A UIL HOLDINGS COMPANY

The United Illuminating Company
180 Marsh Hill Road, Orange, CT 06477-3629
203-499-2000

VIA ELECTRONIC MAIL AND FedEx

December 30, 2014

Mr. Robert Stein
Chairman
The Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: **PETITION NO. 1120** - The United Illuminating Company Petition for a Declaratory Ruling that No Certificate of Environmental Compatibility and Public Need is Required for the Modifications to the Hawthorne Substation Located at 180 Hawthorne Drive, Fairfield, Connecticut.

Dear Chairman Stein:

Please find enclosed the original and fifteen (15) copies of The United Illuminating Company's ("UI") responses to the Siting Council's First Set of interrogatories, dated December 16 and December 18, 2014 in connection with the above-referenced Petition. Additionally, UI will electronically file all responses and attachments via siting.council@ct.gov.

If you have any questions concerning this submittal, please contact me at your convenience.

Very truly yours,

James R. Morrissey
UIL Holdings Corp.

cc: Annette Jacobson, Conservation Commission, Town of Fairfield

CSC-001

Company: The United Illuminating Company **Witness: Matt Cloud**
Ronald Rossetti

Docket No. CSC Petition No. 1120 **Page 1 of 1**

Date Submitted: December 30, 2014

CSC-001 Q: What is the purpose of the proposed gravel area along the northeast side of the property? If it is for equipment storage, what type of equipment would be placed there and for what duration? Will the installation of the proposed gravel area require the removal and or/trimming of existing trees?

CSC-001 A: The gravel area on the northeast side of the property provides a maneuvering area for United Illuminating's mobile transformer. This mobile transformer is utilized in emergency situations following a failure of a station power transformer to restore the substation to normal operation. The mobile transformer is not stored on the property and is brought to this substation from a remote storage location. The gravel area allows for the required turning maneuvers to position the 90 foot long mobile transformer directly across from the 24 foot double swing drive gate. The mobile transformer can then be reversed into the substation yard and connected to the 115kV connection points. This maneuver requires the removal of one tree in the center of the gravel area. The removal of this one tree allows sufficient maneuvering room for the mobile transformer without the need to remove or trim neighboring trees.

CSC-002

Company: The United Illuminating Company **Witness: Shawn Crosbie**

Docket No. CSC Petition No. 1120 **Page 1 of 1**

Date Submitted: December 30, 2014

CSC-002 Q: Please provide a copy of the environmental report prepared for the petition (described in the Town of Fairfield's letter of December 5, 2014).

CSC-002 A: The Town of Fairfield letter (dated 12/5/2014) refers to a "12-page environmental report." The Company assumes the Town is referring to the Company's petition that was filed with the Council since that document is 12 pages long. No other environmental report previously has been filed by the Company. A copy of the Wetland Identification and Delineation Report is being provided in response to interrogatory CSC-004. *Refer to attachment A, Wetland Identification and Delineation Report.*

CSC-003

Company: The United Illuminating Company **Witness: Shawn Crosbie**

Docket No. CSC Petition No. 1120 **Page 1 of 1**

Date Submitted: December 30, 2014

CSC-003 Q: Was a Natural Diversity Database Request to the CT DEEP performed? Please submit supporting documentation.

CSC-003 A: Yes, a National Diversity Database request was submitted to the CT DEEP. A response was received from CT DEEP on 11/14/2014. *Refer to attachment B, Stormwater Discharge Permit for the Hawthorne Substation Located at 180 Hawthorne Drive in Fairfield, Connecticut.*

CSC-004

Company: The United Illuminating Company **Witness: Shawn Crosbie**

Docket No. CSC Petition No. 1120 **Page 1 of 1**

Date Submitted: December 30, 2014

CSC-004 Q: Was a wetland survey conducted for the project? If so, please submit. If not, why not?

CSC-004 A: Yes a wetlands survey was performed on 9/5/2014. *Refer attachment A, Wetland Identification and Delineation Report.*

CSC-005

Company: The United Illuminating Company **Witness: Shawn Crosbie**

Docket No. CSC Petition No. 1120 **Page 1 of 1**

Date Submitted: December 30, 2014

CSC-005 Q: Please describe stormwater control features that are protective of adjacent properties and wetlands/watercourses.

CSC-005 A: The following stormwater control features will be used during construction:

- Silt Fence
- Erosion Control Blankets
- Hay Bales
- Diversion Swales
- Restoration (Seeding and Mulch)

Refer to attachment C, Stormwater Pollution Control Plan Site Plan.

CSC-006

Company: The United Illuminating Company **Witness: Matthew Cloud**
Ronald Rossetti

Docket No. CSC Petition No. 1120 **Page 1 of 1**

Date Submitted: December 30, 2014

CSC-006 Q: Can evergreens for visual screening be installed along any portion of the proposed south fence line?

CSC-006 A: With the appropriate approvals from CL&P, UI can place screening shrubs along the southern fence line. The screening shrubs must have a maximum mature height of 15 feet. Rhododendrons are recommended as their maximum mature height meets the previously stated requirements and have some resistance to deer. If CL&P approves the placement of shrubs, UI reserves the right to trim the screening as needed to maintain the required clearances and security setback from the southern fence line. Screening would require the purchase and installation of infrared security cameras along the south fence line, due to the added security risk of low visibility, to provide 100% coverage of the perimeter. Current design includes standard video cameras for required security coverage. *Refer to attachment D, Site Plan.*

CSC-007

Company: The United Illuminating Company **Witness: Matt Cloud**
Ronald Rossetti

Docket No. CSC Petition No. 1120 **Page 1 of 1**

Date Submitted: December 30, 2014

CSC-007 Q: The diagram in the petition shows a fence gate along the west fence line. Is access to the substation proposed from this side? If so, please provide details of the access road.

CSC-007 A: The drive gate on the western fence line will not be used for access to the substation and no access road is planned for construction. The gate is there to allow for United Illuminating personnel to access the western area of the property for regular maintenance practices such as landscaping, fence maintenance and erosion control/monitoring around the western fenced perimeter.

CSC-008

Company: The United Illuminating Company **Witness: Matthew Cloud**
Ronald Rossetti

Docket No. CSC Petition No. 1120 **Page 1 of 1**

Date Submitted: December 30, 2014

CSC-008 Q: Please submit a site plan for the project that depicts the following:

a. Site clearing;
b. Site grading;
c. Distance to nearest wetlands;
d. Distance to nearest residence;
e. Fencing and component layout;
f. Landscaping; and
g. Drainage control features.

CSC-008 A: *Refer to attachment D, Site Plan.*

CSC-009

Company: The United Illuminating Company **Witness: Matthew Cloud**
Ronald Rossetti

Docket No. CSC Petition No. 1120 **Page 1 of 3**

Date Submitted: December 30, 2014

CSC-009a Q: Can the west and south fence lines be moved in, so that the outer lightning masts are out of the compound?

CSC-009a A: The IEEE Std. C2 National Electrical Safety Code requires a minimum of 13 feet from live parts to the substation fence. The current UI standard substation design criteria requires a minimum of 20 feet between live parts and the substation fence to allow for drive access and turn radius. Moving the west and south fence lines inside the lightning masts would violate UI substation design criteria and best practices with regards to safety and security.

CSC-009b Q: Why does the east fence line have an irregular shape? Can a straight fence line be installed?

CSC-009b A: The irregular shape is to accommodate the angled drive for the UI mobile transformer to back into its emergency position. A straight fence could be accomplished by moving the south section to the east, however, this was not originally designed so to reduce cost for grading, grounding and site preparation, as well as maintain UI's best practices with regards to safety and security.

CSC-009

Company: The United Illuminating Company **Witness: Matthew Cloud**
Ronald Rossetti

Docket No. CSC Petition No. 1120 **Page 3 of 3**

Date Submitted: December 30, 2014

CSC-009c Q: The south side of the compound has square corners, can angled corners be used instead?

CSC-009c A: UI can angle the corners of the southern fence line. However, this will limit access to the southeastern corner and require UI to relocate the affected lightning mast. To include an angled fence in the 100% view coverage areas, the purchase and installation of additional security cameras is required.

CSC-009

Company: The United Illuminating Company **Witness: Matthew Cloud**
Shawn Crosbie

Docket No. CSC Petition No. 1120 **Page 1 of 1**

Date Submitted: December 30, 2014

CSC-009d Q: What happens to the abandoned well?

CSC-009d A: The current well located on the property will be removed and filled per the state and local well-drilling code requirements for well abandonment during the capacitor bank project. The well is physically located in a pit with raised masonry sides, covered with a locked, non-vented Bilco-type door. The casing is capped and both the supply line and the electric service to the submersible pump have been disconnected and terminated inside the bathroom at the center rear of the building. *Refer to attachment E, Aquarion Well Abandonment Agreement*, submitted as required by the Aquarion Water Company as a condition precedent to activating the water service to Hawthorne Drive.

Architecture
Engineering
Environmental
Land Surveying
Companies

Wetland Identification and Delineation Report

Hawthorne Capacitor Bank Addition Project

Fairfield, Connecticut

BL Project No.: 14S2153

Prepared for

Black & Veatch
11401 Lamar Avenue
Overland Park, KS 66211

Prepared by

BL Companies, Inc.
355 Research Parkway
Meriden, CT 06450

September 10, 2014

Wetland Identification and Delineation Report

Hawthorne Capacitor Bank Addition Project

TABLE OF CONTENTS

I. INTRODUCTION

BL Companies, Inc. (BL) conducted a site inspection to investigate the presence of state and federal wetlands and waters of the United States at the project site. The project site is located in Fairfield County, the town of Fairfield, Connecticut (**Figure 1**). The coordinates for the approximate center of the project are Latitude 41.213806 N and Longitude -73.251619 W. The project site consists of the Hawthorne Substation (180 Hawthorne Drive), and adjacent property located west of the Substation (owned by General Electric (GE)) (hereinafter referred to as the "Site").

The purpose of this report is to document and describe state, and federal jurisdictional wetlands, i.e. Waters of the United States found on site.

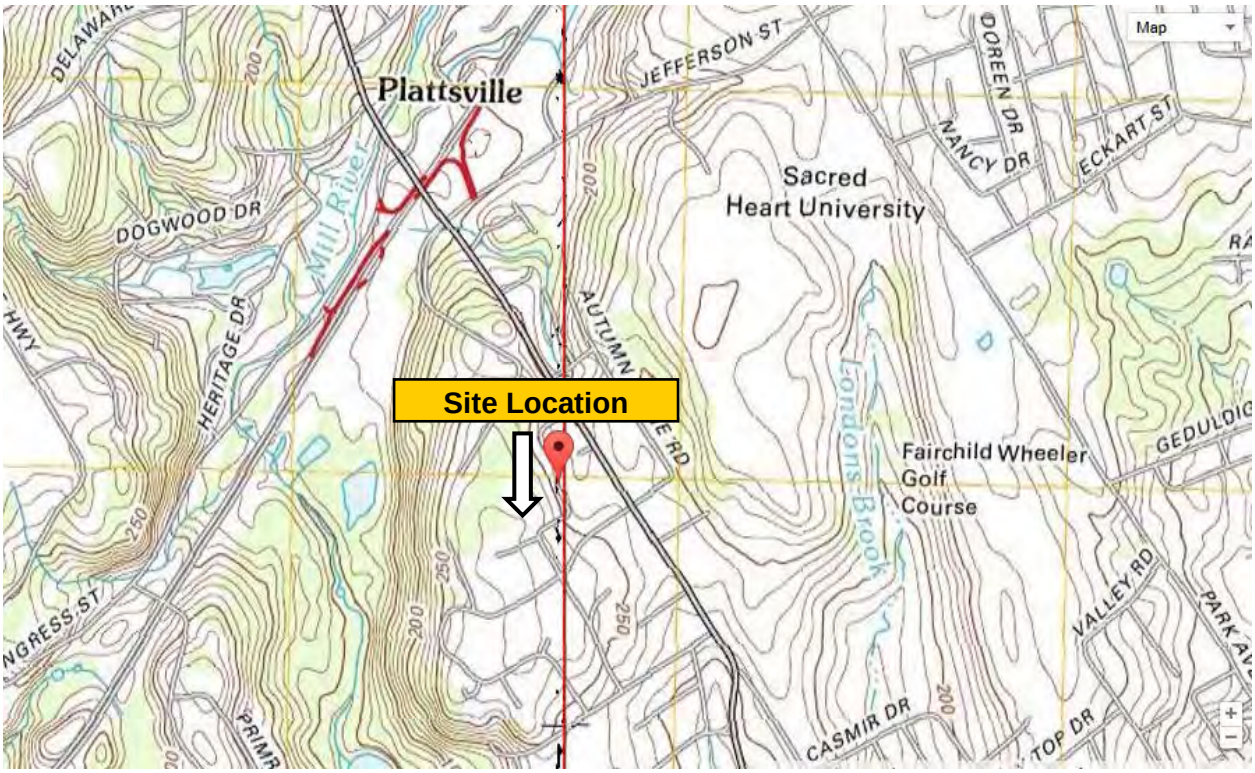


Figure 1 – Site Location and USGS Topographic Map

II. METHODOLOGY

This investigation involved a wetland/watercourse delineation that was completed by a wetland scientist and qualified soil scientist and conducted in accordance with the principles and practices noted in the United States Department of Agriculture (USDA) Soil Survey Manual (1993). The soil classification system of the National Cooperative Soil Survey was used in this investigation to identify the soil map units present on the project site.

Vegetation, soils, and hydrology were observed and documented during the site investigation in order to meet the criteria of state and federal delineation methodologies. Soil types were identified by observing soil morphology (soil texture, color, structure, etc.). To observe the morphology of the soils, numerous test pits and/or hand borings (generally to a depth of at least two feet) are completed. If wetland and/or watercourses were determined to be present, their boundaries were identified with flags and hung from vegetation or small wood stakes. These flags are labeled "Wetland Boundary" and are generally spaced a maximum of approximately 50 feet apart. It is important to note that flagged wetland and watercourse boundaries are subject to verification by regulatory agencies.

III. REGULATORY INFORMATION

Wetlands and watercourses are regulated by state, municipal and federal laws and regulations, each with different definitions and regulatory requirements. Accordingly, the State and municipalities may regulate wetland and waters that fall outside of federal jurisdiction; however, where federal jurisdiction exists, concurrent State and municipal jurisdiction is almost always present.

State/Municipal Jurisdiction

State of Connecticut wetland determinations are based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils and submerged land. Watercourses are defined as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." Intermittent watercourse determinations are made based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus, (2) the presence of standing or flowing water for duration longer than a particular storm incident, and (3) the presence of hydrophytic vegetation. (See Inland Wetlands and Watercourses Act §22a-38 CGS.)

Federal Jurisdiction

Jurisdictional wetlands at the Federal level consist of "waters of the United States", which includes lakes, rivers and streams, as well as vegetated wetlands (See 33 CFR 328.8). The onsite waters and wetlands, regulated by the U.S. Army Corps of Engineers (ACOE), were delineated in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Northcentral and Northeast Region* (Version 2.0) (January 2012). This *Manual* requires there to be dominant hydrophytic vegetation, hydric soils, and hydrological conditions present in determining wetland areas.

Project Study Area

The project site is located within a residential neighborhood, along a minor urban roadway with historical land use in the form of farming activities. The site lies within the Mill River River drainage basin (7108), part of the Southwest Eastern Regional complex and is not located within a public water supply watershed. According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map number 09001C0409F for Fairfield County, Connecticut, effective date June 18, 2010 (**See Appendix C**), no mapped floodplain areas are located on the Site.

IV. SITE INVESTIGATION

The project Site was investigated on September 05, 2014, with a temperature in the high-70's ^{0}F under sunny conditions. Field investigations focused on wetlands within 180 Hawthorne Drive, property acquisition area and property adjacent to both areas. Data on the current plant communities, soils, and hydrology were documented to support the wetland delineation. Descriptions of resources are provided in **Section V.** Photographs of the identified wetland resources, taken to provide visual documentation of the area, are located in **Appendix A**. The location of the data points are identified on the wetland mapping located in **Appendix B.** Resource Mapping, including the FEMA mapping, Natural Resources Conservation Services soil survey data and National Wetland Inventory are located in **Appendix C.**

V. RESOURCE DESCRIPTIONS

Wetlands and watercourses were not identified on the Hawthorne Substation parcel nor within the property acquisition area, west of the Substation. An isolated non-vegetated concave depression wetland was identified north of 180 Hawthorne Drive on the GE Property, outside of the project Site (**See Appendix B, Wetland Location Mapping**). The wetland is classified as a palustrine forested broad leaved deciduous (USFW Classification: PFO1). The dominant vegetation is Red maple (*Acer rubrum*) which borders the wetland edge. The center and majority of the wetland is non-vegetated. Hydric soil characteristics observed includes low chroma and prominent redoximorphic concentrations throughout the horizons. Wetland hydrologic characteristics include; sparsely vegetated concave surface, presence of reduced iron, water stained leaves, geomorphic position, surface soil cracks, and microtopographic relief.

The south side of the wetland was flagged using consecutive numbers 01 through 05 to provide a location of the wetland at the closest boundary edge

This wetland is located outside of the project Site and was identified to ensure proper sediment and erosion controls be implemented if any earth moving or construction activities proceed within the Site boundaries. As this wetland is isolated, there is potential it acts as breeding habitat for amphibians during the spring seasons.

Soils:

The soil series identified on the Site property consists of Udorthents-Urban Land Complex (306).

Udorthents smoothed (variable fill material)

This unit consists of areas that have been altered by cutting or filling. Slopes are mainly 0 to 25 percent. The material in these areas is mostly loamy, and in the filled areas it is more than 20 inches thick. Some of the filled areas are on flood plains, in tidal marshes, and on areas of poorly drained and very poorly drained soils. Included with this unit in mapping are small areas of soils that have not been cut or filled. Also included are a few larger urbanized areas and a few small areas containing material such as logs, tree stumps, concrete, and industrial wastes. A few areas have exposed bedrock. Included areas make up about 30 percent of this map unit. The properties and characteristics of this unit are variable, and the unit requires onsite investigation and evaluation for most uses. This unit is not assigned to a capability subclass.

Ur—Urban land

This unit consists of areas where urban structures cover more than 85 percent of the surface. Examples of such structures are roads, parking lots, shopping and business centers, and industrial parks. Most areas are in the towns of Bridgeport, Danbury, Fairfield, Norwalk, Shelton, Stamford, and Stratford. The areas are commonly rectangular and range from 5 to 500 acres. Slopes range from 0 to 8 percent but are dominantly less than 5 percent. Included with this unit in mapping are small areas of Udorthents and areas of excessively drained Hinckley soils; somewhat excessively drained Hollis soils; well drained Agawam, Charlton, and Paxton soils; and moderately well drained Ninigret and Sutton soils. Included areas make up about 15 percent of this map unit. This unit requires onsite investigation and evaluation for most uses.

VI. SUMMARY

BL Companies identified one (1) regulated and jurisdictional freshwater inland wetland area north of the Hawthorne Substation located outside of the Site boundaries. Poorly drained soils, hydric soils, hydrophytic vegetation, and hydrology were all observed in the wetland location satisfying the criteria of the State and Federal USACOE methodology for wetland delineations.

VII. PREPARER

Raina Huebner

Ms. Huebner holds a Master's Degree in Wetland, Watercourse, Ecosystem Management and Soil Science. Ms. Huebner has been delineating federal and state wetlands for the past 4 years. In addition, Ms. Huebner has acted as lead wetland scientist and conducted many function value impact assessments throughout New England, New York, New Jersey, Pennsylvania and Ohio. Ms. Huebner received a Certificate of Army Corps Wetland Delineation Training (Institute for Wetland Education and Environmental Research), holds a Wetland Professional in Training certification and is a qualified Soil Scientist.

REFERENCES

1. Brinson, M.M. 1993. *A Hydrogeomorphic Classification for Wetlands*. Tech. Rpt.WRP-DE-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

2. Cowardin, L.M., V. Carter, F.C. Golet and E.T. LaRoe, 1979. *Classification of Wetlands and Deepwater Habitats of the United States.* U.S. Fish and Wildlife Service. Washington, D.C. FWS/OBS-79/31.

3. United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil descriptions. Internet site: (http://soils.usda.gov/technical/classification/osd/index.html)

4. Environmental Laboratory, 1987. *Corps of Engineers Wetland Delineation Manual.* Technical Report Y-87-1. US Army Engineer Waterways Experiment Station. Vicksburg, Miss.

5. Lichvar, R.W. 2012 *The National Wetland Plant List; 2013 wetland ratings, Phytoneuron 2013-49; 1-241*. http://wetland_plants.usace.army.mil/ Cold Regions Research and Engineering Laboratory, US Army Corps of Engineers.

6. United States Army Corps of Engineers. January 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*. Ed. J.S. Wakely, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Research and Development Center.

APPENDIX A

PHOTO 1: View of wetland 1 looking West

PHOTO 2: View of wetland 1 looking south west

APPENDIX B

Witness: Shawn Crosbie
11

Company: The United Illuminating Company
Docket No. Petition No. 1120
Date Submitted: December 30, 2014

CSC-002 & CSC-004
Attachment A

BL Companies
ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

WETLAND DELINEATION

HAWTHORNE CAPACITOR BANK ADDITION
FAIRFIELD, CONNECTICUT

—

Designed	R.K.H.
Drawn	R.K.H.
Checked	
Approved	
Scale	1"= 40
Project No.	14S2153
Date	09/10/2014
CAD File	WD 14S215301

WD-1

Xref (s): ; XY14S215301

APPENDIX C

U.S. Fish and Wildlife Service

National Wetlands Inventory

Sep 4, 2014

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Company: The United Illuminating Company
Docket No. Petition No. 1120
Date Submitted: December 30, 2014

CSC-002 & CSC-004
Attachment A

Witness: Shawn Crosbie

Natural Diversity Data Base Areas

FAIRFIELD, CT

June 2014

State and Federal Listed Species & Significant Natural Communities

Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Significant Natural Communities. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a number of data sources . Exact locations of species have been buffered to produce the general locations. Exact locations of species and communities occur somewhere in the shaded areas, not necessarily in the center. A new mapping format is being employed that more accurately models important riparian and aquatic areas and eliminates the need for the upstream/downstream searches required in previous versions.

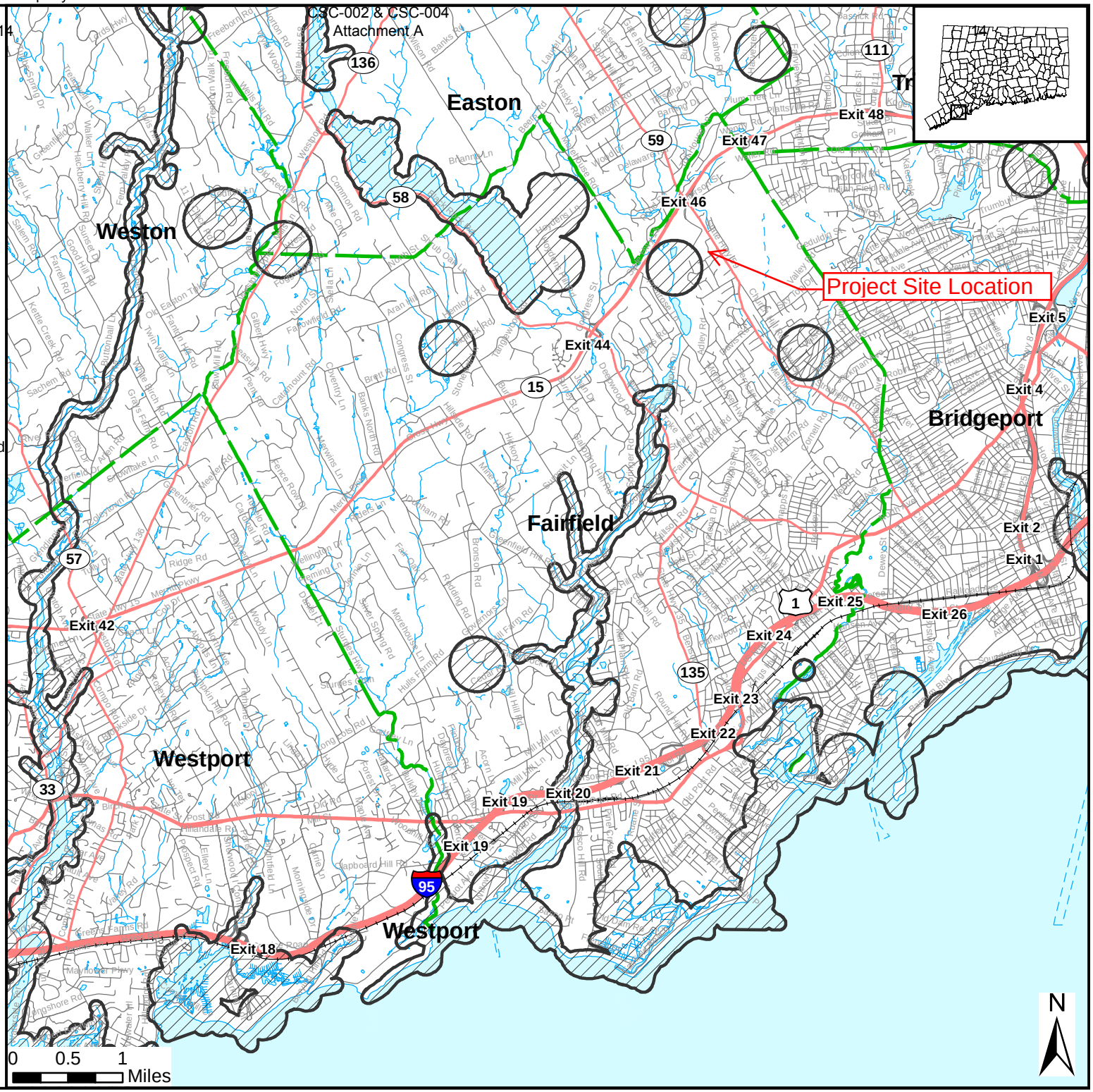
This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a shaded area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

www.ct.gov/deep/nddbrequest

This file has PDF Layers. Look for the Layers tab on the left. Expand the layers and use the "eye" icons to change visibility.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)
79 Elm St., Hartford CT 06106
Phone (860) 424-3011

Connecticut Department of Energy & Environmental Protection
Bureau of Natural Resources
Wildlife Division



MAP SCALE 1" = 500'

250 0 500 1000

FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0409F

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, CONNECTICUT
(ALL JURISDICTIONS)

PANEL 409 OF 626

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
EASTON, TOWN OF	090006	0409	F
FAIRFIELD, TOWN OF	090007	0409	F

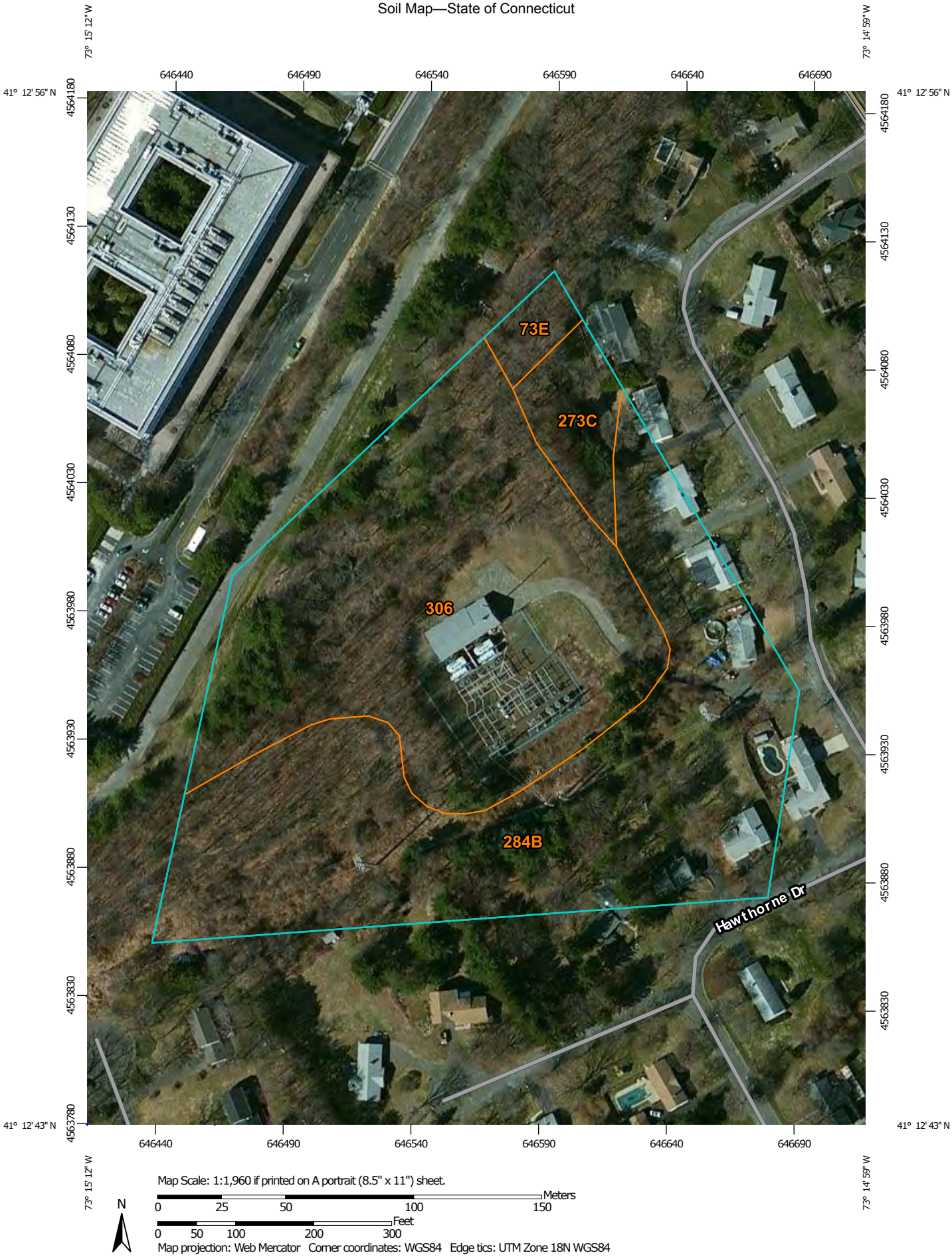
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
09001C0409F

EFFECTIVE DATE
JUNE 18, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov


73° 15' 12" W
73° 14' 59" W
646440
646490
646540
646590
646640
646690
41° 12' 56" N
41° 12' 43" N
4564180
4564130
4564080
4564030
4563980
4563930
4563880
4563830
4563780
73E
273C
306
284B
Hawthorne Dr
Map Scale: 1:1,960 if printed on A portrait (8.5" x 11") sheet.
N
Meters
0 25 50 100 150
Feet
0 50 100 200 300
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 11, Nov 19, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 28, 2011—Oct 9, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

State of Connecticut (CT600)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	0.2	2.0%
273C	Urban land-Charlton-Chatfield complex, rocky, 3 to 15 percent slopes	0.5	4.7%
284B	Paxton-Urban land complex, 3 to 8 percent slopes	4.9	47.3%
306	Udorthents-Urban land complex	4.8	46.1%
Totals for Area of Interest		**10.5**	**100.0%**

November 14, 2014

Mr. Kyle Eckert
Conestoga-Rovers & Associates
45 Farmington Vally Drive
Plainville, CT 06062
keckert@craworld.com

Project: Stormwater Discharge Permit for the Hawthorne Substation Located at 180 Hawthorne Drive in Fairfield, Connecticut
NDDB Determination No.: 201410928

Dear Kyle,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map provided for the stormwater discharge permit for the Hawthorne Substation located at 180 Hawthorne Drive in Fairfield, Connecticut. According to our information there are extant populations of State Special Concern *Terrapene carolina carolina* (eastern box turtle) in the area where this work will occur. If possible, conduct project activities between October 1 and April 1 in order to avoid impacting active turtles. If any work will occur when these turtles are active (April 1st to September 30th) I would recommend the following protection strategies be implemented in order to protect these turtles:

- Silt fencing should be installed around the work area prior to construction;
- After silt fencing is installed and prior to construction, a sweep of the work area should be conducted to look for turtles;
- Workers should be apprised of the possible presence of turtles, and provided a description of the species (http://www.ct.gov/dep/cwp/view.asp?a=2723&q=473472&depNav_GID=1655);
- Any turtles that are discovered should be moved, unharmed, to an area immediately outside of the fenced area, and position in the same direction that it was walking;
- No vehicles or heavy machinery should be parked in any turtle habitat;
- Work conducted during early morning and evening hours should occur with special care not to harm basking or foraging individuals; and
- All silt fencing should be removed after work is completed and soils are stable so that reptile and amphibian movement between uplands and wetlands is not restricted.

Thank you for implementing these protection measures for box turtle. I have attached a "Box Turtle" fact sheet for your files. This determination is good for one year. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project by November 14, 2015.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.

Sincerely,

Dawn M. McKay

Dawn M. McKay
Environmental Analyst 3

WILDLIFE IN CONNECTICUT

STATE SPECIES OF SPECIAL CONCERN

Eastern Box Turtle

Terrapene carolina carolina

Description

The eastern box turtle is probably the most familiar of the 8 species of turtles found in Connecticut's landscape. It is known for its high-domed carapace (top shell). The carapace has irregular yellow or orange blotches on a brown to black background that mimic sunlight dappling on the forest floor. The plastron (under shell) may be brown or black and may have an irregular pattern of cream or yellow. The length of the carapace usually ranges from 4.5 to 6.5 inches, but can measure up to 8 inches long. The shell is made up of a combination of scales and bones, and it includes the ribs and much of the backbone.

Each individual turtle has distinctive head markings. Males usually have red eyes and a concave plastron, while females have brown eyes and a flat plastron. Box turtles also have a horny beak, stout limbs, and feet that are webbed at the base. This turtle gets its name from its ability to completely withdraw into its shell, closing itself in with a hinged plastron. Box turtles are the only Connecticut turtle with this ability.

Range

Eastern box turtles are found throughout Connecticut, except at the highest elevations. They range from southeastern Maine to southeastern New York, west to central Illinois, and south to northern Florida.

Habitat and Diet

In Connecticut, this terrestrial turtle inhabits a variety of habitats, including woodlands, field edges, thickets, marshes, bogs, and stream banks. Typically, however, box turtles are found in well-drained forest bottomlands and open deciduous forests. They will use wetland areas at various times during the season. During the hottest part of a summer day, they will wander to find springs and seepages where they can burrow into the moist soil. Activity is restricted to mornings and evenings during summer, with little to no nighttime activity, except for egg-laying females. Box turtles have a limited home range where they spend their entire life, ranging from 0.5 to 10 acres (usually less than 2 acres).

Box turtles are omnivorous and will feed on a variety of food items, including earthworms, slugs, snails, insects, frogs, toads, small snakes, carrion, leaves, grass, berries, fruits, and fungi.

Life History

From October to April, box turtles hibernate by burrowing into loose soil, decaying vegetation, and mud. They tend to hibernate in woodlands, on the edge of woodlands, and sometimes near closed canopy wetlands in the forest. Box turtles may return to the same place to hibernate year after year. As soon as they come out of hibernation, box turtles begin feeding and searching for mates.

The breeding season begins in April and may continue through fall. Box turtles usually do not breed until they are about 10 years old. This late maturity is a result of their long lifespan, which can range up to 50 to even over 100 years of age. The females do not have to mate every year to lay eggs as they can store sperm for up

to 4 years. In mid-May to late June, the females will travel from a few feet to more than a mile within their home range to find a location to dig a nest and lay their eggs. The 3 to 8 eggs are covered with dirt and left to be warmed by the sun. During this vulnerable time, skunks, foxes, snakes, crows, and raccoons often raid nests. Sometimes, entire nests are destroyed. If the eggs survive, they will hatch in late summer to early fall (about 2 months after being laid). If they hatch in the fall, the young turtles may spend the winter in the nest and come out the following spring.

As soon as the young turtles hatch, they are on their own and receive no care from the adults. This is a dangerous time for young box turtles because they do not develop the hinge for closing into their shell until they are about 4 to 5 years old. Until then, they cannot entirely retreat into their shells. Raccoons, skunks, foxes, dogs, and some birds will prey on young turtles.

Conservation Concerns

The eastern box turtle was once common throughout the state, mostly in the central Connecticut lowlands. However, its distribution is now spotty, although where found, turtles may be locally abundant. Because of the population decline in Connecticut, the box turtle was added to the state's List of Endangered, Threatened, and Special Concern Species when it was revised in 1998. It is currently listed as a species of special concern. The box turtle also is protected from international trade by the 1994 CITES treaty. It is of conservation concern in all the states where it occurs at its northeastern range limit, which includes southern New England and southeastern New York.

Many states have laws that protect box turtles and prohibit their collection. In Connecticut, eastern box turtles **cannot** be collected from the wild (DEP regulations 26-66-14A). Another regulation (DEP regulations 26-55-3D) "grandfathers" those who have a **box turtle collected before 1998**. This regulation limits possession to a single turtle collected before 1998. These regulations provide some protection for the turtles, but not enough to combat some of the even bigger threats these animals face. The main threats in Connecticut (and other states) are loss and fragmentation of habitat due to deforestation and spreading suburban development; vehicle strikes on the busy roads that bisect the landscape; and indiscriminate (and now illegal) collection of individuals for pets.

Loss of habitat is probably the greatest threat to turtles. Some turtles may be killed directly by construction activities, but many more are lost when important habitat areas for shelter, feeding, hibernation, or nesting are destroyed. As remaining habitat is fragmented into smaller pieces, turtle populations can become small and isolated.

Adult box turtles are relatively free from predators due to their unique shells. The shell of a box turtle is extremely hard. However, the shell is not hard enough to survive being run over by a vehicle. Roads bisecting turtle habitat can seriously deplete the local population. Most vehicle fatalities are pregnant females searching for a nest site.

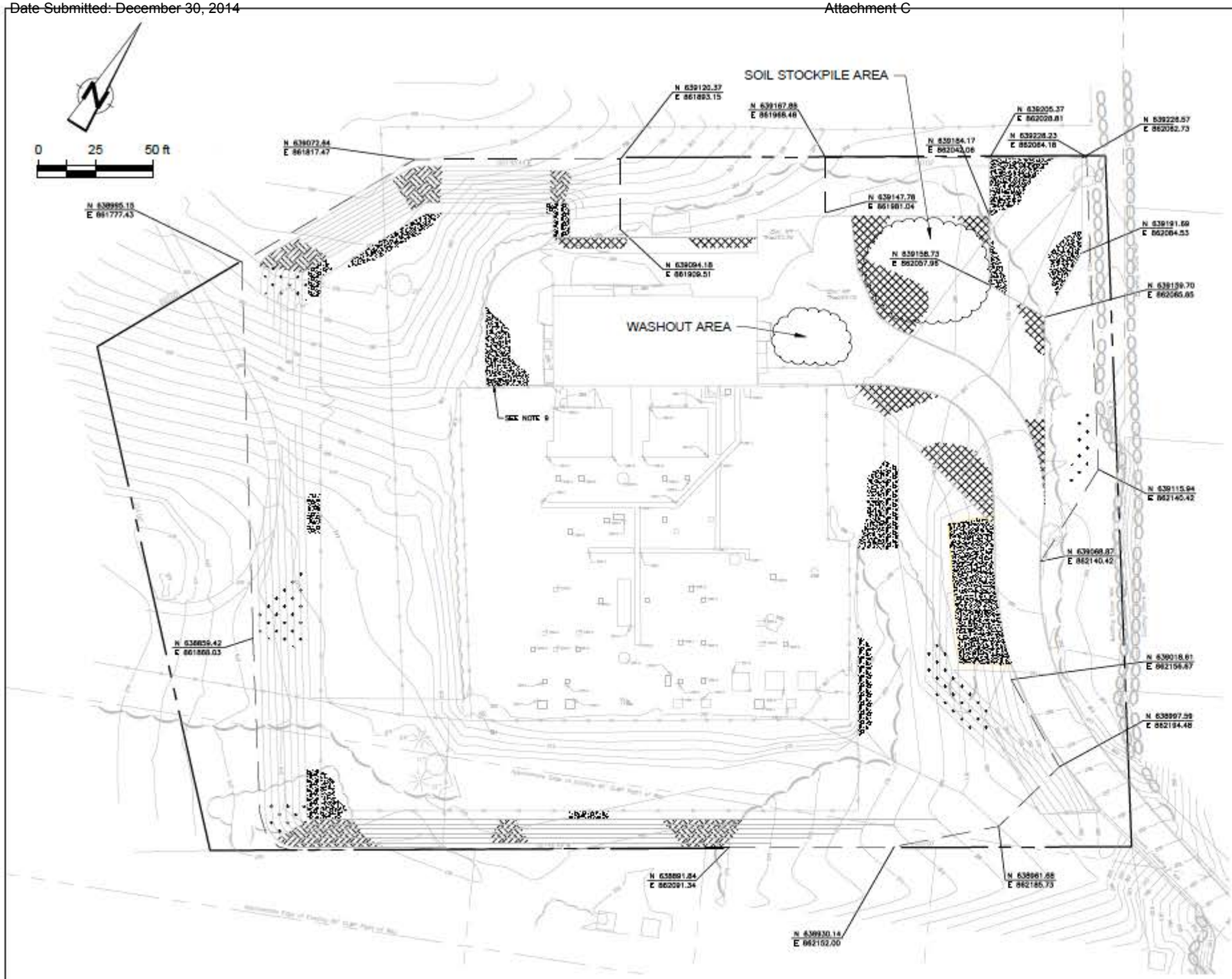
How You Can Help

- *Leave turtles in the wild. They should never be kept as pets. Whether collected singly or for the pet trade, turtles that are removed from the wild are no longer able to be a reproducing member of a population. Every turtle removed reduces the ability of the population to maintain itself.*
- *Never release a captive turtle into the wild. It probably would not survive, may not be native to the area, and could introduce diseases to wild populations.*
- *Do not disturb turtles nesting in yards or gardens.*
- *As you drive, watch out for turtles crossing the road. Turtles found crossing roads in June and July are often pregnant females and they should be helped on their way and not collected. Without creating a traffic hazard or compromising safety, drivers are encouraged to avoid running over turtles that are crossing roads. Also, still keeping safety precautions in mind, you may elect to pick up turtles from the road and move them onto the side they are headed. Never relocate a turtle to another area that is far from where you found it.*
- *Learn more about turtles and their conservation concerns. Spread the word to others on how they can help Connecticut's box turtle population.*

State of Connecticut
Department of Environmental Protection
Bureau of Natural Resources
Wildlife Division
www.ct.gov/dep

The production of this Endangered and Threatened Species Fact Sheet is made possible by donations to the Connecticut Endangered Species/Wildlife Income Tax Checkoff Fund.

5/2008



GENERAL NOTES

1. SEE DWG 25242–414C FOR GENERAL NOTES AND ABBREVIATIONS.
2. SEE DWG 25242–414E FOR EROSION CONTROL AND SURFACING TYPICAL DETAILS.
3. WHITE STONE SURFACING SHALL BE INSTALLED BEYOND PERMANENT FENCING BY 6'–0" AT 3:1 SLOPES AND 4'–0" AT 2:1 SLOPES.
4. DISTURBED AREAS INSIDE NEW SUBSTATION FENCING SHALL BE SURFACED WITH CRUSHED ROCK. SEE TYPICAL CRUSHED ROCK SURFACING DETAIL ON DRAWING 25242–414E.
5. ALL CUT AND FILL SLOPES SHALL BE SEEDED BY CONSTRUCTION CONTRACTOR 181503.73.0200. AFTER SEEDING, COCONUT FIBER EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL 2:1 SIDE SLOPES.
6. CONSTRUCTION CONTRACTOR 181503.71.0200 SHALL FURNISH AND INSTALL EROSION CONTROL MEASURES. EROSION CONTROL MEASURES SHALL BE MAINTAINED BY BOTH CONSTRUCTION CONTRACTOR 181503.71.0200 AND (181503.73.0601 AS NECESSARY.
7. CONSTRUCTION CONTRACTOR 181503.71.0200 SHALL FURNISH AND INSTALL PREPARED BASE SUBGRADE LAYERS AND GEOTEXTILE FABRIC FOR ASPHALT AREAS. CONSTRUCTION CONTRACTOR 181503.73.0601 SHALL FURNISH AND INSTALL FINAL ASPHALT SURFACING. SEE DRAWING 25242–414J FOR STANDARD PAVEMENT SECTIONS AND NOTES.
8. CONSTRUCTION CONTRACTOR 181503.73.0601 SHALL FURNISH AND INSTALL FINAL ROCK SURFACING AND ENSURE ROCK BASE COURSE IS ESTABLISHED BASED ON FINAL GRADING PRIOR TO INSTALLATION. SEE TYPICAL CRUSHED ROCK SURFACING DETAIL ON DRAWING 25242–414E.
9. ASPHALT SURFACING INSIDE NEW SUBSTATION FENCING SHALL BE DEMOLISHED AND REPLACED WITH CRUSHED ROCK SURFACING.

LEGEND

- SILT FENCE
- EROSION CONTROL BLANKET
- WHITE ROCK SURFACING
- SEED
- ASPHALT SURFACING
- CRUSHED ROCK SURFACING (SEE NOTE 4)

SOURCE: BLACK & VEATCH,
EROSION CONTROL AND SURFACING - SITE, PLAN,
HAWTHORNE SUBSTATION, DWG. No. 25242-414D,
12/03/2014.

figure 2

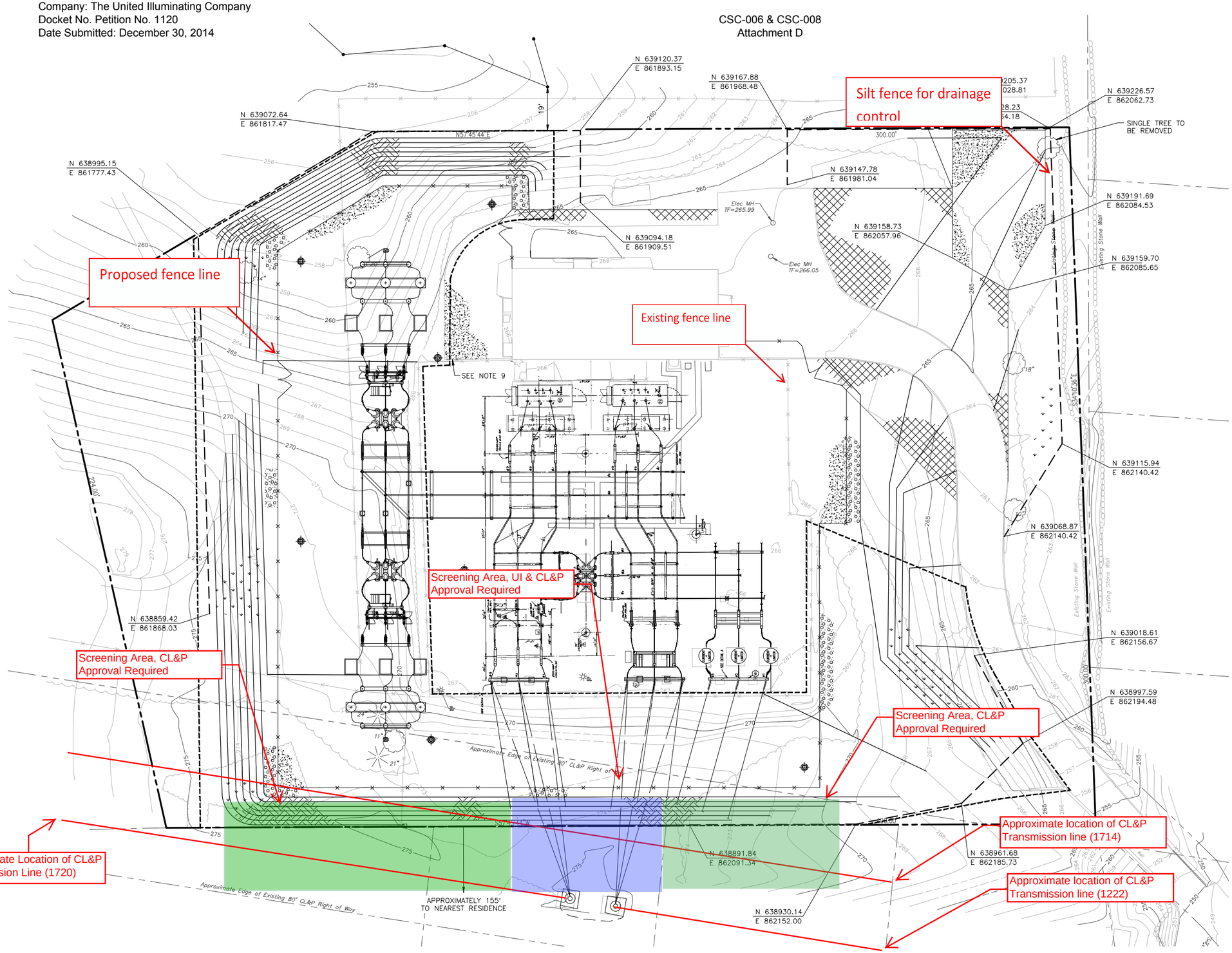
SITE PLAN
STORMWATER POLLUTION CONTROL PLAN
180 HAWTHORNE DRIVE
Fairfield, Connecticut

86111-30(002)GN-WA002 DEC 12/2014

Company: The United Illuminating Company
Docket No. Petition No. 1120
Date Submitted: December 30, 2014

CSC-006 & CSC-008
Attachment D

Witness: Matthew Cloud & Ronald Rossetti
1



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LEGEND

- SILT FENCE
- SITE CLEARING
- WETLANDS
- EROSION CONTROL BLANKET
- WHITE ROCK SURFACING
- SEED
- ASPHALT SURFACING
- CRUSHED ROCK SURFACING (SEE NOTE 4)

REFERENCE DRAWINGS

EXISTING SITE GRADING SITE PLAN	25242–414A AND 414B
EROSION CONTROL AND SURFACING SITE PLAN	25242–414D
EROSION CONTROL AND SURFACING TYPICAL DETAILS	25242–414E
FENCING SITE PLAN	25242–414F
CONSTRUCTION FACILITIES PLAN	25242–805A
SITE CONSTRUCTION POWER AND GROUNDING DETAILS	25242–805C
TEMPORARY CONSTRUCTION FENCING NOTES, SECTIONS AND DETAILS	25242–805D

NEW DRAWING

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

BLACK & VEATCH
Building a world of difference®

DESIGNER	JDA	DRAWN	JDL
CHECKED	–	DATE	–

PROJECT # 181503

NO	DATE	REVISION	DRN	CHKD	DESN	SUPR
A	12/18/14	ISSUED FOR CSC INFORMATION	JDL	SJW	JDA	DJK

32° TRUE NORTH

20' 10' 0 20' 40'
1"=20'

No	Date	Revision	By	Chkd.	Engr.	Supv.

The United Illuminating Company

Drawn JDL	Date –	Scale:	1"=20'
Chkd. –	Design Engr. JDA	Design Supv.	–

SITE PLAN

HAWTHORNE SUBSTATION

CAD FILE NAME	SEQUENCE No.	DRAWING NUMBER
–	–	25242–899

Aquarion Company
600 Lindley Street
Bridgeport, CT 06606

AQUARION

Well Abandonment Agreement

I, James Hinckley, the undersigned ~~owner~~ or authorized agent for the owner of property located at 1160 (B) Hawthorne Drive in the city of Fairfield, CT, in making an application for water service to said property (presently supplied by a well, ~~which I maintain~~), hereby agrees to:

Please check only one option below:

A. ☐ ~~The well at this site has been deemed contaminated. I agree to formally abandon my present water supply well in accordance with the state of Connecticut Health Department regulations, and provide certification that work was completed by a State of Connecticut licensed well driller at the time that Aquarion Water Company (AWC) activates water service to my property.~~ **Or**

B. ☑ I agree to formally abandon ~~my~~ the present potable water supply well by cutting the plumbing at the wellhead or at the exterior of the foundation wall prior to the time that AWC activates water service to ~~my~~ the property:

- ~~I~~ We will notify the local Health Department of such abandonment, if applicable, and will comply with their abandonment requirements and those of any other agencies having jurisdiction.
- ~~I~~ We will verify on a regular basis, as required by AWC, that the well remains abandoned as long as ~~I am~~ we are a customer of AWC. **Or**

C. ☐ ~~I wish to maintain my present potable water supply well and understand that I must install and maintain an approved backflow prevention device in accordance with AWC's Rules and Regulations concerning Cross Connections. Furthermore, I understand that I may not interconnect the piping between the present supply and the AWC supply and that the backflow prevention device must be installed at the time that AWC activates water service to my property.~~

- ~~I will agree to an annual domestic plumbing inspection, as required by AWC as long as I am a customer of AWC.~~
- ~~I will agree to have the backflow prevention device tested annually by a licensed tester (AWC cost for this test is $55.00).~~

I understand that AWC reserves the right to cancel the connection to the public water supply or discontinue water service if the conditions agreed to above are not complied with.

[signature] 8/26/13 203.895.7400

~~Owner~~/Agent Date Phone Number

Approved by Date