Environmental Assessment Report
North Beaufort Site No. SC-1038-B
Seabrook, South Carolina
September 27, 2011
Terracon Project No. 73107303

Prepared for:
Optima Towers IV, LLC
Mt. Pleasant, South Carolina

Prepared by:
Terracon Consultants, Inc.
Columbia, South Carolina
September 27, 2011

Mr. Keith Powell  
Optima Towers II, LLC.  
P.O. Box 2041  
Mt. Pleasant, South Carolina 29465

Re: Environmental Assessment
    Proposed Telecommunications Tower
    Site Name: North Beaufort
    Site Number: SC-1038-B
    133 Porches Hill Road
    Seabrook, Beaufort County, South Carolina
    Terracon Project Number: 73107303

Dear Mr. Powell:

Pursuant to your request, Terracon has completed an Environmental Assessment (EA), in general compliance with FCC’s NEPA rules (47 CFR 1.1311) for the above referenced tower site. Our observations concerning the environmental conditions at the site are contained in this report and the attached appendices.

We hope this report provides you with sufficient information at the present time. If you have any questions concerning this report, please do not hesitate to contact our office.

Sincerely,

TERRACON

Regan W. Norris        James A. Duncan P.E.
Staff Environmental Scientist    Environmental Department Manager

Enclosures
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ENVIRONMENTAL ASSESSMENT

OPTIMA TOWERS IV, LLC
PROPOSED TELECOMMUNICATIONS TOWER
SITE NAME: NORTH BEAUFORT
SITE NO.: SC-1038-B
133 PORCHES HILL ROAD
SEABROOK, BEAUFORT COUNTY, SOUTH CAROLINA

Terracon Project No. 73107303
September 27, 2011

1.0 PURPOSE AND SCOPE

Optima Towers IV, LLC is proposing to construct a (199-foot overall height) monopole tower on property owned by Eugene F. and Peggy D. Duncan at 133 Porches Hill Road in Seabrook, Beaufort County, South Carolina. The tower will provide cellular coverage for the designated service area in and around this location. The proposed site was selected to effectively meet radio frequency transmission requirements for this area, while avoiding or minimizing to the extent possible, any adverse environmental impacts.

An initial Environmental Checklist Report was completed to determine whether the operation of a wireless transmission tower at this location could potentially cause significant adverse impacts to the environment. Findings of this checklist indicate that the site is located in an area with an A11 flood zone designation. The project, therefore, requires an environmental assessment (EA) pursuant to FCC’s NEPA rules 47 CFR 1.1311.

This EA has been prepared to further investigate the possible adverse environmental impact of construction of the proposed telecommunications compound. Where applicable, implementation measures to mitigate any environmental impacts are also discussed.

To prepare this EA, Terracon performed the following tasks:

- Review of records/documents at federal/state agencies for compliance/requirements;
- Review of proposed tower construction documents; and,
- Interviews with necessary federal/state agency personnel and Optima Towers IV, LLC personnel.

This report contains the results of our findings and our opinions and engineering interpretation of these findings.
2.0 PROJECT CHARACTERISTICS

The proposed facility construction, site description, local environmental concerns and reasons for selection of this particular site for a telecommunications facility are discussed in this section.

2.1 Description of Proposed Construction

Proposed for construction is a 100-foot by 100-foot telecommunications compound containing a 199-foot monopole tower and associated ground supported telecommunications equipment surrounded by a chain link fence. The compound will house an elevated 2-foot by 3-foot telecommunications cabinet, a telco box, and an electric meter box. Grading of the planned compound and access road will not be required.

The proposed monopole tower will have a relatively small cross sectional area, designed not to impede surface flows. The foundation for the tower will consist of a drilled pier excavated into the underlying subsurface soils. This type of foundation construction is normally not impacted by floods. Earth excavated for the construction of the proposed tower pier and equipment cabinet foundations will be removed to an off-site location and there will be no net increase of fill at the site.

A review of the site drawings indicate that a 6-foot high security fence will be installed surrounding the tower facility. Additional security fences will not be required for the planned telecommunications facility.

Based on a review of site drawings by SSOE, Inc., the equipment associated with the planned telecommunications facility will be housed in a 3-foot by 2-foot metal cabinet positioned on an elevated pre-fabricated 4-foot by 8-foot metal platform. The base of the platform will be constructed at a minimum of 3-feet 10-inches above finished grade (which will result in elevating the equipment approximately 2-feet above the 100-year flood elevation). The 100-year flood plain reportedly occurs at EL. 13. The planned platform will be constructed approximately EL. 15.

2.2 Site Description, Zoning, Planning

The subject property is located at 133 Porches Hill Road in Seabrook, Beaufort County, South Carolina. More specifically, the subject site is contained inside the parcel located at 133 Porches Hill Road. The site is a recently cut wooded tract. The site location is shown on Figure 1 in Appendix A. Photographs showing the existing site conditions are contained in Appendix B.
Observations of adjacent properties from the subject site and public vantage points for obvious indications of environmental impact were conducted. The site is bordered to the north by residential property and a wooded tract. West of the site is bordered by Porches hill Rd. East of the site is bordered by residential property. South of the site is bounded by Keans Neck Rd.. The Site Diagram (Figure 2, Appendix A) depicts the neighboring properties and observed features.

The site is currently inside of the Dale Community Preservation zoning district and is zoned as DCP. The permitted uses are restricted to residential uses and consumer-oriented businesses catering primarily to the needs of the local population. According to the Beaufort County Zoning and Development Standards, the proposed tower construction is consistent with the Comprehensive Plan, is compatible with the character of land in the immediate vicinity, and minimizes adverse effects on adjacent lands. A special use permit for the proposed construction was approved by the zoning board. A copy of the special use permit is enclosed in Appendix B.

2.3 Local Environmental Concerns

A Conversation was conducted with Mr. Keith Powell, representative for Optima Towers IV, LLC. Based on this conversation, we understand that the proposed facility did not generate local controversy with respect to environmental issues. Construction of the telecommunications facility is not anticipated to generate additional local controversy. Furthermore, approval of the project at the recent zoning board meeting, conducted by the County, did not generate local controversy.

2.4 Reasons for Particular Site Selection

The location of this planned telecommunications facility was chosen based on engineering studies and cellular phone coverage requirements for Beaufort County, South Carolina. Due to the configuration of Optima Towers IV, LLC network for the Beaufort County area, only a limited area, called a “search ring”, provides a technically appropriate area to locate this facility. Within this area, an extremely limited number of sites from which to choose were available to pursue. Based on conversations with Optima Tower’s personnel, it appears that after consideration of the location of existing towers, businesses and community layout, this location was considered the most appropriate within this particular search ring.

3.0 ENVIRONMENTAL IMPACT OF THE PROPOSED CONSTRUCTION

Terracon has reviewed information available at several regulatory agencies and other sources to aid in assessing the environmental impacts of the proposed construction. For the purposes of this study, Terracon has utilized an environmental impact zone for the proposed construction of 1/8 of a
mile, based on the minimal grading and disturbance normally associated with tower construction, operation and maintenance. Exceptions to this were made for National Scenic Trails and Rivers where a radius of 1-mile was evaluated, and for Item 4 (National Register of Historic Places) where an impact zone of ½-mile radius was evaluated based on the requirements of the South Carolina Department of Archives and History - State Historic Preservation Office (SHPO) and the March 7, 2005 Nationwide Programmatic Agreement. The findings from our review are presented in the following paragraphs.

3.1 Officially Designated Wilderness Areas

Terracon reviewed the relevant USGS 7.5 minute topographic map and the South Carolina page of the National Wilderness Preservation System website. According to information on these sources, the site is not located within a designated wilderness area. During the site reconnaissance, Terracon did not encounter signage that would indicate the site is located in a designated wilderness area.

Based on these considerations, the site is not located in a designated wilderness area. Therefore, no further evaluation is required for this item.

3.2 Officially Designated Wildlife Preserve

Terracon reviewed the relevant USGS 7.5 minute topographic map and the U.S. Fish and Wildlife Service (USFWS) National Wildlife Refuge (NWR) Systems website. These sources indicate that the site is not located within a designated wildlife preserve or refuge. This finding was confirmed by our review of tax records indicating the site is privately owned. During the site reconnaissance, Terracon did not encounter signage that would indicate that the site is located in a designated wildlife preserve or refuge.

Based on these considerations, the site is not located within an officially designated wildlife preserve or refuge. Therefore, no further evaluation is required for this item.

3.3 Endangered Species or Critical Habitats

Section 7 of the Endangered Species Act of 1973 (16 U.S.C. §§ 1536a2) directs federal agencies to utilize their authorities in furtherance of the purposes of the Act by carrying out programs for the conservation of listed species or designated critical habitats. In addition, Section 7 of the Act sets out the consultation process, which is further implemented by regulation (50 CFR §402).
According to the South Carolina page of the USFWS Threatened and Endangered Species System website, there are Seventeen (17) threatened or endangered species known to exist in Beaufort County. Terracon reviewed the USFWS Threatened and Endangered Species System website for information regarding the typical habitats required for the identified species. The site area consists of an approximate 100-foot by 100-foot lease area with the planned 12-foot by 63-foot access road included within a 40-foot wide by 63-foot long access/ utility easement. The site is currently covered with dense underbrush with no trees or water courses are present on the site. Based on our comparison of habitats required by the identified species and the current site conditions, the listed species do not appear likely to be found on the site. A review of the list of identified critical habitats for wildlife, codified at 50 CFR Section 17.95, indicates the site is not located in a designated critical habitat.

In order to determine if the site is located in an area documented to have occurrences of listed and/or proposed threatened or endangered species, Terracon submitted a Section 7 consultation package to the USFWS including the site location designated on the relevant USGS 7.5 minute topographic map, site photographs, and a tower project data sheet. A response letter from the USFWS dated March 31, 2011 indicates that “Based on the description of the tower design characteristics, we conclude that the design of the proposed communication tower would likely minimize the potential hazard to avian species protected by the Migratory Bird Treaty Act.,” and “The proposed action will have no effect on resources under the jurisdiction of the Service that currently protected by the Act. Therefore, no further action is required under Section 7(a)(2) of the [Endangered Species] Act.” A copy of the correspondence received from the USFWS is enclosed in Appendix C.

As preferred by the USFWS for protection of migratory birds, the tower will be lower than 200-feet, will not be lighted, and will not utilize guy wires. The tower will be constructed in a rural area partially surrounded by development consisting of residential properties with some minor commercial development nearby. As such, the proposed tower configuration and location does not appear likely to potentially adversely impact migratory birds.

Based on these considerations, no further evaluation is required for this item.

3.4 National Register of Historic Places

To comply with the Nationwide Programmatic Agreement of March 7, 2005, Terracon conducted a Phase I Archaeological Survey at the site. The Terracon Phase I Archaeological Survey did not detect archaeological resources within the proposed tower compound or access road. A copy of the Phase I Archaeological Survey report is attached as part of the FCC Form 620 and attachments.

To comply with the Nationwide Programmatic Agreement of March 7, 2005, Optima Towers placed a notice in The Beaufort Gazette inviting comment on the effect of the proposed tower on historic properties. Optima Towers did not indicate that comments regarding the impact of the tower on historic structures were received within 30 days after the last publication containing the notice. A copy of the Proof of Publication affidavit from The Beaufort Gazette is attached in Appendix C.

In addition to the Public Notice advertisement, Terracon submitted information to the Beaufort County Historical Society. The Beaufort County Historical Society did not respond to the submittal within 30 days. A copy of the submittal to the Beaufort County Historical Society is enclosed.

Consultation with local county officials, zoning personnel and government authorities was conducted by Optima Towers IV, LLC during the required construction submittals, zoning hearings and approvals. The planned construction has been approved, however, a copy of the building/construction permit has not been provided to Terracon. A copy of the permit will be submitted to the FCC under separate cover as soon as it is received.

Terracon submitted FCC Form 620 with attachments to the South Carolina Department of Archives and History – State Historical Preservation Office (SHPO) for review and comment. The SHPO response letter dated March 12, 2011 states “Our Office concurs that no properties included in or eligible for inclusion in the National Register of Historic Places will be visually affected by this project.” The letter continues “Based on the FCC-standardized APE for direct effects of a communications tower, which is the footprint of the tower construction we concur that no historic properties will be directly affected by this project.”

Based on Terracon’s findings, the SHPO response, and no responses from the public, the project should have no effect on Historic Properties. Therefore, no further evaluation is required for this item. A copy of Form 620 (and enclosures) and the correspondence from SHPO are attached in Appendix C.

3.5 Indian Religious Sites
Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, “Protection of Historic Properties” (36 CFR Part 800) and the Nationwide Programmatic Agreement on the Collocation of Wireless Antennas (adopted March 16, 2001), and the Nationwide Programmatic Agreement effective March 7, 2005, require consultation with Native American tribal groups and NHO regarding proposed projects and potential impacts to Native American religious sites. In order to determine which Native American tribal groups may potentially have areas of cultural interest within Beaufort County, South Carolina, Terracon reviewed the map of Indian Land Areas Judicially Established in 1978. Based on the map of Indian Land Areas Judicially Established in 1978, the site is not located within an area recognized by the federal government as land claimed by Native Americans.

A review of the relevant USGS 7.5 minute quadrangle map indicates that the site is not located in a recognized Indian reservation. Furthermore, correspondence from SHPO, in response to submittal of Form 620 and a Section 106 Review, indicates that no archaeological resources will be affected by the proposed project.

To comply with the Nationwide Programmatic Agreement of March 7, 2005, Terracon registered the site on the FCC’s Tower Construction Notification System (TCNS ID 74165). A response received through the TCNS indicated Tribes that might have an interest in commenting on the impact the proposed undertaking could have on properties of traditional religious or cultural importance. The following tribes were determined to be interested in the area of the proposed construction and were consulted accordingly:

- Tuscarora Nation
- Cherokee Nation
- Eastern Shawnee Tribe of Oklahoma
- Shawnee Tribe
- Catawba Indian Nation

Terracon submitted FCC Form 620 to those Tribes requesting a copy, which included the site location designated on the relevant USGS 7.5 minute topographic map, site photographs, THC response and a copy of the archaeological survey.

The following Table lists the Tribes notified through FCC’s TCNS, those requesting additional information, those indicating no interest if they did not respond within 30-days, and those Tribes responding with concurrence with the proposed construction. A copy of the TCNS notification and the responses received from the Tribes are enclosed.
Tribal Contact and Response

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<th>Tribe Requested More Information</th>
<th>30 day no Response Equals Tribal Approval</th>
<th>10-Day Follow up Needed</th>
<th>Concurrence Response Received from Tribe</th>
<th>Escalated to FCC for Govt. to Govt. Consultation</th>
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Based on the responses from the interested Tribes, and ample opportunity by the non-respondent tribes to contact Terracon, the proposed undertaking should have no effect on tribal properties of traditional religious or cultural importance.

Therefore, no further evaluation is required for this item. However, if during construction, artifacts or human remains are unearthed, construction at the site would cease immediately and Clearwire would contact the Tennessee Historical Commission and the Tribes that commented on this site to request assistance.

3.6 Flood Plain Considerations

Terracon reviewed the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Panel No. 450025 0040D, dated September 29, 1986. The proposed site is located within the 100-year flood plain of the area. According to site survey documents provided by Optima Towers IV, LLC, the elevation of the site currently ranges from EL 10.2 to 11.3 feet AMSL. The elevation of the 100-year flood plain in the area of the proposed site reportedly occurs at EL 13 feet AMSL. Therefore, portions of the proposed site will be approximately 1.7 foot lower than the 100-year flood plain. A copy of the portion of the FIRM showing the site location and the site survey drawings are attached in Appendix C.
In order to avoid potential impacts associated with flooding, the site would have to be located in a non-flood plain area. Conversations with Mr. Keith Powell, representative for Optima Towers IV, LLC, indicate that no other suitable alternative sites were found within the search radius. It appears that the only alternative available that would avoid potential impacts associated with constructing in a flood plain would be the no-action alternative. This alternative was not considered feasible since it would render the project dysfunctional in the area.

A review of the construction drawings indicate that several measures have been taken to mitigate the environmental impacts associated with constructing portions of the project compound within the flood plain area. These mitigation measures are summarized below:

- The equipment cabinet and other appurtenant items will be elevated a minimum of 2 foot above the 100-year flood level (to EL. 15) by means of an elevated platform supported on 6 small diameter posts with foundations buried below the ground surface.

- The proposed monopole tower will be anchored into the soils by means of a pier foundation. A properly designed pier foundation is generally unaffected by flooding.

- A general review of the proposed construction indicates that additional impediments to the flood plain are anticipated to be minimal. Soil excavated from the site for construction of the foundations will be removed from the site, resulting in no net increase in fill within the flood plain.

After review of plans, drawings and construction documents, construction of the tower within the flood plain was approved by the Beaufort County Building Codes Department. Mr. Keith Powell, Optima Towers IV, LLC representative indicated that Optima Towers has not yet received their building permit, but that the permit had been applied for. A copy of the approved Building Permit will be provided under separate cover upon receipt from the County.

In 2000, Terracon conducted a telephone conversation with Ms. Rose Austin of the Federal Emergency Management Agency (FEMA). Ms. Austin stated that generally the local Flood Plain Administrator (County of Beaufort) has the final approval in constructing in flood plain areas. In addition, Ms. Austin stated that since the proposed construction will be conducted entirely with private funds, the construction does not need approval from FEMA. Correspondence received from Ms. Rose Austin of FEMA is provided in Appendix C.

3.7 Significant Change in Surface Features (i.e.-wetland fill, deforestation or water diversion)
Under the Clean Water Act (40 CFR § 230.3), wetlands are defined as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.” Potential wetlands under the jurisdiction of the United States Army Corps of Engineers (ACOE) include waterways, lakes, streams, and natural springs.

As shown on the enclosed Dale, SC USGS 7.5 minute topographic map, the Wimbee River is present about 700 feet west of the site. A cursory review of the proposed site plans and other information provided by Optima Towers indicates that deforestation, water diversion, significant grade changes or fill will not be required based on the nature of the proposed construction. Terracon reviewed the USFWS National Wetlands Inventory (NWI) map for the site area. The NWI map does not indicate wetlands on the site.

Based on the above considerations, no further evaluation is required for this item.

3.8 High Intensity White Lights

According to Optima Towers IV, LLC personnel, lighting will not be required for the proposed tower. They indicate that in the event tower lighting is required by the FAA or others, the lighting would consist of dual mode, medium intensity white strobe lights changing to flashing red at dusk.

Based on this information, no further evaluation is required for this item.

3.9 Radiation Exposure

The FCC requires that certain communications services and devices perform an environmental evaluation to assess compliance with radio frequency (RF) radiation exposure limits. Once the proposed telecommunication tower and associated antennas are constructed, Terracon anticipates that the monitoring of RF exposure radiation limits, if required, will be the responsibility of the carrier. In addition, RF engineers have indicated that the RF exposure guidelines under NEPA require an evaluation for non-rooftop facilities only if the antennas are located less than 10 meters above ground level. Since this site is a proposed 190-foot tall monopole tower, excess radiation exposure does not appear to be a concern at this site. However, this is documented under separate cover as determined by Clearwire’s RF engineers.

3.10 National Scenic and Historic Trails
In October 1999, the Cellular Telecommunications Industry Association, Personal Communications Industry Association, Appalachian Trail Conference, American Hiking Society, and representative Managing and Supporting Trails Organizations (MSTOs) for the National Scenic Trails signed a resolution for the Siting of Wireless Telecommunications Facilities Near National Scenic Trails. This resolution states that if a wireless telecommunications or site management company plans a new or significantly expanded facility within one mile of a National Scenic Trail, it will notify the non-profit group that supports the trail.

Terracon reviewed information on the National Rivers, Trails, and Conservation Assistance Program website for the National Park Service (NPS). According to the information obtained from the NPS, the site is not located within one mile of a National Scenic or Historic Trail.

4.0 SUMMARY AND CONCLUSIONS

This EA evaluated possible environmental impacts with respect to the following ten (10) categories:

1. Officially Designated Wilderness Areas
2. Officially Designated Wildlife Reserve
3. Endangered Species or Critical Habitats
4. National Register of Historic Places
5. Indian Religious Sites
6. Flood Plain Considerations
7. Significant Change in Surface Features (i.e., wetlands, fill, deforestation, or water diversion)
8. High Intensity White Lights
9. Radiation Exposure
10. National Scenic and Historic Trails

Only flood plain considerations (Item 6) seemed to pose an environmental concern. This issue was addressed by first seeking alternative sites and, when alternative sites were not found, by engineering the proposed construction to mitigate the impact of a possible flood event. These mitigation measures were outlined in subsection 3.6 of this report.

In summary, our findings indicate that the proposed project is not expected to cause any significant adverse environmental impact. Given the limited number of suitable sites in the project vicinity, it is our opinion that the proposed construction is the only feasible alternative for meeting the project objective while practicing sound engineering to meet environmental standards.

5.0 GENERAL COMMENTS
Terracon has performed an EA in general compliance with the scope and limitations of FCC's NEPA rules (47 CFR 1.1311). This environmental assessment relied upon readily available state and Federal records, visual assessment of the property, and responses from environmental agencies, land owners and other third parties. Terracon does not warrant the work of regulatory agencies or other third parties supplying information which may have been used during the assimilation of this report. Furthermore, it should be understood that the state or federally designated wildlife preserves, critical habitats, historical sites, etc. could change in the future due to changing populations and modifications to the official lists.

This report is prepared for exclusive use by Optima Towers IV, LLC, for specific application to the project discussed and has been prepared according to generally accepted environmental assessment practices. No warranty, express or implied, is made or intended. In the event that any changes in the nature, location or type of construction as outlined in this report are observed, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing by Terracon. The limitations of this assessment should be recognized as Optima Towers IV, LLC formulates conclusions on the environmental impact the proposed construction may have on the surrounding properties.
APPENDIX A - FIGURES
Photo 1  Broom Straw.

Photo 2  Magnolia Tree.
Photo 3  Loblolly Pine.

Photo 4  Cabbage (Sable) Palm.
Project No. 73107302  
Date Photos Taken: February 24, 2011

Photo 5  Honey Suckle.

Photo 6  Post Oak.
Photo 7  Sweet Gum.

Photo 8  Spanish Moss.

SC-1038
Photo 9  Water Oak
APPENDIX C – FCC FORM 620 AND ATTACHMENTS, CORRESPONDENCE AND CONSTRUCTION DOCUMENTS
March 12, 2011

Lorraine Norwood
Terracon
521 Clemson Road
Columbia, SC 29229

Re: Proposed 199-foot Monopole Tower
Beaufort, Beaufort County, South Carolina
Site # SC-1038 (North Beaufort)
SHPO #: 11CW0094

Dear Ms. Norwood:

Thank you for a completed FCC Form 620 for the above-referenced project, which we received on March 9. We appreciate your work in identifying historic properties for this undertaking.

Based on the FCC-standardized 1/2-mile Area of Potential Effect (APE) for the visual effects of a 199-foot communications tower, our office concurs that no properties included in or eligible for inclusion in the National Register of Historic Places will be visually affected by this project. Based on the FCC-standardized APE for the direct effects of a communications tower, which is the footprint of the tower construction, we concur that no historic properties will be directly affected by this project.

These comments by the State Historic Preservation Office are required by the Federal Communications Commission’s 2005 Nationwide Agreement For Review of Effects on Historic Properties for Certain Undertakings. If you have questions, please contact me at (803) 896-6169 or cwilson@scdah.state.sc.us.

Sincerely,

[Signature]
Caroline Dover Wilson
Review and Compliance Coordinator
State Historic Preservation Office
February 28, 2011

South Carolina Department of Archives and History
8301 Parklane Road
Columbia, South Carolina 29203

Attn: Ms. Caroline Dover Wilson
Review and Compliance Coordinator

RE: Cultural Resources Review/Section 106 Review
Proposed 199-foot Monopole Telecommunications Tower
Applicant Name: Optima Towers IV, LLC
Site Name: North Beaufort
Optima Towers Site Number: SC-1038
133 Porches Hill Road
Beaufort, Beaufort County, South Carolina
Terracon Project No. 73107303

Dear Ms. Wilson:

On behalf of Optima Towers IV, LLC, Terracon is requesting a review of potential impacts to historic properties that may result from the proposed construction of a 199-foot monopole telecommunications tower at the above referenced location. Federal Communications Commission’s (FCC) regulations require that Optima Towers II, LLC consider the effects of the proposed tower on historic properties. Your response is sought in compliance with Section 106 of the National Historic Preservation Act (NHPA). Enclosed is the NT Submission Packet – FCC Form 620 and appropriate attachments.

Terracon is submitting this letter, on behalf of Optima Towers IV, LLC, to seek a letter of no effect and to comply with Federal Communications Commission (FCC) requirements as identified in 47CFR Ch. I §1.1307. Your comments are also being requested pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation’s regulation for compliance with Section 106, codified at 36 CFR Part 800. Your confirmation on this matter would be greatly appreciated.
Please feel free to contact our office if you have any questions concerning this letter.

Sincerely,
Terracon Consultants, Inc.

Regan Norris
Environmental Scientist

for S. Lorraine Norwood, MA, RPA
Manager, CRM/NEPA Department

Attachments: NT Submission Packet – FCC Form 620 and appropriate attachments
New Tower ("NT") Submission Packet

FCC FORM 620

Introduction

The NT Submission Packet is to be completed by or on behalf of Applicants to construct new antenna support structures by or for the use of licensees of the Federal Communications Commission ("FCC"). The Packet (including Form 620 and attachments) is to be submitted to the State Historic Preservation Office ("SHPO") or to the Tribal Historic Preservation Office ("THPO"), as appropriate, before any construction or other installation activities on the site begin. Failure to provide the Submission Packet and complete the review process under Section 106 of the National Historic Preservation Act ("NHPA")\(^1\) prior to beginning construction may violate Section 110(k) of the NHPA and the Commission's rules.

The instructions below should be read in conjunction with, and not as a substitute for, the “Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission,” dated September 2004, ("Nationwide Agreement") and the relevant rules of the FCC (47 C.F.R. §§ 1.1301-1.1319) and the Advisory Council on Historic Preservation ("ACHP") (36 C.F.R. Part 800).\(^2\)

Exclusions and Scope of Use

The NT Submission Packet should not be submitted for undertakings that are excluded from Section 106 Review. The categories of new tower construction that are excluded from historic preservation review under Section 106 of the NHPA are described in Section III of the Nationwide Agreement.

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\(^1\) 16 U.S.C. § 470f.

\(^2\) Section II.A.9. of the Nationwide Agreement defines a “historic property” as: “Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian Organization that meet the National Register criteria.”
Where an undertaking is to be completed but no submission will be made to a SHPO or THPO due to the applicability of one or more exclusions, the Applicant should retain in its files documentation of the basis for each exclusion should a question arise as to the Applicant’s compliance with Section 106.

The NT Submission Packet is to be used only for the construction of new antenna support structures. Antenna collocations that are subject to Section 106 review should be submitted using the Collocation (“CO”) Submission Packet (FCC Form 621).

General Instructions: NT Submission Packet

Fill out the answers to Questions 1-5 on Form 620 and provide the requested attachments. Attachments should be numbered and provided in the order described below.

For ease of processing, provide the Applicant’s Name, Applicant’s Project Name, and Applicant’s Project Number in the lower right hand corner of each page of Form 620 and attachments.3

1. Applicant Information

Full Legal Name of Applicant: _____ Optima Towers IV, LLC _____________________________

Name and Title of Contact Person: _____ Keith Powell _____________________________

Address of Contact Person (including Zip Code):
_____ PO Box 2041, Mount Pleasant, South Carolina 29465

Phone: _____ 843-324-9745 ______ Fax: _____________________________

E-mail address: _____ keith.powell2@comcast.net

2. Applicant’s Consultant Information

Full Legal Name of Applicant's Section 106 Consulting Firm:

________ Terracon Consultants, Inc. _____________________________

Name of Principal Investigator: _____ S. Lorraine Norwood _____________________________

3 Some attachments may contain photos or maps on which this information can not be provided.
Title of Principal Investigator: Manager, CRM/NEPA Department

Investigator’s Address: 2855 Premiere Parkway, Suite C

City: Duluth State: GA Zip Code: 30097

Phone: 770-623-0755 Fax: 770-623-9628

E-mail Address: slnorwood@terracon.com

Does the Principal Investigator satisfy the Secretary of the Interior’s Professional Qualification Standards? YES.

Areas in which the Principal Investigator meets the Secretary of the Interior's Professional Qualification Standards: Archaeology and History

Other “Secretary of the Interior qualified” staff who worked on the Submission Packet (provide name(s) as well as area(s) in which they are qualified):

3. Site Information

a. Street Address of Site: 133 Porches Hill Rd.

   City or Township: Seabrook

   County / Parish: Beaufort State: SC Zip Code: 29940

b. Nearest Cross Roads: Keans Neck / Porches Hill

4 The Professional Qualification Standards are available on the cultural resources webpage of the National Park Service, Department of the Interior: <http://www.cr.nps.gov/local-law/arch_stnds_9.htm>. The Nationwide Agreement requires use of Secretary-qualified professionals for identification and evaluation of historic properties within the APE for direct effects, and for assessment of effects. The Nationwide Agreement encourages, but does not require, use of Secretary-qualified professionals to identify historic properties within the APE for indirect effects. See Nationwide Agreement, §§ VI.D.1.d, VI.D.1.e, VI.D.2.b, VI.E.5.
c. NAD 83 Latitude/Longitude coordinates (to tenth of a second):
   N 32° 33' 24.78"; W 80° 41' 21.71"

d. Proposed tower height above ground level: 519 feet; 60.7 meters

e. Tower type:
   □ guyed lattice tower  □ self-supporting lattice  □ monopole
   □ other (briefly describe tower) ____________________________________________

4. Project Status: 6
   a. [X] Construction not yet commenced;
   b. [  ] Construction commenced on [date] _____________; or,
   c. [  ] Construction commenced on [date] _________ and was completed on [date] ___________.

5. Applicant's Determination of Effect:
   a. Direct Effects (check one):
      i. [X] No Historic Properties in Area of Potential Effects (“APE”) for direct effects;
      ii. [  ] “No effect” on Historic Properties in APE for direct effects;
      iii. [  ] “No adverse effect” on Historic Properties in APE for direct effects;
      iv. [  ] “Adverse effect” on one or more Historic Properties in APE for direct effects.
   b. Visual Effects (check one):
      i. [X] No Historic Properties in Area of Potential Effects (“APE”) for visual effects;
      ii. [  ] “No effect” on Historic Properties in APE for visual effects;
      iii. [  ] “No adverse effect” on Historic Properties in APE for visual effects;

5 Include top-mounted attachments such as lightning rods.

6 Failure to provide the Submission Packet and complete the review process under Section 106 of the NHPA prior to beginning construction may violate Section 110(k) of the NHPA and the Commission's rules. See Section X of the Nationwide Agreement.

Applicant's Name: Optima Towers IV, LLC
Project Name: North Beaufort
Project Number: SC-1038
iv. [ ] “Adverse effect” on one or more Historic Properties in APE for visual effects.

Certification and Signature

I certify that all representations on this FCC Form 620 and the accompanying attachments are true, correct, and complete.

[Signature]

2/23/2011

[Printed Name] Manager, CRM/NEPA Department

Title

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)) AND/OR FORFEITURE (U.S. Code, Title 47, Section 50)

FCC Form 620
January 2005
REGAN NORRIS
ENVIRONMENTAL SCIENTIST

PROFESSIONAL EXPERIENCE
Mr. Norris is an Environmental Scientist with Terracon in Columbia, South Carolina. Mr. Norris has served as an instrumentation shift engineer on the Saluda Dam project, and is currently working on environmental remediation projects in South Carolina, Georgia and North Carolina. His responsibilities include field project management, monitoring well installation, remediation design and installation, environmental soil, water and air sampling, field screening of VOC concentrations in soil, water, and air, auto CAD drafting, and consultation with clients and regulatory programs including RCRA, CERCLA, OSHA, FERC, MSHA, UST and others.

PROJECT EXPERIENCE
UST
Served as environmental scientist for site assessment and remediation system design and installation for UST sites in South Carolina and North Carolina in accordance with SCDHEC, GAEPD and NCDNER protocols. Designed, installed, and maintained air sparge systems and SVE systems which have been a proven technology in removing LNAPL subsurface contaminants. Other UST experience includes initial ground water assessments, dual phase vacuum extraction of subsurface contaminants, (utilizing a mobile multi-phase extraction unit) in-situ chemical oxidation (ISCO) utilizing ORC, sodium per sulfate and hydrogen peroxide, ozone injections for enhanced biodegradation, Bio Remediation mapping, and site closure and abandonment.

Computer Assisted Drafting and Surveying
Responsible for the Auto CAD drafting of figures generated in Phase I and Phase II environmental investigations, geotechnical boring location maps, ground water assessments, and regulatory compliance reports. Generated site maps, grounds water flow (potentiometric) maps, site location maps, contaminant plume maps. Surveyed wells for accurate reporting of ground water elevations.

Instrumentation
Shift supervisor for the instrumentation monitoring team at the Lake Murray Dam remediation Project. Duties included daily data analysis from site inclinometers, M-scope, tiltmeter, and vibrating wire piezometer readings, and daily report preparation on the structural integrity and general condition of the existing dam during reconstruction.

Lead former for piezometer installation at the Taum Sauk Dam in Missouri. Duties included installation of piezometers, calibration, and recordkeeping duties.

Cultural Resource Assessment
Field research and file review pertaining to NEPA assessments. Assist with data collection, shovel test pits.
S. LORRAINE NORWOOD, M.A., R.P.A.
CRM/NEPA DEPARTMENT MANAGER

PROFESSIONAL EXPERIENCE
Ms. Norwood is the CRM/NEPA Department Manager at Terracon's Atlanta office. Her responsibilities include project overview and leadership on archaeology and historic preservation projects. These duties include site recognizance, report review and generation, due diligence, quality assurance and client relations. She is also responsible for archaeological compliance issues regarding Section 106 submittals to various State Historic Preservation Officers (SHPO) as well as fostering positive relationships with State Archaeologists and Tribal Officers. Additionally, Ms. Norwood conducts detailed Section 106 resource surveys that include photographic documentation, deed research, archival searches, taking of oral histories, and inspection of the existing resources to determine eligibility for listing in the National Register of Historic Places (NRHP).

Ms. Norwood has performed many compliance surveys throughout Alabama, Florida, Georgia, North Carolina, and South Carolina to assess the historic and archaeological impact of proposed construction on the surrounding areas. She has been involved with all aspects of archaeological assessment of proposed telecommunications projects including records research at the various State Archaeological Site Files and other local and state agencies, pedestrian and shovel test surveys, data analyses, and report generation. She has also coordinated and conducted balloon tests, as required by SHPO offices, to determine the impact proposed towers may have on historic sites and other cultural resources. Ms. Norwood has submitted Section 106 reviews to multiple state historic preservation offices (SHPO) to obtain clearance on the historic and archaeological aspects of the NEPA checklist. She has also conducted archaeological surveys and historic resource surveys on transportation projects as part of team efforts to comply with NEPA, NHPA and Section 4f of the DOT Act.

Prior to entering the fields of archaeology and historic preservation, Ms. Norwood worked in many areas of journalism, including television, newspapers, magazines, and public relations. Her editorial and design layout knowledge has aided clients in preparing sophisticated, accurate reports and public presentations.

PROJECT EXPERIENCE
- **Miscellaneous Telecommunications Tower Sites – Section 106 Historic Structure Surveys and Archaeology -- Alabama, Florida, Georgia, North Carolina and South Carolina**

- **“Big Grip” US 441 Corridor Project (EDS-441-41, 46, 47, 48, 49; BRF-023-1 [12]) – Echols, Clinch and Atkinson Counties, Georgia**
  Project manager of Terracon's history portion of the concept design phase of the 64-mile project corridor in conjunction with EarthTech. Terracon conducted the assessment of project effects upon historic resources determined eligible for listing in the NRHP and advising on concept design. Ms. Norwood was responsible for drafting Section 106 documents, consultation with the Georgia DOT, Georgia Historic Preservation Division, Federal Highway Administration, and other relevant parties.

- **Bridge surveys**
  Project manager for the history component of bridge replacement projects in

EDUCATION
Bachelor of Arts, English and Creative Writing, University of North Carolina at Chapel Hill
Bachelor of Arts, Anthropology, Western Carolina University – Cullowhee, North Carolina (coursework included semester-long Section 106 Survey class given by Western North Carolina SHPO)
Master of Arts in Archaeology, University of York, York, England

AFFILIATIONS
Register of Professional Archaeologists

AWARDS
Outstanding Anthropology Student, Western Carolina University
Pi Gamma Mu, International Honor Society
First Prize, Television News, Southeastern Region, Council for Advancement and Support of Education
First Place, General News Category, Carolinas Radio/TV News Directors Association

WORK HISTORY
Terracon, Project Manager, 2002-2004
Terracon, CRM Group Leader, 2004-2006
Terracon, CRM/NEPA Department Manager, 2006-present
Columbus State University, Instructor, Section 106 and Archaeology within NEPA Compliance, 2001

MEMBERSHIP
Society for Georgia Archaeology
Georga Mountains Archaeology Society
Georgia. Responsible for determining eligibility and conducting assessment of effects. Responsible for writing Section 106 documents, consultation with the Georgia DOT, Georgia Historic Preservation Division, Federal Highway Administration, and other relevant parties

- **Intersection improvements – Mars Hill Road**
  Project manager for Cobb County intersection improvements on Mars Hill Road. Responsible for determining eligibility and conducting assessment of effects. Responsible for writing compliance documents, consultation with the Georgia DOT, Georgia Historic Preservation Division, Federal Highway Administration, and other relevant parties. Archaeological survey of a portion of the corridor.

- **Intersection improvements – Webb Bridge and Kimball Bridge Roads**
  Project manager for Fulton County intersection improvements. Conducted archaeological survey and historic resource survey of the intersections. Responsible for writing compliance documents, consultation with the Georgia DOT, Georgia Historic Preservation Division, Federal Highway Administration, and other relevant parties.

- **Archaeological Survey – Trumann, Arkansas**
  Principal investigator for archaeological survey of 14-acre site in Arkansas as part of client due diligence for large retail chain. Responsible for writing compliance document and consultation with the Arkansas SHPO.

- **Moton Air Field – Tuskegee, Alabama**
  Conducted historical research and archaeological investigation of National Park Service site in advance of the Tuskegee Airmen interpretive site and museum. Responsible for writing archaeological report and consultation with the Georgia SHPO and the National Park Service.

- **Additional Archaeological Excavations**
  Late Bronze Age – Anglo-Saxon: Excavated at Roundway Down, Wiltshire, England, on Late Bronze Age to Anglo-Saxon period burial sites.

  Southeast historic and prehistoric sites: Macon Industrial Park, Macon County, North Carolina and Appletree Campground, Nantahala National Forest, North Carolina.

- **Archaeological and Historic Preservation Editorial Work**
  Edited and designed over 100 archaeology and historic preservation reports for submittal to State Historic Preservation Offices, clients, and relevant parties. Edited and designed “public” brochures and pamphlets about historic sites and archaeological/preservation issues for Alabama and Georgia SHPOs.

- **Public Outreach**
  Passport in Time, US Forest Service

  Archaeology Resource Center, York, England

**SEMINARS, WORKSHOPS**

- **Introduction to Section 106: A Workshop for Successful Project Review**, presented by the Georgia State Historic Preservation Office/Atlanta Regional Commission, 2004
- **Cell Site Acquisition, Regulation and Litigation in Alabama**, May 12, 2005, Birmingham, Alabama
- **Numerous SGA and SEAC meetings**
- **Practical Compliance with the FCC’s Nationwide Programmatic Agreement**, comprehensive seminar presented by PCIA and Pike and Fisher, June 16, 2006, Atlanta, Georgia
ATTACHMENT 2

ADDITIONAL SITE INFORMATION

Additional Site Information

The tower center is reportedly at 32° 33’ 24.78” N latitude and 81° 41’ 21.71” W longitude with a ground elevation of 8.9 feet AMSL. The topography in the subject site’s surrounding area slopes gently to the south. The subject site’s location along with the characteristics of the subject site’s surrounding area is shown on a portion of the applicable USGS 7.5 Minute Series Topographic map in Attachment 12.

The proposed tower site consists of an approximately 150-foot by 125-foot lease area on a larger wooded parcel. The access drive will be contained inside of the lease area and access from Porches Hill Rd. The total area of disturbance is estimated to be approximately .4 acre. The proposed tower site is bound to the south and east, by the wooded parent tract; and to the north and west by wooded residential property. No wetlands, streams, springs, ponds, or other water sources are located on the tower site. The closest water to the proposed tower site is an adjacent pond, located approximately 375 feet northwest from the tower compound.
ATTACHMENT 3

TRIBAL AND NHO INVOLVEMENT

According to the FCC’s Tower Construction Notification System (TCNS) (Notification No. 74165), the Tuscarora Nation, the Cherokee Nation, the Eastern Shawnee Tribe of Oklahoma, the Shawnee Tribe, and the Catawba Indian Nation claim the territory in which the proposed tower will be located. Of those listed above, the Shawnee Tribe and the Catawba Indian Nation indicated they wished to comment on the undertaking. Therefore, Terracon contacted the Shawnee’s and the Catawba’s Tribal Historic Preservation Office to determine whether the proposed tower would have visual or direct effects on tribal religious or cultural property within the Area of Potential Effect (APE). Research was undertaken at the South Carolina Archaeology Site Files, NRHP website, and the State Historic Preservation Office to identify areas of potential significance. In addition, an archaeological survey was conducted at the proposed tower site and access road. A report was forwarded to the THPOs. A response from the THPO has not yet been received.

Contact was also made via email as a follow up to the TCNS notification with following federally recognized tribes:

Richard Allen
Cherokee Nation
rallen@cherokee.org

The tribes listed above have not yet responded. Any additional comments or responses from the above tribes received will be forwarded to the SHPO immediately.

The remaining tribes indicated through their TCNS listing that no response from the tribe within 30 days indicates they have no interest in the project.
ATTACHMENT 4

LOCAL GOVERNMENT

Terracon submitted a notification to the Beaufort County Zoning Department.

Beaufort County Zoning Department  
100 Ribaut Rd.  
PO Drawer 1228  
Beaufort, SC 29901-1228  

Hillary Austin - Zoning Administrator
ATTACHMENT 5

PUBLIC INVOLVEMENT

A Public Notice was listed in the “The Beaufort Gazettes” as part of the rezoning process. Any comments received after submission of this packet will be forwarded as an addendum.
ATTACHMENT 6

ADDITIONAL CONSULTING PARTIES

The following persons or agencies have been identified as “consulting parties” by the State Historic Preservation Office, by Optima Towers IV, LLC, or by independent request and were contacted for comment.

Beaufort County Historical Society
P.O. Box 55
Beaufort, South Carolina 29901
ATTACHMENT 7

AREAS OF POTENTIAL EFFECTS

A. Direct Effects

The Area of Potential Effect (APE) for Direct Effects was determined to be the 156 foot by 126 foot footprint of the proposed construction. The access road to the tower will be 12-feet wide and extend from Porches Hill Rd. east toward compound.

B. Visual Effects

The APE for visual effects for this project is a 3/4 mile radius from the tower since the proposed tower is less than 300 feet (see attached USGS 7.5 Minute Series Topographic map, Figure 1).

Terracon conducted a records review at the South Carolina Department of Archives and History, the National Register Information Systems web site and the South Carolina Institute of Archaeology and Anthropology Site Files to identify any resources listed in the National Register of Historic Places (NRHP), eligible properties, state-surveyed historic resources, and archaeological sites within a APE for visual effects of the proposed project.
ATTACHMENT 8

HISTORIC PROPERTIES IDENTIFIED IN THE APE FOR VISUAL EFFECTS

Based on a review of the NRHP web site, there are 5 NRHP-listed resources in Beaufort County. Of those listed, none lie within the boundaries of the project APE. In addition, no state surveyed resources are located within the APE.
ATTACHMENT 9

HISTORIC PROPERTIES IDENTIFIED IN THE APE FOR DIRECT EFFECTS

No historic standing structures are located on the proposed tower site. Therefore, no historic properties were identified in the APE for direct effects.

A file review was conducted by Terracon at the South Carolina Institute of Archaeology and Anthropology (SCIAA) to determine if there are known archaeological sites located within the APE for direct effect of the proposed project site. According to the South Carolina Archaeological Site File, there are no archaeological sites located within the 3/4-mile APE of the proposed tower (see attached figure).

An online review was conducted of the National Register of Historic Places (NRHP) to identify any listed archaeological resources with the APE. The review indicated that there are no NRHP-listed archaeological sites within the project APE.

Terracon conducted a Phase I Archaeological Survey of the proposed site in order to determine the presence of previously undetected archaeological resources that will be affected by the construction of the proposed project. The archaeological survey area is equal to the area of the proposed tower site and access road, which in this case is approximately .4 acres (see attached figure). The principal investigator of this project was S. Lorraine Norwood, M.A., R.P.A. (resume attached). Field work was conducted on February 23, 2011 by Regan Norris (resume attached).

A systematic pedestrian survey was made to identify archaeological resources that may be at the tower site (see attached figure). Two (2) shovel test pits (STPs) were conducted, one in the proposed tower compound (at tower center); and one (1) along the proposed access road. Each STP was an approximate 30-cm by 50-cm test pit that was excavated down to the sterile subsoil. A site diagram depicting general layout of the subject site and STPs is included in Attachment 12 (Figure 2). All matrix removed from the test pits was screened using a 6 mm hardware cloth screen. As is standard Terracon protocol, any recovered artifacts are bagged and labeled according to their provenience.

The shovel test pits did not unearth any cultural material. According to the USDA Natural Resources Conservation Service Soil Survey for Beaufort County, the soil type is Yemassee Loamy fine sand consisting of deep, somewhat poorly drained, nearly level soil is on low ridges of the lower marine terraces. Soils ranged from very dark grayish brown to light brownish gray, loose sand. The matrix from the STPs was dark gray (10YR 4/1) surface layer with roots and organic debris (0-25 cm) and a light yellowish brown (2YR 6/4) from 25-50 cm. The soil color was relatively uniform throughout the proposed tower area. Historic aerial photographs indicate that the site was undeveloped land to at least 1959. In summary, the
Phase I Archaeological Survey did not detect archaeological resources within the proposed tower compound or access road.

The literature and document search as well as the field work did not indicate the presence of known archaeological resources at the proposed tower site or access road. Therefore, the proposed tower project would have no direct effect on known archaeological resources and Terracon recommends no further archaeological study at the proposed project site.
ATTACHMENT 10

EFFECTS ON IDENTIFIED PROPERTIES

No Historic Properties were identified within the APE for Visual Effects.
Photo 1  View of STP-1 along the proposed access road.

Photo 2  View from STP-1 looking west down the proposed access road towards Porches Hill Rd

SC-1038 North Beaufort
Photo 3  View from STP-1 looking south towards Keans Neck Rd.

Photo 4  View of STP-2

SC-1038 North Beaufort
Photo 5  View from tower center looking north.

Photo 6  View from tower center looking south.

SC-1038 North Beaufort
Photo 7  View from tower center looking east.

Photo 8  View from tower center looking west.

SC-1038 North Beaufort
Photo 9  View from tower compound entrance looking south, down Porches Hill Rd.

Photo 10  View from tower compound entrance looking north, up Porches Hill Rd.
Photo 11  View of proposed lease area looking south.
ATTACHMENT 12

MAPS

Figure 1 – Site Location Map with APE

Figure 2 – General Site Layout Plan
BIBLIOGRAPHY

1. USDA Natural Resource Conservation Service Soil Survey for Beaufort County, Soil Survey, dated June 1980
Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. Chief Leo R Henry - Tuscarora Nation - Via: Lewiston, NY - regular mail
Details: If the Applicant/tower builder receives no response from the Tuscarora Nation within 30 days after notification through TCNS, the Tuscarora Nation has no interest in participating in pre-construction review for the site. The Applicant/tower builder, however, must IMMEDIATELY notify the Tuscarora Nation in the event archaeological properties or human remains are discovered during construction.

2. Policy Analyst Richard L Allen - Cherokee Nation - Tahlequah, OK - electronic mail
Details: The TCNS Details do not provide me enough information to conduct a proper assessment of the projects on behalf of the Cherokee Nation. Therefore, I request that I be sent a brief summary of the Phase I findings [please try to limit the summary to between1--10 pages], a topo of the area, and relevant photos. Please send these by email to rallen@cherokee.org.

Please treat this request for additional material as a routine supplement to the TCNS Details Notification for each of your projects that fall within our Tribe's areas of geographic interest. Consequently, if you do not receive a response from me within 30 days from the date on which you e-mailed the supplemental items to me, you may move forward with the 20-Day Letter procedures pursuant to the FCC's guidelines. Thank you. -- Dr. Richard L. Allen

3. Administrative Assistant Jo Ann Beckham - Eastern Shawnee Tribe of Oklahoma - Seneca, MO - electronic mail
Details: If you, the Applicant and/or tower constructor, do not receive a response from us, the Eastern Shawnee Tribe of Oklahoma, within 30 days from the date of the TCNS notification, then you may conclude that we do not have an interest in the site. However, if archeological resources or remains are found during construction, you must immediately stop construction and notify us of your findings in accordance with the FCC's rules. (See 47 C.F.R. § 1.1312(d))

4. THPO Kim Jumper - Shawnee Tribe - Miami, OK - regular mail
Details: THIS IS YOUR OFFICIAL NOTICE THAT THE SHAWNEE TRIBE IS INTERESTED IN CONSULTING ON ALL PROJECTS BUILT IN OUR AREAS OF GEOGRAPHIC INTEREST.

ATTENTION, NEW INFORMATION: Our procedures were updated on 14 January 2008. Please call Kim Jumper, THPO, at 918-542-2441, so that she can send you a copy.

If your tower is a co-location, please fax us this information to let us know. We cannot always tell from the TCNS web site that a tower is a co-location. We require a written response from you to let us know that it is a co-location. If a co-location project includes some new ground disturbance (such as from an expanded compound or access road, or construction of an ancillary structure), the Shawnee Tribe treats such a project the same as any other non co-location project.

Our correct mailing/physical address is: 29 South Highway 69A. Our correct phone number is (918-542-2441) and our historic preservation fax line is (918-542-9915). THPO Kim Jumper manages all cell tower consultation.

As of 26 June 2006, all of the faxed responses of our final comments on a tower site will contain an original Shawnee Tribe signature. Each final comment fax is signed individually. Copies may be compared, for authentication, against the original in our files. If a final comment fax does not contain a signature, it is not valid. ALL FINAL COMMENTS FROM THE SHAWNEE TRIBE ARE WRITTEN; FINAL COMMENTS ARE NEVER PROVIDED VERBALLY. IF THE SHAWNEE TRIBE IS CREDITED WITH HAVING GIVEN A VERBAL RESPONSE, THAT RESPONSE IS NOT VALID.

If you receive notification through the TCNS listing the Shawnee Tribe, that is an indication that the Shawnee Tribe is interested in consulting on the tower for which that notification was received. Please consider that our official indication of interest to you. The Shawnee Tribe considers the Tower Construction Notification System’s weekly e-mail to be the first notification that we receive that a tower will be constructed in an area of our concern. We do not view the TCNS notification as completion of 106 consultation obligations.

The Shawnee Tribe has developed streamlined consultation procedures for cell tower developers and their subcontractors. If you do not have a copy of the procedures - most recently updated
on 14 January 2008 - please contact us, as you must follow these procedures to consult with us on cell tower projects. Call us at 918-542-2441 or fax us at 918-542-9915. It is the tower builder's responsibility to make sure that you have our most recent consultation procedures.

PLEASE DO NOT SEND US INFORMATION, QUERIES, OR COMMENTS ELECTRONICALLY. SINCE 1 DECEMBER 2005, WE HAVE NOT HANDLED ANY CELL TOWER CONSULTATION, INQUIRIES, OR CORRESPONDENCE VIA E-MAIL.

5. THPO and Executive Director Dr. Wenonah G Haire - Catawba Indian Nation Cultural Preservation Project - Rock Hill, SC - electronic mail and regular mail
Details: The Catawba Indian Nation Tribal Historic Preservation Office requests that you send us by regular mail the following information needed to complete our research for the your proposed project:

Project Name____________________________________________________

Project Number________________________________________________

___1. The name, complete address, phone number, fax number and e-mail address of the project manager.

___2. The project location plotted on a topo map.

___3. The project name, address and location; street or highway, city, county, state.

___4. A brief description of the proposed project. Please include the size of the proposed project site and the size of the area where ground-disturbing activities will be taking place and the type of disturbance anticipated.

___5. A brief description of current and former land use. We are primarily interested in ground disturbance and do not need detailed information or photographs of historic structures in the project area.

___6. A list of all recorded archaeological sites within one half (1/2) mile of the project area.

___7. A list of all eligible and potentially eligible National Register of Historic Places sites within one half (1/2) mile of the proposed project area.

___8. If there has been an archaeological survey done in the area, a copy of that report.

___9. It is not necessary to send original color photos if you can provide high-resolution color copies.

___10. A letter of concurrence from the appropriate State Historic Preservation Office.

If you use the FCC Form 620, please do not send Attachments 1 through 6. They are not necessary for our determination. We do not have an interest in projects that require no ground disturbance.

Please note: Our research/processing fee is currently $150. This fee will be changing effective January 1, 2011 to $250.

Please send these requested materials in hard copy format. Send to:
The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic preferences on TCNS, and therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes, state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

6. Environmental Review Coordinator Renee GledhillEarley - NC State Historic Preservation Office - Raleigh, NC - electronic mail

7. Deputy SHPO David Brook - Historic Preservation Office - Raleigh, NC - electronic mail

8. Review and Compliance Coordinator Caroline D Wilson - Department of Archives and History - Columbia, SC - electronic mail
Details: The South Carolina SHPO is interested in reviewing proposed towers in Georgia and North Carolina ONLY if the Area of Potential Effect (APE) for the tower crosses the border into South Carolina. When the APE for a tower in Georgia or North Carolina also includes land in South Carolina, the SHPO requests that a completed Form 620 or 621 be sent to our office for review and comment.

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.
Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 02/25/2011
Notification ID: 74165
Tower Owner Individual or Entity Name: Optima Towers IV
Consultant Name: Norman E Partin Jr
Street Address: 521 Clemson Road
City: Columbia
State: SOUTH CAROLINA
Zip Code: 29229
Phone: 803-741-9000
Email: nepartin@terracon.com

Structure Type: POLE - Any type of Pole
Latitude: 32 deg 33 min 24.7 sec N
Longitude: 80 deg 41 min 21.7 sec W
Location Description: 133 Porches Hill Rd.
City: Seabrook
State: SOUTH CAROLINA
County: BEAUFORT
Ground Elevation: 2.7 meters
Support Structure: 60.7 meters above ground level
Overall Structure: 60.7 meters above ground level
Overall Height AMSL: 63.4 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC’s website at:


You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,
Federal Communications Commission
The Cherokee Nation has no knowledge of any historic, cultural or sacred sites within the affected area. Should any ground disturbance reveal an archaeological site or human remains, we ask that all activity cease immediately and the Cherokee Nation and other appropriate agencies be contacted immediately.

Thank you,

Dr. Richard L. Allen
Policy Analyst
Cherokee Nation
P.O. Box 948
Tahlequah, Oklahoma 74465
(918) 453-5466 (office)
(918) 822-2707 (cell)
(918) 458-5898 (fax)

Dr. Allen,

Per your request, attached is additional information about the proposed tower in Columbia, South Carolina with TCNS #74165.

Thank you for your time and consideration of this project.

Regan W. Norris
Staff Environmental Scientist I Remediation Services
Terraco
521 Clemson Road I Columbia, South Carolina 29201
rwnorris@terracom.com I terraco.com

Terraco provides geotechnical, environmental, construction materials, and facilities consulting engineering services delivered with responsiveness, resourcefulness, and reliability.
March 17, 2011

Attention: Regan W. Norris
Terracon Consultants, Inc.
521 Clemson Road
Columbia, SC 29229

Re. THPO #  TCNS #  Project Description
2011-146-5  74165  Proposed 199ft Tower Optima Towers IV, LLC 133 Porches Hill Road Beaufort, SC

Dear Mr. Norris,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. However, the Catawba are to be notified if Native American artifacts and/or human remains are located during the ground disturbance phase of this project.

The research and processing fee for each project is $250. For accounting purposes, checks must be made out to the Catawba Indian Nation THPO (CIN-THPO).

If you have questions please contact Caitlin Totherow at 803-328-2427 ext. 226, or e-mail caitlin@ccppcrafts.com.

Sincerely,

Wennonah G. Haire
Tribal Historic Preservation Officer
Message: The Shawnee Tribe's Tribal Historic Preservation Officer concurs that no known historic properties will be negatively impacted by construction of this tower site (see memo line above for TCNS number/s). The Shawnee Tribe's archives do not reveal any issues of concern at this tower location. In the event that archaeological materials are encountered later during construction, use, or maintenance of this tower location, please re-notify us at that time as we would like to resume consultation under such a circumstance.

The Shawnee Tribe's Environmental and Natural Resources Department takes this opportunity to express its concerns that telecommunication towers can have a potentially destructive impact on bats and migratory birds, particularly those that migrate at night, including species listed as threatened and endangered by both states and the federal government, as well as other species. The Shawnee Tribe suggests that this tower be constructed in accordance with the guidelines available from the US Fish and Wildlife Service to reduce the adverse effects of telecommunications towers on migratory birds; these guidelines may be found at: www.fws.gov/migratorybirds/issues/towers/comtow.html.

The Shawnee Tribe's Environmental and Natural Resources Department is further concerned that the proliferation of cell towers may play a role in honey bee Colony Collapse Disorder. We acknowledge that cell phone technology may not be to blame, especially by itself, as other potential causative factors for the decline have been noted, such as insecticides, tracheal and varroa mites [an immunosuppressant], other parasites, pesticides used on hives to eliminate parasites, genetically modified plants, Nosema fungus, Israeli Acute Paralysis Viris (IAPV) perhaps introduced from Australia in 2004, Kashmir Bee Virus [KBV], climate change, and drought.

Finally, the Shawnee Tribe's Environmental and Natural Resources Department requests that cell tower sites, whenever remotely feasible, be restored to native vegetation. In all cases, habitat restoration can protect a variety of species, even in small project areas. The large number of cell tower sites provides an as yet unrealized opportunity for region-wide habitat restoration. The Tribe urges the cell phone industry to provide a model for native habitat restoration for other industries.

Please do not hesitate to call us for additional comment.
March 31, 2011

Mr. Regan W. Norris
Terracon Consultants, Inc.
521 Clemson Road
Columbia, SC 29229

Re: Tower Site Evaluation, Proposed 199-foot Monopole Telecommunications Tower
Optima Towers IV, LLC
North Beaufort, SC-1038, 133 Porches Hill Road
Seabrook, Beaufort County, South Carolina
Terracon Project Number: 73107303
FWS Log No. 2011-CPA-0085

Dear Mr. Norris:

This form provides the U.S. Fish and Wildlife Service’s (Service) response pursuant to the
Migratory Bird Treaty Act (16 U.S.C. 703 et seq.)(MBTA) and the Endangered Species Act, as

Migratory Bird Treaty Act
☐ Based on the description of the tower design characteristics, we conclude that the design
of the proposed communications tower would likely minimize the potential hazard to
avian species protected by the MBTA.

☐ Based on the description of the tower design characteristics, we cannot conclude that the
design of the proposed communications tower would likely minimize the potential hazard
to avian species protected by the MBTA for the following reasons:

☐ Tower Design
Due to use of guy wires
Recommend co-location,
monopole, or self-supporting
structure.

☐ Tower Height
>200 ft. tall.
Recommend tower
200 ft. tall or less.

☐ Lighting
Recommend white
strobe lights
particularly at
night.

Endangered Species Act
☐ The proposed action will have no effect on resources under the jurisdiction of the Service
that are currently protected by the Act. Therefore, no further action is required under
Section 7(a)(2) of the Act.
☐ The proposed action is not likely to adversely affect resources under the jurisdiction of the Service that are currently protected by the Act. Therefore, no further action is required under Section 7(a)(2) of the Act.

If the proposed project will impact wetlands, please contact the U.S. Army Corps of Engineers, Charleston District. If you have any questions, please contact Ms. Morgan Wolf at (843)727-4707, ext. 219 and reference FWS Log No. 2011-CPA-0085.

Sincerely,

[Signature]

Jay B. Herrington
Field Supervisor

JBH/MKW
DEPARTMENT OF HOMELAND SECURITY
FEDERAL EMERGENCY MANAGEMENT AGENCY
STANDARD FLOOD HAZARD DETERMINATION FORM (SFHDF)

SECTION I - LOAN INFORMATION

<table>
<thead>
<tr>
<th>1. LENDER NAME AND ADDRESS</th>
<th>2. COLLATERAL (Building/Mobile Home/Personal Property) PROPERTY ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>4526001A-1643 TERRACON INC-DULUTH</td>
<td>OPTIMA TOWERS IV, LLC</td>
</tr>
<tr>
<td>DULUTH 2855 PREMIER PKWY, SUITE C</td>
<td>133 PORCHES HILL</td>
</tr>
<tr>
<td>DULUTH GA 30097</td>
<td>SEABROOK SC</td>
</tr>
<tr>
<td>REQUESTER: JENNY MCLEAN</td>
<td>LOT:</td>
</tr>
<tr>
<td>FAX#: (770) 623-9628 PHONE#: (770) 623-0755</td>
<td>BLK:</td>
</tr>
<tr>
<td></td>
<td>PARCEL: R700 038 000 0033 0000</td>
</tr>
<tr>
<td></td>
<td>SUBV:</td>
</tr>
</tbody>
</table>

SECTION II

A. NATIONAL FLOOD INSURANCE PROGRAM (NFIP) COMMUNITY JURISDICTION

<table>
<thead>
<tr>
<th>NFIP Community Name</th>
<th>County(ies)</th>
<th>State</th>
<th>NFIP Community Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEAUFORT CO *</td>
<td>UNINCORPORATED AREAS</td>
<td>SC</td>
<td>450025</td>
</tr>
</tbody>
</table>

B. NATIONAL FLOOD INSURANCE PROGRAM (NFIP) DATA AFFECTING BUILDING/MOBILE HOME

<table>
<thead>
<tr>
<th>NFIP Map Number or Community - Panel Number (Community name, if the same as &quot;A&quot;)</th>
<th>NFIP Map Panel Effective/Revised Date</th>
<th>LOMA / LOMR</th>
<th>Flood Zone</th>
<th>NO NFIP Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>450025-0040D</td>
<td>09/29/1986</td>
<td>Yes</td>
<td>A11</td>
<td></td>
</tr>
</tbody>
</table>

C. FEDERAL FLOOD INSURANCE AVAILABILITY (Check all that apply)

1. Federal Flood Insurance is available (community participates in NFIP). X Regular Program □ Emergency Program of NFIP
2. □ Federal Flood Insurance is not available because community is not participating in the NFIP.
3. □ Building/Mobile Home is in a Coastal Barrier Resources Area (CBRA) or Otherwise Protected Area (OPA); Federal Flood Insurance may not be available.
   CBRA/OPA designation date: ________

D. DETERMINATION Determination based on legal description provided by lender.

IS BUILDING/MOBILE HOME IN SPECIAL FLOOD HAZARD AREA (ZONES CONTAINING THE LETTERS "A" OR "V")? X YES □ NO

If yes, flood insurance is required by the Flood Disaster Protection Act of 1973.
If no, flood insurance is not required by the Flood Disaster Protection Act of 1973.

E. COMMENTS (Optional)

This flood determination is provided solely for the use and benefit of the entity name in Section 1, Box 1 in order to comply with the 1994 Flood Insurance Reform Act and may not be used or relied upon by any other entity or individual for any purpose, including, but not limited to deciding whether to purchase a property or determining the value of a property.

CERTIFY TO: TYPE OF COVERAGE: One-Time RUSH: NO

HMDA INFO: ST: CO: MSA: CT: This determination is based on examining the NFIP map, any Federal Emergency Management Agency revisions to it, and any other information needed to locate the building/mobile home on the NFIP map.

F. PREPARER'S INFORMATION (if other than lender)

NAME, ADDRESS, TELEPHONE NUMBER

AMERICAN FLOOD RESEARCH, Inc.
1820 Preston Park Blvd. Suite 1100
Plano, Texas 75093
1-800-995-8667 (TEL)
1-800-995-8669 (FAX)

DATE OF REQUEST: 02/25/2011
DATE OF DETERMINATION: 02/25/2011

CERTIFICATE CONTROL NUMBER: 4526001A-1643

FEMA Form 81-93, DEC 08
Notice to Borrower of Structure IN a Special Flood Hazard Area - Zone A11
(NFIP - Participating Community)

We are giving you this notice to inform you that the building or mobile home securing the loan for which you have applied is or will be located in an area prone to high flood risks that we call a Special Flood Hazard Area (SFHA). This SFHA is designated by FEMA as a Zone A11.

The area that has been identified by the Federal Emergency Management Agency (FEMA) as an SFHA using the Flood Insurance Rate Map (FIRM) or the Flood Hazard Boundary Map (FHBM) for the number:

450025 - BEAUFORT CO *

FIRMs are prepared by FEMA in cooperation with the applicable community to identify high flood risk and low-to-moderate flood risk areas. The SFHA in which your building or mobile home is or will be located has at least a one percent chance of a flood equal to or exceeding the base flood elevation (a 100-year flood) in any given year. During the life of a 30-year mortgage loan, the risk of flooding in an SFHA is 26 percent.

Federal law allows a lender and borrower jointly to request the Administrator of FEMA to review the determination of whether the property securing the loan is located in an SFHA. If you would like to make such a request, please contact us for further information. Borrowers may also call a FEMA mapping specialist at (877) 336-2627 to discuss their concerns.

Federal financial assistance, including FEMA disaster assistance, flood mitigation grants and federally backed mortgage lending is available in the NFIP participating communities. Mandatory flood insurance requirements are applicable to all Federal financial assistance. The mandatory flood insurance purchase requirements under section 102(b) of the Flood Disaster Protection Act of 1973 are applicable to Federally regulated lenders making loans in SFHAs. We will not make you the loan that you have applied for if you do not purchase flood insurance. If you fail to renew flood insurance on the property, federal law authorizes and requires us to purchase the flood insurance for you at your expense. The flood insurance must be maintained for the life of your loan.

Flood insurance coverage under the NFIP may be purchased through an insurance agent who will obtain the policy either directly through the NFIP or through a Write Your Own (WYO) company that has agreed to write and service NFIP policies on behalf of FEMA. Flood insurance also may be available from private insurers that are not Federally backed.

At minimum, flood insurance purchased must cover the lowest of: (1) the outstanding principal balance of the loan(s); or (2) the maximum amount of coverage allowed for the type of building under the NFIP; or (3) the full replacement cost value (RCV) of the building and/or contents securing the loan. The market value or land value on which the building is located has no bearing on the RCV of the building.

Federal disaster relief assistance, the majority of which is in the form of a low interest disaster assistance loan from the Small Business Administration (SBA), may be available for losses not covered by your flood insurance policy. Flood insurance requirements apply to recipients of Federal disaster assistance grants and SBA disaster assistance loans. If you are planning to build a structure or make repairs, contact the local community’s chief executive official to determine building standards for structures within an SFHA.

We are required by federal regulations to provide the above notices.

The undersigned hereby acknowledges receipt of the above notice indicating that the structure securing the undersigned’s loan is an area identified as a SFHA and the notice indicating whether federal disaster relief assistance will or will not be available for such property.

Borrower ________________________________ Dated ________________

Borrower ________________________________ Dated ________________
STATE OF )
SOUTH CAROLINA ) AFFIDAVIT
COUNTY OF BEAUFORT )

Personally appeared before me a Notary Public, in and for State and County, aforesaid, Sara Johnson Borton who being duly sworn according to law, deposes and says that she is the Publisher and President of The Island Packet and The Beaufort Gazette, newspapers published Sunday through Saturday every week in Beaufort County, Terracon, Public Notice for Optima Towers IV, LLC, was published in the issue(s) of The Island Packet/The Beaufort Gazette on April 15, 2011.

Sara Johnson Borton,
Publisher and President
The Island Packet/The Beaufort Gazette

Subscribed and sworn to before me this 15th day of April 2011

Notary Public for South Carolina
My Commission Expires October 25, 2020
February 24, 2010

Ms. S. Lorraine Norwood
Terracan Consultants, Inc.
521 Clemson Road
Columbia, 29229

RE: Optima Towers IV, LLC, North Beaufort
Archaeological Permit of Approval

Dear Ms. Norwood:

I am writing in response to your letter of February 15, 2011 to Ms. Hillary Austin requesting an archaeology review, as required in Section 06-2303 of the Beaufort County Zoning and Development Standards Ordinance, for the above referenced project.

An extensive examination of existing documentation has been conducted. The documents examined include the Cartographic Survey of Historic Sites in Beaufort County, South Carolina; A Comprehensive Bibliography of South Carolina Archaeology; copies on file with Beaufort County of the topographic maps located at the South Carolina Institute of Archaeology and Anthropology that identify all the recorded archaeological sites in Beaufort County; copies of the records of all the archaeological properties listed in the National Register of Historic Places in Beaufort County; and all other documentation maintained by the Beaufort County Planning Department regarding archaeological and historic resources.

Based on our records, it is the opinion of the Planning Office that any proposed development will have no effect on any archaeological resources listed in, or eligible for listing in, the National Register of Historic Places. Therefore I am authorized by the Planning Director to issue you an Archaeological Permit of Approval. I remind you that this does not relieve you of your responsibilities under Section 106 of the National Historic Preservation Act of 1966, as amended, and that if any state or federal permits are required for this project the permitting agency may require an archaeological survey.

We request that you cease work to notify this office immediately if archaeological or paleontological materials are encountered prior to or during construction. Archaeological remains consist of any materials one hundred years or older made, or altered, by man which remain from past historic or prehistoric times. Examples include pottery fragments, metal, wood, arrowheads, stone implements or tools, human burials, historic docks, structures, or nonrecent vessel remains. Paleontological remains consist of prehistoric animal remains, original or fossilized, such as teeth, tusks, bone, or entire skeleton.

If I can be of further assistance please call me at (843) 255-2146.

Sincerely,

[Signature]

Ian D. Hill
Historic Preservationist
May 18, 2011

Mr. Regan Norris
Terracon Consultants, Inc.
521 Clemson Rd.
Columbia, SC 29229

Re: Optima Telecommunications Tower Natural Resources Delineation and Site Capacity Analysis

Dear Mr. Norris,

I am writing in response to your submittal of the natural resource delineation and site capacity analysis of the Optima Telecommunications Tower site at 141 Porches Hill Rd. in Dale as per Chap. 106, Art. 7 – Resource Protection, Site Capacity Analysis and Open Space section (Beaufort County ZDSO). A review of your submittal has been conducted and it appears that you do not have any natural resources on site. Therefore, this project will be exempt from the natural resources delineation. Additionally, the nonresidential use capacity calculation you submitted is approved (Dale Community Preservation zoning district).

Sincerely,

Amanda Flake
Amanda Flake
Natural Resources Planner

Cc: Delores Frazier, Assistant Planning Director
    Hillary Austin, Zoning Administrator
January 25, 2011

Mr. Jonathan L. Yates
Nexsen Pruet
Post Office Box 486
Charleston, SC 29402

Re: Your Proposed Text Amendment Request for the Dale Community Preservation Mixed Use District to Allow the Placement of Commercial Communication Tower (Our File #ZTA-2010-12)

Dear Mr. Yates:

This letter is to advise you that the subject text amendment was approved at the third and final reading by Beaufort County Council on Monday, January 24, 2011. You may now proceed with your project.

If you have further questions, please contact me at 843-255-2140.

Sincerely,

Tony

Anthony J. Criscitiello
Planning Director
PLANNING DIVISION MEMORANDUM

To: Southern Beaufort County Subcommittee of Beaufort County Planning Commission

From: Anthony Criscitiello, Planning Director

Subject: Proposed Amendment to the ZDSO, Dale CP, Mixed Use District (DMD), to allow Commercial Communication Towers as a permitted use.

Date: October 12, 2010

STAFF REPORT:

A. BACKGROUND:

Case No. ZTA-2010-12

Applicant: Jonathan L. Yates

Proposed Text Change:
Change Appendix J. Section 2.4 (Permitted activities) of Division 2 – Dale Mixed Use District (DMD) to allow Commercial Communication Towers to be added as a Special (S) Use in Table 1. Land Uses. Commercial Communication Towers would be permitted in the Dale Mixed Use District pursuant and subject to the requirements of ZDSO Section 106-1357 Commercial Communication Towers.

Affected Zoning and Development Standards Ordinance (ZDSO) sections:
- Appendix J. Division 2. Dale Mixed Use District (DMD). Sec. 2.4. Permitted activities, Table 1 LAND USES.
- Appendix J. Division 2. Dale Mixed Use District (DMD). Sec. 2.5. Limited and special use standards. NONRESIDENTIAL USES.

B. SUMMARY OF REQUEST:

Mr. Yates wishes to allow for the placement of appropriate commercial communication towers pursuant to the requirements of Sec. 106-1357 – Commercial Communication Towers within the Dale CP Mixed Use District (DMD). He believes the current ban presents a scenario whereby the citizens of Dale are underserved by wireless coverage when compared to nearby communities.

C. ANALYSIS:

Section 106-493 of the ZDSO conveys 7 standards (below), any of which is cause for a Zoning Text Amendment. Analysis will address all those that are applicable to this text change request.
Sec. 106-493. Standards for zoning text amendment.

A zoning ordinance text amendment may be approved if:

1. It would implement a new portion of the comprehensive plan or amendment.
   (Not Applicable)

2. It would implement and better achieve the comprehensive plan’s goals and objectives that have proved difficult to achieve under the ordinance’s existing provisions.

   In the Economic Development Section of the 2007 Beaufort County Comprehensive Plan Recommendation 9-2: Developing Business Climate Target Industries states, “Beaufort County should take the following steps to recognize and encourage growth in the County’s existing and emerging industries, as well as attract the type of business that can sustain the economy well into the future:

   o Ensure that all business locations have the ability to offer broadband and wireless Internet capabilities.”

   In the Community Facilities Element of the 2007 Beaufort County Comprehensive Plan the following statement is made in regard to the future needs of the Emergency Medical Services Department, “more wireless transmission locations (“hot spots”) are needed throughout the County so that the EMT’s can provide patient care reports and billing information to the headquarters when out in the field.”

   With the advent of Smartphones and “notebook” computers, the above statements support a county-wide effort to increase the necessary infrastructure to utilize these devices.

3. The ordinance’s provisions were inconsistent or unreasonable in light of standards for similar uses.
   (Not Applicable)

4. It is necessary to respond to state and/or federal legislation.
   (Not Applicable)

5. It provides additional flexibility in meeting the ordinance’s objectives without lowering the ordinance’s general standards.

   The proposed text amendment would provide additional flexibility in meeting the ordinances objectives without lowering the ordinance’s general standards. Commercial Communication Towers are a Special (S) or Limited (L) use in every other zoning district with the exception of the Resource Conservation (RC)
district and certain Community Preservation districts. Were this change to occur, the uses permitted in the DMD would remain consistent with those permitted throughout the majority of Beaufort County.

6. It addresses a new use, changing conditions, and/or clarifies existing language.
   (Not Applicable)

7. It clarifies the ordinance or makes adjustments to account for interpretation.
   (Not Applicable)

D. STAFF RECOMMENDATION:
Staff agrees with the applicant’s request and recommends approval for the following reasons:

   a. On September 20, 2010, the staff, the applicant, the Dale CP Committee, and at least 25 members of the Dale Community met at the Dale Community Center to discuss and vote on the amendment. After a detailed discussion of nearly one hour, the Committee unanimously voted to approve the text amendment as proposed. During the discussion the community asked the applicant if he would consider siting the tower on a parcel that is owned by a member of the community who resides on the land. The applicant committed to doing this, “so long as the technical aspects of the site are manageable.”

   b. This measure would implement and better achieve the comprehensive plan’s goals and objectives.

   c. This amendment provides additional flexibility in meeting the ordinance’s objectives without lowering the ordinance’s general standards.

The proposed amendment (see page 4 of this staff report) is shown as bold and underlined for additions and strike-through for deletions.

E. ATTACHMENTS:
  • Copy of application for ZDSO Text Amendment
  • Map of Dale Mixed Use District (DMD) (for reference only)
DIVISION 2. DALE MIXED USE DISTRICT (DMD)

Sec. 2.4. Permitted activities.

The permitted uses are restricted to residential uses and consumer-oriented businesses catering primarily to the needs of the local population. For the purpose of this section, the allowable uses in the DMD zoning district and are controlled by the land use development standards of this section, the Beaufort County Comprehensive plan, the ZDSO, and the chart of permitted uses (Table 1). The following are descriptions of permitted uses, permitted accessory uses and structures for DMD districts:

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Use Definition</th>
<th>Use Permission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessory dwelling unit</td>
<td>A second dwelling unit, clearly subordinate to the principal unit, either in or added to an existing single-family detached dwelling, or in a separate accessory structure on the same lot as the main dwelling, for use as a complete, independent living facility. Maximum building size shall not exceed 50% of the principal unit's floor area.</td>
<td>L</td>
</tr>
<tr>
<td><strong>Industrial Uses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial communication towers</td>
<td>A tower, pole or similar structure which supports a telecommunications antenna operated for commercial purposes above ground in a fixed location, freestanding or guyed, or atop a structure. This does not include television antennas or satellite dishes. Towers for radio or television station use are regulated as regional utilities. Speculation towers are prohibited.</td>
<td>S</td>
</tr>
</tbody>
</table>

Sec. 2.5. Limited and special use standards.

RESIDENTIAL USES

The affordable housing density bonuses allowed in section eight of the Beaufort County Zoning and Development Standards Ordinance shall not apply to the permitted densities within the Dale CP Districts.

Accessory Dwelling

• This use is limited to 50 percent of the floor area (heated) of the primary structure.

INDUSTRIAL USES

**Commercial Communication Towers**

• This use must comply with the standards set forth in Section 106-1357.
DIVISION 2. LIMITED AND SPECIAL USE STANDARDS

Sec. 106-1357. Commercial communication towers.

The purpose of this section is to provide service to the public while minimizing the number of towers, and the individual impact of towers, in Beaufort County.

(a) **Collocation.** Procedures for collocation of commercial communication towers are as follows:

1. All new applications for this use shall provide a collocation study to demonstrate that there is not a suitable collocation site that can serve needs of the user. Placement on water towers or other tall structures shall be fully considered prior to making an application. Existing uses shall be required to demonstrate cooperation in that there is not an undue proliferation of towers.

2. All new towers shall provide for collocation. This means the tower shall have additional location points and the design of the ground structures shall be such that modular expansion is feasible. The following collocation standards shall also apply:

   a. All structures less than 125 feet in height shall make provision for at least two locations.

   b. Towers between 125 feet and 200 feet in height shall have at least four locations.

   c. When a tower is proposed within two miles of an existing tower, the applicant will be expected to prove that there is no technologically and structurally suitable space available within the search ring. The applicant shall submit satisfactory written evidence such as correspondence, agreements, contracts etc., that alternative towers are not available for use within the search ring. The proposed tower, if approved, must be either camouflaged or stealth in design.

(b) **Maximum height.** Maximum height shall be as follows:

1. For towers with provisions for one to three locations, 125 feet.

2. For towers with provisions for four to five locations, 200 feet.
(3) In the rural district, where the tower is located on a property with a conservation easement in place, such locations shall only be approved where the location of the structure will be completely screened at least one mile in sight distance, from roads or riverways having visual access of the subject property. In the rural district, the required resource protection plan shall show how harvesting of the buffer will be done so as to retain the screening of the tower.

(c) **Lighting.** Lighting shall be in accordance with Federal Aviation Administration (FAA) Advisory Circular AC 70/7460-1K (and all future updates) and FAA Advisory Circular AC 150/5345-43E (and all future updates) and shall be red strobe lights (L-864) at night and medium intensity flashing white lights (L-865) during daylight and twilight use unless otherwise required by the FAA. No general illumination shall be permitted. All towers 150 feet or taller shall be lighted. All commercial communication towers approved by Beaufort County and by the South Carolina State Historic Preservation Office prior to the adoption of this amendment [Ord. No. 2007/1] and operating in conformance with those approvals shall be deemed to be lawful nonconforming uses and structures and are not subject to these lighting requirements. Status as a lawful nonconforming use or structure under this section shall terminate upon the expiration or revocation of a commercial communication tower's permit or upon any modification to the height of the tower.

(d) **Additional standards for all towers.** Additional standards for all towers are as follows:

1. No structure shall adversely affect any historic structure or site.
2. A 50-foot forested buffer shall be provided around all sites. For camouflage and stealth towers, the DRT may approve a buffer modulation based on site design. If a forested buffer does not exist, a new buffer shall be planted in accordance with section 106-1680.
3. A collapse zone shall be designed so that tower collapse will occur only within the property owned or controlled by an easement.
4. A sign of no more than two square feet shall be mounted in an easily noticeable location, no more than four feet above the ground, providing tower identification and an emergency notification number.
5. If disputed evidence occurs before the DRT or ZBOA, the county may hire, at the developer's expense, a communications expert or engineer of its own choosing to assist in determining the facts.
6. When any tower is abandoned for 60 days, it shall be removed by the landowner and the site restored within six months. (7) Speculation towers are prohibited.
(8) New uses are strictly prohibited in corridor overlay, historic overlay and community preservation areas and shall not adversely affect any property, road or waterway which has been officially recognized or designated as scenic within the county. The expansion or replacement of existing towers in a community preservation area shall require a special use permit and are limited to 150 feet in height.

(9) The base of any new tower shall be set back no closer to a residential structure than a distance equal to one foot for each one foot in height of the proposed tower, plus an additional 50 feet.

(10) No tower shall be located within 500 feet, plus one foot for each foot of height of the proposed tower, of the OCRM critical line. All towers shall comply with the airport overlay district standards.

(e) Reports/studies required. All applications for this use shall include a community impact statement including a visual impact analysis.

August 22, 2011

Mr. Jonathan Yates
Hellman, Yates, P. A.
145 King Street, Suite 102
Charleston, SC 29401

Re: ZBOA – Special Use Permit – Optima Tower – Dale CP
133 Porches Hill Road, Sheldon

Dear Mr. Yates:

On Thursday, July 28, 2011, the Zoning Board of Appeals completed its review of your request for a Special Use Permit for the Optima Tower – Dale CP. In accordance with Article III, Subdivision IV, Special Uses, Section 106-552, of the Zoning and Development Standards Ordinance (ZDSO), the Zoning Board of Appeals voted unanimously to approve your request for a special use permit.

Specifically, the Board finds that the application for the special use met the following criteria:

a. The proposed use is consistent with the Comprehensive Plan’s purposes, goals, objectives, and policies, including standards for building and structural intensities and densities and intensities of use.

b. The proposed use is compatible with the character of land in the immediate vicinity.

c. The proposed use’s design minimizes adverse effects, including the visual impact of the proposed use on adjacent lands.

The DRT required the following:

(a) The proposed use shall minimize adverse impacts on the environment, traffic and congestion, infrastructure, or governmental services.

(b) A Community Impact Statement (CIS) or portion of the report may be required as determined by Staff. (Staff did not require any portion of the Community Impact Statement)

(c) A site plan for the proposed Special Use, which includes the total site area and calculations, surrounding properties, buffer planting plan, buffers and setback, natural resources and if applicable, an end use or reclamation plan was required as part of the submittal package. The site plan includes the disturbed/construction area, surrounding properties, buffers, setbacks, natural resources, and storm-water/BMP requirements.

It is so ordered,

Edgar Williams
Vice-Chairman, Zoning Board of Appeals

Beaufort, South Carolina

This 25 Day of August 2011

"Professionally we serve; Personally we care!"
The following attachment is the DRT’s decision letter. If you have any questions, please do not hesitate to contact Zoning.

Thanks,

Tamekia Judge
Zoning & Development
P.O. Drawer 1228
Beaufort, SC 29901
843-255-2170
September 23, 2011

Mr. Jonathan Yates, Esq.
Hellman, Yates, P.A.
145 King Street, Suite 102
Charleston, SC 29401

Re: Optima Tower – Dale CP – Special Use – Final

Dear Mr. Yates:

The Development Review Team (DRT) met on September 14, 2011, to render their decision on the subject project. Listed below is the DRT’s decision.

After a unanimous vote by the members present, the DRT recommended the project be APPROVED.

Applicant’s request meets the requirements of the ZDSO as approved by the ZBOA.

If I may be of further assistance, please do not hesitate to give me a call at 843.255.2170.

Sincerely,

[Signature]

Hillary A. Austin
Zoning & Development Administrator

cc: DRT Members

"Professionally we serve; Personally we care!"
SITE NAME
BEAUFORT
SITE NUMBER
SC-1038
NEW 190’ MONOPOLE TOWER

PROJECT SUMMARY
SITE NAME: BEAUFORT
SITE NUMBER: SC-1038
PROPOSED TOWER TYPE: MONOPOLE
PROPOSED TOWER HEIGHT: 190’
JURISDICTION: BEAUFORT COUNTY
ZIP: 29902
POWER TO BE USED: 115/230 VAC 3 PHASE
ACCESSORY USAGE: 115/230 VAC 3 PHASE
SPECIAL OCCUPANCY: UNKNOWN
A&A COMPLIANCES: ROOFS & BUILDINGS NOT FOR HUMAN INHABITANT
WEBSITE ADDRESS: N/A
TODAY’S DATE: 08/10/2023

CONSULTANT TEAM
ENGINEER: SSOE, Inc.
ADDRESS: 200 LARGEST KILN RD
BEAUFORT, SC 29907
PHONE: (803) 568-1600
FAX: (803) 568-1695

SURVEYOR: BEAUFORT SURVEYING INC.
ADDRESS: 211 W ELM ST
BEAUFORT, SC 29902
PHONE: (843) 524-2221

PROJECT MANAGER: OPTIMA TOWER LLC
ADDRESS: 5215 C L O R T H L E E A V E S
BEAUFORT, SC 29908
PHONE: (843) 524-2221

UTILITIES
CABLE PROVIDER: PLANT CITY ELECTRIC CO-OP INC.
ADDRESS: 6100 SOUTHERN AVENUE
BEAUFORT, SC 29906
PHONE: (803) 524-9001
FAX: (803) 524-7076

POLICE AND FIRE
POLICE: BEAUFORT COUNTY SHERIFF’S DEPT.
ADDRESS: 1510 ALBANY ST
BEAUFORT, SC 29902
PHONE: (803) 524-2300
FAX: (803) 524-2300

CODE COMPLIANCE
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADAPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION AND AS NOTED IN THIS PLAN. THE LOCATION OF ALL CODES IS TO BE FURNISHED WITH THE DRAWINGS.

DO NOT SCALE DRAWINGS
CONTRACTOR SHALL NOT MAKE ANY CHANGES OR MODIFICATIONS TO THE DRAWINGS AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISAGREEMENTS. THIS AGREEMENT IS NON-NEGOTIABLE.

UNDERGROUND SERVICE ALERT
SOUTH CAROLINA ONE-CALL CENTER
1-800-922-9893
CALL 3 WORK DAYS BEFORE YOU DIG

DRIVING DIRECTIONS
From Charleston International Airport, take Terminal Blvd (West) 0.4 miles. Bear Right (South) onto International Blvd and go 0.1 miles. Turn Right (North-West) onto US-526 W and go 5.9 miles. Turn Right (South) onto US-17 Alt [Boone Hill Rd] and go 45.2 miles. Turn Left (South) onto Kinsloe Rd and go 5.7 miles. Turn Left onto Kaneo Neck Rd and go 0.1 miles. Turn Left onto Perch Hill Rd and site will be on left.

A/E DOCUMENT REVIEW STATUS

THE FOLLOWING PARTIES HEREBY ACCEPT AND AGREE TO ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVISE BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

TITLE SHEET
T-1
SITE WORK AND DRAINAGE

EARTHWORK, EXCAVATION AND GRADING

PART 1 GENERAL

1.01 WORK INCLUDED: REFER TO SURVEY AND SITE PLAN FOR WORK INCLUDED.

1.02 BOUNDARIES:
A. CONSTRUCTION OF FOUNDATION BOUNDARIES
B. CURB AND GUTTER SYSTEM
C. CONSTRUCTION OF LANDSCAPE BOUNDARIES

1.03 DESCRIPTIONS:
A. ALL EXCAVATIONS, FORMWORK, AND AREAS CONSIST OF CONSTRUCTED TO PROVIDE A
B. SUB-FACE FOR THE BASE SUPPORTED ON 4 INCH DENSITY AS REQUIRED.
C. ALL EXCAVATIONS ARE TO BE COVERED WITH SODDING,DAMNED, AND MAINTAINED AS
D. REQUIRED.

1.04 QUALITY CONTROL:
A. USE SOIL STABILIZER IN ACCORDANCE WITH MANUFACTURER'S
B. USE GEOTEXTILE FILTERING MATERIAL AND EQUIPMENT SPECIFIED AND MAINTAINED AS
C. ALL EXCAVATIONS ARE TO BE COVERED WITH SODDING,DAMNED, AND MAINTAINED AS

1.05 SEQUENCING:
A. CONTRACTOR IS RESPONSIBLE FOR LAYOUT AND CONSTRUCTION STAKES.
B. GRADE THE COMPLETE ROAD AND SITE AREA PRIOR TO FOUNDATION.
C. CONSTRUCTION OF ROAD AND SITE AREA PRIOR TO FOUNDATION.
D. THE ROAD AND SITE AREA ARE TO BE COVERED WITH SODDING,DAMNED, AND MAINTAINED AS

1.06 SUBMITTALS:
A. ALL BACKGROUND INFORMATION IS TO BE SUBMITTED TO THE CITY FOR LANDSCAPING REQUIREMENTS.
B. ALL BACKGROUND INFORMATION IS TO BE SUBMITTED TO THE CITY FOR LANDSCAPING REQUIREMENTS.
C. ALL BACKGROUND INFORMATION IS TO BE SUBMITTED TO THE CITY FOR LANDSCAPING REQUIREMENTS.

PART 2 PRODUCTS

2.01 MATERIALS:
A. ROAD AND SITE MATERIALS: ALL MATERIAL SHALL BE ACCEPTABLE, SELECT, FULL, AND
B. CONSTRUCTION AND EXCAVATION:
C. ALL EXCAVATIONS ARE TO BE COVERED WITH SODDING,DAMNED, AND MAINTAINED AS

2.02 EQUIPMENT:
A. ALL EXCAVATIONS ARE TO BE COVERED WITH SODDING,DAMNED, AND MAINTAINED AS
B. ALL EXCAVATIONS ARE TO BE COVERED WITH SODDING,DAMNED, AND MAINTAINED AS
C. ALL EXCAVATIONS ARE TO BE COVERED WITH SODDING,DAMNED, AND MAINTAINED AS

PART 3 EXECUTION

3.01 INSTALLATION:
A. ALL EXCAVATIONS ARE TO BE COVERED WITH SODDING,DAMNED, AND MAINTAINED AS

SOUTH CAROLINA ONE-CALL CENTER
CALL 3 WORKING DAYS BEFORE YOU DIG
1-800-892-0893

UNDERGROUND SERVICE ALERT

GENERAL NOTES: EROSION CONTROL

EROSION AND SEDIMENT CONTROL:

1. UNLESS OTHERWISE INDICATED, ALL VEGETATION AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE ADEQUATE STANDARD AND SPECIFICATIONS OF THE

2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE PART OF THE SUB-FACE, GUTTER, AND CURB WORK AS REQUIRED.

3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, ALONG WITH THE

4. PRIOR TO COMMENCING LAND CLEARING, INSTALLATION, OR CONSTRUCTION WORK, A FINAL COPY OF THE EROSION AND SEDIMENT CONTROL PLAN WILL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL BY THE

5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN RESPONSIBLE FOR EROSION AND SEDIMENTATION.

6. ALL DISTURBED AREAS ARE TO BE DRAINED, SEDIMENT CONTROL MEASURES, FINAL

7. DURING DE WINTER OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING AREA.

8. CONSTRUCTION HOURS ARE TO BE LIMIT EXPOSURE TIME TO PUBLIC SURFACE TO THE

9. THE CONTRACTOR IS RESPONSIBLE FOR GROUND AND CONTRACTS.

10. A COMPLETE EROSION CONTROL INSPECTION REPORTS SHOULD BE EMAILED TO THE

11. EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.

12. ALL DISTURBED AREAS ARE TO BE DRAINED, SEDIMENT CONTROL MEASURES, FINAL

13. EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.

14. EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.

15. CERTIFY UNDER THE LAW THAT THE EROSION CONTROL DESCRIPTION SHOWN IN THE

16. TAMING OF EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.

17. THE CONTRACTOR WILL REMOVE NEAR TRAPS, STEPS, FENCE POSTS, ETC., EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.

18. STABILIZATION AND PROTECTED FROM EROSION.

19. A COMPLETE EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.

20. A COMPLETE EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.

21. A COMPLETE EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.

22. A COMPLETE EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.

23. A COMPLETE EROSION CONTROL INSPECTIONS ARE TO BE PERFORMED PRIOR TO EROSION CONTROL INSPECTIONS.
ELECTRICAL SPECIFICATIONS

PART 1 GENERAL

1.01 CODES REQUIREMENTS
A. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL CONSTRUCTION CODES AND THE SUPPLEMENTARY CONDITIONS OF THE PROJECT WHICH ARE RESPONSIBLE FOR THE INSTALLATION OF EQUIPMENT AND MATERIALS TO COMPLY WITH THE INSTALLATION STANDARDS AND CODES.
B. ALL ELECTRICAL WORK SHALL COMPLY WITH ALL LAWS, ORDINANCES, UTILITIES COMPANY REGULATIONS AS WELL AS THE LATEST EDITIONS OF THE
   - NFPA (National Fire Protection Association)
   - IEEE (Institute of Electrical and Electronic Engineers)
   - NEC (National Electrical Code)

C. CONTRACTOR SHALL PROVIDE WRITTEN AGREEMENT WITH THE ELECTRICAL UTILITY COMPANY FOR INSTALLATION OF METERED ELECTRICAL SERVICE TO THE EQUIPMENT INSTALLATION. CONTRACTOR TO VERIFY AND COMPLY WITH ALL ELECTRICAL UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL INSTALL ALL METERED ELECTRICAL SERVICE TO THE EQUIPMENT INSTALLATION, INCLUDING BUT NOT LIMITED TO FEES,紀水ADDITIONS TO CONTRACT.

D. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE TELEPHONE COMPANY FOR INSTALLATION OF TELEPHONE SERVICE. CONTRACTOR SHALL VERIFY WITH OWNER TELEPHONE SERVICE REQUIREMENTS. CONTRACTOR SHALL VERIFY AND INSTALL WITH ALL TELEPHONE COMPANY REQUIREMENTS FOR SERVICE TO ENSURE THE TELEPHONE SERVICE WORKS PROPERLY. OWNER IS TO PROVIDE A 24-AIR CABLE BETWEEN TELEPHONE COMPANY COMUTTON POINT AND OWNER'S EQUIPMENT.

E. THE WORK "PROVIDE" DENOTES FURNISH AND INSTALL

1.02 WARRANTY
A. THE CONTRACTOR SHALL WARRANT ALL WORK FOR A PERIOD OF FOURTEEN (14) MONTHS FROM THE DATE OF THE FINAL ACCEPTANCE. THE CONTRACTOR SHALL WARRANT ALL EQUIPMENT AND MATERIALS TO THE EXTENT OF THE MANUFACTURERS' WARRANTY.

2.01 EQUIPMENT
A. CONTRACTOR IS RESPONSIBLE FOR THE PROVISION OF ALL EQUIPMENT NECESSARY, WHETHER SPECIFIED IN THE CONTRACT DOCUMENTS OR NOT, TO MAKE ALL ELECTRICAL SYSTEMS COMPLETE AND OPERATIONAL.
B. EQUIPMENT PROMISED UNDER THIS CONTRACT MUST BE OF SUCH QUALITY AND CONDITION AS TO ENSURE THEIR PROPER FUNCTIONING.

2.02 MATERIALS
A. ALL CONDUCTORS SHALL BE INSULATED ACCORDING TO THE NATIONAL ELECTRICAL CODE FOR THE PARTICULAR APPLICATION.
B. ALL MATERIALSinsolar not less than 0.7" thick, with a minimum diameter of 0.020 inches for 600 volts.
C. COORDINATION TYPES IDEAL CONNECTORS SHALL BE USED FOR ALL WIRING AND SMALLER CONDUCTORS. TERMINAL LUGS SHALL BE USED FOR CONDUCTORS LARGER THAN 8 AWG.

2.04 FIXTURES
A. FIXTURES USED IN THE MAIN SERVICE ENTRANCE EQUIPMENT SHALL BE CURRENTLY LISTED, 200,000 HRS IMPAIRS SYMMETRICAL INCIDENT CAPABILITY, REJECTION TYPE, LIMITATION ON EQUALITY OR LOAD-SHARING.

2.03 EXECUTION
A. ALL CONDUCTORS SHALL BE FOUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, AND THE SPECIAL CONDITIONS OF THE PROJECT.
B. ALL CONDUCTORS SHALL BE CONNECTED TO THE EARTH GROUND TERMINAL OF THE EQUIPMENT INSTALLATION.
C. ALL EQUIPMENT SHALL BE SEATED FOR THE CONDUCTORS THEY ARE TO INCLUDE IN ACCORDANCE WITH TABLE 3C OF THE NATIONAL ELECTRICAL CODE.
D. ALL CONDUCTORS SHALL BE CONNECTED TO THE EARTH GROUND TERMINAL OF THE EQUIPMENT INSTALLATION.
E. ALL CONDUCTORS SHALL BE SEATED IN THE EARTH GROUND TERMINAL OF THE EQUIPMENT INSTALLATION.

3.02 GROUNDS
A. ALL GROUNDS TO COMPLY WITH LARGER VERSION OF "EARTH GROUNING SPECIFICATION FOR UNSTEELED CONDUCTORS"
B. ALL GROUND WIRING, GROUND HARDWARE, GROUND SWITCHES, GROUND PANELS, ETC., AND THE GROUND CIRCUIT GROUNDING CIRCUIT SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
C. IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, A SEPARATE, PROPERLY SIZED GROUNDing Framwork PROVIDE SHALL BE INSTALLED TO PROVIDE A GROUNDED SYSTEM TERMINAL TO BE GROUNDED INSURANCE.
KEYED NOTES:
1. BURIED GROUND CONDUCTOR AROUND TOWER
2. BOND TO FENCE AT CORNERS AND AS REQUIRED (TYP.)
3. BURIED GROUND LEAD TO GATE POST; UTILIZE #2 ANG WELDING CABLE TO BOND GATES TO GATE POST UTILIZING EXOTHERMIC WELDS AT BOTH ENDS; (TYP.)
4. BOND TOWER BASE AT TWO LOCATIONS; UTILIZE FLANGE ON TOWER FOR THIS PURPOSE; DO NOT BOND TO TOWER STRUCTURE UTILIZING EXOTHERMIC WELD
5. GROUND ROD WITH INSPECTION SLEEVE (TYP.)
6. BURIED GROUND LEAD TO UTILIZED H-FRAME
7. GROUND LEAD BETWEEN UTILIZED H-FRAMES; EACH POST BONDED UTILIZING EXOTHERMIC WELD
8. PROPOSED EQUIPMENT GROUNDING, T&D

EXTERIOR GROUNDING PLAN
SCALE: 1" = 10'-0"

LEGEND

NEW #2 ANG SOLID TINNED COPPER GROUND LEAD FROM GROUND CONDUCTOR
NEW INSPECTION SLEEVE
NEW #2 ANG SOLID TINNED COPPER GROUND CONDUCTOR
NEW GROUND ROD W/ INSPECTION SLEEVE

TYPICAL EXOTHERMIC WELDED CONNECTIONS

TYPE GL LUG
TYPE HS
TYPE SS
TYPE PT
TYPE VS

TYPE CT
(type ground rod only)
TYPE HA
TYPE XA
TYPE NC
TYPE VDC

SITE NAME: BEAUFORT
SITE NUMBER: SC-1038
SITE ADDRESS: 141 PORCHES HILL ROAD
SEABROOK, SC 29940

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY BY NATURE, ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT IS STRICTLY PROHIBITED.

E-3
SSOE, INC.
GENERAL NOTES

1. FIELD VERIFY MEASUREMENTS, LINES, AND LEVELS OF EXISTING CONDITIONS, AS REQUIRED TO DETAIL AND FABRICATE THE NEW STRUCTURAL STEEL TO WIND UP TO THE EXISTING CONSTRUCTION.
2. DESIGN BASED ON AN ASSUMED ALLOWABLE BEARING CAPACITY OF 2000 PSF, TO BE CONFIRMED IN THE FIELD BY A LICENSED STRUCTURAL ENGINEER.
3. CONCRETE SHALL BE NORMAL WEIGHT AND SHALL DEVELOP 28 DAY COMPREHENSIVE STRENGTH = 4000 PQ
4. REINFORCING SHALL BE FORMED BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 60 KSI.
5. CONCRETE EXPOSED TO WEATHER OR FREEZING SHALL BE AIR-ENTRAINED.
6. UNLESS OTHERWISE SHOWN, PROVIDE FOLLOWING COVERS FOR REINFORCING STEEL:
   - UNIFORMED SURFACES IN CONTACT WITH EARTH
   - 3 IN FORMED SURFACES EXPOSED TO MOISTURE BARRIERS
   - 3 IN UNIFORMED SURFACES EXPOSED TO EARTH WEATHER,
   - OR WATERPROOFING/DAMP PROOFING
   - 8" AND LARGER 2 IN
   - 6" AND SMALLER 1 5/8 IN
7. PROVIDE SMOOTH FORMED FINISH ON EXPOSED CONCRETE
8. CHAMFER ALL EXPOSED CONCRETE CORNERS 3/4 INCH X 45 DEGREE, UNLESS NOTED OTHERWISE.

UTILITY H-FRAME W/GROUNING

SCALE: N.T.S.

1. RIG C/W 3 #2 AND #4 SNS
2. 1" LIQUID TIGHT W/ 2 #10 AND #10 END FROM 25A BREAKER IN LOAD PANEL TO TOWER LIGHT CONTROLLER
3. CONDUIT TO BASE OF TOWER
4. PVC END CAP ON UNISTRUT (TYJ)
5. CONDUIT TO CARREL EQUIPMENT
6. FINISHED GRADE: 11'-2 1/2"
7. 1/2" NEMA 39 CABLE TO POST CONNECT TO GROUND RING (TYJ)
8. 1/2" ANG SOLID TINNED COPPER GROUND LEAD IN 1/2" CONDUIT TO METAL CASE OF LOAD PANEL, DISCONNECT, TELCO CABINET, AND TOWER LIGHT CONTROLLER. BOND TO GROUND USING TWO HOLES MECHANICAL LUG

SITE NAME: BEAUFORT
SITE NUMBER: SC-1038
LOCATION: 141 PORCHES HILL ROAD
SEABROOK, SC 29940
**1. Tower Light S.O. Cable Routing Elevation**

*Scale: N.T.S.*

**2. Tower Light S.O. Cable Routing Plan**

*Scale: N.T.S.*

**3. Fence Grounding**

*Scale: N.T.S.*

**4. Gate Grounding**

*Scale: N.T.S.*
1. DESIGN BASED ON AN ASSUMED ALLOWABLE BEARING CAPACITY OF 2500 PSF, TO BE CONFIRMED IN THE FIELD BY A LICENSED GEOTECHNICAL ENGINEER.
2. CONCRETE SHALL BE NORMAL WEIGHT AND SHALL DEVELOP 28 DAY COMpressive STRENGTH = 4000 PSI.
3. REINFORCING SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 60 KSI.
4. CONCRETE EXPOSED TO WEATHER OR FREEZING SHALL BE AIR-ENTRAINED.
5. UNLESS OTHERWISE SHOWN, PROVIDE FOLLOWING COVER FOR REINFORCING STEEL:

UNFORMED SURFACES IN CONTACT WITH EARTH ... 3 IN
UNFORMED SURFACES OVER MOISTURE BARRIERS ... 2 IN
FORMED SURFACES EXPOSED TO EARTH WEATHER, OR WATERPROOFING/DAMP PROOFING... 6 IN AND LARGER...
5 IN AND SMALLER... 2 1/2 IN

6. PROVIDE SMOOTH FORMED FINISH ON EXPOSED CONCRETE
7. CHAMFER ALL EXPOSED CONCRETE CORNERS 3/4 INCH + 45 DEGREE, UNLESS NOTED OTHERWISE.
GENERAL NOTES

1. THE STRUCTURE IS DESIGNED BASED ON THE 2006 INTERNATIONAL BUILDING CODE. ALL DESIGN MATERIALS, AND NUMBERS ARE SMALL CONFORM TO THE REFERENCED CODE.

2. DESIGN LOADS:
   - O.E. LOAD = 5 PSI + S.W. FRAMING + USE LOAD = 45 PSI
   - CONTRACTOR IS TO FOLLOW ALL HEALTH, SAFETY AND FIRE SPECIFICATIONS IN ACCORDANCE WITH USDA IN THE INSTALLATION, REMOVAL AND USE OF CONCRETE WALLS.

3. DESIGN DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS:
   - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (13th EDITION)
   - AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN
   - AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A572 OR A588 STEEL

4. SCALE: 3/4" = 1'-0"

5. 1" BAR GRATING w/ 3/4" BARS @ 18" O.C. - 5/8" C.O. - 12" CONC. MAT

6. DETAILED FABRICATION AND ERECTION OF STRUCTURAL STEEL TO BE IN ACCORDANCE WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS, 13th EDITION.

7. CONNECTIONS SHALL BE A MINIMUM OF TWO 3/4" DIAMETER ASTM A325 BOLTS IN BEARING TYPE CONNECTION.

8. ALL STEEL SHALL BE MINIMUM 50,000 PSI. ALL瘋SEALAN SHALL BE 1/2" OVERSIZED TO ALLOW FOR GALLAMANDING AND PINTED TO MATCH EXISTING.

9. FIELD VERIFY MEASUREMENTS, LINES, AND LEVELS OF EXISTING CONDITIONS, AS REQUIRED TO DETAIL AND INSTALL STRUCTURAL STEEL.

10. ALL WELDING JOINED WELDS USING C22 LEVELING ELECTRODES FOR STRUCTURAL STEEL JOIN.

11. STRUCTURAL STEEL JOINED USING ASTM E706 SERIES ELECTRODES FOR WELDING AS STEEL.

12. CONCRETE TO BE FULLY COMPRESSED STRENGTH = 4000 PSI

13. TEXTURED CONCRETE TO BE FULLY COMPRESSED STRENGTH = 4000 PSI

14. CONCRETE EXPOSED TO HEAT OR FREEZING SHALL BE 8-HOURS EXPOSED.

15. UNLESS OTHERWISE SHOWN, PROVIDE FOLLOWING CODES FOR REINFORCING STEEL:

16. PROVIDE SHAVED FORGED FINISH ON EXPOSED CONCRETE.

17. CHAMFER ALL EXPOSED CONCRETE CORNERS 3/4 INCH 45 DEGREE, UNLESS NOTED OTHERWISE.