EVERSOURCE ENERGY

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October 21, 2016

Robert Stein, Chairman
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Thames River Crossing Project

Dear Chairman Stein:

Attached are an original and fifteen (15) copies of a petition on behalf of The Connecticut Light and Power Company doing business as Eversource Energy ("Eversource") requesting a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to two transmission lines, 1410 Line (115-kV) and the 100 Line (69-kV), in the towns of Montville and Ledyard, Connecticut ("Petition").

Prior to submitting this Petition, Eversource provided written notice to the abutting property owners and to the chief executive officers of the towns of Ledyard and Montville. Map sheets and line lists identifying the abutting property owners who were notified of the Project are provided in Attachment A.

A check in the amount of $625 for the required filing fee is also attached.

Sincerely,

Kathleen M. Shanley
Manager – Transmission Siting

Enclosure

cc: The Honorable Ronald McDaniel, Mayor, Montville
The Honorable Michael Finkelstein, Mayor, Ledyard

THE CONNECTICUT LIGHT AND POWER COMPANY

doing business as

EVERSOURCE ENERGY

PETITION TO THE CONNECTICUT SITING COUNCIL
FOR A DECLARATORY RULING OF
NO SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT
FOR THE PROPOSED MODIFICATIONS TO EXISTING
1410 LINE AND 100 LINE IN THE TOWNS OF
MONTVILLE AND LEDYARD, CONNECTICUT

1. Eversource Energy ("Eversource" or the "Company") hereby petitions the Connecticut Siting Council ("Council") for a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required, pursuant to Section 16-50g et seq. of the Connecticut General Statutes, for proposed modifications to existing 115-kV and 69-kV transmission lines within Eversource's existing right-of-way ("ROW") in Montville and Ledyard (the "Project") that are described herein. Eversource submits that no such Certificate is required because the proposed modifications would not have a substantial adverse environmental effect.

2. Purpose of the Project

The purpose of the Project is to replace structures in an approximately 0.5 mile portion of the 115-kV 1410 Line and the 69-kV 100 Line within the same ROW. Four double-circuit lattice tower structures will be replaced, starting at structure 7012 in Montville to structure 7015 in Ledyard. These 1410 Line and 100 Line structures were constructed in 1921. They are exhibiting physical degradation (corrosion) and have been rated to be in poor condition based on inspection. The poor condition of these four structures jeopardizes continued reliability of the 1410 Line and 100 Line. Consequently, the structures are in critical need of replacement.

3. Project Description

The Project consists of replacing four double circuit lattice structures within the ROW, and it will encompass an aerial crossing of the Thames River.

The Project modifications would include the following:

a) Replacement of the double-circuit steel painted lattice structure 7012 with two single-circuit galvanized steel monopoles (7012A and 7012B). The proposed replacement structures 7012A and 7012B would be installed approximately 35 feet to the north of existing structure 7012.

b) Replacement of two double-circuit steel painted lattice structures (structures 7013 and 7014) with double-circuit galvanized steel monopoles. The proposed replacement structure for 7013 would be installed approximately 5 feet to the east and 35 feet north of the existing structure location. The proposed replacement structure for 7014 would be installed approximately 25 feet to the east and 60 feet south of the existing structure location.

c) Replacement of the double-circuit steel painted lattice structure 7015 with two single-circuit galvanized steel monopoles (7015A and 7015B). The proposed structures 7015A and 7015B would be installed approximately 15 feet to the east and 15 feet to the south of the existing structure 7015.

d) Replacement of the 556 kcmil 24/7 ACSR conductor (aluminum conductor steel reinforced) for both the 1410 Line and 100 Line with new 1590 kcmil 54/19 ACSS conductor (aluminum conductor steel supported) from new structures 7012A and 7012B to new structures 7015A and 7015B, for a distance of approximately 0.5 mile.

e) Installation of 19#10 Alumoweld shield wire and optical ground wire ("OPGW") on structures 7012 to 7015.[1]

The use of galvanized steel structures would match the appearance of the existing structures, which are painted green-gray.

[1] During the construction window for this Project, Eversource is also planning to repaint two nearby existing transmission structures (structures 7010 and 7011).

Drilled shaft foundation design is planned for all replacement structures. The existing lattice tower foundations would be removed to one foot below grade. Structure 7013 is located within a 100-year flood zone and the top of its foundation would be three foot above ground level to raise the structure base one foot above the estimated flood level for a 100-year flood event.

The height of the existing structures ranges between 76 to 255 feet above ground level. The heights of the proposed replacement structures would vary, depending on location. One structure will be approximately 5 feet shorter than the existing structure. The remaining three structures will be 8 feet, 14 feet and 31 feet taller than the existing structures. The reason for the increase in structure heights is to comply with the 2012 National Electric Safety Code ("NESC") clearance requirements as well as to comply with clearance requirement of the Army Corps of Engineers Permit for the conductors crossing the Thames River. Attachment B provides cross sections that depict the existing and proposed structure configurations within the ROW.

4. Existing Environment, Environmental Effects and Mitigation

The proposed transmission line work described above would not have a substantial adverse environmental effect, for reasons explained more fully below.

The line structure replacements would be constructed within Eversource's existing transmission ROW. All work within environmentally sensitive areas, such as water resources or habitat areas identified through the National Diversity Data Base (NDDB) for state-listed species, would be conducted in accordance with required environmental permits and through the implementation of the Company's *Best Management Practices Manual: Connecticut Construction and Maintenance Environmental Requirements (2011)* ("BMPs"), and would employ measures to avoid, minimize and/or mitigate potential adverse environmental effects.

Existing Right-of-Way

The 1410 and 100 Lines share the transmission ROW with the existing the 115-kV 1280 Line. The existing ROW was originally acquired in 1918. The transmission lines within the ROW were originally constructed in the 1920s, 1950s, and 1960s. West of the Thames River, the width of the existing ROW is approximately 200 feet at East of the Thames River the width of the existing ROW is 230 feet. See Attachment B: Existing/Proposed ROW Cross Sections.

Land Use

Lands adjacent to the Project area are primarily undeveloped, with some limited residential properties and open fields. The ROW crosses the Thames River and two railroads, the New England Central Railroad to the west of structure 7011 and the Providence Worcester Railroad located along the eastern shore of the Thames River.

There would be no significant impacts to adjacent land uses from the Project, some limited portions of the Project access near Point Breeze Road between 7011 and 7011 will temporarily impact a maintained lawn and gravel driveway within the established ROW. Eversource would work with the property owners to restore these areas upon completion of the Project.

Clearing and Vegetation Removal

Some clearing and vegetation removal would be required to accommodate the construction of replacement transmission line structures, installation of the replacement conductors and operation of the transmission lines. Approximately 668 linear feet (0.80 acre) of clearing would be required along the north side of the existing maintained ROW between structures 7012 and 7013 at structure 7014. In the area of structure 7012, 56 feet of clearing would be required. Moving east toward structure 7013 the amount of clearing required would taper gradually to 35 feet. This clearing would expand the limit of maintained vegetation to the edge of ROW.

Some selective tree removal would be required to accommodate widening of an existing access road. See Attachment A and B for details on the proposed clearing and tree removal areas.

While in the ROW, some vegetation removal and/or mowing would be required to access structure locations and create work pads.

Scenic, Recreational and Cultural Resources

No designated scenic resources were identified within the Project area.

No recreational areas are located within or abutting the Project area, except for the Thames River.

A cultural (archaeological and historical) resources review of the proposed Project was initiated by Heritage Consultants, LLC ("Heritage") in March 2016. A comprehensive Phase I cultural resources survey has been initiated using a three-step approach: (1) literature search and records review that focused on the proposed Project area; (2) identification of all previously recorded archaeological sites located in the vicinity of the Project area; and (3) cultural resources reconnaissance survey of the proposed work and pull pads, access roads, and new structure locations in the identified archaeological or historically significant areas.

As a result of its initial review, Heritage identified an area of moderate/high archaeological sensitivity for the potential presence of cultural material in the Project area near the location for the replacement structures 7012 and 7013. Vehicles will use the existing access road or construction matting to avoid potential impacts in these areas. Improvements to the existing access road will be limited to hardening of the existing access, as needed. The access will not be widened. Vegetation management activities within these areas will not cause ground disturbance to the potential cultural sensitive areas. Trees removed from these areas will be cut to ground level and the tree stumps will be left in place.

In July, 2016 Heritage Consultants LLC ("Heritage"), performed a Phase 1B cultural resources reconnaissance survey of the Project area. This survey resulted in the identification of 12 above ground historic cultural features, four of which are located in Montville, within the ROW between structures 7012 and 7013.

Three of the identified features fall within the confines of a proposed gravel work pad associated with Structure 7013: a historic structure foundation, a stone lined well, and an iron ring embedded in a boulder at the river's edge. A fourth feature, a stone wharf, is located at the edge of the Thames River within the ROW, but is not at risk to be potentially impacted by Project activities. Due to the confined work space, Heritage recommended that the historic structure foundation and the stone lined well area be covered with geotech fabric and clean sand prior to construction of the proposed work pad to protect these resources. Heritage further recommended that the iron ring

embedded in the large bolder at the edge of the river be surrounded by exclusion fencing to avoid any potential impact from construction activities. Heritage's report concluded that, provided the above-referenced precautions are taken during construction, no additional protective measures are warranted and no further investigation is recommended. The remaining features identified by Heritage are located outside the proposed construction areas and therefore are not at risk for impacts from the Project construction.

Eversource is currently coordinating with the Connecticut State Historic Preservation Office ("SHPO") on its review, comment and approval of the archaeological reconnaissance survey and subsequent Heritage recommendations in compliance with SHPO's Environmental Review Primer for Connecticut's Archeological Resources. Eversource would comply with any additional mitigation requirements, if required, as determined by the SHPO.

No visual impact to these historic resources is anticipated from the Project.

Wetlands, Surface Waters, Watercourses, and Flood Zones

There are no wetlands within the Project area. The only water resource within the Project area is the Thames River and no work is planned within the regulated water resource area.

Structure 7013 in Montville lies within a Federal Emergency Management Agency ("FEMA") designated 100-year flood zone. The top of the foundation for replacement structure 7013 would be one foot above the 100-year flood zone.

All work adjacent to the Thames River would be conducted in accordance with applicable regulatory permit/authorization terms and conditions and through the implementation of Eversource's BMPs.

Water Supply

Based on the October 2015 data maintained by CT DEEP, the Project is not located within any aquifer protection areas. A private water supply well is located within the vicinity of the structure 7013 and will be impacted by the installation of the work pad. Eversource is working with the abutter to mitigate possible impacts to the well.

Wildlife and Habitat

Eversource reviewed the CT DEEP Bureau of Natural Resources – Wildlife Division, Natural Diversity Database ("NDDB") for rare species data supplied through a data sharing agreement with Eversource. The result of the review indicates that one state-listed fish species is present within the Thames River. Eversource received response on August 15, 2016 from the CT DEEP NDDB stating that the project will not have any negative impacts to state listed as a result of the Project work activities.

Visual Effects

Visual effects would be limited to the change in structure design and height, the amount of clearing that would be required to accommodate the rebuilt line, beacon lighting on two of the structures and the placement of lighted and unlighted marker balls on the conductors spanning the Thames River. New structures are proposed to be located near existing structure locations. Specific height changes are:

Structure Number	Existing Height	Proposed Height	Design
Structure 7012	77 feet	85 feet	DCT lattice to two monopoles
Structure 7013	255 feet	250 feet	DCT lattice to DCT monopole
Structure 7014	179 Feet	210 feet	DCT lattice to DCT monopole
Structure 7015	76 feet	90 feet	DCT lattice to two monopoles

As explained previously, the increases in structure heights are primarily to comply with the 2012 National Electric Safety Code clearance requirements and Army Corps of Engineers clearance requirement for the conductors crossing the Thames River. Attachment B provides cross sections that depict the existing and proposed structure configurations within the ROW.

Proposed structures 7013 and 7014 are greater than 200 feet in height and anchor the conductor span across the Thames River. Based on hazard determinations made by the Federal Aviation Administration ("FAA") both structures will require dual medium-intensity (L-866/L-885) beacon lighting systems. Existing lattice structures 7013 and 8348 (for the 1280 Line) currently have similar beacon lighting systems installed. See Attachment B – Page 3. In addition to the lighting requirements, the span across the Thames River will require new lighted and unlighted marker balls. Lighted marker balls will be installed on the highest energized conductor. Unlighted marker balls will be installed on the shield wire span (un-energized) span.

The FAA lighting requirements are similar to those of the existing structures; no significant visual changes are anticipated.

Sound Levels along the Transmission ROW

There would be no changes to the sound levels along the transmission corridor after completion of the Project.

Radio and Television Interference

No radio or television interference would result from the Project.

5. Traffic, Construction Sequence and Methods

Traffic/Traffic Management

Construction vehicles and equipment associated with the work would include pickup trucks, bucket trucks, concrete trucks, drill rigs, front loaders, reel trailers, bulldozers, wood chippers, cranes, forklifts, side booms, dump trucks and cranes. Pullers and tensioners will be used for the line work. Helicopters may be used to assist pulling operations for the lines crossing over the Thames River.

Construction-related vehicular movement, including equipment and material deliveries to the ROW would utilize public roads in the Project area. However, the Project-related traffic is generally expected to be temporary and highly localized in the vicinity of the ROW and staging areas. Due to phasing of construction work, these Project-related traffic movements

are not expected to significantly affect transportation patterns or levels of service on public roads.

To safely move construction vehicles and equipment onto and off of the ROW while minimizing disruptions to vehicular traffic along public roads, Eversource or its Project contractor would, as appropriate, work with representatives of Montville, Ledyard, and/or the Connecticut Department of Transportation ("ConnDOT") to develop and implement traffic management procedures, as needed. The construction contractor is typically responsible for posting and maintaining construction warning signs along public roads near work sites and for coordinating the use of flaggers or police personnel to direct traffic, as necessary.

Construction Sequence

Construction for the Project would occur in several phases and encompass a variety of work as noted below in the following activities:

Establishing Staging Areas

The proposed staging area for the Project is located on the west side of the Thames River in Montville. The staging area in Montville would be approximately 0.83 acre in size (approximately 360 feet by 100 feet) and would be located within the established Eversource ROW. (See Attachment A**,** sheet 2.) The proposed staging area has been reviewed and accepted by the landowner. Access to the staging area is from Point Breeze Road on an established access road, which is also utilized by the adjacent landowner as a driveway.

The temporary staging area will be used to store construction materials, equipment, tools, and supplies (including conductors, insulators, hardware, poles and construction mats) for the Project. An office trailer may be located at the staging area, and components removed during the work (structures, conductor, hardware and insulators) may be temporarily accumulated and stored at the staging area prior to removal off-site for salvage and/or disposal. The staging area may also be used by construction crew members for parking personal vehicles as well as for construction vehicles and equipment storage, and for performing minor maintenance, when needed, on construction equipment. An environmental review the proposed staging area location

was completed and erosion and sedimentation ("E&S") controls would be installed and maintained until Project completion in accordance with Eversource's BMPs.

Clearing and Vegetation Removal

Preparation of the ROW for the structure replacement would include clearing, vegetation removal and mowing. Woody vegetation (trees) that could interfere with the operation of the overhead transmission lines would be removed.

Clearing would be accomplished using mechanical methods and typically requires the use of flatbed trucks, brush hogs or other types of mowing equipment, skidders, forwarders, bucket trucks for canopy trimming, feller bunchers for mechanical tree cutting, wood chippers, log trucks, and chip vans.

Eversource would require the contractor to use low-impact tree clearing methods to remove forested vegetation to protect sensitive cultural resource areas Low-impact tree clearing incorporates a variety of approaches, techniques, and equipment to minimize site disturbance. Eversource would require the clearing contractor to use following low-impact tree clearing methods:

- Take into consideration soil and weather conditions when scheduling vegetation removal activities such as heavy rainfall.
- Fell trees directionally (parallel to and within the ROW) to minimize impacts to residual vegetation, where practical.
- Use appropriate tree clearing equipment for the site conditions, as appropriate, to minimize impacts to the extent practicable.
- Cut trees close to the ground, leaving root systems and stumps, where practical, to provide additional soil stability.
- Stockpile cut timber and brush only in uplands.

Eversource would also conduct vegetation removal activities (brush removal and/or mowing) within the ROW at this time in order to allow vehicle access to structure locations and for the creation of work and pull pads. All work would occur in accordance with its BMPs, applicable federal and state permit requirements.

Soil Erosion and Sediment Control Installation

Project construction would conform to best management practices for E&S control, including those provided in the *2002 Connecticut Guidelines for Soil Erosion and Sediment* ("E&S") *Control* and the Eversource's BMPs.

Typical E&S control measures include, but are not limited to, straw blankets, hay bales, silt fencing, check dams, berms, swales, and sediment basins. Silt fence would be installed prior to construction to demarcate the line of construction and prevent migration of sediment or construction materials into wetlands and watercourses. Temporary E&S control measures would be maintained and inspected throughout the Project to ensure their integrity and effectiveness. Following completion of construction, seeding and mulching would be used to permanently stabilize previously disturbed areas. The temporary E&S control measures would remain in place until the Project work is complete and all disturbed areas have been stabilized.

Access Roads and Work Pads

Access to each proposed transmission structure location is required for Project construction. As a result of the operation and maintenance of the existing transmission lines within this ROW, access roads are already established. Additionally, existing established off-ROW access roads, some requiring improvement, would be utilized to access the Project ROW. All access roads expected to be used for the proposed Project are illustrated in Attachment A.

The existing access roads may need to be graded, widened, and/or reinforced with additional material in order to accommodate the safe passage of construction vehicles and equipment. Access road improvements typically include trimming adjacent vegetation and widening roads as needed to provide a minimum travel surface that is approximately 16 to 20 feet wide (additional width may be needed at turning or passing locations). Selective tree removal will be required for the access road to structure 7014. Access roads would typically be graveled. E&S controls would be installed as necessary before the commencement of any improvements to or development of access roads.

At each transmission line structure site, a work pad is required to stage material for final on-site assembly and/or removal, and to provide a safe, level work base for the

construction equipment. Work pads for the Project would be approximately 100 feet x 100 feet for structure 7012 and structure 7015, approximately 275 feet x 125 feet for structure 7013 and approximately 175 feet x 175 feet for structure 7014.

Construction mats (8 feet x 16 feet x 15 feet) would be used to provide a temporary retaining wall at structure 7012 for stability of the work area. Locations for pulling pads, for conductor and OPGW installation, would typically be 100 feet by 150 feet. Pulling pads would be constructed using techniques similar to those for work pads. The location and configuration of the work and pull pads are shown on Attachment A.

A typical (upland) installation of a work pad at a structure location involves several steps, if necessary: (1) removal of vegetation, (2) the work pad site would be graded to create a level work area, and (3) the upper three to six inches of topsoil (which is typically unsuitable to support the necessary construction activities) would be removed. The topsoil would be temporarily stockpiled within the ROW, typically near the work pad. A rock base, which allows drainage, would be layered on top of filter fabric, if necessary. Additional layers of rock with dirt/rock fines are typically placed over this rock base.

Work pads for structures 7012 and 7014 would require fill material to build up a level work area for construction. The fill for structure 7014 would be permanent. Fill material would be native to the project site; no foreign fill material would be used for pad construction. Fill areas would be compacted in lifts to provide the adequate compaction and stabilization of the work area once it reaches final grade.

To facilitate transmission line maintenance, the work pads for structures 7014 and 7015 would be left in place, unless the property owner requests their removal. The work pads located near residential areas for structures 7011, 7012, and 7013 are planned to be removed and the area restored. These pads may remain if the property owner requests that they remain in place.

Locations for pulling pads for conductor, shield wire, and OPGW installation will be constructed using techniques similar to those for work pads.

Foundation Installation

Following the access road improvements and the installation of the work pads, structure foundation installation would occur and would require equipment such as: augers, trucks for hauling reinforcing rebar/rebar cages, drill rigs, cranes, and concrete trucks for structures with drilled shaft/micro pile foundations and dump trucks for structures that require crushed rock backfill.

In the likely event that groundwater is encountered pumping (vacuum) trucks or other suitable equipment would be used to pump water from the excavated areas as the foundation is being installed or the structure is being set. The water would then be discharged in accordance with applicable local, state, and federal requirements.

Depending on site-specific soil conductivity, supplemental grounding (counterpoise) will be installed at this time. A Quad-ditch witch plow-cable trencher would be used to install the counterpoise.

Excavated soils that are generated during construction activities would not be stored or stockpiled inside of a wetland, or adjacent to the river. Materials that would not be utilized as back fill would be disposed of in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control,* the Eversource's BMPs and the applicable regulations.

Structure Assembly

After the foundations have been installed, the new structures would be assembled. Structure sections of the new monopoles, structure components and hardware would be delivered to the individual structure locations using flatbed trucks and assembled on-site using a crane and bucket trucks. Insulators and connecting hardware would be installed on most structures at this time.

FAA Lighting

Proposed structures 7013 and 7014 are greater than 200 feet in height and based on FAA determinations the structures will require dual medium-intensity lighting systems installed.

The FAA beacon lighting system for structure 7013 will be supported by a distribution circuit. There is no nearby distribution line near structure 7014 and in order to support the FAA beacon lighting at this structure, a solar panel system with a battery storage hut will be constructed within the ROW. The battery hut would be similar to the existing battery hut that supports the beacon lighting system for structure 8348.

Remove Existing Conductor and Shield Wires

The removal of the existing conductor and shield wire would take place during the installation of the new conductor/OPGW because the existing conductor and shield wire may be used as pulling line.

Conductor and OPGW Wire Installation

The equipment required for these activities would include conductor reels, conductor pulling and tensioning rigs, and bucket trucks. Installation of wire would require the use of special pulling and tensioning equipment, which would be positioned at the pre-determined pulling pads. Helicopters may be used to facilitate wire pulling of conductor and shield wire/OPGW over the Thames River.

Removal of Existing Structures

Once the new structures are erected and the line is energized, the existing 115-kV steel lattice structures, remaining shield wires, remaining conductors, and other transmission line materials on and between the existing structures would be demolished and removed. The equipment required for these activities would be generally the same as required for installing the new structures, conductors, and OPGW; which is described above. The foundations of the existing lattice towers will be left in place and removed to one foot below grade.

Restoration

ROW restoration activities would include the removal of construction debris, signage, flagging, and temporary fencing, as well as the removal of construction mats and work pads, if requested. Areas affected by construction would be re-graded as practical and stabilized using re-vegetation or other measures before removing temporary E&S controls.

Waste Management

Waste materials, such as structure components (i.e., steel from the existing lattice structures, conductor, shield wire, associated hardware, excess concrete, etc.) and any other construction debris would be disposed of in accordance with Eversource's BMPs, applicable regulations or recycled consistent with applicable rules and regulations and Eversource policies.

Excess soils would be managed in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control,* the Company's BMPs, applicable regulations and disposal facility policies.

Dewatering during construction activities would be conducted in accordance with *2002 Connecticut Guidelines for Soil Erosion and Sediment Control,* the Company's BMPs and the applicable regulations.

Paint chips will be collected below the tower on a tarp and vacuumed for disposal.

Noise

During construction, any impacts to existing noise levels would be short-term and localized in the vicinity of the work sites. There would be no permanent changes to the noise levels along the transmission ROW from the Project.

Construction Schedule and Work Hours

Normal working hours would be Monday through Saturday from 7:00 AM to 7:00 PM. Sunday working hours may be required during transmission line outages. Multiple crews may work concurrently on different sections of the line.

6. Electric and Magnetic Fields

Following the proposed line modifications, electric and magnetic field levels are expected to remain similar to those produced by the existing transmission lines. Eversource's proposed design for the Project is a vertical configuration of three-phase conductors supported on steel monopoles. During Annual Average Load ("AAL") conditions, the magnetic field level would be slightly reduced along the western edge of ROW and result in a small increase at the east edge of and within the ROW.

Inputs for all of the magnetic field calculations included the current from each circuit derived from the power-flow model, the circuit phasing, and the typical midspan line height on the ROW. The conductors of the line were assumed to have a typical midspan height produced at maximum sag conditions. Away from midspan locations where all of the line conductors are higher, electric and magnetic field levels would be lower than values determined for a midspan conductor height assumption.

Electric fields were also calculated assuming a relatively high voltage on each circuit of 121 kV (1.05 per unit) for 115 kV circuits and 72 kV (1.05 per unit) for 69 kV circuits to yield conservatively higher results. All calculation results apply to a height of one meter above ground. The edge of ROW values for the pre- and post- electric and magnetic fields under average annual loading conditions for the span from structure 7012 to structure 7013 are summarized in Table E-1 below. This is also depicted graphically in Figures E-1 and E-2. The edge of ROW values for the pre- and post-electric and magnetic fields under average annual loading conditions for the span from structure 7013 to structure 7014 are summarized in Table F-1 below. The pre- and post-electric and magnetic fields under average annual loading conditions for the span from structure 7014 to structure 7015 would be the same as the span from structure 7012 and 7013. This is also depicted graphically in Figures F-1 and F-2.

While there are no state or federal guidelines that govern electric and magnetic fields, the scientific community has identified limits for safe exposure. These limits are identified by the International Council on Non-Ionizing Radiation Protection ("ICNIRP) and the International Council on Electromagnetic Safety ("ICES") and are tabulated in Table E-2. It should be noted that the fields from the proposed project are well below these limits.

Table E-1 - Summary of Calculated Electric and Magnetic Fields

7012 to 7013		East ROW Edge	Max in ROW	West ROW Edge
Magnetic Fields (mG)	Existing	2.3	11.5	1.7
	Proposed	3.6	11.6	1.3
Electric Fields (kV/m)	Existing	0.05	1.20	0.12
	Proposed	0.34	1.20	0.12

Table E-2 - International Guidelines for EMF Exposure

	Magnetic Field (mG)	Electric Field (kV/m)
ICNIRP	2000	5
ICES	9040	5 (in General)
		10 (On ROW)

Figure E-1 - Calculated Magnetic Fields

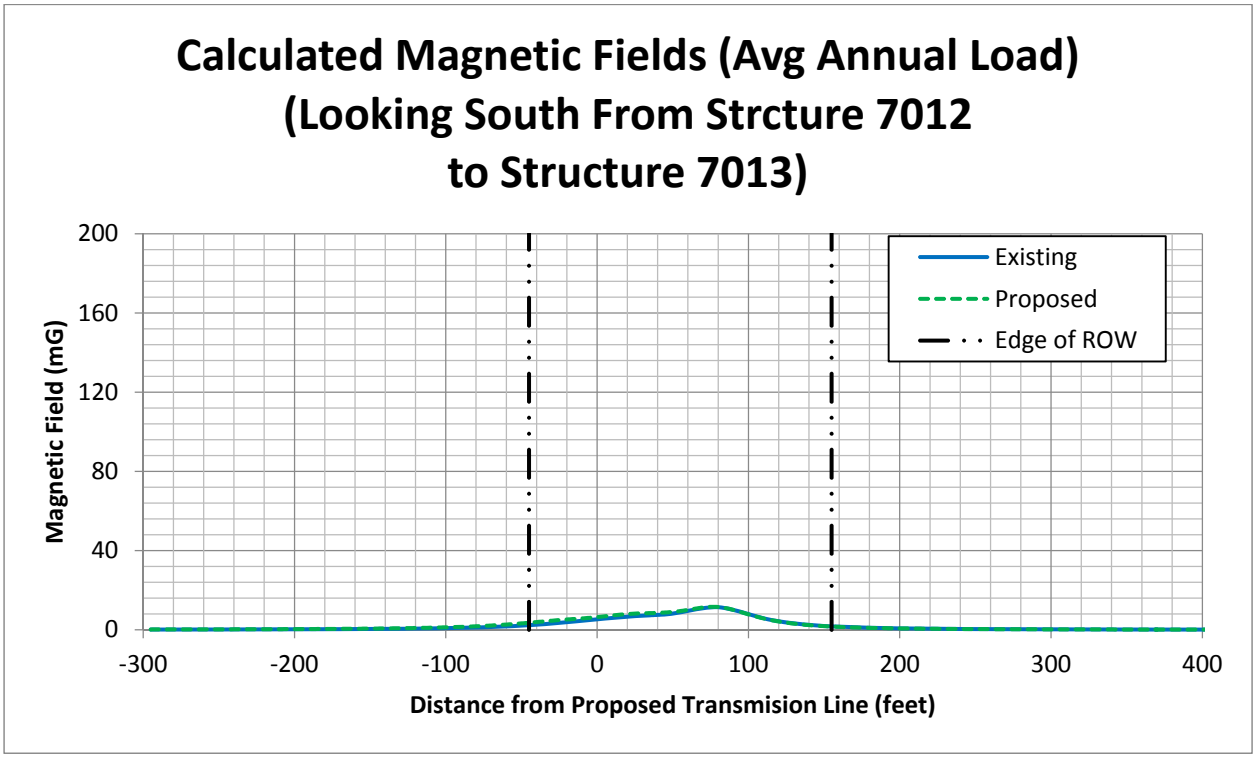


Figure E-2 - Calculated Electric Fields

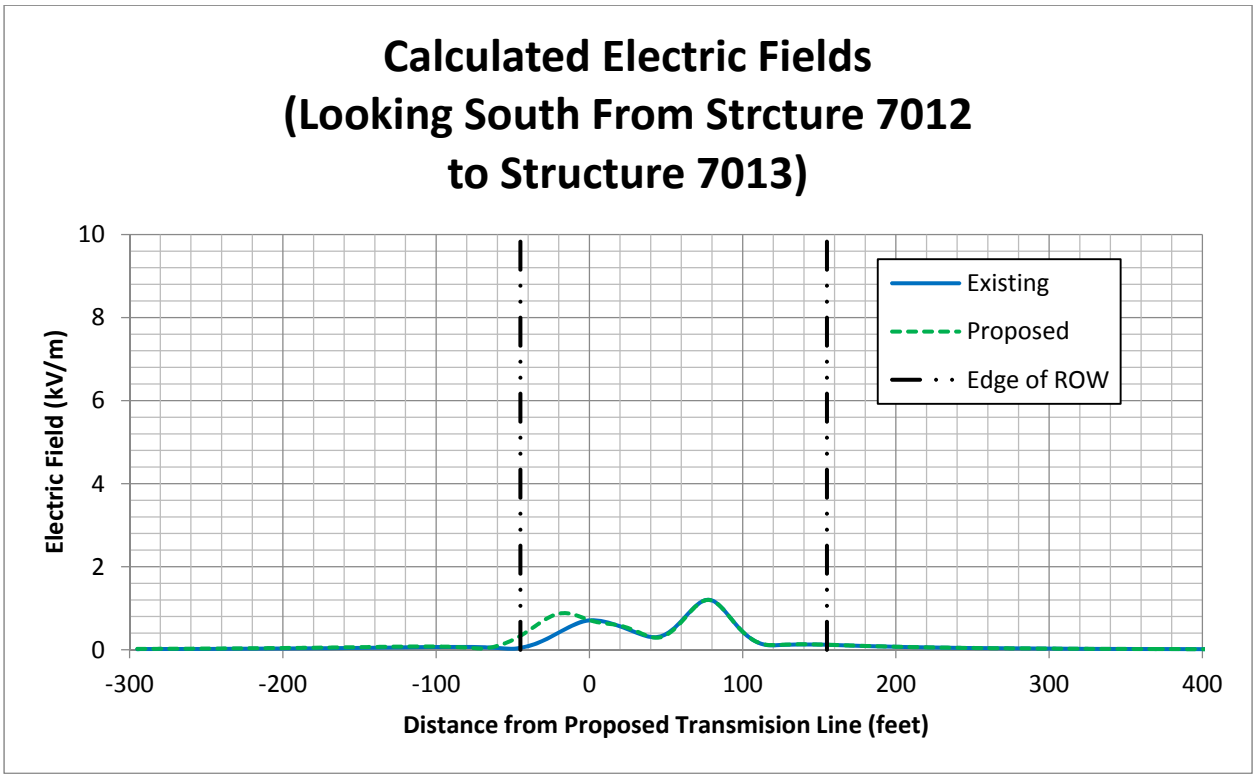


Table F-1 - Summary of Calculated Electric and Magnetic Fields

7013-7014		East ROW Edge	Max in ROW	West ROW Edge
Magnetic Fields (mG)	Existing	0.6	0.8	0.5
	Proposed	0.9	1.0	0.5
Electric Fields (kV/m)	Existing	0.07	0.13	0.04
	Proposed	0.10	0.15	0.03

Figure F-1 - Calculated Magnetic Fields

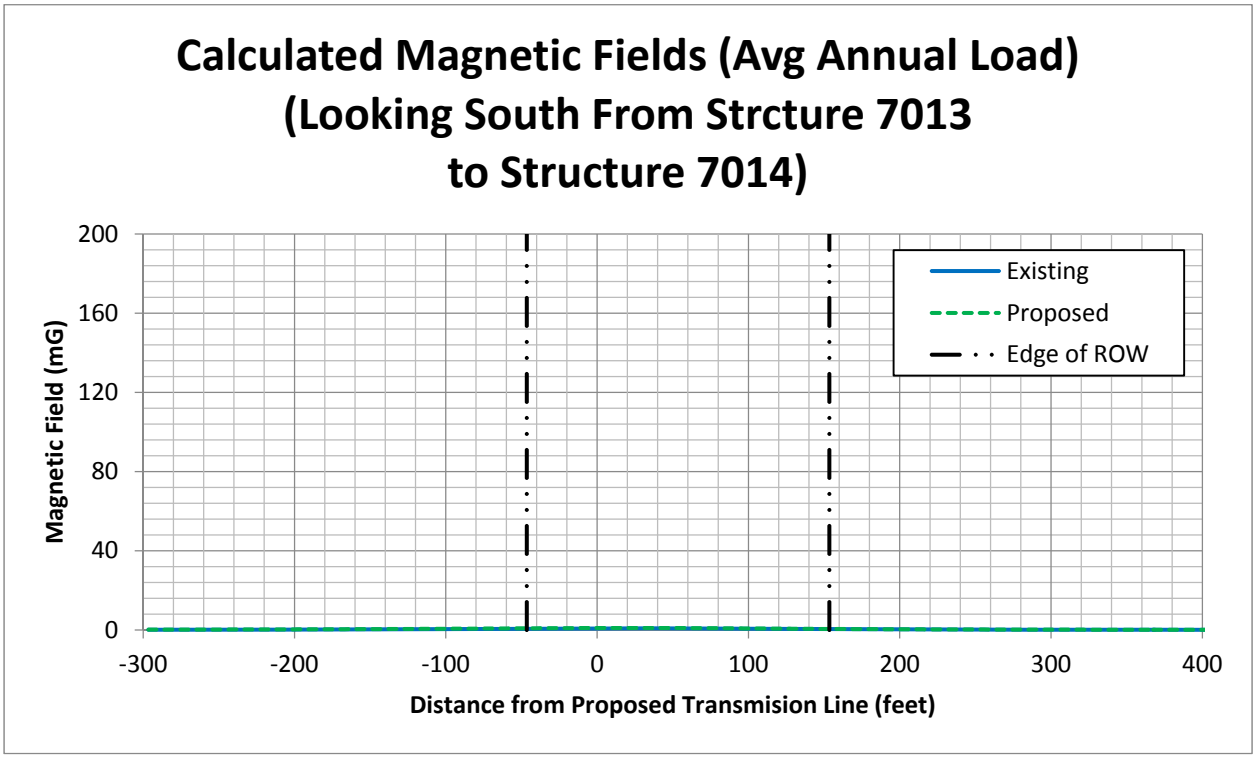
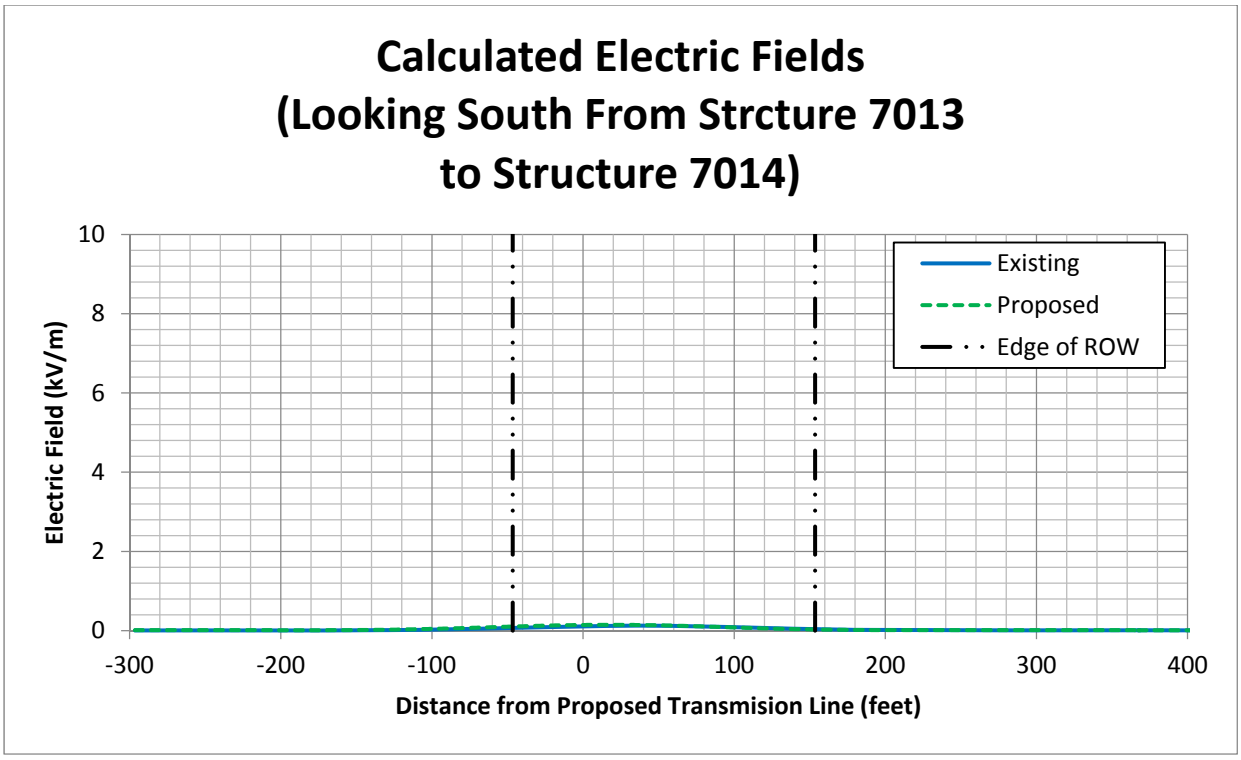


Figure F-2 - Calculated Electric Fields



7. Municipal and Property Owner Outreach

Prior to submitting the Petition, Eversource briefed municipal officials in Montville and Ledyard. Eversource provided an overview of the Project, the need for the Project, and offered the opportunity to answer questions, and provided a point of contact to obtain additional information.

Project personnel also met with focus area property owners to brief them on the proposed Project. The Project is committed to continuing to work with abutting landowners throughout the construction and remediation portions of the work.

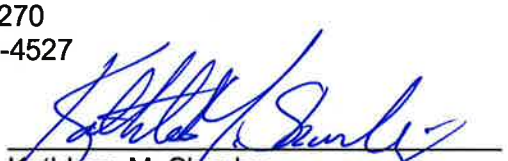
During these meetings Eversource also discussed the Petition letter to be sent to abutting property owners, which includes a toll-free Transmission project "hotline" number and email address to contact Eversource with any concerns.

8. Eversource proposes to begin construction during the fall of 2016. Construction and restoration will be completed in fall of 2017.

9. Section 16-50k(a) of the Connecticut General Statutes provides that a Certificate of Environmental Compatibility and Public Need is needed for proposed modifications of a facility that the Council determines would have a "substantial adverse environmental effect." Eversource respectfully submits that the proposed modifications would not result in a substantial adverse effect on the environment or ecology, nor would they damage existing scenic, historical or recreational values. Accordingly, Eversource requests that the Council issue a declaratory ruling that the proposed modifications would have no substantial adverse environmental effect and, therefore, no Certificate is required.

10. Communications regarding this Petition for a Declaratory Ruling should be directed to:

Kathleen M. Shanley
Manager – Transmission Siting
Eversource Energy
PO Box 270
Hartford, CT 06141-0270
Telephone: (860) 728-4527

By: 

Kathleen M. Shanley
Manager – Transmission Siting

List of Attachments

Attachment A: Thames River Crossing Project Maps
Attachment B: Existing/Proposed ROW Cross Sections
Attachment C: Letter to the Abutters and Affidavit

ATTACHMENT A

THAMES RIVER CROSSING STRUCTURE REPLACEMENT PROJECT

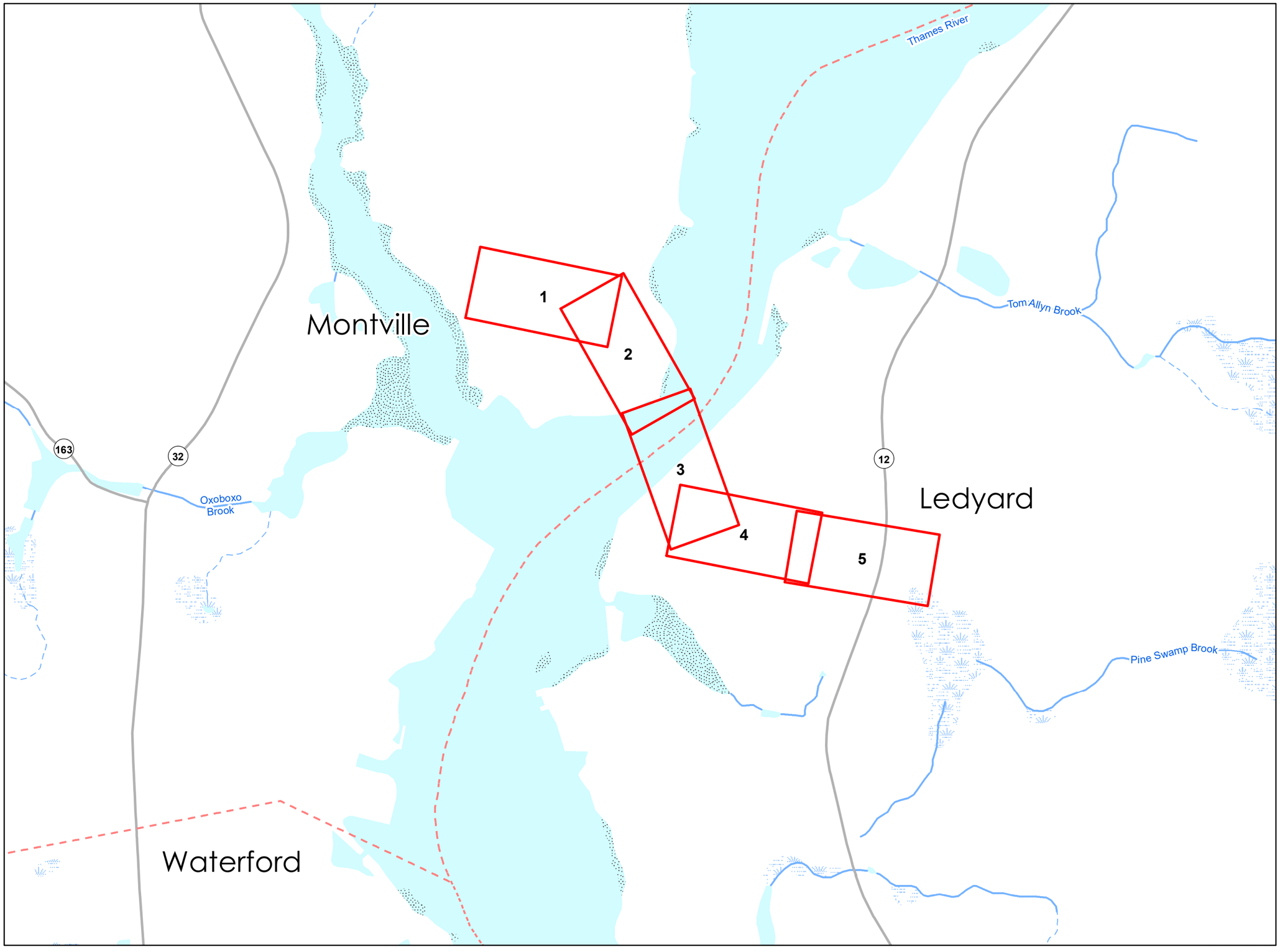
100 & 1410 TRANSMISSION LINES

EVERSOURCE ENERGY

INDEX SHEET

0 500 1,000 2,000

Feet



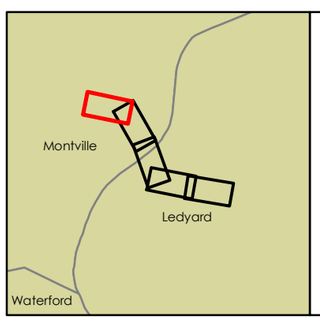
Legend

- Page Index
- Town Boundary
- State Route
- Perennial Stream
- Intermittent Stream
- Open Water
- Flats
- Marsh

GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

Date: 10/21/2016

Line List Number	Owner Name	Site Address
109	GORTON STANLEY R	2 POINT BREEZE ROAD, UNCASVILLE, CT
110	D ELIA LOLA ANN & JACK A	6 POINT BREEZE ROAD, UNCASVILLE, CT



Legend

- Proposed Structure
- Structure to be Removed
- Existing Structure
- Transmission Line
- Approximate Utility Rights of Way
- Proposed Clearing Area
- Gate
- Access- Existing
- Town Line Boundary
- Parcel Boundary
- 100-yr Floodzone
- Existing Well Location
- Railroad
- Rare Species Habitat
- Proposed Pull Pad
- Proposed Work Pad
- Proposed Staging Area
- Proposed Temporary Construction Mat Retaining Wall

Map Labels

100 Line List ID

Data Sources: GZA, Eversource, CT DEEP, FEMA, Base Map acquired from ESRI Online Mapping Service

N W E S

0 50 100 Feet

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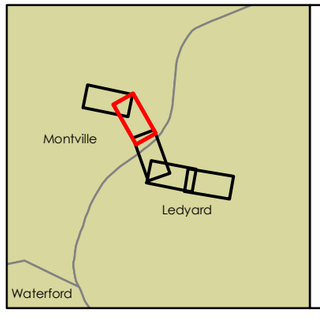
THAMES RIVER CROSSING PROJECT

EVERSOURCE ENERGY

100 & 1410 Transmission Lines

SHEET 1 of 5

Line List Number	Owner Name	Site Address
109	GORTON STANLEY R	2 POINT BREEZE ROAD, UNCASVILLE, CT
110	D ELIA LOLA ANN & JACK A	6 POINT BREEZE ROAD, UNCASVILLE, CT
111	GIBSON JEREMY & DANA	10 POINT BREEZE ROAD, UNCASVILLE, CT



Legend

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Map Labels

100 Line List ID

Data Sources: GZA, Eversource, CT DEEP, FEMA, Base Map acquired from ESRI Online Mapping Service

0 50 100 Feet

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THAMES RIVER CROSSING PROJECT

EVERSOURCE ENERGY

100 & 1410 Transmission Lines

SHEET 2 of 5

Line List Number	Owner Name	Site Address
112	TRINSCO LLC	1761 ROUTE 12, LEDYARD, CT

SELECTIVE TREE REMOVAL REQUIRED

Providence & Worcester Railroad

100 / 1410 LINE

1410 LINE

100 LINE

112

111

7014

7014

7015A

7015

7015B

MATCH LINE SHEET 2

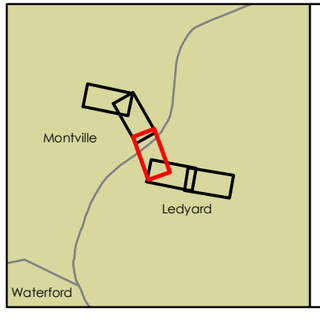
MATCH LINE SHEET 4

Thames River

Ledyard

Montville

CURRENT TOWN(S): MONTVILLE, LEDYARD



Legend

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Map Labels

100 Line List ID

Data Sources: GZA, Eversource, CT DEEP, FEMA, Base Map acquired from ESRI Online Mapping Service

0 50 100 Feet

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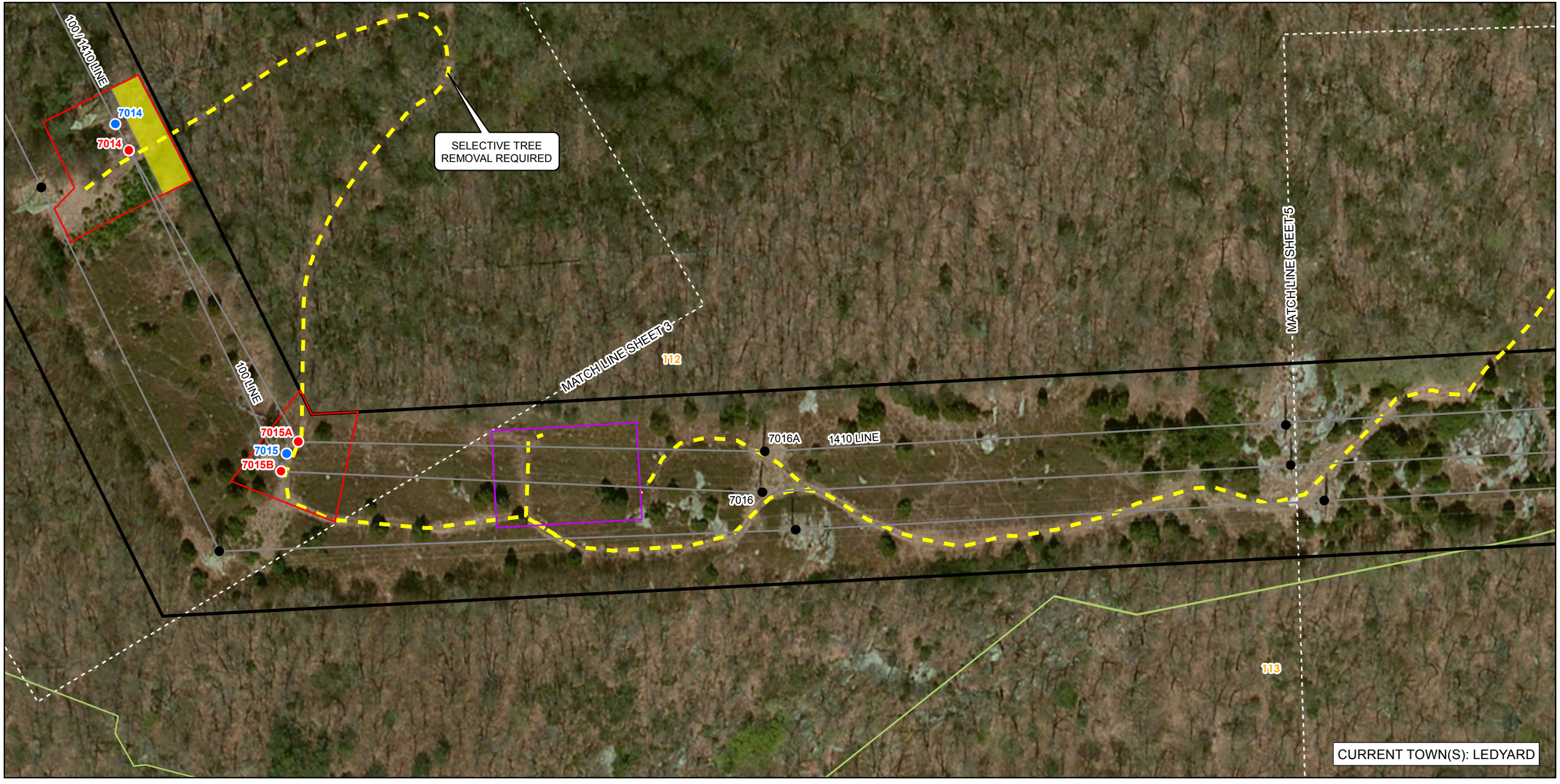
THAMES RIVER CROSSING PROJECT

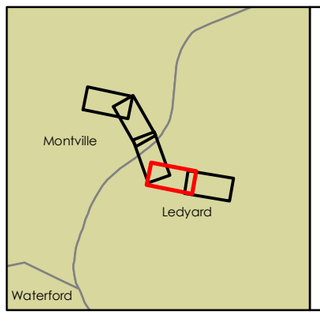
EVERSOURCE ENERGY

100 & 1410 Transmission Lines

SHEET 3 of 5

Line List Number	Owner Name	Site Address
112	TRINSCO LLC	1761 ROUTE 12, LEDYARD, CT
113	B UNITED METHODIST CHURCH OF, GALES FERRY INC	6 CHAPMAN LANE, LEDYARD, CT





Legend

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Map Labels

100 Line ID

Data Sources: GZA, Eversource, CT DEEP, FEMA, Base Map acquired from ESRI Online Mapping Service

N W E S

0 50 100 Feet

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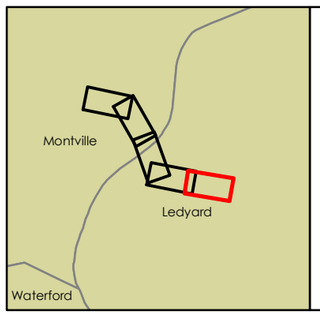
THAMES RIVER CROSSING PROJECT

EVERSOURCE ENERGY

100 & 1410 Transmission Lines

SHEET 4 of 5

Line List Number	Owner Name	Site Address
112	TRINSCO LLC	1761 ROUTE 12, LEDYARD, CT
113	B UNITED METHODIST CHURCH OF, GALES FERRY INC	6 CHAPMAN LANE, LEDYARD, CT



Legend

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Map Labels

100 Line List ID

Data Sources: GZA, Eversource, CT DEEP, FEMA, Base Map acquired from ESRI Online Mapping Service

N W E S

0 50 100 Feet

EVERSOURCE ENERGY

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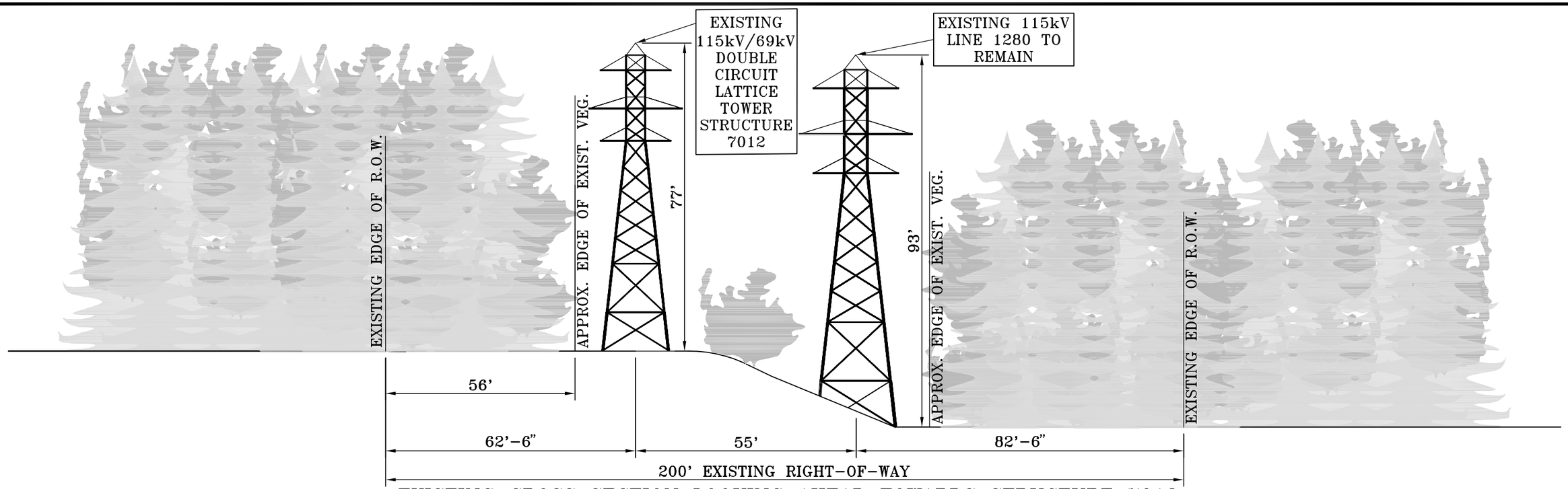
THAMES RIVER CROSSING PROJECT

EVERSOURCE ENERGY

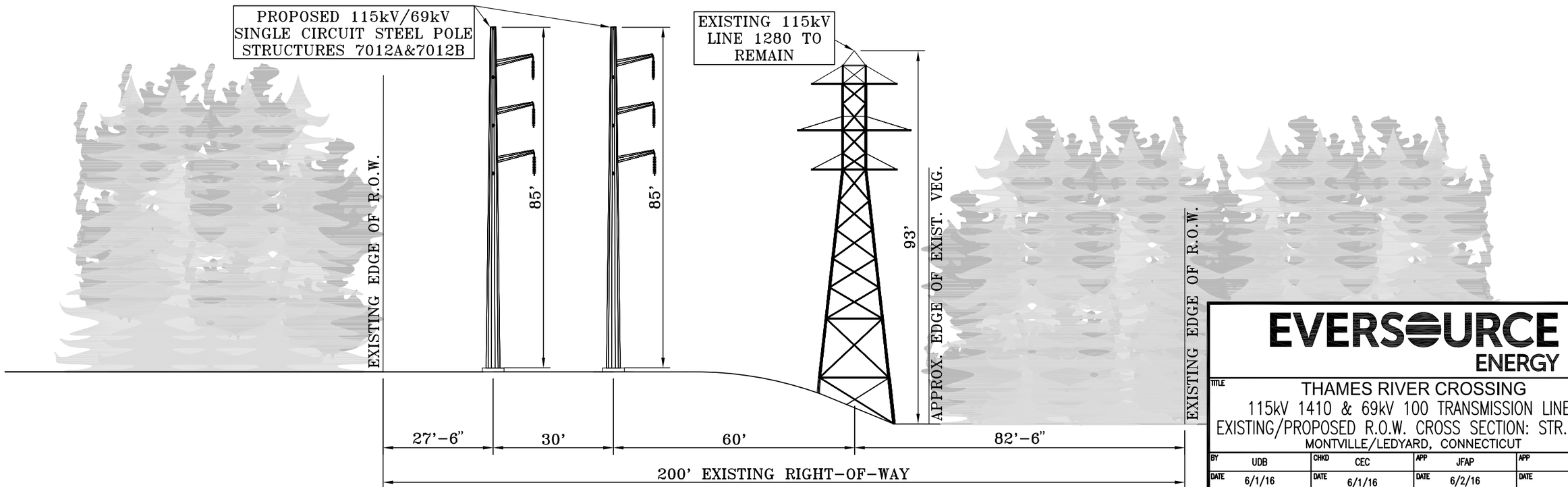
100 & 1410 Transmission Lines

SHEET 5 of 5

ATTACHMENT B



EXISTING CROSS SECTION LOOKING AHEAD TOWARDS STRUCTURE 7013

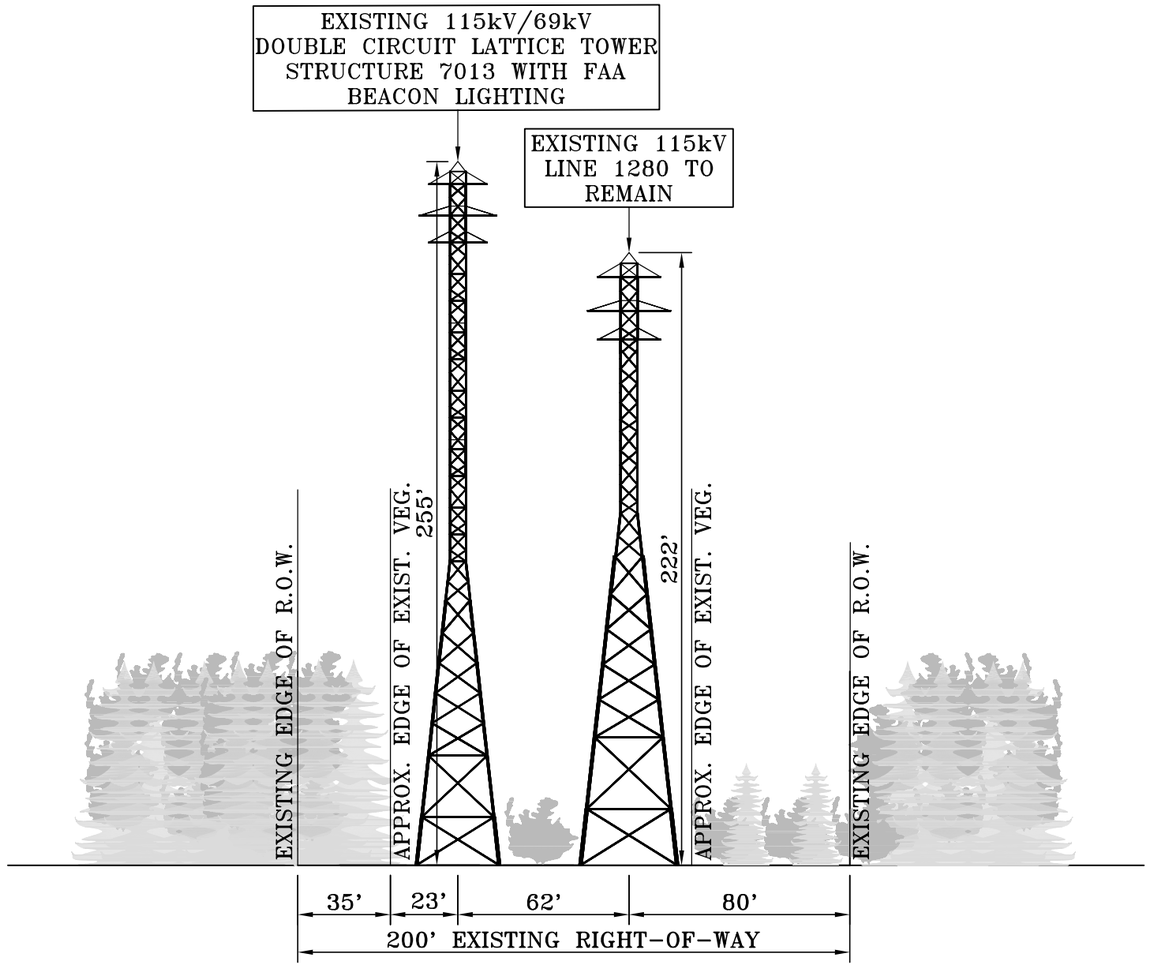


PROPOSED CROSS SECTION LOOKING AHEAD TOWARDS STRUCTURE 7013

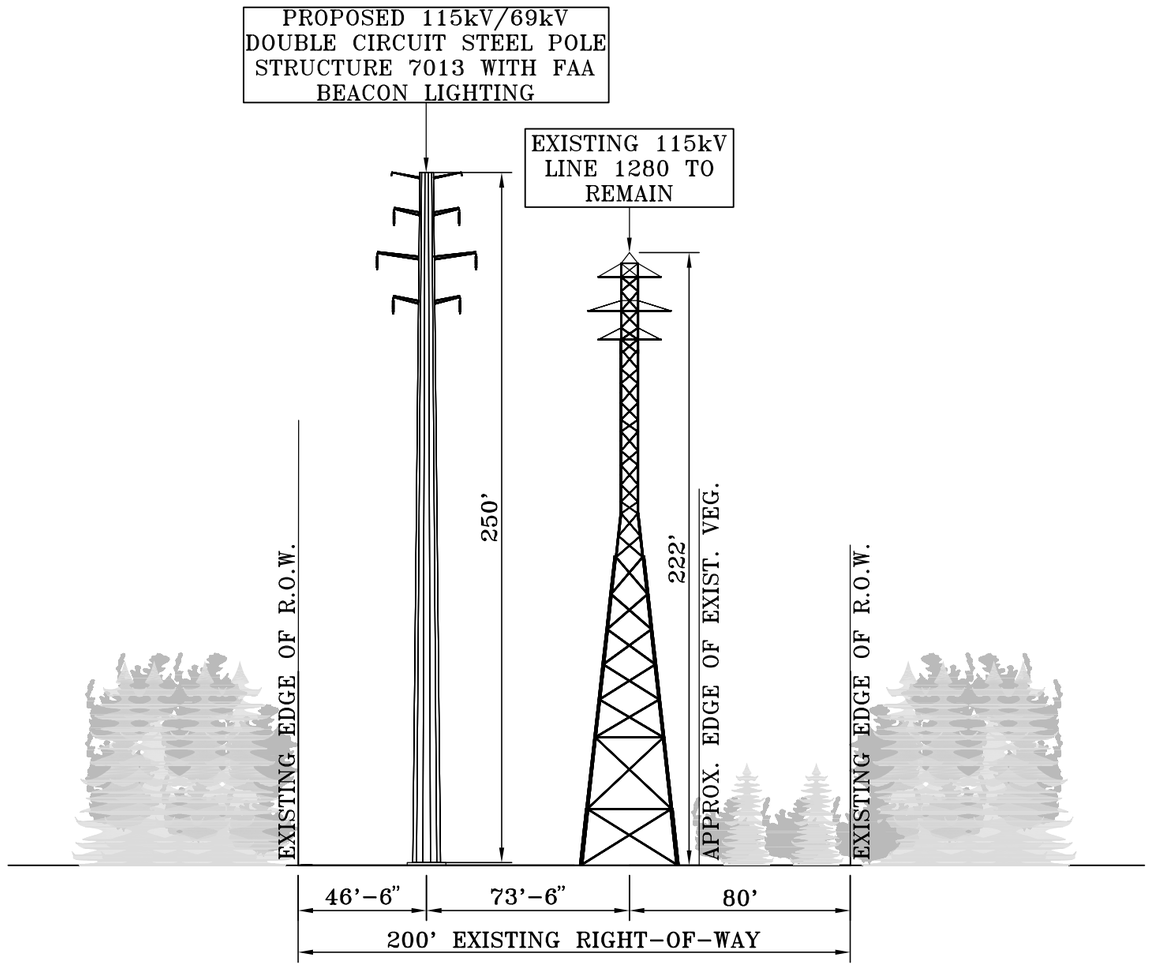
EVERSOURCE ENERGY

TITLE
THAMES RIVER CROSSING
115kV 1410 & 69kV 100 TRANSMISSION LINES
EXISTING/PROPOSED R.O.W. CROSS SECTION: STR. 7012
MONTVILLE/LEDYARD, CONNECTICUT

BY	UDB	CHKD	CEC	APP	JFAP	APP	
DATE	6/1/16	DATE	6/1/16	DATE	6/2/16	DATE	
H-SCALE	N.T.S.	SIZE	B	FIELD BOOK & PAGES			
V-SCALE	N.T.S.	V.S.		R.E. DWG			
R.E. PROJ. NUMBER				DWG NO.	PG 1		



EXISTING CROSS SECTION LOOKING AHEAD TOWARDS STRUCTURE 7014

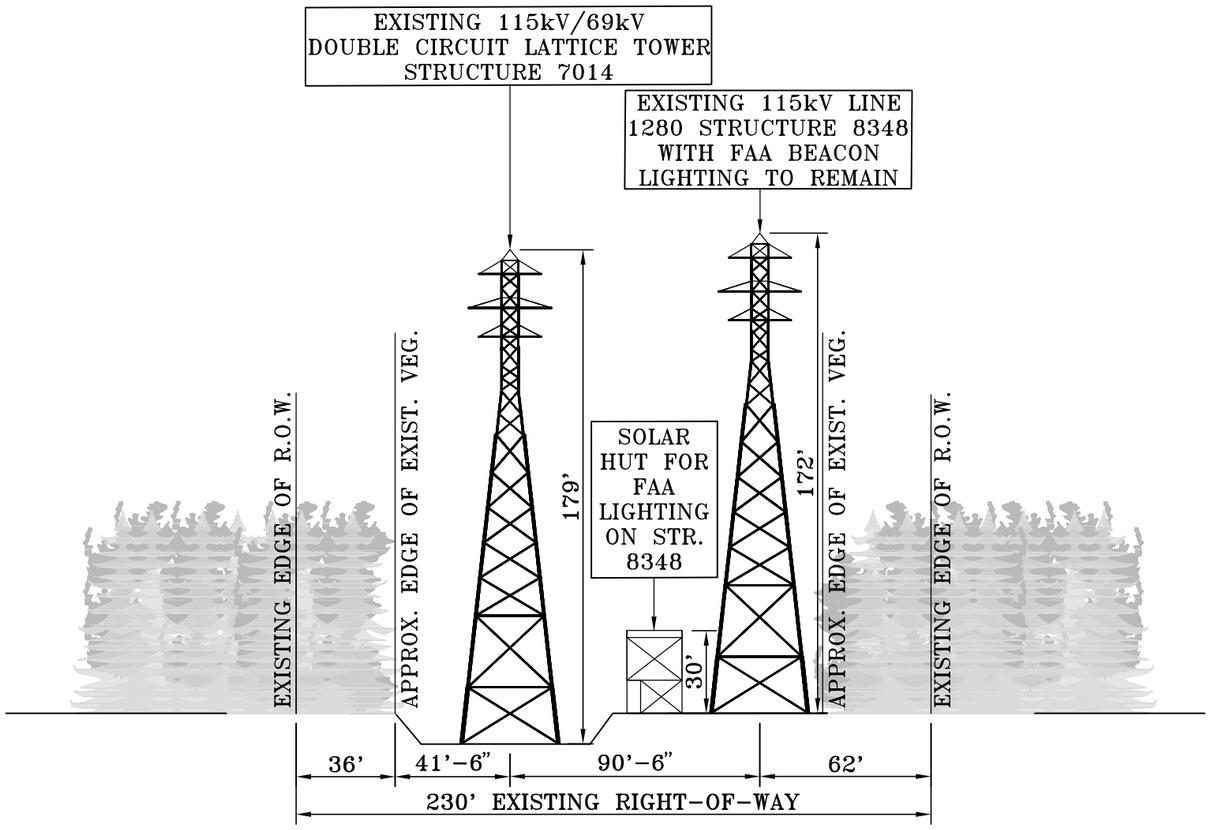


PROPOSED CROSS SECTION LOOKING AHEAD TOWARDS STRUCTURE 7014

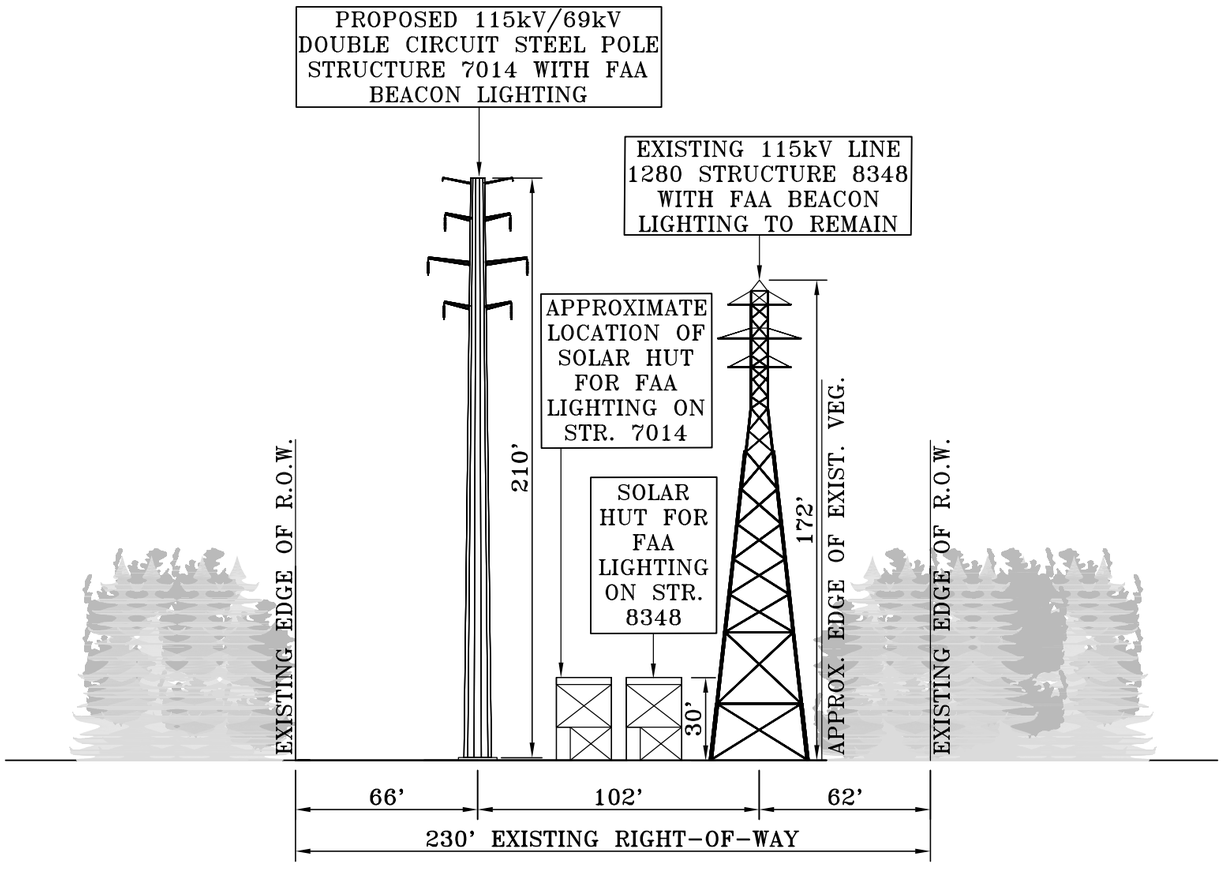
EVERSOURCE ENERGY

TITLE
THAMES RIVER CROSSING
115kV 1410 & 69kV 100 TRANSMISSION LINES
EXISTING/PROPOSED R.O.W. CROSS SECTION: STR. 7013
MONTVILLE/LEDYARD, CONNECTICUT

BY UDB	CHKD CEC	APP JFAP	APP
DATE 6/2/16	DATE 6/2/16	DATE 6/2/16	DATE
H-SCALE N.T.S.	SIZE B	FIELD BOOK & PAGES	
V-SCALE N.T.S.	V.S.	R.E. DWG	
R.E. PROJ. NUMBER		DWG NO. PG 2	



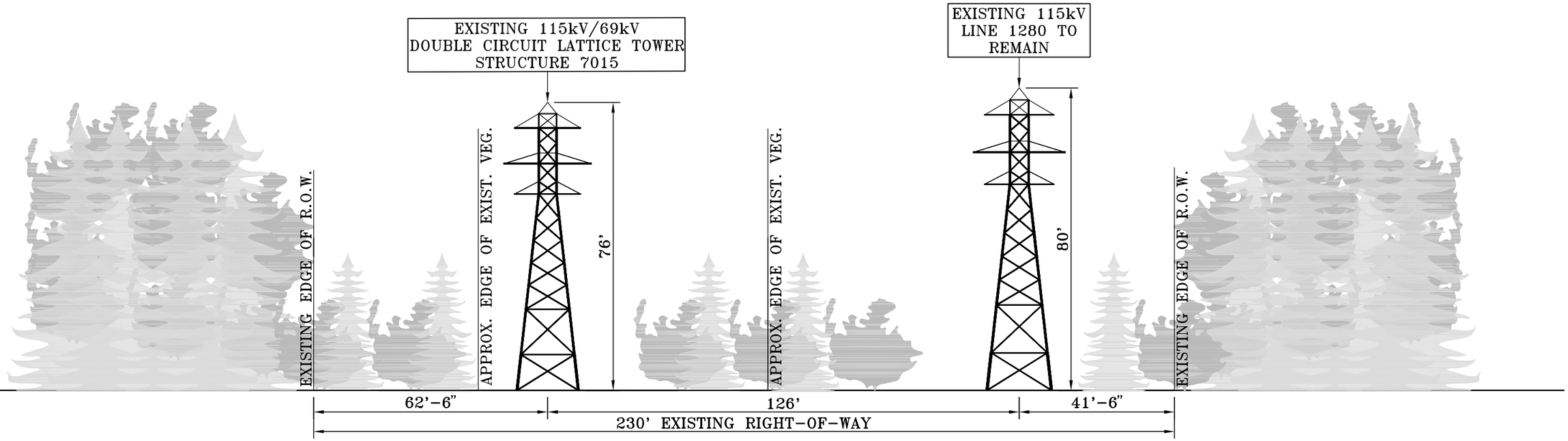
EXISTING CROSS SECTION LOOKING AHEAD TOWARDS STRUCTURE 7015



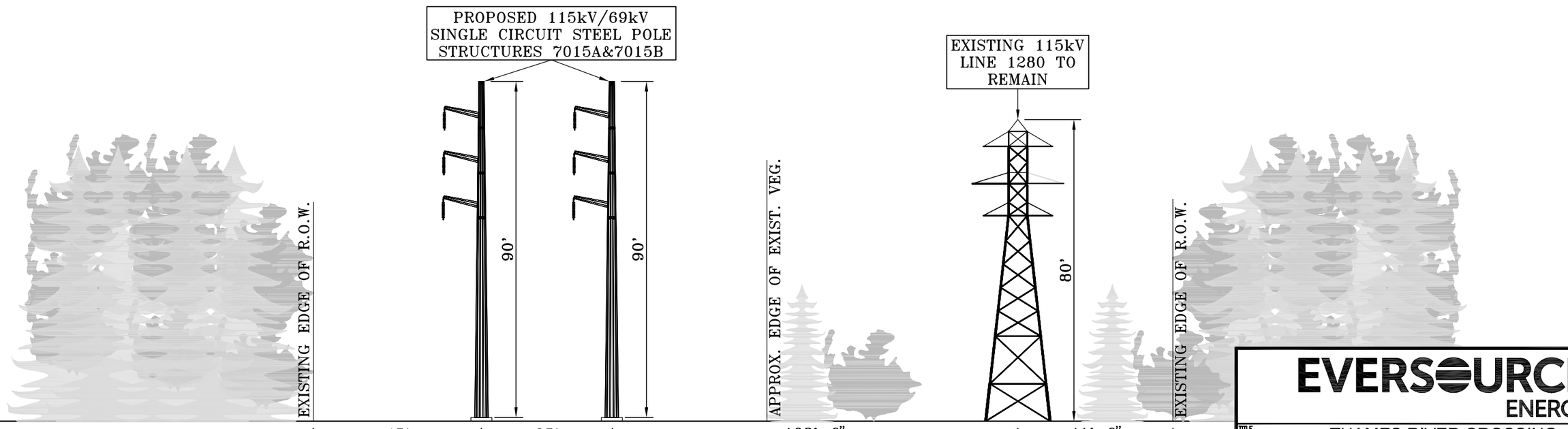
PROPOSED CROSS SECTION LOOKING AHEAD TOWARDS STRUCTURE 7015

EVERSOURCE ENERGY

TITLE: THAMES RIVER CROSSING 115kV 1410 & 69kV 100 TRANSMISSION LINES EXISTING/PROPOSED R.O.W. CROSS SECTION: STR. 7014 MONTVILLE/LEDYARD, CONNECTICUT			
BY UDB	CHKD CEC	APP JFAP	APP
DATE 6/2/16	DATE 6/2/16	DATE 6/3/16	DATE
H-SCALE N.T.S.	SIZE B	FIELD BOOK & PAGES	
V-SCALE N.T.S.	V.S.	R.E. DWG	
R.E. PROJ. NUMBER		DWG NO.	PG 3



EXISTING CROSS SECTION LOOKING AHEAD TOWARDS STRUCTURE 7016



PROPOSED CROSS SECTION LOOKING AHEAD TOWARDS STRUCTURE 7016

EVERSOURCE ENERGY

TITLE

THAMES RIVER CROSSING
115kV 1410 & 69kV 100 TRANSMISSION LINES
EXISTING/PROPOSED R.O.W. CROSS SECTION: STR. 7015
MONTVILLE/LEDYARD, CONNECTICUT

BY UDB	CHKD CEC	APP JFAP	APP
DATE 6/2/16	DATE 6/2/16	DATE 6/3/16	DATE
H-SCALE N.T.S.	SIZE B	FIELD BOOK & PAGES	
V-SCALE N.T.S.	V.S.	R.E. DWG	
R.E. PROJ. NUMBER		DWG NO.	PG 4

9/15/2016 2:01 PM - cechmielewski - C:\pw_work\pw_proj\cecurl\d0583570\ROW Cross Section PG 4.dwg - 100 IFR ES VER: 05/2015

ATTACHMENT C

AFFIDAVIT OF SERVICE OF NOTICE

STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

Sec. 16-50j-40 of the Regulations of Connecticut State Agencies ("RCSA") provides that proof of notice to the affected municipalities, property owners and abutters shall be submitted with a petition for declaratory ruling to the Connecticut Siting Council ("Council"). In accordance with that RCSA section, I hereby certify that I caused notice of proposed modifications of The Connecticut Light and Power Company doing business as Eversource Energy to be served by mail or courier upon the following municipal officials:

Municipal Officials:

The Honorable Mayor Ronald McDaniel
Montville Town Hall, 2nd Floor
310 Norwich-New London Turnpike
Uncasville, CT 06382

The Honorable Mayor Michael Finkelstein
741 Colonel Ledyard Highway
Ledyard, CT 06339-1511

I also certify that I caused notice of the proposed modifications to be served by mail or courier upon six owners of abutting properties shown on the maps in Attachment A to the Petition.

Kenneth Roberts
Lead Project Manager

On this the 21st day of October, 2016, before me, the undersigned representative, personally appeared, Kenneth Roberts, known to me (or satisfactorily proven) to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

Gina M. Leo

Notary Public
My Commission expires:

GINA M. LEO
NOTARY PUBLIC
MY COMMISSION EXPIRES FEB. 28, 2021

EVERSOURCE ENERGY

P.O. Box 270
Hartford, CT 06141-0270

October 21, 2016

Dear Neighbor,

This letter is to inform you of the proposed electric system upgrade in your area.

Eversource is submitting a petition to the Connecticut Siting Council (CSC) on October 20, 2016 to upgrade approximately 0.5 miles of existing transmission line between Montville and Ledyard. The upgrade is necessary to ensure the continued reliability of the transmission line. The scope of the proposed work includes:

- Replacement of four lattice tower structures with six steel monopole structures and their associated hardware.
- Repaint two existing structures. No other modifications or upgrades to these structures.
- The height of the proposed structures would be approximately 5 to 35 feet taller than the existing structures.
- Installation of static wire and optical ground wire (OPGW) on the proposed structures.
- FAA lighting will be installed in accordance with the FAA regulations.

Pending the CSC approval of the transmission line upgrades, construction work for the access roads, work areas, and any right-of-way clearing would start fall 2016. Construction and restoration will be completed in fall 2017. This schedule is subject to change due to weather delays or other circumstances.

If approved, the upgrade work will be taking place on the Eversource right-of-way that is on or bordering your property. The construction work is likely to involve vegetation clearing, improvement of existing access roads, and preparations for setting up safe working conditions around structures and wire-pulling locations.

If you would like to send comments or concerns regarding Eversource's petition to the CSC, please send them via e-mail to siting.council@ct.gov or a letter to the following address:

Melanie Bachman, Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

For more information about this Project, please call the Eversource Transmission Information Line at 1-800-793-2202, or send an email to TransmissionInfo@eversource.com.

Sincerely,

Ken Roberts
Eversource Project Manager