PUBLIC NOTICE

US Army Corps of Engineers®
New England District

696 Virginia Road
Concord, MA 01742-2751

Date: March 2, 2010
Comment Period Ends: April 2, 2010
File Number: NAE-2007-3018
In Reply Refer To: Susan Lee
Or by e-mail: susan.k.lee@usace.army.mil

The District Engineer has received a permit application from the applicant below to **conduct work in waters of the United States** as described below.

APPLICANT: Joint application by The Connecticut Light and Power Company (CL&P), 107 Selden Street, Berlin, CT 06037 and **Western Massachusetts Electric Company (WMECO),** 1 Federal Street, Springfield, MA 01105.

ACTIVITY: CL&P and WMECO propose to fill (temporary and permanent) inland wetlands/waters and perform work over navigable waters in association with the construction of two separate but dependent projects, identified as the Greater Springfield Reliability Project (GSRP) and the Manchester to Meekville Junction Circuit Separation Project (MMP). The GSRP consists of the construction of approximately 35 miles of a new 345- kilovolt (kV) transmission line to complete a 345-kV "loop" through north-central Connecticut and western Massachusetts and the reconstruction and re-configuration of portions of existing 115-kV transmission lines on right-of-way (ROW) in Agawam, West Springfield, Chicopee, Springfield, and Ludlow, Massachusetts. The separate but dependent MMP (required to support the GSRP improvements) involves separation and reconstruction of an existing 115-kV transmission line occupying 2.2 miles of existing transmission line ROW between Manchester Substation and Meekville Junction in Manchester, Connecticut.

In Connecticut, the GSRP will traverse through Bloomfield, East Granby, and Suffield northerly to the Connecticut/Massachusetts state border. From the Connecticut/Massachusetts state border, the GSRP will traverse through Agawam, West Springfield, Springfield, Chicopee, and Ludlow in Massachusetts. The separate but dependent project, the MMP, traverses through Manchester, Connecticut. A detailed description and plans of the activity are attached.

WATERWAY AND LOCATION OF THE PROPOSED WORK:
The GSRP begins at UTM coordinates N 4640142 and E 686000 on the Tariffville, CT USGS quadrangle sheet and extends northeast to UTM coordinates N 4674585 and E 710810 on the Ludlow, MA USGS quadrangle sheet. The separate but dependent MMP begins at UTM coordinates N 4627120 and E 703063 and extends north to UTM coordinates N 4630401 and E 701475 on the Manchester, CT USGS quadrangle sheet.

AUTHORITY
Permits are required pursuant to:
__X__ Section 10 of the Rivers and Harbors Act of 1899
__X__ Section 404 of the Clean Water Act
_____ Section 103 of the Marine Protection, Research and Sanctuaries Act).

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 as amended.

SECTION 106 COORDINATION
Based on his initial review, the District Engineer has determined that the proposed work may impact properties listed in, or eligible for listing in, the National Register of Historic Places. Additional review and consultation to fulfil requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

ENDANGERED SPECIES CONSULTATION
The New England District, Army Corps of Engineers has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which might occur at the project site. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect any federally listed endangered or threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our determination.

The States of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved **Coastal Zone Management Programs**. Where applicable the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, the Corps of Engineers is requesting the State concurrence or objection to the applicant's consistency statement.

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The following authorizations have been applied for, or have been, or will be obtained:

(X) Permit, License or Assent from State.
(X) Permit from Local Wetland Agency or Conservation Commission.
(X) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. **Comments should be submitted in writing by the above date.** If you have any questions, please contact Susan Lee at (978) 318-8494 or (800) 343-4789, (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

In accordance with 33 CFR 325.2(a)(8), the Corps of Engineers publishes monthly a list of permits issued or denied during the previous month at www.nae.usace.army.mil/reg, under the heading "Monthly General and Individual Permit Authorizations." Relevant environmental documents and the SOFs or RODs are available upon written request and, where applicable, upon the payment of administrative fees. Also visit www.nae.usace.army.mil for more information on the New England District Corps of Engineers programs.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.

Duane M. Ray

Robert J. DeSista
Chief, Permits and Enforcement Branch
Regulatory Division

If you would prefer not to continue receiving Public Notices, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here ( ) and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____
ADDRESS: _____

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PROPOSED WORK
The work includes the discharge of dredged or fill material and work over navigable waters for construction of new 345-kV transmission lines extending from North Bloomfield, Connecticut to Ludlow, Massachusetts, including the reconstruction and re-configuration of portions of existing 115-kV transmission lines on right-of-way in Agawam, West Springfield, Chicopee, Springfield, and Ludlow, Massachusetts. Associated work also includes the separation and reconstruction of an existing 115-kV transmission line in Manchester, Connecticut.

The proposed project involves two separate but dependent components, the GSRP and the MMP, collectively referred to as the Projects. The GSRP consists of approximately 35 miles of new 345-kV transmission lines to complete a 345-kV "loop" through north-central Connecticut and western Massachusetts and the reconstruction and re-configuration of portions of the existing 115-kV transmission lines on ROW in Agawam, West Springfield, Chicopee, Springfield, and Ludlow, Massachusetts. The separate but dependent MMP (required to support the GSRP improvements) involves the separation and reconstruction of an existing 115-kV transmission line occupying 2.2 miles of ROW between Manchester Substation and Meekville Junction in Manchester, Connecticut.

The Connecticut portion of the GSRP involves construction of approximately 12 miles of new overhead 345-kV transmission line, following an existing CL&P ROW, and related facilities. From CL&P's North Bloomfield Substation in Bloomfield, Connecticut, the GSRP traverses through the towns of Bloomfield, East Granby, and Suffield northerly to the Connecticut/Massachusetts state border (approximately 12 miles). This new 345-kV transmission line will be located within the boundaries of an established overhead transmission line ROW, and adjacent to other existing transmission lines.

The Massachusetts portion of the GSRP involves construction of approximately 23 miles of new overhead 345-kV transmission line, within existing WMECO ROWs, from the Connecticut/Massachusetts state border through Agawam, West Springfield, Springfield, Chicopee, and Ludlow, terminating at the Ludlow Substation. Portions of existing 115-kV transmission lines on ROW in Agawam, West Springfield, Chicopee, Springfield, and Ludlow will be reconstructed and re-configured, and a number of existing distribution lines will be relocated to accommodate the proposed 345-kV and 115-kV transmission line work. The 115-kV transmission line work also includes approximately four mile of 115-kV transmission line upgrades along existing "spurs" or ROWs intersecting the 345-kV route in three locations: Orchard Junction, Exit 6 Junction, and East Springfield Junction.

The GSRP in Massachusetts also includes a new overhead transmission line crossing (for the new 345-kV transmission line) over navigable waters (Connecticut River) between West Springfield and Chicopee, Massachusetts.

New structures to support the new 345-kV transmission lines will consist of steel monopoles or wood-pole H-frames. Associated work will include construction of two new switching stations at existing utility properties in Chicopee (Fairmont Switching Station) and Springfield (Cadwell Switching Station), construction and expansion outside of the fenced area at the existing North Bloomfield, Agawam, and Ludlow Substations (on lands owned by CL&P and WMECO, respectively), and modifications within the fenced areas at the existing Orchard Substation and at the existing Shawinigan Switching Station.

The MMP, located entirely in the Town of Manchester, is within an existing ROW. The existing 115-kV circuit and an existing 345-kV circuit are supported on common transmission line structures. For the MMP, the 115-kV circuit will be reconstructed on a new set of structures, and the 345-kV transmission line will be left in place on the existing double-circuit structures. Each circuit will then be supported on independent transmission structures. Five existing 115-kV double-circuit structures will be relocated to accommodate the 115-kV circuit.

PURPOSE

The purpose of the project is to improve the electric transmission systems of CL&P in Connecticut and WMECO in Massachusetts. The improvements will make the systems compliant with national and regional reliability standards approved by the Federal Energy Regulatory Commission (FERC) and set forth by the North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council, Inc., and the Independent System Operator-New England (ISO-NE), as well as with the reliability standards developed by Northeast Utilities Service Company (NUSCO), which is a wholly-owned subsidiary of Northeast Utilities (NU). These improvements are needed to provide safe and reliable transmission service throughout the Greater Springfield geographic area in western Massachusetts and north-central Connecticut, and to ensure that the Greater Springfield portion of the transmission system will comply with mandatory federal and regional reliability standards. The project is a part of a comprehensive long-term regional plan known as the New England East–West Solution (NEEWS) for improving electric transmission in Southern New England through extensive, coordinated system improvements in Connecticut, Massachusetts, and Rhode Island.

ENVIRONMENTAL EFFECTS

Wetlands/water impacts will occur during overhead transmission line construction as a result of temporary work areas and of upgrade/maintenance (e.g., widened or filled/graded to allow the safe passage of the equipment necessary to install new structures) of existing access roads for construction access and for permanent structure foundations. In selected locations, access roads will have to be created to reach new structure locations. Temporary access may be required to remove/replace existing 115-kV transmission line structures in conjunction with the installation of the new 345-kV and 115-kV facilities. Permanent and temporary fill materials will be associated with the installation of the 345-kV and 115-kV transmission line structures; the maintenance, improvement, or extension of temporary and permanent access roads; construction of the Fairmont Switching Station; and expansion outside of the fenced area at the existing North Bloomfield Substation. Such materials will include gravel fill for substations; trap rock or gravel for permanent access road improvements; wood matting for temporary access roads or work areas (e.g., crane pads); and concrete foundations for the transmission line structures. Wetlands/water impacts will not occur from construction of the Cadwell Switching Station, construction and expansion outside of the fenced area at the existing Agawam and Ludlow Substations, and modifications within the fenced areas at the existing Orchard Substation and at the existing Shawinigan Switching Station.

Estimated temporary and permanent effects to wetlands/waters are summarized in the following table:

Estimated Temporary and Permanent Effects to Jurisdictional Wetlands and Waters for the Projects

Projects Activity	Estimated Temporary Effect (Acres)	Estimated Permanent Effect (Acres)
GSRP (CT and MA)		
Construction Envelope and Structures	10.0	1.5
Access Roads	5.3	0.5
North Bloomfield Substation Expansion	0.0	0.7
Agawam Substation Expansion	0.0	0.0
Fairmont Switching Station Construction	0.0	0.7
Total Primary Wetland Effects (Fill)	**15.3**	**3.4**
Secondary Wetland Effects (Tree Removal in Forested Wetlands)	**0.0**	**31.8**
MMP (CT)		
Construction Envelope and Structures	3.0	0.0
Access Roads	0.8	0.1
Total Primary Wetland Effects (Fill)	**3.8**	**0.1**
Secondary Wetland Impacts (Tree Removal in Forested Wetlands)	0.0	1.0

Note: Impact numbers for the above table were rounded to the nearest tenth acre.

Estimated temporary and permanent effects to wetlands/waters by state and municipality are summarized in the following table:

Estimated Temporary and Permanent Effects to Jurisdictional Wetlands and Waters for the Projects by State and Municipality

State/Municipality	Wetland Tree Removal (acres)[1]	Non-wetland Tree Removal (acres)[2]	Structure Crane Pads (acres)[3]	Access Roads (acres)		New Structures (acres)[4]
				Temporary	Permanent	
Connecticut						
Bloomfield	1.5	12.5	0.1	0.1	0.0	0.8**
East Granby	17.4	52.5	1.0	1.1	0.2	0.0
Suffield	7.0	38.8	1.0	0.7	0.2	0.0
Manchester[5]	1.0	1.7	3.0	0.8	0.1	0.0
Connecticut Total	**26.9**	**105.5**	**5.1**	**2.7**	**0.5**	**0.8**
Massachusetts						
Agawam	3.3	14.6	1.7	1.1	0.0	0.0
West Springfield	0.1	5.9	0.6	0.2	0.0	0.0
Springfield	0.0	1.4	0.0	0.0	0.0	0.0
Chicopee	1.1	14.3	1.8	1.8	0.0	0.7**
Ludlow	1.3	4.8	3.8	0.2	0.0	0.0
Massachusetts Total	**5.9**	**41.0**	**7.9**	**3.3**	**0.0**	**0.7**
Projects Total*	**32.8**	**146.5**	**13.0**	**6.0**	**0.5**	**1.5**

*Note: Impact areas are of federal wetlands converted to the nearest tenth acre and do not include state-regulated Riverfront Area, buffer zone or upland review area. Impacts to floodplains are also not included.

** Includes permanent structures associated with substation expansion located on forested wetlands.

[1] - These impacts represent numbers of acres converted from forested wetland to scrub-shrub wetland

[2] - These impacts represent numbers of acres of secondary upland impacts due to vegetation removal

[3] - These values represent temporary impacts

[4] - These values represent permanent impacts

[5] - This municipality is part of the MMP; all other municipalities listed in the Table are part of the GSRP

AVOIDANCE OF AND MITIGATION FOR ENVIRONMENTAL EFFECTS

CL&P and WMECO have taken significant measures to avoid and minimize adverse effects to waters of the United States to the maximum extent practicable through siting and designing of the Projects. They have prioritized avoidance of sensitive waters, such as vernal pools and other state-designated outstanding waters. Detailed engineering design was used to avoid affecting waters of the United States where possible. For those locations where effects were unavoidable, detailed constructability studies were performed in the field with knowledgeable construction personnel coordinating closely with design engineers and determining where effects to wetlands could be further minimized.

To compensate for the GSRP impacts to state- and federal-regulated wetland resource areas in Connecticut, CL&P proposes approximately 1.8 acres of wetland creation, 12.7 acres of wetland enhancement, and 5.1 acres of upland/riparian buffer enhancement. CL&P is currently pursuing

agreements with the Town of Suffield to perform these wetland creation and enhancement efforts on the Hilltop Farm property, located on Mapleton Avenue in Suffield, Connecticut (latitude 42.02083, longitude -72.61056). If the necessary agreements are not entered into, CL&P will propose a different, but comparable, site(s) on which to perform these mitigation efforts.

To compensate for the MMP impacts to state- and federal-regulated wetland resource areas, CL&P proposes to create approximately 0.7 acres of new wetland and enhance approximately 0.3 acres of existing wetland on CL&P-owned property in Manchester (latitude 41.79138, longitude -72.56416).

To compensate for the GSRP's impacts to state-regulated and federally-regulated wetland resource areas in Massachusetts, WMECO proposes to create approximately 5 acres of new wetland adjacent to existing wetlands on the former Boglisch Tree Farm at 180 South West Street in Agawam, Massachusetts (latitude 42.05996, longitude -72.7027).

The proposed work is described and shown on the attached figures. A list of the attached figures is provided below.

List of Figures for GSRP and MMP

Figure	Date
GSRP and MMP Project Location Maps	
GSRP and MMP Vicinity Map Index	May 27, 2008
GSRP Project Location Map – Mapsheet 1 of 7	May 27, 2009
GSRP Project Location Map – Mapsheet 2 of 7	May 27, 2009
GSRP Project Location Map – Mapsheet 3 of 7	May 27, 2009
GSRP Project Location Map – Mapsheet 4 of 7	May 27, 2009
GSRP Project Location Map – Mapsheet 5 of 7	May 27, 2009
GSRP Project Location Map – Mapsheet 6 of 7	May 27, 2009
MMP Project Location Map – Mapsheet 7 of 7	May 27, 2009
Typical Drawings	
Typical Construction Mat Work Area within a Wetland	May 2009
E1 Type Temporary Access Road	May 2009
E2 Type Temporary Access Road	May 2009
N1 Type Temporary Access Road	May 2009
E3 Type Permanent Access Road	May 2009
N2 Type Permanent Access Road	May 2009
Typical Temporary Watercourse/Wetland Span	2002
Typical Culvert Crossing	2002
Typical Geotextile Silt Fence	2002
Typical Hay/Straw Bale Barrier	2002
Typical Work Space Plan and Profile Drawings	
Typical Work Space within a Wetland for Tangent Construction	May 14, 2009
Typical Work Space within a Wetland for Multi-Pole Small to Medium Angle Construction	May 14, 2009
Typical Work Space within a Wetland for Multi-Pole Heavy Angle Construction	May 14, 2009
Typical Work Space within a Wetland for Structure Removal	May 14, 2009

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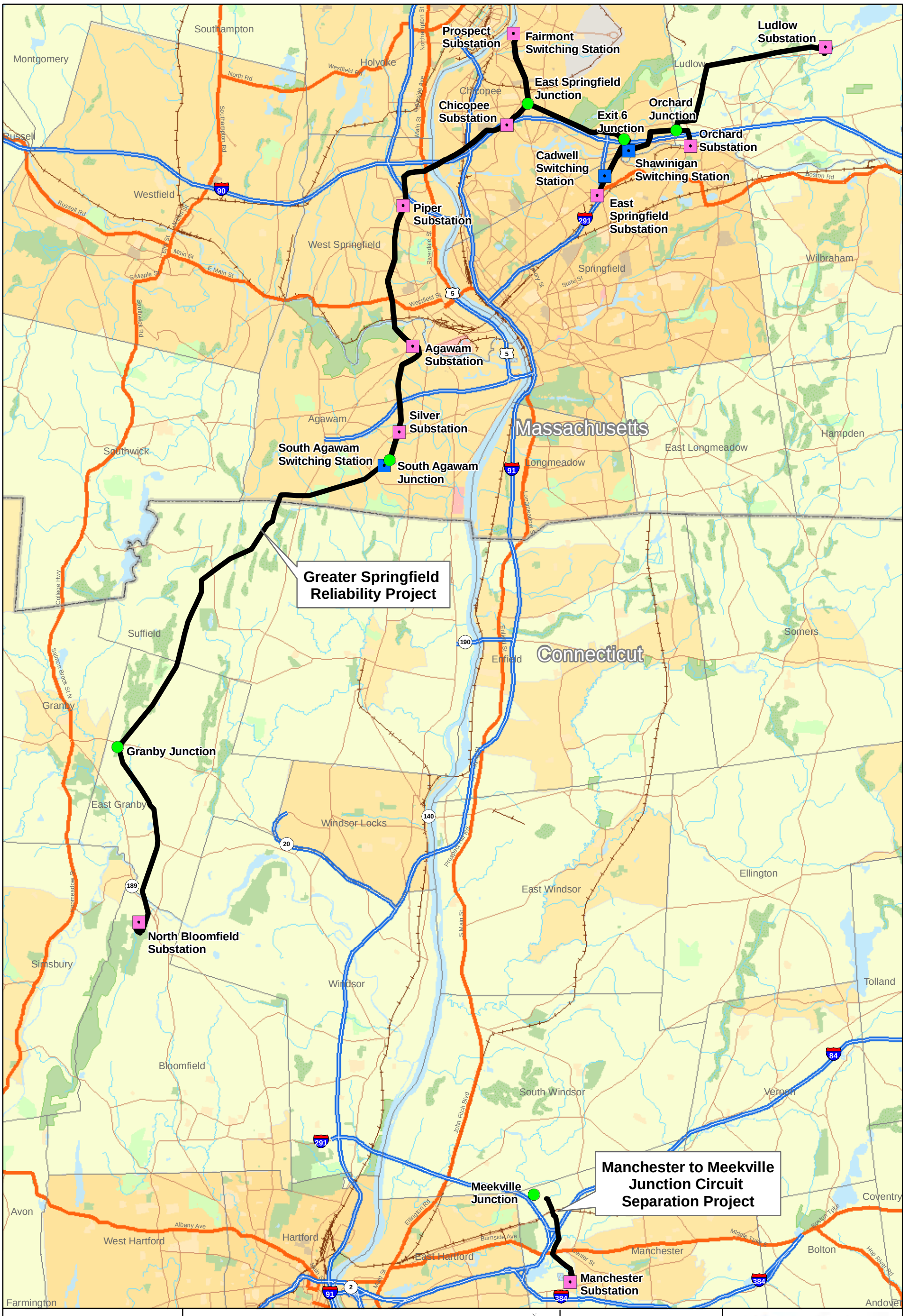
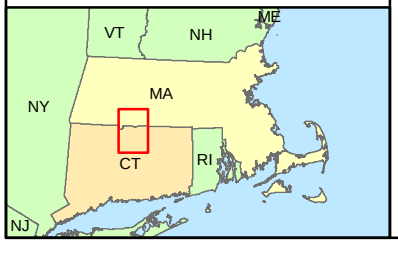
List of Figures for GSRP and MMP

Figure	Date
Typical Foundation Drawings	
Typical Foundations	May 16, 2007
Connecticut River Plan and Profile Drawings	
Connecticut River Crossing Existing Plan View (Sheet 1 of 11)	June 15, 2009
Connecticut River Crossing Proposed Plan View (Sheet 2 of 11)	June 15, 2009
Existing Profile View for 115-kV Conductors for Circuits 1314 and 1723 (Sheet 3 of 11)	June 15, 2009
Existing Profile View for 13.8-kV Conductors for Circuit 21N8 (Sheet 4 of 11)	June 15, 2009
Proposed Profile View for 345-kV Conductors for Circuit 3196 (Sheet 5 of 11)	June 15, 2009
Proposed Profile View for 115-kV Conductors for Circuit 1314 (Sheet 6 of 11)	June 15, 2009
Proposed Profile View for 115-kV Conductors for Circuit 1601 (Sheet 7 of 11)	June 15, 2009
Proposed Profile View for 13.8-kV Conductors for Circuit 21N8 (Sheet 8 of 11)	June 15, 2009
Connecticut River Crossing Existing Right-of-Way Elevation (Sheet 9 of 11)	June 15, 2009
Connecticut River Crossing Proposed Right-of-Way Elevation–West Bank (Sheet 10 of 11)	June 15, 2009
Connecticut River Crossing Proposed Right-of-Way Elevation–East Bank (Sheet 11 of 11)	June 15, 2009
Substation Plan Drawings	
Agawam Substation	June 2009
Cadwell Switching Station	June 2009
Fairmont Switching Station	June 2009
Ludlow Substation	June 2009
North Bloomfield Substation	June 2009



Map Location



Legend

- Centerline
- Substation
- Switching Station
- Junction

1:135,000

0 12,500 25,000 Feet

Data Source: Burns & McDonnell, ESRI Base Map 2008

Greater Springfield Reliability Project & Manchester to Meekville Junction Circuit Separation Project

Massachusetts and Connecticut

Northeast Utilities System

AECOM

Date: June 2009

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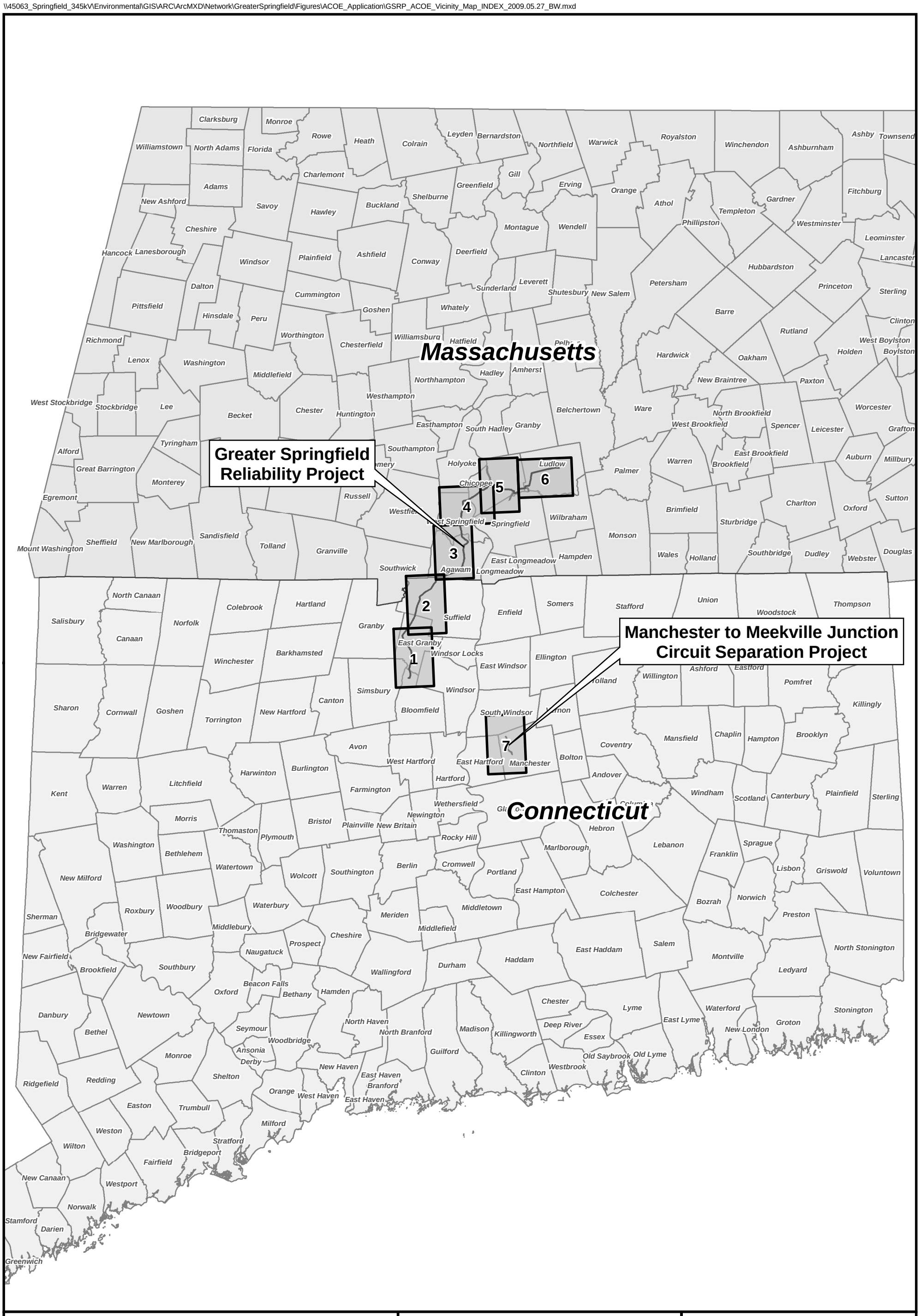

0 5 10 20 30 Miles

Scale is 1:575,000 when printed at 11" x 17".

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Source: CT DEP, MassGIS and Burns & McDonnell Engineering Co.

Connecticut Light & Power
The Northeast Utilities System

Western Massachusetts Electric
The Northeast Utilities System

Project Location Map
Greater Springfield Reliability Project &
Manchester to Meekville Junction Project
Vicinity Map Index

Issued: May 27, 2008

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LEGEND

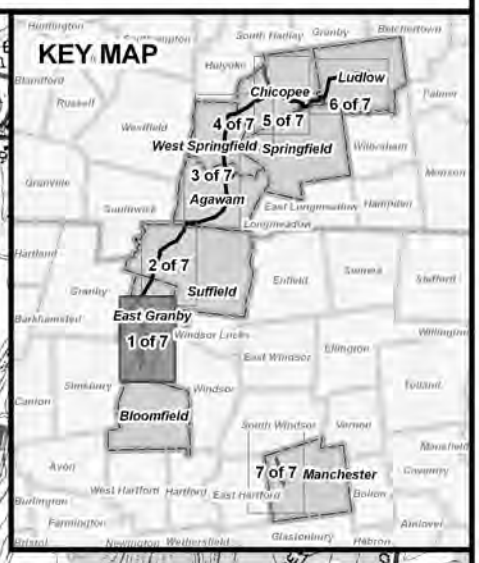
- Substation
- Switching Station
- Switching Station (Proposed)
- Junction

345-kV Overhead New Construction

- 345-kV Single Circuit
- 345/115-kV Composite

115-kV Overhead

- 115-kV Improvements
- 115-kV Existing to Remain in Corridor
- Town Boundary



Granby

Granby Junction

Granby Station

Granbrook Park

East Granby

Floydville

Salmon Brook

Pickerel Cove

Simsbury Airport

Simsbury

Tariffville

Talcott Mtn

Laurel Hill

Marsh Pond

Spoonville Bridge

North Bloomfield Substation

Bloomfield

North Bloomfield

Birchwood

West Windsor

Gravel Pit

Camp Mar-Lin

Sewage Disposal

Water Tanks

345-kV New Construction

0 1,000 2,000 4,000 6,000 Feet

Scale is 1:24,000 when printed at 11" x 17".

Source: USGS 7.5-Minute Quadrangles, CT DEP, MassGIS and Burns & McDonnell Engineering Co.

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Connecticut Light & Power
The Northeast Utilities System

Western Massachusetts Electric
The Northeast Utilities System

Project Location Map
Greater Springfield Reliability Project
Mapsheet 1 of 7

Issued: May 27, 2009

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LEGEND

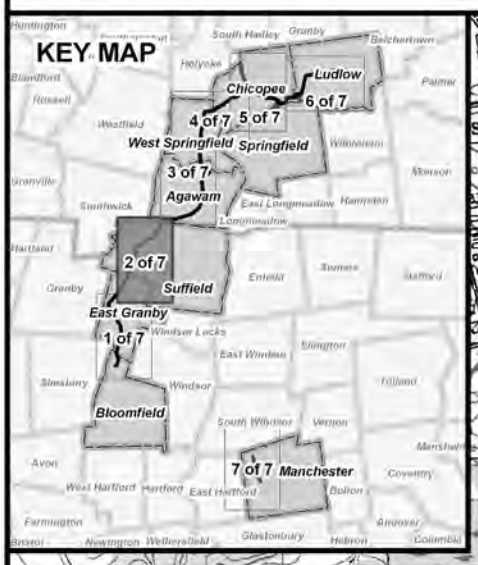
- Substation
- Switching Station
- Switching Station (Proposed)
- Junction

345-kV Overhead New Construction

- 345-kV Single Circuit
- 345/115-kV Composite

115-kV Overhead

- 115-kV Improvements
- 115-kV Existing to Remain in Corridor
- Town Boundary



Connecticut/Massachusetts State Line

345-kV New Construction

Suffield

East Granby

West Suffield

0 1,000 2,000 4,000 6,000 Feet

Scale is 1:24,000 when printed at 11" x 17".

Source: USGS 7.5-Minute Quadrangles, CT DEP, MassGIS and Burns & McDonnell Engineering Co.

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Connecticut Light & Power — The Northeast Utilities System

Western Massachusetts Electric — The Northeast Utilities System

Project Location Map
Greater Springfield Reliability Project
Mapsheet 2 of 7

Issued: May 27, 2009

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LEGEND

- Substation
- Switching Station
- Switching Station (Proposed)
- Junction

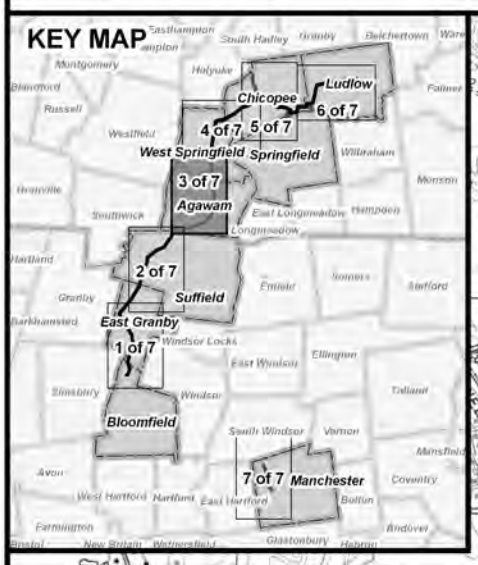
345-kV Overhead New Construction

- 345-kV Single Circuit
- 345/115-kV Composite

115-kV Overhead

- 115-kV Improvements
- 115-kV Existing to Remain in Corridor
- Town Boundary

KEY MAP



Agawam Substation

345/115-kV Composite New Construction & 115-kV Rebuild

Silver Substation

South Agawam Switching Station

345/115-kV Composite New Construction

Connecticut/Massachusetts State Line

0 1,000 2,000 4,000 6,000 Feet

Scale is 1:24,000 when printed at 11" x 17".

Source: USGS 7.5-Minute Quadrangles, CT DEP, MassGIS and Burns & McDonnell Engineering Co.

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Connecticut Light & Power
The Northeast Utilities System.

Western Massachusetts Electric
The Northeast Utilities System

Project Location Map
Greater Springfield Reliability Project
Mapsheet 3 of 7

Issued: May 27, 2009

LEGEND

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345-kV Overhead New Construction

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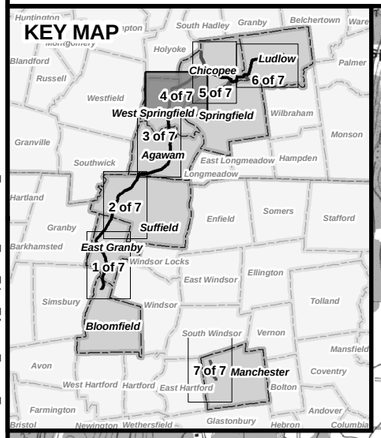

345/115-kV Composite New Construction & 115-kV Rebuild

Chicopee Substation

Piper Substation

West Springfield

Chicopee

Springfield

0 1,000 2,000 4,000 6,000 Feet

Scale is 1:24,000 when printed at 11" x 17".

Source: USGS 7.5-Minute Quadrangles, CT DEP, MassGIS and Burns & McDonnell Engineering Co.

N

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Western Massachusetts Electric — The Northeast Utilities System

Project Location Map
Greater Springfield Reliability Project
Mapsheet 4 of 7

\\45063_Springfield_345kV\Environmental\GIS\ARC\ArcMXD\Network\GreaterSpringfield\Figures\ACOE_Application\GSRP_ACOE_Vicinity_Map_4of7_2009.05.27_BW.mxd

Issued: May 27, 2009

\\45063_Springfield_345kV\Environmental\GIS\ARC\ArcMXD\Network\GreaterSpringfield\Figures\ACOE_Application\GSRP_ACOE_Vicinity_Map_5of7_2009.05.27_BW.mxd

LEGEND

- Substation
- Switching Station
- Switching Station (Proposed)
- Junction

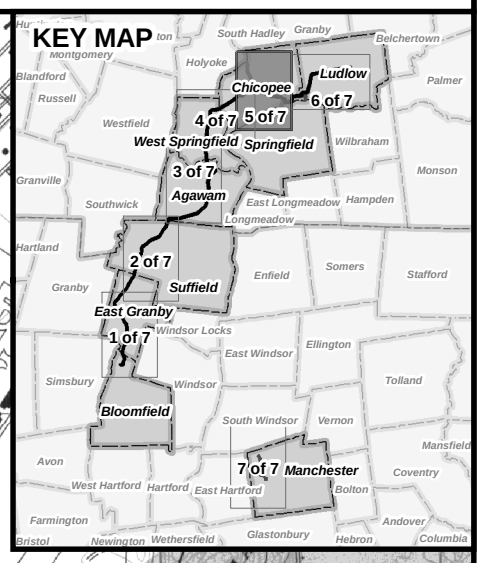
345-kV Overhead New Construction

- 345-kV Single Circuit
- 345/115-kV Composite

115-kV Overhead

- 115-kV Improvements
- 115-kV Existing to Remain in Corridor
- Town Boundary

KEY MAP



Fairmont Switching Station (Existing)

Fairmont Switching Station (Proposed)

115-kV Rebuild

East Springfield Junction

345/115-kV Composite New Construction & 115-kV Rebuild

Chicopee Substation

Exit 6 Junction

Shawinigan Switching Station

115-kV Rebuild

Cadwell Switching Station (Proposed)

East Springfield Substation

0 1,000 2,000 4,000 6,000 Feet

Scale is 1:24,000 when printed at 11" x 17".

Source: USGS 7.5-Minute Quadrangles, CT DEP, MassGIS and Burns & McDonnell Engineering Co.

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Project Location Map
Greater Springfield Reliability Project
Mapsheet 5 of 7

Issued: May 27, 2009

LEGEND

- Substation
- Switching Station
- Switching Station (Proposed)
- Junction

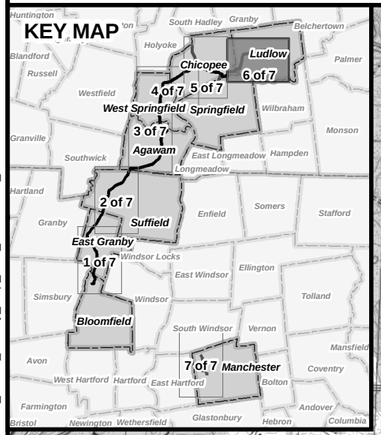
345-kV Overhead New Construction

- 345-kV Single Circuit
- 345/115-kV Composite

115-kV Overhead

- 115-kV Improvements
- 115-kV Existing to Remain in Corridor
- Town Boundary

KEY MAP



345/115-kV Composite New Construction & 115-kV Rebuild

Ludlow Substation

Orchard Junction

115-kV Reconductor

Exit 6 Junction

Orchard Substation

Shawinigan Switching Station

115-kV Rebuild

0 1,000 2,000 4,000 6,000 Feet

Scale is 1:24,000 when printed at 11" x 17".

Source: USGS 7.5-Minute Quadrangles, CT DEP, MassGIS and Burns & McDonnell Engineering Co.

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Project Location Map
Greater Springfield Reliability Project
Mapsheet 6 of 7

Issued: May 27, 2009

\45063_Springfield_345kV\Environmental\GIS\ARC\ArcMXD\Network\GreaterSpringfield\Figures\ACOE_Application\GSRP_ACOE_Vicinity_Map_6of7_2009.05.27_BW.mxd

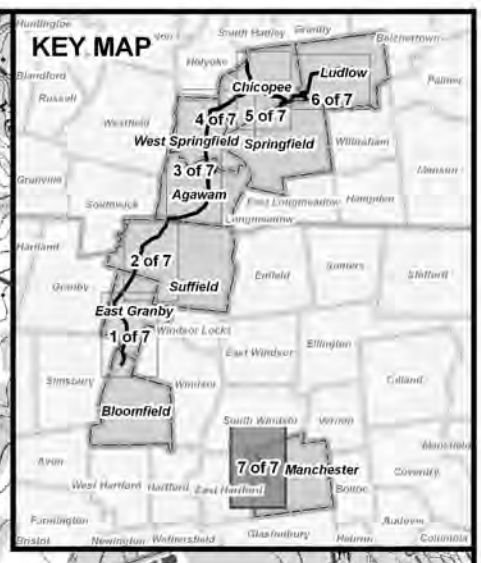
\45063_Springfield_345kV\Environmental\GIS\ARC\ArcMXD\Network\GreaterSpringfield\Figures\ACOE_Application\GSRP_ACOE_Vicinity_Map_7of7_2009.05.27_BW.mxd

LEGEND

- Substation
- Switching Station
- Switching Station (Proposed)
- Junction

115-kV Overhead

- 115-kV Improvements
- Existing 115-kV Relocated for this Project
- Existing 115-kV to Remain in Corridor
- Existing 345-kV to Remain in Corridor
- Town Boundary



Meekville Junction

Manchester to Meekville Junction Circuit Separation Project

Manchester Substation

0 1,000 2,000 4,000 6,000 Feet

Scale is 1:24,000 when printed at 11" x 17".

Source: USGS 7.5-Minute Quadrangles, CT DEP, MassGIS and Burns & McDonnell Engineering Co.

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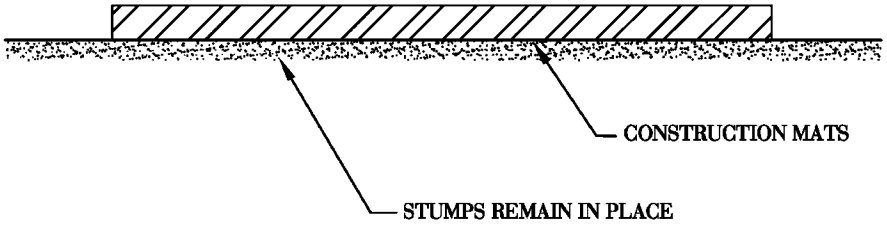
Project Location Map
Manchester to Meekville Junction
Circuit Separation Project
Mapsheet 7 of 7

Issued: May 27, 2009

TYPICAL DRAWINGS



SECTION
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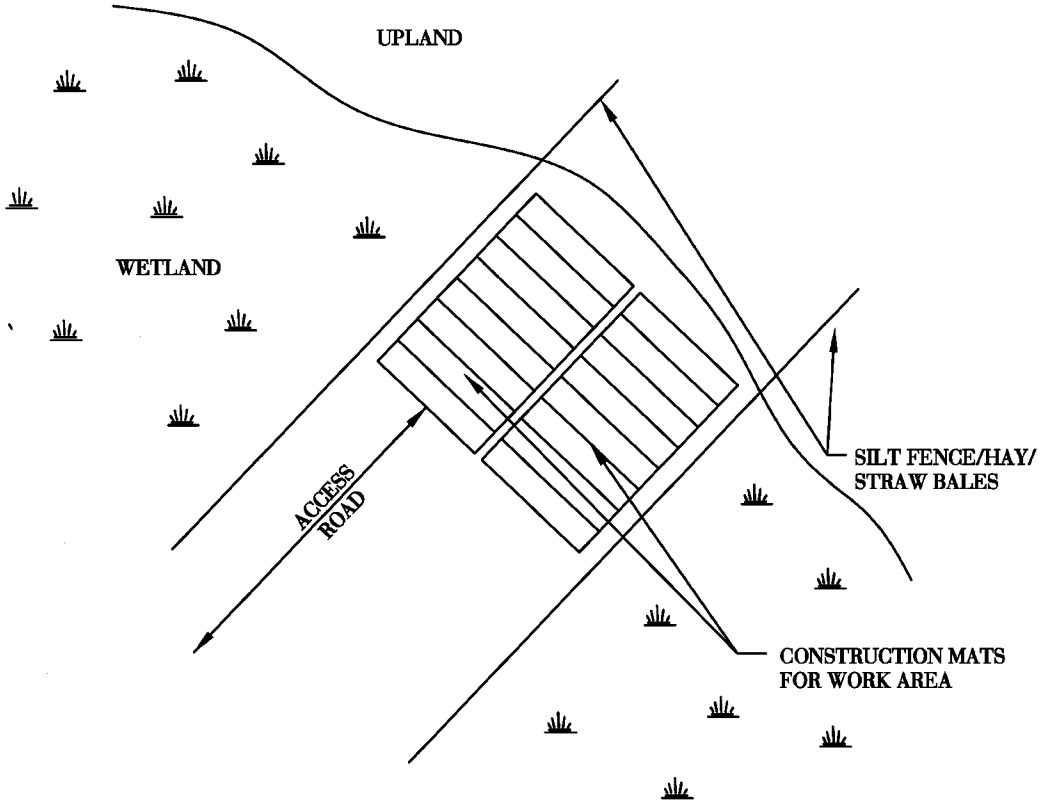
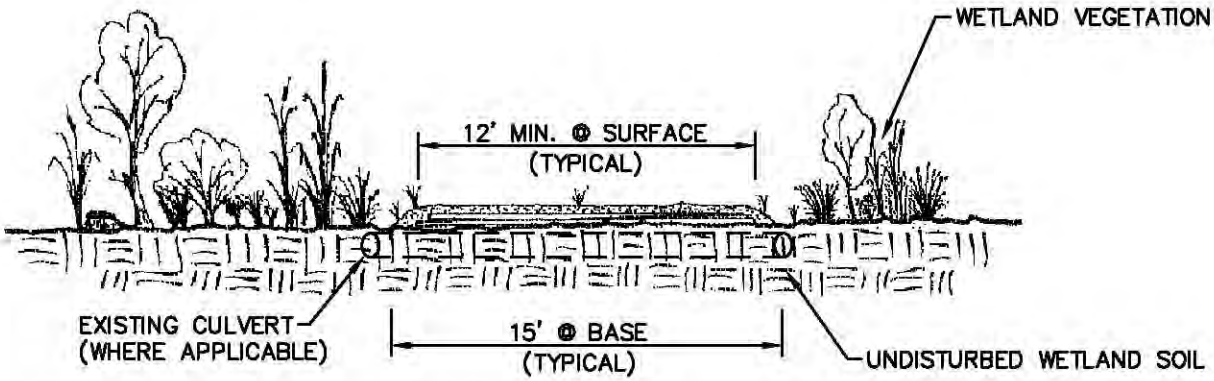
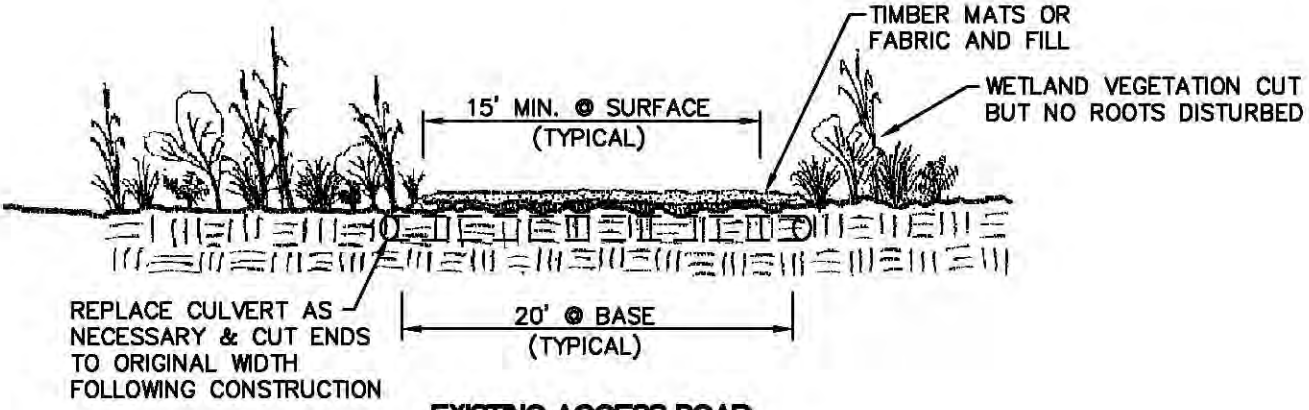


PLAN
Not to Scale

TYPICAL CONSTRUCTION MAT WORK AREA
WITHIN A WETLAND
NOT TO SCALE



EXISTING ACCESS ROAD



EXISTING ACCESS ROAD IMPROVEMENTS

NOTES:

1. RESTORE ACCESS ROAD AND CULVERT TO ORIGINAL WIDTH FOLLOWING CONSTRUCTION.
2. AN 8-FOOT WIDE TEMPORARY IMPACT IS ASSUMED (12' EXISTING WIDTH & 4' OF ADDITIONAL IMPROVEMENTS ON EACH SIDE).

FILENAME: 01131-002-01A.DWG

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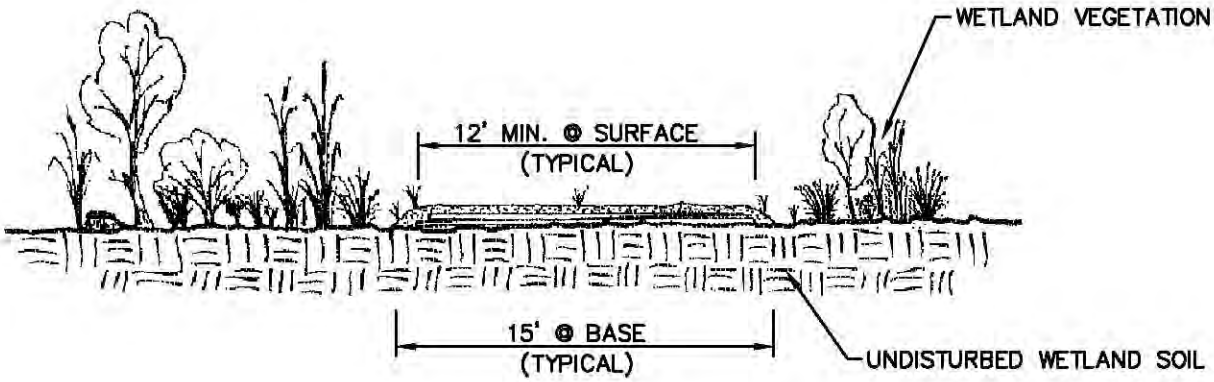
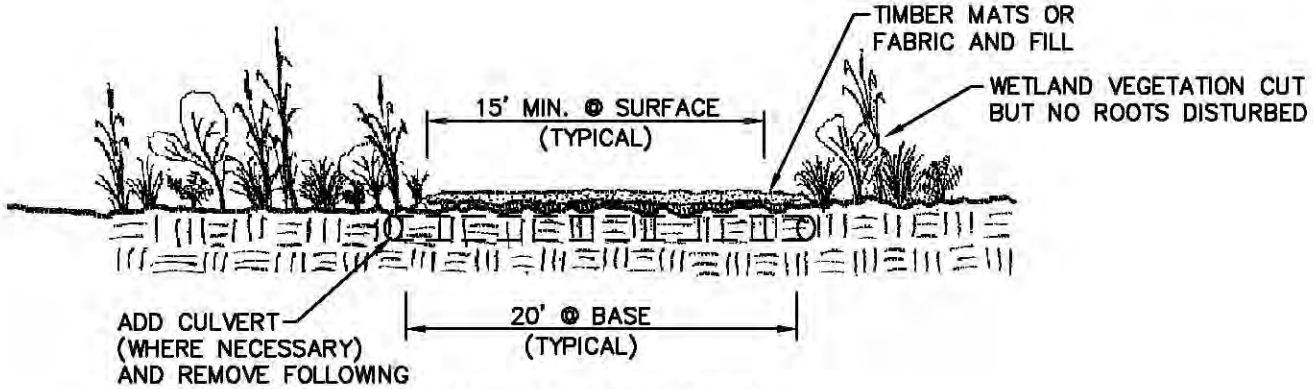
E1 TYPE TEMPORARY ACCESS ROAD
GREATER SPRINGFIELD RELIABILITY PROJECT
CONNECTICUT AND MASSACHUSETTS

FIGURE NUMBER:	
X	

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
K.P.B.	5/09	01131-002	1



EXISTING ACCESS ROAD



EXISTING ACCESS ROAD IMPROVEMENTS

NOTES:

1. RESTORE ACCESS ROAD AND CULVERT TO ORIGINAL WIDTH FOLLOWING CONSTRUCTION.
2. AN 8-FOOT WIDE TEMPORARY IMPACT IS ASSUMED (12' EXISTING WIDTH & 4' OF ADDITIONAL IMPROVEMENTS ON EACH SIDE).

FILENAME: 01131-002-02A.DWG

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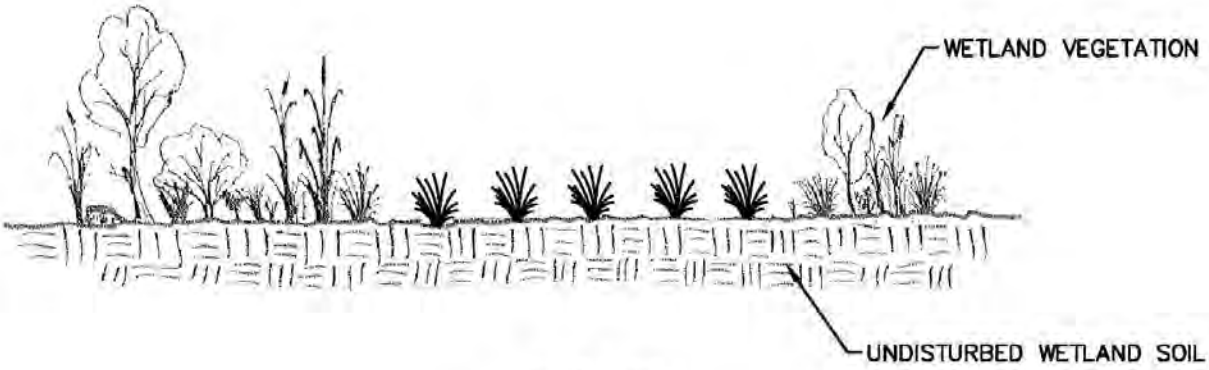
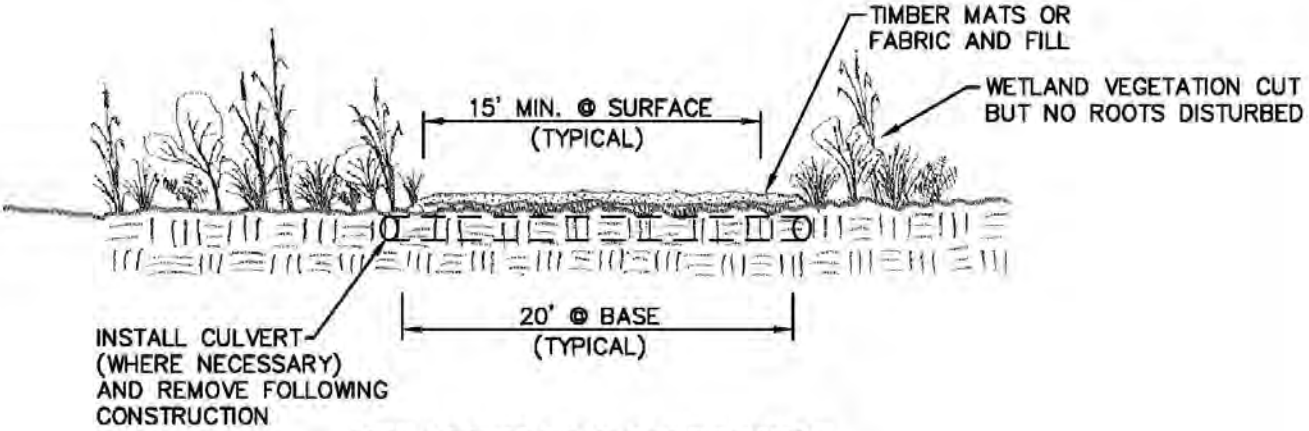
E2 TYPE TEMPORARY ACCESS ROAD
GREATER SPRINGFIELD RELIABILITY PROJECT
CONNECTICUT AND MASSACHUSETTS

FIGURE NUMBER:	
X	

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
K.P.B.	5/09	01131-002	1



WETLAND



NEW ACCESS ROAD CONSTRUCTION

NOTES:

1. REMOVE MATS OR FABRIC AND FILL AND ANY INSTALLED CULVERTS FOLLOWING CONSTRUCTION.
2. A 20-FOOT WIDE TEMPORARY IMPACT IS ASSUMED.

FILENAME: 01131-002-04A.DWG

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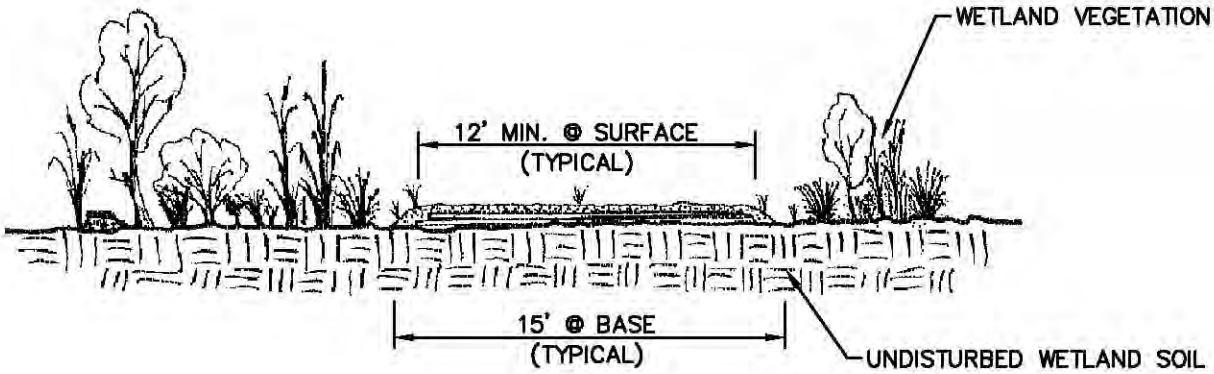
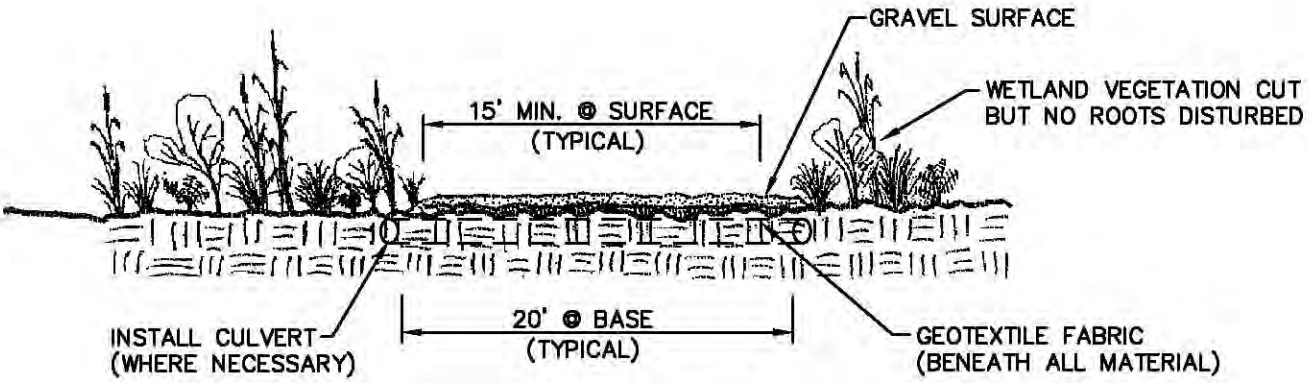
N1 TYPE TEMPORARY ACCESS ROAD
GREATER SPRINGFIELD RELIABILITY PROJECT
CONNECTICUT AND MASSACHUSETTS

FIGURE NUMBER:	
	X

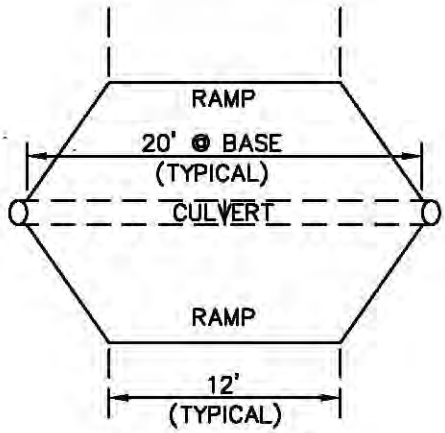
DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
K.P.B.	5/09	01131-002	1



EXISTING ROAD



EXISTING ACCESS ROAD IMPROVEMENTS



RAMP PLAN VIEW

NOTES:

1. IN SOME INSTANCES A RAMP ON EACH SIDE OF A CULVERT WILL BE LEFT IN PLACE. THE RAMP WILL BE TAPERED DOWN TO EXISTING GRADE (LENGTH WILL BE DETERMINED BY THE DIAMETER OF THE CULVERTS), AND AS IT TAPERS IT WILL BE NARROWED TO 12 FEET WIDE.
2. A 20-FOOT WIDE PERMANENT IMPACT FOR THE CULVERT AND THE FULL LENGTH OF THE RAMPS IS ASSUMED. BEYOND THE ENDS OF THE RAMPS AN 8-FOOT WIDE TEMPORARY IMPACT IS ASSUMED.

FILENAME: 01131-002-03A.DWG

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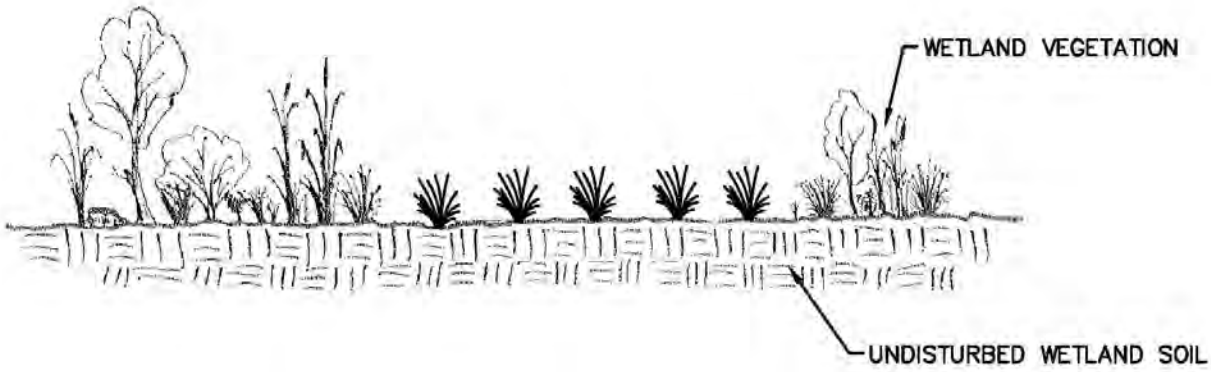
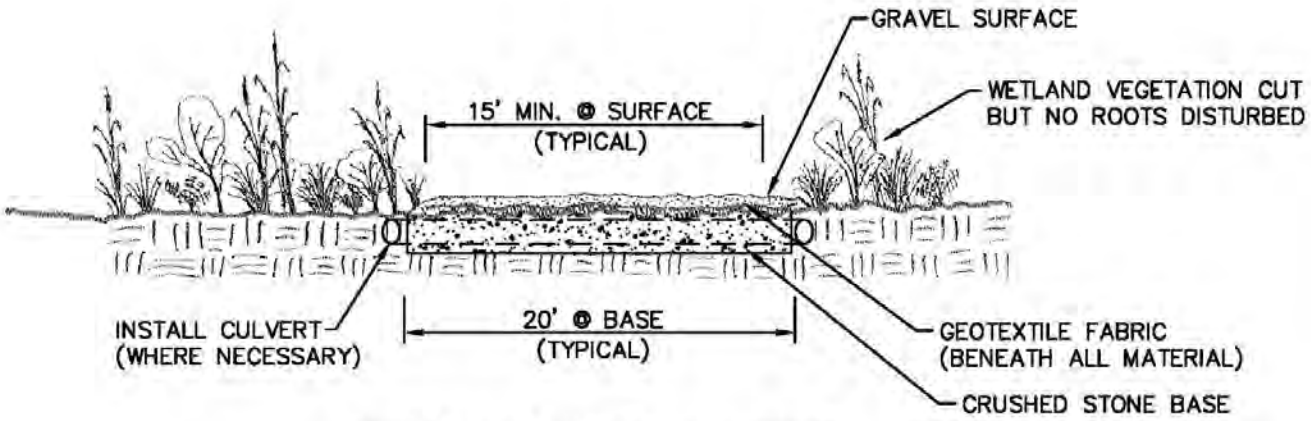
E3 TYPE PERMANENT ACCESS ROAD
GREATER SPRINGFIELD RELIABILITY PROJECT
CONNECTICUT AND MASSACHUSETTS

FIGURE NUMBER:	
	X

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
K.P.B.	5/09	01131-002	1



WETLAND



NEW ACCESS ROAD CONSTRUCTION

NOTES:

1. REMOVE GRAVEL SURFACE & FABRIC AFTER CONSTRUCTION.
2. LEAVE CRUSHED STONE BASE FOR FUTURE MAINTENANCE ACCESS.
3. TOP OF CRUSHED STONE BASE TO BE AT SAME ELEVATION AS ADJACENT WETLAND SOIL TO ALLOW WATER TO FLOW ACROSS BASE.
4. A 20-FOOT WIDE PERMANENT IMPACT IS ASSUMED.

FILENAME: 01131-002-05A.DWG

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N2 TYPE PERMANENT ACCESS ROAD
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CONNECTICUT AND MASSACHUSETTS

FIGURE NUMBER:	
X	

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
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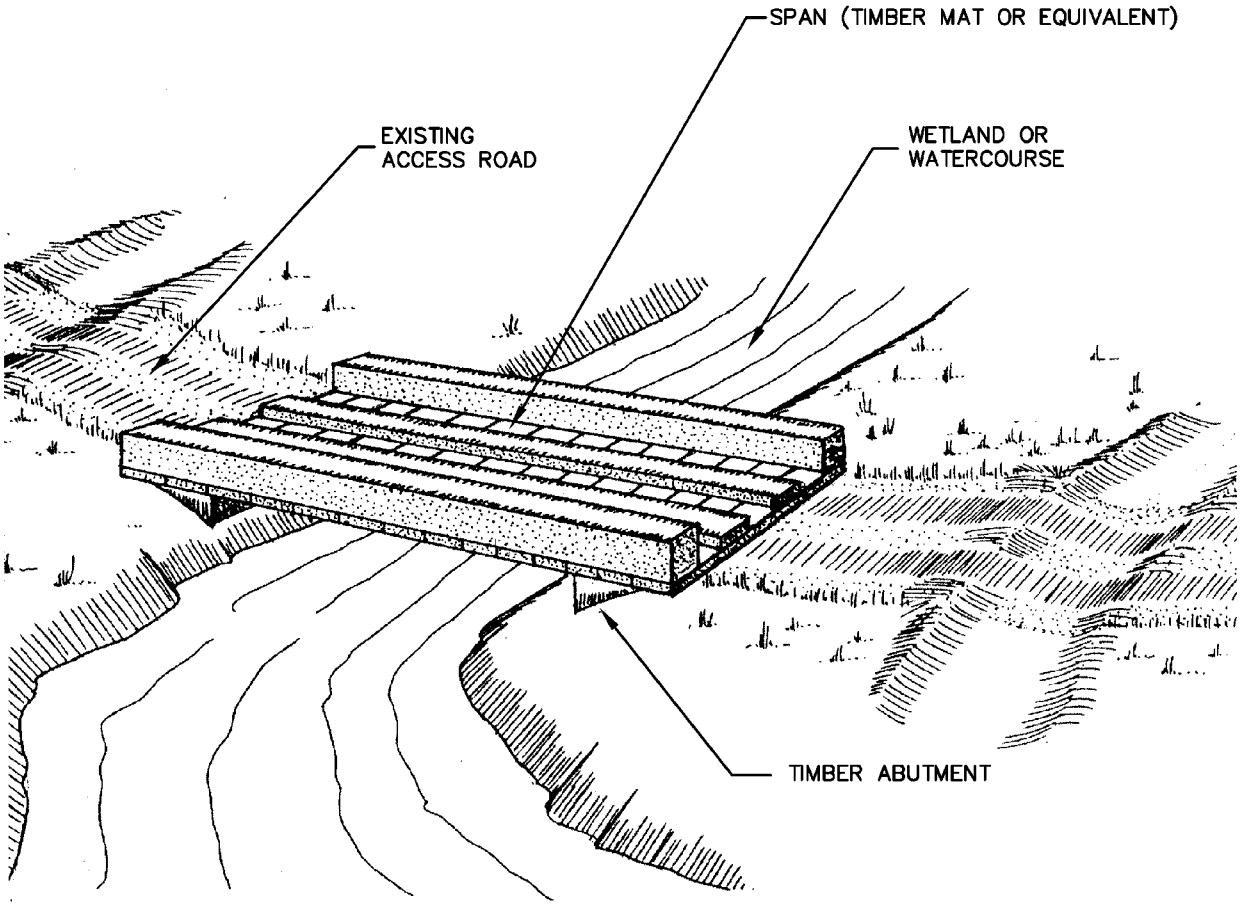
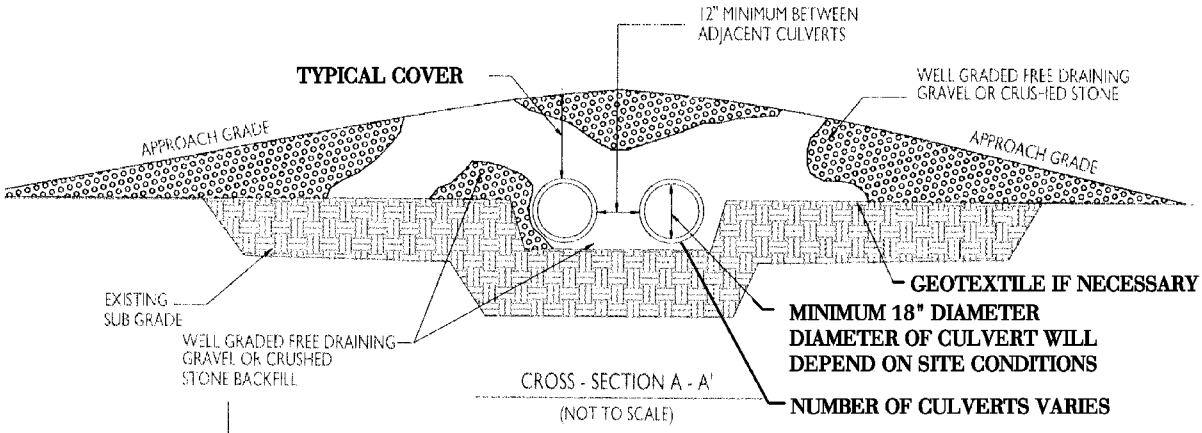
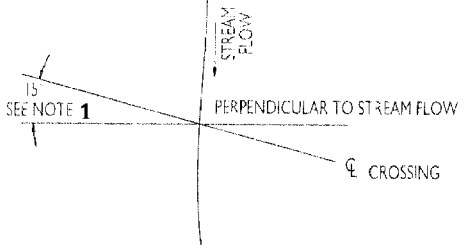


SOURCES: 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL,
ADAPTED FROM VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 1992.

TYPICAL TEMPORARY WATERCOURSE/WETLAND SPAN

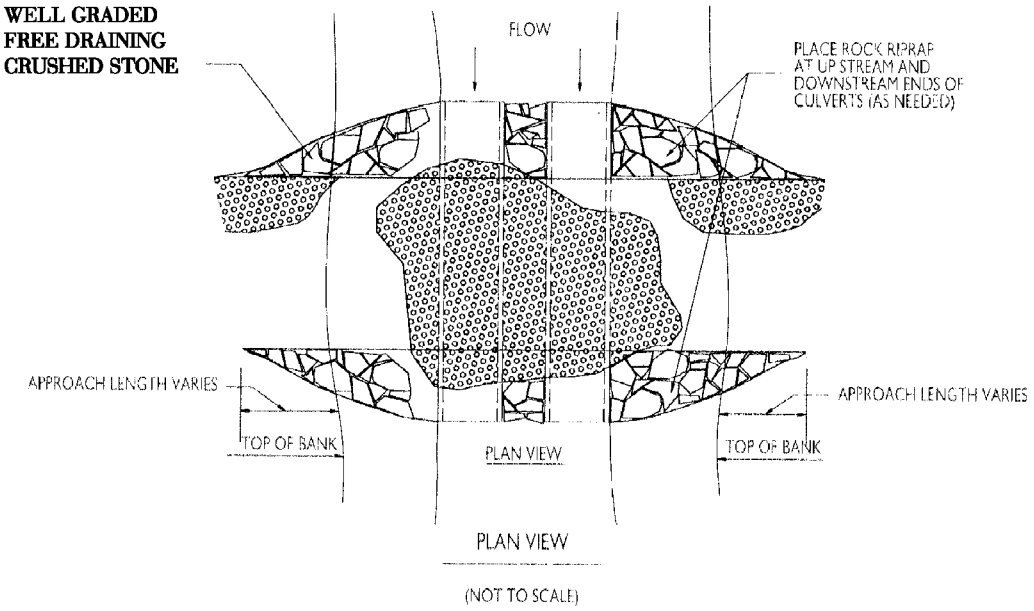
NOT TO SCALE





NOTES:

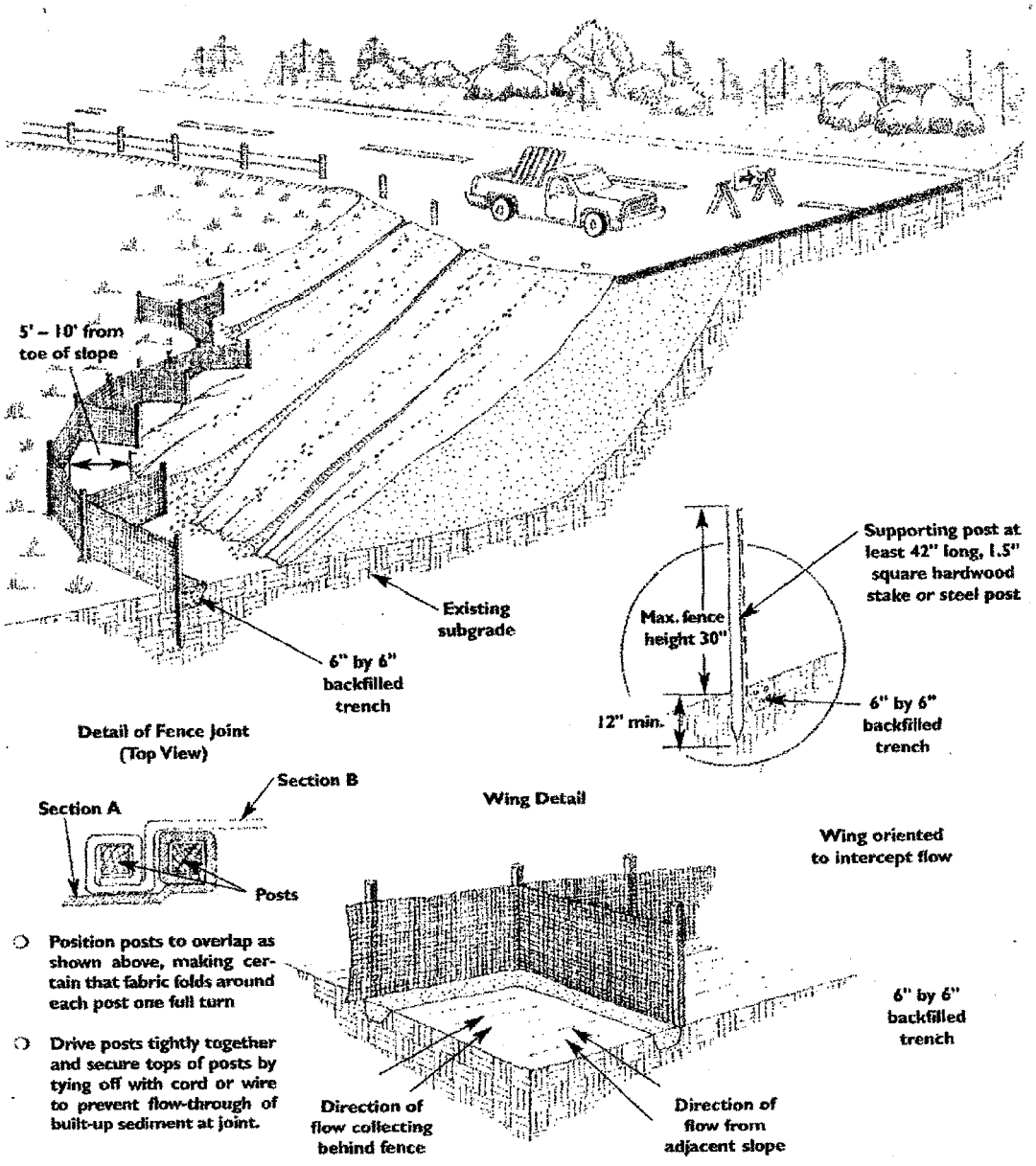
1. **THE CENTER OF THE STREAM CROSSING SHALL BE ALIGNED SO THAT IT IS NO GREATER THAN 15° FROM A LINE PERPENDICULAR TO THE STREAM FLOW.**



SOURCE: 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL

TYPICAL CULVERT CROSSING
NOT TO SCALE

TYPICAL GEOTEXTILE SILT FENCE



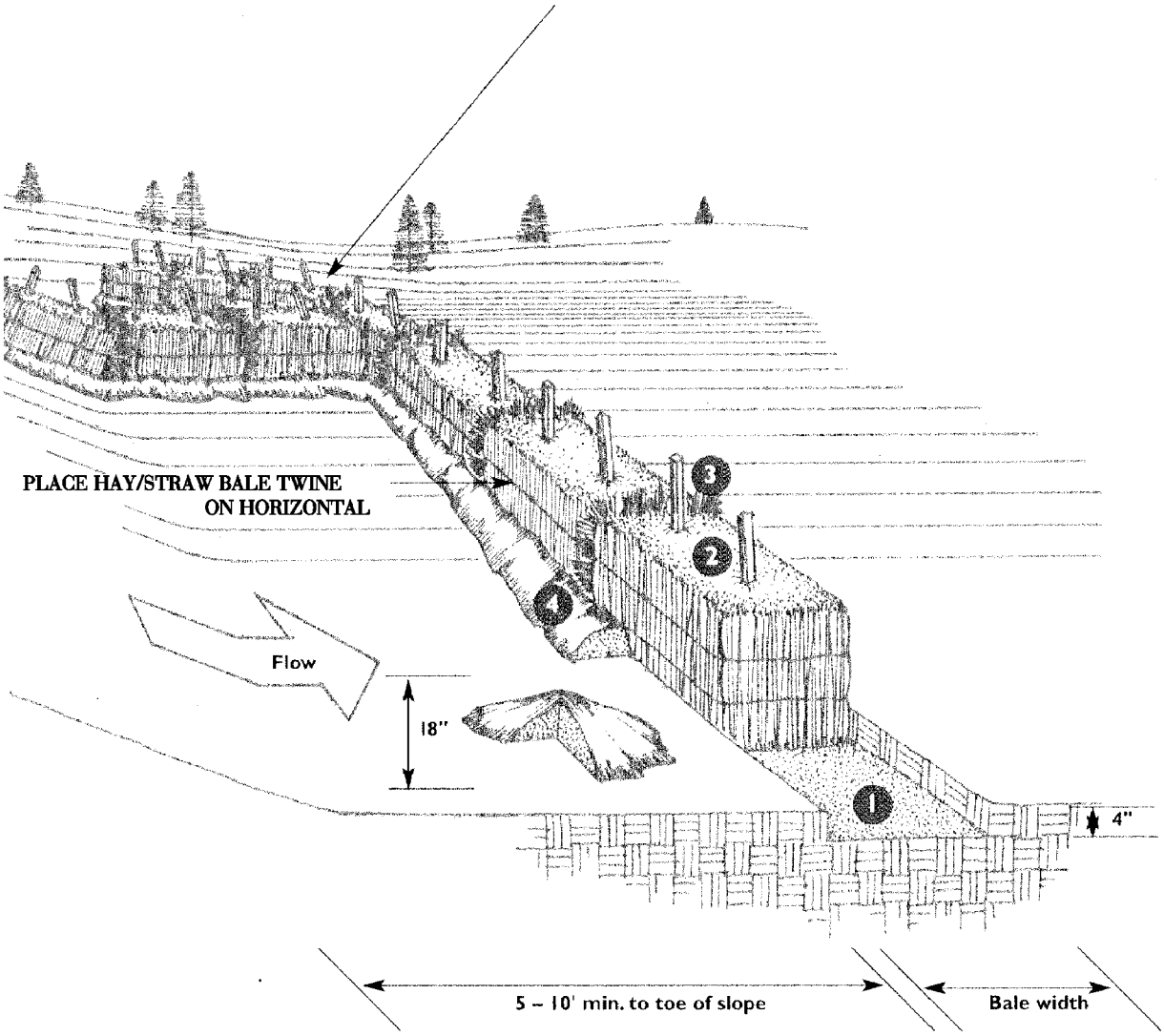
SOURCE: 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL

TYPICAL GEOTEXTILE SILT FENCE

NOT TO SCALE

PLACE HAY/STRAW BALES ON CONTOUR AND WING LAST HAY/STRAW BALES UPSLOPE SO THAT TOP OF LAST SEVERAL HAY/STRAW BALES ARE HIGHER THAN LINE OF HAY/STRAW BALES.

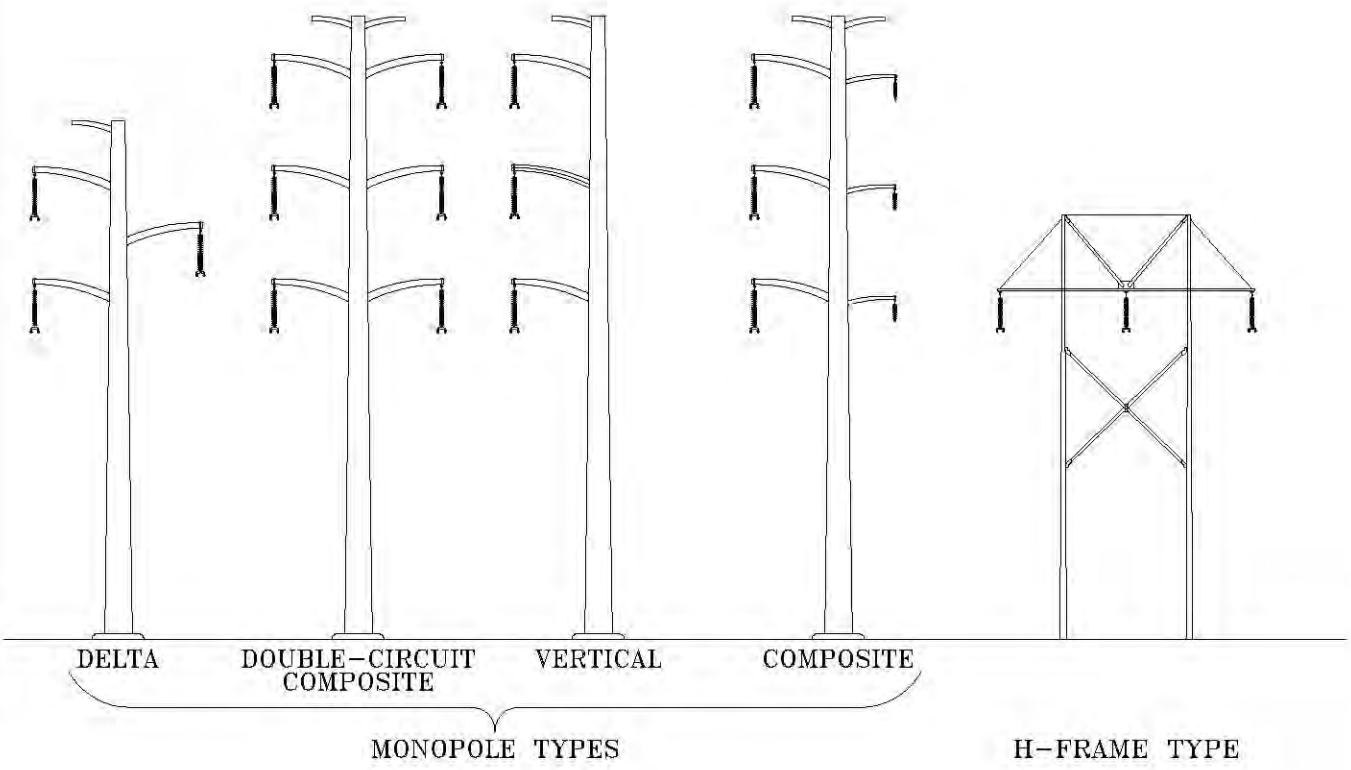
1. EXCAVATE TRENCH 4" AND PLACE FILL UP-SLOPE OF TRENCH.
2. PLACE HAY/STRAW BALE AND STAKE FIRST STAKE AT ANGLE TOWARDS FIRST BALE. STAKES ARE 18" MIN. INTO GROUND.
3. WEDGE LOOSE HAY/STRAW BETWEEN BALES.
4. BACKFILL & COMPACT EXCAVATED FILL ALONG HAY/STRAW BALE.

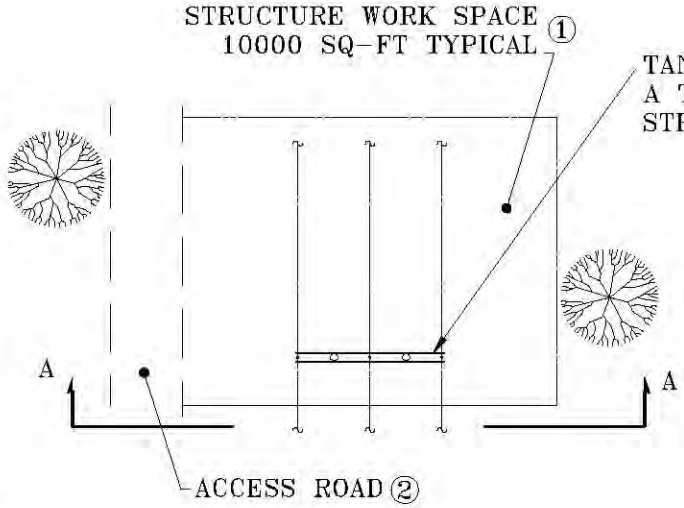


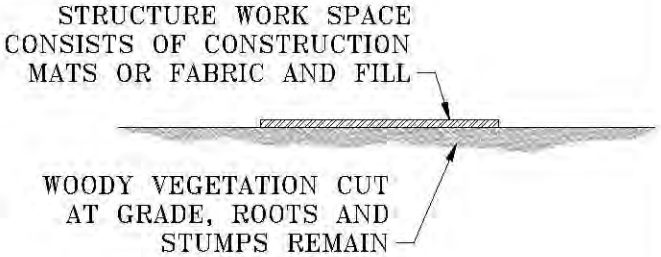
SOURCE: 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL

TYPICAL HAY/STRAW BALE BARRIER
NOT TO SCALE

TYPICAL WORK SPACE PLAN AND PROFILE DRAWINGS







SECTION A-A

NOTES:

① DETAILS AT EACH STRUCTURE TO BE TAILORED TO SITE TOPOGRAPHY AND OTHER CONDITIONS.

② ACCESS ROAD LOCATION, ROAD GAPS AND E&S CONTROLS DETERMINED SPECIFICALLY FOR EACH WETLAND.

Burns & McDonnell

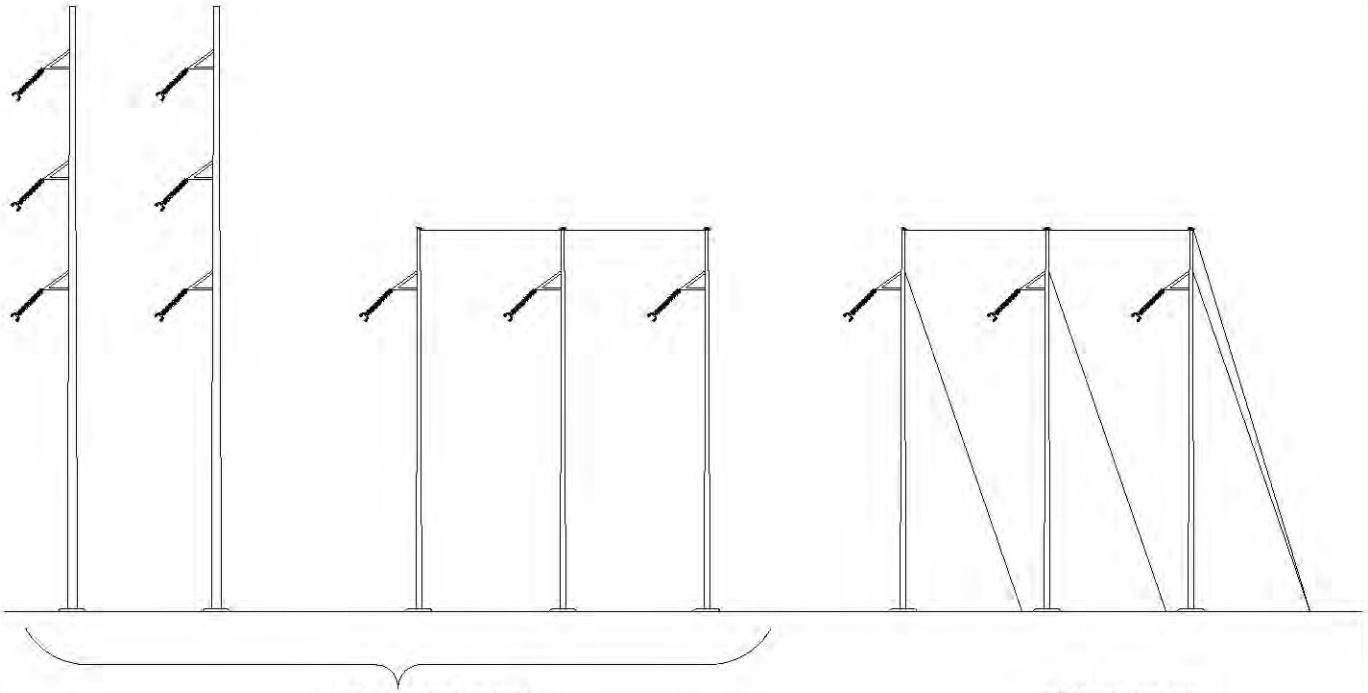
Northeast Utilities Service Co.

FOR CONNECTICUT LIGHT & POWER COMPANY

TITLE: TYPICAL WORK SPACE WITHIN A WETLAND FOR TANGENT CONSTRUCTION

BY RGD	CHKD. .	APP. .	APP. .
DATE 5/14/09	DATE .	DATE .	DATE .
SCALE NONE	SIZE A	DWG. NO. FIGURE 1	
PROJ.	V.S.		

N:\NUSCO\45709\Cadd\Non-Records-Retained\OH\Figures\Typical Workspace\Figure 1.dwg (Figure1) 06-16-2009 14:49 RGD B&McD



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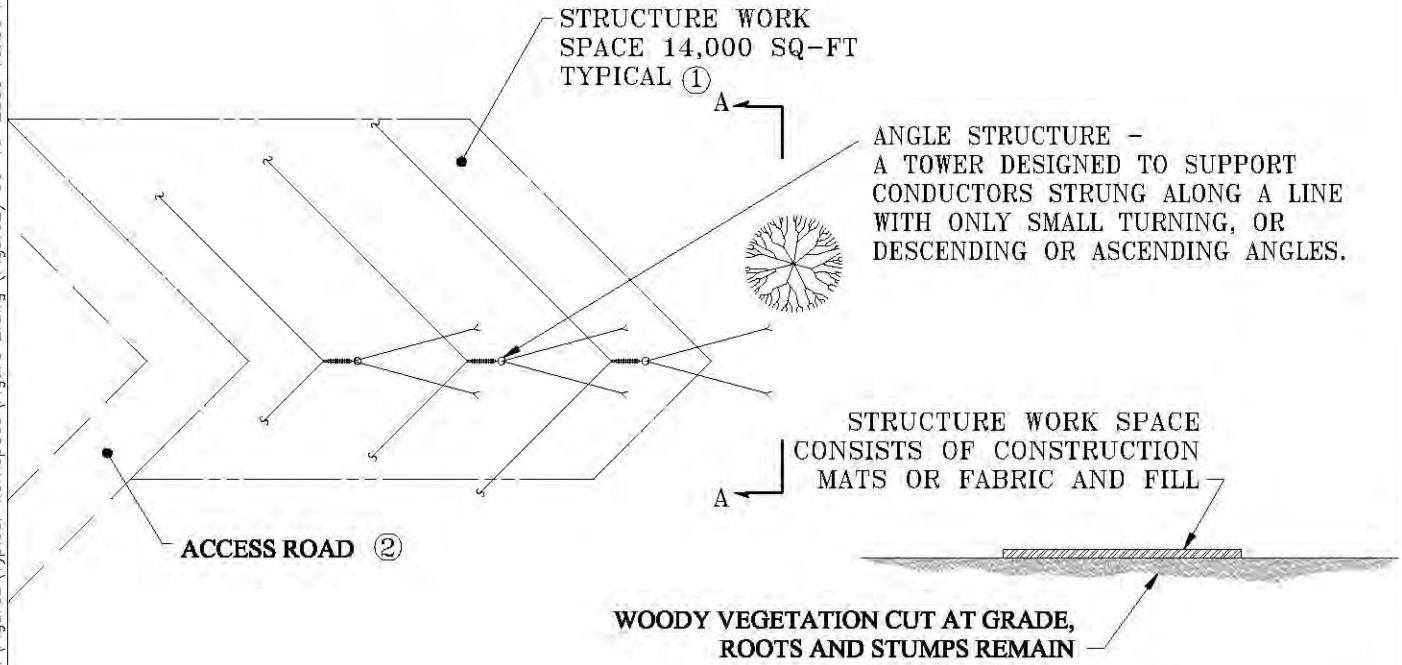
GUYED TYPE



SECTION A-A

NOTES:

(1) DETAILS AT EACH STRUCTURE TO BE TAILORED TO SITE TOPOGRAPHY AND OTHER CONDITIONS.

(2) ACCESS ROAD LOCATION, ROAD GAPS AND E&S CONTROLS DETERMINED SPECIFICALLY FOR EACH WETLAND.

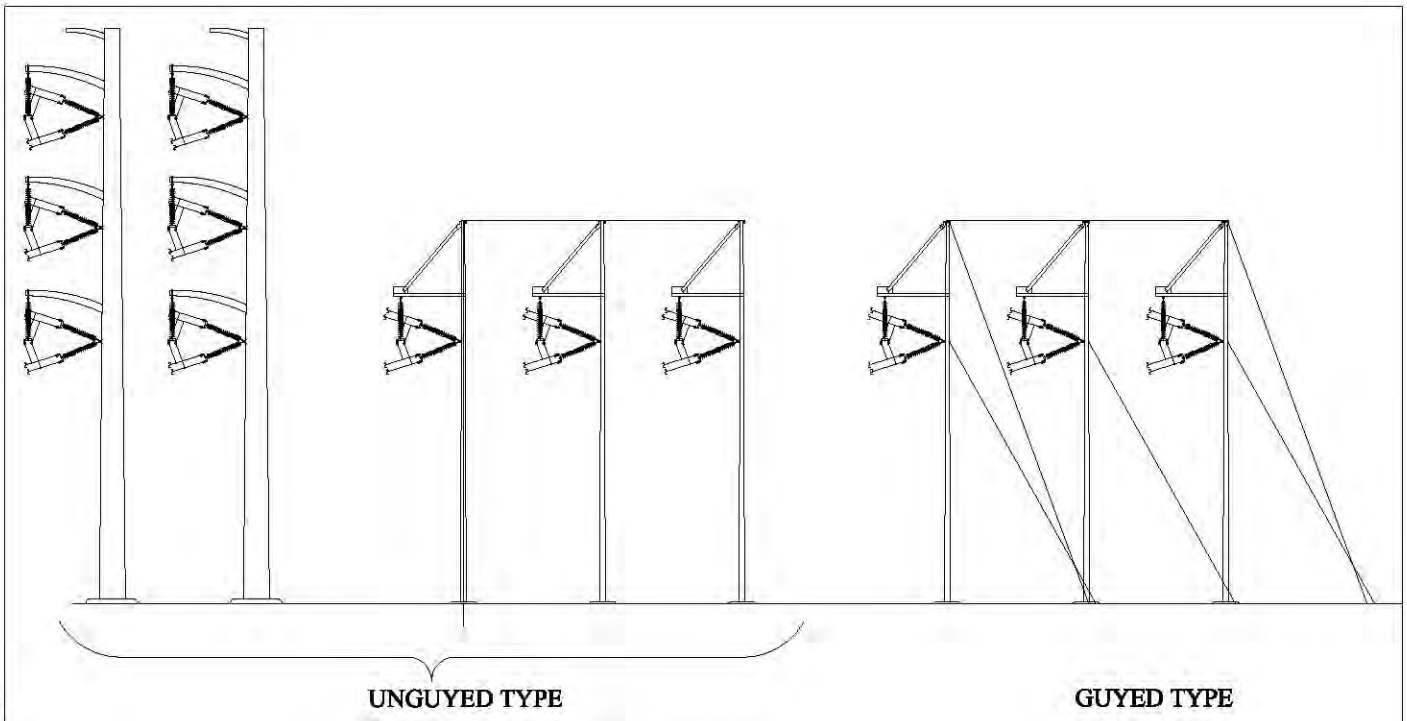
Northeast Utilities Service Co.

FOR CONNECTICUT LIGHT & POWER COMPANY

TITLE TYPICAL WORK SPACE WITHIN A WETLAND FOR MULTI-POLE SMALL TO MEDIUM ANGLE CONSTRUCTION

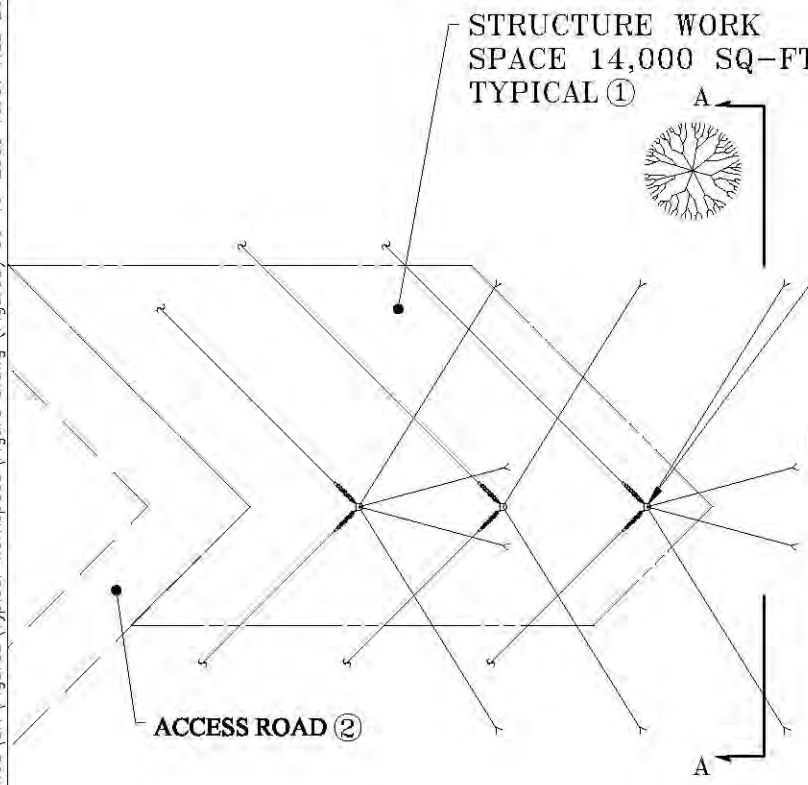
BY RGD	CHKD. .	APP. .	APP. .
DATE 5/14/09	DATE .	DATE .	DATE .
SCALE NONE	SIZE A	DWG. NO. FIGURE 2	
PROJ.	V.S.		

N:\NUSCO\45709\Cadd\Non-Records-Retained\OH\Figures\Typical Workspace\Figure 2.dwg (Figure2) 06-16-2009 15:06 RGD B&McD

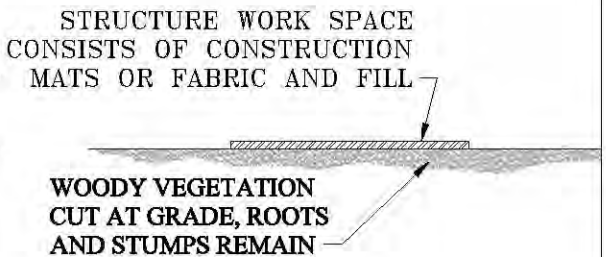


UNGUYED TYPE

GUYED TYPE



DEAD-END STRUCTURE -
A TOWER DESIGNED FOR USE WHERE THE LINE LOADS EXERT HEAVY TENSION (PULL) ON THE TOWER, SUCH AS AT LARGE TURNING ANGLES.



SECTION A-A

NOTES:

① DETAILS AT EACH STRUCTURE TO BE TAILORED TO SITE TOPOGRAPHY AND OTHER CONDITIONS.

② ACCESS ROAD LOCATION, ROAD GAPS AND E&S CONTROLS DETERMINED SPECIFICALLY FOR EACH WETLAND.

Northeast Utilities Service Co.

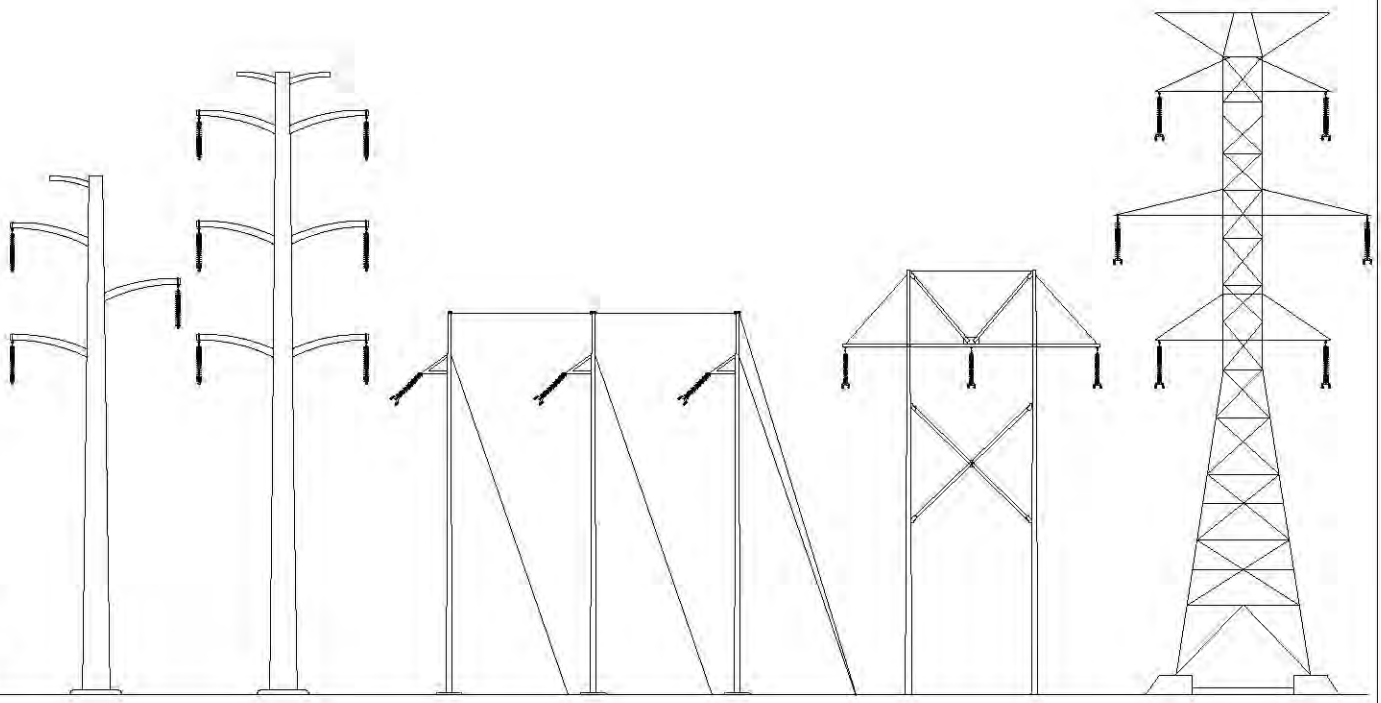
FOR CONNECTICUT LIGHT & POWER COMPANY

TITLE

TYPICAL WORK SPACE WITHIN A WETLAND FOR MULTI-POLE HEAVY ANGLE CONSTRUCTION

BY RGD	CHKD. .	APP. .	APP. .
DATE 5/14/09	DATE .	DATE .	DATE .
SCALE NONE	SIZE A	DWG. NO.	
PROJ.	V.S.	FIGURE 3	

N:\NUSCO\45709\Cadd\Non-Records-Retained\OH\Figures\Typical Workspace\Figure 3.dwg (Figure3) 06-16-2009 15:07 RGD B&McD

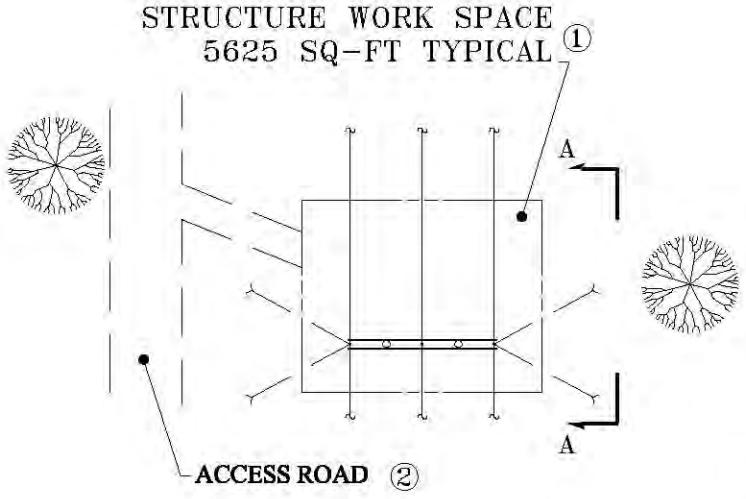


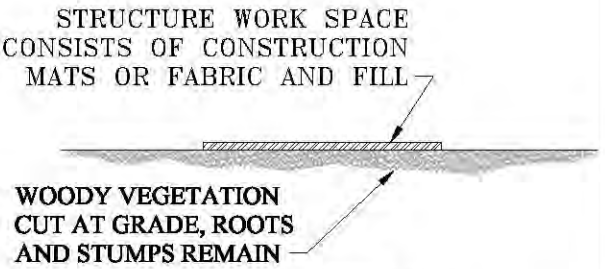
MONOPOLE TYPES

GUYED TYPE

H-FRAME TYPE

LATTICE TOWER





SECTION A-A

NOTES:

① DETAILS AT EACH STRUCTURE TO BE TAILORED TO SITE TOPOGRAPHY AND OTHER CONDITIONS.

② ACCESS ROAD LOCATION, ROAD GAPS AND E&S CONTROLS DETERMINED SPECIFICALLY FOR EACH WETLAND.

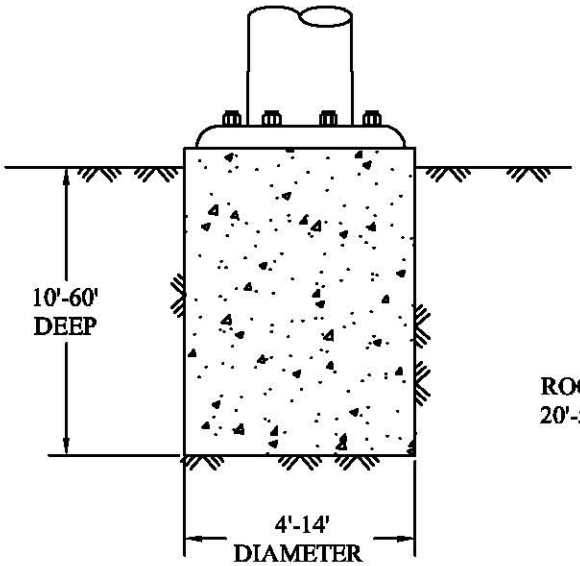
Northeast Utilities Service Co.

FOR CONNECTICUT LIGHT & POWER COMPANY

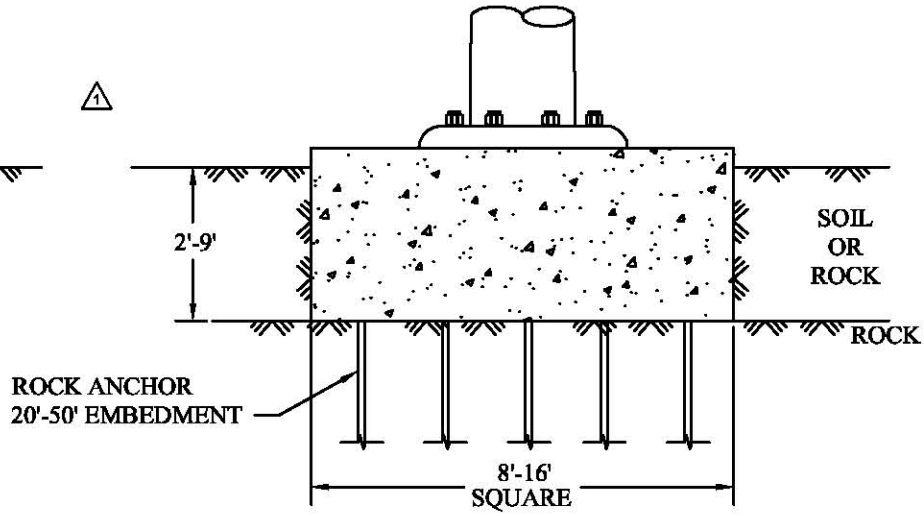
TITLE: TYPICAL WORK SPACE WITHIN A WETLAND FOR STRUCTURE REMOVAL

BY RGD	CHKD. .	APP. .	APP. .
DATE 5/14/09	DATE .	DATE .	DATE .
SCALE NONE	SIZE A	DWG. NO.	
PROJ.	V.S.	FIGURE 4	

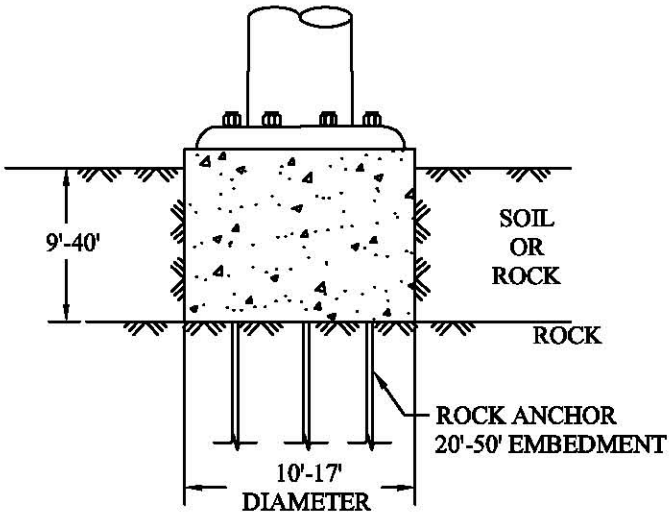
TYPICAL FOUNDATION DRAWINGS



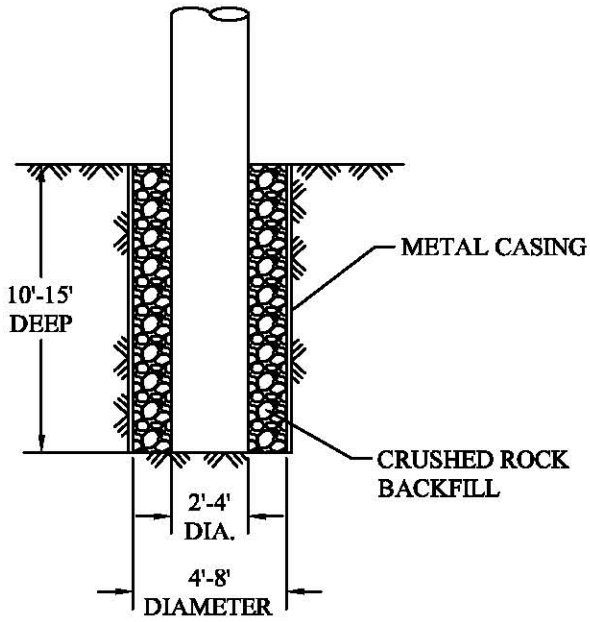
TYPICAL CAISSON
FOUNDATION
FOR STEEL POLE
(TYPE I)



TYPICAL ROCK
FOUNDATION WITH
ANCHORS
FOR STEEL POLE
(TYPE III)



TYPICAL ROCK
FOUNDATION WITH
ANCHORS
FOR STEEL POLE
(TYPE II)



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.

NO.	DATE	REVISIONS	BY	CHK	APP	APP
2	5/16/07	ISSUED TO CONTRACTOR	JPB	JMH		
1	12/6/06	REVISED DETAILS TO REFLECT ANTICIPATED DESIGN	JPB	JMH		

NORTHEAST UTILITIES SERVICE CO.

FOR **THE CONNECTICUT LIGHT & POWER COMPANY**
BERLIN, CONNECTICUT

TITLE

TYPICAL FOUNDATIONS

BY	RDG	CHKD	APP	DEH	APP
DATE	2/17/05	DATE	DATE	3/21/05	DATE
SCALE	NTS	MICROFILM DATE	DWG. NO.	01229-60001	
P.A. #			PROJ.		V.S.

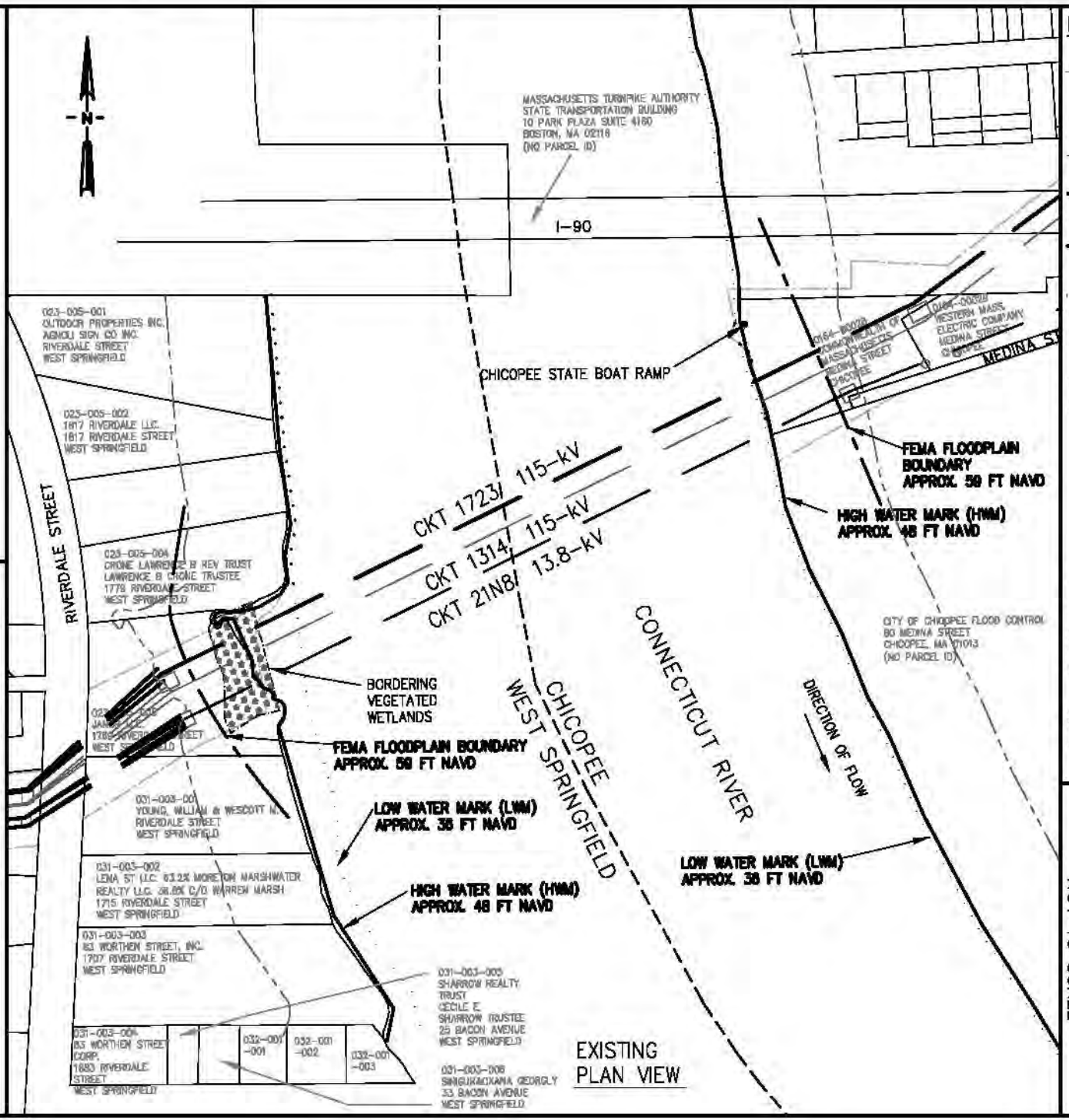
CONNECTICUT RIVER PLAN AND PROFILE DRAWINGS

DRAFT

PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS ELECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 1 OF 11



LEGEND:

- TOPOGRAPHIC ELEVATIONS ARE IN FT IN DATUM NAVD 1988.
- PROPERTY LINE
- HIGH WATER MARK (HWM)
- FEMA FLOODPLAIN BOUNDARY
- LOW WATER MARK (LWM)
- WETLAND
- WETLAND BOUNDARY
- 200-FOOT WPA RIVERFRONT AREA
- EXISTING TOWER
- EXISTING POLE

NOTES:

1. EXISTING WATERWAYS LISCENSE FOR THE 115-KV LINE IS #2269 (NOVEMBER 19, 1940).
2. EXISTING WATERWAYS LISCENSE FOR THE 13.8-KV (ORIGINALLY 66-kV NOT 69-kV) LINE IS #3744 (MAY 28, 1913)

0 300 450 600

SCALE: 1" = 300'

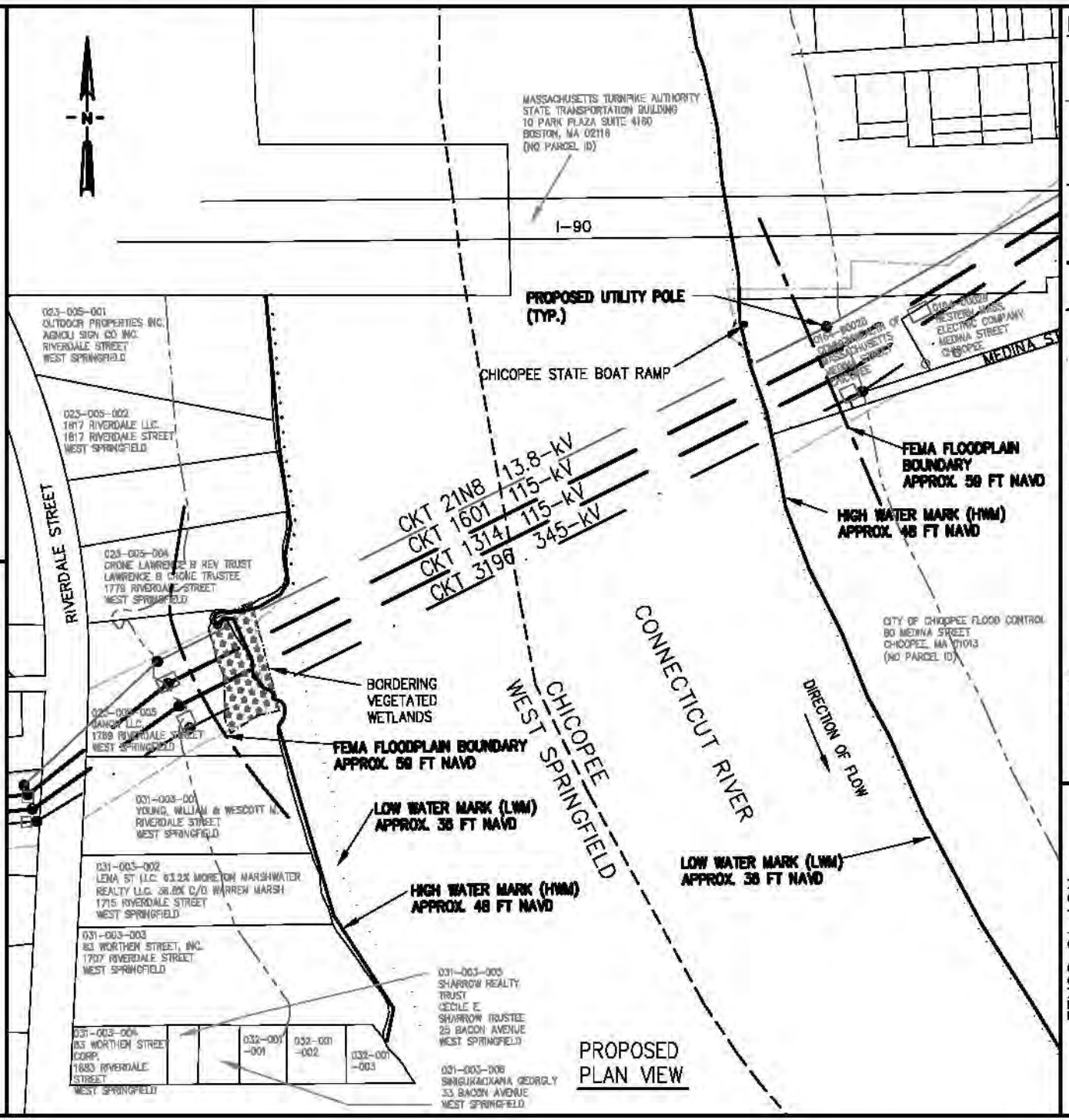
LOCUS MAP
NOT TO SCALE

DRAFT

PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS ELECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 2 OF 11



LEGEND:

- TOPOGRAPHIC ELEVATIONS ARE IN FT IN DATUM NAVD 1988.
- PROPERTY LINE
- PROPOSED UTILITY POLE
- HIGH WATER (HWM)
- FEMA FLOODPLAIN BOUNDARY
- LOW WATER (LWM)
- WETLAND
- WETLAND BOUNDARY
- 200-FOOT WPA RIVERFRONT AREA
- EXISTING TOWER
- EXISTING POLE

0 300 450 600

SCALE: 1" = 300'

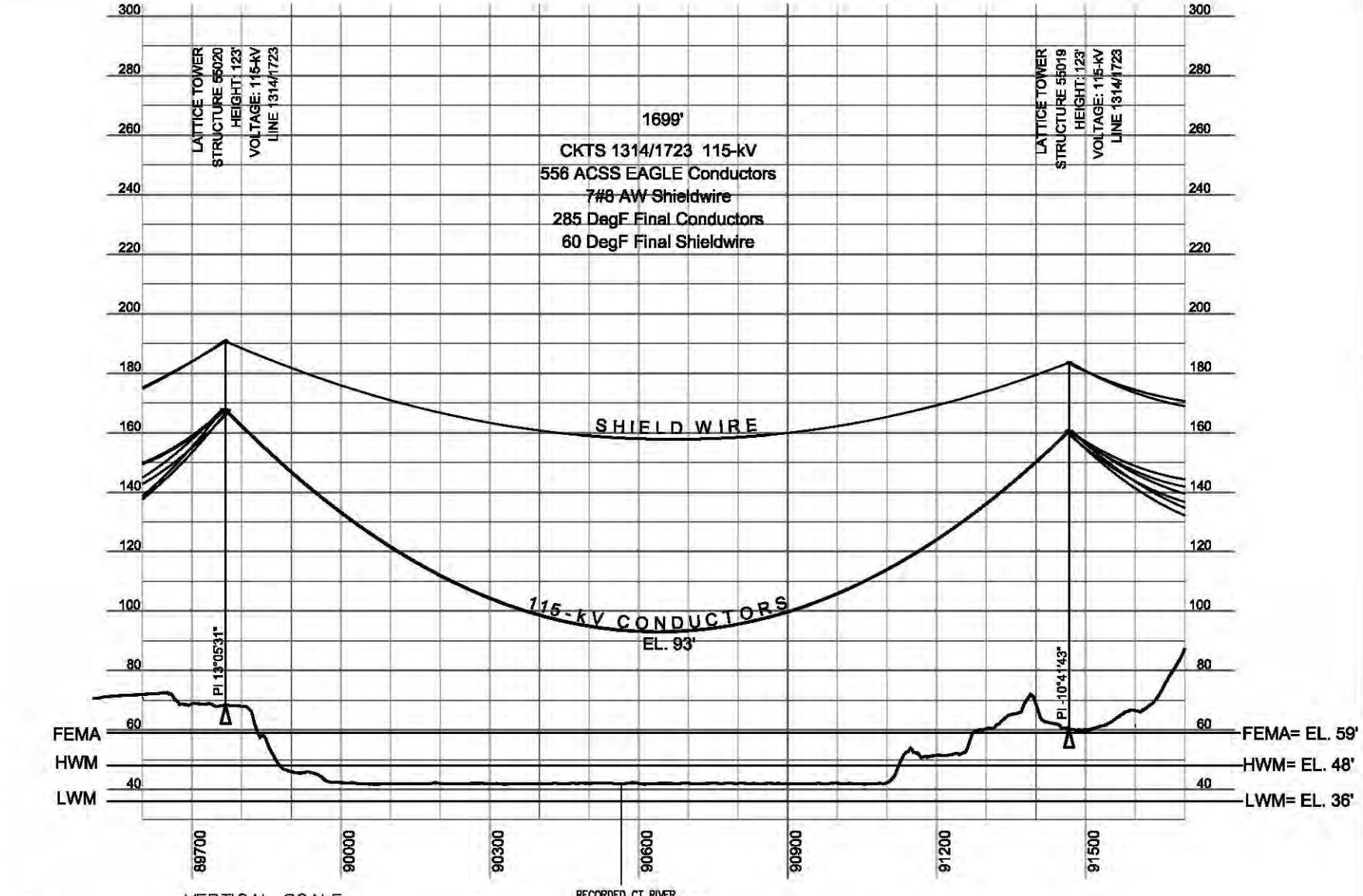
LOCUS MAP
NOT TO SCALE

DRAFT

PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS ELECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 3 OF 11



VERTICAL SCALE

50 0 50 100

SCALE IN FEET

HORIZONTAL SCALE

300 0 300 600

SCALE IN FEET

EXISTING PROFILE VIEW FOR 115-kV CONDUCTORS

HORZ: 1"=300'

VERT: 1"=50'

NOTES:

1. ELEVATIONS, IN SURVEY FEET, ARE REFERENCED TO NAVD 88.
2. LOCATIONS OF HWM AND LWM ARE APPROXIMATE, AND ARE BASED ON NAVD.

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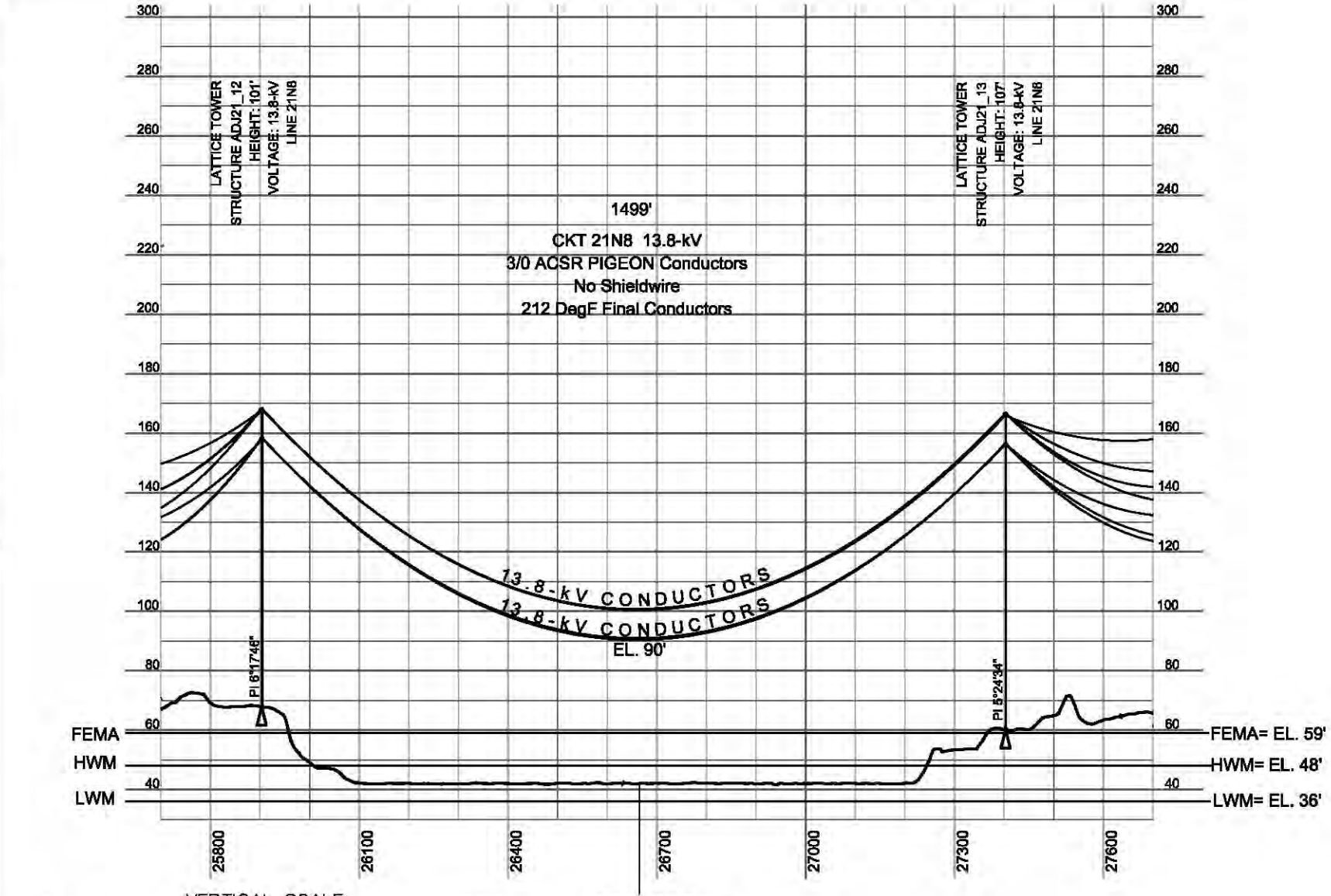
PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS ELECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 4 OF 11



VERTICAL SCALE

50 0 50 100

SCALE IN FEET

HORIZONTAL SCALE

300 0 300 600

SCALE IN FEET

RECORDED CT RIVER SURFACE WATER ELEVATION. SURVEYED MAY 2008.

EXISTING PROFILE VIEW FOR 13.8–kV CONDUCTORS

HORZ: 1"=300'

VERT: 1"=50'

NOTES:

1. ELEVATIONS, IN SURVEY FEET, ARE REFERENCED TO NAVD 88.
2. LOCATIONS OF HWM AND LWM ARE APPROXIMATE, AND ARE BASED ON NAVD.

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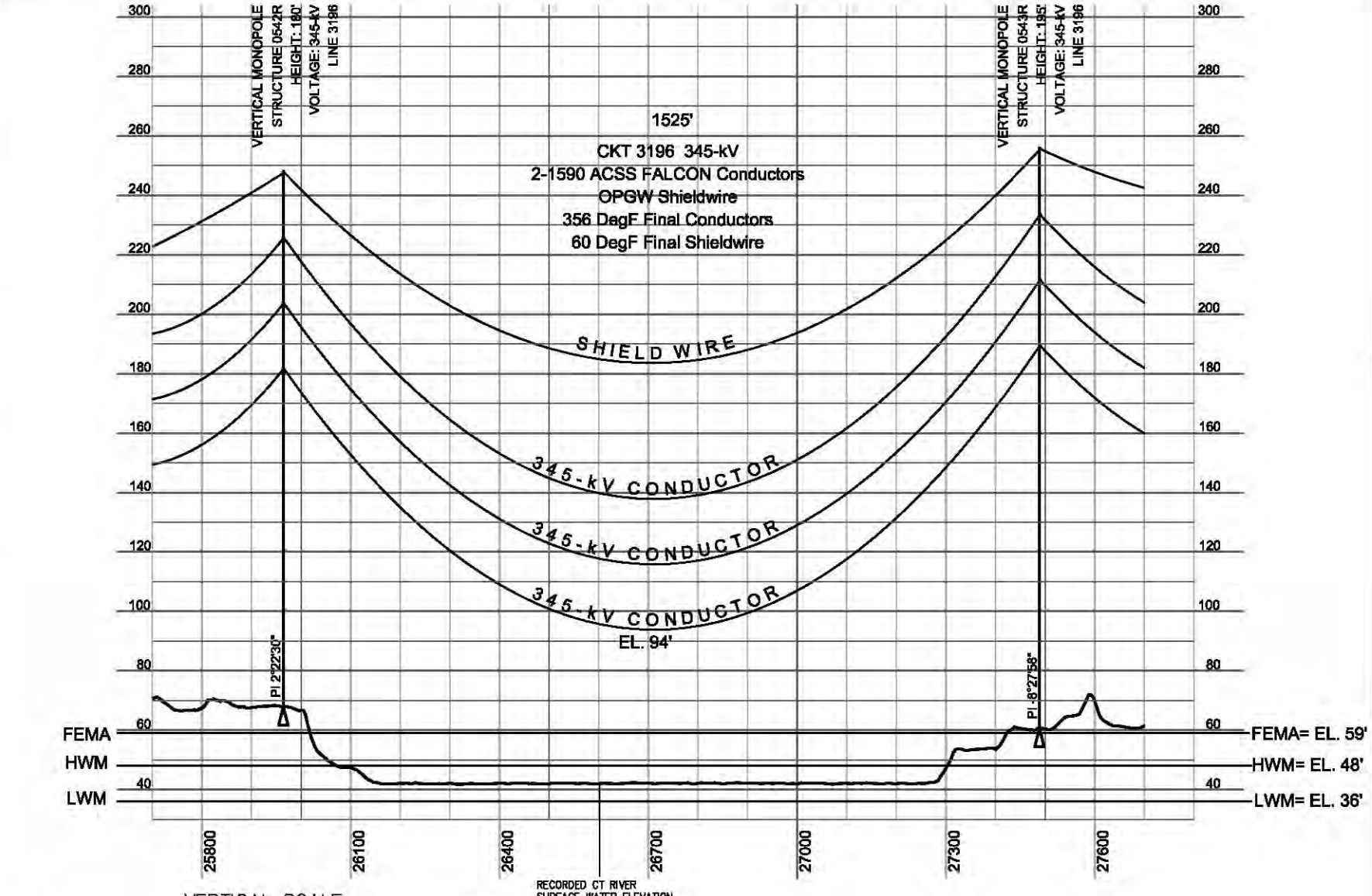
PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS ELECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 5 OF 11



VERTICAL SCALE

50 0 50 100

SCALE IN FEET

HORIZONTAL SCALE

300 0 300 600

SCALE IN FEET

PROPOSED PROFILE VIEW FOR
345–kV CONDUCTORS

HORZ: 1"=300'
VERT: 1"=50'

NOTES:

1. ELEVATIONS, IN SURVEY FEET, ARE REFERENCED TO NAVD 88.
2. LOCATIONS OF HWM AND LWM ARE APPROXIMATE, AND ARE BASED ON NAVD.

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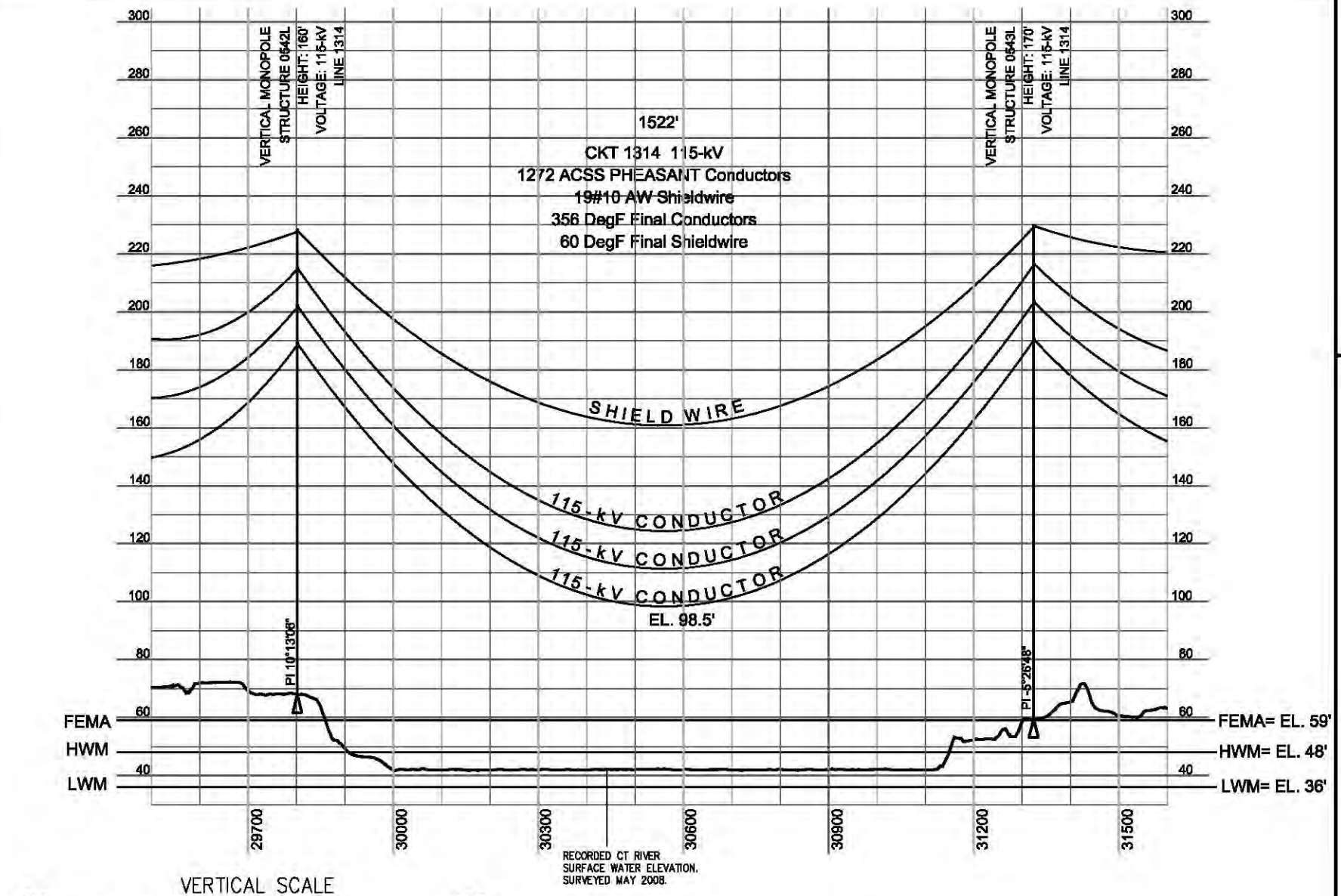
PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS ELECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 6 OF 11



VERTICAL SCALE

50 0 50 100

SCALE IN FEET

HORIZONTAL SCALE

300 0 300 600

SCALE IN FEET

PROPOSED PROFILE VIEW FOR
115-kV CONDUCTORS

HORZ: 1"=300'
VERT: 1"=50'

NOTES:

1. ELEVATIONS, IN SURVEY FEET, ARE REFERENCED TO NAVD 88.
2. LOCATIONS OF HWM AND LWM ARE APPROXIMATE, AND ARE BASED ON NAVD.

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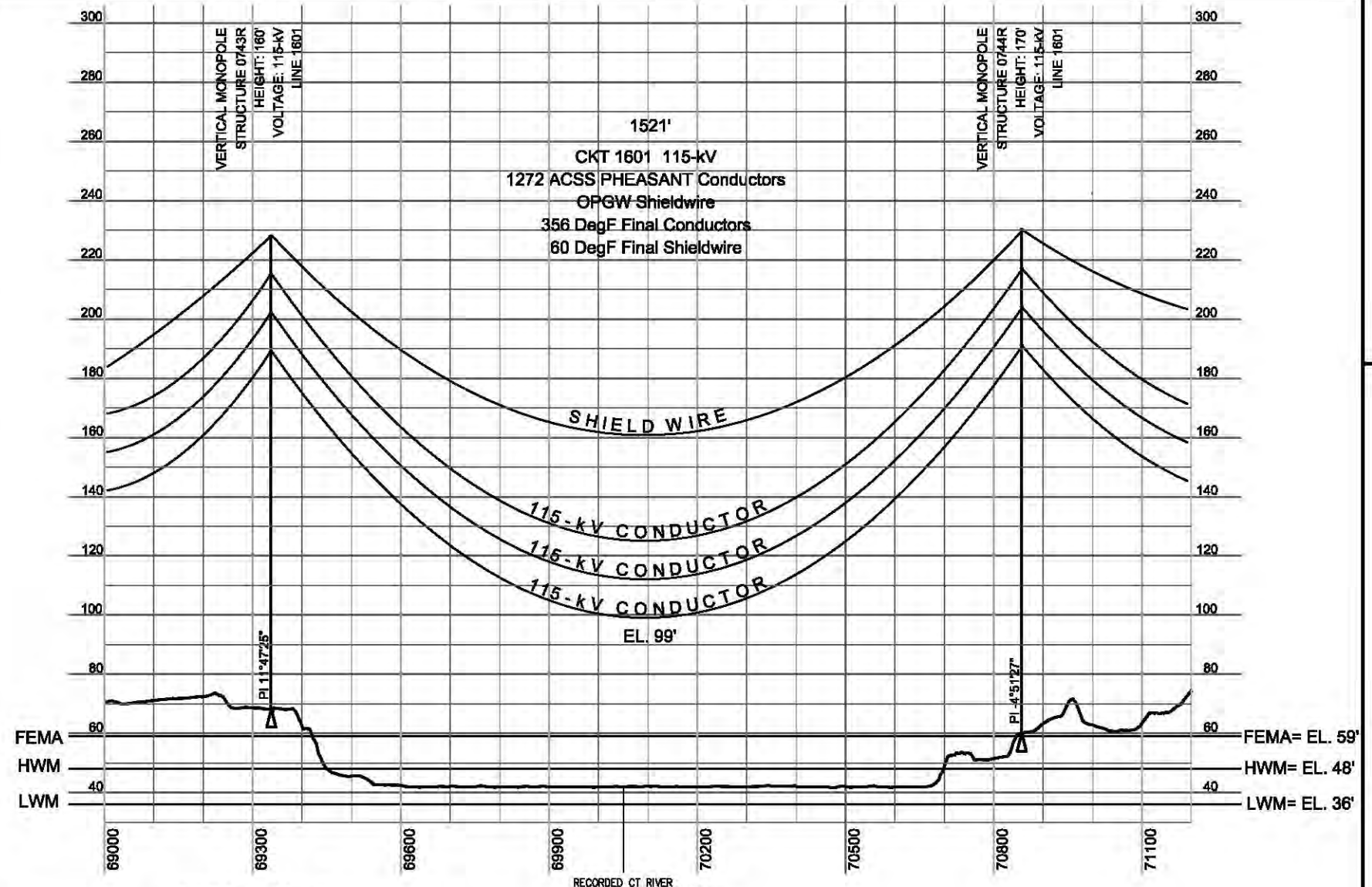
PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS ELECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 7 OF 11



VERTICAL SCALE

50 0 50 100

SCALE IN FEET

HORIZONTAL SCALE

300 0 300 600

SCALE IN FEET

PROPOSED PROFILE VIEW FOR
115-kV CONDUCTORS
HORZ: 1"=300'
VERT: 1"=50'

NOTES:

1. ELEVATIONS, IN SURVEY FEET, ARE REFERENCED TO NAVD 88.
2. LOCATIONS OF HWM AND LWM ARE APPROXIMATE, AND ARE BASED ON NAVD.

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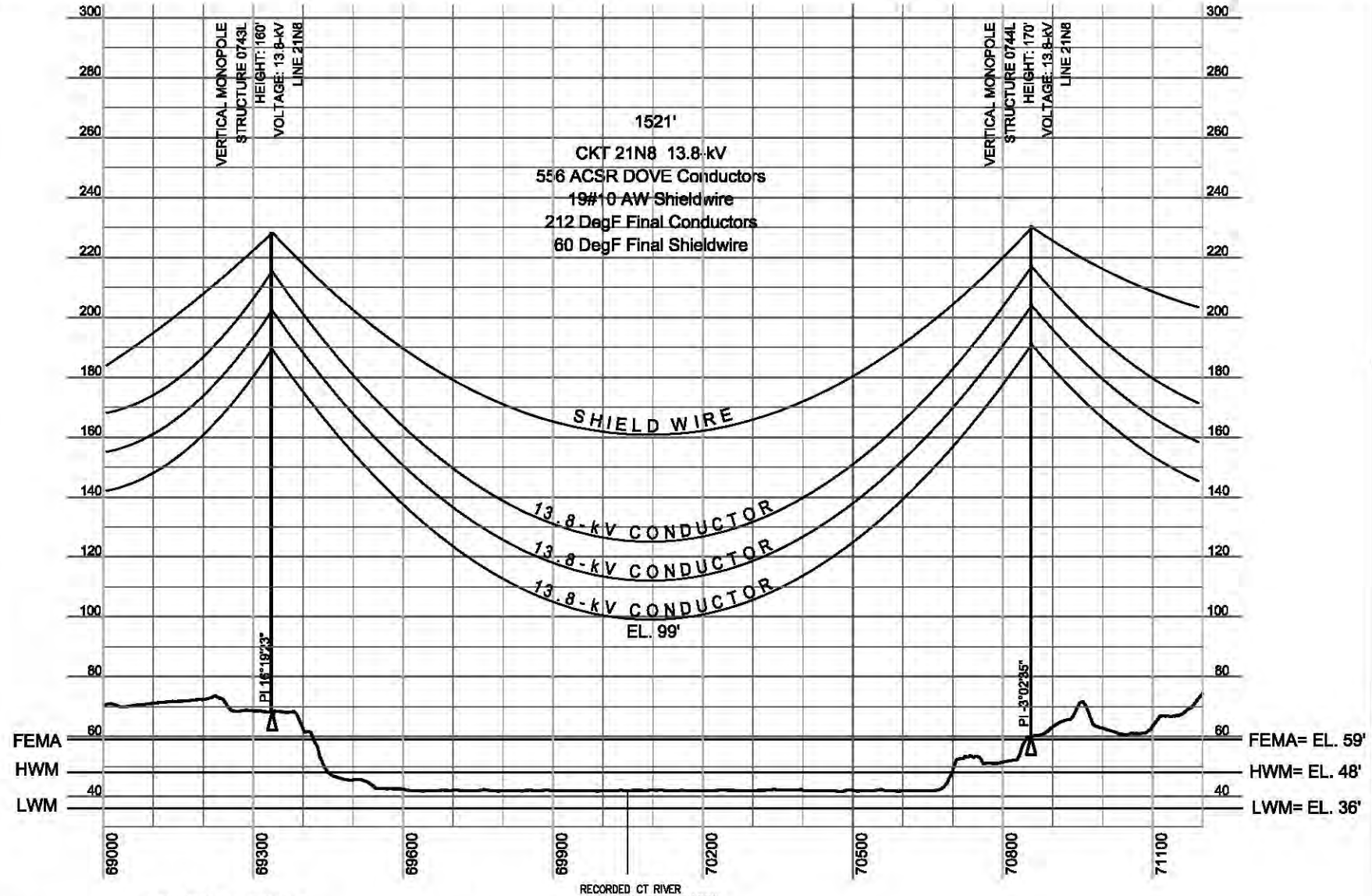
PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS EIECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 8 OF 11



VERTICAL SCALE

50 0 50 100

SCALE IN FEET

HORIZONTAL SCALE

300 0 300 600

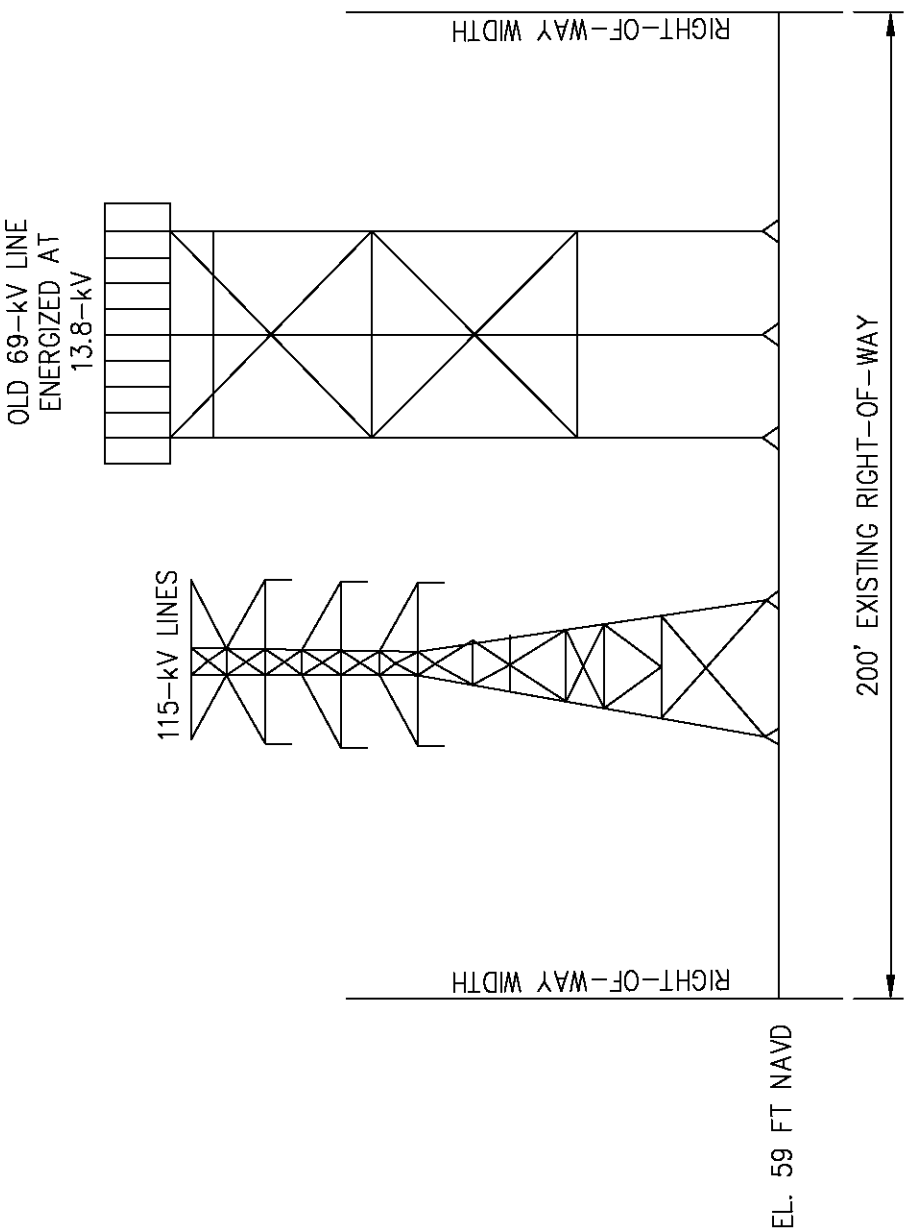
SCALE IN FEET

PROPOSED PROFILE VIEW
FOR 13.8-kV CONDUCTORS
HORZ: 1"=300'
VERT: 1"=50'

NOTES:

1. ELEVATIONS, IN SURVEY FEET, ARE REFERENCED TO NAVD 88.
2. LOCATIONS OF HWM AND LWM ARE APPROXIMATE, AND ARE BASED ON NAVD.

DRAFT



EXISTING RIGHT-OF-WAY ELEVATION
VIEW LOOKING EAST

0 30 45 60
SCALE: 1" = 30'

PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS EIECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

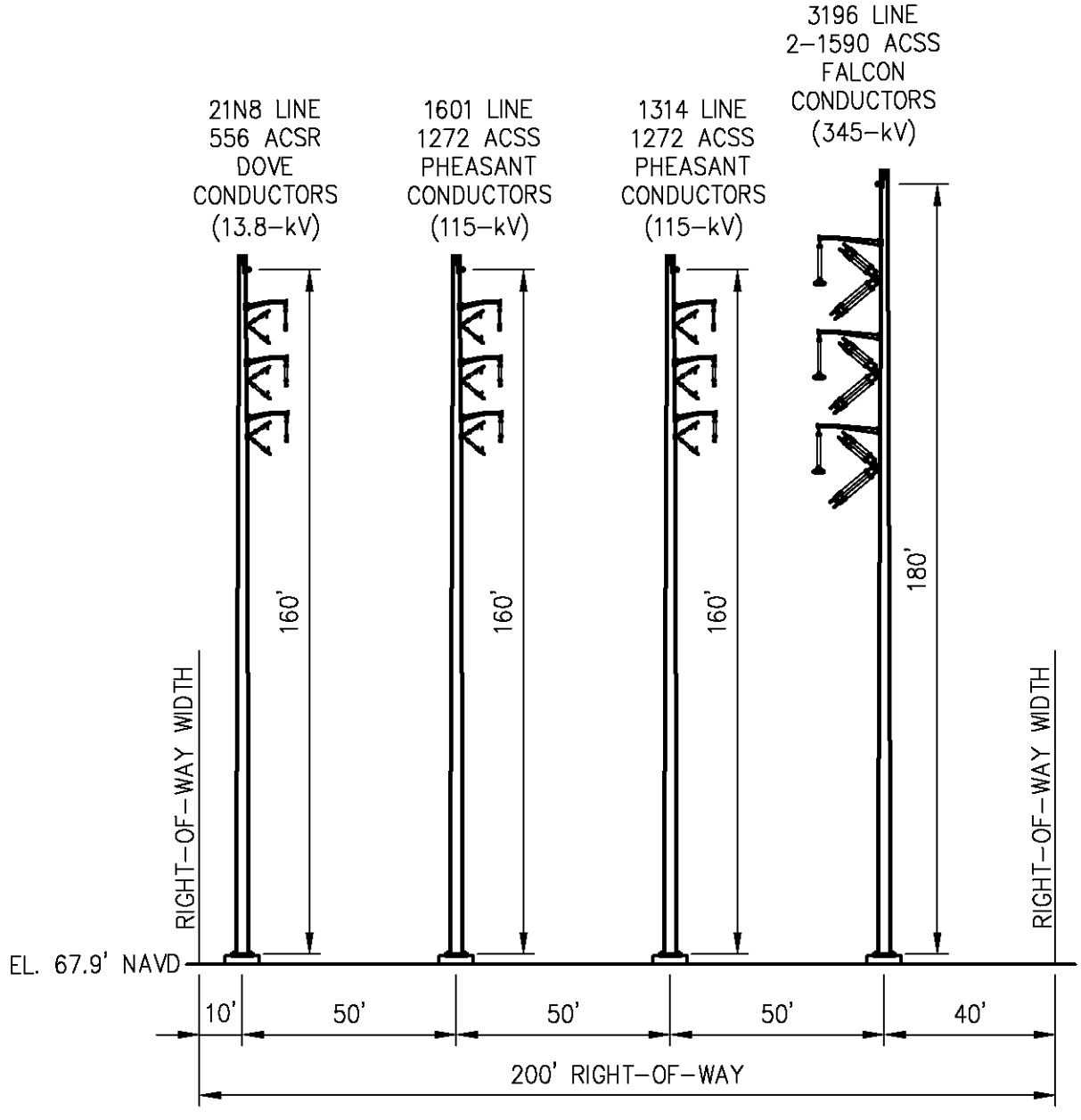
DATE: 06/15/09

DRAFT

PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS ELECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 10 OF 11



0 40 60 80

SCALE: 1" = 40'

PROPOSED ROW ELEVATION – WEST BANK

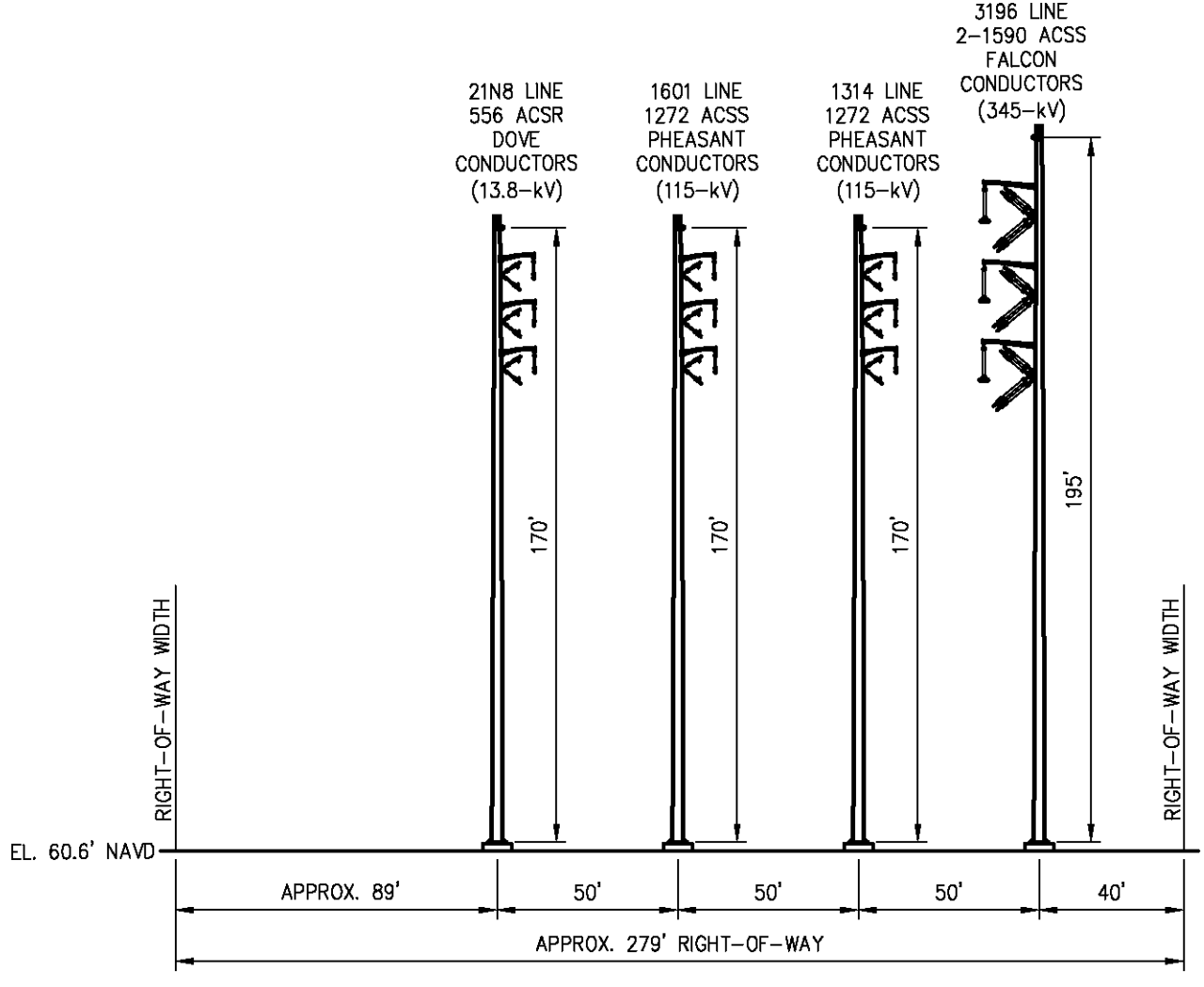
VIEW LOOKING EAST

DRAFT

PLANS ACCOMPANYING PETITION OF WESTERN MASSACHUSETTS ELECTRIC COMPANY TO INSTALL, OPERATE AND MAINTAIN ELECTRIC UTILITY INFRASTRUCTURE FOR GREATER SPRINGFIELD RELIABILITY PROJECT.

DATE: 06/15/09

SHEET 11 OF 11



0 50 75 100

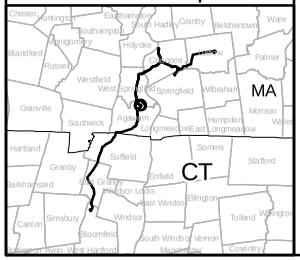
SCALE: 1" = 50'

PROPOSED ROW ELEVATION – EAST BANK

VIEW LOOKING EAST

SUBSTATION PLAN DRAWINGS

Index Map



Legend

Wetland Boundary

Watercourse

N
W
E
S

1 inch = 200 feet

0 200 400 Feet

Greater Springfield Reliability Project

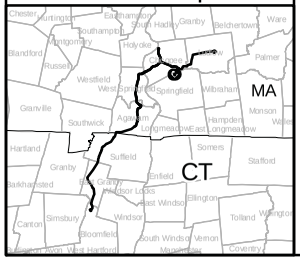
Agawam Substation

Connecticut Light & Power
The Northeast Utilities System

AECOM

Date: June 2009

Index Map



Legend

Wetland Boundary

Watercourse

N
W
E
S

1 inch = 200 feet

0 200 400 Feet

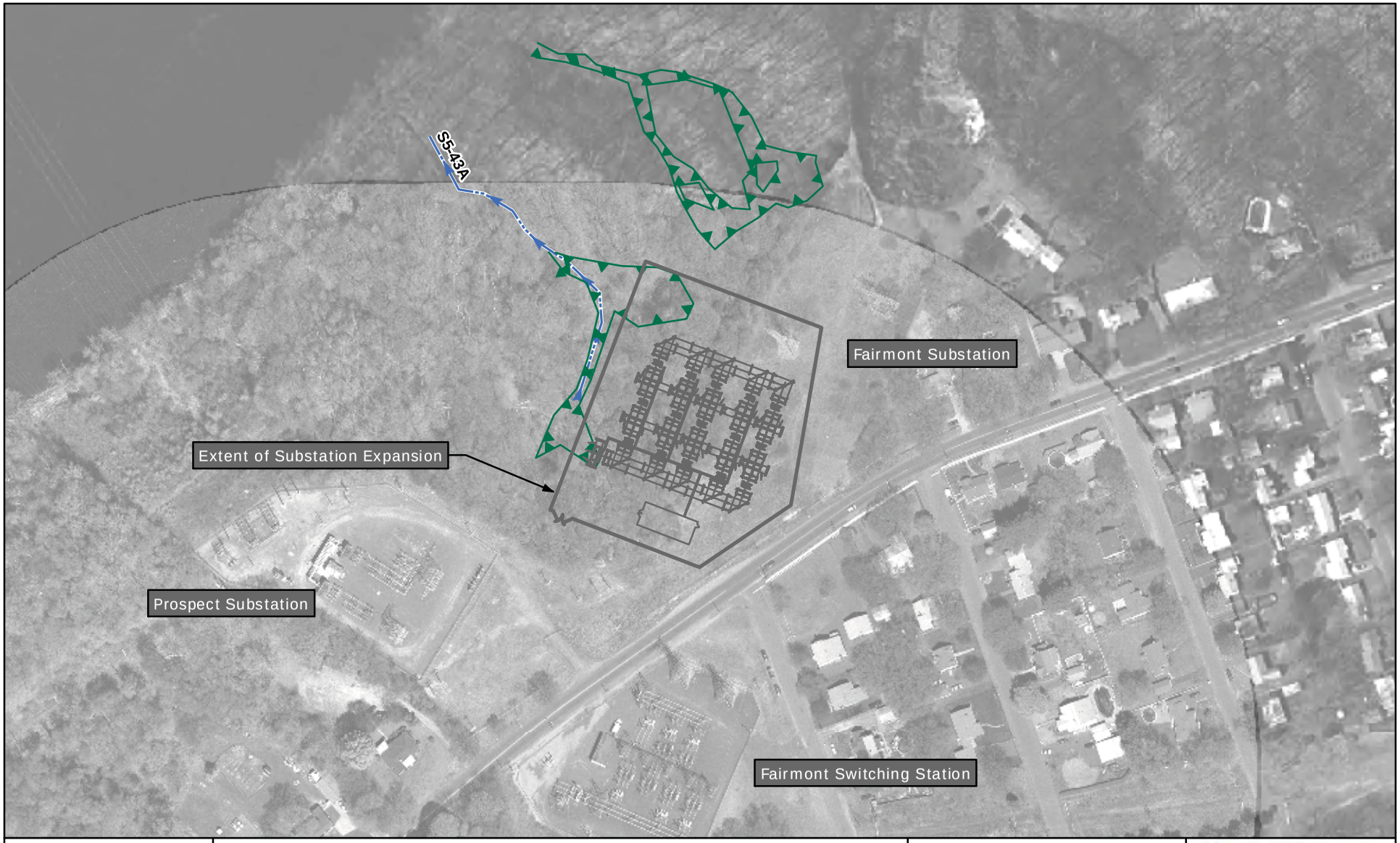
Greater Springfield Reliability Project

Cadwell Switching Station

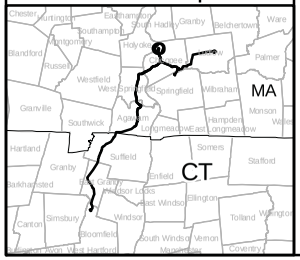
Connecticut Light & Power
The Northeast Utilities System

AECOM

Date: June 2009



Index Map



Legend

Wetland Boundary

Watercourse

N
W
E
S

1 inch = 200 feet

0 200 400 Feet

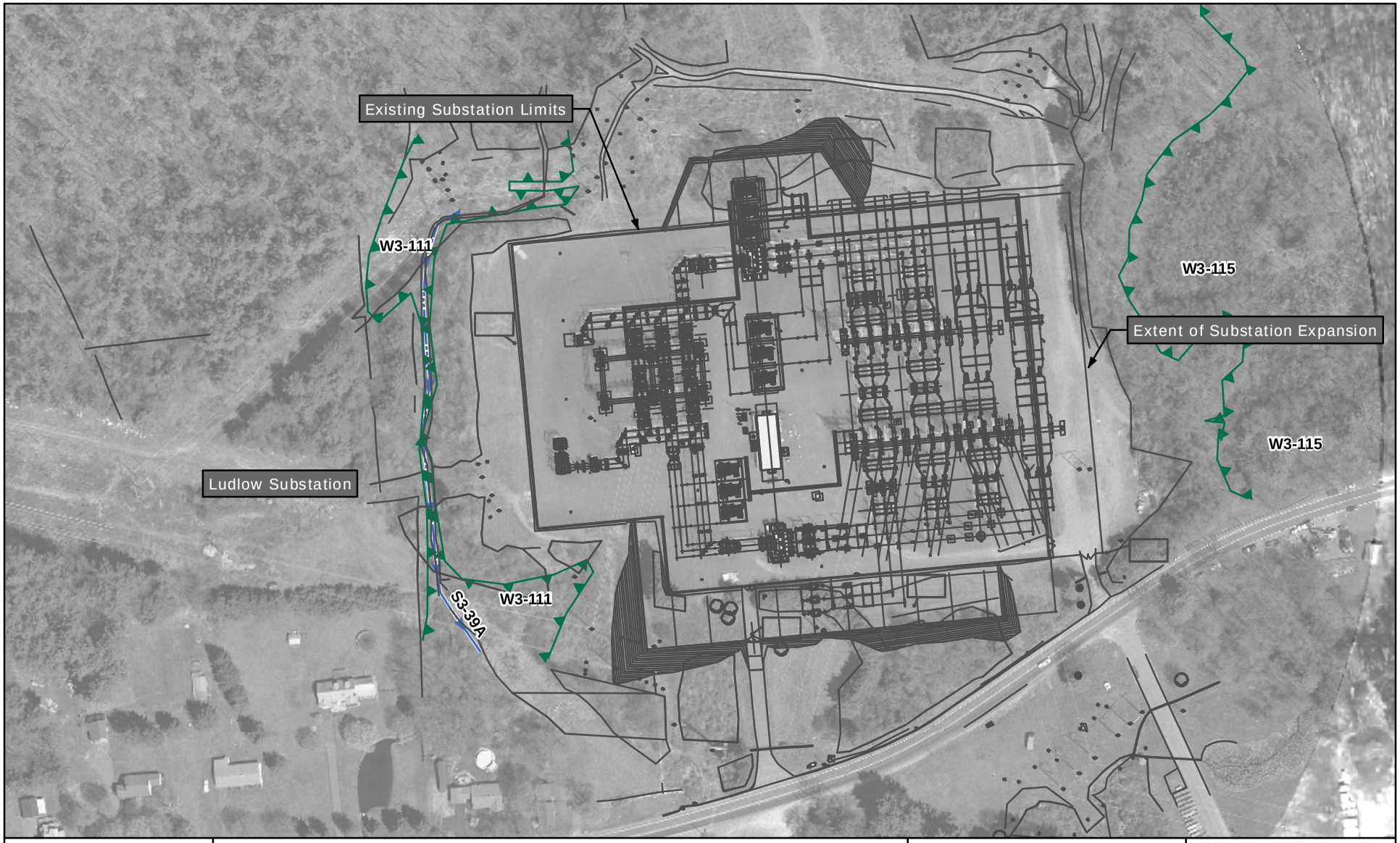
Greater Springfield Reliability Project

Fairmont Switching Station

Connecticut Light & Power
The Northeast Utilities System

AECOM

Date: June 2009



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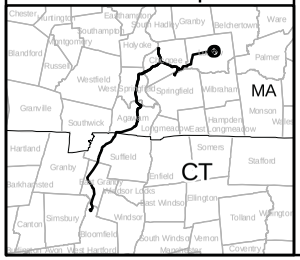


Legend

Wetland Boundary

Watercourse

N
W
E
S

1 inch = 200 feet

0 200 400 Feet

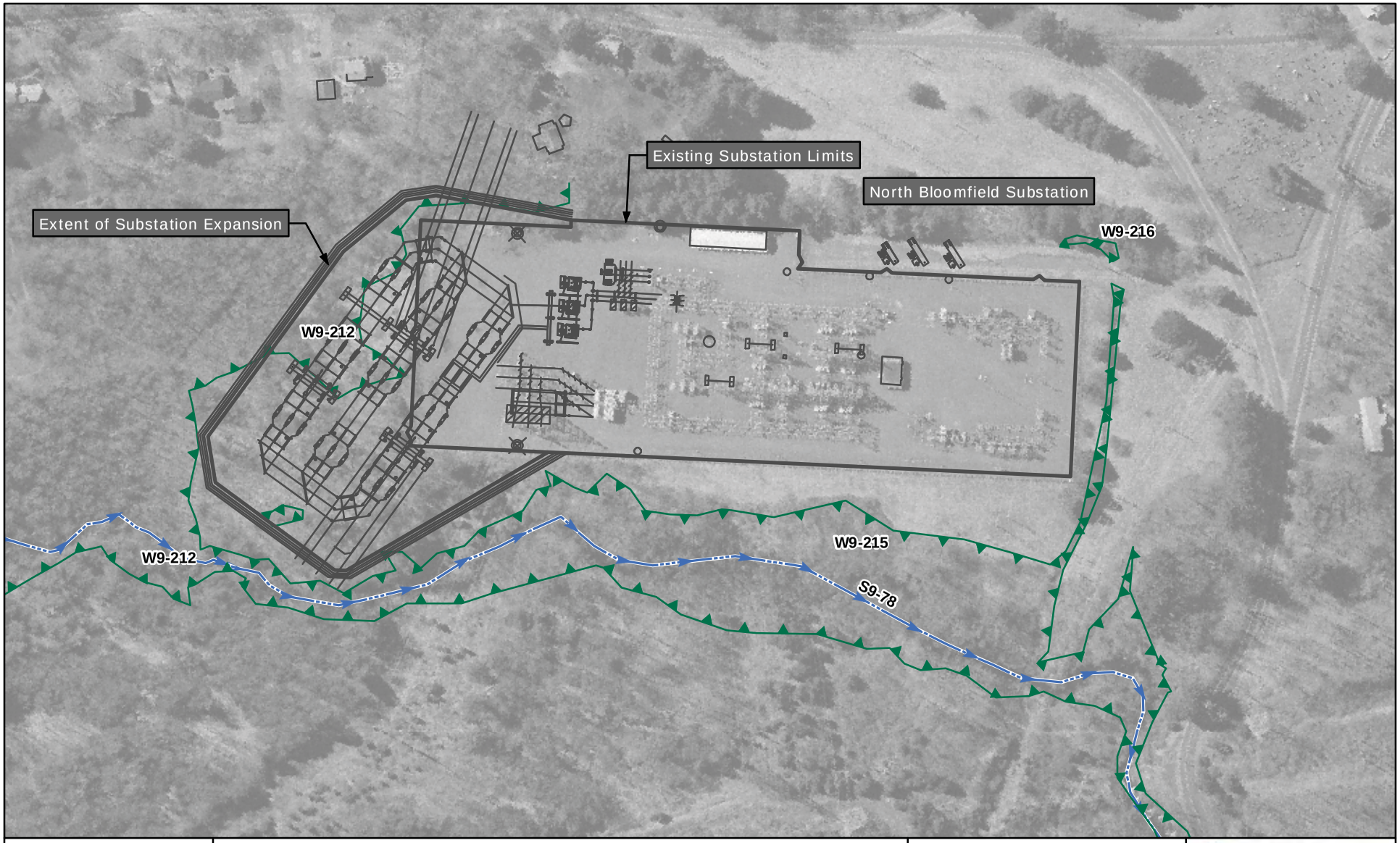
Greater Springfield Reliability Project

Ludlow Substation

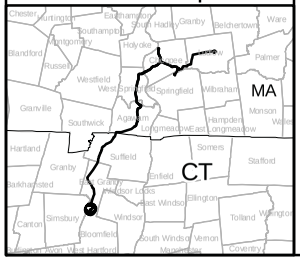
Connecticut Light & Power
The Northeast Utilities System

AECOM

Date: June 2009



Index Map



Legend

Wetland Boundary

Watercourse

1 inch = 200 feet

0 200 400 Feet

Greater Springfield Reliability Project

North Bloomfield Substation

Connecticut Light & Power
The Northeast Utilities System

AECOM

Date: June 2009