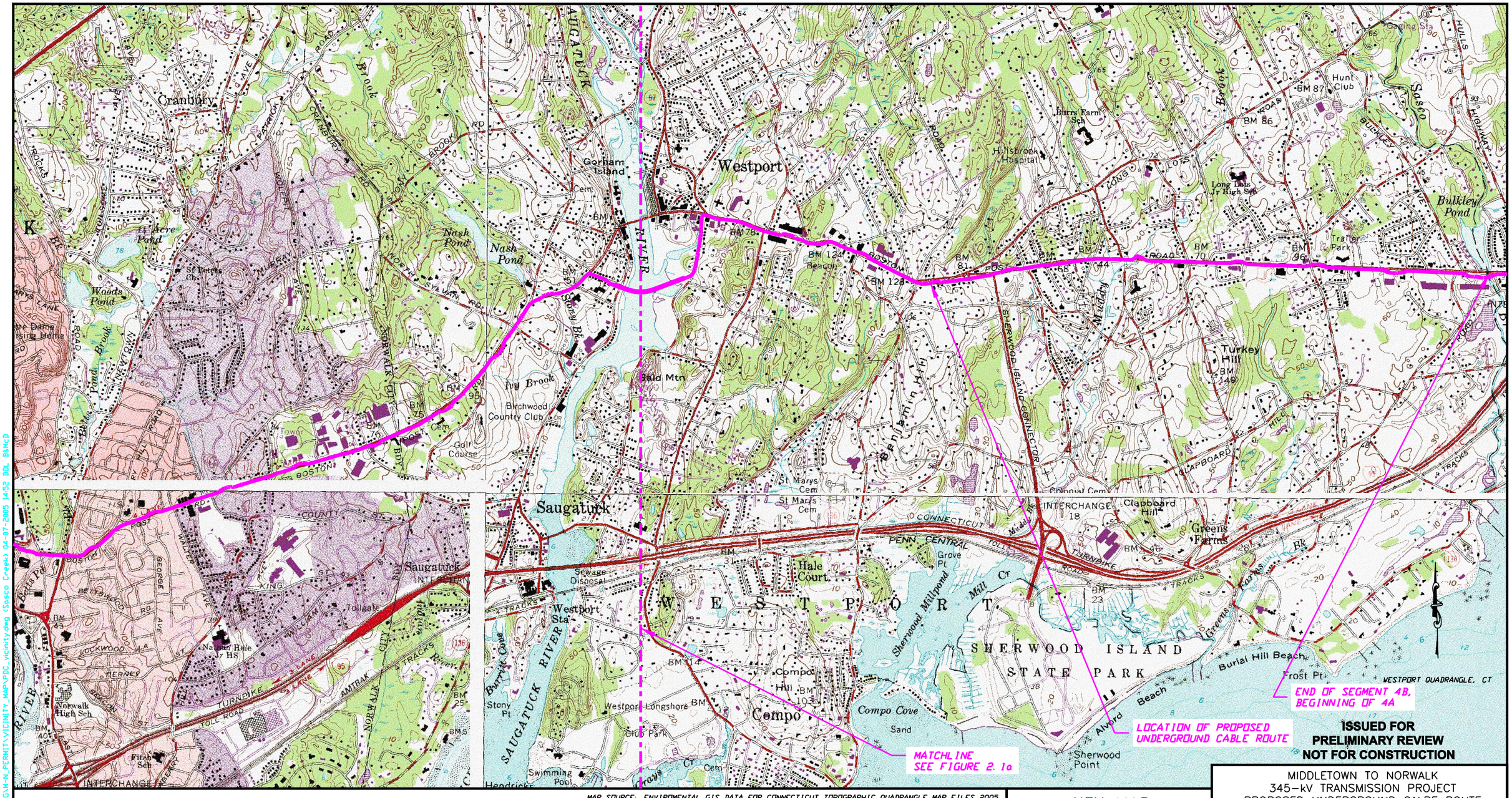


MAP SOURCE: ENVIROMENTAL GIS DATA FOR CONNECTICUT TOPOGRAPHIC QUADRANGLE MAP FILES 2005

KEY MAP

SCALE
1" = 2,000'
1: 24,000

1000 500 0 1000 2000

MIDDLETOWN TO NORWALK
345-kV TRANSMISSION PROJECT
PROPOSED UNDERGROUND CALBE ROUTE
WESTPORT AVE AND NORTH AVE TO WESTPORT
FAIRFIELD TOWN LINE

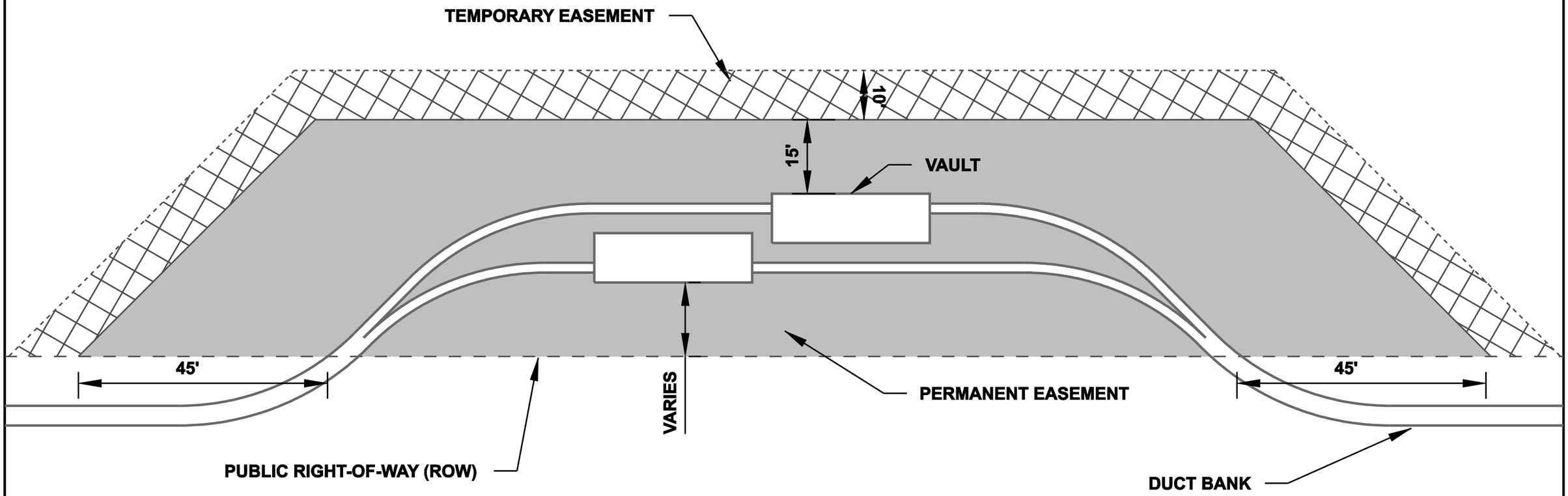
LOCATION: CITY OF NORWALK, TOWN OF WESTPORT
COUNTY: FAIRFIELD STATE: CT

Connecticut Light & Power
The Northeast Utilities System

FIGURE 2.1b

DATE: 04/17/06

N:\NUSCC\30520\Cadd\BRIDGE_XING\M-N_PERMIT\VICINITY_MAP\PDC_vicinity.dwg (Sasco Creek) 04-07-2005 14:52 DDL BsMcD



TYPICAL EASEMENT LAYOUT

0 10' 20' 40'

SCALE IN FEET

ISSUED FOR PRELIMINARY REVIEW NOT FOR CONSTRUCTION

MIDDLETOWN TO NORWALK
345–kV TRANSMISSION PROJECT
TYPICAL EASEMENT LAYOUT

Connecticut Light & Power
The Northeast Utilities System

FIGURE 2–2

DATE: 12/01/05

Table 2-1. Landowner Information for Parcels Requiring a New Easement.		
Owner	**Street Address**	**City/State/ZIP**
First Taxing District	North Avenue	Norwalk, CT. 06851
Antea Vece, Trustee	29 North Avenue	Norwalk, CT. 06851
One Hundred Westport Ave, L.L.C.	Westport Avenue	Norwalk, CT. 06851
Prime Development Group, L.L.C.	169 Westport Avenue	Norwalk, CT. 06851
Mary Grace Vana	179 Westport Avenue	Norwalk, CT. 06851
Sipersteins New England Realty, L.L.C.	181 Westport Avenue	Norwalk, CT. 06851
Church, Jeanette M.	299 Westport Avenue	Norwalk, CT. 06851
Davis Altoro, Vincent Altoro, Anthony Altoro	431 Westport Avenue	Norwalk, CT. 06851
Thomas J. Bracken	437 Westport Avenue	Norwalk, CT. 06851
Conley Family, Limited Partnership	451 Westport Avenue	Norwalk, CT. 06851
Jerry's Heirs, LLC	556 Westport Avenue	Norwalk, CT. 06851
Jerry's Heirs, LLC	570 Westport Avenue	Norwalk, CT. 06851
Bank of America, NA	578 Westport Avenue	Westport, CT. 06880
345 Post Road West, LLC	345 Post Road West (US RTE 1)	Westport, CT. 06880
Waterfront Properties, LLC	335 Post Road West (US RTE 1)	Westport, CT. 06880
Stuttman Realty Corporation	333 Post Road West (US RTE 1)	Westport, CT. 06880
Martin M. Davidson & Edith J. Davidson	273 Post Road West (U.S. RTE. 1)	Westport, CT. 06880
265 Post Road West, L.L.C	265 Post Road West (U.S. RTE. 1)	Westport, CT. 06880
Birchwood Country Club Inc.	25 Kings Highway South	Westport, CT. 06880
James A. Randel	253 Post Road West (U.S. RTE. 1)	Westport, CT. 06880
Richard Christopher Montanaro	44 Lincoln Street	Westport, CT. 06880
The Catholic Church of Assumption	88 Riverside Ave	Westport, CT. 06880
The Town of Westport	Imperial Avenue	Westport, CT. 06880
The Westport Women's Club, Inc.	44 Imperial Avenue	Westport, CT. 06880
Westbrook Inc.	379 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Compo II, L.L.C.	403 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
WHK, Inc.	561 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Sherwood Diner, Inc.	901 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Paul Kish	919 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Frank Gelger	1135 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Kowalsky Properties, Inc.	1141 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Roseville Estates, Inc.	1177 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
157 Easton Road Corp.	1365 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Joseph & Betty Rothman	1529 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Todd Corporation	1505 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Marie A. Veno	1686 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Albert R., Sr.& Yvonne B. Cuseo	1692 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Richard E. Voigt	1700 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Lois G. Shine as Trustee of the Leonard A. Shine Non-Marital Trust	1830 Post Road East (U.S. RTE. 1)	Westport, CT. 06880
Howard Juster	1850 Post Road East (U.S. RTE. 1)	Westport, CT. 06880

2.4 PUBLIC ROADS AND LANDS

The Plan drawings in Volume 2 depict all of the roads crossed by the Project in Segment 4b. The Project crosses 51 public roads, 14 in the City of Norwalk and 27 in the Town of Westport. The roads under which the duct bank will be located in Westport include the following:

- US Rte. 1 (Post Road)
- Lincoln Street
- Imperial Avenue

The roads under which the duct bank will be located in Norwalk include the following:

- North Avenue (Rte. 1)
- Westport Avenue (Rte. 1)

With regards to public lands or facilities in the vicinity of the route in Segment 4b, there are two parcels designated as open space lands along the route in Norwalk and a post office near the intersection of Walter Street and Westport Road. There are three schools along the route in Westport: Greens Farms Elementary School, Kings Highway Elementary School and Pumpkin Preschool. Winslow Park, which has no recreational equipment near the route, is located at the intersection of Compo and Post Roads. The Linxweiler Homestead is located at the intersection of Crescent Street and Post Road. There is a parking lot for commuters using the Metro North Commuter system adjacent to where a vault location is proposed. Finally, there is a ConnDOT facility at the intersection of West Parish Road and Post Road.

2.5 TOPOGRAPHY AND GRADING

All portions of the Project route will be returned to pre-existing topographic conditions. Therefore, there will be no significant change in grade for Segment 4b.

2.6 STRUCTURE AND FOUNDATION LOCATIONS

Locations for the 22 splice-vault pairs and the duct bank are depicted in the Plans and Profiles provided under in Volume 2.

2.7 ACCESS POINTS FOR CONSTRUCTION

Access to the Project will be via municipal roads, except for off-road splice-vault locations. Short access roads off of municipal rights-of-way will be used to provide construction equipment ingress and egress to splice-vault locations. Rights of use for these short access roads will be negotiated with the property owner.

2.8 VEGETATION AND CLEARING

Tree removal will be required for a portion of Segment 4b. Locations are noted on the Plans and Profiles in Volume 2.

2.9 ENVIRONMENTALLY SENSITIVE AREAS

Construction areas outside of the existing roadways that may require Best Management Practice (BMP) measures necessary to protect the resource are identified on the Plan Drawings in Volume 2. No areas were identified as having a high erosion potential; however, recommended BMPs for general construction activities are noted on the Plan and Profile Drawings.

All watercourse crossings will be addressed in a separate D&M Plan to be filed at a later date.

2.10 EXISTING UNDERGROUND UTILITIES

Subsurface utility engineering (SUE) has been performed for Segment 4b. All utilities noted during this study are included in the Plan and Profile Drawings in Volume 2.

2.11 STAGING AREA AND CONSTRUCTION FACILITIES

The staging areas for materials and equipment for Segment 4b have yet to be determined. Municipal consultation with regards to available areas has commenced and final locations will be determined after consultation with the company selected as the civil contractor. Material staging areas proposed for use will be submitted to Council staff for review and approval prior to their use through the Change Approval Process described in Appendix C of this Plan.

3.0 CONSTRUCTION INFORMATION

This section contains information concerning construction practices and mitigation measures related to the construction and installation of the duct banks and splice vaults along Segment 4b.

3.1 TIMBER AND SNAG TREES

There will be no clearing of marketable timber within or adjacent to the route of the cable system in Segment 4b. Due to the developed nature of the route in Segment 4b, there is no opportunity for snag tree management.

3.2 CONSTRUCTION AND REHABILITATION PROCEDURES

Construction and rehabilitation procedures for water crossings, sedimentation and erosion control, protected species, hydrologic features and cultural resource properties are described below.

3.2.1 Water Crossing Techniques

As discussed in Section 2.0, 2.4 and 2.9 above, all water crossings will be addressed in a separate D&M Plan.

3.2.2 Sedimentation and Erosion Control Procedures

The sediment and erosion control procedures are located in Appendix B. The procedures comply with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*.

3.2.3 Precautions for Protected Species

Pursuant to consultation with DEP personnel and review of the Natural Diversity Database, there are no federal or state protected species located along the route in Segment 4b.

3.2.4 Restoration of Hydrologic Features

Construction and installation of the duct bank and splice vaults along Segment 4b will not require any changes to hydrologic features.

3.2.5 Protection of Cultural Resources

CL&P contracted with Raber and Associates to perform a Cultural Resources Assessment Survey as part of the Application to the Council. Locations of sensitive, or potentially sensitive, cultural resources were identified during the Phase I survey. Further studies performed during Phase II Field Reconnaissance will be used to assess potential effects on these sensitive resources.

The protocol for the survey, as well as the results, will be coordinated with the Connecticut Department of Culture and Tourism, State Historic Preservation Office. Correspondence with the State Historic Preservation Officer (SHPO) will be provided to Council staff as it is available and prior to construction.

3.2.6 Herbicide Use

No herbicides will be used for installation and construction of the cable system along Segment 4b.

3.2.7 Public Recreation Areas

There is one city park identified adjacent to the Segment 4b route named Winslow Park. The park is located in the Town of Westport near the intersection of Compo Street and Post Road.

3.2.8 Disposal and Maintenance Procedures

The Contractor will remove all construction debris and excess soil and dispose of it in accordance with local, state, and federal regulations. No burning will occur as a result of construction or installation of the duct bank.

All contaminated spoil removed and/or groundwater encountered from installation of the Project will be handled by CL&P's contractors in accordance with local, state, and federal laws and regulations.

CL&P has developed a draft soil and groundwater handling plan for the underground portion of the project to deal with collection, treatment and disposal of soil and groundwater designated polluted or contaminated as defined by the DEP. The results of the Phase II assessment by CL&P indicate that most, if not all, of the groundwater that will be encountered during construction of the Project will require treatment as polluted or contaminated water. The soil and groundwater handling plan will not be completed until a civil contractor has been selected and provides input into the site-specific planning of soil and groundwater issues based on the results of the Phase II assessment. A copy of the final soil and groundwater handling plan will be provided to Council staff.

3.2.9 Blasting Procedures

Based on testing performed to date, CL&P does not anticipate that any blasting will required for construction and installation of the duct bank in Segment 4b.

3.2.10 Rehabilitation Plans

Because the cable system will be installed primarily beneath existing roadways, it will be subject to a rigorous rehabilitation protocol reviewed and approved by ConnDOT and the municipalities. All roadways, curbs and other adjacent properties or structures impacted by construction and installation of the duct bank will be returned to condition equivalent to pre-existing conditions.

Any landscaped vegetation will be replaced in-kind based on variety, number and size of plants. All grassed areas will be returned to pre-existing condition, including variety and density.

3.2.11 Independent Environmental Consultant

The Siting Council approved CL&P's selection of BSC Group as its independent environmental consultant at its January 25, 2006 meeting.

4.0 NOTICES AND REPORTS

This section outlines requirements regarding notifications and reporting procedures per Section 16-50j-62 of the Regulations of Connecticut State Agencies.

4.1 STAGING AND MATERIAL LAYDOWN AREAS

The staging and laydown areas for this work are currently being identified as described in Section 2.11. CL&P will notify the Council when areas are identified in accordance with Section 16-50j-62(a) of the Regulations of Connecticut State Agencies.

4.2 NOTICES TO THE COUNCIL

Three types of notices are required by the Council for construction. Each type is described below.

4.2.1 Notice of Beginning

CL&P will provide written notification to the Council a minimum of two weeks prior to the beginning of construction at the site.

4.2.2 Notice of Changes to the D&M Plan

For all segments of this Project, CL&P intends to utilize a uniform procedure for interfacing with the Council regarding any changes to approved D&M Plans, namely, the procedure that the Council has already approved in connection with the D&M Plan for Scovill Rock Switching Station. This model, which has also been successfully applied for the Bethel-Norwalk Project, is described and depicted in Appendix C.

4.2.3 Notice of Completion

CL&P will provide the Council written notification of the completion of construction and site rehabilitation for Segment 4b facilities.

4.3 NOTICE TO MUNICIPALITIES

CL&P will provide written notification to the Chief Elected Officials of Norwalk and Westport at least three weeks prior to the beginning of construction. CL&P will also notify the Chief Elected Officials when the work along Segment 4b is complete.

4.4 NOTICE TO LANDOWNERS

CL&P will provide written notification to adjacent landowners a minimum of two weeks prior to the beginning of construction.

4.5 MONTHLY REPORTS

CL&P will provide the Council with written monthly progress reports which will include changes or deviations from the approved D&M Plan, if any.

4.6 FINAL REPORT

CL&P will provide a final report to the Council as required in Section 16-50j-62 of the Regulations of Connecticut State Agencies. The final report will contain the following information as prescribed in the regulations:

1. All agreements with abutters or other property owners regarding special maintenance precautions.

2. Significant changes to the D&M Plan that are required because of the property rights of underlying and adjoining owners or for other reasons.

3. Location of non-transmission materials which have been left in place.

4. Actual construction cost of the facility, including but not limited to the cost of the following:

- Clearing and access
- Construction
- Rehabilitation

5.0 ADDITIONAL ELEMENTS PER COUNCIL ORDER

The listing of additional elements identified in the Decision and Order for Docket No. 272 pertaining to D&M Plans is included in Appendix A. All applicable information is contained within the above portions of the plan and the related permits.

5.1 DECISION AND ORDER CHECKLIST

Following is a synopsis of the requirements for the D&M Plans for the Middletown-Norwalk Project as stated in the Decision and Order, followed by the location of the information in the Plan, or a statement if not applicable to this specific Plan for Segment 4b. Because the modifications are to an existing upland site, many of the elements are not applicable for Segment 4b.

ITEM FROM DECISION	LOCATION/APPLICABILITY
14. D&M Elements	
a. Detailed site plan showing access roads, foundations, staging areas for overhead route	Not Applicable (no overhead)
b. Detailed site plan showing splice-vaults, duct banks, staging areas for underground route	Volume 2
c. Identification of HDD and Jack and Bore sites for underground	Not Applicable (Associated with water crossings to be handled in a separate D&M Plan)
d. Erosion and Sediment Control Plan	Appendix B
e. Provisions for crossing wetlands and watercourses	Not Applicable (no wetlands or watercourses)
f. Vegetation Clearing Plan	Not Applicable (no clearing)
g. Wetland Restoration Plan	Not Applicable (Associated with water crossings contained in separate D&M Plan)
h. Invasive Species Management Plan	Not Applicable (no vegetation)
i. Plan for Pre-Construction Survey for species of concern	No species identified by USFWS or DEP as occurring in Segment 4b
j. Post-construction EMF Monitoring Plan	Please refer to Section 5.2 below
k. Fencing of vernal pools; buffer around wetlands	Not Applicable (no vernal pools or wetlands)
l. Inland Wetlands Restoration Plan	Not Applicable (Associated with water crossings to be handled in separate D&M Plan)
m. Monitoring and Operations Plan for each water crossing	Not Applicable (water crossings to be handled in a separate D&M Plan)
n. Traffic Management Plan	Volume 3

o. Blasting Plan	Section 3.2.9 (no blasting anticipated)
p. Groundwater Best Management Practices	Section 3.2.4
q. Identification of staging areas	Section 2.11 and 4.1
r. May spread excavated material in uplands Stockpile excavated soil from wetlands	Section 3.2.2
s. Limit conductor installation sites to cleared right-of-way, not in wetlands	Not Applicable (no overhead conductors)
t. Plan to remove or adjust selected structures	Not Applicable (no structures for overhead lines to be removed or adjusted)
15. DEP Consultation (river crossings)	Not Applicable (water crossings to be handled in a separate D&M Plan)
16. Regional Water Authority (RWA) Conditions	Not Applicable (not on RWA property)
17. Documentation of DOT Encroachment Permit Process	Appendix D
18. Provide the Following Permits Prior to Construction (Public Health, OLISP, Water Crossings)	Not Applicable
19. Waste Management Permits	Section 3.2.8
20. Independent Environmental Consultant	Section 3.2.11
21. Phase II Archeological Reconnaissance Survey	Section 3.2.5

5.2 SUPPLEMENTAL PLANS AND INFORMATION

The Traffic Inventory Report, a precursor to the Traffic Maintenance and Protection Plan, has been provided in Volume 3.

With regard to magnetic fields, item 12 of the Council's Decision and Order states that, "[w]here the underground portions of the line are in the vicinity of facilities listed in Conn. Gen. Stat. § 16-50p(i), the Certificate Holders are directed to utilize measures necessary to ensure that public health and safety is protected no less than in the vicinity of statutory facilities adjacent to the approved overhead portions of the line." The chosen option to minimize magnetic fields along the underground route is placement of the cable system, where feasible, along the opposite side of the road at the location of facilities listed in Conn. Gen. Stat. § 16-50p(i). The ConnDOT requirement that splice vaults be located off ConnDOT right-of-way has restricted CL&P's available options in several instances. In other locations, existing utilities limit placement of the cable ducts so that there is very little that can be done to increase the distance from the cables to the facility.

Specific instances where facilities listed in Conn. Gen. Stat. § 16-50p(i)are located directly along the route and the duct bank has been routed on the opposite side of the road include:

- King's Highway Elementary School-Volume 2, pg. 32
- Greens Farms Elementary School-Volume 2, pg 51
- Pumpkin Preschool of Westport-Volume 2, pg. 33

On Lincoln Street and Imperial Avenue the duct bank will be installed in the center of the road to maximize the distance to residences on both sides of the street. Minor deviations will occur where existing utilities are encountered.

The second item, 14(j), requires preparation of a post-construction EMF monitoring plan. CL&P and UI intend to file a single Electric and Magnetic Field Monitoring Plan for locations along the project route at a future date.

6.0 PROJECT SCHEDULE

The construction and installation of the duct bank, from survey to energizing, will take approximately 42 months for Segment 4b. The following items summarize the projected schedule:

- Survey May, 2005 - March, 2006
- Engineering June, 2005 - July, 2006
- Procurement January, 2005 - March, 2007
- Fabrication/delivery of large equipment August, 2006 - March, 2008
- Civil work July, 2006 - May, 2008
- Landscaping March, 2008 - November, 2008
- Cable installation July, 2007 - September, 2008
- Testing October, 2008 - November, 2008.

Construction activities are expected to take place during State and municipally approved hours using a 60-hour work week consisting of six 10-hour days per week with additional time, if necessary.

APPENDICES

A **Selected Portions of Decision and Order**

B **Sediment and Erosion Control Plan**

C **D&M Plan Change Approval Process**

D **Documentation of Use of Connecticut Department of Transportation Encroachment Agreement**

APPENDIX A

DOCKET 272
SELECTED PORTIONS OF DECISION AND ORDER

APPENDIX A

DOCKET 272

SELECTED PORTIONS OF DECISION AND ORDER

14. The Certificate Holders shall not commence construction of the overhead and underground electric transmission system until securing Council approval of a D&M Plan, consistent with the Regulations of Connecticut State Agencies Section 16-50j-60 through Section 16-50j-62 and which includes the following elements:

    a. A detailed site plan showing the placement of the access roads, structure foundations, equipment and material staging area for the overhead route;
    b. A detailed site plan showing the underground route, splice boxes, provisions for underground cable protection, and equipment and material staging area;
    c. Identification of horizontal directional drill and jack and boring sites;
    d. An erosion and sediment control plan, consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control as amended for both overhead and underground routes;
    e. Provisions for crossing inland wetland and watercourses for both overhead and underground routes;
    f. Vegetative clearing plan;
    g. A wetland restoration plan;
    h. Invasive species management plan;
    i. A Plan for a pre-construction survey for all other endangered, threatened and species of special concern, flag areas of mudwort and bayonet grass, sweep areas for eastern box turtle and wood turtle prior to construction and abide to construction periods as outlined by the DEP Wildlife Division;
    j. A post-construction electric and magnetic field monitoring plan;
    k. A plan for installing construction fencing at vernal pools near construction activities and a buffer area be established around inland wetlands;
    l. An inland wetlands restoration plan;
    m. Monitoring and Operations Plan for each water body crossing;
    n. A traffic control plan to include scheduling of construction hours during nights and/or weekends and mitigation of lighting and noise;
    o. A blasting plan
    p. Groundwater best management practices plan;
    q. Identification of developed areas for staging and equipment lay down, field office trailers, sanitary facilities and parking before establishing a new area;
    r. Excavated material in upland construction may be allowed to be graded in proximity to the structure and excavated soil in wetland construction shall be stockpiled in an upland area for use in wetland restoration;
    s. Conductor installation sites shall be within the existing ROW, use of existing cleared areas, to the extent possible, and pulling sites will not be allowed in wetlands;
    t. A plan for the following: structure #4010 may be eliminated; in Woodbridge, details on removal of structure #3920 and new poles may be eliminated in the area of wetland #133; a number of structures within wetland #70 adjacent to Tamarac Swamp in Wallingford may be reduced, especially structures #8769 and 8800; and a set of existing pole structures immediately adjacent to the Farmington Can Recreational Trail in Hamden could be removed.

15. The Certificate Holders are directed to consult with DEP on the following matters:
    a. Concerning horizontal directional drill and the jack and bore crossing techniques;
    b. Fording streams; and
    c. Construction scheduling at the Milford boat launch and the line should be sited so as to not interfere unreasonably with any future maintenance needs.

16. The Certificate Holders shall abide to the following Regional Water Authority (RWA) conditions:

    a. Shall provide all information necessary for the RWA to prepare a DPH Change in Use Application and Revocable License Agreement for the construction activities on RWA owned watershed land.
    b. Shall prepare a Stormwater Pollution Prevention Plan (SWPPP) during the development of the Development and Management Plan (D&M Plan). The D&M Plan shall be prepared in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control.
    c. Refueling of construction equipment on public water supply watershed and aquifer areas shall only be conducted over portable spill container areas. Absorbent spill response materials shall be readily available on-site. The RWA shall be immediately notified of any hazardous material spills or other water quality incidents on its public water supply watershed or aquifers.
    d. Any fuel, oils, paints solvents, or other hazardous material stored on-site during the construction process shall be in a secure area with at least 100 percent secondary containment.
    e. Submittal of an Integrated Pest Management Plan for long-term maintenance of right-of-ways and submittal of an annual summary of pesticide use and other maintenance activities on RWA property.
    f. If blasting is required, pre-blast surveys of RWA facilities shall be done, recording seismographs shall be in place during blasting and copies of the survey and sand seismograph results shall be provided to the RWA.
    g. Provision of reimbursement for reasonable costs incurred by the RWA regarding review and inspection of the Project, including costs for review by its special consultants, and costs associated with designing and relocating the RWA's facilities, if required.
    h. Preliminary and final D&M Plans shall be provided to the RWA for its review comments. The RWA shall be allowed at least 30 days to review and comment.
    i. The RWA shall receive between three and five days notice prior to commencement of construction activity on public water supply watershed or aquifers, or in the vicinity of RWA facilities.

17. The Certificate Holders shall use the DOT encroachment permit process developed for Docket No. 217 project as a template.

18. The Certificate Holders shall provide the following permits prior to the commencement of construction:

    a. Department of Public Health change-in-use permit;
    b. Office of Long Island Sound Programs (OLISP) coastal permits for the Singer and East Devon Substations: and
    c. DEP water body crossing permits.

19. The Certificate Holders shall obtain necessary waste management permits for activity in any solid waster disposal areas and remove and dispose of contaminated soil per municipal, state and federal regulations.

20. The Certificate Holders shall hire an independent environmental consultant, subject to Council approval, to monitor and report on the installation of the overhead and underground transmission system.

21. The Certificate Holders shall conduct a Phase II Archeological Reconnaissance Survey in consultation with the Connecticut Historical Commission prior to construction.

APPENDIX B

SEDIMENT AND EROSION CONTROL PLAN

APPENDIX B

SEDIMENT AND EROSION CONTROL PLAN

CL&P's objective is to minimize the potential for erosion and sedimentation impact during construction and to effectively restore the work areas and other disturbed areas. CL&P will meet these objectives by implementing the erosion and sediment control measures contained in this section. These erosion and sediment control measures will serve as minimum standards during construction. In general, the measures are designed to minimize erosion and sedimentation by:

- Minimizing the quantity and duration of soil exposure;
- Protecting areas of critical concern during construction by redirecting and reducing the velocity of runoff;
- Installing and maintaining erosion and sediment control measures during construction;
- Establishing vegetation where required as soon as possible following final grading; and
- Inspecting the work areas and maintaining erosion and sediment controls as necessary until final stabilization has been achieved.

CL&P will be responsible for ensuring that all contractors implement and maintain erosion and sediment control measures during construction. This plan includes erosion and sediment control techniques that apply to all areas of construction, expands on the impact minimization associated with clearing, grading, ditching, installation, backfilling and restoration phases and discusses the use of construction safety precautions.

Construction and installation of an underground electric transmission line typically consists of several distinct phases: clearing, grading, ditching, installation, backfilling and restoration.

1.0 CLEARING

All clearing activities will conform to the methods dictated in this section. Public road right-of-way boundaries, transmission line right-of-way boundaries, and off right-of-way workspace limits will be clearly delineated in the field before commencement of clearing activities. The Environmental Inspector will ensure that no clearing occurs beyond these boundaries.

1.1 VEGETATION

Stemmed vegetation such as brush, shrubs and trees shall be removed at or near the ground surface to allow the root systems to remain intact. Trees and limbs will not be permitted to fall into watercourses.

The construction contractor will dispose of brush piles and/or tree stumps immediately. Trees and brush shall be disposed of in one or more of the following ways depending on applicable permit conditions and/or as designated by the Environmental Inspector:

- Brush Pile - All brush will be removed from wetland areas.
- Chipping
  - Chips may be left on the workspace with EI approval if placement does not inhibit revegetation.
- Off-site Disposal
  - Done when brush piles or chipping are not permitted.
  - Taken to an approved landfill or other approved facility approved for disposal of construction debris.

1.2 STORM INLET PROTECTION

Before commencing any land disturbing or pavement removal, storm water inlets that receive runoff from the proposed work area will be protected. The temporary inlet protection will remain in place until construction activities have been completed, the street has been swept, and any exposed soils are stabilized. The utility is also responsible for removing any temporary inlet protection they installed, After all disturbed areas have been stabilized, temporary inlet protection will be removed. Temporary protection of the inlets will be accomplished by one or more of the following:

- Use of gravel bags to filter the sediment from any runoff.
- Use of sediment logs to filter the sediment from any runoff.
- Use of under-grate filter bags to filter the sediment from any runoff.

2.0 GRADING

When existing topography and/or terrain does not permit crews and equipment to operate safely and does not provided access or an efficient work area, grading may be required. The following general construction methods will be employed by CL&P during grading:

2.1 TEMPORARY EROSION CONTROL BARRIERS

Hay / straw bales and silt fences are herein interchangeable except where noted. Temporary erosion control barriers will be installed prior to initial disturbance of soil and maintained until final restoration is completed. Temporary erosion control barriers will be installed in, near or abutting the right-of-way in the following areas:

- along banks of waterbodies between the workspace and waterbody after clearing. They will also be installed downslope of any stockpiled soil in the vicinity of waterbodies and vegetated wetlands.
- between wetlands and adjacent disturbed upland areas and as necessary to prevent siltation of ponds, wetlands, or other waterbodies adjacent to/downslope of the work areas.
- at the edge of the construction workspace as needed to contain soil and sediment.

Silt fence will be installed as directed by manufacturer and applicable permit conditions. A sufficient supply of silt fence shall be stockpiled onsite for emergency use and maintenance. Hay bales will be installed using stakes, minimum 2-inch diamater with bindings horizontal to the surface of the ground as noted in the 2002 CT Guidelines for Soil Erosion and Sediment Control. Bales will be replaced as deemed necessary by the EI if damaged or if they are improperly installed. A sufficient supply of bales shall be maintained on site for emergency use. Bales bound with wire or plastic shall not be used.

Temporary erosion control barriers will be maintained throughout construction and remain in place until permanent soil stabilization has been judged successful, upon which they will be removed (hay bales may be left in place). They will be inspected on a daily basis in areas of active construction or equipment operation, on a weekly basis in areas with no construction or equipment operation and within 24 hours of a storm event that is 0.1 inches or greater.

2.2 ROCK DISPOSAL

CL&P will not dispose of excess rock or other excavated spoils on the ConnDOT right-of-way. Excess Rock, including blast rock, shall be used or disposed of by one or more of the following methods:

- Hauled to disturbed property per landowner agreement. As part of the agreement, the landowner will accept responsibility for the rock and not place it in a wetland area.
- Removed and disposed at an approved site that is traditionally used for rock debris disposal.
- Used as riprap for stream bank stabilization where allowed by applicable permits.
- Used to construct stonewalls or fences, if approved by CL&P per landowner agreement.

3.0 TRENCHING

During construction activities on impervious surfaces such as streets and parking lots, measures will be implemented to reduce or prevent off-site discharge of sediments from vehicle tracking or storm water runoff. Measures include the following:

- Care in loading trucks to minimize spillage onto pavements.
- Stockpiles of material, either excavated or new material brought to the site, will be kept to a minimum and covered for extended storage periods (more than seven days).
- Impervious areas that have been tracked with sediments, or have sediments spilled or eroded onto them, will be swept and the sediments removed within 24 hours.
- Temporary storage of street sweepings prior to reuse or disposal will be located in an area where the sweepings will not wash into wetlands or watercourses.

4.0 INSTALLATION / BACKFILLING

The proposed transmission line will be installed by the conventional bury method unless specialized construction techniques are specified. During excavation, excavated native soils will be transported, stored and/or disposed of properly.

4.1 TRENCH DEWATERING

Trench dewatering will occur when perched water tables are encountered, when there has been a significant precipitation event or as otherwise needed to remove accumulated water. Hose intakes will be elevated off the ditch bottom to prevent sediment intake. Secondary containment of pumps will be used to avoid fuel and contaminants from entering wetlands and waterbodies. All dewatering locations will be approved by the EI prior to discharge. Discharges will be greater than 100 feet from a wetland or stream bank and will be directed into a well-vegetated area. If discharges are less than 100' the discharge will be directed to a filter bag and/or erosion control barriers. Under no circumstances will trench water or other forms of turbid water be directly discharge onto exposed soil or into any wetland, waterbody or ConnDot drainage system.

4.2 BACKFILLING

Excavations within the roadway will be backfilled with fluidized thermal backfill in accordance with municipal codes or state codes. The fluidized thermal backfill will limit any settling and provide controlled thermal characteristics. A final inspection will be made prior to backfilling to ensure that all debris has been removed from the ditch and the line coating is undamaged. Settling will be minimized with the use of compaction equipment, or a crown of soil will be placed over the facility to compensate for future soil settling. If crowning is used, openings shall be installed at regular intervals in the crown to allow for lateral surface drainage. Excess or unsuitable material shall be disposed of in accordance with applicable regulations.

5.0 RESTORATION, REVEGETATION, AND PAVEMENT REHABILITATION

The final phase of construction is returning to the right-of-way to pre-existing conditions, or better. This will be accomplished using the following methodology.

5.1 RESTORATION

Restoration and revegetation of the work areas incorporates permanent erosion and sediment control measures. However, in the event that final restoration cannot occur in a timely manner due to weather or soil conditions, temporary erosion and sediment control measures will be maintained until the weather is suitable for final cleanup and revegetation. In no case shall final cleanup be delayed beyond the end of the next growing season.

Temporary restoration measures will be initiated as soon as practical on portions of the workspace where activities have ceased temporarily or permanently when:

- Initiation of stabilization measures are precluded by weather. Stabilization measures shall be initiated as soon as machinery is able to obtain access to the work areas.
- Activities will resume within 21 days. Stabilization measures will not need to be initiated by the fourteenth day following the cessation of activity.

If construction is completed more than 30 days before the perennial vegetation seeding season, wetlands areas and adjacent to waterbodies shall be mulched with straw or equivalent for a minimum of 100 feet on either side of the waterbody. Temporary plantings will be fertilized in accordance with the recommendations of the local NRCS office(s) or other soil conservation authority. Temporary sediment barriers will be removed when an area is successfully revegetated in compliance with applicable regulatory approvals.

Final grading will be completed immediately after backfilling, weather permitting. Construction debris shall be removed from the workspace, and the area will be graded so that the soil is left in the proper condition for mulching, seeding or natural revegetation.

5.2 REVEGETATION

Revegetation will be used to establish long-term control of releases of sediment and erosion. The establishment of vegetation is critical to successfully restoring the right-of-way to pre-existing conditions. The workspace will be seeded within seven working days of final grading, weather and soil conditions permitting, and planted in accordance with recommended seeding dates. The seedbed will be prepared to an average depth of 3 to 4 inches using appropriate equipment to provide a firm, smooth seedbed, free of debris. Slopes steeper than 3:1 shall be seeded immediately after final grading in accordance with recommended seeding dates, weather permitting. The seed shall be applied and covered uniformly in accordance with the 2002 Connecticut Guidelines for Erosion and Sedimentation Control Guidelines.

When broadcast or hydro-seeding is utilized, the seedbed will be scarified to ensure sites for seeds to lodge and germinate, will be firmed after seeding and will be mulched with hay or straw to prevent erosion. Broadcast or hydro-seeding, when used, will be performed at double the recommended seeding rates.

Turf, ornamental shrubs and other landscaping materials shall be restored in accordance with individual landowner agreements.

5.3 MULCHING

After seeding, mulch will be applied at a rate of approximately 2 tons per acre on the entire right-of-way except wetlands, lawns, agricultural (crop) areas and areas where hydro-mulch is used. Mulch will also be applied if construction or restoration activity is interrupted for extended periods (greater than 21 days). If mulching is performed prior to seeding, mulch application will be increased on all slopes within 100 feet of waterbodies and wetlands to a rate of 3 tons/acre at a 4-inch depth. Mulch will be anchored immediately after placement on steep slopes and stream banks. Mechanically anchoring mulch will utilize a mulch anchoring tool or tracked equipment to crimp the mulch to a depth of 2 to 3 inches. Liquid mulch binders will be applied using application rates recommended by the manufacturer. Liquid mulch binders will not be used within 100 feet of wetlands or water bodies.

Matting or netting will be applied to sensitive areas (i.e., steep slopes, banks of waterbodies, bar ditches, etc.) in accordance with permit requirements and will be anchored with pegs or staples.

6.0 MONITORING/REPORTING

Qualified personnel shall inspect disturbed areas of the construction site that have not been fully stabilized, structural control measures, areas used for storage of materials that are exposed to precipitation, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.1 inches or greater. Inspections for sites that have been temporarily or finally stabilized shall be conducted at least once every month for three months

Maintenance inspection reports shall be completed after each inspection and maintained with the Stormwater Pollution Control Plan (SPCP) for a period of three years after the date of inspection. Based on the results of the inspection, the description of pollution sources and prevention measures identified in the SPCP shall be revised as appropriate as soon as practicable after such inspection. Such modifications of any site changes shall be implemented within 24 hours and any changes to the SPCP shall be implemented within three calendar days following the inspection.

CL&P, or their authorized agent, will file quarterly activity reports with the appropriate authorities documenting problems, including those identified by landowners, and corrective actions take for 2 years following construction. Follow-up inspections will be preformed after the first and second growing seasons after seeding to monitor the success of revegetation. Revegetation will be considered successful if vegetative cover is sufficient to prevent erosion of soils disturbed in the workspace. Typically, sufficient vegetation coverage is consistent with adjacent off right-of-way vegetation in both percent coverage and species present. If sufficient vegetative cover has not been achieved after two full growing seasons, additional restoration measures will be implemented. Erosion control devices will be removed upon successful stabilization and revegetation of disturbed areas.

APPENDIX C

D&M PLAN CHANGE APPROVAL PROCESS

APPENDIX C

DOCKET 272

D&M PLAN CHANGE APPROVAL PROCESS

Identification of Significant Changes:

Once CL&P identifies a required change to the D&M Plan, it must determine whether it is a "significant change," because such changes require advance Council approval. CL&P proposes the following criteria for identifying significant changes: a "significant change" is a change to the Project that significantly reduces the amount of protection to the environment or significantly increases potential public concerns. To be "significant", the change must have a meaningful impact to the environment, public, or other permits.

For the underground portion of the Project, once CL&P identifies a potential change, it will consult with a Connecticut Department of Transportation (CDOT) representative to reach an agreement as to whether the change is "significant." Any changes to existing CDOT facilities or affecting planned projects of CDOT would be considered "significant."

Procedure for Council Review of "Significant Changes" to D&M Plan:

"Urgent" Case: If the change is "urgent" (i.e., if having to wait until the next regularly scheduled meeting of the Council to obtain approval of the change would have a material impact on construction cost or scheduling), then CL&P will contact Council staff to determine if the Council chairman will grant oral permission for the change so as to allow construction to continue in accordance with the proposed change. If oral permission is granted, CL&P will continue construction in accordance with the change and will file documentation regarding the change within 24 hours. If oral permission is denied, CL&P will file the proposed D&M Plan Change with the Council for review and will hold construction impacted by the change pending the Council's determination.

"Non-Urgent" Case: If the change is not "urgent," then CL&P will file the proposed D&M Plan Change with the Council for review at its next meeting and will delay the construction impacted by the change pending the Council's determination.

Procedure for Council Review of Other Types of Changes to the D&M Plan:

For purposes of reviewing and processing changes to an approved D&M Plan that are not deemed to be "significant", CL&P will categorize the change as one of the following:

Non-significant change: a change to the Project that may reduce the amount of protection to the environment or may increase potential public concerns, but only in a minor or trivial manner.

Positive Change: A change to the Project that increases the amount of protection to the environment or decreases public concerns, having no negative aspects in this regard (that is, positive impacts may not be considered to offset any negative impacts).

Minor Change: A change to a design aspect of a drawing, where the design has no bearing on the environment or potential public concerns.

For "non-significant" and "positive" changes, CL&P will inform Council staff of the change by phone (or telephone message) and will file appropriate documentation with the Council within 24 hours. There will be no "hold" on construction for such non-significant and positive changes.

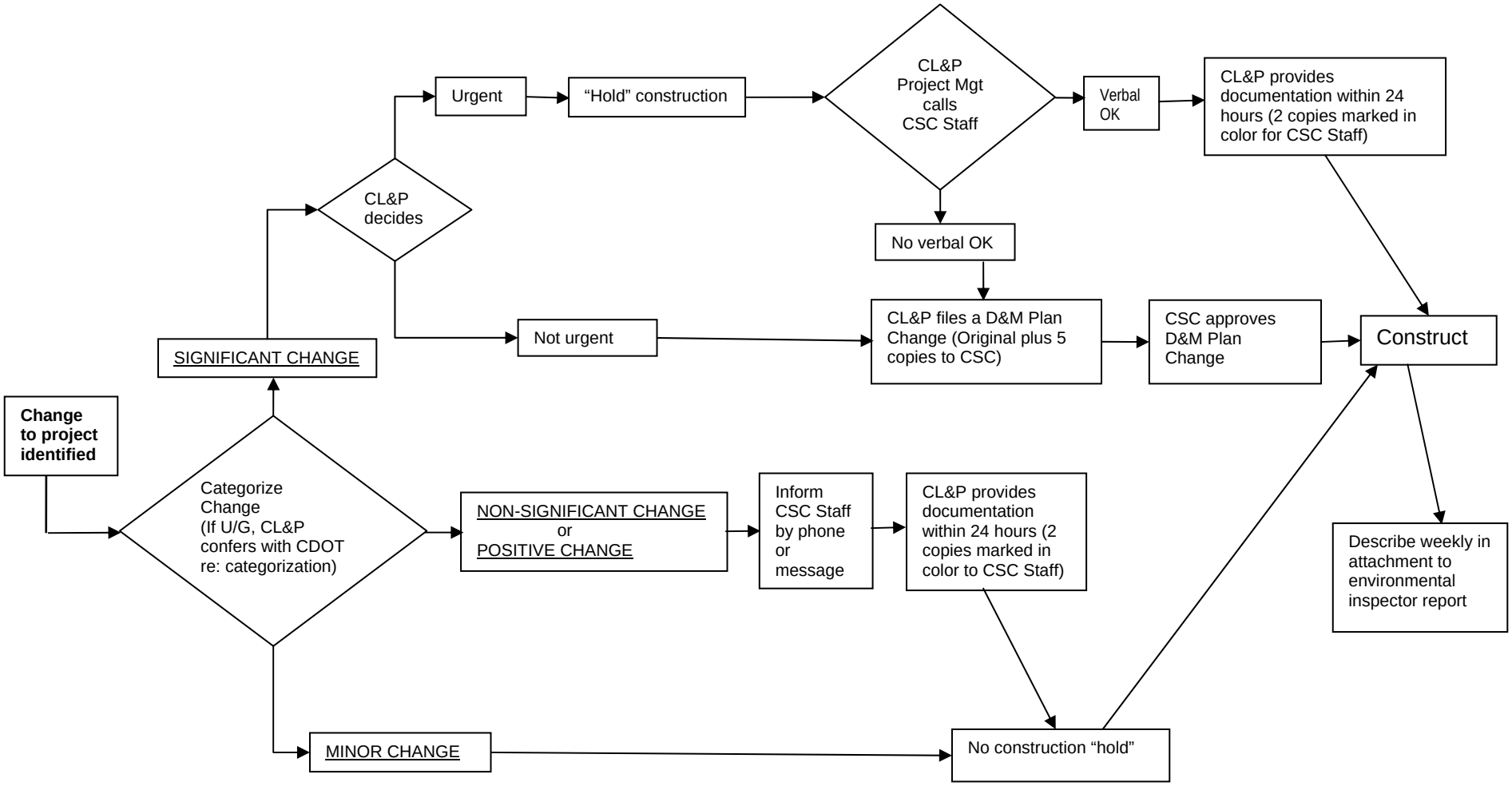
For “minor changes”, there will be no formal notification process prior to proceeding with construction incorporating the change, and the reporting of such changes will occur weekly, as described below.

Weekly Reporting of All Changes to D&M Plans

CL&P will document all D&M Plan changes - significant, non-significant, positive, and minor – in an attachment to the environmental inspector’s weekly report.

Middletown-Norwalk Transmission Project

D&M Plan Change Approval Process



APPENDIX D

DOCUMENTATION OF USE OF ConnDOT ENCROACHMENT PROCESS

APPENDIX D

DOCUMENTATION OF USE OF ConnDOT ENCROACHMENT PROCESS

To be included after agreement is reached with ConnDOT.