

STATE OF CONNECTICUT

DEPARTMENT OF TRANSPORTATION



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Phone: (860) 594-2701

May 23, 2006

Ms. Anne Bartosewicz Middletown - Norwalk Project Director Northeast Utilities Service Company 107 Selden Street Berlin, Connecticut 06037

Dear Ms. Bartosewicz:

Subject: Review Comments

Connecticut Siting Council, Docket No. 272

NU's Submission 345kV Double Circuit Underground Transmission Line Segment 4a (Revised) D & M Plans

(Bridgeport and Fairfield)

The Connecticut Department of Transportation (Department) has reviewed Connecticut Light and Power's revised submission of May 2, 2006, regarding responses to the Department's previously submitted comments for Segment 4a (Bridgeport/Fairfield). We have prepared the attached reply on the status of our comments to the revised submission.

If you have any questions regarding these comments, please contact Mr. Sohrab Afrazi, Transportation Principal Engineer of the Utilities Section, at 860-594-3262.

Very truly yours,

Arthur W. Gruhn, R.E.

Chief Engineer

Bureau of Engineering and Highway Operations

Enclosure

cc: Ms. Pamela Katz, Connecticut Siting Council Mr. John J. Prete, United Illuminating Company

DOCKET 272 SEGMENT 4A (REVISED) NU D & M BRIDGEPORT AND FAIRFIELD MAY 23, 2006

Note: For the purposes of the attached current and future comments, please refer to the legend designating the specific office from which the comment originated.

AG = Attorney General, BD = Bridge Design, BM = Bridge Maintenance, CBD = Consultant Bridge Design, CD = Consultant Design, DC = Construction, EC = Environmental Compliance, EP = Environmental Planning, F = Financial, GS = Graphic Services, H = Hydraulics, HD = Design, L = Lab, M = Maintenance, MS = Miscellaneous, R = Rails, S = Soils, T = Traffic, U = Utilities.

All comments referenced in these comments, numbered 1 through 29 shall carry equal weight, unless it is discovered that there is a conflict between or among any of those requirements. In the case of such a conflict, the comment with the stricter requirements, as determined by the Connecticut Department of Transportation (ConnDOT), will take precedence.

COMMENTS AND RESPONSES 1T THROUGH 29U ARE RELATED TO NU'S REVISED DEVELOPMENT AND MANAGEMENT SUBMISSION DATED MAY 2, 2006.

General

- 1T Please provide written responses specific to each comment and provide answers to all questions.
- 2T Please note that our comments apply to state roadways; however, they should also be considered for the town roadways.
- **3T** Please ensure that all applicable comments submitted previously are addressed for the revised D&M documents.
- **4T** Is there any feasible way to relocate any of the vaults off the roadway or at least shift them into the right lane?
- **5T** If the revised/new vault locations are approved by Department management, please submit all revised and new Maintenance and Protection of Traffic Plans.
- 6T Please ensure that it is specified that all of the vault work shall conform to the hourly lane closure restrictions as specified for the duct bank installation in the Specific Recommendations.
- 7T Please ensure that the steel support system will not be in an area where traffic will be stopping. It appears that some of the vault locations, for example Vault Nos. 6435, 7535, and 7540, are in areas where vehicles will be stopping for traffic signals. Is it feasible to relocate the vaults slightly to avoid this situation?

- **8T** When a sidewalk has to be closed, please show how pedestrians will be detoured or provide a temporary sidewalk and include the appropriate signing. Please include temporary pedestrian curb ramps and pedestrian signal indications as needed. If it is necessary to cross pedestrians to the other side of the roadway, please ensure it is a safe location with adequate sight lines.
- 9T Please include any necessary requirements in the transmission line contract for maintaining and/or relocating traffic signal equipment during construction. Please ensure any necessary work is specified so that the Contractor can bid accordingly.
- 10T The Contractor shall maintain access to all drives. Please include necessary requirements in the transmission line contract.
- 11T Please provide any necessary signing for the relocation of bus stops. Please coordinate with the bus companies.
- **12T** In Volume 3, Section V Recommendations for Maintenance and Protection of Traffic, Vault Installation/Construction, please specify that lane closures on state roadways will only be allowed during the allowable periods when the contractor is actively working.
- 13T In Volume 3, Section V Recommendations for Maintenance and Protection of Traffic, Vault Installation/Construction, for the applicable vaults, please specify that the steel plate system will be used to restore traffic to existing operations at the end of the allowable lane closure period.
- 14T In Volume 3, Section V Recommendations for Maintenance and Protection of Traffic, Vault Installation/Construction, for Vaults 7540 and 6440, it states that left turns from Route 130 to both Fox Street and Gilman Street will be restricted. Where will motorists be detoured? Please include the appropriate signing in the transmission line contract.
- 15T In Volume 3, Section V Recommendations for Maintenance and Protection of Traffic, Vault Installation/Construction, for Vaults 7527 and 6427, it states that a traffic signal span pole and a pedestrian push button are located within the work zone and may require temporary support, relocation, etc. Please specify what work will be necessary and include the appropriate requirements in the transmission line contract so the contractor can bid accordingly. If temporary relocation is necessary, the signal equipment must be re-installed in its original location upon completion of the vault construction. The appropriate details and special provisions for the signal equipment foundations must be obtained from the Department and included in the transmission line contract.
- 16T In Volume 3, Section V Recommendations for Maintenance and Protection of Traffic, Vault Installation/Construction, in many of the sections, it is specified that the contractor will be allowed to maintain one lane in each direction or alternating one-way traffic. It is recommended that this language be revised to state that during the allowable periods when the contractor is actively working, the contractor will be allowed to implement lane closures as allowed in the Specific Recommendations for that section of roadway.

17T In Volume 3, Section V – Recommendations for Maintenance and Protection of Traffic, Vault Installation/Construction, for Vaults 7535 and 6435, it states that left turns from Route 1 westbound to Beach Road will be restricted. Where will motorists be detoured? Please include the appropriate signing in the transmission line contract.

18T In Volume 3, Section V – Recommendations for Maintenance and Protection of Traffic, Vault Installation/Construction, for Vaults 7537 and 6437, please add a statement that lane closures on Route 130 will only be allowed during the allowable periods when the contractor is actively working as allowed in the Specific Recommendations for that section of roadway.

19T On the transmission line plans, please label all state roadways with the appropriate route number.

20DC Vaults #6432 and 7532 were moved into the roadway. It seems that these vaults could be moved to outside of the roadway to minimize impacts to the traveling public.

21DC Vaults #6433 and 7533 should be treated as suggested in item (20DC) above.

22DC Future reconstruction of the drainage culverts between Sta. 607+50 to 609+50 will have to support the 345KV line if it is placed above the culverts.

23R NU must provide written assurance to the Department (and Metro-North Railroad) that for any construction taking place in close proximity, but outside the property limits, of the state-owned New Haven Line rail right of way, the utility company will safeguard the integrity of all rail related structures during construction and agree to be financially responsible for any and all impacts to those structures that can be attributed to said construction (i.e. undermining, erosion, other damage).

24R We understand that NU is preparing an EMI report for the several instances where the proposed 345kV cable is passing under or adjacent to the rail line. This report needs to address the potential impact of the 345kV transmission line on the railroad traction power and communication & signal systems. There has been some exchange of information since the last submission. If NU requires additional rail related information to complete the report, please contact the Office of Rail.

25R It appears that NU was unable to relocate the cable under the railroad in Old Post Road in Southport. We understand the nature of the utility crowding in this road. Should the cable remain in its current location, CDOT and Metro-North will need to approve specific installation details and proposed methods of protecting our bridge before granting access for the work. Sheeting will be restricted due to overhead clearance and vibration concerns. As-built drawings for the structure may or may not be available from Metro-North. Even if they are available, these 100-year-old drawings may not accurately reflect the exact location or nature of the bridge substructure. NU has proposed "non-destructive testing methods (GPR) to locate substructure components." Such methods have had questionable results in the past, but may be useful in determining what further investigation is required.

26R As noted in their response to our previous comment, NU has encountered the same crowding of utilities in Railroad Avenue (Bridgeport) as found in Southport. As noted above, we are concerned with maintaining the structural integrity of our 100-year-old retaining walls supporting the elevated railroad. NU plans to install its duct adjacent to the retaining wall footing for about 1.5 miles. In some instances, the separation may be a matter of inches. The retaining wall (built in the 1890's) is made up of a series of stone blocks held together by gravity. These walls have served the railroad well over the years. The excavation of this compact, supportive soil and vibrations from normal construction activities will introduce unusual stresses along the 1.5 miles of wall, rarely experienced over the past 100 years. Prior to permitting the utility access to this area for its installation, CDOT and Metro-North shall both approve specific installation methods and proposed methods of protecting the railroad retaining structure. It is paramount that NU provide the expertise required to address this matter to our satisfaction. This should include the services of a Connecticut licensed professional engineer experienced with soils & foundations matters.

27R CDOT plans to bid the Section C1b Catenary Replacement Project later this year. We will begin construction early in 2007. This project involves the replacement of catenary wire and several bridge structures between the Westport/Fairfield Town Line and the Bridgeport Rail Station.

- NU's installation will impact 2 of our bridge replacement sites.
- NU's installation may interfere with access to our waste stockpile area (WSA) located under the I-95 highway bridge at Iranistan Avenue.
- NU's installation may impact the proposed detour and work required to replace the railroad bridge at South Avenue. Vaults are proposed at this location. We have been in contact with Daniel Garstka regarding potential scheduling impacts. He was not aware of the South Avenue construction work. CDOT will forward Mr. Garstka a copy of the 90% submission when available (expected soon).
- There will be construction activity at the Fairfield Avenue Railroad Bridge. This work initially involves the lowering of the roadway and the eventual replacement of the superstructure. These activities will require waste material to be delivered to the WSA using Railroad Avenue, as well as reworking the grades for the I-95 ramp at the corner of the bridge, all within the path of the proposed 345kV line.
- The C1b project is very complex and critical to future rail operations. The schedule has very little room to maneuver, let alone allow for any delays cause by outside contractors. In addition, any C1b schedule alterations will compromise the contract liquidated damage language which has been tied to the schedule.
- The proposed C1b work has been scheduled as a series of phases, utilizing long-term one and two-track outages along the length of the project. Conflicts will develop if the NU contractor prevents the C1b contractor from working on Track 4 (the southern-most track).
- As NU's design is development, CDOT will need to sit down with NU to further coordinate the execution of both these contracts.

28R It is obvious that the Office of Rail feels that NU's proposed location of its 345kV duct work in Railroad Avenue is possibly the worst location for the cable. We strongly suggest that the utility rethink this option. Otherwise, this office will need all of the assurances that NU can muster to competently address and resolve our numerous safety concerns.

29U In Volume I, Section 2.3 (Land Ownership), the number of vaults with respective locations does not agree with the D & M plan submittal. Ten vaults are shown on private/municipal property, two vaults are shown on State ROW non-travelway, thirteen vaults are on State ROW in the travelway, and three vaults are located on private/municipal and State ROW. Please verify.