

56 Prospect Street P.O. Box 270 Hartford, CT 06103

Kathleen M. Shanley

Manager – Transmission Siting Tel: (860) 728-4527

January 28, 2022

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

Re: <u>Dooley Substation to Scoville Rock Substation and Middletown Substation Structure</u>

Replacement Project

Dear Ms. Bachman:

Attached are an original and fifteen (15) copies of a petition on behalf of The Connecticut Light and Power Company doing business as Eversource Energy ("Eversource") requesting a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to an existing 115-kilovolt transmission line and two 345-kilovolt transmission lines, the Dooley Substation to Scoville Rock Substation and Middletown Substation Structure Replacement Project ("Project") in the City of Middletown, Connecticut ("Petition").

Prior to submitting this Petition, representatives from Eversource briefed Middletown municipal officials about the Project. Eversource provided written notice of the proposed work to all abutters and of the filing of this Petition with the Council. Maps and line lists identifying the abutting property owners who were notified of the Project are provided in the Petition as Attachment A: Dooley Substation to Scoville Rock Substation to Middletown Substation – Aerial Maps.

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

Sincerely,

Kathleen M. Shanley

Enclosure

cc: Honorable Benjamin Florsheim, Jr., Mayor, City of Middletown

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
387, 3041 and 1050 LINES IN THE CITY OF MIDDLETOWN, CONNECTICUT

1. Introduction

2. 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 387 Line and 3041 Line, both 345-kilovolt ("kV") transmission lines, and the 1050 transmission line a 115-kV transmission line (collectively, "Project"). The three lines are located within an existing transmission right-of-way ("ROW") in the City of Middletown, Connecticut ("City"). Additionally, the Project includes the replacement of one structure at Middletown Junction. Eversource submits that a Certificate is not required because the proposed modifications would not have a substantial adverse environmental effect.

3. Purpose of the Project

The purpose of the Project is to replace twelve transmission line support structures in an approximately 9-mile section of the existing ROW within the City of Middletown and one structure within Middletown Substation. Seven of the structures occupy the ROW corridor between Dooley Substation and Chestnut Junction. Five of the structures occupy the ROW corridor between Chestnut Junction and Scoville Rock Substation. The Project also includes

replacing the existing static wire on the 1050 Line with optical ground wire ("OPGW") from

Dooley Substation to Middletown Substation. All work will be located entirely within

Eversource's ROW or on Eversource owned property. The structures to be replaced include

eight wood H-frames, two steel single-circuit monopoles, a laminated wood H-frame, one

wood single circuit three pole structure and a lattice tower. The width of the existing ROW

varies from 350 feet to 500 feet and is maintained to the edge of the ROW.

All but three of the structures support either the 387 Line or the 3041 Line and need to be

replaced due to age related degradation as described below:

splitting and rotting pole tops;

woodpecker damage; and,

wood decay and cracks.

The remaining three replacement structures are on the 1050 Line and require replacement

due to structural loading issues associated with the planned installation of the OPGW and,

specific to the lattice tower in Middletown Substation, additional signs of degradation with

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bent and/or deteriorated members.

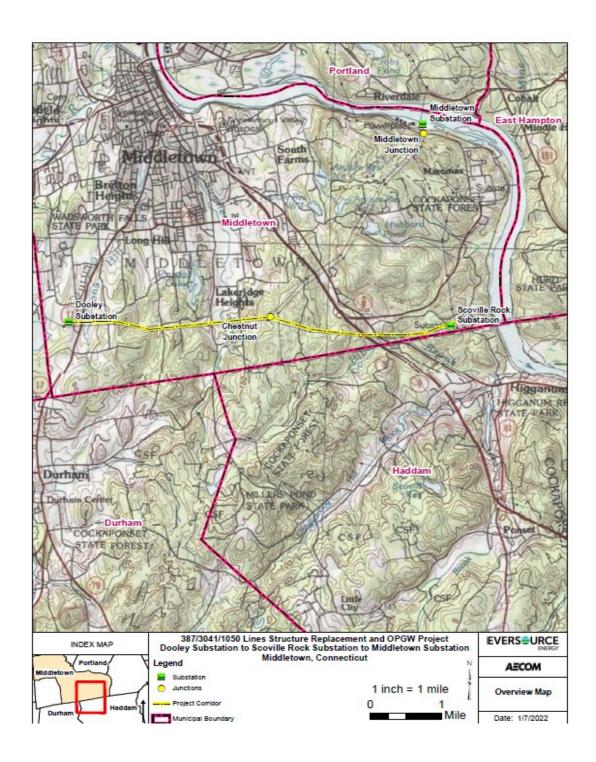
The proposed structure replacements will not require expansion of the ROW.

Dooley Substation to Scoville Rock Substation and Middletown Substation

Eversource Energy

Figure 1 illustrates the general location of the proposed Project.

Figure 1: Project Overview Map



4. Project Area and Project Description

The Project area is primarily 9 miles of the existing ROW between Dooley Substation and Scoville Rock Substation in Middletown and Middletown Substation. Between Dooley Substation and Chestnut Junction, the ROW is occupied by three 345-kV transmission lines (the 387, 362 and 3041 lines) and one 115-kV transmission line (the 1050 Line). From Chestnut Junction the 387, 362 and 3041 lines continue toward Scoville Rock Substation. At Chestnut Junction the 1050 Line leaves this ROW, turning north and occupying a different ROW to terminate at Middletown Substation.

The Project scope consists of replacing twelve structures on the 387, 3041 and 1050 Lines in the ROW and replacing one structure on the 1050 Line inside Middletown Substation for a total of 13 structure replacements.

Details of the proposed scope of work for the asset condition structure replacements are summarized as follows:

Line 387

Replace 6 single circuit wood H-frame structures (Structures: 19041, 19048, 19052, 19067, 19076 and 19077), due to asset condition, with single circuit weathering steel H-frame structures;

Line 3041

- Replace two single circuit wood H-frames structures (Structures 30021 and 30013),
 due to asset condition, with single circuit weathering steel H-frame structures;
- Replace one single circuit wood three pole structure (Structure 23000) with a single circuit weathering steel three pole structure; and,

 Replace one single circuit laminated wood H-frame structure (Structure 23009), due to asset condition, with a single circuit weathering steel H-frame structure.

Along with the asset condition structure replacements, Eversource intends to replace the existing 7/8 Alumoweld shield wire on the 1050 line with OPGW and install hardware and insulators, as needed. Installation of the OPGW requires the replacement of three structures, due to structural loading issues. The structure replacements specific to the Line 1050 OPGW work are:

- Replace one single-circuit steel lattice structure (Structure 6001) with a weathering steel single-circuit monopole structure inside Middletown Substation, and,
- Replace two steel single-circuit monopole structures (Structures 6067 and 6059), with single circuit weathering steel monopole structures.

The maps in Attachment A: "Dooley Substation to Scoville Rock Substation and Middletown Substation – Aerial Map", dated January 28, 2021 ("Attachment A"), depict the locations of existing and proposed structures, and work pads to be used for the Project, wetland areas and other ROW features, access roads and other Project elements. The cross-section drawings in Attachment B: "Dooley Substation to Scoville Rock Substation to Middletown Substation - Cross Sections" depict changes between the existing and proposed structures. The heights of the existing thirteen structures range from approximately 65 feet to 111 feet. New structures will range in height from 75 feet to 115 feet. The average height increase is approximately two feet. Attachment C – "List of Structure Replacements" provides detail information on the heights and types of the existing and replacement structures.

5. Existing Environment, Environmental Effects and Mitigation

The Project would be constructed primarily within Eversource's ROW between Dooley Substation

and Scoville Rock Substation. A single lattice tower replacement is also planned at Middletown

Substation as part of the Project. No expansion of the existing ROW would be required. The

Project would not have a substantial adverse environmental effect for the reasons explained

below.

Land Use

Land uses adjacent to the Project area consist of low density residential properties,

agricultural fields, designated open space, recreational trails, local and state roadways,

undeveloped upland and wetland areas.

Replacement of structures and installation of OPGW would occur in Eversource's existing

ROW or on Eversource owned property devoted to long term use as an electric transmission

corridor and substation facility, respectively. As such, the Project will not result in adverse

impacts to existing land uses.

Vegetation Removal

No clearing is required for the work. Vegetation removal/mowing may be needed in select

areas for construction. Possible side trimming may be required for the OPGW installation.

Dooley Substation to Scoville Rock Substation to Middletown Substation

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Scenic, Recreational and Cultural Resources

No portion of the ROW traverses state or local designated scenic roadways; therefore, the Project will not result in any impacts to these resources¹.

A desktop review of CTDEEP and the Connecticut Forest and Park Association ("CFPA") GIS data was conducted to identify locations where portions of the Project area traverse or are adjacent to CTDEEP open space property and trails. The Project area crosses three recreational resources, which include a state-owned property (Dooley Pond), as well as two CFPA blue-blaze hiking trails, the Seven Falls Loop Trail and the Mattabassett Trail. The Project will not affect Dooley Pond. Eversource will coordinate with CFPA to develop and implement measures to maintain public safety on and near the trails during Project construction while also avoiding or minimizing impacts to accessing the trails.

Phase 1A cultural (archaeological and historical) resource assessments of the proposed Project area were conducted by Heritage Consultants, LLC ("Heritage") in February and March of 2021 and January 2022. The assessments were conducted using a three-step approach, which consisted of: (1) a desktop resource evaluation and review of previously identified archaeological sites and National/State Register of Historic Places properties within 500 feet of the Project; (2) visual recognizance ("pedestrian") survey; and (3) recommendations for completing additional cultural resource investigations. Based upon the presence of qualifying criteria (i.e., previous disturbances, existing wetland areas, and existing soils that are unlikely to retain archaeological deposits in the ROW), the Project area has been

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Connecticut Department of Transportation (CTDOT), October 1, 2018 Connecticut State Scenic Roads. Accessed May 14, 2019. Available URL: https://www.ct.gov/dot/lib/dot/documents/dscenicroads/scenic_roadsrevised_october 1 2018.pdf

categorized as having "no/low" archaeological sensitivity. As such, Heritage has determined that no further archaeological investigations are necessary.

No State or Local Register of Historic Places properties are in the Project area. However, the literature review did reveal that there is one previously identified archaeological site and one historic standing structure located within 500 feet of the Project.

The archeological site is located immediately south of the planned work pad associated with Structure 19076 and to the east of the existing access road. Previous field assessments at this site concluded that it is a National Register of Historic Places eligible archaeological resource. While the location of the proposed work pad and existing access road retain no/low cultural sensitivity, Heritage has recommended measures to protect this site due to its proximity to planned construction activities. The recommended protection measures include installation of high visibility fencing between the archeological site and planned construction activities, placement of appropriate signage to notify contractors of the sensitive resource area and hiring a cultural resource monitor to be present when the fencing is installed and during construction.

Heritage found that the documented historic standing structure in the vicinity of the Project is not eligible for the National Register of Historic Places and that it will not be directly or indirectly impacted by the Project.

Wetlands, Watercourses and Flood Zones

Eversource identified and delineated regulated wetland and watercourse resources in the Project area in May 2021 (see Attachment D: Wetlands and Watercourses Report). The wetlands, watercourses and flood zones in the Project area are identified on in Attachment A. Water resources include inland wetlands, watercourses (perennial and intermittent streams),

vernal pools, and Federal Emergency Management Agency ("FEMA") Flood Zones. Work near these areas would be conducted in accordance with Eversource's 2016 Construction & Maintenance Environmental Requirements, Best Management Practices Manual for Massachusetts and Connecticut ("BMPs") and with the applicable regulatory permit conditions and approvals. Details regarding each of these resource areas are provided below.

Wetlands

A total of 38 wetlands were identified and delineated in the Project area through a field survey that was conducted in accordance with industry standard methodology. No permanent or temporary effects to wetlands would occur as a result of the Project structure replacement work.

Watercourses

A total of 12 watercourses were delineated within the Project area. These include eight perennial watercourses and four intermittent watercourses.

No permanent or temporary effects to watercourses would occur as a result of the Project structure replacement work.

Vernal Pools

The Project area was surveyed for vernal pool habitat in May of 2021 and was identified based primarily on the presence of suitable physical and hydrologic indicators, such as the presence of seasonally to semi-permanently flooded wetlands, presence vernal pool indicator species², and other indicators such as concave and

² Indicator species include Spotted salamander, wood frog, marbled salamander, blue-spotted salamander, Jefferson salamander, eastern spadefoot toad, and fairy shrimp.

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unvegetated surfaces. The survey resulted in the identification of five vernal pools within the Project area. The survey results are provided in Attachment E: Vernal Pool Survey.

No permanent effects to vernal pools or their associated 100-foot vernal pool envelopes would occur from the Project. An existing gravel access road extends through the 100-foot envelope of Vernal Pool 5, which will be used to access structure 23000 on 3041 Line. The gravel road will not be improved or altered by the Project within the 100-foot vernal pool envelope.

FEMA Flood Zones

A 100 Year FEMA Flood Zone associated with Bible Rock Brook extends into the Project area. No permanent or temporary impacts to the 100 Year Flood Zone would occur due to the Project.

Water Supply

Based on Aquifer Protection Areas ("APA") mapping maintained by the CT DEEP, the Project area is not located within an APA. The Project area is not within a public water supply watershed and does not cross any public supply reservoirs or public water supply wells.

Wildlife and Habitat

Habitats within the maintained Project area generally comprised of upland and wetland shrubland, meadow, and unvegetated or sparsely vegetated ledge outcroppings.

Based on the most recent CTDEEP Bureau of Natural Resources Wildlife Division's Natural Diversity Data Base ("NDDB") mapping, dated December 2021, portions of the Project area

are near documented state listed species or significant natural communities. Eversource submitted a NDDB Review Request to CTDEEP in December 2021 for information pertaining to protection of listed species and natural communities near the Project area. Eversource is awaiting a response from CTDEEP and will adhere to any recommendations and protection strategies that may be identified.

In addition, Eversource has conducted previous biological survey work for state listed species within the Project area based on previous NDDB Determinations in the area and guidance received from CT DEEP. Eversource will implement appropriate measure for the protection of the state listed species documented near the Project during construction.

Visual Effects

Due to the limited number of structure replacements along the 9-mile segment, Eversource does not believe that the Project would result in a significant change to the visual character of the line. The weathering steel of the replacement structures would be similar visually to the existing wood structures and the replacement structures would be of the same design and located as close as possible to the existing structures. The average height increase is approximately two feet and is not anticipated to be visually discernable. As a result, the Project would not result in significant increased visual effects.

Noise

The construction of the Project would result in short-term and localized noise, as is typical of any similar construction project, from the operation of equipment and other vehicles. Once in service, the new structures on the 115-kV line and 345-kV lines would not result in any changes to noise levels.

Air Quality

Short-term, localized effects from the Project construction on air quality may result, 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 would 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 requirements³. The potential for tracking dirt onto local paved roads will be monitored by the Project personnel. Any such tracking will be promptly swept and removed. 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; Sound

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

6. Transportation and Traffic Management

The Project area extends across local roads, State Routes 17, 154 and 9 and a New England Central Railroad corridor.

Construction-related vehicular and equipment movements would utilize public roads in the Project area to access the ROW. However, the 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

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

described in the following Construction Sequence section. Due to phasing of construction work,

Project-related traffic is 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 work

with the City and the Connecticut Department of Transportation to develop and implement traffic

management procedures, as needed. The construction contractor typically 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 required.

Eversource and its Project contractor would also work New England Central Railroad to develop

and implement any required operational and safety procedures for the line work over the railroad

tracks.

Construction vehicles and equipment to be used for the work may include pickup trucks, bucket

trucks, flat-bed trucks, excavator, concrete trucks, drill rigs, front loaders, reel trailers, bulldozers,

wood chippers, brush hogs/mower, forklifts, side booms, dump trucks and cranes. Pullers and

tensioners would be used for the line work. Bat wing trucks and guard trucks would be used for

protection of roads during the line work.

7. Construction Sequence

Project construction would include the following activities:

Establishing Staging Area

Eversource proposes to establish staging areas for the Project at 49 Depaolo Drive, Southington

(Line 3041), and 2175 South Main Street, Middletown (387 and 1050 Lines). The staging areas

Dooley Substation to Scoville Rock Substation to Middletown Substation

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are depicted in Figure 2 and Figure 3; and are currently being utilized by Eversource as staging areas for general maintenance-related work on the transmission system.

These staging areas would be utilized by the Project for surface storage of construction materials, equipment, tools, and supplies (including cable reels, insulators, hardware, poles and mats). One office trailer and Conex storage containers may also be located at the staging areas. Components removed during the work (structures, hardware and insulators) may be temporarily accumulated and stored at the staging areas prior to removal off-site for salvage and/or disposal. In addition, the staging areas 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. No refueling of vehicles or equipment will take place at the staging areas. Appropriate erosion and sedimentation ("E&S") controls would be installed at the staging areas, as required, and maintained until completion of the work in accordance with Project permits and Eversource's BMPs.

Figure 2: Staging Area

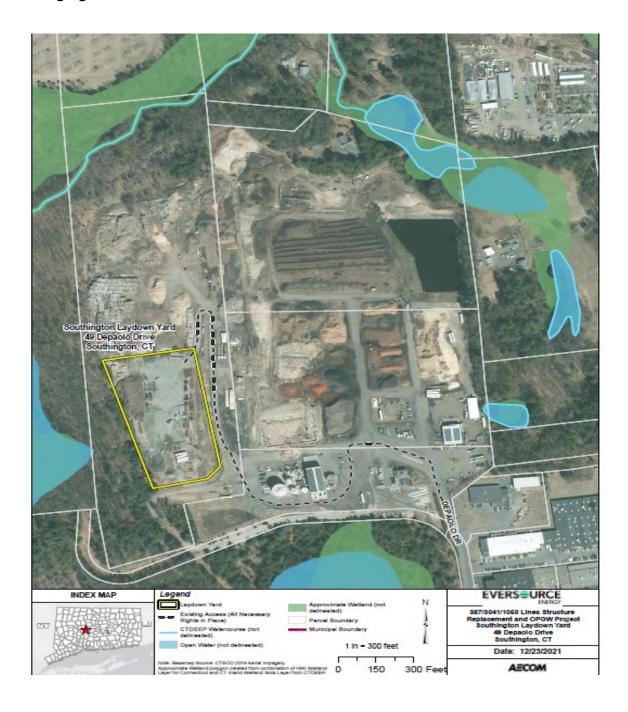
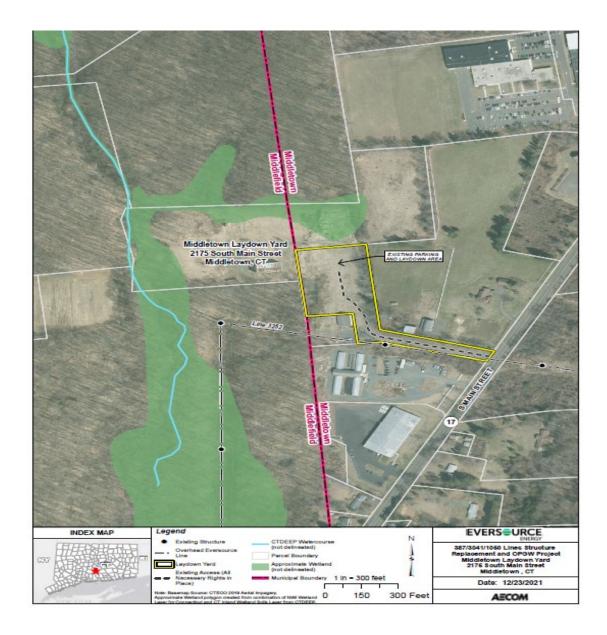


Figure 3: Staging Area



Vegetation Removal

Side trimming and vegetation removal/mowing may be conducted in select areas where needed for construction. Eversource would conduct vegetation management activities in accordance with its BMPs.

Eversource would require the contractor to use low-impact vegetation removal and side trimming methods to remove brush vegetation, to protect state-listed species and their habitats. Low-impact vegetation removal 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 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.
- Use appropriately sized equipment for the site conditions, where possible, to minimize impacts.
- Where practical, cut brush close to the ground, leaving root systems and stumps, to provide additional soil stability.

Soil Erosion and Sediment Control Installation

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

Typical E&S control measures include, but are not limited to, straw blankets, hay bales, silt fencing, rock construction entrances, soil and slope protection, water bars, check dams, berms, swales, plunge pools, and sediment basins. Silt fence would be installed as needed to intercept and retain sediment and/or construction materials from disturbed areas and minimize the potential for sedimentation outside of the Project area. Temporary E&S control measures would be maintained and inspected for the duration of the Project to ensure their integrity and effectiveness and for compliance with the General Permit. SWPCP inspections would be performed in accordance with the General Permit requirements. Following the installation of the 387, 3041 and 1050 Lines structure replacements and OPGW on the 1050 Line, seeding and mulching or hydroseeding would be completed to permanently stabilize the areas disturbed by the construction activities. The temporary E&S control measures would remain in place until the Project work is complete and all disturbed areas are stabilized.

Access Roads and Work Pads

Access to the locations of each existing and proposed structure location is required for the Project. As a result of historical line maintenance activities on the ROW, most access roads are already established and Eversource would utilize these existing access roads to the extent possible. The access roads expected to be used for the Project are illustrated on the maps in Attachment A.

Existing access roads may need to be improved (graded, widened, and/or reinforced) with additional stone material in order to accommodate the safe passage of construction vehicles and equipment. Access road improvements typically include trimming adjacent vegetation and widening roads, as needed, to provide a minimum travel surface that is approximately 16 feet wide (additional width may be needed at turning or passing locations). Appropriate E&S controls would be installed as necessary before the commencement of any improvements to

or development of access roads. Access to Structure 6001 inside Middletown Substation would be through the existing access to the facility.

At each transmission line structure site, a work pad would be required to stage material for final on-site assembly and/or removal of structures, and to provide a safe, level work base for the construction equipment. Typical work pads would be approximately 100 feet by 100 feet.

Typical work pad involves several steps: (1) removal of vegetation, and (2) grading to create a level work area. The removed topsoil would be stockpiled and stabilized within the ROW, typically near the new work pad or access road. A rock base, which allows drainage, may be layered on top of filter fabric, if necessary. Additional layers of rock with dirt/rock fines (processed gravel) are typically placed over the rock base. To facilitate future transmission line maintenance, gravel work pads would be left in place, unless the property owner requests their removal. Where required, stockpiled topsoil will be used for restoration and revegetation of the work pads.

Access roads and work pads located within improved areas (such as lawns) would typically be removed and the area restored. No new permanent work pads are proposed in water resource areas.

The locations and configuration of the work pads are shown on Attachment A.

Foundation Installation

The proposed structures would be either directly embedded or have drilled (caisson) foundations. This work would require the use of equipment such as mechanical excavator (drill rigs), pneumatic hammers, augers, drill rigs, and dump trucks. If groundwater is encountered, 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 not be stored or

stockpiled inside of a wetland, or adjacent to a watercourse. Materials that cannot be utilized

as backfill would be disposed in accordance with applicable regulations.

Depending on site-specific soil conductivity, supplemental grounding would be installed. A

quad "ditch-witch" plow-cable trencher, or equivalent 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 the directly embedded structures would be backfilled

with processed gravel.

Counterpoise will be installed after the structures are constructed.

Shield Wire Installation/Removal

The installation of the OPGW and removal of the existing Alumoweld shield wire on the 1050

Line would occur after the 1050 Line replacement structures have been erected. The

equipment required for this activity would include reels, pulling and tensioning rigs, and bucket

trucks.

The removal of the existing shield wire would take place during the active installation of the

OPGW as the shield wire would be used as pulling lines, if possible. Helicopters may also be

used to install the initial pulling lines for OPGW installation.

Dooley Substation to Scoville Rock Substation to Middletown Substation

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Restoration

Once the replacement work is completed and the existing shield wire is replaced with OPGW, the existing structures would be removed. ROW restoration activities would also include the removal of construction debris, signage, flagging, and temporary fencing, as well as the removal of construction mats, and structure 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.

Waste Management

Waste materials, such as structure components (i.e., wood and steel 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 regulations and Eversource policies. Excess soils would be managed in accordance with the Eversource's BMPs. Eversource will develop soil and groundwater management plans and dispose of any excess soils consistent with applicable regulations.

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 2022. Normal work hours would be Monday through Saturday from 7:00 AM to 7:00 PM. SWPCP and other inspections may occur outside of these standard hours, as necessary, to comply with permit requirements. Sunday work hours may also be necessary due to delays caused by inclement weather and/or outage constraints.

Access roads in the Project area are well developed and regularly maintained. Some improvements may be required to safely support the proposed scope of work. The Project work would require some mowing to accommodate work pads. Construction is expected to begin in the 3rd quarter 2022 and the proposed in-service date of March 31, 2023 Multiple construction crews may work concurrently on different sections of the line.

9. Electric and Magnetic Fields

The structure replacements and replacement of shield wires will only affect the height of conductor attachments in the immediate vicinity of the structure replacements. The Project will not alter the configuration of the conductors. As a result, electric and magnetic fields will change only slightly directly underneath the structures. At and beyond the edges of the ROW, any changes to the field will be almost immeasurable.

10. Municipal and Property Owner Outreach

In December 2021, Eversource consulted with the City of Middletown to brief municipal officials on the proposed Project. Eversource also provided written notice of the Petition filing (see Attachment F: Letter to the Abutters and Affidavit of Service). In December 2021, Eversource also conducted outreach to property owners located along the ROW. 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 to be in 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 and respond to any inquiries or concerns.

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: Dooley Substation to Scoville Rock Substation and Middletown Substation – Aerial

Maps

Attachment B: Dooley Substation to Scoville Rock Substation to Middletown Substation - Cross

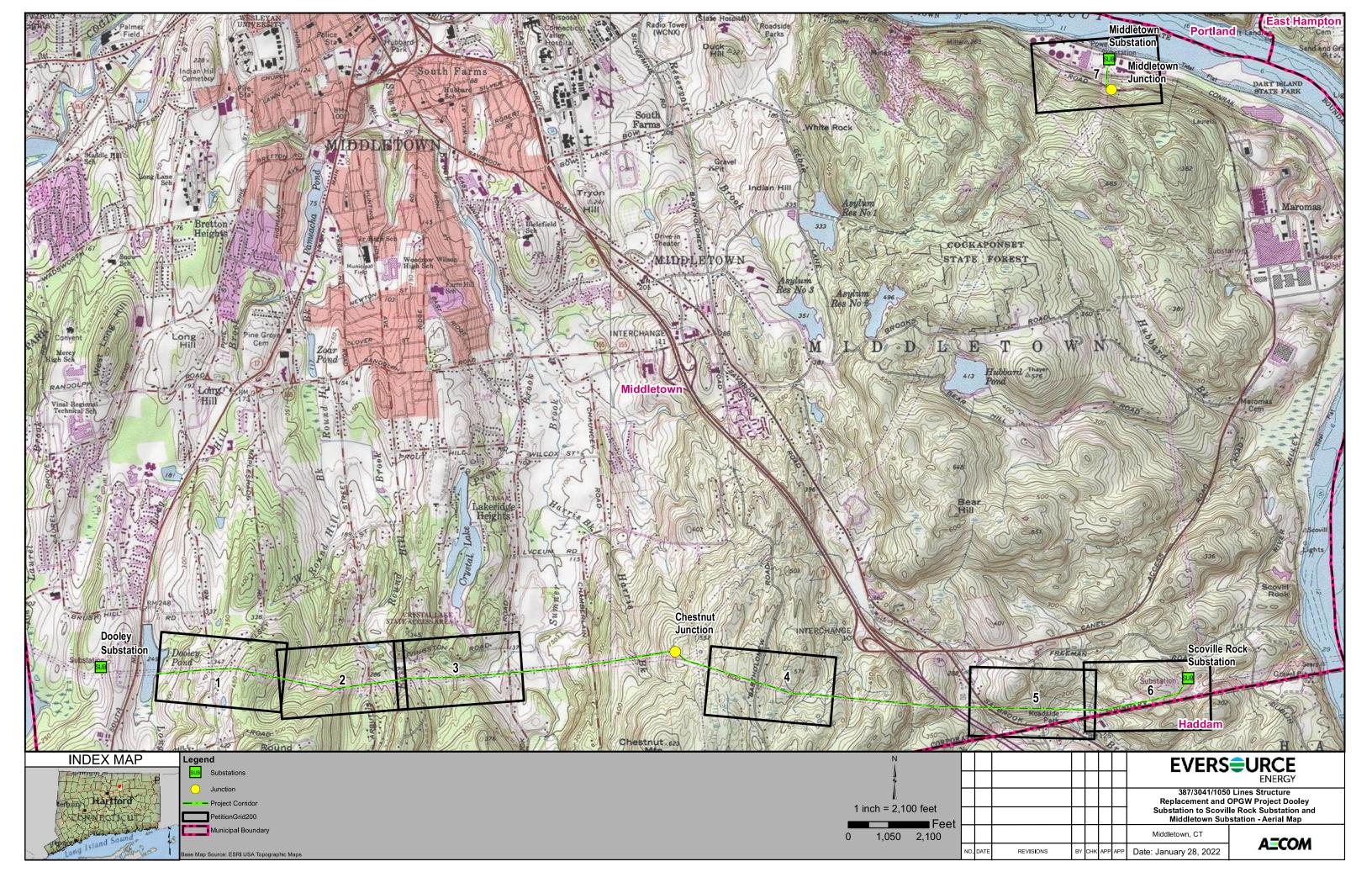
Sections

Attachment C: List of Structure Replacements
Attachment D: Wetlands and Watercourses Report

Attachment E: Vernal Pool Survey

Attachment F: Letter to the Abutters and Affidavit

Attachment A: Dooley Substation to Scoville Rock
Substation and Middletown Substation - Aerial Maps



MAPSHEET 1 OF 7 387/3041/1050 Lines Structure Replacement and OPGW Project Dooley Substation to Scoville Rock Substation and Middletown Substation Middletown, CT

AREA DESCRIPTION

- Mixed Residential
- Agricultural
- Undeveloped Forestland
- Open Water
- Natural Diversity Database Area
- Cliff or Ledge

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use

- Open Water
- **Undeveloped Forestland**
- Agricultural Field
- Roadway; Coleman Road
- Existing Gravel
- Maintained scrub/shrub
- Maintained Fields
- Barren/Undeveloped
- Cliff or Ledge

Scenic/Recreational Resources • Dooley pond

Water Resources

W01 (Dooley Pond) – Unconsolidated Bottom Wetland (PUB)

Wetland and Watercourse Crossings

Right-of-Way Vegetation

- Herbaceous
- Scrub/Shrub
- Agricultural Crops (Hay)
- Forested

Access

- Structure 19041; mix of existing access and temporary construction matting off of Coleman Road
- Structure 6067; existing access off of Coleman Road
- 30021; existing access off of Arbutus Street

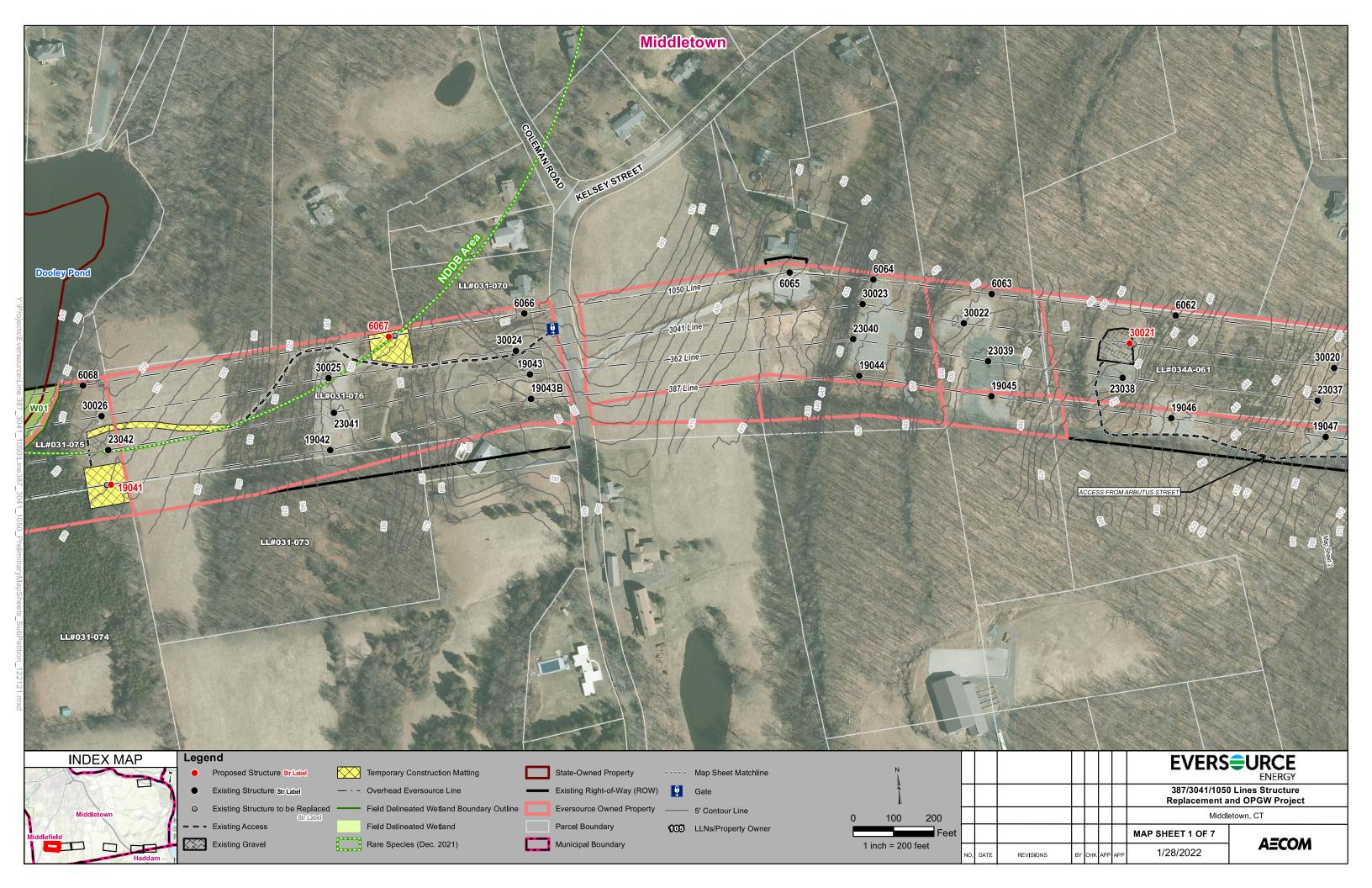
Road Crossings

Coleman Road

Existing Maintained Right-of-Way Width

350-375 Feet

ABUTTERS TO PROJECT RIGHT-OF-WAY			
LINE LIST NUMBER	OWNER NAME	PARCEL ADDRESS (MIDDLETOWN, CT)	
031-070	PHRANCES LEVERTON SZEWCZYK	529 COLEMAN RD	
031-073	SUNSHINE REALTY COMPANY LLC	COLEMAN RD	
031-074	DOROTHYANN J & ROBERT C VAN RHIJN	136 ROUND HILL RD	
031-075	CONN LIGHT & POWER CO	COLEMAN RD	
031-076	CONN LIGHT & POWER CO	COLEMAN RD	
034A-061	CONN LIGHT & POWER CO	ARBUTUS ST	



MAPSHEET 2 OF 7 387/3041/1050 Lines Structure Replacement and OPGW Project Dooley Substation to Scoville Rock Substation and Middletown Substation Middletown, CT

AREA DESCRIPTION

- Mixed Residential
- Undeveloped Forestland
- Cliff or Ledge
- Scrub/Shrub
- Low Density Development
- Barren/Undeveloped

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use

- Undeveloped Forestland
- Existing Gravel
- Maintained scrub/shrub
- Cliff or Ledge
- Roadway; Arbutus Street

Scenic/Recreational Resources

None

Water Resources

- Wetland W02–PSS wetland within ROW, PFO outside of maintained area
- Wetland W03 PSS wetland, PFO outside of maintained area
- Wetland W04– PEM wetland within ROW, PFO outside of maintained area
- Wetland W05 PSS wetland, PFO outside of maintained area
- Connecticut Only Wetland CTW1-PFO wetland
- Perennial Stream S1 (Unnamed Tributary to the West Round Hill Brook)
- Perennial Stream S2 (Unnamed Tributary to the West Round Hill Brook)
- Stream S3 (Unnamed Tributary to the East Round Hill Brook)
- Vernal Pool VP1 within wetland W05

Wetland and Watercourse Crossings

- Existing bridge crossing over Stream S1 and Wetland W02
- Existing ford crossing over Stream S2 and Wetland W03
- Existing culvert crossing on access road over Stream S3

Right-of-Way Vegetation

- Herbaceous
- Maintained Scrub/Shrub
- Forester
- Palustrine Scrub/Shrub Wetland (PSS)
- Palustrine Emergent Wetland (PEM)

Access

- Structure 19048; existing access off of Arbutus Street
- Structure 6059; existing access off of Arbutus Street

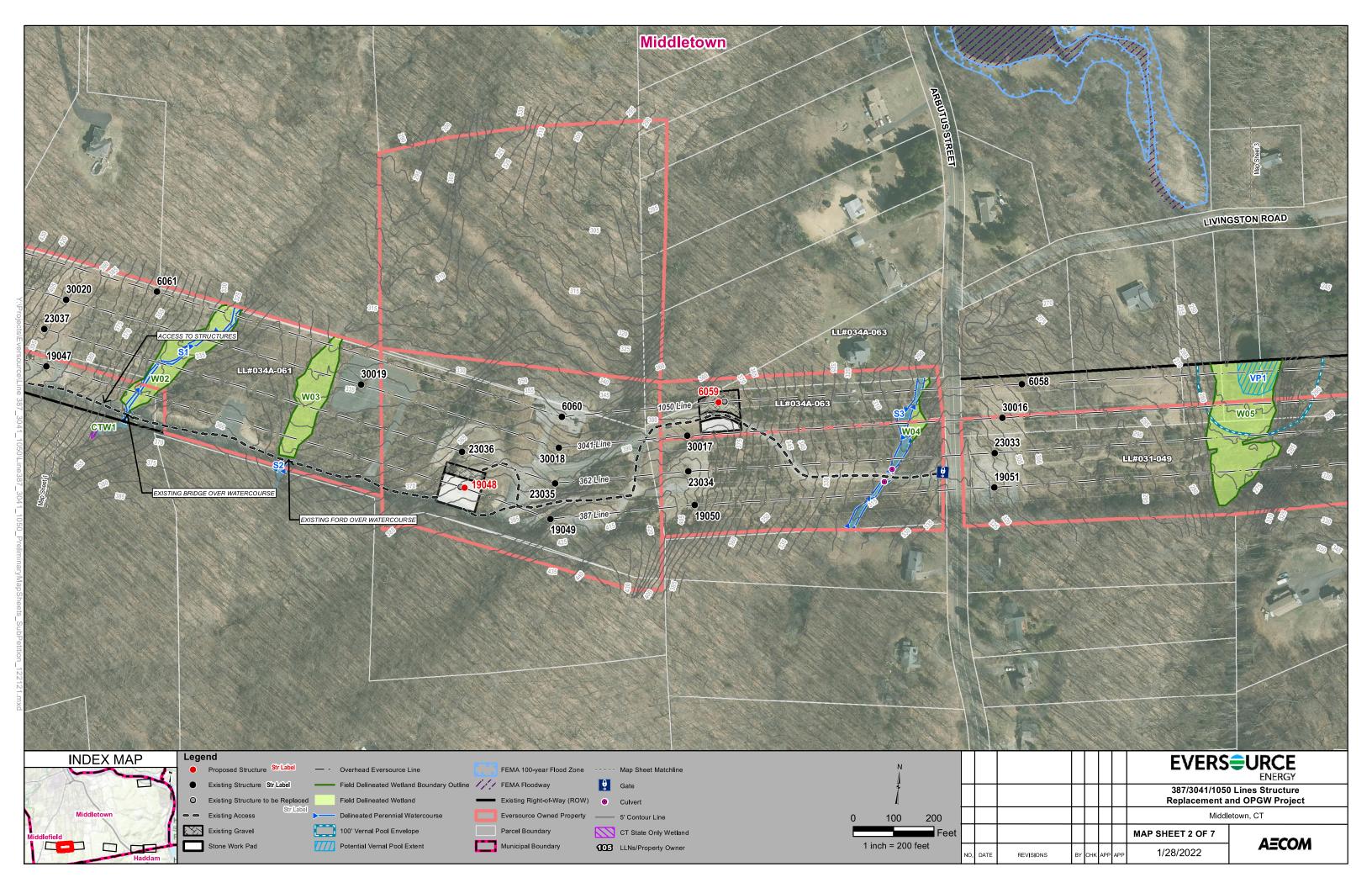
Road Crossings

Arbutus Street

Existing Maintained Right-of-Way Width

• 350-500 Feet

ABUTTERS TO PROJECT RIGHT-OF-WAY			
LINE LIST NUMBER	OWNER NAME (NOW OR FORMERLY)	PARCEL ADDRESS (MIDDLETOWN, CT)	
031-049	CONN LIGHT & POWER CO	MARGARITE RD	
034A-061	CONN LIGHT & POWER CO	ARBUTUS ST	
034A-063	JOSEPH S FORMICA	767 ARBUTUS ST	
034A-063	CONN LIGHT & POWER CO	ARBUTUS ST	



MAPSHEET 3 OF 7 387/3041/1050 Lines Structure Replacement and OPGW Project Dooley Substation to Scoville Rock Substation and Middletown Substation Middletown, CT

AREA DESCRIPTION

- Mixed Residential
- Undeveloped Forestland
- Low Intensity Development
- Scrub/Shrub
- Natural Diversity Database Area
- Agricultural (Hay)

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use

- Undeveloped Forestland
- Existing Gravel
- Maintained scrub/shrub
- Barren/Undeveloped
- Agricultural

Scenic/Recreational Resources

None

Water Resources

- Wetland W05 PSS wetland, PFO outside of maintained area
- Wetland W06 PSS wetland, PFO outside of maintained area
- Wetland W07 PSS wetland, PFO outside of maintained area
- Wetland W08 PSS wetland, PFO outside of maintained area
- Wetland W09 PEM / PFO wetland
- Stream S4 (Unnamed Tributary to the Sumner Brook)
- Stream S5 (Unnamed Tributary to the Sumner Brook)
- Vernal Pool VP1 within wetland W05
- Vernal Pool VP2 within wetland W09

Wetland and Watercourse Crossings

Existing bridge crossing on access road over Stream S4 and Wetland W06

Right-of-Way Vegetation

- Herbaceous
- Maintained Scrub/Shrub
- Forested edges
- Palustrine Scrub/Shrub Wetland (PSS)
- Palustrine Emergent Wetland (PEM)
- Agricultural vegetation

Access

- Structure 19052; existing access off of Margarite Road
- Structure 30013; existing access off of Margarite Road

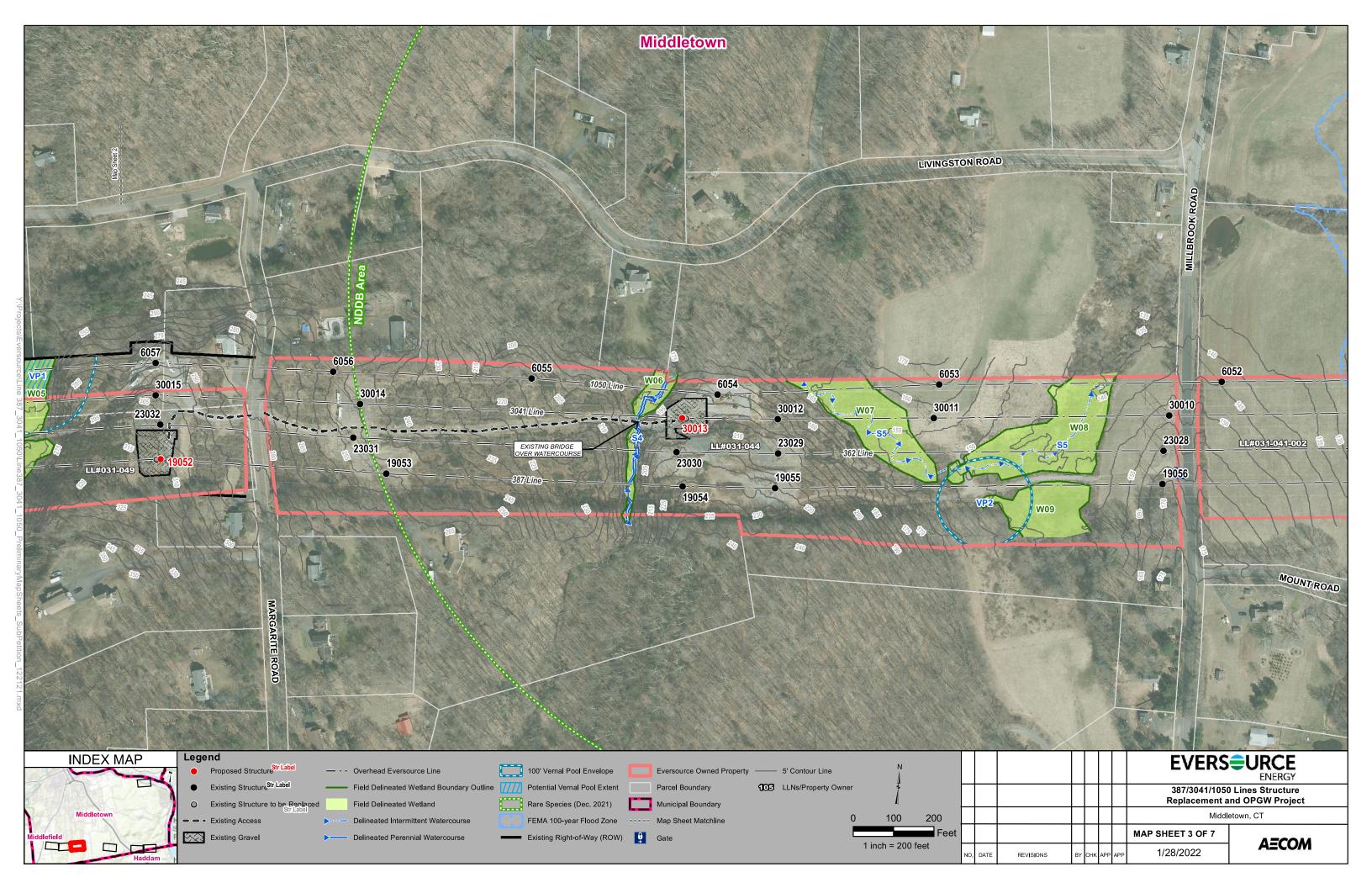
Road Crossings

- Margarite Road
- Millbrook Road

Existing Maintained Right-of-Way Width

• 350 Feet

ABUTTERS TO PROJECT RIGHT-OF-WAY				
LINE LIST	OWNER NAME (NOW OR	PARCEL ADDRESS		
NUMBER	FORMERLY)	(MIDDLETOWN, CT)		
031-041-002	CONN LIGHT & POWER CO	CHAMBERLAIN HILL RD		
031-044	CONN LIGHT & POWER CO	MILLBROOK RD		
031-049	CONN LIGHT & POWER CO	MARGARITE RD		



MAPSHEET 4 OF 7 387/3041/1050 Lines Structure Replacement and OPGW Project Dooley Substation to Scoville Rock Substation and Middletown Substation Middletown, CT

AREA DESCRIPTION

- Mixed Residential
- Undeveloped Forestland
- Low Density Development
- Scrub/Shrub
- Cliff/Ledge
- Natural Diversity Database Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use

- Existing Gravel
- Maintained scrub/shrub
- Cliff/Ledge

Scenic/Recreational Resources

None

Water Resources

- Wetland W20 PSS wetland
- Wetland W21 PEM wetland
- Wetland W22 PEM wetland
- Wetland W23 PSS wetland
- Wetland W24 PEM wetland
- Wetland W25 PSS/PUB wetland
- Wetland W26 PEM wetland
- Wetland W27 PSS wetland
- Vernal Pool VP4– within wetland W25

Wetland and Watercourse Crossings

None

Right-of-Way Vegetation

- Herbaceous
- Scrub/Shrub
- Forested edges
- Palustrine Scrub/Shrub Wetland (PSS)
- Palustrine Emergent Wetland (PEM)

Access

• Structure 19067; existing access off of Bartholomew Road

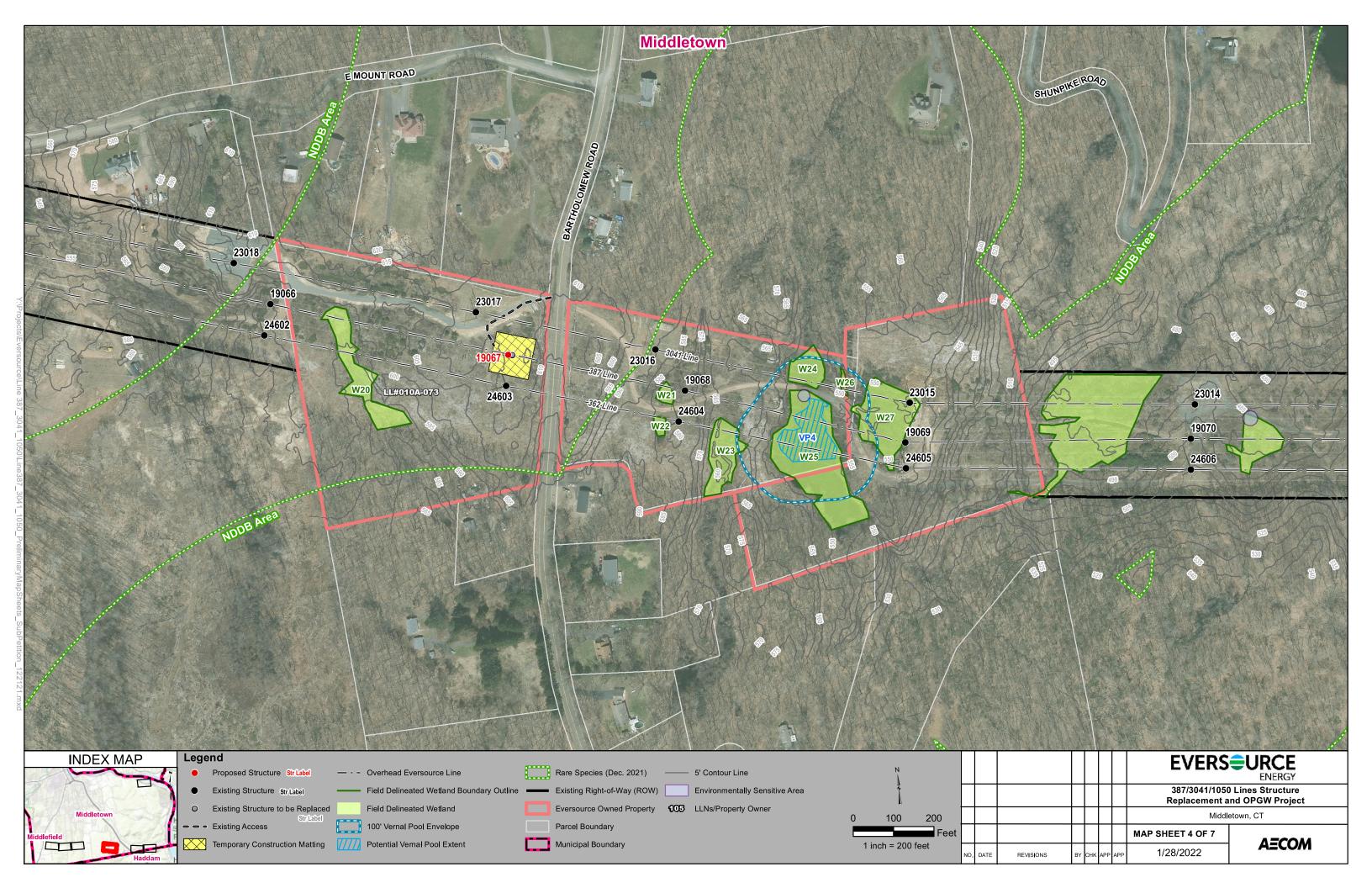
Road Crossings

Bartholomew Road

Existing Maintained Right-of-Way Width

• 350 Feet

ABUTTERS TO PROJECT RIGHT-OF-WAY			
LINE LIST NUMBER	OWNER NAME (NOW OR FORMERLY)	PARCEL ADDRESS (MIDDLETOWN, CT)	
010A-073	CONN LIGHT & POWER CO	BARTHOLOMEW RD	



MAPSHEET 5 OF 7 387/3041/1050 Lines Structure Replacement and OPGW Project Dooley Substation to Scoville Rock Substation and Middletown Substation Middletown, CT

AREA DESCRIPTION

- Mixed Residential
- Undeveloped Forestland
- Low Density Development
- Scrub/Shrub
- Cliff/Ledge
- Natural Diversity Database Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use

- Existing Gravel
- Maintained scrub/shrub
- Cliff/Ledge
- Low Intensity Development

Scenic/Recreational Resources

- Seven Falls Loop
- Mattabesett Trail

Water Resources

- Wetland W28 PEM/PFO wetland
- Wetland W29 PSS wetland
- Wetland W30 PSS wetland
- Wetland W31 PEM wetland
 Wetland W32 PEM wetland
- Wetland W33 PEM/PSS Wetland
- Wetland W34 PSS Wetland
- Vernal Pool VP5 Within Wetland W32
- Stream S10 (Unnamed Tributary to the Bible Rock Brook)
- Stream S11 (Unnamed Tributary to the Bible Rock Brook)

Wetland and Watercourse Crossings

- Existing culvert crossing of Wetlands W29, W30, W32, and W33
- Existing bridge crossing over Wetland W34 and Stream S11

Right-of-Way Vegetation

- Herbaceous
- Maintained Scrub/Shrub
- Palustrine Scrub/Shrub Wetland (PSS)
- Palustrine Emergent Wetland (PEM)

Access

- Structure 23009; existing access off of Route 9
- Structure 19076; existing access off of Route 9
- Structure 19077; existing access off of Saybrook Road/Route 154

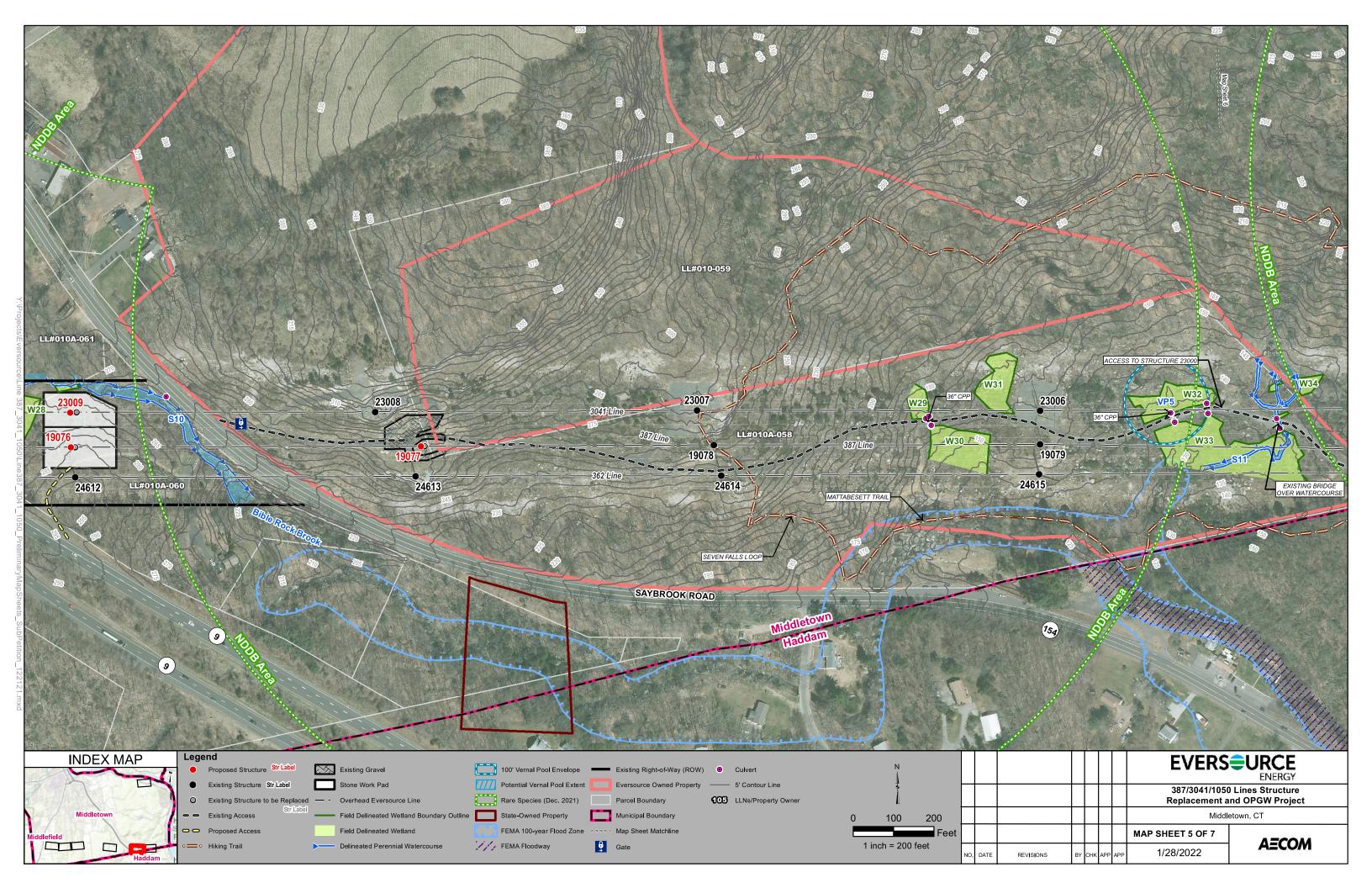
Road Crossings

- Route 9
- Saybrook Road/Route 154

Existing Maintained Right-of-Way Width

Eversource-Owned Property

ABUTTERS TO PROJECT RIGHT-OF-WAY							
LINE LIST NUMBER	PARCEL ADDRESS (MIDDLETOWN, CT)						
010-059	ROCKY RIVER REALTY CO THE	FREEMAN RD					
010A-058	CONN LIGHT & POWER CO	SAYBROOK RD					
010A-060	RAYMOND J & VERA	2099 SAYBROOK RD					
010A-061	REGOWSET RIDGE LLC	1987 SAYBROOK RD					



MAPSHEET 6 OF 7 387/3041/1050 Lines Structure Replacement and OPGW Project Dooley Substation to Scoville Rock Substation and Middletown Substation Middletown, CT

AREA DESCRIPTION

- Undeveloped Forestland
- Low Density Development
- Scrub/Shrub
- Cliff/Ledge
- Exposed Rock
- Electrical Transmission Line Infrastructure (Scoville Rock Substation)
- Natural Diversity Database Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use

- Existing Gravel
- Maintained scrub/shrub
- Cliff/Ledge
- Exposed Rock
- Electrical Transmission Line Infrastructure (Scoville Rock Substation)

Scenic/Recreational Resources

- Seven Falls Loop
- Mattabesett Trail

Water Resources

- Wetland W33 PEM/PSS Wetland
- Wetland W34 PSS Wetland
- Wetland W35 PEM Wetland
- Wetland W36 PEM Wetland
- Wetland W37 PEM/PSS Wetland
- Wetland W38 PFO/PSS Wetland
- Stream S11 (Unnamed Tributary to the Bible Rock Brook)
- Stream S12 (Unnamed Tributary to the Bible Rock Brook)
- Additional unnumbered wetlands peripheral to Scoville Substation away from work activities

Wetland and Watercourse Crossings

None

Right-of-Way Vegetation

- Herbaceous
- Scrub/Shrub
- Palustrine Scrub/Shrub Wetland (PSS)
- Palustrine Emergent Wetland (PEM)
- Palustrine Forested Wetland (PFO)

Access

Structure 23000; existing access off of Saybrook Road/Route 154

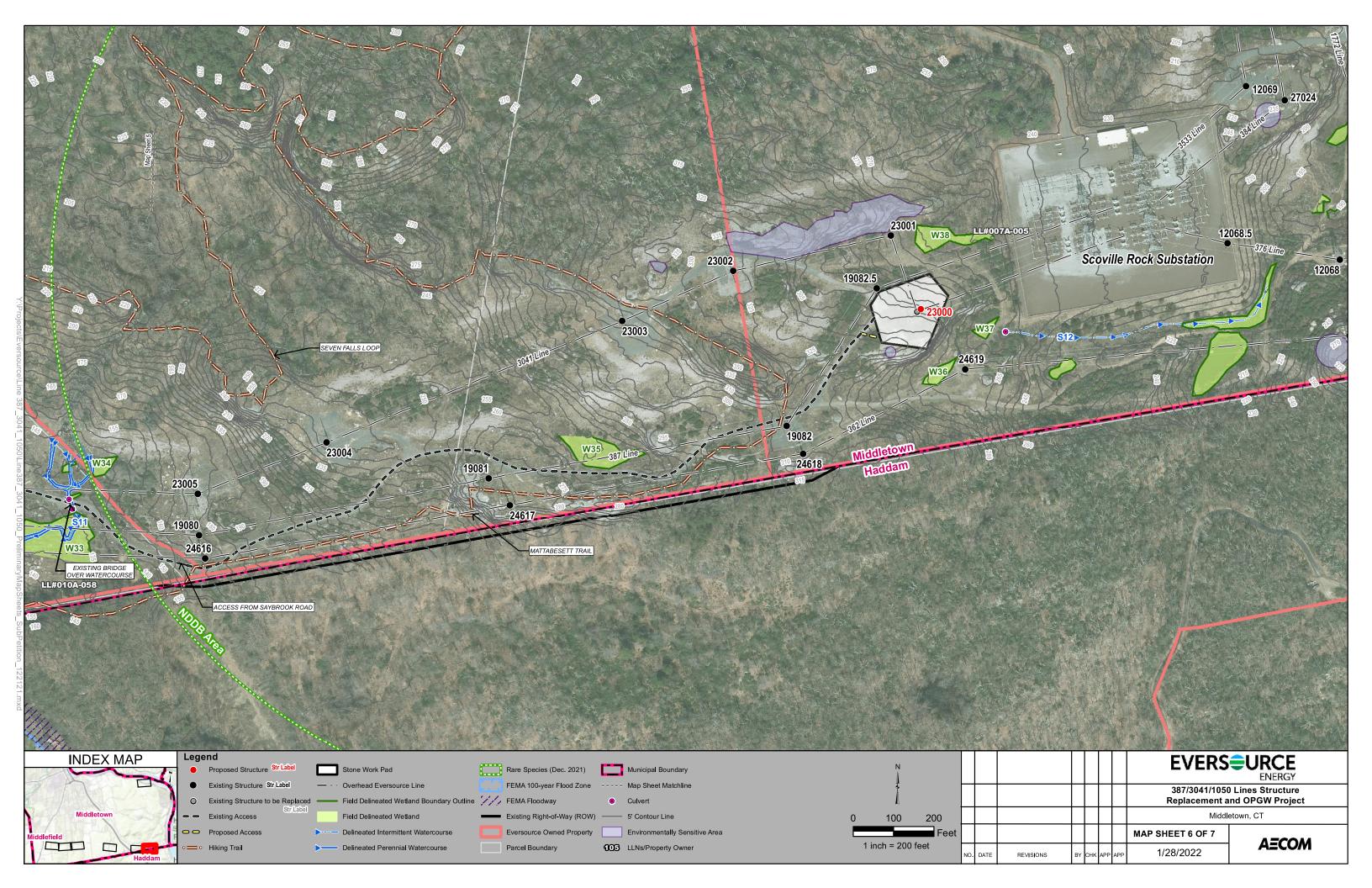
Road Crossings

None

Existing Maintained Right-of-Way Width

Eversource-Owned Property

ABUTTERS TO PROJECT RIGHT-OF-WAY					
LINE LIST NUMBER	PARCEL ADDRESS (MIDDLETOWN, CT)				
007A-005	THE CONNECTICUT LIGHT & POWER CO	FREEMAN RD			
010A-058	CONN LIGHT & POWER CO	SAYBROOK RD			



MAPSHEET 7 OF 7 387/3041/1050 Lines Structure Replacement and OPGW Project Dooley Substation to Scoville Rock Substation and Middletown Substation Middletown, CT

AREA DESCRIPTION

- Undeveloped Forestland
- High Density Development
- Electrical Transmission Line Infrastructure (Middletown Power Generator and Middletown Substation)
- Paved and graveled surfaces
- Natural Diversity Database Area

RIGHT-OF-WAY DESCRIPTION

Right-of-Way Land Use

- Electrical Transmission Line Infrastructure (Middletown Power Generator and Middletown Substation)
- Paved and graveled surfaces
- High Density Development

Scenic/Recreational Resources • Mattabesett Trail

Water Resources

No Wetlands or Waterbodies within this portion of the Project Area

Wetland and Watercourse Crossings

None

Right-of-Way Vegetation

- Herbaceous
- Scrub/Shrub
- Undeveloped Forestland

Access

Structure 6001; existing access off of River Road

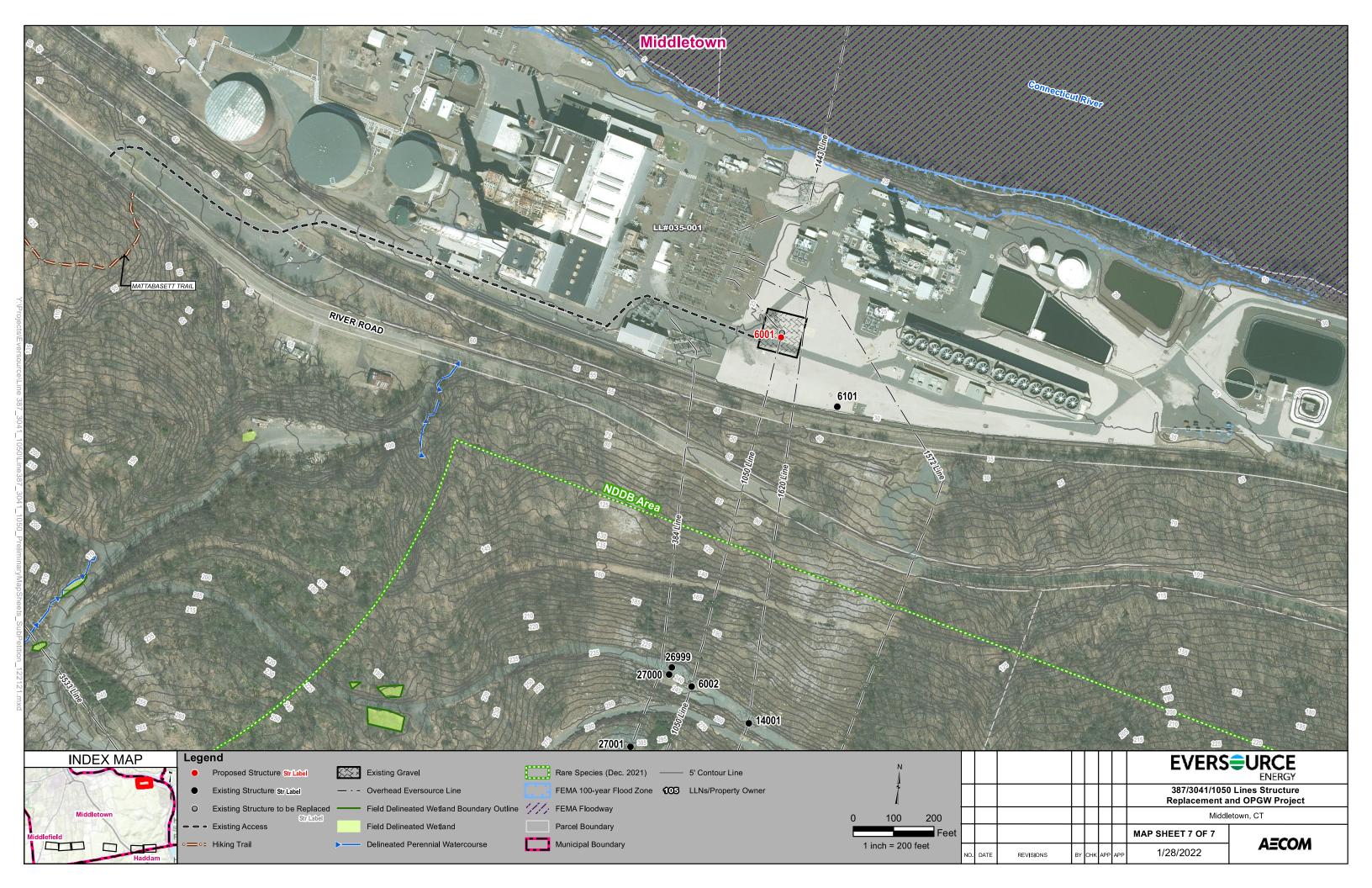
Road Crossings

River Road

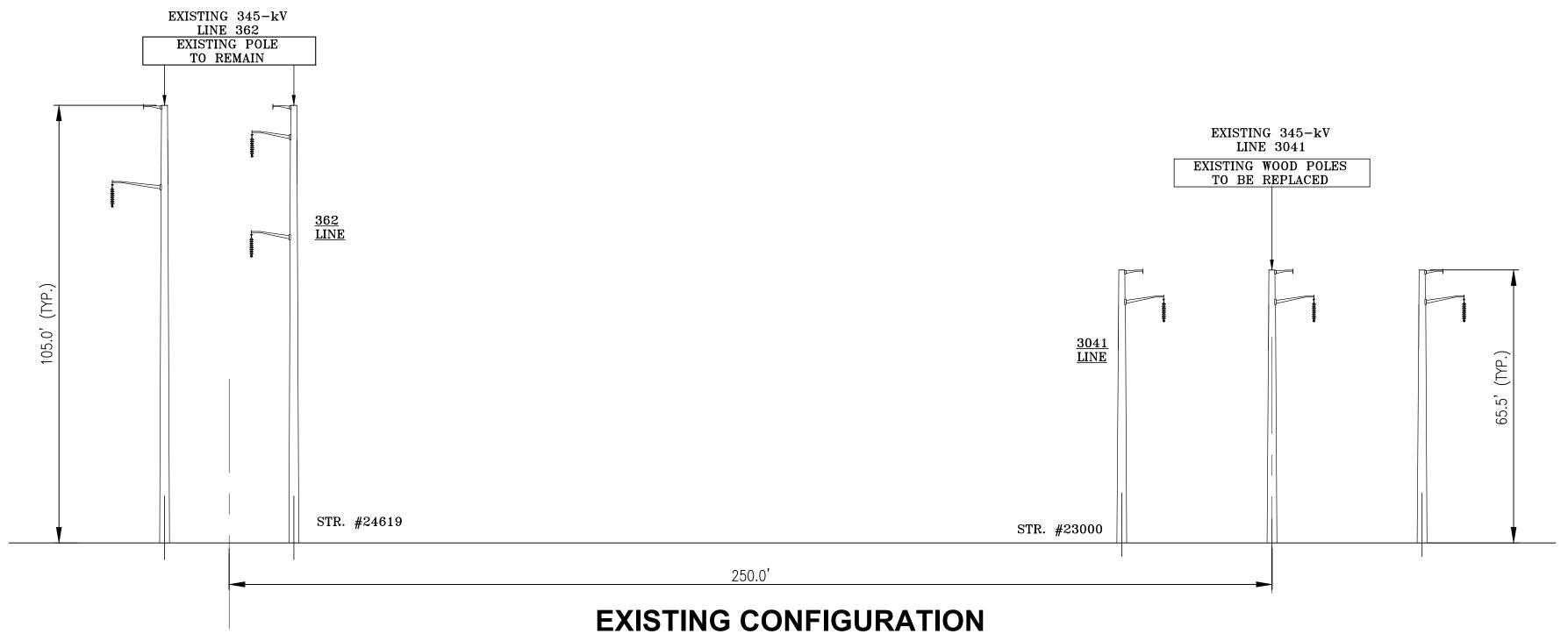
Existing Maintained Right-of-Way Width

Eversource-Owned Property

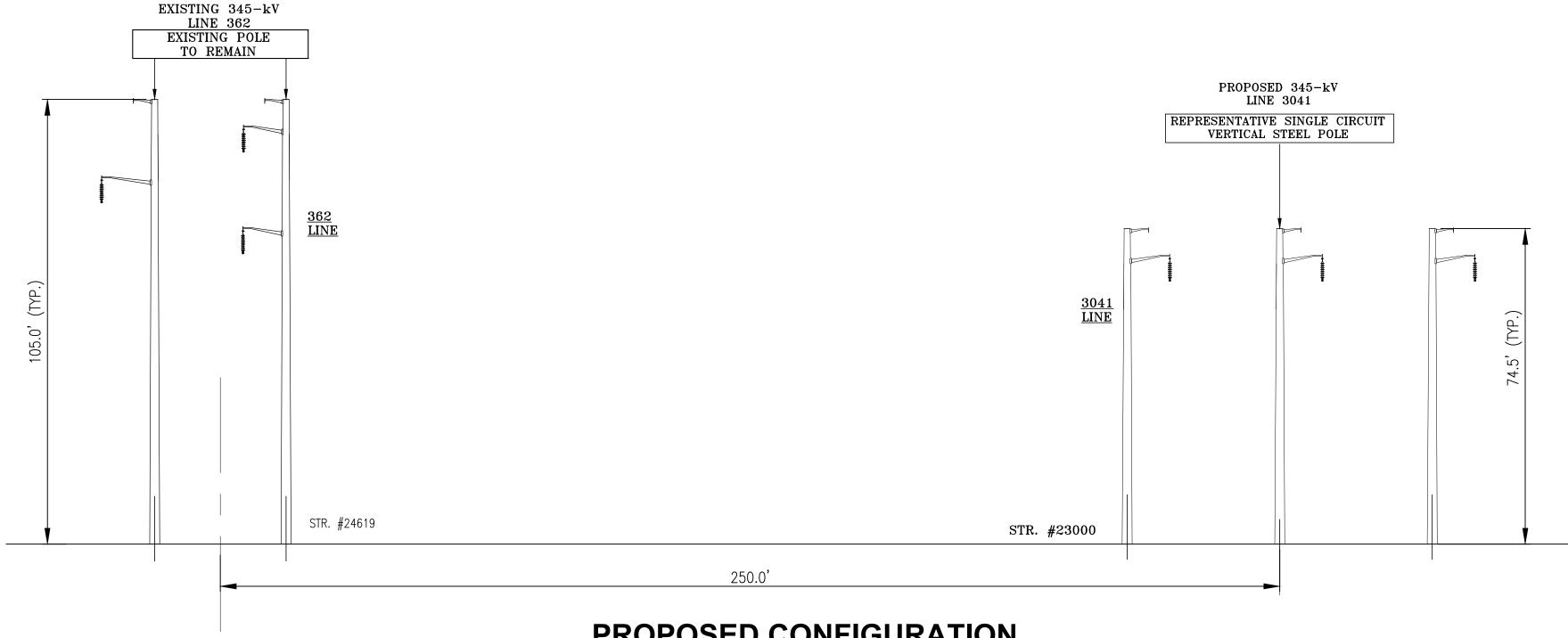
ABUTTERS TO PROJECT RIGHT-OF-WAY						
LINE LIST NUMBER	OWNER NAME (NOW OR FORMERLY)					
	CONNECTICUT LIGHT AND POWER					
035-001	CO	1866 RIVER RD				



Attachment B: Dooley Substation to Scoville Rock Substation to Middletown Substation Cross Sections



SINGLE CIRCUIT THREE POLE DESIGN LOOKING WEST FROM SCOVILLE ROCK SUBSTATION TO CHESTNUT JUNCTION IN THE CITY OF MIDDLETOWN, CT STR. #23000



PROPOSED CONFIGURATION

NO ADDITIONAL RIGHT-OF-WAY REQUIRED

SINGLE CIRCUIT THREE POLE DESIGN

LOOKING WEST FROM SCOVILLE ROCK SUBSTATION TO CHESTNUT JUNCTION

IN THE CITY OF MIDDLETOWN, CT

STR. #23000

NOTE: LINE ARRESTERS TO BE ADDED AS REQUIRED

EVERS=URCE ENERGY

XS-1

SCOVILLE ROCK S/S - SOUTHINGTON S/S 345-kV TRANSMISSION LINE STR. #23000 CROSS SECTION

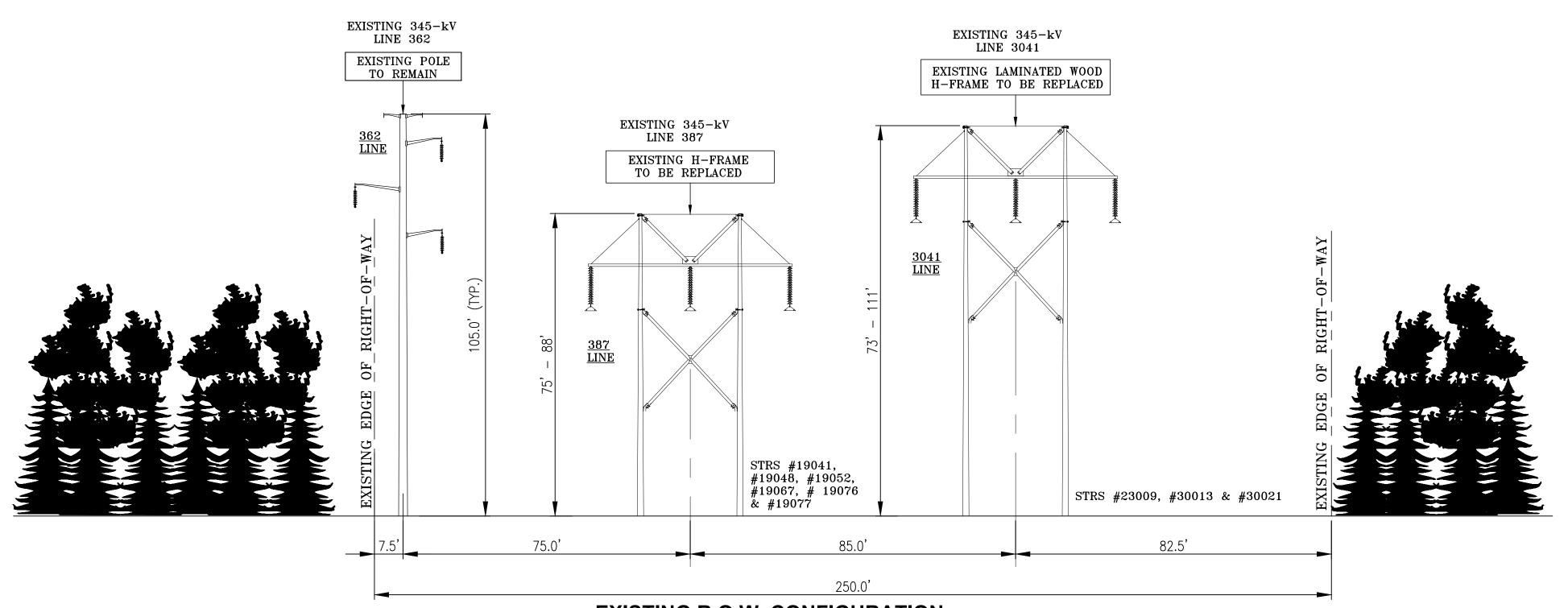
MIDDLETOWN, CONNECTICUT

CHKD ATS APP JM

DATE 11/30/2021 DATE 12/01/2021 DATE 12/01/2021 DATE

H-SCALE N.T.S. V-SCALE N.T.S. V.S. R.E. DWG

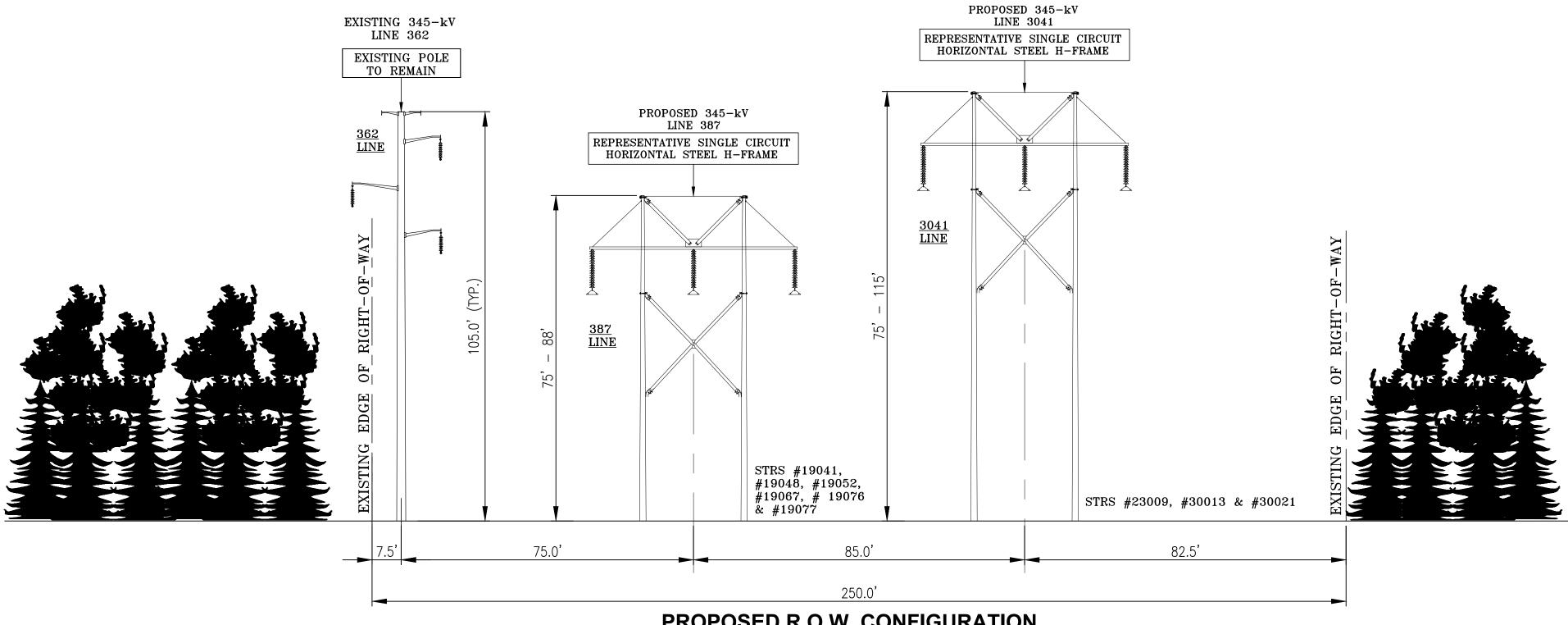
R.E. PROJ. NUMBER TPC03801 DWG NO. 01014-85000p001



EXISTING R.O.W. CONFIGURATION SINGLE CIRCUIT STEEL H-FRAME DESIGN

LOOKING WEST FROM SCOVILLE ROCK SUBSTATION TO CHESTNUT JUNCTION IN THE CITY OF MIDDLETOWN, CT

STRS. #19041, #19048, #19052, #19067, # 19076 & #19077 FOR LINE 387 STRS. #23009, #30013 & #30021 FOR LINE 3041



NOTE: LINE ARRESTERS TO BE ADDED AS REQUIRED PROPOSED R.O.W. CONFIGURATION

NO ADDITIONAL RIGHT-OF-WAY REQUIRED

SINGLE CIRCUIT STEEL H-FRAME DESIGN

LOOKING WEST FROM SCOVILLE ROCK SUBSTATION TO CHESTNUT JUNCTION

IN THE CITY OF MIDDLETOWN, CT

STRS. #19041, #19048, #19052, #19067, # 19076 & #19077 FOR LINE 387

STRS. #23009, #30013 & #30021 FOR LINE 3041

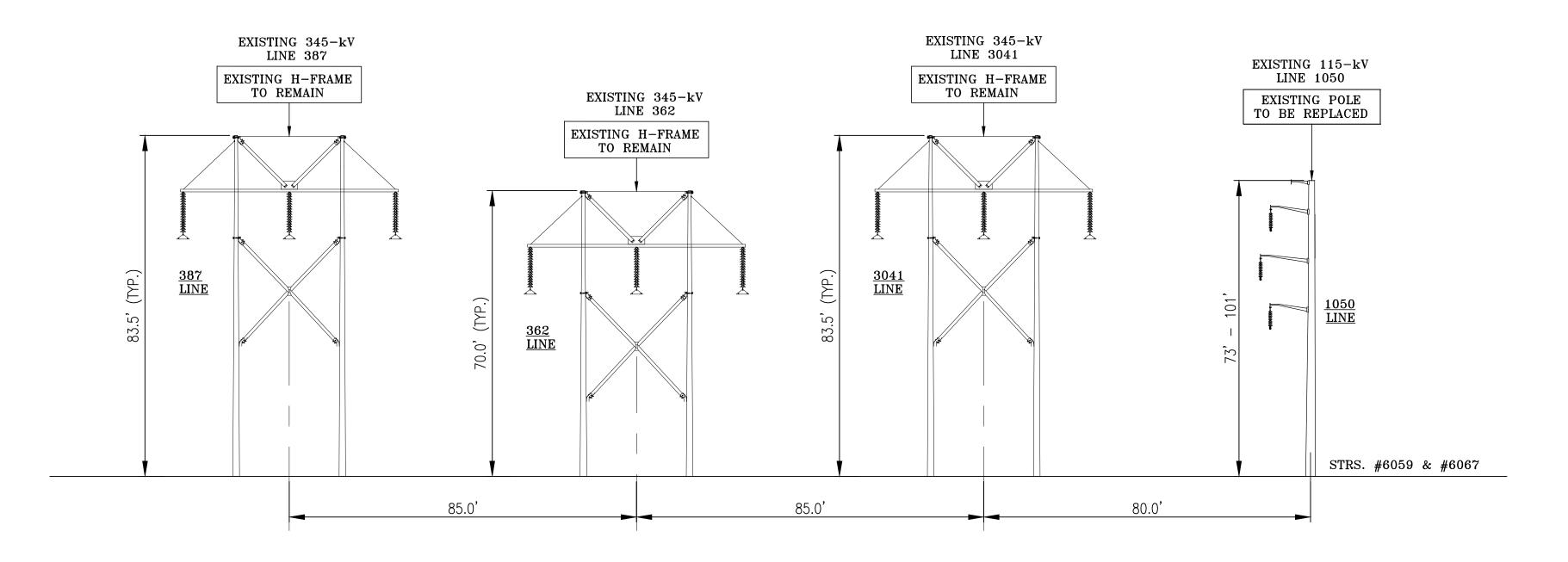
XS-2

EVERS URCE ENERGY

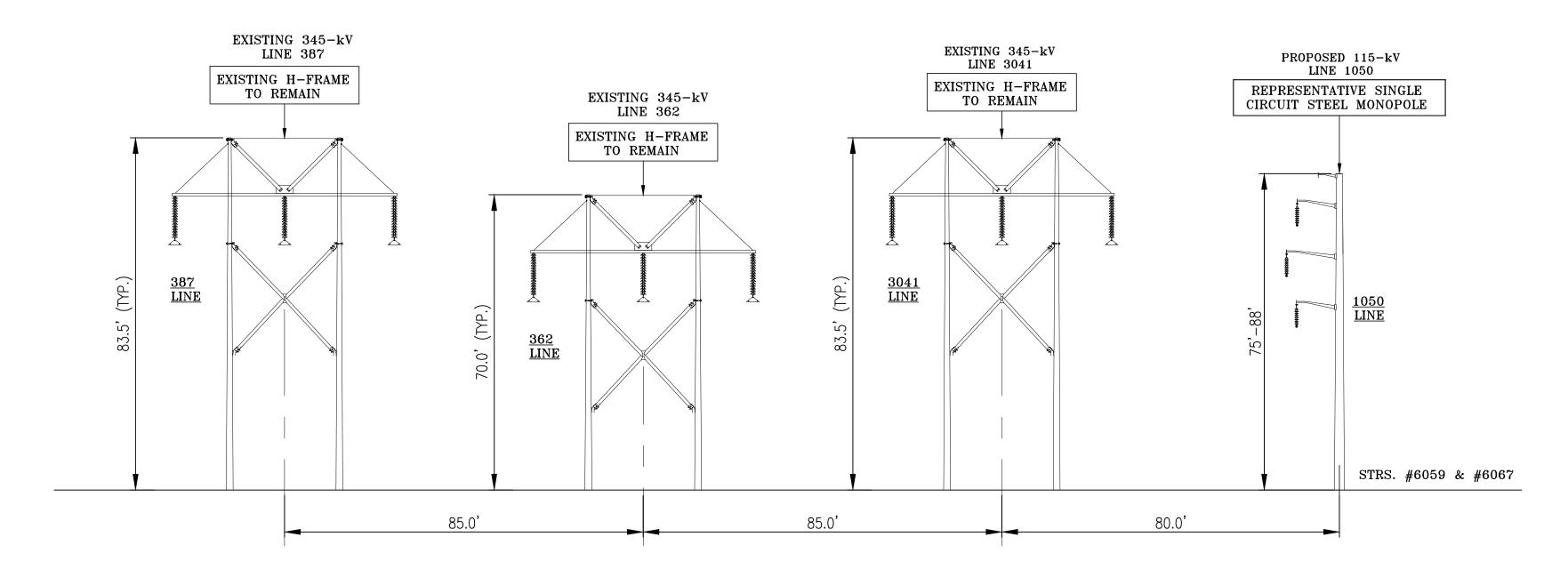
SCOVILLE ROCK S/S - SOUTHINGTON S/S

345-kV TRANSMISSION LINE
RIGHT OF WAY CROSS SECTION

			MIDDLETOWN,	CO	NNECTICUT	
BY	IS	CHKD	ATS	APP	JM	APP
DATE	11/30/2021	DATE	12/01/2021	DATE	12/01/2021	DATE.
H-SCAL	N.T.S.	SIZE	D	FIELD	BOOK & PAGES	•
V-SCAL	N.T.S.	V.S.		R.E. D	WG	
R.E. PR	ROJ. NUMBER		TPC03801	DWG N	01014	4-85001p001



EXISTING CONFIGURATION SINGLE CIRCUIT STEEL MONOPOLE DESIGN LOOKING FROM CHESTNUT JUNCTION TO HANS BROOK JUNCTION IN THE CITY OF MIDDLETOWN, CT STRS. #6059 & #6067



PROPOSED CONFIGURATION

NO ADDITIONAL RIGHT-OF-WAY REQUIRED SINGLE CIRCUIT STEEL MONOPOLE DESIGN LOOKING FROM CHESTNUT JUNCTION TO HANS BROOK JUNCTION IN THE CITY OF MIDDLETOWN, CT STRS. #6059 & #6067

NOTE: LINE ARRESTERS TO BE ADDED AS REQUIRED

EVERS\$\rightarrow\$URCE ENERGY

XS-1

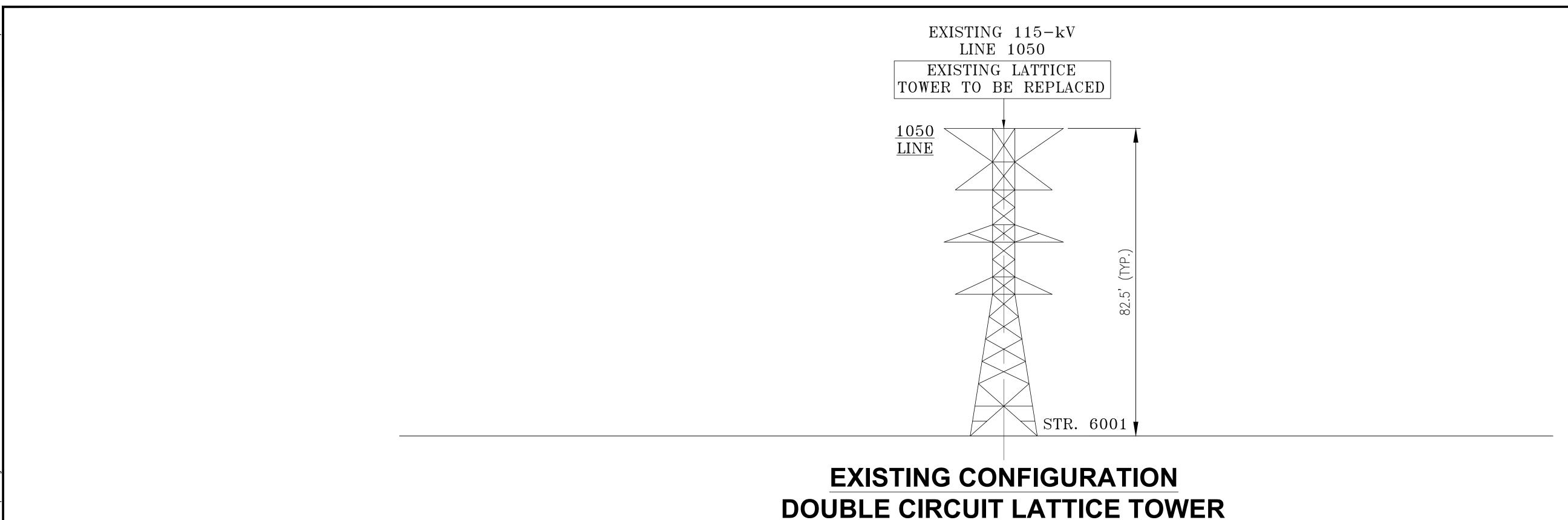
SCOVILLE ROCK S/S - SOUTHINGTON S/S

345-kV TRANSMISSION LINE

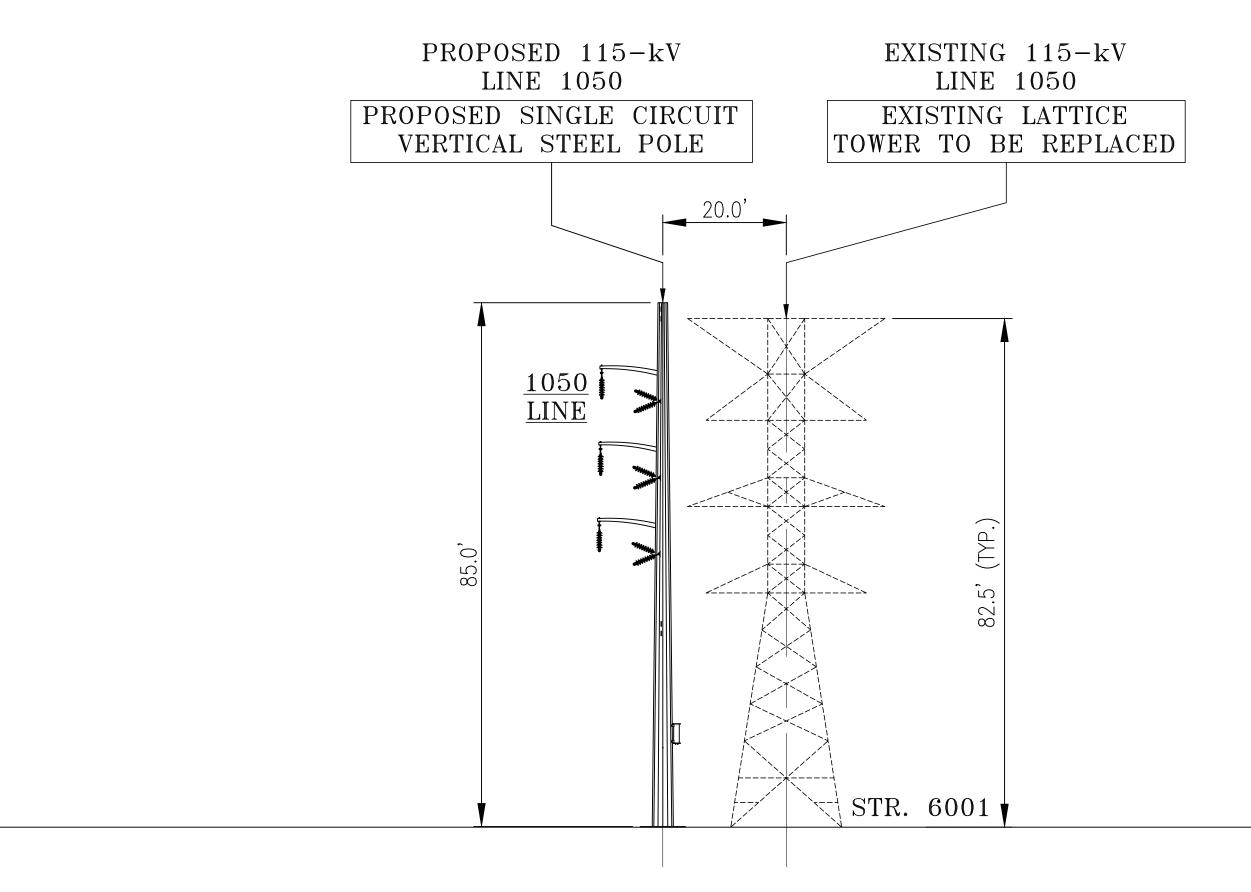
STRS. #6059 & #6067 CROSS SECTION

MIDDLETOWN, CONNECTICUT

BY	IS	CHKD	ATS	APP	JM	APP
DATE 1	1/30/2021	DATE	12/01/2021	DATE	12/01/2021	DATE
H-SCALE	N.T.S.	SIZE	D	FIELD B	OOK & PAGES	
V-SCALE	N.T.S.	V.S.		R.E. DW	G	
R.E. PROJ. NUMBER			TPC03801	DWG NO	01158	3-85000p001



EXISTING CONFIGURATION DOUBLE CIRCUIT LATTICE TOWER MIDDLETOWN SUBSTATION LOOKING EAST IN THE CITY OF MIDDLETOWN, CT



PROPOSED CONFIGURATION
SINGLE CIRCUIT STEEL POLE VERTICAL DESIGN
MIDDLETOWN SUBSTATION LOOKING EAST
IN THE CITY OF MIDDLETOWN, CT

XS-1

EVERSEURCE ENERGY MIDDLETOWN S/S - CHESTNUT JCT.

MIDDLETOWN S/S - CHESTNUT JCT.

115-kV TRANSMISSION LINE

ROW CROSS SECTION

MIDDLETOWN, CONNECTICUT

BY RMK	CHKD DLD	APP APP
O1/26/22	DATE 01/26/2022	DATE 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	80101810	DWG NO. 01038-85002p001

Attachment C: List of Structure Replacements

387, 3041, 1050 Petition Structure List		Structure List (form		New Hgt. AGL (formula based on embedment of 10% + 2' for	*Increase in AGL (*revise if additional embedment needed per	Structure Move (eg, ahead back and/or left right)	Existing Structure Design (eg, SCHF, DCHF, 3-pole angle, etc)	Proposed Structure Design (eg, SCHF, DCHF, 3- pole angle, etc)	Existing Structure Material (eg, wood, steel, etc.)	Proposed Structure Material (eg, weathering steel)
#	Structure # Line		10% · 2 · 10/ Eight duty steel	or Light duty steel embedment of 10% + 2' for Light duty steel)						
1	19041	387	88	88	0	Back 10'	SCHF	SCHF	WOOD	WEATHERING STEE
2	6067	1050	101	98	-3	Back 15'	SC Monopole	SC Monopole	Steel	WEATHERING STEE
3	30021	3041	83.5	83.5	0	Ahead 10'	SCHF	SCHF	WOOD	WEATHERING STEE
4	19048	387	74.5	74.5	0	Ahead 10'	SCHF	SCHF	WOOD	WEATHERING STEE
5	6059	1050	72.5	75	2.5	Back 15'	SC Monopole	SC Monopole	Steel	WEATHERING STEE
6	19052	387	83.5	88	4.5	Ahead 10'	SCHF	SCHF	WOOD	WEATHERING STEE
7	30013	3041	92.5	88	-4.5	Ahead 10'	SCHF	SCHF	WOOD	WEATHERING STEE
8	19067	387	83.5	83.5	0	Back 10'	SCHF	SCHF	WOOD	WEATHERING STEE
9	19076	387	79	83.5	4.5	Back 10'	SCHF	SCHF	WOOD	WEATHERING STEE
10	19077	387	74.5	74.5	0	Back 10'	SCHF	SCHF	WOOD	WEATHERING STEE
11	23009	3041	110.5	115	4.5	Ahead 15'	SCHF	SCHF	LAMINATED WOOD	WEATHERING STEE
12	23000	3041	65.5	74.5	9	Back 10'	SC Three Pole	SC Three Pole	WOOD	WEATHERING STE
13	6001	1050	82.5	85	2.5	Left 20'	SC Lattice	SC Monopole	Steel	WEATHERING STEE
Total Sub	Petition Structures:	•		Average Hgt Increase:	4.50					

Attachment D: Wetlands and Watercourses Report



387 / 3041 / 1050 LINES - STRUCTURE REPLACEMENT PROJECT

Dooley Substation to Scoville Rock Substation and Middletown Substation

WETLANDS AND WATERCOURSES REPORT

EVERSOURCE ENERGY

December 2021





387 / 3041 / 1050 LINES - STRUCTURE REPLACEMENT PROJECT

Dooley Substation to Scoville Rock Substation and Middletown Substation

WETLANDS AND WATERCOURSES REPORT

Prepared for:

Eversource Energy 107 Selden Street, Berlin, CT 06037

Prepared by:

AECOM 500 Enterprise Drive Rocky Hill, CT 06067



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1.0 Introduction

Eversource Energy (Eversource), proposes to replace 13 structures along an approximately 5.4-mile section of its existing 387, 3041, and 1050 lines right-of-way (ROW) in Middletown, Connecticut (Project). This report provides a summary of wetland and watercourse inventories and field delineations conducted by AECOM within the Project area. Specifically, this report discusses applicable federal and state wetland and watercourse regulations, the methodologies used to identify the wetland and watercourse resources encountered along the Project and summarizes the findings of the surveys. These field delineations were conducted to identify both federal and State of Connecticut jurisdictional water resources.

Tables listing all wetlands and watercourses identified during the course of the surveys are located in Appendix A. Appendix B contains the wetland and watercourse mapping associated with the Project. Appendix C contains U.S. Army Corps of Engineers wetland transect data forms for all wetlands which will have temporary Project related impacts.

1.1 Project Background and Summary of Proposed Action

The proposed Project includes the replacement of six structures located on the 387 Line, four structures on the 3041 Line, and the replacement of 3 structures and optical ground wiring (OPGW) along the 1050 Line. Project work would be completed along the existing ROW section between Dooley Substation and Scoville Rock Substation and includes one structure replacement at the Middletown Substation. The Project ROW includes four total overhead transmission lines (1050, 3041, 362 and 387) between Dooley Substation and Chestnut Junction, and three overhead transmission lines (3041, 362 and 387) between Chestnut Junction and Scoville Rock Substation. While the 362 Line is collocated with the other circuits noted above, there is no proposed Project work on this circuit. The Project includes the crossing of wetlands, watercourses, and state land.

Structures will be replaced utilizing a combination of existing gravel areas, additional gravel work pads, and temporary matting. The exact location of the structures, the configuration and type of the various work pads, and the exact access points to be utilized by construction personnel are depicted in the mapping provided in Appendix B.

1.2 Physiographic and Geologic Overview

The Project area is situated within the Connecticut Valley (59a) and Southern New England Coastal Plains and Hills (59c) level IV Ecoregion¹ of Connecticut. The Connecticut Valley region is characterized by a mostly level rolling landscape with some higher hills. In contrast to the surrounding upland ecoregions, this portion of Connecticut is dominated by Jurassic-age Holyoke basalt with prominent north-south trending features and where surficial geologic deposits in valleys are relatively thick and include glacial outwash, alluvial materials, and glaciolacustrine deposits. The dominant geology is sedimentary, such as arkose, siltstone, sandstone, shale, and conglomerate. The landscape of Connecticut was heavily shaped by the late Wisconsin glaciation episode from the Laurentide ice sheet and the associated outwash meltwaters which resulted in a flattened Connecticut River Valley. Natural vegetation in this ecoregion tends towards

¹ Griffith, G.E., Omernik, J.M., Bryce, S.A., Royte, J., Hoar, W.D., Homer, J.W., Keirstead, D., Metzler, K.J., and Hellyer, G., 2009, *Ecoregions of New England* (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,325,000).

deciduous forests of transitional hardwood in uplands and red and silver maple/cottonwood dominated floodplain areas. The Southern New England Coastal Plains and Hills ecoregion is a diverse collection of ecosystems and includes irregular plains with low hills and some open high hills. Bedrock in this region is characterized by granites, schist, and gneiss. Topography consists of rolling hills topped with shallow soils or exposed bedrock and valleys formed in glacial till and/or glacial outwash. Coarse-loamy and sandy, mesic Inceptisols and some Entisols are typical, with large lowland very poorly drained areas exhibiting Histosols. While vegetation in this ecoregion is historically dominated by deciduous hardwoods, many areas were cleared for farming, grazing or other purposes.

2

2.0 Wetland and Watercourse Regulations

In Connecticut, wetlands and watercourses are subject to state or federal jurisdiction based upon the federal Clean Water Act ("CWA"; 33 U.S.C. 1251 *et seq.*) and the Connecticut Inland Wetland and Watercourses Act ("IWWA"; C.G.S. Section 22a-36 through 45) and implementing regulations (R.C.S.A. Section 22a-39-1 to 22a-39-15). The following wetland and watercourse regulations are applicable to the Project.

2.1 Section 404 – Clean Water Act

Wetlands, springs, and other waters of the United States are regulated under Section 404 CWA (33 U.S.C. 1344) by the United States Army Corps of Engineers ("Corps"). Federal jurisdictional "waters of the United States" include:

- 1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- 3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
- 4. All impoundments of waters otherwise defined as waters of the United States under the definition:
- 5. Tributaries of waters identified in paragraphs (1)-(4) above;
- 6. The territorial seas:
- 7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1)-(6) above.

According to the 1987 Corps of Engineers Wetland Delineation Manual² (Corps Manual), areas must exhibit three distinct characteristics to be considered wetlands jurisdictional under Section 404 of the CWA:

- Hydrophytic Vegetation: Plants growing in water or in a substrate that is at least periodically deficient in oxygen during a growing season as a result of excessive water content;
- Hydric Soils: Soils that, in an undrained condition, are saturated, flooded, or ponded long enough during a growing season to develop an anaerobic condition that supports the growth and regeneration of hydrophytic vegetation; and,

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

 Wetland Hydrology: Inundation or saturation by surface or groundwater at a frequency and duration during the growing season sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

In January 2012, the USACE issued a *Regional Supplement to the Corps of Engineers Delineation Manual*⁵ (Regional Supplement), which provides further guidance for wetland delineations in the northeastern United States. The Regional Supplement provides wetland indicators, delineation guidance, and other information specific to the Northcentral and Northeast Regions, supplementing the 1987 USACE Manual. Indicators and procedures in the Regional Supplement are designed to identify wetlands as defined jointly by the USACE (33 CFR 328.2) and the U.S. Environmental Protection Agency (40 CFR 230.3) and subject to regulation under Section 404 of the CWA.

2.2 Connecticut Inland Wetland and Watercourses Act

The State of Connecticut Department of Energy and Environmental Protection ("DEEP") regulates work in and around inland wetlands under the IWWA (C.G.S. Section 22a-36 through 45) and implementing regulations (R.C.S.A. Section 22a-39-1 to 22a-39-15). Typically, the state statute is implemented through the Inland Wetlands and Watercourse Regulations as administered by individual municipalities.

Under Section 2 of the IWWA, a wetland is defined as "land, including submerged land...which consists of poorly drained, very poorly drained, alluvial and floodplain soils as defined by the National Cooperative Soils Survey. Such areas may include filled, graded or excavated sites which possess an aquic (saturated) moisture regime as defined by the United States Department of Agriculture (USDA) Cooperative Soil Survey."

Watercourses are defined in the IWWA as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." The IWWA defines Intermittent Watercourses as having a defined permanent channel bed and bank and the occurrence of two of the following: A) evidence of scour or deposits of recent alluvium or detritus, B) the presence of standing or flowing water for a duration of longer than a particular storm incident, or C) the presence of hydrophytic vegetation.

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U.S. Army Corps of Engineers. 2011a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

3.0 Wetland and Watercourse Delineation Procedures

On behalf of Eversource, AECOM conducted wetland and watercourse identification and delineations along the Project's existing ROW corridor between May 18 and May 21, 2021 to determine state and federal wetland boundaries in accordance with applicable state and federal regulations. The methods of investigation and procedures used include pre-survey desktop investigations and on-site field surveys to determine the wetland and watercourse resource areas within the Project area.

3.1 Pre-survey Desktop Investigations

Prior to the commencement of field surveys, AECOM reviewed information from multiple sources to determine the potential extent of state and federal wetlands within the Project area. Pre-survey information reviewed included:

- United States Geological Survey (USGS) 7.5-minute topographical quadrangles;
- USGS National Hydrography Dataset (NHD);
- National Wetlands Inventory (NWI) map data;
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) data;
- U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) web soil surveys;
- Mapping from previous wetland delineations in the Project area; and,
- CT DEEP inland wetland soils mapping.

3.2 Field Surveys

The wetland delineation methodologies outlined in the Corps Manual and the Regional Supplement and definitions included in the IWWA were used in conjunction with NRCS soil surveys to identify and delineate wetlands within and adjacent to the Project area. During the process of delineating wetlands within the ROW, both state and federal methodologies were utilized and state and federal wetland criteria were evaluated. In order to meet federal jurisdictional wetland status, wetlands must meet the hydric soil, hydrophytic vegetation, and wetland hydrology criteria per the Corps Manual and Regional Supplement. Connecticut-only jurisdictional wetlands consist of areas of poorly drained, very poorly drained, alluvial, and floodplain soils.

Field surveys were initiated with an inspection of the ROW to identify soil types, topographic and drainage features, and plant associations that would indicate the potential for jurisdictional wetland classification. Soil profiles were sampled using a Dutch auger to determine if any alluvial, floodplain, poorly drained, very poorly drained or hydric soil indicators were present. The indicator status of dominant plant species in each stratum was evaluated in the field to determine whether a hydrophytic plant association was present. Indicators of wetland hydrology were also observed and recorded. Specific methods for characterizing and evaluating the soil, vegetation, and hydrologic indicators are described below.

3.2.1 Soils

At the center of each wetland data plot, AECOM observed and documented the soil profile morphology to classify the soil type and depth to evidence of aguic conditions. Typically, a soil

pit was dug to 20 inches with a Dutch auger to provide a soil profile for examination. The information collected for each soil profile included soil horizons, depth, texture, color, and the presence or absence of redoximorphic features (mottles and other features). Colors of the soil matrix and mottles were identified using Munsell Soil Color Charts. AECOM based all hydric soil determinations on criteria established in the Corps Manual, Regional Supplement, and *Field Indicators for Identifying Hydric Soils in New England* ⁴. Additionally, AECOM noted the presence of any saturation and/or standing water encountered during the soil profile description.

3.2.2 Vegetation

Species abundance in both upland and wetland communities was visually estimated. Dominant trees and shrubs/saplings were recorded within a 30-foot and 15-foot radius, respectively, from the center of each documentation plot. Woody vines were recorded within a 30-foot radius plot. Dominant herbaceous vegetation was recorded within a 5-foot radius plot. AECOM identified plant species using appropriate botanical reference material for the region. The hydrophytic indicator status of each species was identified using *The National Wetland Plant List:* 2014 Update of Wetland Ratings⁵.

Indicators of hydrophytic vegetation are satisfied if the results of the rapid assessment include all species rated as OBL or FACW (Indicator 1), the dominance test is greater than 50% (Indicator 2), or the prevalence index is less than or equal to 3.0 (Indicator 3) based on the Corps Wetland Determination Data Form.

3.2.3 Hydrology

The term wetland hydrology encompasses all hydrologic characteristics for areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Site hydrology was evaluated during field surveys by initially observing whether the soil at the surface was inundated or saturated. If the ground surface was dry, the depth to freestanding groundwater or saturated soil was measured, and the presence or absence of other indicators of wetland hydrology (e.g., drift lines, water-stained leaves, etc.) was noted. The wetland hydrology criterion was met if one or more primary or two or more secondary field indicators were present.

3.2.4 Wetland and Watercourse Boundary Flagging

For the purposes of documenting and organizing the wetland and watercourse information on maps and tables for this Project, each wetland resource area was assigned a unique alphanumeric code. Wetlands and watercourses were numbered sequentially from the southern extent of the Project to the northern extent. Wetlands were labeled with a "W" prefix and watercourses were labeled with an "S" prefix. Tables 1 and 2 (Attachment A) list the delineated wetlands and watercourses identified within the Project area, respectively.

During the field investigations, the boundaries of each resource area were identified by sequentially-numbered vinyl flagging tied to vegetation and spaced at regular intervals. Wetland/upland boundaries were flagged with pink ribbon preprinted with the words "Wetland Delineation" in black letters, and watercourses were flagged with blue flagging. Watercourses less than three feet wide were field-identified with a single series of flags established along the

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⁴ New England Hydric Soils Technical Committee. 2019 Version 4, Field Indicators for Identifying Hydric Soils in New England. New England Interstate Water Pollution Control Commission, Lowell, MA.

⁵ U.S. Army Corps of Engineers 2018. National Wetland Plant List, version 3.4

centerline of the stream. In instances where the watercourse was greater than three feet wide, the ordinary high-water mark (OHWM) boundary on each bank was flagged.

3.3 Wetland Classification

While in the field, AECOM soil and wetland scientists classified the various wetlands and watercourses according to the "Cowardin system", which is a process discussed in *Classification of Wetlands and Deepwater Habitats of the United States*. Identified wetlands were classified as Palustrine Forested (PFO), Palustrine Scrub-Shrub (PSS), or Palustrine Emergent (PEM), all of which are further described below. In some cases, a wetland complex contained more than one wetland classification type. In those situations, each wetland type is listed and the first classification type represents the more dominant characteristic. Wetland vegetation found in these plant community types within the Project area are described in Section 4.0.

3.3.1 Palustrine Forested Wetlands (PFO)

Palustrine forested wetlands are characterized by woody vegetation that is six meters (approximately 20 feet) tall or taller. These areas normally contain an overstory of trees, an understory of young trees and/or shrubs, and an herbaceous layer. These wetland types are located predominantly in unmanaged or non-cleared areas of the existing ROW or in adjacent off-ROW areas.

3.3.2 Palustrine Scrub-Shrub Wetlands (PSS)

Palustrine scrub-shrub wetlands are typically dominated by woody vegetation less than six meters (approximately 20 feet) tall. Areas classified as scrub-shrub cover types may represent a successional stage that through natural processes would transition to a forested wetland; or may contain trees or shrubs that are small and/or stunted due to environmental conditions. Within the Project area, PSS wetlands often occur within the ROW as a result of ongoing routine vegetation management practices or an extended hydroperiod, which limits the development of large trees.

3.3.3 Palustrine Emergent Wetlands (PEM)

Palustrine emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes not including mosses and lichens. These wetlands maintain the same appearance year after year and are typically dominated by perennial plants that are present for the majority of the growing season.

3.4 Watercourses

According to the IWWA, "Rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof" are considered watercourses. The "top of bank", or OHWM, was used to demarcate the limits of a watercourse when no wetlands were adjacent to the channel. Watercourses were investigated to determine if they are listed as a National Wild and Scenic River under the National Wild and Scenic Rivers Act (16 U.S.C. §§ 1271-1287) or rivers designated by the CT DEEP Protected

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. United States Fish and Wildlife Service Biological Report 79/31. Washington, D.C.

Rivers Act (C.G.S. §§ 25-200 through 25-210). Water quality designations were determined using CT DEEP mapping resources.

3.5 Post-Survey Desktop Analysis

The wetland and watercourse boundaries were plotted on aerial imagery and subsequently reviewed and confirmed by AECOM field personnel. The aerial-based maps show the locations of the delineated resources relative to the proposed limits of the Project.

4.0 Results

A total of 38 wetlands and 12 watercourses were identified within this portion of Eversource's ROW or fee-owned properties in proximity to proposed Project activities, including access to Project locations, as shown on mapping presented in Appendix A. A summary of the wetlands and watercourses are presented in Tables 1 and 2, respectively, in Appendix A.

4.1 Wetlands

Wetland 1

This wetland is classified as a palustrine unconsolidated bottom (PUB) wetland and was delineated based on the OHWM of the Dooley Pond. Banks of the pond consisted of forested areas.

Wetland 2

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of standing water, a high water table, and saturated soils. Vegetation identified within the wetland included speckled alder (*Alnus incana*), silky dogwood (*Cornus amomum*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland is associated with Stream S1.

Wetland 3

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of standing water, a high water table, and saturated soils. Vegetation identified within the wetland included sensitive fern (*Onoclea sensibilis*), silky dogwood (*Cornus amomum*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland is associated with a Stream S2. Within Stream S2 there is an existing ford on the access road.

Wetland 4

This wetland was classified in the field as a PEM wetland. Hydrology indicators within this wetland area consisted of saturated soils and drainage patterns. Vegetation identified within the wetland included sensitive fern (*Onoclea sensibilis*) and skunk cabbage (*Symplocarpus foetidus*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3) and contain alluvial characteristics in some portions of the wetland. This wetland is associated with Stream S3.

Wetland 5

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of standing water, a high water table, and saturated soils. Vegetation identified within the wetland included red maple (*Acer rubrum*), silky dogwood (*Cornus amomum*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland contains a large ponded area in the northern extent, which was classified as a Vernal Pool (VP1).

Wetland 6

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and drainage patterns. Vegetation identified within the wetland included phragmites (*Phragmites australis*), sensitive fern (*Onoclea sensibilis*), and cattails (*Typha latifolia*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland is associated with Stream S4. There is an access road that bisects this wetland and contains an existing bridge over the system.

Wetland 7

This wetland was classified in the field as a PSS/PFO wetland. Hydrology indicators within this wetland area consisted of a high water table and drainage patterns. Vegetation identified within the wetland included speckled alder (*Alnus incana*), silky dogwood (*Cornus amomum*), red maple (*Acer* rubrum) and sensitive fern (*Onoclea sensibilis*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6). This wetland is associated with Stream S5.

Wetland 8

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland included speckled alder (*Alnus incana*), silky dogwood (*Cornus amomum*), and sensitive fern (*Onoclea sensibilis*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6). This wetland is also associated with Stream S5.

Wetland 9

This wetland was classified in the field as a PSS/PFO wetland. Hydrology indicators within this wetland area consisted of a high water table, saturated soils, and standing water. Vegetation identified within the wetland included red maple (*Acer rubrum*), skunk cabbage (*Symplocarpus foetidus*), tussock sedge (*Carex stricta*), and sensitive fern (*Onoclea sensibilis*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6). This wetland also contains Vernal Pool VP2.

Wetland 10

This wetland was classified in the field as a PEM wetland within an active agricultural field. Hydrology indicators within this wetland area consisted of saturated soils and drainage patterns. Vegetation identified within the wetland included sensitive fern (*Onoclea sensibilis*) soft rush (*Juncus effusus*), and reed canary grass (*Phalaris arundinacea*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). The linear shape of the wetland and its location within an active agricultural field suggest this wetland may have anthropogenic origins.

Wetland 11

This wetland was classified in the field as a PEM wetland within an active agricultural field. Hydrology indicators within this wetland area consisted of saturated soils and drainage patterns. Vegetation identified within the wetland included sensitive fern (*Onoclea sensibilis*), purple

loostrife (*Lythrum salicaria*), soft rush (*Juncus effusus*), and reed canary grass (*Phalaris arundinacea*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6).

Wetland 12

This wetland was classified in the field as a PEM wetland. Hydrology indicators within this wetland area consisted of saturated soils, high water table, and standing water. Vegetation identified within the wetland included sensitive fern (*Onoclea sensibilis*) soft rush (*Juncus effusus*), and cattails (*Typha latifolia*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6).

Wetland 13

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland included speckled alder (*Alnus incana*), silky dogwood (*Cornus amomum*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6).

Wetland 14

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland included silky dogwood (*Cornus amomum*), sensitive fern (*Onoclea sensibilis*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6). This wetland abuts E. Mount Road where water accumulates.

Wetland 15

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland included buckthorn (*Rhamnus spp.*) speckled alder (*Alnus incana*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Depleted Dark Surface" (F7). This wetland is associated with Stream S9.

Wetland 16

This wetland was classified in the field as a PEM/PFO wetland. Hydrology indicators within this wetland area consisted of a high water table, saturated soils, and standing water. Vegetation identified within the wetland included red maple (*Acer rubrum*), reed canary grass (*Phalaris arundinacea*), tussock sedge (*Carex stricta*), hardhack (*Spirea tomentosa*), and sensitive fern (*Onoclea sensibilis*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6). This wetland is associated with Vernal Pool VP3 and Stream S8.

Wetland 17

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland included sensitive fern (*Onoclea sensibilis*), speckled alder (*Alnus incana*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6). This wetland is associated with Stream S9, which connects it to Wetland 18.

Wetland 18

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland included sensitive fern (*Onoclea sensibilis*), buckthorn (*Rhamnus spp.*), speckled alder (*Alnus incana*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for Redox Dark Surface (F6). This wetland is also associated with Stream S9, which connects it to Wetland 17.

Wetland 19

This wetland was classified in the field as a PEM/PFO wetland. Hydrology indicators within this wetland area consisted of a high water table, saturated soils, and standing water. Vegetation identified within the wetland included red maple (*Acer rubrum*), reed canary grass (*Phalaris arundinacea*), tussock sedge (*Carex stricta*), and sensitive fern (*Onoclea sensibilis*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland is bisected by an access road that contributed to ponding water within the wetland.

Wetland 20

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland included speckled alder (*Alnus incana*), silky dogwood (*Cornus amomum*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3).

Wetland 21

This wetland was classified in the field as a PEM wetland. Hydrology indicators within this wetland area consisted of oxidized rhizospheres and saturated soils. Vegetation identified within the wetland included red maple (*Acer rubrum*), sensitive fern (*Onoclea sensibilis*), and soft rush (*Juncus effusus*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3).

Wetland 22

This wetland was classified in the field as a PEM wetland. Hydrology indicators within this wetland area consisted of saturated soils and sparsely vegetated concave surface. Vegetation identified within the wetland included sensitive fern (*Onoclea sensibilis*), hardhack (*Spirea tomentosa*), and soft rush (*Juncus effusus*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3).

Wetland 23

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of standing water, high water table, and saturated soils. Vegetation identified within the wetland included red maple (*Acer rubrum*) highbush blueberry (*Vaccinium corymbosum*) and sweet pepperbush (*Clethra alnifolia*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3).

Wetland 24

This wetland was classified in the field as a PEM wetland. Hydrology indicators within this wetland area consisted of standing water, high water table, and saturated soils. Vegetation identified within the wetland included sphagnum moss (*Sphagnum sp.*) The surrounding area included speckled alder (*Alnus incana*) and sweet pepperbush (*Clethra alnifolia*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3).

Wetland 25

This wetland was classified in the field as a PSS/PUB wetland. Hydrology indicators within this wetland area consisted of standing water, high water table, and saturated soils. Vegetation identified within the wetland included speckled alder (*Alnus incana*), highbush blueberry (*Vaccinium corymbosum*) and sweet pepperbush (*Clethra alnifolia*). Soils within this wetland satisfy criteria for "Depleted Below Dark Surface" (A11), "Depleted Matrix" (F3), and "Redox Dark Surface" (F6). This wetland contains a large ponded area in the northern extend which was identified as Vernal Pool VP4.

Wetland 26

This wetland was classified in the field as a PEM wetland and is located within a highly disturbed area of tire ruts. Hydrology indicators within this wetland area consisted of standing water, high water table, and saturated soils. The wetland has been significantly altered by vehicle travel through the area. Vegetation identified within the wetland included sphagnum moss (*Sphagnum sp.*) and surrounding areas include red maple (*Acer rubrum*) and highbush blueberry (*Vaccinium corymbosum*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3).

Wetland 27

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland included speckled alder (*Alnus incana*), silky dogwood (*Cornus amomum*), and sweet pepperbush (*Clethra alnifolia*). Soils within this wetland satisfy criteria for "Redox Dark Surface" (F6). This wetland contains a highly disturbed and ponded area in the western extent near its connection with the access road that was classified as a decoy vernal pool.

Wetland 28

This complex wetland was classified in the field as a PSS/PFO wetland. Hydrology indicators within this wetland area consisted of water-stained leaves, drainage patterns, and saturated soils. Vegetation identified within the wetland included sensitive fern (*Onoclea sensibilis*), silky dogwood (*Cornus amomum*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Depleted Below Dark Surface" (A11), "Depleted Matrix" (F3), and "Redox Dark Surface" (F6). This wetland is associated with Stream S10.

Wetland 29

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland

included speckled alder (*Alnus incana*), silky dogwood (*Cornus amomum*), and sweet pepperbush (*Clethra alnifolia*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland is hydrologically connected to Wetland 30 via a culvert located on the southeastern portion of Wetland 29 that drains under an existing access road.

Wetland 30

This wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table, drainage patterns, and saturated soils. Vegetation identified within the wetland included speckled alder (*Alnus incana*), silky dogwood (*Cornus amomum*), and multiflora rose (*Rosa multiflora*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland is hydrologically connected to Wetland 29 via a culvert located on the northern portion of Wetland 30 that drains under an existing access road.

Wetland 31

This wetland was classified in the field as a PEM wetland. Hydrology indicators within this wetland area consisted of standing water, high water table, and saturated soils. Vegetation identified within the wetland included silky dogwood (*Cornus amomum*), sensitive fern (*Onoclea sensibilis*), and soft rush (*Juncus effusus*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland discharges to an upland area on the southeastern side over the existing access road.

Wetland 32

This wetland was classified in the field as a PEM wetland. Hydrology indicators within this wetland area consisted of drift deposits, high water table, and saturated soils. Vegetation identified within the wetland included silky dogwood (*Cornus amomum*), sensitive fern (*Onoclea sensibilis*), and soft rush (*Juncus effusus*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland is hydrologically connected to Wetland 33 via two sets of culverts located on the south side of Wetland 32 that drains under an existing access road. Wetland W32 also contains Vernal Pool VP5.

Wetland 33

This wetland was classified in the field as a PEM/PSS wetland. Hydrology indicators within this wetland area consisted of drift deposits, standing water, high water table, and saturated soils. Vegetation identified within the wetland included silky dogwood (*Cornus amomum*), sensitive fern (*Onoclea sensibilis*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Depleted Below Dark Surface" (A11) and "Depleted Matrix" (F3). This wetland is hydrologically connected to Wetland 34 via the stream that flows through both wetlands, Stream S11. This wetland is also hydrologically connected to Wetland 32 via two sets of culverts located on the north side of Wetland 33 that drains under an existing access road.

Wetland 34

This complex wetland was classified in the field as a PSS wetland. Hydrology indicators within this wetland area consisted of a high water table, standing water, and saturated soils. Vegetation

identified within the wetland included silky dogwood (*Cornus amomum*), sensitive fern (*Onoclea sensibilis*), and phragmites (*Phragmites australis*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3). This wetland is hydrologically connected to Wetland 33 via Stream S11.

Wetland 35

This wetland was classified in the field as a PEM wetland. Hydrology indicators within this wetland area consisted of a high water table and saturated soils. Vegetation identified within the wetland included phragmites (*Phragmites australis*), sensitive fern (*Onoclea sensibilis*), and soft rush (*Juncus effusus*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3).

Wetland 36

This wetland was classified in the field as a PEM wetland. Hydrology indicators within this wetland area consisted of a high water table, standing water, and saturated soils. Vegetation identified within the wetland included woolgrass (*Scirpus cyperinus*), sensitive fern (*Onoclea sensibilis*), and soft rush (*Juncus effusus*). Soils within this wetland are shallow and disturbed but showed evidence of the development of redoximorphic features. The area surrounding this wetland has been altered based on previous structure work at the location that may be contributing to the accumulation of water in the area.

Wetland 37

This wetland was classified in the field as a PEM/PSS wetland. Hydrology indicators within this wetland area consisted of a high water table, standing water and saturated soils. Vegetation identified within the wetland included sheep laurel (*Kalmia angustifolia*), sensitive fern (*Onoclea sensibilis*), and cattails (*Typha latifolia*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3) and contain a sapric O horizon.

Wetland 38

This wetland was classified in the field as a PFO/PSS wetland. Hydrology indicators within this wetland area consisted of a high water table, standing water, water-stained leaves and saturated soils. Vegetation identified within the wetland included red maple (*Acer rubrum*), phragmites (*Phragmites australis*), reed canary grass (*Phalaris arundinacea*), white birch (*Betula papyrifera*), and sensitive fern (*Onoclea sensibilis*). Soils within this wetland satisfy criteria for "Depleted Matrix" (F3).

4.2 Watercourses

A total of 8 perennial and 4 intermittent watercourses were identified within the Project area, and are included in the watercourse summary table (Table 2) in Appendix A. No watercourses along the Project fall under the jurisdiction of the National Wild and Scenic Rivers Act or are designated as wild and scenic under the CT DEEP Protected Rivers Act.

Stream 1

This stream is a perennial watercourse associated with Wetland W2. This stream originates south of the ROW and flows north, continuing outside of the ROW. Stream substrate within the ROW consists of a mix of organics, sand, and small gravel.

Stream 2

This stream is a perennial watercourse associated with Wetland W3. This stream originates south of the ROW and flows north, losing defined bed and bank at the ford located on the access road and contributing surficial hydrology to Wetland W3, which is located immediately downstream of the existing ford. Stream substrate within the ROW consists predominantly of organics.

Stream 3

This stream is a perennial watercourse associated with Wetland W4. This stream originates south of the ROW and flows north, continuing outside of the ROW. Stream substrate within the ROW consists of gravel and cobble.

Stream 4

This stream is a perennial watercourse associated with Wetland W6. This stream originates south of the ROW and flows north, continuing outside of the ROW. Stream substrate within the ROW consists of gravel and cobble.

Stream 5

This stream is an intermittent watercourse associated with Wetlands W7 and W8. This stream originates north of the ROW and flows east through the wetland areas, eventually existing the ROW to the north. Stream substrate within the ROW consists of sand and gravel.

Stream 6

This stream is known as Sumner Brook and is a perennial watercourse not associated with any wetlands within the ROW. This stream originates south of the ROW and flows north, continuing outside of the ROW. Stream substrate within the ROW consists of gravel to boulders. Within the ROW, this stream has a width of 10-20', a depth of 6"-24", and displayed moderate flow.

Stream 7

This stream is known as Harris Brook and is a perennial watercourse not associated with any wetlands within the ROW. This stream originates south of the ROW and flows north, continuing outside of the ROW. Stream substrate within the ROW consists of gravel and cobble, with some boulders. Within the ROW, this stream has a width of 4-6', a depth of 2-10", and displayed moderate flow.

Stream 8

This stream is an intermittent watercourse associated with Wetlands W15 and W16. This stream originates within Wetland W16, off ROW and flows south, continuing outside of the ROW. Stream substrate within the ROW consists of sand and gravel. This stream flows under E Mount Road via a culvert.

Stream 9

This stream is an intermittent watercourse associated with Wetlands W17 and W18. This stream originates east of the ROW and flows west connecting with Stream S8 immediately west of the access road located on the south side of E. Mount Road. Stream substrate within the ROW consists of sand and gravel. Streams S8 and S9 accept roadside drainage from E Mount Road, impervious surfaces, and wetlands in the area.

Stream 10

This stream is a perennial watercourse associated with Wetland W32. This stream originates northwest of the ROW, flows southeast, and continues off of the southern side of the ROW west of Saybrook Road. Substrate within the ROW consists of exposed bedrock with some gravel.

Stream 11

This stream is a perennial braided stream with several streamlets that may not exhibit perennial flow. This stream flows under an existing access road via a bridge. This stream accepts drainage from impervious surfaces and Wetlands W33 and W34. Stream substrate within the ROW ranges from sand to cobble.

Stream 12

This stream is an intermittent watercourse associated with Wetland W37 within the ROW and several unnumbered wetlands outside of the Project area. This stream originates at a culvert, which conveys flow from Wetland 37 and flows east continuing east of Scoville Rock Substation. Stream substrate within the ROW consists of sand, gravel, and organics.

Appendix A

Wetland and Watercourse Summary Tables

Table 1 – Summary of Wetlands Delineated along the 387 / 3041 / 1050 Lines

Table 2 – Summary of Watercourses Delineated along the 387 / 3041 / 1050 Lines

Table 1

Wetland ID	Map Sheet	Wetland Type	Closest Structure - Line	Latitude	Longitude	Associated Watercourse
1	1 of 9	PUB	19041-387	41.510879	-72.668406	
2	2 of 9	PSS	19047-387	41.510359	-72.654626	Stream 1
3	2 of 9	PSS	19048-387	41.510144	-72.653428	Stream 2
4	3 of 9	PEM	19051-387	41.510312	-72.647943	Stream 3
5	3 of 9	PSS	19052-387	41.510438	-72.645022	
6	3 of 9	PSS	19054-387	41.510830	-72.639319	Stream 4
7	4 of 9	PSS/PFO	30011-3041	41.510864	-72.637267	Stream 5
8	4 of 9	PSS	30011-3041	41.510861	-72.635681	Stream 5
9	4 of 9	PSS/PFO	30011-3041	41.510364	-72.635660	
10	4 of 9	PEM	19057-387	41.511023	-72.632401	
11	4 of 9	PEM	19057-387	41.511561	-72.630715	
12	5 of 9	PEM	19063-387	41.512363	-72.618907	
13	5 of 9	PSS	30003-3041	41.512356	-72.618082	
14	5 of 9	PSS	30003-3041	41.511959	-72.617967	
15	5 of 9	PSS	19064-387	41.511621	-72.617554	Stream 8
16	5 of 9	PEM/PFO	19064-387	41.512474	-72.616465	Stream 8
17	5 of 9	PSS	19064-387	41.511766	-72.616655	Stream 9
18	5 of 9	PSS	23019-3041	41.511647	-72.616288	Stream 9
19	5 of 9	PEM/PFO	23019-3041	41.510801	-72.616084	
20	6 of 9	PSS	19066-387	41.510189	-72.612299	
21	6 of 9	PEM	19068-387	41.509859	-72.609569	
22	6 of 9	PEM	19068-387	41.509650	-72.609646	
23	6 of 9	PSS	19068-387	41.509408	-72.609105	
24	6 of 9	PEM	23015-3041	41.509940	-72.608269	
25	6 of 9	PSS/PUB	19069-387	41.509322	-72.608266	
26	6 of 9	PEM	23015-3041	41.509825	-72.607955	
27	6 of 9	PSS	19069-387	41.509562	-72.607606	
28	7 of 9	PEM/PFO	23009-3041	41.508556	-72.590553	Stream 10

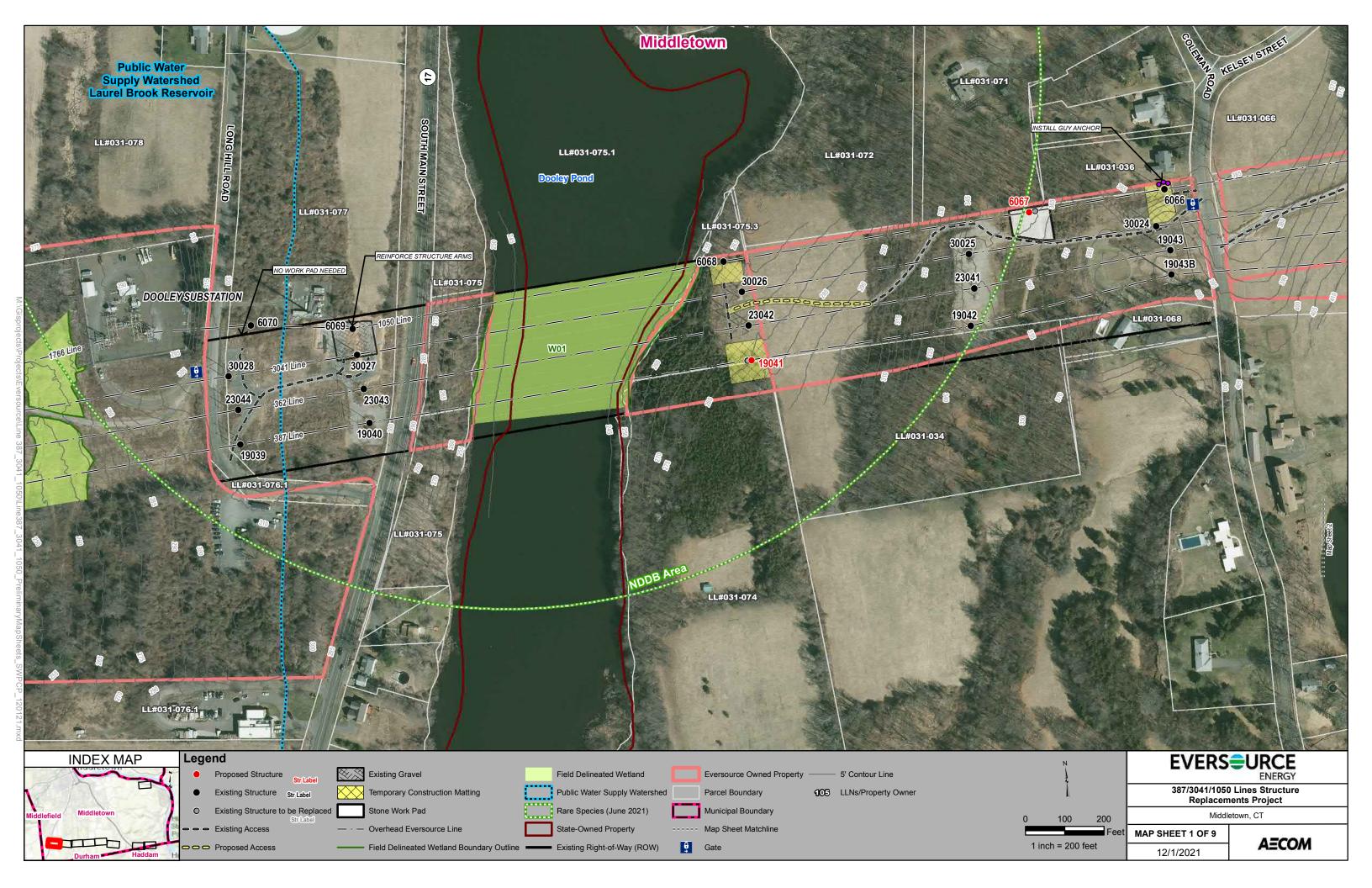
29	7 of 9	PSS	23006-3041	41.508503	-72.582400	
30	7 of 9	PSS	23006-3041	41.508190	-72.582035	
31	7 of 9	PEM	23006-3041	41.508626	-72.581677	
32	7 of 9	PEM	23006-3041	41.508476	-72.580098	
33	8 of 9	PEM/PSS	23006-3041	41.508117	-72.579608	Stream 11
34	8 of 9	PSS	23005-3041	41.508565	-72.578864	Stream 11
35	8 of 9	PEM	19081-387	41.508698	-72.574384	
36	8 of 9	PEM	2300-3041	41.509261	-72.571309	
37	8 of 9	PEM/PSS	2300-3041	41.509567	-72.570891	
38	8 of 9	PFO/PSS	2300-3041	41.510187	-72.571277	

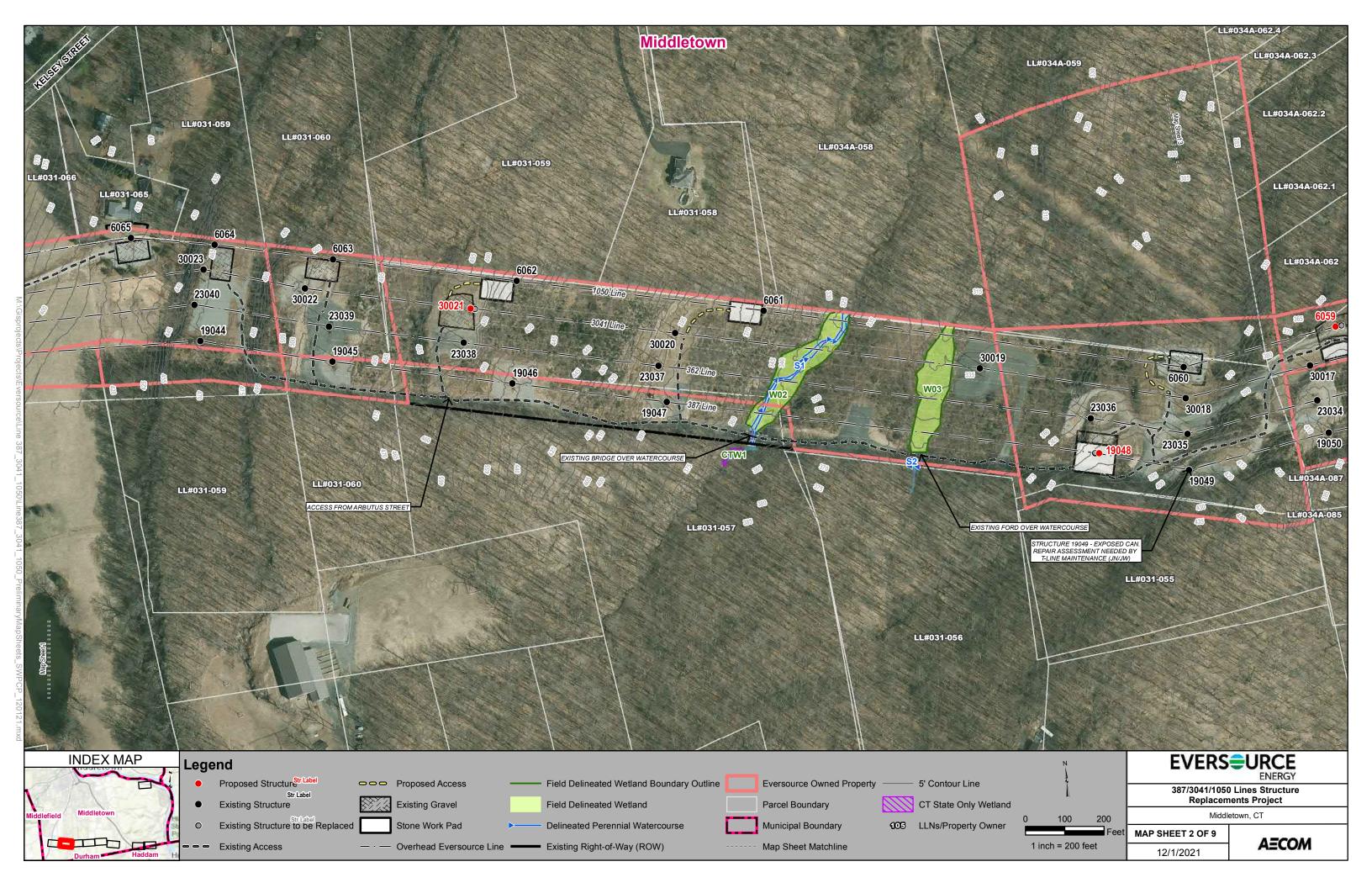
Table 2

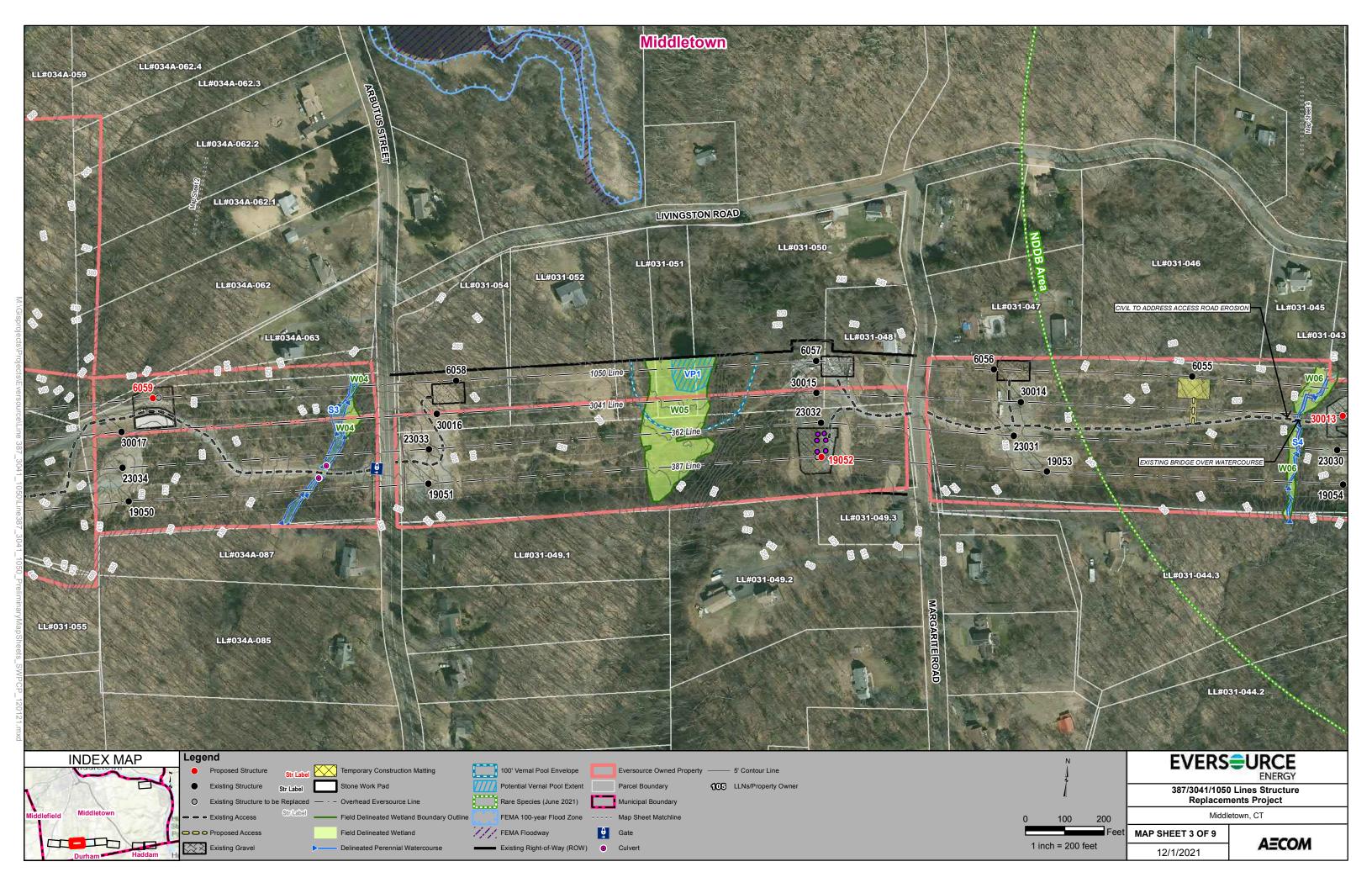
Watercourse ID	Map Sheet	Closest Structure - Line	Watercourse Name	Flow Regime	CT DEEP Water Quality Designation
Stream 1	2 of 9	19047-387	Unnamed Tributary to the West Round Hill Brook	Perennial	A
Stream 2	2 of 9	19048-387	Unnamed Tributary to the West Round Hill Brook	Perennial	Α
Stream 3	3 of 9	19051-387	Unnamed Tributary to the East Round Hill Brook	Perennial	A
Stream 4	3 of 9	19054-387	Unnamed Tributary to the Sumner Brook	Perennial	Α
Stream 5	4 of 9	30011-3041	Unnamed Tributary to the Sumner Brook	Intermittent	А
Stream 6	4 of 9	19057-387	Sumner Brook	Perennial	А
Stream 7	5 of 9	19062-387	Harris Brook	Perennial	А
Stream 8	5 of 9	19064-387	Unnamed Tributary to the Harris Brook	Intermittent	А
Stream 9	5 of 9	19064-387	Unnamed Tributary to the Harris Brook	Intermittent	А
Stream 10	7 of 9	23009-3041	Unnamed Tributary to the Bible Rock Brook	Perennial	А
Stream 11	7 of 9	23005-3041	Unnamed Tributary to the Bible Rock Brook	Perennial	А
Stream 12	8 of 9	23000-3041	Unnamed Tributary to the Bible Rock Brook	Intermittent	А

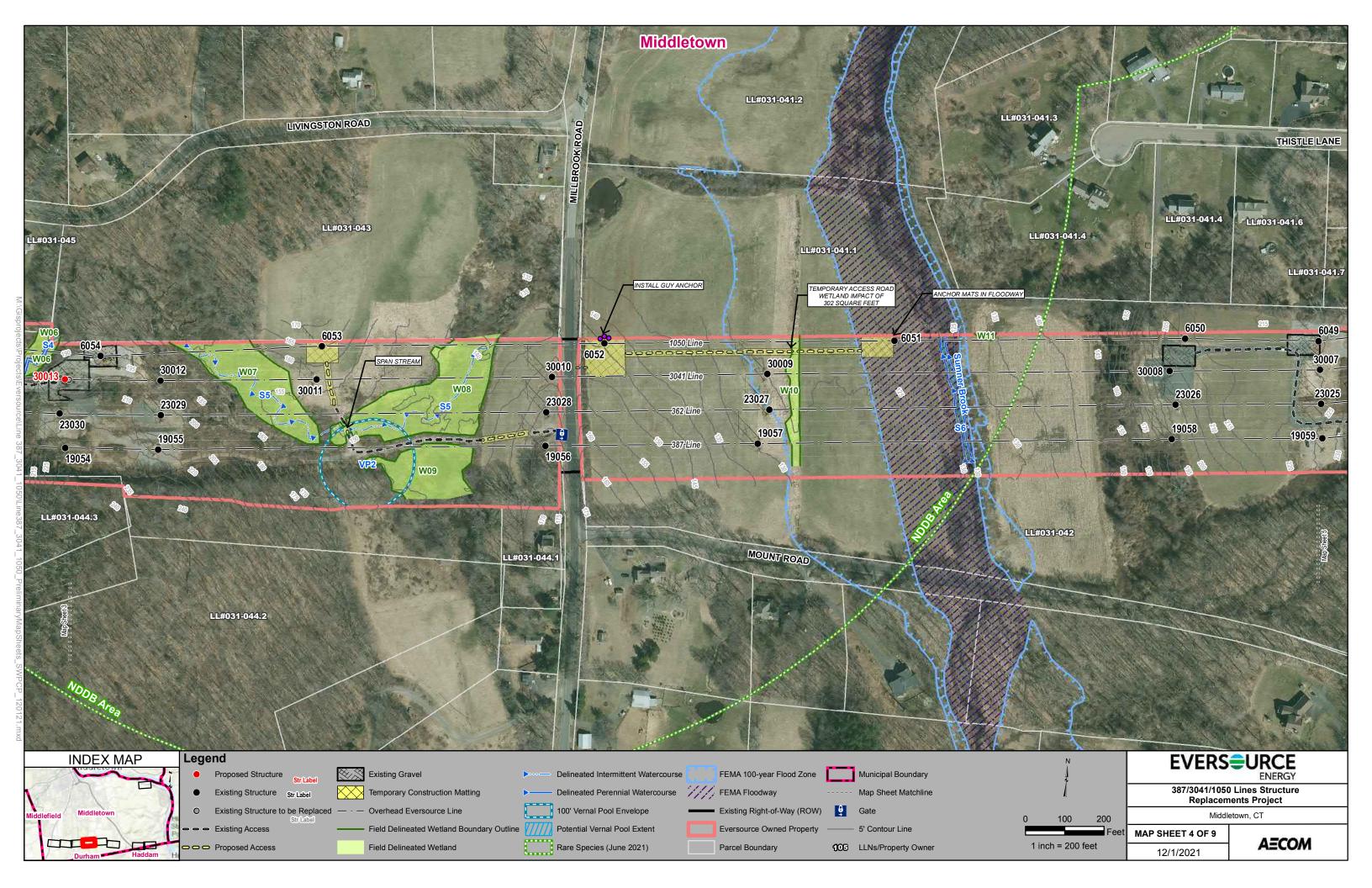
Appendix B

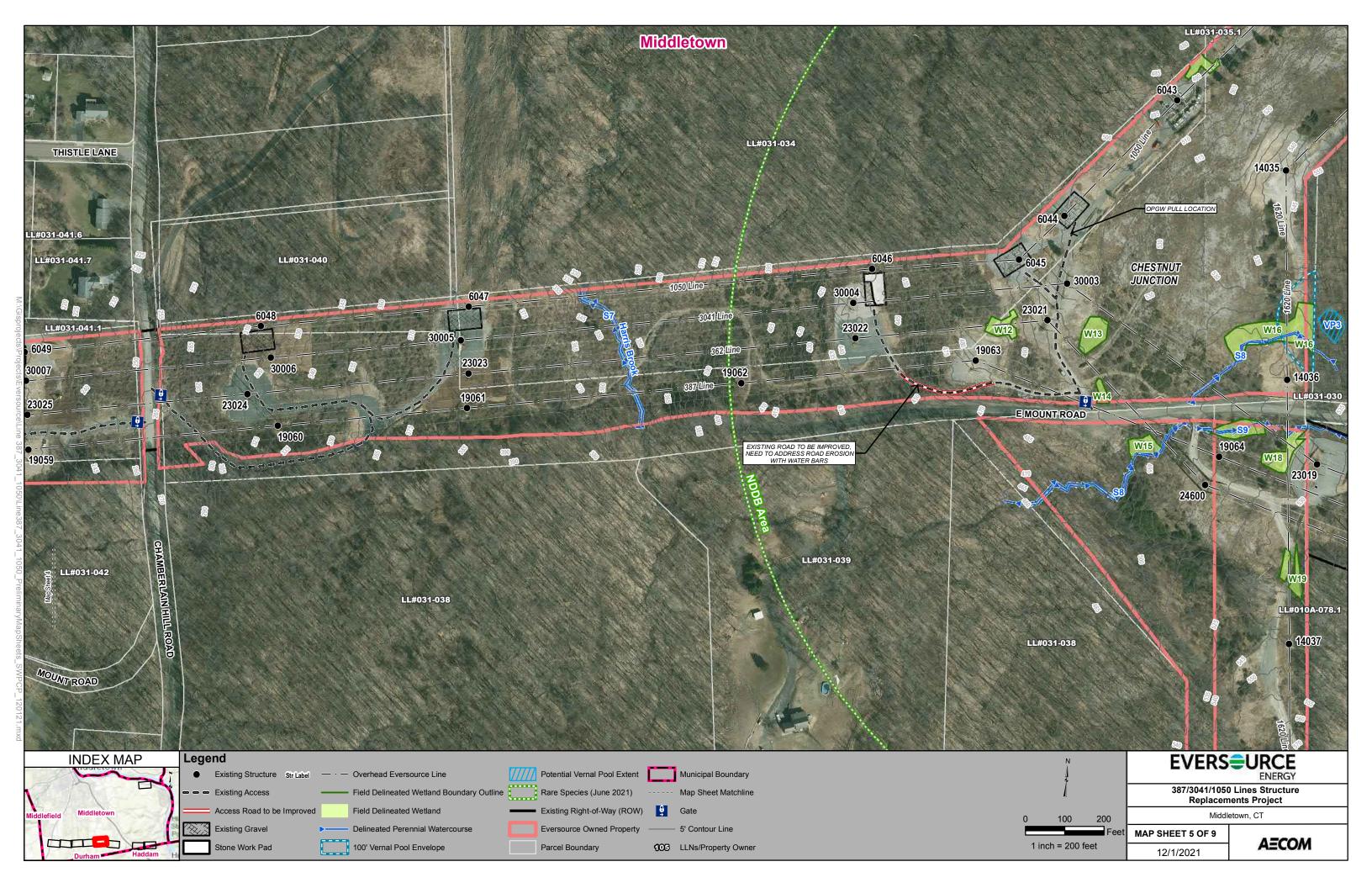
Project Mapping

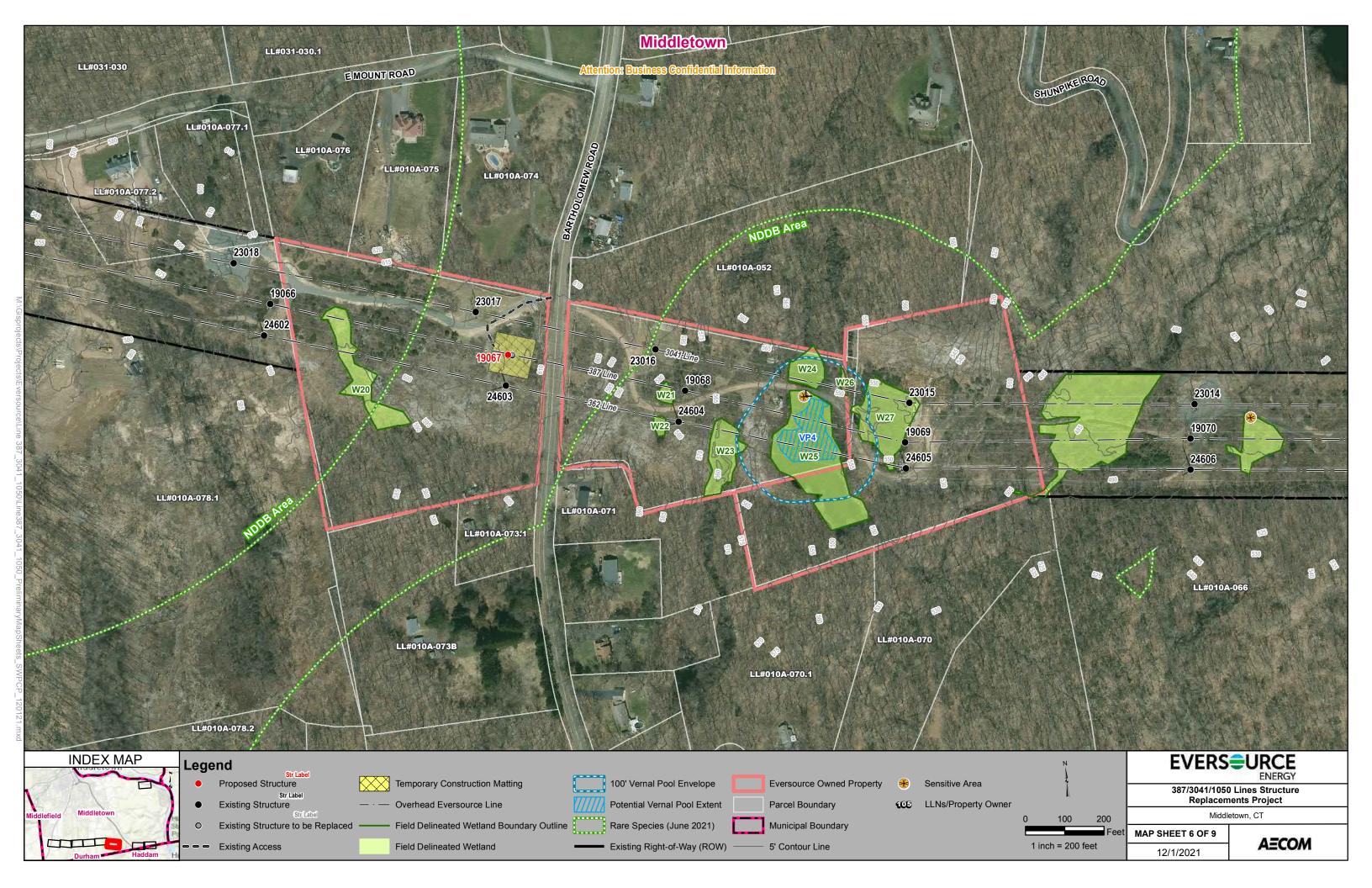


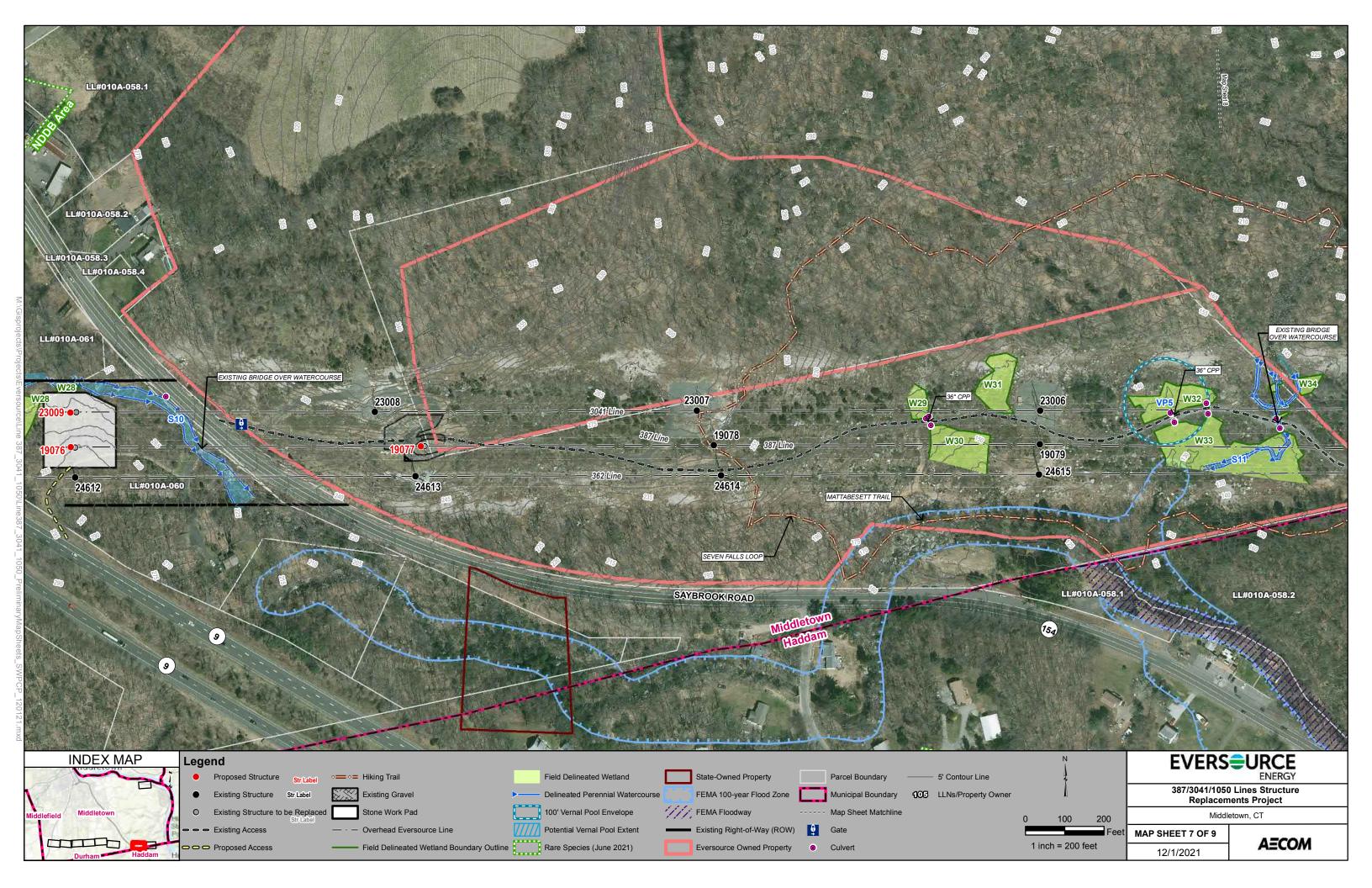


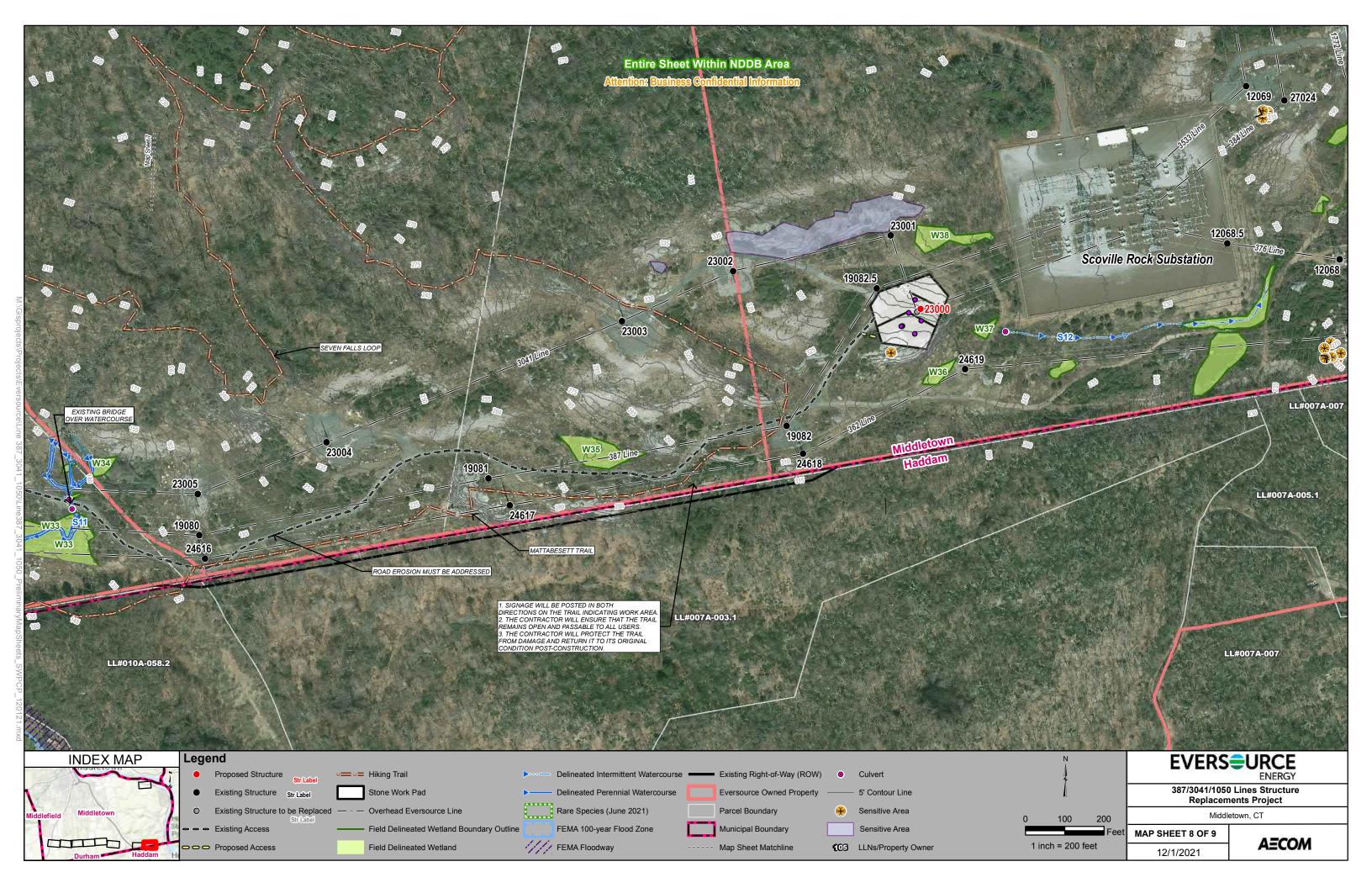


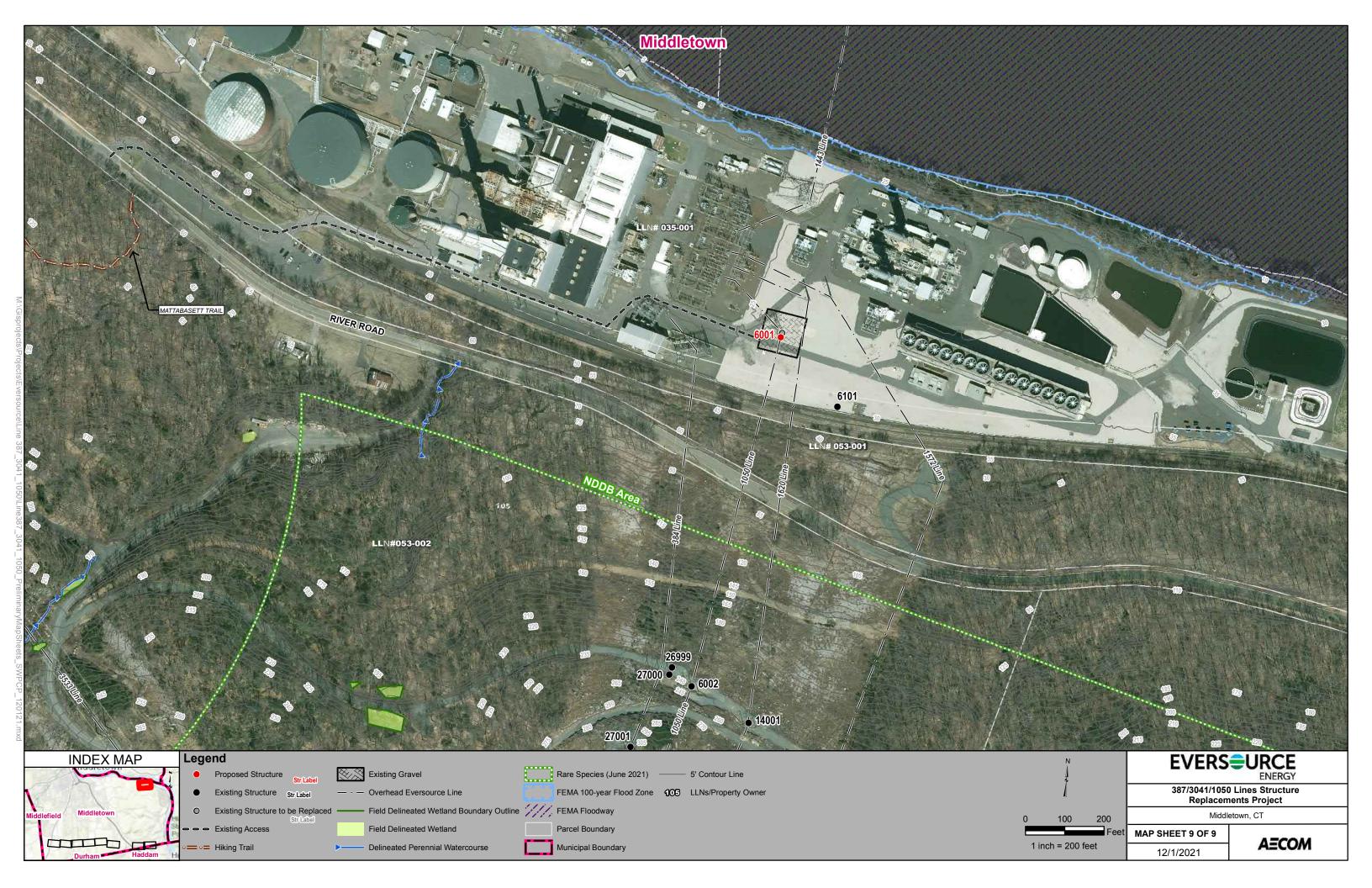












Appendix C

USACE Data Forms

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 387 / 3041 / 1050 Lines Structure Replacement Project	t City/County: Middletown Sampling Date: 05/18/2021
Applicant/Owner: Eversource Energy ROW	State: CT Sampling Point: W8
Investigator(s): Conor Makepeace (AECOM)	Section, Township, Range: N/A
	Local relief (concave, convex, none): Concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR R, MLRA 145 Lat: 41.510879	Long: -72.636453 Datum: Nad83
Soil Map Unit Name: Ellington silt loam, 0 to 5 percent slopes (20A)	NWI classification: PEM1E
· · · · · · · · · · · · · · · · · · ·	
Are climatic / hydrologic conditions on the site typical for this time of y	
Are Vegetation, Soil, or Hydrologysignifican	
Are Vegetation, Soil, or Hydrologynaturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate repo	L
W8 is a representative wetland datapoint taken within Wetland W8. Wetland Intermittent stream flows through the center of the wetland.	Vetland 8 is a PSS wetland located down gradient of an active agricultural field. An
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)Water-Stained	Leaves (B9) Drainage Patterns (B10)
x High Water Table (A2)Aquatic Fauna	Moss Trim Lines (B16)
x Saturation (A3) Marl Deposits	(B15) Dry-Season Water Table (C2)
	fide Odor (C1) Crayfish Burrows (C8)
l 	ospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
	Reduced Iron (C4) Stunted or Stressed Plants (D1)
I — · · · / —	eduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Su	
Inundation Visible on Aerial Imagery (B7) Other (Explain	
Sparsely Vegetated Concave Surface (B8) Field Observations:	X FAC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inche	oc).
Water Table Present? Yes x No Depth (inche	·
Saturation Present? Yes x No Depth (inche	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks:	
Primary wetland hydrology indicators were identified onsite.	
US Army Corps of Engineers	Northcentral and Northeast Region – Version 2.0

plants.			Sampling Point:	W8
Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
			Number of Dominant Species	
			That Are OBL, FACW, or FAC:	4 (
_			Total Number of Dominant	
			Species Across All Strata:	4 (
			Percent of Dominant Species	
			That Are OBL, FACW, or FAC:	100.0% (
_			Prevalence Index worksheet:	
	=Total Cover		Total % Cover of: N	fultiply by:
_)			OBL species15 x 1 =	15
40	Yes	FACW	FACW species 70 x 2 =	140
10	Yes	FACW	FAC species 0 x 3 =	0
			FACU species 0 x 4 =	0
			UPL species 0 x 5 =	0
			Column Totals: 85 (A)	155
			Prevalence Index = B/A =	1.82
			Hydrophytic Vegetation Indicators	:
50	=Total Cover		1 - Rapid Test for Hydrophytic V	egetation
			X 2 - Dominance Test is >50%	
20	Yes	FACW	X 3 - Prevalence Index is ≤3.0 ¹	
10	Yes	OBL	1	
5	No	OBL	data in Remarks or on a sepa	rate sheet)
			Problematic Hydrophytic Vegeta	ition ¹ (Explain
			¹ Indicators of hydric soil and watland	hydrology mi
			Definitions of Vegetation Strata:	
			Tree – Woody plants 3 in (7.6 cm) o	or more in
			Sanling/shruh – Woody plants less	than 3 in DR
			Herb - All herbaceous (non-woody)	nlants regard
	=Total Cover		Herb – All herbaceous (non-woody) of size, and woody plants less than 3	
	=Total Cover		of size, and woody plants less than 3	3.28 ft tall.
35)	•			3.28 ft tall.
35	•		of size, and woody plants less than 3 Woody vines – All woody vines greatheight.	3.28 ft tall.
35	•		of size, and woody plants less than 3 Woody vines – All woody vines greatheight. Hydrophytic	3.28 ft tall.
35	•		of size, and woody plants less than 3 Woody vines – All woody vines greatheight. Hydrophytic Vegetation	3.28 ft tall.
	% Cover 40 10 50 20 10 5		% Cover Species? Status	March Species Status Dominance Test worksheet:

SOIL Sampling Point: W8 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Redox Features Loc² Color (moist) % Color (moist) Texture (inches) Type¹ Remarks 10YR 4/2 100 0-5 Loamy/Clayey 5-9 2.5Y 4/2 98 7.5YR 4/4 M Loamy/Clayey Prominent redox concentrations С 9-18 10YR 5/1 90 7.5YR 4/4 10 С Prominent redox concentrations М Loamy/Clayey ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix. **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) Hydrogen Sulfide (A4) High Chroma Sands (S11) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Surface (A11) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) X Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Red Parent Material (F21) Sandy Redox (S5) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Marl (F10) (**LRR K, L**) Other (Explain in Remarks) Dark Surface (S7) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:

Remarks:

Depth (inches):

Hydric soils including Depleted Matrix (F3) were identified onsite.

Yes

No

Hydric Soil Present?

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 387 / 3041 / 10	50 Lines Structure Replac	cement Project C	city/County: Middle	etown	Sampling Date: 05/18/2021
Applicant/Owner: Eversource	e Energy ROW			State:	CT Sampling Point: UPL 8
Investigator(s): Conor Maker	peace (AECOM)	Sc	ection, Township,	Range: N/A	
Landform (hillside, terrace, etc	, ,		, ,	, convex, none): Slope	Slope (%): 2-4
Subregion (LRR or MLRA): LI	, <u> </u>			Long: -72.636646	Datum: Nad83
Soil Map Unit Name: Hartford	•	, , ,		NWI classif	
Are climatic / hydrologic condi	**	-		No (If no, explain	
Are Vegetation, Soil	, or Hydrology	significantly o	disturbed? Are	"Normal Circumstances" pro	esent? Yes X No
Are Vegetation, Soil	, or Hydrology	naturally prob	blematic? (If r	needed, explain any answers	in Remarks.)
SUMMARY OF FINDING	GS – Attach site ma	p showing sa	ampling point	locations, transects,	important features, etc.
Hydrophytic Vegetation Pres	ent? Yes	No_X_	Is the Sample	d Area	
Hydric Soil Present?	Yes		within a Wetla	and? Yes	NoX
Wetland Hydrology Present?	Yes	No <u>X</u>	If yes, optional	Wetland Site ID:	
UPL 8 is an upland datapoint		·		ū	
HYDROLOGY					
Wetland Hydrology Indicate	ors:			Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum	of one is required; check	all that apply)		Surface So	il Cracks (B6)
Surface Water (A1)		Water-Stained Le			atterns (B10)
High Water Table (A2)		Aquatic Fauna (B	•		Lines (B16)
Saturation (A3)		Marl Deposits (B1	•		Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide		Crayfish Bu	` '
Sediment Deposits (B2)		Oxidized Rhizosp		· · · · · · · · · · · · · · · · · · ·	Visible on Aerial Imagery (C9)
—— Drift Deposits (B3) Algal Mat or Crust (B4)		Presence of Redu			Stressed Plants (D1)
Iron Deposits (B5)		Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Thin Muck Surface (C7) Shallow Aquitard (D3)			· ·
Inundation Visible on Ae		_			raphic Relief (D4)
Sparsely Vegetated Con		Otrici (Explain III	rtemants)	FAC-Neutra	, ,
Field Observations:					
Surface Water Present?	Yes No x	Depth (inches):			
Water Table Present?	Yes No x	Depth (inches):			
Saturation Present?	Yes No x	Depth (inches):		Vetland Hydrology Present	? Yes No X
(includes capillary fringe)		,			
Describe Recorded Data (str	eam gauge, monitoring w	ell, aerial photos,	previous inspection	ons), if available:	
Remarks: No primary wetland hydrolog	v indicators were identifie	d ancita			
Tho primary wettand hydrolog	y indicators were identified	u orisite.			
US Army Corps of Engin	eers			Northcentral and Nor	theast Region – Version 2.0

UPL 8 **VEGETATION** – Use scientific names of plants. Sampling Point: Absolute Dominant Indicator Tree Stratum (Plot size: ____) % Cover Species? Status **Dominance Test worksheet:** 1. **Number of Dominant Species** 2. That Are OBL, FACW, or FAC: 0 (A) 3. Total Number of Dominant 4. Species Across All Strata: 1 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 0.0% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: Multiply by: Sapling/Shrub Stratum (Plot size: ____) OBL species x 1 = **FACW** species x 2 = 0 2. FAC species 5 x 3 = 15 x 4 = 95 3. FACU species 380 4. UPL species 0 x 5 = 5. Column Totals: 100 Prevalence Index = B/A = 3.95 6. **Hydrophytic Vegetation Indicators:** 7. 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% Herb Stratum (Plot size: ____) 1. Phleum pratense Yes **FACU** 3 - Prevalence Index is ≤3.01 10 4 - Morphological Adaptations¹ (Provide supporting 2. Galium mollugo No **FACU** data in Remarks or on a separate sheet) 5 FAC 3. Ranunculus acris No 4. Rosa multiflora No **FACU** Problematic Hydrophytic Vegetation¹ (Explain) 5. ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 6. 7. **Definitions of Vegetation Strata:** 8. Tree - Woody plants 3 in. (7.6 cm) or more in 9. diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless 100 =Total Cover of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: Woody vines - All woody vines greater than 3.28 ft in 1. height. 2. Hydrophytic 3. Vegetation Yes No X Present? =Total Cover Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation is present onsite.

UPL 8 SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Redox Features Loc² Color (moist) % Color (moist) Texture (inches) Type¹ Remarks 10YR 3/2 100 0-6 Loamy/Clayey Loamy/Clayey 6-18 10YR 4/3 100 Few rocks ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix. **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Black Histic (A3) Hydrogen Sulfide (A4) High Chroma Sands (S11) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Surface (A11) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Red Parent Material (F21) Sandy Redox (S5) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Marl (F10) (**LRR K, L**) Other (Explain in Remarks) Dark Surface (S7) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): **Hydric Soil Present?** No Remarks: No hydric soils were identified onsite.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 387 / 3041 / 1050 Lines Structure Replacement Project O	City/County: Middletown Sampling Date: 05/18/2021
Applicant/Owner: Eversource Energy ROW	State: CT Sampling Point: W10
Investigator(s): Conor Makepeace (AECOM)	Section, Township, Range: N/A
Landform (hillside, terrace, etc.): Linear Depression Loc	ral relief (concave, convex, none): Concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR R, MLRA 145 Lat: 41.511510	Long: -72.632457 Datum: Nad83
Soil Map Unit Name: Ellington silt loam, 0 to 5 percent slopes (20A)	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year	
Are Vegetation, Soil, or Hydrologysignificantly	· · ·
Are Vegetation, Soil, or Hydrologynaturally pro	
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.) W10 is a representative wetland datapoint taken within Wetland W10. V and partially within a FEMA floodplain.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Le	<u> </u>
x High Water Table (A2) — Aquatic Fauna (B	<u>—</u>
x Saturation (A3) — Marl Deposits (B Water Marks (B1) Hydrogen Sulfide	
1 	pheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Red	
1 	uction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface	ce (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in	Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes x No Depth (inches):	
Saturation Present? Yes x No Depth (inches):	10 Wetland Hydrology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos,	nrevious inspections) if available:
Describe Necorded Data (stream gauge, monitoring well, aeriai priotos,	previous inspections), it available.
Remarks:	
Primary wetland hydrology indicators were identified onsite.	
US Army Corps of Engineers	Northcentral and Northeast Region – Version 2.0

VEGETATION – Use scientific names of plants. Sampling Point: W10 Absolute Dominant Indicator <u>Tree Stratum</u> (Plot size: % Cover Species? Status **Dominance Test worksheet:** 1. **Number of Dominant Species** 2. That Are OBL, FACW, or FAC: 1 (A) 3. Total Number of Dominant 4. Species Across All Strata: 1 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: Multiply by: Sapling/Shrub Stratum (Plot size: ____) OBL species x 1 = **FACW** species 75 x 2 = 150 10 2. FAC species x 3 = x 4 = 0 3. FACU species 0 4. UPL species 0 x 5 = 5. Column Totals: 95 Prevalence Index = B/A = 2.00 6. **Hydrophytic Vegetation Indicators:** 7. 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% Herb Stratum (Plot size: 1. Phalaris arundinacea 70 Yes **FACW** X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting 2. Juncus effusus 10 No OBL data in Remarks or on a separate sheet) 10 3. Echinochloa crus-galli No FAC 5 4. Onoclea sensibilis No **FACW** Problematic Hydrophytic Vegetation¹ (Explain) 5. ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 6. 7. **Definitions of Vegetation Strata:** 8. Tree - Woody plants 3 in. (7.6 cm) or more in 9. diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless 95 =Total Cover of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: Woody vines - All woody vines greater than 3.28 ft in 1. height. 2. Hydrophytic 3. Vegetation Yes X No Present? =Total Cover Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is present onsite.

SOIL Sampling Point: W10 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Redox Features Loc² Color (moist) % Color (moist) Texture (inches) Type¹ Remarks 10YR 3/2 100 8-0 Loamy/Clayey 8-18 10YR 5/2 90 7.5YR 5/6 10 M Loamy/Clayey Prominent redox concentrations С ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) High Chroma Sands (S11) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) X Depleted Below Dark Surface (A11) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) X Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Red Parent Material (F21) Sandy Redox (S5) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Marl (F10) (**LRR K, L**) Other (Explain in Remarks) Dark Surface (S7) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): **Hydric Soil Present?** Yes Nο

Remarks

Hydric soils including Depleted Below Dark Surface (A11) and Depleted Matrix (F3) were identified onsite.

Attachment E: Vernal Pool Survey



AECOM 500 Enterprise Drive Rocky Hill, CT 06067 aecom.com

Project name: 387, 3041, 1050 Lines Structure Replacement Project

Date: December 02, 2021

Subject: Vernal Pool Assessment

Eversource Energy 387, 3041, 1050 Lines

Dooley Substation and Scoville Rock Substation

Middletown, CT

Summary of Project:

AECOM has prepared this report for Eversource's 387, 3041 and 1050 Lines Structure Replacement Project (Project) as a summary of vernal pools documented between Dooley Substation and Scoville Rock Substation, and Middletown Substation in Middletown, CT. The Project is part of an ongoing maintenance program which evaluates the integrity of utility structures and implements repair, upgrade or replacement in order to ensure the safe and reliable transmission of power to its customers. Due to asset condition, 6 structures located on the 387 line, 4 structures on the 3041 line, and the replacement of 3 structures and optical ground wire (OPGW) along the 1050 Line require replacement.

As part of the environmental review process for this project, AECOM wetland and soil scientists reviewed the portion of the Right of Way (ROW) where work is being performed for potential vernal pools (PVPs) between May 18 and May 21, 20201. All vernal pools were classified according to Eversource's December 2019 Vernal Pool Best Management Practices. Areas classified as decoy vernal pools are not shown on project mapping. Please see Table 1 for vernal pool identification and classification. Please see Appendix A for Project Mapping and Appendix B for USACE Vernal Pool Characterization Forms for all cryptic vernal pools.

Table 1: Classification of Vernal Pools Identified within Eversource 387, 3041, 1050 ROW

Vernal Pool ID	Туре	Cover Type	Latitude / Longitude	Species Identified*	Closest Structure-Line	Map Sheet
VP1	Cryptic	Forested / Open	41.510863, - 72.644870	WFEM, SSEM, WFL, GF, BFL	30015-3041	3 of 9
VP2	Cryptic	Scrub / Shrub	41.510353, - 72.636226	WFL, GF, BF	190(55-56)-387	4 of 9
VP3	Cryptic	Forested	41.512497, - 72.615881	WFL, SSEM, GF	23019 -3041	5 of 9
DVP1	Decoy	None / Forested	41.512475, - 72.616261	SSEM, WFL	23019 -3041	5 of 9
VP4	Cryptic	Scrub / Shrub	41.509421, - 72.608311	SSL	24064-387	6 of 9
DVP2	Decoy	None / Scrub / Shrub	41.509550, - 72.607854	SSEM, WFL	19069-387	6 of 9
VP5	Cryptic	Scrub/Shrub	41.508464, - 72.580153	SSEM, WF, ST	23006-387	7 of 9
DVP3	Decoy	None/Forested	41.507807, - 72.581768	SSEM	1979-387	7 of 9

DVP4	Decoy	None	41.508377, - 72.580271	SSEM	23006-387	7 of 9
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^{*}Species Listed: Wood Frog Egg Mass (WFEM), Wood Frog Larvae (WFL), Spotted Salamander Egg Mass (SSEM), Spotted Salamander Larvae (SSL), Bullfrog Larvae (BFL), Bullfrog (BF), Green Frog (GF), and Spotted Turtle (ST)

Vernal Pool General Description

Vernal Pool 1 (VP1): This area consists of a large pool approximately 20 inches at the deepest point. The pool is associated with a scrub-shrub wetland system west of the 3041Line structure 30015 in Middletown, please see map sheet 3 of 9. The wetland is a scrub-shrub (PSS) / forested (PFO) wetland classified as a PSS wetland within the majority of the ROW and PFO on ROW fringes and outside ROW. The pool itself occupies a depressional portion of the wetland and is north of an existing access road. Vegetation noted in the area, at the time of the site visit, included: red maple (*Acer rubrum*), silky dogwood (*Cornus amomum*), and phragmites (*Phragmites australis*). During the site visit, many bullfrog larvae, spotted salamander egg masses, wood frog egg masses, wood frog larvae and several green frogs were identified. Due to the size and depth of this pool, it is unlikely to entirely dry out each year. This pool is shaded by surrounding trees located outside of the Project ROW. Due to the location of this vernal pool within a larger wetland complex it is classified as a cryptic vernal pool. There are no Project related impacts to VP1, including the 100' vernal pool envelope.

Vernal Pool 2 (VP2): This area consists of a pool approximately 8 inches at the deepest point. The pool is associated with a PSS/PFO wetland system located between Structures 19055 and 19056 on the 387 Line in Middletown, please see map sheet 4 of 9. The pool itself occupies a depressional portion of the wetland and is located south of an existing access road. Vegetation noted in the area, at the time of the site visit, included: red maple (*Acer rubrum*), silky dogwood (*Cornus amomum*), tussock sedge (*Carex stricta*), and skunk cabbage (*Symplocarpus foetidus*). During the site visit, numerous wood frog larvae, adult bullfrogs and adult green frogs were identified. This pool is shaded by surrounding trees within the forested portion of the wetland. Due to the location of this vernal pool within a larger wetland complex it is classified as a cryptic vernal pool. The Project will have no impacts to the vernal pool depression and no new impacts its 100' vernal pool envelope. However, the Project will use an existing access road, which is located within the 100' vernal pool envelope, to access Structure 6053 on the 1050 Line.

Vernal Pool 3 (VP3): This area consists of a large, deep pool approximately 36 inches at the deepest point. The pool is associated with a PFO wetland and is located off-ROW near Structure 14036 on the 1620 Line in Middletown, near Chestnut Junction (Map sheet 5 of 9). The wetland in the area is forested and transitions to a PSS/PEM wetland within the ROW where it is maintained. The pool itself occupies an area with elevated banks and a central depression and is located east of an existing access road and off of the Project ROW. Vegetation noted in the area, at the time of the site visit, included: red maple (*Acer rubrum*), ironwood (*Carpinus caroliniana*), highbush blueberry (*Vaccinium corymbosum*), and tussock sedge (*Carex stricta*). During the site visit, numerous wood frog larvae, several spotted salamander egg masses and few adult green frogs were identified. This pool is fully shaded by surrounding trees. Due to the location of this vernal pool within a larger wetland complex it is classified as a cryptic vernal pool. The Project will not have any impacts to this pool or its 100' envelope.

Decoy Vernal Pool 1 (DVP1): This pool consists of a shallow inundated area within an existing dirt access road. The pool is associated with a PSS / PFO wetland system located near Structure 14036 on the 1620 Line in Middletown (Map sheet 5 of 9). This pool is subject to historic and recurring disturbance from ROW activities and ATV usage. Hydrology within this area is likely to be limited to perched surface water and the area is significantly affected by continuing disturbance. The pool is largely devoid of vegetation and this area is unlikely to hold surface water long enough for full larval development and metamorphosis. Vernal pool 3, located within the vicinity of this pool, was identified as a cryptic vernal pool and may serve as a source population for amphibian species identified within this pool. During the site visit, several wood frog larvae were identified in DVP1. Due to the impact of the access road on the pool's hydrology, historic and recurring disturbance within the pool, exposure due to a lack of vegetation, and the presence of a nearby source pool this area was classified as a decoy vernal pool and excluded from mapping.

Vernal Pool 4 (VP4): This area consists of a large pool approximately 30 inches at the deepest point. The pool is associated with a PSS wetland system located directly under the 387-line near Structure 19069 in Middletown (Map sheet 6 of 9). The pool itself occupies a depressional portion of the wetland and is located south of an existing access road. Vegetation noted in the area, at the time of the site visit, included: highbush blueberry (*Vaccinium corymbosum*) and sweet pepperbush (*Clethra alnifolia*). During the site visit spotted salamander larvae were identified. Due to the size and depth of this pool, this pool may

not dry out annually. Due to the location of this vernal pool within a larger wetland complex it is classified as a cryptic vernal pool. The Project will have no impacts to the VP4 basin or its associated 100' vernal pool envelope.

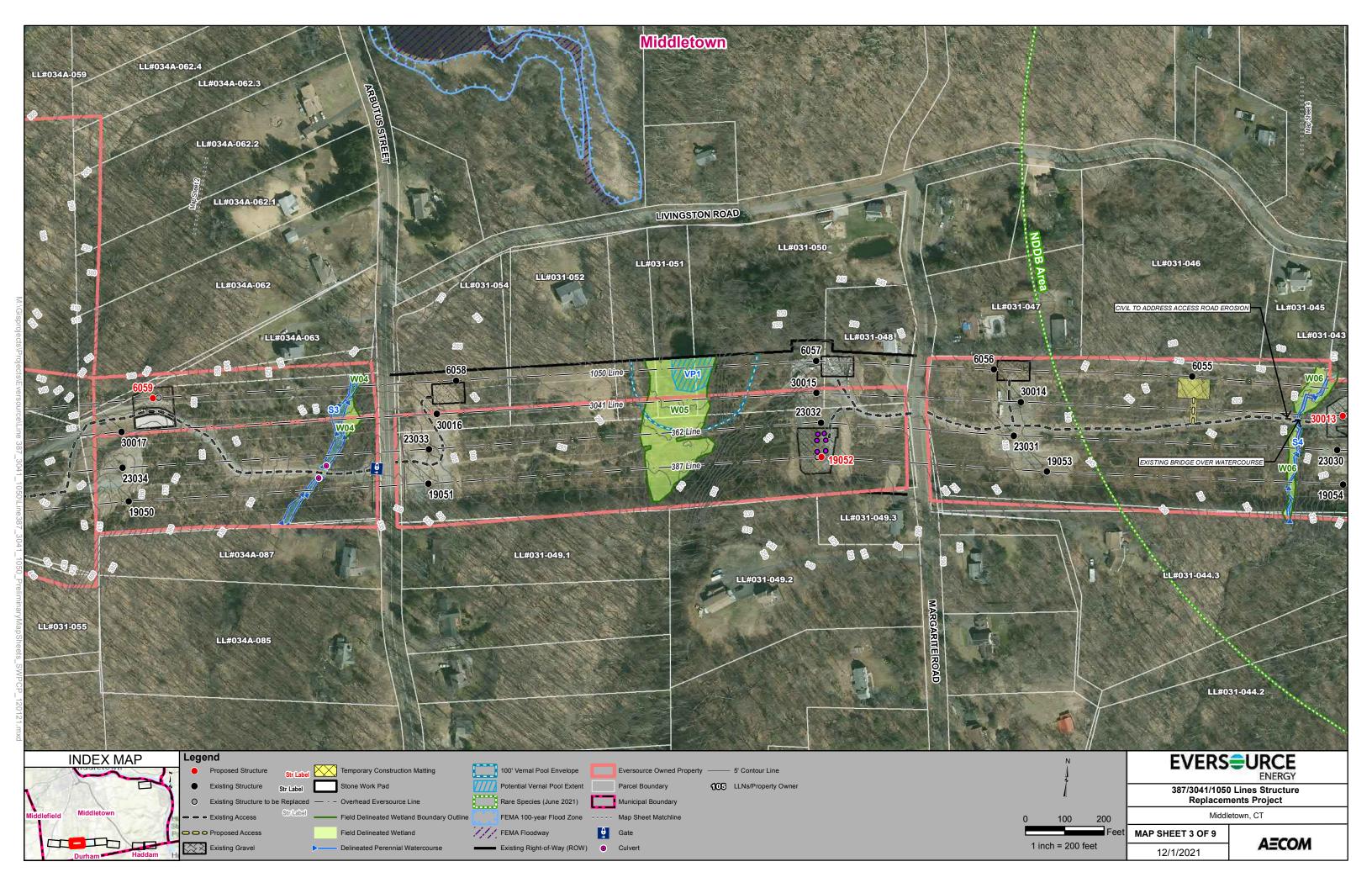
Decoy Vernal Pool 2 (DVP2): This pool consists of a shallow inundated area within an existing dirt access road. The pool is associated with an PEM/PSS system located directly under the 387-line near structure 19069 in Middletown (Map sheet 6 of 9). This pool is subject to historic and recurring disturbance from ATV usage. Hydrology within the pool is significantly affected by the presence of an access road and the continuing disturbance. VP4 is located within the vicinity of this pool and may serve as a source population for amphibian species identified within this pool. During the site visit, several wood frog larvae were identified. Due to the impact of the access road on the pool's hydrology, historic and recurring disturbance within the pool, exposure due to a lack of shading, and the presence of a nearby source pool this area was classified as a decoy vernal pool and excluded from mapping.

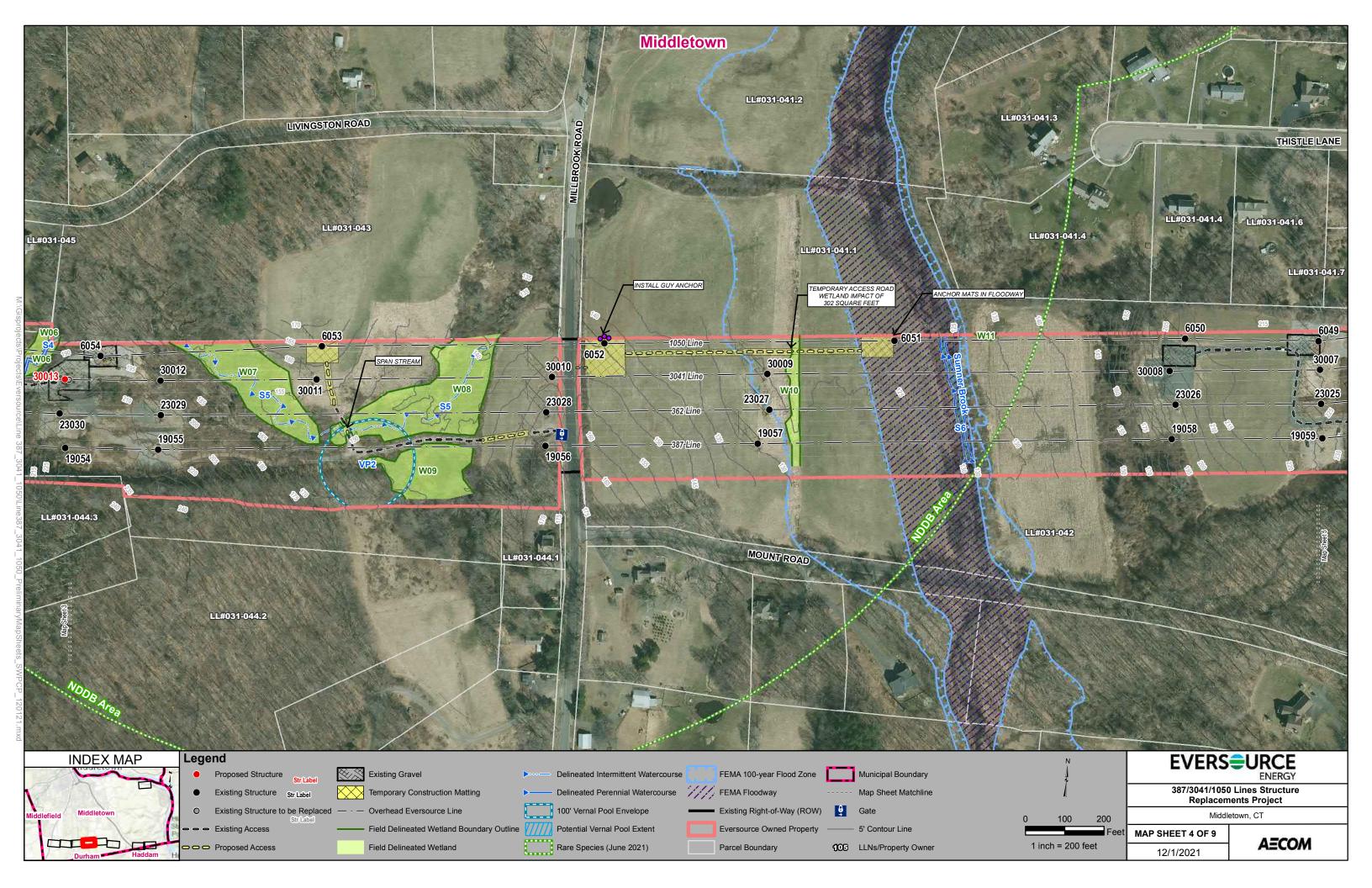
Vernal Pool 5 (VP5): This area consists of a small, shallow pool approximately 4 inches at the deepest point. This pool is associated with a PSS wetland system east of the 3041 Line Structure 23006 in Middletown (Map sheet 7 of 9). The pool itself occupies a depressional portion of the wetland. Vegetation noted in the area, at the time of the site visit, included: cattails (*Typha latifolia*), soft rush (*Juncus effusus*), Phragmites (*Phragmites australis*) and phalaris (*Phalaris arundinacea*). During the site visit spotted salamander egg masses, wood frogs, and a spotted turtle were observed. Due to the location of this vernal pool within a larger wetland complex it is classified as a cryptic vernal pool. VP5 has an existing access road located immediately to the south. This access road will be used by the project. However, there are no impacts to the vernal pool basin and no new impacts to its 100' envelope.

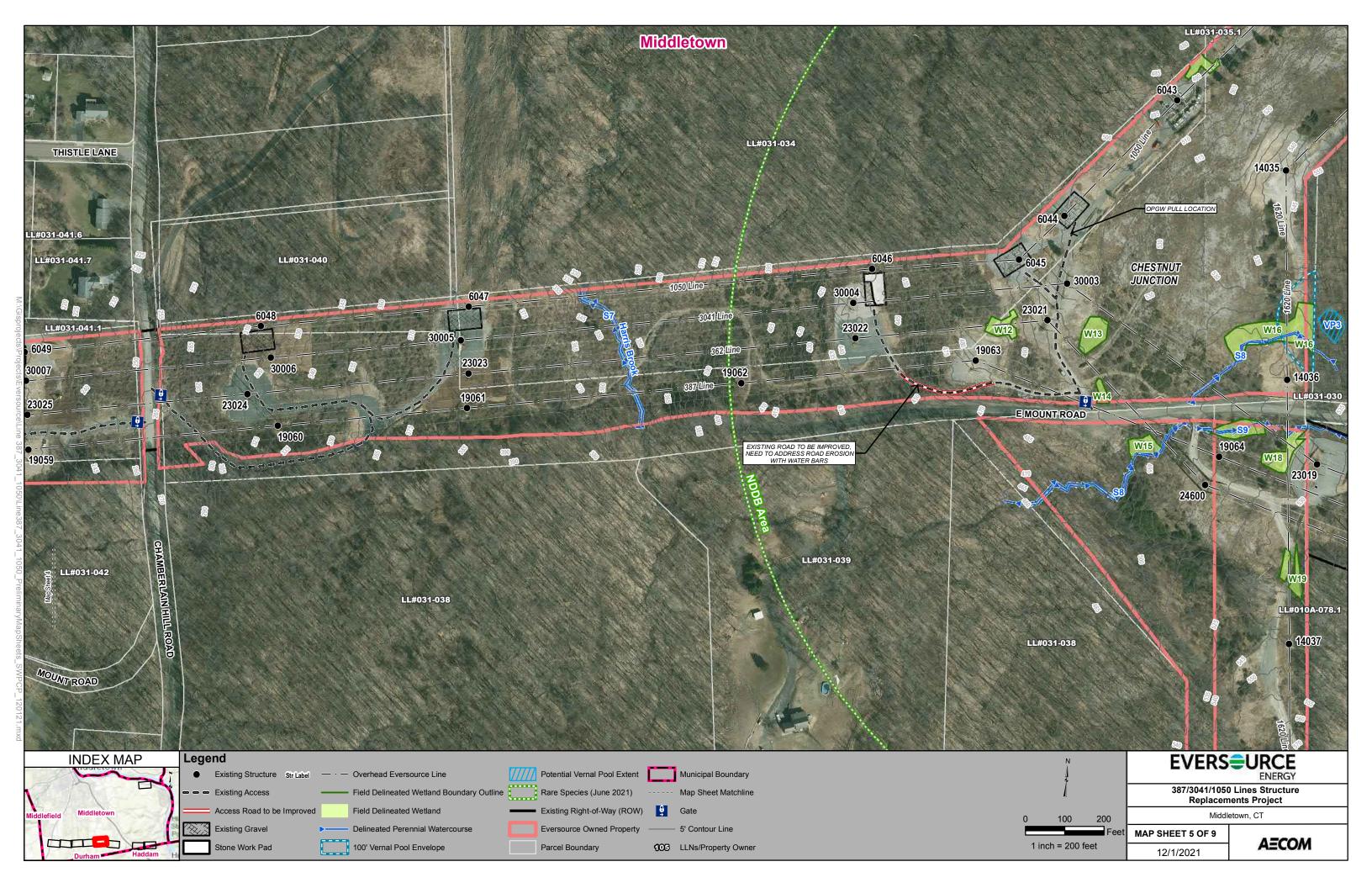
Decoy Vernal Pool 3 (DVP3): This pool consists of a shallow inundated area within an off-road vehicle pathway. The pool is associated with a PSS wetland system located southwest of the 387 Line Structure 19079 in Middletown (Map sheet 7 of 9). This pool is subject to historic and recurring disturbance from ATV/mountain bike/dirt bike usage. Hydrology within the pool is significantly affected by the continuing disturbance. During the site visit, spotted salamander egg masses were identified. Due to its location in a highly disturbed off-road vehicle pathway, and the anticipated continuing disturbance to the pool, this area was classified as a decoy vernal pool and excluded from mapping.

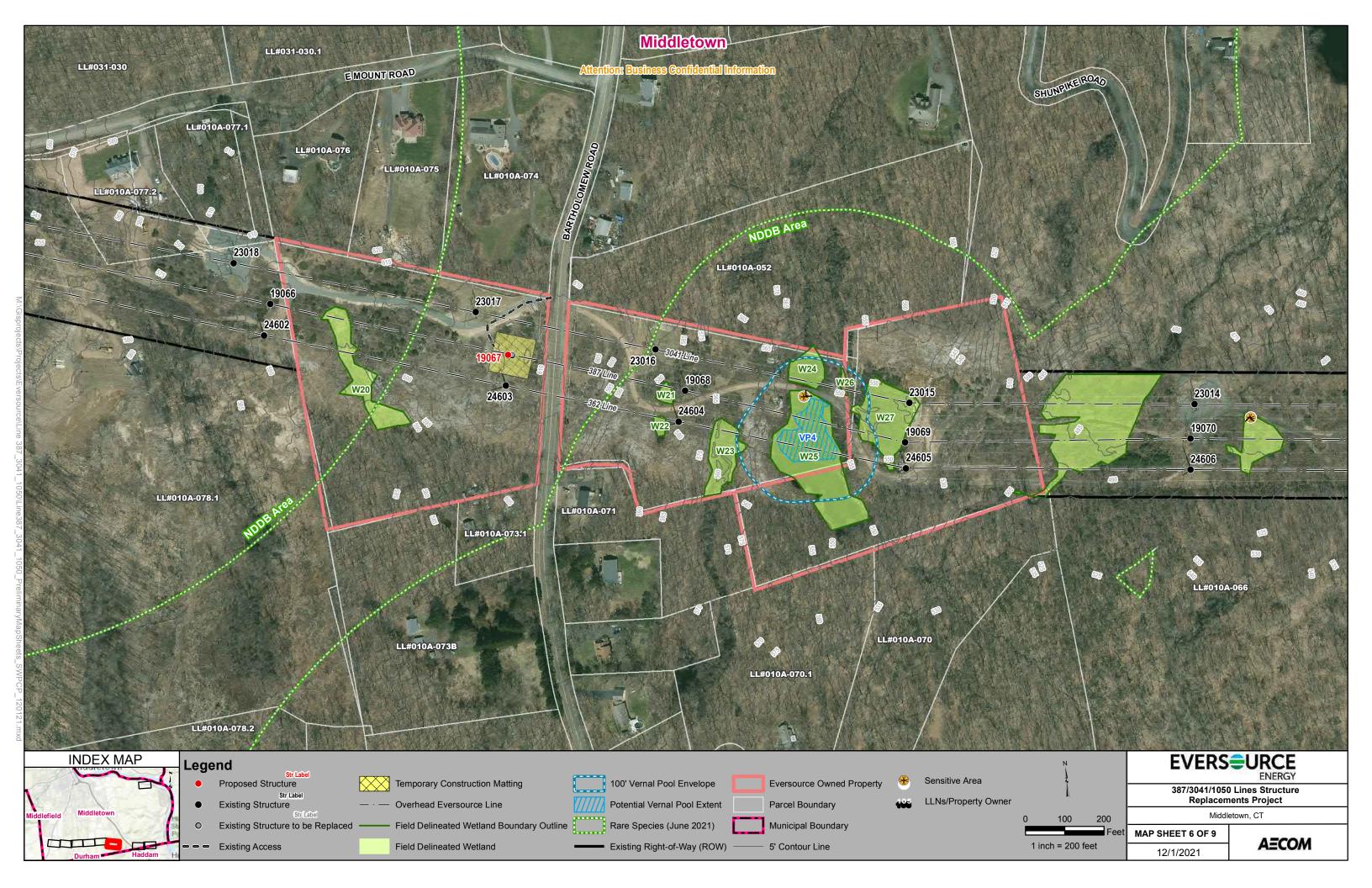
Decoy Vernal Pool 4 (DVP4): This pool consists of a shallow inundated area within an existing dirt access road. The pool is associated with an PEM/PSS wetland system located east of the 3041 Line Structure 23006 in Middletown (Map sheet 7 of 9). Hydrology in the area is affected by an access road built at the southern edge of the pool causing water accumulation. VP5, which is proximate to this pool could serve as a source population for amphibians using this area. During field reviews spotted salamander egg masses were identified within this pool. Due to the impact of the access road on the hydrology of the pool, the small number of egg masses identified, and the nearby source populations, this pool was classified as a decoy vernal pool and excluded from mapping.

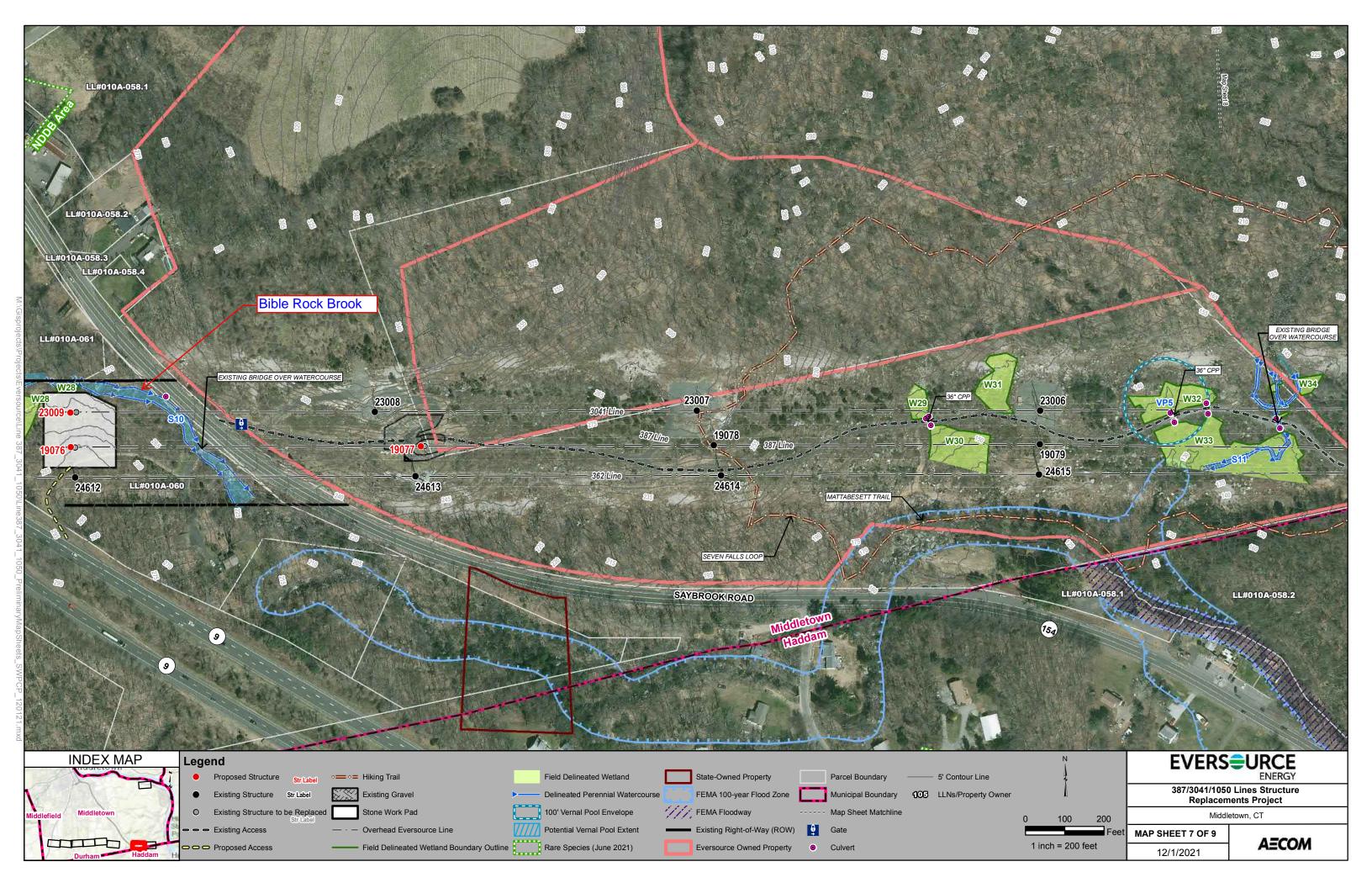
Appendix A
Project Mapping











Appendix B USACE Vernal Pool Characterization Form

Project File #Project Observer Terry Ramborger & Conor Ma	t Name 387 / 3041 / 105	50 Lines Struc	ture Replacemen Phone orE-mail	-	· · · · · · · · · · · · · · · · · · ·
Landowner/Applicant Applicant - Eve		'usco	Phone or E-mail		
Address 107 Selden Street	J. 7	City	_	State CT	
Location of vernal pool: City/State Midd	dletown, Connecticut				
Survey date(s) 05/18-21/2021 Longitude/Latitude (in decimal degrees)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
Longitude/Latitude (indecimardegrees)	1 11.310003, 72.011070				
A. VERNAL POOL CHARACTERISTICS 1. Landscape setting (check all that a	-	own):			
Upland depression (4 pts; if this is al	lso in a floodplain, use 2 pt	ts)	Pool pa	rt of wildlife corr	idor (4 pts)
Pool part of a pool complex (within 1	1000 feet of one or more o	other vernal poo	ls) (NA)		
X Pool within larger wetland system (4)	pts; if this is also in a floo	dplain, use 2 pt	s)		(variable pts)
2. Vernal pool condition:					
Describe any recent modifications to th	e pool and associated land	dscape: Locate	d partially wit	hin a maintaine	ed ROW
3. Parent material:					
Glacial fluvial ("outwash")	☐ Loose till		☐ Peat		
☐ Dense till	 ☐ Alluvium		— ☐ Coastal	marine sedimen	ts
4. Aquatic resource type that best ap		e dominant):			
Forested wetland (4 pts)	☐ Herbaceous wetland	l (4 pts)	☐ Floodpl	ain (overflow/oxl	oow) (3 pts)
Shrub wetland (4 pts)	Open water (2 pts)		☐ Other:	-	(variable points)
Peatland (acidic fen or bog) (4 pts)	☐ Intermittent stream	reach (2 nts)			(,
5. Pool canopy cover (%): 25	memicene stream	1 Cucii (2 pts)			
6. Predominant substrate:					
x Mineral soil					
Organic matter (peat/muck)	DepthSampling I	ocation (e.g., de	epest zone, edge	, etc.)	
7. Poolsize:		, .		,	
a. Approximate dimensions of pool (at r	maximum capacity; includ	e units): Le	ngth 150 feet	<u> </u>	idth 105 feet
		Ar	ea: 14,214 sq	uare feet	
b. Maximum depth at deepest point at	time of survey (include un	nits): 20"			
8. Hydrology:	, (
	Laborard budroporiod us	aluala) islama) km	own uso the are	conce of these ov	ramala indicator
a. Estimated hydroperiod (unless actual species to best predict the expected hydroperiod)	• •	aiue(s) is(are) kr	lown, use the pre	sence of these ex	ample indicator
Dries between early March and early	y July (e.g., Thelypteris palu	stris, Carex stric	ta, Impatiens cape	nsis, Ilex verticilla	<i>ta</i>) (6 pts)
Dries between early July and early Se	eptember (e.g., <i>Sagittaria</i> i	latifolia, Scirpus	cyperinus, Dulichi	um arund., Cepha	lanthus occ.) (8 pts)
Dries between early September and	early November (e.g., <i>Eleo</i>	charis palustris,	Glyceria cana., Ut	ricularia spp., Dec	rodon vert.) (8 pts)
x Dries between early November and	late December, or intermi	ttently exposed	(e.g., <i>Nuphar</i> spp.	., Potamogeton sp	pp.) (2 pts)
b. Inlet/outlet (pick one):					
☐ No inlet/outlet (8 pts)	Permanent inlet o	r outlet (channe	el with well-define	ed banks and peri	manent flow) (2 pts)
Temporary inlet/outlet (6 pts)					
9. Water quality:					
☐ Clear ☐ High	turbidity	☐ High algae o	content	☐ Tannic	

B. VERNAL POOL ENVELOPE (100 ft) AND CRITICAL HABIT.	AT AREA	(100-750 ft)	CHARACTERISTICS (fill)	in all information known):
1. Landuse type and approximate percentage within the 1	100-ft ve	rnal pool env	velope:	
Forested 50 % (16 pts)	Open (e.g., meadow, agriculture, golf course) 10 % (4 pt			
Shrub% (10 pts)	☐ Deve	loped <u>0</u>		% (0 pts)
$2. \ Landuse \ type \ and \ approximate \ percentage \ within \ the \ 2$	100 - 750)-ft vernal po	ol critical terrestrial hat	oitat:
Forested 45 % (16 pts)	Open	(e.g., agricult	cure, golf course) 5	% (4 pts)
Shrub 45 % (10 pts)	Deve	loped		% (0 pts)
Are there one or more barriers to vernal pool fauna mover and see directions for explanation of how to incorporate t			ppe and/or critical terresti	rial habitat? If so, check here
Based on: Field estimate	X GIS		Aerial photo estima	te
TOTAL for Pool Envelope and Critical Terr	restrial H	labitat Area (out of 32 max.)	
C. SPECIES PRESENT IN VERNAL POOL				
INDICATORSPECIES		DATE	EGG MASSES (#)	TADPOLES/LARVAE
Wood Frog (Lithobates sylvaticus)		5/18/2021	Common	Many
Spotted Salamander (Ambystoma maculatum)		5/18/2021	Common	None
Blue-spotted Salamander (Ambystoma laterale)				
Jefferson's Salamander (Ambystoma jeffersonianum)				
Marbled Salamander (Ambystoma opacum)				
Fairy Shrimp (<i>Eubranchipus</i> spp.)			PRESENT/ABSENT	ABUNDANCE:
OTHER SPECIES		DATE	PRESENCE/ABSENCE	FEW/COMMON/MANY
Facultative Species (e.g., Spring Peeper (<i>Pseudacris crucifer</i>), Gritee Frog (<i>Hyla versicolor</i>), Caddisflies (Limnephilidae, Phryganeidae), American Toad (<i>Anaxyrus americanus</i>), Eastern Spadefoot Toad (<i>Scaphiopus holbrookii</i>), Fowler's Toad (<i>Anaxyrifowleri</i>), Fingernail Clams (Sphaeriidae, Pisidiidae))(list):	n			
Rare Species (list):				
Predator Species (e.g., Bullfrog/Green frog tadpoles, Fish) (I Bullfrog Larvae and Green Frogs	list):	5/18/2021	Present	Few
Other species (e.g., Ducks, Turtles, etc.)(list):				1
Other species (e.g., Ducks, Turties, etc.)(list).				
Presence of Indicator Species		X Yes	☐ No)
SUMMARY:				
TOTAL for Pool Characteristics		TOTAL for Po	ol Envelope and Critica	l Terrestrial Habitat Area

Other comments (append photographs, additional notes, sketch of pool and surrounding landscape):

Project File #Pro_ Observer Terry Ramborger & Conor	ject Name 387 / 3041 /	1050 Lines St		lacement Pro		
Landowner/Applicant Applicant -		a Fusco		rE-mail sara.		
Address 107 Selden Street	51,	City	Berlin	(
Location of vernal pool: City/State $\underline{\ }$	Middletown, Connecticu	t				
Survey date(s) 05/18-21/2021 Longitude/Latitude (in decimal degre	oc) 41 510252 -72 626	226				
Longitude/Latitude (in decimardegre	(es) <u>41.510353, -72.636</u>	220				
A. VERNAL POOL CHARACTERISTI 1. Landscape setting (check all tha	-	n known):				
Upland depression (4 pts; if this i	s also in a floodplain, use	2 pts)		Pool part of w	vildlife corrid	or (4 pts)
Pool part of a pool complex (with	in 1000 feet of one or mo	re other vernal	pools) (NA)			
X Pool within larger wetland system	n (4 pts; if this is also in a	floodplain, use	2 pts)	Other:		(variable pts)
2. Vernal pool condition:		•	. ,			
Describe any recent modifications to	the pool and associated	landscape: Loc	cated within	a maintaine	d ROW	
3. Parent material:						
x Glacial fluvial ("outwash")	☐ Loose till			Peat		
☐ Dense till	☐ Alluvium			Coastal marin	e sediments	
4. Aquatic resource type that best	_	oose dominant	:):			
Forested wetland (4 pts)	☐ Herbaceous wet	land (4 pts)		Floodplain (o	verflow/oxbo	ow) (3 pts)
Shrub wetland (4 pts)	☐ Open water (2 p		_			(variable points)
Peatland (acidic fen or bog) (4 pt	_			• then		(variable points)
5. Pool canopy cover (%): 25		am reach (2 pts	·)			
6. Predominant substrate:						
x Mineral soil						
Organic matter (peat/muck)	DepthSampl	ing location (e g	deenest zon	ne edge etcl		
7. Poolsize:		ing rocation (c.g	., acepest 2011	ic, eage, etc. <u>/</u>		
a. Approximate dimensions of pool (at maximum capacity; in	clude units):	Length 20	feet	Wid	dth 32 feet
			Area: 419	square fee	et	
b. Maximum depth at deepest point	at time of survey (includ	e units): <u>8"</u>				
8. Hydrology:						
a. Estimated hydroperiod (unless act species to best predict the expected			e) known, use	the presence	of these exa	mple indicator
Dries between early March and e	arly July (e.g., Thelypteris	palustris, Carex s	stricta, Impatie	ens capensis, Il	ex verticillata	r) (6 pts)
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	y September (e.g., <i>Sagitta</i>	ıria latifolia, Scir	pus cyperinus,	. Dulichium arı	ınd., Cephala	nthus occ.) (8 pts)
☐ Dries between early September a	nd early November (e.g.,	Eleocharis palus	tris, Glyceria c	ana., Utricular	ia spp., Deco	don vert.) (8 pts)
Dries between early November a	nd late December, or inte	ermittently expo	sed (e.g., Nup	har spp., Pota	mogeton spp	o.) (2 pts)
b. Inlet/outlet (pick one):						
☐ No inlet/outlet (8 pts)	Permanent inl	et or outlet (cha	annel with we	ll-defined ban	ks and perm	anent flow) (2 pts)
X Temporary inlet/outlet (6 pts)						
9. Water quality:						
☐ Clear ☐ Hi	gh turbidity	🗓 High alg	gae content		Tannic	

B. VERNAL POOL ENVELOPE (100 π) AND CRITICAL HAB	IIAIAKE	Α (100-750 π)	CHARACTERISTICS (TIII)	n all information known):
1. Landuse type and approximate percentage within the state of the percentage of	e 100-ft v	ernal pool env	velope:	
☐ Forested 40 % (16 pts)	□ Ор€	en (e.g., meado	w, agriculture, golf course	e) 25 % (4 pts
Shrub 25 % (10 pts)	☐ Dev	eloped <u>10</u>		% (0 pts
$2. \ Landuse \ type \ and \ approximate \ percentage \ within \ the$	e 100 - 75	0-ft vernal po	ol critical terrestrial hab	oitat:
☐ Forested <u>25</u> % (16 pts)	□ Ор€	en (e.g., agricult	ture, golf course) 25	% (4 pts
Shrub 45 % (10 pts)	☐ Dev	eloped		
Are there one or more barriers to vernal pool fauna move and see directions for explanation of how to incorporate	ement w	ithin the envelor ermation.	ope and/or critical terrestr	ial habitat? If so, check her
Based on: Field estimate	X GIS		Aerial photo estima	te
TOTAL for Pool Envelope and Critical Te	rrestrial	Habitat Area ((out of 32 max.)	
C. SPECIES PRESENT IN VERNAL POOL				
INDICATOR SPECIES		DATE	EGG MASSES (#)	TADPOLES/LARVAE
Wood Frog (Lithobates sylvaticus)		5/18/2021	None	Many
Spotted Salamander (<i>Ambystoma maculatum</i>)				
Blue-spotted Salamander (Ambystoma laterale)				
Jefferson's Salamander (Ambystoma jeffersonianum))			
Marbled Salamander (<i>Ambystoma opacum</i>)				
Fairy Shrimp (<i>Eubranchipus</i> spp.)			PRESENT/ABSENT	ABUNDANCE:
OTHER SPECIES		DATE	PRESENCE/ABSENCE	FEW/COMMON/MANY
Facultative Species (e.g., Spring Peeper (<i>Pseudacris crucifer</i>), Tree Frog (<i>Hyla versicolor</i>), Caddisflies (Limnephilidae, Phryganeidae), American Toad (<i>Anaxyrus americanus</i>), Easte Spadefoot Toad (<i>Scaphiopus holbrookii</i>), Fowler's Toad (<i>Anaxfowleri</i>), Fingernail Clams (Sphaeriidae, Pisidiidae))(list):	ern			
Rare Species (list):				
Predator Species (e.g., Bullfrog/Green frog tadpoles, Fish) Bullfrogs and Green Frogs	(list):	5/18/2021	Present	Few
Other species (e.g., Ducks, Turtles, etc.)(list):				
Presence of Indicator Species		X Yes	No)
SUMMARY:				
TOTAL for Pool Characteristics		TOTAL for Po	ool Envelope and Critical	Terrestrial Habitat Area
Other comments (append photographs, additional notes, sl	ketch of r		·	

Project File #Observer Terry Ramborger & C	_ Project Name_ 387 / 3041 !onor Makepeace	/ 1050 Lines S		ement Project nail 603-557-0034	
Landowner/Applicant_Applicant		Sara Fusco		nail_sara.fusco@ev	
Address 107 Selden Street		City	Berlin	State CT	Zip 06037
Location of vernal pool: City/Sta Survey date(s) 05/18-21/2021	ite <u>Middletown</u> , Connecti	cut			
Longitude/Latitude (in decimal d	egrees) 41.512497, -72.6	515881			
A. VERNAL POOL CHARACTER	RISTICS (fill in all informat	ion known):			
1. Landscape setting (check al	-	•			
Upland depression (4 pts; if	this is also in a floodplain, u	se 2 pts)	Poc	ol part of wildlife co	rridor (4 pts)
Pool part of a pool complex (within 1000 feet of one or	more other verna	pools) (NA)		
X Pool within larger wetland sy	stem (4 pts; if this is also ir	a floodplain, use	2 pts) 🔲 Oth	er:	(variable pts)
2. Vernal pool condition:					
Describe any recent modificatio	ns to the pool and associat	ed landscape: <u>Lo</u>	cated within a r	naintained ROW	
3. Parent material:					
Glacial fluvial ("outwash")	☐ Loose till		☐ Pea	ıt	
□ Dense till	 ☐ Alluvium		☐ Coa	stal marine sedime	ents
4. Aquatic resource type that	<u>—</u>	choose dominan			
X Forested wetland (4 pts)	☐ Herbaceous v	vetland (4 pts)	☐ Flo	odplain (overflow/c	xbow) (3 pts)
Shrub wetland (4 pts)	— ☐ Open water (2	2 pts)	— ☐ Oth	er:	(variable points)
Peatland (acidic fen or bog) (<u></u>	tream reach (2 pt			,
5. Pool canopy cover (%) : 100	· · / <u>—</u>	, ,	•		
6. Predominant substrate:					
X Mineral soil					
Organic matter (peat/muck)	DepthSan	npling location (e.g	g., deepest zone, e	dge, etc.)	
7. Poolsize:					
a. Approximate dimensions of p	ool (at maximum capacity;	include units):	Length 88 fe	et	Width <u>62 feet</u>
			Area: 3,328 s	square feet	
b. Maximum depth at deepest p	point at time of survey (incl	ude units): 36"			
8. Hydrology:					
a. Estimated hydroperiod (unles species to best predict the expe			e) known, use the	presence of these	example indicator
☐ Dries between early March a		•	stricta. Impatiens d	capensis. Ilex verticil	lata) (6 pts)
☐ Dries between early July and		•	·		
Dries between early Septemb		-		·	
			•		
Dries between early Novembb. Inlet/outlet (pick one):	der and late December, or in	intermittently expt	iseu (e.g., ivupilui	spp., Fotumogeton	spp.) (2 pts)
No inlet/outlet (8 pts)	☐ Permanent	inlet or outlet (ch	annel with well-de	efined banks and ne	rmanent flow) (2 pts)
Temporary inlet/outlet (6 pt.			and with well de	Janno ana pe	
9. Water quality:	~1				
Clear	☐ High turbidity	⊽ Liah al	gae content	☐ Tannic	
	_ Then tarbialty	ingiral	oue content		

B. VERNAL POOL ENVELOPE (100 ft) AND CRITICAL HABITA	AT AREA	A (100-750 ft)	CHARACTERISTICS (fill	in all information known):	
1. Landuse type and approximate percentage within the 1	.00-ft ve	ernal pool env	velope:		
Forested 70 % (16 pts)	Open (e.g., meadow, agriculture, golf course) 0 % (4 p				
Shrub 25 % (10 pts)					
$2. \ Landuse \ type \ and \ approximate \ percentage \ within \ the \ 1$	100 - 75	O-ft vernal po	ol critical terrestrial ha	bitat:	
Forested 55 % (16 pts)	Oper	n (e.g., agricult	cure, golf course) 0		
Shrub 35 % (10 pts)	Deve	eloped ¹⁰			
$\hfill\Box$ Are there one or more barriers to vernal pool fauna movem and see directions for explanation of how to incorporate the			pe and/or critical terrest	rial habitat? If so, check here	
	X GIS		Aerial photo estima	ite	
TOTAL for Pool Envelope and Critical Terro C. SPECIES PRESENT IN VERNAL POOL	estrial I	labitat Area (out of 32 max.)		
INDICATOR SPECIES		DATE	EGG MASSES (#)	TADPOLES/LARVAE	
Wood Frog (Lithobates sylvaticus)		5/18/2021	None	Many	
Spotted Salamander (Ambystoma maculatum)		5/18/2021	Common	None	
Blue-spotted Salamander (Ambystoma laterale)					
Jefferson's Salamander (Ambystoma jeffersonianum)					
Marbled Salamander (<i>Ambystoma opacum</i>)					
Fairy Shrimp (<i>Eubranchipus</i> spp.)			PRESENT/ABSENT	ABUNDANCE:	
OTHER SPECIES		DATE	PRESENCE/ABSENCE	FEW/COMMON/MANY	
Facultative Species (e.g., Spring Peeper (<i>Pseudacris crucifer</i>), Gr Tree Frog (<i>Hyla versicolor</i>), Caddisflies (Limnephilidae, Phryganeidae), American Toad (<i>Anaxyrus americanus</i>), Eastern Spadefoot Toad (<i>Scaphiopus holbrookii</i>), Fowler's Toad (<i>Anaxyr fowleri</i>), Fingernail Clams (Sphaeriidae, Pisidiidae))(list):	1				
Rare Species (list):					
Predator Species (e.g., Bullfrog/Green frog tadpoles, Fish) (liggreen Frogs	ist):	5/18/2021	Present	Few	
Other species (e.g., Ducks, Turtles, etc.)(list):					
Presence of Indicator Species	1	X Yes	□ N	0	
SUMMARY:					
TOTAL for Pool Characteristics		TOTAL for Po	ol Envelope and Critica	l Terrestrial Habitat Area	

Other comments (append photographs, additional notes, sketch of pool and surrounding landscape):

Project File #P		/ 1050 Lines St			
Observer Terry Ramborger & Con				nail 603-557-0034 &	
Landowner/Applicant Applicant - Address 107 Selden Street	- Eversource Energy, Sa	city	Pnone orE-n Berlin	nail <u>sara.fusco@eve</u> State CT	
Location of vernal pool: City/State	Middletown, Connectic		BCITIII	State <u>C1</u>	Σιρ
Survey date(s) 05/18-21/2021					
Longitude/Latitude (in decimal deg	rees) 41.509421, -72.60	08311			
A. VERNAL POOL CHARACTERIS 1. Landscape setting (check all t		on known):			
Upland depression (4 pts; if this	s is also in a floodplain, us	e 2 pts)	Poo	ol part of wildlife corr	idor (4 pts)
Pool part of a pool complex (wi	thin 1000 feet of one or m	nore other vernal	pools) (NA)		
Pool within larger wetland system	em (4 pts; if this is also in a	a floodplain, use 2	2 pts) 🔲 Oth	er:	(variable pts
2. Vernal pool condition:			_		
Describe any recent modifications	to the pool and associate	d landscape: Loc	ated within a m	naintained ROW	
3. Parent material:					
Glacial fluvial ("outwash")	☐ Loose till		☐ Pea	t	
Dense till	☐ Alluvium			istal marine sedimen	tc
4. Aquatic resource type that be		hoose dominant	_	istal marine scumen	i.
Forested wetland (4 pts)	☐ Herbaceous we	etland (4 pts)	☐ Floo	odplain (overflow/oxl	oow) (3 pts)
X Shrub wetland (4 pts)	Open water (2	pts)	☐ Oth	er:	(variable points)
Peatland (acidic fen or bog) (4	pts)	ream reach (2 pts	_		
5. Pool canopy cover (%): 0		` .			
6. Predominant substrate:					
☐ Mineral soil					
Organic matter (peat/muck)	DepthSamp	oling location (e.g	, deepest zone, e	dge, etc.)	
7. Poolsize:					
a. Approximate dimensions of poo	ارat maximum capacity; i	nclude units):	Length 152 f	eet w	odth 128 feet
			Area: 13,853	square feet	
b. Maximum depth at deepest poi	nt at time of survey (inclu-	de units): <u>30"</u>			
8. Hydrology:					
a. Estimated hydroperiod (unless a species to best predict the expecte) known, use the	presence of these ex	ample indicator
Dries between early March and		•	tricta, Impatiens c	capensis, Ilex verticilla	ta) (6 pts)
☐ Dries between early July and ea	arly September (e.g., Sagit	taria latifolia, Scir	ous cyperinus, Dul	ichium arund., Cepha	lanthus occ.) (8 pts)
☐ Dries between early September		-	• •	•	
Tild Dries between early November	and late December, or in	termittently expo	sed (e.g., <i>Nuphar</i>	spp., Potamogeton sp	pp.) (2 pts)
b. Inlet/outlet (pick one):		, , , , , ,	(-6, -1, -1		TF / (TF == /
X No inlet/outlet (8 pts)	Permanent in	nlet or outlet (cha	nnel with well-de	efined banks and perr	manent flow) (2 pts)
☐ Temporary inlet/outlet (6 pts)					
9. Water quality:					
☐ Clear	High turbidity	X High alg	ae content	☐ Tannic	

B. VERNALP	OOL ENVELOP	E (100 ft) AND CRITICAL HABI	TATARE	A (100-750 ft)	CHARACTERISTICS (fill	in all information known):
1. Landuse ty	pe and approx	kimate percentage within the	100-ft v	ernal pool en	velope:	
Forested_	0	% (16 pts)	□ Ор€	en (e.g., meado	ow, agriculture, golf cours	e) <u> </u>
Shrub	95	% (10 pts)	☐ Dev	veloped5		% (0 pts
2. Landuse ty	pe and appro	ximate percentage within the	2 100 - 75	50-ft vernal po	ool critical terrestrial ha	bitat:
Forested_	25	% (16 pts)	□ Ор€	en (e.g., agricul	ture, golf course) <u>10</u>	% (4 pts
Shrub	55	% (10 pts)	☐ Dev	eloped ¹⁰		% (0 pts)
		rriers to vernal pool fauna move planation of how to incorporate			ope and/or critical terrest	rial habitat? If so, check her
Based on:		Field estimate	X GIS		Aerial photo estima	ate
	TOTALfor	Pool Envelope and Critical Te	rrestrial	Habitat Area	(out of 32 max.)	
C. SPECIES PI	RESENT IN VEF	RNAL POOL				
	INDIC	CATORSPECIES		DATE	EGG MASSES (#)	TADPOLES/LARVAE
		(Lithobates sylvaticus)				
Spo		er (Ambystoma maculatum)		5/19/2021	None	Few
Blue	e-spotted Salan	nander (Ambystoma laterale)				
Jeffers	son's Salamand	er (Ambystoma jeffersonianum)				
N	larbled Salamaı	nder (<i>Ambystoma opacum</i>)				
	Fairy Shrim	p (<i>Eubranchipus</i> spp.)			PRESENT/ABSENT	ABUNDANCE:
	ОТ	HER SPECIES		DATE	PRESENCE/ABSENCE	FEW/COMMON/MANY
Tree Frog (<i>Hyl</i> o Phryganeidae) Spadefoot Toa	a versicolor), Ca , American Toa ad (<i>Scaphiopus I</i>	ng Peeper (<i>Pseudacris crucifer</i>), (addisflies (Limnephilidae, d (<i>Anaxyrus americanus</i>), Easternolbrookii), Fowler's Toad (<i>Anax</i> haeriidae, Pisidiidae))(list):	rn			
Rare Species	(list):					
Predator Sp	pecies (e.g., Bull	frog/Green frog tadpoles, Fish)	(list):			
Other specie	es (e.g., Ducks, T	urtles, etc.)(list):				
Presence of I	ndicator Speci	es		X Yes	N	0
SUMMARY:						
	OTAL for Pool (Characteristics		TOTAL for Po	ool Envelope and Critica	l Terrestrial Habitat Area

Other comments (append photographs, additional notes, sketch of pool and surrounding landscape):

9-6-2016

Project File #Pro					
Observer Terry Ramborger & Conor			none orE-mail 603		
Landowner/Applicant Applicant - Address 107 Selden Street			none orE-mail <u>sar</u> erlin	State CT	
Location of vernal pool: City/State N					
Survey date(s) 05/18-21/2021					
Longitude/Latitude (in decimal degre	es) 41.508464, -72.580153				
A. VERNAL POOL CHARACTERISTI 1. Landscape setting (check all tha		n):			
Upland depression (4 pts; if this i	s also in a floodplain, use 2 pts)		Pool part o	f wildlife corrid	or (4 pts)
Pool part of a pool complex (with	in 1000 feet of one or more othe	er vernal pools)	(NA)		
Pool within larger wetland system	n (4 pts; if this is also in a floodpl	ain, use 2 pts)	Other:		(variable pts
2. Vernal pool condition:					
Describe any recent modifications to	the pool and associated landsca	ape: Located	within a maintai	ned ROW	
3. Parent material:					
Glacial fluvial ("outwash")	☐ Loose till		☐ Peat		
☐ Dense till	— ☐ Alluvium		— ☐ Coastal ma	rine sediments	
4. Aquatic resource type that best		ominant):			
Forested wetland (4 pts)	☐ Herbaceous wetland (4	pts)	☐ Floodplain	(overflow/oxbo	ow) (3 pts)
x Shrub wetland (4 pts)	Open water (2 pts)		Other:		(variable points)
Peatland (acidic fen or bog) (4 pt	s) Intermittent stream rea	ch (2 pts)			
5. Pool canopy cover (%): 0	,				
6. Predominant substrate:					
X Mineral soil					
Organic matter (peat/muck) 7. Pool size:	DepthSampling loca	ition (e.g., deep	est zone, edge, etc	c.)	
a. Approximate dimensions of pool ((at maximum capacity; include u	nits): Leng	th 11 feet	Wid	dth 6 feet
		Area:	67 square fe	eet	
b. Maximum depth at deepest point	at time of survey (include units)	: 4"			
8. Hydrology:					
a. Estimated hydroperiod (unless act species to best predict the expected		e(s) is(are) know	n, use the presen	ce of these exa	mple indicator
Dries between early March and e	arly July (e.g., Thelypteris palustri	is, Carex stricta,	Impatiens capensis	s, Ilex verticillato	ı) (6 pts)
I Dries between early July and earl	y September (e.g., Sagittaria latij	folia, Scirpus cyp	perinus, Dulichium (arund., Cephala	nthus occ.) (8 pts)
☐ Dries between early September a	nd early November (e.g., Eleocha	ıris palustris, Gly	vceria cana., Utricu	laria spp., Deco	don vert.) (8 pts)
Dries between early November a	nd late December, or intermitter	ntly exposed (e.	g., Nuphar spp., Po	otamogeton spp	o.) (2 pts)
b. Inlet/outlet (pick one):					
X No inlet/outlet (8 pts)	Permanent inlet or ou	utlet (channel v	vith well-defined b	anks and perm	anent flow) (2 pts)
☐ Temporary inlet/outlet (6 pts)					
9. Water quality:					
🗓 Clear 🔲 Hi	igh turbidity	High algae cor	ntent [Tannic	

B. VERNAL POOL ENVELOPE (100 π) AND CRITICAL HA	BIIAIAK	ΕΑ (100-750 π	CHARACTERISTICS (TIII	in all information known):
1. Landuse type and approximate percentage within the second of the percentage within the second of the second	he 100-ft v	ernal pool en	velope:	
☐ Forested 0 % (16 pts)	□ Оре	en (e.g., meado	w, agriculture, golf course	e) 10 % (4 pts)
Shrub% (10 pts)	☐ De\	veloped5		% (0 pts)
$2. \ Landuse \ type \ and \ approximate \ percentage \ within \ to \ an \ to \ approximate \ percentage \ within \ to \ approximate \ percentage \ percentage \ within \ to \ approximate \ percentage $	he 100 - 7!	50-ft vernal po	ool critical terrestrial hal	oitat:
Forested 30 % (16 pts	s) 🗌 Ope	en (e.g., agricul	ture, golf course) 10	% (4 pts)
Shrub 50 % (10 pts	s) 🔲 Dev	veloped10		% (0 pts)
Are there one or more barriers to vernal pool fauna m and see directions for explanation of how to incorpora	ovement w ate this info	ithin the envelormation.	ope and/or critical terrest	rial habitat? If so, check here
Based on: Field estimate	X GIS		Aerial photo estima	te
TOTAL for Pool Envelope and Critical	Terrestrial	Habitat Area	(out of 32 max.)	
C. SPECIES PRESENT IN VERNAL POOL				
INDICATOR SPECIES		DATE	EGG MASSES (#)	TADPOLES/LARVAE
Wood Frog (Lithobates sylvaticus)		DAIL	EGG WASSES (#)	TADI OLLO, LANVAL
Spotted Salamander (Ambystoma maculatum)		5/20/2021	Common	none
Blue-spotted Salamander (Ambystoma laterale)		3, 20, 2021		10110
Jefferson's Salamander (Ambystoma jeffersonianus				
Marbled Salamander (Ambystoma opacum)				
Fairy Shrimp (<i>Eubranchipus</i> spp.)			PRESENT/ABSENT	ABUNDANCE:
OTHER SPECIES		DATE	PRESENCE/ABSENCE	FEW/COMMON/MANY
Facultative Species (e.g., Spring Peeper (<i>Pseudacris crucifer</i> Tree Frog (<i>Hyla versicolor</i>), Caddisflies (Limnephilidae, Phryganeidae), American Toad (<i>Anaxyrus americanus</i>), Eas Spadefoot Toad (<i>Scaphiopus holbrookii</i>), Fowler's Toad (<i>Anaxyrus</i>), Fingernail Clams (Sphaeriidae, Pisidiidae))(list):	stern			
Rare Species (list):				
Predator Species (e.g., Bullfrog/Green frog tadpoles, Fis	h) (list):			
				I
Other species (e.g., Ducks, Turtles, etc.)(list):		5/20/2021	Present	Few (1)
Presence of Indicator Species		X Yes	□ Ne)
SUMMARY:				
TOTAL for Pool Characteristics		TOTAL for Po	ool Envelope and Critica	l Terrestrial Habitat Area
Other comments (append photographs, additional notes	, sketch of r	oool and surrou	unding landscape):	

Attachment F: Letter to the Abutters and Affidavit



January 28, 2022

Dear Neighbor,

As part of our everyday effort to deliver reliable energy to our customers and communities, we are planning work in your area to replace electric transmission structures in Middletown. Maintaining infrastructure is one of the many ways Eversource supports the safe and secure transmission of electricity throughout the region.

We Are Always Working to Serve You Better

We are submitting a petition to the Connecticut Siting Council (CSC) for proposed structure replacements in your area.

You're receiving this letter because the proposed work would be taking place within the existing Eversource right-of-way (power line corridor) on or near your property in Middletown, Connecticut. The Project, called the Dooley Substation to Scoville Rock to Middletown Substation Structure Replacement Project ("Project"), includes replacing select wood structures with new, more durable steel structures, with a finish that "weathers" or darkens over time. The new structures will comply with current clearance requirements and provide continued reliability of the transmission system.

We will also be replacing the shield wire on the structures with Optical Ground Wire (OPGW) from Dooley Substation to Middletown Substation. With these improvements, Eversource will improve electric reliability by enabling communication between substations.

What You Can Expect

Pending receipt of the necessary approvals for this proposed work, construction is expected to begin in the late-Q3 or early-Q4 of 2022. We anticipate to complete construction, including restoration of affected areas, by the end of 2022.

Contact Information

Eversource is committed to being a good neighbor and doing our work with respect for you and your property. For more information please call our projects hotline at 1-800-793-2202 or send an email to ProjectInfo@eversource.com.

If you would like to send comments regarding Eversource's petition to the CSC, please send them via email to siting.council@ct.gov or send a letter to the following address: Melanie Bachman, Executive Director, Connecticut Siting Council, Ten Franklin Square, New Britain, CT 06051.

Sincerely,

Aparna Phadnis, P.E., PMP

Aparna Phadnis Project Manager, Transmission Eversource

AFFIDAVIT OF SERVICE OF NOTICE

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

Sec. 16-50j-40 of the Regulations of Connecticut State Agencies ("RCSA") provides that proof of notice to the affected municipalities, property owners and abutters shall be submitted with a petition for declaratory ruling to the Connecticut Siting Council ("Council"). In accordance with that RCSA section, I hereby certify that I caused notice of 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 official:

 Mayor Benjamin Florsheim, Jr. Mayor, City of Middletown City of Middletown Middletown Town Hall 245 deKoven Drive Middletown, CT 06457

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.

Aparna Phadnis Project Manager

On this the 28th day of January 2022, before me, the undersigned representative, personally appeared, Aparna Phadis, 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.

Leuden Gol		
Notary Public/My Commission expires:		
Commissioner of the Superior Court/ Juris No.	413393	