City of Coconut Creek, Florida

Telecommunications Site Review
Equipment Upgrade Application

CitySCape CONSULTANTS, INC.
2423 South Orange Avenue #317
Orlando, Florida 32806
Tel: 877.438.2851 Fax: 877.220.4593

January 22, 2020

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

RE: City of Coconut Creek
AT&T Mobility / 1st Net Responders Retrofit

Dear Mr. Stoudenmire,

At your request, on behalf of the City of Coconut Creek ("City"), CityScape Consultants, Inc. ("CityScape") in its capacity as telecommunications consultant for the City, has considered the merits of the above referenced application submitted by High Performance Services ("Submitter") on behalf of AT&T Mobility ("Applicant") to upgrade equipment on its existing, one hundred nineteen (119) foot, *monopole* tower, owned by the City. The tower has antennas that extend above the top making it approximately one hundred twenty-four (124) feet in overall height. The tower is located at 5555 Regency Lakes Boulevard, Coconut Creek, *see Figure 1*.

Support Structure & Equipment

The Applicant has nine (9) existing panel-type antennas, fifteen (15) RRU's and three (3) Raycap surge suppressors mounted at the one hundred (100) foot level, *see Figure 2*. Three (3) antennas and six (6) RRU's will be replaced with three (3) new antennas and three (3) new RRU's. There will be no changes in the feed line, all internal. It is stated the Applicant has a total of eighteen (18) feedlines within the pole. Six (6) of these lines are stated inactive. These six (6) unused lines shall be removed.

Structural Analysis

The Applicant provided a revised structural analysis, prepared by USA Engineering, dated December 23, 2019. The report indicates that the structure was calculated using ANSI/TIA-222-G Class II and the "C" exposure category. The final configuration will have a new tower stress rating of 64.8% out of an allowable 105% and the new foundation stress rating will be 54.8% out of an allowable 110%, see *Figure 3*.

The Applicant has previously submitted a satisfactory compliance statement regarding Radio Frequency (RF) energy and exposure limits and RF interference with other radio services in a letter dated November 2, 2017, see *Figure 4*.

Under the Middle-Class Tax Relief and Job Creation Act of 2012 ("The Act") any personal wireless facility collocation, modification or upgrade may qualify for streamlined processing. Furthermore, under Section 6409(a) such requests can qualify for administrative approval if the request meets six criteria, most notably (1) it does not increase the structure height by 10% or 20 feet, whichever is greater, (2) it does not increase the structure width by 20 feet and (3) it does not require any excavation outside the existing ground compound. Section 6409(a) further states that if an application meets the criteria, the application should be approved and not denied. CityScape has determined this application complies with all these parameters and should be approved.

The submitted application conforms to the requirements of City codes and State of Florida wind codes and structural integrity. Therefore, it is CityScape's recommendation that the City ***approve*** the application with the following conditions:

1. All feed lines shall be maintained within the monopole such that they are concealed from view; and,
2. The six (6) existing and unused feed lines shall be removed or show cause as to reasoning they should not be removed; and,
3. All access ports shall be sealed in a manner to prevent access by birds and any other wildlife.

I certify that to the best of my knowledge all the information included herein is accurate at the time of this report. CityScape is only employed by public entities and has unbiased opinions. All recommendations are based on technical merits without prejudice, according to prevailing laws and codes.

Respectfully submitted,

Richard L. Edwards,
FCC Licensed Radio/Telephone Engineer
CityScape Consultants, Inc.

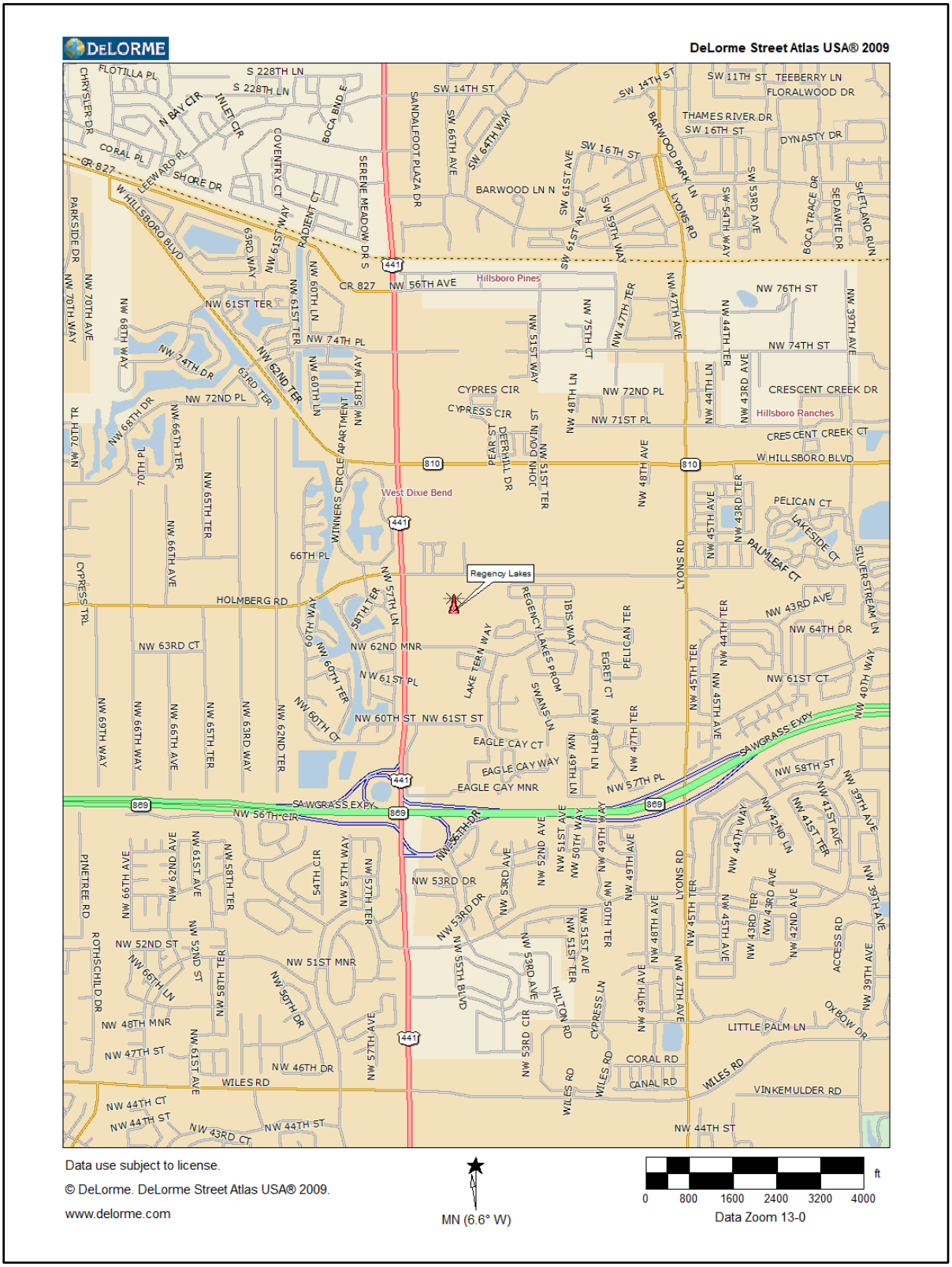


Figure 1 – Site Location

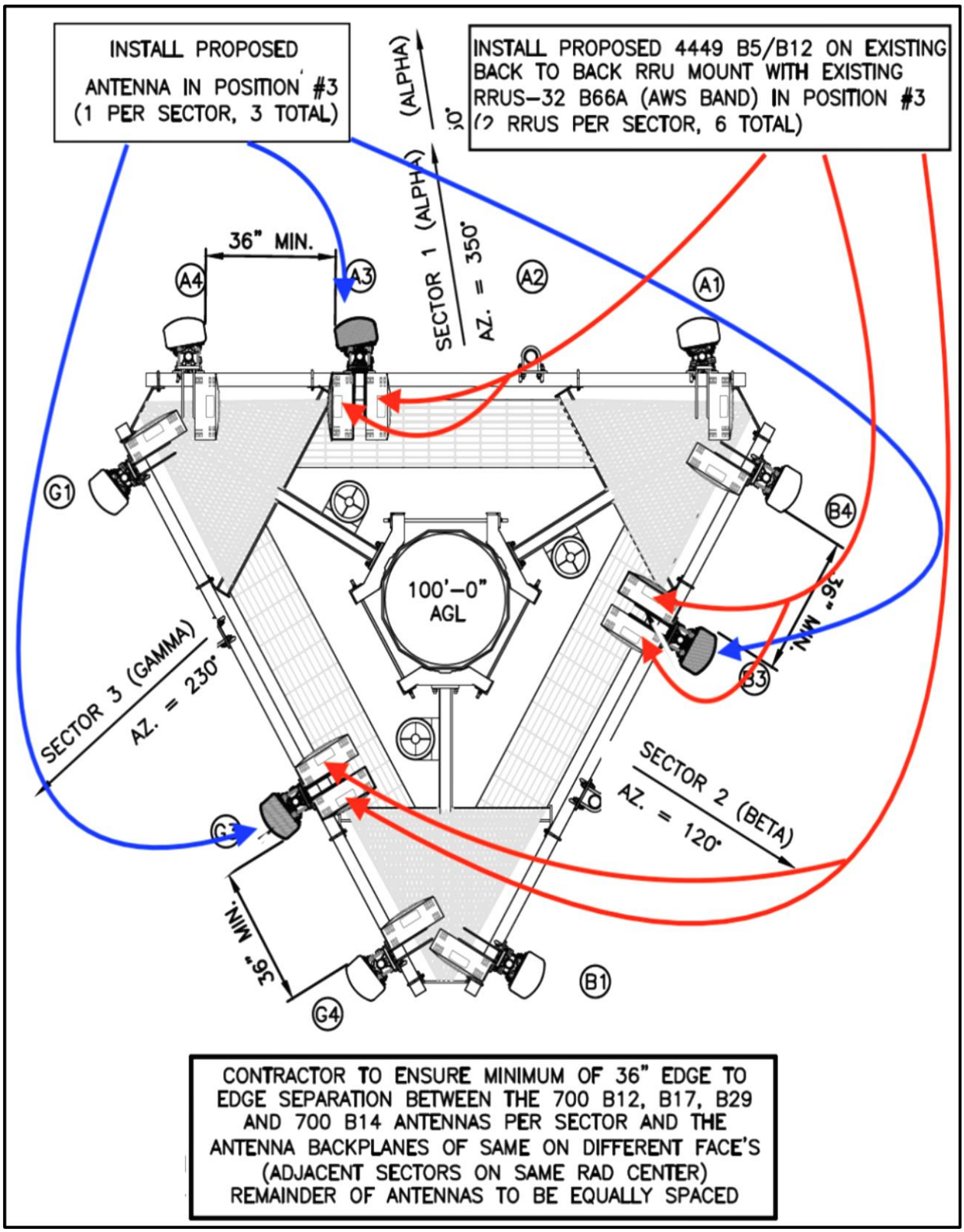


Figure 2 - Antenna Configuration

CityScape CONSULTANTS, INC.

USA ENGINEERING

2818 Cypress Ridge Blvd. Suite 110
Wesley Chapel, Florida 33544
(813) 994-0365
www.usa-engineering.com

Date: December 23, 2019

HIGH PERFORMANCE SERVICES, LLC
A Castillo Consolidated Company

Shannon Smith
3001 Mills Street,
Lafayette, LA 70507

Subject:	**Structural Analysis Report (Rev. 1)**
Carrier Designation:	*AT&T IMPROVEMENT – 5G NR Upgrade-4TX4RX*
Carrier Site Number:	FL71_10070226
Site Data:	5555 REGENCY LAKES BLVD, Coconut Creek, FL 33073 (Broward County) Latitude: 26.3099944°, Longitude: -80.1994389° 118.5' – Monopole

Dear Ms. Smith,

USA Engineering, Inc. is pleased to submit this "Structural Analysis Report" to determine the structural integrity of the above referenced structure to resist the proposed loading(s) as specified within this report.

THE ANALYSIS HAS BEEN PERFORMED FOR THE FOLLOWING CRITERIA:					
Applicable Codes:	Florida Building Code – 2017 (6th Edition)		ASCE-7-10	TIA-222-G Addendum-2	
Wind Speed:	**Vult** = 170 mph (3 Second Gust)			**Vasd** = 132 mph (3 Second Gust)	
Exposure Category:	C	**Risk Category:**	II	**Radial Ice Thickness:**	0.0"
Importance Factor:	1.0	**Topographic Category:**	I	**Seismic Response:**	N/A

Based on our analysis, we have determined the stress levels of the structure and the foundation system, under the following loads case, to be as follows:

LOAD CASE(S)	TOWER ANALYSIS (Rigorous)	FOUNDATION ANALYSIS (Rigorous)
LC1: AT&T IMPROVEMENT - 5G NR Upgrade-4TX4RX	**Sufficient ✓ Capacity**	**Sufficient ✓ Capacity**
Appurtenance Loading – Table 1.1	Structural Analysis Results – Table 2.1	Foundation Analysis Results – Table 3.1

We at ***USA Engineering, Inc.*** appreciate the opportunity of providing our continuing professional services to you. If you have any questions or need further assistance on this or any other projects, please feel free to contact us.

Submitted by:

MOHAMMAD KHAWAJA LICENSE No 80508 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by Mohammad Khawaja, P.E., FL License #80508 using a Digital Signature.

Printed Copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Dec 23 2019

Mohammad A Khawaja

Digitally signed by Mohammad A Khawaja
DN: c=US, o=Goff Communications Inc., ou=Goff Communications Inc., cn=Mohammad A Khawaja, 0.9.2342.19200300.100.1.1=A010980000001523754CF290000198A
Date: 2019.12.23 17:39:05 -05'00'

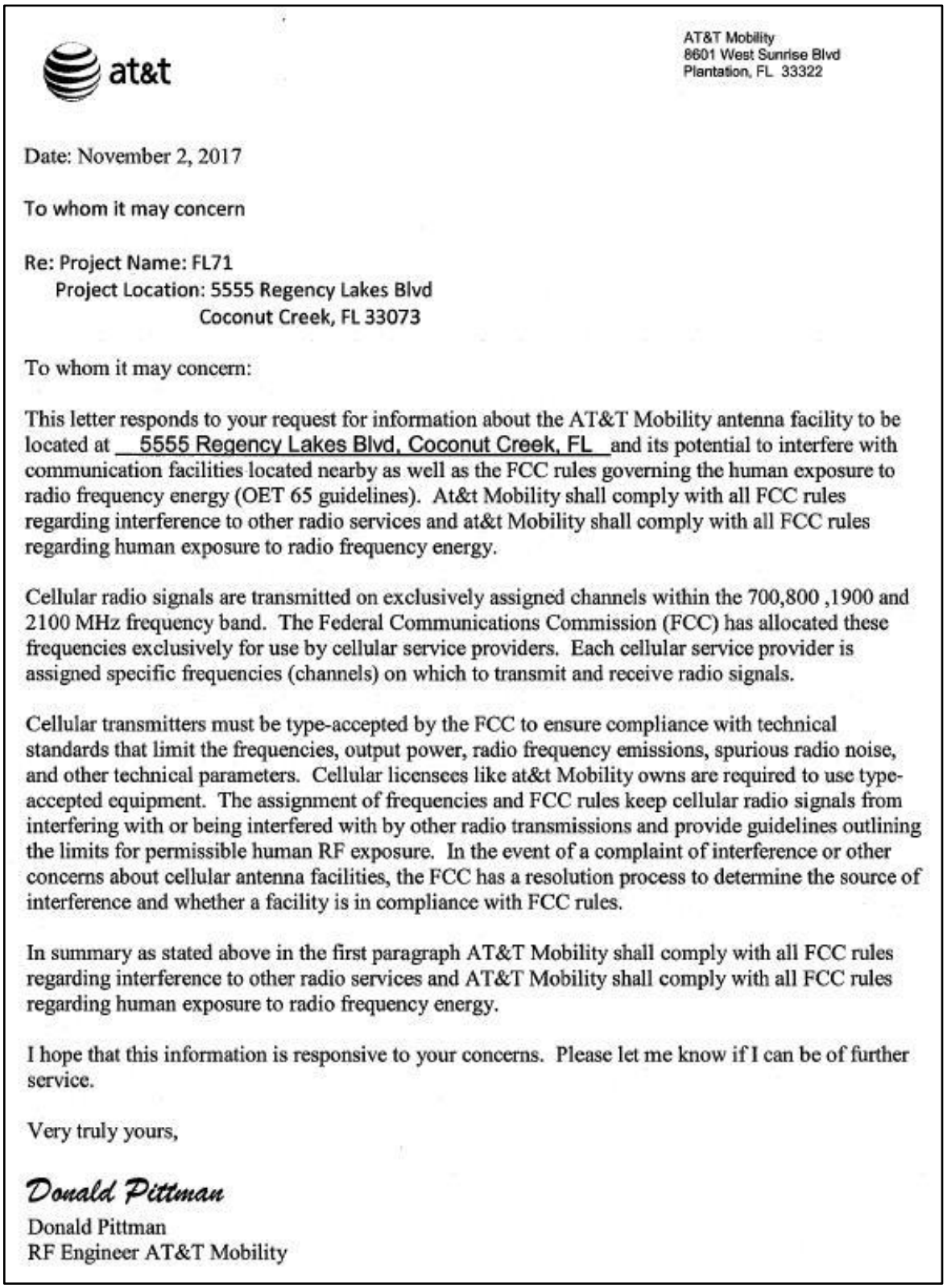
Austin Norris, EI
Structural Project Manager

Mohammad Khawaja, MCE, PE
Director of Structural Engineering
FL PE No: 80508
COA No: 31705

New Tower Stress Rating 64.8%

New Foundation Stress Rating 54.8%

Figure 3 - Structural Analysis



at&t

AT&T Mobility
8601 West Sunrise Blvd
Plantation, FL 33322

Date: November 2, 2017

To whom it may concern

Re: Project Name: FL71
Project Location: 5555 Regency Lakes Blvd
Coconut Creek, FL 33073

To whom it may concern:

This letter responds to your request for information about the AT&T Mobility antenna facility to be located at 5555 Regency Lakes Blvd, Coconut Creek, FL and its potential to interfere with communication facilities located nearby as well as the FCC rules governing the human exposure to radio frequency energy (OET 65 guidelines). At&t Mobility shall comply with all FCC rules regarding interference to other radio services and at&t Mobility shall comply with all FCC rules regarding human exposure to radio frequency energy.

Cellular radio signals are transmitted on exclusively assigned channels within the 700,800 ,1900 and 2100 MHz frequency band. The Federal Communications Commission (FCC) has allocated these frequencies exclusively for use by cellular service providers. Each cellular service provider is assigned specific frequencies (channels) on which to transmit and receive radio signals.

Cellular transmitters must be type-accepted by the FCC to ensure compliance with technical standards that limit the frequencies, output power, radio frequency emissions, spurious radio noise, and other technical parameters. Cellular licensees like at&t Mobility owns are required to use type-accepted equipment. The assignment of frequencies and FCC rules keep cellular radio signals from interfering with or being interfered with by other radio transmissions and provide guidelines outlining the limits for permissible human RF exposure. In the event of a complaint of interference or other concerns about cellular antenna facilities, the FCC has a resolution process to determine the source of interference and whether a facility is in compliance with FCC rules.

In summary as stated above in the first paragraph AT&T Mobility shall comply with all FCC rules regarding interference to other radio services and AT&T Mobility shall comply with all FCC rules regarding human exposure to radio frequency energy.

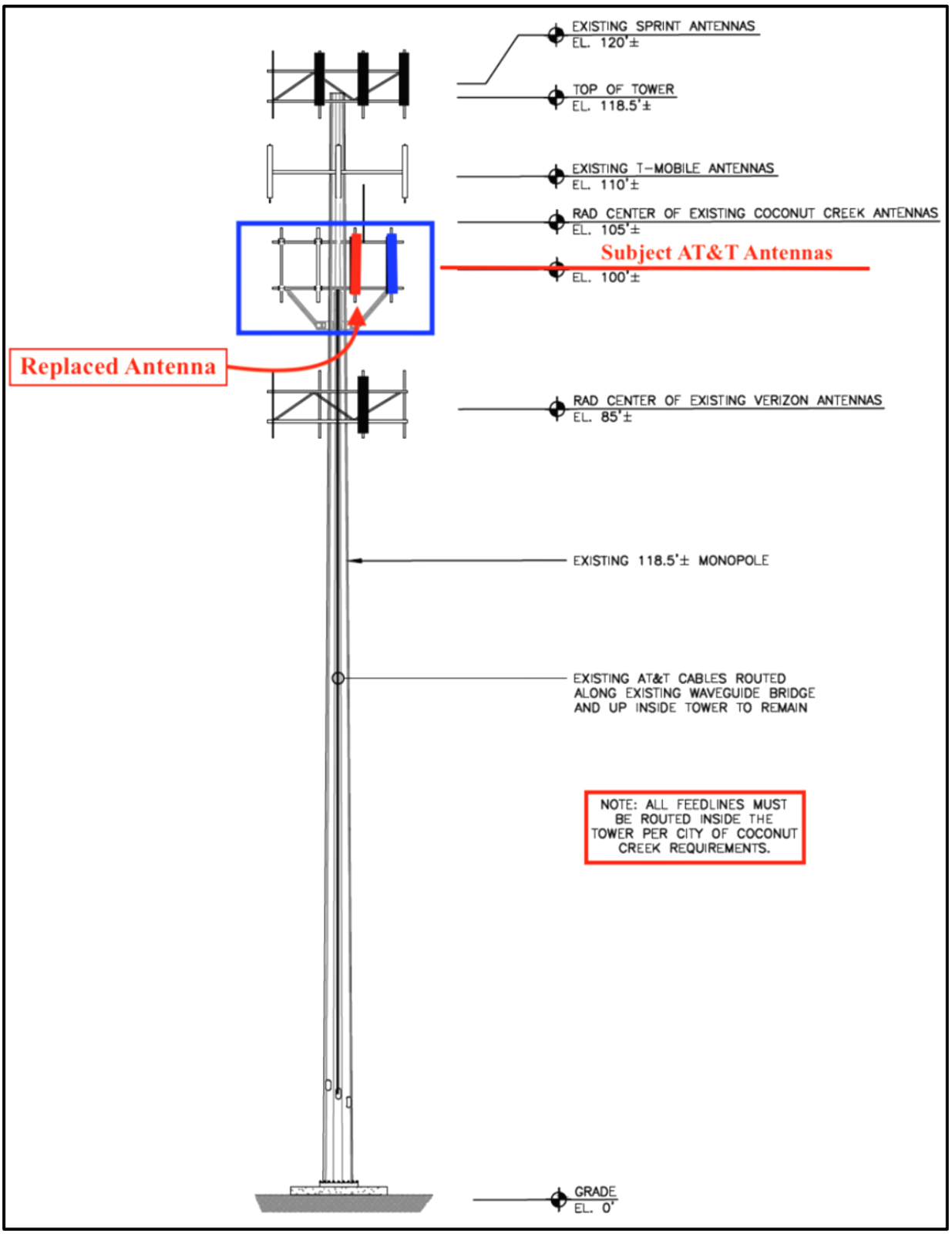
I hope that this information is responsive to your concerns. Please let me know if I can be of further service.

Very truly yours,

Donald Pittman

Donald Pittman
RF Engineer AT&T Mobility

Figure 4 – Compliance Statement



Tower Elevation