	DP/BCP/RP/ULP	\$\$		LUPC Received
Tracking No.		Permit No.	Fee Received	02/04/2025
Property Inforr	mation – LUPC Nor	residential De	evelopment	Application
numbers are listed on yo	<b>N.</b> Provide the following de ur property tax bill. If you le bers have been assigned to	ease your property, c		
Applicant	Township, Tow	n or Plantation	County	
, p. 1 2 1 1 1 1 1 1.				
ax Map, Plan, and Lot N	umbers [list all applicable; o	check tax bill(s)]		
ot size (in acres, or in sq	uare feet if less than 1 acre	Deed Book and Pag		
		assigned by a prop	erty owner)	
All Zoning on Property (ca Guidance Map)	heck the LUPC Land Use	Zoning at Developr	nent Site	
_	name(s) and frontage(s) (in vate roads, or other rights- ot:	Water Frontage: Li feet) for any lakes, unnamed), or coas lot:	ponds, rivers, stre	eams (named and
oad #1	ft.	Waterbody #1		Frontageft.
oad #2 Allagash Rdpvt.*	Frontage <u>5,500</u> ft.	Waterbody #2		Frontageft.
	ge, describe the access for t	the property.		
UPC Approved Subdivis nd lot numbers:	ion: If the lot is part of an L	UPC approved subdiv	vision, provide the	subdivision permi
ubdivision Permit #	and Lot #	(usually in	cluded in deed des	scription)
RIEF PROJECT SUMMAI Proposed project name, i	RY (include proposed zoning f applicable)	າ if submitting an app	olication for zone c	hange; include
APPLICATION FEE (see th	ne <u>Application Fee exhibit</u> fo	r more information,	including surcharg	es if paying
nline) Please check one				
	check or money order to pa			
☐ I would like to pay	y my application fee online.	Please contact me w	ith the necessary	information.



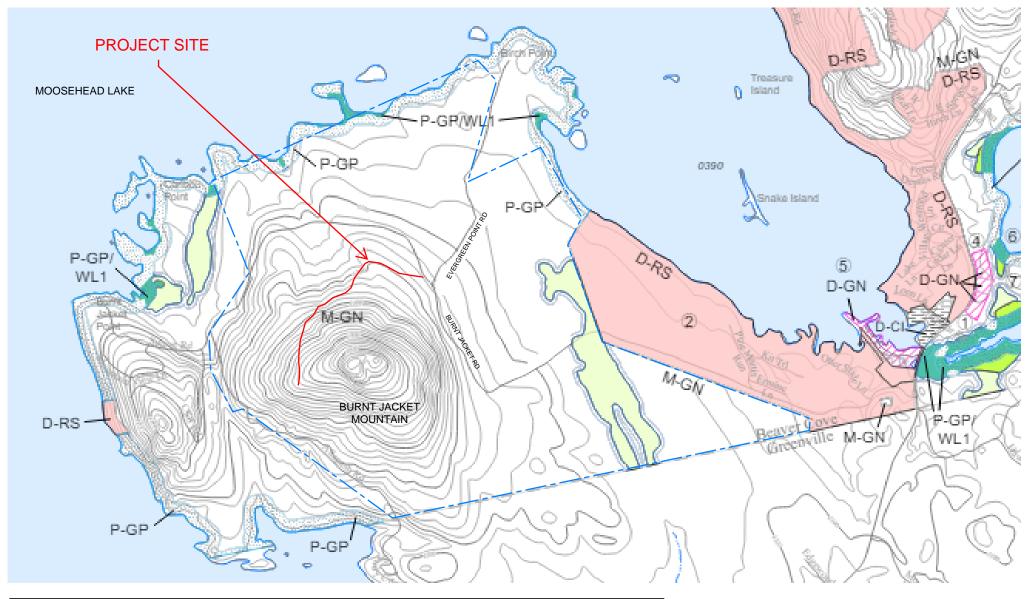
NARRATIVE DIRECTIONS:

02/04/2025 for approximately 7

The site is located on the Burnt Jacket Mountain peninsula off of Burnt Jacket Road. From Greenville, ME, head north on Main Street for approximately 7.9 miles. Turn west onto Burnt Jacket Road. The site is located just west of the junction of Burnt Jacket Road and Evergreen Point Rd.

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## EXHIBIT 1 - DIRECTIONS AND LOCATION MAP - CONTINUED:



The project site is located on Burnt Jacket Mountain. The proposed driveway entrance is off Burnt Jacket Road, near the intersection of Evergreen Point Road.

- — - Property Line

Proposed Driveway



## **EXHIBIT 2 - PROJECT DESCRIPTION:**

The Burnt Jacket Holding I, LLC ownership has been used as commercial timberland. The property and the proposed project site is undeveloped.

The proposed private driveway is to provide access to a few residential structures and associated out buildings. The proposed driveway is located on private property and is 1,286 ft from the nearest property line.

The driveway's entrance will be near the intersection of Burnt Jacket Road and Evergreen Point Road. The proposed driveway is 4,059' long and 16' wide with a minimum of 2' wide shoulders on each side. Refer to the attached site plan (Exhibit 10) for additional information.

ATTEST: Linda M Smith, Register of Deeds

UPC Received 02/04/2025

#### QUITCLAIM DEED WITH COVENANT

**DLN:** 1002240208870

BURNT JACKET, LLC, a Maine limited liability company with a principal place of business at Hermon, Penobscot County, Maine ("Grantor"), for consideration paid, grants to BURNT JACKET HOLDING I, LLC, a Delaware limited liability company with a mailing address of c/o Thomas W. Richardson, Room 10408, 601 Massachusetts Ave., NW, Washington, D.C. 20001 ("Grantee"), with Quitclaim Covenant, the land, together with any buildings and improvements and the standing timber thereon, in Beaver Cove, Piscataquis County, State of Maine, described as follows:

See Exhibit A attached hereto and made a part hereof (the "Premises").

The Premises is conveyed subject to the instruments referenced on Exhibit B.

Any and all other rights, easements, privileges and appurtenances belonging to the Premises are hereby conveyed.

IN WITNESS WHEREOF, Burnt Jacket, LLC has caused this instrument to be signed in its company name and sealed with its company seal by Henry E. McPherson, President of its Manager, McPherson Timberlands, LLC, hereunto duly authorized, this \_\_\_\_\_ day of September, 2022.

WITNESS:

**BURNT JACKET, LLC** 

By: McPherson Timberlands, LLC

Its: Manager

By: Henry E. McPherson

Its: President

STATE OF MAINE COUNTY OF PENOBSCOT

September <u>7</u>, 2022

Then personally appeared the above-named Henry E. McPherson and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of limited liability companies.

Before me,

Christopher J. Austin, Maine Attorney-at-law

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#### Exhibit A

#### PARCEL ONE:

A certain lot or parcel of land with the improvements thereon situate on the westerly sideline of Lily Bay Road, so called, and on the easterly shore of Moosehead Lake, so called, in the Town of Beaver Cove (a.k.a. Township A2, Range 13 and 14 WELS), County of Piscataquis, State of Maine, more particularly described as follows:

Beginning at an iron rod set on the westerly sideline of said Lily Bay Road, as depicted on the State of Maine Department of Transportation Right of Way Map for State Aid Highway No. 1, D.O.T. File No. S-11-133, dated December 1978, said iron rod also being located on the Beaver Cove/Greenville town line, said iron rod also being located at coordinates N: 680739.21 usft; E: 715681.37 usft;

Thence S 78° 37' 37" W by and along said town line, a distance of 11086.56 feet to an iron rod set easterly of the Burnt Jacket Road, so called;

Thence continuing S 78° 37' 37" W, by and along said town line, crossing said Burnt Jacket Road, a distance of 87 feet, more or less, to the southeasterly corner of lands now or formerly of Debra Acquavita, et al, as described in Volume 566, Page 340, said point being located 50 feet southwesterly of the centerline of said Burnt Jacket Road;

Thence in a northwesterly direction and at all times 50 feet southwesterly of and parallel to the centerline of said Burnt Jacket Road and by and along the northeasterly line of said lands of Aquavita, lands now or formerly of Bolton Cove LLC, as described in Volume 2576, Page 66, lands now or formerly of Tor O. Raubenheimer and Janet Weaver, as described in Volume 2612, Page 229 and lands now or formerly of Northern Lights Trust, as described in Volume 2350, Page 233, a distance of 4500 feet, more or less, to an iron rod set, said iron rod being located N 53° 44' 46" W, a tie distance of 4338.95 feet from the last mentioned iron rod set;

Thence S 58° 20' 21" W by and along the northwesterly line of said lands of Northern Lights Trust, a distance of 231.35 feet to an iron rod set in an existing blazed line at the southeasterly corner of lands now or formerly of Lawrence and Pamela Deangelis, as described in Volume 1055, Page 33;

Thence N 20° 44' 39" W by and along the easterly line of said lands of Deangelis and lands now or formerly of John Phinney as described in Volume 544, Page 141, a distance of 1031.91 feet to a point southerly of a gravel road;

Thence N 19° 28' 56" W by and along the easterly line of said lands of Phinney and lands now or formerly of William and Susan Davis, as described in Volume 1239, Page 104, a distance of 36.84 feet to a point northerly of said gravel road;

Thence in a northeasterly direction, and at all times 16.5 feet northwesterly of said gravel road and said Burnt Jacket Road centerline, by and along the southeasterly line of lands now or

formerly of Brandon Pollock as described in Volume 2730, Page 152, lands now or formerly of Salvelinus Fontinalis LLC as described in Volume 2730, Page 147, and lands now or formerly of said Brandon Pollock as described in Volume 2730, Page 143, a distance of 2340 feet, more or less, to an iron rod set, said iron rod being located N 31° 26' 51" E, a tie distance of 2227.16 feet from the last mentioned point northerly of said gravel road;

Thence N 31° 51' 49" W by and along the northeasterly line of said lands of Brandon Pollock, a distance of 1779.49 feet to an iron rod set;

Thence continuing N 31° 51' 49" W by and along the northeasterly line of said lands of Brandon Pollock, a distance of 6 feet, more or less, to the high water mark of said Moosehead Lake defined as the 1029-foot contour referenced to mean sea level;

Thence in a general northeasterly direction, by and along said high water mark of said Moosehead Lake, a distance of 10,370 feet, more or less, to the most westerly corner of other lands now or formerly of Burnt Jacket, LLC as described in Volume 2536, Page 110;

Thence S 48° 13' 47" E by and along the southwesterly line of said lands now or formerly of Burnt Jacket, LLC, a distance of 122 feet, more or less, to an iron rod set, said iron rod being located N 66° 47' 08" E, a tie distance of 5681.02 feet from the last-mentioned iron rod set;

Thence continuing S 48° 13' 47" E by and along the southwesterly line of said lands now or formerly of Burnt Jacket, LLC, a distance of 849.81 feet to an iron rod set on the westerly line of lands now or formerly of Laurel Real Estate Company, LLC as described in Volume 2613, Page 133;

Thence S 16° 53' 30" W by and along the westerly line of said lands of Laurel Real Estate Company, LLC, a distance of 1646.14 feet to an iron rod found;

Thence N 74° 41' 16" E by and along the southerly line other lands of said Cove Point, LLC as described in Volume 1833, Page 310, a distance of 1870.38 feet to an iron rod found;

Thence continuing N 74° 41' 16" E by and along the southerly line of said lands of Cove Point, LLC, a distance of 8 feet, more or less, to said high water mark of said Moosehead Lake;

Thence in a southeasterly direction, by and along said highwater mark of said Moosehead Lake, a distance of 1476 feet more or less to the northwesterly corner of lands now or formerly of David and Deanna Young as described in Volume 2508, Page 181;

Thence S 35° 24' 35" W by and along the westerly line of said lands of David and Deanna Young, a distance of 10 feet, more or less, to an iron rod set, said iron rod being located S 30° 14' 09" E, a tie distance of 1417.00 feet from the last-mentioned iron rod found;

Thence continuing S 35° 24' 35" W by and along the westerly line of said lands of David and Deanna Young, a distance of 417.62 feet to the northerly and easterly sideline of a right of way crossing said lands of David & Deanna Young and appurtenant to the parcel described herein;

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## **EXHIBIT 3 - DEED - CONTINUED:**

Thence continuing S 35 °24 '35" W by and along the westerly line of said lands of David and Deanna Young and the northwesterly end of said right of way, a distance of 69.85 feet to a point;

Thence continuing S 35 °24 '35" W by and along the westerly line of said lands of David and Deanna Young, a distance of 291.31 feet to an iron rod set;

Thence S 18° 57' 28" E by and along the westerly line of said lands of David and Deanna Young, a distance of 1894.11 feet to an iron rod set on the northerly sideline of a 75-foot wide right of way over said Burnt Jacket Road;

Thence N 81° 42′ 37″ E by and along the northerly sideline of said Burnt Jacket Road, a distance of 71.52 feet to a point;

Thence S 67° 31′ 59" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 331.25 feet to a point;

Thence S 70° 58' 24" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 330.93 feet to a point;

Thence S 70° 58′ 24″ E by and along the northerly sideline of said Burnt Jacket Road, a distance of 160.00 feet to a point;

Thence S 70° 58′ 24″ E by and along the northerly sideline of said Burnt Jacket Road, a distance of 59.75 feet to a point;

Thence S 68° 49′ 17″ E by and along the northerly sideline of said Burnt Jacket Road, a distance of 374.05 feet to a point;

Thence S 73° 09' 05" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 472.24 feet to a point;

Thence S 67° 30′ 33″ E by and along the northerly sideline of said Burnt Jacket Road, a distance of 788.71 feet to a point;

Thence S 73° 03' 38" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 188.71 feet to a point;

Thence S 64° 33' 13" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 161.93 feet to an iron rod set at the southeasterly corner of said lands of David and Deanna Young and the southwesterly corner of Burnt Jacket Shores at Moosehead Lake, the plans of which being recorded May 19, 2009 in Plan Book 2009, Pages 13, 14, and 15;

Thence S 64° 33' 13" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 588.23 feet to a point;

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Thence S 70° 17' 38" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 254.91 feet to a point;

Thence S 67° 08' 53" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 384.53 feet to a point;

Thence S 72° 10′ 12″ E by and along the northerly sideline of said Burnt Jacket Road, a distance of 196.19 feet to a point;

Thence S 64° 44′ 09" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 254.39 feet to a point;

Thence S 75° 03' 02" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 308.15 feet to a point;

Thence N 85° 31' 40" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 233.80 feet to a point;

Thence N 66° 07' 05" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 186.24 feet to a point;

Thence N 90° 00′ 00″ E by and along the northerly sideline of said Burnt Jacket Road, a distance of 384.76 feet to a point;

Thence N 85° 05' 30" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 147.57 feet to a point;

Thence N 66° 09' 11" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 104.34 feet to a point;

Thence N 33° 34′ 01" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 236.66 feet to a point;

Thence N 45° 44′ 35" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 130.41 feet to a point;

Thence N 66° 53' 55" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 53.11 feet to an iron rod set at the southeasterly corner of Open Space Area 5 as depicted on said plans of Burnt Jacket Shores at Moosehead Lake;

Thence continuing N 66° 53' 55" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 150.33 feet to a point;

Thence N 84° 33' 20" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 172.48 feet to a point;

Thence S 88° 05' 12" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 70.10 feet to a point;

Thence S 66° 29' 32" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 90.42 feet to a point;

Thence S 46° 37' 38" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 75.73 feet to a point;

Thence S 26° 47′ 33″ E by and along the northerly sideline of said Burnt Jacket Road, a distance of 94.92 feet to a point;

Thence S 62° 59' 22" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 12.21 feet to a point;

Thence S 83° 05' 57" E by and along the northerly sideline of said Burnt Jacket Road, a distance of 171.94 feet to a point on the westerly sideline of said Lily Bay Road;

Thence S 5° 54' 44" E by and along the westerly sideline of said Lily Bay Road, a distance of 213.42 feet to the point of beginning;

Containing 1423.5 acres, more or less.

#### **PARCEL TWO:**

A certain lot or parcel of land with the improvements thereon situate westerly of Lily Bay Road, so called, on the easterly shore of Moosehead Lake, so called, in the Town of Beaver Cove (a.k.a. Township A2, Range 13 and 14 WELS), County of Piscataquis, State of Maine, more particularly described as follows:

Beginning at an iron rod set in the westerly line of land now or formerly of Laurel Real Estate Company, LLC as described in Volume 2613, Page 133, said iron rod being further located N 16°53'33" E a distance of 1646.14 feet from a #6 rebar found in the southern most corner of said land of Laurel Real Estate Company, LLC; said #6 rebar having coordinates of: North: 685506.65 US feet, East: 706337.96 US feet referenced to the Maine State Coordinate System, East Zone, NAD 83, as determined by a survey conducted by Plisga & Day Land Surveyors;

Thence N 48°13'47" W by and along the southerly line of lands described as Parcel Two in a deed from Burnt Jacket, LLC to Cove Point, LLC dated September 5, 2012 recorded in Volume 2187, Page 211, a distance of 849.81 feet to an iron rod set;

Thence continuing N 48°13'47" W by and along the southerly line of said Parcel Two, a distance of 122 feet, more or less, to the high water mark of Moosehead Lake;

Thence northeasterly, by and along said high water mark, a distance of 326 feet, more or less, to a point;

Thence S 48°13'43" E, a distance of 18 feet, more or less, to an iron rod set, said iron rod being located N 24°57'35" E, a tie distance of 335.64 feet from the last-mentioned iron rod set;

Thence continuing S 48°13'43" E, a distance of 515.86 feet to an iron rod set;

Thence continuing S 48°13'43" E, a distance of 336.62 feet to an iron rod set;

Thence N 18°48'00" E, a distance of 76.58 feet to an iron rod set on the southerly line of lands now or formerly of Burnt Jacket Properties, LLC as described in Volume 2835, Page 115;

Thence S 71°25'22" E by and along the southerly line of said lands of Burnt Jacket Properties, LLC, a distance of 204.02 feet to an iron rod set;

Thence S 24°41'27" W by and along the westerly line of said lands of Laurel Real Estate Company, LLC, a distance of 411.41 feet to an iron rod found;

Thence N 71°25'31" W by and along the westerly line of said lands of Laurel Real Estate Company, LLC, a distance of 200.25 feet to the point of beginning;

Containing 8.6 acres, more or less.

**Together with** a right of way for all purposes including utilities, running northwesterly from said Burnt Jacket Road across said lands now or formerly of David and Deanna Young as described in Volume 2508, Page 181 to the westerly line thereof, said right of way being more particularly described as follows:

Beginning at point on the northerly sideline of said Burnt Jacket Road located S 71°59'45" E, a tie distance of 725.25 feet from an iron rod set at the southwesterly corner of said lands of David and Deanna Young;

Thence N 36°27'19" E, a distance of 101.53 feet to a point;

Thence N 23°57'44" E, a distance of 225.22 feet to a point;

Thence N 18°28'45" E, a distance of 141.93 feet to a point of curvature;

Thence in a northerly direction, along a curve to the left with a radius of 17.00 feet, an arc distance of 18.13 feet to a point of tangency; said curve having a chord bearing N 12°04'25" W, a chord distance of 17.28 feet;

Thence N 42°37'34" W, a distance of 99.13 feet to a point;

Thence N 53°28'23" W, a distance of 227.28 feet to a point;

Thence N 44°18'38" W, a distance of 119.68 feet to a point;

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Thence N 15°36'54" W, a distance of 73.12 feet to a point;

Thence N 04°38'56" W, a distance of 219.63 feet to a point;

Thence N 08°39'21" W, a distance of 299.86 feet to a point;

Thence N 11°06'46" E, a distance of 96.46 feet to a point;

Thence N 41°50'53" E, a distance of 176.85 feet to a point of curvature;

Thence in a northerly direction, along a curve to the left with a radius of 94.96 feet, an arc distance of 90.83 feet to a point of compound curvature; said curve having a chord bearing N 14°26'44" E, a chord distance of 87.41 feet;

Thence in a northwesterly direction, along a compound curve to the left with a radius of 17.00 feet, an arc distance of 14.02 feet to a point of tangency; said curve having a chord bearing N 36°35'20" W, a chord distance of 13.63 feet;

Thence N 60°13'17" W, a distance of 87.50 feet to a point;

Thence N 71°03'44" W, a distance of 102.58 feet to a point;

Thence N 62°52'37" W, a distance of 155.58 feet to a point;

Thence N 53°49'44" W, a distance of 210.31 feet to a point;

Thence N 58°22'46" W, a distance of 78.23 feet to a point;

Thence N 79°24'01" W, a distance of 96.14 feet to a point;

Thence N 60°52'12" W, a distance of 121.67 feet to a point;

Thence N 43°47'36" W, a distance of 209.58 feet to a point;

Thence N 55°26'04" W, a distance of 66.24 feet to a point;

Thence N 73°41'44" W, a distance of 120.36 feet to a point on the westerly line of said lands of David and Deanna Young; said point located N 35°24'35" E, a distance of 291.31 feet from an iron rod set at an angle point in the westerly line of said lands of David and Deanna Young;

Thence N 35°24'35" E by and along the westerly line of said lands of David and Deanna Young, a distance of 69.85 feet to a point;

Thence S 73°41'44" E, a distance of 108.11 feet to a point;

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Thence S 55°26'04" E, a distance of 83.58 feet to a point;

Thence S 43°47'36" E, a distance of 206.40 feet to a point;

Thence S 60°52'12" E, a distance of 100.99 feet to a point;

Thence S 79°24'01" E, a distance of 97.62 feet to a point;

Thence S 58°22'46" E, a distance of 93.10 feet to a point;

Thence S 53°49'44" E, a distance of 207.71 feet to a point;

Thence S 62°52'37" E, a distance of 145.64 feet to a point;

Thence S 71°03'44" E, a distance of 104.12 feet to a point;

Thence S 60°13'17" E, a distance of 93.76 feet to a point of curvature;

Thence in a southeasterly direction, along a curve to the right with a radius of 83.00 feet, an arc distance of 68.47 feet to a point of compound curvature; said curve having a chord bearing S 36°35'20" E, a chord distance of 66.54 feet;

Thence in a southerly direction, along a compound curve to the right with a radius of 160.96 feet, an arc distance of 153.96 feet to a point of tangency; said curve having a chord bearing S 14°26'44" W, a chord distance of 148.16 feet;

Thence S 41°50'53" W, a distance of 158.71 feet to a point;

Thence S 11°06'46" W, a distance of 66.82 feet to a point;

Thence S 08°39'21" E, a distance of 290.67 feet to a point;

Thence S 04°38'56" E, a distance of 215.60 feet to a point;

Thence S 15°36'54" E, a distance of 49.90 feet to a point;

Thence S 44°18'38" E, a distance of 97.51 feet to a point;

Thence S 53°28'23" E, a distance of 228.26 feet to a point;

Thence S 42°37'34" E, a distance of 105.39 feet to a point of curvature;

Thence in a southerly direction, along a curve to the right with a radius of 83.00 feet, an arc distance of 88.52 feet to a point of tangency; said curve having a chord bearing S 12°04'25" E, a chord distance of 84.38 feet;

Thence S 18°28'45" W, a distance of 145.09 feet to a point;

Thence S 23°57'44" W, a distance of 220.04 feet to a point;

Thence S 13°21'47" E, a distance of 117.83 feet to a point on the northerly sideline of said Burnt Jacket Road;

Thence N 70°58'24" W by and along the northerly sideline of said Burnt Jacket Road, a distance of 160.00 feet to the point of beginning.

**Together with** (i) the right of way and easement, in common with others, for ingress and egress for pedestrian and vehicular traffic and for the installation of utilities, and (ii) an 8-foot wide utility easement, all as described in a deed from Birch Point Properties, LLC to Burnt Jacket, LLC dated April 23, 2010 recorded in Book 2051, Page 303.

**Together with** an 8-foot wide utility easement as described in an Easement Deed from Tedd H. Hamilton and Elaine Hamilton to Burnt Jacket, LLC dated April 17, 2010 recorded in Book 2052, Page 4.

**Together with** a utility easement as described in a deed from Birch Point Properties, LLC to Cove Point, LLC and Burnt Jacket, LLC dated January 3, 2018 recorded in Book 2536, Page 105.

**Together with** an easement and right of way for all purposes, including utilities, as described in a deed from Cove Point, LLC to Burnt Jacket, LLC dated December 22, 2017 recorded in Book 2536, Page 110.

**Together with** any and all rights and interests benefiting the Premises conveyed hereby and conveyed by Forest Vision Corporation to Forestree 96 Limited Partnership in the instrument entitled "Master Form recorded by Forest Vision Corporation" recorded in Book 1062, Page 78 of the Piscataquis County Registry of Deeds, and incorporated by reference in the deed from John Hancock Life Insurance Company to Burnt Jacket, LLC dated December 15, 2004 and recorded in Book 1622, Page 42 of said Registry of Deeds.

**Excepting** a parcel of land described in a deed to the Beaver Cove Sewer and Water Association recorded in Volume 573, Page 179 containing 0.79 acres.

Bearings referenced herein are oriented to Grid North of the Maine State Coordinate System, East Zone, NAD 83.

Distances cited herein are grid distances referenced to the Maine State Coordinate System, East Zone, NAD 83. Coordinates cited herein are referenced to said coordinate system.

Documents referenced herein are recorded in the Piscataquis County Registry of Deeds unless otherwise noted.

Iron rods set referenced herein are capped, #6 rebar stamped "Plisga & Day PLS 2361".

TOGETHER with Grantor's right, title and interest, if any, in and to the islands in Moosehead Lake lying northerly, westerly and easterly of the above-described Premises.

For Grantor's source of title reference is made to the following deeds:

- 1. Deed from Hancock Life Insurance Company to Burnt Jacket, LLC dated December 15, 2004 and recorded December 28, 2004 in Book 1622, Page 42 in the Piscataquis County Registry of Deeds.
- 2. Deed from Birch Point Properties, LLC to Burnt Jacket, LLC recorded June 3, 2010 in Book 2051, Page 303 in said Registry of Deeds.
- 3. Quitclaim Deed with Covenant from Cove Point to Burnt Jacket, LLC recorded January 30, 2018 in Book 2536, Page 110 in said Registry of Deeds.

#### Exhibit B

The property is conveyed subject to the following:

- 1. Rights, reservations and exceptions described in the Certificate of Forest Vision Corporation dated December 13, 1996 and recorded in Book 1062, Page 78 of the Piscataquis County Registry of Deeds.
- 2. Rights conveyed in the deeds from J. M. Huber Corporation to Wallace O. Raubenheimer and Kristin J. Raubenheimer, recorded in Book 524, Page 87 and recorded in Book 533, Page 334, and recorded in Book 592, Page 493 of the Piscataquis County Registry of Deeds and rights conveyed in the Easement Deed from Burnt Jacket, LLC to Wallace O. Raubenheimer and Kristin J. Raubenheimer dated March 6, 2014 and recorded in Book 2297, Page 70 of the Piscataguis County Registry of Deeds.
- 3. Terms and conditions of the right of Way and Easement deed from J. M. Huber Corporation to Richard H. Carleton, III, dated November 1, 1982 and recorded in Book 534, Page 205 of the Piscataquis County Registry of Deeds.
- 4. Rights conveyed in the deed from J. M. Huber Corporation to John D. Phinney, dated June 14, 1983 and recorded in Book 544, Page 141 of the Piscataguis County Registry of Deeds.
- 5. Rights conveyed in the deed to Gerry H. Whiting dated December 21, 1982 and recorded in Book 545, Page 471 of the Piscataguis County Registry of Deeds.
- 6. Rights conveyed in the deed to Brady & Son, Inc., dated September 20, 1983 and recorded in Book 549, Page 377 of the Piscataguis County Registry of Deeds.
- 7. Rights conveyed in the deed to James C. Kirkbright, et al., dated February 14, 1984 and recorded in Book 555, Page 343 of the Piscataquis County Registry of Deeds.
- 8. Easements set forth in the deed from J. M. Huber Corporation to Beaver Cove Sewer & Water Association, dated December 13, 1984, recorded in Book 573, Page 181 of the Piscataquis County Registry of Deeds.
- 9. Easements set forth in the deed from Burnt Jacket, LLC to Caribou Point, LLC dated December 15, 2004 and recorded in Book 1662, Page 118 of the Piscataguis County Registry of Deeds.
- 10. Easement Deed granted by Burnt Jacket, LLC to Frances C. Bigney dated May 30, 2006 and recorded in Book 1748, Page 202 of the Piscataquis County Registry of Deeds.

Page 21 BK: 2873 PG: 64

- 11. Easement Deed granted by Burnt Jacket, LLC to Tedd H. Hamilton and Elaine Hamilton dated April 17, 2010 and recorded in Book 2052, Page 4 of the Piscataquis County Registry of Deeds.
- 12. Agreement regarding Reallocation Fees between Winthrop R. Scudder, III, Trustee and Burnt Jacket, LLC dated January 6, 2015 and recorded in Book 2347, Page 43 of the Piscataquis County Registry of Deeds.
- 13. Agreement regarding Reallocation Fees between Jodi Lyn Maley, Trustee of the Northern Lights Trust and Burnt Jacket, LLC dated October 15, 2015 and recorded in Book 2399, Page 160 of the Piscataquis County Registry of Deeds.
- 14. Term and conditions of an Easement granted by Birch Point Properties, LLC to Cove Point, LLC and Burnt Jacket, LLC dated January 3, 2018 and recorded in Book 2536, Page 105 of the Piscataquis County Registry of Deeds.
- 15. Easement granted by Burnt Jacket, LLC to Cove Point, LLC dated December 22, 2017 and recorded in Book 2536, Page 108 of the Piscataguis County Registry of Deeds.
- 16. Rights of others, including the right to install utilities, in and to any roads and ways: (i) shown on the plans entitled "Burnt Jacket Shores at Moosehead Lake, Burnt Jacket Road - Town of Beaver Cove, Piscataquis County Maine" for Burnt Jacket, LLC dated April 29, 2009 and recorded in Plan File 2009, Pages 13, 14 and 15 of the Piscataquis County Registry of Deeds; (ii) shown on the plan entitled "Plan of Burnt Jacket Road" dated August 4, 2009 and recorded in Plan File 2009, Page 32 of the Piscataguis County Registry of Deeds; or (iii) described in the Burnt Jacket Road Owners Association Declaration of Covenants dated September 23, 2009 and recorded in Book 2012, Page 206 of the Piscataquis County Registry of Deeds, as amended by a Supplemental Declaration dated August 9, 2017 and recorded in Book 2507, Page 211 in Piscataquis County Registry of Deeds.
- 17. Subdivision Permit SP 4081 from Maine Land Use Regulation Commission to Burnt Jacket, LLC dated April 7, 2009 and recorded in Book 1977, Page 1 of the Piscataquis County Registry of Deeds.
- 18. Burnt Jacket Road Owners Association Declaration of Covenants dated September 23, 2009 and recorded in Book 2012, Page 206 of the Piscataquis County Registry of Deeds, as amended by a Supplemental Declaration dated August 9, 2017 and recorded in Book 2507, Page 211 in Piscataquis County Registry of Deeds.
- 19. Easements granted by Burnt Jacket, LLC to Central Maine Power and Northern New England Telephone Operations, LLC: (a) dated October 7, 2011 and recorded in Book 2135, Page 82 of the Piscataguis County Registry of Deeds; (b) dated October 7, 2011 and recorded in Book 2135, Page 83 of the Piscataquis County Registry of Deeds; (c) dated October 7, 2011 and recorded in Book 2135, Page 84 of the Piscataguis County Registry of Deeds; (d) dated October 7, 2011 and recorded in Book 2135, Page 85 of

Page 22

the Piscataquis County Registry of Deeds; (e) dated December 5, 2011 and recorded in Book 2145, Page 276 of the Piscataquis County Registry of Deeds; (f) dated December 23, 2014 and recorded in Book 2353, Page 26 of the Piscataquis County Registry of Deeds; (g) dated February 11, 2015 and recorded in Book 2367, Page 162 of the Piscataquis County Registry of Deeds: (h) dated May 1, 2015 and recorded in Book 2374, Page 314 of the Piscataquis County Registry of Deeds; (i) dated November 13, 2015 and recorded in Book 2410, Page 163 of the Piscataquis County Registry of Deeds; (j) dated December 31, 2015 and recorded in Book 2428, Page 11 of the Piscataquis County Registry of Deeds; (k) dated November 3, 2021 and recorded in Book 2812, Page 313 of the Piscataquis County Registry of Deeds; (l) dated November 12, 2021 and recorded in Book 2815, Page 23 of the Piscataquis County Registry of Deeds; (m) dated March 2, 2022 and recorded in Book 2838, Page 84 of the Piscataquis County Registry of Deeds; and (n) dated April 25, 2022 and recorded in Book 2849, Page 218 of the Piscataquis County Registry of Deeds.

- 20. Line Extension Conveyance granted by Burnt Jacket, LLC to Central Maine Power Company dated November 13, 2015 and recorded in Book 2410, Page 164 of the Piscataquis County Registry of Deeds.
- 21. Easement Agreement between Burnt Jacket, LLC and Caribou Point, LLC dated November 23, 2020 and recorded in Book 2730, Page 133 of the Piscataquis County Registry of Deeds.
- 22. Easement Agreement between Burnt Jacket, LLC and Cove Point, LLC dated November 23, 2020 and recorded in Book 2730, Page 138 of the Piscataquis County Registry of Deeds.
- 23. State of facts as depicted on a certain Sketch Plan showing property of Burnt Jacket, LLC and Cove Point, LLC dated August 2, 2022 and prepared by Plisga & Day Land Surveyors (Proj. No. 05033).
- 24. Right of others in and to Evergreen Road as depicted on said "Plan of Lots 1 & 2, Proposed Birch Point Land Sales" dated September 10, 1986 recorded in Plan Cabinet H, No. 184 of the Piscataquis County Registry of Deeds.
- 25. Easement crossing land lying between the southwesterly limits of the 33 foot wide easement centered on the Burnt Jacket Road and the northeasterly line of lands of said Debra Acquavita as described in Book 566, Page 340 of the Piscataquis County Registry of Deeds, lands of said Bolton Cove, LLC, as described in Book 2576, Page 66 of the Piscataquis County Registry of Deeds, lands of said Tor O. Raubenheimer and Janet Weaver as described in Book 2612, Page 229 of the Piscataquis County Registry of Deeds, and lands of said Northern Lights Trust as described in Book 2350, Page 233 of the Piscataquis County Registry of Deeds.
- 26. Easement granted by Burnt Jacket, LLC to Cove Point, LLC, dated September 2, 2022, to be recorded in the Piscataquis County Registry of Deeds.

## **Application Fee Calculation**

	Fee	
1	\$200.00	Base Fee - Non-residential development (1.02B 1h)
2	\$804.43	Activity Specific Fee
3	\$100.00	Fees for Uses Allowed by Special Exception (see Ch 10.21)
4	\$0.00	After-the-Fact-Fee
	4	

\$1,104.43

## **Activity Specific Fees**

2a	Disturbed area:	
	4.49	acres
	195,584	sf
	<u>\$195.58</u>	Fee
2c	Roads	(Land management Road, Level B Road)
	4,059	linear feet*
	\$0.15	Cost per linear foot
	\$608.85	Fee

<sup>\*</sup> Driveway length from Burnt Jacket Road to End

## **EXHIBIT 5 - FINANCIAL CAPACITY:**



LUPC Received 02/04/2025 Dhlandscapes207@gmail.com

(207) 992-3113

To Whom it may Concern:

This is a cost estimate proposal for D.H. Landscapes Inc (The Contractor) to install a roadway measuring a total distance of 4038' including underground utilities, drainage, and retaining walls. The cost estimation for this project based off the plans given is \$1,080,000.00.

If there are any further questions regarding the pricing of this project, please reach out to us by email.

**Dakota Harris** 

D.H. Landscapes Inc.

1735 Market Street | 26<sup>th</sup> Floor| Philadelphia, PA 19103 |Tel: 215-814-7223 | gaspare.cintorrino@gs.com

Gaspare Cintorrino
Vice President
Private Wealth Management
Asset and Wealth Management Division

Goldman Sachs

January 3, 2025

Maine Land Use Planning Commission (LUPC) 22 State House Sta, Augusta, ME 04333

Re: <u>Burnt Jacket Holding I, LLC (EA0-xxx08-3)</u>

To Whom It May Concern:

We are providing this letter to you at the request of our client, Burnt Jacket Holding I, LLC, to confirm certain information regarding assets and/or funds held in the above-referenced account (the "Account") maintained with Goldman Sachs & Co. LLC.

As of the close of business on January 2, 2025, the approximate market value of the Account was in excess of \$1,080,000.

This letter is provided for your information only and should be handled in a confidential manner. The content of this letter is based on information we believe to be reliable, but we do not represent that such information is accurate or complete, and it should not be relied on as such. Market values are current as of the date set forth above and are subject to change for various reasons, including market fluctuation, client trading and withdrawals. The above market value does not take into consideration any liabilities or indebtedness the client may have outside of the Account either at Goldman Sachs or with another party.

Please contact us if we can be of further assistance.

Very truly yours,

Gaspare Cintorrino

cc: Burnt Jacket Holding I, LLC

#### **Project Team:**

#### **Karen Thomas Associates (Owner's Representative):**

Karen Thomas Associates is a multidisciplinary firm specializing in project management and owner's representation. They have completed well over \$3.5B worth of residential projects in locations throughout the US, inclusive of extensive private site civil development supporting residential projects. Ms. Thomas, a licensed architect, has over 35 years of experience in architecture, engineering, and construction for complex projects, including extensive participation in land use management, planning, environmental stewardship and materials resource management, logistics planning, scheduling and cost containment and centralized team coordination and precision workflow processes.

Name	License Type	License Number	Expiration
Karen Thomas	Architect	NY: 022386	08/31/26
Dmitriy Polyakov	Architect	NY: 042790	04/30/28
Phil Reville	Architect	NY: 045384	03/31/26

#### **Sevee & Maher Engineers (Civil Engineers)**

Daniel P. Diffin, P.E., LEED AP - Site Design and Permitting – Mr. Diffin has more than 20 years of experience on a wide variety of civil engineering design and construction management projects for private and public sector clients. Mr. Diffin has been responsible for the engineering, design, and construction services for land development projects, commercial, industrial, and medical site developments, educational campuses, stormwater management and erosion control projects, and local, state, and federal permitting. Typical projects include: Bath Iron Works, Bath, Maine – Facility Build-out Plan; Woodland Pulp Mill – Tissue Machine Project at the Baileyville, Maine mill; Backyard Farms, Madison, Maine R&D Station and other facility upgrades and Long Creek Watershed, Westbrook, Maine stormwater retrofits in Catchment B21 of the Long Creek Watershed Management Plan.

Name	License Type	License Number	Expiration
Daniel P. Diffin	Professional Engineer	PE11841	12/31/25

#### **Axiom Engineering Group (Structural Engineer)**

Axiom is a multidisciplinary firm specializing in structural, mechanical, plumbing, and low voltage engineering. They work on residential and commercial projects across the US and have provided engineering services on large-scale residential and commercial projects. Travis Kukay, PE, leads the structural engineering group.

Mr. Kukay has a combined 20 years of providing consulting services in the Mechanical, Civil, and Structural fields. He has been Engineer of Record and responsible for the design, engineering and construction administration on a variety of retention/foundation design systems including micro piles, helical piers, soil nail walls, supported and cantilevered gravity/semi gravity walls in areas with a seismic design categories D and high snow load areas up to 200 psf. Projects include private

roadway systems, residential and commercial building structural foundations, deck assemblies as well as private bridges rated for HS lane loading per AASHTO specifications.

Name	License Type	License Number	Expiration
Travis Kukay	Professional Engineer	PE18471	12/31/2025

#### JPI Engineering (Electrical Engineer)

JPI is an electrical engineering firm with over 30 years of experience on a wide range of project types. They have worked with numerous utility companies on both residential and commercial development projects.

Name	License Type	License Number	Expiration
James Ingalls	Professional Engineer	PE19019	12/31/2025

#### JLF & Associates (Architect)

JLF has over forty years of experience designing large-scale residential projects. They have built a reputation for leading complex projects with multi-disciplinary design teams. Based in Bozeman, Montana, they work on projects across the US.

Name	License Type	License Number	Expiration
Jeremy Scott	Architect	ARC5668	6/30/2025

#### **Verdone Landscape Architects (Landscape Architects)**

Verdone Landscape Architects has over 30 years of experience on private, commercial, and municipal projects. Brannon Bleggi leads the landscape design team and is a licensed Landscape Architect in Maine.

Name	License Type	License Number	Expiration
Brannon Bleggi	Landscape Architect	LAR5891	06/30/2025

#### Flycatcher, LLC (Natural Resource Science Consultants)

Flycatcher LLC (Flycatcher) is a land use consulting company based in Yarmouth, Maine. They provide project consultation based on the best available science, the regulatory requirements, and the needs of our clients and projects. They support a wide range of clients and projects across multiple disciplines, including environmental studies; strategic permit execution at the federal, state and local levels; project siting and land acquisition; constraints analyses; GIS services; stakeholder engagement; natural resource mitigation and restoration; coastal restoration permitting and design; stakeholder identification and consultation; and compliance/construction inspection. Flycatcher has direct experience working for clients within The LUPC jurisdiction, assisting to collect natural resource data and permit projects on ski mountains, lakes, and even coastal islands.

Rodney is the Project Manager for Flycatcher, conducting and overseeing work performed on this Project. He is a Managing Partner and Senior Scientist with over 25 years' experience in the environmental consulting industry. He has several licenses and certifications, is currently the President of the Maine Association of Professional Soil Scientists (MAPSS) and was the former Chair of both the Planning Board and Comprehensive Planning Committee in the Town of Dedham, Maine. Additionally, in 2023 he was an adjunct professor at the University of Maine at Orono.

#### PROFESSIONAL CERTIFICATIONS

- Certified Wildlife Biologist #102308 (CWB), The Wildlife Society
- Certified Professional Soil Scientist #353740 (CPSS), Soil Science Society of America
- Professional Wetland Scientist #1518 (PWS), Society of Wetland Scientists
- Certified Professional in Erosion & Sediment Control #4625 (CPESC), EnviroCert International, Inc.
- Certified Erosion, Sediment and Stormwater Inspector #12451 (CESSWI), EnviroCert International, Inc.
- Licensed Soil Scientist #SS552 (CSS), State of Maine
- Licensed Site Evaluator #S371 (LSE), State of Maine
- Maine Certification in Erosion Control Practices (1432), State of Maine
- Maine Department of Environmental Protection Qualified Third-Party Inspector
- Former President (Maine Chapter) and Member, The Wildlife Society, Maine
- President and Member, Maine Association of Professional Soil Scientists

Name	License Type	License Number	Expiration
Rodney Kelshaw	Soil Scientist	SS552	06/30/2025

## **EXHIBIT 7 - NOTICE OF FILING:**

LUPC Received 02/04/2025

BERN STEIN SHUR

Bernstein, Shur, Sawyer & Nelson, P.A. 100 Middle Street PO Box 9729 Portland, ME 04104-5029

τ (207) 774 - 1200 F (207) 774 - 1127

Eliza Cope Nolan Shareholder 207-228-7298 direct enolan@bernsteinshur.com

By FedEx

January 31, 2024

Board of Selectmen Town of Beaver Cove 795 Lily Bay Road #101 Beaver Cove, Maine 04441

Re: Burnt Jacket Holding I, LLC - Notice of Filing of Application with Maine Land Use Planning Commission

Dear Selectmen:

Please find enclosed a Notice of Filing of Application with the Maine Land Use Planning Commission provided to the Board of Selectmen of Beaver Cove on behalf of Burnt Jacket Holding I, LLC.

Sincerely,

Culs Eliza Cope Nolan

Eliza Cope Nolan

Enclosure

ECN/la

Required Form EXHIBIT 7

This is to notify you that \_\_\_\_\_

For Use with Exhibit 7: Notice of Filing

# NOTICE OF FILING OF APPLICATION WITH THE MAINE LAND USE PLANNING COMMISSION

Within seven days prior to filing an application with the Maine Land Use Planning Commission, the applicant must send by regular mail a completed copy of this notice to: all persons owning or leasing property within 1,000 feet of the proposed project; co-owners and co-lessors that are not co-applicants; the landowner(s) (if applicant is a lessee); plantation assessors or town select board (if applicable); county commissioners if any area proposed for development is within a township; and any persons who have made timely requests to be notified of this application or project.

Burnt Jacket Holding I, LLC

ha	nas filed an application with the Maine Land Use Planning Commission, pursuant to provisions of 12 M.R.S.					
	ction 685-B and the Commis					
Co	nstruct a new road (to serve as a privat	e driveway) of approximately	4,059 linear feet off of Burnt Jacket Roa	d affecting approximately 4.5 acres.		
		(general description of prop	posed activity, use, and acreage)			
		located in	Town of Beaver Cove, S	omerset County		
			(name of town, township, or j			
Th	e application will be filed for	r nublic inspection at t	ho Maine Land Hee Planning	Commission office signification		
• • •	e approacion with se mea to	public inspection at the	ne Maine Land Ose Planning	Commission office circled		
be	low (circle the appropriate o	ffice) on	February 3, 202	5		
		(spe	cify the date that this application will I	be filed with the LUPC).		
	<u>A</u> UGUSTA (	OFFICE	NORTHER	RN REGION		
			Serving most of Aroostook County and northern Penobscot County			
	18 Elkins Lane - Harlow Bldg.	Tel. (207) 287-2631	45 Radar Road	Tel. (207) 435-7970		
	22 State House Station Augusta, ME 04333-0022	TTY (888) 577-6690	Ashland, ME 04732-3600	Tel. (207) 435-7969		
	Augusta, ME 04333-0022	FAX (207) 287-7439		FAX (207) 435-7184		
	DOWNEAST			N REGION		
	Serving Hancock, Knox, Lincoln, a		Serving southern Penobscot Co.	unty, southern Aroostook County,		
	portions of Washington, Kennebed		and portions of P	iscataquis County		
	counties; and the coastal island		40444			
	106 Hogan Rd, Suite 8 Bangor, ME 04401	Tel. (207) 215-4685	191 Main Street	Tel. (207) 485-8354		
	Bangor, MC 04401	Tel. (207) 592-4448  FAX (207) 941-4222	East Millinocket, ME 04430	Tel. (207) 399-2176		
	MOOSEHEAD		WEGTER	FAX (207) 746-2243		
	Serving Somerset County and r			N REGION		
	43 Lakeview Street	Tel. (207) 349-0941	32 115 Pouts 2 East	nty and Oxford County		
	P.O. Box 1107	Tel. (207) 731-4398	932 US Route 2 East Wilton, ME 04294	Tel. (207) 670-7492 FR Tel. (207) 670-7493 OX		
	Greenville, ME 04441	(201) 1000	I TRION, MIL VIZOT	161. (201) 010-1433 UX		

Written comments and requests for a public hearing should be sent to the Maine Land Use Planning Commission at the address circled above and must be submitted in a timely manner. The Commission prefers that all written comments and requests for a public hearing be submitted within 20 days of the date an application is accepted for processing. Requests for a public hearing must clearly state the reason(s) a public hearing is warranted on this project.

For questions about submitting written comments, requesting a public hearing, or for any additional information, contact Commission staff at the office circled above.

The Land Use Planning Commission's legal authority is established by 12 M.R.S. Section 683-A.

#### **EXHIBIT 8**

#### to Application for Nonresidential Development

# LAND DIVISION HISTORY OF LANDS CONVEYED TO BURNT JACKET HOLDING I, LLC BEAVER COVE, PISCATAQUIS COUNTY, MAINE

The completed Exhibit 8 to the Application for Nonresidential Development follows the introductory information provided below.

#### **NOTES:**

- The Exhibit 8 tables attached hereto consist of six pages. The rows of the Exhibit 8 tables attached hereto have been numbered 1 through 19 in the left hand margin. Comments below correspond to those numbered rows and provide information regarding the location of the property referenced in the instruments referenced in the numbered rows. The location of the areas described are shown on Exhibits 8A through 8N, which follow the six pages of completed Exhibit 8 tables.
- The information supplied herein is the same land division history information provided to LUPC in connection with BP-17544.
- The construction of the road contemplated by this application would not result in a division of the Property.
- An electronic copy of the Plisga & Day plan titled "Survey Plan property of Burnt Jacket, LLC Piscataquis County Registry of Deeds Volume 1622, Page 42 Volume 2536, Page 10 Cove Point, LLC Volume 1833, Page 310 Volume 2187, Page 211 Beaver Cove, Maine" dated August 25, 2022 (the "2022 P&D Plan") has been provided to LUPC in connection with BP-17544.

#### **INFORMATION REGARDING LOCATION:**

- 1. Miscellaneous Deeds from Forest Vision Corp. to Forestree 96 LP. No survey has been located depicting the lands in Beaver Cove described in these deeds.
- **2. Book 1062, Page 078.** No survey has been located depicting the lands in Beaver Cove described in this Master Description.
- **3. Book 1607, Page 7.** No survey has been located of the lands in Beaver Cove described in this deed.
- **4. Book 1618, Page 041.** No survey has been located of the lands in Beaver Cove described in this deed.
- **5. Book 1622, Page 42.** No survey has been located of the lands in Beaver Cove acquired by Burnt Jacket, LLC from John Hancock Life Insurance Company.

- **6. Book 1662, Page 118.** The location of the 126 acres conveyed by this deed is generally depicted outlined in red on the reduced copy of the 2022 P&D Plan attached as **Exhibit 8A**.
- 7. Book 2093, Page 138; Corrective Book 2131, Page 133. The location of the 25 acres conveyed by this deed is generally depicted outlined in red on the reduced copy of the 2022 P&D Plan attached as Exhibit 8B.
- **8. Book 2730, Page 143**. The location of the 44 acres conveyed by this deed is generally depicted outlined in red on the reduced copy of the 2022 P&D Plan attached as **Exhibit 8C**.
- **9. Book 2730, Page 147**. The location of the 55 acres conveyed by this is generally depicted outlined in red on the reduced copy of the 2022 P&D Plan attached as **Exhibit 8D.**
- **10. Book 2730, Page 152.** The location of the 25 acres conveyed by this deed is the same area generally depicted outlined in red on **Exhibit 8B**.
- 11. Book 1833, Page 310. This conveyance of 44.9 acres is Lot 1 shown on "Plan of Lots No. 1 & 2 Proposed Birch Point Land Sales Town of Beaver Cove, Piscataquis Cty, Maine J.M. Huber Corporation" recorded at Plan Cabinet H #184, Piscataquis County Registry of Deeds, a copy of which is attached as Exhibit 8E, and is generally depicted outlined in red on the reduced copy of the 2022 P&D Plan attached as Exhibit 8F.
- **12. Burnt Jacket Shores Subdivision; Subdivision Permit SP 4081.** The Subdivision Permit relates to the portion of the land shown on a reduced copy of the 2022 P&D Plan attached as **Exhibit 8G**.
- **13. Book 2051, Page 303.** The location of the 2.1 acres conveyed by this deed is generally depicted outlined in red and marked 2051/303 on a reduced copy of the 2022 P&D Plan attached as **Exhibit 8H**.
- **14. Book 2052, Page 1.** The location of the .6-acre area conveyed by this deed is generally depicted outlined in red and marked "2052/1" shown on a reduced copy of the 2022 P&D Plan attached as **Exhibit 8H**. See also copy of deed attached as **Exhibit 8I** with surveyor's sketch of location attached.
- **15. Book 2187, Page 211.** The location of the 16.1 acres conveyed by this deed is generally depicted outlined in red on a reduced copy of the 2022 P&D Plan attached as **Exhibit 8J.**
- **16. Book 2508, Page 181.** The location of the 135-acre parcel conveyed by this deed is generally depicted outlined in red shown on a reduced copy of the 2022 P&D Plan attached as **Exhibit 8K**.
- 17. Book 2536, Page 110. The location of the 8.6-acre parcel conveyed by this deed is generally depicted outlined in red shown on a reduced copy of the 2022 P&D Plan attached as **Exhibit 8L**.

- **18. Book 2805, Page 85.** The location of the 2.73 acre parcel conveyed by this deed is generally depicted outlined in red on the reduced copy of the 2022 P&D Plan attached as **Exhibit 8M.**
- **19. Book 2873, Page 52.** This deed conveyed all lands shown on the 2022 P&D Plan as owned by Burnt Jacket, LLC to Burnt Jacket Holding I, LLC, the current owner, comprised of two parcels: the 1423.5 acre parcel and an adjacent 8.6-acre parcel, both outlined in red on the reduced copy of the 2022 P&D Plan attached as **Exhibit 8N**.

Applicant/Project Name:

Use this table to present the ownership and land division history of your parcel. Be sure to start the history 20 years ago and include drawings. See further instructions and an example in Land Division History (Exhibit 8).

	Drawing (does not have to be to scale)	Transaction Details, Including Names of Seller/Grantor and Buyer/Grantee	Date of Transaction	Book & Page Numbers	Lot Size (in acres)
1	Number of acres unknown				
2					
3	Number of acres unknown				
4	Number of acres unknown				
5	Number of acres unknown				

Applicant/Project Name:\_

Use this table to present the ownership and land division history of your parcel. Be sure to start the history 20 years ago and include drawings. See further instructions and an example in Land Division History (Exhibit 8).

	Drawing (does not have to be to scale)	Transaction Details, Including Names of Seller/Grantor and Buyer/Grantee	Date of Transaction	Book & Page Numbers	Lot Size (in acres)
6	126 acres outconveyance				
7	25 acres outconveyance from √ 126 acres (p/o 1662/118)				
8	44 acres outconveyance (p/o 1662/118)				
9	55 acres outconveyance (remaining portion of 1662/118)				
10	25 acres (same land as 2131/133)				

Applicant/Proje	ect Name:
-----------------	-----------

Use this table to present the ownership and land division history of your parcel. Be sure to start the history 20 years ago and include drawings. See further instructions and an example in Land Division History (Exhibit 8).

	Drawing (does not have to be to scale)	Transaction Details, Including Names of Seller/Grantor and Buyer/Grantee	Date of Transaction	Book & Page <u>Numbers</u>	Lot Size (in acres)
11	44.9 acres outconveyance (Lot 1 shown on Plan of Lots No 1 & 2 Plan Cabinet H #184 PCRD)				
12	Burnt Jacket Shores Subdivision				
13	Burnt Jacket, LLC 1432+/- acres 2.1 acres				
14	.6 acre conveyance to abutter				
15	16.1 acres				

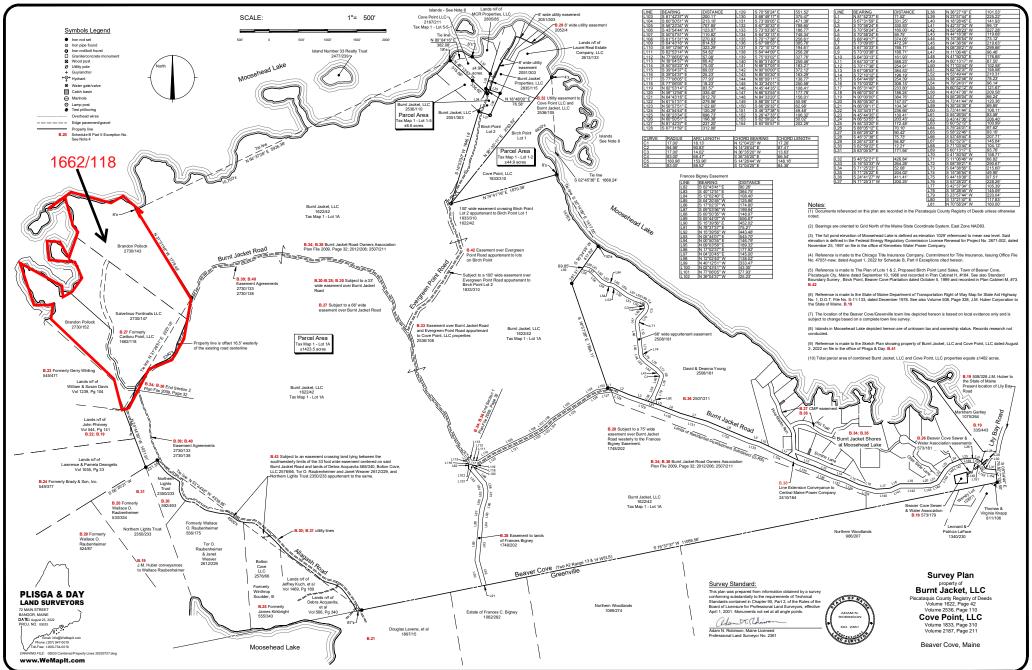
Applicant/Project Name:

Use this table to present the ownership and land division history of your parcel. Be sure to start the history 20 years ago and include drawings. See further instructions and an example in Land Division History (Exhibit 8).

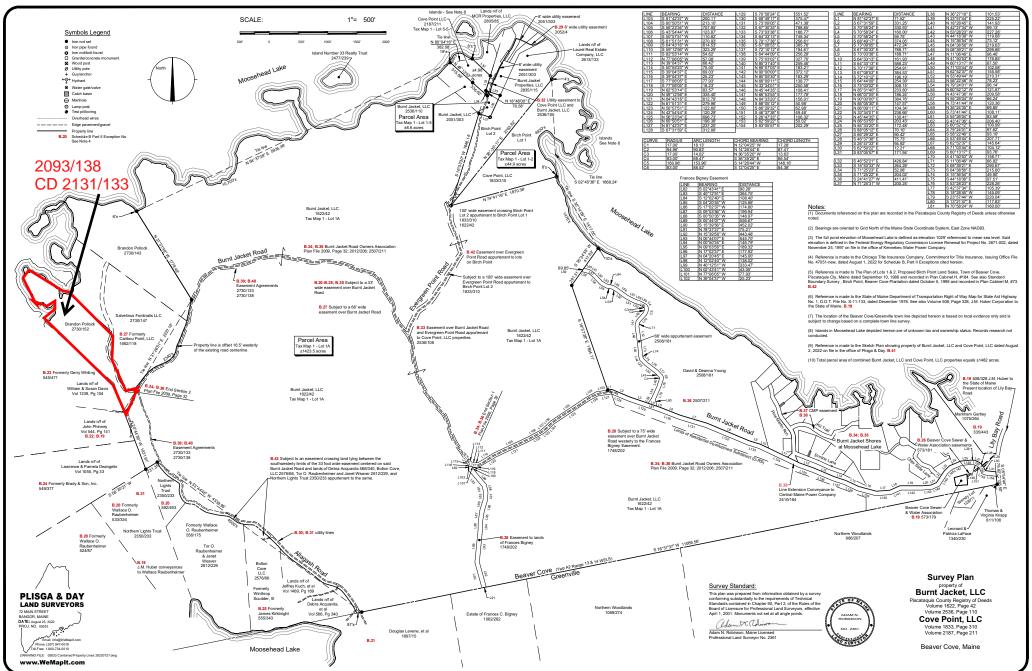
	Drawing (does not have to be to scale)	Transaction Details, Including Names of Seller/Grantor and Buyer/Grantee	Date of Transaction	Book & Page <u>Numbers</u>	Lot Size (in acres)
16	135 acres				
17	(carve out from 2187/211) 8.6 acres				
18	2.73 acre carve out from 2187/211				
19	Parcel Two: 8.6 acres  Parcel One: 1423 acres				
	Note: Condition 15 of CD 4001 states: "The permittee much	cubmit for Commission review, approval and signature, a final	plat for this out divis	ion This final plat	munt

Note: Condition 15 of SP 4081 states: "The permittee must submit for Commission review, approval and signature, a final plat for this subdivision. . . This final plat must show the entire area rezoned pursuant to Zoning Petition ZP-712. The western portion of this rezoned area shall include a note that stipulates that the area is the remaining land of Burnt Jacket LLC to be reserved for future development that is consistent with all applicable rules and regulations, and subject to the approval of the Land Use Regulation Commission." LURC approved and signed Subdivision Plat Book 2009 Pg 13-15; at Page 14, surveyor note (7) states: Future development of the remaining lands will require an amendment to subdivision permit SP 4081 and would be required to meet applicable rules and regulations."

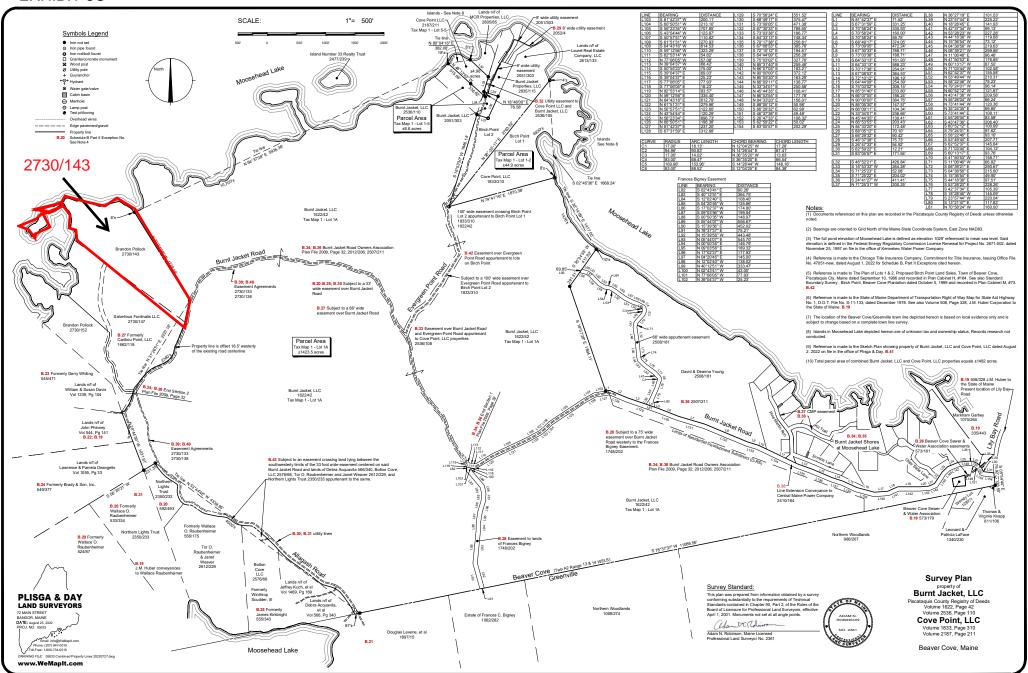
### **EXHIBIT 8A**



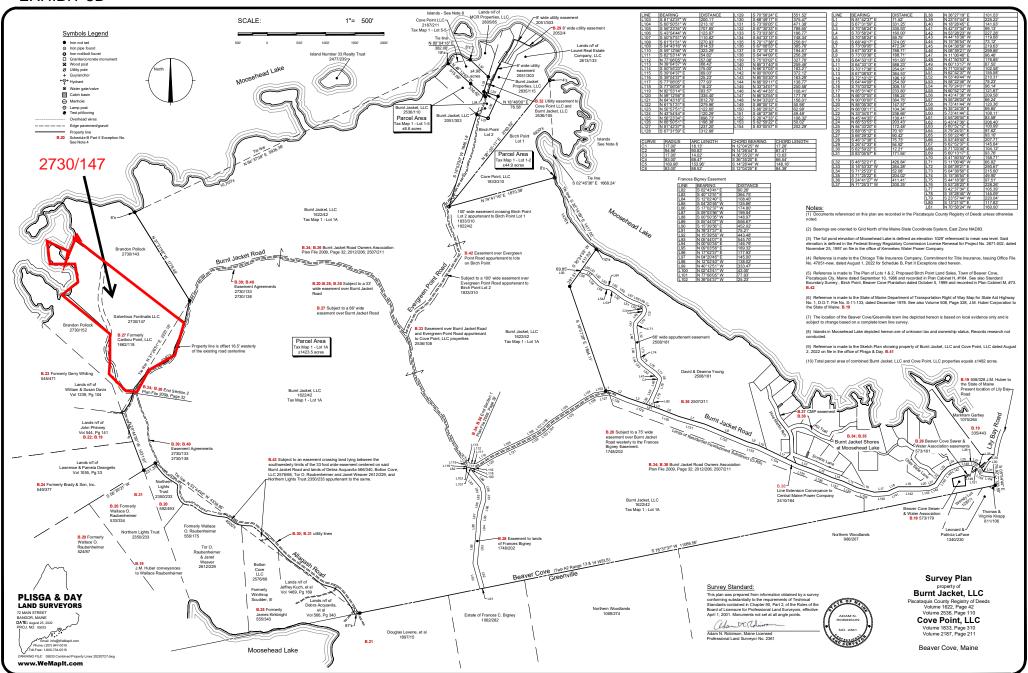
#### **EXHIBIT 8B**

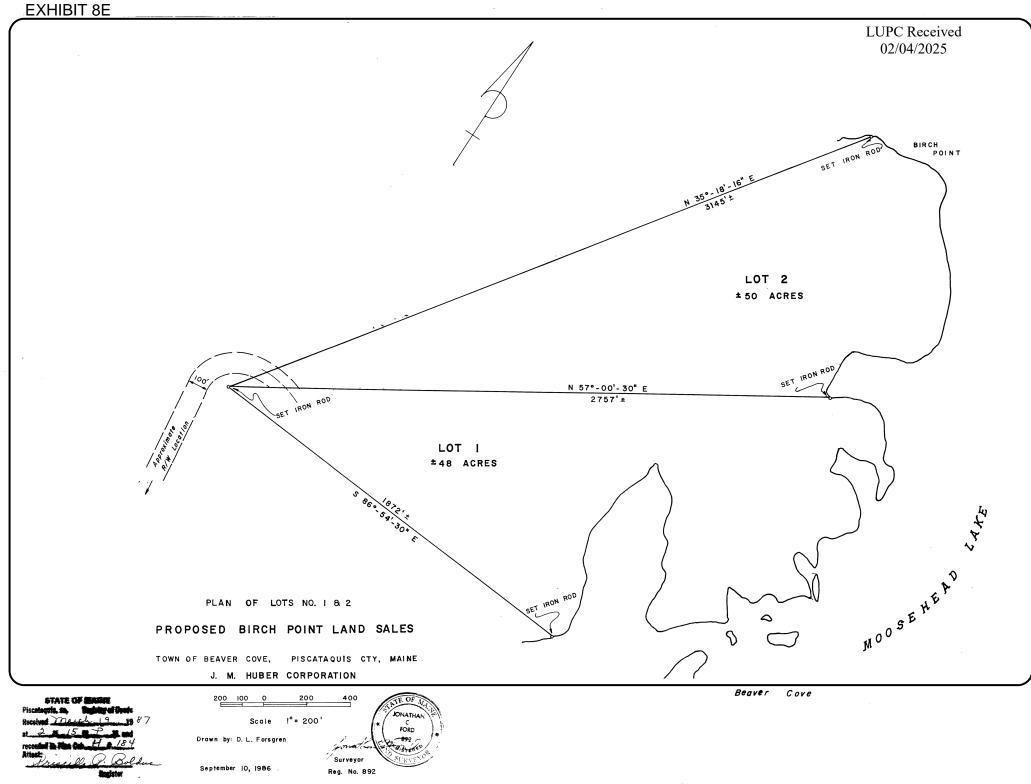


### **EXHIBIT 8C**

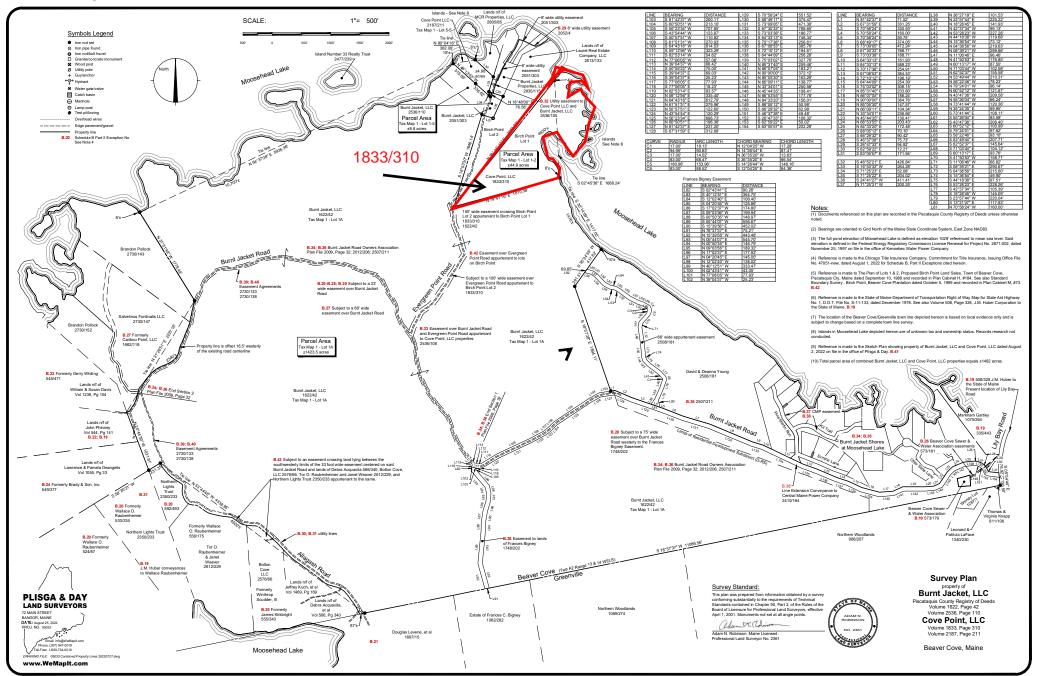


### **EXHIBIT 8D**

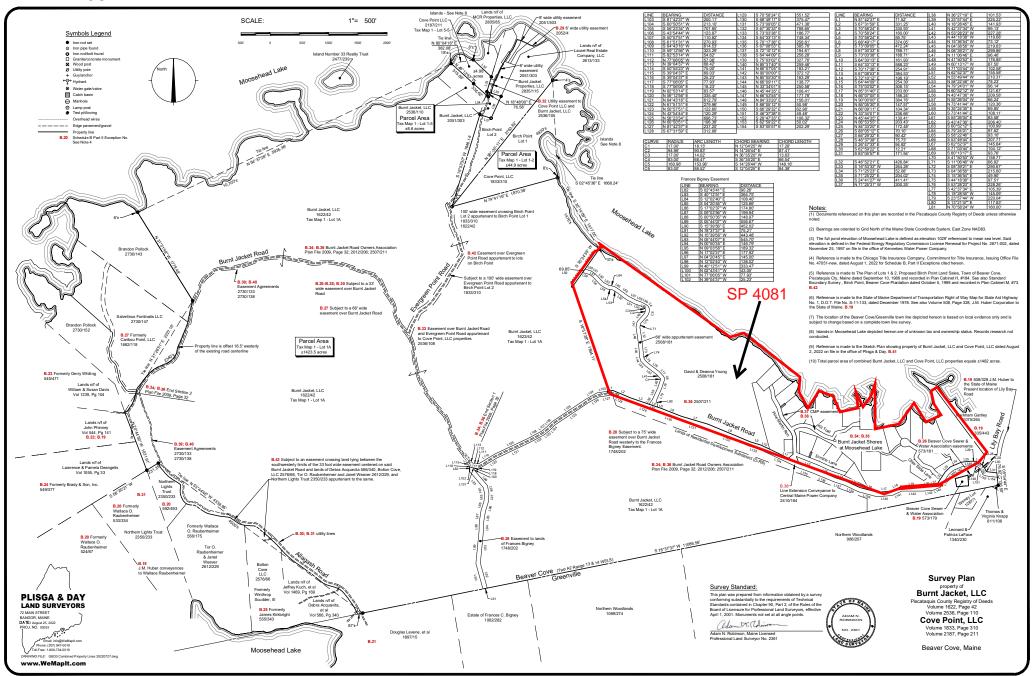




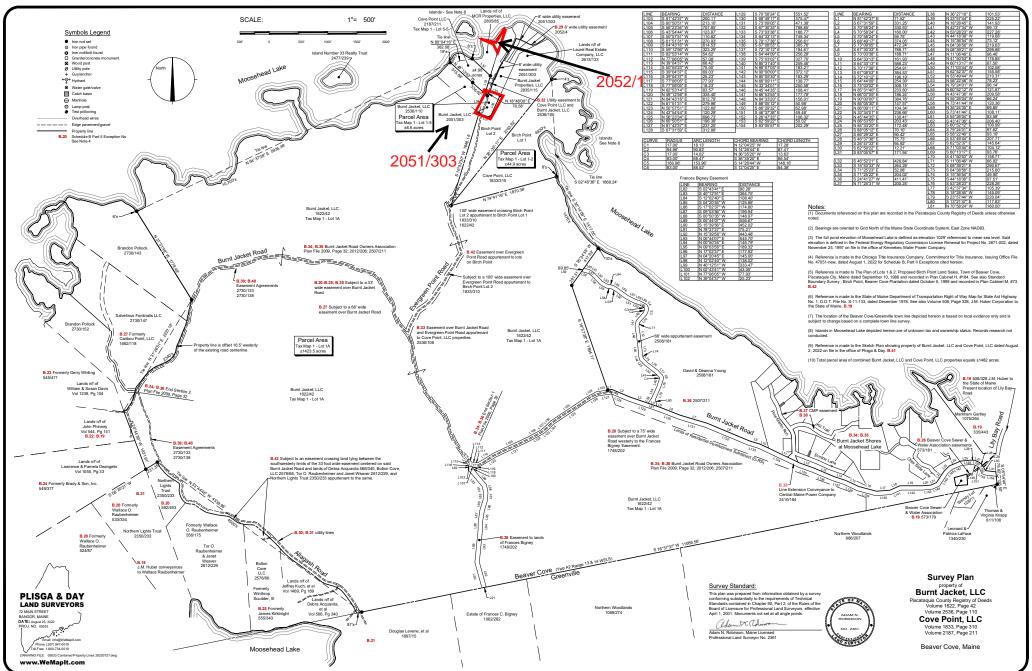
### **EXHIBIT 8F**



### **EXHIBIT 8G**



### **EXHIBIT 8H**



3005

### **QUITCLAIM DEED WITH COVENANT**

BURNT JACKET, LLC, a Maine limited liability company with a principal place of business at Hermon, Penobscot County, Maine, for consideration paid, grants to BIRCH POINT **PROPERTIES, LLC**, a Maine limited liability company with a principal place of business at GRAY COMBERGARY County, Maine, with Ouitclaim Covenant, the land, together with any buildings or improvements thereon, in Beaver Cove, Piscataquis County, State of Maine, described as follows:

A certain lot or parcel of land with the improvements thereon situate in the Town of Beaver Cove, County of Piscataquis, State of Maine, more particularly described as follows:

Beginning at an iron rod found in the northwesterly corner of land of Birch Point Properties, described in a deed recorded in Volume 1285, Page 311, said point is located on or near the high water line of Moosehead Lake;

Thence S 16° 53' 33" W by and along the westerly line of said Birch Point Properties, a distance of 445.33 feet to an iron rod set;

Thence N 21° 20' 53" W, through the lands of the Grantor, a distance of 169.80 feet to an iron rod set;

Thence N 68° 40' 55" W, through the lands of the Grantor, a distance of 206.95 feet to an iron rod set, said rod being located on a tie line of S 63° 20' 55" W, a distance of 429.66 feet from the point of beginning;

Thence continuing N 68° 40' 55" W, through the lands of the Grantor, a distance of 10 feet more or less to said high water line of Moosehead Lake;

Thence northeasterly by and along said high water line, a distance of 493 feet more or less to the point of beginning;

Containing 0.6 acres more or less.

Bearings referenced herein are oriented to Grid North, Maine State Coordinate System of 1983, East Zone, as determined by a survey conducted by Plisga & Day, Land Surveyors.

ME REAL ESTATE TRANSFER TAX PAID

LUPC Received 02/04/2025

For the Grantor's source of title reference is made to a deed from Burnt Jacket, LLC, Volume 1622, Page 42;

All documents referenced above are recorded in the Piscataquis County Registry of Deeds.

All "iron rods set" referenced above are #6 rebar set with a plastic cap stamped PLISGA & DAY #2383.

This is a conveyance to an abutter and, as such, no independent access to the within conveyed property is granted to Grantee over property of Grantor. The parcel conveyed herein is depicted on Exhibit A attached.

This conveyance is subject to the condition that there shall be no buildings located within fifty (50) feet of the common boundary line between Grantor and Grantee's properties as established herein. This covenant shall run with the land and shall be enforceable by Grantor, its successors and assigns.

The Grantee's mailing address is 170 SHAKEN ROAD GRAY, MAINE 04039

IN WITNESS WHEREOF, BURNT JACKET, LLC has caused this instrument to be signed in its corporate name and sealed with its corporate seal by Henry E. McPherson, its Member, hereunto duly authorized, this 2/ day of December, 2009.

WITNESS:

BURNT JACKET, LLC

Its Member

Hereunto Duly Authorized

STATE OF MAINE PENOBSCOT, ss.

marker a. miller

December 21, 2009

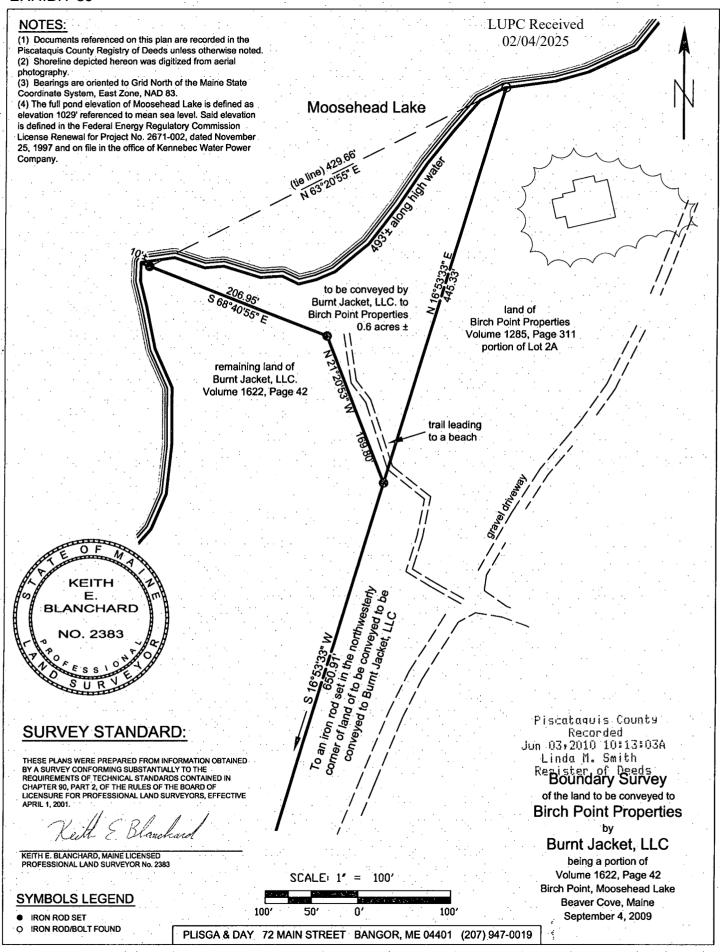
Then personally appeared the above-named Henry E. McPherson and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said limited liability company.

Before me,

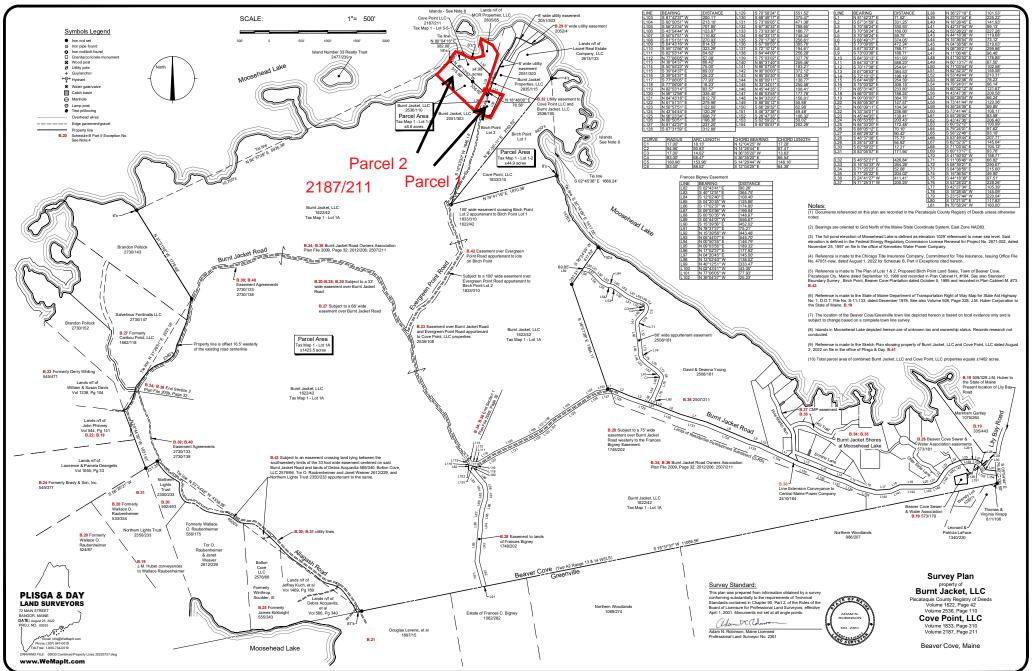
**Notary Public** 

nauten a. mille

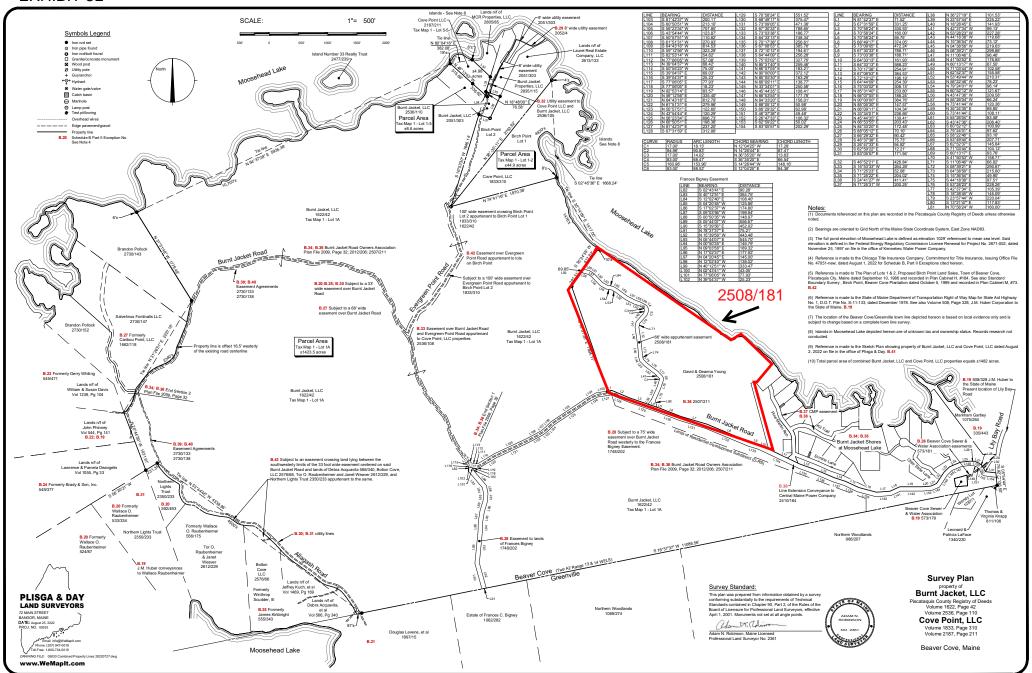
Maine Attorney-at-Law



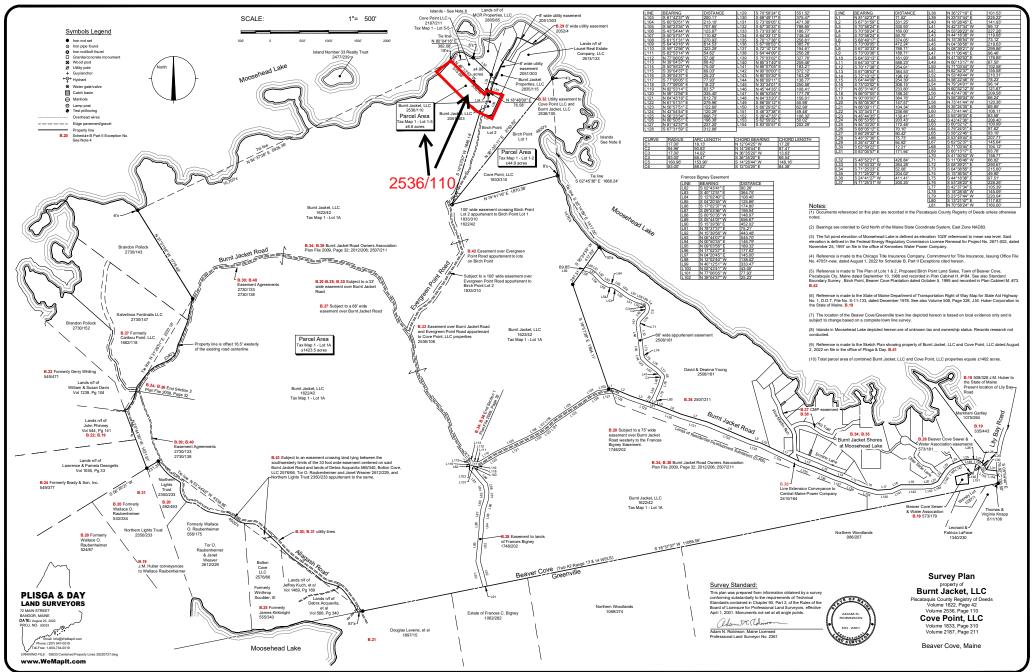
### **EXHIBIT 8K**



### **EXHIBIT 8L**



### **EXHIBIT 8M**



### **EXHIBIT 8N**

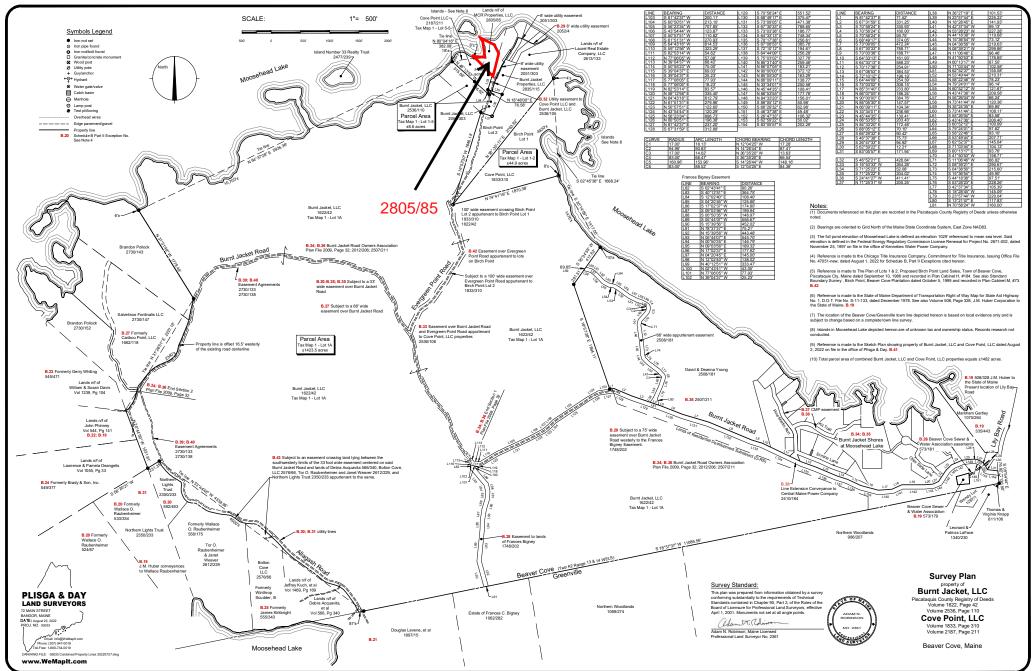
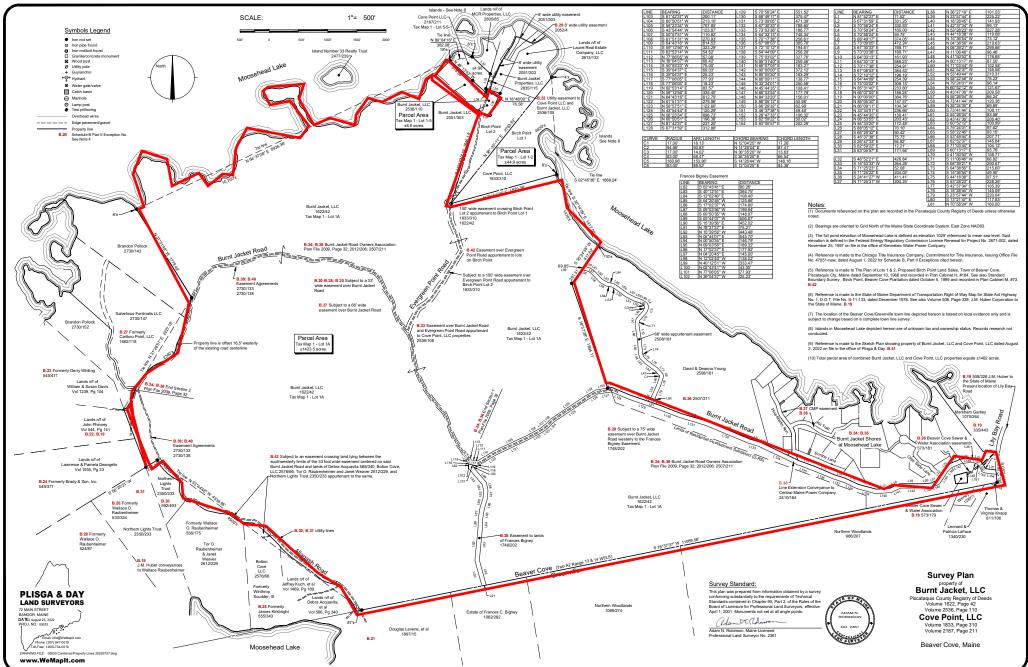


EXHIBIT 80 Book 2873 Page 52 - Deed from Burnt Jacket, LLC to Burnt Jacket Holding I, LLC



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1100	uncu	IUD	

LUPC Received 02/04/2025

For Use with **Exhibit 9:** Structures Table

Applicant/Project Name:
-------------------------

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

						ed alt								nber of:	Dist			et) of eares		
Structure Type and Use (specify if temporary)	Year Built or Duration (if temporary)	Change in Use	New Construction	Expand or Add On	Reconstruct or Replace	Permanent foundation	Relocate or Remove	Enclose deck or porch	Change Dimensions or Setbacks	Other	Exterior Dimensions (LxWxH) in ft Indicate Current (C) & Proposed (P)	Type of Foundation	Bedrooms	Plumbing or water fixtures	Road	Property line	Lake or pond	River or stream	Wetland	Ocean/Coastal Wetland
Existing Structures																				
Proposed Structures																				

For Use with **Exhibit 9**: Infrastructure Table

LUPC Received 02/04/2025

Applicant/Project Name:\_\_\_\_\_

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

Infrastructure				sed alte				Dimensions (LxW) in ft	Year Built or Duration (if temporary)	Average Slope (%)	Max. Sustain. Slope (%)	inf		ance ( icture	-	-	
Type and Use (specify if temporary)	Change in Use	New Construction	Change Dimensions	Reconstruct or Replace	Relocate	Change Setbacks	Other					Road	Property line	Lake or pond	River or stream	Wetland	Ocean/Coastal Wetland
Existing Infrastructure																	
Proposed Infrastructure																	
									See deta	il plans fo	or additio	nal in	forma	ation.			

# LUPC Received 02/04/2025

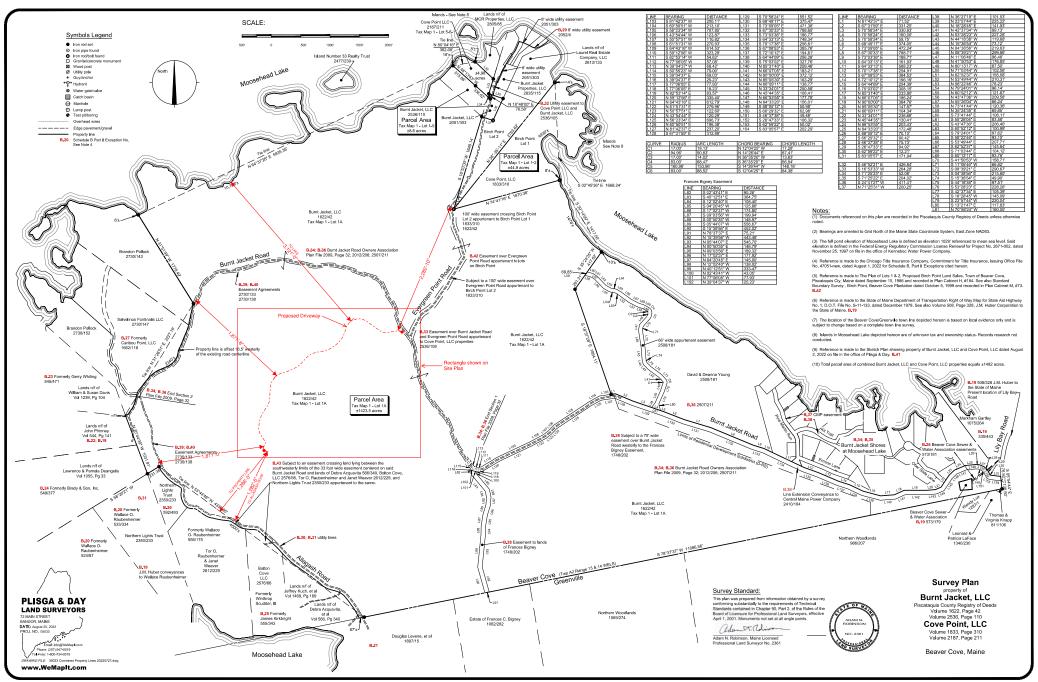
EXHIBIT 9 - STRUCTURES, FEATURES, AND USES:

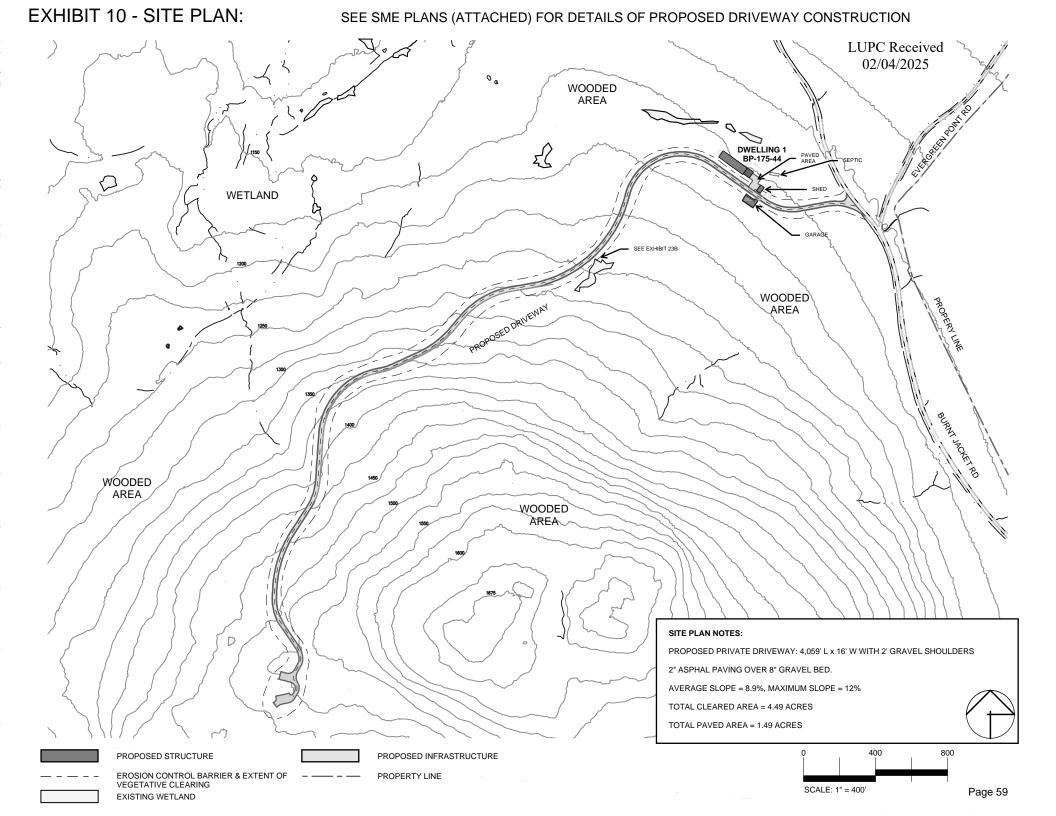
The Burnt Jacket Holding I, LLC ownership has been used as commercial timberland. The property and the proposed project site is undeveloped.

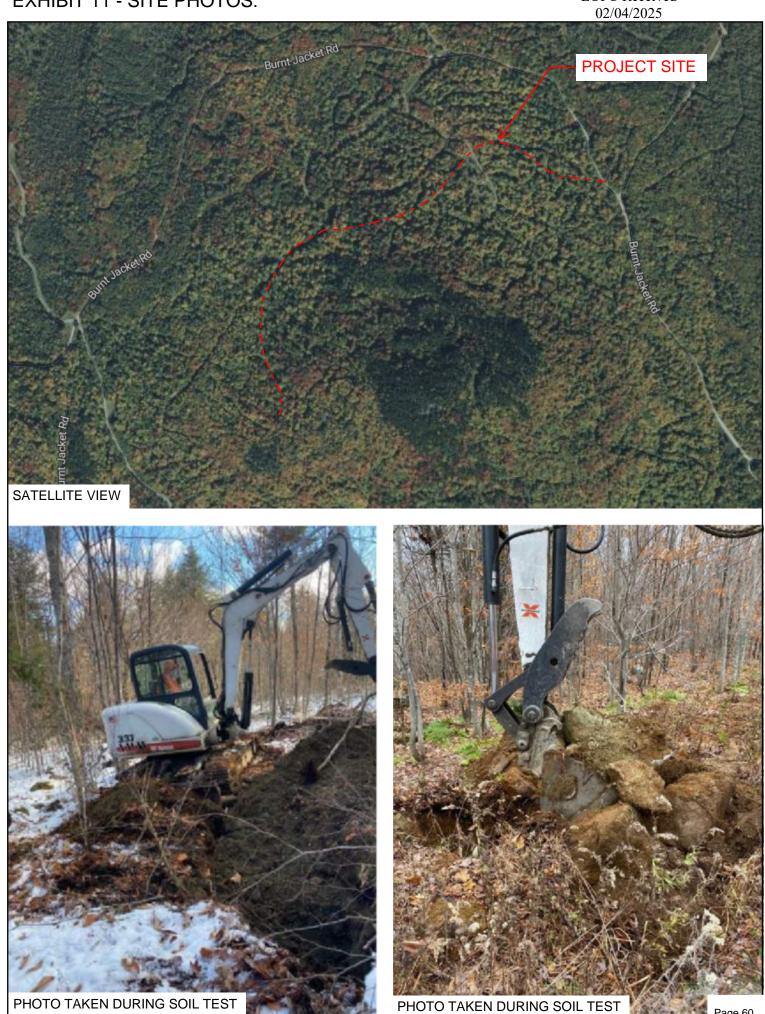
The proposed driveway is 4,059' long and 16' wide with a minimum of 2' wide shoulders on both sides; it is located entirely on private property. Refer to the attached site plan for additional information. Construction is scheduled to be completed in 2025.

Please refer to the attached site plan and infrastructure list for additional information.

## **EXHIBIT 10 - OVERALL SITE PLAN:**







### EXHIBIT 12 - FIRE, POLICE, AND AMBULANCE PROTECTION:

LUPC Received 02/04/2025

The attached exhibits include:

- 1. An email from Brad Gilbert, Vice President of Nursing and Operations at Northern Light CA Dean Hospital confirming that the hospital provides emergency medical services coverage to the Town of Beaver Cove, Maine.
- 2. A letter from Sawyer Murray, Chief, Greenville Fire Department confirming that the Fire Department covers emergency calls on Burnt Jacket Road in Beaver Cove, Maine.
- 3. A letter from James Carr, Chief, Greenville Police Department confirming that the Police Department covers the area of Burnt Jacket Road in Beaver Cove, Maine.

LUPC Received 02/04/2025

From: Gilbert, Brad J
To: Michael Roy

Subject: RE: LUPC Application - Burnt Jacket Road

Date: Saturday, January 11, 2025 7:51:43 AM

Hello Mike,

Northern Light C.A. Dean Ambulance provides primary emergency medical services coverage to the Town of Beaver Cove, Maine. Services are activated by calling 911.

Please reach out if I can be of additional assistance.

Best, Brad

### Brad J. Gilbert, MBA/BSN/RN/NRP/CEN

Vice President of Nursing & Operations Northern Light CA Dean Hospital

**Office** 207.695.5269 **Mobile** 207.500.0034



LUPC Received 02/04/2025

Sawyer Murray Fire Chief

**FIRE DEPARTMENT** 

Bethany Young

Administrative Assistant

January 13, 2025

To: Mike Roy Sevee & Maher Engineers

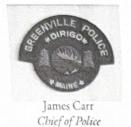
To whom it may concern,

The Greenville Fire Department has previously and will continue to serve as the fire department that covers emergency calls on the Burnt Jacket Road in Beaver Cove Township. If you have any other questions, please reach out to me at 207-695-2570.

Respectfully,

Sawyer Murray

**Chief of Department** 



## GREENVILLE POLICE DEPARTMENT

Post Office Box 1109, Greenville, Maine 04441 (207) 695-3835

### JANUARY 15, 2025

To: Phil Reville, RA

Program Manager

Karen Thomas Associates, Inc.

350 Seventh Ave | Floor 21 | NY, NY 10001

The purpose of this letter is to inform you that the residential propertiesBurnt Jacket Beaver Cove Township can be accessed by the Town of Greenville Police Department.

Police officers are able to respond in emergency situations by vehicles, boats or jet skis.

If you have any other questions, pleach reach out to me at 207-695-3835 or by email at <a href="mailto:Jimcarr@greenvilleme.com">Jimcarr@greenvilleme.com</a>

Respectfully,

James Carr Chief of Police

Greenville Police Department

PO Box 1109

Greenville, ME 04441

### **EXHIBIT 13 - SOLID WASTE DISPOSAL:**

LUPC Received 02/04/2025

No solid waste generation is anticipated for the proposed private driveway.

On-site disposal of stumps, grubbings, and other wood waste will be accomplished by this project through chipping and spreading of brush and wood debris as erosion control mix sediment barrier and stabilization material. The contractor for the project has not been selected at this time.

During construction, the construction and demolition debris will be disposed of off-site by a commercial hauler contracted by the construction company performing the work. It is estimated that the project will generate 50 cubic yards of construction debris. The selected contractor is likely to haul the construction debris to the Juniper Ridge Landfill in Old Town which is approximately 80 miles from the site.

### **Electrical:**

Electrical power is not required from utility lines for the driveway project construction. Any electrical power required during construction will be provided through generators.

The driveway has been designed to have post-mounted LED lights spaced roughly every 50 feet along the length of the driveway. Proposed light fixtures consist of LED down lights mounted to wood posts (see Exhibit 18). Construction of the driveway will also include the installation of underground conduit for electrical and communication services to serve residential and land management uses of the applicant's property, with the conduit to be located within the driveway shoulder.

CMP maintains distribution poles and lines in Lily Bay Road, the nearest public road. The approximate distance of the project site to the nearest utility line is approximately 10,400 feet. The applicant is working with its electrical engineers and CMP on an electrical design to bring power into the Burnt Jacket Holding I, LLC property to serve residential and land management uses of the applicant's property. Upon completion of the design, applicant intends to file a separate permit application for utility infrastructure to be installed on the applicant's property between Lily Bay Road and the driveway project site.

## **Telephone Service:**

There will be no telephone service required.

No water service is required for the driveway. LUPC has issued a building permit (BP-175-44) for a residential dwelling on the site which will have its own well.

Wastewater disposal is not required for the private driveway.

### EXHIBIT 17 - VEHICLE ACCESS, CIRCULATION, AND PARKING:

LUPC Received 02/04/2025

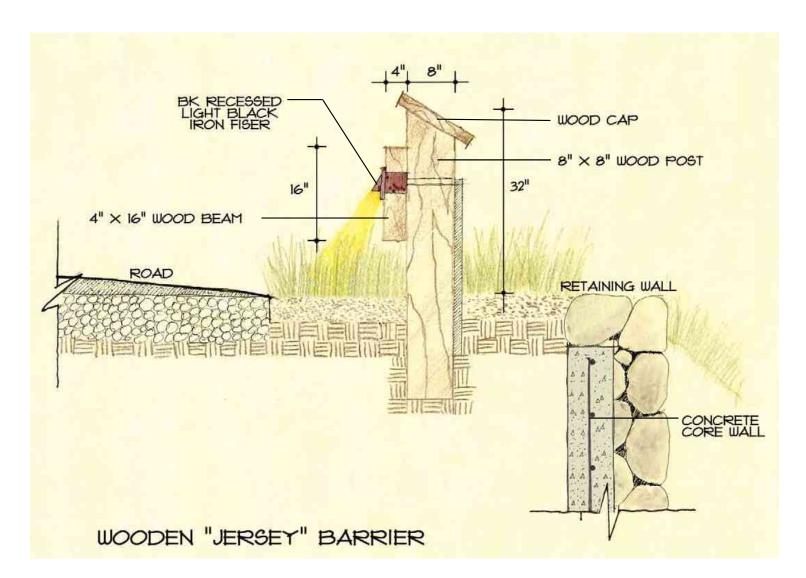
The proposed project involves construction of an approximately 4,059 foot long, 16-foot-wide paved private driveway with minimum 2-foot-wide shoulders to access residential and land management uses. The driveway will be accessed off Burnt Jacket Road which is a privately owned and maintained gravel road. The proposed driveway is designed with maximum slopes of 12 percent and for the safe traffic movements of an E-One 75 Fire Truck and construction vehicles. Opportunities for vehicle turnaround are provided near the proposed residential uses and the land management uses. No permanent parking areas are proposed.

During construction, the site will be accessed by construction vehicles, pick-up trucks and delivery trucks daily. Construction crews will park on temporary gravel areas along the driveway. Outside of the construction period, which may last four to six months, traffic to and from the site will be residential and land management vehicles.

A vehicle gate is proposed near the entrance of the driveway. A Knox Box will be provided at the gate for emergency personnel.

The driveway will have post-mounted LED lights spaced roughly every 50 feet along its length. Proposed light fixtures may be B-K Lighting, BQ Brick Star, 7W, shielded LED lights (or similar) mounted to wood posts (see below and Exhibit 18A). Light fixtures along the driveway are focused downwards and intended to serve as markers only.

## Driveway Light Fixture Detail:



### **EXTERIOR LIGHTING TABLE**

FIXTURE LOCATION	TYPE OF BULB	WATTAGE	CUTOFF FIXTURE	MOTION ACTIVATED	DATE INSTALLED
POST-MOUNTED EVERY 50' ALONG SHOULDER OF DRIVEWAY,TIMER CONTROLLED.	LED	7 W	Y	N	NEW

## EXHIBIT 18A - EXTERIOR LIGHTING: BASIS OF DESIGN (OR SIMILAR)

#### BRICK STAR LED (CORE DRILL) **IP65 RATED** PROJECT: TYPE DATE: **LUPC Received** CATALOG NUMBER LOGIC: 02/04/2025



\*Requires magnetic low voltage dimmer.

#### **CATALOG NUMBER LOGIC**

Example: B - CD - BQ - LED - e65 - A9 - WHP

#### MATERIAL

(Blank) - Aluminum

#### **INSTALLATION**

CD - Core Drill

#### **SERIES**

BQ - Brick Star

### SOURCE

LED - with Integral Dimming Driver (25W min. load when dimmed)\*

#### **LED TYPE**

e64 - 7W LED/2700K	e79 - 7W LED/2700K 90CRI
e65 - 7W LED/3000K	e80 - 7W LED/3000K 90CRI
e66 - 7W LED/4000K	e81 - 7W LED/3500K 80CRI

e74 - 7W LED/Amber

### **ADJUST-E-LUME OUTPUT INTENSITY\*\***

A9 (Standard), A8, A7, A6, A5, A4, A3, A2, A1

#### FINISH (See page 2 for full-color swatches)

Standard Finishes (BZP, BZW, BLP, BLW, WHP, WHW, SAP, VER)

Premium Finish (ABP, AMG, AQW, BCM, BGE, BPP, CAP, CMG, CRM, HUG, NBP, OCP, RMG, SDS, SMG, TXF, WCP, WIR)

Also available in RAL Finishes

Brass Finishes (MAC, POL, MIT)

#### **MOD OPTION**

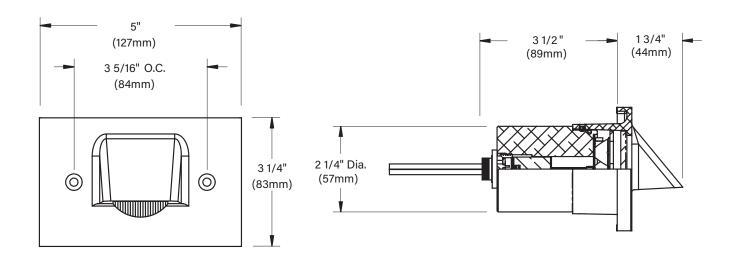
25 - 25 Ft Leads

<sup>\*\*</sup>Please see Adjust-e-Lume photometry to determine desired intensity.

### EXHIBIT 18B - EXTERIOR LIGHTING - CONTINUED:

BRICK STAR I	LED (CORE DRILL)		IP65 RATED
DATE:	PROJECT:	TYPE:	

LUPC Received 02/04/2025



#### STANDARD FINISHES



<u>Click Here</u> to view larger, full-color swatches of all available finishes on our website.

#### **PREMIUM FINISHES**



**B-K LIGHTING** 

MADE IN THE USA

559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

## **EXHIBIT 18C - EXTERIOR LIGHTING - CONTINUED:**

BRICK STAR	LED (CORE DRILL)		IP65 RATED
DATE:	PROJECT:	TYPE:	
Accessories (Configure	separately)		LUPC Received 02/04/2025



## **SPECIFICATIONS**

ELECTRICAL	WATTAGE	7W LED
	ADJUST-E-LUME	Integral electronics allows dynamic lumen response at the individual fixture. Indexed (100% to 25% nom.) lumen output. Maintains output at desired level or may be changed as conditions require. Specify factory preset output intensity.
	WIRING	Teflon® coated, 18AWG, 600V, 250° C rated and certified to UL 1659 standard. Anti-Siphon Valve (ASV™) prevents "wicking" through conductor insulation.
	REMOTE TRANSFORMER	For use with 12VAC remote transformer or magnetic transformers only. B-K Lighting cannot guarantee performance with third party manufacturers' transformers.
PHYSICAL	MATERIALS	Furnished in copper-free aluminum (360) or brass (360).
	CORE DRILL	Allows for mounting into existing structures that will not easily accept a standard box. 2-1/2" dia. hole required for slip fit.
	BODY	Unibody design is fully machined from solid billet and provides enclosed, water-proof wireway and integral heat sink for maximum component life. High temperature, silicone 'O' Ring provides water-tight seal. Provided with hardcoat (Type III) black anodize finish for maximum corrosion resistance. Weather-tight cable connector with 5'0," 18Ga., 2 wire low voltage cable.
	FACEPLATE	Cast construction with machined finish. Countersunk holes provide for flush hardware mounting (by others).
	LENS	Shock-resistant, tempered glass lens is factory adhered to faceplate and provides hermetically sealed optical compartment.
	LED	Integrated solid state system and modular design with electrical quick disconnects is scalable for field upgrade and maintenance. High power, forward throw source complies with ANSI C78.377 binning requirements and exceeds ENERGY STAR® lumen maintenance requirements. LM-80 certified components. Integral, constant current driver. 12VAC/VDC input. 50/60Hz. Proprietary input control scheme achieves power factor correction and eliminates inrush current. Output, overvoltage, open-circuit, and short circuit protected. Inrush current limited to <1A (non-dimming). Conforms to Safety Std. C22.2 No. 250.13-12.
	DIMMING	Line voltage dimmable via magnetic low voltage dimmer with dedicated neutral conductor. For purposes of dimming: Remote magnetic transformer with LED loads should be loaded to 25% of the transformer VA (watts) rated value.
	OPTICS & CUTOFF	Rectilinear design provides wide lateral distribution and long forward throw. 90° optical cutoff for mounting heights well below typical visual glare angles.
	HARDWARE	Tamper-resistant, stainless steel fixture hardware. Mounting hardware by others.
	FINISH	StarGuard, our 15-stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating and is RoHS compliant. Powder coat or metal finish options available for brass material and metal finish option only for stainless steel material.
	WARRANTY	5-year limited warranty.
cÜLus LISTED ROHS∜	CERTIFICATION & LISTING	ITL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHS compliant. Suitable for indoor or outdoor use, in wet locations, and for installation in combustible materials (Type Non-IC) and within 4' of the ground. IP65 Rated. Made in the USA with sustainable processes.
VOLO A		
USA		



MADE IN THE USA

559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

## **EXHIBIT 18D - EXTERIOR LIGHTING - CONTINUED:**

## LAMP & DRIVER DATA (e64, e65, e66, e74)

DATE: DPOIECT: TVDE:	•		
DATE. THOSE OF THE CONTROL OF THE CO	DATE:	PROJECT:	TYPE:

LUPC Received 02/04/2025

DRIVER	Input Volts	InRush Current	Operating	Dimmable	Operation Ambient Temperature
DATA	12VAC/DC 50/60Hz	<250mA (non-dimmed)	700mA	Magnetic Low Voltage Dimmer	-10°F-130°F (-12°C-54°C)

	LN	179 DAT	Ά	L70 DATA	OPTICAL DATA
BK No.	ССТ (Тур.)	CRI (Typ.)	Input Watts (Typ.)	Minimum Rated Life (hrs.) 70% of initial lumens (L <sub>70</sub> )	Delivered Lumens
e64	2700K	80	7	50,000	55
e65	3000K	80	7	50,000	56
e66	4000K	80	7	50,000	63
e74	Amber (590nm)	~	7	50,000	~

## **EXHIBIT 19 - NOISE:**

The proposed driveway is more than 1,200 feet from the closest property line. There will be no measurable noise impacts from the project at the property lines after construction.

Construction of the project will be completed during normal working hours and noise impacts will be buffered by the distance to the nearest property line.

### EXHIBIT 20 - HARMONIOUS FIT AND NATURAL CHARACTER:

LUPC Received 02/04/2025

The proposed road has been designed to fit harmoniously into the hillside with the driveway surface sitting below the surrounding tree line to minimize visibility from public vantage points and so that the developed roadway fits into the existing woodland surroundings. These existing woodland surroundings will be maintained to serve as a visual buffer (see the detailed site plans for clearing limits). There are no anticipated negative visual impacts from public roads, public properties, scenic byways, permanent trails, or Moosehead Lake located within three miles of the project area.

The surrounding area is mainly undeveloped woodland interspersed with seasonal residential houses along the shore of Moosehead Lake within a combination of D-RS, P-WL1, P-WL3 and M-GN zones. The most recent aerial imagery for the property and surrounding woodlands shows that the property has been used as commercial timberland, which has been periodically harvested by prior landowners. Aerial imagery of the larger property shows it crossed by numerous woods roads and land management roads.

There are approximately 13 residences within a one-mile radius of the project area, primarily seasonal residential lodging, and predominately clustered along the shore of Moosehead Lake. The project area is located more than 3,000 feet from the closest residence, more than 1,200 feet to the closest property line, and more than 1 mile to the nearest public road. The distances to the closest residents and public roads are identified in Exhibit 10 of the Application.

SME investigated potential visual impacts from public vantage points within five miles of the project. Moosehead Lake is approximately 3,120 feet from the proposed driveway. A summary of trails, scenic areas, parks and conserved lands five miles of the project location are summarized below:

- •Lily Bay State Park 2.5 miles
- •Sugar Island (Conserved Land) 2.5 miles
- •Prong Pond Trail 3.2 miles
- •Little Moose (Conserved Land) 3.4 miles
- •Lower Wilson Pond (Conserved Land) 3.9 miles

LUPC Received 02/04/2025

**EXHIBIT 21 - ARCHAEOLOGICAL AND HISTORIC RESOURCES:** 

Please see the attached exhibit for correspondence from the Maine Historic Preservation Commission (MHPC). The project area has no archaeologically sensitive areas, structures listed in the National Register of Historic Places, or significant archaeological sites or structures.

# EXHIBIT 21 - ARCHAEOLOGICAL AND HISTORIC RESOURCES: LUPC Received 02/04/2025



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



October 29, 2024

#### **VIA EMAIL**

Kirk F. Mohney, Director
Maine Historic Preservation Commission

Email: MHPCprojectreview@maine.gov

Subject:

Driveway

Burnt Jacket Holding I, LLC

Burnt Jacket Road, Beaver Cove, Maine

Dear Kirk:

Burnt Jacket Holding I, LLC is seeking approval for construction of an approximate 4,000 linear foot driveway in Beaver Cover, Maine that will be used for residential and land management uses. We are requesting a review by the Maine Historic Preservation Commission to support the LUPC permit application.

#### PROJECT DESCRIPTION

The project area is undeveloped and primarily forested land which has been historically timber harvested. The project will be accessed from Burnt Jacket Road and 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 project area or subject 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, however limited public information is available for neighboring properties. The project area is approximately 3,300 feet from the closest building. The age and pictures of the abutting buildings are not available.

# EXHIBIT 21 - ARCHAEOLOGICAL AND HISTORIC RESOURCES - CONTINUED:



LUPC Received 02/04/2025

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

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Michael M. Roy Senior Civil Engineer

Attachments: Figure 1 – Site Location Map

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act.

Consequently, rursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney,

State Historic Preservation Officer

Maine Aistoric Preservation Commission

MHPC #1939-24

# **EXHIBIT 22 - RARE OR SPECIAL PLANT COMMUNITIES:**

There are no critically imperiled (S1) or imperiled (S2) natural communities or plant species in the project vicinity. Please see the attached Exhibit 22A for the letter from the Maine Natural Areas Program (MNAP).

The project area contains no mapped essential habitats. Two high elevation species were identified as possibly occurring in the vicinity of the project area. Flycatcher evaluated the project area for watercourses within 250-feet of the project area and three intermittent watercourses were identified. None of the intermittent watercourses are considered suitable habitat for either of the high elevation species. Flycatcher's Wetland, Watercourse and Waterbody, and Potential Vernal Pool Survey Report is attached as Exhibit 23B. Please see the attached Exhibit 22B for a letter from the Maine Department of Inland Fisheries and Wildlife (MDIFW) and resource list by the U.S. Fish and Wildlife (USFWS).

# EXHIBIT 22A - RARE OR SPECIAL PLANT COMMUNITIES:

LUPC Received

# **DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY** 02/04/2025

177 STATE HOUSE STATION AUGUSTA, MAINE 04333

JANET T. MILLS GOVERNOR AMANDA E. BEAL COMMISSIONER

November 12, 2024

Michael Roy Sevee & Maher Engineers PO Box 85A Cumberland, ME 04201

Via email: mrr@smemaine.com

Re: Rare and exemplary botanical features in proximity to: #231136, Driveway, Burnt Jacket Road, Beaver Cove, Maine

Dear Michael Roy:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received October 29, 2024 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Beaver Cove, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-8044 WWW.MAINE.GOV/DACF/MNAP

Letter to SME Comments RE: 300 Driveway, Beaver Cove November 12, 2024 Page 2 of 2

LUPC Received 02/04/2025

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program 207-287-8044 | lisa.st.hilaire@maine.gov

# Rare and Exemplary Botanical Features within 4 miles of Project: #23116, Driveway, Burnt Jacket Road, Beaver Cove, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Long-leaved Bluet						
	SC	S2S3	G5TNR	ND	6	Non-tidal rivershore (non-forested, seasonally wet)
Northern Firmoss						
	Т	S2	G5	2006-08-23	8	Rocky summits and outcrops (non-forested, upland)
Oak - Ash Woodlan	d					
		S3	G3G5	2014-09-17	43	

Date Exported: 2024-11-12 17:00

Maine Natural Areas Program www.maine.gov/dacf/mnap

# **Conservation Status Ranks**

**State and Global Ranks**: This ranking system facilitates a quick assessment of a species' or habitat type's rarity and is the primary tool used to develop conservation, protection, and restoration priorities for individual species and natural habitat types. Each species or habitat is assigned both a state (S) and global (G) rank on a scale of critically imperiled (1) to secure (5). Factors such as range extent, the number of occurrences, intensity of threats, etc., contribute to the assignment of state and global ranks. The definitions for state and global ranks are comparable but applied at different geographic scales; something that is state imperiled may be globally secure.

The information supporting these ranks is developed and maintained by the Maine Natural Areas Program (state ranks) and NatureServe (global ranks).

Rank	Definition
<b>S1</b>	Critically Imperiled – At very high risk of extinction or elimination due to very restricted
G1	range, very few populations or occurrences, very steep declines, very severe threats, or
	other factors.
S2	Imperiled – At high risk of extinction or elimination due to restricted range, few
G2	populations or occurrences, steep declines, severe threats, or other factors.
<b>S3</b>	<b>Vulnerable</b> – At moderate risk of extinction or elimination due to a fairly restricted range,
G3	relatively few populations or occurrences, recent and widespread declines, threats, or
	other factors.
S4	Apparently Secure – At fairly low risk of extinction or elimination due to an extensive
G4	range and/or many populations or occurrences, but with possible cause for some concern
	as a result of local recent declines, threats, or other factors.
<b>S5</b>	<b>Secure</b> – At very low risk of extinction or elimination due to a very extensive range,
G5	abundant populations or occurrences, and little to no concern from declines or threats.
SX	<b>Presumed Extinct</b> – Not located despite intensive searches and virtually no likelihood of
GX	rediscovery.
SH	Possibly Extinct – Known from only historical occurrences but still some hope of
GH	rediscovery.
S#S#	Range Rank – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of
G#G#	uncertainty about the status of the species or ecosystem.
SU	Unrankable – Currently unrankable due to lack of information or due to substantially
GU	conflicting information about status or trends.
GNR	Unranked – Global or subnational conservation status not yet assessed.
SNR	
SNA	Not Applicable – A conservation status rank is not applicable because the species or
GNA	ecosystem is not a suitable target for conservation activities (e.g., non-native species or
	ecosystems.
Qualifier	Definition
S#?	Inexact Numeric Rank – Denotes inexact numeric rank.
G#?	
Q	Questionable taxonomy that may reduce conservation priority – Distinctiveness of this
	entity as a taxon or ecosystem type at the current level is questionable. The "Q" modifier
	is only used at a global level.
T#	Infraspecific Taxon (trinomial) – The status of infraspecific taxa (subspecies or varieties)
	are indicated by a "T-rank" following the species' global rank.

**State Status**: Endangered and Threatened are legal status designations authorized by statute. Please refer to MRSA Title 12, §544 and §544-B.

Status	Definition
E	Endangered – Any native plant species in danger of extinction throughout all or a
	significant portion of its range within the State or Federally listed as Endangered.
Т	Threatened – Any native plant species likely to become endangered within the
	foreseeable future throughout all or a significant portion of its range in the State or
	Federally listed as Threatened.
SC	<b>Special Concern</b> – A native plant species that is rare in the State, but not rare enough to
	be considered Threatened or Endangered.
PE	Potentially Extirpated – A native plant species that has not been documented in the State
	in over 20 years, or loss of the last known occurrence.

**Element Occurrence (EO) Ranks**: Quality assessments that designate viability of a population or integrity of habitat. These ranks are based on size, condition, and landscape context. Range ranks (e.g., AB, BC) and uncertainty ranks (e.g., B?) are allowed. The Maine Natural Areas Program tracks all occurrences of rare plants and natural communities/ecosystems (S1-S3) as well as exemplary common natural community types (S4-S5 with EO ranks A/B).

Rank	Definition
Α	Excellent – Excellent estimated viability/ecological integrity.
В	Good – Good estimated viability/ecological integrity.
С	Fair – Fair estimated viability/ecological integrity.
D	Poor – Poor estimated viability/ecological integrity.
E	Extant – Verified extant, but viability/ecological integrity not assessed.
Н	Historical – Lack of field information within past 20 years verifying continued existence of
	the occurrence, but not enough to document extirpation.
X	Extirpated – Documented loss of population/destruction of habitat.
U	Unrankable – Occurrence unable to be ranked due to lack of sufficient information (e.g.,
	possible mistaken identification).
NR	Not Ranked – An occurrence rank has not been assigned.

Visit the Maine Natural Areas Program website for more information http://www.maine.gov/dacf/mnap



Letter to SME Comments RE: 300 Driveway, Beaver Cove November 12, 2024 Page 2 of 2

LUPC Received 02/04/2025

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Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program 207-287-8044 | lisa.st.hilaire@maine.gov

# EXHIBIT 22B - MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE:



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



January 3, 2025

Michael R. Roy Sevee & Maher Engineers 4 Blanchard Road, P.O. Box 85A Cumberland, ME 04021 UPC Received 02/04/2025

RE: Information Request - Burnt Jacket Road, Beaver Cove Project ID 8621-9969

Dear Michael:

Per your request received on October 29, 2024, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information sources for known locations of Endangered, Threatened, and Special Concern (Rare) species; designated Essential and Significant Wildlife Habitats; inland fisheries and aquatic habitats; and other protected natural resource concerns within the vicinity of the *Burnt Jacket Road*, *Beaver Cove* project, pursuant to MDIFW's authority. MDIFW understands the project proposes 4,000 linear feet of new road for residential development and land management. For the purposes of this review, MDIFW presumes tree clearing would occur. Please note that as project details are lacking, our comments should be considered preliminary.

Our Department has not mapped any Essential Habitats that would be affected by this project.

#### ENDANGERED, THREATENED, AND SPECIAL CONCERN SPECIES

#### **Bat Species**

Of the eight species of bats that occur in Maine, four species are afforded protection under Maines 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: 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 Department does not anticipate significant impacts to any of the bat species as a result of this project.

#### **High Elevation Species**

The roaring brook mayfly (RBM), a State Threatened Species, and the northern spring salamander (NSS), a State Species of Special Concern – Rare, may occur in the vicinity of the project. RBM can occur in high elevation, headwater streams draining off forested (hardwood or mixed) slopes at or above 1,000 feet (including unmapped streams) within or adjacent to the currently documented range (northern Appalachian Mountain Range, stretching from Mt.

# EXHIBIT 22B - MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE: CONT.

January 3, 2025 Letter to Michael R. Roy, Sevee & Maher Engineers Comments RE: Burnt Jacket Road, Beaver Cove

LUPC Received 02/04/2025

Katahdin to western border with New Hampshire and Quebec). NSS can occur in first or second order perennial or intermittent, high elevation (generally at or above 500 feet) headwater streams (mapped or unmapped) in hardwood or mixed forests, but they are also found in larger third order streams and rivers with suitable substrate (large cobble and/or gravel bars) within the documented range of primarily the western Maine mountains north and east into mountains of central Penobscot County. We recommend that surveys be conducted for these species within the project area, conducted by qualified biologists with experience surveying for this species, following MDIFW's most recent survey protocol. Alternatively, we recommend 250-foot intact riparian buffer zones along all mapped and unmapped streams, with no new development or permanent habitat conversion within this zone.

#### SIGNIFICANT WILDLIFE HABITAT

# **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. Therefore, their absence from resource maps is not necessarily indicative of an absence on the ground. 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 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 Department for review well before 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 that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams 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 conditions required by many fish 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 full fish 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 and undersized crossings may inhibit these functions. 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

# EXHIBIT 22B - MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE: CONT.

January 3, 2025 Letter to Michael R. Roy, Sevee & Maher Engineers Comments RE: Burnt Jacket Road, Beaver Cove

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effective in not only providing habitat connectivity for fish but also for 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 from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fisheries and aquatic habitat. 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 and regulatory agencies including the Maine Natural Areas Program and the Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance. For information on federally listed species, contact the U.S. Fish and Wildlife Service's Maine Field Office (207-469-7300, mainefieldoffice@fws.gov).

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,

Andrew J. Wood

**Environmental Review Coordinator** 

Infram flosool

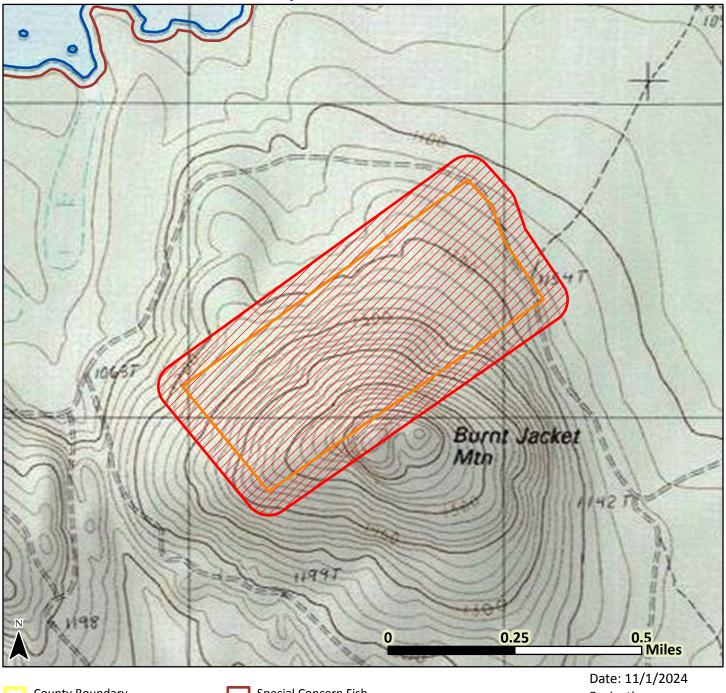
LUPC Received 02/04/2025

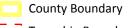


# Maine Department of Inland Fisheries and Wildlife **Project Area Review of Fish and Wildlife Observations and Priority Habitats**

# **Burnt Jacket Road, Beaver Cove**

Project ID 8621, Version ID 9969





**Township Boundary** 

**Project Footprint** 

Search Area

Special Concern Fish

Wild Lake Trout Habitats

Projection:

UTM Zone 19N, NAD83



# CLASS L: LINEAR SOIL SURVEY REPORT: PROPOSED ACCESS ROAD

Burnt Jacket Road Beaver Cove, Piscataquis County, Maine





Prepared by: Flycatcher LLC 106 Lafayette Street, Suite 2A Yarmouth, ME 04096 http://www.flycatcherllc.com

November 14, 2024

Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

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# **Appendices**

APPENDIX A. FIGURES

FIGURE 1. USGS SURVEY AREA LOCATION MAP

FIGURES 2-1 TO 2-8: CLASS L: LINEAR SOIL SURVEY MAP

APPENDIX B. FORMS

FORM E: SOIL CONDITIONS SUMMARY TABLE

FORM F: SOIL PROFILE/CLASSIFICATION INFORMATION

APPENDIX C. MAP UNIT DESCRIPTIONS

APPENDIX D. MAPSS CLASS A SURVEY STANDARDS

APPENDIX E. GLOSSARY OF TERMS



Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

# 1.0 SIGN-OFF SHEET

This soil narrative report entitled "Class L: Linear Soil Survey Report: Proposed Access Road", accompanying soil profile descriptions and soil survey maps, dated November 14, 2024, were completed in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, February 1995, as amended, and was prepared by Rodney Kelshaw LSS #552 of Flycatcher LLC.

LUPC Received 02/04/2025





# 2.0 INTRODUCTION AND PURPOSE

Beaver Cove is a small community located six miles north of Greenville on the shores of Moosehead Lake in Maine (Figures 1 and 2-1 to 2-8). JLF Architecture (JLF) is assisting a client with the planning of residential development on their property on Burnt Jacket Road. JLF requested that Flycatcher, LLC (Flycatcher) conduct a Class L: Linear Soil Survey to assist with the planning of the access road portion of the Project (Survey Area). A Maine Licensed Soil Scientist (R. Kelshaw, LSS #552) completed the soil survey in the fall of 2024. A wetland delineation of the general Project area (inclusive of the soil suitability Survey Area) was conducted by Flycatcher over the course of several site visits between the Spring 2023 and Fall 2024. This report provides a description of the methods and findings of the soil survey, and a discussion of potential limitations for project design based on soil type.

The purpose of this soil survey is to provide project planners with site-specific soil information that describes the ability or limitation of the soil to support the proposed use and to aid in project design. This report may also be used as part of a regulatory permit application process. A soil survey is tailored to the specific project; as such, the report may not be suitable for other project types because soil properties that are suitable for one proposed project may be limiting for different project type.

# 3.0 SURVEY AREA DESCRIPTION

#### 3.1 General Survey Area Description & Land Use

# 3.1.1 General Description

The Survey Area extends westerly from the intersection of Burnt Jacket Road and Evergreen Point Road approximately 4,000-feet to a point along the side slope of Burnt Jacket Mountain (Figure 1). The Survey Area is approximately 50-feet wide, totaling approximately 5-acres. There is a network of old timber harvest trails that extend through this area.

#### 3.1.2 Topography/Drainage

The topographic elevations within the Survey Area range from approximately 1152 feet along Burnt Jacket Road to 1,515 feet at the opposite end of the proposed access road on Burnt Jacket Mountain. There are large areas of steep slopes and exposed bedrock in the higher elevations directly adjacent to the Survey Area. In the lower elevations, primarily in the east, the topography has areas that are gently sloping.

#### 3.1.3 Vegetation

Higher elevations, steeper slopes, and shallow to bedrock areas are dominated by red spruce (*Picea rubens*), black spruce (*Picea mariana*), balsam fir (*Abies balsamea*), and yellow birch (*Betula alleghanensis*). The areas with less steep topography and deeper soil contain the same trees as well as American beech (*Fagus grandifolia*), eastern white pine (*Pinus strobus*), red maple (*Acer rubrum*), and striped maple (*Acer pensylvanicum*).

# 4.0 METHODS

#### 4.1 Standards

A Class L: Linear Soil Survey was conducted for the approximately 5-acre Survey Area. The soil survey methodology and deliverables are designed to meet the typical requirements of The Land Use Planning



Commission (LUPC) Land Use Districts and Standards Chapter 10<sup>1</sup> Section 25(G), Soil Suitability. This states that "Soil types are determined by a site-specific soil survey, according to the "Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping" Maine Association of Professional Soil Scientists, 2009. The soil survey class must be determined as follows, unless the Commission finds that a lower intensity soil survey will provide the information necessary or a higher intensity soil survey class is needed for the Commission's review: For linear projects or project components that involve soil disturbance, such as road construction, fairway construction or trail construction and that have little or no adjacent development, a Class L soil survey shall be used".

Because this Project is for a road to gain access to several private, residential homes and barns, a Class L Soil Survey was performed. This report and associated maps were completed in accordance with the standards adopted by the Maine Association of Professional Soil Scientists (MAPSS) "Guidelines for Maine Certified Soil Scientists for Soils Identification and Mapping" (revised 2009)<sup>2</sup> and follows the standards detailed in the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) "Soil Survey Manual." Soils are described using the standard soil terminology developed by the USDA NRCS and the MAPSS Key to Soil Drainage Classes, as well as a list of regional indicators for identification of hydric soils, Field Indicators for Identifying Hydric Soils in New England, Version 4.4

#### 4.2 Desktop Review

This soil survey was developed through a compilation of on-site soil investigation observations supported by publicly available data, including the USDA NRCS soil survey for Piscataquis County.<sup>5</sup> Prior to the on-site fieldwork, Flycatcher reviewed available data sources, including:

- Proposed project layout plan provided as CAD by JLF;
- United States Geological Survey (USGS) topographic map;
- NRCS medium-intensity soil survey map; and
- Recent and historic aerial photography.

The NRCS medium intensity soil survey for Piscataquis County depicts the Survey Area as:

- Chesuncook-Elliotsville-Telos Association, 15-35% slopes, very stony (CfD)
- Monson-Elliottsville-Knob Lock Complex, 8-30% slopes, very rocky (MyD)
- Ricker-Rock Outcrop Complex, Moderately Steep (ROD)
- Telos-Chesuncook Association, 3-15% slopes, very stony (ThC)

#### 4.3 Soil Survey Area Boundary Establishment and Field Methods

The proposed access road centerline was provided to Flycatcher by JLF. The Survey Area boundary, depicted on the soil survey map (Figures 2-1 to 2-8), was produced by Flycatcher by buffering the

<sup>&</sup>lt;sup>5</sup> Source: NRCS Web Soil Survey URL: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx; reviewed 2024.



<sup>&</sup>lt;sup>1</sup> Maine Land Use Planning Commission, Maine Department of Agriculture, Conservation and Forestry; Land Use Districts and Standards for Areas Served by the Maine Land Use Planning Commission; Chapter 10 of the Commission's Rules and Standards; Revised August 11, 2023.

<sup>&</sup>lt;sup>2</sup> Maine Association of Professional Soil Scientists. 2009. *Guidelines for Maine Certified Soil Scientists for Soils Identification and Mapping*.

<sup>&</sup>lt;sup>3</sup> Soil Science Division Staff. 2017. *Soil Survey Manual, ed.* C. Ditzler, K.Scheffe, and H.C. Monger, USDA Handbook 18. Government Printing Office, Washington, D.C.

<sup>&</sup>lt;sup>4</sup> New England Hydric Soils Technical Committee. 2019 Version 4, Field Indicators for Identifying Hydric Soils in New England. New England Interstate Water Pollution Control Commission, Lowell, MA.

centerline on each side by 25-feet, creating a 50-foot wide Survey Area. The soil survey fieldwork was performed on November 4, 2024. The weather conditions were typical for the season, with no snow cover or ground frost.

#### 4.4 Data Collection

Site orientation and data collection was accomplished using the ESRI Field Maps application. Field Maps provides online ArcGIS map integration that allows the field user to view various base layer maps (e.g., USGS topographic maps, aerial photographs, etc.) while tracking their location and collecting data. Geolocation of field data was accomplished using a mapping-grade GPS antenna (i.e., Juniper Systems Geode).

Hand dug test pits, hand auger borings, and several excavator pits were used to observe soil morphology and characteristics. Investigations extended to a depth of refusal or to the length of the hand auger or hand probe. Other factors used to determine soil boundaries included changes in vegetation, slope, aspect, observed bedrock outcrops, drainage swales, and other human influences. Test pit and hand auger boring locations were selected to collect representative soil data which could be used to determine the soil series or phase and the soil map unit boundary.

# 4.5 Soil Map Requirements

The Class L (Linear) standard is designed to provide the minimum soil information necessary to allow for the design and construction of long but narrow projects such as access roads, utility lines or trails with little or no adjacent development. In remote, difficult to access sites such as mountains or roadless areas, soil observations may be made entirely by use of a hand shovel, screw or Dutch auger. These standards are the basis of this soil survey and are detailed in Appendix D: MAPSS Class L Linear Soil Survey Standards.

#### 4.6 Soil Map Units

The soil survey map units conform with National Cooperative Soil Survey standards. Soil profiles are observed and then classified at the series level according to the current Keys to Soil Taxonomy. Soil map units depicted on the soil survey map and described in this report are phases of soil series.

A soil survey map unit consists of a portion of the landscape composed of the identified soil and associated landscape properties, such as similar topography, aspect, stoniness, vegetation, depth to seasonal groundwater table, or depth to bedrock. The area enclosed by a map unit boundary has a minimum of 75% of the soil(s) that provide the name of that map unit or similar soil (i.e., soils that differ so little from the named soil(s) in the map unit that there are no important differences in interpretations). No inclusion is greater in size than the named soil(s).

Soil map unit boundaries are depicted on the accompanying soil survey maps (Appendix A, Figures 2-1 to 2-8). Each map unit is composed of the named soil and smaller areas of other soil series or phases (inclusions). Most inclusions have properties or patterns that are similar to those of the dominant soil in the map unit and generally do not affect use and management.

# 5.0 FINDINGS

Appendix A contains the USGS Survey Area Location Map (Figure 1) and Class L Linear Soil Survey Map (Figures 2-1 to 2-8). Appendix B includes test pit data on the Soil Conditions Summary Table (Form E) and the test pit detailed information on the Soil Profile Classification/Information Form (Form F). Appendix C provides the Soil Map Unit Descriptions. Appendix D includes the MAPSS Class L Linear Soil Survey standards. Appendix E provides a Glossary of terms.



#### 5.1 Soil Survey Map Units

The Survey Area is composed of ten map units. The Map Unit Descriptions in Appendix C describe the soil origin, textures, drainage classes, depth to bedrock, where they are located with the Survey Area, and typical physical and chemical factors which may affect the proposed Project. Some key factors to consider during planning are:

- The soils in the western portion of the Survey Area are steeper so road construction will require additional engineering techniques to stabilize cut and fill slopes.
- The soils in the central and western portions of the Survey Area exhibit interspersed bedrock outcrops and soil with bedrock observed within 30-inches, so bedrock removal may be required for road construction. The removal of bedrock can make construction more difficult; however the rock that was removed typically can be incorporated into a stable road base in other areas.
- The moderately deep, firm horizon creates a seasonal high water table that is near the soil surface
  which may affect construction due to the chances of rutting when soil is moist and increases the
  potential for erosion. Once developed, this soil may create issues such as increased frost action,
  limitations for road building, and difficulties with properly treating stormwater or wastewater.
- Growing grass on road side-slopes could be difficult due to the rapid drainage and shallow soils in some areas. Importing loam prior to seeding or using other stabilization methods, such as rip-rap or thick erosion control mix mulch, may also be options to consider.
- Infiltration of stormwater may be difficult in some areas due to soil shallow to bedrock, so
  planning should avoid concentration stormwater sheet flow which could result in erosion of
  topsoil.
- Stony and bouldery surfaces are associated with most of the soils observed within the Survey Area. Large boulders can create difficulties similar to bedrock during road construction.

# 6.0 CONCLUSIONS AND SURVEY LIMITATIONS

Results of this soil survey indicate that in some areas this site could require engineered designs to address the limiting factors for the proposed development. However, with proper planning, engineering, and construction techniques, the soils are adequate for the proposed project and are not dissimilar from limitations for other successfully constructed residential development projects in this area. The most limiting factors at this site are upland areas with a steep slopes, shallow bedrock and a moderately deep dense till.

This investigation was conducted in accordance with the Class L: Linear Soil Survey standards and guidelines established by MAPSS. The conclusions and recommendations presented in this soil report are based on data obtained from on-site investigation and supplemental USDA NRCS soil maps and information. This soil report and associated soil figures were prepared for exclusive use by Project planners for specific application of this proposed access road Project.



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Class L: Linear Soil Survey Report

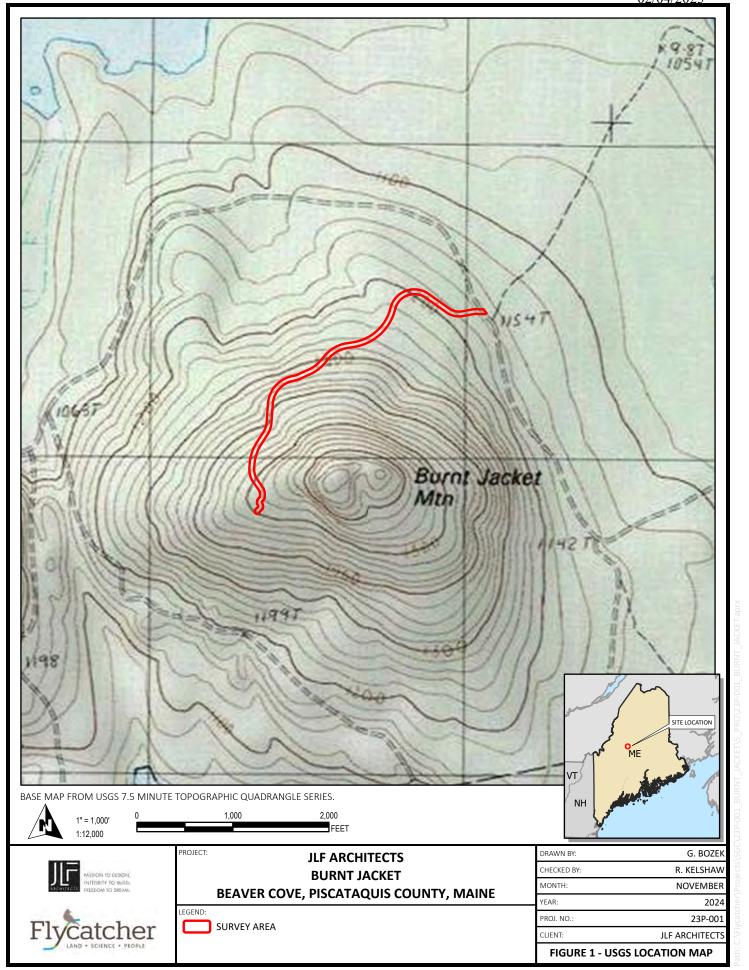
Proposed Access Road – Beaver Cove, ME

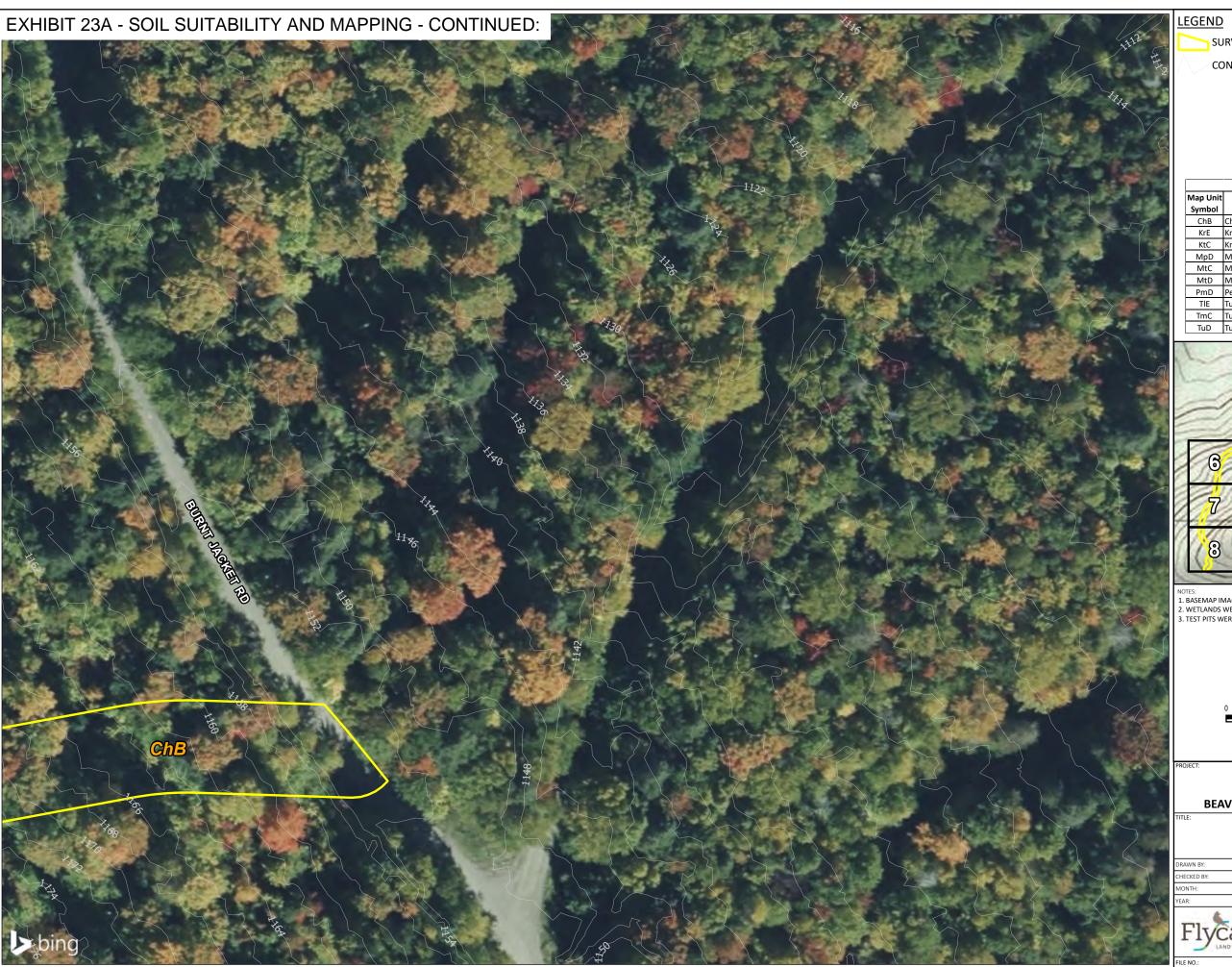
# **APPENDIX A: FIGURES**

Figure 1. USGS Survey Area Location Map

Figures 2-1 to 2-8. Class L: Linear Soil Survey Map







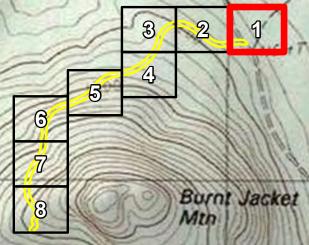
SURVEY AREA

CONTOUR LINE (2' INTERVAL)

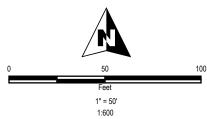


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Map Unit Legend				
Map Unit Symbol	Map Unit Name	HSG		
ChB	Chesuncook silt loam, 3-8%	C/D		
KrE	Knob Lock/Rock Outcrop Complex, >35%, bouldery	D		
KtC	Knob Lock/Tunbridge Association, 8-15%, bouldery	D		
MpD	Marlow/Peru Complex, 15-35%, stony	C & C/D		
MtC	Marlow/Tunbridge Complex, 8-15%, stony	С		
MtD	Marlow/Tunbridge Complex, 15-35%, stony	С		
PmD	Peru/Marlow Complex, 15-35%, stony	C & C/D		
TIE	Tunbridge/Lyman Complex, >35%, stony	C & D		
TmC	Tunbridge/Marlow Complex, 8-15%, stony	С		
TuD	Tunbridge sl, 15-35%, stony	С		



BASEMAP IMAGERY FROM BING IMAGERY SERVICE LAYER.
 WETLANDS WERE DELINEATED BY FLYCATCHER LLC.
 TEST PITS WERE HAND EXCAVATED BY FLYCATCHER IN NOVEMBER 2024.



JLF ARCHITECTS **BURNT JACKET** BEAVER COVE, PISCATAQUIS COUNTY, MAINE

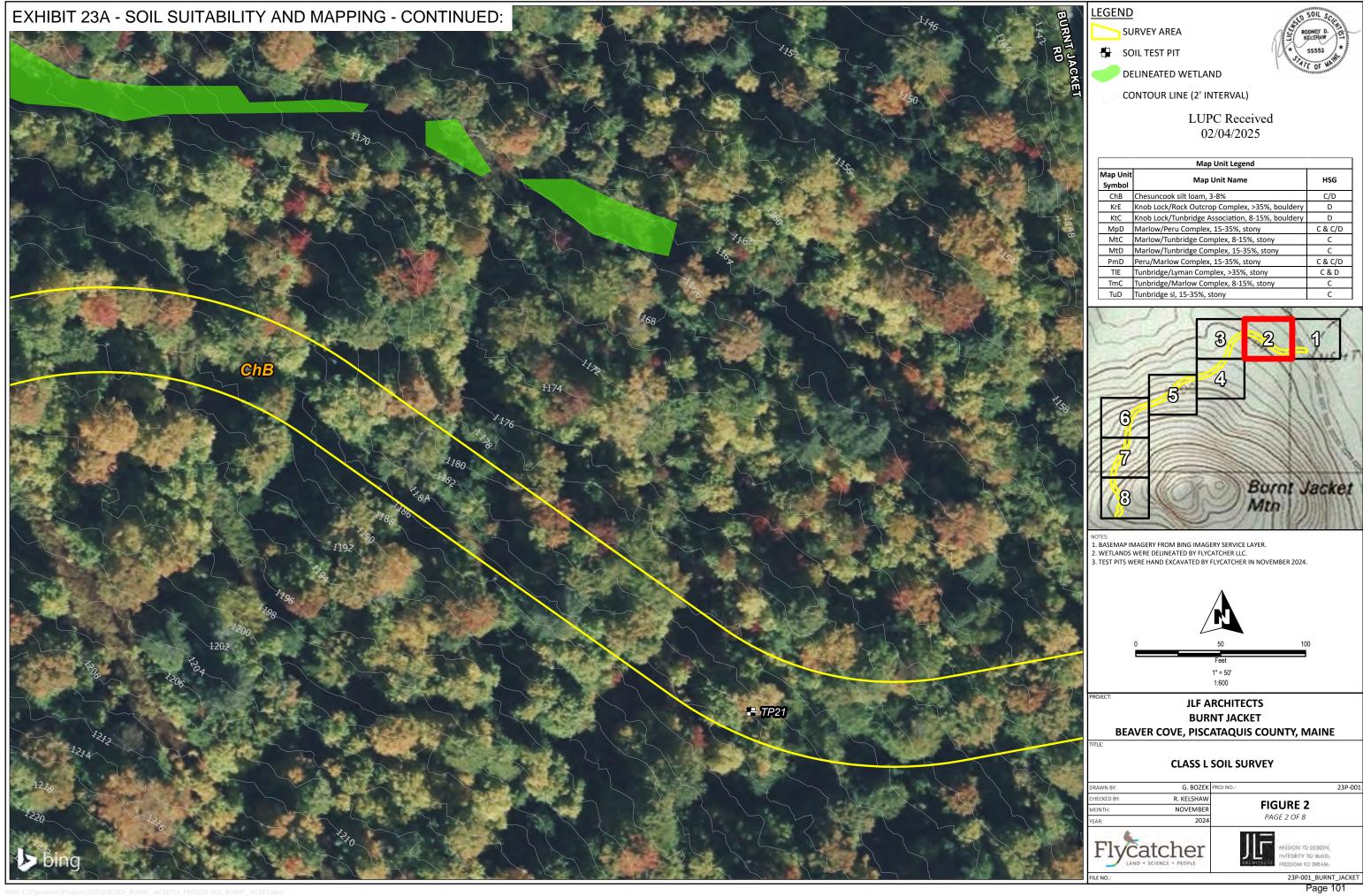
# **CLASS L SOIL SURVEY**

DRAWN BY:	G. BOZEK	PROJ NO.: 23P-001
CHECKED BY:	R. KELSHAW	FIGURE 2
MONTH:	NOVEMBER	
YEAR:	2024	PAGE 1 OF 8
-		



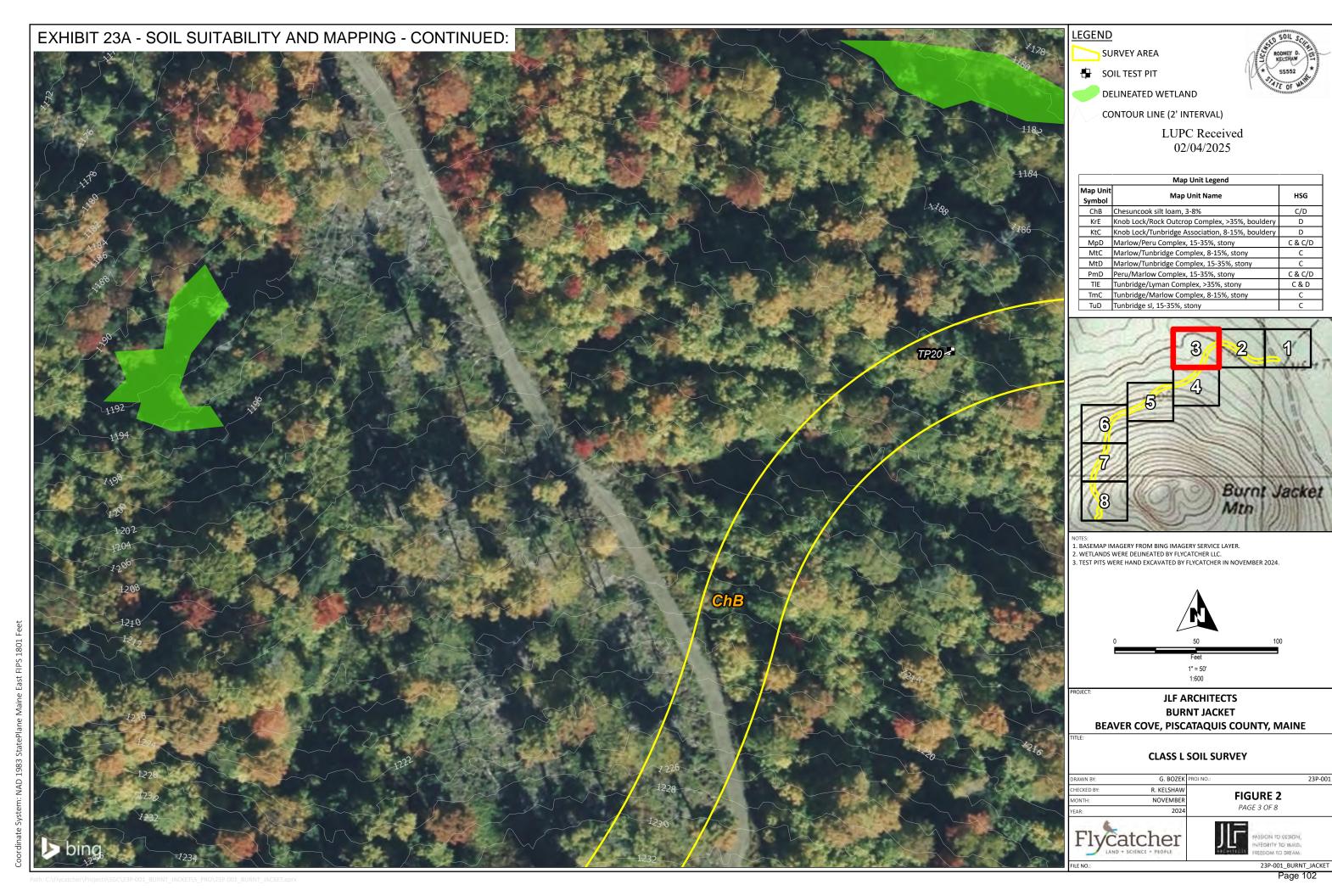


23P-001\_BURNT\_JACKET
Page 100



Map Unit Legend				
Map Unit Symbol	Map Unit Name	HSG		
ChB	Chesuncook silt loam, 3-8%	C/D		
KrE	Knob Lock/Rock Outcrop Complex, >35%, bouldery	D		
KtC	Knob Lock/Tunbridge Association, 8-15%, bouldery	D		
MpD	Marlow/Peru Complex, 15-35%, stony	C & C/D		
MtC	Marlow/Tunbridge Complex, 8-15%, stony	С		
MtD	Marlow/Tunbridge Complex, 15-35%, stony	С		
PmD	Peru/Marlow Complex, 15-35%, stony	C & C/D		
TIE	Tunbridge/Lyman Complex, >35%, stony	C & D		
TmC	Tunbridge/Marlow Complex, 8-15%, stony	С		
TuD	Tunbridge sl, 15-35%, stony	С		

WN BY:	G. BOZEK	PROJ NO.: 23P-001
CKED BY:	R. KELSHAW	FIGURE 3
NTH:	NOVEMBER	
R:	2024	PAGE 2 OF 8
71- &	. 4 - la	III ACSIAN IN ASSIAN



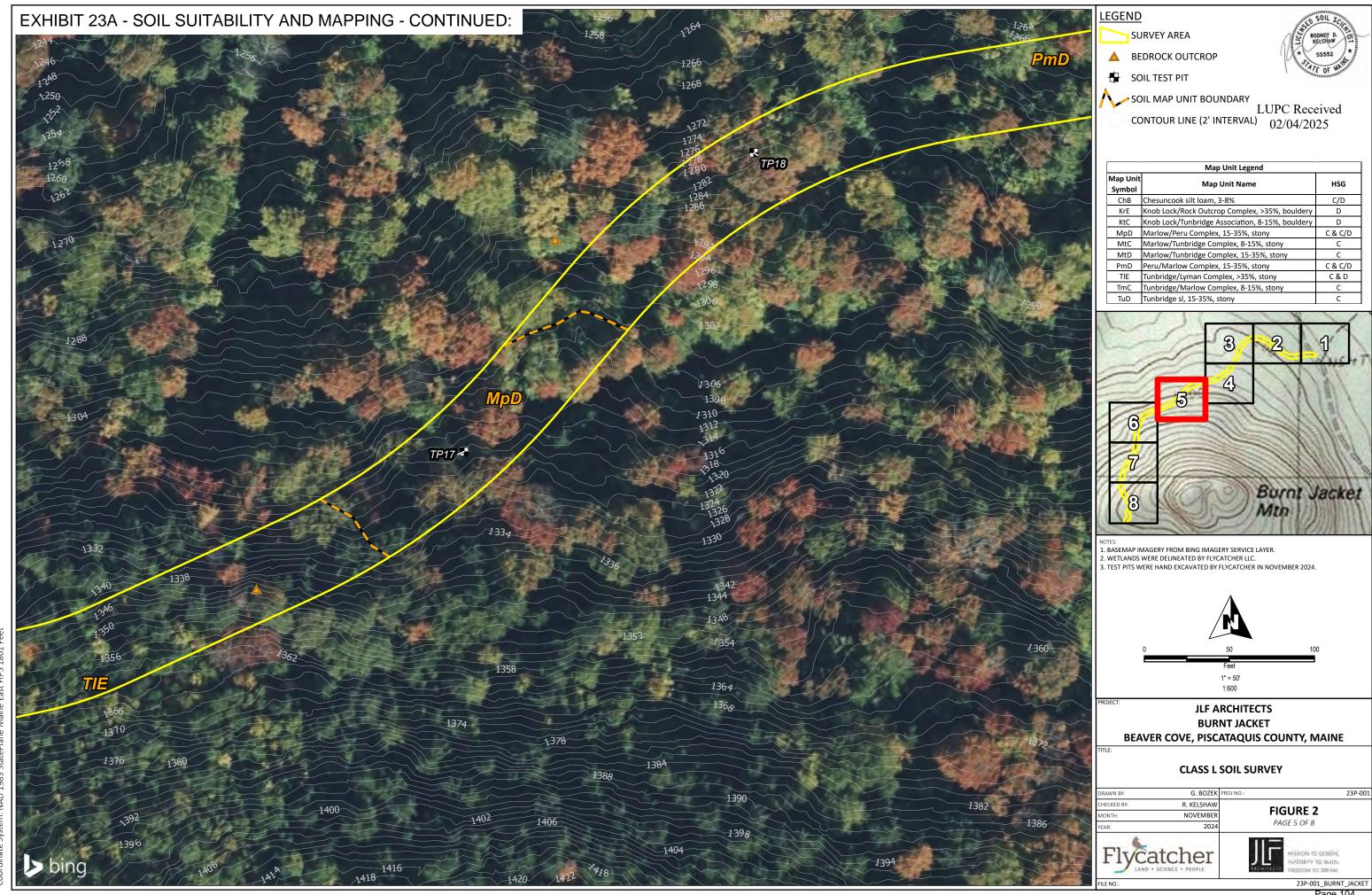
C/D

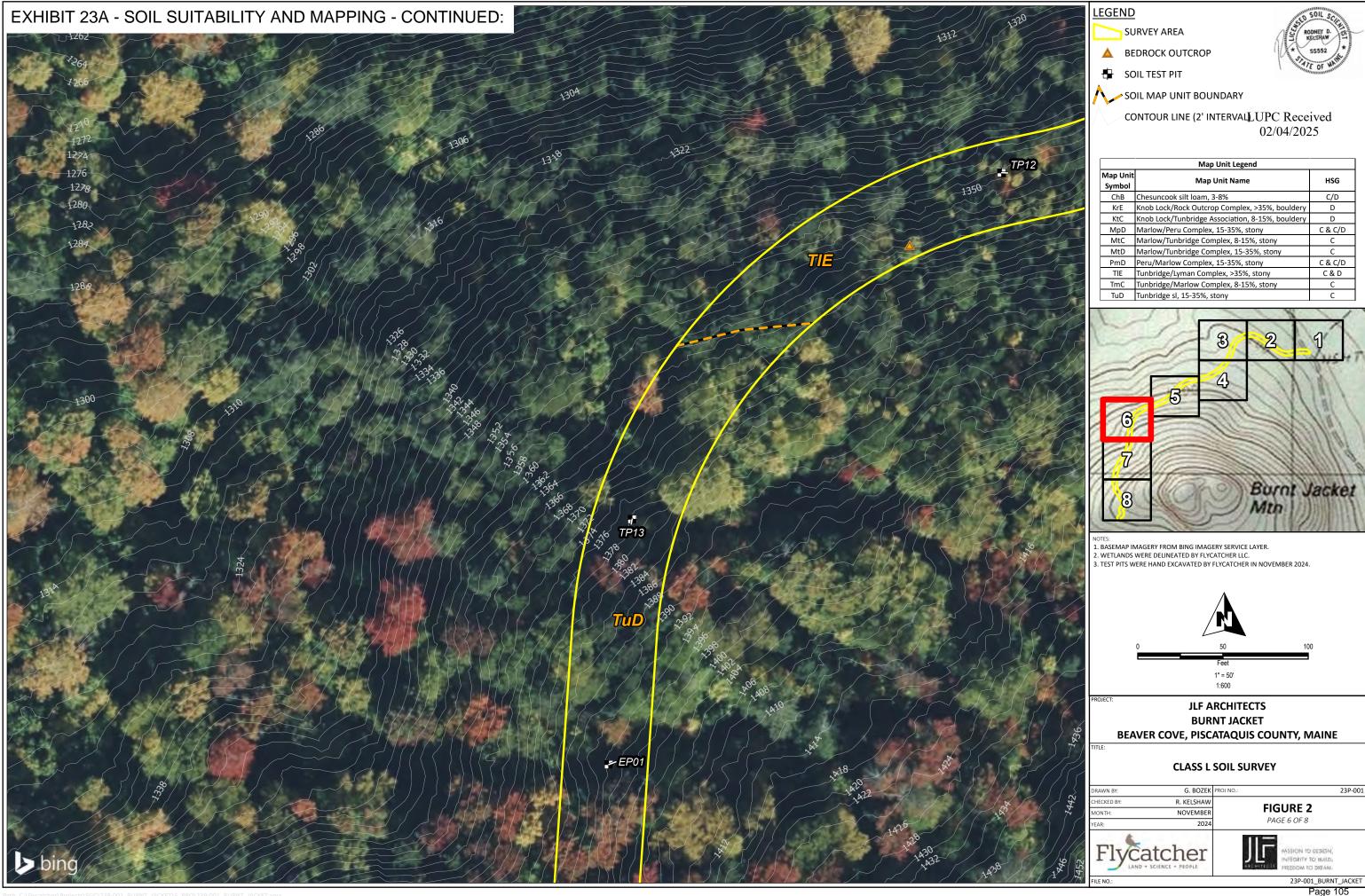
C & C/D

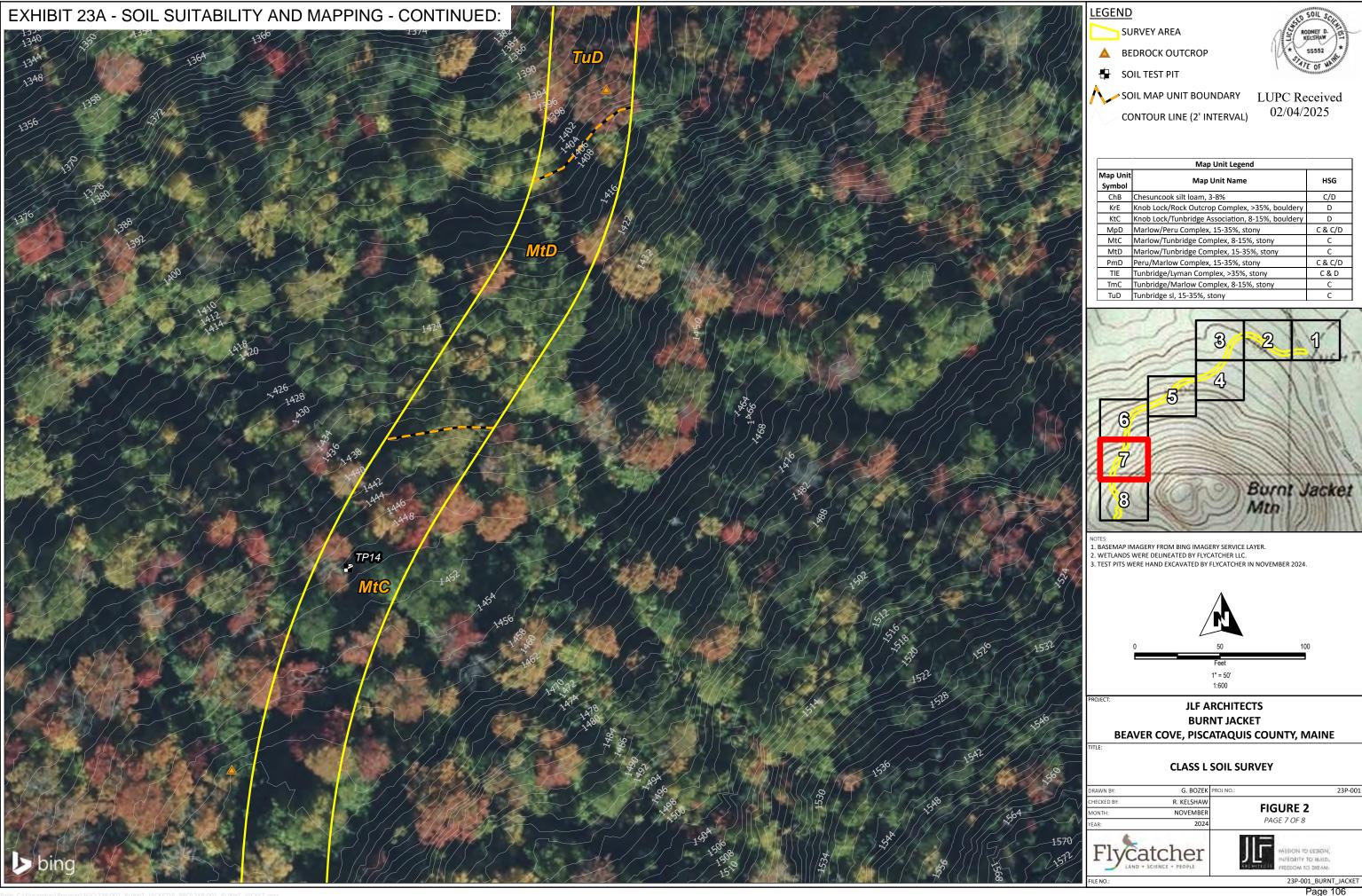
C & C/D

C & D

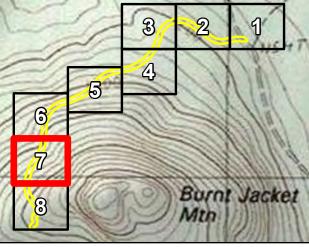




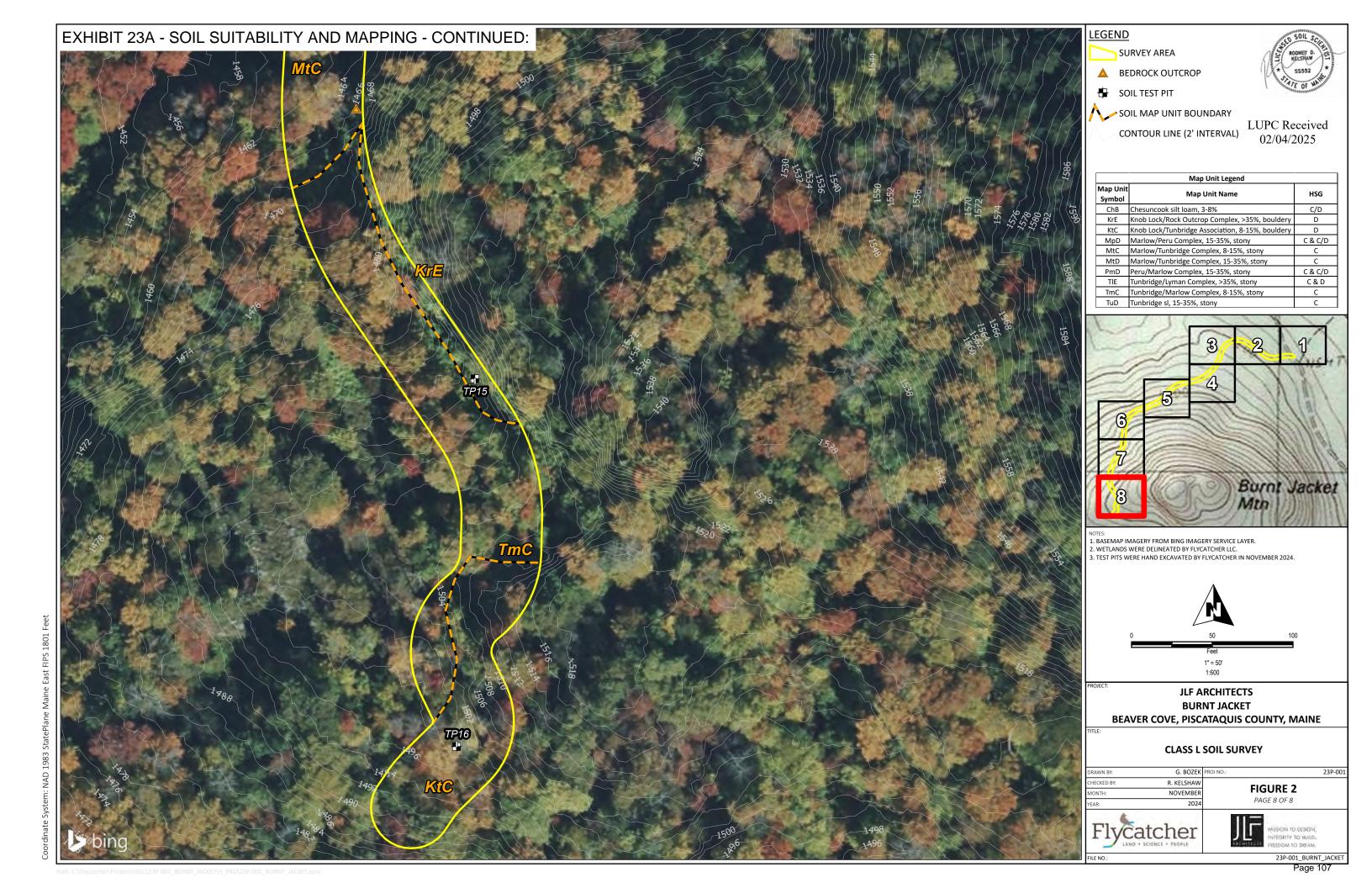




Map Unit Legend				
Map Unit Symbol	Man Unit Name			
ChB	Chesuncook silt loam, 3-8%	C/D		
KrE	Knob Lock/Rock Outcrop Complex, >35%, bouldery	D		
KtC	Knob Lock/Tunbridge Association, 8-15%, bouldery	D		
MpD	Marlow/Peru Complex, 15-35%, stony	C & C/D		
MtC	Marlow/Tunbridge Complex, 8-15%, stony	С		
MtD	Marlow/Tunbridge Complex, 15-35%, stony	С		
PmD	Peru/Marlow Complex, 15-35%, stony	C & C/D		
TIE	Tunbridge/Lyman Complex, >35%, stony	C & D		
TmC	Tunbridge/Marlow Complex, 8-15%, stony	С		
TuD	Tunbridge of 1E 2EV stepy	^		



AWN BY:	G. BOZEK	PROJ NO.:	23P-001
ECKED BY:	R. KELSHAW	FIGURE 3	
ONTH:	NOVEMBER		
AR:	2024	PAGE 7 OF 8	
Flyca	atcher	VASSION TO DESIGN, INTEGRITY TO BUILD.	



Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

LUPC Received 02/04/2025

# **APPENDIX B: FORMS**

Form E: Soil Conditions Summary Table

Form(s) F: Soil Profile / Classification Information (Test Pit Logs)



LUPC Received 02/04/2025

PAGE 1 OF 1

FORM E Rev. 7/21

SOIL CONDITIONS SUM	MARY TABLE	SUMMARY LOG OF SUBSURFACE EXPLORATIONS AT PROJECT SITES
Project Name: Burnt Jacket Residential Project	Applicant Name: JLF Architects	Project Location (municipality): Beaver Cove

_		×	Description of subsurface materials by:		Denths to	o (inches):			
Lot No.	Exploration Symbol (TP 1, B 2, etc.)	if at SSWD Field	<ul> <li>Soil profile/condition (if by S.E.),</li> <li>Soil series name (if by S.S.), or by</li> <li>Geologic unit (if by C.G.)</li> </ul>	Redoximorphic Features	Bedrock	Hydraulically Restrictive Layer	Limit of Exploration	Ground Surface Slope (%)	Ground Surface Elevation
	TP12		Tunbridge vstfsl	N.O.	33	N.O.	33	15-35	1348
	TP13		Tunbridge sl	N.O.	32	N.O.	32	15-35	1375
	TP14		Marlow sl	N.O.	N.O.	12	14	3-8	1450
	TP15		Knob Lock	N.O.	0	N.O.	0	>35	1493
	TP16		Knob Lock	N.O.	3	N.O.	3	3-8	1499
	TP17		Marlow fsl	N.O.	N.O.	N.O.	19	15-35	1317
	TP18		Peru vstfsl	16	N.O.	16	35	15-35	1282
	TP19		Chesuncook grl	18	N.O.	26	28	3-8	1244
	TP20		Chesuncook sil	22	N.O.	35	35	3-8	1194
	TP21		Chesuncook stl	19	N.O.	30	36	3-8	1182
	EP01		Tunbridge sl	N.O.	32	N.O.	32	8-15	1394
							108 O'	IIIII	
							11110 501	L S0111	
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	1					0	RODNE	Y D.	
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			N.O. = Not Observed						

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			30	ATE OF MAININ
				WHITHIN IIII
	N.O. = Not C	Observed		
	INVESTIGATOR	NEORMATION AND SIGNATUR	PE .	
12	INVESTIGATOR I	NFORMATION AND SIGNATU		
Sig	INVESTIGATOR I		RE	
		☐ Site Evaluator	2024-11-04	

#### EXHIBIT 23A - SOIL SUITABILITY AND MAPPING - CONTINUED: LUPC Received 02/04/2025 PAGE 1 OF 3 FORM F (\$\$1) Rev. 7/21 SOIL SCIENTIST DESCRIPTION SOIL PROFILE / CLASSIFICATION INFORMATION OF SOIL CONDITIONS AT PROJECT SITES Project Location (municipality): Burnt Jacket Residential Proj JLF Architects Beaver Cove Exploration Symbol # TP 12 PT Test Pit Boring Probe Exploration Symbol # TP 13 Z Test Pit Boring Probe 3 "Organic horizon thickness Ground surface elev. 1348 나 "Organic horizon thickness Ground surface elev. 13구5 33 " Depth: □ of exploration, or ☑ to refusal 32\_ " Depth: □ of exploration, or ∠ to refusal Texture Structure Consistence Redox Texture Structure Consistence 421 ProwA dark (inches) Depth below mineral soil horizon (inches) 10 Droudh NONE NONE OBSERVED OBSERVER soil horizon orve GR proud darte yl br MA Bw OHUP below mineral Bedrock Bedrock Depth 50 60 60 Limiting Factor Groundwate Soil Series/Phase Name Limiting Factor Groundwater very Stony 3 11 D Restrictive Layer 32 11 D Restrictive Laye sandy Soil Sail lumbrid Tunbridge Details Details Drainage Class Drainage Class bb 15-35 1 DED DSED DWD ZMWD ₽ No DED DSED DWD MWD 15-35 ₽ No SPD PD VPD O SPD O PD O VPD Soil Group Soil Group ☐ Yes Percent Percent Exploration Symbol # TP 14 ☑ Test Pit ☐ Boring ☐ Probe Exploration Symbol # TP IS Z Test Pit ☐ Boring ☐ Probe Ground surface elev. 1450 " Organic horizon thickness Oganic horizon thickness Ground surface elev. 1493 O\_ " Depth: □ of exploration, or ≥ to refusal Color Texture Structure Consistence Horizon Structure Consistence rd aru NONE BSdkrabr OBSERVOS Buldkylbr soil horizon (inches) Depth below mineral soil horizon (inches) 10 MAIDL 20 30 Depth below mineral 40 50 50 60 60 Limiting Factor Groundwater Limiting Factor Groundwater Sandy ☐ Restrictive Layer H Restrictive Layer Soil Soil Marlow Knob Lock 2 Bedrock Depth Details Details Hydric Soil Hydrologic Hydrologic 1 DED DSED WO D'MWD 3-8 1 ZED SED DWD DMWD 735 No No Z No O SPD OPD OVPD ☐ Yes SPD BPD BVFD ☐ Yes Soil Group

SOIL SCIENTIST INFORMATION AND SIGNATURE

Signature Rodney Kelshaw

Name Printed

affix professional seal

2024-11-04

552

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#### EXHIBIT 23A - SOIL SUITABILITY AND MAPPING - CONTINUED: LUPC Received 02/04/2025 PAGE 2 OF 3 FORM F (SS1) Rev. 7/21 SOIL SCIENTIST DESCRIPTION SOIL PROFILE / CLASSIFICATION INFORMATION OF SOIL CONDITIONS AT PROJECT SITES Project Name Project Location (municipality): Burnt Jodet Residential Proj Beaver Cove Exploration Symbol # TP 16 Ø Test Pit ☑ Boring Exploration Symbol # TP 17 ☑ Test Pit ☐ Boring ☐ Probe "Organic horizon thickness Ground surface elev. 1499 2 "Organic horizon thickness Ground surface elev. 317 " Depth: □ of exploration, or 🗷 to refusal Page 10 and 10 Structure | Consistence | Structure | Consistence Horizon Texture Redox Color Texture Redox AP Dade NONE dork mineral soil horizon (inches) OBSERVED Depth below mineral soil horizon (inches) 10 10 prown Bs2 3141 AV2 111 -> 20 Boulder 30 Depth below 6₽ Limiting Factor Groundwater Soil Series/Phase Name ☐ Groundwater 19 11 Restrictive Layer 11 Z Restrictive Laye Soil Soil Marlow nob ☑ Bedrock Sandy loam Details Depth Details Hydric Soil Drainage Class Hydric Soil 44 3-8 ZED OSED OWD OMWO PJ No Z No DED DSED ZWD DMWD SPD PD VPD Soil Group SPD PD VPD ☐ Yes Soil Group Percent Exploration Symbol # TP 19 Exploration Symbol # TP 18 ☑ Test Pit ☐ Boring ☐ Probe Z Test Pit ☐ Boring ☐ Probe Ground surface elev. 1244 Ground surface elev. 1282 " Organic horizon thickness " Organic horizon thickness ろち " Depth: □ of exploration, or 🛭 to refusal 28 " Depth: □ of exploration, or ⊿ to refusal Color Texture Structure Consistence Redox Color Horizon Horizon Texture Structure Consistence 125 an de 5 gray VST 45 NONE dare OBJECTED 41-6 dark Depth below mineral soil horizon (inches) OBSERVED Depth below mineral soil horizon (inches) Dive ylbr STES BW2 FRIFIP GRL 2% db GR Olive. Otive 29 agray Jense/FIR Dense 40 50 60 gravely III Limiting Factor Limiting Factor Groundwater 1 com 20 1 Down Restrictive Layer Soil Soil Details Depth Details Drainage Class Hydric Soi Hydrologic DED DSED DWD ZINGS DED DSED DWD ZMWD El No SPD PD VPD ☐ Yes SPD PD D SOIL SCIENTIST INFORMATION AND SIGNATURE Signature Rodney Kelshaw gtessional seal Name Printed SS License No. Page 111

LUPC Received 02/04/2025

PAGE 3 OF 3 FORM F (SS1) Rev. 7/21 SOIL SCIENTIST DESCRIPTION SOIL PROFILE / CLASSIFICATION INFORMATION OF SOIL CONDITIONS AT PROJECT SITES Project Name: Applicant Name: Project Location (municipality): Bunt Jocket Residential Proj. JLF Architects Beaver Cove Exploration Symbol # TP 20 Test Pit Boring Probe O "Organic horizon thickness Ground surface elev. 1944 3 "Organic horizon thickness Ground surface elev. 1/82 35 " Depth: □ of exploration, or ☑ to refusal 36 " Depth: □ of exploration, or 🗷 to refusal Structure | Consistence | Horizon Texture Redox Texture Structure Consistence VFR NONE NONE OBSECUED. brough horizon (inches) OBSERVED Depth below mineral soil horizon (inches) 10 Olive dark GRI Buil brown yibo BWZ ON DO 17 dkylbr BW2 Olive ZOORYS Soil Olive Ziodeyla mineral 210 gray G251 Depth below 50 Soil Series/Phase Name Limiting Factor Groundwater Limiting Factor Groundwater Soil Series/Phase Name silt 10 11 B' Restrictive Layer Stony 11 A Restrictive Layer Soil Soil Chesuncook loan hesuncook LOCIM ☐ Bedrock Details Depth Details Drainage Class Hydric Soil Drainage Class Hydric Soil DED DSED DWD MWD PP O ED O SED OWD MWD A No 3-8 ☑ No ☐ Yes □ SPD □ PD □ VPD ☐ Yes Percent Exploration Symbol # EPOL Zi Test Pit ☐ Boring ☐ Probe Exploration Symbol # ☐ Test Pit ☐ Boring " Organic horizon thickness Ground surface elev. 1394 " Organic horizon thickness Ground surface elev. 32 Depth: 🗆 of exploration, or 🗹 to refusal " Depth: ☐ of exploration, or ☐ to refusal Structure Horizon Color Texture Consistence Redox Horizon Color Texture Structure Consistence Drown dark horizon (inches) Depth below mineral soil horizon (inches) 41 DE NONE Otrve prown Soil RODNEY D. slive KELSHAW mineral Depth below 49 The state of the s 50 Limiting Factor Groundwater 32 II Groundwater Soil Series/Phase Name ☐ Groundwater sandy 11 Restrictive Laye Soil Tunbridge 10aW Bedrock ☐ Berimck Depth Details Details Hydric Soil Slope Hydrologic Hydric Soil Hydrologic ₩ DED DSED DWD ZMWD **b**b 8-15 Z No O ED O SED OWD O MWD □ № SPD DPD DVPD ☐ Yes SPD DPD DVPD ☐ Yes Soil Group Percent SOIL SCIENTIST INFORMATION AND SIGNATURE 2024-11-04

> Signature Rodney Kelshaw Name Printed

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Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

# **APPENDIX C**

**Map Unit Descriptions** 



Table 1. Map Unit Descriptions											
Map Unit Symbol	Map Unit Name	НSG	Drainage Class	Bedrock	Frost Action	Lawns, Landscaping and Golf Fairways	Concrete Corrosion	Steel Corrosion	Local Roads & Streets	Infiltration Systems, Shallow	Dwellings Without Basements
			Moderately						Somewhat	Severely	
ChB	Chesuncook silt loam, 3-8%	C/D	Well	Very Deep	Moderate	Somewhat	High	High	Limited	Limited	Very Limited
KrE	Knob Lock/Rock Outcrop Complex, >35%, bouldery	D	Well	Very Shallow & Shallow	Low	Very	High	High	Somewhat Limited	Severely Limited	Very Limited
				Very Shallow, Shallow & Moderately					Somewhat	Severely	
KtC	Knob Lock/Tunbridge Association, 8-15%, bouldery	D	Well	Deep	Moderate	Very	High	High	Limited	Limited	Very Limited
MpD	Marlow/Peru Complex, 15-35%, stony	C & C/D	Well & Moderately Well	Very Deep	Moderate	Very	High	High	Somewhat Limited	Severely Limited	Very Limited
Ινίμο	Interior Complex, 13-33%, Story	CACID	vveii	very beep	Moderate	very	півіі	підіі	Lilliteu	Lillilleu	very Limited
MtC	Marlow/Tunbridge Complex, 8-15%, stony	С	Well	Moderately & Very Deep	Moderate	Very	High	High	Somewhat Limited	Severely Limited	Very Limited
MtD	Marlow/Tunbridge Complex, 15-35%, stony	С	Well	Moderately & Very Deep	Moderate	Very	High	High	Somewhat Limited	Severely Limited	Very Limited
PmD	Peru/Marlow Complex, 15-35%, stony	C & C/D	Well & Moderately Well	Very Deep	Moderate	Very	High	High	Somewhat Limited	Severely Limited	Very Limited
TIE	Tunbridge/Lyman Complex, >35%, stony	C & D	Somewhat Excessivly & Well	Shallow & Moderately Deep	Moderate	Very	High	High	Somewhat Limited	Severely Limited	Very Limited
				Moderately					Somewhat	Severely	·
TmC	Tunbridge/Marlow Complex, 8-15%, stony	С	Well	& Very Deep	Moderate	Very	High	High	Limited	Limited	Very Limited
TuD	Tunbridge sandy loam, 15-35%, stony	С	Well	Moderately	Moderate	Very	High	High	Somewhat Limited	Severely Limited	Very Limited

Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

Map Unit: Chesuncook silt loam

Classification: Coarse-loamy, isotic, frigid Aquic Haplorthods

Map Unit Symbol: ChB

LUPC Received 02/04/2025

**SETTING** 

Parent Material: Lodgment glacial till

Landform: Upland till plains, hills and ridges

Position in Landscape: Sideslopes Slope Gradient Range: (B) 3-8%,

#### COMPOSITION AND SOIL CHARACTERISTICS

**Depth to Water Table:** 16-40"

**Typical Profile Description:** 

#### **Surface Layers:**

0 – 6" Dark brown, loam, sbk VFR 6 – 15" Brown, loam, sbk VFR

#### **Subsurface Layers:**

15 – 19" Light olive brown, very gravelly loam, sbk FR

19 - 27" Olive, loam, sbk FR

Redox. Con. dark yellowish brown 10%

27 - 48" Olive brown, silt loam, m, FI

Redox Con. dark yellowish brown 10%

Redox Dep. olive gray 5%

Hydrologic Soil Group (HSG):	See Table 1
Drainage Class:	See Table 1
Depth to Bedrock:	See Table 1
Potential for Frost Action:	See Table 1
Lawns, Landscaping and Golf Fairways:	See Table 1
Concrete Corrosion:	See Table 1
Steel Corrosion:	See Table 1
Local Roads & Streets:	See Table 1
Infiltration Systems, Shallow:	See Table 1
Dwellings Without Basements:	See Table 1

# **INCLUSIONS (within mapping unit)**

Similar: Surplus, Telos

Dissimilar: Bemis

# **USE AND MANAGEMENT**

Mapped across the eastern portion of the Survey Area in forested uplands. They are typically on sloping hillsides with linear or convex topography. Major use and management concerns are that Chesuncook soils are shallow to dense till. This can create a seasonal high-water table close to the mineral soil surface, so activities impacted by a high-water table, such as road construction, could require additional engineering. Frost action is only a moderate concern and the rating for lawns and landscaping is only somewhat limited. Phases of this soil included within the map unit are areas with a stony surface and stony subsurface layers.



Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

Map Unit: Knob Lock/Rock Outcrop Complex, Bouldery

Classification:Knob Lock: Dystic, frigid Lithic UdifolistsLUPC ReceivedMap Unit Symbol: KrE02/04/2025

**SETTING** 

Parent Material: Thin mantel of glacial till Landform: Glaciated uplands
Position in Landscape: Ridges and mountains

Slope Gradient Range: (E) >35%

#### COMPOSITION AND SOIL CHARACTERISTICS

**Depth to Water Table:** Knob Lock: very shallow organic, may have thin mineral mantel over bedrock with no water table

#### **Typical Profile Description:**

Knob Lock:

0 – 4" Peat 4" Bedrock

Hydrologic Soil Group (HSG):	See Table 1
Drainage Class:	See Table 1
Depth to Bedrock:	See Table 1
Potential for Frost Action:	See Table 1
Lawns, Landscaping and Golf Fairways:	See Table 1
Concrete Corrosion:	See Table 1
Steel Corrosion:	See Table 1
Local Roads & Streets:	See Table 1
Infiltration Systems, Shallow:	See Table 1
<b>Dwellings Without Basements:</b>	See Table 1

#### **INCLUSIONS (within mapping unit)**

Similar: Lyman

Dissimilar: Marlow

#### **USE AND MANAGEMENT**

This map unit occurs in one location in the southern end of the Survey Area near the highest elevation. This occurs along the edge of the Survey Area on a ridgeline with steep side slopes. The most limiting factors associated with this map unit are the shallow depth to bedrock and steep slope; which affect road construction, construction of buildings without basements, and implementation of stormwater infiltration best management practices. Because the drainage is excessively drained this map unit is also considered very limiting for the establishment of lawns or grass for stabilization of exposed soil. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures (such as blasting).



Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

Map Unit: Knob Lock/Tunbridge Association, Bouldery

Classification: Knob Lock: Dystic, frigid Lithic Udifolists

LUPC Received

Tunbridge: Coarse-loamy, isotic, frigid Typic Haplorthods 02/04/2025

Map Unit Symbol: KtC

**SETTING** 

Parent Material:Thin mantel of glacial tillLandform:Glaciated uplandsPosition in Landscape:Ridges and mountains

Slope Gradient Range: (C) 8-15%

#### COMPOSITION AND SOIL CHARACTERISTICS

**Depth to Water Table:** Knob Lock: very shallow organic, may have thin mineral mantel over bedrock with no water table

Tunbridge: 20 to <40" to bedrock with no water table

#### **Typical Profile Description:**

Knob Lock:

0 - 4" Peat4" Bedrock

Tunbridge:

0-3" Peat

3 - 5" Very dusky red, fine sandy loam, sbk, VFR
5 - 7" Grayish brown, fine sandy loam, sbk, VFR
7 - 13" Dark reddish brown, fine sandy loam, sbk, VFR
13 - 23" Dark brown, fine sandy loam, sbk, VFR
23 - 32" Dark yellowish brown, fine sandy loam, sbk, VFR

23" De des de

32" Bedrock

Hydrologic Soil Group (HSG):	See Table 1
Drainage Class:	See Table 1
Depth to Bedrock:	See Table 1
Potential for Frost Action:	See Table 1
Lawns, Landscaping and Golf Fairways:	See Table 1
Concrete Corrosion:	See Table 1
Steel Corrosion:	See Table 1
Local Roads & Streets:	See Table 1
Infiltration Systems, Shallow:	See Table 1
Dwellings Without Basements:	See Table 1

# **INCLUSIONS (within mapping unit)**

Similar: Lyman Dissimilar: Marlow

# **USE AND MANAGEMENT**

This map unit occurs in one location in the southern end of the Survey Area near the highest elevation on ridgelines, knolls and associated side slopes. The most limiting factor associated with this map unit is the shallow depth to bedrock, which affects road construction, construction of buildings without basements, and implementation of stormwater infiltration best management practices. Because portions of this map unit are excessively drained this map unit is also considered very limiting for the establishment of lawns and or grass for stabilization of exposed soil. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures (such as blasting).



Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

LUPC Received

02/04/2025

Map Unit: Marlow/Peru Complex, Stony

Classification: Marlow: Coarse-loamy, isotic, frigid, Oxyaquic Haplorthods

Peru: Coarse-loamy, isotic, frigid, Aquic Haplorthods

Map Unit Symbol: MpD

SETTING

Parent Material: Lodgement till

Landform: Ground moraines, hills and mountains

**Position in Landscape:** Hill summits and sideslope

Slope Gradient Range: (D) 15-35

# **COMPOSITION AND SOIL CHARACTERISTICS**

**Depth to Water Table:** Marlow: >40" Peru: 16-40"

**Typical Profile Description:** 

## Marlow:

#### Surface Layers:

0 – 3" Black, mucky peat

3 – 6" Dark reddish gray, very gravelly fine sandy loam, sbk, VFR

6 – 8" Pinkish gray, very gravelly fine sandy loam, sbk, VFR

8 – 11" Strong brown, very gravelly fine sandy loam, sbk, VFR

11 – 20" Strong brown, extremely gravelly fine sandy loam, sbk, VFR

## Subsurface Layers:

20 – 24" Dark yellowish brown, extremely gravelly fine sandy loam, sbk, FR

## Substratum:

24 – 39" Dark yellowish brown, extremely gravelly fine sandy loam I, FR

39 - 40" Lodgment till, m, FI

# Peru:

## **Surface Layers:**

0 – 2" Black, mucky peat

2 – 4" Pinkish gray, fine sandy loam, sbk, VFR

4 – 6" Reddish brown, fine sandy loam, sbk, VFR

# Subsurface Layers:

6 – 14" Brown, fine sandy loam, sbk, FR

14 – 24" Dark yellowish brown, fine sandy loam, sbk, FR

#### Substratum:

24 – 30" Olive brown, m. VFI

Redox. Con. strong brown 2%

30 - 32" Lodgment till, m, VFI

Hydrologic Soil Group (HSG):	See Table 1
Drainage Class:	See Table 1
Depth to Bedrock:	See Table 1
Potential for Frost Action:	See Table 1
Lawns, Landscaping and Golf Fairways:	See Table 1
Concrete Corrosion:	See Table 1
Steel Corrosion:	See Table 1
Local Roads & Streets:	See Table 1
Infiltration Systems, Shallow:	See Table 1
<b>Dwellings Without Basements:</b>	See Table 1

## **INCLUSIONS (within mapping unit)**

Similar: Chesuncook
Dissimilar: Tunbridge

# **USE AND MANAGEMENT**

This map unit is mapped in a forested area on a sideslope in the central portion of the Survey Area, which is also in the midelevation area. Major use and management concerns are that Peru and Marlow soils are both very deep to bedrock yet occur on



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dense till. This can create a seasonal high water table at or close to the mineral soil surface in Peru soils. So, activities impacted by a high-water table, such as road construction, could require additional engineering. This soil can be compacted if exposed to heavy equipment. Erosion and sediment controls should be installed prior to commencement of construction activities to avoid erosion and sedimentation of adjacent and off-site resources. Phases of this soil included within the map unit are areas with a very stony surface and very stony subsurface layers.

LUPC Received 02/04/2025



Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

Map Unit: Marlow/Tunbridge Complex, Stony

Classification: Marlow: Coarse-loamy, isotic, frigid, Oxyaquic Haplorthods

Tunbridge: Coarse-loamy, isotic, frigid Typic Haplorthods

LUPC Received

MtC, MtD

02/04/2025

Map Unit Symbol: MtC, MtD

**SETTING** 

Parent Material: Lodgement till

Landform: Ground moraines, hills and mountains

**Position in Landscape:** Hill summits and sideslope

**Slope Gradient Range: (C)** 8-15, **(D)** 15-35

#### **COMPOSITION AND SOIL CHARACTERISTICS**

**Depth to Water Table:** Marlow: >40"

Tunbridge: 20 to <40" to bedrock with no water table

#### **Typical Profile Description:**

Marlow:

#### Surface Layers:

0 – 3" Black, mucky peat

3 – 6" Dark reddish gray, very gravelly fine sandy loam, sbk, VFR

6 – 8" Pinkish gray, very gravelly fine sandy loam, sbk, VFR

8 – 11" Strong brown, very gravelly fine sandy loam, sbk, VFR

11 – 20" Strong brown, extremely gravelly fine sandy loam, sbk, VFR

# Subsurface Layers:

20 – 24" Dark yellowish brown, extremely gravelly fine sandy loam, sbk, FR

## Substratum:

24 – 39" Dark yellowish brown, extremely gravelly fine sandy loam I, FR

39 - 40" Lodgment till, m, FI

#### Tunbridge:

0-3" Peat

3 – 5" Very dusky red, fine sandy loam, sbk, VFR

5 – 7" Grayish brown, fine sandy loam, sbk, VFR

7 – 13" Dark reddish brown, fine sandy loam, sbk, VFR

13 – 23" Dark brown, fine sandy loam, sbk, VFR

23 – 32" Dark yellowish brown, fine sandy loam, sbk, VFR

32" Bedrock

Hydrologic Soil Group (HSG):	See Table 1
Drainage Class:	See Table 1
Depth to Bedrock:	See Table 1
Potential for Frost Action:	See Table 1
Lawns, Landscaping and Golf Fairways:	See Table 1
Concrete Corrosion:	See Table 1
Steel Corrosion:	See Table 1
Local Roads & Streets:	See Table 1
Infiltration Systems, Shallow:	See Table 1
<b>Dwellings Without Basements:</b>	See Table 1

## **INCLUSIONS (within mapping unit)**

Similar: Peru
Dissimilar: Abram

#### **USE AND MANAGEMENT**

This map unit is mapped in a forested area on a sideslope in the southern portion of the Survey Area, which is also near the higher elevation area. There is a transition from the steep and shallow soil to very deep glacial till. The overall rating for this map unit for use with dwellings without basements and local roads is very limited due to the depth to bedrock. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures (such as blasting). Phases of this soil included within the map unit are areas with a very stony surface and very stony subsurface layers.



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Map Unit: Peru/Marlow Complex, Stony

Classification: Peru: Coarse-loamy, isotic, frigid, Aquic Haplorthods

Marlow: Coarse-loamy, isotic, frigid, Oxyaquic Haplorthods

Map Unit Symbol: PmD

SETTINGLUPC ReceivedParent Material:Lodgement till02/04/2025

**Landform:** Ground moraines, hills and mountains

**Position in Landscape:** Hill summits, sideslope, foot slope, and base slope

Slope Gradient Range: (D) 15-35%

#### **COMPOSITION AND SOIL CHARACTERISTICS**

**Depth to Water Table:** Peru: 16-40" Marlow: >40"

#### **Typical Profile Description:**

Peru:

# Surface Layers:

0 – 2" Black, mucky peat

2 – 4" Pinkish gray, fine sandy loam, sbk, VFR 4 – 6" Reddish brown, fine sandy loam, sbk, VFR

#### Subsurface Layers:

6 – 14" Brown, fine sandy loam, sbk, FR

14 – 24" Dark yellowish brown, fine sandy loam, sbk, FR

#### Substratum:

24 - 30" Olive brown, m, VFI

Redox. Con. strong brown 2%

30 - 32" Lodgment till, m, VFI

#### Marlow:

## **Surface Layers:**

0 – 3" Black, mucky peat

3 – 6" Dark reddish gray, very gravelly fine sandy loam, sbk, VFR

6 – 8" Pinkish gray, very gravelly fine sandy loam, sbk, VFR

8-11" Strong brown, very gravelly fine sandy loam, sbk, VFR

11 – 20" Strong brown, extremely gravelly fine sandy loam, sbk, VFR

# Subsurface Layers:

20 – 24" Dark yellowish brown, extremely gravelly fine sandy loam, sbk, FR

# Substratum:

24 – 39" Dark yellowish brown, extremely gravelly fine sandy loam I, FR

39 – 40" Lodgment till, m, FI

Hydrologic Soil Group (HSG):	See Table 1
Drainage Class:	See Table 1
Depth to Bedrock:	See Table 1
Potential for Frost Action:	See Table 1
Lawns, Landscaping and Golf Fairways:	See Table 1
Concrete Corrosion:	See Table 1
Steel Corrosion:	See Table 1
Local Roads & Streets:	See Table 1
Infiltration Systems, Shallow:	See Table 1
<b>Dwellings Without Basements:</b>	See Table 1

#### **INCLUSIONS (within mapping unit)**

Similar: Chesuncook
Dissimilar: Tunbridge

# **USE AND MANAGEMENT**

This map unit is mapped in a forested area on a sideslope in the central portion of the Survey Area, which is also in the midelevation area. Major use and management concerns are that Peru and Marlow soils are both very deep to bedrock yet occur on



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dense till. This can create a seasonal high water table at or close to the mineral soil surface in Peru soils. So, activities impacted by a high-water table, such as road construction, could require additional engineering. This soil can be compacted if exposed to heavy equipment. However, the potential for rutting is moderate, which is less severe than most other soils mapped within the Project area. Erosion and sediment controls should be installed prior to commencement of construction activities to avoid erosion and sedimentation of adjacent and off-site resources. Phases of this soil included within the map unit are areas with a very stony surface and very stony subsurface layers.

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02/04/2025

Map Unit: Tunbridge/Lyman Complex, Stony

Classification: Tunbridge: Coarse-loamy, isotic, frigid Typic Haplorthods

Lyman: Loamy, isotic, frigid Lithic Haplorthods

Map Unit Symbol: TIE

SETTING

Parent Material: Loamy supraglacial till

Landform: Ground moraines, hills and mountains

**Position in Landscape:** Hill summits and sideslope

Slope Gradient Range: (E) >35

#### COMPOSITION AND SOIL CHARACTERISTICS

**Depth to Water Table:** Tunbridge: 20 to <40" to bedrock with no water table

Lyman: 10 to 20" to bedrock with no water table

#### **Typical Profile Description:**

Tunbridge:

0-3" Peat

3 – 5" Very dusky red, fine sandy loam, sbk, VFR

5 – 7" Grayish brown, fine sandy loam, sbk, VFR

7 – 13" Dark reddish brown, fine sandy loam, sbk, VFR

13 - 23" Dark brown, fine sandy loam, sbk, VFR

23 – 32" Dark yellowish brown, fine sandy loam, sbk, VFR

32" Bedrock

Lyman:

0-2" Peat

2 – 4" Very dusky red, fine sandy loam, sbk, VFR

4 – 7" Grayish brown, fine sandy loam, sbk, VFR

7 – 13" Dark reddish brown, fine sandy loam, sbk, VFR

13 – 17" Dark brown, fine sandy loam, sbk, VFR

17" Bedrock

Hydrologic Soil Group (HSG):	See Table 1
Drainage Class:	See Table 1
Depth to Bedrock:	See Table 1
Potential for Frost Action:	See Table 1
Lawns, Landscaping and Golf Fairways:	See Table 1
Concrete Corrosion:	See Table 1
Steel Corrosion:	See Table 1
Local Roads & Streets:	See Table 1
Infiltration Systems, Shallow:	See Table 1
<b>Dwellings Without Basements:</b>	See Table 1

#### **INCLUSIONS (within mapping unit)**

Similar: Abram
Dissimilar: Marlow

#### **USE AND MANAGEMENT**

This map unit is mapped in a forested area on a sideslope in the west-central portion of the Survey Area, which is also near the mid-elevation area. On either side there are areas that are less steep and generally have soil consistently deeper than 20-inches with less rock outcrops. The overall rating for this map unit for use with dwellings with basements and local roads is very limited due to the steep slopes and depth to bedrock. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures (such as blasting). This soil has inclusions that have a very stony surface and very stony subsurface layers.



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Map Unit: Tunbridge/Marlow Complex, Stony

Classification: Tunbridge: Coarse-loamy, isotic, frigid Typic Haplorthods

Marlow: Coarse-loamy, isotic, frigid, Oxyaquic Haplorthods

LUPC Received

02/04/2025

Map Unit Symbol: TmC

**SETTING** 

Parent Material:Lodgement till and loamy supraglacial tillLandform:Ground moraines, hills and mountains

**Position in Landscape:** Hill summits and sideslope

Slope Gradient Range: (C) 8-15

# **COMPOSITION AND SOIL CHARACTERISTICS**

**Depth to Water Table:** Tunbridge: 20 to <40" to bedrock with no water table

Marlow: >40"

#### **Typical Profile Description:**

#### Tunbridge:

0 - 3" Peat

3 – 5" Very dusky red, fine sandy loam, sbk, VFR

5 – 7" Grayish brown, fine sandy loam, sbk, VFR

7 – 13" Dark reddish brown, fine sandy loam, sbk, VFR

13 - 23" Dark brown, fine sandy loam, sbk, VFR

23 – 32" Dark yellowish brown, fine sandy loam, sbk, VFR

32" Bedrock

#### Marlow:

#### Surface Layers:

0 – 3" Black, mucky peat

3 – 6" Dark reddish gray, very gravelly fine sandy loam, sbk, VFR

6 – 8" Pinkish gray, very gravelly fine sandy loam, sbk, VFR

8 – 11" Strong brown, very gravelly fine sandy loam, sbk, VFR

11 – 20" Strong brown, extremely gravelly fine sandy loam, sbk, VFR

#### Subsurface Layers:

20 – 24" Dark yellowish brown, extremely gravelly fine sandy loam, sbk, FR

#### Substratum:

24 – 39" Dark yellowish brown, extremely gravelly fine sandy loam I, FR

39 - 40" Lodgment till, m, FI

Hydrologic Soil Group (HSG):	See Table 1
Drainage Class:	See Table 1
Depth to Bedrock:	See Table 1
Potential for Frost Action:	See Table 1
Lawns, Landscaping and Golf Fairways:	See Table 1
Concrete Corrosion:	See Table 1
Steel Corrosion:	See Table 1
Local Roads & Streets:	See Table 1
Infiltration Systems, Shallow:	See Table 1
Dwellings Without Basements:	See Table 1

# **INCLUSIONS (within mapping unit)**

Similar: Peru
Dissimilar: Abram

#### **USE AND MANAGEMENT**

This map unit is mapped in a forested area on a sideslope in the southern portion of the Survey Area, which is also near the higher elevation area. There is a transition from the very steep and shallow soil along the eastern perimeter to this moderately deep and very deep glacial till complex. The overall rating for this map unit for use with dwellings with basements and local roads is very limited due to the depth to bedrock. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures (such as blasting). This soil has inclusions that have a very stony surface and very stony subsurface layers.



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Map Unit: Tunbridge sandy loam, stony

Classification: Coarse-loamy, isotic, frigid Typic Haplorthods

Map Unit Symbol: TuD LUPC Received 02/04/2025

**SETTING** 

Parent Material: Loamy supraglacial till Landform: Glaciated uplands

Position in Landscape: Ridge summits and shoulders

Slope Gradient Range: (D) 15-35%

#### **COMPOSITION AND SOIL CHARACTERISTICS**

**Depth to Water Table:** 20 to <40" to bedrock with no water table

# **Typical Profile Description:**

0-3" Peat

3 – 5" Very dusky red, fine sandy loam, sbk, VFR

5 – 7" Grayish brown, fine sandy loam, sbk, VFR

7 – 13" Dark reddish brown, fine sandy loam, sbk, VFR

13 – 23" Dark brown, fine sandy loam, sbk, VFR

23 – 32" Dark yellowish brown, fine sandy loam, sbk, VFR

32" Bedrock

Hydrologic Soil Group (HSG):	See Table 1
Drainage Class:	See Table 1
Depth to Bedrock:	See Table 1
Potential for Frost Action:	See Table 1
Lawns, Landscaping and Golf Fairways:	See Table 1
Concrete Corrosion:	See Table 1
Steel Corrosion:	See Table 1
Local Roads & Streets:	See Table 1
Infiltration Systems, Shallow:	See Table 1
<b>Dwellings Without Basements:</b>	See Table 1

# **INCLUSIONS (within mapping unit)**

Similar: Lyman
Dissimilar: Rock Outcrop

# **USE AND MANAGEMENT**

This map unit occurs in the western portion of the Survey Area in a transition from shallow soils on ridgelines and sideslopes to deeper soils to the east. The overall rating for this map unit for use with dwellings without basements and local roads is very limited due to the steep slope and depth to bedrock. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures (such as blasting). This soil has inclusions that have a very stony surface and very stony subsurface layers.



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# **Hydrologic Soil Group**

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms. The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

<u>Group A.</u> Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

<u>Group B.</u> Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

<u>Group C.</u> Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

<u>Group D.</u> Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

# **Drainage Class**

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

**Excessively drained:** Water is removed very rapidly. Internal free water occurrence commonly is very rare or very deep. The soils are commonly coarse textured and have very high saturated hydraulic conductivity or are very shallow.

<u>Somewhat excessively drained:</u> Water is removed from the soil rapidly. Internal free water occurrence commonly is very rare or very deep. The soils are commonly coarse textured and have high saturated hydraulic conductivity or are very shallow.

<u>Well drained:</u> Water is removed from the soil readily but not rapidly. Internal free water occurrence commonly is deep or very deep; annual duration is not specified. Water is available to plants throughout most of the growing season in humid regions. Wetness does not inhibit root growth for significant periods during most growing seasons. The soils are mainly free of, or are deep or very deep to, redoximorphic features related to wetness.

<u>Moderately well drained:</u> Water is removed from the soil somewhat slowly during some periods of the year. Internal free water occurrence is commonly moderately deep and transitory through permanent. The soils are wet for only a short time within the rooting depth during the growing season but long enough



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that most mesophytic crops are affected. They commonly have a moderately low or lower saturated hydraulic conductivity in a layer within the upper 1 meter, periodically receive high rainfall, or both.

<u>Somewhat poorly drained:</u> Water is removed slowly so that the soil is wet at a shallow depth for significant periods during the growing season. Internal free water occurrence is commonly shallow to moderately deep and transitory to permanent. Wetness markedly restricts the growth of mesophytic crops, unless artificial drainage is provided. The soils commonly have one or more of the following characteristics: low or very low saturated hydraulic conductivity, a high water table, additional water from seepage, or nearly continuous rainfall.

<u>Poorly drained:</u> Water is removed so slowly that the soil is wet at shallow depths periodically during the growing season or remains wet for long periods. Internal free water occurrence is shallow or very shallow and common or persistent. Free water is commonly at or near the surface long enough during the growing season that most mesophytic crops cannot be grown, unless the soil is artificially drained. The soil, however, is not continuously wet directly below plow depth. Free water at shallow depth is common. The water table is commonly the result of low or very low saturated hydraulic conductivity, nearly continuous rainfall, or a combination of these.

<u>Very poorly drained:</u> Water is removed from the soil so slowly that free water remains at or very near the surface during much of the growing season. Internal free water occurrence is very shallow and persistent or permanent. Unless the soil is artificially drained, most mesophytic crops cannot be grown. The soils are commonly level or depressed and frequently ponded. In areas where rainfall is high or nearly continuous, slope gradients may be greater.

<u>Subaqueous:</u> Free water is above the soil surface. Internal free water occurrence is permanent, and there is a positive water potential at the soil surface for more than 21 hours of each day. The soils have a peraquic soil moisture regime.

# **Depth to Bedrock**

Very shallow (<10 inches of mineral soil above bedrock)

Shallow (10 to <20 inches of mineral soil above bedrock)

Moderately deep (20 to < 40 inches of mineral soil above bedrock

Deep (40 to < 60 inches of mineral soil above bedrock

All others are very deep (> 60 inches of mineral soil above bedrock)

# **Potential for Frost Action**

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, saturated hydraulic conductivity (Ksat), content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

# Lawns, Landscaping and Golf Fairways

This interpretation rates soils for their use in establishing and maintaining turf for lawns and golf fairways and ornamental trees and shrubs for residential or commercial landscaping. Lawns and landscaping



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require soils on which turf and ornamental trees and shrubs can be established and maintained. Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required.

The ratings are based on the use of soil material at the site, which may have been altered by some land smoothing. Irrigation may or may not be needed and is not a criterion in rating. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. Soils that are subject to flooding are limited by the duration and intensity of flooding and the season when flooding occurs. In planning for lawns, landscaping, or golf fairways, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

## **Corrosion of Concrete**

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens concrete. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the concrete in installations that are entirely within one kind of soil or within one soil layer. The risk of corrosion is expressed as "low," "moderate," or "high."

# **Corrosion of Steel**

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.



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#### **Local Roads and Streets**

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

## **Infiltration Systems, Shallow**

Shallow infiltration systems are stormwater management practices that are placed 1 to 3 feet in the ground, depending on the application. These systems include pervious pavement, buffer strips, filter strips, and vegetated swales. They slow the movement of stormwater to surface waters and also filter a significant portion of pollutants from the stormwater. The fundamental function of these systems is to hold the runoff generated by an area, such as a parking lot, from the first 1 inch of rainfall during a 24-hour storm preceded by 48 hours of no measurable precipitation. There should be little or no ponding at the surface. The water should infiltrate into the surrounding soil in 24 to 48 hours. Only that part of the soil between depths of 24 and 80 inches is evaluated.

The ratings are based on the soil properties that affect infiltration of the stormwater, construction and maintenance of the system, and public safety and health. Saturated hydraulic conductivity (Ksat), depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect the transmission of rainwater. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the water in downslope areas. Some slopes may become unstable and move upon addition of water.

Soils underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the bottom of the system may adversely affect water quality and public health. In these soils the shallow infiltration system may not adequately filter the stormwater, particularly if the adsorptive capacity of the soil below the system is low. As a result, the ground water may become contaminated. In areas underlain by limestone, solution channels and subsequent subsidence may damage adjacent infrastructure. Also, areas underlain by limestone may be subject to ground-water contamination.



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# EXHIBIT 23A - SOIL SUITABILITY AND MAPPING - CONTINUED:

Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified infiltration system. "Not limited" indicates that the soil has features that are very favorable for the specified system. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified system. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified system. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified system (1.00) and the point at which the soil feature is not a limitation (0.00).

# **Dwellings Without Basements**

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper.

The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification of the soil. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0).



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Class L: Linear Soil Survey Report

Proposed Access Road – Beaver Cove, ME

# **APPENDIX D**

**MAPSS Class L Soil Survey Standards** 



Class L: Linear Soil Survey Report Proposed Access Road – Beaver Cove, ME

# Class L: Linear Soil Survey Standards

- 1. Class L soil survey map units shall be made on the basis of parent material, slope, soil texture, soil depth to dense till or bedrock (which ever is shallowest) and soil wetness (drainage class and/or oxyaquic conditions) at the Class A High Intensity Map Unit size. The preferred method of naming the soil map units is by assigning a soil series name or names for complexes. If soils are classified to the series level in remote areas not readily accessible to equipment and/or without road cuts, it shall be noted in the narrative that soils were classified by shallow observations only. Map units will not contain dissimilar limiting individual inclusions larger than one-eighth acre. Dissimilar limiting inclusions may total more than one-eighth acre per map unit delineation, in the aggregate, if not continuous.
- 2. Scale of 1-inch equals 100 feet or larger (e.g. 1" = 50').
- 3. Ground control— base line and test pits for which detailed data is recorded are accurately located to sub-meter accuracy under the direction of a qualified professional.
- 4. Base map with 2-foot contour lines.



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# **APPENDIX E**

**Glossary of Terms** 



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**Association:** Two or more dissimilar major components occurring in a regular and repeating pattern on the landscape.

**Complex:** Two or more dissimilar major components that occur in a regularly repeating pattern or in an unpredictable pattern.

**Limiting Dissimilar Soil:** Map unit delineations contain soils other than those identified in the map unit name. These minor soil components reduce the purity of the soil map unit. Minor components that most detract from purity because they are the most dissimilar to the mapped name and are the most limiting for use.

# **Soil Drainage Class:**

- <u>Excessively Drained</u>: Soil depth is less than 25 cm (10 inches) to bedrock; or has a sandy or sandy-skeletal particle-size class with a loamy cap less than 25 cm (10 inches) thick.
- Somewhat Excessively Drained: Soil depth is 25 to 50 cm (10 to 20 inches) to bedrock with a loamy or loamy-skeletal particle-size class; or soil depth is 50 cm (20 inches) or greater to bedrock with a sandy or sandy-skeletal particle-size class with a loamy cap 25 cm (10 inches) thick or greater.
- Well Drained: Soil depth is at least 50 cm (20 inches) to bedrock and has a texture of loamy very fine sand or finer and redoximorphic features, if present, are 100 cm (40 inches) or more below the mineral soil surface.
- Moderately Well Drained: Has redoximorphic features at a depth of 40 cm (16 inches) to less than 100 cm (40 inches) below the mineral soil surface.
- Somewhat Poorly Drained: Is not VERY POORLY or POORLY DRAINED and has redoximorphic features at a depth of less than 40 cm (16 inches) below the mineral soil surface.
- Poorly Drained: Has dominant textures in the upper 50 cm (20 inches) (below the A-horizon if present) of loamy fine sand or coarser and has redoximorphic features within 18 cm (7 inches) of the mineral soil surface; or has dominant textures in the upper 50 cm (20 inches) (below the A-horizon if present) of loamy fine sand or coarser and has a Bh- or Bhs-horizon with value/chroma of 3/3 or less that begins within 18 cm (7 inches) of the mineral soil surface and is directly underlain by a horizon that has redoximorphic features; or has an A-horizon that is 18 cm (7 inches) thick or greater with value/chroma of 3/2 or less and a textures in all sub-horizons within 50 cm (20 inches) of the mineral soil surface of loamy fine sand or coarser and has redoximorphic features directly below the A-horizon; or has a depleted or gleyed matrix within 50 cm (20 inches) of the mineral soil surface and redox depletions with value of 4 or more and chroma of 2 or less in ped interiors that are less than 18 cm (7 inches) below the mineral soil surface; or has an A-horizon that is 18 cm (7 inches) thick or greater with value/chroma of 3/2 or less and has a depleted or gleyed matrix within 50 cm (20 inches) of the mineral soils surface and has redox depletions with value of 4 or more and chroma of 2 or less in ped interiors or a depleted or gleyed matrix directly beneath the A-horizon.

**Soil Map Unit:** Designed to efficiently deliver soil information to meet user needs for management and land use decisions. They can appear on maps as individual areas (i.e., polygon), points, or lines. They are a collection of areas defined and named the same in terms of their major soil components, miscellaneous areas, or both.

**Soil Phase:** These terms are added to a map unit component name to convey important information about a map unit and differentiate it from other map units on the map unit legend.

**Soil Series:** Represents a three-dimensional soil body having a unique combination of properties that distinguish it from neighboring series.



# WETLAND, WATERCOURSE & WATERBODY DELINEATION, AND POTENTIAL VERNAL POOL SURVEY REPORT: PROPOSED ACCESS ROAD

Burnt Jacket Mountain and Moosehead Lake Beaver Cove, Maine





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January 2025

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# 1.0 Introduction

Beaver Cove is a small town located six miles north of Greenville on the shores of Moosehead Lake in Maine (Figure 1). JLF Architecture (JLF) is assisting a client with the planning of residential development on their property on Burnt Jacket Road. JLF requested that Flycatcher, LLC (Flycatcher) conduct an environmental field survey off Burnt Jacket Road in Beaver Cove, Maine (Survey Area). This proposed project is an access road for residential development (Project) in a small section of the overall property. The purpose of the field survey was to identify and map wetlands, watercourses, and waterbodies, and perform a potential vernal pool survey to support Project planning and permitting.

This report provides a description of the methods used to identify and delineate resources within the Survey Area, and the findings of the surveys. Definitions and methodologies used follow those established by the US Army Corps of Engineers (USACE), the Maine Land Use Planning Commission (LUPC) and Maine Department of Environmental Protection (MDEP), the three lead agencies that oversee natural resources protection and permitting in Maine.

# 2.0 Survey Area

General Description: As depicted on Figure 1, the entire parcel is 1,423.5 acres, located on the eastern shoreline of Moosehead Lake. Access to the property is from Lilly Bay Road onto the Burnt Jacket Road, which extends along the property boundary and then through the northern end of the property. The Survey Area extends westerly from the intersection of Burnt Jacket Road and Evergreen Point Road approximately 4,000-feet to a point along the side slope of Burnt Jacket Mountain (Figure 1). The Survey Area is approximately 50-feet wide, totaling approximately 5-acres. There is a network of old timber harvest trails that extend through this area.

**Topography/Drainage:** The topographic elevations within the Survey Area range from approximately 1,152 feet along Burnt Jacket Road to 1,515 feet at the opposite end of the proposed access road on Burnt Jacket Mountain. There are large areas of steep slopes and exposed bedrock in the higher elevations directly adjacent to the Survey Area. In the lower elevations, primarily in the east, the topography has areas that are gently sloping.

**Vegetation:** Higher elevations, steeper slopes, and shallow to bedrock areas are dominated by red spruce (*Picea rubens*), black spruce (*Picea mariana*), balsam fir (*Abies balsamea*), and yellow birch (*Betula alleghanensis*). The areas with gently sloping topography and deeper soil contain the same trees as well as American beech (*Fagus grandifolia*), eastern white pine (*Pinus strobus*), red maple (*Acer rubrum*), and striped maple (*Acer pensylvanicum*).

# 3.0 Methods

# 3.1 Desktop Review

Prior to visiting the site, Flycatcher reviewed existing data sources including:

- Project maps provided by JLF,
- United States Geological Survey (USGS) topographic map,
- Natural Resources Conservation Service (NRCS) medium-intensity soil survey map,
- LUPC Zoning and Parcel Viewer (online),
- National Wetland Inventory (NWI) map,
- National Hydrography Dataset (NHD) map, and
- Recent and historic aerial photography (via Google Earth).



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# 3.2 Agency Outreach

We understand that JLF performed outreach to the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the Maine Natural Areas Program (MNAP) for information on known or potential state-listed rare, threatened, and endangered (RTE) or special concern species, or habitats within or proximal to the Survey Area.

# 3.3 GPS Location

Features (e.g., wetland boundaries) located during the on-site investigations were geolocated using a mapping grade global positioning system (GPS) unit (Juniper Systems' Geode GPS Antenna and ESRI's ArcGIS Collector software). The data were collected using real-time correction and standards specified by the manufacturer to achieve sub-meter accuracy.

# 3.4 Wetland Delineation

Wetlands are defined by the federal government as: "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." The MDEP also uses this definition.

The LUPC definition of Freshwater Wetland is "Freshwater swamps, marshes, bogs and similar areas that are inundated or saturated by surface or groundwater at a frequency and for a duration sufficient to support, and which under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soils and not below the normal high water mark of a body of standing water, coastal wetland, or flowing water." <sup>2</sup>

Wetland delineations were conducted in accordance with the USACE Wetland Delineation Manual<sup>3</sup> and the Northcentral and Northeast Regional Supplement (Version 2.0).<sup>4</sup> The manual and supplement provide a repeatable methodology to identify and map wetland areas and are the accepted wetland delineation methodology of the LUPC and the USACE.

The USACE, as part of an interagency effort with the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture NRCS, developed the 2016 National Wetland Plant List (NWPL). The NWPL is used to determine whether the hydrophytic vegetation parameter is met when conducting wetland determinations under the Clean Water Act. Plant names and hydrophytic determinations were based on the 2020 update to the NWPL.<sup>5</sup> Hydric soil determinations were based on *Field Indicators for Identifying Hydric Soils in New England, Version 4*,<sup>6</sup> Field Indicators of

<sup>&</sup>lt;sup>5</sup> U.S. Army Corps of Engineers 2020. National Wetland Plant List, version 3.4 http://wetland-plants.usace.army.mil/U.S. Army Corps of Engineers Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover, NH <sup>6</sup> New England Hydric Soils Technical Committee. 2018 Version 4, Field Indicators for Identifying Hydric Soils in New England. New England Interstate Water Pollution Control Commission, Lowell, MA.



<sup>&</sup>lt;sup>1</sup> Code of Federal Regulations. 2021. Definition of Waters of the United States. 33 CFR 328.3(c)(16).

<sup>&</sup>lt;sup>2</sup> Maine Land Use Planning Commission Chapter 2 of the Commission's Rules: Definitions. 2022. 01-672 CHAPTER 2

<sup>&</sup>lt;sup>3</sup> Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.

<sup>&</sup>lt;sup>4</sup> U.S. Army Corps of Engineers. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

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*Hydric Soils in the United States, Version 8.2,*<sup>7</sup> and the Maine Association of Professional Soil Scientist (MAPSS) Key for the Identification of Soil Drainage Class<sup>8</sup>.

# 3.5 Watercourse Identification

The LUPC definition of Flowing Water is: a channel that has defined banks created by the action of surface water and has two or more of the following characteristics:

- a) It is depicted as a solid or broken blue line on the most recent edition of the U.S. Geological Survey 7.5-minute series topographic map or, if that is not available, a 15-minute series topographic map.
- b) It contains or is known to contain flowing water continuously for a period of at least six months of the year in most years.
- c) The channel bed is primarily composed of mineral material such as sand and gravel, parent material or bedrock that has been deposited or scoured by water.
- d) The channel contains aquatic animals such as fish, aquatic insects or mollusks in the water or, if no surface water is present, within the stream bed.
- e) The channel contains aquatic vegetation and is essentially devoid of upland vegetation. Such waters are commonly referred to as rivers, streams, and brooks. Flowing water does not mean a ditch or other drainage way constructed, or constructed and maintained, solely for the purpose of draining storm water or a grassy swale.

LUPC further defines the term Flowing Water as follows:

<u>Major Flowing Water</u>: A flowing water downstream from the point where such water drains 50 square miles or more.

Minor Flowing Water: A flowing water upstream from the point where such water drains less than 50 square miles.

Watercourse identification was also consistent with the methods outlined in the MDEP NRPA Identification Guide for Rivers, Streams, and Brooks<sup>9</sup>.

# 3.6 Waterbody Delineation

Waterbody survey followed the LUPC and USACE definitions. The LUPC definition of Major Water Bodies is, "bodies of standing water greater than 10 acres in size and major flowing waters".

The boundary of a waterbody is identified by an "Ordinary High-Water Mark", as defined by the USACE as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as:

- A. a clear, natural line impressed on the bank;
- B. shelving;
- C. changes in the character of soil;
- D. destruction of terrestrial vegetation;
- E. the presence of litter and debris; or
- F. other appropriate means that consider the characteristics of the surrounding areas".

<sup>&</sup>lt;sup>9</sup> Danielson, T. J. 2018. Natural resources Protection Act (NRPA) Streams, Rivers, and Brooks. Maine Department of Environmental Protection, Augusta, ME.



<sup>&</sup>lt;sup>7</sup> United States Department of Agriculture, Natural resources Conservation Service. 2018. Field Indicators of Hydric Soils in the United States, Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

<sup>&</sup>lt;sup>8</sup> Maine Association of Professional Soil Scientists. 2013. Key for the Identification of Soil Drainage Class. Revised January 22, 2013.

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# 3.7 Potential Vernal Pool Survey

To survey for potential vernal pools, the definitions provided in Chapter 335 of the NRPA<sup>10</sup> and the USACE Maine General Permit<sup>11</sup> were used. Vernal pools are temporarily/seasonally flooded wetlands that provide the primary breeding habitat for vernal pool indicator species, and a host of secondary faunal species. Wood frogs (*Lithobates sylvaticus*) spotted salamanders (*Ambystoma maculatum*), blue spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus spp.*) are vernal pool indicator species that depend on vernal pools to complete their life cycle.

Productivity of breeding vernal pool species is the primary metric used by regulatory authorities to assess vernal pool quality; thus, vernal pools must be assessed during the breeding season (generally mid-April to late-May). Since the on-site mapping was conducted outside the vernal pool breeding season, the procedure for performing non-breeding season potential vernal pool (PVP) surveys was performed in general accordance with the Maine Association of Wetland Scientists (MAWS) Vernal Pool Technical Committee Vernal Pool Survey Protocol (April 2014)<sup>12</sup>. Using this method, the wetland scientist relies on topography, best professional judgement, evidence of inundation (e.g., water-stained leaves, sparsely vegetated concave surfaces, moss trim lines, etc.) and signs of certain invertebrates, such as caddisfly larvae cases (Order Trichoptera), shells of freshwater clams (Family Sphaeriidae or Pisidiidae) or shed exoskeletons of dragonfly or damselfly larvae.

# 4.0 Findings

# 4.1 Desktop Review

The USGS NHD dataset depicts no watercourses within the Survey Area. No freshwater wetlands are mapped by the NWI within the Survey Area.

The NRCS medium intensity soil survey maps depict soil map units at a broad scale. The maps are a useful tool to identify potential areas of hydric soils which are commonly associated with wetlands. The NRCS medium intensity soil survey for Piscataguis County depicts the Survey Area as:

- Chesuncook-Elliotsville-Telos Association, 15-35% slopes, very stony (CfD)
- Monson-Elliottsville-Knob Lock Complex, 8-30% slopes, very rocky (MyD)
- Ricker-Rock Outcrop Complex, Moderately Steep (ROD)
- Telos-Chesuncook Association, 3-15% slopes, very stony (ThC)

Based on review of the LUPC online zoning and parcel viewer map, it appears the entire Survey Area is zoned General Management (M-GN).

Review of aerial photographs revealed one potential watercourse in the eastern portion of the Survey Area.

# 4.2 Agency Outreach

Based on a response letter provided to JLF in 2024, MDIFW inquired about the potential for watercourses with northern spring salamander (*Gyrinophilus porphyriticus*) (NSS) or roaring brook mayfly (*Epeorus frisoni*) (RBM) habitat within 250-feet of the Survey Area.

# 4.3 Wetland Delineation

The Survey Area was investigated by a wetland scientist and when a location appeared to have the three factors required for an area to be considered a wetland (predominance of hydrophytic vegetation, indicators of hydrology, and the presence of hydric soils) the scientist identified the wetland and the

 $<sup>^{11}</sup>$  USACE (2020). Department of the Army General Permits for the State of Maine. Section IV. 20.



<sup>&</sup>lt;sup>10</sup> MEDEP. Significant Wildlife Habitat. Chapter 335, Section 9.

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boundary was marked with glo-pink flagging and numbered in sequential order. Each flag was geo-located as described in Section 3.3.

The wetland delineation was conducted on October 29, 2023. As depicted on Figure 2, one wetland was delineated within the Survey Area (W-RDK-5). Representative photographs are included in Appendix B and wetland descriptions including the hydrology indicators, dominant vegetation, and hydric soil indicators, are provided in Table 1.

# 4.4 Watercourses

A watercourse delineation was conducted concurrently with the wetland delineation on October 29, 2023. No watercourses were identified within the Survey Area. In 2024 MDIFW inquired about the potential for watercourses with NSS or RBM habitat within 250-feet of the Survey Area. On January 14, 2025 a watercourse delineation was performed for the area within 250-feet of the wetland delineation Survey Area. Three intermittent watercourses were identified within the expanded watercourse delineation Survey Area. None of the three watercourses are considered suitable NSS or RBM habitat. Representative photographs are included in Appendix B and watercourse descriptions are included in Table 2.

# 4.5 Waterbodies

No waterbodies were identified within the Survey Area.

# 4.6 Potential Vernal Pools

No potential vernal pools were identified within the Survey Area.

# 5.0 Recommendations

If improvements are required along Burnt Jacket Road (outside of the Survey Area), natural resource surveys, such as wetland delineation, should be completed in that area as well. Wetlands, waterbodies and potential vernal pools are protected natural resources, and as such alterations of these features, and in some cases alterations of adjacent upland, require oversight and potential permitting by local, state and/or federal agencies.

Alteration of natural resources should be avoided, and where avoidance is not practicable alterations should be minimized to the least environmentally damaging practicable alternative (LEDPA). The alteration in terms of overall area and natural resource functions/values should be considered when making this determination; the smallest impact may not always be the LEDPA if it alters wetland with higher functionality within the local ecosystem. If natural resources are altered it is possible the Project permitting may require compensatory mitigation, which could be in the form of an in-lieu-fee payment or a creation, enhancement, or a preservation project to restore and protect natural resources. As the Project progresses Flycatcher biologists are available to discuss plans, help identify ways to minimize natural resource alteration, and support permitting efforts. The LUPC has a thorough zoning and permitting process that includes protection of natural resources. In addition to consulting with state and federal agencies, we recommend consultation with the LUPC in these early stages of the Project planning process.



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Table 1. Wetland Delineation Summary

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Resource ID	Cowardin Classification <sup>1</sup>	Hydrology Indicators	Dominant Vegetation	Hydric Soil Indicators	Description & Notes	
W-RDK-5	PEM	Surface Water (A1), High Water Table (A2), Saturation (A3), Presence of Reduced Iron (C4), Drainage Patterns (B10), Geomorphic Position (D2), Shallow Aquitard (D3), Microtopographic Relief (D4), FACNeutral Test (D5)	Meadow horsetail, (Equisetum pratense), evergreen wood fern (Dryopteris intermedia), sensitive fern (Onoclea sensibilis), interrupted fern (Osmunda claytoniana), gray willow (Salix bebbiana)	Depleted Matrix (F3)	Isolated, groundwater discharge wetland along disturbed skid trail/cleared area along the potential access.	
1. Wetland classifications per USFWS' Cowardin et al. (1979) (https://www.fws.gov/wetlands/Documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States.pdf).						

Table 2. Watercourse Delineation Summary

Resource Field ID(s)	Flow Regime	Flow Direction	Dominant Substrates	Approximate Width (ft.)	Approximate Depth (ft.)	Associated Resources	Description
S-JLH-1	Intermittent	Northwest	Sand, gravel, cobble, boulder	1 to 2	0.5 – 1.0	None	Groundwater discharge on side slope, channel forms in old timber management trail. Not suitable NSS or RBM habitat.
S-JLH-2	Intermittent	Northwest	Sand, gravel, cobble, boulder	1 to 4	0.5 – 2.0	S-JLH-3	Groundwater discharge on side slope. Watercourse S-JLH-3 flows into this watercourse near headwater. Not suitable NSS or RBM habitat.
S-JLH-3	Intermittent	Northwest	Sand, cobble	1 to 2	0.5 – 1.0	S-JLH-2	Groundwater discharge on side slope. Flows into watercourse S-JLH-2 near headwater. Not suitable NSS or RBM habitat.



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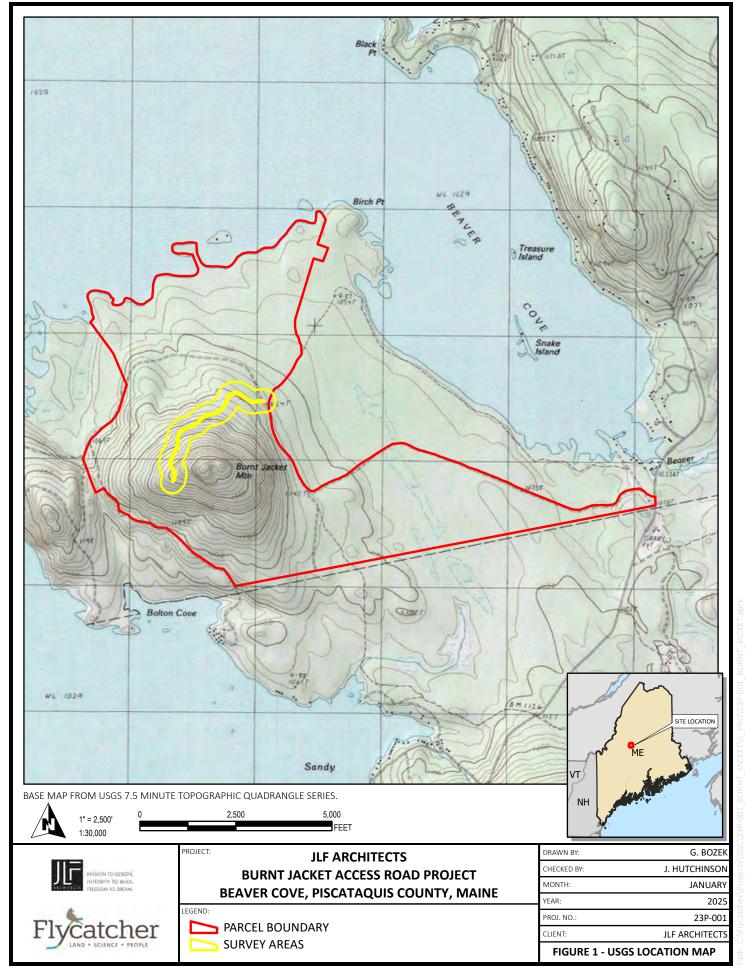
Proposed Access Road

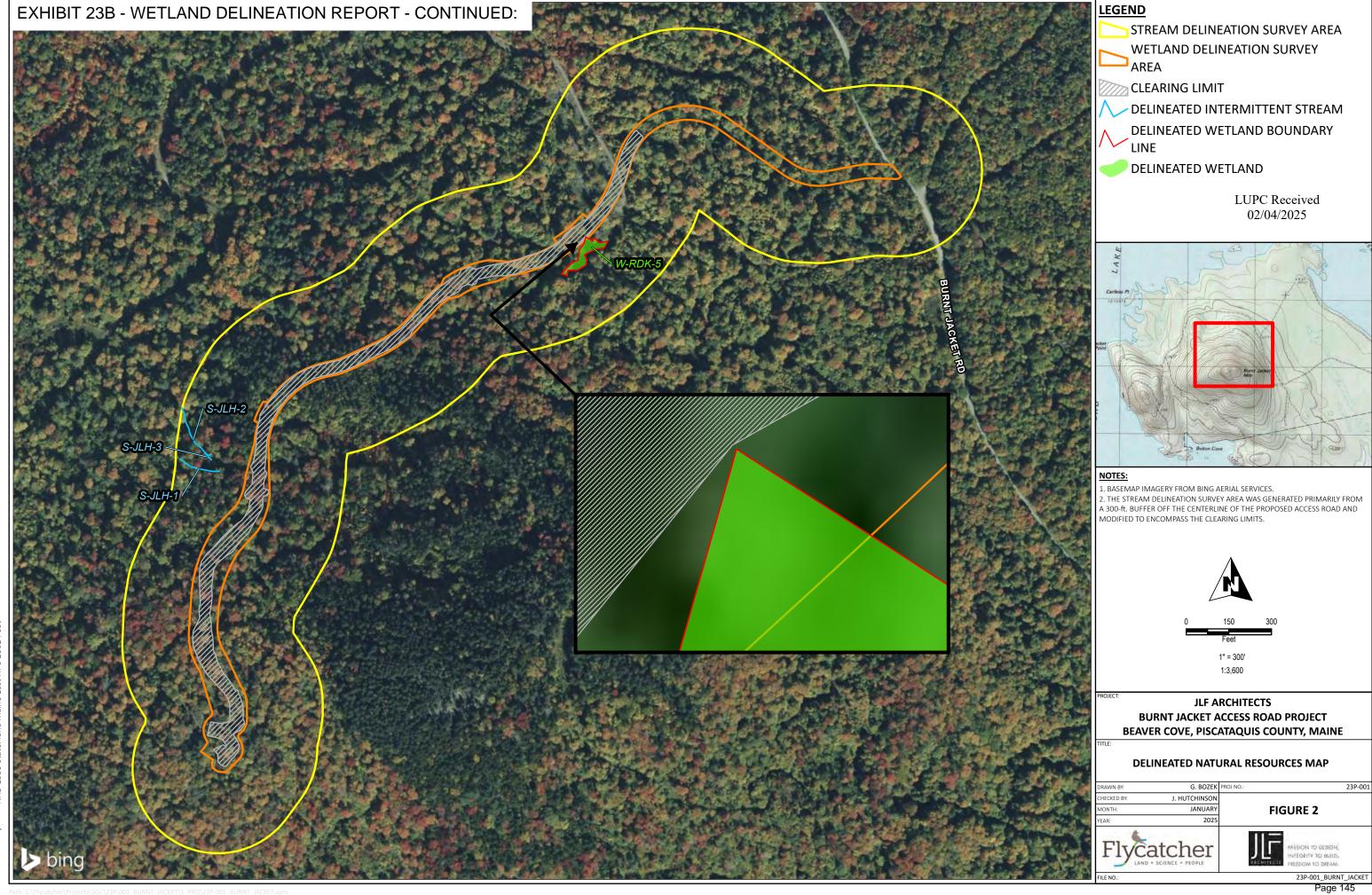
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# **Appendix A Figures**

Figure 1. Survey Area USGS Figure 2. Delineated Natural Resource Map







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**Appendix B Representative Photographs** 



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Wetland W-RDK-5, October 29, 2023.



Wetland W-RDK-8. October 29, 2023.



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Watercourse S-JLH-1, January 14, 2025.



Watercourse S-JLH-2, January 14, 2025.

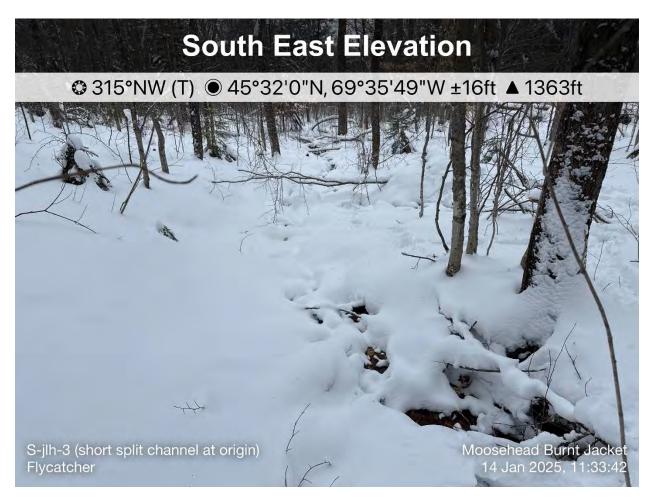


#### **EXHIBIT 23B - WETLAND DELINEATION REPORT - CONTINUED:**

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Watercourse S-JLH-3, January 14, 2025.



#### **EXHIBIT 24 - WATER AND AIR QUALITY:**

The project area is located approximately 3,000 feet from Moosehead Lake and will not impact mapped wetlands or streams. Groundwater discharge and extraction are not planned or anticipated as part of this driveway project.

Air emissions from the project area are limited to traffic exhaust on the new driveway. Traffic is anticipated to be minimal after construction and limited to residential and land management uses. The project does not require an Air Emissions License from the MEDEP Bureau of Air Quality. There are no odors anticipated, or potential odor sources identified for the proposed project.

#### EXHIBIT 25 - EROSION, SEDIMENTATION, AND DRAINAGE CONTROL MEASURES:

The project will result in soil disturbance greater than one acre. Adequate soil erosion prevention measures will comply with the Basic Standards of MEDEP Chapter 500. All Erosion and Sedimentation Control Devices will be constructed in conformance with the Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers, dated October 2016, as currently revised. See SME plans (attached) for construction details of the proposed driveway and erosion and sedimentation control measures. Erosion and sediment control details and specifications are shown on the Plans C-200, C-201, C-202, C-203, C-300, and C-301. Additionally, a written Erosion and Sedimentation Control Plan (ESCP) is attached as Exhibit 25B. A copy of the ESCP will be maintained on-site during construction and available for contractor reference.

# EROSION AND SEDIMENTATION CONTROL PLAN BEACONSFIELD FARM PRIVATE DRIVEWAY BURNT JACKET ROAD BEAVER COVE, MAINE

Prepared for

### **BURNT JACKET HOLDING I, LLC**

JANUARY 2025

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# EROSION AND SEDIMENTATION CONTROL PLAN BEACONSFIELD FARM PRIVATE DRIVEWAY BURNT JACKET ROAD BEAVER COVE, MAINE

#### 1.0 INTRODUCTION

This Erosion and Sedimentation Control Plan (Plan) for the proposed 4,059-foot driveway for residential and land management uses accessed off Burnt Jacket Road in Beaver Cove, Maine (Project) was designed to comply with the Maine Erosion and Sediment Control BMP Manual prepared by the Maine Department of Environmental Protection (MEDEP).

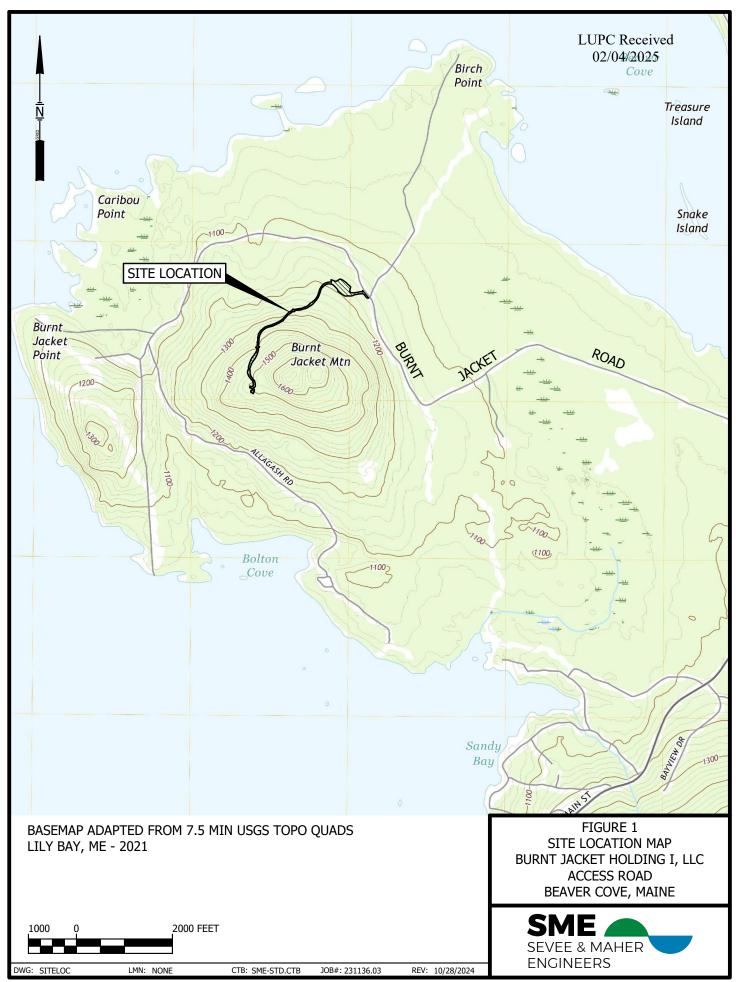
- Design and implementation of erosion and sedimentation control measures that conform to the Maine Erosion and Sedimentation Control Best Management Practices (BMPs) Manual for Designers and Engineers dated October 2016 (or as currently revised) such that:
  - a. Sediment caused by accelerated soil erosion will be minimized from runoff water before it leaves the site. Suitable erosion control measures will be in-place prior to any disturbance of soil.
  - b. Any temporary and permanent structures designed and constructed for the conveyance of water around, through, or from the site will be designed to limit water flow to a non-erosive velocity.
  - c. Permanent soil erosion control measures for all slopes, channel ditches, and disturbed areas will be completed as part of the Project.
  - d. Vegetative cover for temporary and permanent erosion control will be established using seed selection, seeding rates, and mulching rates consistent with the Maine BMPs and based upon historical site-specific applications. Reseeding will be performed as necessary within a reasonable period of time if permanent vegetation is not established.
  - e. The proposed Project will utilize existing topography and natural surroundings to the fullest extent possible.

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#### 2.0 PROJECT DESCRIPTION

The Project is a 4,059 foot long, 16-foot-wide paved private driveway and minimum 2-foot-wide shoulders accessed off Burnt Jacket Road. The driveway is designed with maximum slopes of 12 percent or less and is designed for the safe traffic movements of an E-One 75 Fire Truck and construction vehicles. Figure 1, Site Location Map, for the site location on a 7.5-Min USGS Topo Quad Map. More details on the project are shown in the engineering drawing set provided with this application.

Development of the Project will include approximately 4.49 acres of clearing and 1.98 acres of paved driveway and gravel shoulders.



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#### 3.0 EROSION CONTROL MEASURES

Under developed conditions, the proposed project will be graded maintain existing drainage patterns to the greatest extent practicable. The drainage generally flows from a high point south of the Project and generally flows north from the high point.

Erosion and sediment control details and specifications associated with the driveway, ditches, and stormwater BMPs are shown on Drawings C-300 and C-301 in the construction set.

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#### 4.0 SITE STABILIZATION

All Erosion and Sedimentation Control Devices will be constructed in conformance with the *Maine Erosion* and *Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers* dated October 2016, as currently revised; the Erosion and Sedimentation Control Plan as outlined herein and shown on the engineering plans; and any conditions of approval as may be contained in the MEDEP Stormwater Permit by Rule for this project.

Disturbed areas will be permanently stabilized within seven days of final grading. Disturbed areas not to be worked on within 14 days of disturbance will be temporarily stabilized within seven days of the disturbance. Temporary and permanent seeding and mulching requirements are presented in Section 6.

The following devices will be used to stabilize the site during and after construction. Details for construction and maintenance of erosion and sedimentation control features are provided in Section 6.

- Silt fence installed at locations shown on the engineering plans and downslope of disturbed areas every 100 feet until the site is revegetated;
- Mulch to provide cover for denuded or seeded areas until vegetation is established. Hay/straw
  mulch will be always available on-site to provide immediate temporary stabilization when
  necessary;
- Revegetation of drainage channels with P300 erosion control blanket as manufactured by North American Green or an approved equal;
- Stone check dams, hay bale barriers, and riprapped culvert inlet and outlet aprons to reduce runoff velocities and protect denuded soil surfaces from concentrated flows;
- Stabilized construction entrance(s)/exit(s) at all access points to the site to prevent tracking of soil onto adjacent local roads; and
- Loam, seed, and mulch to revegetate all denuded areas not stabilized by other means, such as riprap, intended to be roof, or be a paved or gravel surface.

#### 5.0 IMPLEMENTATION SCHEDULE

Burnt Jacket Holding I, LLC and the contractor chosen for the site work will establish the timing and sequencing of land disturbance. This work will be subject to the limits set forth herein and as may be specified by the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers* dated October 2016 as currently revised.

Construction is expected to begin in the spring of 2024.

The Erosion and Sedimentation Control features are presented in the project plan set and includes the following elements:

- Driveways;
- Existing and proposed culverts, drainage channels;
- Erosion control barriers;
- Subsurface drainage pipes; and
- Storm drain outfalls.

The general construction sequence of the site is expected to be as follows:

- Mobilization;
- Clearing;
- Install temporary erosion control measures;
- Grubbing;
- Site grading;
- Site stabilization, gravel, loam and seed; and
- Remove temporary erosion control measures after all disturbed areas are stabilized.

#### 6.0 DETAILS AND SPECIFICATIONS

Temporary and permanent erosion control measures will be implemented to minimize erosion during construction and cover placement. Temporary measures (i.e., silt barriers and silt socks) and permanent measures (i.e., permanent seeding, mulching, and culvert inlet and outlet protection) will be monitored on a regular basis. The contractor will ensure that structures are functioning properly and will perform necessary maintenance described in the Maine Construction General Permit and the Maine BMPs. The details and specifications for all temporary and permanent erosion controls to be installed at the site are provided in Drawing C-300, Erosion Control Notes and Details in the project plan set.

#### 6.1 Temporary Erosion Control

The greatest potential for erosion will occur during the grading operations. This occurs as topsoil is removed from or disturbed on the site and base grades are prepared. Before beginning the grading phase, a siltation barrier will be placed. Materials and construction methods for siltation barrier shall be as specified on Drawing C-300 contained in Appendix A of this report.

#### 6.2 Permanent Erosion Control

Permanent erosion control measures will be implemented during site construction. Materials and construction methods for permanent measures shall be as specified on Drawing C-300 contained in Attachment A of this report.

The area will be seeded and mulched with New England Meadow Mix seed, as specified in the engineering drawings. The disturbed areas seeded and mulched to minimize erosion.

TABLE 6-1
PERMANENT SEEDING RATES

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

#### Notes:

- 1. Apply 10-10-10 fertilizer at a rate of 1,300 lbs./Ac. (29.8 lbs./1,000 S.F.), or as required by topsoil testing.
- 2. Apply liquid limestone at a rate of 3 tons/Ac. (138 lbs./S.F.) or as required by topsoil testing.
- 3. Apply weed-free hay or straw mulch with tack at a rate of 2 tons/Ac. or 300 lbs./Ac. of fiber mulch.

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Permanent seeding operations typically occur no later than October 15. After October 15, disturbed soil shall be protected with mulch consisting of either hay or straw and the temporary seed mixture. The mulch may be required to be secured with netting, twine, or other approved methods. Seeding operations shall be done sequentially as the project development progresses, to minimize, to the great practical extent, areas of the completed cover system exposed to the elements. Problem areas and continually eroding areas shall be repaired immediately with temporary erosion control blankets. The blankets shall conform and be installed in accordance with the manufacturer's recommendations.

#### 6.3 Standard Erosion Control Procedures

In addition to these measures, the following erosion and sedimentation control procedures will be implemented during construction and cover placement:

- 1. Soil erosion and sedimentation control measures will be performed in accordance with procedures outlined in the *Maine Erosion and Sediment Control BMPs* (MEDEP, October 2016) as currently revised.
- 2. Removal of trees, brush, and other vegetation, as well as disturbance of soil, will be kept to a minimum during site development.
- 3. Erosion and sedimentation control measures, such as bark mulch sediment barriers, silt socks, and a silt barrier, will be installed at locations shown on the engineering plans.
- 4. Silt barriers will be inspected after each rainfall and at least daily during prolonged rainfall. Required repairs will be made. Sediment deposits will be removed periodically from the upstream side of the silt barriers and will be spread and stabilized in site areas not subject to erosion. Silt barriers will be replaced, as necessary, to provide proper filtering action.
- 5. Riprap required at culverts and downspouts will consist of fieldstone or rough unhewn quarry stone of approximately rectangular shape. Stones will be of a size as noted on the engineering drawings.
- 6. Following final grading, all graded or disturbed areas not to be used as gravel roadways or parking areas will be loosened or scarified to a minimum depth of at 2 inches of subgrade to ensure bonding and spread with a minimum lightly compacted depth of 4 inches of topsoil and seeded to provide a permanent vegetative cover. Topsoil should not be placed on frozen, muddy, or an extremely wet subgrade.
- 7. All areas receiving topsoil will be seeded. Seeding normally will occur between April 15 and October 15. Surface water runoff control measures (i.e., drainage ditches, berms, and culverts) will be constructed before seeding; all grading will be performed before seeding. The top layer of soil will be loosened by raking, discing, or other acceptable means before seeding. Application rates for the lime, fertilizer, seed, and mulch are presented in Table 6-1. The seed will be applied uniformly with a cyclone seeder, drill, cultipack seeder, or hydroseeder. Seed will not be planted

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- if there is danger of frost shortly after seed germination. Maximum seeding depth is ¼ inch when using methods other than hydroseeding.
- 8. Wood fiber cellulose mulch or hay mulch will be spread uniformly upon completion of the seedbed preparation, liming, fertilization, and seeding. The mulch may be anchored in place by uniformly applying an acceptable mulch binder such a Curasol or Terratac.
- 9. If germination is unsuccessful (i.e., less than 90-percent catch) within 30 days of seeding or there is unsatisfactory growth in the next year, the area will be reseeded in accordance with seeding specifications described herein.

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#### 7.0 MAINTENANCE

#### 7.1 Routine Maintenance

During construction, inspections will be undertaken by the contractor to assure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning and that additional erosion control measures are installed if needed. Such inspections will occur bi-weekly and after each significant rainfall event (1 inch or more within a 24-hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized. The contractor shall perform all inspections and documentation required by the Maine General Construction Permit.

#### 7.2 Grassed Areas

Fertilize and lime, as necessary, according to a soil test performed by University of Maine as described in the Contract Specifications.

#### 7.3 Catch basins, Culverts and Ditches

Catch basins, culverts and ditches will be inspected in early spring, late fall, and after significant rain events. All debris and sediment will be removed, and any erosion of inlet or outlet channels repaired. Catch basins will be inspected more frequently during late summer and fall and all debris will be removed.

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#### 8.0 EROSION CONTROL REMOVAL

Removal of temporary erosion control measures shall be the responsibility of the contractor. Erosion controls shall remain in place and maintained by the contractor until all related construction is complete and the area is stable. An area is considered stable if 90 percent of grass cover has been established or riprap or other permanent measures are in place and functioning properly.

Silt barriers shall be removed once the areas upstream are stable. The silt barriers shall be disposed of legally and properly off-site. Sediment trapped behind these controls shall be distributed to an area undergoing final grading and graded in an aesthetic manner to conform to the topography and fertilized, seeded, and mulched in accordance with the rates listed in Table 6-1. The sediment trapped by these devices shall not be regraded within the existing drainageways.

Once the trapped sediments have been removed from the temporary sedimentation devices, the disturbed areas must be loamed (if necessary), fertilized, seeded, and mulched in accordance with the rates listed in Table 6-1.

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#### 9.0 CONCLUSION

The proposed project has been designed with stormwater management and erosion controls to manage surface water runoff from the site during construction and post-closure such that clean stormwater is directed to downstream water bodies. The foregoing measures and controls will help to assure that no unreasonable erosion of soil or sediment will occur as a result from construction or operations.

All proposed structures to be used within this project have been designed using engineering procedures commonly used in stormwater analyses.

To minimize erosion during and after construction, temporary and permanent erosion control measures will be implemented. Temporary measures (i.e., silt barriers and silt socks) and permanent measures (i.e., permanent seeding, mulching, and culvert inlet and outlet protection) will be monitored on a regular basis. As part of the contractor's scope of work to ensure that devices are functioning properly, the contractor will perform necessary inspections and maintenance for the erosion control systems.

During construction, the Contractor will be responsible for inspecting the silt fence, silt socks, and other components of the erosion control system on a bi-weekly basis after each rainfall and at least daily during prolonged rainfall. Any necessary repairs shall be made immediately.

**APPENDIX A** 

EROSION CONTROL SECTIONS AND DETAILS, DRAWING C-300 AND C-301 SEE ATTACHED SME PLAN SET



#### **EXHIBIT 26 - WILDLIFE PASSAGE:**

The project does not include stream or wetland crossings. No wetland impacts are anticipated from construction of the project.

#### **EXHIBIT 27 - SITE ACCESS:**

The project will be accessed off Burnt Jacket Road, a private road. Burnt Jacket Road is located on the subject parcel of the project. See Exhibit 3.

The proposed driveway will extend off of Burnt Jacket Road, which is a private road located entirely on the applicant's property. The applicant's property has historically been used as commercial timberlands, and Burnt Jacket Road was established as, and continues to be used as a gravel land management road. Portions of Burnt Jacket Road are maintained by a road association, Allagash Burnt Jacket Road Association, whose members are owners of properties that are accessed from Lily Bay Road, over Burnt Jacket Road and Allagash Road.

Road Name	Owner	Road Length	Travel Surface Width	Right of Way Width	Road Surface
Beaconsfield Road	Burnt Jacket Holding I, LLC	4,059 ft.	16 ft.	20 ft. Including Shoulders	Paved

#### **EXHIBIT 28 - ROADWAY CONSTRUCTION AND UPGRADES:**

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The driveway is discussed in Exhibit 17 above. The proposed project involves construction of an approximately 4,059 foot long, 16-foot-wide paved private driveway with minimum 2-foot-wide shoulders to access residential and land management uses. The driveway will be accessed off Burnt Jacket Road which is a privately owned and maintained gravel road. The proposed driveway is designed with maximum slopes of 12 percent and for the safe traffic movements of an E-One 75 Fire Truck and construction vehicles. Retaining walls are required along sections of the downhill side of the driveway because of the existing topography. Guard rails will be provided along each retaining wall section for vehicle safety. Exposed ledge walls are proposed on sections of the uphill side of the driveway to minimize ledge removal and take advantage of the shallow bedrock.

See attached plan set for the driveway prepared by SME. The driveway will consist of 15 inches of MDOT Type D aggregate sub-base, a 3-inch MDOT Type A aggregate course, and 3.5 inches of pavement. Driveway dimensions and material sections are included on Plans C-200, C-201, C-202, C-203, and C-302.

The driveway is crossed by eleven culverts to maintain existing drainage patterns. The culverts are sized to convey the 100-year storm event. Level lip spreaders and riprap aprons are proposed at the outlet of the culverts where appropriate to mitigate downhill erosion.

Blasting may be required for construction of the driveway. The contractor selected for any necessary blasting will prepare and submit a blasting plan for approval prior to the start of blasting.

#### **EXHIBIT 29 - ROADWAY MAINTENANCE:**

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The proposed private driveway will be maintained by the applicant. The driveway will be plowed periodically and culverts cleared to ensure that the roadway is maintained in accordance with the design attached to this application in order to manage stormwater and avoid erosion and, where the roadway is in proximity to the permitted structures on the applicant's property, protect wells, sewage disposal systems and such structures.

The project is located on a 1,423.5-acre forested lot within the direct watershed of Moosehead Lake. The lake is larger than 10 acres and is not at risk for new development or severely blooming. The project creates an impervious area of more than one acre and is therefore required to consider phosphorous control. Using the Maine DEP Phosphorous Control Manual, the Project Phosphorous Budget (PPB) for the lot is 41.22 lbs P/year. The parcel size exceeds the Small Watershed Threshold (SWT) for Moosehead Lake and the PPB has been reduced accordingly. Coefficients for Greenville, ME were used for this calculation as none are given for Beaver Cove. The calculated pre-treatment Project Phosphorous Export (PPE) from the development is 10.79 lbs P/year. This includes all existing roads constructed on the lot after 1997 plus the proposed driveway and its associated landscaping. The PPE is well below the PPB, and as a result no treatment for phosphorous is required. PPB and PPE worksheets are included in exhibits 30A and 30B.

Some phosphorous treatment will be provided for the proposed driveway naturally, as the area downslope of the road is entirely forested and will act as a vegetated buffer between the road and the lake. Existing drainage patterns will be maintained and all concentrated flows will be dispersed by level spreaders and/or riprap apron aprons, and there is at least 2,000 feet between the road and the lake in all directions.

#### **EXHIBIT 31 – ADDITIONAL INFORMATION:**

The proposed driveway provides access to residential and land management uses. The cottage shown on the driveway plans and located approximately 600 feet from Burnt Jacket Road was approved by the LUPC as Building Permit #17544.

Worksheet 1 - PPB calculations					
Project Name: Beaconsfield Farm					
Lake Watershed: Moosehead Lake					
Town: Beaver Cove					
Standard Calculations					
Watershed per acre phosphorus budget (Appendix C)	PAPB	0.074	lbs P/acre/year		
Total acreage of development parcel:	TA	1423.5	acres		
NWI wetland acreage:	WA	85	acres		
Steep slope acreage:	SA	191.9	acres		
Project acreage: A = TA - (WA+ SA )	Α	1146.6	acres		
Project Phosphorus Budget: PPB = P x A	PPB	84.8484	lbs P/year		
Small Watershed Adjustment					
If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.					
Small Watershed Threshold (Appendix C):	SWT	416	acres		
Project acreage:	Α	1146.6	acres		
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	FC	122.63	lbs P/year		
Area available for development (Appendix C):	AAD	6654	acres		
Ratio of A to AAD (R=A/AAD)	R	0.172			
Project Phosphorus Budget					
If R < 0.5, PPB = [(FC x R)/2] + [FC/4]	PPB	41.223	lbs P/year		
<b>If R&gt; 0.5</b> , PPB = FC x R	PPB	21.131	lbs P/year		

1-15-09

# Worksheet 2 Pre-PPE and Post-PPE Calculations

Calculate phosphorus export from development for before and after treatment
Use as many sheets as needed for each development type (commercial, roads, residential lots, etc.)

Project name: Beaconsfield Farm \_\_\_\_\_ Development type: \_\_\_\_\_ Sheet # \_\_\_\_\_

Land Surface Type or Lot #(s) with description	Acres or # of lots	Export Coefficient from Table 3.1 Table 3.2	Pre- treatment Algal Av. P Export (Ibs P/year)	from	Post- treatment Algal Av. P Export (Ibs P/year)	Description of BMPs
Road	1.98	1.75	3.465	1	3.465	
Landscaping	2.51	0.8	2.008	1	2.008	
Existing Roads (Post-1997)	3.04	1.75	5.32	1	5.32	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
			0	1	0	
		Total Pre-PPE (Ibs P/year)	10.793	Total PostPPE (lbs P/year)	10.793	