

# DRAFT

Docket No. 508

The United Illuminating Company

**Milvon to West River Railroad Transmission Line 115-kilovolt (kV) Rebuild Project  
Allings Crossing S/S, 260 Frontage Road, West Haven to Elmwest S/S, 335 Elm Street, West Haven  
Partial Development and Management Plan II – Segment 2**

**Staff Report**

**August 11, 2023**

## Introduction

On August 19, 2022, the Connecticut Siting Council (Council) issued a Certificate of Environmental Compatibility and Public Need (Certificate) to The United Illuminating Company (UI) for the Milvon to West River Railroad Transmission Line 115-kilovolt (kV) Rebuild Project (Project) that traverses the municipalities of Milford, Orange, West Haven and New Haven and consists of the construction, maintenance and operation of a rebuilt 115-kV overhead electric transmission line entirely within approximately 9.5 miles of the existing Connecticut Department of Transportation's (CDOT) Metro-North Railroad (MNR) corridor by relocating existing electric transmission lines from railroad catenary structures to new steel monopole structures and related modifications to facilitate the interconnection of the rebuilt 115-kV transmission lines with UI's existing Milvon, Woodmont, Allings Crossing, Elmwest, and West River Substations (Project). In its Decision and Order (D&O), the Council required UI to submit a Development and Management (D&M) Plan in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies (RCSA).

On April 13, 2023, in compliance with RCSA §16-50j-61(d), UI submitted a partial D&M Plan<sup>1</sup> (Partial D&M Plan I) for the Project to the Council and the service list. Partial D&M Plan I addressed Segment 1 of the Project that extends for approximately 1.28 miles from Elmwest Substation in West Haven to West River Substation in New Haven. On June 8, 2023, the Council approved Partial D&M Plan I.

On July 7, 2023, in compliance with RCSA §16-50j-61(d), UI submitted Partial D&M Plan II for the Project to the Council and the service list. Partial D&M Plan II addresses Segment 2 of the Project that extends for approximately 1.28 miles from Allings Crossing Substation in West Haven to Elmwest Substation in West Haven.<sup>2</sup> No comments regarding Partial D&M Plan II were received.

Condition 2 of the Council's D&O requires the following information to be included in the D&M Plan:

- a) **Detailed site plans depicting final transmission line structure heights and identification of locations for the access roads, structure foundations, equipment laydown areas; material staging areas; field office trailers, sanitary facilities and parking;**

Partial D&M Plan II includes detailed site plans including structure heights and identification of locations for the access roads and structure foundations.

UI will rebuild the existing 88003A-2 and 89003B-2 115-kV Lines from Catenary Structure B1009 east of Allings Crossing Substation to Catenary Structure B1029 west of Elmwest Substation. The lines will be installed primarily on double-circuit monopole structures located north of the MNR

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<sup>1</sup> Regulations of Connecticut State Agencies §16-50j-60(b) states, "A *partial* or full D&M plan shall be prepared in accordance with this regulation..." (Emphasis added).

<sup>2</sup> There are four project segments.

tracks and mostly within the CDOT corridor. Some single-circuit monopoles are also required to facilitate the connections.

Specifically, three single-circuit monopoles (ranging in heights from 70 feet to 75 feet) and 20 double-circuit monopoles (ranging in heights from 80 feet to 155 feet) will be installed for Segment 2. All structures will be galvanized steel and will have concrete drilled pier foundations.

The two rebuilt 115-kV lines will consist of 1590 kcmil aluminum conductor steel supported (ACSS) “Lapwing” conductors arranged in a vertical configuration and will include 0.583-inch 72 count fiber optical ground wire (OPGW) to act as shield wire. Shield wire is used for lightning protection. Certain spans adjacent to Allings Crossing and Elmwest Substations will have 7#7 Alumoweld shield wire in addition to, or in place of, OPGW. Helicopters may be used to install pulling ropes at the commencement of the conductor/OPGW pulling process. Helicopter use, if any, would be determined by the contractors. UI will notify municipal officials in advance of any planned use of helicopters during Project construction.

UI will utilize a combination of public roads and proposed or existing access roads within or adjacent to the CDOT railroad corridor for Segment 2 construction. During construction, temporary access roads will be established both north and south of the MNR tracks in order to install the rebuilt 115-kV transmission lines and remove existing UI infrastructure from the railroad catenary support columns.

Two permanent access roads will be required for Segment 2. Permanent access roads will have a typical width of 12 to 16 feet. One permanent access road will extend from a private property at 32 Railroad Avenue and will provide ingress/egress to Structures P1013N and P1015N. The other permanent access road will extend off of Clark Street and will provide ingress/egress to Structures P1027N and P1028N.

With the exception of access roads that extend across paved areas and certain locations where existing graveled roads will be improved, UI will install timber mats (or equivalent) on all temporary access roads. Temporary access roads will have a typical width of 16 feet. Access roads may be wider in some areas to accommodate equipment turning and passing or to account for safety and existing terrain. Existing paved access is not expected to require significant upgrades. UI will improve existing gravel roads as necessary to support its construction equipment. UI will also utilize anti-tracking pads at entrances and exits to work sites from public roads.

Construction work pads will be required to install the new monopoles, remove existing 115-kV facilities from the northern and southern catenary support structures, and remove existing structures such as monopoles, lattice structures, and W-flange structures that will no longer be needed. Gravel or timber mat work pads will be used to provide a safe, level base for construction equipment as well as locations to temporarily stage materials. Work pads will typically measure 100 feet by 40 feet. In most areas, minimal grading is expected to be necessary to install the work pads. Pull pads will typically measure 300 feet by 40 feet.

On the north side of the MNR tracks, the same work pads used to install the monopoles will (to the extent practical) be used to stage the work to remove existing UI infrastructure from the northern catenary support columns. On the south side of the MNR tracks, work pads that typically measure 60 feet by 40 feet will be required to remove UI infrastructure from the southern catenary support columns.

UI will utilize a contractor yard/staging area at a location to be determined for material laydown and staging, parking for personal vehicles, contractor equipment, construction office trailers, CONEX storage boxes, portable restrooms, and a generator if necessary for on-site power. UI will submit information on the staging/laydown area prior to use of such staging/laydown area.

Notwithstanding, UI will also utilize portions of Allings Crossing Substation and Elmwest Substation properties to support the substation modifications and transmission rebuild work. UI will also utilize its approximately 1.6-acre property at 680 Campbell Avenue (adjacent to Elmwest Substation) for laydown/staging.

b) **Detailed site plans for equipment installation/modifications at Milvon, Woodmont, Allings Crossing, Elmwest and West River Substations;**

Partial D&M Plan II includes the modifications to Allings Crossing Substation and Elmwest Substation that will be performed to interconnect the rebuilt 115-kV lines to the substations and remove existing 115-kV lines.

The Allings Crossing Substation modifications include, but are not limited to, the installation of two underground all-dielectric self-supporting (ADSS) fibers from new splice boxes located on the existing termination structures to the existing control enclosure; new insulators and hardware at the substation termination structures; and new 115-kV conductors, OPGW and shield wire. UI will remove the existing shield wire, OPGW, 115-kV conductors, and associated insulators and hardware from the substation termination structures. All Project modifications at Allings Crossing Substation will be located within the existing fenced substation area.

The Elmwest Substation modifications include, but are not limited to, the installation of two ADSS fibers from new splice boxes located on new monopoles (located south of the MNR tracks and immediately outside the substation fence) to the existing control closure inside the substation fence; new insulators and hardware at the substation termination structures; and new 115-kV conductors and shield wire. UI will remove the existing shield wire, OPGW, 115-kV conductors, and associated insulators and hardware from the substation termination structures. UI will also remove an existing W-flange structure located within the substation fence that currently supports the 89003B-3 Line.

In order to perform the required modifications at Elmwest Substation, Partial D&M Plan I included the removal of portions of the existing substation fence and the installation of temporary fencing. The temporary fencing will be removed no later than the completion of Segment 2 construction, and permanent fencing will be installed to restore the existing substation footprint.

Modifications to Milvon and Woodmont Substations will be provided in future Partial D&M Plans.

c) **Decommissioning plan for bonnets;**

Partial D&M Plan I included a Project-wide Decommissioning Plan for the catenary bonnets which currently support the 115-kV lines on the northern and southern portions of the catenary structures. UI will remove existing 115-kV infrastructure such as bonnets, related hardware, 115-kV line conductors, and OPGW or shield wires.

Specifically, for Segment 2, 18 bonnets will be removed completely; 5 bonnets will be cut down to approximately 4 feet above the bonnet connection to support a shield wire to protect the MNR

signal and feeder wires; and 10 bonnets will remain to support the existing UI shield wire. UI will transfer the ownership of these remaining bonnets to CDOT.

In addition to bonnet removals and/or modifications, to allow for the construction of the rebuilt 115-kV lines, UI will remove 27 CDOT wood poles from the northern portion of the CDOT corridor. UI will also remove one existing lattice tower, and another lattice tower will remain to support MNR wires. Two existing monopoles will have their top sections removed, and the lower sections will remain to support MNR wires. Five additional monopoles will remain to support MNR wires. Three W-flange structures and temporary stub pole will also be removed.

Most of the existing infrastructure to be removed will be recycled. Materials that cannot be recycled will be disposed of at an appropriate off-site location.

d) **An erosion and sediment control plan, consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*, as amended;**

Partial D&M Plan I included a Project-wide Erosion and Sediment Control Plan for erosion and sedimentation control measures (E&S controls) that will be installed in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*, the *2004 Stormwater Quality Manual*, the Stormwater Pollution Control Plan (SWPCP), and DEEP Stormwater Permit. Partial D&M Plan II contains E&S control measures in Volume 2 that are specific to Segment 2.

UI's DEEP Stormwater Permit was issued on June 12, 2023.

e) **Results of any further consultations with SHPO and/or the City of Milford regarding historic resources;**

Project-related historic and cultural resource assessments were commissioned by UI and reviewed by SHPO. Segment 2 construction will not adversely impact historic structures or known archaeological sites. Notwithstanding, Partial D&M Plan I included Project-wide Procedures for Unanticipated Cultural Resource Discoveries.

f) **Identification of wetland and watercourse resources, related temporary construction impacts and methods to reduce such impacts;**

Partial D&M Plan II identifies water resource crossings, construction-related impacts and plans to mitigate such impacts. Both the existing and rebuilt 115-kV lines span the Cove River. No work will be performed in the river. Phipps Lake is located south of the CDOT corridor, but no construction activities would directly affect the lake. Temporary work pads will be utilized in upland areas located north of Phipps Lake.

Construction activities including, but not limited to, vegetative clearing and temporary work pads will be required in three inland wetlands (WH-W4, WH-W5 and WH-W10) and two watercourses (WC11 and WC14). No monopoles will be installed within wetlands or watercourses. The impacts to wetlands and watercourses for Segment 2 are identified in the tables below:

Volume 2 Map sheet No.	Water Resource No.	Estimated Project Impact, by Type (Acres)			
		Temporary Impacts		Permanent Impacts	Permanent Change to Wetland Vegetation Type *
		Access Roads	Work Pads		
1	Watercourse WH-WC11**	-	0.01	-	-
1	Watercourse WH-WC14	-	0.04	-	-
1	Wetland WH-W4**	-	0.08	-	0.06

Volume 2 Map sheet No.	Water Resource No.	Estimated Project Impact, by Type (Acres)			
		Temporary Impacts		Permanent Impacts	Permanent Change to Wetland Vegetation Type *
		Access Roads	Work Pads		
1	Wetland WH-W5**	-	0.03	-	-
5	Wetland WH-W10	-	-	-	0.07
<b>Total Water Resource Impacts</b>		0	0.16	0	0.13

\*Refers to long-term change in wetland vegetation type (e.g., forested to shrub-scrub), but not a net reduction in wetland function or size.

\*\*Impacts shown are the combined effects of Segment 2 and Segment 4 Project construction activities.

During construction, UI will implement measures to protect wetlands and watercourses. Specifically, UI will install E&S controls, utilize temporary matting, implement wetland invasive species control procedures, and perform environmental inspections per the SWPCP, Stormwater Permit, and the Project-wide On-Site Environmental Inspection and Monitoring Plan.

After the rebuilt lines are installed and existing 115-kV facilities are removed from the catenaries, all temporary timber mats will be removed from wetlands, and wetlands will be restored to pre-construction conditions to the extent practicable.

g) **Vegetative clearing plan;**

Construction of the Project will require vegetation removal along access roads and at work pads for new structures and for the removal of existing 115-kV facilities from the railroad catenary structures. The vegetation that must be removed along Segment 2 consists of a mix of tall shrubs and mature trees along with low-growing herbaceous species.

Partial D&M Plan I included a Project-wide Vegetation Clearing Plan that specifies clearing methods and vegetation management consistent with the construction and operation of overhead transmission lines per industry and UI standards for conductor clearance.

Total tree clearing for Segment 2 will be approximately 2.97 acres.

h) **Restoration plan of disturbed areas, including incorporation of areas for pollinator habitat consistent with C.G.S. §16-50hh, if feasible;**

Partial D&M Plan I included a Project-wide Restoration Plan including, but not limited to, removal of temporary work pads and access roads; utilizing pollinator-friendly seed mixes in certain upland areas; and removal of E&S controls after final stabilization.

i) **A spill prevention control and countermeasures plan;**

Partial D&M Plan I included a Project-wide Spill Prevention and Control Plan. Name and contact information for the spill response contractor is included in Partial D&M Plan II.

j) **Wetland Invasive Species Control Plan;**

Partial D&M Plan I included a Project-wide Wetland Invasive Species Control Plan to avoid or minimize the potential spread of invasive species in wetlands.

k) **Provisions for on-site environmental inspection and monitoring of the ROW and substations during construction;**

Partial D&M Plan I included a Project-wide On-Site Environmental Inspection and Monitoring Plan. For Segment 2, UI will assign an environmental inspector to monitor construction, and UI will assign protected species specialist(s) to train and coordinate with UI crews and contractors to implement protective measures for state and federally-listed species.

l) **A schedule of construction hours;**

Construction activities are expected to begin for Segment 2 in July 2024 and be completed in approximately 10 months. The rebuilt transmission lines are expected to be in service by the end of second quarter 2025. Project construction will require some line outages of existing electric transmission and distribution lines. Line outages must be coordinated with the Connecticut Valley Electric Exchange (CONVEX).

Construction work will typically occur between 7:00 a.m. and 7:00 p.m., Monday through Saturday. However, certain activities may require work outside of the typical construction hours, in some cases on a 24-hour basis and/or on Sundays. Such non-typical work includes activities that must be performed during a CONVEX-approved outage and/or due to the need to perform construction during off-peak rail use hours.

m) **A blasting plan, if necessary;**

Blasting is not expected to be necessary for the Project. UI plans to utilize mechanical means to remove bedrock as necessary.

n) **Plans to comply with DEEP Natural Diversity Database recommendations to reduce impacts to state-listed endangered, threatened and special concern species; and**

Partial D&M Plan I included a Project-wide Species Protection Plan based on DEEP recommendations.

o) **EMF Monitoring Plan.**

Partial D&M Plan I included a Project-wide Post-Construction Electric and Magnetic Field Monitoring Plan to document the post-construction magnetic field levels at various distances from the CDOT railroad corridor.

Within 12 months of the in-service date (i.e. energization of all rebuilt 115-kV lines between Milvon Substation and West River Substation), UI will submit a report to the Council.

### **Conclusion**

Partial D&M Plan II is in compliance with the Council's D&O dated August 19, 2022.

If approved, staff recommends the following condition:

1. Submission of staging/laydown area(s) and provisions for erosion and sedimentation controls, if necessary, at the staging/laydown area(s) prior to commencement of construction.