



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
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**VIA ELECTRONIC MAIL & CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

January 5, 2024

Deborah Denfeld
Team Lead – Transmission Siting
Eversource Energy
P.O. Box 270
Hartford, CT 06141
deborah.denfeld@eversource.com

RE: **PETITION NO. 1593** – The Connecticut Light and Power Company d/b/a Eversource Energy petition for the proposed Montville Substation to North of Kitemaug Road Rebuild Project consisting of the replacement and reconductoring of electric transmission line structures along approximately 1.1 miles of its existing electric transmission line right-of-way shared by its existing 115-kilovolt (kV) 1090 and 1000 Lines between Montville Substation and approximately 1200 feet north of Kitemaug Road in Montville, Connecticut, and related electric transmission line and substation improvements. **Final Decision.**

Dear Deborah Denfeld:

At a public meeting held on January 4, 2024, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need, and with the following conditions:

1. Approval of any project changes be delegated to Council staff;
2. Incorporate pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible;
3. Use of net-less E&S controls to prevent wildlife entanglement;
4. An environmental monitor shall oversee construction activities in sensitive resource areas;
5. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;
6. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;

7. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Town of Montville;
8. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed **along with a representative photograph of the facility**;
9. The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;
10. This Declaratory Ruling may be transferred or partially transferred, provided both the facility owner/operator/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. The Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer. Both the facility owner/operator/transferor and the transferee shall provide the Council with a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility, including contact information for the individual acting on behalf of the transferee; and
11. This Declaratory Ruling may be surrendered by the facility owner/operator upon written notification to the Council.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition dated September 19, 2023 and additional correspondence dated November 29, 2023.

Enclosed for your information is a copy of the staff report on this project.

Sincerely,



Melanie A. Bachman
Executive Director

MAB/MP/dll

Enclosure: Staff Report dated January 4, 2024

c: The Honorable Leonard Bunnell Sr., Mayor, Town of Montville (lbunnell@montville-ct.org)
Kathleen Shanley, Eversource Energy (Kathleen.shanley@eversource.com)

STATE OF CONNECTICUT)

: ss. Southington, Connecticut January 5, 2024

COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Decision and Staff Report in Petition No. 1593 issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



Melanie A. Bachman
Executive Director
Connecticut Siting Council

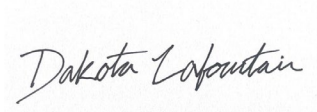
STATE OF CONNECTICUT)

: ss. New Britain, Connecticut January 5, 2024

COUNTY OF HARTFORD)

I certify that a copy of the Connecticut Siting Council Decision and Staff Report in Petition No. 1593 has been forwarded by Certified First Class Return Receipt Requested mail, on January 5, 2024, to each party and intervenor, or its authorized representative, as listed on the attached service list, dated September 20, 2023.

ATTEST:



Dakota LaFountain
Clerk Typist
Connecticut Siting Council

LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Petitioner	<input checked="" type="checkbox"/> E-mail	The Connecticut Light and Power Company d/b/a Eversource Energy	Deborah Denfeld Team Lead – Transmission Siting Eversource Energy P.O. Box 270 Hartford, CT 06141 Phone: (860) 728-4654 deborah.denfeld@eversource.com



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Petition No. 1593

The Connecticut Light and Power Company d/b/a Eversource Energy Monville Substation to North of Kitemaug Road Rebuild Project Montville

Staff Report January 4, 2024

Introduction

On September 20, 2023, the Connecticut Siting Council (Council) received a petition from The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k, for the Montville Substation to North of Kitemaug Road Rebuild Project (Petition or Project) within existing Eversource electric transmission line right-of-way (ROW) in the Town of Montville (Town).

The Project consists of the replacement of electric transmission line structures and conductors, and the replacement of shield wire with optical ground wire (OPGW)¹ on the 1090 and 1000 Lines along approximately 1.1 miles of existing ROW between Montville Substation in Montville; and north of Kitemaug Road in Montville; and related electric transmission line and substation improvements.

On September 19, 2023, in compliance with Regulations of Connecticut State Agencies (RCSA) §16-50j-40, Eversource provided notice of the proposed Project to the Town and abutting property owners.

On September 21, 2023, the Council sent correspondence to the Town stating that the Council has received the Petition and invited the Town to contact the Council with any questions or comments by October 20, 2023. No comments were received from the Town.

Under RCSA §16-50j-40, neither Eversource nor the Council is required to provide notice to the state agencies listed in CGS §16-50j(g) when a petition for a declaratory ruling for modifications to an *existing facility* is submitted to the Council. On September 28, 2023, the Council on Environmental Quality submitted comments on the Project.²

Under CGS §16-50x, the Council retains exclusive jurisdiction over the existing electric transmission line and substation facility sites. Under RCSA §16-50j-2a(29), “site” means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located. The Council cannot delegate its statutory authority to any other entity and it is not required to abide by comments from state agencies.³

The Council submitted interrogatories to Eversource on November 14, 2023. Eversource submitted responses to the interrogatories on November 29, 2023.

¹ OPGW contains a conductor for lightning protection and fiber optics for communications between substations. It would be installed overhead.

² https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1501-1600/PE1593/ProceduralCorrespondence/PE1593_STATEMEMO-CommentsRecd_a.pdf

³ *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007)

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take action on a petition for a declaratory ruling within 60 days of receipt. During a regular meeting held on November 9, 2023, pursuant to CGS §4-176(e), the Council voted to set the date by which to render a decision on the Petition as no later than March 18, 2024, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

Notice and Community Outreach

Eversource initiated outreach to the Town in June 2023. Eversource did not receive comments from the Town.

Eversource initiated outreach to property owners along the Project route in June 2023. All abutting property owners were notified of the Project and provided information on how to obtain additional information, as well as how to submit comments to the Council. During the construction phase of the Project, Eversource would maintain contact with the municipalities and abutting property owners to inform them of construction activities. Two property owners requested relocation of blueberry bushes that are within the ROW. One property owner requested temporary fencing during construction⁴ and removal of eight structure foundations that were not removed when the existing lattice structures were installed. Eversource will remove the structure foundations at the same time as the foundations for the existing lattice structures are removed.

Existing Facility Site

The existing facility site includes approximately 1.1 miles of existing Eversource ROW that extends through commercial, industrial and residential areas. It also crosses a railroad, wetlands, Gay Cemetery Pond, and Horton Cove. Montville Generating Station (MGS) is located east of Montville Substation and east of the railroad tracks.

The ROW was established in approximately 1952. Eversource's easements for the existing ROW grant Eversource rights to enter upon the right of way and to erect, repair, maintain, replace, inspect, operate, and remove upon, infrastructure related to the conduction of electricity. The easements also grant rights to trim, cut, and remove vegetation within the ROW.

Segment 1 of the Project ROW is approximately 200 feet wide from Montville Substation to north of Depot Road. It is managed to a width of 190 feet⁵ for Segment 1. Segment 2 of the Project ROW extends from north of Depot Road to the north side of Horton Cove. It is approximately 200 feet wide and managed to a width of 190 feet from Depot Road to approximately Structure 7606. From Structure 7606 to the south side of Horton Cove within Segment 2, the Project ROW is approximately 280 feet wide and managed to a width of 230 feet. At the end of Segment 2 along the north side of Horton Cove, the Project ROW is approximately 280 feet wide and managed to a width of 210 feet. This 280-foot wide junction splits into two separate Eversource ROWs: the 1090, 1000, and 1080 Lines in a northerly ROW and the 1280, 1410 and 1787 Lines in an easterly ROW. Segment 3 of the Project ROW (for the 1090, 1000 and 1080 Lines) is approximately 250 feet wide and managed to a width of 250 feet.

Vegetation management was last performed in portions of the Project ROW in 2022.

⁴ Previous work on this property utilized a chain link fence with sandbags.

⁵ According to the Federal Energy Regulatory Commission, "full right-of-way" means the portion of land for which a utility has documented legal rights to build and maintain transmission facilities. Managing a narrower maintained right-of-way, rather than the full right-of-way, is a relatively common industry practice, though not a best practice.

Project Development

The purpose of the proposed Project is to improve system reliability on 1090 and 1000 Lines by replacing shield wire with OPGW to facilitate Eversource's long term build out of its fiber optic network; replacing electric transmission line structures due to asset condition issues and to meet National Electrical Safety Code (NESC) clearance standards; and replacing conductor as a result of the pull tensions required to accommodate the vertical clearances on the taller replacement structures.

From Montville Substation to north of Kitemaug Road, the 1090 and 1000 Lines are supported on a total of 10 structures. Once the Project is complete, 10 of these structures would have been replaced including all 7 existing double-circuit lattice structures.

Prior to submitting this Petition, Eversource replaced Structure 7611A on the 1090 Line that was approved by the Council on January 20, 2023 in Petition 1545.

The Project is identified in the 2023 Eversource Forecast of Loads and Resources Report and in the October 2023 Independent System Operator New England, Inc. (ISO-NE) Regional System Plan Asset Condition List.⁶ There are no generation facilities listed on the ISO-NE interconnection queue associated with the proposed Project.

Cost

The total estimated cost of the Project is approximately \$10.29M. All of the total Project cost would be eligible for regional cost allocation as it is associated with Pool Transmission Facilities.⁷ Pending a final determination from ISO-NE, total costs are expected to be allocated⁸ as follows:

Eversource Connecticut ratepayers ⁹	19.2%	(\$1.97M)
Other Connecticut ratepayers ¹⁰	6.0%	(\$0.62M)
<u>Other New England ratepayers¹¹</u>	<u>74.8%</u>	<u>(\$7.70M)</u>
Cost Total	100%	(\$10.29M)

Proposed Project

The Project is proposed to address identified asset condition deficiencies by replacing aged conductors, replacing copper shield wire with OPGW, and replacing transmission structures to meet National Electrical Safety Code (NESC) standards. It includes the replacement of 5 double-circuit steel lattice structures with 5 double-circuit monopoles; replacement of 2 double-circuit steel lattice structures with 4 single-circuit monopoles; replacement of one double-circuit wood H-frame structure with two single-circuit monopoles; replacement of one double-circuit wood H-frame structure with a double-circuit monopole structure; and replacement of one single-circuit wood H-frame angle structure with a 3-pole dead-end steel structure. A 0.1-mile segment of existing conductor would remain because it has an estimated 10 to 20 years of service life remaining.

⁶ Entry #376.

⁷ ISO-NE defines Pool Transmission Facilities as facilities rated 69-kV or above owned by the participating transmission owners over which ISO-NE has operating authority in accordance with the terms set forth in the Transmission Operating Agreements.

⁸ These allocations are estimates based on 2022 actual loads.

⁹ Electrical service customers of Eversource and located within Connecticut.

¹⁰ Electrical service customers located within Connecticut but outside of Eversource's service territory.

¹¹ Electrical service customers located within New England but outside of Connecticut.

The Project requires taller structures to meet NESC standards, including, but not limited to, conductor clearance requirements. The NESC is the authoritative code for ensuring the continued practical safeguarding of persons and utility facilities during the installation, operation and maintenance of electric power and communications utility systems, including substations, overhead lines and underground lines.

NESC clearance requirements for conductor sway due to wind (blowout) are based on established horizontal clearance requirements during specific wind events to buildings (9.1 feet of clearance to the ROW edge for 115-kV conductors). Transmission lines are designed with the assumption that a building could be erected at any location along the ROW edge. To provide a buffer for construction tolerance, Eversource typically designs transmission corridors to have 11 feet of clearance to the ROW edge during specific wind events.¹²

NESC clearance requirements for conductor uplift and insulator swing were factored into the transmission line design. Conductor uplift is a condition where wire on a structure pulls up on the hardware instead of hanging down vertically. It typically occurs in spans where structures are located at different ground levels or have different heights. The amount of insulator swing on a transmission line depends on conductor tension, temperature, wind velocity, insulator weight, ratio of weight span to wind span, and line angle. These issues can be mitigated by taller structures in certain locations to increase the load tension of the insulators and the span weight load of the conductors.

1090 and 1000 Lines

The 1090 and 1000 Lines are 115-kV lines supported by double-circuit lattice structures installed in 1952. Two of the double-circuit lattice structures were replaced by double-circuit wood H-frame structures in 2016. The 1090 and 1000 Lines consists of 556 kcmil aluminum conductor steel reinforced (ACSR) conductors between Montville Substation and north of Kitemaug Road.

Segment 1– Montville Substation to North of Depot Road — 0.34 mile

Project work consists of the following:

- a) Replace 3 double-circuit steel lattice structures with 3 double-circuit galvanized steel monopoles;
- b) Replace 1 double-circuit steel lattice structure with 2 single-circuit galvanized steel monopoles;
- c) Replace approximately 0.34-mile of existing conductor with 1590-kcmil ACSS; and
- d) Replace approximately 0.34 mile of existing shield wire with OPGW.

Segment 2– North of Depot Road to the North Side of Horton Cove — 0.52 mile

Project work consists of the following:

- a) Replace 2 double-circuit steel lattice structures with 2 double-circuit galvanized steel monopoles;
- b) Replace 1 double-circuit steel lattice structures with 2 single-circuit galvanized steel monopoles;
- c) Replace approximately 0.52-mile of existing conductor with 1590-kcmil ACSS; and
- d) Replace approximately 0.52 mile of existing shield wire with OPGW.

Segment 3 – North Side of Horton Cove to North of Kitemaug Road — 0.23 mile

Project work consists of the following:

- a) Replace 1 double-circuit wood H-frame structure with 2 single-circuit galvanized steel monopoles;
- b) Replace 1 double-circuit wood H-frame structure with a double-circuit weathering steel monopole;
- c) Replace 1 single-circuit wood H-frame angle structure that supports the 1000 Line with a single-circuit weathering steel 3-pole dead-end monopole;
- d) Replace approximately 0.13-mile of existing conductor with 1590-kcmil ACSS;

¹² Petition 1527, response to Council interrogatory 12.

- e) Transfer 0.1 mile of existing 556 ACSR conductor on the 1090 and 1000 Lines for replacement Structures 7610 and 7611B, respectively; and
- f) Replace approximately 0.23 mile of existing shield wire with OPGW on the 1090 and 1000 Lines.

In addition to the structure replacements and OPGW installation, Project work includes installation of counterpoise and transfer of the existing lightning arrestors to the new structures, as needed.¹³

Project Construction

Eversource would utilize a portion of an existing staging/laydown area for the Project at 82 Depot Road in Montville. This staging/laydown area is approximately two acres. This staging/laydown area would contain Project equipment, office trailers, and vehicles. It would not be located within the existing ROW.

Eversource would utilize existing ROW access roads to the extent possible during construction. Where existing access roads are not present, new roads would be established. Multiple access roads are required so that equipment can access various construction zones along the ROW without relying on one point of access for long ROW segments. Construction matting would be utilized to install temporary access roads to protect sensitive areas (e.g. cultural resource areas, NDDB areas, and lawns) to reach certain structure locations.

Construction areas would be isolated by establishing erosion and sedimentation (E&S) controls in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and Eversource's April 2022 Best Management Practices Manual for Massachusetts and Connecticut (BMPs).¹⁴ Typical E&S control measures include, but are not limited to, biodegradable blankets, silt fencing, gravel anti-tracking pads, soil and slope protection, water bars, check dams, berms, swales, and plunge pools. Eversource BMPs prohibit the use of non-biodegradable plastic netting in E&S controls, and Eversource could utilize net-less E&S controls.

The Project limit of disturbance is less than one acre and would not require a DEEP Stormwater Permit.

The Project is eligible for certification through the U.S. Army Corps of Engineers (USACE) Self-Verification Notification process in regard to wetland impact. The self-verification notification forms would be submitted to the USACE - New England District prior to the start of Project construction.

At each transmission line structure location, a work pad would be constructed, if necessary, to stage material for final on-site assembly and/or removal of structures, to pull conductors and to provide a safe, level work base for construction equipment. Work pad dimensions would vary based on site specific conditions such as terrain, proximity to the existing and replacement structures, and the type of construction activities.

Work pads for structure replacements would typically range from approximately 125 feet by 125 feet to 150 feet by 150 feet. Pull pads, necessary to accommodate machinery needed for pulling conductors and/or OPGW, would typically be 130 feet by 80 feet. Most of the work pads would be composed of gravel. Temporary work pads would be used in sensitive areas such as wetlands, agricultural lands, meadow, and identified cultural resource areas.

The proposed structure foundations would be either drilled caisson foundations or have direct-embed foundations. Foundation installation work would require the use of equipment such as drill rigs, pneumatic hammers, augers, dump trucks, concrete trucks, grapple trucks, and light duty trucks. If groundwater is encountered, pumping trucks or other equipment would be utilized. The water would be managed in accordance with Eversource BMPs. New structure sections, components and hardware would be delivered by flatbed truck to the structure locations for assembly using a crane, bucket trucks and excavator.

¹³ Petition 1566, Eversource Responses to Spaulding Interrogatory Nos. 65 and 66 - Counterpoise is typically installed at structure locations under the outside phase conductors at a depth of 18 inches.

¹⁴ [2022 Eversource Best Management Practices MA, CT](#)

After the new structures are installed, OPGW and new conductor would be installed using conductor reels, pulling and tensioning rigs, guard trucks or structures, and bucket trucks. During crossings of Horton Cove and Gay Cemetery Pond, new conductor and OPGW would be installed by maintaining appropriate tension and utilizing construction means and methods such as a series of pulleys and ropes to avoid contact with water beneath the span.

After the new structures/conductors/OPGW are installed and the existing structures are removed, ROW restoration activities would commence. Restoration work would include the removal of construction debris, signage, flagging, temporary fencing, and construction mats and work pads that are designated for removal or mitigation. Affected areas would be re-graded as practical and stabilized via revegetation or other measures before removing temporary E&S controls. ROW restoration would be performed in accordance with Eversource BMPs and in consultation with affected property owners.

Except for concrete trucks, no construction equipment or vehicle washing would be allowed in the ROW. In accordance with Eversource's BMPs, concrete truck wash-out would occur only in upland areas of the ROW (a minimum of 50 feet from wetlands) to avoid or minimize the potential for impacts to water resources. All wash-out areas would include measures to control and contain wash-water and collect the cement wash-off for off-site disposal.

Project-related traffic would be expected to be temporary and highly localized in the vicinity of ROW access points and at the staging area. Due to the phasing of construction work, Project-related traffic is not expected to significantly affect transportation patterns or levels of service on public roads. Construction warning signs along public roads would be installed near work sites and flaggers or police personnel would be used to direct traffic, if necessary.

Environmental Effects and Mitigation Measures

The majority of the work would occur within a maintained ROW. Approximately 1.57 acres of tree clearing would be performed north of Horton Cove to meet NESC clearance standards. Such tree clearing would convert forestland to shrubland.

Vegetation removal/tree trimming would be accomplished using mechanical methods using flat-bed trucks, brush hogs or other types of mowing equipment, skidders, forwarders, bucket trucks, feller bunchers, woodchippers, log trucks, and chip vans. No tree clearing is expected to be necessary in wetlands. Vegetation removal activities would be performed in accordance with Eversource BMPs.

A total of 3 wetland areas and 2 watercourses/waterbodies - Horton Cove and Gay Cemetery Pond - occur along the ROW or in adjacent off-ROW areas. No work would be performed within wetlands or watercourses/waterbodies. No construction matting would be installed in wetland areas. Thus, no impacts to wetlands or watercourses/waterbodies are expected.

No vernal pools were identified within the wetlands.

E&S controls would be inspected weekly by a qualified inspector. The Project would comply with the USACE self-verification procedures and Eversource's BMPs. In addition, the qualified inspector would be on-site to monitor environmental resource protections as established in Eversource's BMP's and within the Final DEEP Natural Diversity Database (NDDB) Determination letter. An Environmental Monitor would conduct weekly inspections of resource areas for the duration of Project construction.

Invasive species mitigation measures would be conducted in accordance with Eversource's BMPs. Measures include the cleaning of temporary mats to prevent the introduction of invasive species into wetlands, the cleaning of vehicles, equipment, materials, gear, footwear or clothing of all visible soil and plant material on site known to contain invasives or as near as practical to the invasive area, prior to leaving the Project site.

Due to prior activities associated with the MGS, an area with an Environmental Land Use Restriction (ELUR), is located north of Montville Substation. OPGW and conductor would be pulled over the ELUR. However, the Project would not affect the ELUR because all groundwork areas and access roads would be located outside the limits of the ELUR.

The Project ROW extends across 100-year and 500-year Federal Emergency Management Agency-designated flood zones associated with Horton Cove. No proposed structures or equipment would be located within the 100-year or 500-year flood zones.

The Project is not within a Public Drinking Water Supply Watershed. There are no DEEP-designated Aquifer Protection Areas within the Project ROW. Notwithstanding, to protect subsurface water quality, Eversource would conduct work in accordance with its BMPs which include provisions for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease, and other lubricants.

Portions of the ROW contain proposed structure replacements, existing and proposed access, and work pads within the Coastal Boundary. Some tree clearing is necessary in this area to comply with NESC clearance standards. However, these construction areas are located within uplands areas of the ROW and would not affect any public access to coastal areas or result in impacts to coastal resources.

A DEEP NDDB Determination was issued for the Project on July 27, 2022. Four state-listed species may occur near the Project area. Eversource would implement DEEP recommended species-specific protection measures during construction, which include, but are not limited to, time of year best management practices.

Eversource also consulted with the U.S. Fish & Wildlife Service's (USFWS) Information, Planning and Consultation (IPaC) service regarding federally-listed species that may be present within the Project area. The IPaC report identified the northern long-eared bat (NLEB), a federally-listed and state-listed Endangered Species. There are no known NLEB maternity roost trees within 150 feet of the Project area, and the nearest known NLEB hibernaculum is located approximately 33 miles to the southwest in North Branford. On June 14, 2023, the USFWS issued a determination that the Project would have no effect on the NLEB.

No properties/districts listed on the National Register of Historic Places are located within 500 feet of the Project ROW. A Phase 1A Cultural Resources Assessment (Phase 1A) of the Project area identified one historic structure listed on the State Register of Historic Places and three previously identified archaeological sites within 500 feet of the Project ROW that possess a moderate to high archaeological sensitivity. A Phase 1B Cultural Resources Reconnaissance Survey (Phase 1B) was recommended if ground disturbance could not be avoided in these areas.

Ground disturbance would be avoided at two of the three work locations via construction matting. A Phase 1B was performed for the location where ground disturbance could not be avoided. No significant cultural materials were found at this location, and no further archaeological investigation was recommended. SHPO reviewed the results and concurred that no historic properties would be affected by the Project.

The nearest publicly-accessible recreational resource is a boat launch at the eastern end of Dock Road in Montville, located approximately 0.23 mile east of the Project ROW. The proposed Project is not expected to impact this resource.

The Decatur Trail is located in Gales Ferry, approximately 0.75 mile east of the Project ROW. The proposed Project is not expected to result in visual impacts on the Decatur Trail due to the distance, topography and intervening vegetation.

Disturbed areas would be stabilized using temporary E&S controls such as straw mulch, compost filters, and biodegradable erosion control blankets until final stabilization has been achieved. Monthly inspections would be conducted to monitor stabilization measures.

The Project would require increasing the height of many replacement structures to meet NESC clearance requirements within the existing ROW. Existing structures to be replaced on the lines range from 52 to 127 feet above ground level. The replacement structures on the lines would range from 56.5 feet to 187 feet above ground level, with an average height increase of 31.4 feet to meet NESC clearance requirements. Three replacement structures would increase in height by 40 feet or more, and of those, two are adjacent to Depot Road in Montville (increases of 45.5 and 60 feet each); and one is adjacent to Kitemaug Road in Montville (increase of 54.5 feet).

Due to the increase in structure heights to comply with NESC clearance criteria, there would be indirect visual impacts to the surrounding area. From Montville Substation to Horton Cove, the proposed structures would be galvanized steel to be comparable in appearance to other structures for the 1410/1787 and 1080/1280 Lines. North of Kitemaug Road, the proposed structures would be weathering steel to be comparable in appearance to the original wood structures and to blend in with the surrounding wooded landscape. Additionally, the replacement of lattice towers with monopoles would result in a more streamlined appearance. Thus, the change to the visual character of the transmission lines is expected to be minimal.

Public Safety

There would be no permanent changes to existing ROW sound levels after completion of the Project. Noise associated with construction activities is exempt from DEEP Noise Control Regulations. Notwithstanding, any construction-related noise would be short-term and localized in the vicinity of work sites.

Eversource evaluated the proposed replacement structures with the Federal Aviation Administration (FAA) Notice Criteria Tool, and no notice to the FAA is required.

Electric fields (EF) are produced whenever voltage is applied to electrical conductors and equipment. Electric fields are typically measured in units of kilovolts/meter (kV/m). As the weight of scientific evidence indicates that exposure to electric fields, beyond levels traditionally established for safety, does not cause adverse health effects, and as safety concerns for electric fields are sufficiently addressed by adherence to the NESC, as amended, health concerns regarding Electric and Magnetic Fields (EMF) focus on magnetic fields (MF) rather than EF. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has established a guideline of 4.2 kV/m.

The Project route contains an existing transmission line that emits MF. In the United States, no state or federal exposure standards for 60-Hertz MF based on demonstrated health effects have been established, nor are there any such standards established worldwide. However, the ICNIRP has established a level of 2,000 milliGauss (mG), based on extrapolation from scientific experimentation, and the International Committee on Electromagnetic Safety (ICES) has calculated a guideline of 9,040 mG for exposure to workers and the general public, and recognized in the Council's *Electric and Magnetic Field Best Management Practices for the Construction of Electric Transmission Lines in Connecticut*.

For Segments 1 and 2, MF at or beyond the western edge of the ROW is expected to decrease, and MF at the eastern edge of the ROW would increase by less than 1 mG. Changes to MF along Segment 3 are expected to be negligible. The highest calculated MF level is 40.8 mG at the western edge of the Segments 1 and 2 ROW, well below the ICNIRP and ICES recommended exposure standards.

Construction Schedule

Construction is expected to begin upon approval with anticipated completion by late 2024. Normal work hours would be Monday through Saturday from 7:00 a.m. to 7:00 p.m. Sunday work hours or evening work (i.e. after 7:00 p.m.) may be necessary due to unforeseen circumstances, delays caused by inclement weather and/or outage constraints.

Conclusion

If approved, staff recommends the following conditions:

1. Approval of any project changes be delegated to Council staff;
2. Incorporate pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible;
3. Use of net-less E&S controls to prevent wildlife entanglement; and
4. An environmental monitor shall oversee construction activities in sensitive resource areas.

Project Location

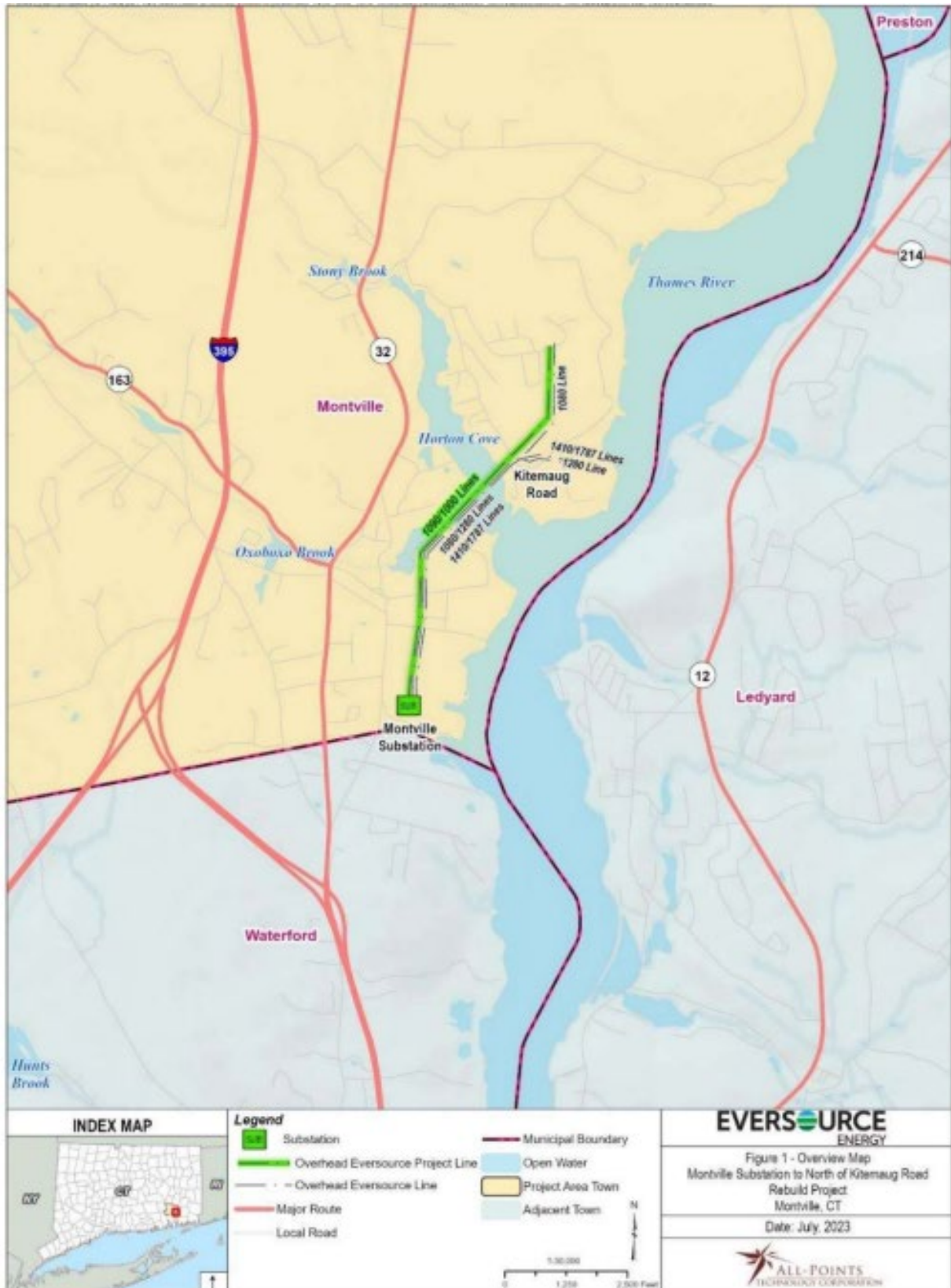
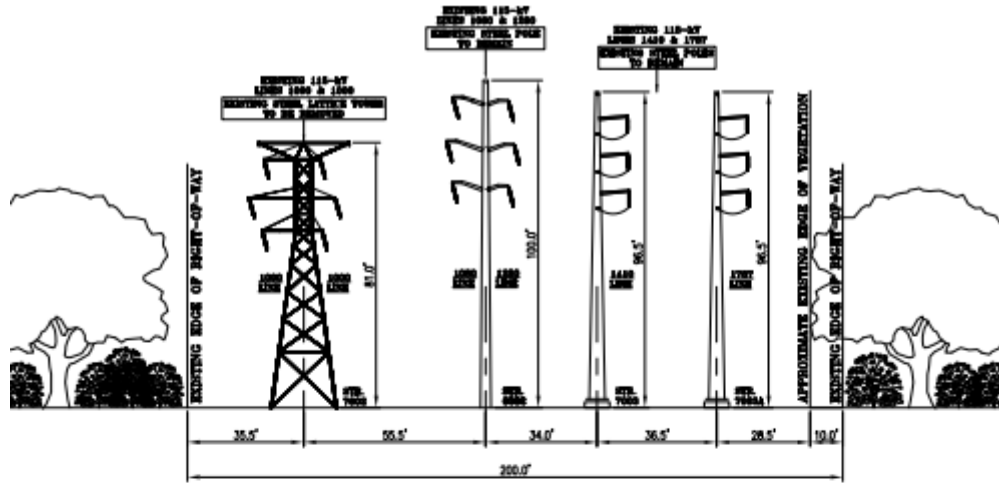
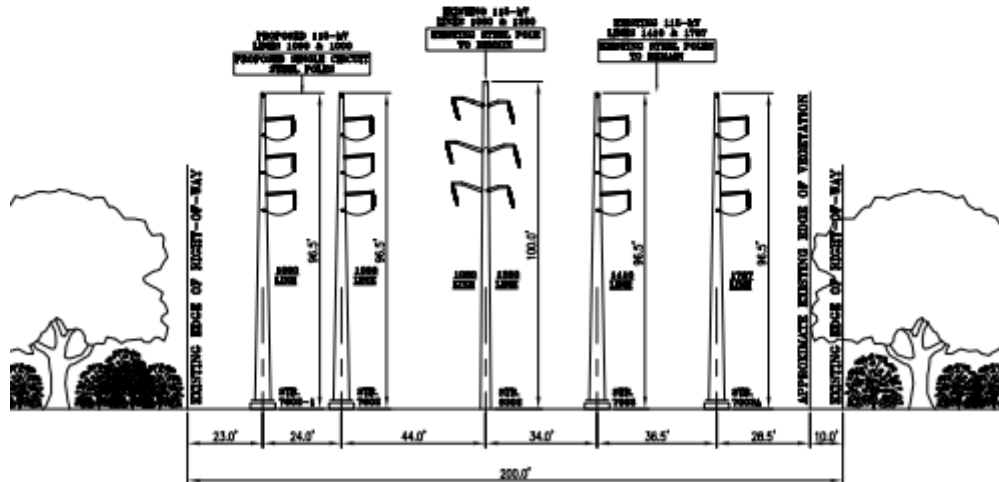


Figure 1 - Overview Map
Montville Substation to North of Kitemaug Road
Rebuild Project
Montville, CT
Date: July 2023

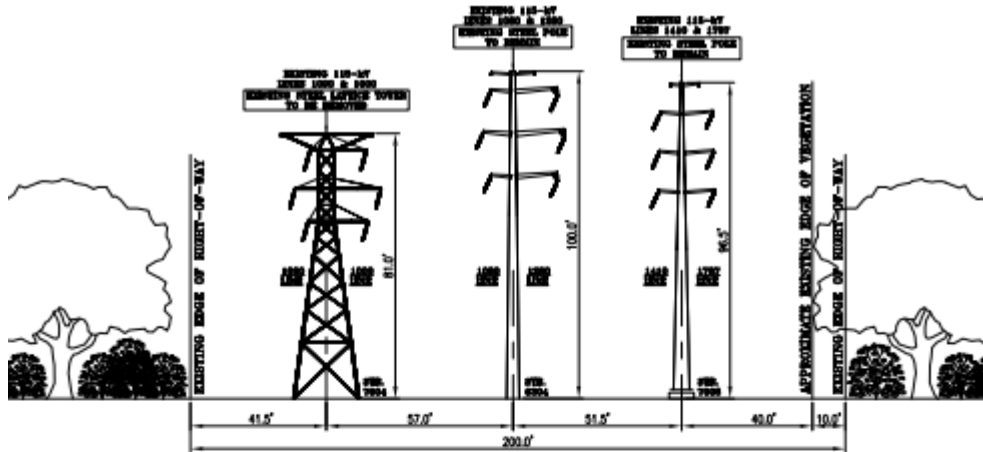
Project ROW Profiles



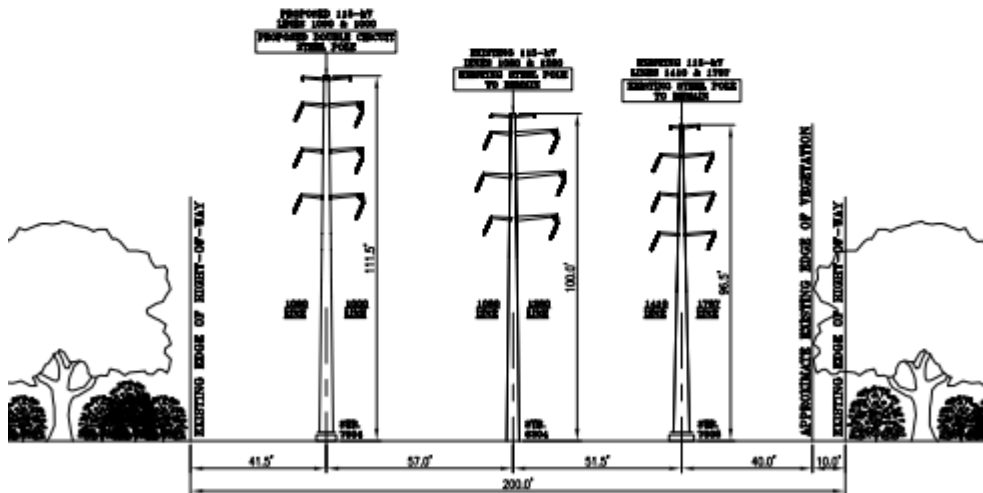
EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL LATTICE TOWER DESIGN
 LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
 IN THE TOWN OF MONTVILLE, CT
 STR. #7602



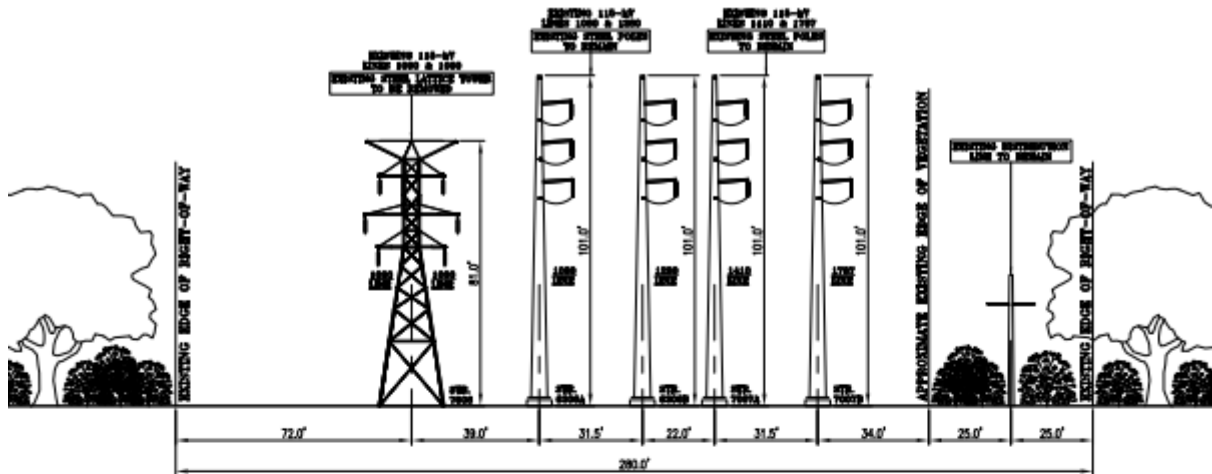
PROPOSED R.O.W. CONFIGURATION
SINGLE CIRCUIT STEEL POLE DESIGN
 LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
 IN THE TOWN OF MONTVILLE, CT
 STR. #7602 & 7602-1



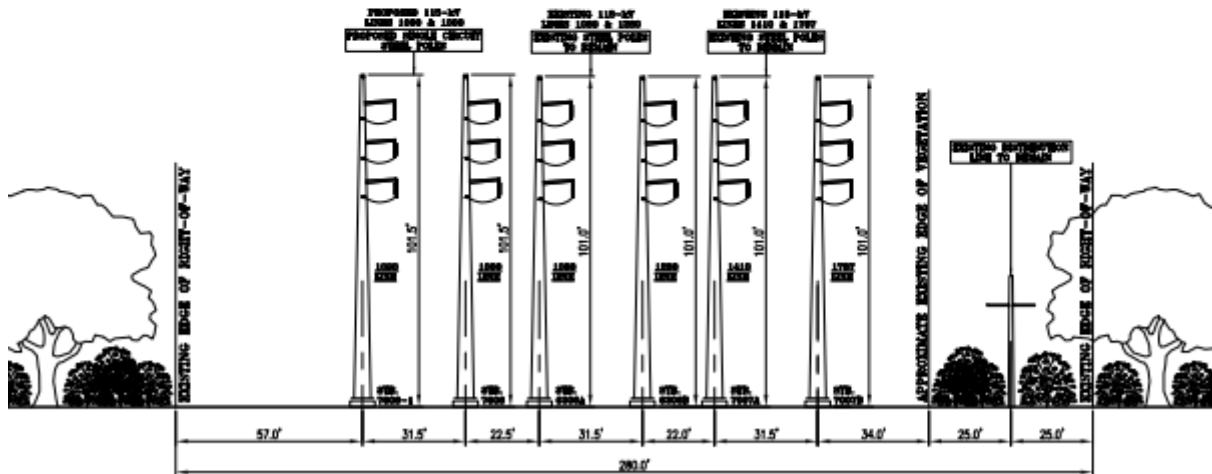
**EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL LATTICE TOWER DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7604**



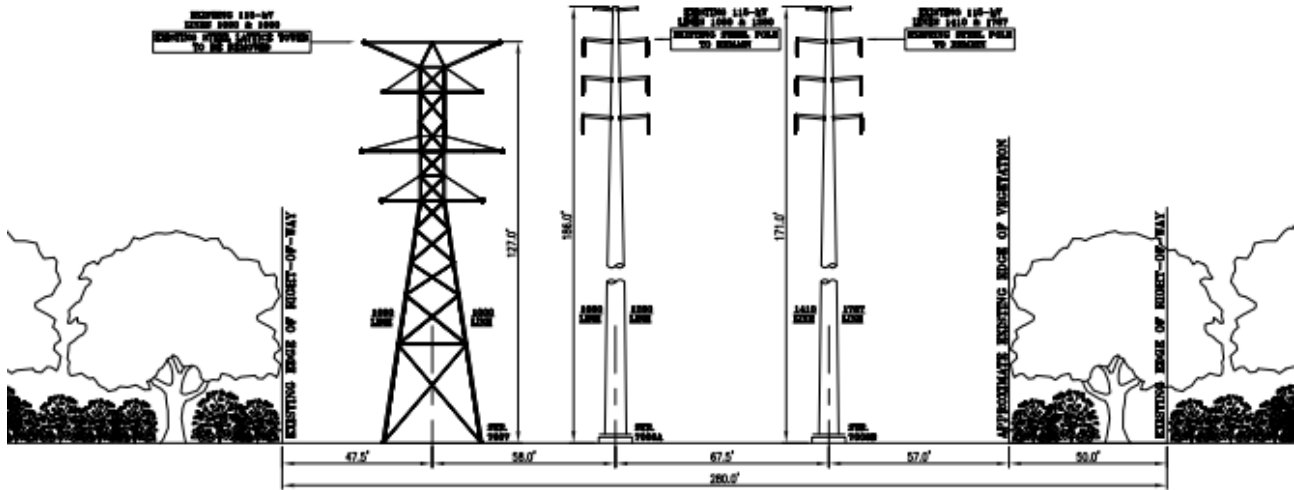
**PROPOSED R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL POLE DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7604**



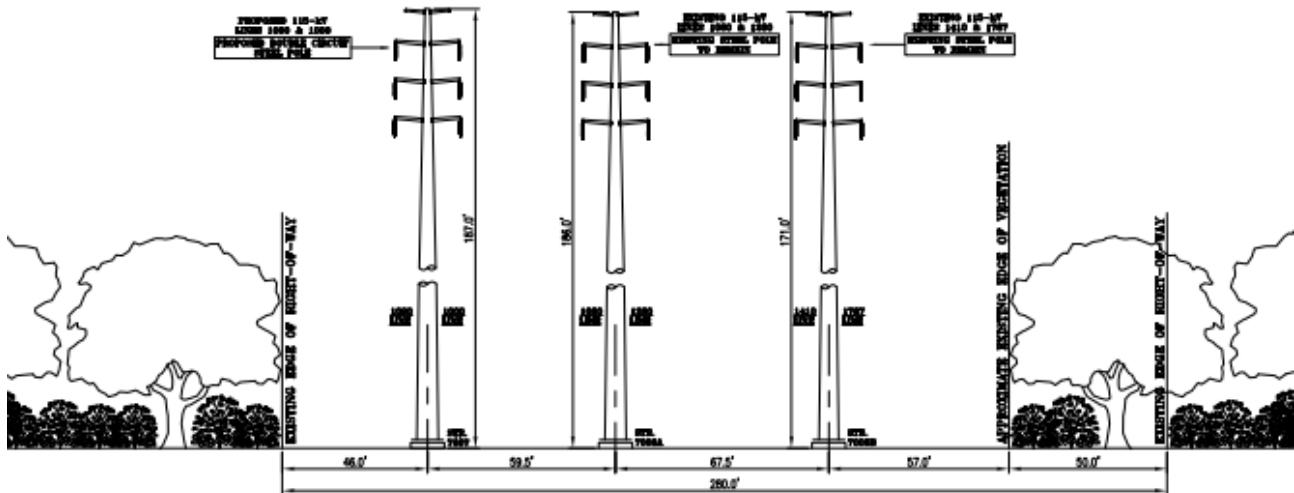
**EXISTING R.O.W. CONFIGURATION
 DOUBLE CIRCUIT STEEL LATTICE TOWER DESIGN
 LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
 IN THE TOWN OF MONTVILLE, CT
 STR. #7606**



**PROPOSED R.O.W. CONFIGURATION
 SINGLE CIRCUIT STEEL POLE DESIGN
 LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
 IN THE TOWN OF MONTVILLE, CT
 STR. #7606 & 7606-1**



EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL LATTICE TOWER DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7607



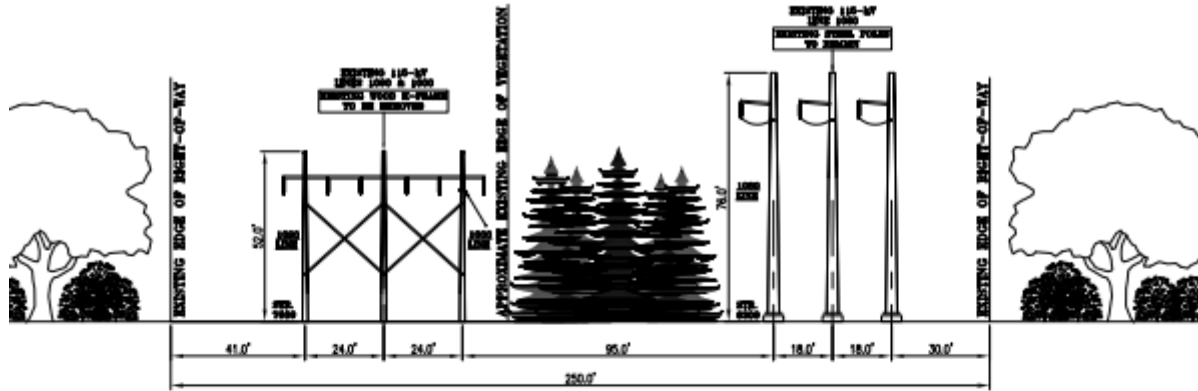
PROPOSED R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL MONPOLE DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7607



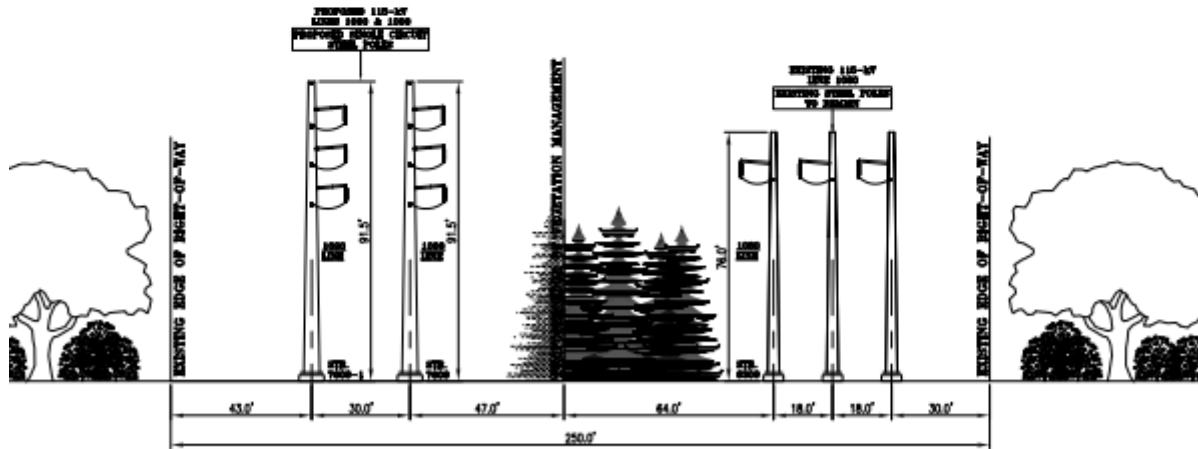
EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL LATTICE TOWER DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7608



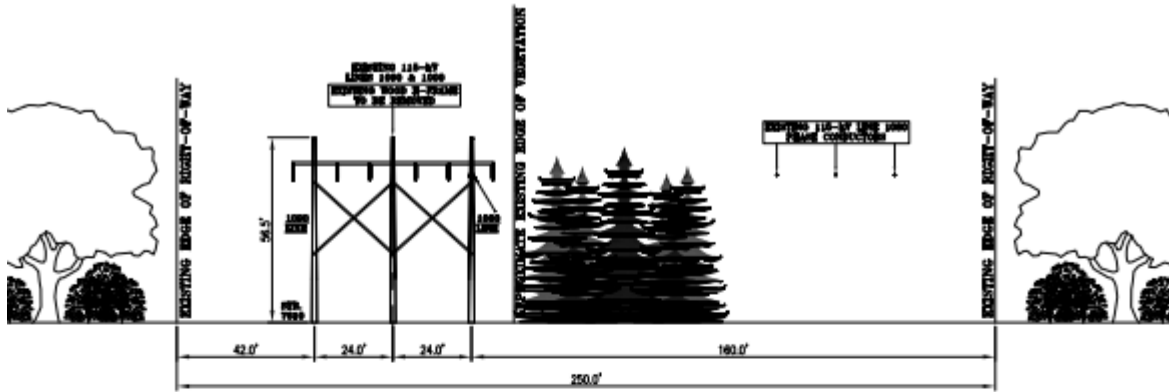
PROPOSED R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL MONOPOLE DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7608



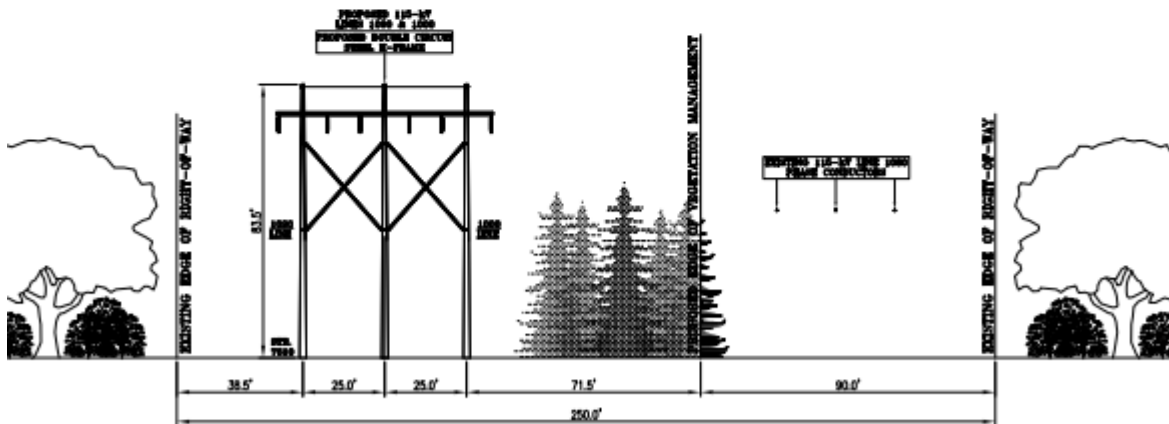
**EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT WOOD H-FRAME DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7609**



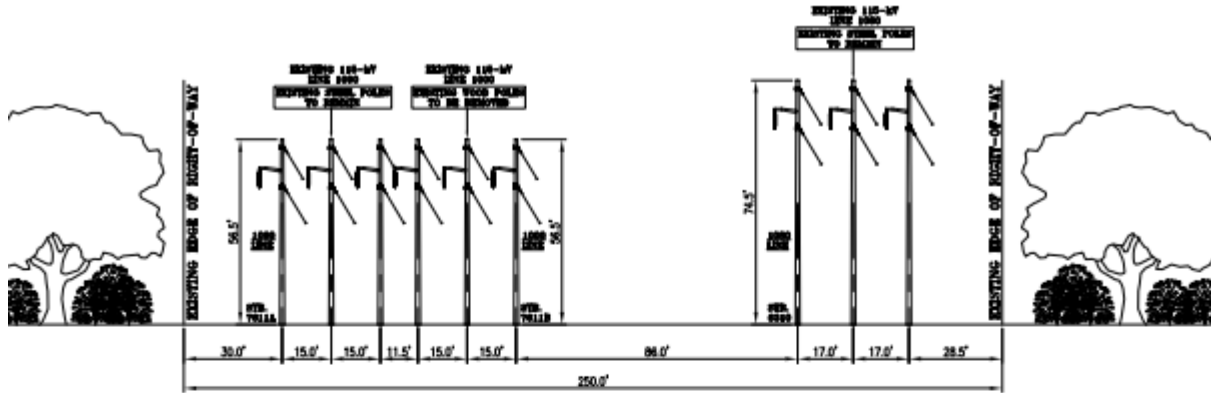
**PROPOSED R.O.W. CONFIGURATION
SINGLE CIRCUIT STEEL POLE DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7609 & 7609-1**



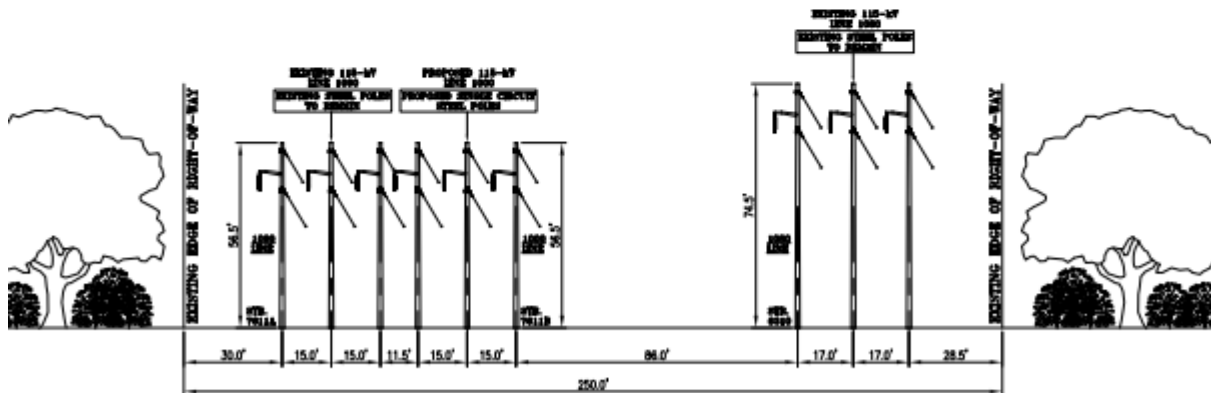
**EXISTING R.O.W. CONFIGURATION
DOUBLE CIRCUIT WOOD H-FRAME DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7610**



**PROPOSED R.O.W. CONFIGURATION
DOUBLE CIRCUIT STEEL H-FRAME DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7610**



EXISTING R.O.W. CONFIGURATION
SINGLE CIRCUIT WOOD POLE DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7611B



PROPOSED R.O.W. CONFIGURATION
SINGLE CIRCUIT STEEL POLE DESIGN
LOOKING FROM MONTVILLE SUBSTATION TO NORTH OF KITEMAUG ROAD
IN THE TOWN OF MONTVILLE, CT
STR. #7611B