the existing hydrant and proposed access drive radius. We also reduced the bollard installation to a single unit located approximately 3 feet from the hydrant and 1.5 feet from the edge of gravel. Please review the attached. If you have any questions or need additional information, please do not hesitate to call.

Jeff

Regards,

**Jeffrey T. Read, P.E.** *Senior Civil Engineer* 



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From: Dan Small < dsmall@cumberlandmaine.com>

Sent: Thursday, February 15, 2024 11:59 AM

**To:** Jeffrey Read < <u>itr@smemaine.com</u>>

Subject: RE: CCLT Parking Area - Blanchard Road

### Jeff,

Whereas the hydrant is in direct alignment with the edge of the radius it doesn't appear to have adequate protection from turning traffic, vehicles backing up and snowplow/snow removal equipment. This is a picture of a valve/hose connections that we place on the front and side ports of a hydrant. The bollards don't need to protect this configuration when the hydrant is in use, they just need to be positioned so the hose and

### fittings are not obstructed.

### Dan



From: Jeffrey Read < itr@smemaine.com>
Sent: Thursday, February 15, 2024 10:30 AM
To: Dan Small < dsmall@cumberlandmaine.com>
Subject: RE: CCLT Parking Area - Blanchard Road

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Hi Dan,

Please review the attached photo. The main feed of the existing hydrant is approximately perpendicular to the road, roughly 6 o'clock on a clock face. The secondary feeds are approximately parallel to the road at 3 o'clock and 9 o'clock. The proposed bollards will be located parallel to the access radius, roughly at 4:30 and 10:30. I marked up the plan to outline the layout. Thanks again for looking at this on such short notice.

Jeff

Regards,

Jeffrey T. Read, P.E. Senior Civil Engineer



4 Blanchard Road, P.O. Box 85A

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Cell: 207.671.8027
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Cumberland. ME 04021

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From: Dan Small < dsmall@cumberlandmaine.com >

**Sent:** Thursday, February 15, 2024 9:48 AM **To:** Jeffrey Read < itr@smemaine.com >

Subject: RE: CCLT Parking Area - Blanchard Road

Jeff,

From this drawing I can't determine the location of the bollards in relation to the position of the hydrant. I'll need a breakout to determine the alignment of the bollards.

Dan

From: Jeffrey Read < itr@smemaine.com > Sent: Thursday, February 15, 2024 9:34 AM

To: Dan Small < dsmall@cumberlandmaine.com > Subject: CCLT Parking Area - Blanchard Road

WARNING: This is an external email that originated outside of our email system. DO NOT CLICK links or open attachments unless you recognize the sender and know that the content is safe!

Hi Dan,

Thanks for looking at this. As discussed, we want to make sure the bollard layout proposed for the existing hydrant at the site entrance is acceptable to the CFD. If you have any questions or need additional information, please do not hesitate to call. Thanks.

Jeff

Regards,

**Jeffrey T. Read, P.E.** *Senior Civil Engineer* 

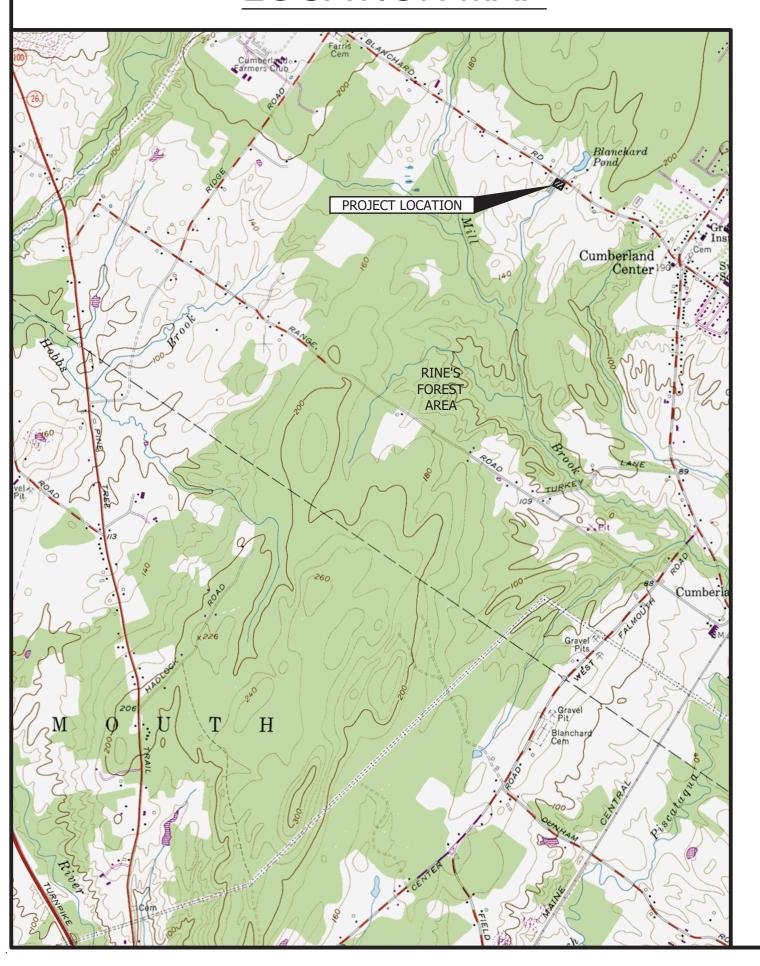


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# READ PROPERTY PARKING LOT CHEBEAGUE AND CUMBERLAND LAND TRUST BLANCHARD ROAD CUMBERLAND, MAINE

# **LOCATION MAP**

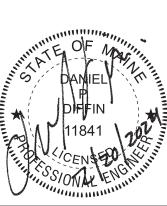


TITLE	DWG NC
COVER SHEET	
GENERAL NOTES, LEGEND, AND ABBREVIATIONS	C-100
EXISTING CONDITIONS AND CLEARING PLAN	C-101
SITE PLAN	C-102
EROSION CONTROL NOTES AND DETAILS	C-300
SECTIONS AND DETAILS	C-301
STORMWATER MANAGEMENT PLAN PRE-DEVELOPED CONDITIONS	D-100
STORMWATER MANAGEMENT PLAN POST DEVELOPEMENT CONDITIONS	D-101



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4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com



### **GENERAL NOTES:**

- BASE MAP FROM PLAN TITLED "BOUNDARY SURVEY MAP OF THE PROPOSED CONSERVATION EASEMENT, THE CHEBEAGUE & CUMBERLAND LAND TRUST FROM NANCY M. READ & MARK W. READ OF THE PROPERTY SITUATED ON THE SOUTHWEST SIDE OF BLANCHARD ROAD IN THE TOWN OF CUMBERLAND, COUNTY OF CUMBERLAND, STATE OF MAINE", BY MAINE BOUNDARY CONSULTANTS, LLC, DATED JULY 11, 2022.
- . WETLANDS DELINEATED BY COPPI ENVIRONMENTAL, LLC, DATED 12/14/2022.
- PLACE TEMPORARY SOIL STABILIZATION WITHIN 30 DAYS OF INITIAL DISTURBANCE. PLACE PERMANENT SOIL SATURATION WITHIN 7 DAYS OF FINAL GRADING.
- EXCAVATE AND STOCKPILE ON-SITE TOPSOIL. TOPSOIL IS TO REMAIN THE PROPERTY OF THE OWNER DURING CONSTRUCTION, AND SHALL NOT BE REMOVED FROM THE SITE, AFTER FINAL LOAM AND SEED, EXCESS TOPSOIL SHALL BE REMOVED FROM SITE BY CONTRACTOR.

### **GRADING NOTES:**

- ADD 4-INCHES OF 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.
- GRADE SURFACES TO DRAIN AWAY FROM BUILDING. PUDDLING OF WATER IN PAVED OR UNPAVED AREAS WILL NOT BE ACCEPTABLE, EXCEPT FOR AREAS DESIGNATED AS PONDS.
- 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.

# **SURVEYORS NOTES:**

- PURPOSE: THE PURPOSE OF THIS BOUNDARY SURVEY MAP IS TO SHOW THE RESULTS OF A SURVEY OF THE PROPOSED CONSERVATION EASEMENT TO BE CONVEYED TO THE CHEBEAGUE & CUMBERLAND LAND TRUST FROM NANCY M. READ AND MARK W. READ, SITUATED ALONG BLANCHARD ROAD IN THE TOWN OF CUMBERLAND, AND IN CUMBERLAND COUNTY, MAINE. THIS MAP ALSO SHOWS THE FIELD EXPANSION AREA WITHIN THE SAID CONSERVATION EASEMENT, AS WELL AS THE EXCLUDED AREA, BEING AN AREA EXCLUDED FROM THE CONSERVATION AREA. AS A RESULT, THE PROPOSED CONSERVATION EASEMENT WAS DETERMINED TO BE 53.46 ACRES, ±, AND THE EXCLUDED AREA WAS DETERMINED TO BE 9.14 ACRES, ±.
- RECORD OWNERSHIP: THE RECORD OWNERSHIP OF THE PARCEL SURVEYED CAN BE FOUND IN THE DEED OF ANNE M. READ (A/K/A NANCY M. READ) TO MARK W. READ, BEING AN UNDIVIDED ONE-HALF (1/2) INTEREST, DATED AUGUST 24, 2020, AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 37094, PAGE 51. REFERENCE IS ALSO MADE TO THE DEED OF JOHN R. WOODMAN TO NANCY M. READ, DATED OCTOBER 27, 1983, AND RECORDED IN THE SAID REGISTRY IN BOOK 6310, PAGE 9, THE DEED OF FRANK M. READ TO NANCY M. READ, DATED OCTOBER 27, 1983, AND RECORDED IN THE SAID REGISTRY IN BOOK 6310, PAGE 11, AND THE DEED OF GREATER PORTLAND DEVELOPMENT GROUP TO NANCY M. READ, DATED JULY 2, 1996, AND RECORDED IN THE SAID REGISTRY IN BOOK 12696, PAGE 93.
- 2016 READ SURVEY: REFERENCE IS MADE TO THE "BOUNDARY SURVEY MAP" AND THE "SURVEY REPORT" PREPARED FOR NANCY M. READ & FRANK W. READ, M.D., DATED JULY 26, 2016 BY ROBERT A. YARUMIAN II, PLS 1303, OF MAINE BOUNDARY CONSULTANTS.

# DIG SAFE NOTES:

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

- 1. PRE-MARK THE BOUNDARIES OF YOUR PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES, SO UTILITY CREWS KNOW WHERE TO MARK THEIR LINES.
- 2. CALL DIG SAFE AT 811 AT LEAST THREE BUSINESS DAYS BUT NO MORE THAN 30 CALENDAR DAYS BEFORE STARTING WORK. DO NOT ASSUME SOMEONE ELSE WILL MAKE THE CALL.
- 3. IF BLASTING, NOTIFY DIG SAFE AT LEAST ONE BUSINESS DAY IN ADVANCE.
- 4. 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.
- 5. 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.
- 6. RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS OF INITIAL NOTIFICATION, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY OR ANY OTHER REASON.
- 7. 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.
- 8. DIG SAFE REOUIREMENTS ARE IN ADDITION TO TOWN, CITY AND/OR STATE DOT STREET OPENING PERMIT
- 9. FOR COMPLETE DIG SAFE REQUIREMENTS, CALL THE PUBLIC UTILITIES COMMISSION (PUC) OR VISIT THEIR
- 10. 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.
- 11. ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED OR IF LINES ARE IMPROPERLY MARKED, YOU MUST FILE AN INCIDENT REPORT WITH THE PUC FOR AN INCIDENT REPORT FORM VISIT WWW.STATE.ME.US/MPUC OR CALL THE PUC AT 1-800-452-4699.

# **ZONING NOTES:**

 OWNER/DEVELOPER: THE CHEBEAGUE AND CUMBERLAND LAND TRUST 371 TUTTLE ROAD #2 CUMBERLAND, MAINE

- 2. PROJECT: READ PROPERTY PARKING LOT BLANCHARD ROAD CUMBERLAND, MAINE
- 3. ZONING DISTRICT: MEDIUM DENSITY RESIDENTIAL ZONING DISTRICT (MDR) AND RURAL RESIDENTIAL 1 ZONING DISTRICT (RR1).

ZONE STANDARDS:	REQ	<u>UIRED</u>	PRO\	<u>VIDED</u>	
		MDR	RR1		
MINIMUM LOT SI	ZE	2 ACRES	4 ACRES	58.98 ACRES	
MINIMUM ROAD I	FRONTAGE	150 FEET	200 FEET	>200 FEET	
<u>SETBACKS</u>					
FRONT		35 FEET	50 FEET	>50 FEET	
SIDE		20 FEET	30 FEET	>30 FEET	

- 5. TAX MAP U12, LOT 6.
- 6. PROPOSED USE: PARKING LOT

REAR

PARKING SUMMARY:

	REQUIRED	PROVIDED
TRAIL	0	8 TOTAL

- 8. THE PROPERTY IS OUTSIDE OF THE 100 YEAR FLOODPLAIN AS OUTLINED ON FEMA COMMUNITY PANEL NO. 230162-0015-B, DATED MAY 19, 1981.
- 9. IMPERVIOUS AREA:

EXISTING = 0 SF $PROPOSED = \pm 7,839 SF$  $TOTAL = \pm 7,839 SF$ 

- 11. UTILITIES PROPOSED ON THIS SITE: NONE
- 12. TOTAL WETLAND IMPACT =  $\pm 3,368$  SF

## **LEGEND**

### **EXISTING** PROPOSED EDGE OF PAVEMENT \_\_\_\_\_ EDGE OF GRAVEL RECLAIMED ASPHALT PAVEMENT CONTOUR \_\_\_\_\_100 \_\_\_\_\_ \_\_\_\_\_ 100 \_\_\_\_\_ 114.23 SPOT GRADE WETLAND TREELINE CLEARING LIMIT LINE SIGN **GATE**

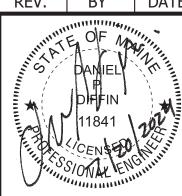
# **EROSION CONTROL LEGEND**

CONCRETE WHEEL STOP

CHECK DAM

STABILIZED ENTRANCE

DPD 2/2024 REVISED PER PWD COMMENT DPD 2/2024 REVISED PER TOWN COMMENT DPD | 1/2024 | REISSUED WITH ENTRANCE MODIFICATIONS DPD | 11/2023 | REISSUED TO TOWN FOR REVIEW DPD | 7/2023 | ISSUED TO TOWN FOR REVIEW REV. BY DATE STATUS



CHEBEAGUE AND CUMBERLAND LAND TRUST READ PROPERTY PARKING LOT BLANCHARD ROAD CUMBERLAND, MAINE

GENERAL NOTES, LEGEND, AND **ABBREVIATIONS** 

SME \_ SEVEE & MAHER **ENGINEERS** ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021

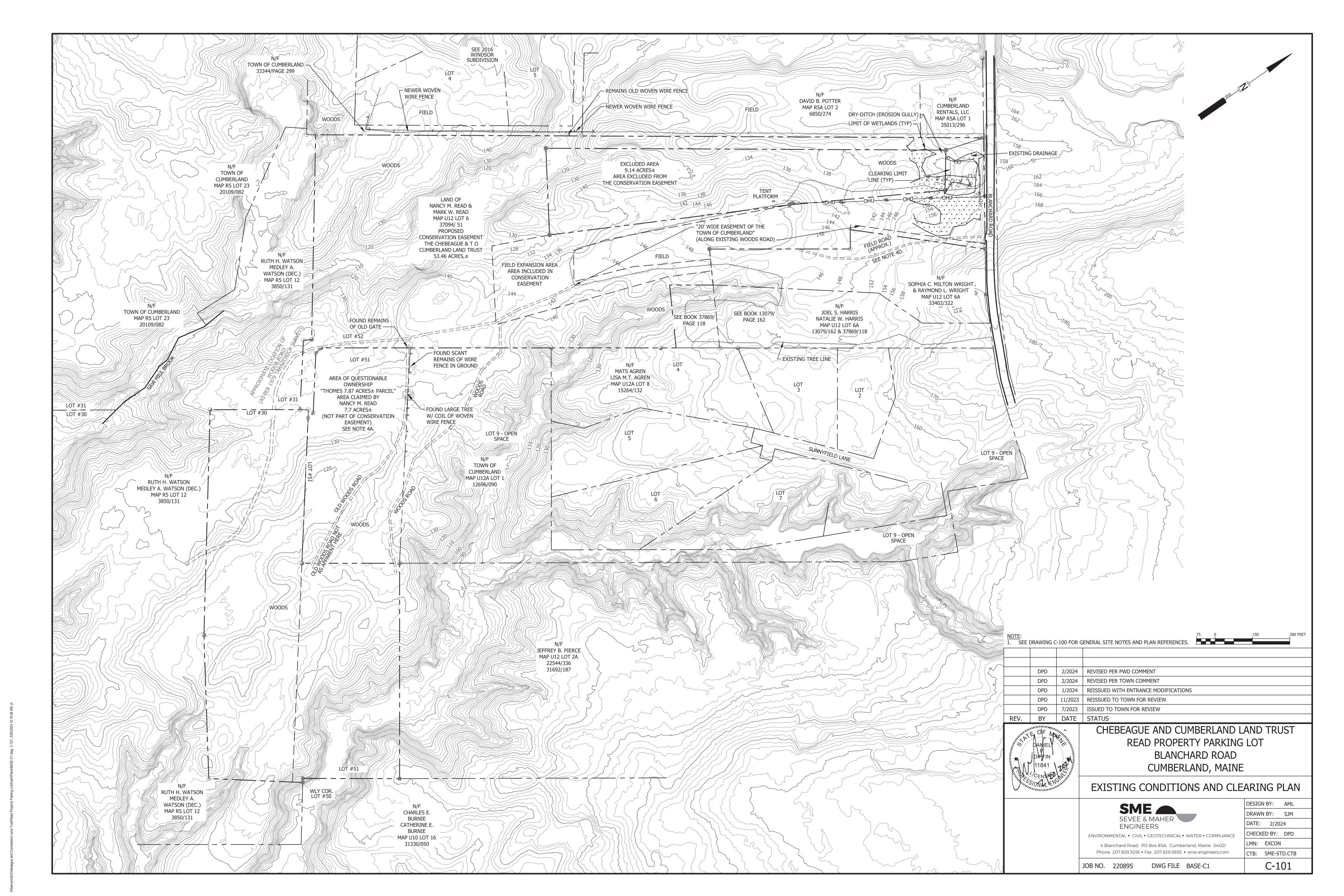
DESIGN BY: AML DRAWN BY: SJM DATE: 2/2024 CHECKED BY: DPD MN: NONE CTB: SME-STD.CTB

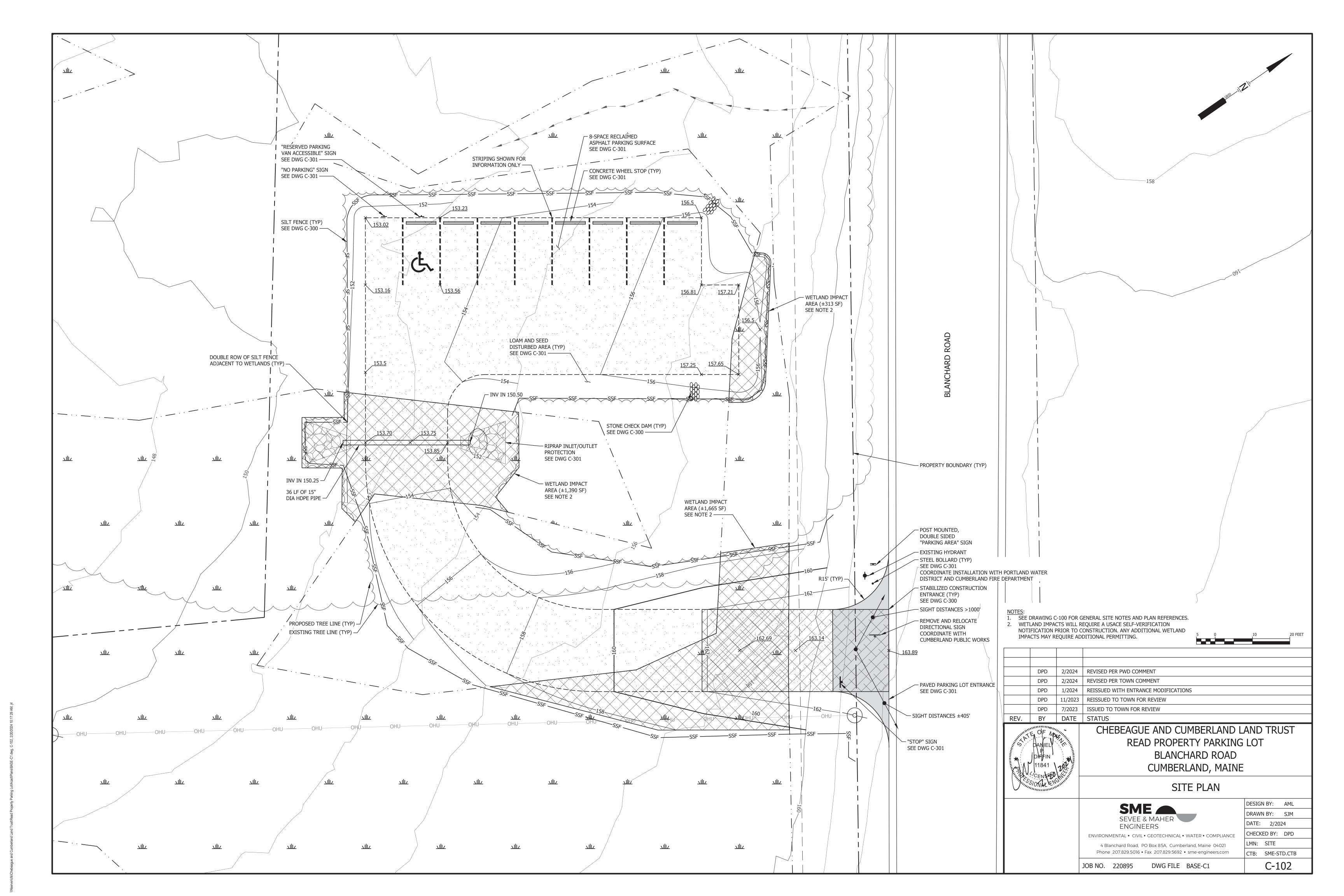
# TYPICAL ABBREVIATIONS:

ACCMP ACP	ASPHALT COATED CMP ASBESTOS CEMENT PIPE	D DBL	DEGREE OF CURVE DOUBLE	HDPE HORIZ	HIGH DENSITY POLYETHYLENE HORIZONTAL	PERF PP	PERFORATED POWER POLE
AC	ACRE	DEG OR °	DEGREE	HP	HORSEPOWER	PSI	POUNDS PER SQUARE INCH
AGG	AGGREGATE	DEPT	DEPARTMENT	HYD	HYDRANT	PVC	POLYVINYL CHLORIDE
ALUM	ALUMINUM	DI	DUCTILE IRON	1110	TITOTOTI	PVMT	PAVEMENT
APPD	APPROVED	DIA OR Ø	DIAMETER	ID	INSIDE DIAMETER		177VELLENT
APPROX	APPROXIMATE	DIM	DIMENSION	IN OR "	INCHES	OTV	OLIANITITY
ARMH	AIR RELEASE MANHOLE	DIST	DISTANCE	INV	INVERT	QTY	QUANTITY
ASB	ASBESTOS	DN	DOWN	INV EL	INVERT ELEVATION	RCP	DEINEODOED CONODETE DIDE
ASP	ASPHALT	DR	DRAIN		INVERT ELEVATION		REINFORCED CONCRETE PIPE
AUTO	AUTOMATIC	DWG	DRAWING	LB	POUND	ROW	RIGHT OF WAY
AUX	AUXILIARY	DWG	DIGWING	LC	LEACHATE COLLECTION	RAD	RADIUS
AVE	AVENUE	EA	EACH	LD	LEAK DETECTION	REQD	REQUIRED
AZ	AZIMUTH	EG	EXISTING GROUND OR GRADE	LF	LINEAR FEET	RT	RIGHT
		ELEC	ELECTRIC	LOC	LOCATION	RTE	ROUTE
BCCMP	BITUMINOUS COATED CMP	EL	ELEVATION	LT	LEACHATE TRANSPORT	S	SLOPE
BM	BENCH MARK	ELB	ELBOW			SCH	SCHEDULE
BIT	BITUMINOUS	EOP	EDGE OF PAVEMENT	MH	MANHOLE	SF	SQUARE FEET
BLDG	BUILDING	EQUIP	EQUIPMENT	MJ	MECHANICAL JOINT	SHT	SHEET
BOT	BOTTOM	EST	ESTIMATED	MATL	MATERIAL	SMH	SANITARY MANHOLE
BRG	BEARING	EXC	EXCAVATE	MAX	MAXIMUM	ST	STREET
BV	BALL VALVE	EXIST	EXISTING	MFR	MANUFACTURE	STA	STATION
DV	DALL VALVE			MIN	MINIMUM	SY	SQUARE YARD
СВ	CATCH BASIN	FI	FIELD INLET	MISC	MISCELLANEOUS		•
CEN	CENTER	FG	FINISH GRADE	MON	MONUMENT	TAN	TANGENT
CEM LIN	CEMENT LINED	FBRGL	FIBERGLASS	11011	TIONOTIENT	TDH	TOTAL DYNAMIC HEAD
CMP	CORRUGATED METAL PIPE	FDN	FOUNDATION	NITC	NOT IN THIS CONTRACT	TEMP	TEMPORARY
CO	CLEAN OUT	FLEX	FLEXIBLE	NTS	NOT TO SCALE	TYP	TYPICAL
CF	CUBIC FEET	FLG	FLANGE	N/F	NOW OR FORMERLY	UD	UNDERDRAIN
CFS	CUBIC FEET PER SECOND	FLR	FLOOR	NO OR #	NUMBER		
CI	CAST IRON	FPS	FEET PER SECOND		110115211	V	VOLTS
CL	CLASS	FT OR '	FEET	OC	ON CENTER	VA TEE	VALVE ANCHORING TEE
CONC	CONCRETE	FTG	FOOTING	OD	OUTSIDE DIAMETER	VERT	VERTICAL
CONST	CONSTRUCTION		1 00 11110		00.010101010101010		
CONTR	CONTRACTOR	GA	GAUGE	PC	POINT OF CURVE	WG	WATER GATE
CS	CURB STOP	GAL	GALLON	PD	PERIMETER DRAIN	W/	WITH
CTR	CENTER	GALV	GALVANIZED	PI	POINT OF INTERSECTION		
CU	COPPER	GPD	GALLONS PER DAY	PIV	POST INDICATOR VALVE	W/O	WITHOUT
CY	CUBIC YARD	GPM	GALLONS PER MINUTE	PT	POINT OF TANGENT	YD	VADD
e.		<del></del>	J J		I OTIVI OI I/WOLIVI	טז	YARD

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C-100





### A. GENERAL

- 1. All soil erosion and sediment control will be done in accordance with: (1) the Maine Erosion and Sediment Control Handbook: Best Management Practices, Maine Department of Environmental Protection (MEDEP), October 2016.
- 2. The site Contractor (to be determined) will be responsible for the inspection and repair/replacement/maintenance of all erosion control measures, disturbed areas, material storage areas, and vehicle access points until all disturbed areas are stabilized.
- 3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance will be temporarily stabilized within 7 days of the disturbance.
- 4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.
- 5. Any suitable topsoil will be stripped and stockpiled for reuse as directed by the Owner. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. In any event, stockpiles will not be located within 100 feet of wetlands and will be at least 50 feet upgradient of the stockpile's perimeter silt fence. The sideslopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with Aroostook rye, annual or perennial ryegrass within 7 days of formation, or temporarily mulched.
- 6. Winter excavation and earthwork will be completed so as to minimize exposed areas while satisfactorily completing the project. Limit exposed areas to those areas in which work is to occur during the following 15 days and that can be mulched in one day. All areas will be considered denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed, seeded, and mulched.

Install any added measures necessary to control erosion/sedimentation. The particular measure used will be dependent upon site conditions, the size of the area to be protected, and weather conditions.

To minimize areas without erosion control protection, continuation of earthwork operations on additional areas will not begin until the exposed soil surface on the area being worked has been stabilized.

### B. TEMPORARY MEASURES

### 1. STABILIZED CONSTRUCTION ENTRANCE/EXIT

A crushed stone stabilized construction entrance/exit will be placed at any point of vehicular access to the site, in accordance with the detail shown on this sheet.

### 2. SILT FENCE

- a. Silt fence will be installed prior to all construction activity, where soil disturbance may result in erosion. Silt fence will be erected at locations shown on the plans and/or downgradient of all construction activity.
- b. Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.
- c. Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check
- d. Sediment deposits will be removed after each storm event if significant build-up has occurred or if deposits exceed half the height of the barrier.

### 3. STONE CHECK DAMS

Stone check dams should be installed before runoff is directed to the swale. Stone check dams will be installed in grass-lined swales and ditches during construction. Remove stone check dams when they have served their useful purpose, but not before upgradient areas have been permanently stabilized.

### 4. EROSION CONTROL MIX SEDIMENT BARRIER

- a. It may be necessary to cut, pack down, or remove tall grasses, brush, or woody vegetation to avoid voids and bridges that allow the washing away of fine soil particles.
- b. Where approved, erosion control mix sediment barriers may be used as a substitute for silt fence. See the details in this drawing set for specifications.
- b. Rock Filter Berms: To provide more filtering capacity or to act as a velocity check dam, a berm's center can be composed of clean crushed rock ranging in size from the french drain stone to riprap.

### 5. TEMPORARY SEEDING

Stabilize disturbed areas that will not be brought to final grade and reduce problems associated with mud and dust production from exposed soil surface during construction with temporary vegetation.

### 6. TEMPORARY MULCHING

Use temporary mulch in the following locations and/or circumstances:

- In sensitive areas (within 100 feet of streams, wetlands and in lake watersheds) temporary mulch will be applied within 7 days of exposing spill or prior to any
- Apply temporary mulch within 14 days of disturbance or prior to any storm event in all other areas.
- Areas which have been temporarily or permanently seeded will be mulched immediately following seeding.
- Areas which cannot be seeded within the growing season will be mulched for over-winter protection and the area will be seeded at the beginning of the
- Mulch can be used in conjunction with tree, shrub, vine, and ground cover
- Mulch anchoring will be used on slopes greater than 5 percent in late fall (past October 15), and over-winter (October 15 - April 15).

### The following materials may be used for temporary mulch:

- a. Hay or Straw material shall be air-dried, free of seeds and coarse material. Apply 2 bales/1,000 sf or 1.5 to 2 tons/acre to cover 90% of ground surface.
- b. Erosion Control Mix: It can be used as a stand-alone reinforcement: 2-inches thick for slopes flatter than 3H:1V;
- 4-inches thick for slopes greater than 3H:1V;
- on slopes 2 horizontal to 1 vertical or less; on frozen ground or forested areas; and
- at the edge of gravel parking areas and areas under construction.
- c. Erosion control mix alone is not suitable: on slopes with groundwater seepage;
- at low points with concentrated flows and in gullies;
- at the bottom of steep perimeter slopes exceeding 100 feet in length; below culvert outlet aprons; and around catch basins and closed storm systems.

- d. Chemical Mulches and Soil Binders: Wide ranges of synthetic spray-on materials are marketed to protect the soil surface. These are emulsions that are mixed with water and applied to the soil. They may be used alone, but most often are used to hold wood fiber, hydro-mulches or straw to the soil surface.
- e. Erosion Control Blankets and Mats: Mats are manufactured combinations of mulch and netting designed to retain soil moisture and modify soil temperature. During the growing season (April 15th to November 1st) use mats indicated on drawings or North American Green (NAG) S75 (or mulch and netting) on:
- the base of grassed waterways;
- steep slopes (15 percent or greater); and
- any disturbed soil within 100 feet of lakes, streams, or wetlands.

During the late fall and winter (November 1st to April 15th) use heavy grade mats

indicated on drawings for NAG SC250 on all areas noted above plus use lighter grade mats NAG S75 (or mulch and netting) on: • sideslopes of grassed waterways; and moderate slopes (between 8 and 15

To prevent the blowing and movement of dust from exposed soil surfaces, and reduce the presence of dust, use water or calcium chloride to control dusting by preserving the moisture level in the road surface materials.

### D. CONSTRUCTION DE-WATERING

C. TEMPORARY DUST CONTROL

- 1. Water from construction de-watering operations shall be cleaned of sediment before reaching wetlands, water bodies, streams or site boundaries. Utilize temporary sediment basins, erosion control soil filter berms backed by staked hay bales, A Dirt Bag 55" sediment filter bag by ACF Environmental, or other approved Best Management Practices
- 2. In sensitive areas near streams or ponds, discharge the water from the de-watering operation into a temporary sediment basin created by a surrounding filter berm of uncompacted erosion control mix immediately backed by staked hav bales (see the site details). Locate the temporary sediment basin at lease 100 feet from the nearest water body, such that the filtered water will flow through undisturbed vegetated soil areas prior to reaching the water body or property line.
- E. PERMANENT MEASURES
- 1. Riprapped Aprons: All storm drain pipe outlets and the inlet and outlet of culverts will have riprap aprons to protect against scour and deterioration.
- 2. Topsoil, Seed, and Mulch: All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, seeded, and mulched.

Seeded Preparation: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used. Grade the site as needed.

a. Seeding will be completed by August 15 of each year. Late season seeding may be done between August 15 and October 15. Areas not seeded or which do not obtain satisfactory growth by October 15, will be seeded with Aroostook Rye or mulched. After November 1, or the first killing frost, disturbed areas will be seeded at double the specified application rates, mulched, and anchored.

### PERMANENT SEEDING SPECIFICATIONS OUTSIDE OF SOLAR ARRAY FOOTPRINT

Mixture:	Roadside (lbs/acre)	Lawn (lbs/acre)
Kentucky Bluegrass	20	55
White Clover	5	0
Creeping Red Fescue	20	55
Perennial Ryegrass	5	15

- b. Provide New England Meadow mix seed in areas of solar array
- c. Mulch in accordance with specifications for temporary mulching.
- d. If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.
- 3. Ditches and Channels: All ditches on-site will be lined with North American Green S75 erosion control mesh (or an approved equal) upon installation of loam and seed.
- F. WINTER CONSTRUCTION AND STABILIZATION
- 1. Natural Resource Protection: During winter construction, a double-row of sediment barriers (i.e., silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area. Projects crossing the natural resource will be protected a minimum distance of 100 feet on either side from the resource.
- 2. Sediment Barriers: During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

### Mulching:

- All areas will be considered to be denuded until seeded and mulched. Hay and straw mulch will be applied at a rate of twice the normal accepted rate. Mulch will not be spread on top of snow.
- After each day of final grading, the area will be properly stabilized with anchored
- hay or straw or erosion control matting. Between the dates of November 1 and April 15, all mulch will be anchored by either mulch netting, emulsion chemical, tracking or wood cellulose fiber.
- 5. Soil Stockpiling: Stockpiles of soil or subsoil will be mulched for over-winter protection with hay or straw at twice the normal rate or with a 4-inch layer of erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall. Any soil stockpiles shall not be placed (even covered with mulch) within 100 feet from any natural resources. Sediment barriers should be installed downgradient of stockpiles. Stormwater shall be directed away from stockpiles.
- 6. Seeding: Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas will receive 4 inches of loam and seed at an application rate of three times the rate for permanent seeding. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 percent catch) will be revegetated by replacing loam, seed, and mulch.

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

- 7. Maintenance: Maintenance measures will be applied as needed during the entire construction season. After each rainfall, snow storm, or period of thawing and runoff, and at least once a week, the site Contractor will perform a visual inspection of all installed erosion control measures and perform repairs as needed to ensure their continuous function.
- 8. Identified repairs will be started no later than the end of the net work day and be completed within seven (7) calendar days.

Following the temporary and/or final seeding and mulching, the Contractor will, in the spring, inspect and repair any damages and/or bare spots. An established vegetative cover means a minimum of 85 to 90 percent of areas vegetated with vigorous growth.

- G. OVER-WINTER CONSTRUCTION EROSION CONTROL MEASURES
- 1. Stabilization of Disturbed Soil: By October 15, all disturbed soils on areas having a slope less than 15 percent will be seeded and mulched. If the Contractor fails to stabilize these soils by this date, then the Contractor shall stabilize the soil for late fall and winter, by using either temporary seeding or mulching.
- . Stabilization of Disturbed Slopes: All slopes to be vegetated will be completed by October 15. The Owner will consider any area having a grade greater than 15 percent (6.5H:1V) to be a slope. Slopes not vegetated by October 15 will receive one of the following actions to stabilize the slope for late fall and winter:
- a. Stabilize the soil with temporary vegetation and erosion control mesh.
- b. Stabilize the slope with erosion control mix. c. Stabilize the slope with stone riprap.
- d. Slopes steeper than 1.5:1 are prohibited.
- 3. Stabilization of Ditches and Channels: All stone-lined ditches and channels to be used to convey runoff through the winter will be constructed and stabilized by November 15. Grass-lined ditches and channels will be complete by September 15. Grass-lined ditches not stabilized by September 15 shall be lined with either sod or riprap.

### H. MAINTENANCE PLAN

1. Routine Maintenance: Inspection will be performed as outlined in the project's Erosion Control Plan. Inspection will be by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities will include checking erosion controls for accumulation of sediments.

### Housekeeping

- 1. Spill prevention. Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and
- 2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- 3. Fugitive sediment and dust. Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control. If off-site tracking occurs roadways should be swept immediately and no loss once a week and prior to significant storm events.
- 4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- 5. Trench or foundation de-watering. Trench de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the department.
- 6. Authorized Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:
- (a) Discharges from firefighting activity;
- (b) Fire hydrant flushings;
- (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
- (d) Dust control runoff in accordance with permit conditions and section I3;
- (e) Routine external building washdown, not including surface paint removal, that does
- (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
- (g) Uncontaminated air conditioning or compressor condensate;
- (h) Uncontaminated groundwater or spring water;
- (i) Foundation or footer drain-water where flows are not contaminated;
- (j) Uncontaminated excavation dewatering (see requirements in section I5);
- (k) Potable water sources including waterline flushings; and
- Landscape irrigation.
- Unauthorized non-stormwater discharges. The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non stormwater, other than those discharges in compliance with section I6. Specifically, the Department's approval does not authorize discharges of the following:
- (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
- (b) Fuels, oils or other pollutants used in vehicle and equipment operation and
- (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
- (d) Toxic or hazardous substances from a spill or other release.
- 8. Additional requirements. Additional requirements may be applied on a site-specific basis.

### J. CONSTRUCTION SEQUENCE

- In general, the expected sequence of construction for each phase is provided below. Construction is proposed to start in Fall 2023 and end in 2024.
- Mobilization Install temporary erosion control measures
- Clearing and grubbing
- Site Grading Install reclaimed parking lot and drive Site stabilization, loam and seed, and landscaping

### **EROSION CONTROL MIX SEDIMENT BARRIER**

F. PH: 5.0 - 8.0

OUT INTO THE LANDSCAPE.

- 1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FILIME LOG HANDLING SYSTEMS. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH.
- THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS

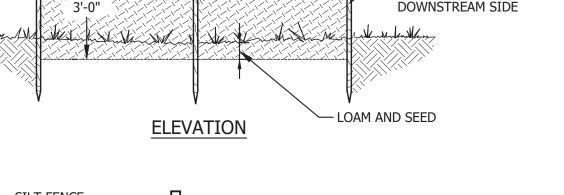
SIGNS OF UNDERCUTTING OR THE IMPOUNDMENT OF LARGE VOLUMES OF WATER.

- A. ORGANIC MATERIAL: BETWEEN 20% 100% (DRY WEIGHT BASIS) B. PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN
- C. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED. D. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. E. SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 MMHOS/CM.
- 2. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES 2:1 OR LESS UP TO 20 FEET LONG. THE BARRIER MUST CONFORM TO THE ABOVE DIMENSIONS. ON THE LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL FLOW.
- 3. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL ELEVATION. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO
- 4. LOCATIONS WHERE OTHER BMP'S SHOULD BE USED:
- A. AT LOW POINTS OF CONCENTRATED FLOW B. BELOW CULVERT OUTLET APRONS
- C. WHERE A PREVIOUS STAND-ALONE EROSION CONTROL MIX APPLICATION HAS FAILED D. AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM
- (LARGE UPGRADIENT WATERSHED) E. AROUND CATCH BASINS AND CLOSED STORM DRAIN SYSTEMS. 5. THE EROSION CONTROL MIX BARRIERS SHOULD BE INSPECTED REGULARLY AND AFTER EACH LARGE RAINFALL.
- REPAIR ALL DAMAGED SECTIONS OF BERM IMMEDIATELY BY REPLACING OR ADDING ADDITIONAL MATERIAL PLACED ON THE BERM TO THE DESIRED HEIGHT AND WIDTH. 6. IT MAY BE NECESSARY TO REINFORCE THE BARRIER WITH SILT FENCE OR STONE CHECK DAMS IF THERE ARE
- 7. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF
- INEFFECTIVE. THE BARRIER SHOULD BE RESHAPED AS NEEDED. 9. EROSION CONTROL MIX BARRIERS CAN BE LEFT IN PLACE AFTER CONSTRUCTION. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHOULD BE SPREAD TO CONFORM TO THE

EXISTING GRADE AND BE SEEDED AND MULCHED. WOODY VEGETATION CAN BE PLANTED INTO THE BARRIERS.

OR THEY CAN BE OVER-SEEDED WITH LEGUMES. IF THE BARRIER NEEDS TO BE REMOVED, IT CAN BE SPREAD

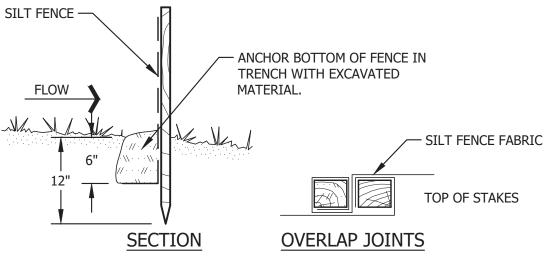
8. REPLACE SECTIONS OF BERM THAT DECOMPOSE, BECOME CLOGGED WITH SEDIMENT OR OTHERWISE BECOME



- SILT FENCE FABRIC

AT 6'-0" MAX OC ON

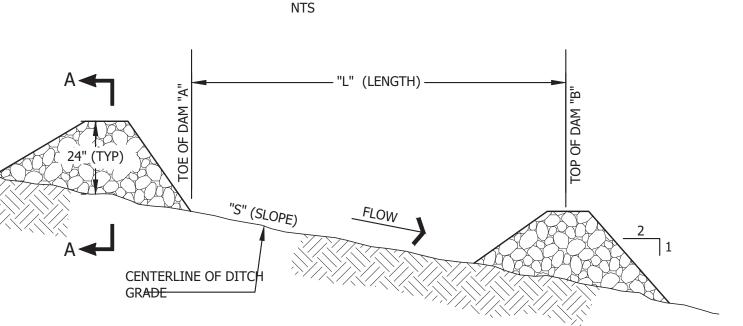
- HARDWOOD STAKES SPACED



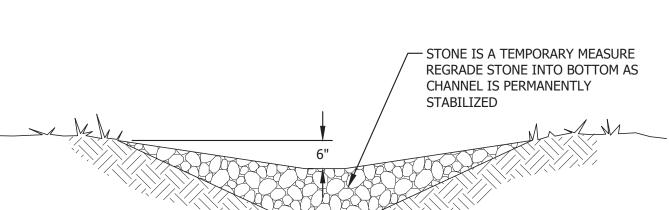
### SILT FENCE

CONTRACTORS OPTION TO USE SEDIMENT BARRIER OR SILT FENCE FOR SLOPE PROTECTION.

# SURFACE DRAINAGE SEDIMENT CONTROL



# **ELEVATION VIEW**



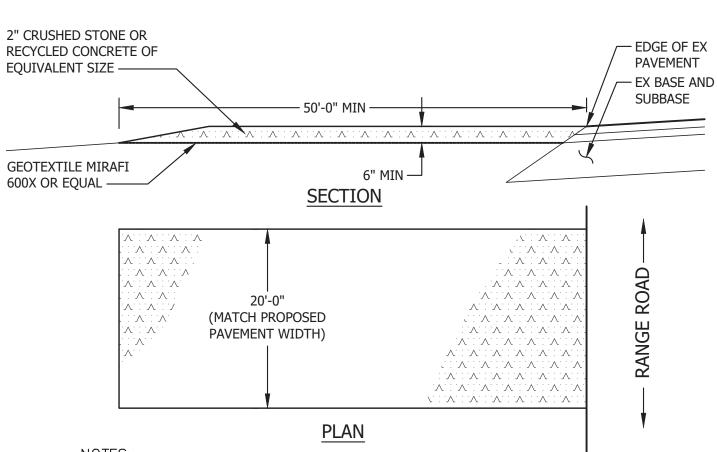
# **SECTION A-A**

### SLOPE & LENGTH TABLE "S" (SLOPE) "L" (LENGTH) FT/FT 0.020 100 0.030 66 0.040 50 0.050 40 0.080 25 0.100 20 0.120 17 0.150

1. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND DAMS. SEDIMENT SHOULD BE REMOVED FROM BEHIND DAMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE DAM.

2. STONE: 2"-3" CRUSHED STONE (MDOT

703.31) L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

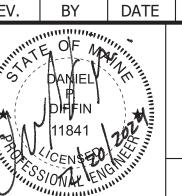


. MAINTAIN ENTRANCE IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. IF WASHING IS REQUIRED PREVENT SEDIMENT FROM ENTERING WATERWAYS, DITCHES OR STORM DRAINS.

# STABILIZED CONSTRUCTION ENTRANCE

REMOVE STABILIZED CONSTRUCTION ENTRANCE TO FINISH ROAD CONSTRUCTION &

2/2024 | REVISED PER PWD COMMENT 2/2024 | REVISED PER TOWN COMMENT 1/2024 | REISSUED WITH ENTRANCE MODIFICATIONS | 11/2023 | REISSUED TO TOWN FOR REVIEW DPD 7/2023 ISSUED TO TOWN FOR REVIEW REV. BY DATE STATUS



CHEBEAGUE AND CUMBERLAND LAND TRUST READ PROPERTY PARKING LOT **BLANCHARD ROAD** CUMBERLAND, MAINE

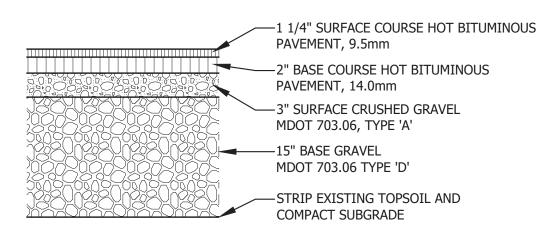
# **EROSION CONTROL NOTES AND DETAILS**

DESIGN BY: AML SME \_ DRAWN BY: SJM SEVEE & MAHER DATE: 2/2024 **ENGINEERS** CHECKED BY: DPD ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE MN: NONE 4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com CTB: SME-STD.CTB C-300

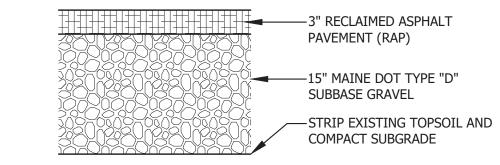
STONE CHECK DAM

JOB NO. 220895

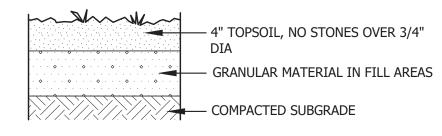
DWG FILE DETAILS



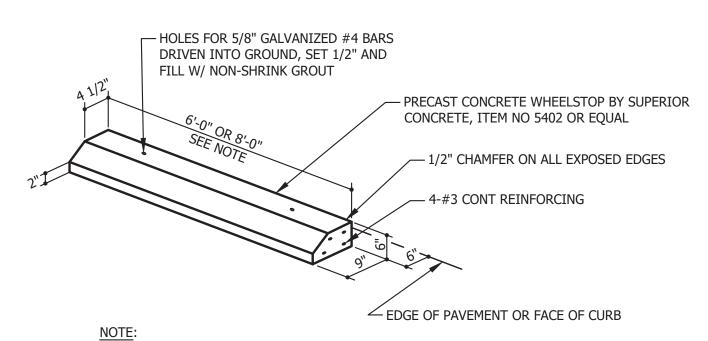
PARKING LOT ENTRANCE SURFACE



RECLAIMED ASPHALT PARKING LOT SURFACE

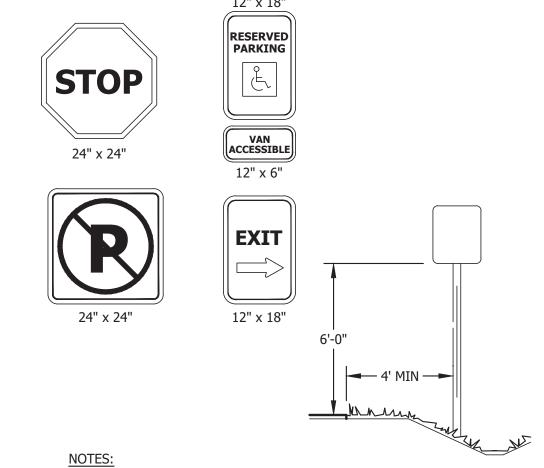


LOAM AND SEED SURFACE



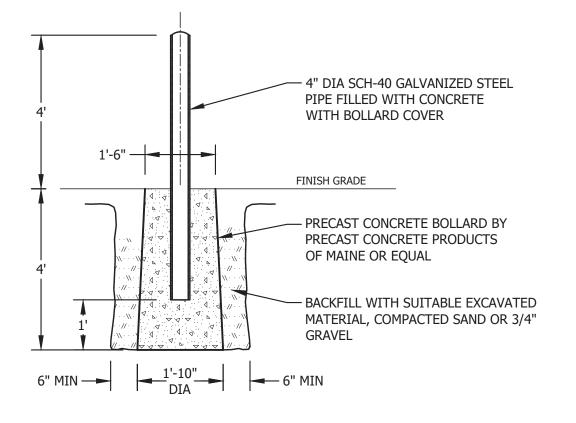
PROVIDE 8' WHEELSTOP AT PARKING SPACES. PROVIDE 6' WHEELSTOP AT ACCESSIBLE PARKING SPACES.

CONCRETE WHEELSTOP DETAIL

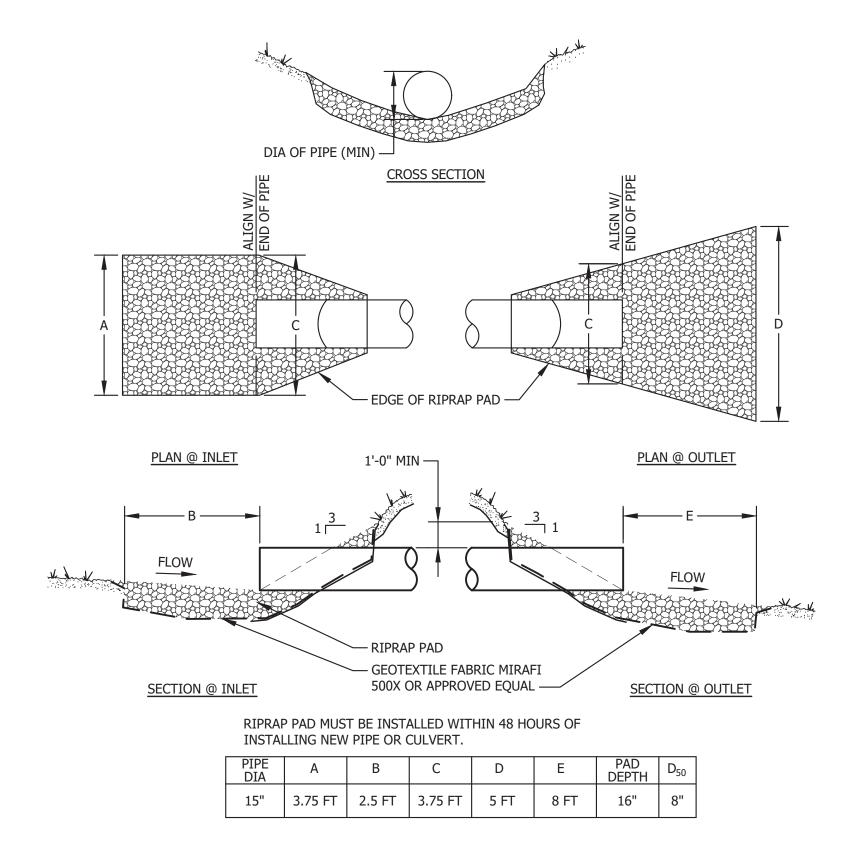


- 1. SIGNS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES REVISION OF DECEMBER 2002, SECTION 645.
- 2. ALL PERMANENT SIGNS ON THIS PROJECT ARE CLASSIFIED UNDER SECTION 645.03(b) TYPE 1 REGULATORY WARNING AND ROUTE MARKER ASSEMBLY SIGNS.
- 3. SIGN MATERIAL SHALL BE AS SPECIFIED IN SECTION 719 OF THE MDOT STANDARD SPECIFICATIONS.
- 4. POSTS SHALL BE METAL CHANNELS AS SPECIFIED IN SECTION 720.08. ALTERNATE POSTS MAY BE 4"x6" WOOD AS SPECIFIED IN SECTION 720.12, AS APPROVED BY ENGINEER.
- 5. POSTS IN THE PUBLIC RIGHT-OF-WAY TO BE ON BREAKAWAY POSTS AS SPECIFIED IN SECTION 720 OF THE MDOT STANDARD SPECIFICATIONS.

ROAD SIGN LEGEND



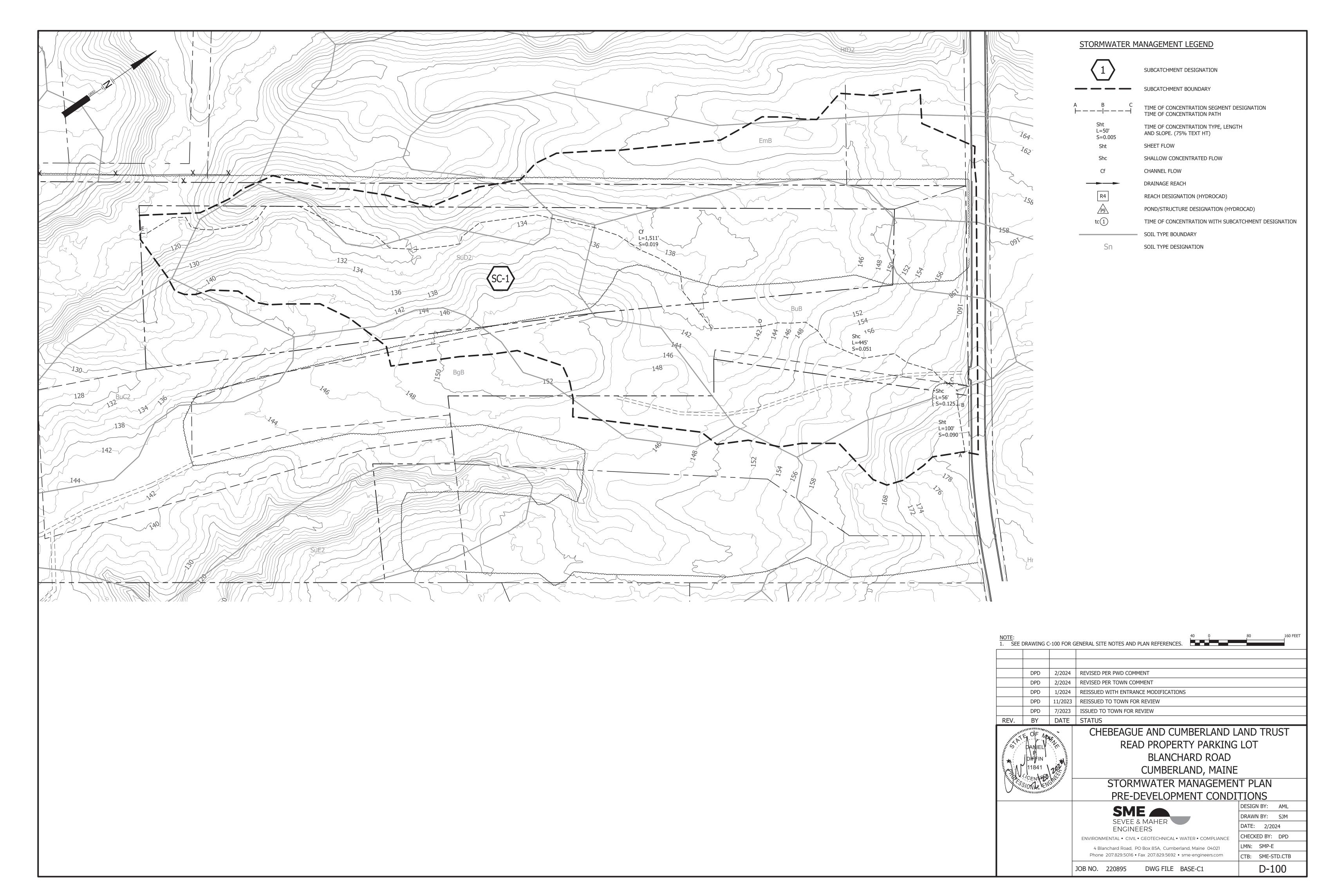
PRECAST STEEL BOLLARD



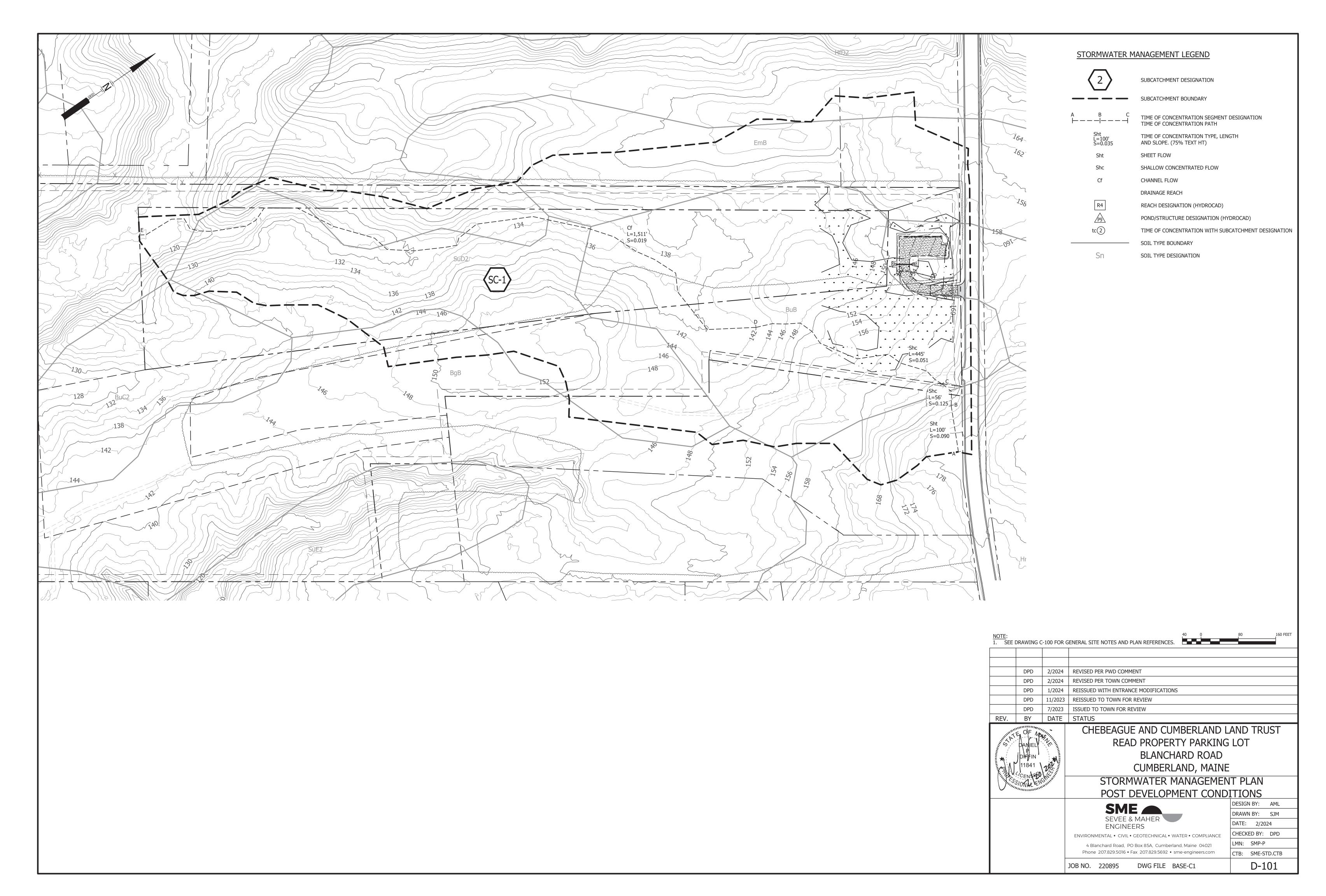
RIPRAP INLET/OUTLET PROTECTION

	DPD	2/2024	REVISED PER PWD COMMENT	
	DPD	2/2024	REVISED PER TOWN COMMENT	
	DPD	1/2024	REISSUED WITH ENTRANCE MODIFICATIONS	
	DPD	11/2023	REISSUED TO TOWN FOR REVIEW	
	DPD	7/2023	ISSUED TO TOWN FOR REVIEW	
REV.	BY	DATE	STATUS	
imi	E OF M	111111111111111111111111111111111111111	CHEBEAGUE AND CUMBERLAND LAND TRUST	
ENTITY A	DANIEL DIFFIN		READ PROPERTY PARKING LOT	
			BLANCHARD ROAD	
11841		12	CUMBERLAND, MAINE	
THE STATE OF THE S	CENS ENGLITHE		SECTIONS AND DETAILS	

DESIGN BY: AML SME SEVEE & MAHER DRAWN BY: SJM DATE: 2/2024 **ENGINEERS** CHECKED BY: DPD ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE LMN: NONE 4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com CTB: SME-STD.CTB C-301 JOB NO. 220895 DWG FILE DETAILS



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Date February 20, 2024

To Town of Cumberland Planning Board

From Carla Nixon, Planning Director

Subject: Site Plan Amendment: Chebeague and Cumberland Land Trust (CCLT) Parking Lot – 48

Blanchard Rd.

### 1.REQUEST:

The applicant is the Chebeague and Cumberland Land Trust (CCLT). CCLT holds a conservation easement for 53.46 acre parcel owned by the Read Family. The easement allows for the creation of an 8-lot parking area to be used to access the Rhines Forest conservation area which is a 268 parcel of forest land with an extensive trail network. This project was approved by the Planning Board on August 15, 2023, however an amendment is required to permit a change in the entrance location and design.

The parking area will be accessed through a paved entryway off Blanchard Road approximately 0.5 miles from the main intersection in Cumberland Center. The new access will be constructed in a wooded area within the conservation easement selected to minimize impact to existing wetlands adjacent to the roadway. The pavement will end at the edge of the right-of-way at which point the access aisle and parking area will be constructed of reclaimed asphalt pavement. Through the bid progress, the cost of building the parking lot was higher than what CCLT had budgeted. To reduce the cost, SME redesigned the entrance to reduce the fill required to construct the parking area. The full build-out will result in approximately 12,600 square feet (0.3 acres) of disturbed area and 8,317 square feet of reclaimed asphalt pavement area. The grading and drainage associated with the new parking area has been minimized as much as possible to limit the tree-clearing and disturbance to natural soils required to construct the project. A preliminary location for the signage has been added to Drawing C-102. The layout includes a directional sign on Range Road to direct vehicles to the parking area and a small information kiosk at the south end of the parking area. The use of the parking area will be limited to daylight hours only.

The parcel is located at 48 Blanchard Road and is shown on Tax Assessor Map U-12, Lot 6.

The parcel is located in the Rural Residential 1 and Medium Density Residential (MDR) zoning district. The permitted use is classified as an accessory use to an Outdoor Recreational Facility, subject to site plan review.

Jeff Read, P.E., of Sevee and Maher Engineers, prepared the application and is the representative for the project. Al Palmer, P.E., reviewed the plans for the Town.

### 2. REQUESTED WAIVERS:

- 1. Hydrogeologic Evaluation: Requested waiver due to the fact that there will be no subsurface wastewater disposal or other groundwater impacts as a result of this project.
- 2. Market Study: N/A
- 3. From marking all trees greater than 10 inches in caliper. The clearing proposed will be minimal and trees over 10 inches are not common in this area.

### 3. CHEBEAGUE AND CUMBERLAND LAND TRUST COMMENTS:

See letter in packet dated 4/14/16 from Penny Asherman, President of the Board.

### 4. **DEPARTMENT HEAD REVIEWS:**

Fire Chief Small: No comments.

Police Chief Rumsey: No comments

Bill Longley, CEO: No comments

### **TOWN ENGINEER'S REVIEW: February 2024**

As requested by the Town, Gorrill Palmer has conducted an Engineering Peer Review for the above referenced project. Information received for this assignment included:

- Site Plan Application, dated January, 2024, prepared by SME on behalf of Chebeague and Cumberland Land Trust, consisting of 169 pages
- Drawing Set, dated January, 2024, prepared by SME consisting of 8 drawings

Based on our review of this information, general engineering principles and the Town of Cumberland Zoning Ordinance, we offer the following comments related to the engineering and design aspects of this project:

### Site Plan Application

- I. As stated in the Application, two waivers were requested:
  - a. A waiver from performing a hydrogeological evaluation for the project. There will be no subsurface wastewater disposal or other groundwater impacts as a result of this project, and the site is not within the watershed of a significant sand and gravel aquifer.
  - b. A waiver from performing a market study.
  - c. A waiver from marking all trees greater than 10 inches in caliper. The clearing proposed will be minimal and trees over 10 inches are not common in this area.

We have no objections to the granting of waivers for items a and b from an engineering perspective based on the scale and nature of the project. For item c, there appears to be several trees greater than 10 inches that would need to be removed. The Planning Board can decide if they want a survey.

- 2. Gorrill Palmer concurs with the stormwater analysis.
- 3. Are there any environmental permitting requirements associated with this project?

### Site Plans

- 4. Scales do not appear to be consistent with the plans.
- 5. Based on Google Earth imagery, there is a sign that will need to be relocated as it appears to be in the center of the proposed driveway.
- 6. § 229-10.B.(c) states "The grade of any proposed drive or street must be not more than +3% for a minimum of two car lengths, or 40 feet, from the intersection." The proposed grade appears to be upwards of 10% in this area.
- 7. Typically, an accessible space is required to have a stable surface. Is the Applicant comfortable that the proposed reclaimed asphalt surface is stable enough for an accessible space?
- 8. Has the location of the bollards protecting the hydrant at the driveway entrance been coordinated with the water district and fire department?
- 9. The 15-inch culvert appears to have about 1.2 feet of cover.
- 10. Riprap inlet and outlet aprons should be provided for the proposed culvert.

### 5. Cumberland Lands and Conservation Commission: No comments

### 6. Findings of Fact – Site Plan Review

### Sec. 229-10 Approval Standards and Criteria

The following criteria shall be used by the Planning Board in reviewing applications for site plan review and shall serve as minimum requirements for approval of the application. The application shall be approved unless the Planning Board determines that the applicant has failed to meet one or more of these standards. In all instances, the burden of proof shall be on the applicant who must produce evidence sufficient to warrant a finding that all applicable criteria have been met.

### A. Utilization of the Site

Utilization of the Site - The plan for the development, including buildings, lots, and support facilities, must reflect the natural capabilities of the site to support development.

Environmentally sensitive areas, including but not limited to, wetlands, steep slopes, floodplains, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and animals, unique natural communities and natural areas, and sand and gravel aquifers must be maintained and preserved to the maximum extent. The development must include appropriate measures for protecting these resources, including but not limited to, modification of the proposed design of the site, timing of construction, and limiting the extent of excavation.

The plan will minimize impacts to the natural features of the site by minimizing disturbance to undeveloped areas as much as possible. Land disturbance has been limited to the mostly open areas of the site with less mature tree growth. Clearing in the forested area has been avoided completely. A wetlands delineation was completed by Coppi Environmental, LLC which identified the stream and forested wetlands associated with it to the east and west of the proposed parking area. A copy of a letter from the Maine Department of Inland Fisheries and Wildlife his on file

Based on the above facts, the Planning Board finds the standards of this section have been met.

### B. Traffic, Circulation and Parking

- (1) **Traffic Access and Parking**: Vehicular access to and from the development must be safe and convenient.
  - The traffic at the proposed parking area will be controlled by the restrictions of the conservation easement which details need for conserving as much of the natural environment as possible. Based on the limited parking available, traffic volume will be limited well below the 100 trip in a peak hour and a traffic movement permit is not required.
  - (a) Any driveway or proposed street must be designed so as to provide the minimum sight distance according to the Maine Department of Transportation standards, to the maximum extent possible. The combined entrance and exit drive for the parking lot has a sight distance of 350' in one direction, and 485' when looking in the

other direction. Based on the MDOT standards of 10' for every mile per hour of the posted speed limit of 35 mph, this standard has been met.

- (b) Points of access and egress must be located to avoid hazardous conflicts with existing turning movements and traffic flows. **This standard has been met.**
- (c) The grade of any proposed drive or street must be not more than +3% for a minimum of two (2) car lengths, or forty (40) feet, from the intersection. **This standard has been met.**
- (d) The intersection of any access/egress drive or proposed street must function: (a) at a Level of Service D, or better, following development if the project will generate one thousand (1,000) or more vehicle trips per twenty-four (24) hour period; or (b) at a level which will allow safe access into and out of the project if less than one thousand (1,000) trips are generated. **This standard has been met.**
- (e) Where a lot has frontage on two (2) or more streets, the primary access to and egress from the lot must be provided from the street where there is less potential for traffic congestion and for traffic and pedestrians hazards. Access from other streets may be allowed if it is safe and does not promote short cutting through the site. N/A
- (f) Where it is necessary to safeguard against hazards to traffic and pedestrians and/ or to avoid traffic congestion, the applicant shall be responsible for providing turning lanes, traffic directional islands, and traffic controls within public streets. **No turning lanes are necessary due to the low traffic volume expected.**
- (g) Accessways must be designed and have sufficient capacity to avoid queuing of entering vehicles on any public street. **This standard has been met.**
- (h) The following criteria must be used to limit the number of driveways <u>serving a proposed project:</u>

No use which generates less than one hundred (100) vehicle trips per day shall have more than one (1) two-way driveway onto a single roadway. Such driveway must be no greater than thirty (30) feet wide.

No use which generates one hundred (100) or more vehicle trips per day shall have more than two (2) points of entry from and two (2) points of egress to a single roadway. The combined width of all accessways must not exceed sixty (60) feet. Only 1 combined exit/entrance drive is proposed for the parking lot.

### (2) Accessway Location and Spacing

Accessways must meet the following standards:

- a. Private entrance / exits must be located at least fifty (50) feet from the closest unsignalized intersection and one hundred fifty (150) feet from the closest signalized intersection, as measured from the point of tangency for the corner to the point of tangency for the accessway. This requirement may be reduced if the shape of the site does not allow conformance with this standard. N/A
- b. Private accessways in or out of a development must be separated by a minimum of seventy-five (75) feet where possible. **N/A**

### (3) Internal Vehicular Circulation

The layout of the site must provide for the safe movement of passenger, service, and emergency vehicles through the site.

- a. Projects that will be served by delivery vehicles must provide a clear route for such vehicles with appropriate geometric design to allow turning and backing. N/A
- b. Clear routes of access must be provided and maintained for emergency vehicles to and around buildings and must be posted with appropriate signage (fire lane no parking). **N.A**
- c. The layout and design of parking areas must provide for safe and convenient circulation of vehicles throughout the lot.
- d. All roadways must be designed to harmonize with the topographic and natural features of the site insofar as practical by minimizing filling, grading, excavation, or other similar activities which result in unstable soil conditions and soil erosion, by fitting the development to the natural contour of the land and avoiding substantial areas of excessive grade and tree removal, and by retaining existing vegetation during construction. The road network must provide for vehicular, pedestrian, and cyclist safety, all season emergency access, snow storage, and delivery and collection services.

### **Parking Layout and Design**

Off street parking must conform to the following standards:

- a. Parking areas with more than two (2) parking spaces must be arranged so that it is not necessary for vehicles to back into the street.
- b. All parking spaces, access drives, and impervious surfaces must be located at least fifteen (15) feet from any side or rear lot line, except where standards for buffer yards require a greater distance. No parking spaces or asphalt type surface shall be located within fifteen (15) feet of the front property line. Parking lots on adjoining lots may be connected by accessways not exceeding twenty-four (24) feet in width.
- c. Parking stalls and aisle layout must conform to the following standards.

Parking	Stall	Skew	Stall	Aisle
Angle	Width	Width	Depth Width	
90°	9'-0"		18'-0"	24'-0" 2-way
60°	8'-6"	10'-6"	18'-0"	16'-0" 1-way
45°	8'-6"	12'-9"	17'-6"	12'-0" 1-way
30°	8'-6"	17'-0"	17'-0"	12'-0" 1 way

- d. In lots utilizing diagonal parking, the direction of proper traffic flow must be indicated by signs, pavement markings or other permanent indications and maintained as necessary.
- e. Parking areas must be designed to permit each motor vehicle to proceed to and from the parking space provided for it without requiring the moving of any other motor vehicles.
- f. Provisions must be made to restrict the "overhang" of parked vehicles when it might restrict traffic flow on adjacent through roads, restrict pedestrian or bicycle movement on adjacent walkways, or damage landscape materials.

The driveway and parking areas were located and designed to provide safe circulation to the site while minimizing impacts to the surrounding land. Existing grades and vegetation will be maintained to the extent practicable. The above standards have been met.

### (5) Building and Parking Placement: N/A

### (6) Pedestrian Circulation

The site plan must provide for a system of pedestrian ways within the development appropriate to the type and scale of development. This system must connect the major building entrances/exits with parking areas and with existing sidewalks, if they exist or are planned in the vicinity of the project. The pedestrian network may be located either in the street right-of-way or outside of the right-of-way in open space or recreation areas. The system must be designed to link the project with residential, recreational, and commercial facilities, schools, bus stops, and existing sidewalks in the neighborhood or, when appropriate, to connect the amenities such as parks or open space on or adjacent to the site.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

### C. Stormwater Management and Erosion Control

- (1) Stormwater Management. Adequate provisions must be made for the collection and disposal of all stormwater that runs off proposed streets, parking areas, roofs, and other surfaces, through a stormwater drainage system and maintenance plan, which must not have adverse impacts on abutting or downstream properties.
  - (a) To the extent possible, the plan must retain stormwater on the site using the natural features of the site.
  - (b) Unless the discharge is directly to the ocean or major river segment, stormwater runoff systems must detain or retain water such that the rate of flow from the site after development does not exceed the predevelopment rate.
  - (c) The applicant must demonstrate that on and off-site downstream channel or system capacity is sufficient to carry the flow without adverse effects, including but not limited to, flooding and erosion of shoreland areas, or that he / she will be responsible for whatever improvements are needed to provide the required increase in capacity and / or mitigation.
  - (d) All natural drainage ways must be preserved at their natural gradients and must not be filled or converted to a closed system unless approved as part of the site plan review.
  - (e) The design of the stormwater drainage system must provide for the disposal of stormwater without damage to streets, adjacent properties, downstream properties, soils, and vegetation.
  - (f) The design of the storm drainage systems must be fully cognizant of upstream runoff which must pass over or through the site to be developed and provide for this movement.
  - (g) The biological and chemical properties of the receiving waters must not be degraded by the stormwater runoff from the development site. The use of oil and grease traps in manholes, the use of on-site vegetated waterways, and vegetated buffer strips along waterways and drainage swales, and the reduction in use of deicing salts and fertilizers may be required, especially where the development stormwater discharges into a gravel aquifer area or other water supply source, or a great pond.

The proposed stormwater management plan was reviewed and approved by the Town Engineer.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

- 2. Erosion Control
  - (a) All building, site, and roadway designs and layouts must harmonize with existing topography and conserve desirable natural surroundings to the fullest extent possible, such that filling, excavation and earth moving activity must be kept to a minimum. Parking lots on sloped sites must be terraced to avoid undue cut and fill, and / or the need for retaining walls. Natural vegetation must be preserved and protected wherever possible.
  - (b) Soil erosion and sedimentation of watercourses and water bodies must be minimized by an active program meeting the requirements of the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices, dated March 1991, and as amended from time to time.

Slope and wetland impacts were limited. Erosion control will be in conformance with the Maine Erosion and Sediment Control Manual will be applied during construction.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

- D. Water, Sewer and Fire Protection
- (1) Water Supply Provisions

The development must be provided with a system of water supply that provides each use with an adequate supply of water. If the project is to be served by a public water supply, the applicant must secure and submit a written statement from the supplier that the proposed water supply system conforms with its design and construction standards, will not result in an undue burden on the source of distribution system, and will be installed in a manner adequate to provide needed domestic and fire protection flows.

There will be no water supply or sewage disposal required for this project. The parking area has been sized to allow a fire truck to pull in the drive aisle if needed and an ambulance will also be able to enter and exit the parking lot at the entrance as needed.

Based on the above facts, the Planning Board finds the standards of this section have been met.

(2) Sewage Disposal Provisions

The development must be provided with a method of disposing of sewage which is in compliance with the State Plumbing Code. If provisions are proposed for on-site waste disposal, all such systems must conform to the Subsurface Wastewater Disposal Rules.

There will be no need for sewage disposal in the parking area.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

(3) Utilities

The development must be provided with electrical, telephone, and telecommunication service adequate to meet the anticipated use of the project. New utility lines and facilities must be screened from view to the extent feasible. If the service in the street or on adjoining lots is underground, the new service must be placed underground.

No utilities are required for this parking area.

Based on the above facts, the Planning Board finds the standards of this section have been met.

1. Fire Protection

The parking area has been sized to allow a fire truck to pull in the drive aisle, if needed.

Based on the above facts, the Planning Board finds the standards of this section have been met.

### E. Water Protection

(1) Groundwater Protection. The proposed site development and use must not adversely impact either the quality or quantity of groundwater available to abutting properties or to the public water supply systems. Applicants whose projects involve on-site water supply or sewage disposal systems with a capacity of two thousand (2,000) gallons per day or greater must demonstrate that the groundwater at the property line will comply, following development, with the standards for safe drinking water as established by the State of Maine.

There will be no groundwater or hazardous materials discharged as a result of this project. The property is *not* located within an area designated as an aquifer protection area. There will be no on-site water supply or sewage disposal systems.

Based on the above facts, the Planning Board finds the standards of this section have been met.

- (2) Water Quality
- All aspects of the project must be designed so that:
  - a. No person shall locate, store, discharge, or permit the discharge of any treated, untreated, or inadequately treated liquid, gaseous, or solid materials of such nature,

quantity, obnoxious, toxicity, or temperature that may run off, seep, percolate, or wash into surface or groundwaters so as to contaminate, pollute, or harm such waters or cause nuisances, such as objectionable shore deposits, floating or submerged debris, oil or scum, color, odor, taste, or unsightliness or be harmful to human, animal, plant, or aquatic life.

b. All storage facilities for fuel, chemicals, chemical or industrial wastes, and biodegradable raw materials, must meet the standards of the Maine Department of Environmental Protection and the State Fire Marshall's Office.

No substances described above will be stored or discharged in a way that could contaminate surface or groundwater.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

(3) Aquifer Protection (if applicable)

If the site is located within the Town Aquifer Protection Area a positive finding by the board that the proposed plan will not adversely affect the aquifer, is required.

The parcel is not located in the Aquifer Protection Area.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

### F. Floodplain Management

If any portion of the site is located within a special flood hazard area as identified by the Federal Emergency Management Agency, all use and development of that portion of the site must be consistent with the Town's Floodplain management provisions.

The parcel is shown on Floodplain map number 230162 0015B. The location of the proposed parking area is within an area designated as Zone C-Area of Minimal Flooding.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

### G. Historic and Archaeological Resources

If any portion of the site has been identified as containing historic or archaeological resources, the development must include appropriate measures for protecting these resources, including but not limited to, modification of the proposed design of the site, timing of construction, and limiting the extent of excavation.

A review letter has not yet been provided from the Maine Historic Preservation Commission. This is a proposed condition of approval.

Based on the above facts, and the proposed condition of approval, the Planning Board finds the standards of this section have been met.

### **H.** Exterior Lighting

The proposed development must have adequate exterior lighting to provide for its safe use during nighttime hours, if such use is contemplated. All exterior lighting must be designed and shielded to avoid undue glare, adverse impact on neighboring properties and rights - of way, and the unnecessary lighting of the night sky.

No exterior lighting is proposed.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

### I. Buffering and Landscaping

### (1) Buffering of Adjacent Uses

The development must provide for the buffering of adjacent uses where there is a transition from one type of use to another use and for the screening of mechanical equipment and service and storage areas. The buffer may be provided by distance, landscaping, fencing, changes in grade, and / or a combination of these or other techniques.

### (2) Landscaping:

There are no proposed changes to the landscaping plan due to the minimal change in the amount of pavement.

The parking area will be buffered from views on all sides through existing vegetation.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

### J. Noise

The development must control noise levels such that it will not create a nuisance for neighboring properties.

There will be no activities associated with the parking area that will result in noise.

# Based on the above facts, the Planning Board finds the standards of this section have been met.

### K. Storage of Materials

- Exposed nonresidential storage areas, exposed machinery, and areas used for the storage or collection of discarded automobiles, auto parts, metals or other articles of salvage or refuse must have sufficient setbacks and screening (such as a stockade fence or a dense evergreen hedge) to provide a visual buffer sufficient to minimize their impact on abutting residential uses and users of public streets.
- .2 All dumpsters or similar large collection receptacles for trash or other wastes must be located on level surfaces which are paved or graveled. Where the dumpster or

receptacle is located in a yard which abuts a residential or institutional use or a public street, it must be screened by fencing or landscaping.

3 Where a potential safety hazard to children is likely to arise, physical screening sufficient to deter small children from entering the premises must be provided and maintained in good condition.

There will be no external storage of material. There will be no dumpster or trash receptacles on site. Signs will be placed instructing visitors to remove any trash generated.

Based on the above facts, the Planning Board finds the standards of this section have been met.

### L. Capacity of the Applicant

The applicant must demonstrate that he / she has the financial and technical capacity to carry out the project in accordance with this ordinance and the approved plan.

Technical Capacity: The applicant has retained the services of Sevee and Maher Engineers, Inc.

Financial Capacity: There is a letter on file dated July 25, 2023 from Atlantic Federal Credit Union stating that the project is estimated to cost \$50,000 or less and that the CCLT has sufficient funds in its bank accounts to finance the project.

Based on the above facts, the Planning Board finds the standards of this section have been met.

### LIMITATION OF APPROVAL:

Construction of the improvements covered by any site plan approval must be substantially commenced within twelve (12) months of the date upon which the approval was granted. If construction has not been substantially commenced and substantially completed within the specified period, the approval shall be null and void. The applicant may request an extension of the approval deadline prior to expiration of the period. Such request must be in writing and must be made to the Planning Board. The Planning Board may grant up to two (2), six (6) month extensions to the periods if the approved plan conforms to the ordinances in effect at the time the extension is granted and any and all federal and state approvals and permits are current.

### **EXPIRATION OF APPROVAL:**

Construction of the improvements covered by any site plan approval must be substantially commenced within 12 months of the date upon which the approval was granted. If construction has not been substantially commenced within 12 months of the date upon which approval was granted, the approval shall be null and void. If construction has not been substantially completed within 24 months of the date upon which approval was granted or within a time period as specified by the Planning Board, the approval shall be null and void. The applicant may request an extension of the deadline to commence or complete construction prior to expiration of

the period. Such request must be in writing and must be made to the Planning Board. The Planning Board may grant up to two one-year extensions to the period of any and all federal and state approvals and permits are current.

### 229-12 STANDARD CONDITION OF APPROVAL:

This approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted by the applicant. Any variation from the plans, proposals and supporting documents, except deminimus changes as so determined by the Town Planner which do not affect approval standards, is subject to review and approval of the Planning Board prior to implementation.

### X. PROPOSED CONDITIONS OF APPROVAL

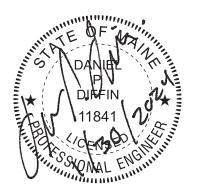
- 1. A preconstruction conference shall be held prior to the start of construction.
- 2. All clearing limits are to be staked and inspected by the Town Engineer prior to the preconstruction conference.
- 3. The lot shall be staked and the Chebeague and Cumberland Land Trust be allowed to review the site prior to construction.

# TOWN OF CUMBERLAND PLANNING BOARD SITE PLAN REVIEW APPLICATION READ PROPERTY PARKING LOT

Prepared for

### **CHEBEAGUE AND CUMBERLAND LAND TRUST**

48 Blanchard Road Cumberland, Maine



July 2023 Revised January 2024

4 Blanchard Road
P.O. Box 85A
Cumberland, Maine 04021
Phone: 207.829.5016 smemaine.com



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APPENDIX C	TECH	INICAL CAPACITY (SEE PREVIOUS APPLICATION)	
APPENDIX D	IF&W	V REVIEW LETTERS (SEE PREVIOUS APPLICATION)	
APPENDIX E	STOR	RMWATER MANAGEMENT REPORT	
APPENDIX F	FEMA	A FIRM MAP (SEE PREVIOUS APPLICATION)	
APPENDIX G	MHP	C REVIEW LETTER (SEE PREVIOUS APPLICATION)	
APPENDIX H	LIST (	OF ABUTTERS (SEE PREVIOUS APPLICATION)	

### **LIST OF FIGURES**

Figure 1	No.	Title	Page No.
1	SITE LOCATION MAP		1-3

# SITE PLAN REVIEW Town of Cumberland

# Appendix C Planning Board Site Plan Review Application

Applicant's name Chebeague and Cumberland Land Trust  Applicant's address 371 Tuttle Road #2, Cumberland, ME 04021  Cell phone 207-844-0419 Home phone N/A Office phone 207-489-9538  Email Address steward@ccltmaine.com  Project address 48 Blanchard Road  Project name Read Property Parking Lot  Describe project 8 space parking area to provide access to Rines Forest from Blanchard Road  Number of employees N/A  Days and hours of operation N/A  Project review and notice fee Name of representative Jeffrey Read, P.E., Sevee & Maher Engineers  Contact information: Cell: 207-671-8027 Office: 207-829-5016  What is the applicant's interest in the property?  Dwn Lease X Purchase and sale agreement (provide copy of document)
Cell phone 207-844-0419 Home phone N/A Office phone 207-489-9538  Email Address Steward@ccltmaine.com  Project address 48 Blanchard Road  Project name Read Property Parking Lot  Describe project 8 space parking area to provide access to Rines Forest from Blanchard Road  Number of employees N/A  Days and hours of operation N/A  Project review and notice fee Name of representative Jeffrey Read, P.E., Sevee & Maher Engineers  Contact information: Cell: 207-671-8027 Office: 207-829-5016  What is the applicant's interest in the property?  Own Lease X Purchase and sale agreement (provide copy of document)
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Name of representative
Contact information: Cell: 207-671-8027  What is the applicant's interest in the property?  OwnLease XPurchase and sale agreement(provide copy of document)
Own Lease X Purchase and sale agreement (provide copy of document)
OwnLease X Purchase and sale agreement(provide copy of document)
If you are not the owner, list owner's name, address and phone number Conservation Easement from Nancy and Mark Read, 20 Friar Lane, Cumberland, ME
f you are not the owner, list owner's name, address and phone number
Boundary Survey Submitted? Yes X No
Are there any deed restrictions or easements? Yes $X$ NoIf yes, provide information and show easement location on site plan.
Building Information
Are there existing buildings on the site? Yes No X Number:
Will they be removed? Yes No(Note: A demolition permit is required 10 days prior to demolition.)
Will a new structure(s) be built on the site? Yes No X Describe:
Number of new buildings
Square footage Number of floor levels including basement

Parking  Number of existing parking spaces   Number of new parking spaces   Number of handicapped spaces   Will parking area be paved?Yes _XNo
Entrance Location: 48 Blanchard Road, Cumberland Width 4 Length Yes No If not, do you plan to pave it?
Where will snow storage for entrance and parking be located? Show on site plan.
Utilities
Water: Public waterWell(Show location on site plan.) Not Applicable
<b>Sewer/septic:</b> Public sewerPrivate septicShow location on site plan and submit HHE-200 septic design or location of passing test pit locations if new system is proposed. Also show any wells on abutting properties within 200 feet of the site. <b>Not Applicable</b>
Electric: On site? YesNoShow location of existing and proposed utilities on the site plan and indicate if they are above or below ground. Not Applicable
Signs  Number: 1 Size: TBD  Material: TBD  Submit sign design and completed sign application.  Will the sign be lighted? No Submit information on type and wattage of lights.  Show location of sign(s) on the site plan.
Natural Features Show location of any of the following on the site plan: RiverStreamWetland × Pond LakeStone walls Are there any other historic or natural features? Not Identified
<b>Lighting</b> Will there be any exterior lights? Yes No_XShow location on site plan (e.g., pole fixtures, wall packs on building) and provide fixture and lumen information.
<b>Trees</b> Show location of existing trees on the site plan and indicate if any are to be removed.
Landscaping Is there existing landscaping on the site? Yes No_x Show type and location on site plan.
Is new landscaping proposed? (Note: if property has frontage on Route 100, a twenty-five-foot landscape easement to the Town is required.) See Narrative

<b>Buffering</b> Show any existing or proposed buffering measures for adjacent properties, e.g., plantings, fences.
Erosion Control  Has an erosion and sedimentation control plan been submitted? Yes X No No No
<b>Stormwater Management Plan</b> Provide stormwater information for both pre and post development of the site. Show location of any detention areas and/or culverts on the site plan.
Fire Protection  Location of nearest hydrant 30 feet Sprinklers? Yes No ×  Do you plan to have an alarm system? Yes No ×  Department at 829-4573 to discuss any Town or state requirements.
Trash Will trash be stored inside outside If outside, will a dumpster be used? Yes No Show location on site plan and show type of screening proposed (e.g., fencing, plantings). No Trash Storage proposed.
Technical Capacity List and provide contact information for all consultants who worked on the project, for example: licensed land surveyor, licensed soils evaluator, professional engineer, attorney, etc.  See Narrative
Financial Capacity Please indicate how project will be financed. If obtaining a bank loan, provide a letter from the bank Project funded by CCLT funds

Zoning district: Medium Density Residential (MDR) & Rural Residential 1 (RR1)	
Minimum lot size: 2 acres/ 4 acres	
Classification of proposed use: Parking Lot	
Parcel size: 58.98 Acres	
• Frontage: 150'	
• Setbacks: Front 35' Side 20' Rear 50'	
Board of Appeals Required? No	
• Tax Map U12 Lot 6 Deed book Deed page	
Floodplain map number 230162 0015B     Designation Zone C	
Vernal pool identified? None	
• Is parcel in a subdivision? No	
Outside agency permits required:	
MDEP Tier 1 N/A MDEP Tier 2 N/A Army Corps of Engineers	Self-Verification
MDEP general construction (stormwater) permit (for disturbance of 1 acre	
MDOT entrance permit N/A	
MDOT traffic movement permit N/A	
Traffic study required N/A	
Hydrogeologic evaluation N/A	
Market study N/A	
Route 1 Design Guidelines? N/A	
Route 100, VMU or TCD Design Standards? N/A	

January 30, 2024

Applicant's signature

Submission date: \_

# PLANNING BOARD SITE PLAN REVIEW SUBMISSION CHECKLIST

## **FOR ALL PROJECTS:**

Submission Requirement	Provide Location in Application Packet (e.g., plan sheet number, binder section, narrative	If requesting a waiver, indicate below:
Example: Erosion Control	Plan Sheet E-1	
General Information:		
Completed Site Plan Application Form	Narrative	
Names and addresses of all consultants	Narrative	
Narrative describing existing conditions and the proposed project	Narrative	
Evidence of right, title or interest (deed, option, etc.)	Appendix A	
Names and Addresses of all property owners within 200 feet	Appendix H	
Boundaries of all contiguous property under control of owner	Plan Sheet C-101	
Tax map and lot numbers	Plan Sheet C-100	
Area of the parcel	Plan Sheet C-101	
FEMA Floodplain designation & map #		
Zoning classification	Plan Sheet C-100	
Evidence of technical and financial capability to carry out the project	Plan Sheet C-100	
Boundary survey	Plan Sheet C-101	
List of waiver requests on separate sheet with reason for request.	N/A	
Proposed solid waste disposal plan	N/A	
<b>Existing Conditions Plan showing:</b>	Plan Sheet C-101	
Name, registration number and seal of person who prepared plan	Plan Sheet C-101	
North arrow, date, scale, legend	Plan Sheet C-101	
Area of the parcel	Plan Sheet C-101	
Setbacks and building envelope	Plan Sheet C-101	
Utilities, including sewer & water, culverts & drains, on-site sewage	Plan Sheet C-101	
Location of any septic systems	Plan Sheet C-101	
Location, names, widths of existing public or private streets ROW's	Plan Sheet C-101	

Location, dimension of ground floor	N/A
elevation of all existing buildings	
Location, dimension of existing	Plan Sheet C-101
driveways, parking, loading,	
walkways	
Location of intersecting roads &	Plan Sheet C-101
driveways within 200 feet of the site	Tian oneet 6-101
Wetland areas	Plan Sheet C-101
Natural and historic features such as	Plan Sheet C-101
water bodies, stands of trees,	
streams, graveyards, stonewalls,	
floodplains	
Direction of existing surface water	Disc. Ol. v. 4 O 404
drainage across the site & off site	Plan Sheet C-101
Location, front view, dimensions and	N/A
lighting of existing signs	N/A
Location and dimensions of existing	
easements & copies of documents	N/A
Location of nearest fire hydrant or	
water supply for fire protection	N/A
water supply for mile protection	
Proposed Development Site Plan	
showing:	
Name of development	Plan Sheet C-102
Date	Plan Sheet C-102
North arrow	Plan Sheet C-102
Scale	Plan Sheet C-102
Legend	Plan Sheet C-102
Landscape plan	N/A
Stormwater management	Plan Sheet D-00 and D-101
Wetland delineation	Plan Sheet C-102
Current & proposed stands of trees	Plan Sheet C-102
Erosion control plan	Plan Sheet C-102
Landscape plan	N/A
Lighting/photometric plan	N/A
Location and dimensions of all	N/A
proposed buildings	19/7
Location and size of utilities, including	NIA
sewer, water, culverts and drains	N/A
Location and dimension of proposed	N/A
on-site septic system; test pit	
locations and nitrate plumes	
Location of wells on subject property	
and within 200' of the site	N/A
Location, names and widths of	Plan Sheet C-102
existing and proposed streets and	Fian Stieet C-102
ROW's	
1.0	

Location and dimensions of all accessways and loading and unloading facilities	Plan Sheet C-102
Location and dimension of all existing and proposed pedestrian ways	Plan Sheet C-102
Location, dimension and # of spaces of proposed parking areas, including handicapped spaces	Plan Sheet C-102
Total floor area and ground coverage of each proposed building and structure	N/A
Proposed sign location and sign lighting	Plan Sheet C-102
Proposed lighting location and details	N/A
Covenants and deed restrictions proposed	N/A
Snow storage location	N/A
Solid waste storage location and fencing/buffering	N/A
Location of all fire protection	N/A
Location of all temporary & permanent monuments	N/A
Street plans and profiles	N/A

## ADDITIONAL REQUIREMENTS FOR MAJOR SITE PLAN PROJECTS:

Submission Requirement	Provide Location in Application Packet (e.g., plan sheet number, binder section, narrative	If requesting a waiver, indicate below:
High intensity soils survey	N/A	
Hydro geologic evaluation	N/A	
Traffic Study	N/A	
Market Study	N/A	
Location of proposed recreation areas (parks, playgrounds, other public areas)	N/A	
Location and type of outdoor furniture and features such as benches, fountains.	N/A	

TOWN OF CUMBERLAND
PLANNING BOARD SITE PLAN REVIEW APPLICATION
READ PROPERTY PARKING LOT
CUMBERLAND, MAINE

1.0 PROJECT DESCRIPTION

Rines Forest (Forest) was first opened to the public to provide the opportunity for low-impact passive recreation. The Forest consists of a 268 acres of forest land, a network of trails, and critical wildlife habitat. This portion of the Forest is owned by the Town of Cumberland and protected by conservation easements

held by the Chebeague and Cumberland Land Trust (CCLT).

The most recent addition to the Forest includes a parcel of land obtained by a 53.46-acre Conservation

Easement from the Read Family. This property contains a variety of essential habitats including a field

used actively for local agriculture; a large block of intact, upland forest; and a variety of wetland types

including streams and forested wetlands.

Within this easement, CCLT intends to provide eight (8) parking spaces for passenger vehicles for Forest

visitors. A copy of the Conservation Easement for the property is included as Appendix A. The location of

the project is shown in Figure 1, Site Location Map.

The parking area will be accessed through a paved entryway off Blanchard Road approximately 0.5 miles

from the main intersection in Cumberland Center. The new access will be constructed in a wooded area

within the conservation easement selected to minimize impact to existing wetlands adjacent to the roadway. The pavement will end at the edge of the right-of-way at which point the access aisle and parking

area will be constructed of reclaimed asphalt pavement. Through the bid progress, the cost of building

the parking lot was higher than what CCLT had budgeted. To reduce the cost, SME redesigned the entrance

to reduce the fill required to construct the parking area. The full build-out will result in approximately

12,600 square feet (0.3 acres) of disturbed area and 8,317 square feet of reclaimed asphalt pavement

area.

The grading and drainage associated with the new parking area has been minimized as much as possible

to limit the tree-clearing and disturbance to natural soils required to construct the project.

A preliminary location for the signage has been added to Drawing C-102. The layout includes a directional

sign on Range Road to direct vehicles to the parking area and a small information kiosk at the south end

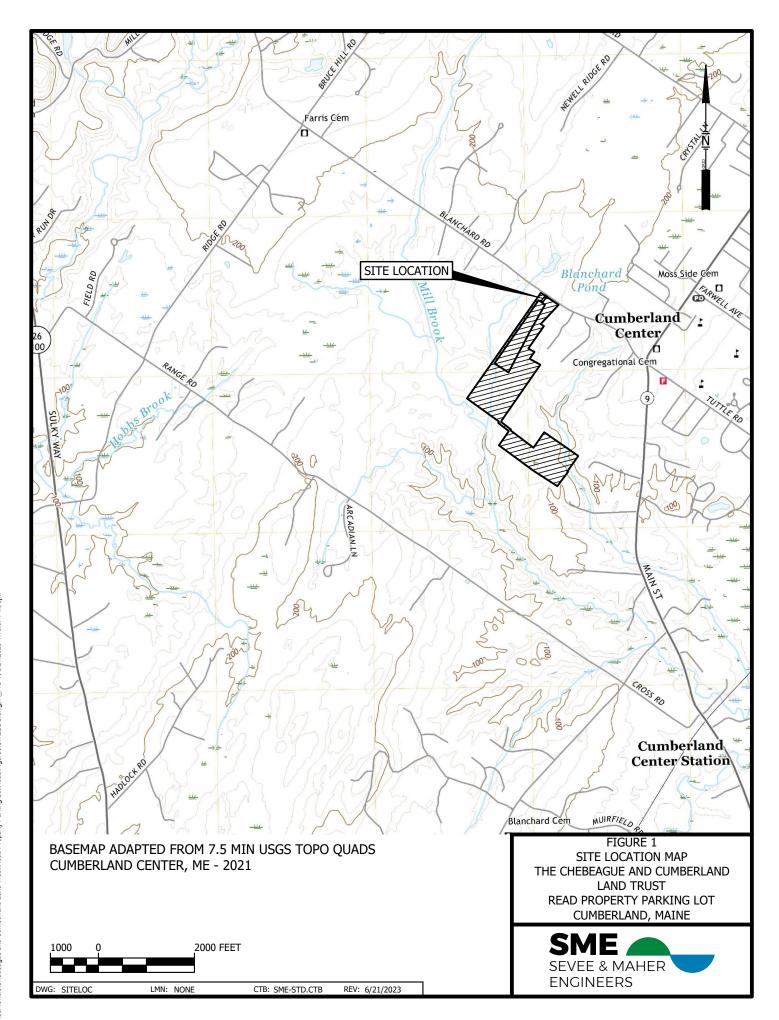
of the parking area. The use of the parking area will be limited to daylight hours only.

Site Plan Review Application .docx Sevee & Maher Engineers, Inc. (220895)

January 2024

1-1

The following describes how the project complies with the applicable Chapters of the Town of Cumberland Zoning and Site Plan Review Ordinances.



2.0 CHAPTER 229 – SITE PLAN REVIEW

2.1 §229-4 Waivers and modifications

As part of this application, the Applicant requests the following waivers from the Site Plan Review

Ordinance:

A waiver from performing a hydrogeological evaluation for the project. There will be no

subsurface wastewater disposal or other groundwater impacts as a result of this project, and the

site is not within the watershed of a significant sand and gravel aquifer;

• A waiver from performing a market study. Based on the proposed use and function of this

property, a market study does not apply to this project; and

A waiver from marking all trees greater than 10 inches in caliper. The clearing proposed will be

minimal and trees over 10 inches are not common in this area.

2.2 §229-8 Financial and Technical Capacity

The project will be funded from CCLT accounts and supplemented by donations received through a

fundraising program. The Applicant has provided a letter in Appendix B to outline financial capacity to

complete the project.

Technical capacity and contact information for Sevee & Maher Engineers, Inc. (SME) is provided in

Appendix C.

2.3 229-10 Approval Standards and Criteria

A. Utilization of the Site

The proposed plan will minimize impacts to the natural features of the site by minimizing disturbance to

undeveloped areas as much as possible. A wetland delineation was completed by Coppi Environmental,

LLC, which identified the stream and forested wetlands associated with it east and west of the proposed

parking area.

A project review letter has been provided to the Maine Department of Inland Fisheries & Wildlife (IF&W).

2-1

A copy of their response and the request letter is included in Appendix D.

Site Plan Review Application .docx Sevee & Maher Engineers, Inc. (220895)

January 2024

#### B. Traffic, Circulation and Parking

Traffic will access the parking lot from Blanchard Road through the newly created paved entrance. The apron has been sized to provide safe and adequate space for two-way traffic. Most of the traffic will be directed through on-site signage to the new parking area and will then use the pedestrian trails to access the Forest. CCLT will install signage along Blanchard Road to direct vehicles to the parking lot. The final size and location of these signs has not yet been determined, but a representative location has been added to Drawing C-102.

The speed limit for Blanchard Road is 35 miles per hour through this section and the required sight distances are a minimum of 350 feet. Sight distance to the east is approximately 405 feet. Sight distance to the west exceeds 1,000 feet. Sight distances have been added to Drawing C-102.

The traffic at the proposed parking area will be controlled by the restrictions of the conservation easement. The proposed parking area was designed to provide adequate space for recreational users of the property while conserving as much of the natural environment as possible. Based on the limited parking available, traffic volume will be limited well below 100 trips in a peak-hour and a traffic movement permit will not be required for the project.

#### C. Stormwater Management and Erosion Control

Stormwater management of the site is described in detail in the Stormwater Management Report included as Appendix E.

Grading, filling, and associated site construction will be conducted in accordance with the Maine Erosion and Sediment Control Best Management Practices (BMPs), latest edition dated October 2016. This will be the minimum standard for erosion and sedimentation control for the project, as adopted by the Town of Cumberland from the Maine Department of Environmental Protection (MEDEP) standards. Erosion and sedimentation control notes and details are included on Drawing C-106, Drawing C-300, and Drawing C-301.

#### D. Water, Sewer, and Fire Protection

There will be no water supply or sewage disposal required for this project. The parking area has been sized to allow a fire truck to pull into the drive aisle if needed. An ambulance will also be able to enter and exit the parking lot at the entrance as needed. To minimize disturbance to the property in compliance with the conservation easement, the footprint of the parking lot was kept to a minimum. If the parking lot is full, the ambulance will likely have to back out to Blanchard Road.

#### E. Water Protection

There will be no groundwater used or hazardous materials discharged as a result of this project. The property is not located within an area designated as a source protection area or a sand and gravel aquifer. No effects to groundwater are anticipated from this project.

#### F. Floodplain Management

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the project area is included in Appendix F. The project is located in Zone C and is indicated as an area of minimal flood hazard.

#### G. Historic and Archaeological resources.

A site review has been requested from the Maine Historic Preservation Commission (MHPC). A copy of the request for review and the written response from the MHPC is provided in Appendix G. There are no known National Register eligible properties or areas considered sensitive for archaeological resources.

#### H. Exterior Lighting

There is no exterior lighting proposed for this project.

#### Buffering and Landscaping

The parking area will be buffered from views on all sides through existing vegetation. The views to the south, east, and west will remain wooded and undeveloped due to the conservation easement.

#### J. Noise

There is no exterior equipment or operations proposed that will result in significant noise at the parking area. The only noise expected will be from the vehicular and pedestrian traffic which will be buffered through the existing vegetation on the east, west and north.

#### K. Storage of Materials

Not applicable to this project as no wastes are anticipated to be generated from the development. Signs will be placed instructing visitors to remove any trash generated.

#### L. Capacity of the Applicant

- 1. Financial Capacity The project will be funded from CCLT accounts and supplemented by donations received through a fundraising program.
- CCLT has hired SME to assist with the design of the parking lot and access improvements. Construction and maintenance of the project will be performed by experienced contractors, as necessary.

Financial and technical capacity of the Applicant are outlined in Appendices B and C of this application.

## M. Design and Performance Standards

Not applicable to this project.

## **APPENDIX A**

## **CONSERVATION EASEMENT**



## QUITCLAIM DEED

### 39818

KNOW ALL MEN BY THESE PRESENTS, That I, Frank W. Read, of the Town of Cumberland, County of Cumberland, and State of Maine, do hereby GIVE, GRANT, BARGAIN AND CONVEY unto Nancy M. Read, of the Town of Cumberland, County of Cumberland, and State of Maine, her heirs and assigns forever, all my right, title and interest in and to:

A certain lot or parcel of land, situated in the Town of Cumberland, County of Cumberland and State of Maine, on the westerly side of the road leading from Cumberland Center to Gray, known as the Blanchard Road, and bounded and described as follows:

Northeasterly by said road; northwesterly by land formerly of William Blanchard; southwesterly by land formerly of S. M. Rideout and land formerly of Oliver S. Collins, previously owned by William D. Sweetser, and being part of the Mill Lot, so-called; and southeasterly by land formerly of Nathaniel Pinkham, containing fifty (50) acres, more or less.

Also a certain lot or parcel of land situated in said Town of Cumberland, bounded and described as follows: On the north by said Blanchard Road; east by land of Aulena J. Hamilton; south by land of William Merrill heirs; west by land of Fenwick S. Blanchard. This parcel consists of two lots of land, described as follows:

- 1. A certain lot or parcel of land situated in said Town of Cumberland, being the southwest part of land formerly owned by one Nathaniel Pinkham, described as follows: Beginning at the Eastern corner of the Mill Lot, so-called, now or formerly owned by William Merrill; thence southeast by line of land formerly of N. Pinkham, and seventeen (17) rods by land of N.G. Gordon and W.R. Moody to pile of stones; thence southwest twenty-three (23) rods to land of heirs of Daniel Merrill to a stone; thence northwest by land of said Merrill Heirs to land of William M. Merrill (Mill Lot); thence northeast to the place of beginning, or land of A.J. Hamilton, containing seven (7) acres, more or less.
- 2. A certain lot or parcel of land situated in said Town of Cumberland, bounded and described as follows:
  Beginning at a stone on the northwest line of the southeast half of Lot 51; thence running southwest twenty-four (24) rods to the corner of the lot; thence southeast seventeen (17) rods; thence southwest twenty-three (23) rods to land now or formerly of Merrill Bros.; thence southeast thirty-five (35) rods by said Merrill Brothers land; thence northeast thirty-three degrees (33°) East twenty-three (23) rods to a stone; thence northwest one (1) rod to a stone; thence northeast twenty-four (24) rods to a stone on the corner of the Hollis True lot; thence northwest by said True's land to the first mentioned bounds, containing 12-1/2 acres, more or less.

EXCEPTING HOWEVER, a certain lot or parcel of land with the buildings thereon conveyed by Joseph P. Tarazewich and Joan M. Tarazewich to John Woodman by deed dated July 21, 1976 and recorded in the Cumberland County Registry of Deeds in Book 3880, Page 149.

ALSO EXCEPTING a certain lot or parcel of land, with the well thereon, situated in the Town of Cumberland, County

of Cumberland and State of Maine, on the westerly side of the road leading from Cumberland Center to Gray, known as the Blanchard Road, being bounded and described as follows:

Beginning at a point marked by an iron rod on an assumed southwesterly sideline of Blanchard Road, said point being northwesterly from and four hundred (400) feet, more or less, from the northerly corner of land now or formerly of one Nathaniel Pinkham; then S62°-13'W for a distance of Five hundred forty-seven and six-tenths (547.6) feet to the well; thence S36°-0'E for a distance of Seventy-eight and three-tenths (78.3) feet more or less; then N54°-0'E for a distance of Five hundred forty-two (542) feet to the point of beginning.

Being a portion of the premises conveyed to Joseph P. Tarazewich and Joan M. Tarazewich by Warranty Deed of Harold F. Anderson and Nellie M. Anderson dated November 30, 1964 and recorded in the Cumberland County Registry of Deeds in Book 2870, Page 297.

Also a certain lot or parcel of land, situated in the Town of Cumberland, County of Cumberland and State of Maine, being bounded and described as follows:

Beginning at a point which is at the most westerly corner of the land conveyed to Joseph P. and Joan Tarazewich by Harold and Nellie Anderson by deed dated November 30, 1964 and recorded in the Cumberland County Registry of Deeds in Book 2870, Page 297; thence south 53° west more or less on an extension of the northwesterly sideline of land of said Tarazewichs a distance of 360° to a marker, thence south 37° east more or less a distance of 1085 feet, more or less to a point being N37°W a distance of 1465° more or less from the iron marker at the southern most point of the Tarazewich property. Thence N53°E more or less a distance of 360' to an iron marker, thence N37°W a distance of 1085 feet more or less to the point of beginning, containing approximately 9 acres.

TO HAVE AND TO HOLD the aforegranted and bargained premises, with all the privileges and appurtenances thereof, insofar as I have the right to convey the same, to the said Nancy M. Read, her heirs and assigns, to them and their use and behoof forever.

IN WITNESS WHEREOF, I, the said Frank W. Read, being married, relinquishing and conveying all rights by descent and all other rights in the above described premises, have hereunto set my hand and seal this 27th day of October in the year of our Lord one thousand nine hundred and eighty-three.

State of Maine Cumberland, ss.

October 27, 1983

Personally appeared the above-named Frank W. Read and acknowledged the foregoing instrument to be his free act and

Before me, .

OCT 27 1983

REGISTRY OF DEEDS CUMBERLAND COUNTY, MAINE Received at /OH23 MA M. and recorded in

6 B I O PAGE

James Walshape or Print Name

DOC:52147 BK:37094 PG:51

DLN: 1002040107687

#### **QUITCLAIM DEED**

ANNE M. READ (a/k/a Nancy M. Read) of 20 Friar Lane, Cumberland, Maine 04021, for consideration paid, grant to my son, MARK W. READ, of 345 St. John's Place, Apt. 4N, Brooklyn, NY 11238, an undivided one-half (½) interest as a joint tenant with rights of survivorship, the land located in the Town of Cumberland, County of Cumberland and State of Maine, and more fully described in Exhibit A attached hereto and made a part hereof.

WITNESS my hard and seal this	24th day of August, 2020.
March	anne M. Read
Witness	Anne M. Read
STATE OF MAINE	
CUMBERLAND, ss	August 24, 2020
Personally appeared before me to foregoing Quitclaim Deed to be her free	he above-named ANNE M. READ, who acknowledged the act and deed.  Notary Public
	Printed Name of Notary Public
	My Commission Expires:
	SHARON K O'NEILI

Notary Public, State of Maine My Commission Expires 7/9/2024 DOC:52147 BK:37094 PG:52

#### **EXHIBIT A**

A certain lot or parcel of land, situated in the Town of Cumberland, County of Cumberland and State of Maine, on the westerly side of the road leading from Cumberland Center to Gray, known as the Blanchard Road, and bounded and described as follows:

Northeasterly by said road; northwesterly by land formerly of William Blanchard, southwesterly by land formerly of S. M. Rideout and land formerly of Oliver S. Collins, previously owned by William D. Sweetser, and being part of the Mill Lot, so-called; and southeasterly by land formerly of Nathaniel Pinkham, containing fifty (50) acres, more or less.

Also a certain lot or parcel of land situated in said Town of Cumberland, bounded and described as follows: On the north by said Blanchard Road; cast by land of Aulena J. Hamilton; south by land of William Merrill heirs; west by land of Fenwick S. Blanchard. This parcel consists of two lots of land, described as follows:

- 1. A certain lot or parcel of land situated in said Town of Cumberland, being the southwest part of land formerly owned by one Nathaniel Pinkham, described as follows: Beginning at the Eastern corner of the Mill Lot, so-called, now or formerly owned by William Merrill; thence southeast by line of land formerly of N. Pinkham, and seventeen (17) rods by land of N.G. Gordon and W.R. Moody to pile of stones; thence southwest twenty-three (23) rods to land of heirs of Daniel Merrill to a stone; thence northwest by land of said Merrill Heirs to land of William M. Merrill (Mill Lot); thence northeast to the place of beginning, or land of A.J., Hamilton, containing seven (7) acres, more or less.
- 2. A certain lot or parcel of land situated in said Town of Cumberland, bounded and described as follows: Beginning at a stone on the northwest line of the southeast half of Lot 51; thence running southwest twenty-four (24) rods to the corner of the lot; thence southeast seventeen (17) rods; thence southwest twenty-three (23) rods to land now or formerly of Merrill Bros.; thence southeast thirty-five (35) rods by said Merrill Brothers land; thence northeast thirty-three degrees (33°) East twenty-three (23) rods to a stone; thence northwest one (1) rod to a stone; thence northeast twenty-four (24) rods to a stone on the corner of the Hollis True lot; thence northwest by said True's land to the first mentioned bounds, containing 12½ acres, more or less.

EXCEPTING HOWEVER, a certain lot or parcel of land with the buildings thereon conveyed by Joseph P. Tarazewich and Joan M. Tarazewich to John Woodman by deed dated July 21, 1976 and recorded in the Cumberland County Registry of Deeds in Book 3880, Page 149.

ALSO EXCEPTING a certain lot or parcel of land, with the well thereon, situated in the Town of Cumberland, County of Cumberland and State of Maine, on the westerly side of the road leading from Cumberland Center to Gray, known as the Blanchard Road, being bounded and described as follows:

Beginning at a point marked by an iron rod on an assumed southwesterly sideline of Blanchard Road, said point being northwesterly from and four hundred (400) feet, more or less, from the northerly corner

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Register of Deeds Nancy A. Lane E-RECORDED

of land now or formerly of one Nathaniel Pinkham; then S 62° 13' W for a distance of Five hundred forty-seven and six-tenths (547.6) feet to the well; thence S 36°0' E for a distance of Seventy-eight and three-tenths (78.3) feet more or less; then N 54° 0' E for a distance of Five hundred forty-two (542) feet to the point of beginning.

Being a portion of the premises conveyed to Joseph P. Tarazewich and Joan M. Tarazewich by Warranty Deed of Harold F. Anderson and Nellie M. Anderson dated November 30, 1964 and recorded in the Cumberland County Registry of Deeds in Book 2870, Page 297.

Also a certain lot or parcel of land, situated in the Town of Cumberland, County of Cumberland and State of Maine, being bounded and described as follows:

Beginning at a point which is at the most westerly corner of the land conveyed to Joseph P. and Joan Tarazewich by Harold and Nellie Anderson by deed dated November 30, 1964 and recorded in the Cumberland County Registry of Deeds in Book 2870, Page 297; thence south 53° west more or less on an extension of the northwesterly sideline of land of said Tarazewichs a distance of 360 feet to a marker, thence south 37° east more or less a distance of 1,085 feet, more or less to a point being N 37°W a distance of 1,465 feet more or less from the iron marker at the southern most point of the Tarazewich property. Thence N 53° E more or less a distance of 360 feet to an iron marker, thence N 37° W a distance of 1,085 feet more or less to the point of beginning, containing approximately 9 acres.

Meaning and intending to convey an undivided one-half (½) interest as joint tenant in the same property described in a Quitelaim Deed from Frank W. Read to Nancy M. Read dated October 27, 1983 and recorded in the Cumberland County Registry of Deeds in Book 6310, Page 11.

## AMENDED AND RESTATED AGRICULTURAL CONSERVATION EASEMENT

## Cumberland, Maine

This Amended and Restated Conservation Easement amends, restates, supersedes and replaces, the "Original Conservation Easement" granted over the Protected Property. The "Original Conservation Easement" was granted by Landowner to Holder, by a deed dated August 24, 2022 and recorded in the Cumberland County Registry of Deeds at Book 39671, Page 158. This amendment eliminates a reserved right to extract sand and gravel from the Protected Property, makes other minor changes and corrections, deletes the boundary line adjustment provision, and corrects and updates the termination provision to the most current customary standards. This amendment is created pursuant to said IRS Notice 2023-30.

## 1. PROJECT NAME. Read Family Farm and Woods

#### 2. RECITALS.

WHEREAS, Landowner is the owner in fee simple of certain agricultural real property comprising approximately fifty-three and one half (53.5) acres in the **Town of Cumberland**, County of Cumberland, State of Maine, more particularly described in Exhibit A and depicted on Exhibit B, both attached hereto and made a part hereof by reference, and referred to in this document as the "Property."

WHEREAS, Holder is an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (hereinafter the "Code"), and meets the requirements of Section 509(a)(2) of the Code. Holder is a "qualified organization," as such term is defined in Section 170(h)(3) of the Code, and is qualified to hold conservation easements under the laws of the State of Maine.

WHEREAS, the Property has the following Agricultural Conservation Values:

- 1) Approximately forty-four (44) percent of the soils have been identified by the Natural Resources Conservation Service ("NRCS") as "prime soils," "soils of statewide importance," "soils of local importance," or "unique soils" ("Agricultural Soils").
- 2) Approximately six and one half (6.5) acres of the Property are currently maintained as open fields and available for cultivation and forage crops, and said open fields are currently being used for hay production.
- 3) Approximately forty-seven (47) acres of the Property are maintained as productive forest vegetation and are currently being used for personal use.
- 4) The Property has access to adequate water for agricultural use through a single functioning drilled well.
- 5) The Property is a farm in the State of Maine, many of which have ceased to exist in Maine and throughout New England due to increased development pressures and a variety of other social, economic, and global forces, the protection of which shall conserve productive agricultural land in Maine and prevent the conversion of said land to non-agricultural development. The Property has been operated continuously as a farm for many decades. The primary crop in recent years has been hay.

WHEREAS, the grant of this Agricultural Conservation Easement (the "Easement") will provide a significant public benefit by serving the following conservation purposes:

- 1) As set forth in Section 170(h)(4)(A) of the Code, the preservation of open space, including farmland, pursuant to the following clearly-delineated governmental conservation policies:
  - a. The Farmland Protection Policy Act, 7 U.S.C. §§ 4201-09, the purpose of which is "to minimize the extent to which Federal programs and policies contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to assure that Federal programs are administered in a manner that, to the extent practicable, will be compatible with State, unit of local government, and private programs and policies to protect farmland";
  - b. The Maine Conservation Easement Act, 33 MRSA §§ 476-9-B (the "Maine Conservation Easement Act") which provides for permanent protection of real property, the purposes of which include assuring its availability for agricultural and forest use;
  - c. The Maine Farm and Open Space Tax Law, 36 MRSA §§ 1101-21, which confers preferential property tax treatment for property that owners keep undeveloped and in productive farm use or as important open space;
  - d. Section 153 of the Maine Agricultural Protection Act, 7 MRSA § 153, which declares that farm operations are not a common law nuisance when operated in compliance with state and federal laws;
  - e. The Maine Tree Growth Tax Law, 36 MRSA §§ 571-84-A, which confers a partial property tax exemption for land which owners manage for timber harvesting; and

WHEREAS, the Property has the following Additional Conservation Values:

- 1) The Property includes public recreational trails within the Trail Corridor, designated by this conservation easement, along with the potential for additional public recreational trails, that provide opportunity for low-impact outdoor recreation including, but not limited to nature study, snowshoeing, cross country skiing, and hiking.
- 2) The Property includes approximately 2,000 feet of frontage along two unnamed streams that flow into Mill Brook and approximately four and three tenths (4.3) acres of ecologically important riparian floodplain adjacent to those same unnamed streams.
- 3) The Property abuts other conserved land (the 268-acre Rines Forest and the Waterfall Trail trail easements) and serves as a critical connector to additional conserved land including Greely Woods (approximately 40.5 acres) and Knight's Pond (approximately 300 acres).
- 4) The Property is part of a large 900-acre block of forested habitat.
- 5) The Property is identified as providing a scenic viewshed by the Town of Cumberland.

WHEREAS, the Comprehensive Plan of the Town of Cumberland, adopted in 2009, and updated in 2014 outlines as a planning goal "To encourage the preservation of land that is suitable for agricultural and forestry uses", and the statement "No longer is agricultural/farmland preservation just about keeping open space for visual enjoyment and for limiting the impact of development on the town's budget; it may be that communities will one day need these lands to produce food once again. This combined with the desirability of growing food close to where it will be consumed, is a key tenet of the sustainability movement."

- 2) Preserving the traditional farming and forestry heritage and rural character of Cumberland.
- 3) Preventing the conversion of farmland to nonagricultural uses that would reduce or destroy the Property's agricultural and forest productivity; and
- 4) Ensuring that the Property remain available for commercial agriculture and forest management consistent with conserving the agricultural productivity, Agricultural Soils, and other Conservation Values of the Property.

WHEREAS, the current use of the Property and its existing improvements are consistent with the foregoing conservation purposes;

WHEREAS, the Agricultural Conservation Values and Additional Conservation Values of the Property (said Agricultural Conservation Values and Additional Conservation Values are referred to jointly herein as the **Conservation Values**) are documented in a **Baseline Documentation Report**, signed and acknowledged by the Landowner and Holder, establishing the baseline condition of the Property at the time of this grant and including maps, photographs and other documentation; and

WHEREAS, the Landowner and Holder have the common purpose of conserving the abovedescribed Conservation Values of the Property, as more fully set forth herein, in perpetuity, by voluntarily placing restrictions upon the use of the Property and by providing for the transfer from the Landowner to the Holder of affirmative rights for its protection in perpetuity, with the intention that the grant of such restrictions to qualify as a "qualified conservation contribution" as that term is defined under Section 170(h)(2)(c) of the Code and to qualify as a "Conservation Easement" under the Maine Conservation Easement Act.

#### 3. WORDS OF CONVEYANCE.

NOW, THEREFORE, in consideration of the foregoing recitals and conservation purposes, the Landowner does hereby GRANT partly for consideration paid and partly as a gift to the Holder, with QUITCLAIM COVENANT, this Amended and Restated Conservation Easement on, over, under and across the Property, consisting of the following terms, covenants, restrictions and affirmative rights, granted to Holder, which shall run with and bind the Property in perpetuity.

TOGETHER WITH a right of way for vehicular, pedestrian, and aerial access to the Property as necessary or appropriate to exercise Holder's rights hereunder, over any and all rights-of-way and roads owned by Landowner or over which Landowner has or shall have rights of access to the Property, as may be more particularly described in Exhibit A.

#### 4. CONSERVATION PURPOSES.

The primary purposes "Primary Conservation Purposes" of this Easement are to enable the Property to remain in agricultural use by preserving and protecting the Agricultural Values. Except as specifically permitted herein, no activity which shall significantly diminish or impair the actual or potential agricultural use of the Property shall be permitted.

To the extent that the preservation and protection of any Additional Conservation Values referenced in this Easement are consistent with the Primary Conservation Purposes, it is also the additional purpose ("Additional Conservation Purpose") of this Easement to protect those values, and, to such extent, no activity which shall significantly diminish or impair those values shall be permitted. The Primary Conservation Purposes and the Additional Conservation Purpose shall be referred to collectively herein as the "Purposes."

#### 5. DEFINITIONS

The terms set forth in this Section 5 shall have the following meanings for the purposes of this Easement:

## **5.1.** Agriculture and Agricultural Activities – "Agriculture" and "Agricultural Activities" shall mean:

- **5.1.1.** The raising, keeping, production, and harvest of crops, livestock, and livestock products, together with the processing, storage or on-farm marketing of those crops and livestock products. For purposes hereof, crops, livestock and livestock products include, but are not limited to:
  - (a) pastureland;

- (b) field crops;
- (c) fruits, nuts and berries;
- (d) vegetables;
- (e) horticultural specialties (including but not limited to seeds, nursery stock, ornamental shrubs, ornamental trees, Christmas trees and flowers);
- (f) livestock and livestock products (including but not limited to, horses, cattle, chickens, alpaca, sheep, swine, goats and other animals that produce meat, dairy, fibers or other products or that are used to work the farm);
- (g) timber, wood, maple sap and other wood products derived from trees;
- (h) hydroponics and hydroponic crops; and
- (i) aquatic plants and animals and their byproducts.

The terms Agriculture and Agricultural Activities are intended to be broadly interpreted to include most endeavors that produce materials useful to mankind from biological processes involving soil, water, and sunshine in a way that will not compromise the opportunities of future generations to continue producing such materials on a sustained basis. As new practices come into being over the years, they are to be permitted as long as they fit the broad definition of Agriculture and Agricultural Activities set forth above.

- **5.1.2.** Agriculture and Agricultural Activities shall also include the following associated uses which are customary, supportive, and agriculturally compatible in Maine:
  - **A.** Structures associated with the production of energy for use principally on the Property and abutting land of Landowner, including Renewable Energy, wood, and fossil fuel systems:
  - **B.** Structures and surface alterations for the storage and treatment of animal waste;
  - **C.** The operation, management, conservation, improvement, or maintenance of a farm and its buildings, tools, and equipment;
  - **D.** Structures and facilities associated with irrigation, farm pond impoundment, and soil and water conservation and the construction, operation, or maintenance of ditches, canals, reservoirs, or waterways used exclusively for agricultural purposes;
  - **E.** Composting and other soil enhancement activities; and
  - **F.** The lawful onsite disposal of animals and agricultural products raised or housed on the Property pursuant to activities permitted herein.
- **5.1.3.** Agricultural Activities shall include Forest Management, as defined below. However, Forest Management shall be undertaken in accord with Section 6.2.3 below.
- **5.2. Additional Conservation Values** The public recreational trail within the Trail Corridor, and the substantially undeveloped floodplain wetlands and frontage on the unnamed tributary streams that flow into Mill Brook as set forth in Section 2 above.
- **5.3. Agricultural Conservation Values** The Agricultural Soils, open fields, productive forest vegetation, and water sources, as set forth in Section 2 above, that make the Property suitable for Agricultural Activities.

- **5.4. Agricultural Soils** soils identified by the Natural Resources Conservation Service ("NRCS") as "prime soils," "soils of statewide importance," or "soils of local importance."
- **5.5. Agritourism** Agricultural Activities carried out on the Property that members of the general public are allowed to view or participate in for enjoyment or educational purposes. Agritourism includes, but is not limited to, "harvest-your-own" activities, hay rides, farm tours, agricultural and environmental education activities, farm stands, and attractions related to Agricultural Activity.
- **5.6.** Access A private driveway, private road, or right-of-way from public roadways to the Excluded Area and permitted Farmstand Area and the structures located therein.
- **5.7. Agricultural Structures** Permanent structures used primarily for the support of Agricultural Activities and not to be used for human habitation.
- **5.8.** Baseline Documentation Report The report prepared pursuant to Section 10 below that documents the use and state of improvement of the Property at the time of execution of this Amended and Restated Conservation Easement.
- **5.9. Best Management Practices** Guidelines or minimum standards recommended by federal, state or county resource management agencies and universities for proper farming and forestry operations, with the goal of limiting non-point pollution of water resources and other disturbances of soil, water, and vegetative resources and to protect wildlife habitats.
- **5.10. Clear (for Forest Management purposes)** The removal of all or substantially all trees and shrubs with an average diameter at breast height of 2 inches or larger, where the length or width of the cleared area generally exceeds the average height of mature trees in the immediate vicinity.
- **5.11. Conservation Values** The Agricultural Soils, open fields, productive forest vegetation, and water sources that make the Property suitable for Agricultural Activities as well as the public recreational trail within the Trail Corridor.
- **5.12. Customary Rural Enterprises** Commercial enterprises that are ancillary to and compatible with Agriculture and Agritourism, including, but not limited to farm machinery repair, small-scale farm wineries, cafes, farm stands, and shops.
- **5.13. Customary Rural Enterprise Structures** Non-dwelling structures used primarily for Customary Rural Enterprise.
- **5.14. Dwelling** A structure or self-contained portion thereof designed or used for human habitation (including associated wells and subsurface wastewater disposal systems) including accessory apartments for household guests or employees and a home occupation or professional office for the occupant as allowed by law.
- **5.15. Farm Road** A passable roadway, surfaced in accordance with the limitations set forth in Section 6.2.9, that is suitable for Agriculture and Forest Management equipment and uses reasonably related to the activities permitted to Landowner hereunder.
- **5.16. Farmstand Area** That approximately two (2) acre portion of the Property within which a new Farmstand structure may be built as permitted in Section 6.2.13 and which is depicted on the map attached hereto as Exhibit C and identified in the Baseline Documentation Report.

- **5.17. Footprint** The ground surface space occupied by a structure, including, but not limited to, closed and unenclosed porches and decks, as measured as a product of the outermost width and length dimensions.
- **5.18. Forest Management** The planting, growing, cultivation, stocking, and cutting of trees and other forest products, including the following: timber cruising; resource evaluation; herbicide, pesticide and fertilizer application; timber stand improvement; pruning; forest harvesting; forest products transportation; natural and artificial regeneration of forest stands; maple sugaring; other substantially similar and associated activities; the processing and production of firewood and forest products harvested primarily on the Property; and the construction, creation, use and maintenance of Farm Roads, skid trails and winter haul roads, turnouts, timber landings and crossings of flowing waters for such purposes.
- **5.19.** Forest Management Plan A written plan meeting the requirements set forth in Section 6.2.3. below.
- **5.20.** Holder Chebeague & Cumberland Land Trust, Inc., its successors and assigns.
- **5.21.** Home-Based Enterprises Business activities that are ancillary to and compatible with Agriculture and are carried out by or at the direction of Landowner such as a home office or an arts and crafts studio.
- **5.22.** Impermeable Materials Materials that do not allow the percolation of water through them into the soil.
- **5.23.** Landowner The original grantor of this Easement, referred to herein as Landowner, and all subsequent owners of the Property, including their executors, administrators, successors, and assigns.
- **5.24.** Low Impact Recreational Activities Low-impact uses that do not involve permanent structures or uses that threaten the Conservation Values of the Property, and are consistent with the Purposes of the Easement, such as: exercise, sporting, and non-motorized recreational activities that are predominantly outdoor in nature, including but not necessarily limited to hunting, trapping, bird watching, biking with non-motorized bicycles, fishing, walking, hiking, running, cross-country skiing, snow shoeing, shooting, camping, horseback riding, and similar activities, and the operation of snowmobiles on lands sufficiently covered with snow or on sufficiently frozen ground. With the exception of snowmobiling as set forth above, Low Impact Recreational Activities do not include operation of dune buggies, motorcycles, all-terrain vehicles, or any other types of motorized recreational vehicles.
- **5.25.** Non-Essential Services Services, such as cable and satellite television service, provided to structures as permitted herein that are not essential for the uses of the Property permitted by this Easement.
- **5.26. Permeable Materials** Materials that allow the percolation of water through them into the soil.
- **5.27. Public Parking Area** That approximately six tenths (0.6) acre portion of the Property within which a new 6,000 square foot parking area may be constructed and maintained as described in Section 6.2.14 and Section 7.7 below for the public to access the Trail Corridor and which is depicted on the map attached hereto as Exhibit C and identified in the Baseline Documentation Report.

- **5.28. Renewable Energy** Energy generated from a source that is replaced on a human timescale by natural processes. Renewable Energy sources include, but are not limited to, sunlight, wind, geothermal heat, and biological processes.
- **5.29. Structure** Anything constructed or erected, the use of which requires a fixed location on or in the ground, or an attachment to something having a fixed location on the ground.
- **5.30. Temporary Events** Temporary or seasonal activities or events that do not harm the agricultural use, future agricultural viability, and Conservation Values of the Property.
- **5.31. Temporary or Minor Agricultural Structure** A non-habitable structure to be used for Agricultural Activities, including without limitation, hoop houses, pole sheds and run-in sheds, and which may be constructed on poles or posts, but is without full footings, a foundation, or any facilities requiring a subsurface wastewater disposal system, and construction of which only requires minor grading, but not excavation, of the land.
- **5.32. Temporary or Minor Recreational Structure** A non-habitable structure used for Low Impact Recreational Activities, including without limitation temporary hunting blinds, tree-stands, docks, tent platforms, trail improvements such as steps, foot bridges, water bars, and railings, and which may be constructed on poles, or posts, but is without full footings, a foundation, or any facilities requiring utilities or a subsurface wastewater disposal system, and construction of which only requires minor grading, but not excavation of the land.
- **5.33. Utilities** Services, such as electricity, telephone, sewer, and water, to structures as allowed herein, which are essential for the uses of the Property permitted by this Easement.
- **5.34. Water Rights** Water and water rights, ditches and ditch rights, springs and spring rights, reservoir and storage rights, wells and groundwater rights, and other rights in and to the use of water historically used on or otherwise appurtenant to the Property.

## 6. RESTRICTIONS AND RESERVED RIGHTS.

- **6.1. Prohibited Uses.** Except as permitted in Landowner's Reserved Rights, any activity on, or use of, the Property that is inconsistent with the Purposes of this Easement is prohibited. In addition, the following activities, acts, or uses are expressly prohibited on, over, or under the Property:
  - **6.1.1. Division.** The Property is currently comprised of one or more legal parcels as described in Exhibit A, which for purposes of this Easement shall be treated as one (1) undivided lot or parcel of land. Landowner may own the Property by joint tenancy or tenancy in common, however, except as specifically set forth in Section 6.1.1.A-D below, the division or partition of the Property, including the recording of a subdivision plan, division, partition, partition-in-kind or any other attempt to divide the said parcel into additional legal parcels is prohibited.
    - **A.** Lease of a portion of the Property for use for Agricultural Activities shall not be considered a division of the Property for purposes of this Easement.
    - **B.** The construction of any structures on the Property as permitted herein shall not be considered a division of the Property, provided that title to said structures remains in the Landowner except as set forth in Section 6.2.1.B.

- C. With prior written Approval of Holder, Landowner may record a subdivision plan for the Property if it is required by state or local law or regulation for the purposes of constructing the structures permitted herein, provided however, that no lot or parcel of the Property depicted on said subdivision plan may be conveyed separately from the rest of the Property, the title thereto must remain in Landowner, and the said depicted lots or parcels shall remain subject to the terms of this Easement.
- **6.1.2. Use for Development.** The Property and any portion thereof shall not be included as part of the gross area of other property not subject to this Easement for the purposes of determining density, lot coverage, or open space requirements under otherwise applicable laws, regulations, or ordinances controlling land use and building density. No development rights that have been encumbered or extinguished by this Grant shall be transferred to any other lands pursuant to a transferable development rights scheme or cluster development arrangement or otherwise.
- **6.1.3. Prohibited Structures.** The construction or placement of any structure, including buildings, tennis or recreational courts, swimming pools, landing strips, mobile homes, asphalt or concrete pavement, towers, telecommunication tower, energy generation structures, satellite dishes, billboard or advertising displays, subsurface wastewater disposal systems or any other temporary or permanent structures on, under, or above the Property is prohibited, except as may be permitted in Landowner's Reserved Rights set forth in Section 6.2 below.
- **6.1.4.** Surface Alteration, Mining. Ditching, draining, diking, filling, excavating, dredging, mining, or drilling, removal of topsoil, sand, gravel, rock, stonewalls, minerals, natural gas, fuel, or any other materials, placing of soil or other substance or material, such as land fill or dredging spoils, or any building of roads or change in the topography of the Property in any manner is prohibited, except as may be permitted in Landowner's Reserved Rights set forth in Section 6.2 below.
- **6.1.5. Divesting of Water Rights.** The Property subject to this Easement includes all Water Rights, and other rights in and to the use of water historically used on or otherwise appurtenant to the Property. Landowner shall not transfer, encumber, sell, lease, or otherwise separate the Water Rights from the Property or change the historic use of the Water Rights without the prior written Approval of Holder except as may be permitted in Landowner's Reserved Rights. Landowner shall not abandon or allow the abandonment, by action or inaction, of any of the Water Rights without the prior written Approval of Holder.
- **6.1.6. Dumping.** No trash, refuse, vehicle bodies or parts, rubbish, debris, junk, waste, sludge, or hazardous waste, shall be placed, stored, dumped, buried, or abandoned on the Property in a manner that is, or may potentially be, detrimental to the Conservation Values of the Property, except as may be permitted in Landowner's Reserved Rights set forth in Section 6.2 below.

- **6.1.7.** Commercial and Industrial Uses. Any commercial or industrial use of the Property is prohibited, except as may be permitted in Landowner's Reserved Rights set forth in Section 6.2, below.
- **6.1.8.** Changes to Vegetation. Removal, destruction, or cutting of trees over 3" in diameter at breast height, is prohibited, except as may be permitted in Landowner's Reserved Rights set forth in Section 6.2 below.
- **6.1.9. Alteration of Water Resources.** Pollution, alteration, depletion or extraction of surface water, natural water courses, lakes, ponds, marshes, subsurface water or any other water bodies, nor activities on the Property that would be detrimental to water purity, or that materially alter natural water level and/or flow in or over the Property are prohibited except as may be permitted in Landowner's Reserved Rights set forth in Section 6.2 below.
- **6.1.10.** Recreational Vehicles. Recreational use of dune buggies, motorcycles, allterrain vehicles, or any other types of motorized recreational vehicles. is prohibited, except as may be permitted in Landowner's Reserved Rights set forth in Section 6.2 below.
- **6.1.11**. **Subsequent Encumbrances Contrary to Purpose.** Except as provided in Section 6.2.13.C below, Landowner may not grant additional easements, rights of way, licenses or permits over the Property, nor increase the scope of existing easements, rights of way, licenses or permits without the prior written Approval of Holder, based on Holder's determination that said right or interest does not materially detract from the Conservation Values of the Property or impair the Purposes of this Easement. The grant of any conservation easements or use restrictions that are inconsistent with the Purposes of this Easement is prohibited. Placement of the Property in any current-use property tax program or classification that limits use of the Property in a way that conflicts with the Purposes of this Easement is prohibited.
- **6.2. Landowner's Reserved Rights.** Except as set forth in any provision of this Easement to the contrary, Landowner reserves all customary rights and privileges of ownership, including the right of quiet enjoyment of the Property, as well as any other rights not inconsistent with the Purposes of this Easement and not specifically prohibited or limited by this Easement.

Without limiting the generality of the foregoing, the following activities and uses are hereby deemed by the Landowner and Holder to be consistent with the Purposes of this Easement, and are expressly permitted to be carried out on the Property in a manner that minimizes negative impact on the productivity of the Agricultural Soils and the other Conservation Values protected by this Easement.

## **6.2.1.** Mortgage and Convey.

**A.** The right to sell, give, mortgage, lease, devise, or otherwise convey the Property, provided such conveyance is subject to the terms of this Easement and Notice is provided to Holder as described in Section 8.2.

- **B.** The right to grant a security interest in any removable structure located on the Property, provided that the foreclosure and removal of said removable structure shall not materially damage the Property.
- **6.2.2.** Agricultural Activities. The right to use the Property for Agriculture and Agricultural Activities or to permit others to use the Property for Agriculture and Agricultural Activities. Agriculture and Agricultural Activities, including Forest Management and the clearing of presently forested land for pasture or crop production, shall be limited to the area depicted on Exhibits B and C as "Field Expansion Area" and shall be conducted in a manner consistent with generally accepted Best Management Practices as those practices may be identified from time to time by appropriate governmental or educational institutions and in a manner not wasteful of soil resources or detrimental to water quality or conservation. Nothing in the foregoing shall be interpreted as relieving Landowner from conducting all Agricultural Activities in accordance with applicable law.

Notwithstanding the foregoing, activities related to Forest Management shall be subject to Section 6.2.3. below. Structures related to Agriculture and Agricultural Activities are limited and governed by Section 6.2.13 below. See Section 7.4 for the Landowner's obligation to maintain the existing fields.

#### 6.2.3. Forest Management.

- **A.** The right, subject to the requirements of Sections B, C, and D below, to conduct Forest Management on the Property. All Forest Management shall be conducted, to the extent reasonably practicable, in accordance with the following goals and in a manner not detrimental to the Purposes of this Easement:
  - (i) Maintaining and improving soil productivity:
  - (ii) Protecting water quality, wetlands, and riparian zones; and
  - (iii) Conducting harvest on a sustained-yield basis.
- **B.** Except as specifically set forth in Section 6.2.3.D below, Forest Management shall be conducted in accordance with a Forest Management Plan prepared by a licensed professional forester or by another qualified person approved in advance by Holder, and all Forest Management that requires a Forest Management Plan shall, unless otherwise approved in advance by Holder, be supervised by a licensed professional forester to ensure compliance with the Forest Management Plan. The Forest Management Plan shall have been prepared not more than ten (10) years prior to the date any harvesting is expected to commence, and a copy shall be provided to Holder. The Forest Management Plan shall include the following:
  - (i) A statement of Landowner objectives:
  - (ii) Forest type map showing stands related to the prescriptions provided in the Forest Management Plan;
  - (iii) A map showing soil types as determined by the USDA Natural Resource Conservation Service or its successor agency, Access roads and Farm Roads, wetlands, and surface waters:
  - (iv) Prescriptions for each described stand, including commercial and non-commercial treatments:

- (v) Explanation of how wetlands, riparian areas, and soils will be protected during road construction and other soil-disturbing activities and the implementation of stand prescriptions.
- C. At least thirty (30) days prior to the commencement of any Forest Management that must be conducted according to a Forest Management Plan as provided above, the Landowner shall provide written Notice to Holder of Landowner's intent to commence Forest Management activities, and shall provide the name and contact information for the licensed professional forester overseeing those Forest Management activities.
- **D.** Forest Management activities are permitted without a Forest Management Plan for the following purposes:
  - (i) To clear land as necessary for the location or construction of structures and surface alterations permitted herein;
  - (ii) To control unusually damaging insects, invasive species, and diseases and to restore forested areas damaged by natural disasters, upon written recommendation of a licensed professional forester;
  - (iii) To prevent personal injury and property damage;
  - (iv) To create Farm Roads as permitted pursuant to Section 6.2.9. below;
  - (v) To maintain the perimeter of open fields as depicted on Exhibit B or established pursuant to Section 6.2.3.D.vi below;
  - (vi) Within the Field Expansion Area, to clear forested land for pasture or crop production in accordance with a Conservation Plan prepared by the USDA Natural Resources Conservation Service, or its successor, or other plan approved in advance by Holder;
  - (vii) To harvest annually up to a maximum of six (6) cords (not including any wood harvested pursuant to the exemptions listed in subsection D(i)-(vi) above), unless Holder has provided prior written approval of an amount in excess of this maximum.
- **6.2.4.** Low Impact Recreational Activities and Recreational Motor Vehicle Use. The right to conduct outdoor Low Impact Recreational Activities compatible with the Purposes of this Easement. Landowner shall also retain the right to use and operate motorized vehicles on the Property for private, non-commercial recreational purposes, provided however, that such use shall be limited in extent and location so as minimize negative impact on productivity of the Agricultural Soils and, on the public recreational use within the Trail Corridor, and other Conservation Values of the Property.
- **6.2.5.** Commercial Renewable Energy Generation and Communication Systems. The right to produce Renewable Energy for commercial use or sale, together with the right to allow use of the Property for commercial communication systems such as cellular and radio towers provided that said uses are ancillary to, and compatible with, the use of the Property for Agriculture. **However**, said uses shall be subject to the restrictions on associated structures set forth in Section 6.2.13.C(v). All leases or sales agreements related to said uses shall be subordinate to this Easement.

- **6.2.6.** Customary Rural Enterprises, Home-Based Enterprises, Agritourism, and Temporary Events. The right to operate and undertake Customary Rural Enterprises, Home-Based Enterprises, Agritourism, and Temporary Events provided that such activities shall have minimized negative impacts on Conservation Values protected by this Easement.
- **6.2.7. Necessary Vehicles.** As reasonably necessary in connection with permitted uses, activities, management, and protection of the Property, the right to use and operate vehicles including, but not limited to, cars, trucks, off-road vehicles, Forest Management equipment, emergency and rescue vehicles, maintenance equipment, and other equipment.
- **6.2.8.** Access and Paving. The right to construct, relocate on site, repair, maintain, and use Access roads and parking areas. Said Access roads and areas within the Farmstand Area for permitted vehicular use and parking may be paved. Said Access roads and parking areas shall, to the extent possible, be sited and constructed so as to have minimized negative impact on the Conservation Values of the Property. With the exception of the future driveway described in Section 6.2.10, paving of locations outside the Access roads and parking areas, may only be undertaken with prior written Approval of Holder, based on Holder's determination that said paving will have minimized negative impact on the public recreational uses within the Trail Corridor and on the productivity of the Agricultural Soils and the other Conservation Values protected by this Easement or on the agricultural viability of the Property.
- **6.2.9. Farm Roads and Trails.** The right to construct, relocate on site, repair, maintain, and use unpaved paths, trails, Farm Roads, bridges, culverts, and gates in furtherance of the activities permitted herein only. All such paths, trails, and Farm Roads shall be constructed with permeable materials, including but not limited to sand, gravel, shell, rock, or crushed stone and subsurface synthetic stabilization materials and located and constructed to minimize negative impact on Agricultural Soils and other Conservation Values of the Property. With prior written Approval of Holder, impermeable surfaces may be used where necessary for erosion control in accordance with Section 6.2.11 below. Notwithstanding the foregoing, any such Farm Roads, paths, and trails within the Trail Corridor shall be limited to direct crossings of the Trail Corridor and shall not interfere with Holder's exclusive right in Section 7.6 to establish and maintain trails within the Trail Corridor.
- **6.2.10. Driveway and Electricity Access.** Landowner has the right to establish and maintain a driveway and electricity via utility lines and poles from Blanchard Road to the Excluded Area with prior written Notice to Holder. The driveway and utility lines and poles shall be designed and constructed, to the extent practicable, to minimize negative impact on Agricultural Soils and other Conservation Values of the Property.
- **6.2.11.** Water Resources and Erosion Control. The right to use, maintain, establish, construct, and improve wells and other water sources, water courses and water bodies within the Property solely for the uses permitted by this Easement, or for the benefit of abutting land of Landowner. Landowner may alter the natural flow of water over the

Property in order to improve drainage of fields, reduce soil erosion, or improve the agricultural or forest management potential of the Property, provided such alterations are sited and constructed to have minimized negative impact on the Conservation Values protected by this Easement, and are undertaken in accordance with any applicable Forest Management Plan or other conservation plan.

Landowner shall provide Holder with prior written Notice before undertaking any construction, reconstruction, or other improvements permitted under this Section that causes more than four-hundred (400) square feet of surface area to be disturbed. Use of impermeable materials (including but not limited to concrete and asphalt) other than impermeable fabrics (such as rubber pond liners) for development and maintenance of water resources and for erosion control may only be undertaken with prior written Approval of Holder, based on Holder's determination that use of said impermeable materials will have minimized negative impact on the productivity of the Agricultural Soils and the other Conservation Values protected by this Easement or on the agricultural viability of the Property.

- **6.2.12.** Surface Alteration. The right to alter or disturb the surface of the Property, including but not limited to excavation and filling, as may be reasonably necessary to exercise the rights reserved in this Section 6.2.
- **6.2.13. Permitted Structures.** The right to undertake construction, reconstruction, repair or replacement of structures on the Property *only* as provided below. All location, construction and reconstruction of structures shall be sited and constructed so as to minimize negative impact on the Conservation Values protected by this Easement. Nothing in the foregoing shall be construed to relieve the Landowner of Landowner's obligation to conduct all such construction in accordance with applicable law.
  - A. Fences and Walls. Existing fences and stone walls may be removed, repaired, and replaced and new fences and stone walls may be built on the Property for Agricultural Activities, to control unauthorized uses, for the security of structures on the Property, and to define boundaries, without Notice or Approval of the Holder.
  - **B.** Existing Structures. There are currently no existing structures on the Property except for a boundary fence and utility poles as described in the Baseline Documentation Report. If any structures are constructed pursuant to subsection 6.2.13.C below, they shall thereafter be considered existing structures and shall be governed by this Section 6.2.13.B.
  - C. New Structures.
    - (i) Temporary or Minor Agricultural and Temporary or Minor Recreational Structures. Anywhere on the Property, without prior Notice to Holder, Landowner may place or construct Temporary or Minor Agricultural Structures and Temporary or Minor Recreational Structures.
    - (ii) New Agricultural Structures.
      - (a) Landowner reserves the right to construct a farm stand, limited to a maximum 1.750 square foot Footprint, within the 2-acre Farmstand Area depicted in Exhibit C.

- (b) Landowner reserves the right to build a structure, limited to a maximum of 300 square foot Footprint, over or adjacent to the drilled well depicted in Exhibit C.
- (c) Outside 2-acre Farmstand Area depicted in Exhibit C, Landowner may construct new Agricultural Structures only with prior written Approval of Holder. Such new Agricultural Structures shall not interfere with public recreational uses within the Trail Corridor and shall not impact the Conservation Values protected by this Easement. Landowner shall submit a request for Approval to Holder to construct any new Agricultural Structures outside the Farmstand Area, which request shall include the reasons why locating the proposed structure within the Farmstand Area is impossible or impractical.
- (iii) *Utilities, Non-Essential Services and Subsurface Wastewater Disposal Systems.*Wires, lines, pipes, cables, or other facilities providing Utilities, Non-Essential Services, and subsurface wastewater disposal systems necessary to serve the uses and structures permitted herein may be installed, maintained, repaired, removed, relocated, or replaced, and Landowner may grant easements over and under the Property as necessary for installation of said Utilities and Non-Essential Services. Notwithstanding the foregoing, subsurface wastewater disposal systems and Non-Essential Services may not be installed to serve Temporary or Minor Agricultural Structures or Temporary or Minor Recreational Structures. To the extent possible, Utilities, Non-Essential Services and subsurface wastewater disposal systems shall be limited to the Farmstand Area and the existing Access roads on the Property.
- (iv) Customary Rural Enterprise Structures. Within the Farmstand Area and with prior written Approval of Holder, Landowner may construct Customary Rural Enterprise Structures.
- (v) Commercial Renewable Energy and Communications Systems Structures. With prior written Approval of Holder, Landowner may construct new structures for production of commercial Renewable Energy and for communications systems as provided in Section 6.2.5. above. Holder shall evaluate any such request against its thencurrent policy for Energy Siting and Approvals.
- (vi) *Trail Structures*. As provided in 6.2.14 below, minor structures may be built by Holder to improve public recreational trail access.

#### 6.2.14 Public Recreational Uses.

- **A. No General Right of Public Access.** Except as provided in Paragraph 6.2.14.B, Landowner has no obligation to grant public access across the Property.
- B. Limited Right of Public Access To Public Parking Area and Trail Corridor. In the Public Parking Area depicted on Exhibit C, Landowner agrees to permit and refrain from prohibiting or discouraging use of the area for public parking. Within the Trail Corridor, as depicted on Exhibits B and C, Landowner agrees to permit, and will refrain from prohibiting or discouraging, use of the Property by the general public for daytime, Low-

Impact Recreational Activities, exercised in a manner that is consistent with the protection of the Conservation Values. Landowner has the right to prohibit or limit camping, night use, fires, and vehicular uses. The Trail Corridor, and location of the Public Parking Area, may be adjusted and extended upon the mutual written agreement of Landowner and Holder.

As provided in Paragraph 7.6, Holder shall have the right but not the obligation to establish and maintain an unpaved recreational trail for public use within the Trail Corridor and any future expansions to the Trail Corridor. Holder has the right to construct minor structures to improve recreational trail access such as but not limited to bridges, steps, railings, waterbars, unlighted signs and trail markers, and kiosks.

- C. Recreational Immunity. Landowner and Holder claim all of the rights and protections against liability for injury to the public to the fullest extent of the law under Title 14 M.R.S. Section 159-A, et seq. as amended and successor provision thereof (the Maine Recreational Use Statute), and under any other applicable provision of law and equity.
- 7. HOLDER'S AFFIRMATIVE RIGHTS. To accomplish the Purposes of this Easement, the following rights are conveyed to Holder, which rights shall be in addition to, and not in limitation of, any other rights and remedies available to Holder.
  - **7.1.** The right to preserve and protect the Conservation Values of the Property.
  - **7.2.** The right to prevent the Landowner or third persons (whether or not claiming by, through, or under the Landowner) from conducting any activity on or use of the Property that is inconsistent with the Purposes of this Easement and to require Landowner or third persons to restore such areas or features of the Property that may be damaged by any inconsistent activity or use in violation of this Easement to a condition substantially similar to that which existed prior to such violation, including the removal of offending structures or vegetation.
  - **7.3.** The right to enforce this Easement in the case of violation of its terms by Landowner or by third persons (whether or not claiming by, through, or under Landowner) by appropriate legal and equitable proceedings, as follows:
    - **7.3.1. Right of Entry.** Holder shall have the right to enter upon the Property, including use of aircraft and unmanned aerial vehicles over the Property, at reasonable times and upon reasonable notice for the purpose of: (1) monitoring the Property and inspecting for compliance with the terms of this Easement; (2) documenting Landowner's compliance with this easement and the condition of the Property through photographs and other forms of visual media; and (3) taking any and all actions with respect to the Property as may be necessary or appropriate, with or without order of court, to document, remedy, or abate violations hereof.
    - **7.3.2. Right of Action.** In the event that Holder becomes aware of a violation of the terms of this Easement, Holder shall give written notice, together with a description of the violation, to Landowner and request corrective action sufficient to abate such violation and restore the Property to a condition substantially similar to that which existed prior thereto. Failure by Landowner to: (1) discontinue or cure such violation within the time period

reasonably specified in such notice; (2) promptly begin good faith efforts to discontinue, abate, or cure such violation where completion of such action cannot be reasonably accomplished within the specified time period and to diligently continue such efforts until completion; or (3) initiate and continue such other corrective action as may be reasonably requested by Holder, shall entitle Holder to bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement seeking to:

- **A.** Require the restoration of the Property to a condition substantially similar to that which existed prior thereto, including the removal of offending structures;
- **B.** Enjoin any noncompliance by temporary or permanent injunction without the need for demonstrating irreparable harm or injury to the interests of the Holder, it being agreed that Holder will have no adequate remedy at law;
- **C.** Recover any damages arising from such violation or noncompliance, including damages for the loss of the Conservation Values protected by this Easement; and
- **D.** Recover costs as provided in Section 7.3.7 below.

Such damages, when recovered, may be applied by the Holder in its sole discretion, to corrective action on the Property.

- **7.3.3.** Emergency Enforcement. Notwithstanding the foregoing, if Holder, reasonably and in good faith, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, Holder may pursue its remedies, including an action to enjoin the violation, *ex parte* if necessary, through temporary or permanent injunction, without prior notice to Landowner or without waiting or the period for cure to expire. Holder shall provide Landowner with such notice as is reasonably possible under the circumstances, of all actions undertaken or to be undertaken pursuant to this subsection.
- **7.3.4. Forbearance Not a Waiver.** Any forbearance by Holder in the exercise of its rights under this Easement or its rights arising from breach of any term hereof shall not be deemed or construed to be a waiver by Holder of such term or of any subsequent breach of the same or any other term of this Easement or of any of Holder's rights hereunder. No failure, delay or omission by Holder in the exercise of any right or remedy upon any breach shall impair such right or remedy or be construed as a waiver, and the Landowner hereby waives any defense of laches, prescription or estoppel.
- **7.3.5. Multiple Owners.** Where the Property is owned by more than one Landowner, all such Landowners of the Property or portion thereof are jointly and severally liable for the violation of the terms of this Easement regardless of the form of ownership.

## 7.3.6. Acts Beyond Landowner's Control/Acts of Third Parties.

A. <u>Acts Beyond Landowner's Control</u>. Nothing contained in this Easement shall be construed to entitle Holder to bring any action against Landowner for any injury to or change in the Property resulting from causes beyond Landowner's control, including, without limitation, natural catastrophes, such as flood, storm, and earth movement, or from

any prudent action taken by Landowner under emergency conditions to prevent, abate, or mitigate significant injury to any person or the Property resulting from such causes.

#### B. Acts of Third Parties.

(i) Acts with Landowner's Authority. Landowner shall be responsible for any injury to or change in the Property resulting from acts or omissions of persons acting on behalf of Landowner, at Landowner's direction or with Landowner's permission or license, and Holder shall be entitled to proceed under Section 7.3 against Landowner for events or circumstances of non-compliance with any covenant, term, condition, or restriction of this Easement resulting from such acts or omissions.

#### (ii) Acts without Landowner's Authority.

- (a) Landowner shall not be responsible for injury to or change in the Property resulting from acts or omissions of third parties not covered by Subsection (i) above.
- (b) Both Landowner and Holder shall have all rights and remedies existing at law or in equity to proceed against any third party damaging the Property. Landowner shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Property or that are otherwise inconsistent with the Purposes of this Easement.
- (c) Restoration Damages. As to any claims for money damages against such third parties, Landowner shall have the primary right to proceed against third party wrongdoers for damages based on costs to restore the Property to its condition before the wrongful acts or omissions caused damage to the Property, and any damages recovered based on such costs to restore the Property shall be used, net of all legal fees and other litigation costs attributable to the claim for damages based on restoration costs, entirely for restoration of the Property to the maximum extent possible. If Landowner elects not to proceed with any such claim against any such third party or if Landowner pursues a claim but elects not to seek money damages based on restoration costs. Holder shall be entitled to pursue such claim and to seek such damages against such third parties, and if Holder so requests, Landowner shall assign to Holder its rights to seek such money damages based on restoration costs. Any recovery of damages from such third parties based on restoration costs, after deducting all legal fees and other litigation costs attributable to the claim for damages based on restoration costs, shall be applied by Landowner to remediation of the damage to the Property. Holder shall not be entitled to carry out any such restoration, but if Holder has recovered money damages attributable to restoration costs, Holder shall pay over to Landowner the damages received net of litigation expense and Landowner shall use such funds for restoration. Holder may require Landowner to provide, at least annually, complete accountings for use of such funds.
- (d) Other Damages. If a third party's wrongful act or omission damages the Property in ways that cannot be remedied by restoration of the Property to its condition prior to the wrongful acts or omissions, each of the Parties may pursue its own claim for damage to its adversely affected property rights and shall be entitled to whatever damages are awarded on account of that damage. In the event of an award in such a proceeding for damages to the fee interest and to the property interest represented by this Easement which award does not specify how the award is to be allocated between Landowner and Holder, the total proceeds, after deduction of each Party's litigation expenses, shall be divided in accordance with the proportionate values of

Landowner's and Holder's interests on the same bases as specified in Section 11.3.3 below.

7.3.7. **Costs.** Recognizing that Holder is a charitable organization with limited resources and that Holder has a duty to protect the Property and property rights it holds in the public interest, Landowner agrees to reimburse Holder for all reasonable costs incurred by Holder in enforcing this Easement or in taking reasonable measures to remedy or abate any violation hereof by Landowner or by a third-party acting with Landowner's authority, including without limitation the costs of investigation, negotiation, mediation, arbitration, settlement, and suit (including reasonable expert, consultant, and attorneys' fees) together with all fees and costs, including reasonable expert, consultant, and attorneys' fees related to restoration, remediation or other damage correction. Provided, however, that Holder agrees to reimburse Landowner for all such costs incurred by Landowner in defense of any claim or action brought by Holder in connection with any alleged violation hereof by Landowner, provided that Holder acknowledges in writing that such claim or action was, in its entirety, without merit or if an arbitrator or court of competent jurisdiction, as the case may be, affirmatively determines that Holder was acting unreasonably or frivolously in initiating a legal action to enforce this Easement.

# 7.4. Fields.

- A. Unless otherwise agreed in writing by Holder, Landowner shall maintain the fields on the Property, as depicted on Exhibit B and described in the Baseline Documentation Report, such that they are kept open and not permitted to become forestland. Where planted with fruit or nut bearing trees, Christmas trees, other ornamental trees or shrubs, the fields shall be considered to be maintained so long as Landowner is actively managing said trees or shrubs. Indications of active management shall include, but are not limited to: mulching; fertilization; trimming or pruning; mowing between and around trees and shrubs; culling diseased, unproductive, or unmarketable trees or shrubs; and harvesting fruits, nuts, trees or shrubs.
- **B.** In the event that Landowner fails to maintain the fields on the Property Holder has the right to enter the Property and maintain the fields, either by periodic mowing, haying, bush hogging, or by other means mutually agreed to by Landowner and Holder. Holder may dispose of the byproducts of such operations to defray the expense of undertaking such actions. Income in excess of expenses for such maintenance operations shall be dedicated to Holder's stewardship fund. Holder shall provide Landowner written notice at least sixty (60) days prior to conducting any field management operations, should Landowner desire to take action to maintain the fields at Landowner's own expense.
- **7.5. Boundaries.** Holder is hereby granted the right to require Landowner to keep the boundaries of the Property sufficiently marked to permit Holder to accurately identify their location. In the absence of such accurately marked boundaries, Holder has the right to require Landowner to commission, at Landowner's expense, a survey to determine any boundary or boundaries in question. Holder shall have the right to place small markers along the perimeter of the Property, after notice to Landowner, indicating its status as land under the conservation protection of Holder.

- **7.6.** Trail Management Rights. Within the Trail Corridor, Holder has the affirmative right to establish and maintain a recreational trail, as well as trail improvements such as steps, foot bridges, water bars, railings, unlit signs, trail markers, and kiosks. Holder shall make all contractual arrangement for such trail work at its own cost.
- **7.7. Public Parking Area.** Within the Public Parking Area depicted on Exhibit C, Holder has the affirmative right, but not the obligation, to construct a parking area for public parking not to exceed 10 parking places. Holder may install low barriers to discourage unauthorized access to the parking area. The primary use of the Public Parking Area is for the public's ability to access the Trail Corridor. Holder and Landowner may enter into a separate written mutual agreement for any additional uses or the ongoing maintenance of the parking area.

# 8. NOTICES, APPROVALS, DISCRETIONARY CONSENT.

**8.1. Method for Notice.** Any notices or requests for approval required by this Easement shall be in writing and shall be personally delivered or sent certified mail, return receipt requested, or by such commercial delivery service as provides proof of delivery, to Landowner and Holder, at the following addresses, unless one has been notified by the other of a change of address or change of ownership:

To Landowner:

Anne M. Read 20 Friar Lane

Cumberland, ME 04021

Mark W. Read

85 Morning Street, Apt. 1 Portland, ME 04101

At the address of the owner(s) of record as noted hereinabove or as provided by Landowner in writing.

To Holder:

Chebeague & Cumberland Land Trust, Inc.

371 Tuttle Road, #2 Cumberland, ME 04021

If the notice mailed to Holder, or to Landowner at the last address on file with Holder is returned as undeliverable, the sending party shall provide notice by regular mail to Landowner's last known address on file with the municipality of **Cumberland**, Maine; or in the case of Holder, or in the case of a corporate owner, to the address on file with the Secretary of State, State of Maine, and the mailing of such notice shall be deemed in compliance with the notice provisions of this Easement.

**8.2. Notice and Requests for Approval.** Any use or activity requiring Notice to or Approval of the Holder shall be subject to the terms and conditions of the applicable

subsections under which such notice is required or approval is requested as well as the terms and conditions of this subsection. If Notice to Holder is required, but not Approval, Landowner shall notify Holder in writing at least ten (10) days prior to the date Landowner intends to undertake the activity in question. The Notice shall describe the nature, scope, location, timetable, and any other material aspect of the proposed activity in sufficient detail to permit Holder to determine whether such activity is in conformity with the terms and Purposes of this Easement and in conformity with the applicable section(s) under which such right is reserved or approval granted. If Approval is required, such Approval shall in all cases be obtained by Landowner prior to Landowner's taking the proposed action. Failure to request required Approval prior to commencing an activity shall constitute a material breach of this Easement. Where municipal regulatory approval is required, the Landowner will submit the site and/or plot plan of any proposed new construction to the Holder prior to submitting such documents for regulatory approval(s).

Holder shall only grant Approval to Landowner where Holder, *in its sole discretion*, determines that the proposed action is not inconsistent with the Purposes of this Easement, and is consistent with any applicable Best Management Practices. In the event Holder withholds Approval, it shall notify Landowner in writing with reasonable specificity of its reasons for withholding Approval, including a denial because of a need for additional information, and the conditions, if any Holder, on which Approval might otherwise be given. Holder may impose such conditions on Approvals as Holder determines are reasonably required to protect the Conservation Values of the Property consistent with the Purposes of this Easement, including that Landowner provide reasonable prior notice of the commencement of any activity approved under this subsection.

Where Holder's Approval is required, Holder shall approve or withhold its approval in writing within sixty (60) days of receipt of Landowner's written request. The failure of Holder to respond in writing within such sixty (60) days of receipt of the written request shall be deemed to constitute a denial of Approval by Holder.

In addition to the foregoing, where Notice or Approval is not otherwise required by this Easement, Landowner agrees to notify Holder before exercising any right that may have an adverse impact on the conservation interests associated with the Property as required by Title 26, Code of Federal Regulations, Sections 1.170A-14(g)(5)(ii).

**8.3. Discretionary Consent.** Recognizing that Agricultural and Forestry Best Management Practices, agricultural markets and technologies, climate and the ecological state of the region, and scientific knowledge will change over time, Holder's consent for activities otherwise restricted or prohibited may be given if Holder determines, in its sole and absolute discretion, that due to: (1) disease, pests, fire, storm or natural disaster; (2) changes in scientific knowledge, technology, or best agricultural or forestry land management practices; (3) the existence of threatened or endangered species on or abutting the Property; (4) changes in climate affecting the ecological condition of the surrounding area or ecological system; or (5) other unforeseen circumstances, such activities further and are consistent with the Purposes of this Easement. In addition, Holder may grant consent for activities that have not been foreseen or contemplated by the parties that further and are consistent with the Purposes of this

Easement. Such consent may be (1) revocable at the Holder's discretion and (2) limited in duration. Holder shall have no right or power to approve any proposed activity that would result in the termination of this Easement, be inconsistent with the Purposes of this Easement or allow additional development rights, other than development rights that are reasonably required for Agricultural Activities, environmental enhancement or related education, to accrue to the benefit of the Property. All requests for such consent shall be in writing and shall describe the proposed activity in sufficient detail to allow Holder to judge the consistency of the proposed activities with the Purposes of this Easement. Holder shall not be liable for any failure to grant consent to Landowner under this subsection, and the failure of Holder to respond in writing within such sixty (60) days of receipt of the written request shall be deemed to constitute a denial of such consent by Holder.

# 9. ONGOING RESPONSIBILITIES, COSTS AND LIABILITIES.

- **9.1 Transfer of Property.** The Landowner agrees that the terms, conditions, restrictions and Purposes of this Easement will either be incorporated by reference or inserted by the Landowner in any subsequent deed or other legal instrument by which the Landowner divests themselves of any interest in the Property or in any portion thereof to the extent permitted by this Easement. Failure of the Landowner to incorporate such terms shall not affect the enforceability of this Easement. Landowner shall provide Notice of said planned conveyance to Holder in writing at least thirty (30) days, before conveying the Property or an interest therein, other than a mortgage, to any third party.
- **9.2 Taxes.** Landowner shall be solely responsible for payment of all taxes and assessments levied against the Property. If Holder is ever required to pay any taxes or assessments on the Property in order to protect its interests, Landowner will reimburse Holder for the same. Such payment shall constitute a lien on the Property of the same priority as the item would have become if not paid.
- **9.3.** Upkeep and Maintenance. Landowner shall be solely responsible for the upkeep and maintenance of the Property. Holder shall have no obligation for the upkeep or maintenance of the Property.
- **9.4.** Compliance With Law. Nothing in this Easement relieves Landowner of any obligation with respect to the Property imposed by law, including the obligations and responsibilities to obtain any and all applicable federal, state, and local governmental permits and approvals, if necessary, to exercise Landowner's retained rights and uses of the Property even if consistent with the Purposes of this Easement.

By its acceptance of this Easement, Holder does not undertake any liability of obligation relating to the Property, including without limitation any responsibility for compliance with laws and regulations concerned with hazardous materials or other environmental laws and regulations.

10. BASELINE DOCUMENTATION REPORT. The Conservation Values of the Property and its current use and state of improvement are described in a report, including maps, photographs, and other documentation prepared by or on behalf of Holder and certified by the Landowner. Holder shall maintain the Baseline Documentation Report, a copy of which shall be provided to Landowner at Landowner's request. The Baseline Documentation Report may be

used by Holder to establish that a change in the use or character of the Property has occurred, but its existence shall not preclude the use by Holder or Landowner of other evidence to establish the condition of the Property as of the date of this Easement. If after the date of this Easement, the Holder wishes to supplement or amend the Baseline Documentation Report, the Holder may do so and the Landowner may certify the Baseline Documentation Report as supplemented or amended.

# 11. GENERAL PROVISIONS.

**11.1 Assignment.** Holder shall have the right to assign this Easement to any public agency or private nonprofit organization that, at the time of transfer, is a "qualified organization" under Section 170(h) of the Code and under Maine Conservation Easement Act, Section 476(2), provided the transferee expressly agrees to assume the responsibility imposed on Holder by this Easement. If Holder ever ceases to exist or no longer qualifies under Section 170(h) of the Code, or applicable state law, a court of competent jurisdiction shall transfer this Easement to another qualified organization having similar purposes that agrees to assume the responsibilities imposed by this Easement.

# 11.2 Amendment.

- 11.2.1 Landowner and Holder recognize that circumstances could arise that warrant modification of certain of the provisions of this Easement. To this end, subject to more restrictive laws and regulations, if any, Landowner and Holder have the right to agree to amendments to this Easement without prior notice to any other party, provided that in the sole and exclusive judgment of Holder, such Amendment does not violate the restrictions in Section 11.2.2. Amendments will become effective upon recording at the applicable County Registry of Deeds. Nothing in this Section shall require the Landowner or the Holder to agree to any amendment or to negotiate regarding any amendment.
- **11.2.2** Notwithstanding the foregoing, except as provided by § 477-A(2) of the Maine Conservation Easement Act, by which a Conservation Easement may be amended by court approval in an action in which the Attorney General is made a party, Holder and Landowner have no right or power to approve any action or agree to any discretionary approval or amendment that would
  - **A.** materially detract from the Conservation Values intended for protection under this Easement;
  - **B.** limit the term or result in termination of this Easement; or
  - C. adversely affect the qualification of this Easement or the status of the Holder under applicable laws, including the Maine Conservation Easement Act and Sections170(h), 501(c)(3), 2522, and 2031(c) of the Code, successor provisions thereof and regulations issued pursuant thereto.

# 11.3 Extinguishment and Condemnation.

**11.3.1** The Parties agree that the grant of this Easement creates a property right that vests immediately in Holder. The parties further agree that this property right as of the date of its

creation has a fair market value that is at least equal to the proportionate value that the Conservation Easement bears at the time of the gift to the value of the property as a whole at that time, in accordance with IRS Regulations at Sections 1.170A-14(g)(6)(ii)(hereinafter the "Proportionate Value"). The Proportionate Value shall remain constant.

- 11.3.2 If either Holder or Landowner receives notice of the actual or threatened exercise of the power of eminent domain (hereinafter a "Taking") with respect to any interest in or any part of the Property, the party who receives the notice shall promptly notify the other and the parties may proceed jointly or either party may at its discretion take such legal action as it deems necessary to: (a) challenge the Taking; (b) challenge the amount of allocation of any award tendered by the Taking authority; or (c) otherwise participate in, challenge or appeal such proceedings, findings or awards. Any third party counsel and consultants (including appraisers) hired by either party shall be reasonably acceptable to the other party. Each party shall be responsible for its own costs and legal fees, absent written agreement of the parties.
- This Easement may be extinguished or terminated only by judicial order in a court 11.3.3 of competent jurisdiction, including a Taking in accordance with subsection 11.3.2. It is the intention of the parties that an extinguishment or termination be approved by a court only if all of the Conservation Purposes of this Easement are impossible to accomplish, and if both Landowner and Holder agree. Should this Easement be terminated or extinguished as provided in this Section, in whole or in part, Holder shall be entitled to be paid no less than the greater of: (i) in accordance with § 1.170A-14(g)(6)(ii), a portion of any proceeds of a subsequent sale, involuntary conversion, or exchange computed as to the Proportionate Value; or (ii) in accordance with 33 M.R.S. § 477-A(2)(B), the increase in value of the Landowner's estate resulting from such extinguishment, as determined by the court, or in the absence of such court determination, by the agreement of the parties or, in the absence of such agreement, by an independent appraiser mutually selected by Landowner and Holder. Holder shall use its share of the proceeds or other moneys received under this paragraph in a manner consistent with the Conservation Purposes of this Easement. Landowner agrees that Holder may, and authorizes Holder to, record a notice of a lien on the Property which lien will be effective as of the date of such extinguishment, to secure its rights under this Section.
- **11.4 Applicable Law.** This Easement is created pursuant to Title 33, M.R.S.A., Sections 476 through 479-C, inclusive, as amended, and shall be construed in accordance with the laws of the State of Maine, regardless of any conflict of law provisions.
- 11.5 Interpretation. This Easement shall be interpreted under the laws of the State of Maine. Any general rule of construction to the contrary notwithstanding, this Easement shall be liberally construed to effect the Purposes of this Easement. If any provision in this Easement is found to be ambiguous, an interpretation consistent with the Purposes of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid. If any provision of this Easement or the application of any provision to a particular person or circumstance is found to be invalid, the remainder of this Easement and the application of such provision to any other person or in any other circumstance, shall remain valid.
- **11.6 Non-Waiver.** No waiver by Holder of any default, or breach hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default or

breach hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence. No waiver shall be binding unless executed in writing by the party making the waiver.

- 11.7 Compliance. A person or entity's obligations hereunder as Landowner will cease, if and when such person or entity ceases to have any present, partial, contingent, collateral or future interest in the Property, but only to the extent that the Property is then in compliance herewith. Responsibility of Landowner for breaches of this Easement that occur prior to transfer of title will survive such transfer; provided that the new Landowner shall also be responsible for bringing the Property into compliance unless Holder in writing releases the new Landowner.
- 11.8 Estoppel Certificates. Upon written request of Landowner and at Landowner's expense, Holder shall, within a reasonable time after such request, inspect the Property and shall provide a Compliance/Estoppel Certificate that indicates the extent to which, to the best of Holder's knowledge, the Property is in compliance with the terms of this Easement.
- **11.9 Severability.** If any provision of this Easement or the application of any provision to a particular person or circumstance is found to be invalid, the remainder of this Easement and the application of such provision to any other person or in any other circumstance, shall remain valid.
- 11.10 Potential Increase in Value Acknowledged. In making this Easement, Landowner has considered the fact that uses prohibited hereby may become more economically valuable than permitted uses, and that neighboring properties may in the future be put entirely to such prohibited uses. It is the intent of both Landowner and Holder that any such changes not be deemed to be changed conditions permitting alteration or termination of this Easement.
- 11.11 Subsequent Liens On Property, Liens Subordinated.

Landowner has the right to use the Property as collateral to secure repayment of debt, provided that any lien or other rights granted for such purpose, regardless of date, are subordinate to Holder's rights under this Easement. Under no circumstances may Holder's rights be extinguished or otherwise affected by the recording, foreclosure or any other action taken concerning any subsequent lien or other interest in the Property.

- **11.12 Entire Agreement.** This instrument sets forth the entire agreement of the parties and supersedes all prior discussions, negotiations, understandings or agreements relating to this Easement.
- **11.13 Environmental Warranty.** Nothing in this Easement shall be construed as giving rise to any right or ability in Holder to exercise physical or management control over the day-to-day operations of the Property, or any of Landowner's activities on the Property, or otherwise to become an operator with respect to the Property within the meaning of The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA) or any corresponding state and local statute or ordinance.

Landowner warrants that it has no actual knowledge of a release or threatened release of hazardous substances or wastes on the Property, as such substances and wastes are defined by applicable law, and hereby promises to indemnify Holder against, and hold Holder harmless from, any and all loss, cost, claim (without regard to its merit), liability or expense (including reasonable

Doc#: 22436 Bk:40230 Ps: 212

attorneys' fees) arising from or with respect to any release of hazardous waste or violation of environmental laws.

If at any time after the date of this Easement there occurs a release in, on, or about the Property of any substance now or hereafter defined, listed, or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment, Landowner agrees to take all steps that may be required under federal, state, or local law necessary to assure its containment and remediation, including any cleanup.

- 11.14 Liability and Indemnification. Landowner acknowledges that Holder has no possessory rights in the Property, nor any responsibility or right to control, maintain, or keep up the Property. Landowner is responsible for all costs and responsibility of ownership, control, operation, maintenance, and upkeep of the Property. If the Holder is ever required by a court to pay damages resulting from personal injury or property damage that occurs on the Property, the Landowner shall indemnify and reimburse the Holder for these payments, as well as for reasonable attorneys' fees and other expenses of defending itself, unless Holder or any of its agents have committed a deliberate act that is determined by a court to be the cause of the injury or damage.
- 11.15 Standing to Enforce. Only Holder and Landowner may bring an action to enforce this Easement, and nothing herein should be construed to grant any other individual or entity standing to bring an action hereunder, unless otherwise provided by law; nor to grant any rights in the Property by adverse possession or otherwise, provided that nothing in this Easement shall affect any public rights in or to the Property acquired by common law, adverse possession, prescription, or other law, independently of this Easement.

# 12 HABENDUM AND SIGNATURES.

**TO HAVE AND TO HOLD** the said Amended and Restated Agricultural Conservation Easement unto the said Holder and its successors and assigns forever.

IN WITNESS WHEREOF, Landowner, Anne M. Read and Mark W. Read has caused these presents to be signed and sealed this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2023.

ANNE M. READ

Anne M. Read

MARK W. READ

Mark W. Read

# 13 ACKNOWLEDGMENT.

STATE OF MAINE COUNTY OF

Thence personally appeared the above-named Anne M. Read and Mark W. Read, and acknowledged the foregoing instrument is their free act and deed.

Notary Public/Maine Attorney

Printed Name: Penelope Asherman My Commission expires: Bar + 009002

Dated: 4 , 2023.

Doc#: 22436 Bk:40230 Ps: 214

# 14 HOLDER ACCEPTANCE.

The above and foregoing Amended and Restated Agricultural Conservation Easement is hereby accepted for and on behalf of the CHEBEAGUE & CUMBERLAND LAND TRUST, INC., duly authorized this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_, 2023

CHEBEAGUE & CUMBERLAND LAND TRUST, INC.

a Maine nonprofit corporation

Name: Rod Vogel

Title: Board President

# 15 HOLDER ACKNOWLEDGMENT

STATE OF MAINE
COUNTY OF Combestored

Date: しいり 6 \_, 2023

Thence personally appeared the above-named Rod Vogel, Board President of the Chebeague & Cumberland Land Trust, Inc., and acknowledged acceptance of the above and foregoing Amended and Restated Agricultural Conservation Easement as her free act and deed in said capacity, and the free act and deed of Maine Farmland Trust, Inc.

Befgre me,

Notary Public/Maine Attorney

Printed Name: Penetose Asherman My Commission expires: Barton

# EXHIBIT A To Conservation Easement

A certain lot, or parcel of land, situated on the southwesterly side of Blanchard Road, so-called, in the Town of Cumberland, in the County of Cumberland, State of Maine, and being more particularly bounded and described as follows:

Beginning at a point, being a set iron rod and cap, on the assumed southwesterly sideline of Blanchard Road, so-called, at the northerly corner of the land now or formerly of Sophia C. Milton Wright and Raymond L. Wright, as described in the deed recorded in the Cumberland County Registry of Deeds in Book 33402, Page 322, said point also being N 56°03'24" W, along said Blanchard Road, so-called, 182.70 feet, from a found 6"x8" granite monument with a washer marked "PLS 2282";

Thence N 56°03'24" W, along said Blanchard Road, so-called, 446.45 feet, to a point, and the land now or formerly of Cumberland Rentals, LLC, as described in the deed recorded in the said Registry in Book 35013, Page 296, said point being N 34°58'43" E and 3.26' from a found 5/8" iron rod and cap marked "PLS 1208";

Thence S 34°58'43" W, along said Cumberland Rentals, LLC, and the land now or formerly of David B. Potter, as described in the deed recorded in the said Registry in Book 6850, Page 274, 1,613.26 feet, to a found 5/8" iron rod, and the land now or formerly of the Town of Cumberland, as described in the deed recorded in the said Registry in Book 33344, Page 299;

Thence continuing S 34°58'43" W, along said Town of Cumberland, 1,070.61 feet, to a found 5/8" iron rod, and the land now or formerly of Ruth H. Watson, as described in the deed recorded in the said Registry in Book 3850, Page 131;

Thence S 54°09'30" E, along said Watson, 822.08 feet, to a found iron rod and cap marked "PLS 1280";

Thence S 27°30'52" W, along said Watson, 33.14 feet, to a found 1½" iron pipe;

Thence S 52°27'25" E, along said Watson, 278.74 feet, to a point, said point being S 52°27'25" E, and, 1.69 feet, from a found 1" iron pipe;

Thence S 34°43'06" W, along said Watson, 361.11 feet, to a found iron rod and cap marked "PLS 1280";

Thence S 53°42'29" E, along said Watson, 905.45 feet, to a found iron rod and cap marked "PLS 1280";

Thence S 57°12'29" E, along said Watson, 577.50 feet, to a found 134" iron pipe;

Thence N 37°04'55" E, along said Watson, 378.17 feet, to a found 4"x4" granite monument, and the land now or formerly of Charles E. Burnie and Catherine E. Burnie;

Thence N 55°02'33" W, along said Burnie, 16.50 feet, to a found 4"x4" granite monument with cap marked "PLS 2282";

Thence N 34°51'58" E, along said Burnie 388.70 feet, to a found triangular granite monument, and the land now or formerly of Jeffrey B. Pierce, as described in the deed recorded in the said Registry in Book 22544, Page 336, and Book 31692, Page 187;

Thence N 55°17'23" W, along said Pierce, 865.28 feet, to a found iron rod with cap marked "PLS 1280", and the "Area of Questionable Ownership" as shown on the Boundary Survey Map referenced herein below;

Thence S 34°43'06" W, along said "Area of Questionable Ownership", 392.42 feet, to a found iron rod with cap marked "PLS 1280";

Thence N 52°50'02" W, along said "Area of Questionable Ownership", 584.48 feet, to a point;

Thence N 10°15'14" W, along said "Area of Questionable Ownership", 29.24 feet, to a point;

Thence N 52°49'50" W, along said "Area of Questionable Ownership", 240.00 feet, to a point;

Thence N 10°15'14" W, along said "Area of Questionable Ownership", 29.56 feet, to a found iron rod with cap marked "PLS 1280";

Thence N 34°43'06" E, along said "Area of Questionable Ownership", other land now or formerly of The Town of Cumberland, as described in the deed recorded in the said Registry in Book 12696, Page 90, and the land now or formerly of Mats Argen and Lisa M.T. Argen, as described in the deed recorded in the said Registry in Book 15264, Page 132, 1,426.71 feet, to a point and the land now or formerly of Joel S. Harris and Natalie W. Harris, as described in the deed recorded in the said Registry in Book 39869, Page 118, and Book 13079, Page 162;

Thence N 61°11'37" W, along said Harris, 254.00 feet, to a point;

Thence N 34°41'53" E, along said Harris, 175.00 feet, to an iron rod and cap, and said land now or formerly Wright;

Thence N 61°11'32" W, along said Wright, 145.21 feet, to a set iron rod and cap;

Thence N 34°41'30" E, along said Wright, 566.00 feet, to a found 5/8" iron rod;

Thence N 55°38'45" W, along said Wright, 77.97 feet, to a 3' concrete well tile;

Thence N 42°52'16" E, along said Wright, 547.71 feet, to the point of beginning;

EXCEPT the following described parcel located within the parcel described herein above, being the "Excluded Parcel" as shown on the said Boundary Survey Map referenced herein below;

Beginning at a point, being a set iron rod and cap, being S 16°41'00" W, and, 159.28 feet, from the point at the assumed southwesterly sideline of Blanchard Road and at the easter most corner of the land now or formerly of Cumberland Rentals, LLC, as described in the deed recorded in the said Registry in Book 35013, Page 296, said point being at the terminus of the first call of the parcel described herein above;

Thence S 53°52'27" E, and, 161.84 feet, to a set iron rod and cap;

Thence S 29°23'22" W, and, 627.87 feet, to a set iron rod and cap;

Thence S 27°34'23" W, and, 971.04 feet, to a set iron rod and cap;

Thence N 57°42'07" W, and, 348.50 feet, to a set iron rod and cap;

Thence N 34°58'43" E, and, 1,607.37 feet, to the point of beginning;

Said Excluded Parcel Containing 9.14 Acres, more or less.

Said Conservation Easement being conveyed herein contains 53.46 Acres, more or less.

SUBJECT TO the 20' WIDE EASEMENT OF THE TOWN OF CUMBERLAND, as described in the deed of Nancy M. Read to Greater Portland Development Group, dated June 28, 1996, and recorded in the said Registry in Book 12696, Page 88, which leads to the said "Open Space" that was deeded to the Town of Cumberland, see Book 12696, Page 90. Reference is made to said Book 12696, Page 90 for more particular rights and information.

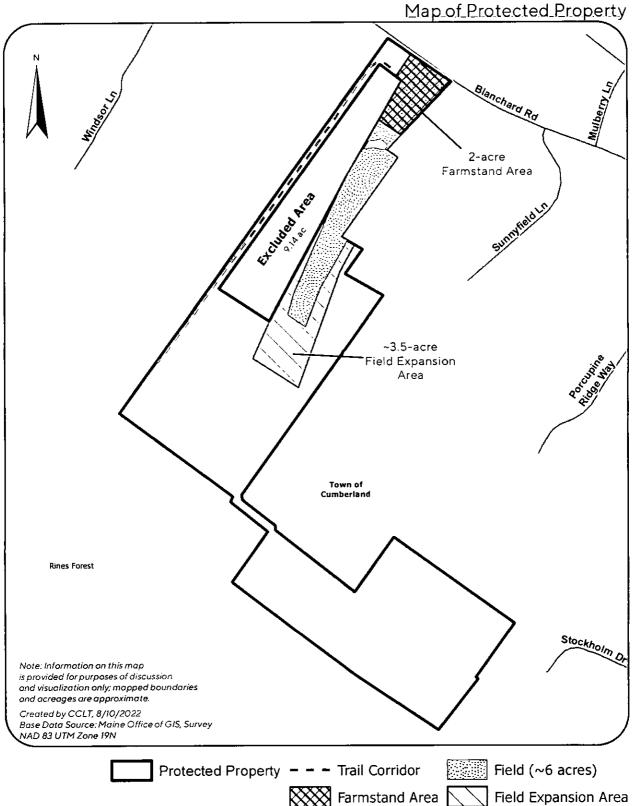
The basis of bearing for this Description is GRID NORTH based on the Maine State Coordinate System West Zone, NAD 83 (2011/PA11/MA11) epoch 2010.00, using an Altus APS-3 RTK GPS (Global Positioning System) receiver correcting using the NOAA's Online Positioning User Service (OPUS). The set iron rod and cap at the point of beginning is at a coordinate NORTH 352295.0599, EAST 2926677.2217.

All said "Set iron rod and cap(s)" are 5/8" rebar with a 2" aluminum cap marked either "LAND SURVEY MONUMENT SET BY ROBERT A. YARUMIAN PLS 1303" or "SET BY PLS 1303 - 2502 MAINE BOUNDARY CONSULTANTS LLC".

This description is based on the "Boundary Survey Map of the Proposed Conservation Easement to be Conveyed to the Chebeague & Cumberland Land Trust, from Nancy M. Read and Mark W. Read," dated July 11, 2022, prepared by Robert A. Yarumian II, PLS 1303, of Maine Boundary Consultants LLC, Moderation Center, 8 River Road, P.O. Box 67, Buxton, Maine, 04093, and conforms to the Maine Board of Licensure for Professional Land Surveyors, Rules, of April 2001, Chapter 90, Standards of Practice.

Meaning and intending to describe a portion of the premises, as described in the deed of Anne M. Read (a/k/a Nancy M. Read) to Mark W. Read, being an undivided one-half (½) interest, dated August 24, 2020, and recorded in the Cumberland County Registry of Deeds in Book 37094, Page 51. Reference is also made to the deed of John R. Woodman to Nancy M. Read, dated October 27, 1983, and recorded in the said Registry in Book 6310, Page 9, the Deed of Frank M. Read to Nancy M. Read, dated October 27, 1983, and recorded in the said Registry in Book 6310, Page 11, and the deed of Greater Portland Development Group to Nancy M. Read, dated July 2, 1996, and recorded in the said Registry in Book 12696, Page 93.

Exhibit B



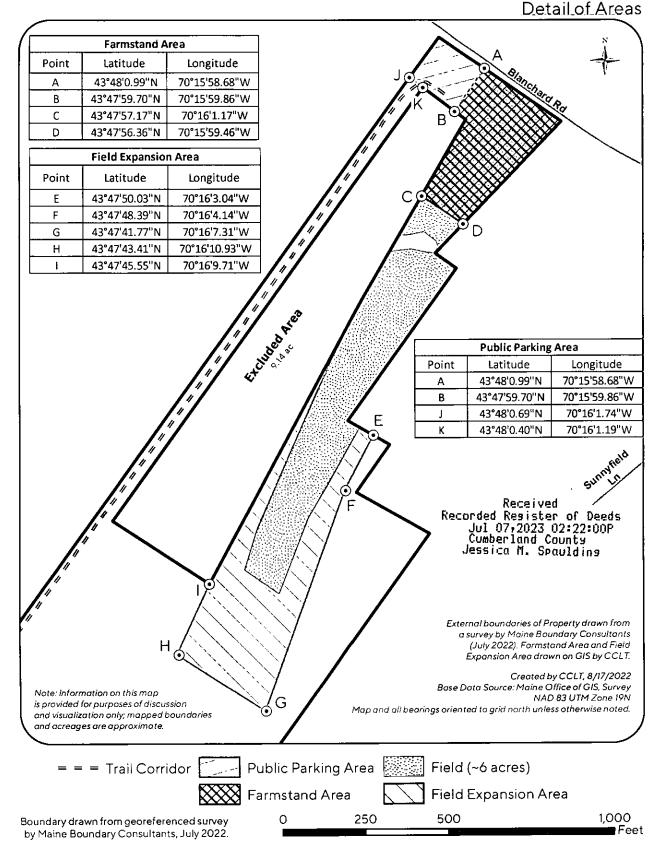
1,000

2,000

Boundary drawn from georeferenced survey by Maine Boundary Consultants, July 2022.

# Read Family Farm and Woods (~53.5 acres)

# Exhibit\_C



# **APPENDIX B**

# **FINANCIAL CAPACITY**





Federal Credit Union

July 25, 2023

**Cumberland Planning Board** 290 Tuttle Road Cumberland, ME 04021

Dear Ms. Nixon,

The Chebeague & Cumberland Land Trust has an account with the Atlantic Federal Credit Union. It is our understanding that CCLT is applying for permits to build an eight car parking lot at the Read Property on Blanchard Road in Cumberland and that the cost of the project is not to exceed \$50,000. As of this date, The Chebeague & Cumberland Land Trust has sufficient funds in its bank accounts at Atlantic Federal Credit Union to finance this project.

Sincerely,

Mary-Ann Goan

Mary-am Coan

# **APPENDIX C**

# **TECHNICAL CAPACITY**



#### **TECHNICAL CAPACITY**

Chebeague and Cumberland Land Trust is working with the following permit application representative and site design engineer:

#### Sevee & Maher Engineers, Inc. (SME)

SME of Cumberland, Maine is providing technical assistance for the site design and environmental permitting. Founded in 1985, SME has obtained hundreds of local, state, and federal permits related to environmental projects throughout the Northeast, including Site Location Permits for Backyard Farms in Madison, the Pineland Center in New Gloucester, the Mill Stream Subdivision in Freeport, and the Pine Tree Landfill in Hampden.

Sevee & Maher Engineers, Inc. 4 Blanchard Road Cumberland, Maine 04021 207-829-5016

<u>Jeffrey T. Read, P.E., LPA – Site Design and Permitting</u> <u>Sevee & Maher Engineers, Inc.</u>

Mr. Read has over 33 years of experience in civil design, permitting, and construction management for private- and public-sector clients. Previous work includes projects in residential and commercial land development, commercial and industrial site work, building construction, municipal roadway and infrastructure improvements, subsurface wastewater disposal system design, and coastal shoreline stabilization. Mr. Read has experience in local, state, and federal permitting.

Since 2016, he has served as project manager or senior civil engineer on more than 50 photovoltaic solar energy development projects totaling over 250 MW (AC) of planned generating capacity. His solar energy experience includes projects in every county of Maine and multiple projects in New Hampshire.

Mr. Read completed site analysis and due diligence for multiple potential solar development sites across Maine using available GIS layers, LIDAR contours, and readily available environmental information.

# **APPENDIX D**

# **IF&W REVIEW LETTER**





4 Blanchard Road, P.O. Box 85A Cumberland, ME 04021 Tel: 207.829.5016 • Fax: 207.829.5692 info@smemaine.com smemaine.com

July 21, 2023

Mr. John Perry Maine Department of Inland Fisheries and Wildlife 284 State Street, 41 SHS Augusta, ME 04333-0041

Subject: Chebeague and Cumberland Land Trust

Blanchard Road, Cumberland, ME

Rines Forest Parking Lot

#### Dear John:

The Chebeague and Cumberland Land Trust is seeking approval for an 8-space parking lot from Town of Cumberland Planning Board. As shown on the attached Site Location Map, the property is located on Blanchard Road on the northern edge of Rines Forest. The parking area will be constructed in an undeveloped, wooded area. The extents of the proposed project are shown in the enclosed figures.

We would appreciate receiving any information relative to rare, threatened, or endangered species or the presence of important wildlife or fisheries habitat at or in the immediate vicinity of the project.

Please feel free to contact me at 207.829.5016 or <a href="mailto:jtr@smemaine.com">jtr@smemaine.com</a> if you have any questions or need additional information.

Sincerely,

SEVEE & MAHER ENGINEERS. INC.

Jeffrey T. Read, P.E., Senior Civil Engineer

Attachments: MDIFW Environmental Review and Resource Map Request Form

Figure 1-Site Location Map

# **MDIFW Environmental Review and Resource Map Request**

The Maine Department of Inland Fisheries and Wildlife provides environmental project reviews, d

sites, ar	nendations, and agency resource maps for landowners, preliminary reviews of potential project and formal agency regulatory reviews that include information on important fisheries, wildlife, and habitat resources. To facilitate your request, please provide the following information:
_	This is a request for a:  New Project  Follow-up for an existing project or prior information request.
2.	Project Location (provide ONE of the following options):  Street address (include town) – Preferred option: 48 Blanchard Road, Cumberland, Maine  UTM East [ ] & UTM North [ ] coordinates (integers only).  Latitude [ ] & Longitude [ ] coordinates (decimal degrees, e.g., 45.03020)  Provide a GIS shapefile of the project footprint.  Provide a GoogleEarth KML/KMZ File of the project footprint.  Please also attach a project site map with location coordinates. GoogleEarth is a popular tool to create project site maps. If you click over the location in GoogleEarth, it will reveal the latitude/longitude coordinate of that spot.  If the project footprint is based on a parcel boundary, in addition to the street address, please
3.	provide the parcel map [ ] and lot [ ] numbers.  Map U12, Lot 6  Project Description:  Please provide the name and as much detail as possible for your proposed project. If this a general request for information, please indicate so.
	Chebeague and Cumberland Land Trust is proposing nine parking spaces on a leased parcel of land at Blanchard Road in Cumberland, Maine. The parking area will be constructed in the mostly forested area of undeveloped land adjacent to Blanchard Road.
4.	Permit Application Number:  If this request is related to a project currently or previously subject to regulatory review, please indicate your permit application number(s) and the agency(s) involved.  Town of Cumberland Planning Department

# **MDIFW Environmental Review and Resource Map Request**

## 5. Contact Information:

Last name: Read

First name: Jeffrey

Relationship to project: Consultant

Organization: Sevee & Maher Engineers, Inc

Street Address: 4 Blanchard Road, PO Box 85A

City: Cumberland

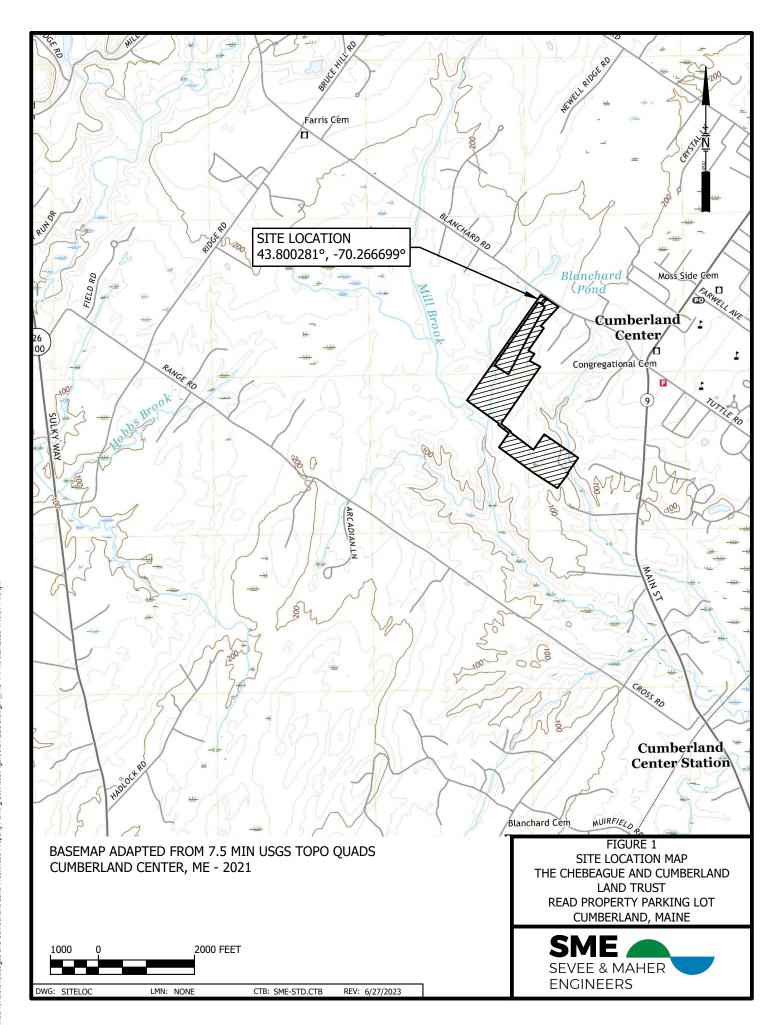
State: ME

Zip Code: 04021

Phone Number: (207) 829-5016

Email Address: jtr@smemaine.com

<u>Please provide all information requested. Omission of information may delay or prevent the ability to fulfill requests.</u> Please submit this request and any other supplemental information (e.g. site plans, if available) to <a href="mailto:IFWEnvironmentalReview@maine.gov">IFWEnvironmentalReview@maine.gov</a>. Thank you.





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



October 26, 2023

Jeffrey Read Sevee & Maher Engineers 4 Blanchard Road, P.O. Box 85A Cumberland, ME 04021

RE: Information Request – 48 Blanchard Road, Cumberland Project (ER#7007)

Dear Jeffrey:

Per your request, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the 48 Blanchard Road, Cumberland project.

Our Department has not mapped any Essential Habitats that would be directly affected by your project. Essential Habitats are areas formally designated as essential to the conservation of a State Endangered or Threatened species and are protected pursuant to the Maine Endangered Species Act (MESA, 12 M.R.S, §12804.2). Currently, Essential Habitats are only designated for three State Endangered coastal breeding bird species.

#### Endangered, Threatened, and Special Concern Species

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

# Significant Wildlife Habitat

PHONE: (207) 287-5254

Significant Vernal Pools - At this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of Significant Vernal Pools (SVPs) in the project search area. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. SVPs are not included on MDIFW maps until project areas have been surveyed using approved methods and the survey results confirmed. Thus, their absence from resource maps is not necessarily indicative of an absence on the ground. Therefore, we recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site

Letter to Jeffrey Read, Sevee & Maher Engineers Comments RE: 48 Blanchard Road, Cumberland October 26, 2023

Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Agency for review <u>well before</u> the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

# **Aquatic Resources**

Fish Habitat - We recommend maintaining 100-foot undisturbed vegetated buffers from the upland edge of all intermittent and perennial streams and any contiguous wetlands. Maintaining and enhancing buffers along these resources is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support fish and other aquatic species. Riparian buffers also provide critical habitat and important travel corridors for a variety of wildlife species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide for full aquatic passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis. Undersized crossings may inhibit these functions and become a frequent maintenance problem that causes reoccurring damage to the resource. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e., natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in providing habitat connectivity for fish and other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils can travel significant distances as well as transport other pollutants resulting in direct impacts to fish, other aquatic life, and their habitats. In addition, we recommend that any necessary instream work occur between July 15 and October 1.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance, we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

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

Best regards,

John Perry

**Environmental Review Coordinator** 

# **APPENDIX E**

# STORMWATER MANAGEMENT REPORT



# STORMWATER MANAGEMENT REPORT CHEBEAGUE AND CUMBERLAND LAND TRUST READ PROPERTY PARKING LOT

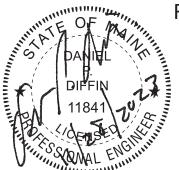
Prepared for

# **CHEBEAGUE AND CUMBERLAND LAND TRUST**

Blanchard Road Cumberland, Maine

July 2023

**Revised November 2023** 



SME SEVEE & MAHER ENGINEERS

4 Blanchard Road P.O. Box 85A Cumberland, Maine 04021 Phone: 207.829.5016 smemaine.com

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STORMWATER MANAGEMENT REPORT READ PROPERTY PARKING LOT CUMBERLAND, MAINE

1.0 INTRODUCTION

The following outlines the Stormwater Management Design for the Chebeague and Cumberland Land Trust (CCLT) Read Property Parking Lot project off of Blanchard Road in Cumberland, Maine. The stormwater design prepared by Sevee & Maher Engineers, Inc. (SME) is based on the water quality and

quantity objectives identified by the Town of Cumberland (Town) Land Use Ordinance and Maine

Department of Environmental Protection (MEDEP) Chapter 500 Standards.

2.0 PROJECT DESCRIPTION

Rines Forest (Forest) was first opened to the public to provide the opportunity for low-impact passive recreation. The Forest consists of a 268 acres of forest land, a network of trails, and critical wildlife habitat.

The Forest is owned by the Town of Cumberland and protected by conservation easements held by the

CCLT.

The most recent addition to the Forest includes a parcel of land obtained by a 53.46-acre Conservation

Easement from the Read Family. Within this easement, CCLT intends to provide eight (8) parking spaces

for passenger vehicles for Forest visitors. The location of the project is shown in Figure 1, Site Location

Map.

The parking area will be accessed through a paved entry way approximately 0.5 miles from the main

intersection in Cumberland Center. The new access will be constructed in a wooded area within the

conservation easement selected to minimize impact to existing wetlands adjacent to Blanchard Road. The pavement will end at the edge of the right-of-way at which point the access aisle and parking area will be

constructed of reclaimed asphalt pavement. Through the bid progress, the cost of building the parking lot

was higher than what CCLT had budgeted. To reduce the cost, SME redesigned the entrance to reduce the

fill required to construct the parking area. The full build-out will result in approximately 12,600 square

feet (0.3 acres) of disturbed area and 8,317 square feet of reclaimed asphalt pavement area.

The grading and drainage associated with the new parking area has been minimized as much as possible

to limit the tree-clearing and disturbance to natural soils required to construct the project.

This project will result in less than one acre of impervious surface and less than 5 acres of new developed

area. Per the current municipal ordinance, the project is designed to meet Basic Standards as outlined in

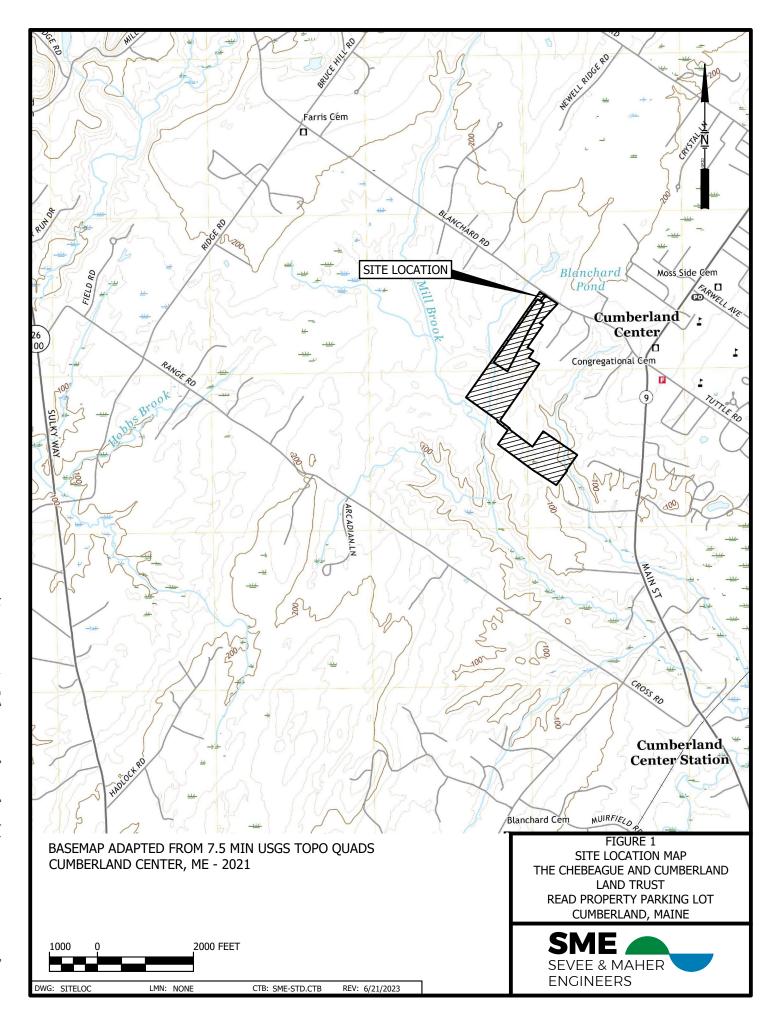
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Maine Department of Environmental Protection (MEDEP) Chapter 500. The project is not required to

obtain a MEDEP Stormwater Management Permit.

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3.0 SITE WATERSHED

On-site soils were identified using the United States Department of Agriculture (USDA) Natural Resources

Conservation Service (NRCS) soil information for Cumberland County and part of Oxford County, Maine. A copy of the custom Soil Resource Report is included in Appendix A. The soil in the area of work consists

 $of \, Lamoine \, silt \, loam \, (BuB), \, Elmwood \, fine \, sandy \, loam \, (EmB), \, Hartland \, very \, fine \, sandy \, loam \, (HfD2), \, Suffield \, continuous \, (HfD2), \, Continuous \, (HfD2$ 

silt loam (SuD2/SuE2), and Swanton fine sandy loan (Sz). Soil natural drainage classifications range from

"Well drained" to "Poorly drained." Hydrologic soil groups range from Type B to Type D.

The site is currently undeveloped woods and generally slopes from Blanchard Road on the north to an

unnamed tributary to Mill Brook on the south. The slopes range from 5 to 20 percent. Stormwater runoff

in this area generally drains via overland flow to a stream south of the project area. This stream was

selected as Analysis Point 1 (AP-1) for this analysis.

After proposed development is complete, stormwater runoff patterns will be very similar to existing

conditions. Runoff from the proposed parking area will sheet to ditches, which will direct flows to natural

drainage channels on the property.

Stormwater management plans identify the on-site drainage patterns before and after development (see

Drawings D-100 and D-101). These drawings are included in the project plan set for reference. Appendix B

provides pre- and post-development stormwater calculations using TR-20 methodologies prepared with

the HydroCAD Version 10.0 computer stormwater modeling system by Applied Microcomputer Systems

of Chocorua, New Hampshire.

4.0 STORMWATER QUALITY ANALYSIS

As previously outlined, stormwater treatment will not be required for this project based on Town

stormwater requirements and Maine Department of Environmental Protection (MEDEP) Chapter 500

standards. The project will result in approximately 8,317 square feet (sf) of impervious surface within the

12,600 sf of developed land in the project area.

This project is designed to meet Basic Standards outlined in Maine Department of Environmental

Protection (MEDEP) Chapter 500; construction will adhere to MEDEP Best Management Practices (BMPs)

for erosion and sedimentation control as shown on drawings. Based on the size of the project and the

scope of proposed development, we do not anticipate development of the parcel will adversely impact

the quality of stormwater runoff from the property.

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#### 5.0 STORMWATER QUANTITY ANALYSIS

Stormwater quantity is managed to the maximum extent practicable through minimizing the amount of impervious area on the site.

Stormwater peak flow rates were modeled for the 2-, 10-, and 25-year/24-hour storm events with Type III Soil Conservation Service rainfall distribution, using the HydroCAD computer modeling system by Applied Microcomputer Systems of Chocorua, New Hampshire. The peak flow rates at the Analysis Point are summarized in Table 1. Copies of the calculations for the pre-development and post-development models are provided in Appendix B.

TABLE 1
STORMWATER QUANTITY SUMMARY

		2-yr Storm		10-yr Storm		25-yr Storm	
	АР	Pre- (cfs)	Post- (cfs)	Pre- (cfs)	Post- (cfs)	Pre- (cfs)	Post- (cfs)
•	1	11.78	11.78	27.67	27.67	42.04	42.04

Site drainage from the proposed redevelopment will generally follow the pre-development conditions. As outlined in Table 1, our model indicates same peak flow rates at AP-1 for the post-development conditions, which represents a no change in surface runoff to the stream as compared to the existing conditions.

#### 6.0 **SUMMARY**

The stormwater management for this project was designed in accordance with the water quality and quantity objectives identified by the Town of Cumberland (Town) Land Use Ordinance and MEDEP Chapter 500 requirements for development projects. There will be no adverse impact to adjacent properties or downstream structures as a result of this project.

# APPENDIX A

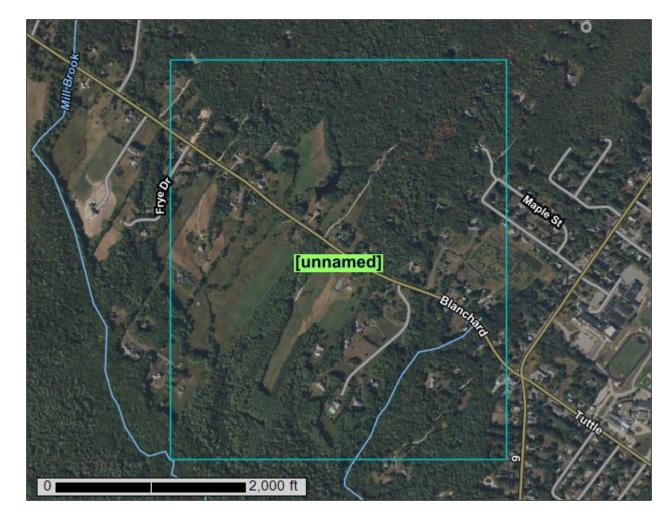
# **NRCS SOIL REPORT**





Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



# **Preface**

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2 053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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DeB—Deerfield loamy fine sand, 3 to 8 percent slopes	
EmB—Elmwood fine sandy loam, 0 to 8 percent slopes	
HfB—Hartland very fine sandy loam, 3 to 8 percent slopes	
HfD2—Hartland very fine sandy loam, 15 to 25 percent slopes, eroded	
HIB—Hinckley loamy sand, 3 to 8 percent slopes	
HIC—Hinckley loamy sand, 8 to 15 percent slopes	
HnC—Hinckley-Suffield complex, 8 to 15 percent slopes	
HrB—Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	
HrC—Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	
HrD—Lyman-Tunbridge complex, 15 to 35 percent slopes, rocky	
HsC—Lyman-Abram complex, 8 to 15 percent slopes, very rocky	
HsE—Lyman-Abram complex, 15 to 35 percent slopes, very rocky	
MeC—Melrose fine sandy loam, 8 to 15 percent slopes	
Sn—Scantic silt loam, 0 to 3 percent slopes	
So—Scarboro sandy loam	
SuC2—Suffield silt loam, 8 to 15 percent slopes, eroded	
SuD2—Suffield silt loam, 15 to 25 percent slopes, eroded	
SuE2—Suffield silt loam, 25 to 45 percent slopes, eroded	
Sz—Swanton fine sandy loam	
W—Water	
WmB—Windsor loamy sand, 0 to 8 percent slopes	
WmD—Windsor loamy sand, 15 to 35 percent slopes	
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# **How Soil Surveys Are Made**

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

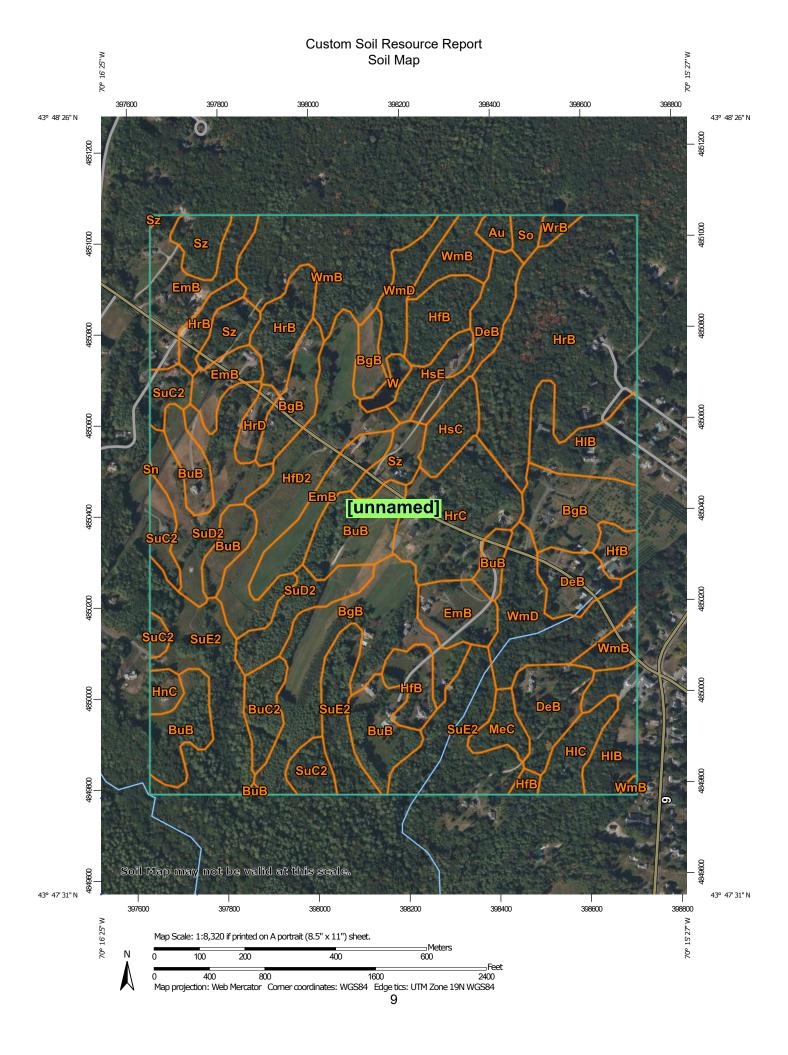
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



#### 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

¥ C

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

#### ----

8

Spoil Area Stony Spot



Very Stony Spot



Wet Spot Other



Special Line Features

#### Water Features

~

Streams and Canals

#### Transportation

+++ Rails

Interstate Highways



Major Roads



Local Roads

#### Background

900

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 19, Aug 30, 2022

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

Date(s) aerial images were photographed: 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

## **MAP LEGEND**

## **MAP INFORMATION**

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
Au	Au Gres loamy sand	1.2	0.4%
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	34.9	10.3%
BuB	Lamoine silt loam, 3 to 8 percent slopes	27.5	8.1%
BuC2	Buxton silt loam, 8 to 15 percent slopes	3.9	1.1%
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	17.0	5.0%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	24.1	7.1%
HfB	Hartland very fine sandy loam, 3 to 8 percent slopes	12.1	3.6%
HfD2	Hartland very fine sandy loam, 15 to 25 percent slopes, eroded	17.7	5.2%
HIB	Hinckley loamy sand, 3 to 8 percent slopes	14.4	4.2%
HIC	Hinckley loamy sand, 8 to 15 percent slopes	4.2	1.2%
HnC	Hinckley-Suffield complex, 8 to 15 percent slopes	1.5	0.4%
HrB	Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	41.6	12.2%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	14.2	4.2%
HrD	Lyman-Tunbridge complex, 15 to 35 percent slopes, rocky	2.0	0.6%
HsC	Lyman-Abram complex, 8 to 15 percent slopes, very rocky	4.0	1.2%
HsE	Lyman-Abram complex, 15 to 35 percent slopes, very rocky	3.4	1.0%
MeC	Melrose fine sandy loam, 8 to 15 percent slopes	2.7	0.8%
Sn	Scantic silt loam, 0 to 3 percent slopes	0.0	0.0%
So	Scarboro sandy loam	1.4	0.4%
SuC2	Suffield silt loam, 8 to 15 percent slopes, eroded	8.2	2.4%
SuD2	Suffield silt loam, 15 to 25 percent slopes, eroded	17.9	5.3%
SuE2	Suffield silt loam, 25 to 45 percent slopes, eroded	32.9	9.7%
Sz	Swanton fine sandy loam	9.5	2.8%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
W	Water	1.4	0.4%
WmB	Windsor loamy sand, 0 to 8 percent slopes	23.6	6.9%
WmD	Windsor loamy sand, 15 to 35 percent slopes	17.1	5.0%
WrB	Woodbridge fine sandy loam, 0 to 8 percent slopes	0.9	0.3%
Totals for Area of Interest		339.4	100.0%

# **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# **Cumberland County and Part of Oxford County, Maine**

## Au—Au Gres loamy sand

#### **Map Unit Setting**

National map unit symbol: blgr Elevation: 200 to 1,800 feet

Mean annual precipitation: 34 to 50 inches
Mean annual air temperature: 41 to 45 degrees F

Frost-free period: 90 to 130 days

Farmland classification: Not prime farmland

### **Map Unit Composition**

Au gres and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Au Gres**

## Setting

Landform: Outwash plains

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Sandy glaciofluvial deposits derived from granite and gneiss

## **Typical profile**

H1 - 0 to 10 inches: loamy sand H2 - 10 to 32 inches: loamy sand H3 - 32 to 65 inches: sand

#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00

in/hr)

Depth to water table: About 0 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.6 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D Hydric soil rating: Yes

## BgB—Nicholville very fine sandy loam, 0 to 8 percent slopes

## **Map Unit Setting**

National map unit symbol: 2yjg5 Elevation: 20 to 2,300 feet

Mean annual precipitation: 34 to 50 inches Mean annual air temperature: 37 to 45 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

### **Map Unit Composition**

Nicholville and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Nicholville**

#### Setting

Landform: Lakebeds (relict)

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Coarse-silty glaciomarine deposits

#### Typical profile

Ap - 0 to 7 inches: very fine sandy loam
Bs - 7 to 19 inches: very fine sandy loam
BC - 19 to 30 inches: very fine sandy loam
C - 30 to 65 inches: loamy very fine sand

#### **Properties and qualities**

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.14 to 1.42 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 10.3 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)

## BuB—Lamoine silt loam, 3 to 8 percent slopes

## **Map Unit Setting**

National map unit symbol: 2t0kc

Elevation: 10 to 490 feet

Mean annual precipitation: 33 to 60 inches Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

## **Map Unit Composition**

Lamoine and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Lamoine**

#### Setting

Landform: Marine terraces, river valleys

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Fine glaciomarine deposits

## **Typical profile**

Ap - 0 to 7 inches: silt loam
Bw - 7 to 13 inches: silt loam
Bg - 13 to 24 inches: silty clay loam
Cg - 24 to 65 inches: silty clay

#### **Properties and qualities**

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

low (0.00 to 0.14 in/hr)

Depth to water table: About 6 to 17 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

## Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Ecological site: F144BY401ME - Clay Flat

## BuC2—Buxton silt loam, 8 to 15 percent slopes

## **Map Unit Setting**

National map unit symbol: 2x1by

Elevation: 10 to 490 feet

Mean annual precipitation: 33 to 60 inches Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

### **Map Unit Composition**

Buxton and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Buxton**

#### Setting

Landform: Marine terraces, river valleys

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Convex

Parent material: Fine glaciomarine deposits

#### Typical profile

Ap - 0 to 7 inches: silt loam
Bw1 - 7 to 18 inches: silt loam

Bw2 - 18 to 23 inches: silty clay loam BC - 23 to 35 inches: silty clay loam

C - 35 to 65 inches: silty clay

#### **Properties and qualities**

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

low (0.00 to 0.14 in/hr)

Depth to water table: About 17 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.1 inches)

## Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C/D

Ecological site: F144BY402ME - Clay Hills

## DeB—Deerfield loamy fine sand, 3 to 8 percent slopes

#### Map Unit Setting

National map unit symbol: 2xfg9 Elevation: 0 to 1,190 feet

Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Farmland of statewide importance

## **Map Unit Composition**

Deerfield and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Deerfield**

#### Setting

Landform: Kame terraces, outwash plains, outwash terraces, outwash deltas

Landform position (three-dimensional): Tread Down-slope shape: Concave, convex, linear Across-slope shape: Convex, linear, concave

Parent material: Sandy outwash derived from granite, gneiss, and/or quartzite

## **Typical profile**

Ap - 0 to 9 inches: loamy fine sand Bw - 9 to 25 inches: loamy fine sand BC - 25 to 33 inches: fine sand Cg - 33 to 60 inches: sand

#### **Properties and qualities**

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very

high (1.42 to 99.90 in/hr)

Depth to water table: About 15 to 37 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Sodium adsorption ratio, maximum: 11.0

Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

## Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: A

Ecological site: F144AY027MA - Moist Sandy Outwash

## EmB—Elmwood fine sandy loam, 0 to 8 percent slopes

## Map Unit Setting

National map unit symbol: blh8 Elevation: 10 to 900 feet

Mean annual precipitation: 38 to 55 inches
Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 130 to 195 days

Farmland classification: All areas are prime farmland

## **Map Unit Composition**

Elmwood and similar soils: 88 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Elmwood**

#### Setting

Landform: Stream terraces

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Coarse-loamy glaciolacustrine deposits

#### Typical profile

H1 - 0 to 8 inches: fine sandy loam H2 - 8 to 25 inches: sandy loam H3 - 25 to 65 inches: silty clay loam

#### **Properties and qualities**

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

high (0.00 to 0.20 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.7 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B

Ecological site: F144BY402ME - Clay Hills

## HfB—Hartland very fine sandy loam, 3 to 8 percent slopes

## **Map Unit Setting**

National map unit symbol: blhb Elevation: 20 to 340 feet

Mean annual precipitation: 48 to 49 inches Mean annual air temperature: 45 to 46 degrees F

Frost-free period: 150 to 160 days

Farmland classification: Farmland of statewide importance

## **Map Unit Composition**

Hartland and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Hartland**

#### Setting

Landform: Lakebeds

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Coarse-silty glaciolacustrine deposits

#### Typical profile

H1 - 0 to 9 inches: very fine sandy loam

H2 - 9 to 29 inches: silt loam
H3 - 29 to 65 inches: silt loam

#### **Properties and qualities**

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 11.8 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Ecological site: F144BY508ME - Silty Slope, F144BY501ME - Loamy Slope

(Northern Hardwoods)

Hydric soil rating: No

## HfD2—Hartland very fine sandy loam, 15 to 25 percent slopes, eroded

## **Map Unit Setting**

National map unit symbol: blhd

Elevation: 0 to 330 feet

Mean annual precipitation: 48 to 49 inches Mean annual air temperature: 45 to 46 degrees F

Frost-free period: 150 to 165 days

Farmland classification: Not prime farmland

## **Map Unit Composition**

Hartland and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Hartland**

#### Setting

Landform: Lakebeds

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Coarse-silty glaciolacustrine deposits

#### Typical profile

H1 - 0 to 9 inches: very fine sandy loam

H2 - 9 to 29 inches: silt loam
H3 - 29 to 65 inches: silt loam

#### **Properties and qualities**

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 11.8 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: F144BY508ME - Silty Slope, F144BY501ME - Loamy Slope

(Northern Hardwoods)

Hydric soil rating: No

## HIB—Hinckley loamy sand, 3 to 8 percent slopes

## **Map Unit Setting**

National map unit symbol: 2svm8

Elevation: 0 to 1,430 feet

Mean annual precipitation: 36 to 53 inches Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Hinckley and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Hinckley**

#### Setting

Landform: Outwash plains, eskers, moraines, kame terraces, kames, outwash terraces, outwash deltas

Landform position (two-dimensional): Summit, shoulder, backslope, footslope Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Concave, convex, linear Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

## **Typical profile**

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand Bw2 - 11 to 16 inches: gravelly loamy sand BC - 16 to 19 inches: very gravelly loamy sand C - 19 to 65 inches: very gravelly sand

### **Properties and qualities**

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very

high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Ecological site: F144AY022MA - Dry Outwash

Hydric soil rating: No

## HIC—Hinckley loamy sand, 8 to 15 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2svm9

Elevation: 0 to 1,480 feet

Mean annual precipitation: 36 to 71 inches Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Not prime farmland

## **Map Unit Composition**

Hinckley and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Hinckley**

#### Setting

Landform: Kame terraces, outwash plains, kames, eskers, moraines, outwash terraces, outwash deltas

Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope Landform position (three-dimensional): Head slope, nose slope, side slope, crest, riser

Down-slope shape: Concave, convex, linear Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

#### Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand Bw2 - 11 to 16 inches: gravelly loamy sand BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

#### **Properties and qualities**

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very

high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.1 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Ecological site: F144AY022MA - Dry Outwash

Hydric soil rating: No

## HnC—Hinckley-Suffield complex, 8 to 15 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2svlx

Elevation: 0 to 470 feet

Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Not prime farmland

## **Map Unit Composition**

Hinckley and similar soils: 60 percent Suffield and similar soils: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Hinckley**

#### Setting

Landform: Kame terraces, outwash plains, kames, eskers, moraines, outwash

terraces, outwash deltas

Landform position (two-dimensional): Shoulder, backslope, footslope

Landform position (three-dimensional): Head slope, nose slope, side slope, crest,

Down-slope shape: Concave, convex, linear Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

### **Typical profile**

A - 0 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand Bw2 - 11 to 16 inches: gravelly loamy sand BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

#### Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very

high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

## Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Ecological site: F144BY601ME - Dry Sand

Hydric soil rating: No

#### **Description of Suffield**

#### Setting

Landform: Marine terraces

Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Silty glaciolacustrine deposits over clayey glaciolacustrine

deposits

## **Typical profile**

Ap - 0 to 6 inches: silt loam
Bw - 6 to 18 inches: silt loam
2C - 18 to 65 inches: silty clay loam

#### **Properties and qualities**

Slope: 8 to 15 percent

Depth to restrictive feature: 18 to 39 inches to strongly contrasting textural

stratification

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

high (0.00 to 0.20 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.2 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hvdrologic Soil Group: C

Ecological site: F144BY402ME - Clay Hills

Hydric soil rating: No

## HrB—Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky

#### Map Unit Setting

National map unit symbol: 2x1cx

Elevation: 0 to 520 feet

Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Lyman and similar soils: 50 percent Tunbridge and similar soils: 30 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

### **Description of Lyman**

#### Setting

Landform: Hills, ridges

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till

derived from mica schist

## **Typical profile**

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

*E - 3 to 5 inches:* fine sandy loam

Bhs - 5 to 7 inches: loam Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

#### **Properties and qualities**

Slope: 0 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00

to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.2 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Ecological site: F144BY702ME - Shallow and Moderately-deep Till

Hydric soil rating: No

### **Description of Tunbridge**

#### Setting

Landform: Hills, ridges

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

### **Typical profile**

Oe - 0 to 3 inches: moderately decomposed plant material Oa - 3 to 5 inches: highly decomposed plant material

E - 5 to 8 inches: fine sandy loam
Bhs - 8 to 11 inches: fine sandy loam
Bs - 11 to 26 inches: fine sandy loam
BC - 26 to 28 inches: fine sandy loam

R - 28 to 79 inches: bedrock

## **Properties and qualities**

Slope: 3 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 21 to 41 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00

to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.6 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C

Ecological site: F144BY702ME - Shallow and Moderately-deep Till

Hydric soil rating: No

## HrC—Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky

#### Map Unit Setting

National map unit symbol: 2x1cy

Elevation: 0 to 520 feet

Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

### **Map Unit Composition**

Lyman and similar soils: 45 percent Tunbridge and similar soils: 40 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Lyman**

## Setting

Landform: Hills, ridges

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till

derived from mica schist

#### Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

#### **Properties and qualities**

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00

to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.2 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Ecological site: F144BY702ME - Shallow and Moderately-deep Till

Hydric soil rating: No

#### **Description of Tunbridge**

#### Settina

Landform: Hills, ridges

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Linear Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till

derived from mica schist

#### Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material Oa - 3 to 5 inches: highly decomposed plant material

E - 5 to 8 inches: fine sandy loam

Bhs - 8 to 11 inches: fine sandy loam Bs - 11 to 26 inches: fine sandy loam BC - 26 to 28 inches: fine sandy loam

R - 28 to 79 inches: bedrock

### **Properties and qualities**

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 21 to 41 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00

to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.6 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C

Ecological site: F144BY702ME - Shallow and Moderately-deep Till

Hydric soil rating: No

## HrD—Lyman-Tunbridge complex, 15 to 35 percent slopes, rocky

#### **Map Unit Setting**

National map unit symbol: 2x1cz

Elevation: 0 to 520 feet

Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Lyman and similar soils: 45 percent Tunbridge and similar soils: 40 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Lyman**

## Setting

Landform: Hills, ridges

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till

derived from mica schist

## **Typical profile**

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

*E - 3 to 5 inches:* fine sandy loam

Bhs - 5 to 7 inches: loam Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

#### **Properties and qualities**

Slope: 15 to 35 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00

to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.2 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: F144BY702ME - Shallow and Moderately-deep Till

Hydric soil rating: No

## **Description of Tunbridge**

#### Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till

derived from mica schist

## Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material Oa - 3 to 5 inches: highly decomposed plant material

E - 5 to 8 inches: fine sandy loam
Bhs - 8 to 11 inches: fine sandy loam
Bs - 11 to 26 inches: fine sandy loam
BC - 26 to 28 inches: fine sandy loam

R - 28 to 79 inches: bedrock

#### Properties and qualities

Slope: 15 to 35 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 21 to 41 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00

to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.6 inches)

### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: C

Ecological site: F144BY702ME - Shallow and Moderately-deep Till

Hydric soil rating: No

## HsC—Lyman-Abram complex, 8 to 15 percent slopes, very rocky

### **Map Unit Setting**

National map unit symbol: 2x1d1

Elevation: 0 to 520 feet

Mean annual precipitation: 36 to 65 inches Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

## **Map Unit Composition**

Lyman and similar soils: 45 percent Abram and similar soils: 35 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Lyman**

#### Setting

Landform: Hills, ridges

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till

derived from mica schist

## **Typical profile**

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

#### Properties and qualities

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00

to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.2 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Ecological site: F144BY701ME - Shallow Till

Hydric soil rating: No

#### **Description of Abram**

#### Setting

Landform: Ridges, hills

Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Loamy subglacial till

#### **Typical profile**

Oa - 0 to 2 inches: highly decomposed plant material

E - 2 to 3 inches: loam
Bs - 3 to 6 inches: loam
R - 6 to 79 inches: bedrock

## Properties and qualities

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 3 to 13 inches to lithic bedrock

Drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

low (0.00 to 0.14 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm) Available water supply, 0 to 60 inches: Very low (about 1.1 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: F144BY701ME - Shallow Till

## HsE—Lyman-Abram complex, 15 to 35 percent slopes, very rocky

## **Map Unit Setting**

National map unit symbol: 2x1d2

Elevation: 0 to 520 feet

Mean annual precipitation: 36 to 65 inches Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Lyman and similar soils: 45 percent Abram and similar soils: 40 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Lyman**

#### Setting

Landform: Hills, ridges

Landform position (two-dimensional): Summit, shoulder, backslope Landform position (three-dimensional): Nose slope, side slope, crest

Down-slope shape: Linear Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till

derived from mica schist

#### Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

*E - 3 to 5 inches:* fine sandy loam

Bhs - 5 to 7 inches: loam Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

#### **Properties and qualities**

Slope: 15 to 35 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00

to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.2 inches)

## Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: F144BY701ME - Shallow Till

Hydric soil rating: No

## **Description of Abram**

#### Setting

Landform: Ridges, hills

Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Loamy subglacial till

#### Typical profile

Oa - 0 to 2 inches: highly decomposed plant material

E - 2 to 3 inches: loam
Bs - 3 to 6 inches: loam
R - 6 to 79 inches: bedrock

## Properties and qualities

Slope: 15 to 35 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 3 to 13 inches to lithic bedrock

Drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

low (0.00 to 0.14 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm) Available water supply, 0 to 60 inches: Very low (about 1.1 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: F144BY701ME - Shallow Till

Hydric soil rating: No

## MeC—Melrose fine sandy loam, 8 to 15 percent slopes

### **Map Unit Setting**

National map unit symbol: blj9 Elevation: 10 to 900 feet

Mean annual precipitation: 40 to 48 inches Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Melrose and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Melrose**

#### Setting

Landform: Stream terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy glaciolacustrine deposits

#### Typical profile

H1 - 0 to 7 inches: fine sandy loam H2 - 7 to 23 inches: fine sandy loam H3 - 23 to 65 inches: silty clay

## **Properties and qualities**

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: F144BY402ME - Clay Hills

Hydric soil rating: No

## Sn—Scantic silt loam, 0 to 3 percent slopes

#### Map Unit Setting

National map unit symbol: 2slv3

Elevation: 10 to 900 feet

Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 39 to 45 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Scantic and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Scantic**

#### Setting

Landform: Marine terraces, river valleys
Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Glaciomarine deposits

#### Typical profile

Ap - 0 to 9 inches: silt loam

Bg1 - 9 to 16 inches: silty clay loam

Bg2 - 16 to 29 inches: silty clay

Cg - 29 to 65 inches: silty clay

## **Properties and qualities**

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

low (0.00 to 0.06 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: D

Ecological site: F144BY304ME - Wet Clay Flat

Hydric soil rating: Yes

## So-Scarboro sandy loam

## **Map Unit Setting**

National map unit symbol: bljz Elevation: 10 to 2,800 feet

Mean annual precipitation: 34 to 48 inches Mean annual air temperature: 37 to 46 degrees F

Frost-free period: 80 to 160 days

Farmland classification: Not prime farmland

## **Map Unit Composition**

Scarboro and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Scarboro**

#### Setting

Landform: Outwash plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Sandy glaciofluvial deposits derived from granite and gneiss

## **Typical profile**

Oa - 0 to 8 inches: mucky peat H2 - 8 to 24 inches: mucky sand H3 - 24 to 65 inches: coarse sand

#### **Properties and qualities**

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very

high (1.42 to 14.17 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of flooding: None Frequency of ponding: Frequent

Available water supply, 0 to 60 inches: Low (about 5.7 inches)

## Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: A/D

Ecological site: F144BY303ME - Acidic Swamp, F144BY301ME - Loamy Till

Swamp

Hydric soil rating: Yes

# SuC2—Suffield silt loam, 8 to 15 percent slopes, eroded

#### Map Unit Setting

National map unit symbol: blk1 Elevation: 10 to 900 feet

Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Suffield and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Suffield**

## Setting

Landform: Coastal plains

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Fine glaciolacustrine deposits

## Typical profile

H1 - 0 to 6 inches: silt loam H2 - 6 to 23 inches: silt loam H3 - 23 to 33 inches: silty clay H4 - 33 to 65 inches: silty clay

#### **Properties and qualities**

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

high (0.00 to 0.20 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.5 inches)

# Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: F144BY402ME - Clay Hills

Hydric soil rating: No

# SuD2—Suffield silt loam, 15 to 25 percent slopes, eroded

#### **Map Unit Setting**

National map unit symbol: blk2 Elevation: 10 to 900 feet

Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

## **Map Unit Composition**

Suffield and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Suffield**

#### Setting

Landform: Coastal plains

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Fine glaciolacustrine deposits

#### **Typical profile**

H1 - 0 to 6 inches: silt loam H2 - 6 to 23 inches: silt loam H3 - 23 to 33 inches: silty clay

H4 - 33 to 65 inches: silty clay

## **Properties and qualities**

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

high (0.00 to 0.20 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.5 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Ecological site: F144BY402ME - Clay Hills

Hydric soil rating: No

# SuE2—Suffield silt loam, 25 to 45 percent slopes, eroded

#### **Map Unit Setting**

National map unit symbol: blk3

Elevation: 10 to 900 feet

Mean annual precipitation: 34 to 48 inches Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Suffield and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Suffield**

# Setting

Landform: Coastal plains

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Riser

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Fine glaciolacustrine deposits

## **Typical profile**

H1 - 0 to 6 inches: silt loam H2 - 6 to 23 inches: silt loam H3 - 23 to 33 inches: silty clay H4 - 33 to 65 inches: silty clay

#### **Properties and qualities**

Slope: 25 to 45 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

high (0.00 to 0.20 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.5 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Ecological site: F144BY402ME - Clay Hills

Hydric soil rating: No

# Sz—Swanton fine sandy loam

#### **Map Unit Setting**

National map unit symbol: blk4 Elevation: 10 to 900 feet

Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 39 to 46 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

## **Map Unit Composition**

Swanton and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Swanton**

#### Setting

Landform: Outwash plains

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Loamy glaciolacustrine deposits

#### Typical profile

H1 - 0 to 9 inches: fine sandy loam H2 - 9 to 32 inches: fine sandy loam H3 - 32 to 65 inches: silty clay

#### **Properties and qualities**

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

high (0.00 to 0.20 in/hr)

Depth to water table: About 0 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.3 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: C/D Hydric soil rating: Yes

## W-Water

## **Map Unit Composition**

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

## **Description of Water**

#### Setting

Landform: Lakes

# WmB—Windsor loamy sand, 0 to 8 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2w2x2

Elevation: 0 to 1,410 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Windsor and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

# **Description of Windsor**

#### Setting

Landform: Outwash terraces, deltas, outwash plains, dunes

Landform position (three-dimensional): Tread, riser

Down-slope shape: Linear, convex Across-slope shape: Linear, convex

Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

#### Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loamy sand Bw - 3 to 25 inches: loamy sand

C - 25 to 65 inches: sand

# **Properties and qualities**

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very

high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 4.5 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: A

Ecological site: F144BY601ME - Dry Sand

Hydric soil rating: No

# WmD—Windsor loamy sand, 15 to 35 percent slopes

## **Map Unit Setting**

National map unit symbol: 2svl4

Elevation: 0 to 680 feet

Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Windsor and similar soils: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Windsor**

#### Settina

Landform: Outwash plains, outwash terraces, deltas, dunes

Landform position (three-dimensional): Tread, riser

Down-slope shape: Linear, convex Across-slope shape: Linear, convex

Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

#### Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loamy sand Bw - 3 to 25 inches: loamy sand C - 25 to 65 inches: sand

#### **Properties and qualities**

Slope: 15 to 35 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very

high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 4.5 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Ecological site: F144AY022MA - Dry Outwash

Hydric soil rating: No

# WrB-Woodbridge fine sandy loam, 0 to 8 percent slopes

## **Map Unit Setting**

National map unit symbol: blkf Elevation: 0 to 1,180 feet

Mean annual precipitation: 48 to 50 inches Mean annual air temperature: 45 to 46 degrees F

Frost-free period: 145 to 160 days

Farmland classification: All areas are prime farmland

#### Map Unit Composition

Woodbridge and similar soils: 86 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

### **Description of Woodbridge**

#### Settina

Landform: Till plains

Landform position (two-dimensional): Shoulder, backslope Landform position (three-dimensional): Side slope, crest

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Coarse-loamy lodgment till derived from mica schist

## Typical profile

H1 - 0 to 3 inches: fine sandy loam H2 - 3 to 20 inches: fine sandy loam H3 - 20 to 65 inches: fine sandy loam

## **Properties and qualities**

Slope: 0 to 8 percent

Depth to restrictive feature: 16 to 36 inches to densic material

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 2.8 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)

Hydric soil rating: No

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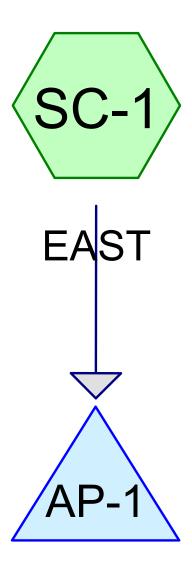
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# **APPENDIX B**

# PRE-DEVELOPMENT HYDROCAD CALCULATIONS





# STREAM TO OFF-SITE









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# **Summary for Subcatchment SC-1: EAST**

Runoff = 11.78 cfs @ 12.34 hrs, Volume= 1.405 af, Depth= 0.87"

Routed to Pond AP-1: STREAM TO OFF-SITE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Storm Rainfall=3.10"

<i>E</i>	Area (sf)	CN E	escription						
*	23,387	98 F	Pavement						
	4,567	96	Gravel surface, HSG A						
	100,021	61 F	asture/gra	ssland/rang	ge, Good, HSG B				
	85,318				ge, Good, HSG C				
2	211,047				ge, Good, HSG D				
	96,452		,	od, HSG B					
	183,345		,	od, HSG C					
	141,767			od, HSG D					
	845,904		Veighted A						
;	822,517	_		vious Area					
	23,387	2	.76% Impe	ervious Are	a				
Тс	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	Description				
12.0	100	0.0900	0.14	(013)	Sheet Flow, A-B				
12.0	100	0.0900	0.14		Woods: Light underbrush n= 0.400 P2= 3.10"				
0.5	56	0.1250	1.77		Shallow Concentrated Flow, B-C				
0.0	00	0.1200	1.77		Woodland Kv= 5.0 fps				
4.7	445	0.0517	1.59		Shallow Concentrated Flow, C-D				
		3.00.7	1.00		Short Grass Pasture Kv= 7.0 fps				
4.2	1,511	0.0185	6.04	48.35	Parabolic Channel, D-E				
	-,				W=6.00' D=2.00' Area=8.0 sf Perim=7.5'				
					n= 0.035 Earth, dense weeds				

21.4 2,112 Total

# **Summary for Pond AP-1: STREAM TO OFF-SITE**

Inflow Area = 19.419 ac, 2.76% Impervious, Inflow Depth = 0.87" for 2-yr Storm event

Inflow = 11.78 cfs @ 12.34 hrs, Volume= 1.405 af

Primary = 11.78 cfs @ 12.34 hrs, Volume= 1.405 af, Atten= 0%, Lag= 0.0 min

Routed to nonexistent node 1L

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Page 3

# **Summary for Subcatchment SC-1: EAST**

Runoff = 27.67 cfs @ 12.30 hrs, Volume=

3.066 af, Depth= 1.89"

Routed to Pond AP-1: STREAM TO OFF-SITE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Storm Rainfall=4.60"

	Α	rea (sf)	CN D	escription						
*		23,387	98 F	avement						
		4,567	96 G	iravel surface, HSG A						
	1	00,021	61 F	Pasture/grassland/range, Good, HSG B						
		85,318	74 F	asture/gra	ssland/ran	ge, Good, HSG C				
		11,047				ge, Good, HSG D				
		96,452		Voods, Good, HSG B						
		83,345			od, HSG C					
	1	41,767	77 V	Voods, Go	od, HSG D					
		45,904		Veighted A						
	8	22,517	9	7.24% Per	vious Area					
	23,387 2.76% Impervious Area				ervious Are	a				
	_		٥.		• "					
	Tc	Length	Slope	Velocity	Capacity	Description				
(	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	12.0	100	0.0900	0.14		Sheet Flow, A-B				
						Woods: Light underbrush n= 0.400 P2= 3.10"				
	0.5	56	0.1250	1.77		Shallow Concentrated Flow, B-C				
						Woodland Kv= 5.0 fps				
	4.7	445	0.0517	1.59		Shallow Concentrated Flow, C-D				
					40.0-	Short Grass Pasture Kv= 7.0 fps				
	4.2	1,511	0.0185	6.04	48.35					
						W=6.00' D=2.00' Area=8.0 sf Perim=7.5'				
						n= 0.035 Earth, dense weeds				

# 21.4 2,112 Total

# **Summary for Pond AP-1: STREAM TO OFF-SITE**

Inflow Area = 19.419 ac, 2.76% Impervious, Inflow Depth = 1.89" for 10-yr Storm event

Inflow = 27.67 cfs @ 12.30 hrs, Volume= 3.066 af

Primary = 27.67 cfs @ 12.30 hrs, Volume= 3.066 af, Atten= 0%, Lag= 0.0 min

Routed to nonexistent node 1L

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# **Summary for Subcatchment SC-1: EAST**

Runoff = 42.04 cfs @ 12.30 hrs, Volume= 4.580

4.580 af, Depth= 2.83"

Routed to Pond AP-1: STREAM TO OFF-SITE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 25-yr Storm Rainfall=5.80"

<i>E</i>	Area (sf)	CN E	escription						
*	23,387	98 F	Pavement						
	4,567	96	Gravel surface, HSG A						
	100,021	61 F	asture/gra	ssland/rang	ge, Good, HSG B				
	85,318				ge, Good, HSG C				
2	211,047				ge, Good, HSG D				
	96,452		,	od, HSG B					
	183,345		,	od, HSG C					
	141,767			od, HSG D					
	845,904		Veighted A						
;	822,517	_		vious Area					
	23,387	2	.76% Impe	ervious Are	a				
Тс	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	Description				
12.0	100	0.0900	0.14	(013)	Sheet Flow, A-B				
12.0	100	0.0900	0.14		Woods: Light underbrush n= 0.400 P2= 3.10"				
0.5	56	0.1250	1.77		Shallow Concentrated Flow, B-C				
0.0	00	0.1200	1.77		Woodland Kv= 5.0 fps				
4.7	445	0.0517	1.59		Shallow Concentrated Flow, C-D				
		3.00.7	1.00		Short Grass Pasture Kv= 7.0 fps				
4.2	1,511	0.0185	6.04	48.35	Parabolic Channel, D-E				
	-,				W=6.00' D=2.00' Area=8.0 sf Perim=7.5'				
					n= 0.035 Earth, dense weeds				

21.4 2,112 Total

# **Summary for Pond AP-1: STREAM TO OFF-SITE**

Inflow Area = 19.419 ac, 2.76% Impervious, Inflow Depth = 2.83" for 25-yr Storm event

Inflow = 42.04 cfs @ 12.30 hrs, Volume= 4.580 af

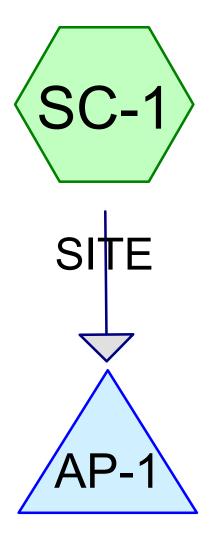
Primary = 42.04 cfs @ 12.30 hrs, Volume= 4.580 af, Atten= 0%, Lag= 0.0 min

Routed to nonexistent node 1L

# **APPENDIX C**

# POST-DEVELOPMENT HYDROCAD CALCULATIONS





# STREAM TO OFF-SITE









Prepared by Sevee & Maher Engineers, Printed 11/22/2023 HydroCAD® 10.20-2f s/n 01260 © 2022 HydroCAD Software Solutions LLC

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Page 2

# **Summary for Subcatchment SC-1: SITE**

Runoff = 11.78 cfs @ 12.34 hrs, Volume= 1.405 a

1.405 af, Depth= 0.87"

Routed to Pond AP-1: STREAM TO OFF-SITE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Storm Rainfall=3.10"

	Α	rea (sf)	CN D	escription							
*		31,704	98 F	avement							
		4,567	96 G	Gravel surface, HSG A							
	1	00,021	61 F	asture/gra	asture/grassland/range, Good, HSG B						
		85,318	74 P	asture/gra	ssland/rang	ge, Good, HSG C					
		16,322	80 F	asture/gra	ssland/rang	ge, Good, HSG D					
		96,452	55 V	Voods, Go	od, HSG B						
		83,345		,	od, HSG C						
	1	28,175	77 V	Voods, Go	od, HSG D						
	8	45,904	72 V	Veighted A	verage						
	8	14,200	9	6.25% Per	vious Area						
		31,704	3	.75% Impe	ervious Area	a					
	_										
,	Tc	Length	Slope	Velocity	Capacity	Description					
	nin)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
1	12.0	100	0.0900	0.14		Sheet Flow, A-B					
						Woods: Light underbrush n= 0.400 P2= 3.10"					
	0.5	56	0.1250	1.77		Shallow Concentrated Flow, B-C					
		4.45	0.0547	4 50		Woodland Kv= 5.0 fps					
	4.7	445	0.0517	1.59		Shallow Concentrated Flow, C-D					
	4.0	4 5 4 4	0.0405	0.04	40.05	Short Grass Pasture Kv= 7.0 fps					
	4.2	1,511	0.0185	6.04	48.35						
						W=6.00' D=2.00' Area=8.0 sf Perim=7.5'					
	24.4	0.440	T-4-1			n= 0.035 Earth, dense weeds					

## 21.4 2,112 Total

# **Summary for Pond AP-1: STREAM TO OFF-SITE**

Inflow Area = 19.419 ac, 3.75% Impervious, Inflow Depth = 0.87" for 2-yr Storm event

Inflow = 11.78 cfs @ 12.34 hrs, Volume= 1.405 af

Primary = 11.78 cfs @ 12.34 hrs, Volume= 1.405 af, Atten= 0%, Lag= 0.0 min

Routed to nonexistent node 1L

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Page 3

# **Summary for Subcatchment SC-1: SITE**

Runoff = 27.67 cfs @ 12.30 hrs, Volume=

3.066 af, Depth= 1.89"

Routed to Pond AP-1: STREAM TO OFF-SITE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Storm Rainfall=4.60"

	Α	rea (sf)	CN E	escription		
*		31,704	98 F	avement		
		4,567	96 G	Gravel surfa	ace, HSG A	1
	1	00,021	61 F	asture/gra	ssland/rang	ge, Good, HSG B
		85,318				ge, Good, HSG C
	2	216,322		_		ge, Good, HSG D
		96,452			od, HSG B	
		83,345			od, HSG C	
_		28,175			od, HSG D	
		345,904		Veighted A		
	8	314,200	_	-	vious Area	
		31,704	3	.75% Impe	ervious Area	a
	To	Longth	Slope	Volocity	Canacity	Description
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	12.0	100	0.0900	0.14	(013)	Shoot Flour A.D.
	12.0	100	0.0900	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
	0.5	56	0.1250	1.77		Shallow Concentrated Flow, B-C
	0.5	30	0.1230	1.77		Woodland Kv= 5.0 fps
	4.7	445	0.0517	1.59		Shallow Concentrated Flow, C-D
		110	0.0017	1.00		Short Grass Pasture Kv= 7.0 fps
	4.2	1,511	0.0185	6.04	48.35	· · · · · · · · · · · · · · · · · · ·
		.,	2.0.00	5.5.	. 5. 50	W=6.00' D=2.00' Area=8.0 sf Perim=7.5'
						n= 0.035 Earth, dense weeds
_	04.4	0.440	<del></del>			·

#### 21.4 2,112 Total

# **Summary for Pond AP-1: STREAM TO OFF-SITE**

Inflow Area = 19.419 ac, 3.75% Impervious, Inflow Depth = 1.89" for 10-yr Storm event

Inflow = 27.67 cfs @ 12.30 hrs, Volume= 3.066 af

Primary = 27.67 cfs @ 12.30 hrs, Volume= 3.066 af, Atten= 0%, Lag= 0.0 min

Routed to nonexistent node 1L

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Page 4

# **Summary for Subcatchment SC-1: SITE**

Runoff = 42.04 cfs @ 12.30 hrs, Volume=

4.580 af, Depth= 2.83"

Routed to Pond AP-1: STREAM TO OFF-SITE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 25-yr Storm Rainfall=5.80"

	Α	rea (sf)	CN E	escription		
*		31,704	98 F	avement		
		4,567	96 G	Gravel surfa	ace, HSG A	1
	1	00,021	61 F	asture/gra	ssland/rang	ge, Good, HSG B
		85,318				ge, Good, HSG C
	2	216,322		_		ge, Good, HSG D
		96,452			od, HSG B	
		83,345			od, HSG C	
_		28,175			od, HSG D	
		345,904		Veighted A		
	8	314,200	_	-	vious Area	
		31,704	3	.75% Impe	ervious Area	a
	To	Longth	Slope	Volocity	Canacity	Description
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	12.0	100	0.0900	0.14	(013)	Shoot Flour A.D.
	12.0	100	0.0900	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.10"
	0.5	56	0.1250	1.77		Shallow Concentrated Flow, B-C
	0.5	30	0.1230	1.77		Woodland Kv= 5.0 fps
	4.7	445	0.0517	1.59		Shallow Concentrated Flow, C-D
		110	0.0017	1.00		Short Grass Pasture Kv= 7.0 fps
	4.2	1,511	0.0185	6.04	48.35	· · · · · · · · · · · · · · · · · · ·
		.,	2.0.00	5.5.	. 5. 50	W=6.00' D=2.00' Area=8.0 sf Perim=7.5'
						n= 0.035 Earth, dense weeds
_	04.4	0.440	<del></del>			·

# 21.4 2,112 Total

# **Summary for Pond AP-1: STREAM TO OFF-SITE**

Inflow Area = 19.419 ac, 3.75% Impervious, Inflow Depth = 2.83" for 25-yr Storm event

Inflow = 42.04 cfs @ 12.30 hrs, Volume= 4.580 af

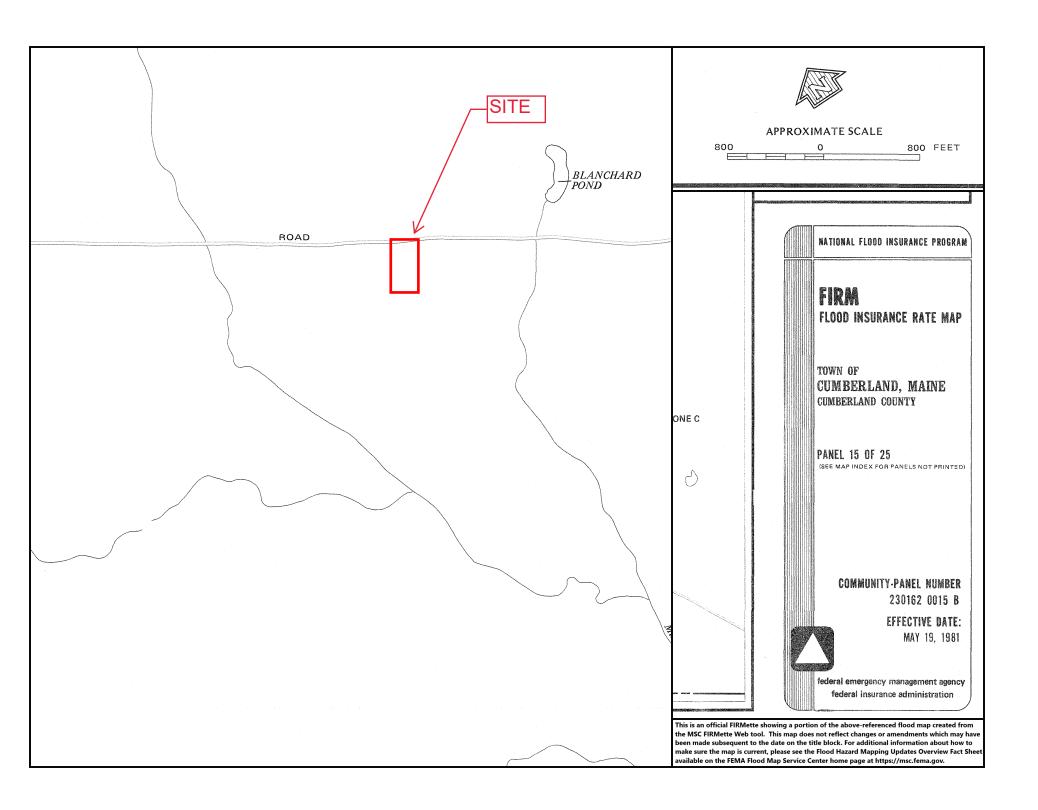
Primary = 42.04 cfs @ 12.30 hrs, Volume= 4.580 af, Atten= 0%, Lag= 0.0 min

Routed to nonexistent node 1L

# **APPENDIX F**

# **FEMA FIRM MAP**





# APPENDIX G

# **MHPC REVIEW LETTER**





4 Blanchard Road, P.O. Box 85A Cumberland, ME 04021 Tel: 207.829.5016 • Fax: 207.829.5692 info@smemaine.com smemaine.com

July 21, 2023

#### **VIA EMAIL**

Mr. Kirk F. Mohney, Director Maine Historic Preservation Commission

Email: kirk.mohney@maine.gov

Subject: The Chebeague and Cumberland Land Trust

Blanchard Road, Cumberland, Maine

Read Property Parking Lot

Dear Mr. Mohney:

The Chebeague and Cumberland Land Trust is seeking approval from the Town of Cumberland Planning Board for an 8-space parking lot off Blanchard Road in Cumberland, Maine. We are requesting a review by the Maine Historic Preservation Commission to support the Town permit application.

#### PROJECT DESCRIPTION

Chebeague and Cumberland Land Trust is proposing construction of a 9-space parking lot on a leased parcel of land off Blanchard Road in Cumberland, Maine. The parking area will be constructed in a forested area and used to access the Rines Forest from the north end of the park.

The 58.98-acre parcel is bordered by Blanchard Road to the north, residential properties to the east and west and, and undeveloped woodland to the south. The project location is outlined in the attached Figure 1 – Site Location Map.

### **HISTORICAL FINDINGS**

A search of the National Register of Historic Places online maps did not identify any historic places adjacent to the parcel.

In addition to searching the National Register of Historic Places, records of neighboring properties were searched for any buildings over fifty (50) years old. Five properties were identified. All properties with such buildings and year built are listed below. Historic Building Survey Forms and photographs of the structures are attached to this letter. The project location with the below properties are keyed in and outlined in the attached Figure 2 – Site Location Map.

- 42 Blanchard Road (1770)
- 43 Blanchard Road (1913)
- 47 Blanchard Road (1956)



- 53 Blanchard Road (1820)
- 56 Blanchard Road (1920)

Please feel free to contact me at 207.829.5016 or <a href="mailto:jtr@smemaine.com">jtr@smemaine.com</a> if you have any questions or need additional information.

Sincerely,

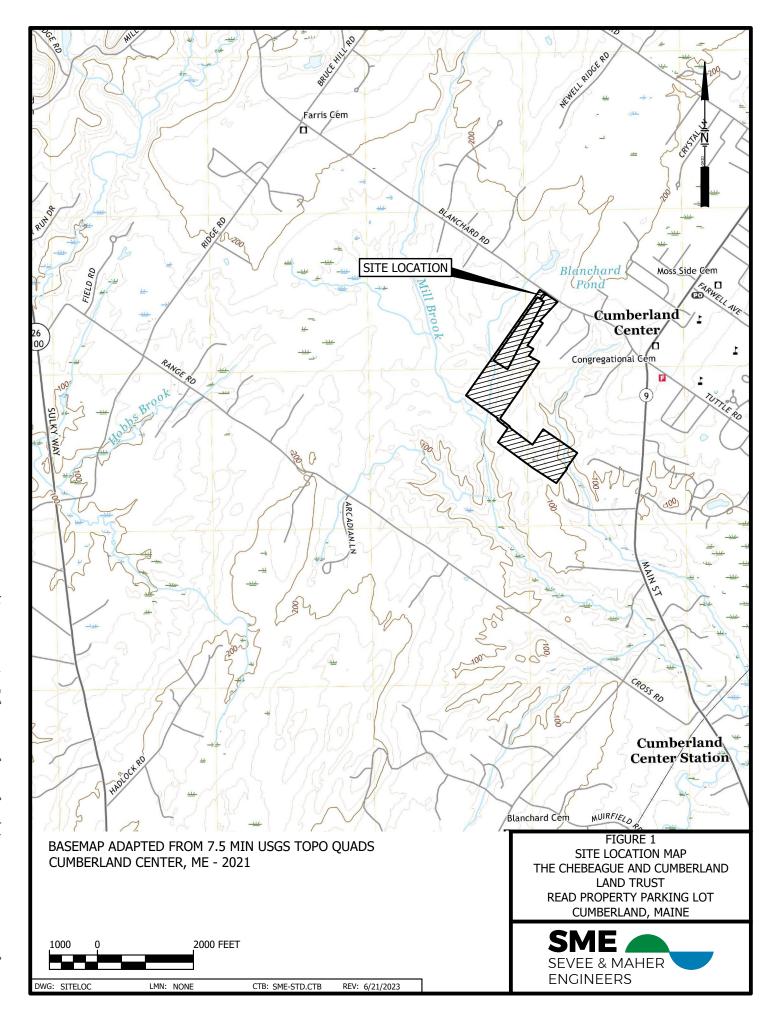
SEVEE & MAHER ENGINEERS, INC.

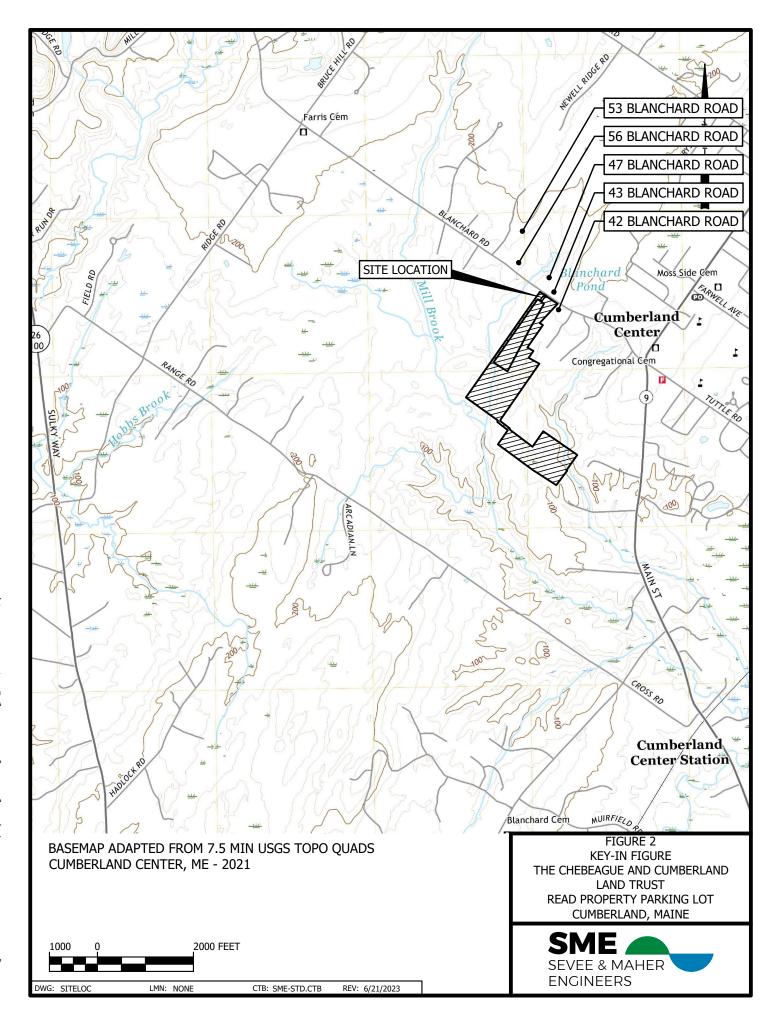
Jeffrey Read, P.E. Project Manager

Attachments: Figure 1 – Site Location Map

Figure 2 – Keyed Site Location Map

Historic Building Survey Forms and Photographs





	SURVEY MAP NAME
MHPC USE ONLY	
INVENTORY NO.	DIA TION CONTRACTOR
MAINE HISTORIC PRESE Historic Building/Str	
<b>G</b>	•
1. PROPERTY NAME (HISTORIC):	
2. PROPERTY NAME (OTHER):	
3. STREET ADDRESS:	
4. TOWN:	5. COUNTY:
6. DATE RECORDED:	7. SURVEYOR:
8. OWNER NAME:	ADDRESS:
9. PRIMARY USE (PRESENT): SINGLE FAMILY MULTI-FAMILY INDUSTRY TRANSPORTATION RECREATION/CULTURE UNKNOWN OTHER  AGRICULTURE GOVERNMENTAL RELIGIOUS DEFENSE UNKNOWN	COMMERCIAL/TRADE FUNERARY EDUCATION HEALTH CARE HOTEL LANDSCAPE SUMMER COTTAGE/CAMP SOCIAL
10. CONDITION:GOOD FAIRPOOR DESTROYED, D. ARCHITECTURAL DATA	ATE
GREEK REVIVAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A TITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO 9TH/20TH C. REVIVAL INTERNATIONAL IRTS & CRAFTS RANCH IUNGALOW VERNACULAR ER
FEDERAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A ITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO  9TH/20TH C. REVIVAL INTERNATIONAL RTS & CRAFTS RANCH UNGALOW VERNACULAR ER
13. HEIGHT:1 STORY11/2 STORY2 STORY2	21/2 STORY 3 STORY 4 STORY
14. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR): 1 BAY 2 BAY 3 BAY 4	BAY 5 BAY MORE THAN 5 ()

FRONT TOWER

\_\_\_ADDED STORIES

\_\_\_ SHED BAY WINDOW

SIDE ELL REAR ELL DORMERS PORCH

15. APPENDAGES:

PHOTOGRAPH:

SURVEY MAP NO. \_\_\_\_\_

# **42 BLANCHARD ROAD**

Location 42 BLANCHARD ROAD Mblu U12/6/A//

Acct# D0296R Owner WRIGHT, SOPHIA C MILTON

**Assessment** \$502,000 **PID** 2685

**Building Count** 1

#### **Current Value**

Assessment					
Valuation Year	Improvements	Land	Total		
2021	\$367,500	\$134,500	\$502,000		

#### **Owner of Record**

OwnerWRIGHT, SOPHIA C MILTONSale Price\$560,000

Co-Owner WRIGHT, RAYMOND L Certificate

 Address
 42 BLANCHARD RD
 Book & Page
 33402/0322

 CUMBERLAND, ME 04021
 Sale Date
 08/29/2016

MBERLAND, ME 04021 Sale Date 08/29/2016

Instrument 00

#### **Ownership History**

Ownership History						
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date	
WRIGHT, SOPHIA C MILTON	\$560,000		33402/0322	00	08/29/2016	
DAWSON WILLIAM	\$226,700		12383/0115	00	03/05/1996	

## **Building Information**

#### **Building 1: Section 1**

Year Built: 1770
Living Area: 2,617
Replacement Cost: \$474,205
Building Percent Good: 68

Replacement Cost

Less Depreciation: \$322,500

Building Attributes					
	Field	Description			
	Style:	Antique			

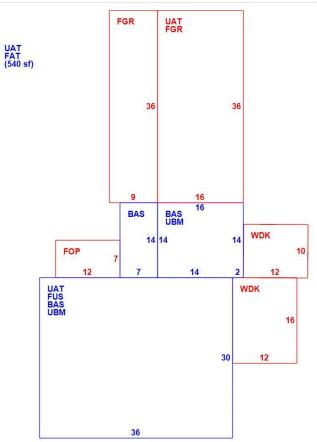
Model	Residential
Grade:	Average +10
Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	Drywall/Sheet
Interior Flr 1	Carpet
Interior Flr 2	Pine/Soft Wood
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	4 Bedrooms
Total Bthrms:	2
Total Half Baths:	1
Total Xtra Fixtrs:	1
Total Rooms:	9 Rooms
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	01
Cndtn	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	

# **Building Photo**



(https://images.vgsi.com/photos/CumberlandMEPhotos/\00\00\53\58.jpg)

# **Building Layout**



(ParcelSketch.ashx?pid=2685&bid=2685)

	Building Sub-Areas (sq ft)							
Code	Description	Gross Area	Living Area					
BAS	First Floor	1,402	1,402					
FUS	Upper Story, Finished	1,080	1,080					
FAT	Attic, Finished	540	135					
FGR	Garage	900	0					
FOP	Porch, Open, Finished	84	0					
UAT	Attic, Unfinished	2,196	0					

UBM	Basement, Unfinished	1,304	0
WDK	Deck, Wood	312	0
		7,818	2,617

# **Extra Features**

Extra Features	Legend
No Data for Extra Features	

## Land

Land Use		Land Line Valuation	
Use Code	1010	Size (Acres)	5.41
Description	Single Fam MDL-01	Frontage	0
Zone	MDR/	Depth	0
Neighborhood	110	Assessed Value	\$134,500
Alt Land Appr	No		
Category			

# Outbuildings

	Outbuildings					<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
BRN4	1 STY LFT&BSMT			3198.00 S.F.	\$36,000	1
TEN	TENNIS COURT			7200.00 S.F.	\$9,000	1

# **Valuation History**

Assessment					
Valuation Year Improvements Land Total					
2020	\$367,500	\$134,500	\$502,000		
2019	\$367,500	\$134,500	\$502,000		
2018	\$360,100	\$134,500	\$494,600		



	SURVEY MAP NAME
MHPC USE ONLY	
INVENTORY NO.	DIA TION CONTRACTOR
MAINE HISTORIC PRESE Historic Building/Str	
<b>G</b>	•
1. PROPERTY NAME (HISTORIC):	
2. PROPERTY NAME (OTHER):	
3. STREET ADDRESS:	
4. TOWN:	5. COUNTY:
6. DATE RECORDED:	7. SURVEYOR:
8. OWNER NAME:	ADDRESS:
9. PRIMARY USE (PRESENT): SINGLE FAMILY MULTI-FAMILY INDUSTRY TRANSPORTATION RECREATION/CULTURE UNKNOWN OTHER  AGRICULTURE GOVERNMENTAL RELIGIOUS DEFENSE UNKNOWN	COMMERCIAL/TRADE FUNERARY EDUCATION HEALTH CARE HOTEL LANDSCAPE SUMMER COTTAGE/CAMP SOCIAL
10. CONDITION:GOOD FAIRPOOR DESTROYED, D. ARCHITECTURAL DATA	ATE
GREEK REVIVAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A TITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO 9TH/20TH C. REVIVAL INTERNATIONAL IRTS & CRAFTS RANCH IUNGALOW VERNACULAR ER
FEDERAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A ITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO  9TH/20TH C. REVIVAL INTERNATIONAL RTS & CRAFTS RANCH UNGALOW VERNACULAR ER
13. HEIGHT:1 STORY11/2 STORY2 STORY2	21/2 STORY 3 STORY 4 STORY
14. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR): 1 BAY 2 BAY 3 BAY 4	BAY 5 BAY MORE THAN 5 ()

FRONT TOWER

\_\_\_ADDED STORIES

\_\_\_ SHED BAY WINDOW

SIDE ELL REAR ELL DORMERS PORCH

15. APPENDAGES:

PHOTOGRAPH:

SURVEY MAP NO. \_\_\_\_\_

# **43 BLANCHARD ROAD**

Location 43 BLANCHARD ROAD Mblu U12/ 8/ / /

Acct# W1650R Owner WOLFE RICHARD R

**Assessment** \$520,100 PID 2689

**Building Count** 1

#### **Current Value**

Assessment				
Valuation Year Improvements Land Total				
2021	\$391,100	\$129,000	\$520,100	

#### **Owner of Record**

Owner WOLFE RICHARD R Sale Price \$0

Co-Owner PUISTONEN JANET Certificate

Address 43 BLANCHARD ROAD Book & Page 11613/0096 CUMBERLAND, ME 04021 09/01/1994

Sale Date

#### **Ownership History**

Ownership History					
Owner Sale Price Certificate Book & Page Sale Date					
WOLFE RICHARD R	\$0		11613/0096	09/01/1994	

## **Building Information**

## **Building 1: Section 1**

Year Built: 1913 Living Area: 3,892 Replacement Cost: \$562,310 **Building Percent Good:** 68

**Replacement Cost** 

**Less Depreciation:** \$382,400

Building Attributes			
Field Description			
Style:	Antique		
Model	Residential		

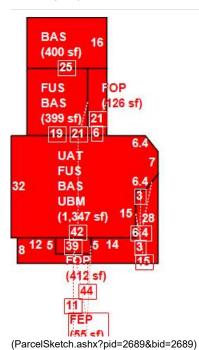
Grade:	Average +10
Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	Drywall/Sheet
Interior Flr 1	Carpet
Interior Flr 2	Inlaid Sht Gds
Heat Fuel	Oil
Heat Type:	Steam
AC Type:	None
Total Bedrooms:	4 Bedrooms
Total Bthrms:	2
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	11 Rooms
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	01
Cndtn	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	

# **Building Photo**



(https://images.vgsi.com/photos/CumberlandMEPhotos/\\00\00\53\59.jpg)

# **Building Layout**



	Building Sub-Areas (sq ft)		<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	2,146	2,146
FUS	Upper Story, Finished	1,746	1,746
FEP	Porch, Enclosed, Finished	55	0
FOP	Porch, Open, Finished	538	0
UAT	Attic, Unfinished	1,347	0
UBM	Basement, Unfinished	1,347	0
		7,179	3,892

# **Extra Features**

Extra Features <u>Le</u>				
Code	Description	Size	Value	Bldg #

FPL3	2 STORY CHIM	1.00 UNITS	\$1,900	1

## Land

**Land Line Valuation Land Use** 

**Use Code** 1010

Single Fam MDL-01 Description Zone MDR

Neighborhood 110

Alt Land Appr

Category

Size (Acres) 3.39 Frontage 0 Depth 0

Assessed Value \$129,000

# Outbuildings

Outbuildings						
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
FGR1	GARAGE-AVE			780.00 S.F.	\$6,200	1
SHD1	SHED FRAME			240.00 S.F.	\$600	1

# **Valuation History**

Assessment						
Valuation Year	Improvements	Land	Total			
2020	\$391,100	\$129,000	\$520,100			
2019	\$391,100	\$129,000	\$520,100			
2018	\$370,000	\$129,000	\$499,000			

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	SURVEY MAP NAME
MHPC USE ONLY	
INVENTORY NO.	DIA TION CONTRACTOR
MAINE HISTORIC PRESE Historic Building/Str	
<b>G</b>	•
1. PROPERTY NAME (HISTORIC):	
2. PROPERTY NAME (OTHER):	
3. STREET ADDRESS:	
4. TOWN:	5. COUNTY:
6. DATE RECORDED:	7. SURVEYOR:
8. OWNER NAME:	ADDRESS:
9. PRIMARY USE (PRESENT): SINGLE FAMILY MULTI-FAMILY INDUSTRY TRANSPORTATION RECREATION/CULTURE UNKNOWN OTHER  AGRICULTURE GOVERNMENTAL RELIGIOUS DEFENSE UNKNOWN	COMMERCIAL/TRADE FUNERARY EDUCATION HEALTH CARE HOTEL LANDSCAPE SUMMER COTTAGE/CAMP SOCIAL
10. CONDITION:GOOD FAIRPOOR DESTROYED, D. ARCHITECTURAL DATA	ATE
GREEK REVIVAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A TITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO 9TH/20TH C. REVIVAL INTERNATIONAL IRTS & CRAFTS RANCH IUNGALOW VERNACULAR ER
FEDERAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A ITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO  9TH/20TH C. REVIVAL INTERNATIONAL RTS & CRAFTS RANCH UNGALOW VERNACULAR ER
13. HEIGHT:1 STORY11/2 STORY2 STORY2	21/2 STORY 3 STORY 4 STORY
14. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR): 1 BAY 2 BAY 3 BAY 4	BAY 5 BAY MORE THAN 5 ()

FRONT TOWER

\_\_\_ADDED STORIES

\_\_\_ SHED BAY WINDOW

SIDE ELL REAR ELL DORMERS PORCH

15. APPENDAGES:

PHOTOGRAPH:

SURVEY MAP NO. \_\_\_\_\_

# **47 BLANCHARD RD**

Location 47 BLANCHARD RD Mblu U12/7///

Acct# H1600R Owner CRAM, NATHANIEL A

**Assessment** \$277,200 **PID** 2687

**Building Count** 1

#### **Current Value**

Assessment				
Valuation Year Improvements Land Total				
2021	\$148,900	\$128,300	\$277,200	

#### **Owner of Record**

Owner CRAM, NATHANIELA Sale Price \$575,000

Co-Owner CRAM, ABIGAIL Certificate

Address 47 BLANCHARD RD Book & Page 38913/273

CUMBERLAND, ME 04021 Sale Date 11/19/2021

Instrument 00

#### **Ownership History**

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
CRAM, NATHANIEL A	\$575,000		38913/273	00	11/19/2021
HILTON, L/E, BRIAN D	\$0		35504/143	1V	01/23/2019
HILTON BRIAN D	\$60,000		26517/0080	1N	12/24/2008
HILTON MYRON M - HEIRS OF	\$0		/0		

## **Building Information**

#### **Building 1: Section 1**

Year Built: 1956
Living Area: 1,821
Replacement Cost: \$195,002
Building Percent Good: 74

Replacement Cost

Less Depreciation: \$144,300

**Building Attributes** 

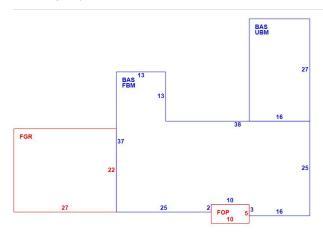
Field	Description
Style:	Ranch
Model	Residential
Grade:	Average
Stories:	1 Story
Occupancy	1
Exterior Wall 1	Wood on Sheath
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior FIr 1	Carpet
Interior FIr 2	
Heat Fuel	Gas
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	4 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	6 Rooms
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	01
Cndtn	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	
	I .

# **Building Photo**



(https://images.vgsi.com/photos/CumberlandMEPhotos/\0009\IMG\_0020\_

# **Building Layout**



(ParcelSketch.ashx?pid=2687&bid=2687)

	Building Sub-Areas (sq ft)			
Code	Description	Gross Area	Living Area	
BAS	First Floor	1,821	1,821	
FBM	Basement, Finished	1,389	0	
FGR	Garage	594	0	
FOP	Porch, Open, Finished	50	0	
UBM	Basement, Unfinished	432	0	
		4,286	1,821	

## **Extra Features**

Extra Features <u>Lege</u>				<u>Legend</u>
Code	Description	Size	Value	Bldg #
FPL1	FIREPLACE 1 ST	2.00 UNITS	\$3,300	1
FLU1	FLUE-CONCRETE	1.00 UNITS	\$400	1

## Land

## Land Use Land Line Valuation

Use Code 1010

**Description** Single Fam MDL-01

Zone MDR Neighborhood 110

Alt Land Appr No

Category

 Size (Acres)
 3.74

 Frontage
 0

Depth 0

Assessed Value \$128,300

# Outbuildings

	Outbuildings <u>Legend</u>					<u>Legend</u>
Code	Description Sub Code Sub Description Size				Value	Bldg #
SHD1	SHED FRAME			216.00 S.F.	\$900	1

# **Valuation History**

Assessment					
Valuation Year	Improvements	Land	Total		
2020	\$148,900	\$128,300	\$277,200		
2019	\$148,900	\$128,300	\$277,200		
2018	\$150,400	\$128,300	\$278,700		

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	SURVEY MAP NAME
MHPC USE ONLY	
INVENTORY NO.	DIA TION CONTRACTOR
MAINE HISTORIC PRESE Historic Building/Str	
<b>G</b>	•
1. PROPERTY NAME (HISTORIC):	
2. PROPERTY NAME (OTHER):	
3. STREET ADDRESS:	
4. TOWN:	5. COUNTY:
6. DATE RECORDED:	7. SURVEYOR:
8. OWNER NAME:	ADDRESS:
9. PRIMARY USE (PRESENT): SINGLE FAMILY MULTI-FAMILY INDUSTRY TRANSPORTATION RECREATION/CULTURE UNKNOWN OTHER  AGRICULTURE GOVERNMENTAL RELIGIOUS DEFENSE UNKNOWN	COMMERCIAL/TRADE FUNERARY EDUCATION HEALTH CARE HOTEL LANDSCAPE SUMMER COTTAGE/CAMP SOCIAL
10. CONDITION:GOOD FAIRPOOR DESTROYED, D. ARCHITECTURAL DATA	ATE
GREEK REVIVAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A TITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO 9TH/20TH C. REVIVAL INTERNATIONAL IRTS & CRAFTS RANCH IUNGALOW VERNACULAR ER
FEDERAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A ITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO  9TH/20TH C. REVIVAL INTERNATIONAL RTS & CRAFTS RANCH UNGALOW VERNACULAR ER
13. HEIGHT:1 STORY11/2 STORY2 STORY2	21/2 STORY 3 STORY 4 STORY
14. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR): 1 BAY 2 BAY 3 BAY 4	BAY 5 BAY MORE THAN 5 ()

FRONT TOWER

\_\_\_ADDED STORIES

\_\_\_ SHED BAY WINDOW

SIDE ELL REAR ELL DORMERS PORCH

15. APPENDAGES:

PHOTOGRAPH:

SURVEY MAP NO. \_\_\_\_\_

# **53 BLANCHARD ROAD**

**Location** 53 BLANCHARD ROAD **Mblu** R06/60///

Acct# H2256R Owner HUTCHINSON RALPH

**Assessment** \$297,400 **PID** 1576

**Building Count** 1

#### **Current Value**

Assessment				
Valuation Year Improvements Land Total				
2021	\$176,800	\$120,600	\$297,400	

#### **Owner of Record**

OwnerHUTCHINSON RALPHSale Price\$145,000

Co-Owner HUTCHINSON KAREN Certificate

 Address
 53 BLANCHARD ROAD
 Book & Page
 12560/0318

 CUMBERLAND, ME 04021
 Sale Date
 06/14/1996

Sale Date 00/14/198

Instrument 1G

#### **Ownership History**

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
HUTCHINSON RALPH	\$145,000		12560/0318	1G	06/14/1996
HUTCHINSON GRACE E	\$0		11958/0046		

#### **Building Information**

#### **Building 1: Section 1**

Year Built: 1820
Living Area: 2,297
Replacement Cost: \$224,101
Building Percent Good: 72

Replacement Cost

Less Depreciation: \$161,400

Building Attributes		
Field Description		
Style: Conventional		

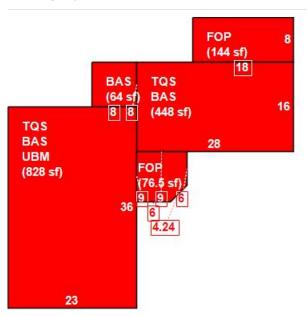
Model	Residential
Grade:	Average
Stories:	1 1/2 Stories
	1 1/2 Stories
Occupancy	
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Pine/Soft Wood
Interior Flr 2	
Heat Fuel	Gas
Heat Type:	Forced Air-Duc
AC Type:	None
Total Bedrooms:	3 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	7 Rooms
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	01
Cndtn	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	

# **Building Photo**



(https://images.vgsi.com/photos/CumberlandMEPhotos/\0009\IMG\_0018\_

## **Building Layout**



(ParcelSketch.ashx?pid=1576&bid=1576)

	Building Sub-Areas (sq ft)				
Code	Description	Gross Area	Living Area		
BAS	First Floor	1,340	1,340		
TQS	Three Quarter Story	1,276	957		
FOP	Porch, Open, Finished	221	0		
UBM	JBM Basement, Unfinished		0		
		3,665	2,297		

#### **Extra Features**

	Extra Features <u>Legend</u>					
Code	Description	Size	Value	Bldg #		
FLU2	BRICK	1.00 UNITS	\$500	1		

GEN	GENERATOR	1.00 UNITS	\$3,800	1	

#### Land

**Land Use Land Line Valuation** 

**Use Code** 1010

Single Fam MDL-01

Zone

Neighborhood 110

Alt Land Appr No

Category

Description

Size (Acres) 1.89 Frontage 0

Depth 0

Assessed Value \$120,600

# Outbuildings

Outbuildings <u>Le</u> g						<u>Legend</u>
Code Description Sub Code Sub Description				Size	Value	Bldg #
BRN3	1 STORY W/LOFT			1702.00 S.F.	\$11,100	1

# **Valuation History**

Assessment						
Valuation Year Improvements Land Total						
2020	\$176,800	\$120,600	\$297,400			
2019	\$176,800	\$120,600	\$297,400			
2018	\$164,900	\$120,600	\$285,500			

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	SURVEY MAP NAME
MHPC USE ONLY	
INVENTORY NO.	DIA TION CONTRACTOR
MAINE HISTORIC PRESE Historic Building/Str	
<b>G</b>	•
1. PROPERTY NAME (HISTORIC):	
2. PROPERTY NAME (OTHER):	
3. STREET ADDRESS:	
4. TOWN:	5. COUNTY:
6. DATE RECORDED:	7. SURVEYOR:
8. OWNER NAME:	ADDRESS:
9. PRIMARY USE (PRESENT): SINGLE FAMILY MULTI-FAMILY INDUSTRY TRANSPORTATION RECREATION/CULTURE UNKNOWN OTHER  AGRICULTURE GOVERNMENTAL RELIGIOUS DEFENSE UNKNOWN	COMMERCIAL/TRADE FUNERARY EDUCATION HEALTH CARE HOTEL LANDSCAPE SUMMER COTTAGE/CAMP SOCIAL
10. CONDITION:GOOD FAIRPOOR DESTROYED, D. ARCHITECTURAL DATA	ATE
GREEK REVIVAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A TITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO 9TH/20TH C. REVIVAL INTERNATIONAL IRTS & CRAFTS RANCH IUNGALOW VERNACULAR ER
FEDERAL QUEEN ANNE F GREEK REVIVAL SHINGLE STYLE 1 GOTHIC REVIVAL R. ROMANESQUE A ITALIANATE ROMANESQUE B	IEO-CLASSICAL REV FOUR SQUARE IENAISSANCE REV ART DECO  9TH/20TH C. REVIVAL INTERNATIONAL RTS & CRAFTS RANCH UNGALOW VERNACULAR ER
13. HEIGHT:1 STORY11/2 STORY2 STORY2	21/2 STORY 3 STORY 4 STORY
14. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR): 1 BAY 2 BAY 3 BAY 4	BAY 5 BAY MORE THAN 5 ()

FRONT TOWER

\_\_\_ADDED STORIES

\_\_\_ SHED BAY WINDOW

SIDE ELL REAR ELL DORMERS PORCH

15. APPENDAGES:

PHOTOGRAPH:

SURVEY MAP NO. \_\_\_\_\_

# **56 BLANCHARD ROAD**

Location 56 BLANCHARD ROAD Mblu R05/A 1///

Acct# P1220R Owner CUMBERLAND RENTALS, LLC

**Assessment** \$309,000 PID 1290

**Building Count** 1

#### **Current Value**

Assessment					
Valuation Year Improvements Land Total					
2021	\$204,000	\$105,000	\$309,000		

#### **Owner of Record**

Owner CUMBERLAND RENTALS, LLC Sale Price \$0

Co-Owner Certificate

Address 42 GLENVIEW RD Book & Page 35013/296 CUMBERLAND, ME 04021 Sale Date 07/24/2018

1V

Instrument

#### **Ownership History**

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
CUMBERLAND RENTALS, LLC	\$0		35013/296	1V	07/24/2018
JOHNSTON, CINDY W	\$305,000		30682/0203	00	05/23/2013
POTTER MARGELIA B	\$0		/0		

## **Building Information**

# **Building 1: Section 1**

Year Built: 1920 Living Area: 2,048 \$265,073 Replacement Cost: **Building Percent Good:** 76

**Replacement Cost** 

**Less Depreciation:** \$201,500

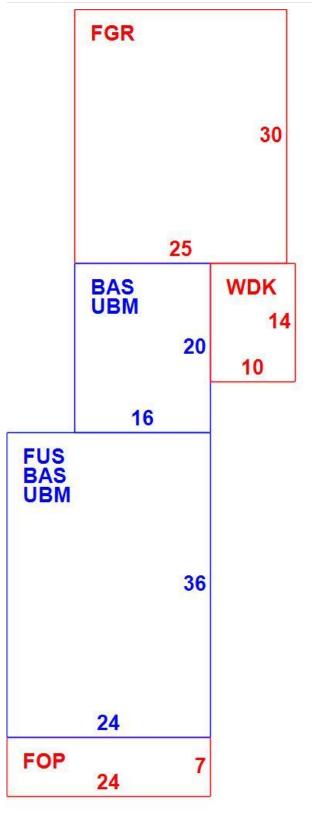
Building Attributes			
Field Description			

Style:	Colonial
Model	Residential
Grade:	Good
Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure:	Gambrel
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Oil
Heat Type:	Steam
AC Type:	None
Total Bedrooms:	3 Bedrooms
Total Bthrms:	1
Total Half Baths:	1
Total Xtra Fixtrs:	
Total Rooms:	7 Rooms
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	01
Cndtn	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	

# **Building Photo**



(https://images.vgsi.com/photos/CumberlandMEPhotos/\00\00\53\62.jpg)



(ParcelSketch.ashx?pid=1290&bid=1290)

Building Sub-Areas (sq ft) <u>Leg</u>				
Code	Description	Gross Area	Living Area	
BAS	First Floor	1,184	1,184	
FUS	Upper Story, Finished	864	864	
FGR	Garage	750	0	

FOP	Porch, Open, Finished	168	0
UBM	Basement, Unfinished	1,184	0
WDK	Deck, Wood	140	0
		4,290	2,048

## **Extra Features**

	Extra Features <u>Legend</u>					
Code	Description	Size	Value	Bldg #		
FPL3	2 STORY CHIM	1.00 UNITS	\$2,100	1		

## Land

Land Use		Land Line Valua	Land Line Valuation		
Use Code	1010	Size (Acres)	0.65		
Description	Single Fam MDL-01	Frontage	0		
Zone	RR1	Depth	0		
Neighborhood	110	Assessed Value	\$105,000		
Alt Land Appr	No				
Category					

# Outbuildings

	Outbuildings <u>Legend</u>						
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #	
SHD1	SHED FRAME			72.00 S.F.	\$400	1	

# **Valuation History**

Assessment						
Valuation Year	Improvements	Land	Total			
2020	\$204,000	\$105,000	\$309,000			
2019	\$204,000	\$105,000	\$309,000			
2018	\$203,600	\$105,000	\$308,600			





# MAINE HISTORIC PRESERVATION COMMISSION 55 CAPITOL STREET 65 STATE HOUSE STATION AUGUSTA, MAINE 04333

KIRK F. MOHNEY DIRECTOR

August 7, 2023

Mr. Jeffrey Read Sevee & Maher Engineers PO Box 85A Cumberland, ME 04021

Project:

MHPC# 1064-23

The Chebeague and Cumberland Land Trust; Blanchard Road

8 Space Parking Lot

Town:

Cumberland, ME

Dear Mr. Read:

In response to your recent request, I have reviewed the information received July 24, 2023 to initiate consultation on the above referenced project.

Based on the information provided, I have concluded that there are no National Register listed or known eligible properties on or adjacent to the parcels. In addition, the project area is not considered sensitive for archaeological resources.

Please contact Megan M. Rideout of our staff, at <u>megan.m.rideout@maine.gov</u> or 207-287-2992, if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney

State Historic Preservation Officer

Kit f. Wohney

# **APPENDIX H**

# **LIST OF ABUTTERS**

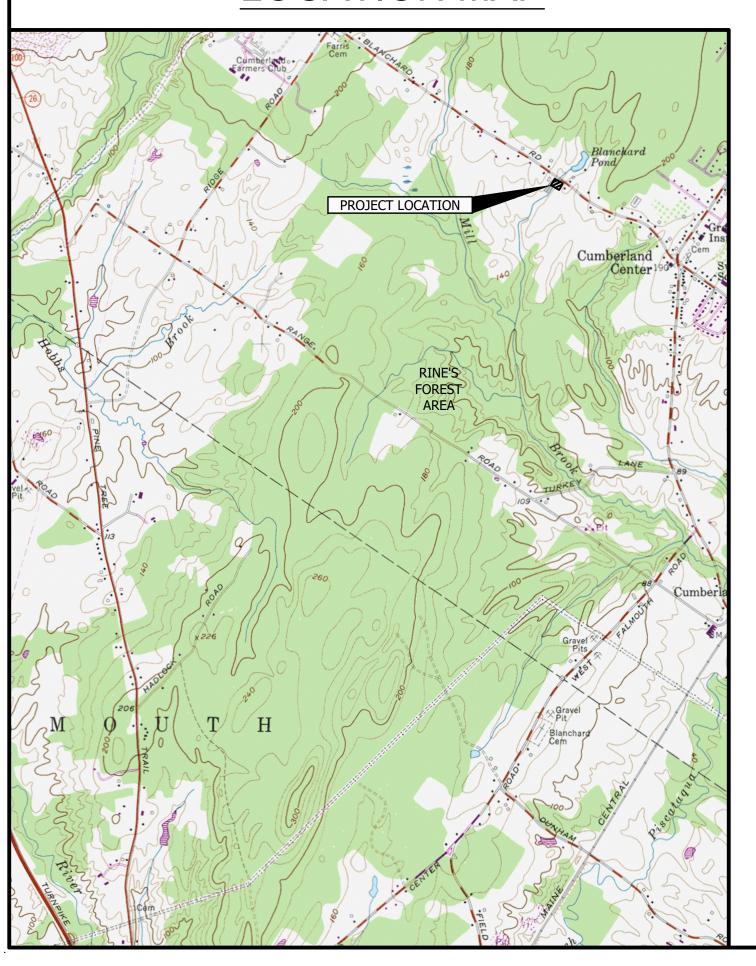


## READ PROPERTY PARKING LOT LIST OF ABUTTERS WITHIN 200 FEET JULY 2023

MAP	LOT	NAME	LOCATION	ADDRESS
R5	12	Medley A. & Ruth H. Watson	29 Turkey Lane	Po Box 753, Gray, ME 04039
R5	21	Town Of Cumberland	Range Road	290 Tuttle Road, Cumberland, ME 04021
R5A	1	Cumberland Rentals, LLC	56 Blanchard Road	42 Glenview Rd Cumberland, ME 04021
R5A	2	David B. Potter	Blanchard Rd	24 Edgewater Road Falmouth, ME 04105
R5A	3B	Thomas R. & Patricia P. Plante	19 Oxford Ln	Same
R5A	3C	Paul M. Benard	Oxford Ln	Po Box 707 Cumberland, ME 04021
R6	60	Ralph & Karen Hutchinson	53 Blanchard Road	Same
U10	16	Charles E. & Catherine E. Burnie	34 Moose Way	Po Box 677 Gray, ME 04039
U12	2A	Jeffrey B. Pierce	41 Porcupine Ridge Way	Same
U12	6A	Sophia C Milton & Raymond L. Wright	42 Blanchard Road	Same
U12	6B	Joel S. & Natalie W. Harris	38 Blanchard Road	Same
U12	7	Nathaniel & Abigail Cram	47 Blanchard Rd	Same
U12	7A	Eric & Catherine Del Vechio Fitz	51 Blanchard Rd	Same
U12	8	Richard R Wolfe & Janet Puistonen	43 Blanchard Road	Same
U12A	1	Town Of Cumberland	6 Sunnyfield Lane	290 Tuttle Road, Cumberland, ME 04021
U12A	8	Mats & Lisa M. T. Agren	43 Sunnyfield Lane	Same

# READ PROPERTY PARKING LOT CHEBEAGUE AND CUMBERLAND LAND TRUST BLANCHARD ROAD CUMBERLAND, MAINE

# **LOCATION MAP**



TITLE	DWG NC
COVER SHEET	
GENERAL NOTES, LEGEND, AND ABBREVIATIONS	C-100
EXISTING CONDITIONS AND CLEARING PLAN	C-101
SITE PLAN	C-102
EROSION CONTROL NOTES AND DETAILS	C-300
SECTIONS AND DETAILS	C-301
STORMWATER MANAGEMENT PLAN PRE-DEVELOPED CONDITIONS	D-100
STORMWATER MANAGEMENT PLAN POST DEVELOPEMENT CONDITIONS	D-101



ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com



# **GENERAL NOTES:**

- BASE MAP FROM PLAN TITLED "BOUNDARY SURVEY MAP OF THE PROPOSED CONSERVATION EASEMENT, THE CHEBEAGUE & CUMBERLAND LAND TRUST FROM NANCY M. READ & MARK W. READ OF THE PROPERTY SITUATED ON THE SOUTHWEST SIDE OF BLANCHARD ROAD IN THE TOWN OF CUMBERLAND, COUNTY OF CUMBERLAND, STATE OF MAINE", BY MAINE BOUNDARY CONSULTANTS, LLC, DATED JULY 11, 2022.
- WETLANDS DELINEATED BY COPPI ENVIRONMENTAL, LLC, DATED 12/14/2022.
- PLACE TEMPORARY SOIL STABILIZATION WITHIN 30 DAYS OF INITIAL DISTURBANCE. PLACE PERMANENT SOIL SATURATION WITHIN 7 DAYS OF FINAL GRADING.
- EXCAVATE AND STOCKPILE ON-SITE TOPSOIL. TOPSOIL IS TO REMAIN THE PROPERTY OF THE OWNER DURING CONSTRUCTION, AND SHALL NOT BE REMOVED FROM THE SITE. AFTER FINAL LOAM AND SEED, EXCESS TOPSOIL SHALL BE REMOVED FROM SITE BY CONTRACTOR.

# **GRADING NOTES:**

- ADD 4-INCHES OF 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.
- GRADE SURFACES TO DRAIN AWAY FROM BUILDING. PUDDLING OF WATER IN PAVED OR UNPAVED AREAS WILL NOT BE ACCEPTABLE, EXCEPT FOR AREAS DESIGNATED AS PONDS.
- 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.

# **SURVEYORS NOTES:**

- PURPOSE: THE PURPOSE OF THIS BOUNDARY SURVEY MAP IS TO SHOW THE RESULTS OF A SURVEY OF THE PROPOSED CONSERVATION EASEMENT TO BE CONVEYED TO THE CHEBEAGUE & CUMBERLAND LAND TRUST FROM NANCY M. READ AND MARK W. READ, SITUATED ALONG BLANCHARD ROAD IN THE TOWN OF CUMBERLAND, AND IN CUMBERLAND COUNTY, MAINE. THIS MAP ALSO SHOWS THE FIELD EXPANSION AREA WITHIN THE SAID CONSERVATION EASEMENT, AS WELL AS THE EXCLUDED AREA, BEING AN AREA EXCLUDED FROM THE CONSERVATION AREA. AS A RESULT, THE PROPOSED CONSERVATION EASEMENT WAS DETERMINED TO BE 53.46 ACRES, ±, AND THE EXCLUDED AREA WAS DETERMINED TO BE 9.14 ACRES, ±.
- RECORD OWNERSHIP: THE RECORD OWNERSHIP OF THE PARCEL SURVEYED CAN BE FOUND IN THE DEED OF ANNE M. READ (A/K/A NANCY M. READ) TO MARK W. READ. BEING AN UNDIVIDED ONE-HALF (1/2) INTEREST. DATED AUGUST 24, 2020, AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 37094, PAGE 51. REFERENCE IS ALSO MADE TO THE DEED OF JOHN R. WOODMAN TO NANCY M. READ, DATED OCTOBER 27, 1983, AND RECORDED IN THE SAID REGISTRY IN BOOK 6310, PAGE 9, THE DEED OF FRANK M. READ TO NANCY M. READ, DATED OCTOBER 27, 1983, AND RECORDED IN THE SAID REGISTRY IN BOOK 6310, PAGE 11, AND THE DEED OF GREATER PORTLAND DEVELOPMENT GROUP TO NANCY M. READ, DATED JULY 2, 1996, AND RECORDED IN THE SAID REGISTRY IN BOOK 12696, PAGE 93.
- 2016 READ SURVEY: REFERENCE IS MADE TO THE "BOUNDARY SURVEY MAP" AND THE "SURVEY REPORT" PREPARED FOR NANCY M. READ & FRANK W. READ, M.D., DATED JULY 26, 2016 BY ROBERT A. YARUMIAN II, PLS 1303, OF MAINE BOUNDARY CONSULTANTS.

# DIG SAFE NOTES:

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

- 1. PRE-MARK THE BOUNDARIES OF YOUR PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES, SO UTILITY CREWS KNOW WHERE TO MARK THEIR LINES.
- 2. CALL DIG SAFE AT 811 AT LEAST THREE BUSINESS DAYS BUT NO MORE THAN 30 CALENDAR DAYS BEFORE STARTING WORK. DO NOT ASSUME SOMEONE ELSE WILL MAKE THE CALL.
- 3. IF BLASTING, NOTIFY DIG SAFE AT LEAST ONE BUSINESS DAY IN ADVANCE.
- 4. 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.
- 5. 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.
- 6. RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS OF INITIAL NOTIFICATION, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY OR ANY OTHER REASON.
- 7. 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.
- 8. DIG SAFE REQUIREMENTS ARE IN ADDITION TO TOWN, CITY AND/OR STATE DOT STREET OPENING PERMIT
- 9. FOR COMPLETE DIG SAFE REQUIREMENTS, CALL THE PUBLIC UTILITIES COMMISSION (PUC) OR VISIT THEIR
- 10. 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.
- 11. ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED OR IF LINES ARE IMPROPERLY MARKED, YOU MUST FILE AN INCIDENT REPORT WITH THE PUC FOR AN INCIDENT REPORT FORM VISIT WWW.STATE.ME.US/MPUC OR CALL THE PUC AT 1-800-452-4699.

# **ZONING NOTES:**

 OWNER/DEVELOPER: THE CHEBEAGUE AND CUMBERLAND LAND TRUST 371 TUTTLE ROAD #2 CUMBERLAND, MAINE

- 2. PROJECT: READ PROPERTY PARKING LOT BLANCHARD ROAD CUMBERLAND, MAINE
- 3. ZONING DISTRICT: MEDIUM DENSITY RESIDENTIAL ZONING DISTRICT (MDR) AND RURAL RESIDENTIAL 1 ZONING DISTRICT (RR1).

ZONE STANDARDS:	REQUIRE	REQUIRED		<u>DED</u>
	<u>M</u>	<u>DR</u> <u>R</u>	<u>R1</u>	
MINIMUM LOT SIZE	2	ACRES 4	ACRES !	58.98 ACRES
MINIMUM ROAD FRO	NTAGE 15	50 FEET 20	00 FEET	>200 FEET
<u>SETBACKS</u>				
FRONT	35	5 FEET 50	0 FEET	>50 FEET
SIDE	20	FEET 3	0 FEET :	>30 FEET

- 5. TAX MAP U12, LOT 6.
- 6. PROPOSED USE: PARKING LOT

REAR

PARKING SUMMARY:

	REQUIRED	PROVIDED
ΓRAIL	0	8 TOTAL

- 8. THE PROPERTY IS OUTSIDE OF THE 100 YEAR FLOODPLAIN AS OUTLINED ON FEMA COMMUNITY PANEL NO. 230162-0015-B, DATED MAY 19, 1981.
- 9. IMPERVIOUS AREA:

EXISTING = 0 SF $PROPOSED = \pm 8,317 SF$  $TOTAL = \pm 8,317 SF$ 

- 11. UTILITIES PROPOSED ON THIS SITE: NONE
- 12. TOTAL WETLAND IMPACT =  $\pm 2,625$  SF

# **LEGEND**

# **EXISTING** PROPOSED EDGE OF PAVEMENT \_\_\_\_\_ EDGE OF GRAVEL RECLAIMED ASPHALT PAVEMENT CONTOUR \_\_\_\_\_100 \_\_\_\_\_ \_\_\_\_\_ 100 \_\_\_\_\_ 114.23 SPOT GRADE WETLAND TREELINE CLEARING LIMIT LINE SIGN GATE

# **EROSION CONTROL LEGEND**

CONCRETE WHEEL STOP

STABILIZED ENTRANCE

# **TYPICAL ABBREVIATIONS:**

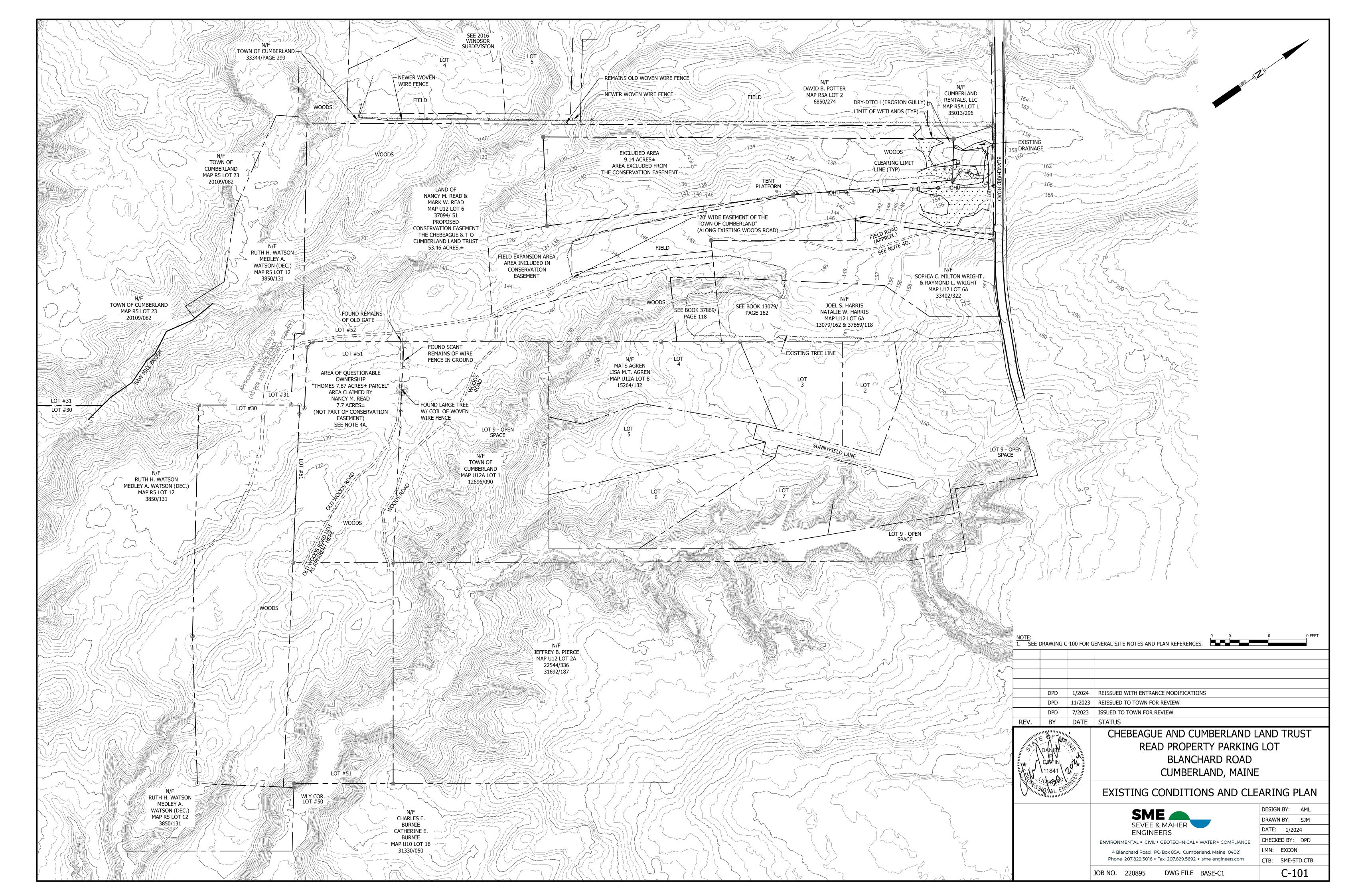
ACCMP	ASPHALT COATED CMP	D	DEGREE OF CURVE	HDPE	HIGH DENSITY POLYETHYLENE	PERF	PERFORATED
ACP	ASBESTOS CEMENT PIPE	DBL	DOUBLE	HORIZ	HORIZONTAL	PP	POWER POLE
AC	ACRE	DEG OR °	DEGREE	HP	HORSEPOWER	PSI	POUNDS PER SQUARE INCH
AGG	AGGREGATE	DEPT	DEPARTMENT	HYD	HYDRANT	PVC	POLYVINYL CHLORIDE
ALUM	ALUMINUM	DI	DUCTILE IRON			PVMT	PAVEMENT
APPD	APPROVED	DIA OR Ø	DIAMETER	ID	INSIDE DIAMETER		
APPROX	APPROXIMATE	DIM	DIMENSION	IN OR "	INCHES	OTV	OHANITITY
ARMH	AIR RELEASE MANHOLE	DIST	DISTANCE	INV	INVERT	QTY	QUANTITY
ASB	ASBESTOS	DN	DOWN	INV EL	INVERT ELEVATION	DCD.	DEINICODOED CONODETE DIDE
ASP	ASPHALT	DR	DRAIN	1117 22	INVERT LEEV/TION	RCP	REINFORCED CONCRETE PIPE
AUTO	AUTOMATIC	DWG	DRAWING	LB	POUND	ROW	RIGHT OF WAY
AUX	AUXILIARY	DWG	DRAWING	LC	LEACHATE COLLECTION	RAD	RADIUS
AVE	AVENUE	EA	EACH	LD	LEAK DETECTION	REQD	REQUIRED
AZ	AZIMUTH	EG	EXISTING GROUND OR GRADE	LF	LINEAR FEET	RT	RIGHT
/ \Z	//21/10/11/	ELEC	ELECTRIC	LOC	LOCATION	RTE	ROUTE
DCCMD	DITUMENOUS COATED CARD	EL	ELEVATION	LT	LEACHATE TRANSPORT	C	CI ODE
BCCMP	BITUMINOUS COATED CMP	ELB	ELBOW	LI	LEACHATE TRANSPORT	S	SLOPE
BM	BENCH MARK	EOP	EDGE OF PAVEMENT	МН	MANHOLE	SCH	SCHEDULE
BIT	BITUMINOUS	EQUIP	EQUIPMENT	MJ	MECHANICAL JOINT	SF	SQUARE FEET
BLDG	BUILDING	EST	ESTIMATED	MATL	MATERIAL	SHT	SHEET
BOT	ВОТТОМ	EXC	EXCAVATE	MAX		SMH	SANITARY MANHOLE
BRG	BEARING	EXIST	EXISTING	MFR	MAXIMUM	ST	STREET
BV	BALL VALVE	EXIST	EXISTING		MANUFACTURE	STA	STATION
CD	CATCLL DACIN	FI	FIELD INLET	MIN	MINIMUM	SY	SQUARE YARD
CB	CATCH BASIN	FG	FIELD INLET FINISH GRADE	MISC	MISCELLANEOUS	TAN	TANGENT
CEN	CENTER			MON	MONUMENT	TDH	TOTAL DYNAMIC HEAD
CEM LIN	CEMENT LINED	FBRGL	FIBERGLASS	NITC		TEMP	TEMPORARY
CMP	CORRUGATED METAL PIPE	FDN	FOUNDATION	NITC	NOT IN THIS CONTRACT	TYP	TYPICAL
CO	CLEAN OUT	FLEX	FLEXIBLE	NTS	NOT TO SCALE		
CF	CUBIC FEET	FLG	FLANGE	N/F	NOW OR FORMERLY	UD	UNDERDRAIN
CFS	CUBIC FEET PER SECOND	FLR	FLOOR	NO OR #	NUMBER	V	VOLTS
CI	CAST IRON	FPS	FEET PER SECOND			VA TEE	VALVE ANCHORING TEE
CL	CLASS	FT OR '	FEET	OC	ON CENTER	VERT	
CONC	CONCRETE	FTG	FOOTING	OD	OUTSIDE DIAMETER	VEKI	VERTICAL
CONST	CONSTRUCTION						
CONTR	CONTRACTOR	GA	GAUGE	PC	POINT OF CURVE	WG	WATER GATE
CS	CURB STOP	GAL	GALLON	PD	PERIMETER DRAIN	W/	WITH
CTR	CENTER	GALV	GALVANIZED	PI	POINT OF INTERSECTION	W/O	WITHOUT
CU	COPPER	GPD	GALLONS PER DAY	PIV	POST INDICATOR VALVE	., -	
CY	CUBIC YARD	GPM	GALLONS PER MINUTE	PT	POINT OF TANGENT	YD	YARD

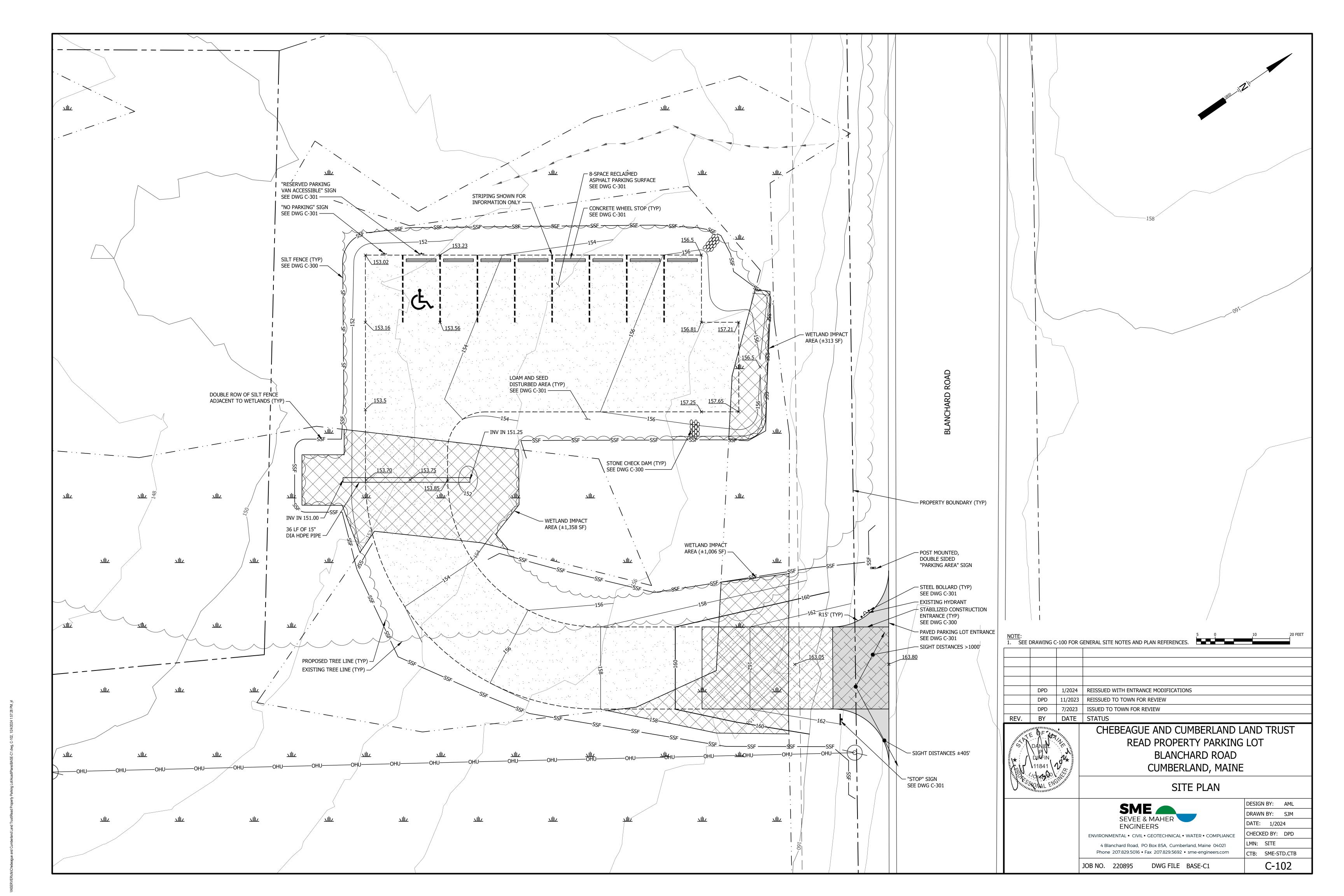
	DPD	1/2024	REISSUED WITH ENTRANCE MODIFICATIONS
	DPD	11/2023	REISSUED TO TOWN FOR REVIEW
	DPD	7/2023	ISSUED TO TOWN FOR REVIEW
REV.	BY	DATE	STATUS

CHEBEAGUE AND CUMBERLAND LAND TRUST READ PROPERTY PARKING LOT **BLANCHARD ROAD** CUMBERLAND, MAINE GENERAL NOTES, LEGEND, AND

**ABBREVIATIONS** 

DESIGN BY: AML SME DRAWN BY: SJM SEVEE & MAHER DATE: 1/2024 **ENGINEERS** CHECKED BY: DPD ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE MN: NONE 4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com CTB: SME-STD.CTB C-100 JOB NO. 220895 DWG FILE GEN-NOTES





# A. GENERAL

- 1. All soil erosion and sediment control will be done in accordance with: (1) the Maine Erosion and Sediment Control Handbook: Best Management Practices, Maine Department of Environmental Protection (MEDEP), October 2016.
- 2. The site Contractor (to be determined) will be responsible for the inspection and repair/replacement/maintenance of all erosion control measures, disturbed areas, material storage areas, and vehicle access points until all disturbed areas are stabilized.
- 3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance will be temporarily stabilized within 7 days of the disturbance.
- 4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.
- 5. Any suitable topsoil will be stripped and stockpiled for reuse as directed by the Owner. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. In any event, stockpiles will not be located within 100 feet of wetlands and will be at least 50 feet upgradient of the stockpile's perimeter silt fence. The sideslopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with Aroostook rye, annual or perennial ryegrass within 7 days of formation, or temporarily mulched.
- 6. Winter excavation and earthwork will be completed so as to minimize exposed areas while satisfactorily completing the project. Limit exposed areas to those areas in which work is to occur during the following 15 days and that can be mulched in one day. All areas will be considered denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed, seeded, and mulched.

Install any added measures necessary to control erosion/sedimentation. The particular measure used will be dependent upon site conditions, the size of the area to be protected, and weather conditions.

To minimize areas without erosion control protection, continuation of earthwork operations on additional areas will not begin until the exposed soil surface on the area being worked has been stabilized.

# B. TEMPORARY MEASURES

# 1. STABILIZED CONSTRUCTION ENTRANCE/EXIT

A crushed stone stabilized construction entrance/exit will be placed at any point of vehicular access to the site, in accordance with the detail shown on this sheet.

# 2. SILT FENCE

- a. Silt fence will be installed prior to all construction activity, where soil disturbance may result in erosion. Silt fence will be erected at locations shown on the plans and/or downgradient of all construction activity.
- b. Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.
- c. Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check
- d. Sediment deposits will be removed after each storm event if significant build-up has occurred or if deposits exceed half the height of the barrier.

# 3. STONE CHECK DAMS

Stone check dams should be installed before runoff is directed to the swale. Stone check dams will be installed in grass-lined swales and ditches during construction. Remove stone check dams when they have served their useful purpose, but not before upgradient areas have been permanently stabilized.

# 4. EROSION CONTROL MIX SEDIMENT BARRIER

- a. It may be necessary to cut, pack down, or remove tall grasses, brush, or woody vegetation to avoid voids and bridges that allow the washing away of fine soil particles.
- b. Where approved, erosion control mix sediment barriers may be used as a substitute for silt fence. See the details in this drawing set for specifications.
- b. Rock Filter Berms: To provide more filtering capacity or to act as a velocity check dam, a berm's center can be composed of clean crushed rock ranging in size from the french drain stone to riprap.

# 5. TEMPORARY SEEDING

Stabilize disturbed areas that will not be brought to final grade and reduce problems associated with mud and dust production from exposed soil surface during construction with temporary vegetation.

# 6. TEMPORARY MULCHING

Use temporary mulch in the following locations and/or circumstances:

- In sensitive areas (within 100 feet of streams, wetlands and in lake watersheds) temporary mulch will be applied within 7 days of exposing spill or prior to any
- Apply temporary mulch within 14 days of disturbance or prior to any storm event in all other areas.
- Areas which have been temporarily or permanently seeded will be mulched immediately following seeding.
- Areas which cannot be seeded within the growing season will be mulched for over-winter protection and the area will be seeded at the beginning of the
- Mulch can be used in conjunction with tree, shrub, vine, and ground cover • Mulch anchoring will be used on slopes greater than 5 percent in late fall (past
- October 15), and over-winter (October 15 April 15).

# The following materials may be used for temporary mulch:

- a. Hay or Straw material shall be air-dried, free of seeds and coarse material. Apply 2 bales/1,000 sf or 1.5 to 2 tons/acre to cover 90% of ground surface.
- b. Erosion Control Mix: It can be used as a stand-alone reinforcement: 2-inches thick for slopes flatter than 3H:1V;
- 4-inches thick for slopes greater than 3H:1V;
- on slopes 2 horizontal to 1 vertical or less; on frozen ground or forested areas; and
- at the edge of gravel parking areas and areas under construction.
- c. Erosion control mix alone is not suitable: on slopes with groundwater seepage;
- at low points with concentrated flows and in gullies;
- at the bottom of steep perimeter slopes exceeding 100 feet in length;
- below culvert outlet aprons; and around catch basins and closed storm systems.

- d. Chemical Mulches and Soil Binders: Wide ranges of synthetic spray-on materials are marketed to protect the soil surface. These are emulsions that are mixed with water and applied to the soil. They may be used alone, but most often are used to hold wood fiber, hydro-mulches or straw to the soil surface.
- e. Erosion Control Blankets and Mats: Mats are manufactured combinations of mulch and netting designed to retain soil moisture and modify soil temperature. During the growing season (April 15th to November 1st) use mats indicated on drawings or North American Green (NAG) S75 (or mulch and netting) on:
- the base of grassed waterways;
- steep slopes (15 percent or greater); and
- any disturbed soil within 100 feet of lakes, streams, or wetlands.

During the late fall and winter (November 1st to April 15th) use heavy grade mats indicated on drawings for NAG SC250 on all areas noted above plus use lighter grade mats

NAG S75 (or mulch and netting) on: • sideslopes of grassed waterways; and moderate slopes (between 8 and 15

# C. TEMPORARY DUST CONTROL

To prevent the blowing and movement of dust from exposed soil surfaces, and reduce the presence of dust, use water or calcium chloride to control dusting by preserving the moisture level in the road surface materials.

# D. CONSTRUCTION DE-WATERING

- 1. Water from construction de-watering operations shall be cleaned of sediment before reaching wetlands, water bodies, streams or site boundaries. Utilize temporary sediment basins, erosion control soil filter berms backed by staked hay bales, A Dirt Bag 55" sediment filter bag by ACF Environmental, or other approved Best Management Practices
- 2. In sensitive areas near streams or ponds, discharge the water from the de-watering operation into a temporary sediment basin created by a surrounding filter berm of uncompacted erosion control mix immediately backed by staked hav bales (see the site details). Locate the temporary sediment basin at lease 100 feet from the nearest water body, such that the filtered water will flow through undisturbed vegetated soil areas prior to reaching the water body or property line.
- E. PERMANENT MEASURES
- 1. Riprapped Aprons: All storm drain pipe outlets and the inlet and outlet of culverts will have riprap aprons to protect against scour and deterioration.
- 2. Topsoil, Seed, and Mulch: All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, seeded, and

Seeded Preparation: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used. Grade the site as needed.

a. Seeding will be completed by August 15 of each year. Late season seeding may be done between August 15 and October 15. Areas not seeded or which do not obtain satisfactory growth by October 15, will be seeded with Aroostook Rye or mulched. After November 1, or the first killing frost, disturbed areas will be seeded at double the specified application rates, mulched, and anchored.

# PERMANENT SEEDING SPECIFICATIONS OUTSIDE OF SOLAR ARRAY FOOTPRINT

Mixture:	Roadside (lbs/acre)	Lawn (lbs/acre)
Kentucky Bluegrass	20	55
White Clover	5	0
Creeping Red Fescue	20	55
Perennial Ryegrass	5	15

- b. Provide New England Meadow mix seed in areas of solar array
- c. Mulch in accordance with specifications for temporary mulching.
- d. If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.
- 3. Ditches and Channels: All ditches on-site will be lined with North American Green S75 erosion control mesh (or an approved equal) upon installation of loam and seed.
- F. WINTER CONSTRUCTION AND STABILIZATION
- 1. Natural Resource Protection: During winter construction, a double-row of sediment barriers (i.e., silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area. Projects crossing the natural resource will be protected a minimum distance of 100 feet on either side from the resource.
- 2. Sediment Barriers: During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

# 3. Mulching:

- All areas will be considered to be denuded until seeded and mulched. Hay and straw mulch will be applied at a rate of twice the normal accepted rate.
- Mulch will not be spread on top of snow. After each day of final grading, the area will be properly stabilized with anchored
- hay or straw or erosion control matting. Between the dates of November 1 and April 15, all mulch will be anchored by
- either mulch netting, emulsion chemical, tracking or wood cellulose fiber.
- 5. Soil Stockpiling: Stockpiles of soil or subsoil will be mulched for over-winter protection with hay or straw at twice the normal rate or with a 4-inch layer of erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall. Any soil stockpiles shall not be placed (even covered with mulch) within 100 feet from any natural resources. Sediment barriers should be installed downgradient of stockpiles. Stormwater shall be directed away from stockpiles.
- 6. Seeding: Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas will receive 4 inches of loam and seed at an application rate of three times the rate for permanent seeding. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 percent catch) will be revegetated by replacing loam, seed, and mulch.

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

- 7. Maintenance: Maintenance measures will be applied as needed during the entire construction season. After each rainfall, snow storm, or period of thawing and runoff, and at least once a week, the site Contractor will perform a visual inspection of all installed erosion control measures and perform repairs as needed to ensure their continuous function.
- 8. Identified repairs will be started no later than the end of the net work day and be completed within seven (7) calendar days.

Following the temporary and/or final seeding and mulching, the Contractor will, in the spring, inspect and repair any damages and/or bare spots. An established vegetative cover means a minimum of 85 to 90 percent of areas vegetated with vigorous growth.

- G. OVER-WINTER CONSTRUCTION EROSION CONTROL MEASURES
- Stabilization of Disturbed Soil: By October 15, all disturbed soils on areas having a slope less than 15 percent will be seeded and mulched. If the Contractor fails to stabilize these soils by this date, then the Contractor shall stabilize the soil for late fall and winter, by using either temporary seeding or mulching.
- Stabilization of Disturbed Slopes: All slopes to be vegetated will be completed by October 15. The Owner will consider any area having a grade greater than 15 percent (6.5H:1V) to be a slope. Slopes not vegetated by October 15 will receive one of the following actions to stabilize the slope for late fall and winter:
- a. Stabilize the soil with temporary vegetation and erosion control mesh.
- b. Stabilize the slope with erosion control mix. c. Stabilize the slope with stone riprap.
- d. Slopes steeper than 1.5:1 are prohibited.
- 3. Stabilization of Ditches and Channels: All stone-lined ditches and channels to be used to convey runoff through the winter will be constructed and stabilized by November 15. Grass-lined ditches and channels will be complete by September 15. Grass-lined ditches not stabilized by September 15 shall be lined with either sod or riprap.

# H. MAINTENANCE PLAN

1. Routine Maintenance: Inspection will be performed as outlined in the project's Erosion Control Plan. Inspection will be by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities will include checking erosion controls for accumulation of sediments.

# Housekeeping

- 1. Spill prevention. Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and
- 2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- 3. Fugitive sediment and dust. Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control. If off-site tracking occurs roadways should be swept immediately and no loss once a week and prior to significant storm events.
- 4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- 5. Trench or foundation de-watering. Trench de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the department.
- 6. Authorized Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:
- (a) Discharges from firefighting activity;
- (b) Fire hydrant flushings;
- (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
- (d) Dust control runoff in accordance with permit conditions and section I3;
- (e) Routine external building washdown, not including surface paint removal, that does
- (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
- (g) Uncontaminated air conditioning or compressor condensate;
- (h) Uncontaminated groundwater or spring water;
- (i) Foundation or footer drain-water where flows are not contaminated;
- (j) Uncontaminated excavation dewatering (see requirements in section I5);
- (k) Potable water sources including waterline flushings; and
- Landscape irrigation.
- Unauthorized non-stormwater discharges. The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non stormwater, other than those discharges in compliance with section I6. Specifically, the Department's approval does not authorize discharges of the following:
- (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
- (b) Fuels, oils or other pollutants used in vehicle and equipment operation and
- (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
- (d) Toxic or hazardous substances from a spill or other release.
- 8. Additional requirements. Additional requirements may be applied on a site-specific basis. J. CONSTRUCTION SEQUENCE
- In general, the expected sequence of construction for each phase is provided below.
- Construction is proposed to start in Fall 2023 and end in 2024. Mobilization

Site stabilization, loam and seed, and landscaping

Install reclaimed parking lot and drive

- Install temporary erosion control measures
- Clearing and grubbing Site Grading

# **EROSION CONTROL MIX SEDIMENT BARRIER**

F. PH: 5.0 - 8.0

- 1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FILIME LOG HANDLING SYSTEMS. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH.
- THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- A. ORGANIC MATERIAL: BETWEEN 20% 100% (DRY WEIGHT BASIS) B. PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN
- C. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED. D. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. E. SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 MMHOS/CM.
- 2. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES 2:1 OR LESS UP TO 20 FEET LONG, THE BARRIER MUST CONFORM TO THE ABOVE DIMENSIONS. ON THE LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL FLOW.
- 3. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL ELEVATION. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS
- 4. LOCATIONS WHERE OTHER BMP'S SHOULD BE USED:
- A. AT LOW POINTS OF CONCENTRATED FLOW B. BELOW CULVERT OUTLET APRONS
- C. WHERE A PREVIOUS STAND-ALONE EROSION CONTROL MIX APPLICATION HAS FAILED D. AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM
- (LARGE UPGRADIENT WATERSHED) E. AROUND CATCH BASINS AND CLOSED STORM DRAIN SYSTEMS. 5. THE EROSION CONTROL MIX BARRIERS SHOULD BE INSPECTED REGULARLY AND AFTER EACH LARGE RAINFALL.
- REPAIR ALL DAMAGED SECTIONS OF BERM IMMEDIATELY BY REPLACING OR ADDING ADDITIONAL MATERIAL PLACED ON THE BERM TO THE DESIRED HEIGHT AND WIDTH. 6. IT MAY BE NECESSARY TO REINFORCE THE BARRIER WITH SILT FENCE OR STONE CHECK DAMS IF THERE ARE
- 7. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF

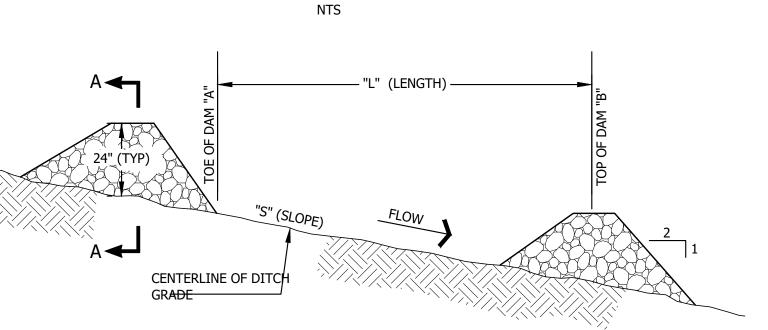
SIGNS OF UNDERCUTTING OR THE IMPOUNDMENT OF LARGE VOLUMES OF WATER.

INEFFECTIVE. THE BARRIER SHOULD BE RESHAPED AS NEEDED. 9. EROSION CONTROL MIX BARRIERS CAN BE LEFT IN PLACE AFTER CONSTRUCTION. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHOULD BE SPREAD TO CONFORM TO THE

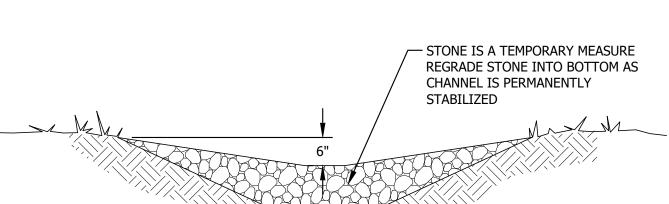
EXISTING GRADE AND BE SEEDED AND MULCHED, WOODY VEGETATION CAN BE PLANTED INTO THE BARRIERS.

8. REPLACE SECTIONS OF BERM THAT DECOMPOSE, BECOME CLOGGED WITH SEDIMENT OR OTHERWISE BECOME

# OR THEY CAN BE OVER-SEEDED WITH LEGUMES. IF THE BARRIER NEEDS TO BE REMOVED, IT CAN BE SPREAD SURFACE DRAINAGE SEDIMENT CONTROL



# **ELEVATION VIEW**



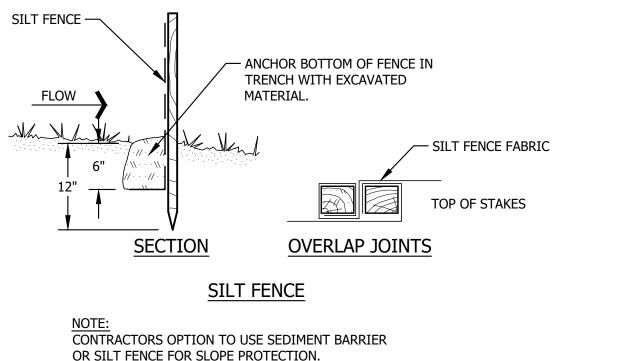
# **SECTION A-A**

SLOPE & LENGTH TABLE				
	"S" (SLOPE) FT/FT	"L" (LENGTH) FT		
	0.020	100		
	0.030	66		
	0.040	50		
	0.050	40		
	0.080	25		
	0.100	20		
	0.120	17		
	0.150	13		
L= THE DISTANCE SUCH THAT POINTS				

A AND B ARE OF EQUAL ELEVATION

- WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND DAMS. SEDIMENT SHOULD BE REMOVED FROM BEHIND DAMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE DAM.
- 2. STONE: 2"-3" CRUSHED STONE (MDOT 703.31)

# STONE CHECK DAM



**ELEVATION** 

# 2" CRUSHED STONE OR RECYCLED CONCRETE OF EQUIVALENT SIZE ——

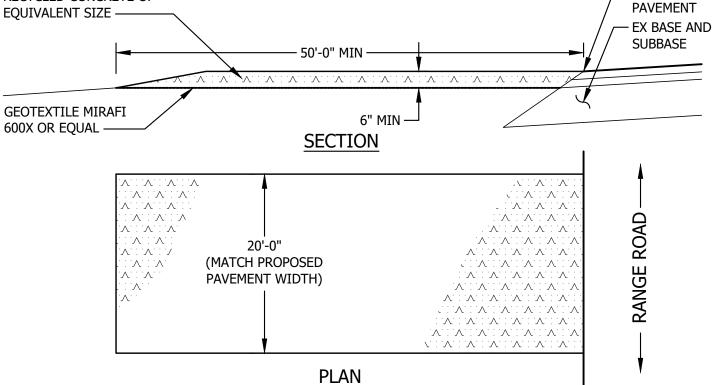
- SILT FENCE FABRIC

AT 6'-0" MAX OC ON

DOWNSTREAM SIDE

LOAM AND SEED

- HARDWOOD STAKES SPACED

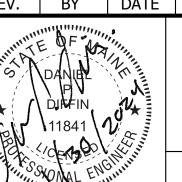


- EDGE OF EX

- MAINTAIN ENTRANCE IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. IF WASHING IS REQUIRED PREVENT SEDIMENT FROM ENTERING WATERWAYS, DITCHES OR STORM DRAINS.
- REMOVE STABILIZED CONSTRUCTION ENTRANCE TO FINISH ROAD CONSTRUCTION &

# STABILIZED CONSTRUCTION ENTRANCE

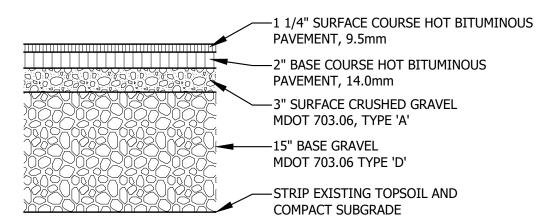
DPD	1/2024	REISSUED WITH ENTRANCE MODIFICATIONS
DPD	11/2023	REISSUED TO TOWN FOR REVIEW
DPD	7/2023	ISSUED TO TOWN FOR REVIEW
BY	DATE	STATUS
	DPD DPD	DPD 11/2023 DPD 7/2023



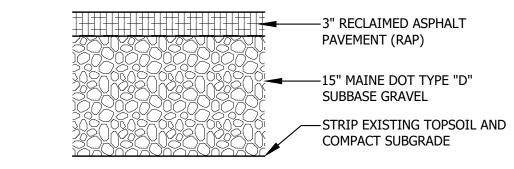
CHEBEAGUE AND CUMBERLAND LAND TRUST READ PROPERTY PARKING LOT **BLANCHARD ROAD** CUMBERLAND, MAINE

# **EROSION CONTROL NOTES AND DETAILS**

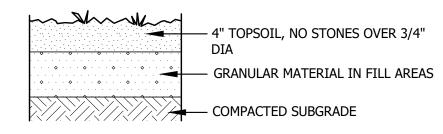




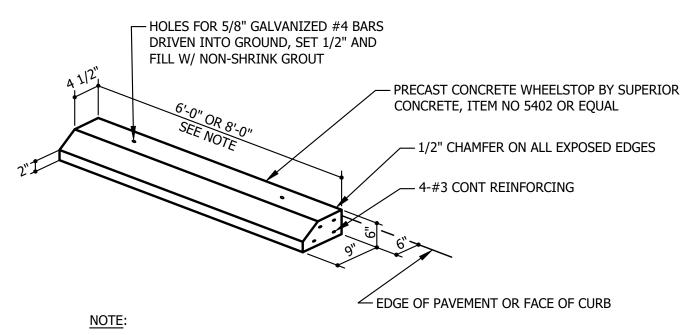
PARKING LOT ENTRANCE SURFACE



RECLAIMED ASPHALT PARKING LOT SURFACE

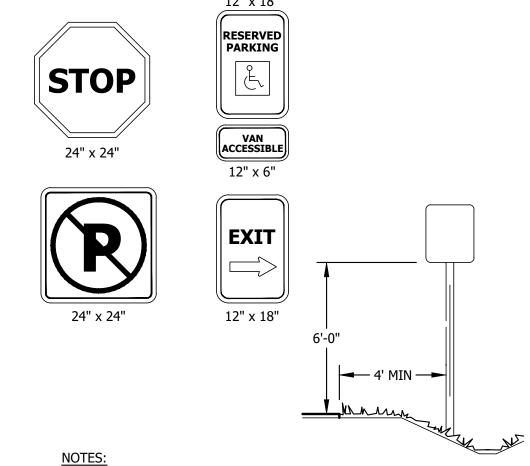


LOAM AND SEED SURFACE



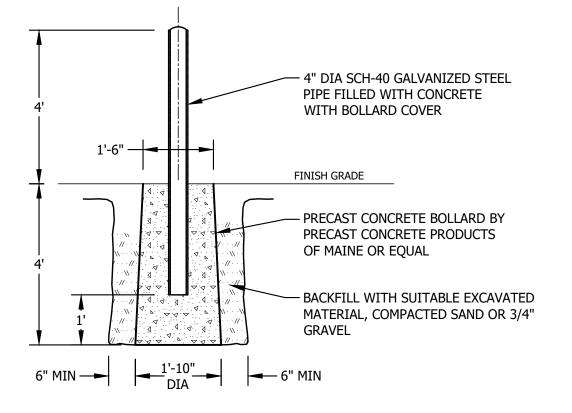
PROVIDE 8' WHEELSTOP AT PARKING SPACES. PROVIDE 6' WHEELSTOP AT ACCESSIBLE PARKING SPACES.

CONCRETE WHEELSTOP DETAIL



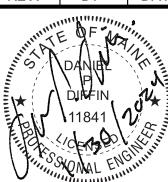
- 1. SIGNS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES REVISION OF DECEMBER 2002, SECTION 645.
- 2. ALL PERMANENT SIGNS ON THIS PROJECT ARE CLASSIFIED UNDER SECTION 645.03(b) TYPE 1 REGULATORY WARNING AND ROUTE MARKER ASSEMBLY SIGNS.
- 3. SIGN MATERIAL SHALL BE AS SPECIFIED IN SECTION 719 OF THE MDOT STANDARD SPECIFICATIONS.
- 4. POSTS SHALL BE METAL CHANNELS AS SPECIFIED IN SECTION 720.08. ALTERNATE POSTS MAY BE 4"x6" WOOD AS SPECIFIED IN SECTION 720.12, AS APPROVED BY ENGINEER.
- 5. POSTS IN THE PUBLIC RIGHT-OF-WAY TO BE ON BREAKAWAY POSTS AS SPECIFIED IN SECTION 720 OF THE MDOT STANDARD SPECIFICATIONS.

ROAD SIGN LEGEND



PRECAST STEEL BOLLARD

	DPD	1/2024	REISSUED WITH ENTRANCE MODIFICATIONS	
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	DPD	7/2023	ISSUED TO TOWN FOR REVIEW	
REV.	BY	DATE	STATUS	



CHEBEAGUE AND CUMBERLAND LAND TRUST READ PROPERTY PARKING LOT **BLANCHARD ROAD** CUMBERLAND, MAINE

# SECTIONS AND DETAILS

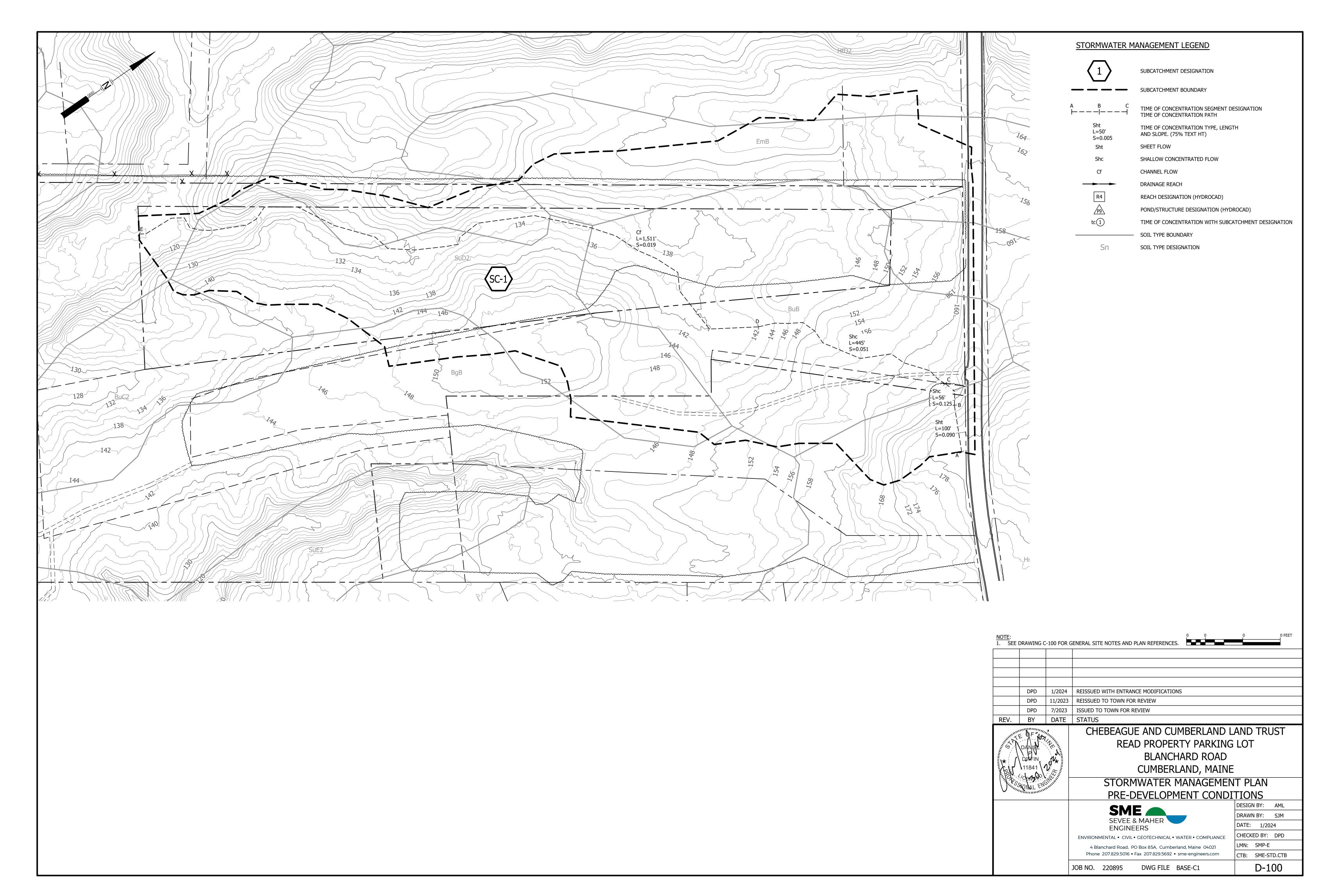
DESIGN BY: AML

DRAWN BY: SJM



DATE: 1/2024 CHECKED BY: DPD ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE LMN: NONE 4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com CTB: SME-STD.CTB C-301

JOB NO. 220895 DWG FILE DETAILS



ERVERIcfs/Chebeague and Cumberland Land Trust\Read Property Parking Lot\Acad\Plans\BASE-C1.dwg, D-100, 1/24/2024 2:10:08

