



**Northeast
Utilities System**

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February 14, 2006

Ms. Pamela B. Katz
Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Docket No. 272 D&M Plans - Segment 1a

Dear Ms. Katz:

This letter provides the response to requests for the information listed below.

Response to CSC-03 Interrogatories dated 01/31/2006

D&M - 001 , 002 , 003 , 004 , 005 * , 006 , 007 , 008 , 009 , 010 , 011 , 012 , 013 , 014 , 015 , 016 , 017 ,
019 , 020 , 022 , 024 , 027

Very truly yours,

Anne Bartosewicz
Project Director
Transmission Business
NUSCO
As Agent for CL&P

AB/tms
cc: Service List

* Due to the bulk nature of this material, copies are being provided to the CSC only.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-001
Page 1 of 1**

**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Provide right-of-way profile containing structure numbers 9411, 6391, 24461 and 24412 looking south of East Meriden Substation.

Response:

Please see the response to D&M Plan Data Request CSC-03, Q-D&M-005, which provides plan and profile drawings. Plan and Profile drawing numbers 01226-10002 and 01226-10004 show structure 9411, drawing number 01227-10004 shows structure 6391, drawing number 01015-10002 shows structure 24461, and drawing number 01227-10002 shows structure 24412.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-002
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

At East Meriden Substation, could structure number 9411 be moved 100 feet north or as an alternative another structure used to tie into the substation from the west?

Response:

No. The line dead-end structure at East Meriden Substation, which the 115-kV line span from Structure #9411, faces to the south. The conductor takeoff angle from this dead-end structure, as proposed, is approximately 22 degrees from perpendicular and is approximately on the same alignment as the present line-span entrance. Moving structure number 9411 to the north by 100 feet would increase the conductor takeoff angle to approximately 37 degrees, increasing the loading on the existing structure and reducing the conductor clearances. These changes would require a redesign of East Meriden substation, including a requirement for a larger footprint for the site to accommodate the design changes. Entrance into the substation from the west is not possible without significantly modifying the arrangement of virtually the entire substation.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-003
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Is the height of structure numbers 24456 and 24455 driven by the span over open water? Provide standard and actual mid-span clearance between these structures.

Response:

Yes, the heights of structure numbers 24456 and 24455 are driven by the 345-kV conductor span over open water and required clearances between the conductors in this span and the water surface. To achieve the NU minimum standard conductor clearance to ground requirement of 29 feet at the maximum allowable conductor temperature, structures 24455 and 24456 are required to be 195 feet tall. Please see the response to D&M Plans Data Request CSC-03, Q-D&M-005, drawing number 01226-10001 for the span profile.

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Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-004
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Describe extent of disturbance and possible mitigation for stone walls that would be dismantled for access or foundation construction.

Response:

At locations where stone walls on the right-of-way do not already have an access opening, approximately 20 linear feet of the stone wall would be dismantled to permit right-of way access by heavy construction equipment. The portion of the wall that would be dismantled would be reassembled after construction.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-005
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Provide profile plan for segment 1a, including topography and station locations.

Response:

Attached as bulk* are the plan and profile drawings for Segment 1a - drawing numbers 01225-10001 through 10010, 01227-10001 through 10004, 01015-10001 through 10003, 01226-10001 through 10004 and 01228-10001 through 10004.

These plan and profile drawings include three changes that have occurred since the December, 2005 filing of the Segment 1a D&M Plan.

First, as a result of the settlement with the Wilson appellants, the location where the east side of the Royal Oak Bypass meets the existing right of way has shifted one span to the west. This change is shown on plan and profile drawings 01225-10005, 01225-10008 and 01225-10009.

Second, structures 24503 A and B at the top of Beseck Mountain have shifted 60 feet east to facilitate construction (with an increase in height of 10 feet). This change is shown on plan and profile drawing 01225-10001.

Third, structures 24472 and 9400A at Black Pond Junction have shifted 30 feet south to facilitate construction. This change is shown on plan and profile drawings 01015-10003 and 01226-10003.

* Due to the bulk nature of this material, copies are being provided to the CSC only.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-006
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:
Provide dimensions for structure side arms and insulators.

Response:
Please see the response to D&M Plans Data Request CSC-03, Q-D&M-005, specifically to cross-section drawings Figure 1 LEMF w/ Dimensions, Figure 2 LEMF w/ Dimensions, Figure 3 LEMFB w/ Dimensions, Figure 3 w/ Dimensions and Figure 4 w/ Dimensions for structure aide arm and insulator dimensions.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-007
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Provide a profile of the right-of-way and structures east of Little Lane, Durham.

Response:

Please see the response to D&M Plans Data Request CSC-03, Q-D&M-005, plan/profile drawing numbers 01225-10008 and 01225-10009.

**The Connecticut Light and Power Company
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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-008
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Provide a profile of the right-of-way and structures looking west from a location west of structure 24541.

Response:

Please see the response to D&M Plans Data Request CSC-03, Q-D&M-005, plan/profile drawing numbers 01225-10008 and 01225-10009.

**The Connecticut Light and Power Company
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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-009
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Can any pole with heights between 85 feet and 195 feet be made of weathered steel? If not, explain.

Response:

Yes.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-010
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Identify source of information that states residue from weathered-steel may be of concern in proximity of wetlands. Would this not be a concern in general? Explain.

Response:

CL&P knows of no source of information which states that residue from weathered steel is an environmental concern, especially in proximity to wetlands. Any residue from weathered steel would consist of minute amounts of naturally-occurring oxides, most of which would be absorbed by the surface of the concrete foundations. The only general concern might be a discoloration of the concrete foundation.

Please note, the Company's November 15, 2005 letter to the Town of Durham, Appendix A (see Appendix B of the D&M Plan), incorrectly stated that galvanized steel structures would be used in wetlands to prevent the residue from weathering steel from entering wetlands. As Durham requested, the finish on structures through Durham will be weathered steel.

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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-011
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Identify maximum and minimum spans and associated structure numbers and heights.

Response:

The maximum and minimum spans for each segment are as follows:

Scovill Rock S/S-Chestnut Junction:

Minimum: 214' from structure 24610 to 24611

Maximum: 956' from structure 24619 to 19084

Black Pond Junction-Beseck S/S:

Minimum: 170' from structure 9400 to 9400A

Maximum: 1345' from structure 24455 to 24456

Oxbow Junction-Beseck S/S:

Minimum: 187' from structure 24500 to 24501

Maximum: 1845' from structure 24502 to 24503

**The Connecticut Light and Power Company
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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-012
Page 1 of 1**

**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Could an access road be adjusted to follow upland areas north of wetland between structure 24519 and 24520.

Response:

No. Moving the proposed access to the north would cause impacts to the developed and playable 16th hole (Jones Course) at Lyman Meadows Golf Club. The proposed access is located in an "out of bounds" area where the project will have minimal disturbance to golf course users. This area is grassy (wet meadow) and mowed as part of golf course maintenance. It has minimal habitat value, and has been used for transmission access in the past. The Company has committed to Lyman Orchards that construction in this area will be performed during the winter in order to minimize the impact of construction on their business. The wetland will be protected utilizing methods that are appropriate for the conditions such as construction mats or temporary wood slab and gravel access ways.

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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-013
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Would CL&P use existing access roads in the Royal Oak area between structure nos. 3583 and 3576? If yes, describe activity necessary for access and any necessary improvements

Response:

The existing access road between structures 3583 and 3579 will not be used, with one minor exception. Just east of Black Walnut Drive, the 1975 Line is physically bundled together at the 3-pole tap structures 3578 1/2 and 4497 1/2. Approximately 250 feet of the access road will be utilized to remove the taps on each phase, which is required to support the re-construction of the 1975 Line from Oxbow Road Junction to Beseck Switching Station.

The existing access road east of structure 3579 will be utilized to gain access to construct the 345-kV line in the Royal Oak Bypass and construct the 345/115-kV composite line easterl along th exsiting right-of-way.

The existing access road will be cleared of shrubs and vegetation that encroach the accessway. Crushed stone may be placed along the access road for filling and grading in order to allow safe passage for construction vehicles.

**The Connecticut Light and Power Company
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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-014
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Would CL&P remove and replace 115-kV conductors in the Royal Oak area? If not, could the existing conductor be spliced with the new and larger conductor? Would this splice be in compliance with the National Electric Code? If yes, are the existing structures in the Royal Oak area capable of supporting the new and larger conductor?

Response:

CL&P does not plan to remove and replace the 115-kV line conductors in the Royal Oak area. The existing line conductors in the Royal Oak area will be connected via splices to the new, larger conductors being used on either side of the Royal Oak neighborhood. The new transmission line sections will be designed to meet all requirements of the National Electrical Safety Code, 2002 edition. The existing structures in the Royal Oak area are not capable of supporting the new, larger conductors at their design tensions while meeting all requirements of this Safety Code.

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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-015
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Provide profile and existing and proposed heights for structure numbers 3583 and 3576. Could laminated wood poles be used in place of steel? If not explain.

Response:

Please see the response to D&M Plans Data Request CSC-03, Q-D&M-005, plan/profile drawing number 01225-10008. The proposed heights of structure numbers 3583 and 3576 are 65 feet and 70 feet, respectively. Laminated wood structures could be used, but that would require an increase in the number of structures at this location and would add guys to the structures in the wetland area at Little Lane. These two structures are designed as full line dead-end structures due to the different size conductors and conductor tensions on each side of the structure. To reduce the number of poles (3 wood versus 2 steel) and eliminate the need for guys in the wetland area at Little Lane, self-supporting steel poles are proposed. Because both ends of the bypass are essentially the same, the design is the same for both ends.

**The Connecticut Light and Power Company
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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-016
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Does CL&P propose to cross the NY NH & H Railroad Company right-of-way adjacent to structure no. 24514? If so, describe manner and method.

Response:

Yes. The proposed crossing will be an aerial crossing utilizing suspension structures on both sides.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-017
Page 1 of 1**

**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Is the proposed 345-kV line located on the south side of the structure? If yes, how would the 345-kV line deviate north at Royal Oak crossing the 115-kV line?

Response:

Yes, the proposed 345-kV line will be located on the south side of the structures to either side of Royal Oak. The 115-kV line will transition on each side to a horizontally configured structure to tie into the existing lines of H-frame structures in Royal Oak, and the 345-kV line will turn and cross over the 115-kV line.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-019
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Could construction of new structures and/or removal of existing structures be done when areas are expected to be dry or frozen at the following structure locations:

24501
from 24506 to 24508
24529 (seven structures)
from 24465 to 24468

4534
from 24519 to 24522
24553

Response:

Yes, new structures and/or removal of existing structures can be done when the areas listed are expected to be dry or frozen. There are also construction practices that allow construction in these types of areas with little disturbance year round.

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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-020
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Does the access road off Haddam Quarter Road to structure nos. 24556 and 24557 require improvements? If yes describe extent of improvements including width and length.

Response:

Yes, minor improvements are required for the access road off Haddam Quarter Road. The length and width of the access road will not change but overgrown trees and brush will have to be cut back to open the road to its original width. Additionally, due to erosion and lack of use, a dozer will be used to scrape the access road to fill in holes and ruts in the road.

**The Connecticut Light and Power Company
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**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-022
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

What is the special concern area (R.O.W.) north and west of Oxbow Junction? Would the proposed construction affect this area?

Response:

The Town of Haddam's Plan of Development considers any electric transmission line right-of-way an "Area of Special Concern" (see Volume 9, Segment 4 face page). The Project will not affect this ROW corridor.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-024
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Did the residents along this segment view and comment on the same drawings as those filed with the Council? Clarify discrepancy of the structure numbers identified in a letter to Mary Anne Boord from Anne Bartosowicz dated November 15, 2005 Appendix A and the D&M Plan for segment 1a submitted December 22, 2005. (structure numbers used by residents do not correspond with D&M plan)

Response:

Residents of the Town of Durham were shown a draft set of plan and profile drawings at the August 17, 2005 public meeting. The resident information summarized in the November 15th letter to First Selectwoman Boord (see Appendix B of the Segment 1a D&M Plan) was based on comments received at the meeting and correspondence from the Town of Durham dated September 7, 2005. The Company incorporated residential requests, along with final design details, in the draft Segment 1a D&M Plan that was provided to the Town of Durham one month prior to the CSC filing. Due to the design revisions that were incorporated following the residential meetings, structure numbers, number of structures and structure heights in portions of segment 1a were modified. The November 17th letter to Mary Anne Boord referenced the version of drawings that was used for the resident review for ease of the Municipality's review.

**The Connecticut Light and Power Company
Docket No. D&M Plans**

**Data Request CSC-03
Dated: 01/31/2006
Q- D&M-027
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**Witness: NO WITNESS
Request from: Connecticut Siting Council**

Question:

Would CL&P honor requests for landscaping at the base of structures? If yes, identify structure number and type of vegetation to be planted. If not, what criteria would CL&P provide to property owners that may landscape at the base of structures?

Response:

CL&P does not typically landscape at the base of structures along the right-of way. CL&P also limits private landscaping at the bases of structures and guys to grass, forbs or small shrubs (mature heights less than 3 feet). Landscaping is restricted within 25 feet of all structures and within 5 feet of guys to permit access for routine inspection and maintenance. Criteria for landowners who want to landscape outside of these restricted zones are that access along the right-of-way and to the structures not be impeded, the plantings when mature must not exceed certain heights depending on where they are located within the right-of-way, and the landowner would have to sign an agreement letter. Mature shrubs and ornamental plantings within a zone directly beneath the conductors at standstill cannot exceed a height of 8 feet; plantings outside the conductor zone but within the right-of-way must not exceed 15 feet in height.