

STATE OF NEW HAMPSHIRE
Intra-Department Communication

Date: January 31, 2025

At (Office): NH Dept. of Energy

From: Kenneth G. Walsh *KGW*
Utility Analyst IV – Enforcement Division

Subject: CRE 2024-014 **Eversource Energy**
Application for License to Construct and Maintain Electric Lines Over and Across
State-Owned Land and Public Waters in Tilton, Belmont, and Laconia, New Hampshire

Staff Recommendation

To: Jared Chicoine, Commissioner, Department of Energy
Christopher Ellms, Jr., Deputy Commissioner, Department of Energy

CC: Amanda Noonan, Director of Regulatory Support Division
Michael Soucy, Director of Enforcement Division
Elizabeth Nixon, Director of Electric Regulatory Support Division

Review by the Enforcement Division of the above application consisted of the following elements:

- Application contents, revised application contents, and history.
- Applicable State statutes.
- Review of existing crossing(s) previously licensed by the State of New Hampshire, if any.
- Review of land ownership and of existing pole structures.
- Review of NESC code requirements as described in En 300.
- Review of public need and public impact, including applicability of other State regulations; and
- Conclusions and Recommendations.

1. Application Contents and History

On December 4, 2024, Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource, ES), applied pursuant to RSA 371:17 for a license to construct and maintain the J125 Line, which is an existing three phase 115 kV line, an underbuilt 34.5 kV distribution line designated as the 3548 Line, and an underbuilt 34.5 kV distribution line designated as the 337 Line that crosses State-owned land in Tilton, Belmont, and Laconia, and public waters in Tilton, and Belmont. The land

crossings in Tilton and Belmont are owned by the New Hampshire Department of Transportation and the New Hampshire Department of Environmental Services, and the land crossing in Laconia is owned by the County College System of New Hampshire.

On December 24, 2024, Eversource resubmitted this application due to errors and clarifications as identified and as required by Department of Energy (DOE) Enforcement staff.

On January 3, 2025, Eversource resubmitted this application due to errors and clarifications as identified and as required by Department of Energy (DOE) Enforcement staff.

On January 13, 2025, Eversource resubmitted this application due to errors and clarifications as identified and as required by Department of Energy (DOE) Enforcement staff.

On January 24, 2025, Eversource resubmitted this application due to errors and clarifications as identified and as required by Department of Energy (DOE) Enforcement staff.

On January 31, 2025, Eversource resubmitted this application due to errors and clarifications as identified and as required by Department of Energy (DOE) Enforcement staff.

Eversource is requesting that the DOE issue a license for the purpose of proposed structure replacements and transfer of existing conductors and existing OPGW installation on the J125 Line and the underbuilt distribution 3548 and 337 Lines.

The proposed project is to replace the existing original wooden structures with weathered steel structures. J125/3548 Line Structures #61 to #63, J125/337 Line Structure #81, Structures #90 to #93 and Structures #138 to #141 will be replaced and will be located within 10' of the existing structure locations. J125/337 Line Structure #82 is an existing steel structure that was installed in 2002 and is the subject of this application to be licensed as a result. The J125 Line's existing three conductors (ACSR, 795 kcmil 26/7) and single OPGW (12 Fiber), having the specifications indicated on the Cable Schedule of Exhibits 2 through 10, and the 3548 Line's six conductors (ACSR, 477 kcmil 26/7) and single neutral wire (ACSR, 4/0 6/1), having the specifications indicated on the Cable Schedule of exhibit 2, and the 3548 Line's three conductors (ACSR, 477 kcmil 26/7), and single neutral wire (ACSR, 4/0 6/1), having the specifications indicated on the Cable Schedule of exhibits 3 to 4 and the 337 Line's three conductors (ACSR, 477 kcmil 26/7), and single neutral wire (ACSR, 4/0 6/1), having the specifications indicated on the Cable Schedule of Exhibit 5 through 10 shall all remain unchanged and will be relocated to the new replacement structures.

The scope of this project begins at Structure #60 in Tilton approximately 1,915 feet southeast from where the J125/3548 Line crosses School Street. This dual-circuit line then traverses generally east-northeast crossing State-owned land in Tilton then heading toward Belmont, crossing the Winnepesaukee River and then continuing northeast again crossing State-owned land in Belmont and Laconia.

The land crossing in Tilton spans 1,613.4 feet between Structures #60 and #63 with 1,024.8 feet crossing State-owned land. See Enforcement Division Map 1.

The land crossing in Tilton spans 488.8 feet between Structures #81 and #82 with 116.0 feet crossing State-owned land. See Enforcement Division Map 2.

The land crossings in Tilton and Belmont span 1,486.1 feet between Structures #90 and #93 with 620.1 feet crossing State-owned land. See Enforcement Division Map 3.

The water crossings in Tilton and Belmont span 300.1 feet between Structures #337/91Y and #92 with 144.1 feet crossing the Winnepesaukee River. See Enforcement Division Map 3.

The land crossings in Belmont and Laconia span 1,815.1 feet between Structures #138 and #337/227 with 1,202.6 feet crossing State-owned land. See Enforcement Division Map 4.

The following table provides the summary of this application with all crossings to include structure numbers, types, spans, ES design criteria, and NESC compliance:

Eversource J125, 3548 and 377 Line Structure Replacements - DOE Public Waterbody and State-Owned Land Crossing Details												
Circuit	New Structures #	Structure Type	Height Change (feet)	Span (Pole to Pole)	Span Distance (feet)	Minimum NESC Table 232-1 Clearance (ft.)			ES Vertical Design Clearance (ft.)			Complies with NESC Table 232-1 (Y/N)
J125/3548	60	93' steel 1 pole, ST-2-UB,	5.9	60-61	463.3	15.5			44.5			Y
	61	78.0' steel 1 pole, ST-2-UB,	-0.5									
	3548/61.5	36.3' wood 1 pole, Type	0	3548/61.5-	218.2	18.5			30.8			Y
	61	78.0' steel 1 pole, ST-2-UB,	-0.5	61-62	722.3	15.5			26.2			Y
	62	63.0' steel 1 pole, ST-2-UB,	-1.7	62-63	427.8	15.5			26.2			Y
	63	78.0' steel 1 pole, ST-2-UB,	-0.3									
J125/377	81	73.0' steel 1 pole, ST-2-UB,	-2	81-82	488.8	23.5			39.1			Y
	82	80.0' steel 1 pole, SDE-1-UB,	0									
	90	73.0' steel 1 pole, ST-2-UB,	3.7	90-91	638.2	15.5			19.4			Y
	91	83.0' steel 1 pole, ST-2-UB,	3.9	91-	162.5	15.5	14	15.5	35.4	43.9	38.5	Y
	337/91Y	47.0', wood 1 pole, Type	0	337/91Y -	300.1	15.5	14	15.5	35.4	43.9	38.5	Y
	92	88.5' steel 1 pole, SA-3, CLH9	4.8	92-93	385.3	15.5			33.7			Y
	93	73.0' steel 1 pole, ST-2-UB,	8.7									
	138	63.0' steel 1 pole, ST-2-UB,	2.2	138-139	597.5	15.5			24.9			Y
	139	68.0' steel 1 pole, ST-2-UB,	7.2	139-140	502.1	15.5			18.4			Y
	140	73.0' steel 1 pole, ST-2-UB,	2.8	140-141	535.9	15.5			16.4			Y
	141	73.0' steel 1 pole, ST-2-UB,	-0.5	141-	179.6	15.5			29.8			Y
	337/227	31.0' wood 1 pole, Type	0	337/227								

2. New Hampshire statute referenced in application (modified by NH House Bill 1258, August 22, 2022)

RSA 371:17 Licenses for New Poles. – Whenever it is necessary, in order to meet the reasonable requirements of service to the public, that any public utility should construct a pipeline, cable, or conduit, or a line of poles or towers and wires and fixtures thereon, over, under or across any of the public waters of this state, or over, under or across any of the land owned by this state, modify a previously licensed installation, or license a previously constructed installation, it shall apply to the department of energy for a license to construct and maintain the same. For the purposes of this section, " public waters " are defined to be all ponds of more than 10 acres, tidewater bodies, and such streams or portions thereof as the department of energy may prescribe. Every corporation and individual desiring to cross any public water or land for any purpose herein defined shall apply to the department of energy for a license in the same manner prescribed for a public utility. The department of energy may condition any license issued under this paragraph in any manner necessary to assure that the license may be exercised without substantially affecting the public rights in public waters or State-owned lands. Using a non-adjudicative process, the department of energy may reject incomplete or improperly filed applications, and shall, also using non-adjudicative process, issue or deny the license within 90 days of receiving a complete application and all information subsequently requested of an applicant.

3. Review of existing license(s) and permissions previously granted by the State of New Hampshire, including additional permitting requirements, for the applicable public waters and State-owned land crossings in Tilton, Belmont, and Laconia, New Hampshire.

The J125 Line was built in 2002 and runs between Webster Substation in Franklin and Laconia Substation in Laconia. The 3548 and 337 Lines were in existence at the time the J125 Line was constructed and were incorporated onto the new J125 structures in an underbuilt, double circuited configuration. State-owned lands are crossed between J125/3548 Structures #60 and #63, J125/337 Structures #81 and #82, J125/337 Structures #90 to #93, J125/337 Structures #138 to Structure #337/227. The State-owned land crossings were not previously licensed, owing to an apparent oversight and this application seeks to fully license the crossings. Public water is crossed between Pole #337/91Y and J125/337 Structure #92 and was previously licensed under PUC Order #24,271 (DE 02-205).

Eversource states that for the current project, a New Hampshire Department of Environmental Services (NHDES) Standard Dredge and Fill Permit (SDF) will be required for temporary and permanent impacts associated with the structure replacements described in this application. NHDES SDF and Shoreland Permit by Notification (PBN) applications have been submitted and permits received (NHDES SDF Permit #2024-00681, and Shoreland PBN 2024-03048, 2024-03049, and 2024-03050).

The U.S. Army Corps of Engineers (USACOE) does not have jurisdiction over the Winnepesaukee River as navigable waters. Therefore, no crossing permits are required from USACOE.

The following is listed under the NHDES category “Public Rivers and Streams” in the Official List of Public Waters (OLPW):

- In Tilton and Belmont, the Winnepesaukee River from the outflow of Paugus Bay, Lake Winnepesaukee in Lakeport (Laconia)

The entire list of public waters can be found on the NHDES website by using the following web link:

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/olpw.pdf>

4. Review of land ownership at proposed pole structures

Eversource attests that the structure replacement work will be accomplished within existing right-of-way easements, thereby mitigating impacts and potential objections of property owners affected by the project scope. Traffic control flaggers or a police detail will be used to monitor the construction at the State-owned land crossing and guard structures used during the wire transfer over the public waterbody, to ensure work areas are safe and clear of pedestrians, as an added precaution to ensure the public's safety. A list of abutters was provided by Eversource in addition to the application and exhibits.

5. Review of National Electrical Safety Code (NESC) requirements as described in N.H. Admin. R., En 306.01 (b)

The Enforcement Division reviewed the specifications related to the design and reconstruction of this crossing project as described in the application, attachments, and all supplemental support documents and corrections filed by ES and found them to be in conformance with N.H. Admin. Rule En 306 and applicable sections of the National Electrical Safety Code (NESC) C2-2023.

The neutral conductor cable clearance requirements were met using the NESC based on the design conditions at 15° F, 1 inch of ice, and 40 mph winds for all crossings within this petition. The tap conductor cable clearance requirements were met using 212° F for the crossing over State-owned land in Tilton. These scenarios were the governing conditions, which yielded the greatest sag and lowest clearance.

Eversource will maintain and operate the clearances of the crossings at a height no less than what is required by the 2023 National Electrical Safety Code (NESC, Table 232-1), which is 15.5' for neutral wires and 18.5' for 34.5 kV wires over other areas traversed by vehicles such as cultivated, grazing, forest and orchard lands, industrial sites, and commercial sites in respect to the State-owned land crossing between J125/3548 Structures 60 and 63 (Exhibit 2 to 4); and between J125/377 Structures 90 to 93 (Exhibit 6 to 8) and J125/337 Structures 138 to 337/227 (Exhibits 9 to 10); 23.5' for neutral wires over the top of the track rail in respect to the State-owned land crossing between J125/377 Structures 81 and 82 (Exhibit 5); 14' for neutral wires over water areas not suitable for sailboating or where sailboating is prohibited in respect to the crossing of the Winnepesaukee River (Exhibit 7). The actual minimum height over State-owned lands and the public waterbody is depicted on the attached Exhibits 2 through 10 and exceeds the respective minimum requirement.

6. Review of public need and impact

The J125 transmission line is an integral part of Eversource’s existing electric transmission system in New Hampshire. The crossing locations identified in the petition are in Tilton, Belmont, and Laconia, New Hampshire.

RSA 371:17 requires the Department of Energy to review applications for licenses to construct, maintain, or modify installations that exist or are proposed to exist, over, under, or across public waters or State-owned land. This review is to provide for the safety of the public and the preservation of perpetual access and use of public waters and State-owned land in New Hampshire.

Eversource declares that the license, if granted, may be exercised without substantially affecting the use or enjoyment of public waters or State-owned land, that safe clearances will always be maintained, and precautions undertaken to ensure the safety of recreational users. The Enforcement Division’s review of design specifications verified that the minimum safe clearances above water and land will be maintained during and after construction and; therefore, determines that public use and enjoyment of said water and land will not be diminished in any respect because of the proposed project.

7. Enforcement Division Recommendations

Based on the results of its review of the application, resubmissions, attachments, and all other supporting documents, the Enforcement Division recommends that the Department:

1. Find that the license Eversource requests in the application may be exercised without substantially affecting public rights on public waters and State-owned land; and
2. Grant Eversource a license to construct and maintain electric lines pursuant to RSA 371:17 and N.H. Admin. R., En 306.01, over State-owned land and across public waters in Tilton, Belmont, and Laconia, New Hampshire as specified in the application.

Attachments:

State Land (NHDOT) - CRE 2024-014 Eversource Crossing - Map 1

State land as depicted in Map #1 in Tilton identified in the application of the 115 kV Eversource dual-circuit J125 Line spanning 1,613.4 feet between Structures #60 and #63 with 1,024.8 feet crossing State-owned land. The project will require a license from the Department.

State of New Hampshire - DOT ; Map R18 - Lot 16

State Land Crossed = 1,024.8 ft

Structure #63
78' Steel single pole ;
Type: ST-2-UB ; CL H9

Structure #62
63' Steel single pole ;
Type: ST-2-UB ; CL H9

Structure #61
78' Steel single pole ;
Type: ST-2-UB ; CL H9

Structure #3548/61.5
36.3' Wood single pole ;
Type: 10.518

Structure #60
93' Steel single pole ;
Type: ST-2-UB ; CL H9

Span = 245.1 ft

Span = 463.3 ft

Span = 722.3 ft

Span = 427.8 ft

Tilton

INTERSTATE 93 S

INTERSTATE 93 N

SHERWOOD DR

PINE HILL RD

This map contains imagery from <http://mtl.google.com/vt/lyrs=s&x={col}&y={row}&z={level}>

	Utility Structure		State Land Parcel
	115 kV Line		Town Parcel
	34.5 kV Line		



Prepared by:
NH Department of Energy
Enforcement Division



State Land (NH DOT - Bureau of Rail & Transit) CRE 2024-014

Eversource Crossing - Map 2

State land as depicted in Map #2 in Tilton spanning 488.8 feet between Structures #81 and #82 with 116.0 feet crossing State-owned land. The project will require a license from the Department.

Structure #81
73' Steel single pole
Type: ST-2-UB ; CL H9

Structure #82
80' Steel single pole
Type: SDE-1-UB ; CL H9

L-176 398

J-125 337

Span = 488.8 ft

State of New Hampshire - DOT
Map U04 - Lot 73






Tilton

State Land Crossed = 116 ft

NOYES RD

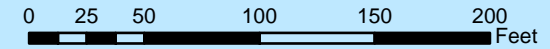
WOLF RD

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	Utility Structure		State Land Parcel
	115 kV Line		Town Parcel
	34.5 kV Line		



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State Land (NHDES) & Winnepesaukee River CRE 2024-014 Eversource Crossing - Map 3

State land as depicted in Map #3 in Tilton and Belmont spanning 1,486.1 feet between Structures #90 and #93 with 620.1 feet crossing State-owned land. The project will require a license from the Department.

Public waters as depicted in Map #3 in Tilton and Belmont spanning 300.1 feet between Structures #337/91Y and #92 with 144.1 feet crossing the Winnepesaukee River. The project will require a license from the Department.



This map contains imagery from <http://mt1.google.com/vt/lyrs=s&x={col}&y={row}&z={level}>

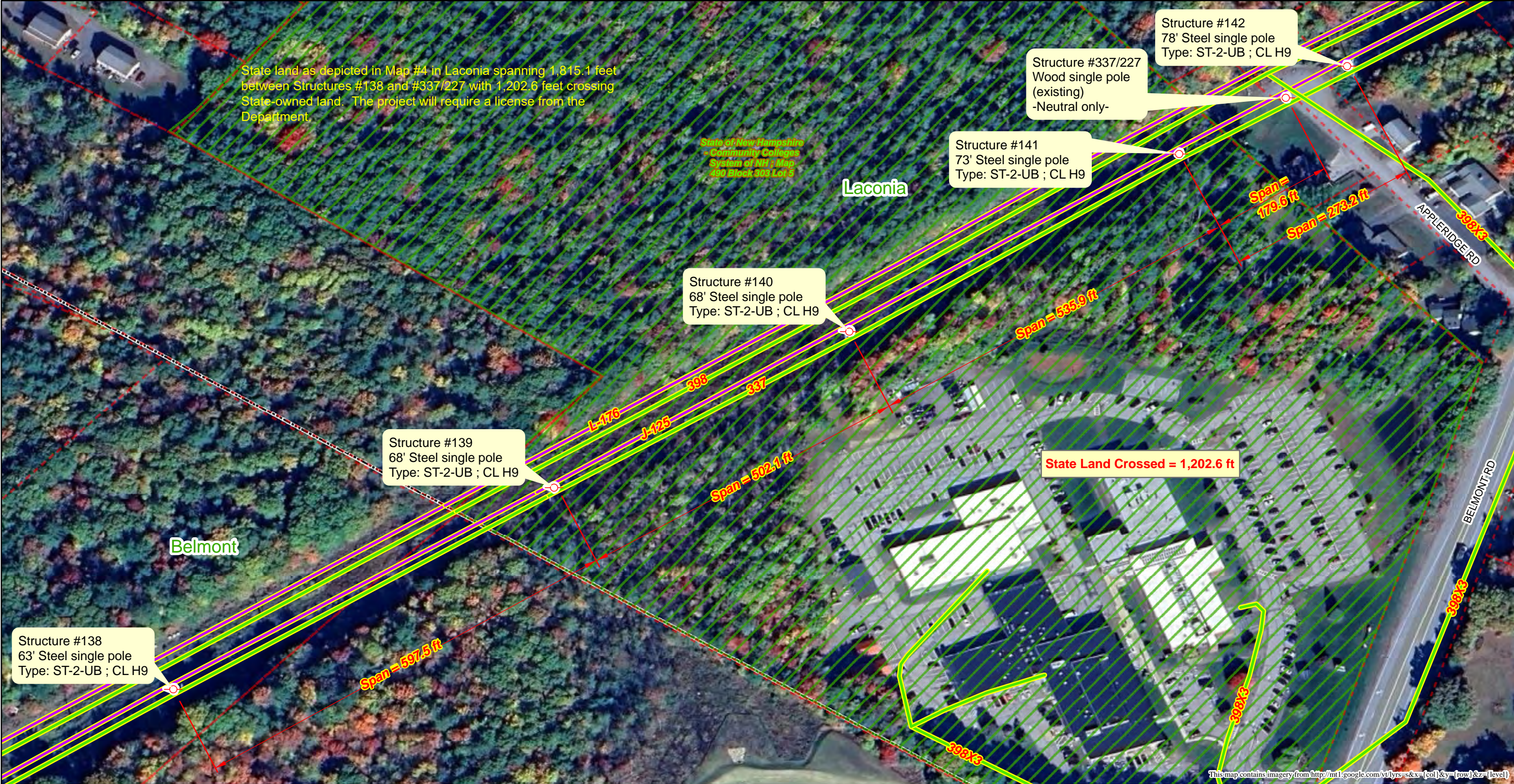
	Utility Structure		State Land Parcel
	115 kV Line		Town Parcel
	34.5 kV Line		



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Enforcement Division



State Land (CCSNH) - CRE 2024-014 Eversource Crossing - Map 4



	Utility Structure		State Land Parcel
	115 kV Line		Town Parcel
	34.5 kV Line		



Prepared by:
NH Department of Energy
Enforcement Division

