

**State of Florida**  
**Telecommunications Site Review**  
**Upgrade Version**



**Consultants, Inc.**

7050 W. Palmetto Park Road #15-652  
Boca Raton, FL 33433  
Tel: 877-438-2851 Fax: 877-220-4593

(Revision of October 24, 2014)

November 11, 2014

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

**RE : T-Mobile #6FB1173B 'Lakeside'**  
**5555 Regency Boulevard, Coconut Creek**

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 for equipment upgrades submitted by T-Mobile Wireless ("Applicant"). The proposed modifications will occur at the one hundred ten (110) foot level of an existing one hundred twenty (120) foot monopole communications tower, see *figure 1*. The subject site and tower is owned by the City and is located at 5555 Regency Lakes Boulevard in Coconut Creek, Florida, see *figure 2*.

Throughout much of the nation, T-Mobile has been merging spectrum from their recent merger acquisition with MetroPCS while adding new fourth generation (4G) services to existing facilities. The Applicant will add LTE and AWS technology for improvements in data speed, and these changes are just the beginning of immense changes to come in order to adapt to the growth of smartphones.

There are two considerations for this modification and upgrade request. Under 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, and the changes must meet certain requirements of the City Ordinance including structural compatibility and compliance with state and federal codes.

The Applicant is proposing no changes to the existing nine (9) antennas, three (3) Remote Radio Units (RRU's) and three (3) junction boxes; *but proposes to replace and swap out three of the nine antennas with three (3) new LTE 4G antennas as well as replace three (3) RRU's. Figure 3 reflects the adjusted final antenna configuration based on revised Construction Drawings dated October 20, 2014 submitted by the Applicant.* Additionally, the Applicant will add a single fiber-optic cable. Previously there have been concerns regarding feed lines that were installed on the outside of the pole by other carriers collocated on the pole. T-Mobile's feed lines have always been installed within the structure and since, all other carriers have become compliant and have appropriately installed all feed lines within the structure. The Applicant will add new electronic base station equipment within its existing leased ground compound, see *figure 4*. The designs and plans for the proposed new facilities were developed according to accepted practices of RF (radio frequency) propagation engineering and the persons completing all work are sufficiently qualified within their disciplines.

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The Applicant has previously provided a universal form statement regarding compliance with all FCC rules and regulations pertaining to human exposure to RF energy and interference and therefore should be acceptable to the City. CityScape is aware that this facility will operate in various frequency bands from 700 MHz and above and while that is within range of the City's Public Safety communications, the Applicant will continue to take proper measures to eliminate any possible interference, see *figure 5*.

Currently collocated on the tower are three carriers, AT&T, T-Mobile and SprintPCS/Nextel, along with antennas belonging to the City. The Applicant submitted an updated Structural Analysis Report dated July 22, 2014, which demonstrates the existing tower and foundation is sufficient to support the existing equipment and proposed modifications. The new tower stress rating will be 61.4% out of a 105% allowable, see *figure 6*. *Based on the Applicant's revised antenna configuration submitted and dated October 20, 2014, the Structural dated July 22, 2014 will remain in compliance since the proposed antenna modifications are minimal compared to the original proposed modifications. Any future modifications or additions to the tower will require an updated structural review.*

CityScape last visited the facility on October 2, 2014, in which we observed that cooper grounding had been removed and appears to have been stolen from the site. This is a common problem which occurs at many tower sites nationwide and CityScape will oversee and make necessary repairs to rectify the situation.

The site has been designed and constructed by professionals with expertise in telecommunications site design and the construction drawings submitted on behalf of the Applicant confirms a continuation of that practice of the expertise in the knowledge of maximizing the use of telecommunications facilities. CityScape confirms that all necessary requirements can be accommodated within the existing property limits.

Based upon the submitted information by the Applicant, CityScape has determined that the application is qualified under the Middle Class Tax Relief and Job Creation Act of 2012 and therefore recommends approval with the following conditions:

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

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "R. Edwards", with a long horizontal flourish extending to the right.

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

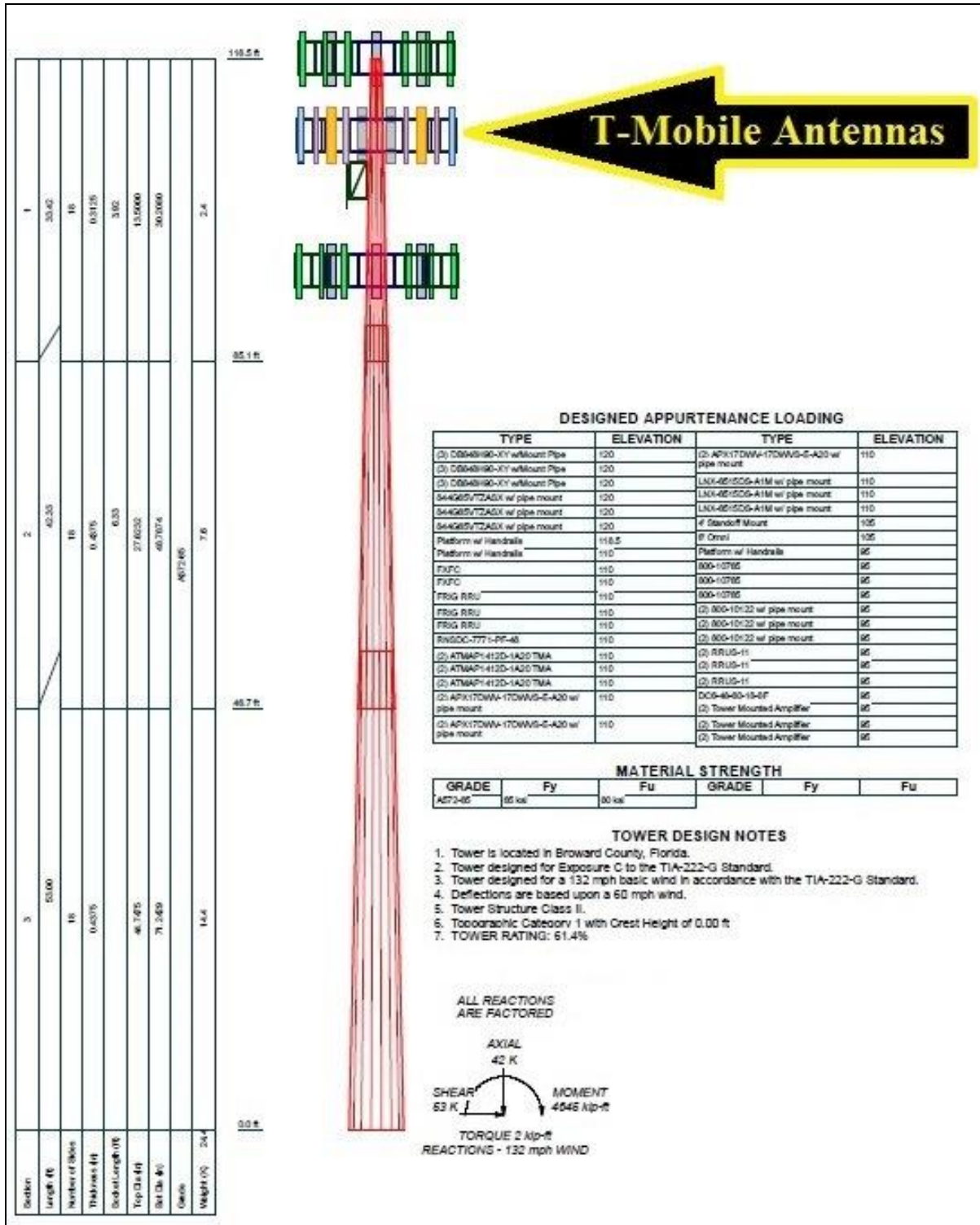
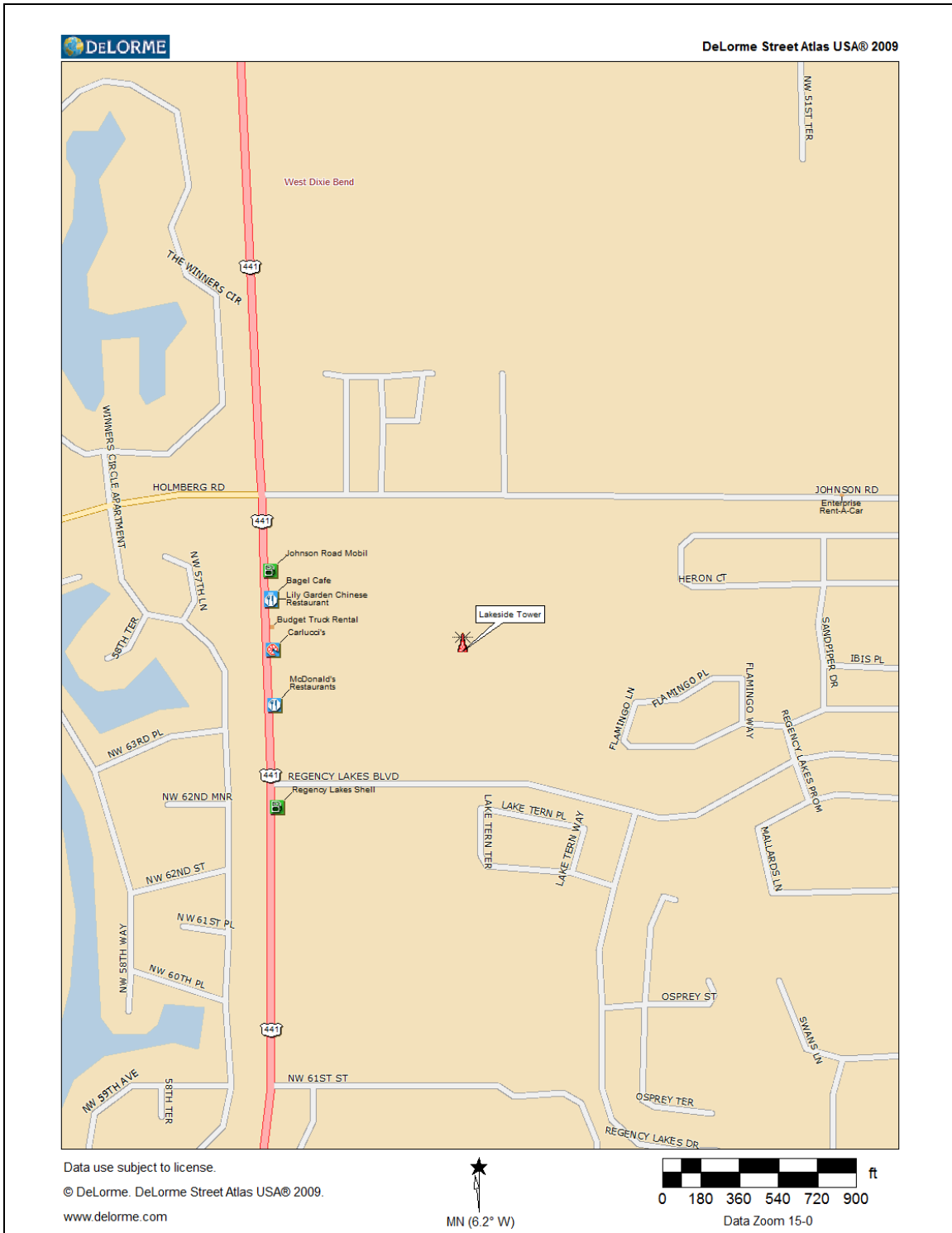
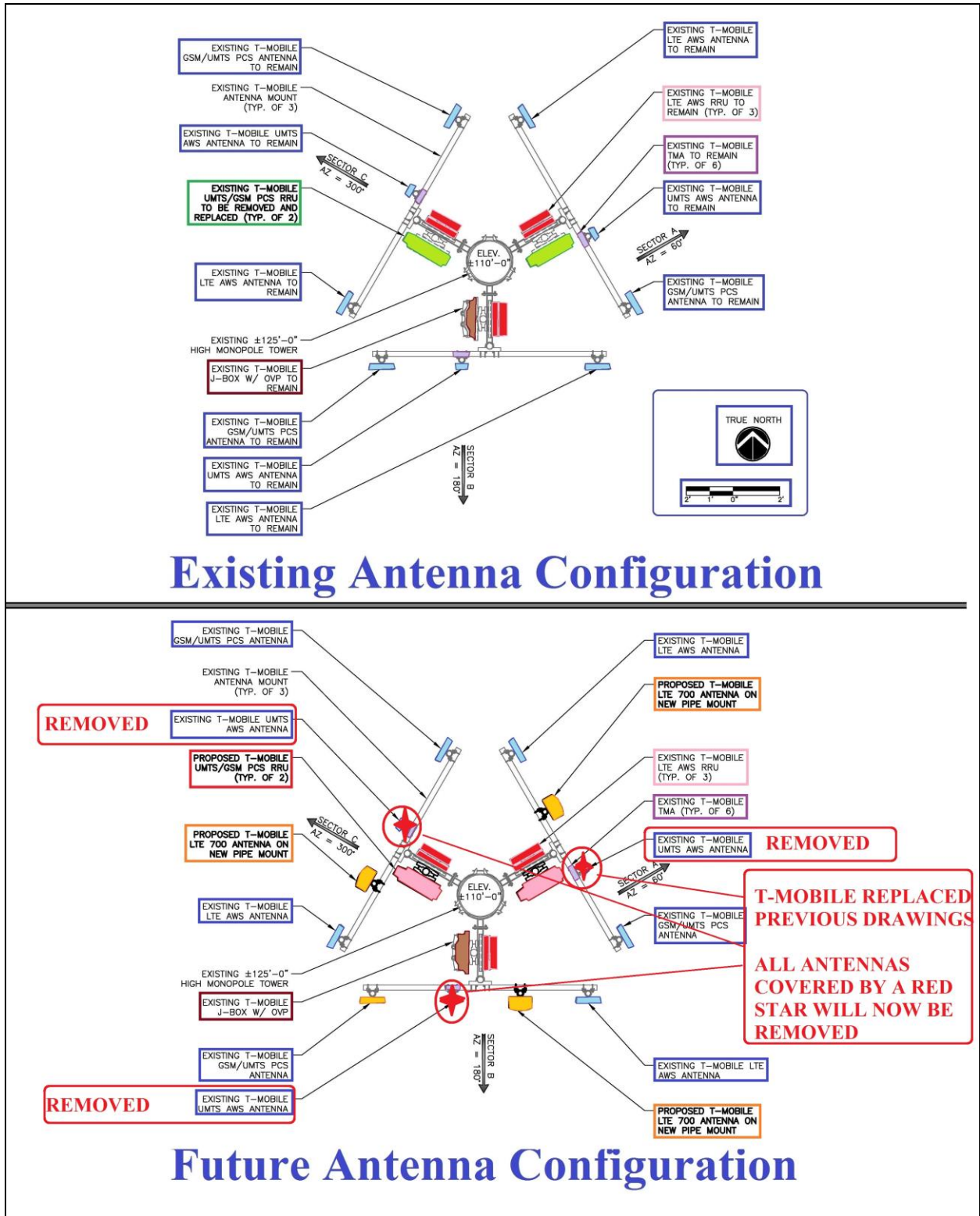


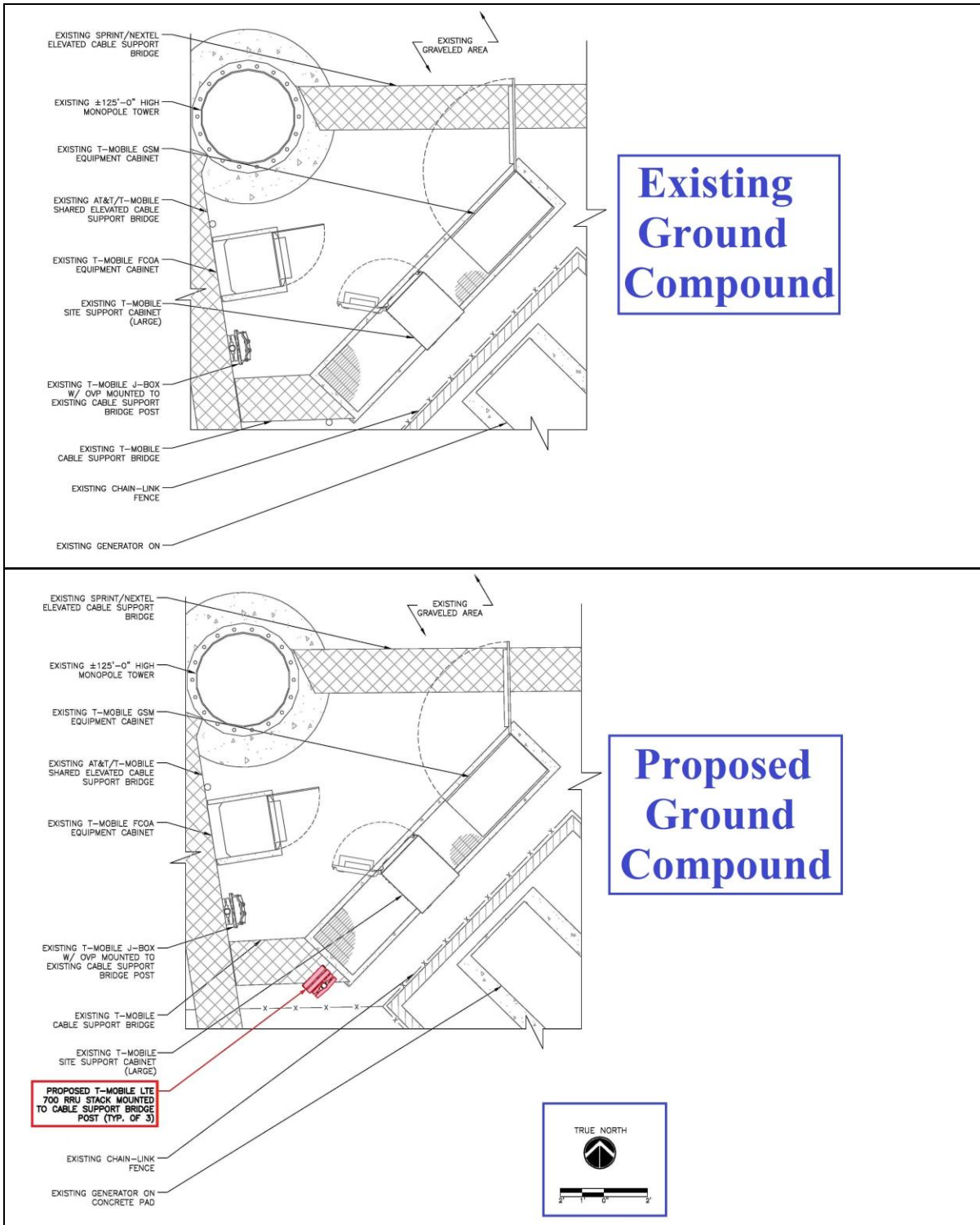
Figure 1. Tower Elevation



**Figure 2. Site Location**



**Figure 3. Modified Antenna Configuration**



**Figure 4. Ground Compound Cabinets**



T-Mobile USA, Inc.  
8100 SW 10<sup>th</sup> St. Suite 1000  
Plantation, FL 33324  
Office: 954-693-7100 Fax: 954-693-7200

To: City of Coconut Creek

From: T-Mobile USA

Date: April 03, 2008

Re: Interference Letter

The intent of this letter is to confirm that the proposed T-Mobile USA telecommunication site (FB1251) will not in any way impede with reception and transmission of the City of Coconut Creek's public safety communication systems. This includes television stations, radio stations, or other two-way and cellular services to either residential or commercial establishments.

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The proposed PCS communication facility has passed all relevant FCC interference requirements and is thus certified not to interfere with other electrical systems. The construction, placement or operation of the monopine or antennas will not create unacceptable interference with the City of Coconut Creek's Public Safety Communications Systems.

Sincerely,

Patrick Liautaud  
RF Engineer  
T-Mobile USA  
(305) 401-9503

**Figure 5. FCC Compliance Statement**



Ms. Denise Correa  
T-Mobile  
1300 Concord Terrace Suite #200  
Sunrise, FL 33323



MORRISON HERSHFIELD

Morrison Hershfield Corporation  
1455 Lincoln Parkway, Suite 500  
Atlanta, GA 30348  
(770) 379-8500

Date: July 22, 2014

Subject: Rigorous Structural Analysis Report

Site ID: 6FB1173B  
Site Name: Lake Side Park

Carrier: T-Mobile  
Carrier Site ID: 6FB1173B  
Carrier Site Name: Lake Side Park

Site Address: 5555 Regency Blvd, Coconut Creek, Broward County, FL 33073  
Site Coordinates: Latitude: 26.31° N, Longitude: 80.19943° W  
Tower Description: 118.5 ft – Monopole Tower

Morrison Hershfield Project Number: TMB-002 / 7140041

Dear Ms. Correa,

Morrison Hershfield Corporation has carried out a structural analysis of the above referenced structure for the existing and proposed antenna and equipment noted in Table 2. This rigorous analysis has been performed in accordance with the 2010 Florida Building Code based upon an ultimate 3-second gust wind speed of 170 mph converted to a nominal 3-second gust wind speed of 132 mph per section 1609.3.1 as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. This analysis is subject to the assumptions noted.

Our analysis demonstrates that the existing tower and foundation and foundation **ARE in conformance (tower at 61.4% and foundation at 44.8%)** with the requirements of the above noted standards under the effects of loading described.

We at Morrison Hershfield Corporation appreciate the opportunity of providing our continuing professional services to you and T-Mobile. If you have any questions or need further assistance on this or any other projects please give us a call.

Sincerely,  
Morrison Hershfield Corporation

**New Tower Stress  
Rating is 61.4%**

G. Lance Cooke, P.E. (FL License No. 68787)  
Senior Engineer

Certificate of Authorization # 8508



Jul 22 2014



Morrison Hershfield

Figure 6. Structural Statement





**Exhibit A. Subject Facility**