

March 18, 2021

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

Re: 1588 Line Rebuild Project

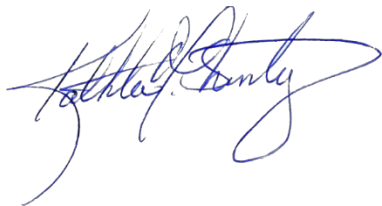
Dear Ms. Bachman:

The Connecticut Light and Power Company doing business as Eversource Energy ("Eversource") is requesting a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to an existing 115-kilovolt transmission line, ("1588 Line Rebuild Project") in the Town of Wallingford, Connecticut ("Petition").

Prior to submitting this Petition, representatives from Eversource briefed municipal officials in the Town of Wallingford about the Project. Eversource provided written notice of the proposed work and of the filing of this Petition with the Connecticut Siting Council ("Council") to all abutters. Maps and line lists identifying the abutting property owners who were notified of the Project are provided in the Petition as Attachment A: 1588 Line Rebuild Project – Aerial Maps.

Per the Council's instructions in response to COVID-19, Eversource is submitting this filing electronically and will be providing one hard copy for the Council's records. Eversource further understands that the Council will invoice the Company for the requisite \$625 filing fee.

Sincerely,



Kathleen M. Shanley

Enclosure

cc: The Honorable William W. Dickinson, Jr., Mayor, Town of Wallingford

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 THE EXISTING
1588 LINE IN THE TOWN OF WALLINGFORD, CONNECTICUT

1. Introduction

The Connecticut Light and Power Company doing business as 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 the modifications to the 1588 Line, a 115-kilovolt (“kV”) transmission line, located within an existing transmission right-of-way (“ROW”) in the Town of Wallingford, Connecticut (“Town”), as described herein (the “Project”) (See Figure 1, below). Eversource submits that a Certificate is not 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 recondutor the 1588 Line and replace all but one of the existing structures within approximately 2.65 miles of Eversource’s existing ROW that extends from Wallingford Electric’s Colony Substation, located at 15 Old Colony Road, Wallingford and Wallingford Electric’s North Wallingford Substation, located at 130 Thorpe Avenue, Wallingford¹. The existing shield wires would also be replaced with optical ground wire

¹ Though Wallingford Electric owns both substations, Eversource owns the transmission line.

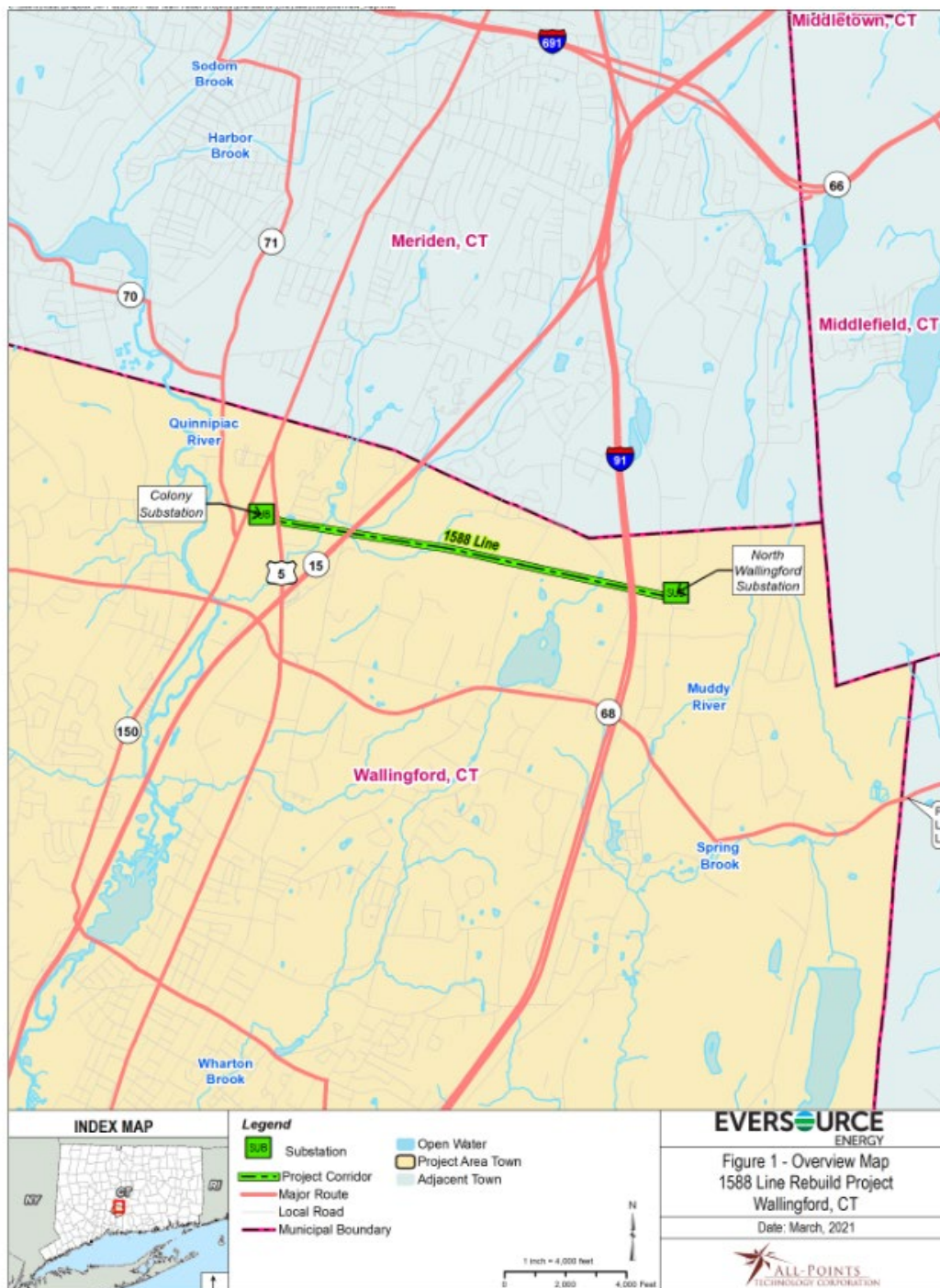
(“OPGW”) to increase communication bandwidth and security. Many of the structures are proposed to be replaced due to asset condition, but several other structures would be overstressed with the installation of the replacement OPGW and new conductor. Therefore, they will also require replacement.

In addition, engineering analyses revealed that most of the proposed rebuilt line would now violate current clearance requirements necessitating a repositioning of the line approximately 45-feet south of its current location within the ROW, ensuring that both the structures and conductor meet the latest National Electrical Safety Code (“NESC”) and Eversource design standards. This shift in location for the rebuilt line will also enable the existing line to remain in service until the rebuilt line is energized.

The 1588 Line is supported on a total of 24 structures as follows; 22 wood H-frame structures, one weathering steel H-frame structure and one galvanized steel monopole structure. The 1588 Line copper conductor has exceeded its planned service life and has experienced a loss of strength, requiring replacement. Eversource has determined that the 22 wood H-frame structures require replacement, due to age-related degradation, and/or structure overloading that would be caused by the installation of the new conductor and OPGW. The existing weathering steel H-frame structure is also being replaced in order to align this structure with the rebuild and support the new, heavier conductor and OPGW². Please see Figure 1. Below depicting the ROW where the proposed Project work will occur.

² The one structure that does not need to be replaced is a galvanized steel structure built in 1994 that can support the new conductor.

Figure 1: Project Overview Map



3. Existing Project Area

As shown on Attachment A -1588 Line Rebuild Project - Aerial Map, the existing project area is approximately 2.65 miles and extends from Colony Substation to North Wallingford Substation. The 1588 Line was originally built in 1946 on single-circuit wood H-Frame structures. Modifications were made in 1984 and 1994 for the construction of the North Wallingford and Colony Substations, including construction of the steel monopole (Structure 3645) that will not be replaced. The width of the existing ROW from Colony Substation to Structure 3625/western edge of Interstate 91 is approximately 125 feet. The width of the existing ROW east of Interstate 91 to the North Wallingford Substation is approximately 300 feet.

The majority of the 1588 Line ROW traverses commercial and business areas, as well as land trust property and agricultural lands. Short sections of the ROW are adjacent to residential properties. In addition, a public hiking trail, maintained by the Wallingford Land Trust, intersects the ROW near Structures 3638 and 3639. The line crosses over Route 5, Route 15 (Wilbur Cross Parkway), and Interstate 91.

4. Project Description

The rebuild Project scope consists of conductor, shield wire and structure replacements on the 1588 Line. The rebuilt line would be positioned within the ROW approximately 45 feet to the south of its current location in order to meet the latest NESC and Eversource design standards.

The proposed scope of work is summarized as follows:

- Replace 21 single-circuit wood H-frame structures with weathering steel H-frame structures;

- Replace one single-circuit wood H-frame structure with a weathering steel monopole structure;
- Replace one single-circuit weathering steel H-frame structure with a new weathering steel H-frame structure;
- Replace approximately 2.54 miles of the 4/0 copper conductor with 1272 kcmil aluminum conductor steel supported (“ACSS”) conductor, 0.04 mile of 954 aluminum conductor steel reinforcement (“ACSR”) and 0.02 mile of 556 ACSR;
- Replace two 11/32-inch copperweld shield wires with two new 0.646-inch 48-fiber OPGW;
- Install new hardware, insulators, lightning arresters and counterpoise; and
- Improve and/or install access roads and work pads to support the proposed scope of work.

Construction is currently scheduled to begin in the third quarter of 2021 with a proposed in-service date of late fourth quarter of 2021, provided that all necessary permits and authorizations are received according to schedule.

The maps in Attachment A - 1588 Line Rebuild Project – Aerial Map, dated March 2021, depict the locations of existing and proposed structures, existing and proposed access roads and work pads to be used for the Project, resource areas and other ROW features and Project elements.

The cross-section drawings in Attachment B - Line 1588 Right of Way Cross Section depict typical views along the ROW of the existing and proposed structures and the existing and proposed limits of managed and unmanaged ROW areas. The heights of the existing

structures range from 48-feet to 66-feet above ground level. The replacement structures will range in height from 56-feet to 103-feet above ground level.

5. Existing Environment, Environmental Effects and Mitigation

The Project construction would be performed entirely within the existing transmission ROW. No expansion of the existing ROW would be required for the Project. The Project would not have a substantial adverse environmental effect, for reasons explained more fully below.

Land Use

Land uses adjacent to the Project area consist of a mix of residential areas, agricultural lands, business/commercial areas and undeveloped lands such as forests, meadows and conservation land, including lands owned by the Wallingford Land Trust. Though the Project would traverse through some of these areas, it will not impact adjacent land uses. Eversource will work with affected property owners to restore property conditions upon completion of the Project.

Clearing and Vegetation Removal

The Project ROW width varies from 125-feet to 300-feet, with a variable maintained cleared width of 50 to 100 feet. While the majority of the Project would be located within the existing maintained ROW, vegetation removal and tree clearing would be required to accommodate the repositioning of the line and for access road installation and improvements, work pad installation and the removal of incompatible species.

The vegetation removal will follow Eversource's Vegetation Management Guidelines and would be accomplished using mechanical methods. This work typically requires the use of

flat-bed trucks, brush hogs or other types of mowing equipment, skidders, forwarders, bucket trucks for canopy trimming, and chippers.

Eversource would require the contractor to use low-impact clearing methods to remove brush vegetation to protect wetlands, watercourses, state-listed species and their habitats, and cultural resources. Low-impact clearing incorporates a variety of approaches, techniques, and equipment to minimize site disturbance. Eversource would require the contractor to use some or all of the following low-impact clearing methods, depending on site-specific considerations:

- Take into consideration soil and weather conditions when scheduling vegetation removal activities, such as during periods of heavy rainfall;
- Maximize the use of uplands for clearing access routes;
- Where possible, use appropriately sized equipment for the site conditions to minimize impacts; and,
- Where practical, cut brush close to the ground, leaving root systems and stumps, to retain soil stability.

Tree clearing required for the Project would take place within the Eversource ROW near Colony and North Wallingford Substations. The tree clearing will occur within approximately 3.85 acres of upland habitat and approximately 0.32 acre of wetland habitat. This will result in an estimated total permanent conversion of approximately 4.17 acres of forest habitat to scrub-shrub or herbaceous habitat areas. Given the overall limited extent of forest conversion to shrubland, or emergent vegetation, there will be no significant adverse effect to forested habitat. Shrubland and early successional habitat (and the preservation of such existing habitat) along the ROW or access roads is beneficial for many species of wildlife because

shrubland habitat is otherwise declining in New England¹. Further, the modification of approximately 0.32 acre of wetlands through the conversion of existing palustrine forested (“PFO”) cover type to palustrine scrub shrub (“PSS”) habitat, represents a cover type change to wetland habitat, but not a net loss of wetlands.

Temporary construction mats would be used to provide a stable base for equipment across watercourses or within wetlands where hand clearing work is not feasible. Such temporary support would minimize temporary disturbances to wetland soils, and the mats would be removed after the activities are complete. Work activities in wetlands, including the proposed tree removal, will be conducted in accordance with the Eversource’s 2016 *Construction & Maintenance Environmental Requirements, Best Management Practices Manual for Massachusetts and Connecticut* (“BMPs”) and comply with Project permits and approvals.

Scenic, Recreational and Cultural Resources

The Project will not have a substantial adverse effect to scenic, recreational and cultural resources. No portion of the ROW traverses or is adjacent to a state or locally designated scenic roadway².

A desktop review of the Connecticut Department of Energy and Environmental Protection’s (“CT DEEP”) GIS and field investigations data was conducted to identify where portions of the ROW traverse or are adjacent to public open space property or trails. The area detailed below, provides outdoor recreational opportunities, including hiking. In specific, the

¹ Connecticut’s Wildlife Action Plan has identified 47 wildlife species of Greatest Conservation Need (GCN) as being associated with shrubland habitat and in need of active management.

² Connecticut Department of Transportation (CTDOT), October 1, 2018 Connecticut State Scenic Roads. Accessed January 11, 2020. Available URL: <https://portal.ct.gov/DOT/Programs/Connecticut-Scenic-Roads>. The Town of Wallingford does not have any listed scenic roads in proximity to the Project.

Wallingford Land Trust, Orchard Glen Hiking Trail (see Attachment A, Map Sheet 2) is an approximately 2-mile hiking trail located in Wallingford. The Orchard Glen Trail is a loop trail, which is an earthen path, that traverses the ROW near Structures 3638 and 3639.

Eversource will coordinate with the Wallingford Land Trust to develop and implement measures to maintain public safety during Project construction, while also avoiding or minimizing impacts to recreational users.

A cultural (archaeological and historical) resource review of the proposed Project was conducted by Heritage Consultants, LLC (“Heritage”) in November of 2020. This review consisted of an initial desktop archaeological and historical resource review and pedestrian survey (“Phase 1A Cultural Resource Assessment” or “Phase 1A”). The Phase 1A determined that no National Register of Historic Places (“NRHP”), state or locally listed properties or historic districts are located within 500 feet of the Project ROW.

Additionally, the Phase 1A identified 13 locations within the Project area where ground disturbance is proposed as having a moderate to high potential for archaeological sensitivity. These areas were investigated via the execution of a Phase 1B survey. The Phase 1B consisted of shovel testing in select locations and was initiated and completed in December 2020. Heritage conducted the Phase 1B survey and determined that changes will have no effect on cultural resources and no additional investigation of these areas is required. The results of the Phase 1B surveys were provided to the State Historic Preservation Office and the Tribal Historic Preservation Offices of the Connecticut Tribe of Mohegan Indians and the Mashantucket Pequot Tribal Nation for their review and concurrence.

Wetlands, Watercourses, Waterbodies and Flood Zones

Eversource identified and delineated water resources in the Project area during August and September 2020 (see Attachment C - Wetlands and Watercourses Report; see also the map

sheets provided in Attachment A (which depict such water resources)). Water resources include inland wetlands, watercourses (perennial and intermittent streams), a potential vernal pool, and Federal Emergency Management Agency (“FEMA”) Flood Zones. All work in or near these areas would be conducted in accordance with Eversource’s BMPs and with the conditions of applicable regulatory permit conditions and approvals. Details on each of these resource areas are provided below.

Wetlands

Wetlands in the Project area were identified and delineated in accordance with industry standard methodology. A total of 12 wetlands were identified in or proximate to the Project area.

No permanent wetland effects would occur from the Project. The Project will result in approximately 0.53 acre of temporary effects to wetlands due to the placement of construction mats for access roads and work pads. All construction mats will be promptly removed upon Project completion and wetland areas will be restored in accordance with Eversource’s BMPs.

Anticipated temporary effects to wetlands from the Project are detailed on Table W-1.

Watercourses

A total of eight watercourses and waterbodies were delineated within the Project area. These include three perennial watercourses (Meeting House Brook, Spruce Glen Brook, and one unnamed), four intermittent watercourses, and an unnamed farm pond within Wetland W9.

Three temporary watercourse crossings will be required during construction, including one for a work pad and two for access roads. Each of these watercourses will be spanned using construction mats. All construction mats will be promptly removed upon Project completion

and wetland areas will be restored in accordance with Eversource's BMPs. The following table provides a summary of Project effects to wetlands and watercourses:

Table W-1: Summary of Project Effects to Wetlands and Watercourses

Wetland / Watercourse ID	200 Scale Petition Mapping Sheet No.	Wetland / Watercourse Effects (± square feet)		
		Temporary (Matting)	Permanent (Structures)	Secondary (Selective Tree Removal)
W1/S1	01	455	0	2,464
W2/S3	02	0	0	207
S2	02	228	0	0
W4	02, 03	0	0	2,367
W5/S4	03	0	0	1,657
S5	03	581	0	581
W6	03	0	0	447
W7	04	4,327	0	3,630
W8	04	10,189	0	0
W10	05	7,441	0	2,050
W11	05	0	0	519
TOTAL		23,221 (0.53 acre)	0 (0.00 acre)	13,922 (0.32 acre)

Vernal Pools

The Project area was surveyed for potential vernal pools in August and September of 2020. Potential vernal pools were identified based primarily on the presence of suitable hydrology (i.e., seasonally to permanently flooded wetlands), with consideration for the presence of other indicators such as concave and unvegetated surfaces. One potential vernal pool was identified (PVP1) within Wetland W10. The potential vernal pool and potential vernal pool envelope (area within 100 feet of a vernal pool depression) is shown on map sheet 5 in Attachment A. A follow up presence/absence survey will be conducted in the Spring of 2021 to determine whether this potential vernal pool is a vernal pool. The survey results and recommended protection measures are provided in Attachment D - Vernal Pool Survey. To minimize potential effects to vernal pools, Eversource would adopt the recommended protection measures detailed in Attachment D - Vernal Pool Survey.

FEMA Flood Zones

The Project ROW extends across 100-year and 500-year FEMA flood zones, and a Floodway associated with Meetinghouse Brook (S1). None of the replacement structures are proposed to be located within the 100 or 500-year flood zones or Floodway.

Water Supply

Based on Aquifer Protection Areas (“APA”) mapping maintained by CT DEEP, Colony Substation and a proposed pull pad located immediately to the south of the substation are located within the Oak Street, Level A, APA. Structure 3622B is located within a public water supply watershed area for Wallingford Reservoirs. No public water supply reservoirs are located within the Project area. No active private water supply wells were observed within the Project area during field investigation activities.

Eversource would require its contractors to employ best practices for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease and other lubricants, to protect water quality within the Project area. Construction activities would also conform to Eversource's BMPs, as well as to the requirements of Project-specific plans (e.g., Stormwater Pollution Control Plan; Spill Prevention and Control Plan), which would be prepared prior to the commencement of construction.

Wildlife and Habitat

The Project area extends through a variety of habitats that support vegetation and wildlife common in such areas. Habitats include shrubland, active and fallow agricultural land, forest, wetlands, and riparian corridors. In addition, Eversource reviewed the current CT DEEP Natural Diversity Database ("NDDB") mapping for known or potential occurrences of state-listed endangered, threatened, or special concern species in the vicinity of the Project area.

In early January of 2021, Eversource submitted a NDDB State-listed Species Review request to the CT DEEP for the proposed structure replacement activities on the 1588 Line within the NDDB-mapped habitat area. Eversource is awaiting a response from CT DEEP and will adhere to any additional recommendations and or protection strategies that may be identified.

In addition to coordinating with the NDDB for the protection of state-listed species, Eversource consulted with the U.S. Fish & Wildlife Service's ("USFWS") Information, Planning, and Consultation ("IPaC") service regarding federal-listed species that may be present within the Project area. The IPaC report indicated one federal-listed species; the Northern Long-eared Bat ("NLEB"; *Myotis septentrionalis*) potentially occur in proximity to the Project area.

NLEB roost in certain trees in the warmer months of the year and at other times, hibernate in caves and/or mines ("hibernacula"). According to the NLEB Areas of Concern in Connecticut

map (dated February 2016), there are no known roost trees within 150 feet of the Project area with the nearest hibernacula located approximately 7.2 miles from the Project area. No work is proposed that would affect any known hibernacula, and therefore, no impacts to this species are anticipated. As a part of Eversource's required U.S. Army Corps of Engineers authorizations for the Project, an online USFWS consultation for NLEB was submitted on December 18, 2020 to confirm that NLEB will not be adversely affected. Since USFWS did not notify Eversource within 30 days of a potential conflict, no adverse impacts are anticipated and Eversource has satisfied its obligations regarding this species under Section 7 of the Endangered Species Act.

Visual Effects

The Project would result in some change to the visual character of the line, though Eversource does not believe that the change would result in a substantial change. The relocation of the structures within the ROW will slightly change the abutter and street crossing view sheds. The replacement structures will primarily be of the same design and of similar appearance as the respective corresponding existing structures, with one exception, as structure 3644 is changing from a wood H-frame to a weathering steel monopole. The Project would not result in substantial change to the existing visual character of the line from nearby residential developments and publicly accessible land and in some locations may improve the view within and along the ROW.

Sound Levels along the Transmission ROW

The construction of the Project would result in short-term and localized noise, as is typical of similar construction projects. The temporary increase in noise would likely raise localized ambient sound levels immediately surrounding the work areas due to the operation of

standard types of construction equipment. (e.g., backhoe, bulldozer, crane, trucks, etc.)³. Upon completion of construction and during operation, the proposed Project would not have any effect on noise or sound pressure levels. Once in service, the rebuilt lines would not result in any changes to ambient noise levels.

Air Quality

Short-term, localized effects on air quality may result from the Project construction work, primarily from fugitive dust and equipment emissions. To minimize the amount of dust generated by construction activities, the extent of exposed/disturbed areas at any one time would be minimized. Vehicle emissions will be limited by requiring contractors to properly maintain construction equipment and vehicles, and by minimizing the idling time of equipment and vehicles, including diesel construction equipment, in accordance with Connecticut regulatory requirements⁴. Temporary gravel tracking pads would be installed at points of construction vehicle ingress/egress from the ROW to minimize the potential for equipment to track dirt onto local roads. To further minimize dust, water may be used to wet down disturbed soils or work areas with heavy tracking as needed.

Radio and Television Interference

There will be no increase in radio interference or audible noise from the operation of the new transmission facilities.

³ Construction noise is exempted under the Connecticut regulations for the control of noise, RCSA 22a-69-1.8(h).

⁴ Regulations of Connecticut State Agencies (RCSA) Section 22a-174-18(b)(3)(C) generally prohibits the idling of motor vehicles for more than three consecutive minutes when not in motion.

6. Traffic Management

Construction vehicles and equipment associated with the work would include, but are not limited to, pickup trucks, bucket trucks, flat-bed trucks, excavators, concrete trucks, drill rigs, front loaders, reel trailers, bulldozers, wood chippers, brush hogs/mowers, forklifts, side booms, dump trucks and cranes. Pullers and tensioners will be used for the line work. Guard trucks and/or temporary guard structures would be used for protection of roads during the line work.

Construction-related vehicular and equipment movements would utilize public roads in the Project area to access the ROW. However, Project-related traffic is generally expected to be temporary and highly localized in the vicinity of the ROW access points and at the staging area. 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 the Towns and the Connecticut Department of Transportation to develop and implement traffic management procedures, as needed. Eversource's construction contractor would be 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.

7. Construction Sequence

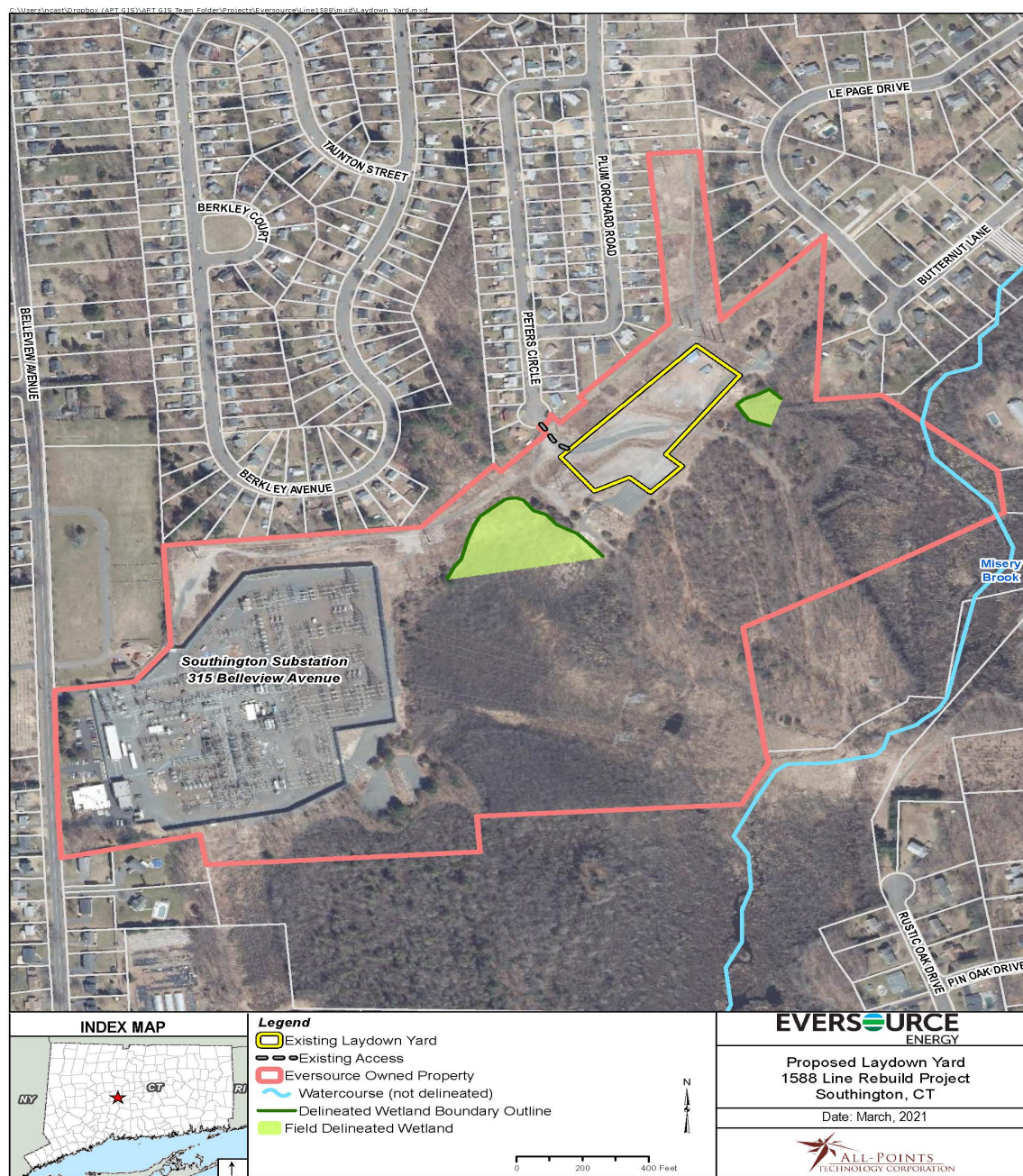
Project construction would include the following activities:

Establishing Staging Areas

Eversource is proposing to utilize its Southington Substation property located at 297 Bellevue Avenue in Southington for a staging/laydown area. The staging area is approximately 2.87 acres in size and will be accessed from Peters Circle in Southington. (See Figure 2 below).

The staging area would be used for surface storage of construction materials, equipment, tools, and supplies (including conductors, cable reels, insulators, hardware, poles and mats) for the Project. Office trailers and Conex storage containers may be located at the staging area. 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 crews for parking personal vehicles as well as for construction vehicles and equipment storage, and for performing minor maintenance, when needed, on construction equipment. Appropriate erosion and sedimentation controls would be installed and maintained until completion of the work in accordance with Project permits and Eversource's BMPs.

Figure 2: Staging Area and Laydown area at Southington Substation, Southington, C



Soil Erosion and Sediment Control Installation

Project construction would conform to best management practices for erosion and sedimentation ("E&S") control, including those provided in the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* ("Connecticut Guidelines") and Eversource's BMPs. This will include the development of a project specific Stormwater Pollution Control Plan ("SWPCP") and registration under CT DEEP's *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, effective 10/1/13* ("General Permit").

Typical E&S control measures include, but are not limited to, straw blankets, straw bales, silt fencing, gravel anti-tracking pads, soil and slope protection, water bars, check dams, berms, swales, plunge pools, and sediment basins. Silt fence would be installed prior to construction to intercept and retain sediment and/or construction materials from disturbed areas and prevent such materials from discharging to water resources or off ROW. Temporary E&S control measures would be maintained and inspected throughout the Project to ensure their integrity and effectiveness and for compliance with the General Permit. The SWPCP inspections will be in accordance with the General Permit requirements. Following completion of the rebuilt 1588 Line facilities, seeding and mulching would be completed to permanently stabilize the areas disturbed by the work. The temporary E&S control measures would remain in place until the Project work is complete and all disturbed areas have been deemed and remain stabilized.

Access Roads and Work Pads

Access to each proposed transmission structure location will be required during Project construction. As a result of the operation and maintenance of the existing lines within this ROW, some access roads are already established and Eversource will utilize these existing access roads to the extent possible. However, some new access roads will be required. Construction matting will be utilized to install temporary access roads through wetland areas to reach certain structure locations. The access roads expected to be used for the proposed Project are illustrated on the maps in Attachment A.

Existing access roads may need to be improved (graded, widened, and/or reinforced) 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 maximum travel surface that is approximately 16 feet wide (additional width may be needed at turning or passing locations). Access roads would typically be graveled; however, where access roads traverse streams or wetlands and manicured lawns timber construction mats, or rail car bridges would be used. 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 location, a work pad is required 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 the construction equipment. Typical work pads are 100 feet by 100 feet, but work pad configurations may change slightly due to terrain, spacing between the existing and proposed structures and in areas where machinery is needed for pulling conductors. Most work pads will be graveled, though some will use temporary matting to

protect sensitive areas (i.e., lawns) or where work pads are located in wetlands or identified cultural resource areas.

To facilitate future transmission line maintenance, access roads and structure work pads in uplands would be left in place (refer to Attachment A). If an individual property owner requests their removal, the Project representatives will work with the property owner on mitigation options, including removal. No new permanent access roads or work pads are proposed in water resource areas.

The proximate locations and configuration of the work pads, as determined based on the environmental field studies and constructability reviews, are shown on Attachment A.

Foundation Installation

With the exception of Structure 3644, which will have a drilled (caisson) foundation, the remainder of the structures will have direct embedded foundations. Installation work would require the use of equipment such as augers, drill rigs, pneumatic hammers, augers, dump trucks, concrete trucks, grapple trucks and light duty trucks. If groundwater is encountered, and when working within wetlands, pumping (vacuum) trucks or other suitable equipment would be used to pump water from the excavated areas as the shaft is being drilled or as the structure is being set. The water would then be discharged in accordance with applicable local, state and federal requirements.

Excavated soils that are generated during construction activities would be stored or spread in an upland area within the ROW, to the extent practicable. Materials that cannot be utilized as backfill would be disposed in accordance with applicable regulations.

As needed, counterpoise installation may also take place at this time. Depending on site-specific soil conductivity, supplemental grounding will be installed. A quad “ditch-witch” plow-cable trencher would be used to install the counterpoise.

Structure Assembly/Installation

Structure sections, structure components and hardware would be delivered to the individual structure locations using flat-bed trucks and assembled on-site using a crane and bucket trucks. After assembly, the area around direct embed foundations would be backfilled with processed gravel.

Conductor and OPGW Installation

The installation of the new conductors and OPGW would occur after the new structures have been erected. The equipment required for these activities would include conductor reels, conductor pulling and tensioning rigs, cranes and bucket trucks.

Structure, Conductor and Static Wire Removal

The removal of the existing structures, conductor and shield wire would take place after the installation of the new structures, conductor and OPGW. This sequence will allow the existing 1588 Line to remain energized throughout construction of the rebuilt 1588 Line.

Restoration

Once the new structures are erected, the line is energized, and the existing structures have been removed, ROW restoration activities would commence. 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 that are designated for removal. Areas affected by construction would be re-graded as practical and stabilized

using revegetation or other measures before removing temporary E&S controls. Eversource would perform ROW restoration in accordance with the protocols specified in Eversource's BMPs and in consultation with affected property owners.

Waste Management

Waste materials, such as structure components (i.e., materials from the removed structures, conductor, shield wire, associated hardware, 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. As described above, excess soils would be managed in accordance with the Company's BMPs, applicable regulations and disposal facility policies. Dewatering during construction activities would be conducted in accordance with the *Connecticut Guidelines*, Eversource's BMPs and applicable regulations.

8. Construction Schedule and Work Hours

Eversource proposes to begin construction in August 2021. Normal work hours would be Monday through Saturday from 7:00 AM to 7:00 PM. Sunday work hours or evening work hours past 7:00 PM may be necessary due to delays caused by inclement weather and/or outage constraints. In the event this is necessary, the Council, the Town of Wallingford and abutters will be provided notice of the proposed Sunday and/or evening work hours.

9. Electric and Magnetic Fields

Eversource prepared calculations of the existing and post-Project Electric and Magnetic fields ("EMF"). The calculations were based on average annual loading conditions, because these are most representative of typical conditions. The calculations are made relative to the centerline of the proposed, modified transmission lines. The calculations apply at one

meter (3.28 feet) above grade and assume that the lowest conductor for each 115-kV circuit is 30 feet above grade.

Eversource's proposes to replace single-circuit wood H-Frames with single-Circuit steel pole H-Frames. Magnetic field levels will increase by approximately 1.0 mg within the ROW due to the larger conductor. Because of the shift in the location of the rebuilt line, the average magnetic field level at the Northern edge of the ROW will decrease from 3.7milligauss ("mG") to 1.2 mG. The average magnetic field at the Southern edge of the ROW will increase from 0.6 mG to 1.2 mG due to the larger conductor.

Maximum Electric fields in the ROW are expected to increase slightly from 0.97 kilovolt per meter "kV/m" to 1.25 kV/m due to the larger conductor. Electric fields on the Northern Edge of the ROW are expected to decrease from 0.84 kV/m to 0.23 kV/m. Electric fields on the Southern edge of the ROW are expected to increase from 0.09 kV/m to 0.57 kV/m.

Table 1 summarizes the calculated average electric and magnetic fields at the edges of the ROW before and after the proposed modifications.

Table 1 - Summary of Calculated Electric and Magnetic Fields

Summary of Fields		1588 Line EMF Calculations		
		North Edge	Max	South Edge
MF (mG)	Existing	3.7	6.8	0.6
	Proposed	1.2	7.8	1.2
EF (kV/m)	Existing	0.84	0.97	0.09
	Proposed	0.23	1.25	0.57

The results of the calculations show that the proposed modifications would not substantially increase electric or magnetic fields at the edge of the ROW. See Attachment E: EMF graphs and Tabulated Field Calculations.

Comparison of Calculated Fields to International Guidelines

The anticipated fields from the proposed rebuilt transmission line are well below the internationally established exposure limits for 60-Hz electric and magnetic fields - specifically, the limits identified by the International Council on Electromagnetic Safety (“ICES”) and the International Council on Non-Ionizing Radiation Protection (“ICNIRP”). These standards are summarized below in Table 2.

Table 2 - International Guidelines for EMF Exposure

	<u>EF (kV/m)</u>	<u>MF (mG)</u>
ICES	5	9,040
ICNIRP	4.2	2000

10. Municipal and Property Owner Outreach

In January 2021, Eversource consulted with the municipal officials of the Town of Wallingford to brief them on the proposed Project. Additionally, in January/February 2021, Eversource provided representatives of the Town with written notice of the Petition filing.

From the mid-summer 2020 through mid-winter 2021, Eversource conducted outreach to property owners located along the Project route. In conjunction with the submission of this Petition, all abutting property owners were notified of the filing and provided information on how to obtain additional information on the Project, as well as how to submit comments to the Council. Eversource representatives will continue contact with adjacent property owners to provide advance notification as to the start of construction activities and will continue to update property owners throughout construction and restoration.

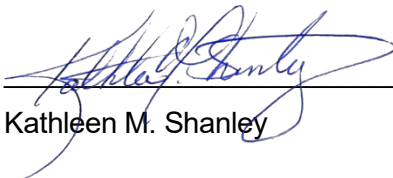
11. Conclusion

Based on the foregoing, Eversource respectfully submits that the proposed modifications would not result in a substantial adverse effect on the environment, 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.

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

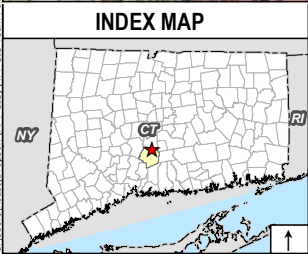
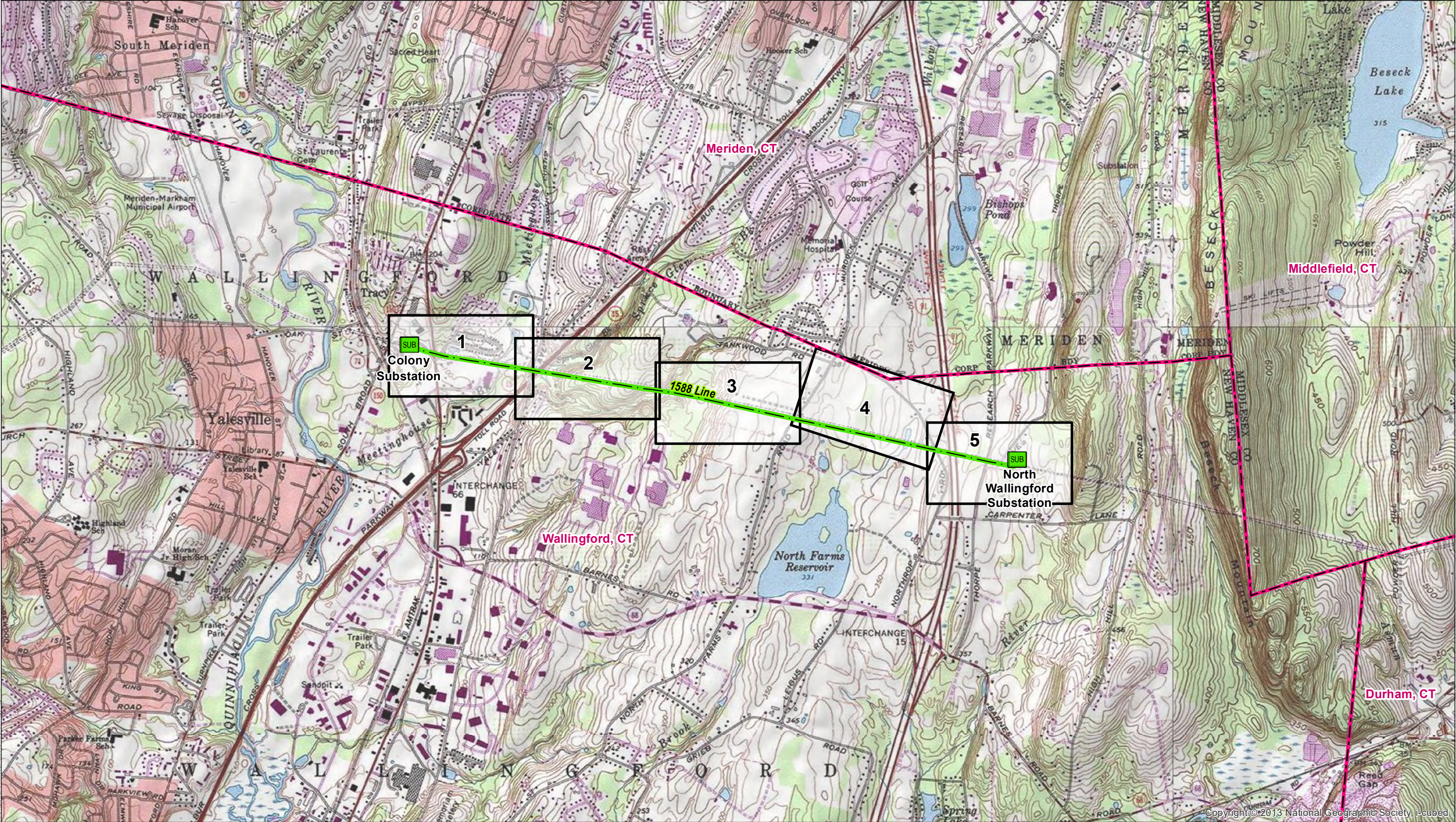
By:


Kathleen M. Shanley





List of Attachments

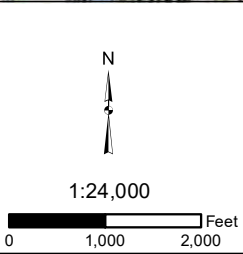
Attachment A: 1588 Line Rebuild Project - Aerial Maps
Attachment B: 1588 Line Rebuild Project - Right-of-Way Cross Sections
Attachment C: Wetlands and Watercourses Report
Attachment D: Vernal Pool Survey
Attachment E: EMF Graphs and Tables
Attachment F: Letter to the Abutters and Affidavit

Attachment A: 1588 Line Rebuild Project – Aerial Maps



Legend

-  Substation
-  Project Corridor
-  Map Sheet
-  Municipal Boundary



Base Map Source: ESRI USA Topographic Maps

EVERSOURCE ENERGY											
Index Map 1588 Line Rebuild Project											
Wallingford, CT											
Date: March, 2021											
Map Author: N. Castro											
ALL-POINTS TECHNOLOGY CORPORATION											
NO.	DATE	REVISIONS			BY	CHK	APP	APP			

MAP SHEET 1 OF 5
1588 Line Rebuild Project
Structure 3646 to Structure 3641
Town of Wallingford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Colony Substation
- Commercial
- Residential
- Undeveloped, forest
- Meetinghouse Brook
- 100-year, 500-Year Flood Zones, and Floodway
- Natural Diversity Database Area
- Highway (Wilbur Cross Parkway)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Colony Substation
- Meetinghouse Brook
- 100-year, 500-Year Flood Zones, and Floodway
- Natural Diversity Database Area
- Maintained ROW
- Forest
- Commercial use between structures 3646 and 3642
- Natural Diversity Database between structures 3642 and 3640

Water Resources

- Wetlands – W1
- Wetland Cover Types – PSS, PFO
- Watercourses – S1 (Meetinghouse Brook)

Wetland and Watercourse Crossings

- Wetland W1 and Watercourse S1 (Meetinghouse Brook) - construction mats for access road

Right-of-Way Vegetation

- Scrub-scrub
- Landscaping
- Forest

Access

- Structure 3645 & pull pad - existing access from Old North Colony Road
- Structures 3641 to 3644 - existing (portions off-ROW) and proposed access from North Colony Road (Route 5)

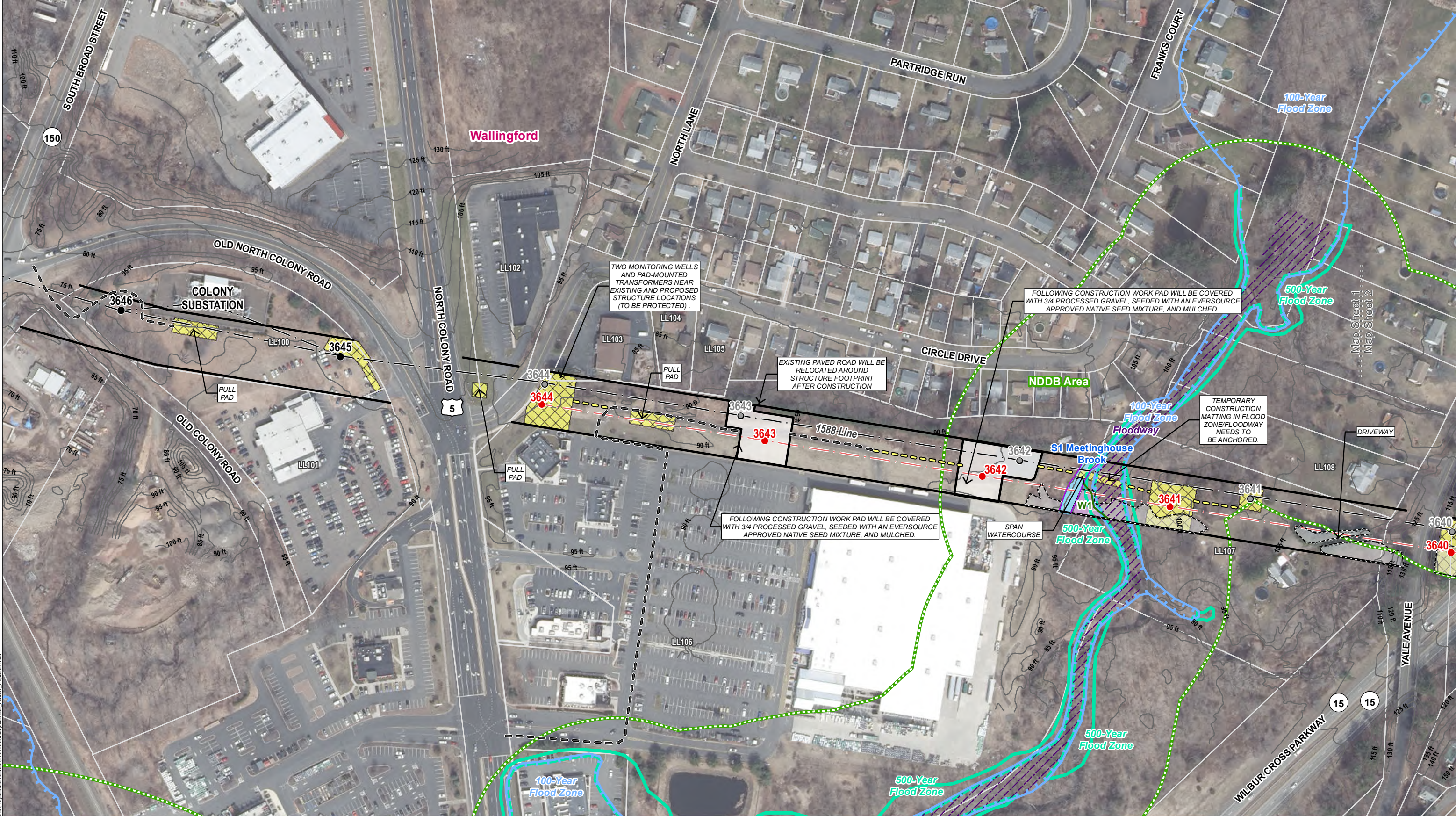
Road Crossings

- Old Colony Road
- Old North Colony Road
- North Colony Road (Route 5)
- North Lane

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- Variable to 125 feet / As Needed to 125 feet

LLN	Parcel Address	City	State	Owner Name
100	15 OLD COLONY RD	WALLINGFORD	CT	TOWN OF WALLINGFORD
101	1122 NORTH COLONY RD	WALLINGFORD	CT	BACKES REALTY ASSOCIATES LIMITED THE
102	1104 NORTH COLONY RD	WALLINGFORD	CT	CIRCLE PLAZA ASSOCIATES LLC
103	4 CIRCLE DR	WALLINGFORD	CT	PUMPKIN PATCH PROPERTIES LLC
104	8 CIRCLE DR	WALLINGFORD	CT	ERIC AND CHARLOTTE SLAYTON
105	10 CIRCLE DR	WALLINGFORD	CT	TERRANCE M FARRELL
106	1094 NORTH COLONY RD	WALLINGFORD	CT	INFINITY ROUTE 5 LIMITED PARTNERSHIP
107	1117 YALE AVE	WALLINGFORD	CT	DARLYNN S PAPPAS
108	1119 YALE AVE	WALLINGFORD	CT	ELIAS BIROS (ESTATE) AND FANI ELIAS (ESTATE) AND FANI



INDEX MAP

Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Gate
- Culvert
- Existing Right-of-Way (ROW)
- Overhead Eversource Line
- New Overhead Eversource Line

- Existing Access
- Proposed Access
- Off-ROW Access Pending Rights
- Hiking Trail
- Stone Work Pad
- Temporary Construction Monitoring
- Proposed Tree Clearing Area
- Delineated Intermittent Watercourse
- Delineated Perennial Watercourse

- Ordinary High Water Mark
- Delineated Wetland Boundary Outline
- Field Delineated Federal Wetland
- Field Delineated State Only Wetland
- Open Water
- Potential Vernal Pool Extent
- 100' Vernal Pool Envelope
- CT Natural Diversity Database Area (Dec 2020)
- Public Water Supply Watershed

- FEMA 100-Year Flood Zone
- FEMA 500-Year Flood Zone
- FEMA Floodway
- Parcel Boundary
- Eversource Owned Property
- 5' Contour Line
- Map Sheet Matchline

Map Notes:

Base Map Source: CTECO 2019 Aerial Imagery.

This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.

Parcel and ROW boundaries are approximate (NOT survey).

Parcel and ROW data provided by Eversource/Tighe & Bond in Aug. 2020.

Wetland data delineated by APT - DE in Sept. 2020.

1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

1588 Line Rebuild Project

Wallingford

Map Sheet 1 of 5

March, 2021

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MAP SHEET 2 OF 5
1588 Line Rebuild Project
Structures 3640 to 3636
Town of Wallingford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Residential
- Agricultural
- Undeveloped, forest
- Recreation (Wallingford Land Trust)
- Spruce Glen Brook
- 100-year, 500-Year Flood Zones, and Floodway
- Natural Diversity Database Area
- Highway (Wilbur Cross Parkway)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Recreation (Wallingford Land Trust) between structures 3638 and 3639
- Forest
- Natural Diversity Database between structures 3640 and 3636
- Highway (Wilbur Cross Parkway)

Water Resources

- Wetlands – W2, W3, W4
- Wetland Cover Types – PSS, PEM, PFO
- Watercourses – S2, S3

Wetland and Watercourse Crossings

- Watercourse S2 – construction mats for access road
- Wetland W2 – matting over existing stone ford crossing

Right-of-Way Vegetation

- Scrub-scrub
- Landscaping
- Forest

Access

- Structure 3640 – existing and proposed off-ROW access from Yale Avenue
- Structures 3639 to 3636 – existing access from North Farms Road

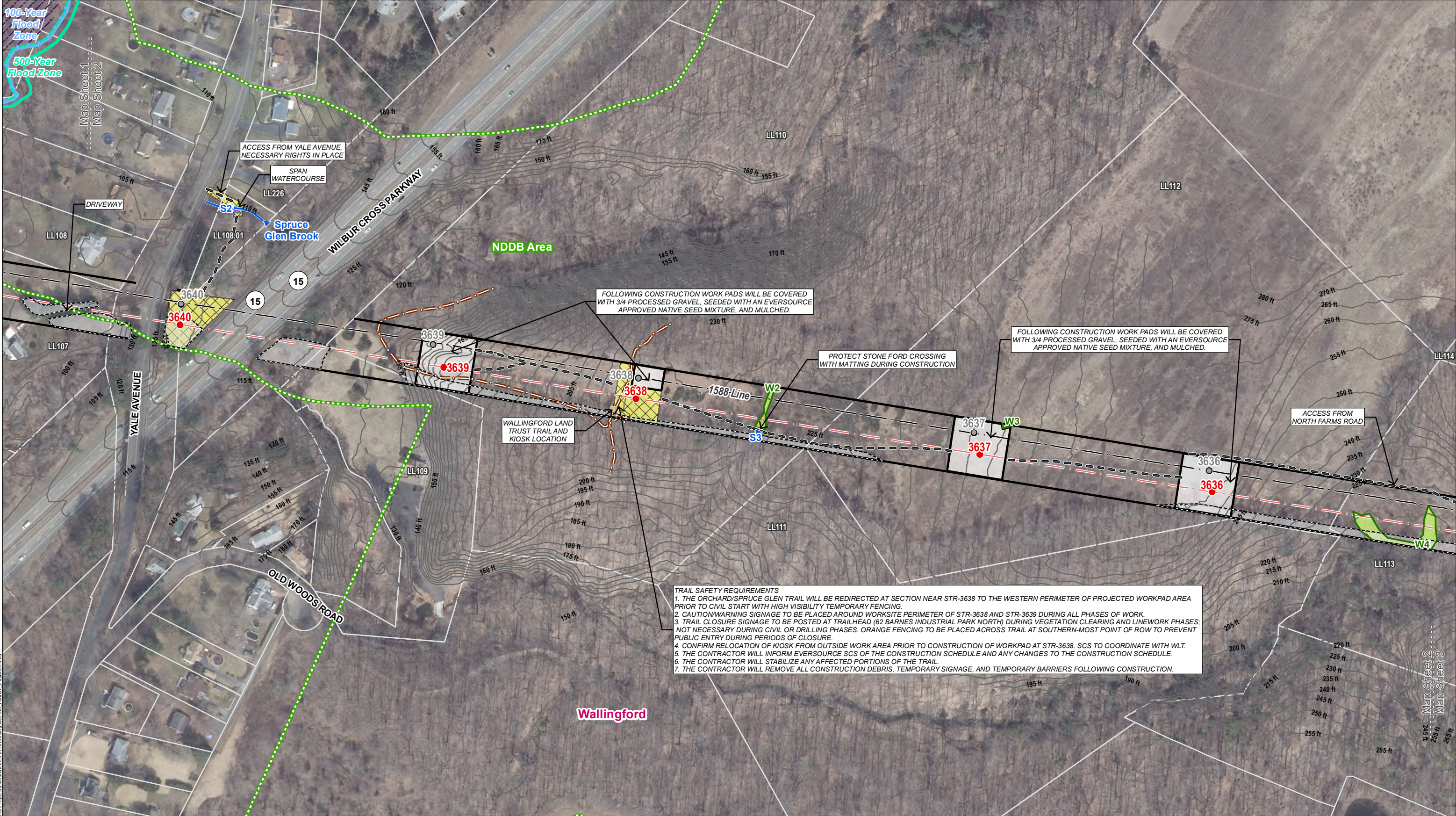
Road Crossings

- Yale Avenue
- Wilbur Cross Parkway (Route 15)

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- Variable to 125 feet / As Needed to 125 feet

<u>LLN</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
107	1117 YALE AVE	WALLINGFORD	CT	DARLYNN S PAPPAS
108	1119 YALE AVE	WALLINGFORD	CT	ELIAS BIROS (ESTATE) AND FANI ELIAS (ESTATE) AND FANI
108.01	1110 YALE AVE	WALLINGFORD	CT	TOWN OF WALLINGFORD
109	20 OLD WOODS RD	WALLINGFORD	CT	JOSEPH A GAMBARDELLA
110	15 BARNES PARK RD NORTH	WALLINGFORD	CT	WALLINGFORD LAND TRUST INC
111	17 BARNES PARK RD NORTH	WALLINGFORD	CT	WALLINGFORD LAND TRUST
112	66 BARNES PARK RD NORTH	WALLINGFORD	CT	BARNES ROAD FARM REALTY LLC
113	975 NORTH FARMS RD	WALLINGFORD	CT	420 BARNES ROAD LLC
226	1114 YALE AVE	WALLINGFORD	CT	ESTATE OF NICHOLAS J & BARBARA D GINOLFI



INDEX MAP

Legend

- Proposed Structure
- Existing Structure
- Existing Structure to be Removed
- Gate
- Culvert
- Existing Right-of-Way (ROW)
- Overhead Eversource Line
- New Overhead Eversource Line
- Existing Access
- Proposed Access
- Off-ROW Access Pending Rights
- Hiking Trail
- Stone Work Pad
- Temporary Construction Monitoring
- Proposed Tree Clearing Area
- Delineated Intermittent Watercourse
- Delineated Perennial Watercourse
- Ordinary High Water Mark
- Delineated Wetland Boundary Outline
- Field Delineated Federal Wetland
- Field Delineated State Only Wetland
- Open Water
- Potential Vernal Pool Extent
- 100' Vernal Pool Envelope
- CT Natural Diversity Database Area (Dec 2020)
- Public Water Supply Watershed
- FEMA 100-Year Flood Zone
- FEMA 500-Year Flood Zone
- FEMA Floodway
- Parcel Boundary
- Eversource Owned Property
- 5' Contour Line
- Map Sheet Matchline

Map Notes:

Base Map Source: CTECO 2019 Aerial Imagery.

This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.

Parcel and ROW boundaries are approximate (NOT survey).

Parcel and ROW data provided by Eversource/Tighe & Bond in Aug. 2020.

Wetland data delineated by APT - DE in Sept. 2020.

1 inch = 200 feet

0 50 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

EVERSOURCE ENERGY

1588 Line Rebuild Project

Wallingford

Map Sheet 2 of 5

March, 2021

MAP SHEET 3 OF 5
1588 Line Rebuild Project
Structures 3635 to 3631
Town of Wallingford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Undeveloped, forest
- Agricultural
- Residential

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Agricultural between structures 3633 and 3631
- Forest
- Natural Diversity Database between structures 3634 and 3633

Water Resources

- Wetlands – W4, W5, W6
- Wetland Cover Types – PSS, PEM, PFO
- Watercourses – S4, S5, S6

Wetland and Watercourse Crossings

- Wetland W5 and Watercourse S3 – existing bridge crossing
- Watercourse S5 - construction mats for work pad

Right-of-Way Vegetation

- Scrub-scrub
- Landscaping
- Forest
- Agricultural fields

Access

- Structures 3635 to 3631 – existing access from North Farms Road

Road Crossings

- North Farms Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- Variable to 125 feet / As Needed to 125 feet

<u>LLN</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
113	975 NORTH FARMS RD	WALLINGFORD	CT	420 BARNES ROAD LLC
114	1067 NORTH FARMS RD	WALLINGFORD	CT	PETER AND WALTER WERBISKI
115	1011 NORTH FARMS RD	WALLINGFORD	CT	SANTACROCE MARTIN D
116	1061 NORTH FARMS RD	WALLINGFORD	CT	SANTACROCE MARTIN A
117	1064 NORTH FARMS RD	WALLINGFORD	CT	LEAH KROEBER
118	1050 NORTH FARMS RD	WALLINGFORD	CT	WALTER WERBISKI

MAP SHEET 4 OF 5
1588 Line Rebuild Project
Structures 3630 to 3626
Town of Wallingford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Residential
- Commercial
- Undeveloped, forest
- Agricultural
- Highway (Interstate 91)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Landscaping at structure 3630
- Commercial use between structures 3629 and 3628

Water Resources

- Wetlands – W7, W8, W9
- Wetland Cover Types – PSS, PEM, PFO, POW

Wetland and Watercourse Crossings

- Wetland W7 – construction mats for work pad
- Wetland W8 – construction mats for pull pad and access road

Right-of-Way Vegetation

- Scrub-scrub
- Landscaping

Access

- Structure 3630 – existing access from North Farms Road
- Structures 3629 to 3627 – existing off-ROW access from Northrop Industrial Park Road West

Road Crossings

- North Farms Road
- Northrup Road

Existing Maintained Right-of-Way Width / Proposed Right-of-Way
Clearing

- Variable to 125 feet / As Needed to 125 feet

<u>LLN</u>	<u>Parcel Address</u>	<u>City</u>	<u>State</u>	<u>Owner Name</u>
117	1064 NORTH FARMS RD	WALLINGFORD	CT	LEAH KROEBER
118	1050 NORTH FARMS RD	WALLINGFORD	CT	WALTER WERBISKI
119	8 NORTHROP IND PARK RD WEST	WALLINGFORD	CT	1070 NORTH FARMS RD LLC
120	1121 NORTHROP RD	WALLINGFORD	CT	1070 NORTH FARMS RD LLC
121	6 NORTHROP IND PARK RD EAST	WALLINGFORD	CT	1070 NORTH FARMS RD LLC
122	1117 NORTHROP RD	WALLINGFORD	CT	1070 NORTH FARMS RD LLC
123	1017 NORTHROP RD	WALLINGFORD	CT	SHARON CWIRKA AND STANLEY P JR, AND SHARON AND STANLEY P JR
124	1102 NORTHROP RD	WALLINGFORD	CT	MARY LOUISE TAYLOR

MAP SHEET 5 OF 5
1588 Line Rebuild Project
Structures 3625 to 3622B
Town of Wallingford, Connecticut

AREA DESCRIPTION

Existing Land Use & Resource Areas

- Residential
- Undeveloped, forest
- Commercial
- North Wallingford Substation
- Eversource-owned property
- Natural Diversity Database
- Public Water Supply Watershed, Wallingford Reservoirs
- Highway (Interstate 91)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use & Resource Areas

- Maintained ROW
- Undeveloped, forest
- Highway (Interstate 91) between structures 3625 and 3624
- Commercial use between structures 3624 and 3621
- Public Water Supply Watershed, Wallingford Reservoirs between structures 3662A and 3621
- Natural Diversity Database east of structure 3621

Water Resources

- Wetlands – W10, W11, W12
- Potential Vernal Pool – PVP1
- Wetland Cover Types – PEM, PSS, PFO
- Watercourse – S7

Wetland and Watercourse Crossings

- Wetland W10 – construction mats for work pad and access road

Right-of-Way Vegetation

- Scrub-scrub
- Landscaping
- Forest

Access

- Structure 3625 – matted access from Northrup Road (portions off-ROW)
- Structure 3624 – existing access from Laser Land
- Structures 3623, 3622B & pull pad – proposed access from Research Parkway

Road Crossings

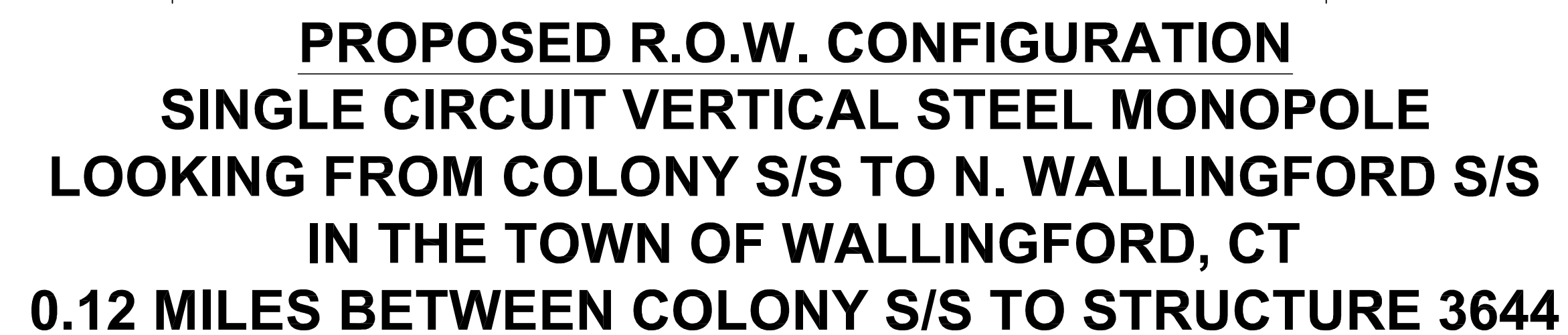
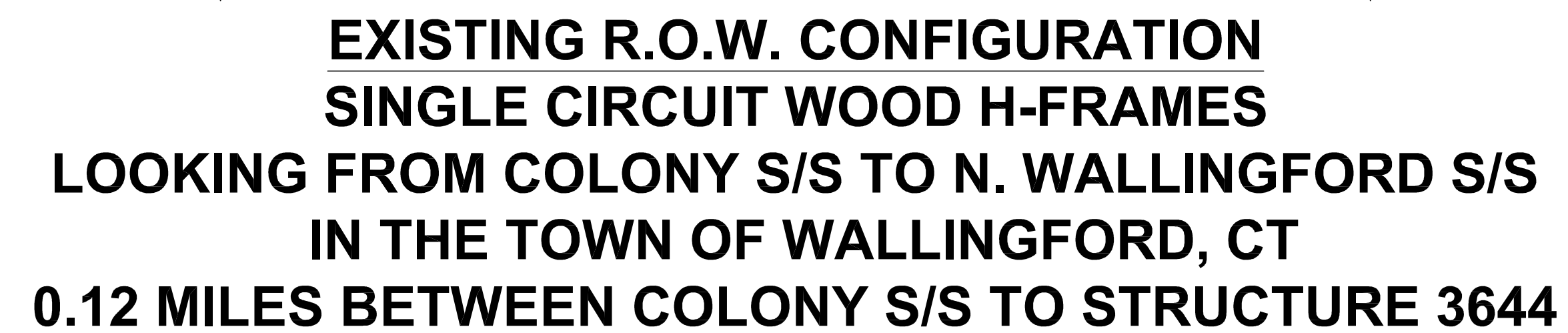
- Northrup Road
- Interstate 91
- Laser Lane
- Research Parkway
- Technology Drive

Existing Maintained Right-of-Way Width / Proposed Right-of-Way Clearing

- Variable to 125 feet / As Needed to 125 feet

LLN	Parcel Address	City	State	Owner Name
122	1117 NORTHROP RD	WALLINGFORD	CT	1070 NORTH FARMS RD LLC
123	1017 NORTHROP RD	WALLINGFORD	CT	SHARON CWIRKA AND STANLEY P JR, AND SHARON AND STANLEY P JR
124	1102 NORTHROP RD	WALLINGFORD	CT	MARY LOUISE TAYLOR
125	7 LASER LA	WALLINGFORD	CT	WALLINGFORD WAREHOUSE LLC
126	24 RESEARCH PKWY	WALLINGFORD	CT	UNITED STATE POSTAL SERVICE
127	4 LASER LA	WALLINGFORD	CT	LASER LLC
128	130 THORPE AVE	WALLINGFORD	CT	TOWN OF WALLINGFORD
129	56 CARPENTER LN	WALLINGFORD	CT	RESPIRONICS INC
130	10 TECHNOLOGY DR	WALLINGFORD	CT	HWORLD REAL ESTATE LLC
131	77 HIGH HILL RD	Wallingford	CT	CONNECTICUT LIGHT AND POWER COMPANY

Attachment B: 1588 Line – Right-of-Way Cross Sections



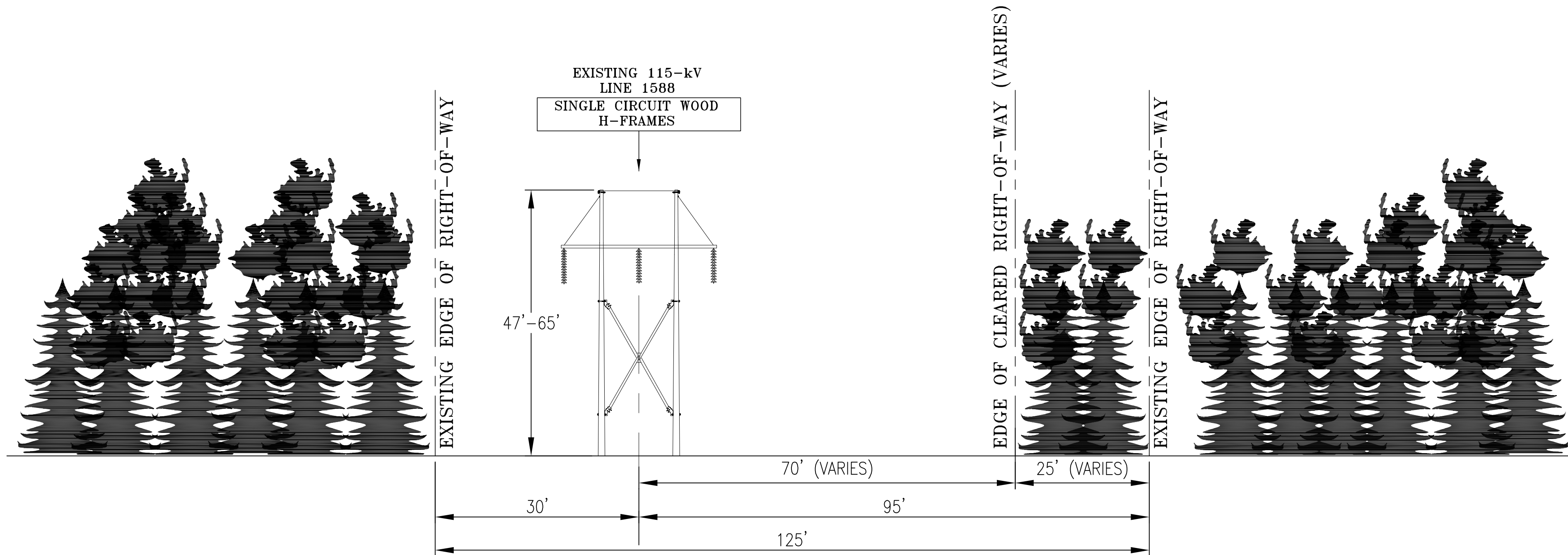
REVISIONS DURING CONSTRUCTION						
1	12/23/20	ISSUED FOR CONSTRUCTION WO# TPC03601	KLB	CJS	GEL	
2	2/05/21	ISSUED FOR CONSTRUCTION WO# TPC03601	KLB	CJS	GEL	
3	3/05/21	RE-ISSUED FOR CONSTRUCTION WO# TPC03601	MMM	CJS	GEL	

EVERSOURCE
ENERGY

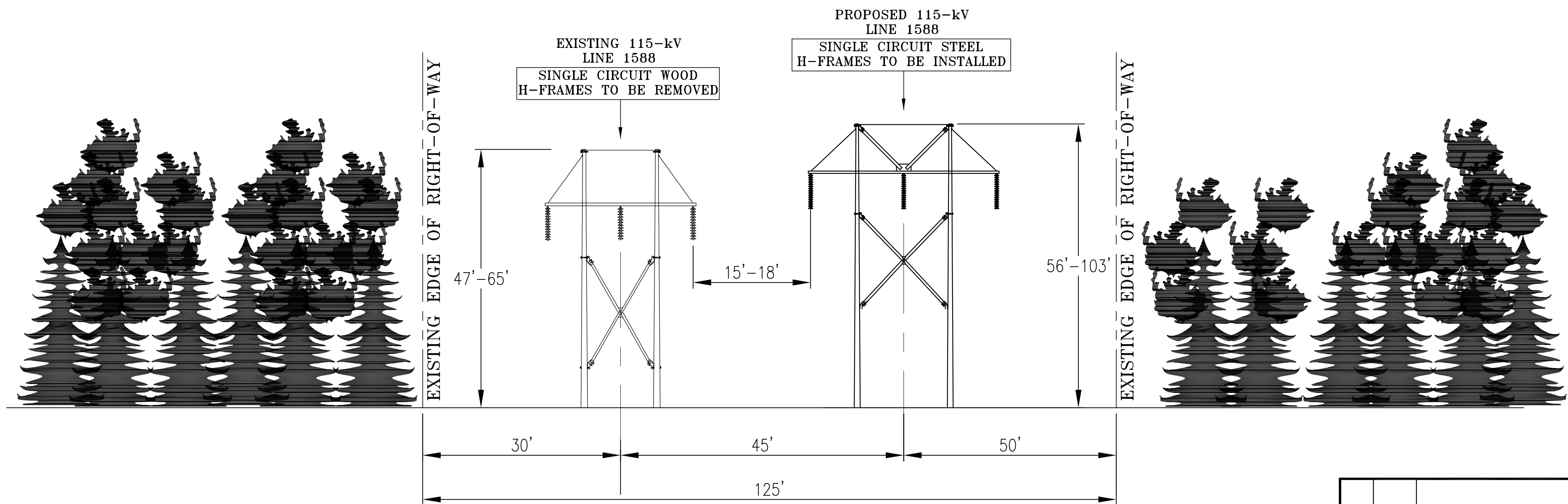
COLONY S/S - TO NORTH WALLINGFORD S/S
115-KV TRANSMISSION LINE
RIGHT OF WAY CROSS SECTION
WALLINGFORD, CONNECTICUT

WALLINGFORD, CONNECTICUT						
BY	KLW	CWD	CJS	APP	GEL	APP
DATE	07/29/20	DATE	07/29/20	DATE	07/29/20	DATE
H-SCALE	N.T.S.	SIZE	D	FIELD BOOK & PAGES		
V-SCALE	N.T.S.	V.S.		R.E. DWG		
APP	R.E. PROJ. NUMBER		TPC03601	DWG. NO.		01043-85006p001

3/4/2021 9:22 AM - M:\ussesh\ - C:\pwworking\p\m\mussesh\43539063\01043-85006p002.dwg - Construction-All ES VER: 05/2015



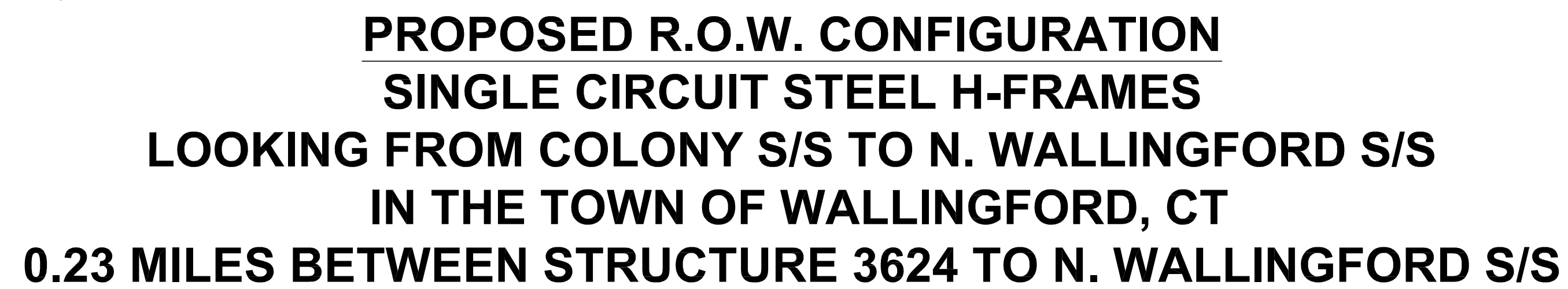
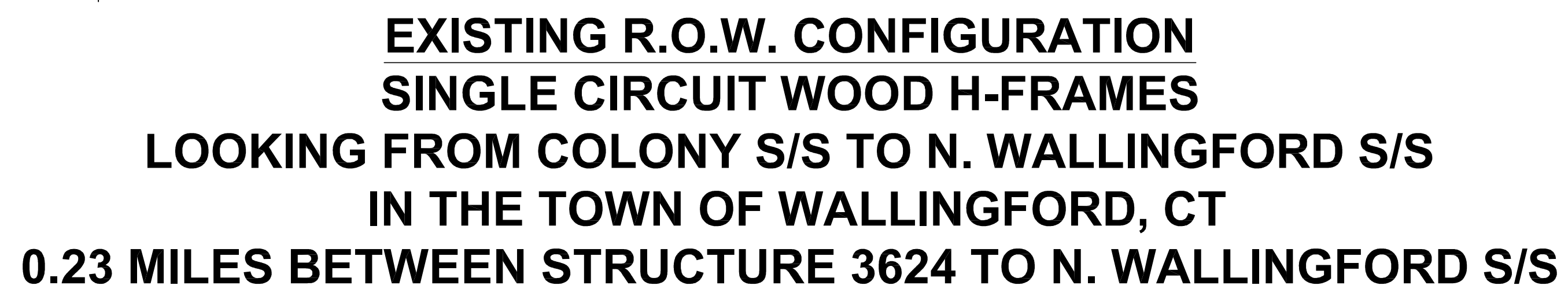
**EXISTING R.O.W. CONFIGURATION
SINGLE CIRCUIT WOOD H-FRAMES
LOOKING FROM COLONY S/S TO N. WALLINGFORD S/S
IN THE TOWN OF WALLINGFORD, CT
2.25 MILES BETWEEN STRUCTURE 3644 TO STRUCTURE 3624**




**PROPOSED R.O.W. CONFIGURATION
SINGLE CIRCUIT STEEL H-FRAMES
LOOKING FROM COLONY S/S TO N. WALLINGFORD S/S
IN THE TOWN OF WALLINGFORD, CT
2.25 MILES BETWEEN STRUCTURE 3644 TO STRUCTURE 3624**

REVISIONS DURING CONSTRUCTION							
1	12/23/20	ISSUED FOR CONSTRUCTION WO# TPC03601	KLB	CJS	GEL		
2	02/05/21	ISSUED FOR CONSTRUCTION WO# TPC03601	KLB	CJS	GEL		
3	02/24/21	RE-ISSUED FOR CONSTRUCTION WO #TPC03601	GEL	CJS	GEL		
4	03/05/21	RE-ISSUED FOR CONSTRUCTION - WO# TPC03601	MMW	CJS	GEL		

EVERSOURCE ENERGY			
TITLE COLONY S/S TO NORTH WALLINGFORD S/S 115-kV TRANSMISSION LINE RIGHT OF WAY CROSS SECTION WALLINGFORD, CONNECTICUT			
BY KLB	CHK CJS	APP GEL	APP
DATE 07/29/20	DATE 07/29/20	DATE 07/29/20	DATE
H-SCALE N.T.S.	SIZE D	FIELD BOOK & PAGES	
V-SCALE N.T.S.	V.S.	R.E. DWG	
R.E. PROJ. NUMBER TPC03601		DWG NO. 01043-85006p002	



REVISIONS DURING CONSTRUCTION						
1	12/23/20	ISSUED FOR CONSTRUCTION WO# TPC03601	KLB	CJS	GEL	
2	02/05/21	ISSUED FOR CONSTRUCTION WO# TPC03601	KLB	CJS	GEL	
3	02/24/21	RE-ISSUED FOR CONSTRUCTION WO #TPC03601	GEL	CJS	GEL	
4	03/05/21	RE-ISSUED FOR CONSTRUCTION WO #TPC03601	MMM	CJS	GEL	

						
TITLE COLONY S/S TO NORTH WALLINGFORD S/S 115-kV TRANSMISSION LINE RIGHT OF WAY CROSS SECTION WALLINGFORD, CONNECTICUT						
BY	KLB	CHKD	CJS	APP	GEL	APP
DATE	07/29/20	DATE	07/29/20	DATE	07/29/20	DATE
H-SCALE	N.T.S.	SIZE	D	FIELD BOOK & PAGES		
V-SCALE	N.T.S.	V.S.		R.E. DWG		
R.E. PROJ. NUMBER				TPC03601		DWG NO.
						01043-85006p003

Attachment C: Wetlands and Watercourses Report



Biodiversity Studies • Wetland Delineation & Assessment • Habitat Management • GIS Mapping • Permitting • Forestry

Wetland Delineation

January 26, 2021

DE Project No.: 2020-78

Prepared For: Eversource Energy
56 Prospect Street
Hartford, CT 06103
Attn: Sara Fusco

Eversource Project Name: 1588 Line Partial Rebuild Project

Project Location: Wallingford, Connecticut

Date(s) of Investigations: August & September, 2020

Field Conditions: Weather: sunny, 70s to 80s
Soil Moisture: moist

Wetland/Watercourse

Delineation Methodology¹: ☒ Connecticut Inland Wetlands and Watercourses
☐ Connecticut Tidal Wetlands
☐ Massachusetts Wetlands
☒ U.S. Army Corps of Engineers

The wetlands inspection was performed by²:

Davison Environmental, LLC

Matthew Davison
Professional Soil Scientist
Professional Wetland Scientist

¹ Wetlands and watercourses were delineated in accordance with applicable local, state and federal statutes, regulations and guidance.

² Wetlands were delineated by Davison Environmental Professional Soil Scientist Matthew Davison in August and September 2020. All established wetlands boundary lines are subject to change until officially adopted by local, state, or federal regulatory agencies.

Attachments

- Table 1: Delineated Wetlands and Watercourses within the 1588 Line Partial Rebuild Project Area
- Wetland Delineation Field Forms

**Table 1: Delineated Wetlands and Watercourses within the
1588 Line Partial Rebuild Project Area**

Aerial Map Sheet No.	Wetland No.¹	Dominant NWI Class²	Other NWI Classes	Dominant Water Regime	Associated Watercourse³	Associated Potential Vernal Pool⁴
1	W1	PSS	PFO	Temporarily Flooded	S1 (Meetinghouse Brook)	---
2	---	PSS	---	Permanently Flooded	S2 (Spruce Glen Brook)	---
2	W2	PSS	---	Seasonally Saturated-seepage	S3 (Intermittent)	---
2	W3	PEM	PSS	Seasonally Saturated-seepage	---	---
2, 3	W4	PSS	PEM	Seasonally Saturated-seepage	---	---
3	W5	PEM	PSS	Seasonally Saturated-seepage	S4 (Unnamed Perennial), S5 (Intermittent), S6 (Intermittent)	---
3	W6	PSS	PEM	Seasonally Saturated-seepage	---	---
4	W7	PSS	PSS	Seasonally Saturated-seepage	---	---
4	W8	PEM	PSS	Seasonally Saturated-seepage	---	---
4	W9	PEM	POW	Semipermanently Flooded	---	---
5	W10	PEM	PFO	Seasonally Flooded	---	PVP1
5	W11	PFO	---	Seasonally Saturated-seepage	---	---
5	W12	PEM	PSS	Seasonally Saturated-seepage	S7 (Intermittent)	---

¹Wetland No. refers to the number generated during the 2020 field surveys within the 1588 Line Partial Rebuild Project area. This Wetland No. is keyed to those depicted on the 200 scale Aerial Maps (Attached to the Petition).

²Wetlands classified according to Cowardin et al 1979; PEM = Palustrine Emergent Wetland; PFO = Palustrine Forested Wetland; PSS = Palustrine Scrub-Shrub Wetland; POW = Palustrine Open Water.

³Associated Watercourse refers to the identification number assigned during the 2020 field surveys to identify watercourses within the 1588 Line Partial Rebuild Project area.

⁴ Potential vernal pools were identified in summer 2020 by Davison Environmental during the wetland delineation

Wetland Delineation Field Form

Wetland I.D.:	W1	Stream I.D.:	S1 (Meetinghouse Brook)
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input checked="" type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Meetinghouse Brook and adjacent bordering 100-year floodplain includes seasonally saturated wetlands		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Emergent and scrub-shrub in maintained ROW, forested floodplain to the south in-ROW		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Meetinghouse Brook		
Comments: Meetinghouse Brook has been subject to channelization and bank armoring for flood control within and to the north of ROW		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Red Maple (<i>Acer rubrum</i>)	Bush Honeysuckles* (<i>Lonicera</i> spp.)
American Elm (<i>Ulmus americana</i>)	Goldenrods (<i>Solidago</i> spp.)
Black Willow (<i>Salix nigra</i>)	Jewelweed (<i>Impatiens capensis</i>)
Spicebush (<i>Lindera benzoin</i>)	Mugwort* (<i>Artemisia vulgaris</i>)
Multiflora Rose* (<i>Rosa multiflora</i>)	Asiatic Bittersweet* (<i>Celastrus orbiculatus</i>)

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	NA	Stream I.D.:	S2 (Spruce Glen Brook)
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input checked="" type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Spruce Glen Brook is a perennial watercourse		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: scrub-shrub vegetation along banks		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Spruce Glen Brook		
Comments: concrete abutments on the banks of the brook at proposed crossing location, brook drains west under Yale Ave		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Red Maple (Acer rubrum)	
Bebb Willow (Salix bebbiana)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W2	Stream I.D.:	S3
Flag Location Method:	Site Sketch <input type="checkbox"/>		GPS (sub-meter) located <input checked="" type="checkbox"/>

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: seasonally saturated within maintained ROW, transitions to intermittent watercourse south of existing access road		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: scrub-shrub in maintained ROW		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Multiflora Rose* (Rosa multiflora)	Purple Loosestrife* (Lythrum salicaria)
Tearthumbs (Polygonum spp.)	
Goldenrods (Solidago spp.)	
Spicebush (Lindera benzoin)	
Asiatic Bittersweet* (Celastrus orbiculatus)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W3	Stream I.D.:	NA
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: seasonally saturated emergent wetland extends off-ROW from north ROW edge		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input checked="" type="checkbox"/>
Comments: emergent/wet meadow in maintained ROW, some scrub-shrub cover off-ROW		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Sensitive Fern (<i>Onoclea sensibilis</i>)	
Soft Rush (<i>Juncus effusus</i>)	
Bebb Willow (<i>Salix bebbiana</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W4	Stream I.D.:	NA
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: seasonally saturated seepage drains south from maintained ROW		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: scrub-shrub in maintained ROW		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Red Maple (<i>Acer rubrum</i>)	
Spicebush (<i>Lindera benzoin</i>)	
Jewelweed (<i>Impatiens capensis</i>)	
Soft Rush (<i>Juncus effuses</i>)	
Sensitive Fern (<i>Onoclea sensibilis</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W5	Stream I.D.:	S4 (Unnamed Perennial), S5 & S6
Flag Location Method:	Site Sketch <input type="checkbox"/>		GPS (sub-meter) located <input checked="" type="checkbox"/>

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input checked="" type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: None		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: emergent and scrub-shrub in maintained ROW		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: Unnamed perennial watercourse bisects ROW within well-defined, steep banks approaching vertical in some locations. Two intermittent tributaries contribute along southern ROW boundary.		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Goldenrods (Solidago spp.)	
Mugwort* (Artemisia vulgaris)	
Multiflora Rose* (Rosa multiflora)	
Jewelweed (Impatiens capensis)	
Silky Dogwood (Cornus amomum)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W6	Stream I.D.:	NA
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: seasonally saturated seepage drains south through ROW		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: emergent and scrub-shrub cover types in maintained ROW		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Silky Dogwood (<i>Cornus amomum</i>)	
Maleberry (<i>Lyonia ligustrina</i>)	
Sensitive Fern (<i>Onoclea sensibilis</i>)	
Soft Rush (<i>Juncus effuses</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W7	Stream I.D.:	NA
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: seasonally to permanently saturated wetland drains south		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: emergent and scrub-shrub cover types in maintained ROW, south side of wetland is forested in-ROW		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Silky Dogwood (<i>Cornus amomum</i>)	
Spicebush (<i>Lindera benzoin</i>)	
Red Maple (<i>Acer rubrum</i>)	
Skunk Cabbage (<i>Symplocarpus foetidus</i>)	
Joe Pye Weed (<i>Eupatorium maculatum</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W8	Stream I.D.:	NA
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: seasonally to permanently saturated wetland drains south		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: emergent cover (reed canary grass dominant) throughout wetland with scrub-shrub cover along wetland boundaries		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Silky Dogwood (<i>Cornus amomum</i>)	
Highbush Blueberry (<i>Vaccinium corymbosum</i>)	
Reed Canarygrass* (<i>Phalaris arundinacea</i>)	
Northern Arrow-wood (<i>Viburnum recognitum</i>)	
Rough-stemmed Goldenrod (<i>Solidago rugosa</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W9	Stream I.D.:	NA
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input checked="" type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: man-made farm pond and bordering emergent wetland drains south		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input checked="" type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: emergent cover type is dominant, with scrub-shrub present along pond banks		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Silky Dogwood (<i>Cornus amomum</i>)	New York Ironweed (<i>Vernonia noveboracensis</i>)
Tussock Sedge (<i>Carex stricta</i>)	
Bur-reed (<i>Sparganium eurycarpum</i>)	
Broad-Leaf Cattail (<i>Typha latifolia</i>)	
Blue Vervain (<i>Verbena hastata</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W10	Stream I.D.:	NA
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input checked="" type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: wetland receives stormwater inputs from developed areas to the south, drains north		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: emergent cover type is dominant in maintained ROW, forested to the south		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input type="checkbox"/> Potential <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: 'Classic'	
Comments: PVP1, appears to be anthropogenic, receives stormwater inputs from developed areas to the south	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
---	---	-----------------------------

DOMINANT PLANTS:

Silky Dogwood (<i>Cornus amomum</i>)	Sensitive Fern (<i>Onoclea sensibilis</i>)
Tussock Sedge (<i>Carex stricta</i>)	
Red Maple (<i>Acer rubrum</i>)	
Soft Rush (<i>Juncus effusus</i>)	
Blue Vervain (<i>Verbena hastata</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W11	Stream I.D.:	NA
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: None		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: wetland cover type is entirely forested in-ROW, located south of the maintained ROW		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
---	---	-----------------------------

DOMINANT PLANTS:

Red Maple (Acer rubrum)	
Spicebush (Lindera benzoin)	
Silky Dogwood (Cornus amomum)	
Multiflora Rose* (Rosa multiflora)	

* denotes Connecticut Invasive Species Council invasive plant species

Wetland Delineation Field Form

Wetland I.D.:	W12	Stream I.D.:	S7
Flag Location Method:	Site Sketch <input type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>	

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: None		

TIDAL ☐

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: None		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: appears to be little base flow, stream is likely ephemeral and possibly influenced by stormwater generated off-site		

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
---	---	-----------------------------

DOMINANT PLANTS:

Silky Dogwood (Cornus amomum)	
Sensitive Fern (Onoclea sensibilis)	
Garlic Mustard* (Alliaria petiolata)	

* denotes Connecticut Invasive Species Council invasive plant species

Attachment D: Vernal Pool Survey



Biodiversity Studies • Wetland Delineation & Assessment • Habitat Management • GIS Mapping • Permitting • Forestry

Vernal Pool Habitat Assessment and Recommended Protection Measures

January 26, 2021

DE Project No.: 2020-78

Prepared For: Eversource Energy
56 Prospect Street
Hartford, CT 06103
Attn: Sara Fusco

Eversource Project Name: 1588 Line Partial Rebuild Project

Project Location: Wallingford, Connecticut

Date(s) of Investigations: August & September, 2020

Survey Methodology: Habitat Assessment¹

The vernal pool survey was performed by:

Davison Environmental, LLC

Matthew Davison
Professional Soil Scientist
Professional Wetland Scientist

¹ A habitat assessment for potential vernal pool habitat was required due to the timing of surveys relative to regulatory submittals. A vernal pool presence/absence survey will be conducted within identified potential vernal pool habitat in Spring 2021, and protection measures adopted as described herein based on the results of this survey.

INTRODUCTION

The following report details vernal pool habitat assessments conducted by Davison Environmental in support of The Connecticut Light and Power Company doing business as Eversource Energy's ("Eversource") Petition to the Connecticut Siting Council for the 1588 Line Partial Rebuild Project within an existing transmission line right-of-way ("ROW") in Wallingford, Connecticut ("Project").

VERNAL POOL DEFINITION

Several vernal pool definitions have been developed by both regulatory authorities and conservation organizations. The Connecticut Department of Energy and Environmental Protection (CT DEEP) generally describes vernal pools on its website but cautions that the data provided is informational in nature and should not supplant regulations of municipal inland wetlands agencies. CT DEEP describes vernal pools as "*small bodies of standing fresh water found throughout the spring*" that are "*usually temporary*" and "*result from various combinations of snowmelt, precipitation and high water tables associated with the spring season*".

Calhoun and Klemens (2002) *Best development practices: Conserving pool-breeding amphibians in residential and commercial developments in the northeastern United States* (BDP Manual) provides the following operational definition of vernal pools:

Vernal pools are seasonal bodies of water that attain maximum depths in the spring or fall, and lack permanent surface water connections with other wetlands or water bodies. Pools fill with snowmelt or runoff in the spring, although some may be fed primarily by groundwater sources. The duration of surface flooding, known as hydroperiod, varies depending upon the pool and the year; vernal pool hydroperiods range along a continuum from less than 30 days to more than one year. Pools are generally small in size (<2 acres), with the extent of vegetation varying widely. They lack established fish populations, usually as a result of periodic drying, and support communities dominated by animals adapted to living in temporary, fishless pools. In the region, they provide essential breeding habitat for one or more wildlife species including Ambystomid salamanders (Ambystoma spp., called "mole salamanders" because they live in burrows), wood frogs (Rana sylvatica), and fairy shrimp (Eubrachyus spp.).

Vernal pool physical characteristics can vary widely while still providing habitat for indicator species. "Classic" vernal pools are natural depressions in a wooded upland with no permanent hydrologic connection to other wetland systems. Anthropogenic depressions such as quarry holes, old farm ponds and borrow pits can also provide similar habitat. Most commonly in Connecticut vernal pools are depressions or impoundments embedded within forested wetlands, most typically red maple-dominated swamps. These vernal pool habitats are commonly referred to as "cryptic" vernal pools.

Several species of amphibians depend on vernal pools for reproduction and development. These species are referred to as indicator² vernal pool species, and their presence in a temporary wetland during the breeding season helps to identify that area as a vernal pool. Indicator species present in Connecticut include the following:

² Calhoun and Klemens (2002) argue that "indicator" species is a better word than the commonly used "obligate" species, as they will occasionally breed in roadside ditches and small ponds that are not vernal pools.

- Blue-spotted salamander (*Ambystoma laterale*);
- Wood frog (*Rana sylvatica*);
- Spotted salamander (*Ambystoma maculatum*);
- Jefferson salamander (*Ambystoma jeffersonianum*);
- Marbled salamander (*Ambystoma opacum*); and
- Fairy shrimp (*Branchiopoda anostraca*).

Facultative vernal pool species are fauna that utilize but do not necessarily require vernal pools for reproductive success. Examples of facultative species include spotted turtles (*Clemmys guttata*) and four-toed salamander (*Hemidactylium scutatum*). These species may breed or feed in vernal pools but are also capable of carrying out all phases of their lifecycle in other types of wetlands or water bodies. Evidence of breeding by facultative species alone is not considered indicative of the presence of a vernal pool.

EXISTING WETLANDS ALONG THE PROJECT ROW

The Project ROW lies within the South-Central Lowlands Ecoregion (Dowhan and Craig, 1976). This ecoregion consists of “a rolling area of low average elevation, crossed by several north-trending ridge systems; streams and river systems with broad, well developed flood plains, from which the land surface generally rises to the bases of the ridges (Dowhan and Craig 1976).” Elevations average less than 60 m (200 ft) but can reach approximately 300 m (1,000 ft) in height.

Project wetlands are predominantly characterized by wetlands with a “seasonally saturated” or “saturated” hydrology. Mitsch and Gosselink (2007)³ defines a saturated hydrology as a wetland with a substrate that is saturated for extended periods during the growing season, but standing water is rarely present. Wetlands with a saturated hydrology are not capable of supporting breeding by vernal pool indicator species, as they lack prolonged standing water. In order for successful breeding by vernal pool amphibians to occur, a wetland must have standing water from approximately March through June for most indicator species⁴. Such wetlands, referred to as seasonally flooded wetlands, provide optimal habitat for vernal pool indicator species. Additionally, while seasonally flooded conditions are optimal, permanently (or semi-permanently) flooded wetlands can also provide suitable breeding habitat, particularly if they occur in a forested landscape and contain shallow water with emergent and/or submergent vegetation.

VERNAL POOL HABITAT ASSESSMENT

Matthew Davison of Davison Environmental, LLC conducted field surveys of the wetlands within the Project area in August and September 2020 to identify potential vernal pools. Potential vernal pools were identified based primarily on the presence of suitable hydrology (i.e., seasonally to

³ Mitsch, W.J. and Gosselink, J.G. 2007. Wetlands, fourth edition. John Wiley and Sons, Inc.

⁴ The indicator species marbled salamander (*Ambystoma opacum*) breeds in late-summer and fall, with larval development throughout the winter and spring.

permanently flooded wetlands), with consideration to the presence of other indicators such as concave and unvegetated surfaces.

Only one wetland, Wetland 10 (W10), possessed seasonally flooded hydrology capable of providing the appropriate hydroperiod to support indicator species. Suitable hydrology was limited to only a portion of the wetland located along the southern ROW boundary, beyond the maintained ROW. Since Project construction is scheduled to commence in Summer 2021, Davison Environmental will conduct a presence/absence survey in Spring 2021 to determine whether the potential vernal pool is a vernal pool.

POTENTIAL PROJECT IMPACTS TO VERNAL POOLS AND RECOMMENDED PROTECTION MEASURES

The potential vernal pool is located outside of the maintained ROW. Therefore, the activities that may impact the potential vernal pool are primarily associated with vegetation removal that may occur outside of the maintained ROW. The principal construction activities that could impact the identified potential vernal pool include:

1. Active construction within, or permanent alteration of the vernal pool envelope ("VPE" – or area within 100' of vernal pool), particularly during the vernal pool active season (approximately March 1 – June 1)
2. Erosion and sedimentation (water quality degradation)
3. The destruction of fossorial habitat through soil compaction and grading

Recommended Protection Measures

If the potential vernal pool is confirmed in Spring 2021, the following measures will be implemented to avoid or minimize impacts on vernal pools during construction:

1. Permanent alteration of habitat shall be avoided within the VPE where feasible.
2. Vegetation removal within the VPE (if necessary) shall be avoided to the maximum extent practicable during the amphibian breeding season (March 1 – June 1).
3. During vegetation removal, compatible species within the VPE must be protected to the maximum extent practicable at all times. Use of the following measures is required.
 - i. If vegetation must be removed, to the maximum extent practicable it must be done selectively either by hand or with equipment that can reach in and cut and remove it. Non-selective mowing of vegetation shall only be used if it is absolutely necessary.
 - ii. If use of equipment is required within the VPE, timber mats shall be utilized at all times to support equipment and minimize soil disturbance, unless otherwise approved by Eversource Vegetation Management staff or their designated representative.
 - iii. Cut vegetation, or portions thereof, may be left in place within the VPE with the approval of Eversource Vegetation Management staff or their designated representative.
4. Minimize the removal of low growing vegetation within 25' of the vernal pool depression ("VPD").
5. Use of equipment and/or the placement of mats within 25' of the VPD are not allowed unless there are safety considerations that dictate otherwise.
6. Protect existing, downed woody debris to the maximum extent practicable, particularly within 25' of the VPD.

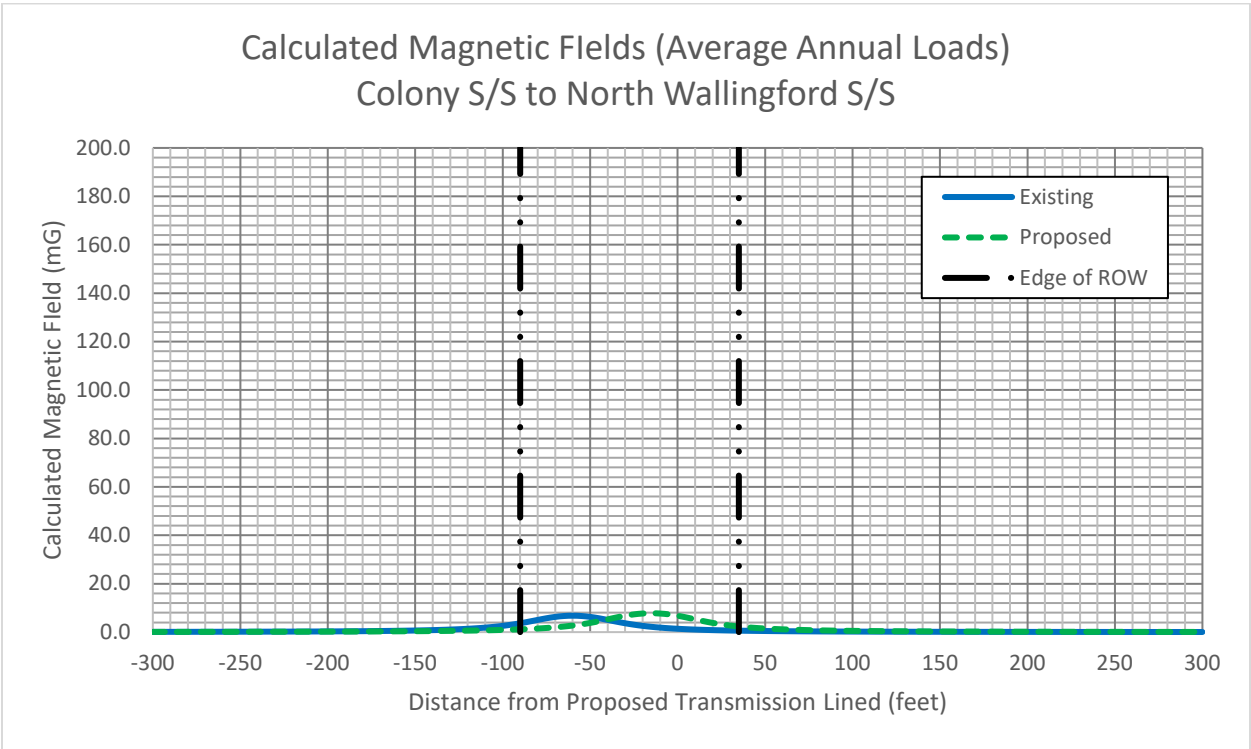
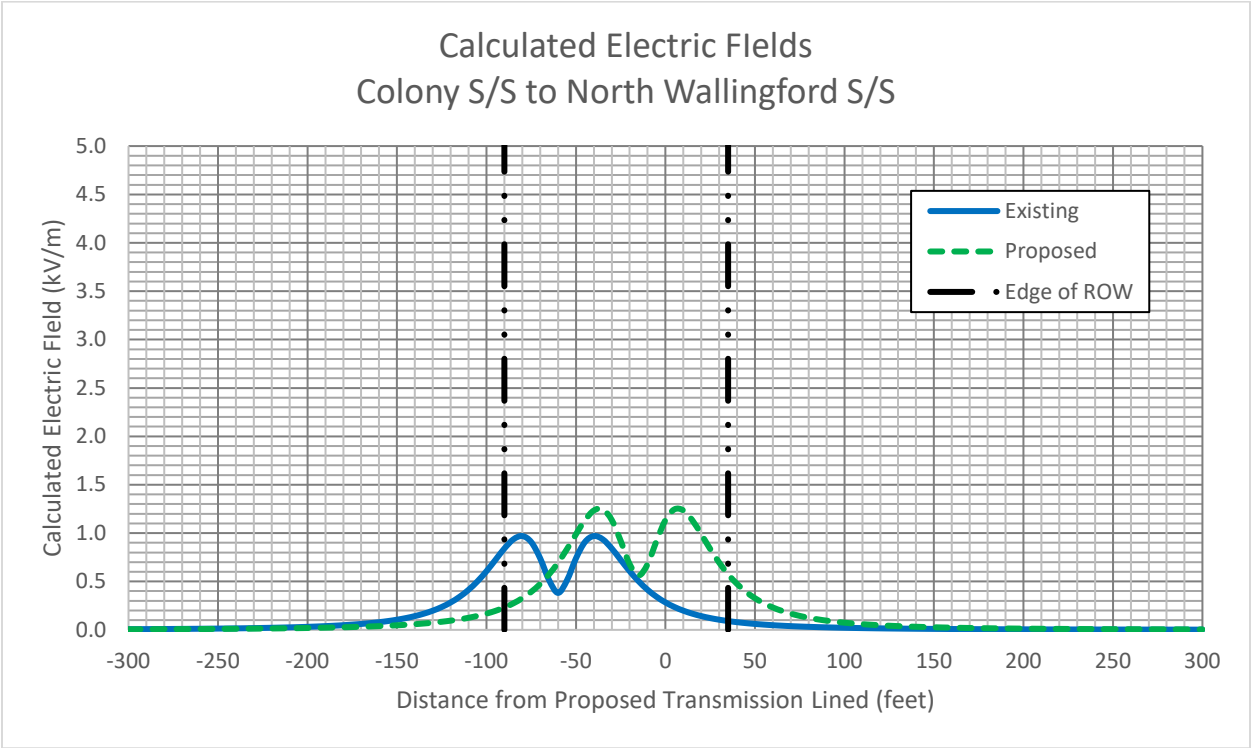
7. Install and maintain erosion and sedimentation controls as necessary to protect water quality and to limit the potential for soil deposition into a VPD.



Potential Vernal Pool (PVP) 1 looking south

Attachment E: EMF Graphs

Attachment E



Distance from Proposed Transmission Line (feet)	Magnetic Fields (mG)		Electric Fields (kV/m)	
	Existing	Proposed	Existing	Proposed
-300	0.1	0.1	0.0	0.0
-275	0.1	0.1	0.0	0.0
-250	0.2	0.1	0.0	0.0
-225	0.2	0.2	0.0	0.0
-200	0.3	0.2	0.0	0.0
-175	0.4	0.3	0.1	0.0
-150	0.7	0.4	0.1	0.0
-125	1.2	0.6	0.2	0.1
-100	2.6	0.9	0.6	0.2
-75	5.7	1.7	0.9	0.4
-50	6.3	3.8	0.7	1.0
-25	3.1	7.3	0.7	0.9
0	1.4	6.8	0.3	1.1
25	0.7	3.2	0.1	0.8
50	0.5	1.5	0.1	0.3
75	0.3	0.8	0.0	0.1
100	0.2	0.5	0.0	0.1
125	0.2	0.4	0.0	0.0
150	0.1	0.3	0.0	0.0
175	0.1	0.2	0.0	0.0
200	0.1	0.2	0.0	0.0
225	0.1	0.1	0.0	0.0
250	0.1	0.1	0.0	0.0
275	0.1	0.1	0.0	0.0
300	0.0	0.1	0.0	0.0

Attachment F: Letter to the Abutters and Affidavit

January 2021

Dear Neighbor,

As part of our everyday effort to deliver dependable energy to our customers and communities, we are preparing to rebuild a transmission line in Wallingford. Maintaining the infrastructure that supports the electric lines is one of the ways Eversource ensures the safe, secure transmission of electricity throughout the region.

We Are Always Working to Serve You Better

You're receiving this letter because project work will be taking place within the right of way (power line corridor) on or near your property.

The Project, called the Colony to North Wallingford Upgrade Project, includes:

- Replacing existing transmission structures with new steel structures. The new structures will be of similar height design but will be moving approximately 45 feet to the south of the existing structures – closer to the edge of the right of way. When complete, we will remove the old structures from the right of way.
- Replacing the existing wire, called conductor, with new wire of the same voltage.
- Replacing existing shield wire on the structures with Optical Ground Wire (OPGW). The OPGW will be installed on structures within the right of way between the Colony Substation off Old North Colony Road and the North Wallingford Substation off Thorpe Avenue, all in Wallingford. With these improvements, Eversource will improve electric reliability by enabling communication between substations.
- Conduct vegetation management within the right of way to comply with updated electrical standards.

Some of this work will require approval by the Connecticut Siting Council. If the required approval relates to work on your property you will be provided additional information in the coming months.

What You Can Expect

First, we want you to know that this work will not interrupt electric service to your property, and that all people working on this project carry identification.

In the coming weeks, Eversource, through its contractors, will be performing field work within the right of way in your area. This work may include soil and other inspections; engineering and environmental surveying; and maintenance of access roads.

Pending all necessary approvals, construction is expected to begin in late Summer/early Fall 2021. While the intent is to complete majority of the Project in 2021, some structures will need permitting that may require them to be replaced in 2022. We will keep in touch throughout the Project and will provide you updates on the Project schedule.

For More Information

Keeping the lines of communication open is important to us. We would like to connect with you to discuss the proposed project, as well as obtain the best contact phone number and e-mail address to reach you moving forward. Please contact Matt Wright at 781-859-6941 to provide that information or to discuss the project. You can also contact our Projects Hotline at 1-800-793-2202 or send an email to ProjectInfo@eversource.com.

Eversource is committed to being a good neighbor and doing our work with respect for you and your property. We will continue to provide regular project notifications via mailings, phone calls, and emails. Thank you for your patience as this important project moves forward.

Sincerely,

Daniel Bailey

Daniel Bailey

BHI Energy

Project Manager for Eversource Energy

COVID-19 Safety Information

Meeting Customer Needs During this Critical Time

Safety First and Always

The safety of our employees, our customers and the public is our top priority during the ongoing coronavirus public health crisis. Our commitment to safety, first and always, is continuous.

Providing Reliable Service to Customers

Eversource is committed to delivering safe, reliable service to our customers. This commitment has taken on even more importance during these unsettled times. We continue to call on our employees and contractors to perform essential work in the field that maintains and improves the reliability of our networks and serves customers' best interests, while also adapting our work practices to incorporate social distancing, proper protective equipment, heightened hygiene, and other best practices to protect their, and the public's, health and avoid the spread of coronavirus.

Safely Performing Our Work

Essential work is activity that maintains or improves the condition of our system and supports our delivery of safe and reliable energy and other services, including the replacement or installation of electrical lines, structures/poles, and related equipment.

In addition to relying on alternate communications channels to keep customers safe and informed (letters, emails and phone calls), we will resume our use of door hangers as a part of our outreach efforts. Eversource representatives will leave these notifications that include information on our work in rights-of-way and who to contact with any questions — without knocking on doors. Eversource representatives will continue to abide by all COVID-19 safety guidelines, which include wearing personal protective equipment, following social distancing, enhanced sanitizing requirements and other federal and state health and safety guidelines.

Questions and More Information

For any questions regarding essential work in your area, please call **1-800-793-2202** or email us at **ProjectInfo@eversource.com**.



AFFIDAVIT OF SERVICE OF NOTICE

STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF NEW HAVEN)

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 the petition for a declaratory ruling of The Connecticut Light and Power Company doing business as Eversource Energy to be served by mail or courier upon the following municipal officials:

- Mayor William Dickinson
Town of Wallingford
Wallingford Town Hall
45 South Main Street
Wallingford, CT 06492

I also certify that I caused notice of the proposed modifications to be served by mail or courier upon owners of abutting properties shown on the List of Abutters included in Attachment D of the Petition.



Daniel Bailey
Project Manager

On this the 18th day of March 2021, before me, the undersigned representative, personally appeared, Andrew Lord, 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.

Notary Public/My Commission expires: _____

Officer of the Superior Court/ Juris No.: _____



Juris No. 413393