CRISTINO ASSOCIATES INC.

ELECTRICAL POWER SYSTEMS ENGINEERING
DESIGN, FORENSICS AND TRAINING

National Academy of Forensic Engineers

April 12, 2013

Daniel F. Caruso, Chairman
The Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Docket No. 426
Development and Management Plan
Third Taxing District Electric Department
6 Fitch Street
Norwalk, CT

Dear Chairman Caruso:

On behalf of the Third Taxing District Electric Department (TTD), enclosed are the original and 20 copies of TTD's Development and Management Plan (D&M Plan) for the Fitch Street Substation that was certified by the Connecticut Siting Council (Council) in Docket No. 426. This D&M Plan consists of text and a set of drawings for the installation of the new substation in East Norwalk, Connecticut. The D&M Plan elements sought under Condition 1 of the Council's Decision and Order dated August 1, 2012, have been included.

Details included within this D&M Plan have been discussed and reviewed with various departments and individuals within the City of Norwalk and a copy of the D&M Plan has been sent to Mayor Richard A. Moccia.

TTD requests that the Council review and approve the D&M Plan per its rules and regulations. Should you have any questions on this matter, please direct them to the undersigned engaged and acting as the Owner's Engineer for the Fitch Street Substation project. Recipients receiving a copy of this letter may also contact the undersigned or Mr. James W. Smith, General Manager, Third Taxing District Electric Department, 2 Second Street, East Norwalk, Connecticut.

Sincerely,

Joseph A. Cristino, P.E.
CT License # 13432

JAC/lab
Enclosures

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Third Taxing District
Electric Department

Development and Management Plan
for the Construction of
Fitch Street (47R) Substation

Docket No.426
April 12, 2013

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Development and Management Plan
Fitch Street 47R Substation Norwalk, CT

The Third taxing District ("TTD") hereby submits the Fitch Street Substation Development and Management ("D&M") Plan. This D&M Plan part relates to the construction of the Fitch Street Substation in the City of Norwalk, Connecticut. Fitch Street Substation is part of TTD's system upgrade of their electric distribution system. The Fitch Street Station will connect to Northeast Utility's 115 kV Transmission Line between Darien Substation and Compo Substation and was certificated by the Connecticut Siting Council ("CSC") in Docket 426, dated August 9, 2012.

TTD's construction of the Fitch Project will consist of basic concepts and components:

1) Construction of the new 115kV to 27.6kV Fitch Street Substation and 27.6kV underground interconnection to the existing TTD East Ave Substation

This D&M Plan addresses the construction of the new 115kV to 27.6kV Fitch Street Substation

This D&M Plan consists of the following sections and appendices:

1) Introduction
2) Conditions and Comments
3) Project Description
4) Utility Relocation Work
5) Development and Management Plan Details
6) 115kV Transmission Line Interconnections
7) Project Schedule
8) Appendices
Appendix A Erosion and Sediment Control Plan
Appendix B Architectural Renderings
Appendix C Substation Drawings
Appendix D Transmission Line Drawings

SECTION 1
INTRODUCTION

This D&M Plan was prepared in accordance with the D&M Plan requirements contained within the Regulations of Connecticut State Agencies (RCSA), Sections 16-50j-60 through 16-50j-62, as they pertain to construction of a new substation project and in accordance with the Decision and Order received from the CSC for the Fitch Street Substation.

SECTION 2
CONDITIONS AND COMMENTS

The selection of the final site for the 115kv to 27.6kV Fitch Street Substation was the subject of several discussions with the City of Norwalk, and included consultation meetings with representatives of the Norwalk Planning and Zoning Commission. The Third Taxing District originally identified this site for its location to the existing East Ave Substation and the CL&P/NU 115kV Transmission Lines.

SECTION 3
PROJECT DESCRIPTION

The Fitch Street Substation site is located on a vacant parcel of land in a mixed residential-industrial area in the southeastern part of the City of Norwalk. It is bounded by the following: Fitch Street, Metro North Rail Parking, East Ave Substation and Small Businesses.

The western half of the site contains two trees, one of which will have to be removed, but the majority of the site remains as open field that is periodically maintained.

Site development will consist of the construction of a new 115kV Substation facility with 115kV and 27.6kV Line terminations. The Fitch Street Substation will consist of 115kV Bus along with a Tie Circuit Breaker, two 115kV to 27.6kV transformers and a Control Building. Two 115kV transmission lines will enter the new substation overhead. The 27.6 kV Distribution cables that presently supply the East Ave Substation will be replaced with new 27.6 kV XLPE cables in a concrete duct bank from the 115kV to 27.6kV Main Power Transformers.

The substation equipment will be enclosed on four sides by 12' high chain link fence to provide security. The Front of the property will contain a "Rain Garden" minimize visual impacts, provide security and reduce noise emissions from the site (see Appendices B and C).

Actual construction on the site will consist of minimal clearing, grading, and foundation construction followed by site surfacing. Installation of fence, concrete structures (see Appendix C), equipment installation and yard construction will follow.

Northeast Utility's Transmission Line will be modified for the connection into the Fitch Street Substation with the addition of two new pole structures and the elimination of one existing pole structure.

SECTION 4
UTILITY RELOCATION WORK

As stated above, the Connecticut Light and Power Company/Northeast Utilities will be required to modify the Transmission Line pole system to a facilitate connection into the Fitch Street Substation.

Third Taxing District will also be installing a new concrete encased duct bank to install the new distribution cables to the East Avenue Substation.

SECTION 5
DEVELOPMENT AND MANAGEMENT PLAN DETAILS

The following section provides details for the new 115kV to 27.6kV Fitch Street Substation.

A. Key Map
A map of the new Fitch Street Substation site is included with this D&M Plan (Figure 5-1). The base map used to depict the location of the new substation site is aerial photography of the locations discussed in this D&M plan.

B. Plan Drawings
The D&M Plan includes several drawings that identify the location of the Fitch Street Substation site, public roads, the location of all substation equipment, control building, access points, and areas of excavation and construction.

C. Land Ownership

TTD owns the approximate ½ Acre lot. The Fitch Street Substation will be located approximately 40' off the Fitch Street side of the property line. No additional private or public property beyond this ½ acre site will be required to construct and operate the new substation. No additional land acquisition will be required.

D. Public Roads and Lands

The Fitch Street Substation site is bounded by a public road on one side with frontage on Fitch Street on the north. These roads can be defined as city residential and secondary collector streets. All streets are paved with curb and gutter and are in good condition. No public lands are adjacent to the site.

Private Land encompasses the remaining three sides of the station: Metro North, East Ave Substation and private businesses

E. Grading Plan

The Fitch Street Substation site is located at an elevation of approximately 27 feet above sea level. Contour variation across the entire site is minimal, as the site was graded and leveled below the final elevation for construction. The final grade of the station will be consistence with the adjoining properties on Fitch Street. The Metro North Rail property has an elevation of approximately 40'. A Grading Plan is included in this D&M Plan that shows the existing and new contours on the site in one-foot contour intervals. The Grading Plan will be used in the development of a drainage plan for the site, along with the site's Erosion and Sediment Control Plan (see Appendix A).

F. Structure and Foundation Locations

The probable location and type of support structures and buildings and their corresponding foundations at the Fitch Street Substation site are shown on the General Arrangement Drawings included with this D&M Plan (see Appendix C). These drawings depict the site plans and cross-sections of the new substation. Detailed foundation plans for Fitch Street Substation are also included in these drawings.

All transmission lines entering Fitch Street Substation will be overhead and all Distribution Cables will be located underground. The Overhead 115 kV Transmission Lines will enter the station on the South end. The 27.6 kV underground distribution cables will leave the station and enter into East Ave Substation on the west side of the property. The Overhead to Underground transition will occur at the 115kV to 27.6kV Power Transformers. These facilities will be located within the substation site.

G. Access Points for Construction

Construction access to the Fitch Street Substation site will be from Fitch Street as well as the East Ave Substation.

Temporary construction roads across private property will not be required. Preliminary access points are shown on the drawings (see Appendix C).

H. Material Laydown Areas

The actual site for the Fitch Street Substation is very small but will be used as the lay down area for the construction of the station. The delivery of the material will be scheduled properly to allow minimum storage on site. Local off-site storage may be required for the larger equipment.

TTD's East Ave Substation site also contains a storage garage that may be utilized for the smaller material during the project. One material storage trailer will be located on the Fitch Street property.

The location of the Construction Trailers will be located on the East Ave. Substation Property.

I. Vegetation

Limits of Clearing – almost all vegetation will need to be removed at the Fitch Street Substation site for construction. Approximately 6-8 large native deciduous trees are currently located on the site. One tree nearest to Fitch Street will remain and be included in the "Rain Garden" that was mentioned earlier.

Clearing will be accomplished by conventional methods, using a combination of chain saws, hand labor and mechanized equipment. Tree and stump removal will be similar to urban forestry techniques employed when a tree is removed from a property located within a city landscape. All materials will be removed from the site.

No trees outside of the substation site will require removal for construction or access during construction. Construction equipment and vehicles will not be parked within the drip line of trees near or adjacent to the final site.

J. Environmentally Sensitive Areas

There are no environmentally sensitive areas or features on the new Fitch Street Substation site. The Long Island Sound is approximately 2,700 feet (0.5 mile) south of the site. Existing residential and industrial land uses separate the substation site from this body of water. There are no areas of high erosion potential on or near the site, and no known locations of critical habitat or sites identified as having threatened, endangered or rare plant or animal species as listed by federal or state governments on or adjacent to the site.

K. Existing Underground Utilities

Ii is believed that no underground utilities currently exist on the site. Any that do remain will require removal. The surrounding public streets contain several underground utilities that provide sewer, water and gas service to adjoining residential and industrial land uses. These utilities will not be disrupted by construction of the Fitch Street Substation

L. Erosion and Sediment Control Plan

Erosion and sediment control measures to contain runoff at Fitch Street Substation are depicted on the Erosion and Sediment Control Plan drawings (Appendix A). These drawings contain a narrative statement, a description of the anticipated construction phases, and detailed information on the location, type and design of erosion and sediment control measures that TTD will employ during construction. Appendix D includes the erosion and sediment control plans for the construction of both 115kV circuits extending from Fitch Street and the 27.6 kV circuits extending to East Ave.

Fitch Street will be located on land which was formerly comprised of residential housing. There is no known soil contamination on the site. Most of the excavated material will be trucked from the site to an approved land fill area. A smaller quantity of excavated soil may be used as back fill material if found to be acceptable. In the unlikely event that contaminated soil is encountered, excavated soils will be moved to the Soil Stockpile Area (SSA) which is designated on the drawing and where contaminated soil will be temporarily stored until it can be tested and disposed of at an approved facility. A silt fence will be constructed around the site and will be inspected on a daily basis, and repaired or replaced as necessary, until the site is surfaced with crushed stone. The silt fence shall remain until all earth work is complete.

Anti-tracking pads will be installed at the construction access ways. If dewatering is required, the discharge will be directed into a Temporary Sediment Basin which will be constructed and maintained on site. A General Dewatering Permit will be obtained from the City of Norwalk, if required.

In Street Work - during street excavation, hay bales will be placed around storm drains and will remain in place until the adjacent trench work is completed and the disturbed areas are temporarily paved.

M. Endangered Species, Critical Habitats

There are no known locations or critical habitat or sites identified as having threatened, endangered or rare plant or animal species as listed by federal or state governments on or adjacent to the new substation site or at the existing switchyard/substation facility that will be modified.

N. Underground Facilities

As indicated earlier, no operating underground facilities are known to be located on the Fitch Street Substation site. Utility laterals that may exist from previous land uses would no longer be providing service and will be removed if encountered during construction. Underground facilities in city streets will not be impacted by construction of the new substation.

O. Construction and Rehabilitation

Construction procedures are summarized below for the control building, substation, and for the electrical connections at the new Fitch Street Substation

1. Razing - Any debris will be removed from the site to a state-approved area landfill. No major items from the Fitch Street Substation site will require removal and disposal. Possible items for razing and disposal from the project site could include the following:

- Chain link fencing.
- Broken concrete or asphalt.
- Miscellaneous pieces of structural steel.
- Miscellaneous conduit and cable.

During concrete removal, dust will be controlled by means of water spray, vacuum cleaners or other industry-accepted measures.

Should flame cutting be performed, flame resistant blankets will be used to protect combustible materials and finished surfaces. Dry chemical fire extinguishers will be provided in these areas and workers will be trained to use them.

2. Earthwork - Earthwork will be mostly at the Fitch Street Substation site, with some trenching and foundation excavation required at the East Ave. Substation

a. Site Preparation

Ground surfaces within the construction areas will be cleared of all debris, surface vegetation and paving. Material will be removed from the sites and disposed of at a state-approved landfill. Since the Fitch Street Substation site is located in an urban, highly developed section of the City of Norwalk, it is surrounded by city streets and sidewalks. These streets and sidewalks will remain open during construction. If earthwork requires cutting and removal of street or sidewalk pavement, the opening will be covered with steel plates to permit access and traffic flow, and such openings will be temporarily resurfaced until final finished paving can be accomplished.

Appropriate signs, barricades, warning devices, and temporary sidewalks will be used on streets and sidewalks if construction and/or construction equipment encroaches on these public rights of-way. If temporary lane or sidewalk closures are required, such closures will be coordinated with and approved by City of Norwalk officials before closures are instituted.

b. Excavation and Backfilling

Excavation will be required for grounding, conduit, building and equipment foundations, and duct bank and conduit trenches. Mechanical equipment will be used for excavating. Stability will be provided by sheeting, shoring and bracing techniques. All excavations will be kept dry through the use of appropriate dewatering equipment and temporary surface diversions to prevent surface water and runoff from entering excavations.

Earth fill will be required as backfill for foundations and trenches. Materials from site excavations will be used as fill when possible. Compacted rock and clean natural sand may also be used as fill. Crushed rock and sand, when used as fill, will be mechanically compacted. At the new transformer locations at Fitch Street Substation, equipment oil spillage and leakage will be contained in an open basin.

Compacted sand embedment will be used as fill in excavated trenches for conduit and pipe. It is typically spread on the trench bottom, and compacted by vibration after conduit or pipe installation. Deposition and compaction will be performed in a manner to prevent lateral displacement of the pipe or conduit. Backfill will consist of excavated materials from the site or be furnished by the construction contractor.

Trenches for duct banks will be excavated in such a manner to permit the duct bank to rest on undisturbed earth.

It is not expected that blasting will be required for excavations.

c. Final Grading

All ground surface areas disturbed by construction activities will be graded after all construction work has been completed. Final grading will leave the surface matching the contours and elevations of the original undisturbed ground surface except when modifications are required by the individual site plan. The graded surface will be smooth and uniform and have effective drainage.

If, during construction, pavement, curbs, gutters, and sidewalks are damaged or require cutting or removal, they will be repaired, replaced and/or resurfaced to match the existing surfaces. They will be finished flush with the adjoining pavement. If fills, embankments and backfills settle or erode before construction is complete, such areas will be repaired, filled, compacted and/or graded to meet the original project specifications.

d. Disposal of Non-Contaminated Soil

Excess non contaminated soils, not suitable for re-use during construction, will be temporarily stockpiled off-site and later removed. Soil piles will be protected from wind and water erosion by such means as hay bales, silt fences, and/or temporary diversion runoff channels.

e. Dust Control

Control of fugitive dust during construction will be the responsibility of the construction contractors. On-site movement of equipment and vehicles will be restricted to predetermined routes where possible. Dust suppression may use water, calcium chloride or a temporary crushed stone cover. Dust control of earthen stockpiles will use water spray, a crusting agent, or a material covering, whichever is most feasible and effective given the size and location of the stockpile.

f. Sedimentation and Erosion Control

Soil erosion and sediment control during construction activities will be consistent with State of Connecticut Guidelines for Soil Erosion and Sediment Control, 2002. Specific erosion control measures are defined on the Erosion and Sediment Control Plan drawings in Appendices A and D.

Land disturbance will be kept to a minimum. Disturbed areas will be stabilized as soon as possible. Given the flat character of the existing substation terrain, runoff volume and velocity is expected to be minimal.

If a sediment filter fence is used (at the discretion of the contractor), it will consist of burlap or a synthetic filter fabric that consists of a pervious sheet of propylene, nylon, polyester, or ethylene filaments. The fence will be anchored to the ground with wood or metal stakes placed a maximum of 8 feet apart. The fabric fence will not exceed 36 inches in height and will have a minimum 6-inch overlap at all joints. Fabric filter barriers will be inspected immediately after each rainfall event, and at least daily during prolonged rainfall. Decomposed or ineffective fabric will be replaced immediately. Sediment buildup which reaches one-half the height of the

barrier will be removed, and the fabric fence at that location will be replaced.

3. Foundations - Foundations at the Fitch Street Substation will be drilled piers, spread footing or mat type foundations. If drilled pier holes are unstable, steel casings may be employed to stabilize sides. Installation will occur immediately after the auger is withdrawn, and casings will be removed using a vibrator extractor while concrete is being placed. The foundation for the Control House enclosure at the Fitch Street Substation will be excavated with a backhoe. Sheeting and shoring will be used to stabilize the sides of the foundation trench. Forms will be constructed on-site, incorporating rebar, followed by concrete installation.

Ready mix concrete will be placed in the pier holes on the same date that the holes are drilled. It will be delivered by truck to the substation site. For the Control House enclosure foundation, concrete will be poured once all the forms and rebar have been installed.

The concrete will be delivered to the Fitch Street Substation by truck, with numerous deliveries being required for the building foundation.

4. Below Grade Facilities - At the Fitch Street Substation below grade facilities will consist of the grounding grid (grounding conductors and rods), PVC conduit, and the 27.6kV duct bank for the interconnections to the East Ave. Substation. Methods used for excavation, embedment and backfill for such below grade facilities are discussed above.

5. Crushed Rock Surfacing - The Fitch Street Substation site will be covered with a 6inch layer of crushed rock. The surfacing will consist of crushed rock uniformly graded from ¾ inch to crusher fines having a total compacted thickness of 6 inches. Compaction will be accomplished by at least two passes of road type vibratory compactor or pneumatic-tired roller.

After subgrade preparation, but prior to application of the crushed rock, the entire area to be surfaced at each substation site will be treated with a weed inhibitor. A licensed applicator will complete this work task.

6. Fencing - The Fitch Street Substation will have a 12' High Chain Link Fence surrounding the Substation Equipment. This fence will have one (1) 20' Rolling gate and two (2) Man gates that interconnect to the exist East Avenue Substation.

7. Buildings - A control building will be constructed at the north end of the station. This building will be approximately 12' x 30' will be a single story structure (see Appendix C).

All required electrical equipment, heating, ventilating, and air conditioning equipment will be installed once Control Building is weather tight. Metal doors and frames (interior and exterior) will be painted consistent with the color depicted in the Architects renderings.

8. Switchyard Structures, Bus and Equipment - The majority of the substation switchyard components will be located outdoors within the Fitch Street Substation. Control and power cabling will be installed between the outdoor substation equipment and the control building. Outdoor equipment will include one (1) 115kV Gas Circuit Breaker, Air Disconnect Switches, Circuit Switchers and two (2) Main Power Transformers.

9. Transformer Oil Containment - The two 115kV to 27.6kV Power Transformers to be installed at the Fitch Street Substation will be surrounded by oil containment basins. The purpose of these basins will be to collect and contain transformer oil that may spill as a result of equipment failure. These basins will then feed an underground Oil Separator Concrete Tank that will be designed to contain the entire oil volume of one (1) Transformer; water-oil separation will be by means of specific gravity displacement. Oil containment basins will be constructed of concrete. TTD personnel will periodically perform a visual inspection of each containment basin to determine the presence of oil. If oil is present, it will be pumped through an oil/water separator before the water is discharged. Oil will be removed by a contractor and disposed of according to state and federal regulations. The location and construction of each oil containment basin is shown on drawings that are included in Appendix C.

10. Landscaping - TTD has consulted with the City of Norwalk regarding landscaping treatments. A mix of coniferous and deciduous trees along with ornamental shrubbery will be planted at selected location outside of the perimeter fence. Planting will occur after construction is complete during the next appropriate planting season (spring or fall).

P. Worksite Health and Safety Plan

All contractors will be required to submit a "Worksite Health and Safety Plan" for UI's review and approval prior to commencing work.

Q. Maintenance

After construction, TTD will implement its standard Operations/Maintenance Program for substations. The Fitch Street Substation will be periodically inspected for weed control and rodent damage to equipment. Transformer oil containment basins will be inspected monthly and cleaned twice a year, and pavement will be swept on an as-needed basis. Snow will be removed from sidewalks and driveways as needed. Debris will be removed from the substation yards during inspections. Planted landscape materials and ground cover will be watered, if needed. Dead plantings will be replaced during the next appropriate growing season.

R. Site Security

The Fitch Street Substation site will have a permanent security fence totally enclosing the area under construction. All gates, existing and proposed, will be lockable until the final motorized security gate is constructed.

During construction, all gates will remain locked during construction activities and will also be locked at the end of each workday. TTD and its construction contractors will have the only keys to the gates at the Fitch Street Substation site

S. Permits

Additional permits required for the construction of Fitch Street Substation, modifications

- Coastal Management Approval
- Building Permit for the Control Building of Fitch Street Substation
- Local Excavation Permit for the 115kV Interconnections
- Curb Cut / Sidewalk Permit

In addition to the above, a General Permit for dewatering activities at the Fitch Street Substation site may be required.

T. Procedures for Notices and Reports

The procedure governing notices of the beginning and completion of construction activities, and of any changes in the D&M Plan during construction activities, will be as follows:

1. Advance Notice on Construction Activities – TTD will provide the CSC, in writing, with a minimum of two weeks advance notice of the beginning of construction activities at the Fitch Street Substation site.

2. Municipal Notification – TTD will provide the City of Norwalk, in writing, with a minimum of two weeks advance notice of the beginning of construction activities at the

3. Landowner Notification – TTD will notify each adjoining landowner, in writing, with a minimum of two weeks advance notice of the beginning of construction activities at the Fitch Street Substation site.

4. Notice of Completion – TTD will provide the CSC with written notice of completion of construction activities as the work at each switchyard/substation is completed.

5. Modifications to D&M Plan – If any significant changes to the D&M Plan are required, TTD will submit proposed changes to the CSC in writing. Upon Council approval of any such changes, TTD will undertake actions to implement these changes. If any changes to the D&M Plan are required which are deemed by TTD not to be significant, TTD will notify the Council either by telephone or in writing of those changes and will undertake actions to implement these changes following such notification.

6. Quarterly Progress Reports – TTD will submit to the CSC quarterly progress reports concerning the construction phase at each switchyard/substation. Any changes and deviations from the approved D&M Plan will be included in the quarterly progress reports.

7. Final Report – TTD will provide the CSC with a final report for TTD's substation construction phase of the Project after completion of all construction activities at each of the substation construction sites. The final report will include any significant changes to the D&M Plan that were required during the course of construction.

SECTION 6
115kV TRANSMISSION LINE INTERCONNECTIONS

A. Introduction

The Connecticut Light and Power Company/Northeast Utilities has provided a review and study of the interconnection of the Fitch Street Substation and the existing 115kV Transmission power line that is located to the north of the Metro North Railroad main line tracks and south of the Fitch Street Substation site. The Transmission line is identified as the 1416 Line and presently runs from Bridgeport to Darien (with the Compo Substation connected to the Line in Westport). The 1416 Line will be split at the Fitch Street Substation site and the two segments will be identified as the 1028 and 1243 Lines. Protective relays within the Fitch Street Substation will coordinate with the Line relays located at United Illuminating Company's Pequonnock Substation and Connecticut Light and Power Company's Darien Substation. Coordination with

Pequonnock will include provisions for automatic line reclosing for the Compo Substation.

B. Transmission Line Requirements

The 1416 Line has an Emergency rating of 2400 amperes. The Fitch Street Substation 115kV bus work, circuit breaker, disconnect switches and tap conductors have a current rating of 3000 amperes The Fitch Street Substation will not limit the Transmission line current/power transmission rating.

C. Special Construction Schedule Coordination

Special coordination measures are being implemented to schedule Metro North Railroad personnel and equipment for construction work that the Connecticut Light and Power Company will undertake for the Transmission Pole foundation and erection activities. The construction work to be undertaken within the Fitch Street Substation site will not require any special scheduling coordination until such time the 115kV Line cut over activities and protective relaying testing are performed. Preliminary scheduling coordination and windows-of-opportunity have been discussed with Connecticut Light and Power Company and Convex staff.

D. Communications Systems

The Fitch Street Substation is designed with protective relaying communications provisions with Pequonnock, Compo and Darien Substations via Fiber Optic cables. Data will be transmitted to Convex by means of a communications system specified by and accepted by Convex.

Voice communications will be via cellular telephones and hard-wired telephone line.

E. Temperature Monitoring

There will be no special provisions for site temperature monitoring. Construction forces will be provided with an analog thermometer to identify freezing temperature conditions that may adversely impact personnel safety and/or construction activities.

F. Access Roadways

The Fitch Street Substation site presently has two curb cuts and areas for off-road parking. One of the curb cuts will be eliminated during the course of the project and the size of the second curb cut will be increased to provide an appropriate access apron when approaching the site from Fitch Street.

G. Vehicular Parking

Parking for on-site construction personnel will initially be available on the Fitch Street Substation site; as the project progresses, parking spaces will be available within the East Avenue Substation parking area which is adjacent to the construction site. The

Connecticut Light and Power Company has made arrangements with Metro North Railroad for parking spaces that will be temporarily unavailable during the Transmission Pole construction.

H. Land Requirements

All land use within the confines of the Fitch Street Substation site has been reviewed and approved by the City of Norwalk.

I. Proposed Rights-of-Way

The Fitch Street Substation construction does not require any special right-of-way. The Transmission Line extension and tap conductors connecting onto the Fitch Street Substation structures are located above the public parking area within the Metro North Railroad lot.

J. Clearing

The prior land use as a residential domicile left little to be cleared from the site. The residential structure and one out building were in poor structural condition and had been razed in 2010; this left the site in its present condition.

K. Wetlands, Rivers, and Streams

There are no wetlands, rivers or streams on, adjacent to or in the vicinity of the Fitch Street Substation site. Provisions for silt fence and sedimentation controls will be in place throughout the project's duration. The final landscaping includes trap stone within the areas impounded by substation security fence. A small rain garden and plantings will occupy the easterly area beyond the boundary of the security fence.

L. Below Grade Facilities

Two existing manholes will be incorporated into the Fitch Street Substation underground infrastructure for the routing of the 27.6kV cables. Grounding and underground conduit runs will be installed; the Ground Grid will extend throughout the substation. The underground conduit system will include metering and control conductors to interconnect substation equipment and devices with the Control House and interconnect Fitch Street Substation with the East Avenue Substation.

M. Cable System Installation

1. Receiving and Handling - The control and power cables to be used for the Fitch Street Substation construction project will be received and stored at three locations under the control of the Third Taxing District. The sites are: the Third Taxing District's Second Street Office and facility, the Third Taxing District's Rowan Street Substation storage yard and the East Avenue Substation storage garage. Provisions will be made to coordinate moving and handling.

2. Pulling Apparatus- All cable installations will be made using apparatus that will be brought on site for the specific purpose and released afterward.

3. Cable Pulling- All cable "pulls" will be performed under the direction of the on-site supervision and coordinated with the dedicated personnel.

4. Cable Joining- Power cable splicing, when required, will be performed by qualified cable splicers. Control cables will not be spliced but may be interconnected by means of dedicated terminal blocks.

5. Cable Terminations- Power cables will be terminated at within the Cable Chambers on each Main Power Transformer and at the 27.6kV Main Circuit breakers. Terminations will be substation grade and will be installed by qualified cable splicers.

N. Underground Facilities Crossings

The Fitch Street Substation underground facilities will cross at various locations throughout the site. Crossings will be separated by concrete encasement and soil. Conduit runs in the vicinity of the underground Ground Grid will be in close proximity.

SECTION 7
PROJECT SCHEDULE

The proposed project schedule follows.