

## **APPENDICES**

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**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. Forging 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**

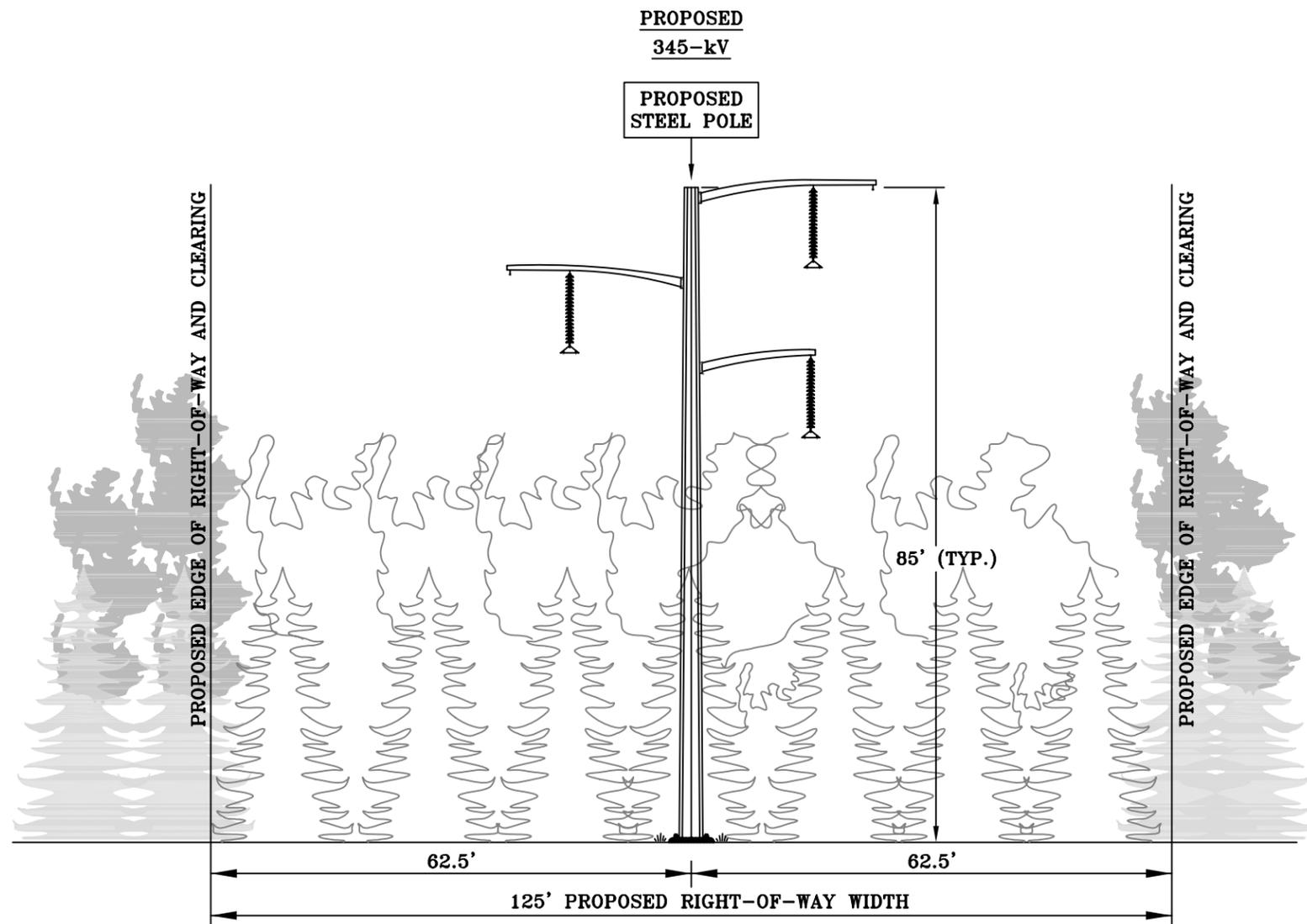
### **DRAWINGS**

**Exhibit 2-1 – Cross Section**

**Exhibit 2-2 – Plan view**

**Exhibit 2-3 – Typical Foundations**

**Exhibit 2-4 – Erosion Control Details**



ROYAL OAK BYPASS  
 LOOKING NORTHWEST  
 FROM EAST OF ROYAL OAK TO LITTLE LANE  
 IN THE TOWN OF MIDDLEFIELD  
 AND THE CITY OF MIDDLETOWN

NOTE: SEE INDEX MAP FOR  
 LOCATION OF CROSS SECTION  
 CSC DECISION CONFIGURATION

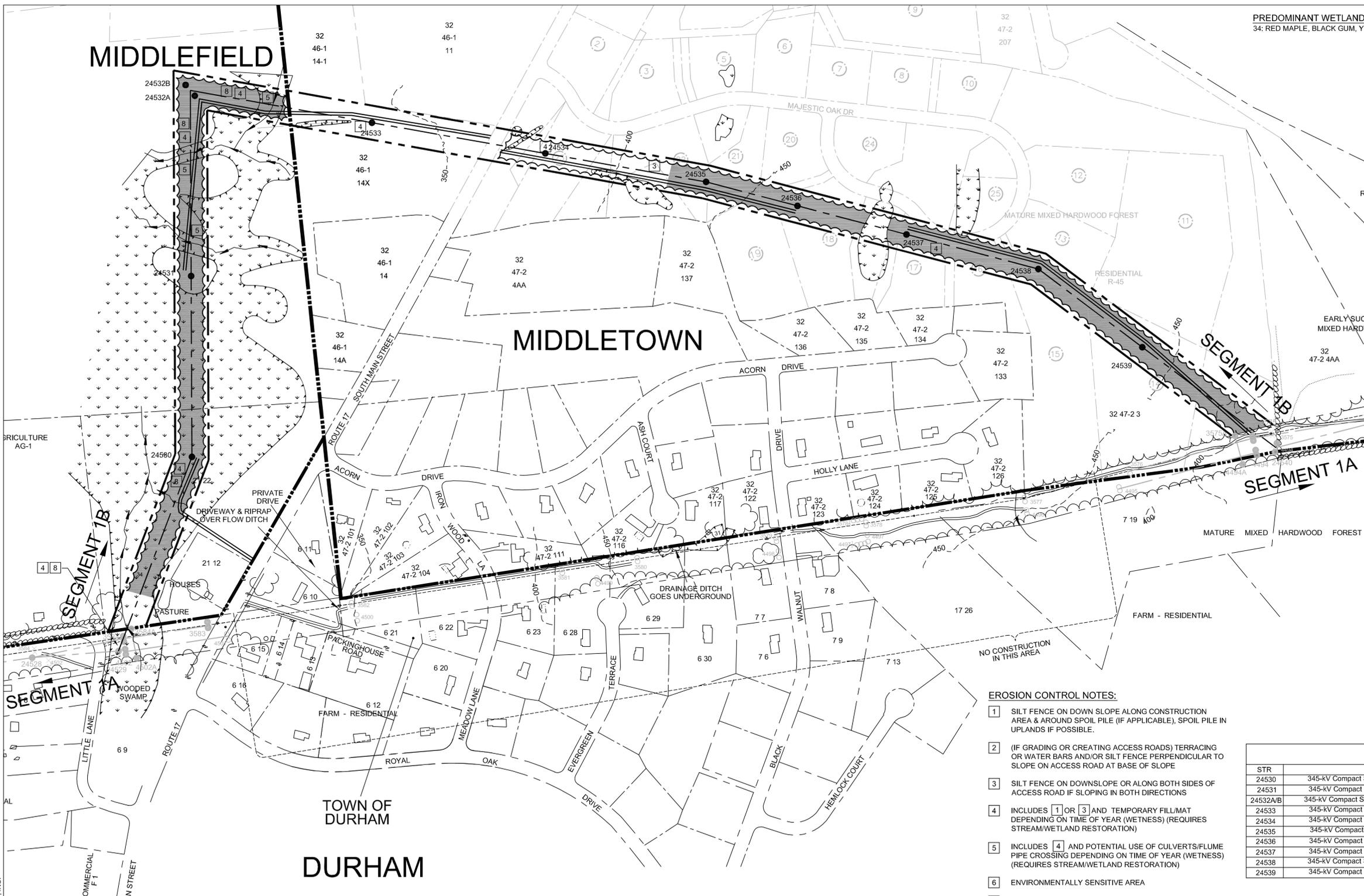


TITLE  
 TYPICAL CROSS SECTION  
 MIDDLETOWN - NORWALK  
 345-kV TRANSMISSION LINE

BY	JMH - B&McD	CHKD		APP	APP
DATE	04/2005	DATE		DATE	DATE
SCALE	N.T.S.	MICROFILM DATE		DWG. NO.	
P.A. #				EXHIBIT 2-1	

N: \NUSCO\38565\Cadd\OH-D-M\_PLAN\Segment\_1b\CrossSectionIndex\_Cross.dwg (SEG-1) 02-21-2006 11:29 JPB BMMGD

PREDOMINANT WETLAND VEGETATION  
34: RED MAPLE, BLACK GUM, YELLOW POPLAR, YELLOW BIRCH, ASH, ELM, BEECH



Line List Number	Owner Name (Now or Formerly)	Assess. Parcel Number
119	Morrow, Mark Edward	21 23
120	Hicks, Norman W. and Charlene S.	06 08
122	Moss, John T, Estate of C/O Moss Carol W. Executrix	06 09
124	Moss, John T, Estate of C/O Moss Carol W. Executrix	21 22
124.01	Middletown Water Co.	18 18
125	Moss, John T & Katherine A	21 12
126	Boscarino, Nancy Trustee Etals of C & S & M Boscarino Trust	18 17
127	Boscarino, Nancy Trustee Etals	32 46 1 14-1
128	Scirpo, Sebastian & Kathleen J.	32 46 1-11
129	Hamden Greenhouse LLC	32 46 1 14-X
131	Wilson, Linda D. (1/2) Int. & Wilson, Ralph E As. Trustee (1/2 Int.)	32 47 2-3
131.01	Wilson, Linda D. (1/2) Int. & Wilson, Ralph E As. Trustee (1/2 Int.)	7 19
160	Griffin, William F. Jr.	18 10
161	Barone, Al J. & Cynthia A.	32 47 2-4AA
131.01	Charles M. & Gloria A. Renna	32 47 2-4AA
131.02	Patricia A. Tucker	32 47 2-137
131.03	Vanphung & Marian N. Phan	32 47 2-136
131.04	Gregory A. & Claudia Horn	32 47 2-135
131.05	Rueben & Carmen Rivera	32 47 2-134
131.06	Joan Milas Bohan	32 47 2-133
130.10	Patricia Mahoney	32 47 2-126
130.11	Russel B. Jr. & Dianne D. Lennon	32 47 2-125
130.12	Steve & Michelle Gaudreau	32 47 2-124
130.13	Mark Stouffer	32 47 2-123
130.14	Pietruska, Walter & Gertrud, Trustees	07 08
130.15	Berten, Elizabeth	17 26



UPLAND RIGHT-OF-WAY VEGETATION  
PREDOMINANT: MAPLES, OAKS, HICKORIES, RED CEDAR, PINE.

- EROSION CONTROL NOTES:**
- 1 SILT FENCE ON DOWN SLOPE ALONG CONSTRUCTION AREA & AROUND SPOIL PILE (IF APPLICABLE), SPOIL PILE IN UPLANDS IF POSSIBLE.
  - 2 (IF GRADING OR CREATING ACCESS ROADS) TERRACING OR WATER BARS AND/OR SILT FENCE PERPENDICULAR TO SLOPE ON ACCESS ROAD AT BASE OF SLOPE
  - 3 SILT FENCE ON DOWNSLOPE OR ALONG BOTH SIDES OF ACCESS ROAD IF SLOPING IN BOTH DIRECTIONS
  - 4 INCLUDES 1 OR 3 AND TEMPORARY FILL/MAT DEPENDING ON TIME OF YEAR (WETNESS) (REQUIRES STREAM/WETLAND RESTORATION)
  - 5 INCLUDES 4 AND POTENTIAL USE OF CULVERTS/FLUME PIPE CROSSING DEPENDING ON TIME OF YEAR (WETNESS) (REQUIRES STREAM/WETLAND RESTORATION)
  - 6 ENVIRONMENTALLY SENSITIVE AREA
  - 7 RESTRICTED ACCESS
  - 8 TREE CLEARING REQUIRED (CUT OFF AT BASE & KEEP ROOT SYSTEM INTACT)
  - 9 PERMANENT FILL REQUIRED (STONE OR WOOD SLAB BASE)

STR	DESCRIPTION	HEIGHT	FINISH	FOUNDATION
24530	345-kV Compact Single Circuit Delta Angle (20-30 deg)	110	WEATHERING	84" DIA DRILLED SHAFT
24531	345-kV Compact Single Circuit Tangent Delta (0-2 deg)	110	WEATHERING	84" DIA DRILLED SHAFT
24532A/B	345-kV Compact Single Ckt Delta Deadend (100-110 deg)	120	WEATHERING	96" DIA DRILLED SHAFT
24533	345-kV Compact Single Circuit Tangent Delta (0-2 deg)	110	WEATHERING	84" DIA DRILLED SHAFT
24534	345-kV Compact Single Circuit Tangent Delta (0-2 deg)	100	WEATHERING	84" DIA DRILLED SHAFT
24535	345-kV Compact Single Circuit Delta Angle (0-10 deg)	80	WEATHERING	84" DIA DRILLED SHAFT
24536	345-kV Compact Single Circuit Tangent Delta (0-2 deg)	75	WEATHERING	84" DIA DRILLED SHAFT
24537	345-kV Compact Single Circuit Tangent Delta (0-2 deg)	90	WEATHERING	84" DIA DRILLED SHAFT
24538	345-kV Compact Single Circuit Delta Angle (20-30 deg)	85	WEATHERING	84" DIA DRILLED SHAFT
24539	345-kV Compact Single Circuit Tangent Delta (0-2 deg)	105	WEATHERING	84" DIA DRILLED SHAFT

UPLAND RIGHT-OF-WAY VEGETATION  
PREDOMINANT: RED MAPLE  
COMMON: BLACK GUM, YELLOW POPLAR, YELLOW BIRCH, ASH, ELM, BEECH



**LEGEND**

- |  |                              |  |  |  |                       |  |  |
|--|------------------------------|--|--|--|-----------------------|--|--|
|  | SELECTIVE CLEARING AREAS     |  | NEW STRUCTURE CENTERLINE                         |  | TRAIL                 |  | EXISTING ACCESS ROAD                         |
|  | EDGE OF PROPOSED CLEARING    |  | MONUMENT CENTERLINE                              |  | CONTOUR LINE          |  | TEMPORARY ACCESS ROAD (APPROXIMATE LOCATION) |
|  | EDGE OF EXISTING CLEARING    |  | EXISTING WORKING EDGE OF R.O.W.                  |  | PROPERTY LINE         |  | PROPOSED ACCESS ROAD (APPROXIMATE LOCATION)  |
|  | FENCE                        |  | PROPOSED EDGE OF R.O.W. (INCLUDING WORKING EDGE) |  | CL&P PROPERTY LINE    |  | TOWN LINE                                    |
|  | NEW POLE                     |  | WETLAND AREA                                     |  | STREAM FLOW DIRECTION |  | STONE WALL                                   |
|  | EXISTING POLE TO BE REMOVED  |  | WETLAND BOUNDARY                                 |  | EXISTING CULVERT      |  | UTILITY POLE                                 |
|  | EXISTING POLE TO REMAIN      |  |  |  | MARKETABLE TIMBER     |  | R.O.W. GATE                                  |
|  | EXISTING TOWER TO BE REMOVED |  |  |  |                       |  |  |
|  | EXISTING TOWER TO REMAIN     |  |  |  |                       |  |  |



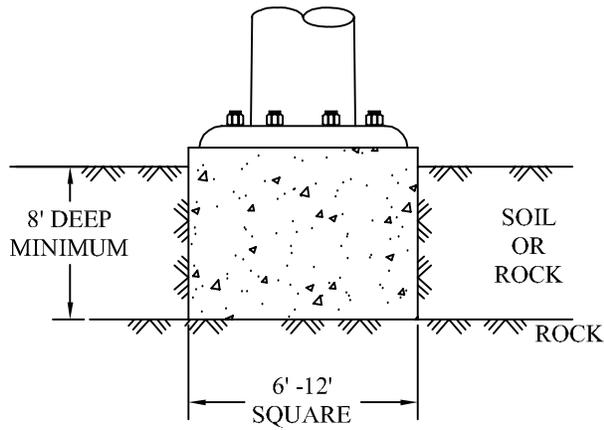
38565  
date FEBRUARY 16, 2006 detailed J. BOYER  
designed J. BOYER checked J. HOGAN

NO.	DATE	REVISIONS	BY	CHK	APP	APP
5	6/09/06	REVISED ROYAL OAKS ROW, STIRS, ACCESS ROADS & STR TABLE, REISSUED TO CSC	JPB	JMH		
4	5/10/06	ISSUED TO CSC	JPB	JMH		
3	4/21/06	ISSUED FOR TOWN REVIEW	JPB	JMH		
2	4/17/06	ISSUED FOR PROPERTY OWNER REVIEW	JPB	JMH		
1	3/15/06	ISSUED FOR FIRST NU REVIEW	JPB	JJW		

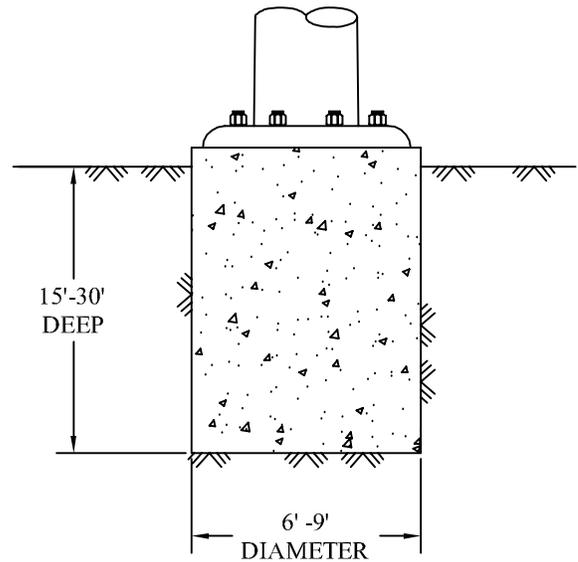
**NORTHEAST UTILITIES SERVICE CO.**  
FOR THE CONNECTICUT LIGHT & POWER CO.  
TITLE BESECK S/S - OXBOW JCT 345/115KV LINE  
DEVELOPMENT & MANAGEMENT PLAN  
SEGMENT 1B

BY MEC - BMCD	CHKD -	APP -	APP -
DATE AUG 2005	DATE -	DATE -	DATE -
SCALE 1"=200'	D	DWG. NO.	EXHIBIT 2-2

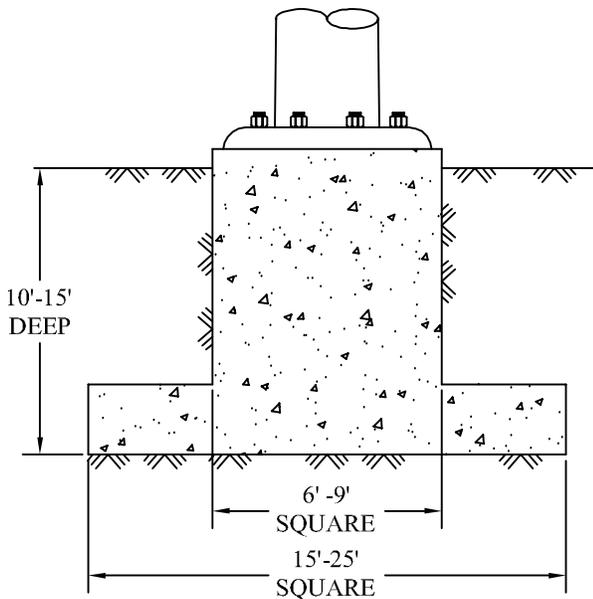
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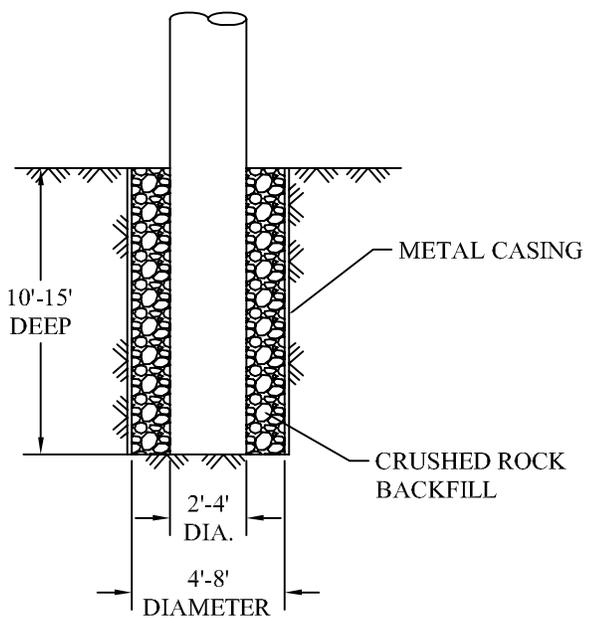
TYPICAL ROCK FOUNDATION FOR STEEL POLE



TYPICAL CAISSON FOUNDATION FOR STEEL POLE



TYPICAL PAD & PIER FOR STEEL POLE

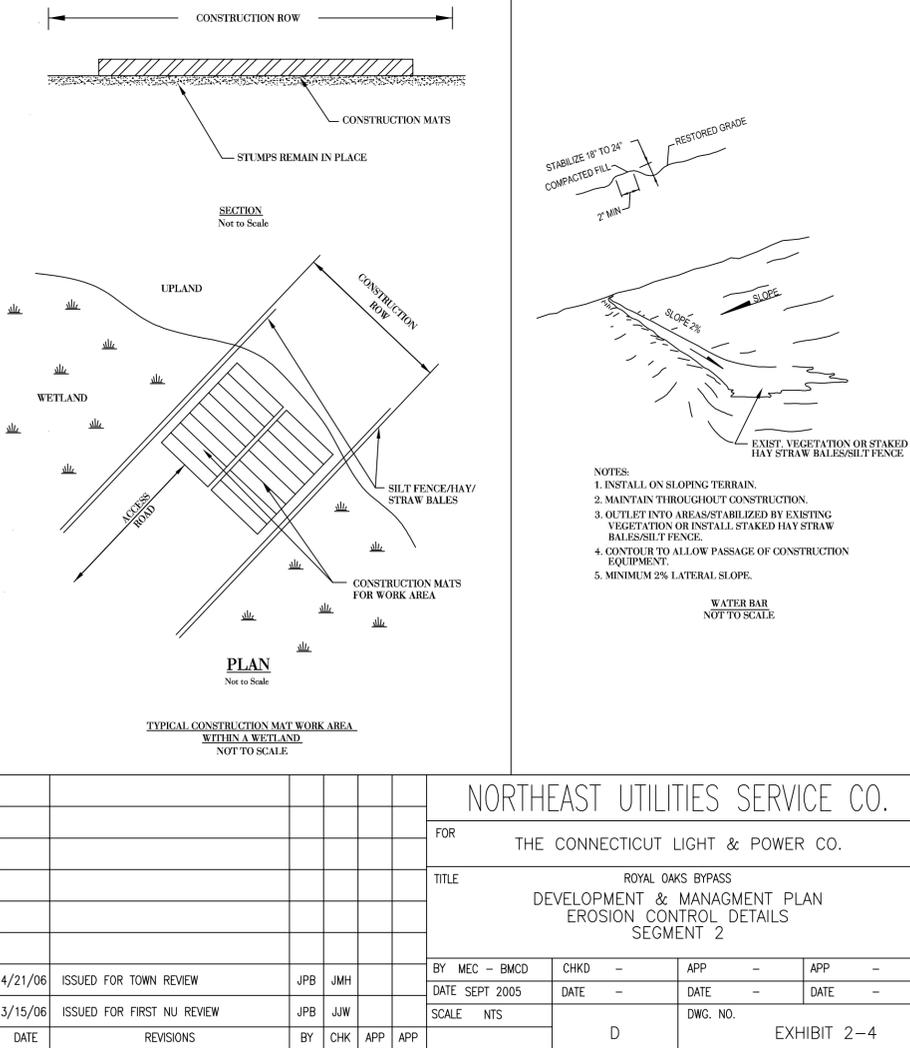
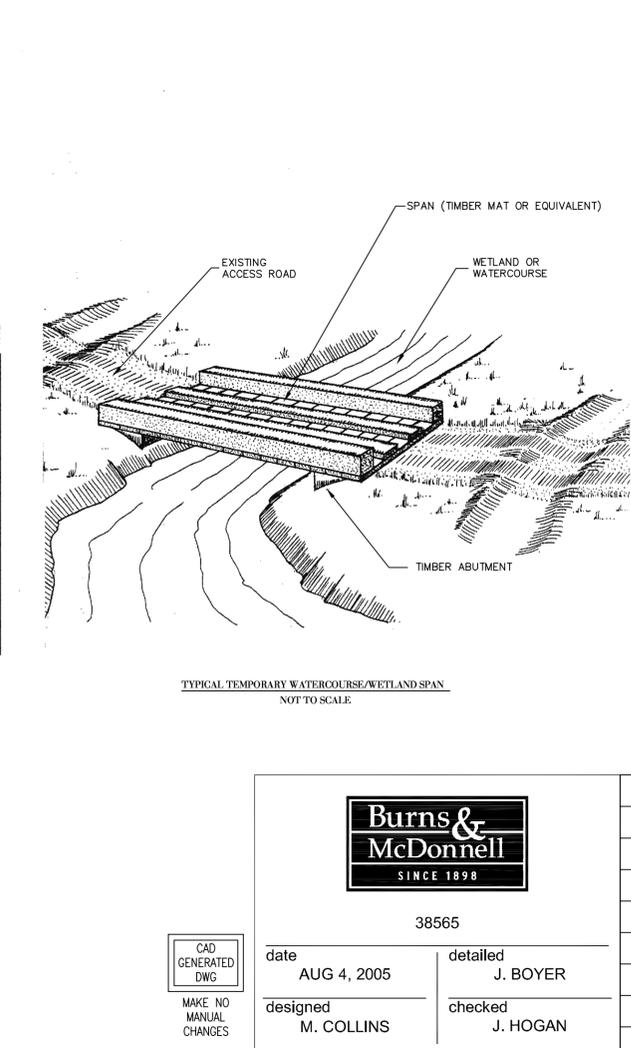
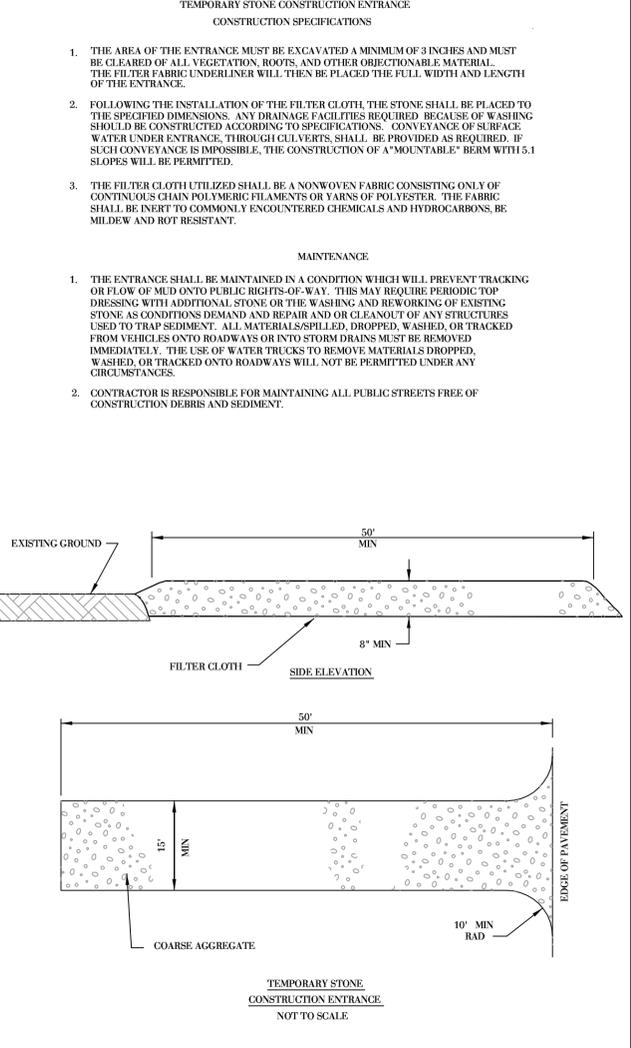
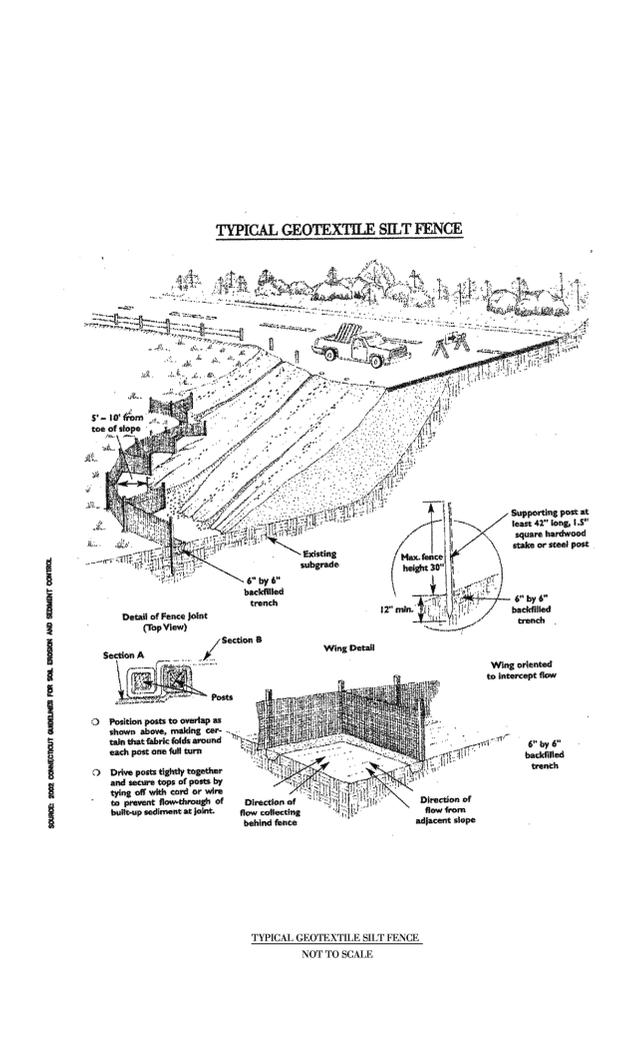
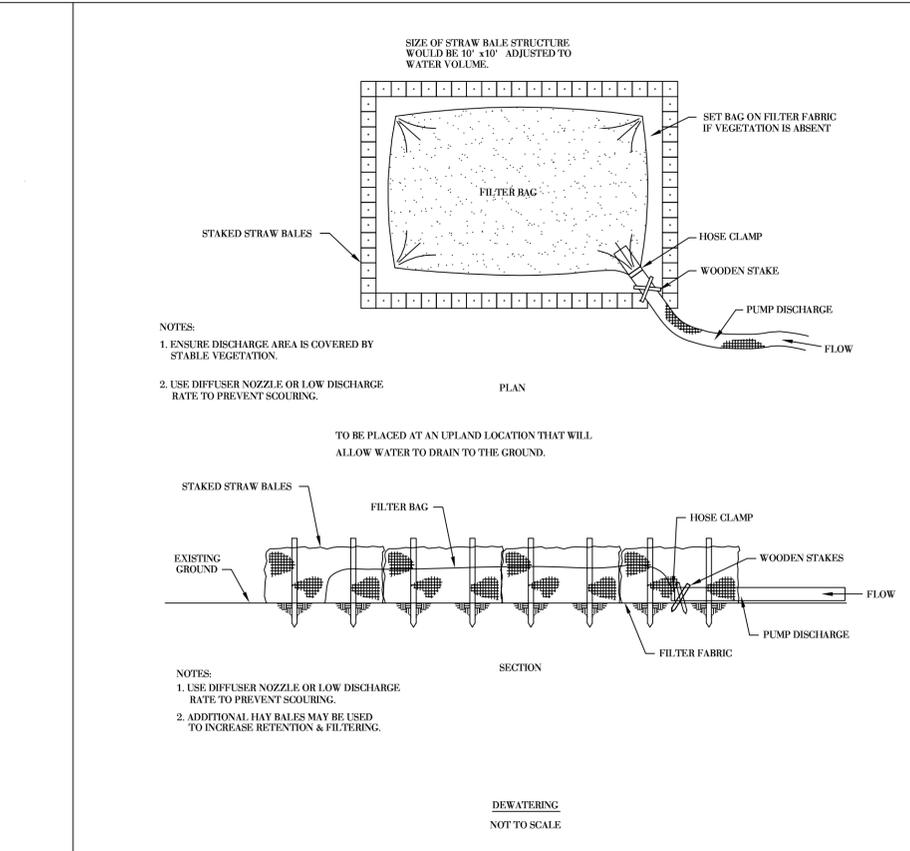
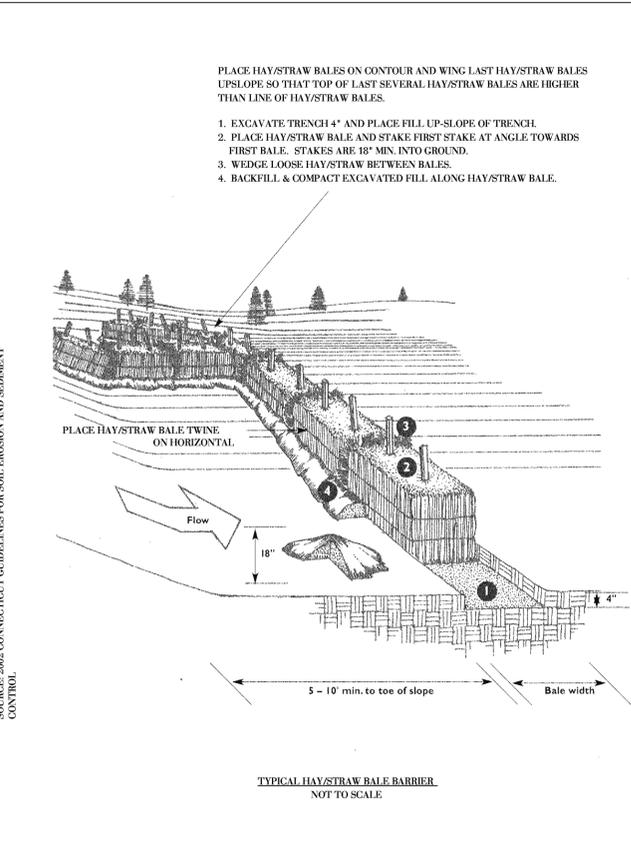
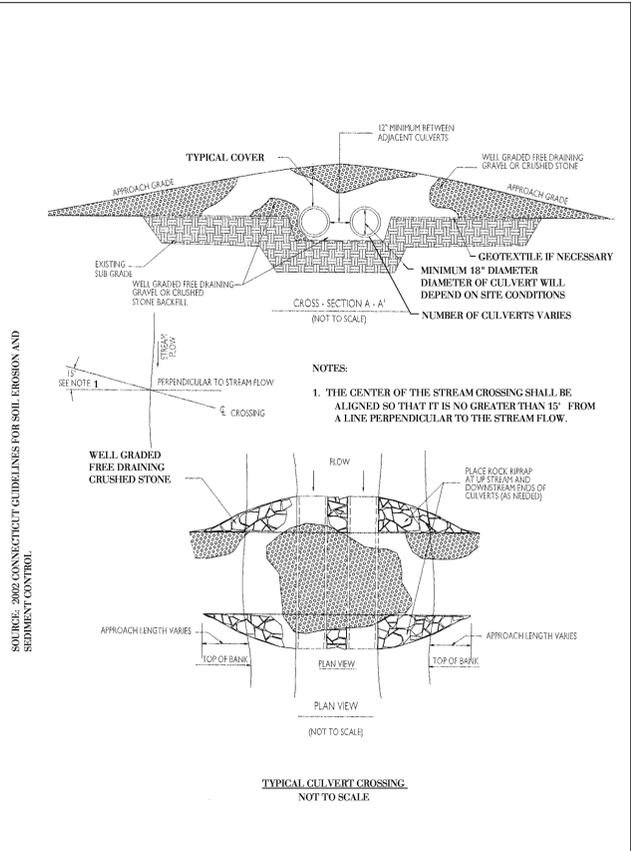
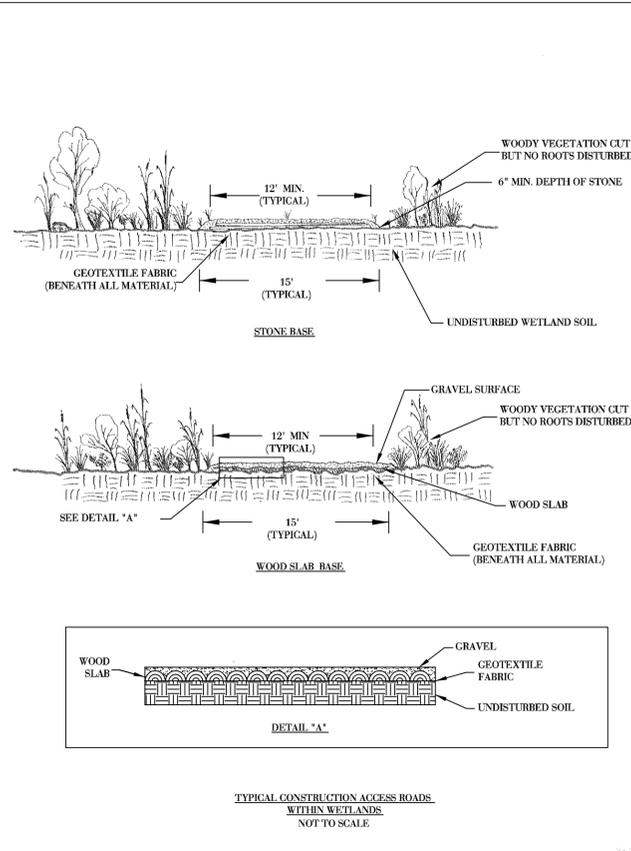


TYPICAL CAISSON FOUNDATION FOR EMBEDDED STEEL OR WOOD POLE

NOTES:

DIMENSION RANGES COVER MOST 115kV AND 345kV SITUATIONS. HOWEVER, LARGER AND SMALLER SIZES MAY BE NECESSARY DEPENDING UPON STRUCTURE LOADING AND SOIL CONDITIONS.

	<b>NORTHEAST UTILITIES SERVICE CO.</b>			
	FOR <b>THE CONNECTICUT LIGHT &amp; POWER COMPANY</b> BERLIN, CONNECTICUT			
TITLE				
<b>TYPICAL FOUNDATIONS</b>				
BY	<b>RDG</b>	CHKD	APP	<b>DEH</b>
DATE	<b>2/17/05</b>	DATE	DATE	<b>3/21/05</b>
SCALE	<b>NTS</b>	MICROFILM DATE	DWG. NO.	<b>EXHIBIT 2-3</b>
P.A. #			PROJ.	V.S.



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38565

date AUG 4, 2005 detailed J. BOYER  
designed M. COLLINS checked J. HOGAN

NO.	DATE	REVISIONS	BY	CHK	APP	APP
2	4/21/06	ISSUED FOR TOWN REVIEW	JPB	JMH		
1	3/15/06	ISSUED FOR FIRST NU REVIEW	JPB	JJW		

NORTHEAST UTILITIES SERVICE CO.

FOR THE CONNECTICUT LIGHT & POWER CO.

TITLE ROYAL OAKS BYPASS  
DEVELOPMENT & MANAGEMENT PLAN  
EROSION CONTROL DETAILS  
SEGMENT 2

BY	MEC - BMCD	CHKD	APP	APP
DATE	SEPT 2005	DATE	DATE	DATE
SCALE	NTS	DWG. NO.		

EXHIBIT 2-4