

**Application to the
Connecticut Siting Council
for a Certificate of Environmental Compatibility and Public Need**

Telecommunications Tower
100 Marsh Hill Road
Orange, Connecticut

September 3, 2010

Submitted to:
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut

Submitted by:
The United Illuminating Company
157 Church Street
New Haven, Connecticut



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EXECUTIVE SUMMARY

The United Illuminating Company (“UI” or the “Applicant”) proposes to construct a telecommunications tower and equipment shelter on an approximately 35-acre property located at 100 Marsh Hill Road in Orange, Connecticut. The property, which is owned by UI, is the future site of the Operations Center for UI’s Central Facility. The proposed tower will be used exclusively by UI to facilitate operations and internal communications between the Operations Center and UI’s field crews and remote electric system devices that are responsible for operating and maintaining the electric transmission and distribution system within UI’s service territory. In connection with the consolidation of its operations at this location, UI needs to construct a proposed telecommunications tower and equipment shelter to house existing radio systems which will be controlled from the Operations Center site.

The proposed tower facility will consist of a 100-foot three-legged self-supporting tower that will be situated in the rear of the Operations Center property. UI will also construct an equipment shelter near the base of the tower to house certain radio equipment. The dimensions for the shelter will be approximately 15’ x 22’ x 11’ high. At this time, UI expects to install up to ten antennas on the tower. See Attachment 1. Access to the tower facility will be available from the Operations Center property via Marsh Hill Road.

For the reasons set forth in this Application, the proposed tower will have no significant adverse environmental impact on the site or its surroundings.

I. INTRODUCTION

A. Authority and Purpose

This Application and the accompanying attachments (collectively, the “Application”) are submitted by UI pursuant to Chapter 277a, §§ 16-50g et seq. of the Connecticut General Statutes (“C.G.S.”), as amended, and §§ 16-50j-1 et seq. of the Regulations of Connecticut State Agencies (“RCSA”), as amended. UI requests that the Connecticut Siting Council (the “Council”) issue a Certificate of Environmental Compatibility and Public Need (“Certificate”) for the construction, maintenance, and operation of a wireless telecommunications facility on UI-owned property located in the Town of Orange, Connecticut (the “Tower”). The proposed Tower will be used primarily by UI to facilitate internal communications between the Operations Center, UI’s field crews and remote electric system devices. These communications will provide for the efficient operation and maintenance of the electric transmission and distribution systems within UI’s service territory. Antennas used by UI’s VHF-Low Band mobile radio system, the UHF Meter Services mobile radio system, the Power Factor Correction (capacitor) control system, the Convex wireless communication systems, and possibly the Distribution Recloser control system, will be mounted on the Tower. Currently, antennas for these radio systems are located on the rooftop at UI’s Electric System Work Center in Shelton and other locations within UI’s service territory.

UI proposes to construct the Tower on a portion of an approximately 35-acre site located at 100 Marsh Hill Road in Orange, Connecticut, on which UI’s new Operations

Center is being constructed (the "Site"). The Site is adjacent to Exit 41 off of Interstate-95.¹ See Attachment 2, 3, 4 and 5.

Previously developed for a movie theatre, the Site is comprised of two contiguous parcels that form a single tract of land and is zoned Light Industrial District 2 per the Town of Orange Zoning Regulations. As further described in this Application, the Operations Center will consist of a complex of buildings that will house UI's operations functions, including offices, a parking garage and parking lot, a field crew training area and a service and maintenance area for vehicles.

UI will construct a 100-foot self-supporting three-legged telecommunications tower at the Site. The antennas on the Tower will facilitate operations and internal communications between the Operations Center, UI's field crews and remote electric system equipment. Radios and other operating equipment associated with the antennas will be located in an equipment shelter that will be approximately 15' x 22' x 11' high constructed near the base of the Tower (the "Equipment Shelter"). Access to the Tower will be available from the Site via the main entrance drive which connects to Marsh Hill Road. See Attachment 4.

B. The Applicant

UI is a specially chartered Connecticut corporation that provides electricity and energy-related services to more than 324,000 customers in seventeen cities and towns in southern Connecticut.

¹ In connection with the construction of the Operations Center, UI will construct an office building to serve as the administrative headquarters of UI on property located north of the Site at 180 Marsh Hill Road. Although a separate project, the office building will complement the Operations Center and is anticipated to be constructed within the same time frame as the Operations Center. Together, the Operations Center and new administrative headquarters will comprise UI's Central Facility.

UI's permanent place of business is located at:

157 Church Street
New Haven, CT 06506

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Telephone: 800.722.5584

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C. Application

The estimated total construction cost for the Tower is less than \$5,000,000. Therefore, pursuant to § 16-50v-1a(b) of the RCSA, an application fee of \$1,250 accompanies this Application in the form of a check made payable to the Council.

II. SERVICE AND NOTICE REQUIRED BY C.G.S. § 16-50/(b)

Copies of this Application have been sent by certified mail, return receipt requested, to municipal, regional, state and federal officials, pursuant to C.G.S. § 16-50/(b). A certificate of service, along with a list of the parties served with a copy of the Application, is included as Attachment 6 hereto.

Notice of UI's intent to submit this Application was published in the New Haven Register, a newspaper of general circulation in the Town of Orange and the Cities of Milford and West Haven, on August 27, 2010 and August 28, 2010 respectively, pursuant to C.G.S. § 16-50/(b). Copies of the published legal notice are included as Attachment 7. A copy of the publishers' affidavit or certificate of publication will be submitted to the Council upon receipt.

Attachment 6 contains a certification that notices were sent to each person appearing of record as an owner of property that may be considered to abut the Property

in accordance with C.G.S. § 16-50(b), as well as a list of the property owners to whom such notice was sent and a sample notice letter.

III. STATEMENT OF PUBLIC NEEDS AND BENEFITS

A. Statement of Public Need

UI owns and operates several radio systems that are necessary for the efficient, reliable, and safe operation of its electric system. The mobile radio systems allow electric system dispatchers and emergency response personnel to communicate with UI's field crews, providing for quick response to emergency situations, thus enhancing the safety of UI's employees and the general public. The Convex radio system allows for emergency communications to UI's substations and CONVEX (the Connecticut Valley Electric Exchange). The power factor correction and recloser systems control and optimize power flow throughout UI's electric system, thus reducing costs and enhancing availability of energy supply to UI customers.

B. Statement of Benefits

As noted in Section III A above, the benefits derived from UI owning and operating its radio systems include enhanced system operations and improved emergency response. Consolidating all of these radio communications systems at the new Operations Center further enhances operational efficiencies and allows ready access for troubleshooting any difficulties with the equipment.

IV. INFORMATION REQUIRED UNDER § C.G.S. 16-50/

The following provides an overview and general description of the Site and specific information regarding the Tower proposed to be constructed on the Site.

A. Site Description

The Site, situated adjacent to Exit 41 of Interstate 95, is comprised of two contiguous parcels that form a single tract of land. The Site is zoned Light Industrial District 2 per the Town of Orange Zoning Regulations and is located within the Indian River watershed. Previously developed as a multi-plex cinema, which was demolished by UI in June 2009, the topography of the Site is moderate to mildly sloping. The eastern portion of the Site, dominated by the cinema development, is mildly sloping, consistent with parking areas and building pads. The topography within the undeveloped portion of the Site along the western boundary varies between mild to moderately sloping.

Land uses in the vicinity of the Site include industrial, commercial (e.g. highway, hotel, restaurant, offices, etc.) and residential uses. Protected by a conservation easement (the "Conservation Easement"), the western portion of the Site is undeveloped and is characterized by shrubs, woodland and wetland areas. This area provides a forested buffer between the developed portion of the Site and nearby residences along Indian River Road (the closest of which is approximately 940 feet from the proposed location of the Tower). The maps attached hereto as Attachments 4 and 5 illustrate the location and characteristics of the Site.

On October 6, 2009, the Orange Town Plan and Zoning Commission approved UI's application to construct the proposed Operations Center on the Site. The Operations Center will consist of a four-story office building, a parking garage and parking lot, a field

crew training area, and a service and maintenance area comprised of a maintenance building, fueling station, covered truck parking, indoor storage and an outdoor storage area for utility equipment. For security purposes, a small guard house will be located at a security checkpoint near the main entrance to the Operations Center. In addition, the Site will be secured by an eight-foot high perimeter fence on three sides and a six-foot high decorative security fence along Marsh Hill Road and the main entrance drive. The existing access drive will serve as the main entrance to the Site. This drive will be modified to include a small rotary to the west and rear of the guard house for purposes of facilitating vehicle turn-around and circulation.

The proposed Tower will be situated within the service and maintenance area between the outside storage area and the southwestern corner of the parking garage. The approved Site Plan, which shows the layout of the Operations Center and the location of the proposed Tower, is attached hereto as Attachment 8.

The Operations Center, including the Tower, will be constructed substantially within the footprint of the previously developed area of the cinema. All but one of the wetlands on the Site are located within a conservation easement established as a condition of the Inland Wetlands and Watercourses Commission of the Town of Orange (the "IWWC") and the State of Connecticut Department of Environmental Protection (the "DEP") at the time construction of the cinema multi-plex was approved in 1993. The conservation easement provides that no buildings or improvements may be constructed within the easement area nor shall the natural conditions within the easement area be disturbed except as required (i) pursuant to the DEP or IWWC approvals, (ii) to maintain the ponds or clean up the area, or (iii) to expand the parking area shown on the site plan

approved by the IWWC. UI does not intend to disturb any areas within the conservation easement either during construction or in connection with its activities on the Site.

B. Tower Design and Equipment

1. Tower Design

UI's Tower has been designed to allow UI to achieve and maintain high quality, reliable wireless communications with its personnel and operating systems without interruption and in conformity with applicable standards and regulations. The Tower will consist of a new 100-foot high self-supporting three-legged tower with up to ten antennas of various types including dipole, omni-directional, and directional Yagi. Radio frequency path analyses have been completed to ensure that the radios connected to the antennas mounted on the proposed Tower will successfully and reliably communicate with UI's field crews and remote electric system devices from this location.

At the base of the Tower, UI will construct a single-story Equipment Shelter with dimensions of approximately 15' x 22' x 11' high to house UI's receiving, transmitting, processing and performance monitoring equipment, and the required heating and cooling equipment (see Attachment 9 for detail of Equipment Shelter). The Equipment Shelter will be equipped with silent intrusion and systems alarms. UI personnel will be available on a 24-hour basis to receive and respond to incoming alarms. The Equipment Shelter will remain unstaffed except as required for periodic maintenance.

Attachment 1 contains the specifications for the proposed Tower, including Tower elevation and other relevant details.

2. Tower Facility Equipment

The major electronic components to be included on UI's Tower include radio transmitters, receivers, antennas on the Tower itself and various other communications support and control equipment within the Equipment Shelter. Both the Tower and the Equipment Shelter have been designed to accommodate the currently planned equipment and allow some room for future operating expansion. Additional information with respect to the equipment is contained in Attachment 9.

3. Technological Alternatives

UI submits that there are no equally effective feasible technological alternatives to the proposal contained herein that will meet UI's internal operations and communications needs. The proposed Tower is a state-of-the-art system which will provide the high quality and reliable wireless service that is essential to UI's operating and maintenance activities, meet its need to provide for quick response to emergency situations, and to protect the safety of its employees and the general public. UI is aware of no viable and currently available alternatives to its system design for carriers licensed by the Federal Communications Commission ("FCC").

C. Site Selection and Tower Sharing

1. Site Selection

The location of the proposed Tower within the Operations Center property was carefully selected in order avoid other properties or critical Central Facility buildings in the unlikely event of a tower collapse and to be in close proximity to the equipment shelter. Locations for the Tower off the Operations Center property were not considered.

The Site is located in the Light Industrial District 2 Zone per the Town of Orange Zoning Regulations and has been previously developed. Land uses in the vicinity of the Site are comprised primarily of industrial, commercial and highway uses. Residences abutting the Site on its west side (the closest of which is approximately 940 feet from the proposed location of the Tower) are separated from the Site by a forested conservation area which serves as a buffer. See Attachment 10. Since construction of the Tower Facility will occur within the previously developed area, environmental impacts will be minimal.

In addition, as discussed below, the proposed Tower has been carefully situated within the Site in order to mitigate and reduce potentially adverse environmental impacts, including visual impacts. For these reasons, UI believes the Site to be the best possible site available that will meet its operational needs.

2. Tower Sharing

The purpose of the proposed Tower is to host various types of UI communications equipment necessary for the efficient, reliable and safe operations of its electric system and the Tower will not transmit or receive signals for commercial or public purposes. As the Operations Center will be a secure site, UI has no plans to share its tower with outside entities at this time. However, the Town of Orange has expressed an interest in the possible future use of the UI Tower for placement of public safety antennas. The Tower has room to accommodate the Town's antennas and UI is willing to incorporate any public safety antennas onto the Tower whenever the Town asks UI to do so.

D. Overall Costs and Benefits

The overall costs for development of the proposed Tower are set forth in Section G below. UI's customers will benefit substantially from improved reliability of communication between the Operations Center and the UI field crews, which, in the long term, will increase operational efficiencies and lower costs for consumers.

E. Environmental Compatibility

Pursuant to C.G.S. § 16-50p, in its review of the Application, the Council is required to find and to determine the nature of the probable environmental impact, including a specification of every significant adverse effect of the Tower, whether alone or cumulatively with other effects, on, and conflicting with the policies of the State concerning the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forests and parks, air and water purity and fish and wildlife. The proposed Tower has been designed to meet the need for high quality, reliable wireless service while minimizing any potential adverse environmental impact. As demonstrated in this Application, the proposed Tower will not have a significant adverse impact on the environment.

1. Visual Assessment

The visual impact of the proposed Tower is not significant. As is always the case, visual impacts will vary from location to location around the Tower, depending upon factors such as vegetation, topography, the distance of nearby properties from the Tower and the location of buildings and roadways in a "sight line" of the Tower. As noted previously, land uses in the vicinity of the Site are industrial, commercial and residential. Residences abut the Site on its west side along Indian River Road, but are separated

from the Site by a forested conservation area which serves as a buffer. As shown on the Site Plan included in Attachment 6, the Tower will be located to the rear of the Operations Building. This location was carefully chosen in order to mitigate potential visual impacts. There are approximately six residences within 2,000 feet of the Tower (see Attachment 10). The closest residence is located approximately 650 feet to the west of the proposed Tower.

Attachment 11 contains a detailed Visual Resource Evaluation Report prepared by VHB/Vanasse Hangen Brustlin, Inc. (the "VHB Report") that assesses the visual impact of the proposed Tower. This report includes a viewshed map and photosimulations of off-site views of the Tower. As described in the report and shown in the photosimulations, year round visibility is minimized by both the relatively low height of the proposed Tower and the intervening topography and vegetative screening. No views are anticipated from Town open space properties. Based on VHB's analysis, areas from which the proposed 100-foot Tower would be visible above the tree canopy year-round comprise approximately 48 acres. The majority of year-round visibility associated with the proposed Facility occurs on the site and its immediate vicinity (generally within approximately 0.25 mile), primarily to the north and east along Marsh Hill Road. VHB estimates that approximately 10 residential properties will have at least partial views of the proposed Tower and that most of these views would be distant (approximately one mile from the proposed Tower) and feature only the upper portion of the proposed Tower. Finally, approximately 35 additional acres located generally south and east of the Site will have seasonal (i.e., during "leaf off" conditions) views through the trees. VHB anticipates

that approximately three additional residential properties may have seasonal views of the proposed Tower from select portions of their respective properties.

Weather permitting, UI will raise a balloon with a diameter of at least three (3) feet at the proposed Tower site on the day of the Council's hearing on this Application, or at a time otherwise specified by the Council.

2. *Non-Ionizing Radio Frequency Radiation*

The FCC has adopted a standard for exposure to Radio Frequency ("RF") emissions from telecommunications facilities like the one proposed in this Application. To ensure compliance with the RF standard, UI has performed maximum power density calculations for the proposed Tower according to the methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997). This calculation is a conservative, worst-case approximation for RF power density levels at the closest accessible point to the antennas, in this case the base of the Tower, and with all antennas transmitting simultaneously on all channels at full power. These calculations, which are included in Attachment 12, demonstrate that the maximum power density level for the antennas would be less than 1 percent of the lowest Maximum Permissible Exposure (MPE) for an uncontrolled environment.

3. *Other Environmental Issues*

The operation of the proposed Tower at the Site will not cause any significant air, water, noise or other environmental impacts, or hazard to human health. As described in Section IV A of this Application, the Site has been previously developed as a cinema. It will be redeveloped by UI as its Operations Center. However, since construction of the Tower would occur within the previously developed area, environmental impacts will be

minimal. In addition, the Tower will not create or emit any smoke, gas, dust or other air contaminants, noise, odors or vibrations or constitute a hazard to air navigation.

F. Consistency with Local Land Use Controls

Set forth below are a brief description of the existing and planned uses of the Site and a summary of the local land use approvals received by UI to date for the Site. In addition, in accordance with the Council's Application Guide for Community Antenna Television and Telecommunication Facilities, included is a narrative summary of the proposed Tower's consistency with the Town of Orange's Plan of Conservation Development, Zoning Regulations and Inland Wetland and Watercourse Regulations, copies of which will be submitted with this Application.

1. *Planned and Existing Land Uses*

The Site was previously developed as a cinema and will be redeveloped as UI's Operations Center. The Operations Center will consist of a complex of buildings that will house UI's operations functions, including an office building, a parking garage and parking lot, a field crew training area and a service and maintenance area. Land uses surrounding the Site include industrial, commercial, highway, and residential uses. The Site is bounded on its south and east sides by Interstate 95 and Marsh Hill Road respectively. Residences abut the Site on its west side, but are separated from the Site by a wooded conservation area which serves as a buffer. The property adjacent to the Site on the north contains an Outback Steakhouse restaurant and a Courtyard Marriot hotel. UI has endeavored to the extent feasible to maintain the former developed footprint of the Site and to keep the industrial aspects of the development close to I-95 with the Operations Building adjacent to Marsh Hill Road.

2. Summary of Local Land Use Approvals Received

In the fall of 2009, after review and public hearings, the Town of Orange Inland Wetlands and Watercourses Commission and the Plan and Zoning Commission approved UI's applications to construct the Operations Center on the Site. The table below lists the land use approvals received to date in connection with the Site. Copies of letters evidencing the approvals listed below are attached hereto as Attachment 13.

Application	Permitting Authority	Approval Date
Inland Wetlands and Water Courses Application for Permit	Orange Inland Wetlands and Water Courses Commission	9/22/09
Site Plan Application	Orange Town Plan and Zoning Commission	10/6/09
Application for Temporary Special Use Earth Materials Removal and Filling	Orange Town Plan and Zoning Commission	10/6/09
Application for Certification of Soil Erosion and Sediment Control Measures	Orange Town Plan and Zoning Commission	10/6/09
State Traffic Commission Application for Major Traffic Generator Certificate	Connecticut State Traffic Commission	4/20/10
Residential or Commercial Building Sewer Construction Application	Orange Water Pollution Control Authority	9/22/09

3. Town of Orange Plan of Conservation and Development

The Operations Center has been designed to be compatible with surrounding land uses and is consistent with the purpose and intent of the Town of Orange Plan of Conservation and Development (2000) (the "Plan") for the Marsh Hill Design District between Interstate 95 and Prindle Hill Road. As noted previously, the Operations Center will be constructed substantially within the footprint of the previously developed Showcase Cinema structure and parking area. The office building and associated parking are situated along Marsh Hill Road, emphasizing the office use along the western

side of Marsh Hill Road. The Tower is located to the rear of the office building in order to minimize visibility from Marsh Hill Road. Included in the bulk filing for this Application are four copies of the Plan for the Council's reference. The Plan does not address the provision of wireless telecommunications systems or identify telecommunications towers as a land use that is inconsistent with the overall planning policies and goals of the Town.

4. *Town of Orange Zoning Regulations*

The Site is located within the Light Industrial District 2 zone per the Town of Orange Zoning Regulations (the "Regulations"), four copies of which are filed in bulk with this Application. The Operations Center has been designed to conform to the requirements of the Regulations, including specifically, the site plan standards set forth in Article XIII and the performance standards set forth in Article XVII. Article XVI of the Regulations addresses wireless telecommunications sites, which are permitted by special use permit. To the extent feasible, the proposed Tower has been designed to comply with the telecommunications standards set forth in Article XVI of the Regulations. The proposed Tower would be set back more than 200 feet from all property lines such that the demonstrated and proven fall zone of the Tower would be entirely within the Site. (See Attachments 4, 8 and 10). The table below sets forth the Article XVI standards and dimensional requirements for telecommunications facilities and the consistency of the proposed Tower with these standards and requirements.

Section of Regulations	Standard	Proposed Tower
§ 383-158A	<p>Lot size: (1) 125% of the area of the demonstrated and proven area of the fall zone of the proposed tower. (2) Any other uses on a lot with a tower shall comply with the area requirements of Article II exclusive of the tower area requirements.</p> <p>Height: The maximum height of a tower shall be 199 feet including the antenna and all other appurtenances.</p>	<p>The Site, which is comprised of approximately 35 acres, complies with the minimum lot size required by the Regulations. The other uses and buildings proposed for the Site comply with the area, location and bulk standards set forth in Article II of the Regulations.</p>
§ 383-158B	<p>Setbacks: (1) All towers shall be located at a minimum distance from any property line equal to 125% of the demonstrated and proven fall zone. (2) All equipment buildings/boxes or equipment areas shall comply with minimum property line setbacks for a principal building in the underlying zone.</p>	<p>The proposed Tower will be 100 feet high and will comply with the maximum height set forth in the Regulations.</p>
§ 383-158C	<p>Building Size: The lot coverage of all buildings shall not exceed the requirements of the underlying zone.</p>	<p>The proposed Tower is approximately 940 feet from the nearest residence, well-above the applicable setback of 125% of the demonstrated and proven fall zone of the proposed Tower. See Attachments 4, 5, 6 and 8. The equipment building complies with minimum property line setbacks set forth in Article VIII of the Regulations for the underlying Light Industrial District 2 zone.</p>
§ 383-158D	<p>No tower shall be located within 200 feet of an existing dwelling or school building, or within 125% of the demonstrated and proven fall zone for the proposed tower of any other building except the equipment or building servicing the tower.</p>	<p>The buildings on the Site comply with the minimum lot coverage requirements set forth in Article VIII of the Regulations for the underlying Light Industrial District 2 zone. See Attachment 13.</p>
§ 383-159A	<p>No tower shall be located within 200 feet of the boundary of an existing approved historic district or a site on the national registry of historic places.</p>	<p>The proposed Tower is not located within 200 feet of an existing dwelling or school building.</p> <p>The following buildings and structures are within 125% of the proposed Tower's fall zone: the Operations Center parking garage and building. These buildings or structures, all of which are located on the Site, will be used in connection with UI's operations at the Site.</p>
§ 383-159B	<p>No tower shall be located within 200 feet of the boundary of an existing approved historic district or a site on the national registry of historic places.</p>	<p>The proposed tower is not located within 200 feet of the boundary of an existing approved historic district or a site on the national registry of historic places.</p>

Section of Regulations	Standard	Proposed Tower
§ 383-159C	No lights shall be mounted on proposed towers unless otherwise required by the FAA or applicable law. All strobe lights shall be avoided if possible. Any required lights on a tower shall be directed upwards as much as possible. There shall be no outdoor lights in use except while a person is on the site and there shall be no direct light beyond the property line.	No lights will be mounted on the Tower. Lighting for operations on the Site complies with the Regulations and was approved in connection with the Site Plan Approval. See Attachment 10.
§ 383-159D	Towers not requiring special FAA painting or markings shall be noncontrasting blue or grey or other unobtrusive color as approved by the Commission.	The proposed Tower will be grey in color.
§ 383-159E	Towers may not be used to exhibit any commercial signage or other advertising.	The proposed Tower will not be used to exhibit any commercial signage or other advertising.
§ 383-159F	Any proposed tower shall be designed in all respects to accommodate both the applicant's antennas and comparable antennas for at least three additional users if the tower is over 150 feet in height, or for at least two additional comparable antennas where the tower is at least 100 feet but less than 150 feet in height, or for at least one additional comparable antenna if the tower is at least 50 feet but less than 100 feet in height.	The purpose of the proposed Tower is to host various types of UI communications equipment necessary for the efficient, reliable and safe operations of its electric system. The proposed Tower will not transmit or receive signals for a commercial or public purpose.
§ 383-159G	Antennas or equipment buildings/boxes mounted to or on buildings or structures shall to the greatest degree possible blend with the color and design of such building.	The proposed equipment shelter will be located to the rear of the Operations Building and will not be visible from Marsh Hill Road or the residential properties abutting the rear of the Site.
§ 383-159H	No proposed wireless telecommunication site shall be designed, located or operated as to interfere with public safety communications.	The proposed Tower will not interfere with public safety communications.

Section of Regulations	Standard	Proposed Tower
§ 383-159I	<p>The design of all wireless telecommunication sites shall comply with the standards promulgated by the FCC for non-ionizing electromagnetic emissions. A report shall be provided from a Connecticut licensed engineer in the field of telecommunications broadcasting indicating that the proposed wireless telecommunication site will comply with said emission standards.</p>	<p>The proposed Tower complies with the FCC standards for non-ionizing electromagnetic emissions. See Attachment 12.</p>
§ 383-159J	<p>All utilities proposed to serve a wireless telecommunication site shall be installed underground unless otherwise approved by the Commission.</p>	<p>All utilities will be installed underground.</p>
§ 383-159K	<p>All generators installed in conjunction with any wireless telecommunication site shall be sound attenuated and shall comply with the state and local noise regulations, including the performance standards of Article XVII of these Zoning Regulations.</p>	<p>No generator will be installed and operated solely for the Tower. The results of the noise analysis demonstrate that the operation of the proposed commercial air conditioning unit at the Facility on Marsh Hill Road will meet the Town's and DEP's noise impact criteria.</p>
§ 383-159L	<p>All towers located in a residential zone shall be of alternative tower or monopole design.</p>	<p>The proposed Tower is located in the Industrial District 2 zone.</p>
§ 383-159M	<p>Any telecommunication equipment building in a residential zone or on a lot adjacent to a residential zone shall be made to look like a residential building with a pitched roof.</p>	<p>The proposed equipment shelter will not be visible from Marsh Hill Road and will be approximately 940 feet from the nearest residence in the rear of the Site. Architectural features are not warranted since the equipment shelter will not be visible from surrounding residential properties.</p>
§ 383-159N	<p>Appropriate tree and other vegetation as approved by the Commission shall be planted and maintained to screen a tower and any equipment buildings from view from nearby residence and roads. Existing trees and vegetation should be used as much as possible to provide this screening.</p>	<p>The proposed Tower will be located to the rear of the Operations Building in order to minimize visibility from Marsh Hill Road. The western portion of the Site, which is undeveloped and characterized by shrubs, woodland and wetland areas, will provide a forested buffer between the Tower and nearby residences along Indian River Road. The maps attached hereto as Attachments 2, 3, 4 and 5 illustrate the location and characteristics of the Site. While vegetation will be planted following construction of the Central Facility, the vegetation will not be designed specifically to screen the Tower or equipment shelter.</p>

In addition, the Regulations include a list of locational preferences for wireless facilities in order of priority (see § 383-154 and § 383-160 of the Regulations). The Town prefers siting wireless facilities in the following locations in order of priority: (1) town owned land or buildings, (2) existing structures or buildings, (3) existing or approved towers; (4) new towers located on property occupied by one or more existing towers; (5) alternative tower structures in industrial districts; (6) new towers in industrial districts; (7) alternative towers in commercial districts; (8) new towers in commercial districts; (9) alternative towers in the Business Office Park or Office Park District; (10) new towers in the Business Office Park or Office Park District; (11) alternative tower structures located in a residential district; (12) new towers located in a residential district. The proposed Tower would be the sixth most preferred location for a wireless facility out of the 12 locations listed in the Regulations. Higher priority sites that meet UI's operational requirements are unavailable.

5. *Town of Orange Inland Wetland and Water Course Regulations*

The Town of Orange's Inland Wetlands and Water Course Regulations (the "IWWC Regulations") regulate certain activities, including construction activities, within wetlands or watercourses. On September 22, 2009, the Orange Inland Wetlands and Water Courses Commission approved UI's application to construct the Operations Center on the Site.

The Site contains six wetlands, which were mapped by a certified professional soil scientist and evaluated by a professional wetland scientist (see Inlands Wetlands Delineation Report included herewith as Attachment 14 (the "Wetlands Report")). The Wetlands Report identifies several classes of wetlands, including small areas of

scrub/shrub wetlands and larger tracts of forested wetlands, and several intermittent watercourses and man-made ponds. Many of the wetlands are characterized as disturbed and exhibit low functions and value. All but one of the wetlands on the Site are located within the Conservation Easement established at the time construction of the former cinema was approved in 1993. UI does not intend to disturb any areas within the Conservation Easement either during construction or in connection with its activities on the Site. The Wetlands Report concluded that the Operations Center, including the proposed Tower would not adversely impact wetlands and watercourses on-Site or off-Site.

In accordance with the Connecticut Soil Erosion Control Guidelines established by the Council for soil and water conservation, a Soil Erosion and Control Plan has been prepared to provide protection of the existing wetland and watercourses as well as prevent sediment transport to areas downgradient of the Site during construction and while the Site is being permanently established. In addition, pursuant to the approved Site Plans, UI will implement appropriate construction management practices to ensure that no pollutants will be discharged to any nearby watercourse or wetlands areas or to area groundwater during the construction process.

6. *Local Consultations*

C.G.S. § 16-50/(e), as amended, requires local input on matters before the Council. On June 5, 2010, UI commenced the sixty (60) day municipal consultation process. Copies of the draft Application and supplemental technical reports were filed with the Town of Orange on June 5, 2010. Because the Site is located within 2,500 feet of the Cities of Milford and West Haven, copies of the municipal consultation information

and associated technical reports were also sent to the Chief Elected Officials in the City of West Haven and the City of Milford. No recommendations or alternative sites were identified by the Town of Orange during this consultation. In addition, no comments on the proposed Tower were received from the Cities of West Haven and Milford. See Attachment 15.

7. State and Federal Consultations

a. Federal Communications Commission

UI holds FCC licenses authorizing it to provide wireless service for purposes of internal communications and operations. UI has evaluated the Site in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969 ("NEPA"). The Site was not identified as a wilderness area, wildlife preserve, National Park, National Forest, National Parkway, Scenic River, State Forest, State Designated Scenic River or State Gameland. Furthermore, according to the field investigations, no Federally regulated wetlands or watercourses of threatened or endangered species will be impacted by the proposed Tower. According to the Federal Emergency Management Agency Flood Insurance Rate Map ("FIRM"), Map # 0900870008B, Panel Number 8 of 11, Map date 03/18/1980 (no subsequent revisions found), the Tower is not located within a 100 year or 500 year flood plain. As such, the Site is categorically excluded from any requirement for further environmental review by the FCC in accordance with NEPA and no permit is required from the FCC prior to the construction of the proposed Tower. See 47 C.F.R. §§ 1.1306(b) and 1.1307(a).

b. Federal Aviation Administration

UI has conducted the appropriate air-space analysis for the proposed Tower and utilized the FCC's TOWAIR program to determine if it will constitute an obstruction or hazard to air navigation. The TOWAIR determination results, a copy of which is included as Attachment 16, and UI's analysis confirm, pursuant to Federal Aviation Administration ("FAA") standards and guidelines, that the proposed Tower is not required to be registered with the FAA and will not constitute an obstruction or hazard to air navigation. Therefore, no obstruction marking or lighting will be required.

c. Connecticut Department of Environmental Protection

(1) *Environmental and Geographic Information Center*

As discussed above and based on a review of the DEP/NDDDB, the Tower will not impact any known occurrences of state listed species or significant natural communities. See Attachment 17.

(2) *Bureau of Air Management*

Pursuant to RCSA § 22a-174-3, emergency back-up generators to be located at the Central Facility will require permits from the DEP's Bureau of Air Management. In addition to providing back-up power for the Operations Center, emergency back-up power will be available for the Tower. UI proposes to run emergency generators only during the interruption of utility service and periodically as required for maintenance purposes. UI will obtain the necessary permit prior to installing the generators.

d. Connecticut State Historic Preservation Officer

As discussed above, Attachment 18 includes the State Historic Preservation Officer's ("SHPO") determination that the proposed Tower will have no adverse effect on cultural resources eligible or listed on the National Register of Historic Places.

G. Estimated Cost and Schedule

1. Overall Estimated Costs

The total estimated cost of construction of the proposed Tower and related Equipment Shelter is \$336,705.00. This estimate includes (all dollar figures approximate):

(1)	Radio equipment	\$239,705
(2)	Tower, coax and antenna	\$22,000
(3)	Equipment Shelter	\$40,000
(4)	Antenna Foundation	\$15,000
(5)	Electric Service for Equipment Shelter	\$20,000

2. Overall Scheduling

Final engineering and construction will commence following Council approval of UI's Development and Management ("D&M") plan, if required, and are expected to be completed within two to four weeks. At this point in time, UI will schedule the delivery of the tower, radios, antennas, and other necessary equipment to occur in late 2011. UI will then proceed to install all of the equipment in the fourth quarter of 2011 and first quarter of 2012. The installation work will be completed and all equipment tested and commissioned by the move-in dates in the first quarter of 2012.

V. CONCLUSION

Based on the facts contained in the Application, UI submits that the construction of the proposed Tower at the Operations Center Site will not have any significant adverse environmental effects. Rather, the proposed Tower will provide UI with high-quality, reliable wireless service between its Operations Center, field crews and remote electric system devices, which will enable UI to increase its overall efficiency and improve customer service and safety. UI submits that the public need for the proposed Tower outweighs any possible environmental effects resulting from the construction of the Tower.

WHEREFORE, UI respectfully requests that the Council grant this Application for a Certificate of Environmental Compatibility and Public Need.

Respectfully submitted,
THE UNITED ILLUMINATING COMPANY

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