

State of Florida
Telecommunications Site Review
Equipment Upgrade Version



Consultants, Inc.
7050 West Palmetto Park Road, Suite 4
Boca Raton, FL 33433
Tel: 954.757-8668 Fax: 954.757-9994

May 12, 2014

Mr. W. Scott Stoudenmire
Department of Sustainable Development
City of Coconut Creek
4800 West Copans Road
Coconut Creek, Florida 33063

RE : SprintPCS, MI73XC110
5555 Regency Lakes Blvd.
Lakeside Park Facility

Dear Mr. Stoudenmire,

At your request, on behalf of the City of Coconut Creek, Florida ("City"), CityScape Consultants, Inc. ("CityScape") in its capacity as telecommunications consultant for the City, has considered the merits of an application to upgrade service provided by SprintPCS Wireless ("Applicant") modify and add equipment to an existing 120 foot monopole communications tower facility (*figure 1*), owned by the City of Coconut Creek and is located at 5555 Regency Lakes Boulevard, Coconut Creek, Florida (*figure 2* and *Exhibit A*).

The Applicant is continuing the process of upgrading their equipment to more advanced technologies with the addition of 2.5 GHz advance wireless services (AWS) and fourth generation (4G) operation. AT&T Wireless and T-Mobile, collocators on the subject tower, have also made similar upgrades at this facility. Previously Sprint and AT&T had installed feed lines outside the tower, and as part of previous upgrade condition approvals, both carriers were required to move all lines inside the monopole; which has been sufficiently completed.

There are two considerations for this Modification/Upgrade request. First, according to the provisions of the existing lease between the Applicant and the City, the Applicant has the authority to make these changes with the written approval from the City. CityScape has requested from the Applicant a lease consent for the City's review and execution. Second, the Applicant's proposed changes must meet certain requirements of the City's Ordinance including structural compatibility and compliance with state and federal codes.

The Applicant's proposed changes include the addition of three (3) 2.5 GHz antennas, three (3) long term evolution (LTE) remote radio units (RRU's) and three (3) fiber optic filters (one (1) per sector). CityScape found that the Applicant's list and placement of existing antennas and related equipment conflicted with a previous application by Applicant to upgrade in 2013. The equipment listed as existing is actually less that was previously stated as being installed, and therefore this will be a reduction in tower mounted equipment, see *figure 3*. The Applicant will add new electronic base station equipment within its existing ground shelter, see *figure 4*.

The Applicant provided a letter of compliance with all Federal Communications Commission (FCC) standards regarding human exposure to RF energy FCC rules regarding

**Telecommunications Site Review
Florida Equipment Upgrade**

interference, *see figure 5*. CityScape is aware that the subject facility will operate in the 700MHz, 800MHz, 1900MHz and 2,500MHz spectrum, and therefore could be an interference concern to the City's public safety operations.

Previous applications and structural analysis for the subject tower have all had a varied blend of tower ratings, of which there is the possibility of some slight variation between engineering firms. The subject site has been most unusual because two of the existing collocations use the same engineering firm and the other uses a different engineering firm. Historically, Sprint has always reflected the lowest rating; with a previous overall rating of 48% and currently a new rating of 45%, *see figure 6*. Both AT&T and T-Mobile's analysis have reflected higher ratings with T-Mobile at 74% and AT&T at 97.6%. These ratings are all out of an allowable 105% maximum. Based on the previous inconsistencies CityScape has carefully followed the tower modifications and upgrades and denotes that there is no reason for concern until a rating approaches the 105% rating. It is believed that much of the reason for the disparity in ratings was the various engineering firms using inconsistent data specifically of the location of the feed lines.

CityScape has visited the site on numerous occasions, and has determined all necessary requirements can be accommodated within the existing facility limits. All designs and plans for the Applicant's proposed new facilities were developed according to accepted practices of radio frequency (RF) propagation engineering and the persons completing all work are sufficiently qualified within their respective disciplines.

Based on supplied documentation by the Applicant, CityScape has determined that the application submitted by SprintPCS Wireless complies the Telecommunications Act of 1996, the Middle Class Tax Relief and Job Creation Act of 2012, and local and state regulations. Therefore, CityScape recommends the application be approved with the following conditions:

1. All Applicant's feed lines shall continue to be installed inside the monopole shaft; and,
2. All tower access ports shall be sealed to prevent access by birds and other wildlife.

Respectfully submitted,



Richard L. Edwards
FCC Licensed
PCIA Certified
CityScape Consultants, Inc.

**Telecommunications Site Review
 Florida Equipment Upgrade**

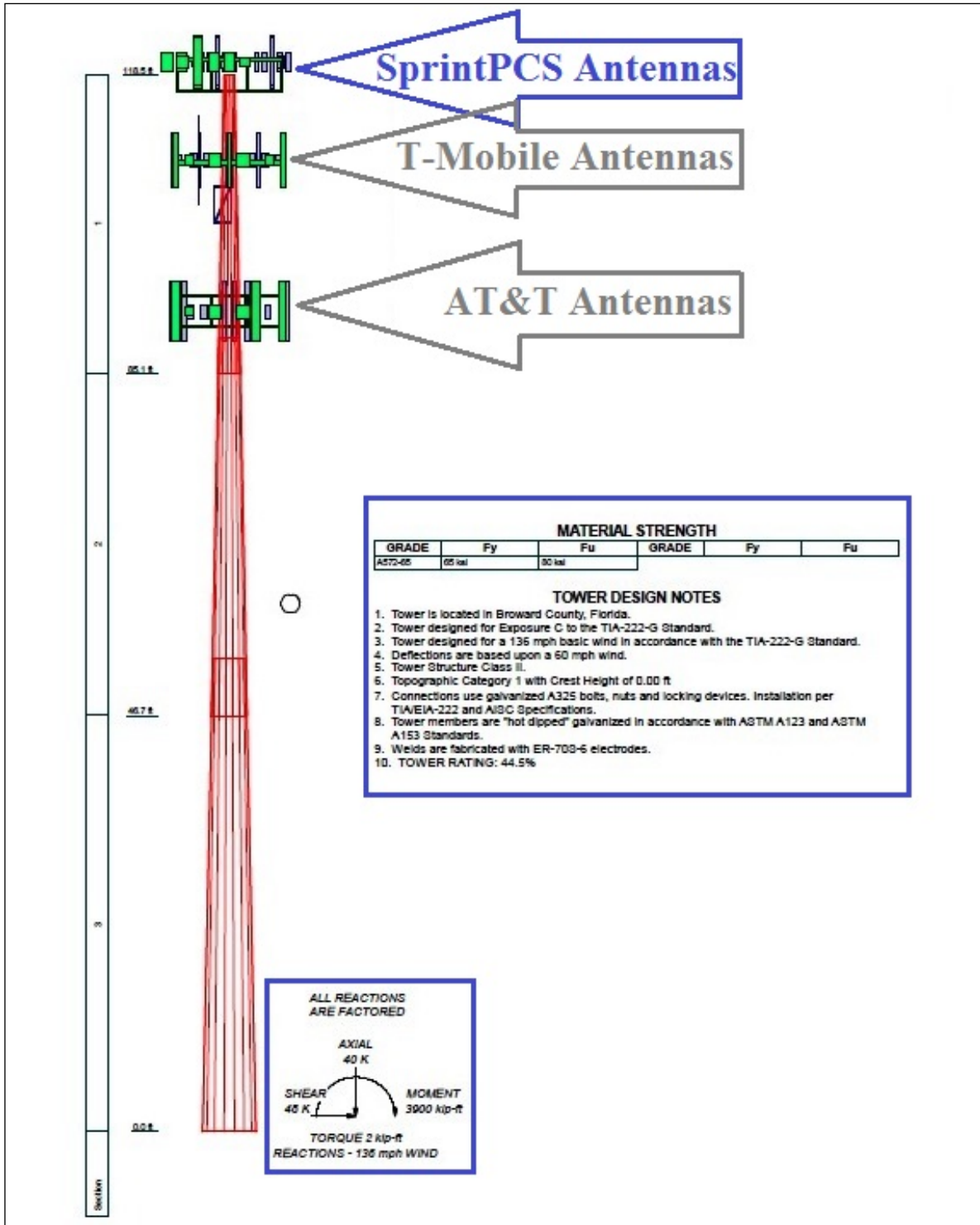


Figure 1. Tower Elevation

**Telecommunications Site Review
Florida Equipment Upgrade**

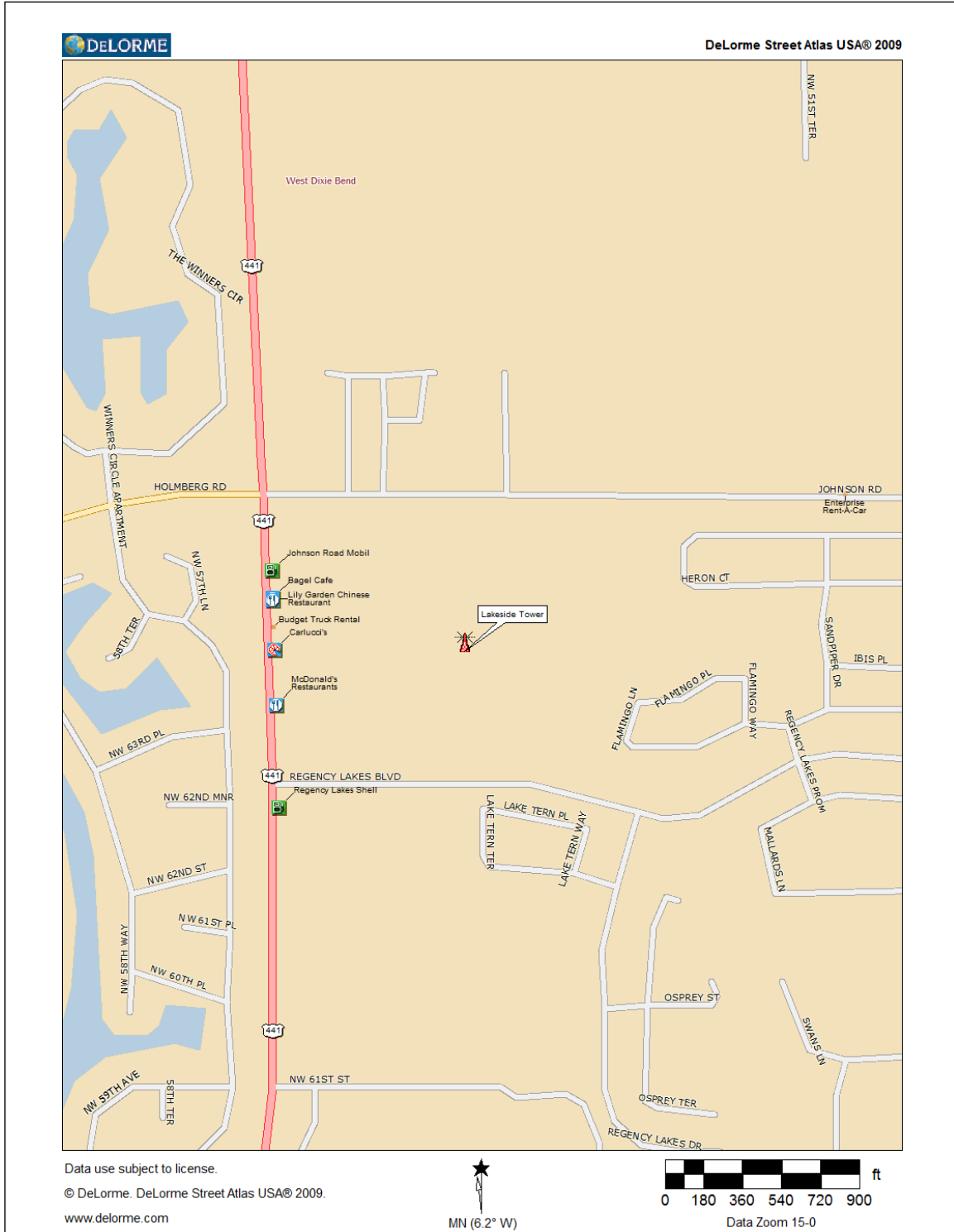


Figure 2. Site Location

**Telecommunications Site Review
Florida Equipment Upgrade**

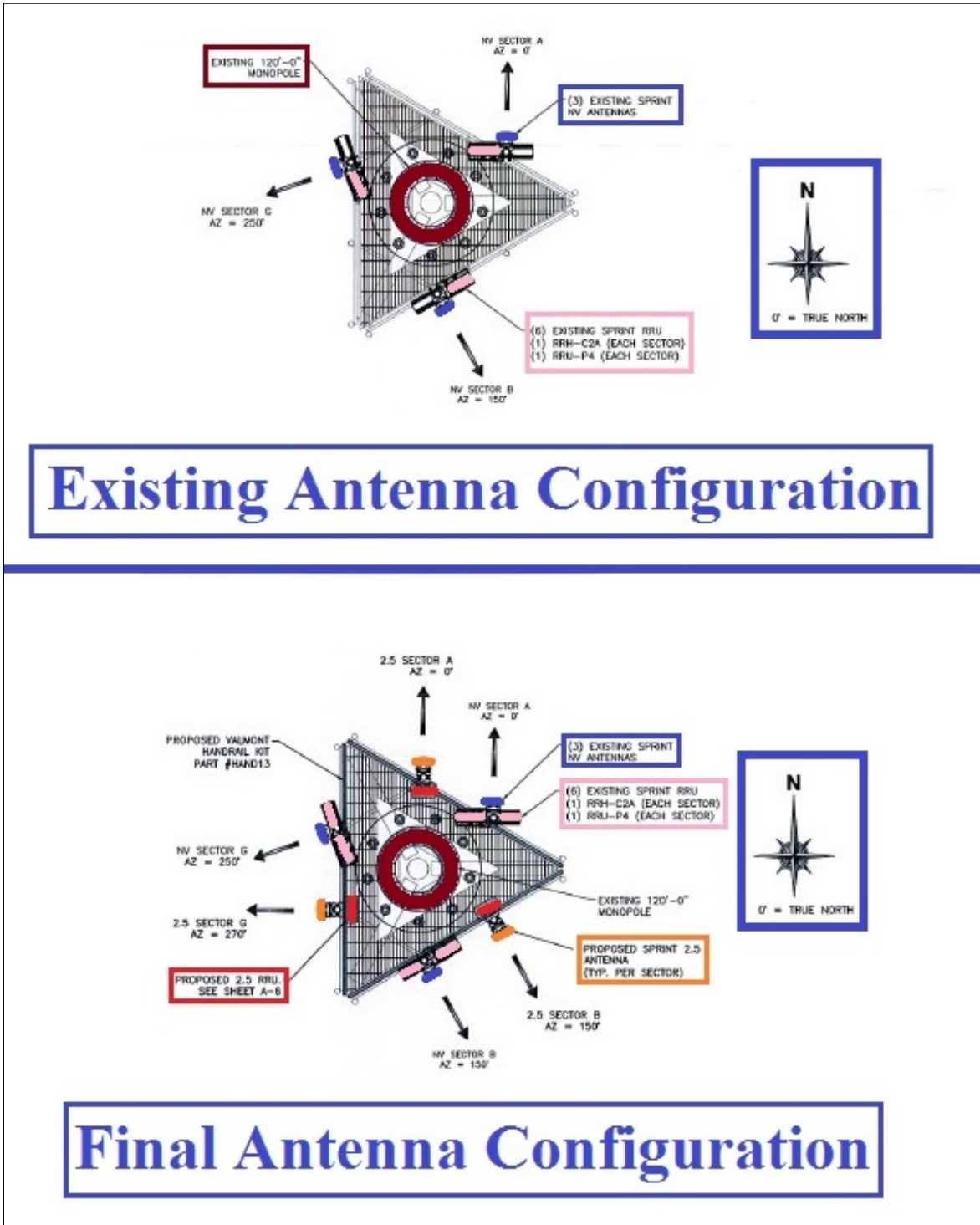


Figure 3. Antenna Configuration

**Telecommunications Site Review
Florida Equipment Upgrade**

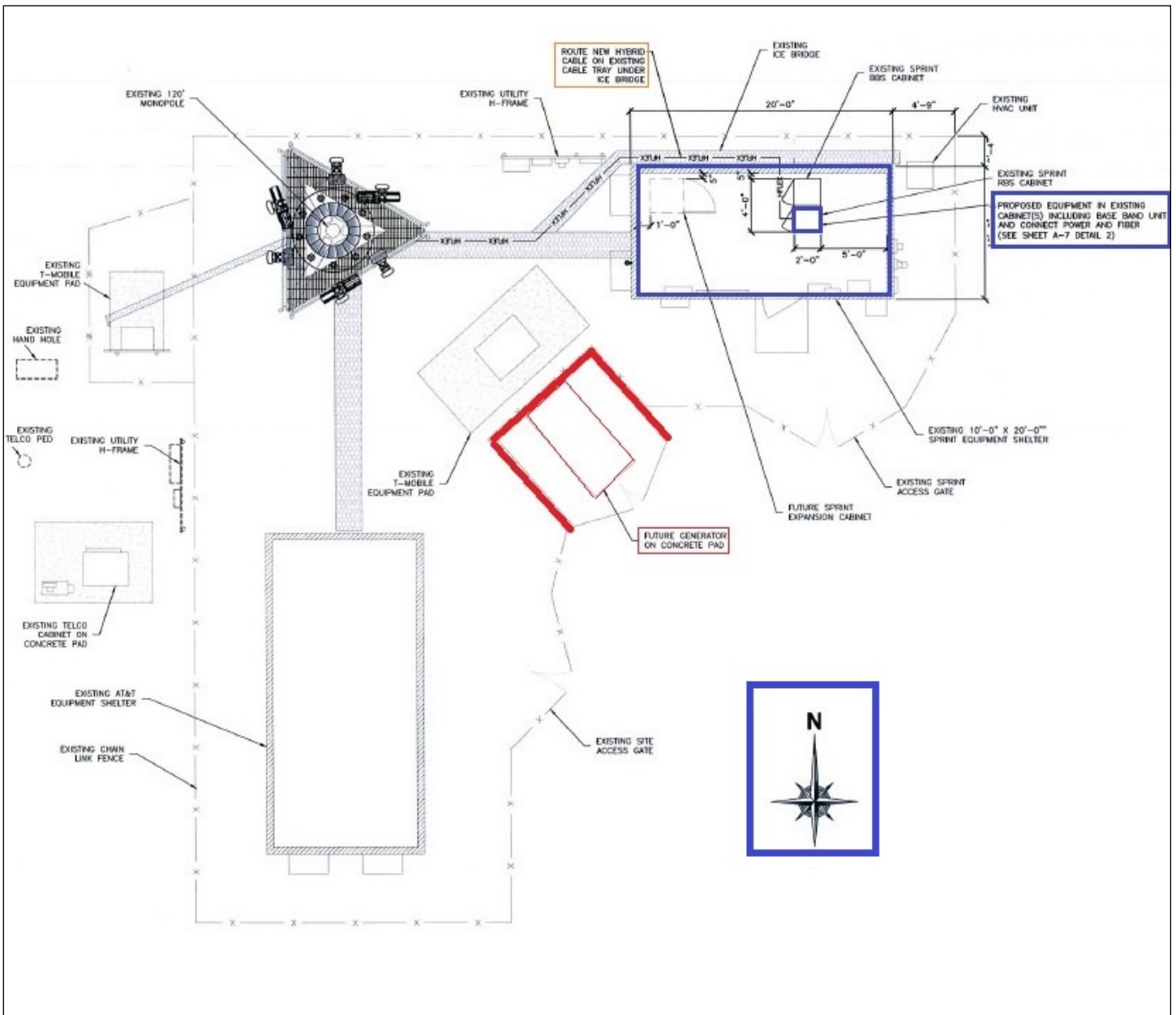


Figure 4. Ground Level Equipment

**Telecommunications Site Review
Florida Equipment Upgrade**

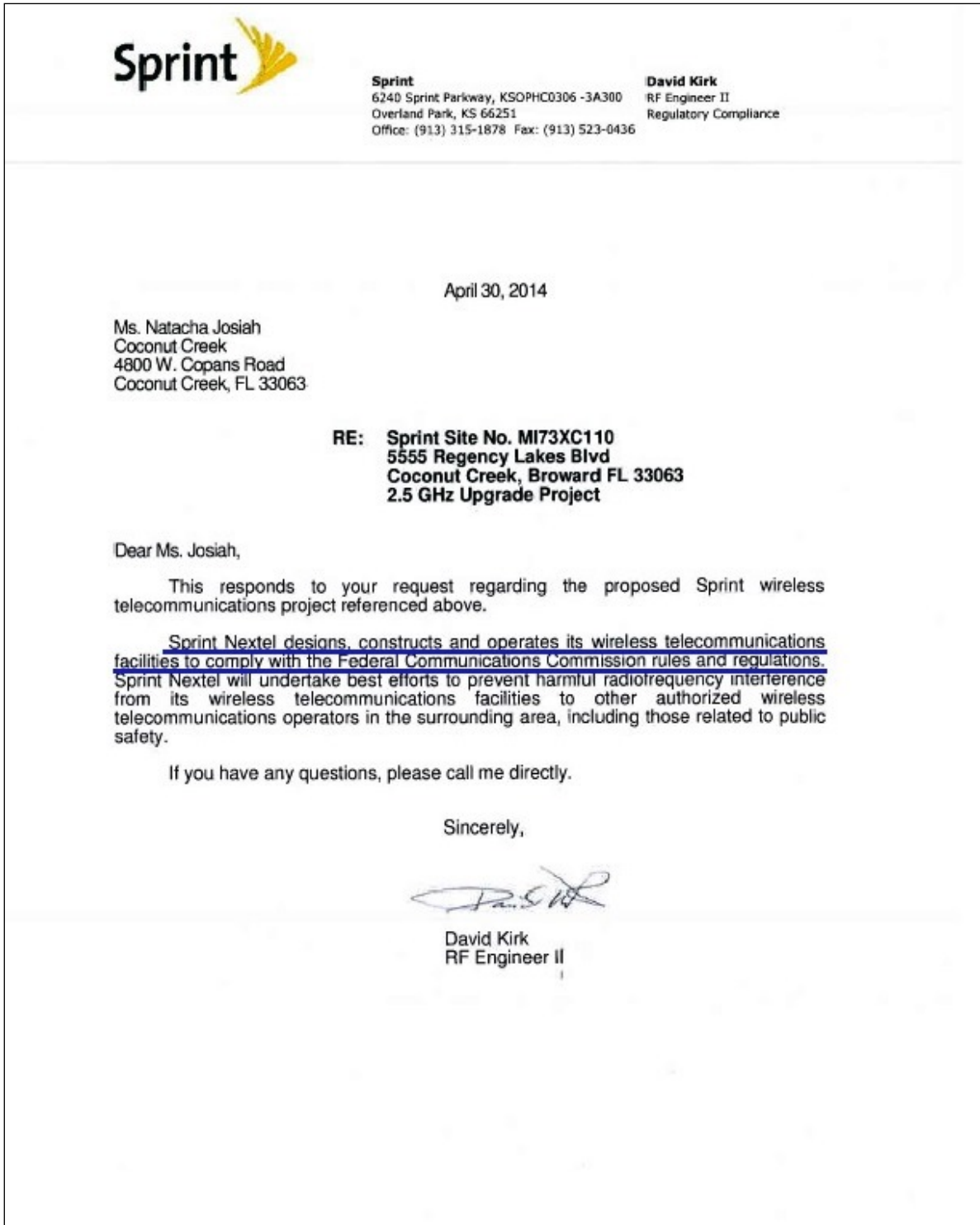



Figure 5. Compliance Statements

**Telecommunications Site Review
Florida Equipment Upgrade**



GEOSTRUCTURAL

Structural Analysis Report

Site Name: Coconut Creek Lakeside Park
Project: 2.5 Equipment Deployment

Site Number: MI73XC110

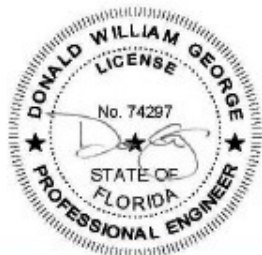
Prepared For: Powder River
& Sprint

Structure: 120' Monopole Tower
Manufacturer: FWT

Site Location: Coconut Creek, Florida
Broward County
26° 18' 36.1"N / 80° 11' 58.0"W

Design Codes: ANSI/TIA-222-G
2010 Florida Building Code
& IBC 2009

Load Case: Existing + Final Sprint
Results: Pass



New Tower Rating 45% Revision 1
April 9, 2014

GeoStructural, LLC | PO Box 2621 | Boise, ID 83701 | p:530.539.GSTR | e:Contact@GeoStructural.com

Figure 6. Structural Statement

**Telecommunications Site Review
Florida Equipment Upgrade**



Exhibit A. Subject Tower