

Tab 3

T-MOBILE SOUTH, LLC CONDITIONAL USE  
CU-08-04

**Staff Report**  
**Conditional Use Permit (CU0804)**  
**T-Mobile Cellular Communication Antenna**  
**2625 Terra Ceia Bay Boulevard**

**BACKGROUND:**

T-Mobile is a cellular (cell) communication provider in need of an antenna in northwest Palmetto. This area currently has limited cell service. This request is for the approval of three (3) cell antennas to be located on the top of the Estuaries II condominium building. The attached exhibits identify the proposed locations on the rooftop.

The agent for the applicant met with City staff several months prior to the submittal of the application. The request was described consistent with the current application. In addition to determining the application procedure, staff advised that the applicant seek approval from the Homeowners Association prior to applying for the conditional use permit. They have received authorization and now request approval from the City of Palmetto.

**GENERAL LOCATION/PARCEL SIZE:**

Location: 2625 Terra Ceia Bay Boulevard

**EXISTING LAND USE/ZONING CATEGORY:**

Future Land Use: PD (Planned Development)  
Zoning: PD-H (Planned Development - Housing)

**REQUESTED APPROVAL**

A conditional use permit may be issued for the establishment of cell antenna pursuant to Articles 15 and 17 of the Land Development Code. The proposed antenna cannot create an unsafe condition or be detrimental to health safety and welfare of the general public. The following conditions have been analyzed in reviewing this request:

- (1) The proposed use shall be consistent with the purpose and intent of the applicable zoning district regulations, this article, and the comprehensive plan. **Cell service has become essential. Locating the antenna on top of an existing building precludes having to construct a separate tower**



Central & South Florida  
Engineering & Operations



Tuesday, November 13, 2007

City Palmetto

Site A2F0770-C MPE Statement

To Whom It May Concern:

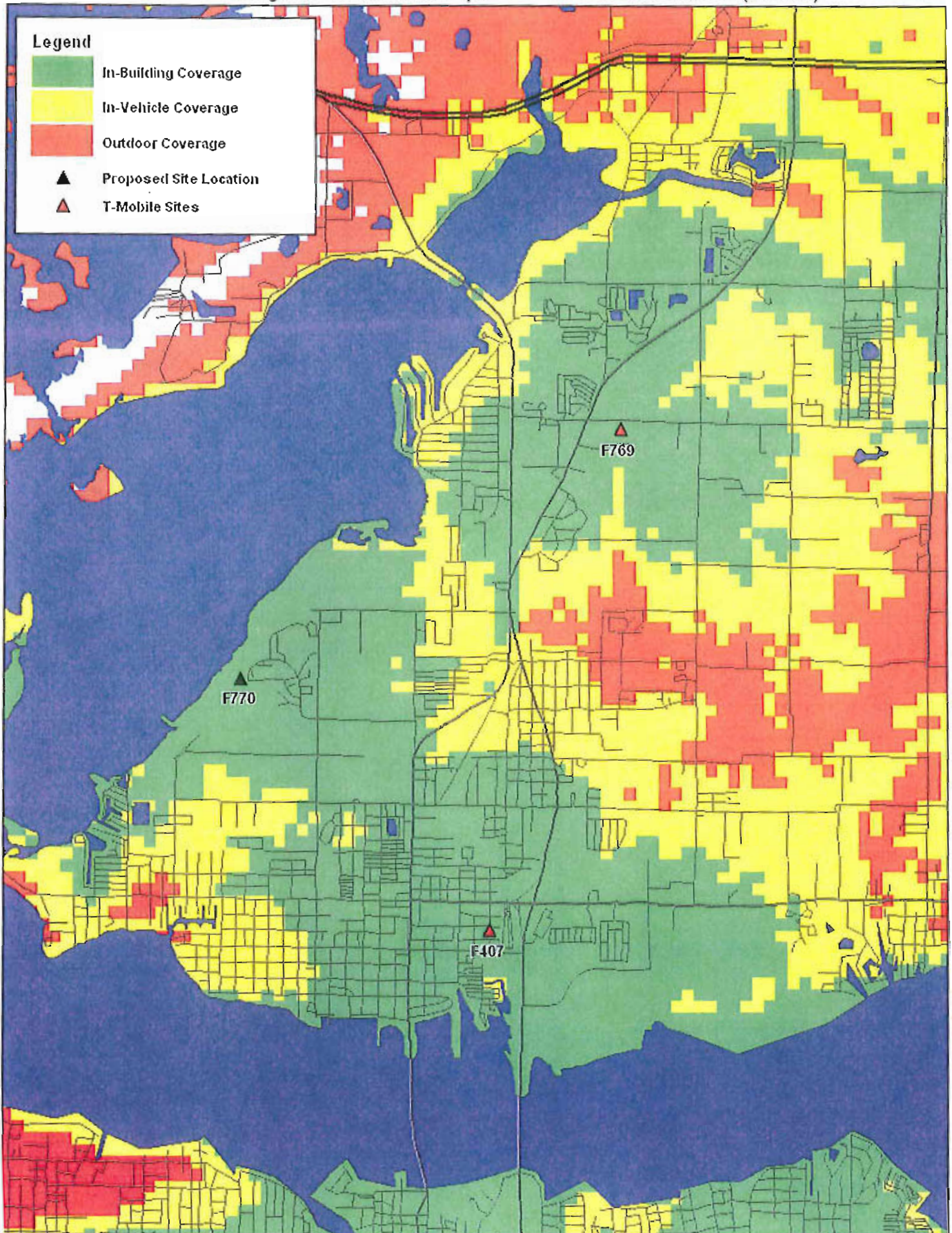
T-Mobile's corporate policy, with respect to radiation emission standards, is to construct radio-transmitting facilities compliant with OET-65 standards. OET-65 is the FCC standard regarding RF emissions. Therefore, the proposed PCS facility, A2F0770-C, will be constructed and deployed in compliance with all FCC guidelines with respect to radio frequency emissions, including OET-65. The FCC has granted a "categorical exclusion from testing" for all PCS 1900 facilities where the antenna centerline (ACL) exceeds 10 meters above ground level and the total power of all channels being used does not exceed 2000 watts ERP, which are both applicable for A2F0770-C.

The below excerpts are taken from the OET-65 standard:

OET at 14-15: Tower-mounted ("non-rooftop") antennas that are used for cellular telephone, PCS, and Specialized Mobile Radio (SMR) operations warrant a somewhat different approach for evaluation. While there is no evidence that typical installations in these services cause ground-level exposures in excess of the MPE limits, construction of these towers has been a topic of ongoing public controversy on environmental grounds, and we believe it necessary to ensure that there is no likelihood of excessive exposures from these antennas. Although we believe there is no need to require routine evaluation of towers where antennas are mounted high above the ground, out of an abundance of caution the FCC requires that tower-mounted installations be evaluated if antennas are mounted lower than 10 meters above ground and the total power of all channels being used is over 1000 watts effective radiated power (ERP), or 2000 W ERP for broadband PCS. These height and power combinations were chosen as thresholds recognizing that a theoretically "worst case" site could use many channels and several thousand watts of power. At such power levels a height of 10 meters above ground is not an unreasonable distance for which an evaluation generally would be advisable. For antennas mounted higher than 10 meters, measurement data for cellular facilities have indicated that ground-level power densities are typically hundreds to thousands of times below the new MPE limits.

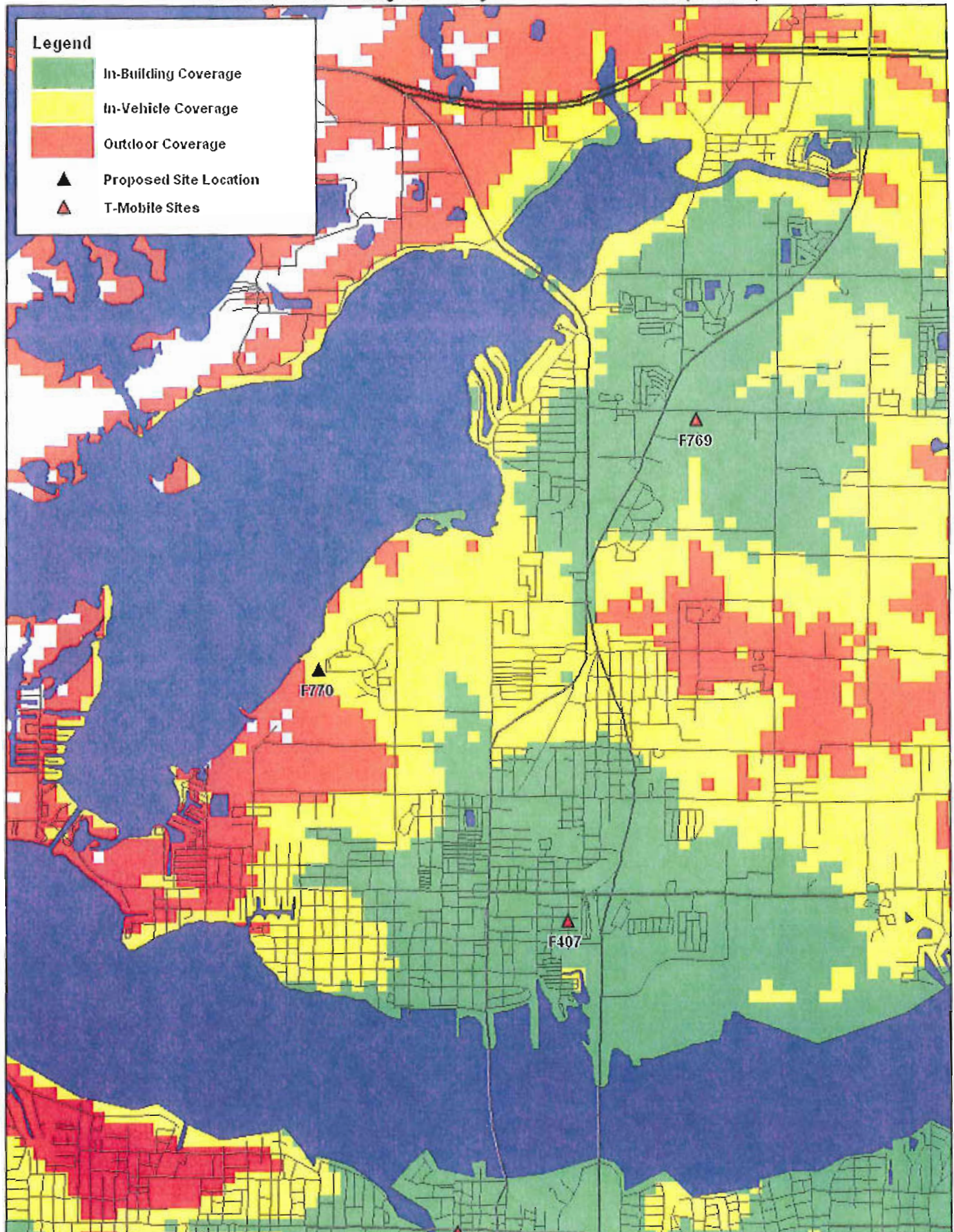


# T-Mobile Coverage Enhancement with Proposed Site West of Blackstone Park (Manatee)

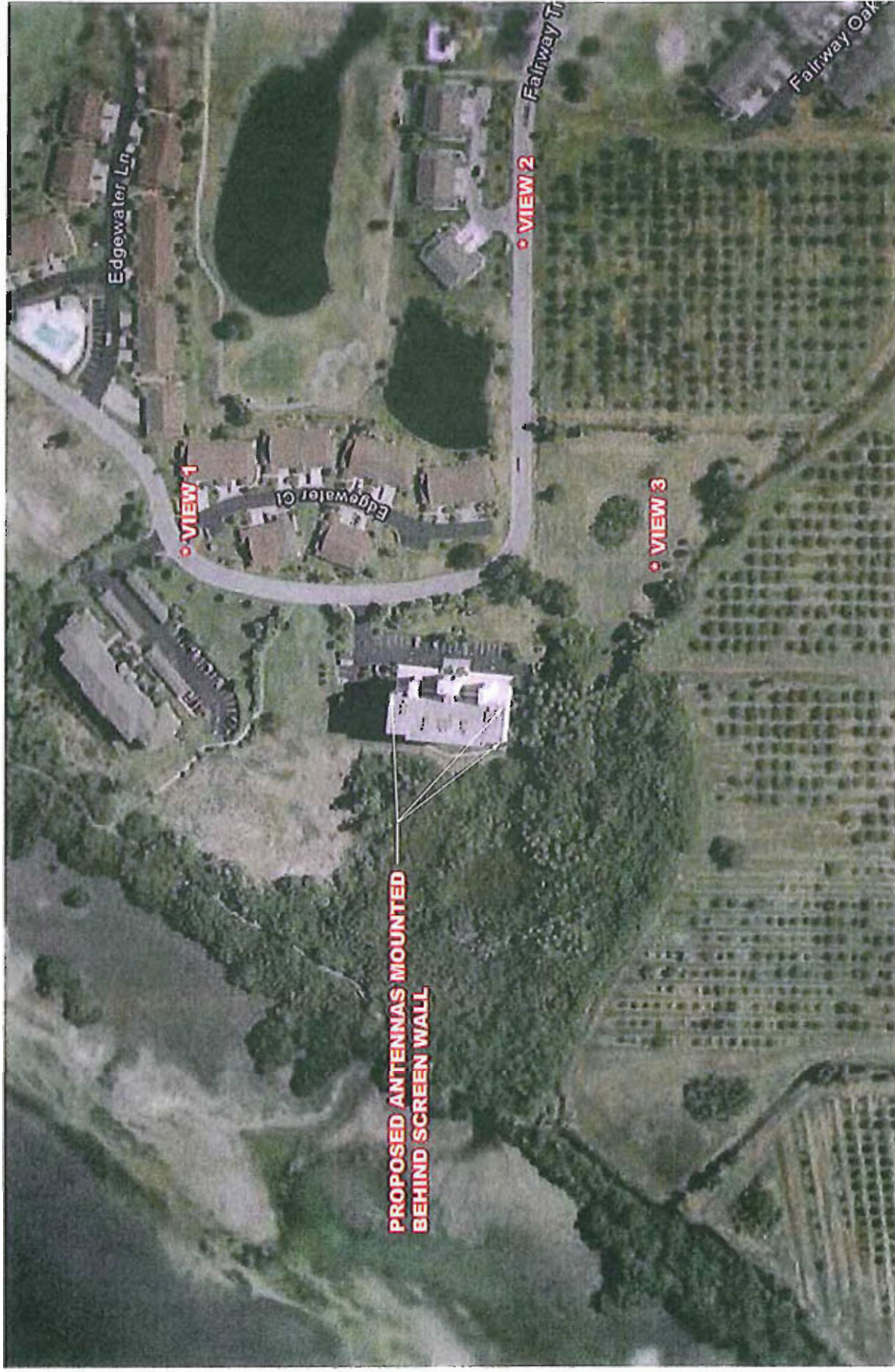




Current T-Mobile Coverage Deficiency West of Blackstone Park (Manatee)







For visual reference only. Actual visibility is dependant upon weather conditions, season, sunlight and viewer location.

**AERIAL VIEW**  
**ESTUARY**  
**A2F0770C**  
**T-MOBILE**

Created By: Mike Murphy





PROPOSED SCREENING TO BE MADE  
WITH RF COMPATIBLE MATERIAL AND  
TEXTURED AND PAINTED TO MATCH  
THE EXISTING BUILDING EXTERIOR

PROPOSED ANTENNAS  
MOUNTED BEHIND  
SCREEN WALL

For visual reference only. Actual visibility is  
dependant upon weather conditions, season,  
sunlight and viewer location.

**VIEW 1**  
**ESTUARY**  
**A2F0770C**  
**T-MOBILE**



**PROPOSED SCREENING TO BE MADE  
WITH RF COMPATIBLE MATERIAL AND  
TEXTURED AND PAINTED TO MATCH  
THE EXISTING BUILDING EXTERIOR**

**PROPOSED ANTENNAS  
MOUNTED BEHIND  
SCREEN WALL**

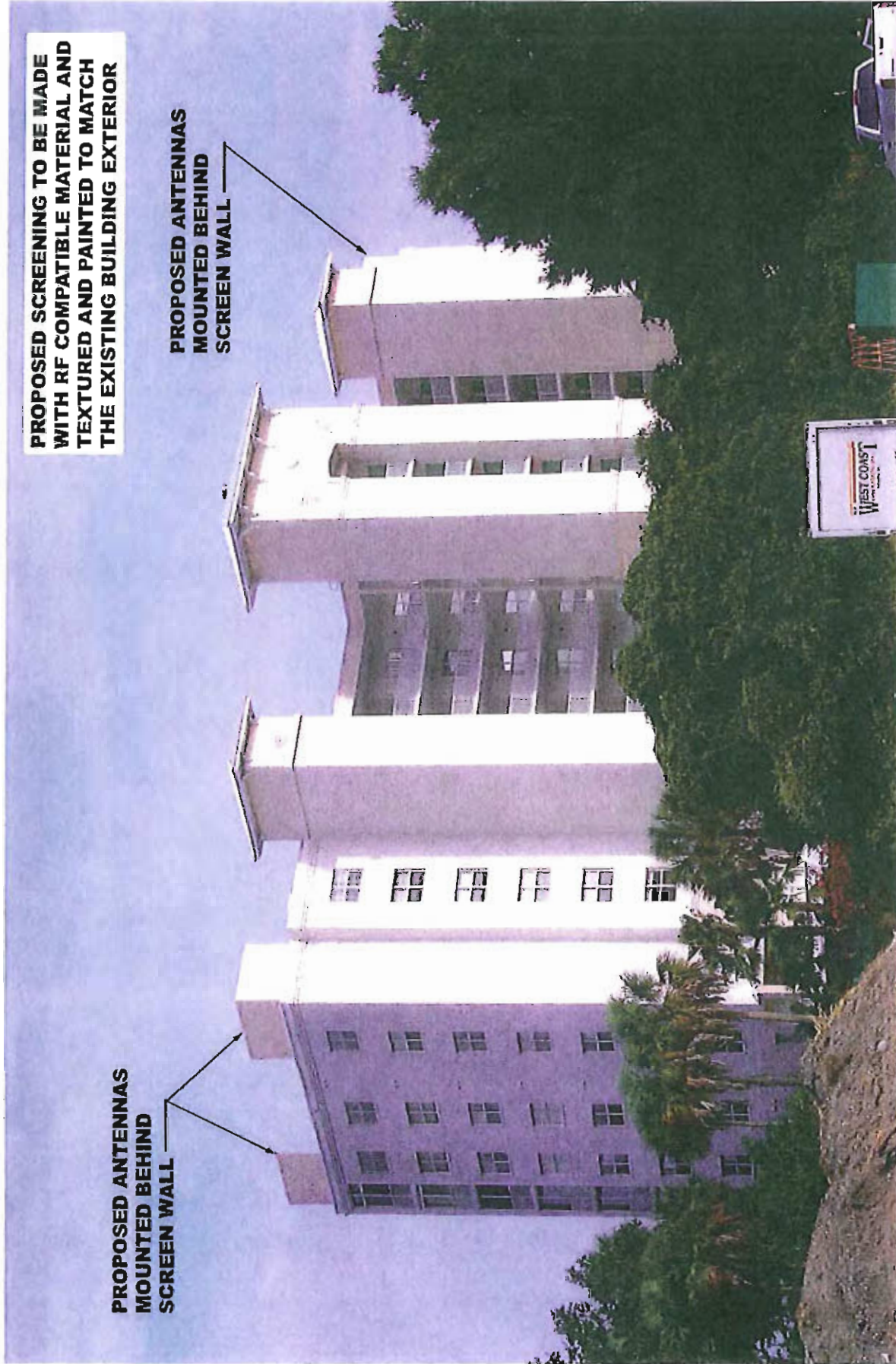
**PROPOSED ANTENNAS  
MOUNTED BEHIND  
SCREEN WALL**

**VIEW 2**

**ESTUARY  
A2F0770C  
T-MOBILE**

For visual reference only. Actual visibility is  
dependant upon weather conditions, season,  
sunlight and viewer location.





**PROPOSED SCREENING TO BE MADE  
WITH RF COMPATIBLE MATERIAL AND  
TEXTURED AND PAINTED TO MATCH  
THE EXISTING BUILDING EXTERIOR**

**PROPOSED ANTENNAS  
MOUNTED BEHIND  
SCREEN WALL**

**PROPOSED ANTENNAS  
MOUNTED BEHIND  
SCREEN WALL**

**VIEW 3**

**ESTUARY  
A2F0770C  
T-MOBILE**

For visual reference only. Actual visibility is  
dependant upon weather conditions, season,  
sunlight and viewer location.



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ENGINEERS • SCIENTISTS • SURVEYORS • CONSTRUCTION MANAGERS

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Landmark Center II, Suite 220 4601 Six Forks Road Raleigh, NC 27609 (919) 783-9214 (919) 783-9266 Fax

22 April, 2008

T-Mobile  
Jolene Ratliff  
3407 W. Dr. Martin Luther King Blvd.  
Tampa, FL 33607

RE: **Structural Evaluation: Estuary Rooftop**  
**KCI JOB: 10070009AM**

Dear Ms. Ratliff:

Pursuant to your request, KCI Technologies, Inc. has completed a structural evaluation of the Estuary rooftop building. T-Mobile is proposing to install communication equipment cabinets on a steel platform and panel antennas concealed by stealth walls connected directly into the existing building parapet walls. They are also adding transmission lines to the existing building rooftop using penetrating roof mounts. KCI utilized a 130 mph wind speed with exposure category 'C' per the 2007 supplements to the 2004 Florida Building Code in the evaluation.

The results of KCI's evaluation indicate that none of the effected components of the structure will exceed the allowable limits based on A.I.S.C, A.C.I and the 2004 Florida Building Code. These results are based on the proposed antennas, transmission lines and platform constructed as shown in the construction documents by KCI, job number 10070009AM.

If you have any questions or need additional information, please do not hesitate to call me at (919) 783-9214.

Sincerely,  


Robert A. Pruett, P.E.  
Associate  
License Number: 59754



CU-08-04

Law Office of  
**LAURALEE G. WESTINE, P.A.**

800 Tarpon Woods Blvd., Ste E-1  
Palm Harbor, Florida 34685

Telephone: (727)773-2221  
Facsimile: (727)773-2616

**SENT VIA HAND DELIVERY**

June 2, 2008

Frank Woodward II, Deputy Director  
City of Palmetto Public Works Department  
600 17<sup>th</sup> Street West  
Palmetto, Florida 34221

Robert M. Schmitt  
City of Palmetto  
600 17<sup>th</sup> Street West  
Palmetto, Florida 34221

RECEIVED

JUN 3 2008

City of Palmetto  
Planning Department

RE: **T-Mobile South, LLC Site Number: F770  
Conditional Use Application for Roof Top Antenna Collocation  
2625 Terra Ceia Bay Blvd, Palmetto, FL 34221**

To Whom It May Concern:

Enclosed herein please find the following documentation supporting my client, T-Mobile South, LLC, (T-Mobile) application for a Conditional Use for Antenna's and related facilities located on the roof top of 2625 Terra Ceia Bay Blvd, Palmetto.

1 original and 5 copies of the following unless otherwise noted:

- Application for Conditional Use
- Agent of Record Letter from The Estuaries II Condominium Association, Inc to Lauralee G. Westine, Esq.
- Agent of Record Letter from T-Mobile South, LLC. to Lauralee G. Westine, Esq.
- Corporate Warranty Deed
- Rooftop Lease with Option between The Estuaries II Condominium Association, Inc and T-Mobile South LLC
- 5 sets of T-Mobile RF Package
- 5 sets of Photosimulations
- Structural Letter from KCI
- List of names and addresses of owners within 300' of parent tract
- 5 sets of Full Size Site Plans
- Title Report (on CD)
- CD of Documents
- 5 Property Appraisal Reports

### Summary of Project

T-Mobile is requesting the approval of a Conditional Use application to construct Antennas, Screened Wall and related equipment cabinets with a platform located on the rooftop of The Estuary Condominium at 2625 Terra Ceia Bay Blvd, Palmetto. The parcel is owned The Estuaries II Condominium Association, Inc by Parcel Number 2412711505. The parent tract is zoned PD-H and consists of 1.6 acres. The surrounding parcels are zoned PD-H.

### Land Development Code Criteria

This application meets the requirements of the City of Palmetto Land Development Code for a Conditional Use as follows:

## **ARTICLE XVII. TELECOMMUNICATIONS TOWERS, ANTENNAE AND FACILITIES REGULATIONS**

### **Sec. 17.1. Purpose.**

The purpose and intent of this article is to provide a uniform and comprehensive set of standards for the development and installation of telecommunications towers, antennae and related facilities. The regulations contained herein are designed to protect and promote public health, safety, community welfare and the aesthetic quality of the city, while at the same time not unduly restricting the development of needed telecommunications facilities and encouraging managed development of telecommunications infrastructure.

**T-Mobile's proposed collocation of antennas on the existing rooftop shall be screened so as to protect the aesthetic quality of the city. The location of the antennas will also provide for wireless users in the area of the proposed site to utilize their mobile phones in the event of an emergency and be located more easily by the E911 system.**

*Building mounted antenna* shall mean any antenna, as defined herein, directly attached or affixed to a building or structure. The building mounted antenna shall not be higher than twenty (20) feet above the roof, unless a conditional use permit is applied for and granted.

**The proposed T-Mobile antennas shall be located less than 10' above the existing height of the roof. The antennas and equipment shall be screening behind a decorative wall which blends into the aesthetics of the existing building. See Photo simulations.**



*Existing structure* shall mean any building or other structure, other than a tower, which can be used for location of wireless telecommunications facilities.

**T-Mobile is proposing to collocate its antennas on the existing structure of The Estuary Condominium located at 2625 Terra Ceia Bay Blvd, Palmetto.**

...

Sec. 17.3. Application procedure.

All applications for a telecommunication facility must contain the following information.

(1) Plot plan which shows all structures and identifies land usage within five hundred (500) feet of the property boundary of the telecommunication facility.

**T-Mobile is proposing to collocate antennas on an existing rooftop which will not affect any existing land use or abutting land use.**

(2) A written report including a description of any tower proposed with technical reasons which supports its design in relation to its proposed site.

**T-Mobile is not proposing a new tower. It is proposing to collocate its antennas on an existing building which meets the engineering needs for its network. See T-Mobile RF package.**

(3) Documentation establishing the structural integrity of the tower or the structure on which the antenna is to be mounted.

**T-Mobile is not proposing a new tower, rather please see KCI Structural Evaluation Letter dated April 22, 2008 stating that the rooftop is structurally capable of supporting the antennas and the associated equipment and screen walls.**

(4) General capacity of the proposed tower design and the information necessary to assure that American National Standards Institute (ANSI) standards are met.

**Please see KCI letter noted above.**

(5) A statement of intent on whether co-location space will be available and information regarding proposed co-locators.

**T-Mobile is merely a collocater on this existing rooftop. The landowner has the ability to lease additional rooftop space if necessary and requested.**

(6) Proof of ownership of the proposed site or proof of authorization to utilize it including copies of any lease agreements.

**See Rooftop Lease with Option.**

(7) A review deposit of two thousand five hundred dollars (\$2,500.00). All work performed by city employees and city consultants directly and reasonably attributable to review of a telecommunication facility application shall be paid by the applicant. Fees will be based upon the hourly rate of pay of each employee performing the work multiplied by the number of hours worked multiplied by thirty-three and seventeen-hundredths (33.17) percent except for the city attorney and consultant review time which will be charged at actual cost to the city. Any balance due over the established deposit amount will be billed. Any amount under the deposit amount will be refunded.

**T-Mobile is not proposing a new tower, rather they are proposing a collocation. This fee is not applicable to collocations.**

(8) Copies of any easements necessary.

**See Rooftop Lease with Option.**

(9) The fiber optic network, if any, utilized by the facility and the names and addresses of the back haul providers.

**Verizon**

(10) All structures shall be designed to meet or exceed the standards established by the Standard Building Code and the city's building code.

**See Page T-1 Structural Note 1.**

(11) Plans must be sealed by a professional engineer registered in the state.

**See Page T-1.**

(12) Copies of all approvals issued by other agencies with jurisdiction including but not limited to FCC and FAA.

**Proof of FCC limitations are outlined in the RF package provided. Rooftop facilities are not required to be filed with the FAA.**

(13) Those telecommunication facilities which are required to obtain a conditional use permit must also comply with the requirements of Article XV of the city's zoning code.

**See supporting documentation submitted and explanation below.**

...



Sec. 17.4. Use regulations.

The following use regulations shall apply to telecommunication facilities:

(1) Telecommunication facilities may be permitted as a conditional use in the public, office, commercial and industrial zoning districts as established in the zoning code; provided, however that building mounted antennae as defined herein are allowed as permitted uses in the public, office, commercial, and industrial zoning districts provided the requirements of this article are met.

**Although it is the intent of the Land Development Code (LDC) that carriers seek to collocate on existing structures prior constructing new towers, this portion of the LDC is silent as to the approval process of rooftop antennas on PD-H parcels. As such, after discussions with staff, T-Mobile is applying for a Condition Use to add antennas, equipment and screening walls to the existing building located at 2625 Terra Ceia Bay Blvd, Palmetto. The LDC allows antennas to be collocated on existing structures as permitted uses so long as the antennas do not exceed the height of the roof by greater than 20'. T-Mobile's proposed antennas will exceed the height of the roof by 10'.**

...

Sec. 17.5. Co-location; availability of suitable existing structures.

No new telecommunication tower shall be permitted unless the applicant demonstrates that no existing tower or structure regardless of whether it is located within the city can accommodate the applicant's proposed antenna. All evidence submitted shall be signed and sealed by appropriate licensed professionals or qualified industry experts. Evidence submitted to demonstrate that no existing tower or structure can accommodate the proposed antenna shall consist of one or more of the following:

- (1) That no existing towers or suitable alternative structures are located within the geographic antenna placement area required to meet the applicant's engineering requirements.
- (2) That existing towers or structures are not of sufficient height to meet the applicant's engineering requirements.
- (3) That existing towers or structures do not have sufficient structural strength to support the applicant's antenna and related equipment.
- (4) That the applicant's proposed antenna(s) would cause electromagnetic interference with the antennae on the existing towers or structures, or the antennae on the existing towers or structures would cause interference with the applicant's proposed antenna.
- (5) That the cost or contractual provisions required by the tower owner to use an existing tower or structure or to adapt an existing tower or structure for shared use are unreasonable. Costs exceeding new tower development are presumed to be unreasonable.

**T-Mobile is proposing to collocate antennas on an existing structure and is not proposing to construct a new telecommunication tower.**

Sec. 17.6. Standards of approval of all telecommunication facilities.

The following standards shall apply to approval of all telecommunication facilities.

(1) The applicant shall demonstrate, using the latest technological evidence, why the antenna or tower must be placed in a proposed location in order to serve its necessary function in the company's grid system. Part of the demonstration shall include a drawing showing the boundaries of the area around the proposed location which would also permit the antenna to function properly in the company's grid system. The area shall be considered the allowable zone. **See T-Mobile RF Package.**

...

(8) Adequate parking shall be required for users of the tower and such maintenance personnel as normal operations require. If the site is not fully automated, the number of required parking spaces shall equal the number of employees working on the largest shift.

**The Estuary has adequate parking for the required maintenance personnel of this proposed unmanned facility.**

(9) The owner of property used as a telecommunication facility shall maintain such property and all structures in good condition and free of trash, outdoor storage, weeds and other debris. **T-Mobile will comply with this provision of the code.**

...

Sec. 17.7. Change of ownership.

Any owner of a telecommunication facility shall be required to notify the city of its intent in writing within thirty (30) days of any transfer, merger or change of ownership. The new owner must fully comply with all provisions of this article and acknowledge in writing acceptance of the conditional use permit.

(Ord. No. 618, § 4, 8-3-98)

**T-Mobile shall comply with this provision of the code.**



Sec. 17.8. Annual report.

The owner of each company operating a telecommunications facility must provide current information on the facility by the first of October each year by filing an annual report and paying a registration fee of five hundred dollars (\$500.00). This annual registration process consists of providing a list of all users of the telecommunications facility with names, addresses and phone numbers of responsible management personnel. Each user shall provide the city with a copy of each user's license with the FCC. Each telecommunication facility must submit annual registration separately. No approval will be granted to any annual report unless proof of current FCC license is provided. All owners of telecommunication facilities must also obtain an occupational license from the city.

**T-Mobile is not proposing to construct a new tower, as such this provision is not applicable.**

...

Sec. 17.9. Aesthetics.

The provision of this section shall govern the design and construction of all telecommunication towers, and the installation of all antennae, governed by this article.

(1) Towers and/or antennae shall either maintain a galvanized steel or concrete finish or, subject to any applicable standards of the FAA, be painted a neutral color so as to reduce visual obtrusiveness.

**T-Mobile is proposing rooftop antennas that shall be located behind a screen wall which shall blend with the existing building. See Page A-1 and Photo simulations.**

(2) The design of all telecommunication equipment buildings, towers, and related structures shall use materials, colors, textures, screening, and landscaping that will blend the tower facilities to the natural setting and building environment.

**See submitted site plans and Photo simulations.**

(3) For antennae installed on a structure other than a tower, the antenna and supporting electrical and mechanical ground equipment shall be of a neutral color so as to make the antenna and related equipment visually unobtrusive.

**T-Mobile is proposing the antennas and related equipment be located behind a screen wall which will blend with the existing building. See Page A-1 and Photo simulations.**

(4) Towers shall not be artificially lighted, unless required by the FAA or other applicable authority. If lighting is required, the governing authority may review the available lighting alternatives and approve the design that would cause the least disturbance to the surrounding views.

**NA. T-Mobile is not proposing a new tower, rather a rooftop antenna collocation.**

(5) No signage or other identifying markings of a commercial nature shall be permitted upon any tower or antennae within the city.

**T-Mobile will comply with this provision of the code.**

...

Sec. 17.10. Setbacks and separation.

The following setbacks and separation requirements shall apply to all telecommunication towers and facilities.

...

(4) Antennae which are mounted on existing structures (i.e. water towers or other tall structures) must meet the minimum setback requirements for the district in which the structure is located.

**T-Mobile is located on the existing rooftop and will not change the existing setbacks established.**

...

Sec. 17.14. Building codes--Safety standards.

To ensure the structural integrity of towers and antennae, the owner of a tower or antennae shall ensure that it is maintained in compliance with standards contained in applicable local building codes and the applicable standards for towers and antennae that are published by the Electronic Industries Association, as amended from time to time. If a tower or antennae fails to comply with all applicable codes and standards, or constitutes a danger to persons or property, then upon receipt of written notice the owner, of the telecommunications facility, shall have fifteen (15) days to bring the facility into compliance with such standards. If the owner, fails to bring the facility into compliance within the fifteen (15) days, the city may remove the facility at the owner's expense. Prior to the removal of any facility, the city may consider detailed plans submitted by the owner, for repair of substandard facilities, and may grant a reasonable extension as determined by the city council of the above referenced compliance period. A lien may be placed on the property to recover said costs.

**See KCI Structural Evaluation Letter dated April 22, 2008.**

...



Sec. 17.15. Abandonment of towers, antennae and facilities.

(1) Any owner of a telecommunication facility shall notify the city of its intent in writing of any cessation of business or discontinued use and the date such use will cease. If at any time the use of the facility is discontinued for ninety (90) days, the city may declare the facility abandoned.

(This excludes any dormancy period between construction and the initial use of the facility.)

"Discontinued" shall mean that the structure has not been properly maintained, has been abandoned, become obsolete, is unused or has ceased the daily activities or operations for which it is permitted. The facility's owner will receive written notice from the city, and be instructed to either re-activate the facility's use within thirty (30) days or dismantle and remove the facility. If reactivation or dismantling does not occur, the city shall schedule a public hearing to determine the action to be taken.

(2) After such hearing has been provided, the city shall have the authority to initiate proceedings to either acquire the facility and any appurtenances attached thereto at the then fair market value, or in the alternative, order the removal of the facility and all appurtenances, at owner's expense. A lien may be placed on the property to recover said costs.

(3) No telecommunications tower shall be constructed, replaced or altered without obtaining the applicable building permits.

**T-Mobile shall comply with this provision of the code.**

Sec. 17.16. Conditions of permit issuance.

The applicant shall:

(1) Maintain public liability and property damage insurance that protects the applicant and the city; naming the city and the city's officers and agents and employees as an additional insured. The insurance shall provide uninterrupted coverage of not less than five million dollars (\$5,000,000.00) for personal injury to each person and five million dollars (\$5,000,000.00) for each occurrence involving property damage, plus costs of defense. The policy shall provide that the insurance shall not be canceled or materially altered without thirty (30) days written notice first being given to the city.

(2) Maintain on file with city a certificate of the insurance required by section (1) above.

Failure to maintain insurance coverage or to provide proof of insurance shall constitute a violation of this article and grounds for fines and/or revocation of the conditional use permit.

(3) Provide specific performance bond from a company authorized to do business in Florida to the city as guarantee of fulfillment of the owner's obligation to remove the telecommunication tower and facilities upon its abandonment or discontinuation of use. The amount of the bond shall be equal to the removal and disposal cost as certified by a cost estimate submitted by an engineer approved by the city. Failure to maintain such bond or to show proof of such bond upon request of the city shall constitute a violation of this article and shall be grounds for revocation of the conditional use permit. The performance bond may be invoked in accordance with the procedures set forth therein by the city upon a determination by the city council that the tower has been abandoned and that the owner has failed to remove it as required by this article.

(4) Provide a copy FCC's permits or a copy of documents showing the applicant has applied for a permit from the FCC showing their status as a telecommunications provider and/or carrier doing business as either a wireless, PCS or other telecommunications provider. The actual permit must be provided prior to a issuance of a certificate of occupancy by the city.

(5) A copy of the finding from the FAA's aeronautical study determination regarding the proposed telecommunication tower siting.

**The aforementioned provisions are not applicable in that T-Mobile is proposing a rooftop collocation and not a new telecommunication tower.**

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## **ARTICLE XV. CONDITIONAL USES\***

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### **Sec. 15.3. Standards and procedures.**

A. *Site plan:* The site plan requirements shall be the same as required by the Subdivision Ordinance. **Please see submitted site plan.**

B. *General regulations:* Parking, sign or other applicable requirements as provided by the Code of Ordinances of the City of Palmetto.

**NA to T-Mobile's proposed rooftop collocation application.**

### **Sec. 15.4. Special permits.**

A. *Purpose and intent:* This section is established to provide for the granting of special permits where allowed under the provisions of this ordinance. For the purposes of this ordinance, the term "special permit" means a special exception and "special exception" means a use that would not be appropriate generally or without restriction throughout the particular zoning district in which it is allowed, but which, if controlled as to number, area, location, relation to the neighborhood, mode of operation, size, design, establishment, construction, appearance, or similar matters, would promote the public health, safety, comfort, order, appearance, convenience, morals, prosperity, or general welfare.

...



C. *Standards:* The following standards shall apply to all applications for specific permit approval.

a. *Purpose and intent; The Comprehensive Plan:* The proposal shall be consistent with the stated purpose and intent of the applicable district regulations and this ordinance, and consistent with the Comprehensive Plan.

**The proposed rooftop collocation is consistent with the Comprehensive Plan in that the additional antennas shall provide residents the ability to use wireless communications in the event of an emergency. The proposed addition of the antennas shall not affect the aesthetics of the building in that the antennas are screened and shall blend into the existing architecture. The proposed antennas shall be located 10' lower than permitted by the land development code.**

b. *Applicable district regulations:* The proposal shall comply, where applicable, to the regulations of the zoning district in which the proposed use is most commonly permitted.

**See above.**

c. *Compatibility:* The proposal shall be compatible with surrounding land uses and the general character of the area, considering, without limitation, such factors as traffic, noise, drainage, dust, lighting, appearance, and effect on property values.

**T-Mobiles antennas and equipment will be located on an existing rooftop behind a screen wall which will be designed to blend to match the existing building which will be compatible with the general character of the area and appearance. The proposed collocation will not add any unnecessary traffic, noise, drainage, dust or lighting. Furthermore, the additional of the antennas shall have no adverse property values. See photo simulations and property appraisal reports.**

d. *Environment:* The site shall be environmentally suitable for the proposed use and such use shall not have a substantially adverse impact on the natural environment. Soils, drainage, flood hazards, wildlife, and air and water quality shall be among the factors considered in this regard.

**T-Mobile's proposed rooftop attachment to an existing building will have no adverse environmental impact.**

e. *Orderly development:* The proposal shall be consistent with providing for efficient and orderly development, considering, without limitation, such factors as provision of public facilities and services, growth patterns, and energy conservation.

**T-Mobile will be able to provide wireless phone service to the surrounding area and enhanced E911. See T-Mobile RF Package. The proposed rooftop collocation is encouraged as an alternative to a new telecommunication tower in the land development code provisions.**

f. *Public facilities and services:* Necessary public facilities and services, such as sanitation, water, drainage, emergency services, education, recreation, and similar facilities and services shall be adequate to serve the proposed use.

**This proposed collocation will not require any additional public facilities or services.**

g. *Traffic:* The proposal shall not create hazardous vehicular or pedestrian traffic conditions nor result in traffic exceeding the capacity of streets and intersections serving the use.

**T-Mobile is proposing an unmanned facility and will only require normal maintenance visits.**

h. *Screening and buffering:* The proposal shall include screening and buffering as necessary to minimize adverse impacts on surrounding land uses.

**T-Mobile's proposal of locating on an existing rooftop behind a screen wall will have no adverse impacts on the surrounding land uses.**

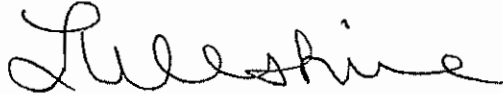
i. *Signs, lighting:* Signs and outdoor lighting which may be involved in the proposal shall be designed to ensure that the use harmoniously fits into its surroundings.

**This site will not be required to be lit and will have no commercial signage.**

...

In the event that I am able to provide you with additional information or answer any questions that the public may have regarding this application, please not hesitate to contact me or provide my contact information to anyone with questions or concerns.

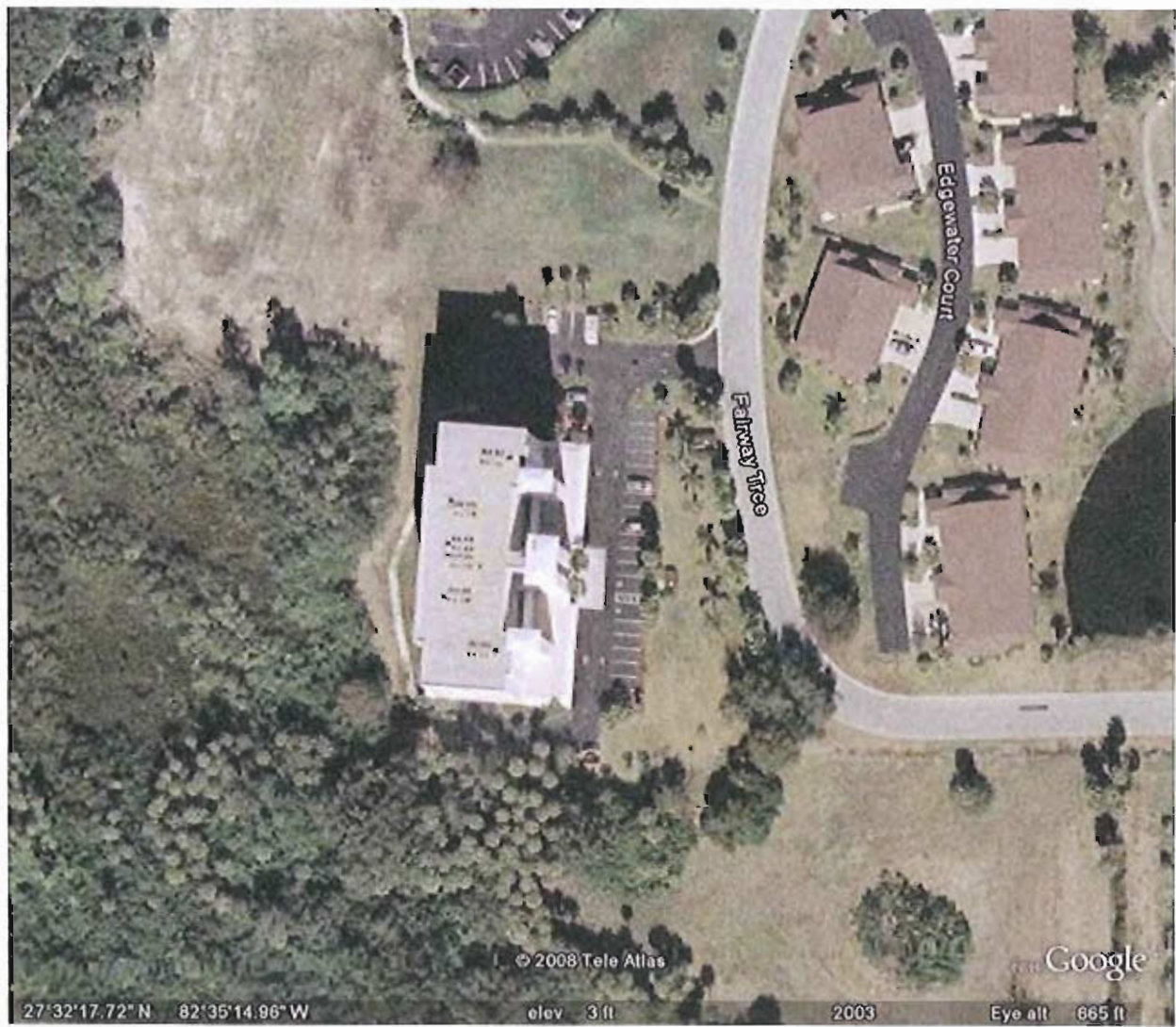
Sincerely,

A handwritten signature in black ink, appearing to read "Lauralee G. Westine". The signature is fluid and cursive, with the first name being the most prominent.

Lauralee G. Westine, Esq.

enclosures





**T-Mobile Tower @ the Estuaries II**

# T-Mobile

3407 W. DR. MARTIN LUTHER KING BLVD  
TAMPA, FL 33607

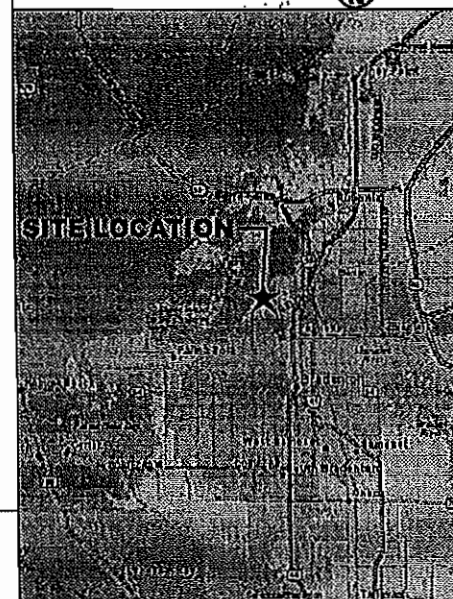
A2F770-C  
ESTUARY

2625 TERRA CEIA BAY BLVD  
PALMETTO, FLORIDA 34221  
PROPOSED COMMUNICATION FACILITY  
CO-LOCATE ON EXISTING ROOF TOP

LATITUDE: N 27°32'16.85" (NAD 83) (+15°)  
LONGITUDE: W 082°35'15.87" (NAD 83)(+15°)

BUILDING OWNER:  
ESTUARIES II CONDOMINIUM ASSOCIATION  
OO HOLMES BEACH PROPERTY MGMT  
PO BOX 1807  
HOLMES BEACH, FL

VICINITY MAP



LOCATION MAP



## GENERAL NOTES

- ALL REFERENCES TO OWNER HEREIN SHALL BE CONSTRUED TO MEAN T-MOBILE, INC. OR ITS DESIGNATED REPRESENTATIVE.
- ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE AND/OR COUNTY IN WHICH IT IS TO BE PERFORMED.
- UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
- ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERCEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
- ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND THE TESTING AGENCY PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES.
- ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTIMATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST EDITION OF THE LOCAL BUILDING CODE.
- ALL PROPOSED CELLULAR EQUIPMENT AND FIXTURES SHALL BE FURNISHED BY OWNER FOR INSTALLATION BY THE CONTRACTOR, UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN.
- ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
- RADIO EQUIPMENT INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

## SITE DATA

POWER: FPL  
PHONE: VERIZON  
CARRIER: FPL  
PARCEL NO.: 84111004  
JURISDICTION: CITY OF PALMETTO

## STRUCTURAL NOTES

- DESIGN REQUIREMENTS PER FLORIDA BUILDING CODE (2004 EDITION W/ 2005 & 2006 SUPPLEMENTS) AND THE EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES, FLORIDA BUILDING CODE WINDSPEED IS 130 MPH, 3 SECOND GUST. APPROXIMATE COMMUNICATION EQUIPMENT WEIGHT IS 5000#. APPROXIMATE DEAD LOAD IS 6500#. EXPOSURE FACTOR FROM THE FL BUILDING CODE 2004 - 1.15 EXPOSURE CATEGORY FROM THE FL BUILDING CODE 2004 - C.
- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN INCLUDING THE COMMENTARY AND THE AISC CODE OF STANDARD PRACTICE.
- STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A572 GRADE 50. ALL STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B. ALL STRUCTURAL STEEL COMPONENTS AND FABRICATED ASSEMBLIES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
- WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) D1.1-88. STRUCTURAL WELDING CODE-STEEL WELD ELECTRODES SHALL BE E70XX.
- ALL COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE AS SPECIFIED BY THE OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL FURNISH ALL CONNECTION HARDWARE REQUIRED TO SECURE THE CABLES. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.
- NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY NORTH AND REPORT TO THE OWNER OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.
- HOLDS SHALL NOT BE CUT THRU BEAMS UNLESS INDICATED OR APPROVED BY THE ENGINEER.
- UNLESS OTHERWISE NOTED, ALL FIELD CONNECTIONS SHALL BE MADE WITH 1/4" DIA. MIN. GALVANIZED BOLTS (ASTM A-325). CONNECTIONS SHALL BE DESIGNED AS BEARING TYPE WITH THREADS IN THE SHEAR PLANE.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING DIMENSIONS FOR THE JOB PRIOR TO THE PREPARATION OF SHOP DRAWINGS. IF CONDITIONS DIFFER FROM THOSE INDICATED ON THE DRAWING, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- ALL STEEL GALVANIZED GRATING TO BE WELDFORMED WELDED RECTANGULAR DESIGN, TYPE WB, AS MANUFACTURED BY KQ INDUSTRIES, OR APPROVED EQUAL. MAIN BEARING BARS TO BE 1/2" x 3/4" x 12" SPACED 12" CENTER-TO-CENTER CROSS BARS TO BE 1/2" x 3/4" x 12" SPACED 12" CENTER-TO-CENTER. ALL BEARING BARS SHALL BE SPACED 4" CENTER-TO-CENTER, NO NOTCHING OR CUTTING OR BEARING BARS BEFORE WELDING IS PERMITTED.
- THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE LATEST AISC SPECIFICATIONS.
- ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATIONS.
- HOT-DIP GALVANIZED ITEMS SPECIFIED TO BE ZINC-COATED, AFTER FABRICATION WHEN PRACTICAL. GALVANIZING ASTM A 123, ASTM A 153/A 153M OR ASTM A 653/A 653M, G90, AS APPLICABLE.
- REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PART CONFORMING TO ASTM A 780 OR BY APPLICATION OF STICK OR PASTE MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED, AND REMOVE SLAG FROM WELDS, HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS. IN STICK OR PASTE, SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND Wipe OFF EXCESS MATERIAL.
- CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S INSTRUCTIONS/ SPECIFICATIONS IF NO INFORMATION IS CONTAINED IN THESE PLANS OR IF THE MANUFACTURER'S SPECIFICATIONS ARE STRICTER.

## SYMBOLS

THIS SHEET NO. 1  
DETAIL NO. 1  
SHEET NO. 1  
DETAIL NO. 1  
LOCATED ON 2  
REVISION NUMBER

## UTILITIES

- CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. LOCATION OF EXISTING SEWER, WATER LINES, GAS LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATELY CORRECT. CONTRACTOR ASSUMES SOLE RESPONSIBILITY FOR VERIFYING LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES (INCLUDING TEST FITS BY HAND IF NECESSARY) IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, OR IF THERE APPEARS TO BE A CONFLICT. FOR ASSISTANCE IN LOCATING EXISTING UTILITIES CALL "NO CUTS", 1-800-432-4770.
- CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY OWNERS AND CONSTRUCTION MANAGER.
- DAMAGE BY THE CONTRACTOR TO UTILITIES OR PROPERTY OF OTHERS, INCLUDING EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE CONSTRUCTION CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CLIENT. FOR GRASSED AREAS SEED AND MULCH SHALL BE ACCEPTABLE.
- THE CONTRACTOR SHALL COORDINATE WITH THE OWNER THE REQUIREMENTS FOR AND LIMITS OF OVERHEAD AND/OR UNDERGROUND ELECTRICAL SERVICE.
- THE CONTRACTOR SHALL COORDINATE THE LOCATION OF NEW UNDERGROUND TELEPHONE SERVICE WITH THE TELEPHONE UTILITY AND THE OWNER'S REQUIREMENTS.
- ALL UNDERGROUND UTILITIES SHALL BE INSTALLED AND TESTED SATISFACTORY PRIOR TO COMMENCING ANY PAVING OPERATIONS WHERE SUCH UTILITIES ARE WITHIN THE LIMITS OF PAVEMENT.

## PERMITS

- CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES.
- ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
- ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND THE AC308-95, "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
- THE CONTRACTOR SHALL NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- THE CONTRACTOR SHALL REMOVED (DRY, SCARFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. IF THE MATERIAL, AFTER REMOVING, REMAINS UNSUITABLE THEN THE CONTRACTOR SHALL UNDERCUT THE MATERIAL AND REPLACE WITH APPROVED MATERIAL AT HIS EXPENSE. ALL SUBGRADES SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REMOVED OR REPLACED.
- THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE.
- ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTIONS.

## DEMOLITION NOTES

- MAINTAIN AT ALL TIMES A SAFE AND CLEAR MEANS OF EGRESS TO AND FROM THE OCCUPIED AREAS OF THE BUILDING FOR PUBLIC WORK.
- THE AMOUNT OF DUST RESULTING FROM CUTTING AND JOINING SHALL BE CONTROLLED TO PREVENT THE SPREAD OF DUST TO OCCUPIED PORTIONS OF THE BUILDING AND TO AVOID THE CREATION OF A NUISANCE IN THE SURROUNDING AREAS. PROVIDE DROP CLOTHS OR OTHER SUITABLE BARRIERS TO PREVENT DUST FROM TRAVELING TO OTHER PORTIONS OF THE BUILDING.
- WHERE PENETRATIONS ARE MADE FROM THE NEW CONSTRUCTION THRU AND INTO THE EXISTING SPACE, THE JOINTERY SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT THE FLOOR, WALL, AND CEILING PLANES ARE NEAT AND FLUSH. THE NEW JOINTERY SHALL EXTEND INTO THE EXISTING SPACE SO THAT THE NEW FINISHES TERMINATE AT CORNERS OR OTHER APPROPRIATE JUNCTURES IN PLACE.
- AS-BUILT CONDITIONS MUST BE VERIFIED BY THE GENERAL CONTRACTOR.

## ROOF NOTES

- TEMPORARY ROOF PROTECTION - PROVIDE TEMPORARY PROTECTION USING 1/2" STYROFOAM PADDING AGAINST THE ROOFING MATERIAL WITH 1/4" PLYWOOD BETWEEN THE PADDING AND ANY EQUIPMENT, MATERIALS AND TOOLS STORED ON THE ROOF. THE ROOF AROUND WORKING AREAS SHALL ALSO BE TEMPORARILY PROTECTED AS WELL AS THE PATHS BETWEEN THE WORK AREA AND ROOF ENTRY DOORS. THE METHOD OF PROTECTION SHALL ALSO COMPLY WITH ANY ROOF WARRANTY THAT MAY BE IN EFFECT. IF PENETRATING SUBSTANCES SUCH AS ACIDS, CHEMICALS, OR TOOLS ARE TO BE USED DURING CONSTRUCTION, PROVIDE ADDITIONAL PROTECTION TO PREVENT ROOF DAMAGE.
- EXISTING ROOF CONDITION - PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL RECORD THE CONDITION OF THE ROOF BY PHOTOGRAPHING ALL AREAS THAT WILL BE AFFECTED. AT HIS DISCRETION THE CONTRACTOR MAY PHOTOGRAPH ANY OTHER STRUCTURES WITHIN PROXIMITY TO WORK AREAS, IN ORDER TO RECORD THEIR CONDITION ALSO. THESE PHOTOGRAPHS SHALL BE ASSEMBLED IN A NOTEBOOK IDENTIFYING EACH PHOTOGRAPH WITH LOCATION AND OBJECT PICTURED. A SUMMARY OF THE INSPECTION OF THE ROOF STATING ITS CONDITION SHALL ACCOMPANY THE PHOTOS AND SHALL BE PROVIDED TO THE CLIENT PRIOR TO COMMENCING THE WORK. IF THE CONDITION OF THE ROOF IS IN A POOR STATE, THE CONTRACTOR SHALL NOTIFY THE CLIENT IMMEDIATELY. A MEETING WILL BE ARRANGED TO ENSURE WORK WILL PROCEED WITHOUT DISPUTE OF ROOF RESTORATION RESPONSIBILITY.
- WATER PROTECTION - THE CONTRACTOR SHALL PROVIDE PROTECTION FROM WATER PENETRATION DURING THE INSTALLATION OF ROOF PENETRATING SUPPORT SYSTEMS OR ANY OTHER ROOF PENETRATING PROCEDURE. METHODS OF PROTECTION SHALL COMPLY WITH ANY ROOF WARRANTY IN EFFECT.
- FIRE PROTECTION - COMPLY WITH OSHA STANDARDS THROUGHOUT THE PROJECT. THE OPERATING TOOLS THAT PRODUCE SPARKS, FLAME OR HEAT, THE CONTRACTOR WILL DESIGNATE AN INDIVIDUAL TO STAND-BY THE INDIVIDUAL OPERATING THE TOOL WITH A 20 LB. ABC FIRE EXTINGUISHER WITH ITS PIN REMOVED AND READY TO USE IN CASE OF A FIRE. THE CONTRACTOR SHALL PROVIDE AT ALL TIMES ONE PROPERLY CHARGED 20 LB. ABC FIRE EXTINGUISHER WITHIN CLOSE PROXIMITY TO THE WORK AREA. THE FIRE EXTINGUISHER SHALL HAVE BEEN INSPECTED WITHIN THE PAST YEAR. IT SHALL BE KEPT IN A CONSPICUOUS LOCATION AND EASILY ACCESSIBLE. PATHS TO THE FIRE EXTINGUISHER AND OTHER FIRE FIGHTING EQUIPMENT SHALL BE KEPT CLEAR.
- RESTATEMENT - ANY ROOFING, PAVEMENT, FOOTPATH, CURB, GUTTERS, WALLS, FLOORS, SERVICES, AND EXISTING FEATURES OR OTHER PROPERTIES DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REINSTATED BY THE CONTRACTOR TO A CONDITION AT LEAST EQUAL TO THAT EXISTING BEFORE COMMENCEMENT OF OPERATIONS AT NO COST TO THE OWNER OR THE CLIENT.
- REPAIRS - THE CONTRACTOR SHALL USE THE EXISTING ROOFING WARRANTY CONTRACTOR TO REPAIR HOLES, DAMAGES, AND ALTERATIONS TO THE ROOF. IF EXCESSIVE COSTS ARE ASSOCIATED WITH THIS ROOFING CONTRACTOR, THE CONTRACTOR SHALL NOTIFY THE CLIENT OF THE SITUATION AND AGREE UPON AN ALTERNATE ROOFING CONTRACTOR TO PERFORM THE WORK.
- REFERENCES - PERFORM WORK IN ACCORDANCE WITH THE NATIONAL ROOFING AND WATERPROOFING MANUAL.
- APPLICATION - APPLY MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- CONTRACTOR SHALL REMOVE ONLY THE AMOUNT OF ROOFING AND INSULATION REQUIRED TO PERFORM THE WORK. AFTER THE COMPLETION OF WORK, REPLACE THE DEMOLISHED INSULATION WITH A COMPARABLE INSULATION, PROVIDING A TIGHT JOINT ALL AROUND. FLASH IN NEW BUILT-UP ROOFING TO THE EXISTING BUILT-UP ROOFING AS RECOMMENDED BY THE ROOFING MANUFACTURER TO PROVIDE A WATER-TIGHT ROOF.
- CONTRACTOR'S BASE BID SHALL ASSUME ASBESTOS-FREE MATERIALS. IF THE CONTRACTOR SUSPECTS THAT ASBESTOS MATERIALS DO EXIST, THE CONTRACTOR SHALL CONTACT THE OWNER FOR INSTRUCTIONS ON HOW TO PROCEED.
- CONTRACTOR TO X-RAY ROOF BEFORE ANY CONCRETE PENETRATIONS ARE MADE.

## NEW CONSTRUCTION NOTES

- REPAIR/SEAL ALL EXISTING DRAINAGE CONVEYANCES LOCATED WITHIN THE NEW CONSTRUCTION AREA.
- CONTRACTOR MUST VERIFY LOCATIONS OF EXISTING CONSTRUCTION LOCATIONS OF STRUCTURAL MEMBERS SHOWN ON ROOF PLANS HAVE BEEN TAKEN FROM ORIGINAL ARCHITECTURAL DESIGN DRAWINGS AND SHALL BE VERIFIED BY THE CONTRACTOR.

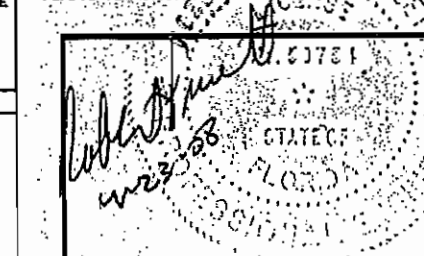
## T-MOBILE SCOPE OF WORK

- CONTRACTOR WILL PROVIDE AND INSTALL THE 90° - TRANSITION BOX AND THE FLEX CONDUIT (1/2" POWER, 1" TELCO) BETWEEN THE SIDE OF THE SLAB/PLATFORM AND THE PURCELL CABINET.
- CONTRACTOR WILL WIRE THE POWER SIDE OF THE PURCELL CABINET AS PART OF THE ELECTRICAL INSTALLATION AND PROVIDE A PULL STRING INTO THE PURCELL CABINET FOR THE TELCO.
- CONTRACTOR INSTALLERS MUST HAVE A CURRENT EUPEN CERTIFICATION AND HAVE PROOF OF SUCH ON THE JOB SITE.
- CONTRACTOR WILL PRE-TAPE ALL CONNECTORS WITH 1/2" TAPE IMMEDIATELY UPON INSTALLATION.
- CONTRACTOR WILL SET ANTENNA AZIMUTH USING AN ALIGNMENT DEVICE ACCURATE TO 0.1°.
- CONTRACTOR WILL PROVIDE 48 HOURS NOTICE TO SCHEDULE THE SWEEP AND QA TEAM.
- CONTRACTOR WILL PROVIDE A COMPETENT CREW ON SITE DURING THE SWEEP AND QA.
- SWEEP AND QA TEAMS WILL ONLY TEST AND INSPECT. THE CONTRACTOR WILL DO ANY AND ALL REPAIR/REPLACEMENT.
- SWEEP AND QA TEAM WILL PROVIDE WRITTEN DOCUMENTATION TO THE CONTRACTOR OF ANY DISCREPANCIES AT THE TIME OF INSPECTION.
- CONTRACTOR WILL WEATHERPROOF ALL CONNECTORS WITH 1/2" TAPE, BUTYL AND A FINAL LAYER OF 2" TAPE UPON COMPLETION AND ACCEPTANCE OF THE SWEEP.
- THE GENERAL CONTRACTOR AND HIS SUBCONSULTANTS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK.

## SHEET INDEX

DRAWING SHEET NO.	TITLE
T-1	TITLE SHEET
A-1	ROOFTOP PLAN
A-2	BUILDING ELEVATION
S-1	FRAMING PLAN AND DETAILS
S-2	SECTION & DETAILS
S-3	STRUCTURAL DETAILS
E-1	ELECTRICAL NOTES
E-2	POWER AND TELCO PLAN
E-3	GROUNDING PLAN
E-4	ELECTRICAL DETAILS

KCI TECHNOLOGIES, INC.  
10401 HIGHLAND MANOR DRIVE  
SUITE 120  
TAMPA, FL 33610  
STRUCTURAL: ROBERT PRUETT, P.E.  
FL LICENSE NO. 59784  
ELECTRICAL: LUIS G. VARGAS, J.R., P.E.  
FL LICENSE NO. 42139



NO.	DATE	DESCRIPTION
1	10/12/07	CONCEPTUAL PLANS ISSUED FOR QA REVIEW
2	02/05/08	PRELIM CONCEPT PLANS ISSUED FOR QA REVIEW
3	04/21/08	FINAL CONSTRUCTION PLANS ISSUED
4		

DRAWN BY: D. REVELS  
CHECKED BY: J. FENNEL  
APPROVED BY: B. PRUETT

KCI TECHNOLOGIES, INC.  
10401 HIGHLAND MANOR DRIVE  
SUITE 120  
TAMPA, FL 33610  
(813) 740-2300

T-Mobile  
A2F770-C  
ESTUARY

ENGINEER:  
ROBERT PRUETT, PE  
FL LICENSE NO. 59784

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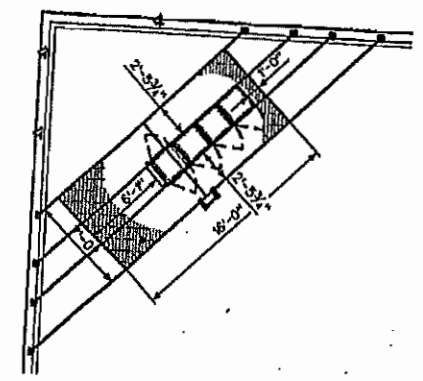
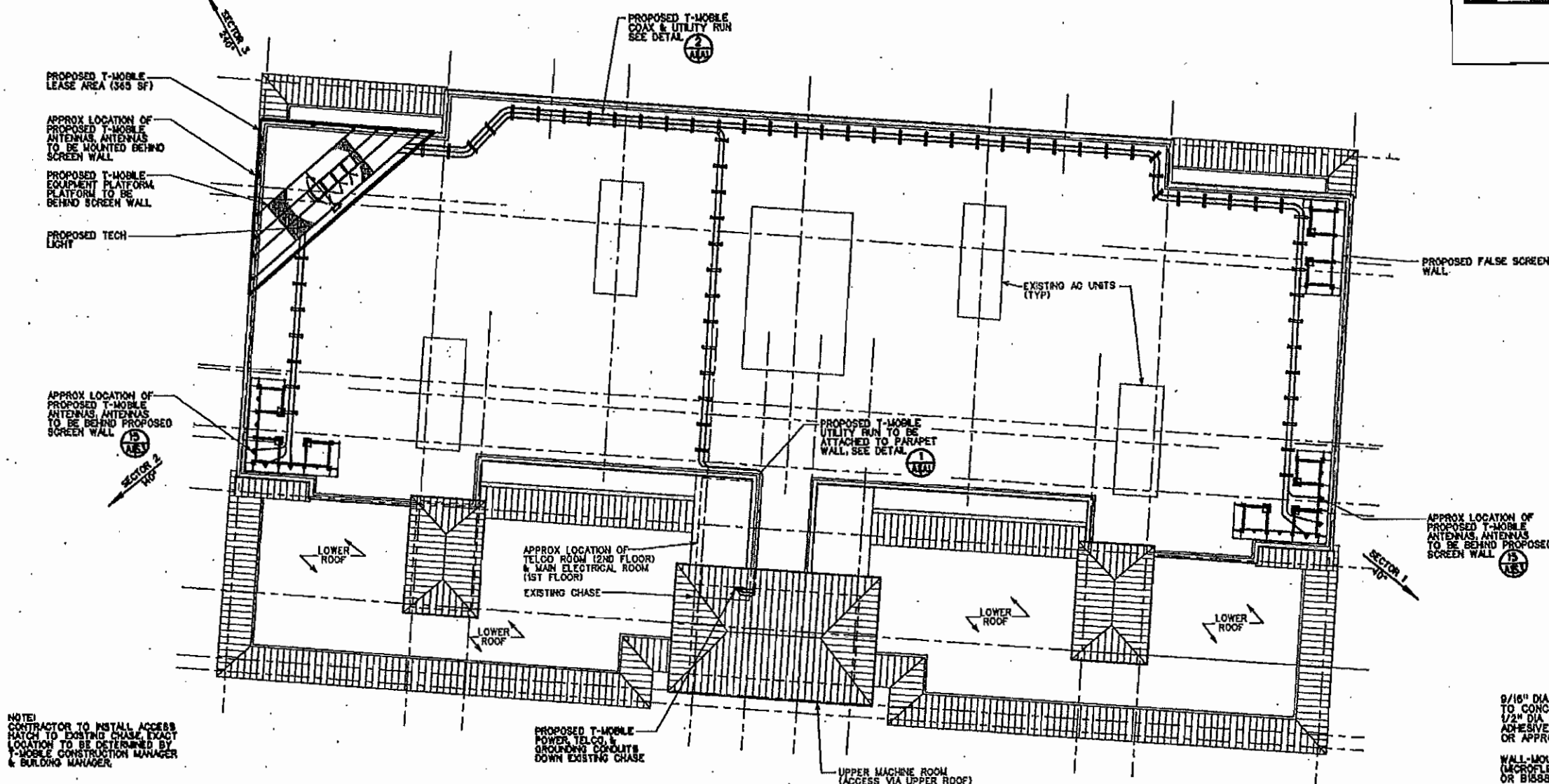
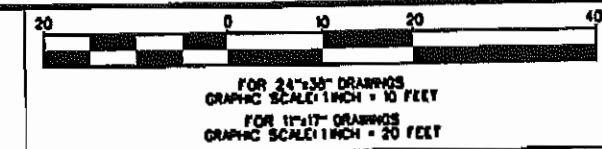
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DATE: 10-09-07  
KCI JOB NUMBER: 10070009AM

SHEET TITLE  
TITLE SHEET

SHEET

T-1

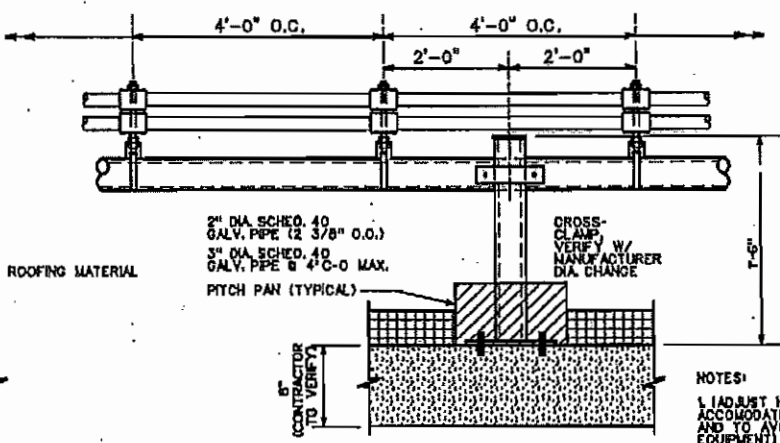
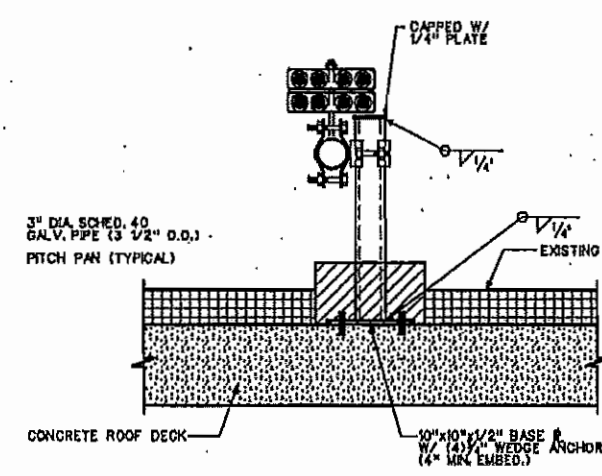




NOTE: CONTRACTOR TO INSTALL ACCESS HATCH TO EXISTING CHASE, EXACT LOCATION TO BE DETERMINED BY T-MOBILE CONSTRUCTION MANAGER & BUILDING MANAGER.

**ROOFTOP PLAN**  
SCALE AS NOTED

NOTE: PRIOR TO CONSTRUCTION, EXISTING ROOF SHALL BE X-RAYED TO LOCATE EXISTING POST-TENSIONING TENDONS. PROPOSED ANCHORS SHALL NOT INTERFERE WITH EXISTING POST-TENSIONING TENDONS. CONTRACTOR SHALL NOTIFY/CONTACT ENGINEER IF INTERFERENCE IS DETECTED.

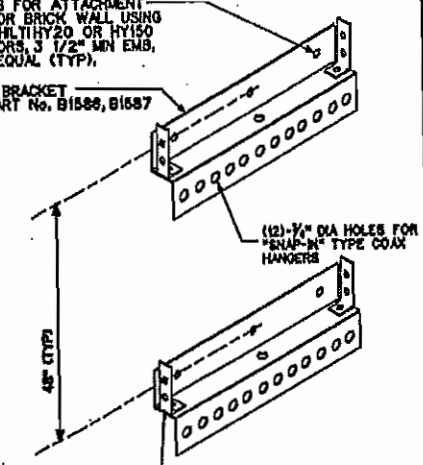


**COAX SUPPORT DETAIL (ROOF)**  
NOT TO SCALE

NOTES:  
1. ADJUST HEIGHT AS REQUIRED TO ACCOMMODATE COAX AND/OR CONDUIT AND TO AVOID EXISTING ROOFTOP EQUIPMENT.  
2. UTILITY CONDUITS TO ALSO BE ATTACHED TO SUPPORTS

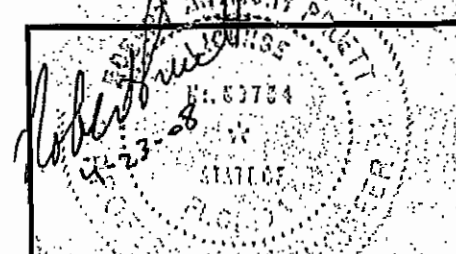
9/16" DIA HOLES FOR ATTACHMENT TO CONCRETE OR BRICK WALL USING 1/2" DIA. GALV. HILTI HY20 OR HY150 ADHESIVE ANCHORS, 3 1/2" MIN. EMB. OR APPROVED EQUAL (TYP).

WALL-MOUNTED BRACKET (MICROFLECT PART NO. B1586, B1587 OR B1588)



WALL-MOUNTED BRACKET TO BE CONNECTED TO STUD WALL WITH MICROFLECT THRU BOLT ANCHOR KIT PART NO. B1573, B1598 OR APPROVED EQUAL (TYP).

**UTILITIES WALL MOUNT**  
SCALE: NTS



NO.	DATE	DESCRIPTION
1	12/12/07	CONCEPTUAL PLANS ISSUED FOR QA REVIEW
2	02/05/08	PRELIM CONSTRUCTION PLANS ISSUED FOR QA REVIEW
3	04/21/08	FINAL CONSTRUCTION PLANS ISSUED
4		

DRAWN BY: D. REVELS  
CHECKED BY: J. FENNEL  
APPROVED BY: B. PRUETT

**KCI TECHNOLOGIES**  
FLORIDA LICENSE NO.: 0000489  
KCI TECHNOLOGIES, INC.  
10401 HIGHLAND MANOR DRIVE  
SUITE 120  
TAMPA, FLORIDA 33610  
(813) 740-2300

**T-Mobile**  
A2F770-C  
ESTUARY  
3407 W. DR. MARTIN LUTHER KING BLVD  
TAMPA, FL 33607

ENGINEER: ROBERT PRUETT, PE  
FL LICENSE NO.: 50164

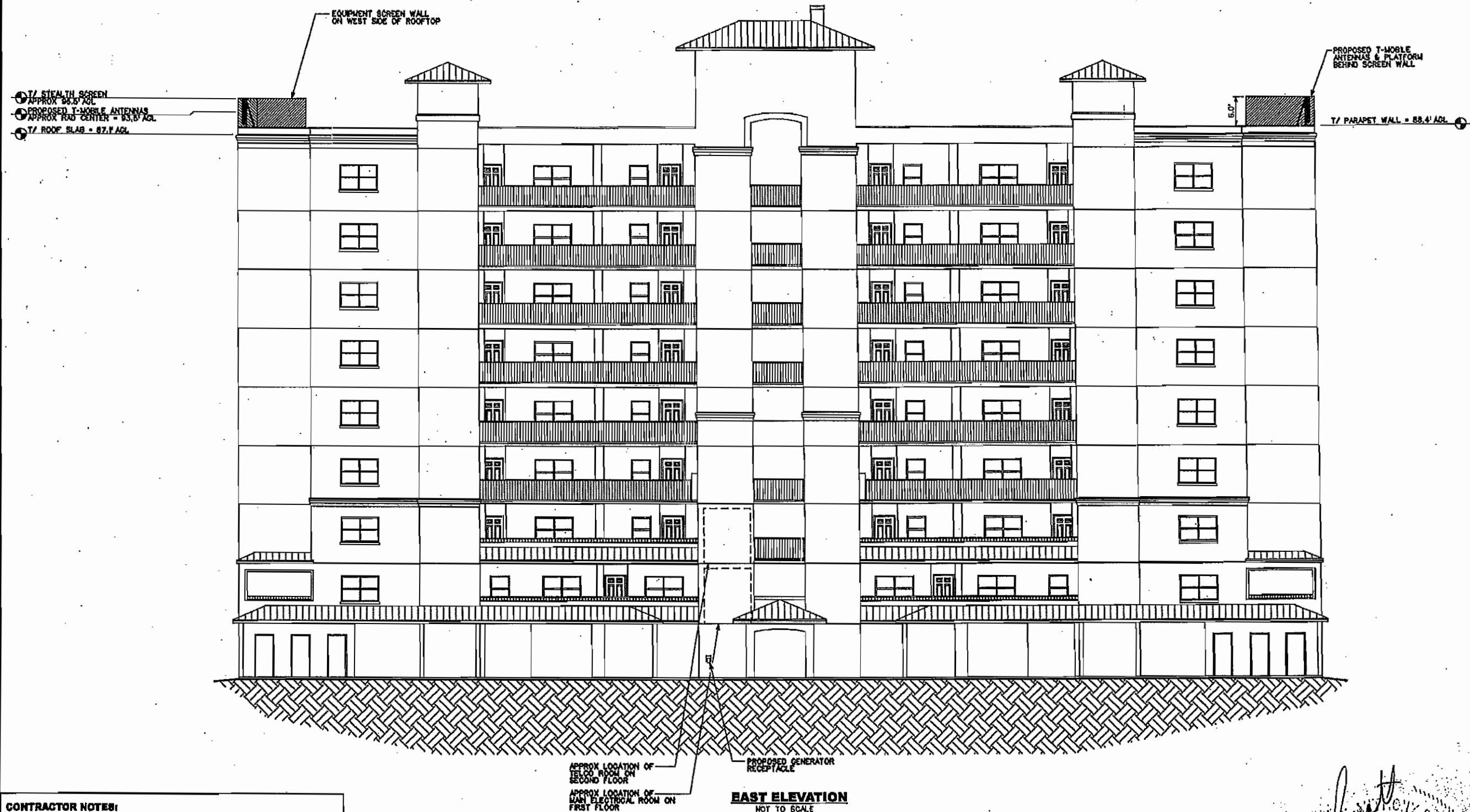
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SCALE: AS NOTED  
DATE: 10-08-07  
KCI JOB NUMBER: 100700009AM

SHEET TITLE: **ROOFTOP PLAN**

SHEET: **A-1**





**CONTRACTOR NOTES:**  
 1. PRIOR TO ANY WORK PERFORMED ON ROOF, CONTRACTOR SHALL NOTIFY BUILDING MAINTENANCE CONTRACTOR FOR CURRENT ROOF WARRANTY REQUIREMENTS.  
 2. ALL EXPOSED EQUIPMENT AND ANTENNAS SHALL BE PAINTED TO MATCH THE EXISTING BUILDING EXTERIOR.  
 3. ALL PROPOSED COMMUNICATION EQUIPMENT SHALL COMPLY TO THE 130 MPH, 3 SECOND GUST, CATEGORY 'C' WIND FACTOR.  
 4. BUILDING INFORMATION TAKEN FROM A SET OF PLANS BY GREENING & SAYERS, ARCHITECTS, DATED 1-31-72.

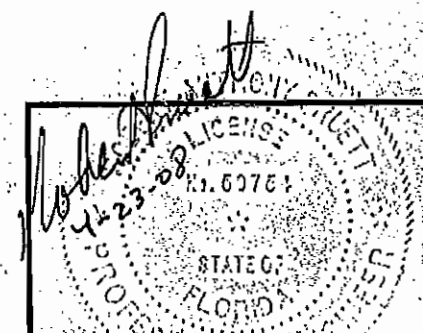
NO.	DATE	DESCRIPTION	BY:
1	10/12/07	CONCEPTUAL PLANS ISSUED FOR QA REVIEW	DR
2	02/05/08	PRELIM CONST PLANS ISSUED FOR QA REVIEW	DR
3	04/21/08	FINAL CONSTRUCTION PLANS ISSUED	DR
4			

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 CHECKED BY: J. FENNEL  
 APPROVED BY: B. PRUETT

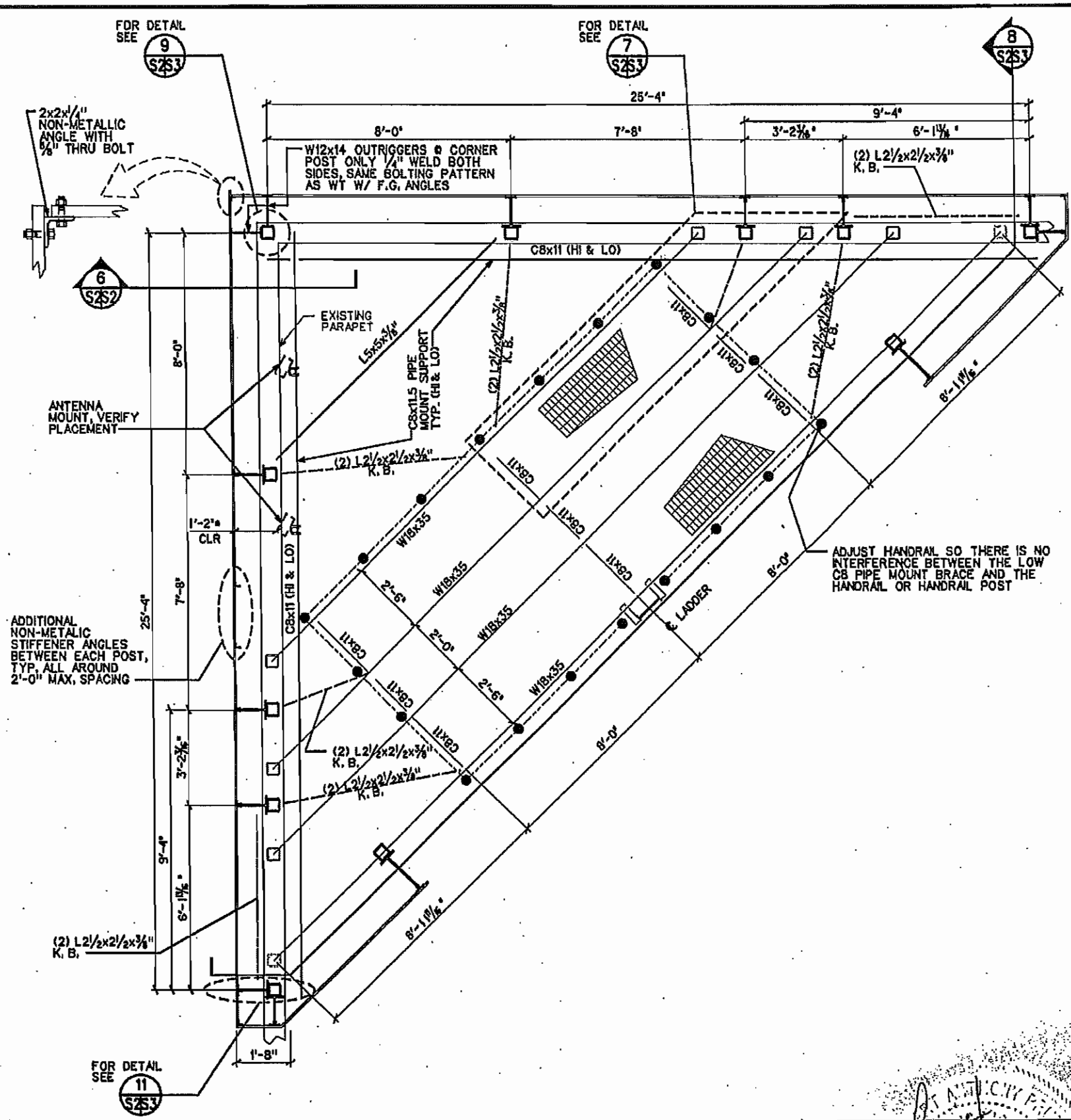
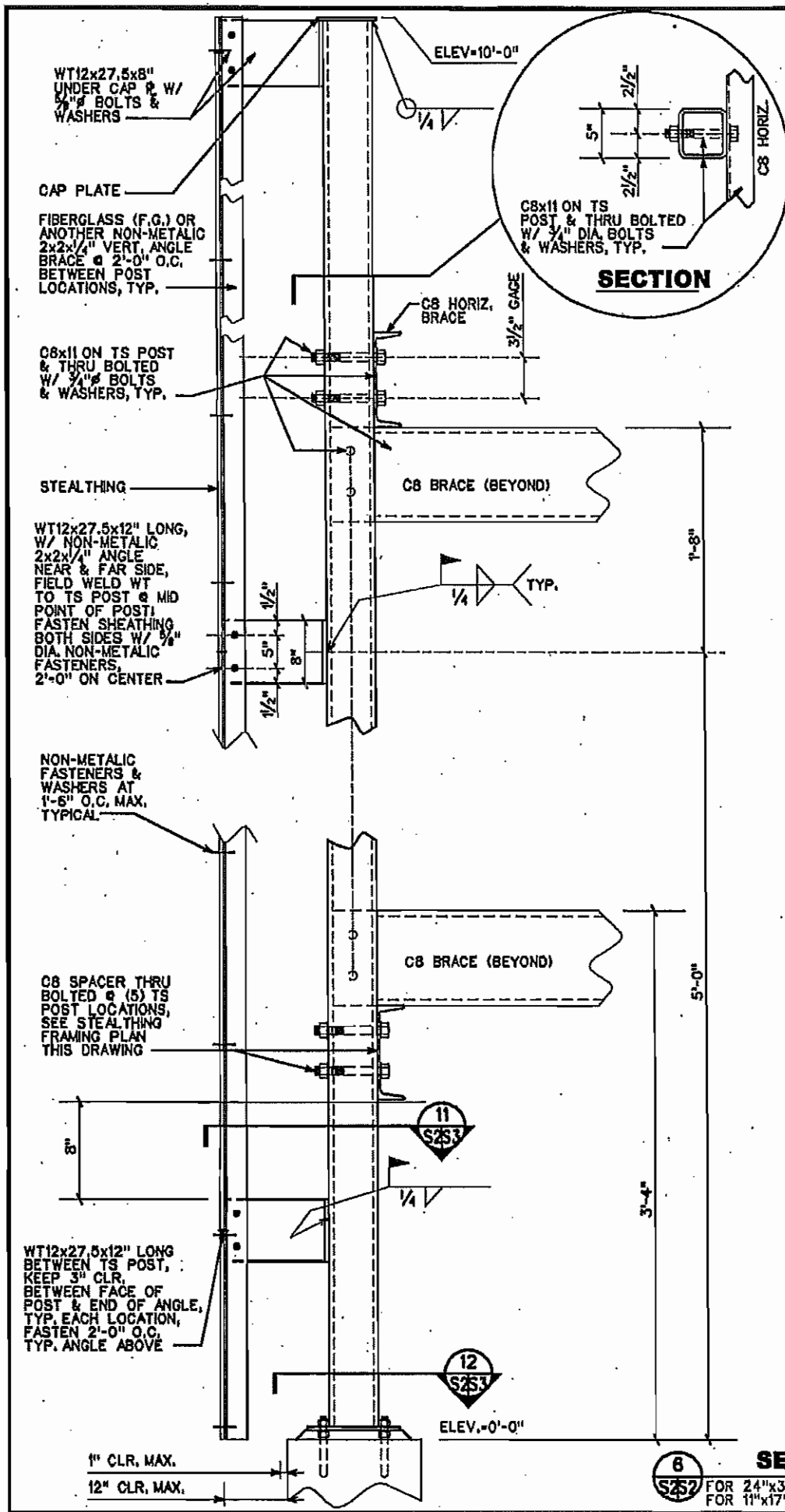
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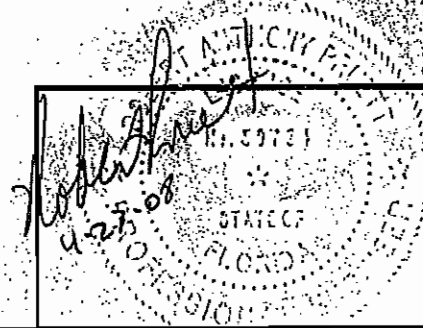
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 DATE: 10-09-07  
 KCI JOB NUMBER: 10070009AM  
 SHEET TITLE:  
**ELEVATION VIEW**  
 SHEET  
**A-2**







**STEALTHING FRAMING PLAN 5**  
 SCALE: FOR 24"x36" 1/4"=1'-0"  
 FOR 11"x17" 1/8"=1'-0"



NO.	DATE	DESCRIPTION	BY	DR
1	11/12/07	CONCEPTUAL PLANS ISSUED FOR QA REVIEW	J. FENNEL	
2	02/05/08	PRELIM CONSTRUCTION PLANS ISSUED FOR QA REVIEW	J. FENNEL	
3	04/21/08	FINAL CONSTRUCTION PLANS ISSUED	J. FENNEL	
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ENGINEER:  
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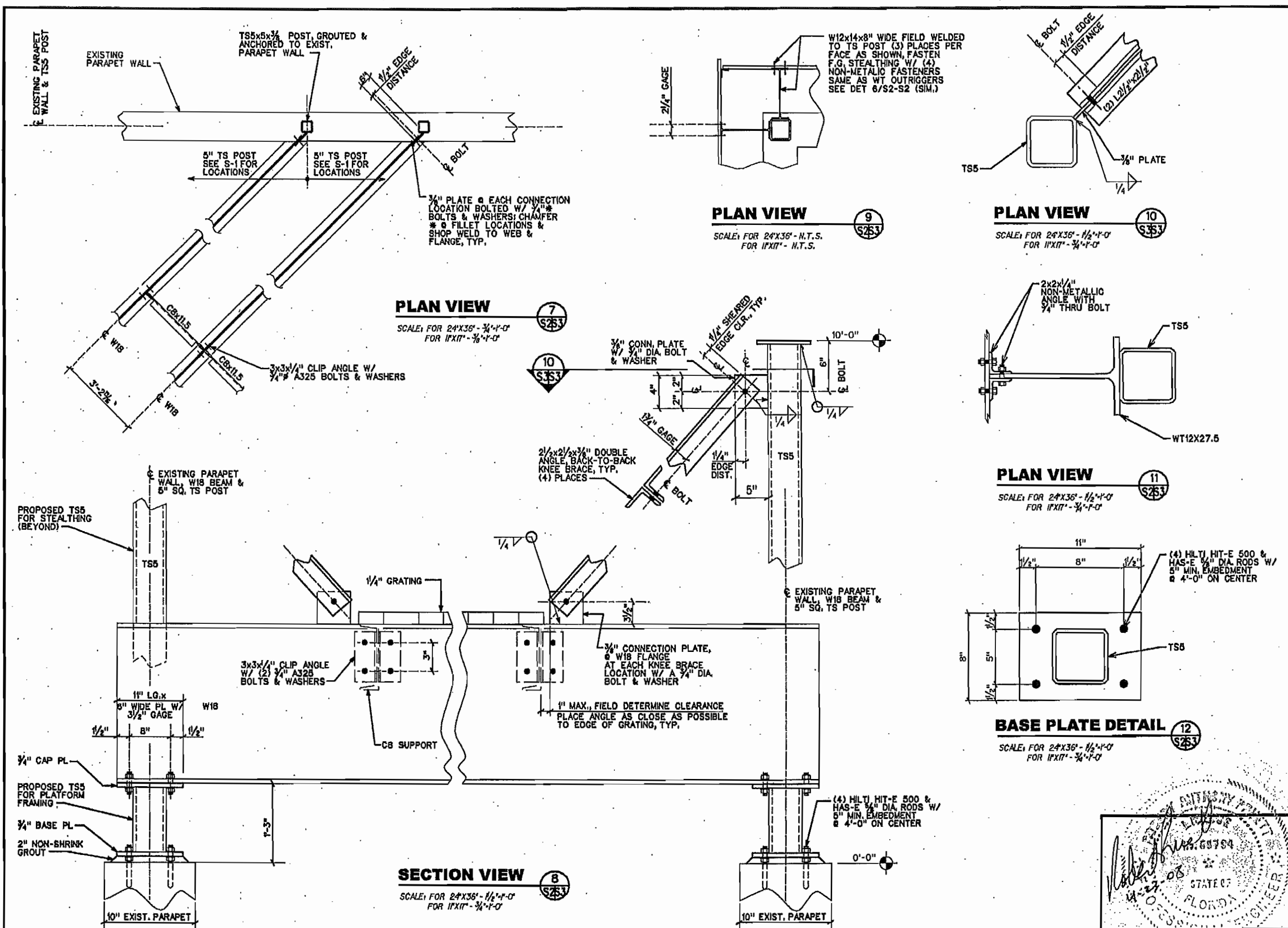
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SCALE: AS NOTED  
 DATE: 10-08-07  
 KCI JOB NUMBER: 10070009AM

SHEET TITLE:  
**STEALTHING FRAMING PLAN**

SHEET  
 8-2





NO.	DATE	DESCRIPTION	BY	DR
1	10/12/07	CONCEPTUAL PLANS ISSUED FOR QA REVIEW	DR	
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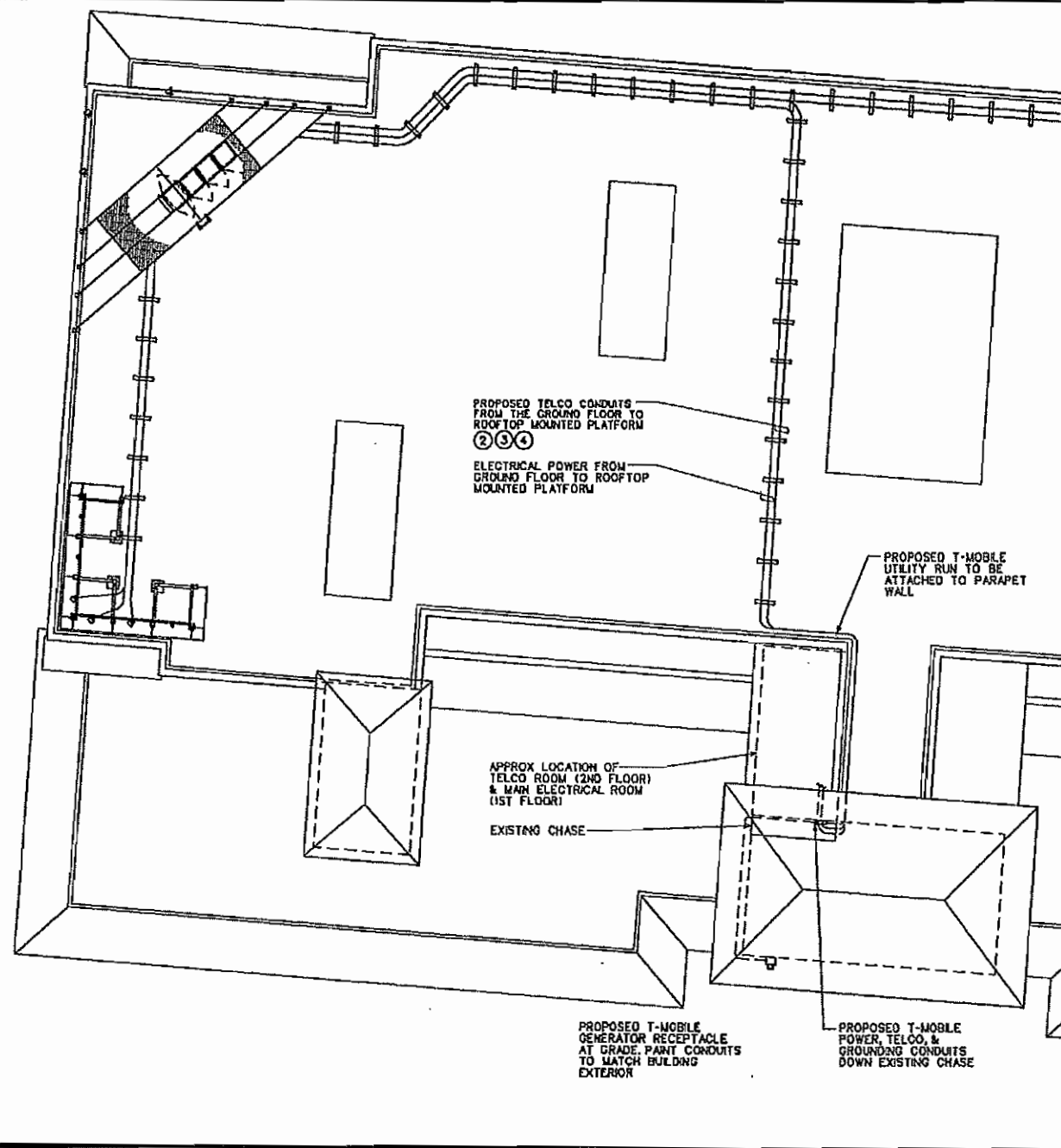
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SCALE: AS NOTED  
DATE: 10-01-07  
PROJECT NUMBER: 10070009AM

SHEET TITLE:  
**STRUCTURAL DETAILS**

SHEET  
8-3





**ROOFTOP ELECTRICAL LAYOUT**  
SCALE: AS NOTED

**DRAWING NOTES:**

1. THE EXISTING TELCO BOARD SOURCE OF TELCO SERVICE TO THE EQUIPMENT ON THE ROOF IS LOCATED IN THE TELCO ROOM ON THE GROUND FLOOR.
2. WATERPROOF SEAL ALL WALL PUNCTURES.
3. EXACT ROUTING OF TELCO AND POWER CONDUIT TO BE DETERMINED IN THE FIELD.
4. 2" CONDUIT FROM METER TO T-MOBILE PLATFORM. CONDUIT TO TERMINATE IN THE AC CABINET. EXACT ROUTING TO BE DETERMINED IN THE FIELD.
5. COORDINATE ALL REQUIREMENTS WITH LOCAL UTILITIES PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES.

- AC/TELCO CABINET NOTE (PER MANUFACTURER): THE STANDARD 100A BREAKER PROVIDED IS RATED AT 10K AC. TO SATISFY OTHER AC RATINGS, THE FOLLOWING SHOULD BE DONE ACCORDING TO SQUARE D'S SERIES RATINGS:
1. 22K AC: REPLACE THE 100A MAIN BREAKER WITH SQUARE D P/N: Q02100VH (RATED AT 22K AC)
  2. 42K AC: REPLACE THE 100A MAIN BREAKER WITH SQUARE D P/N: Q0H2100 (RATED AT 42K AC)
  3. > OR EQUAL TO 65K AC: INSTALL A METERBASE OR FUSIBLE SAFETY SWITCH WITH A 100-200A 300V RATED CLASS T FUSE UP LINE FROM THE RAC774831 POWER ACCESS CABINET AND INSTALL APPROPRIATELY RATED T TYPE FUSES (E.G. 100K OR 200K AC). BASED ON SQUARE D'S SERIES RATING FOR THE LOAD CENTER AND ITS QO TYPE BREAKERS, THAT T FUSE WILL GIVE THE SITE ITS NEEDED AC RATING.

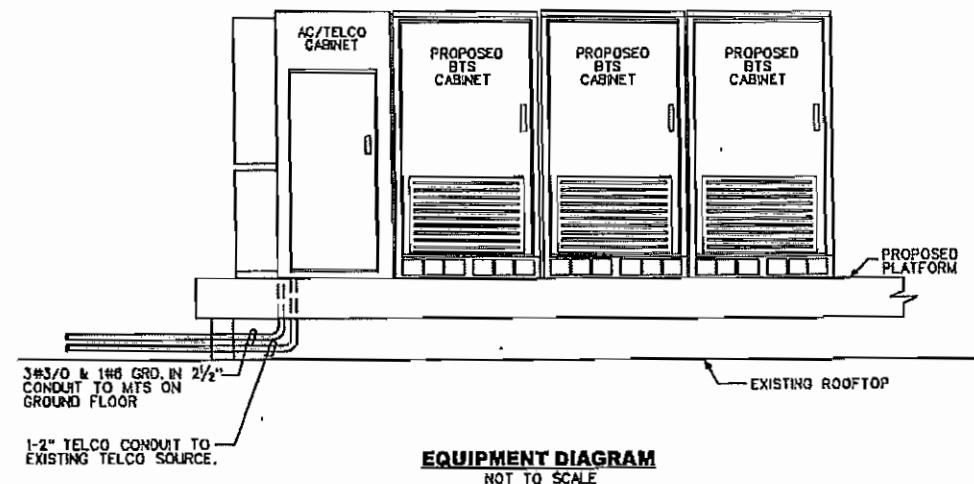
**CONTRACTOR NOTES:**  
1. PRIOR TO ANY WORK PERFORMED ON ROOF, CONTRACTOR SHALL NOTIFY BUILDING MAINTENANCE CONTRACTOR FOR CURRENT ROOF WARRANTY REQUIREMENTS.

2. ALL EXPOSED EQUIPMENT AND ANTENNAS SHALL BE PAINTED TO MATCH THE EXISTING BUILDING EXTERIOR.

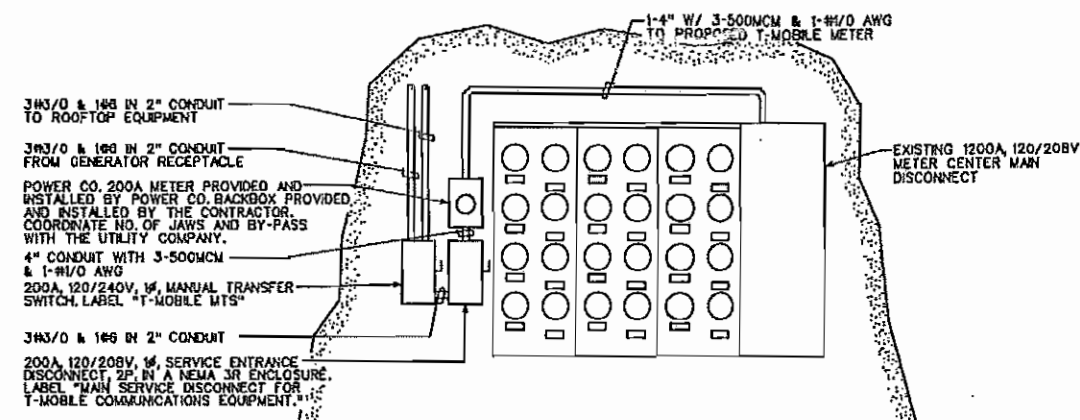
3. ALL PROPOSED COMMUNICATION EQUIPMENT SHALL COMPLY TO THE 130 MPH, 3 SECOND GUST. CATEGORY 'C' WIND FACTOR.

4. BUILDING INFORMATION TAKEN FROM A SET OF PLANS BY GREENING & SAYERS, ARCHITECTS, DATED 1-31-72.

16 12 8 4 0 8 16  
FOR 24"x36" DRAWINGS  
GRAPHIC SCALE: 1/8" = 1'-0"  
FOR 11"x17" DRAWINGS  
GRAPHIC SCALE: 1/16" = 1'-0"



**EQUIPMENT DIAGRAM**  
NOT TO SCALE



**SERVICE RISER DIAGRAM**  
NOT TO SCALE

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**ELECTRICAL ENGINEER:**  
LUIS G. VARGAS, JR., PE  
FL LICENSE NO.: 58189

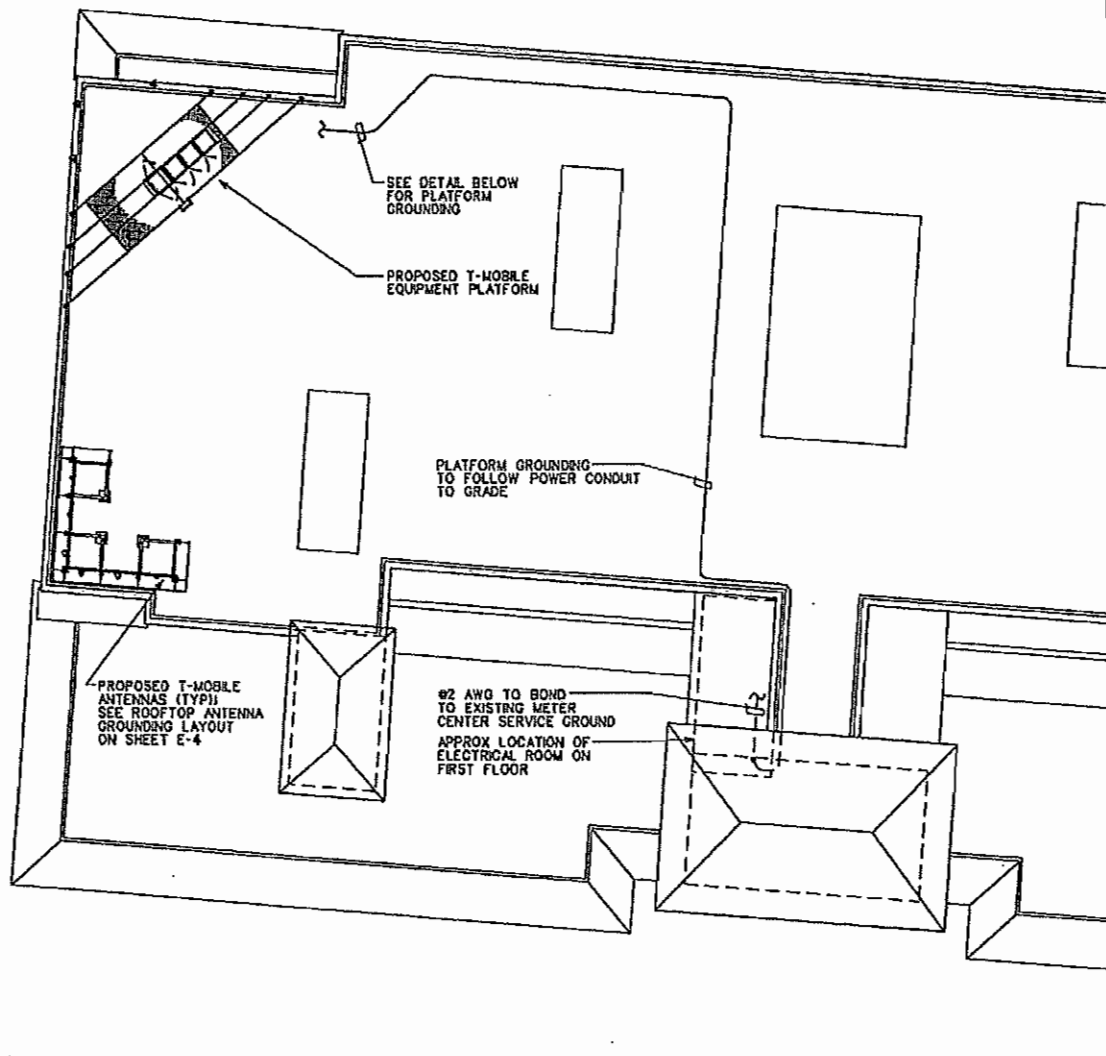
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DATE: 10-08-07  
KCI JOB NUMBER: 10070009AM

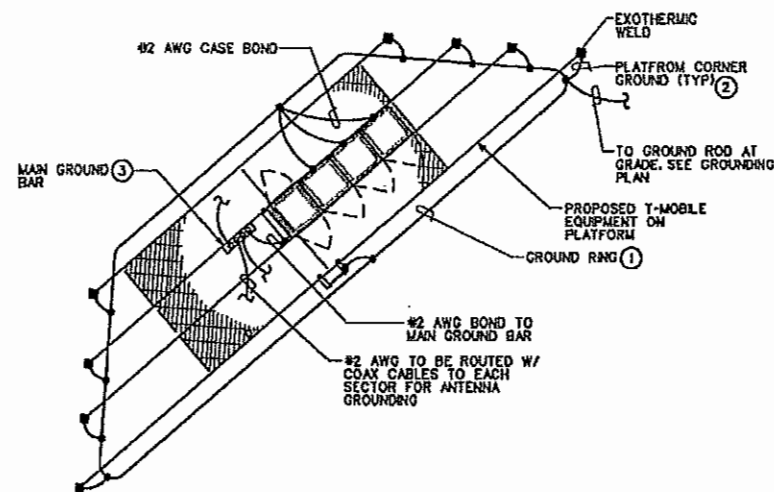
SHEET TITLE  
**POWER AND TELCO PLAN**

SHEET

E-2



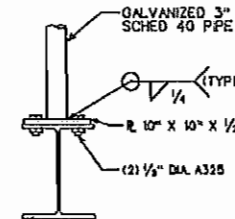
**GROUNDING PLAN**  
SCALE AS SHOWN



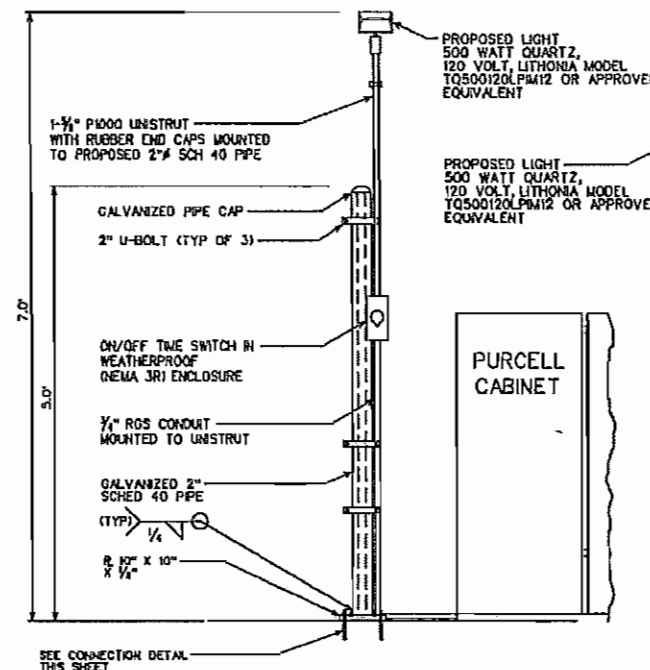
**TYPICAL PLATFORM GROUNDING**  
NOT TO SCALE

**GROUNDING NOTES:**

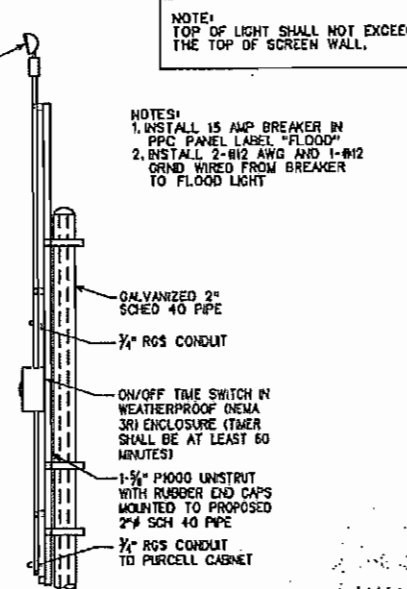
- GROUND RING CONSISTS OF #2 AWG INSULATED COPPER CONDUCTOR Laid DIRECTLY ON ROOF. CABLE TO BE SECURED TO ROOF MEMBRANE USING ADHESIVE CABLE HOLDERS AND RUBBER ADHESIVE. CABLE TO BE SECURED EVERY 3'-0" (FOR OTHER THAN ROOF MEMBRANE ATTACHMENT, USE SILICONE ADHESIVE). MAINTAIN 2'-0" FROM PLATFORM EDGE TO GROUND RING, SEE DETAIL, SHEET E-4.
- PLATFORM CORNER GROUND: EXOTHERMIC WELD AT PLATFORM STEEL WITH #2 AWG INSULATED COPPER CONDUCTOR. EXTEND DOWN TO GROUND RING AND CONNECT TO GROUND RING WITH SPLIT BOLT CONNECTOR OR EXOTHERMIC WELD OR PARALLEL CLAMP. CONDUCTOR SHALL BEND, WITH ANTICIPATED FLOW, TOWARD MAIN GROUND.
- MAIN GROUND BAR: BOLTED TO THE STEEL PLATFORM JUST BELOW THE TOP FLANGE. USE STAINLESS STEEL HARDWARE FOR THE STEEL PLATFORM. GROUND BAR SHALL BE ISOLATED FROM THE STEEL WITH NON-METALLIC INSULATORS. SEE DETAILS ON SHEET E-4.



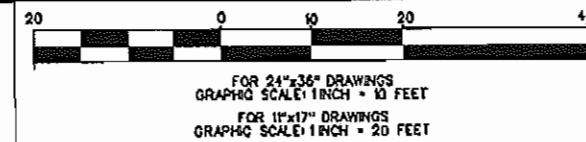
**CONNECTION DETAIL**  
NOT TO SCALE



**EQUIPMENT AREA LIGHTING**  
NOT TO SCALE



**SECTION A-A**



**CONTRACTOR NOTES:**  
1. PRIOR TO ANY WORK PERFORMED ON ROOF, CONTRACTOR SHALL NOTIFY BUILDING MAINTENANCE CONTRACTOR FOR CURRENT ROOF WARRANTY REQUIREMENTS.

2. ALL EXPOSED EQUIPMENT AND ANTENNAS SHALL BE PAINTED TO MATCH THE EXISTING BUILDING EXTERIOR.

3. ALL PROPOSED COMMUNICATION EQUIPMENT SHALL COMPLY TO THE 130 MPH, 3 SECOND GUST, CATEGORY 'C' WIND FACTOR.

4. BUILDING INFORMATION TAKEN FROM A SET OF PLANS BY GREENING & SAYERS, ARCHITECTS, DATED 1-31-72.

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**ELECTRICAL ENGINEER:**  
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FL. LICENSE NO.: 83189

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SHEET TITLE  
**GROUNDING PLAN**  
SHEET  
**E-3**



### ELEVATION

### GROUND BAR CONNECTION

NOTE:  
 'DOUBLING UP' OR 'STACKING' OF CONNECTIONS IS NOT PERMITTED.  
 OXIDE - INHIBITING JOINT COMPOUND TO BE USED ON ALL CONNECTIONS.  
 BACK TO BACK CONNECTIONS SHALL BE USED ONLY WHEN NUMBER  
 OF CONNECTIONS TO FRONT OF BAR EXCEEDS NUMBER OF AVAILABLE SPACES.

**SECTION 'A-A'**

### ELEVATION

**MAIN GROUND BAR**  
NOT TO SCALE

NOTE:  
CONTRACTOR SHALL FIELD DRILL HOLES AS REQUIRED TO MATCH LUG DIMENSIONS  
AND NUMBER OF CONNECTIONS. FIELD COORDINATE WITH THE CONSTRUCTION  
COORDINATOR.

**DETAIL - MGB MOUNTING**  
NOT TO SCALE

**SECTION 'A-A'**

**ELEVATION**  
NOTE: CONTRACTOR SHALL FIELD DRILL HOLES AS REQUIRED TO MATCH LUG DIMENSIONS AND NUMBER OF CONNECTIONS, FIELD COORDINATE WITH THE CONSTRUCTION MANAGER

NOTE: CONTRACTOR SHALL FIELD DRILL HOLES AS REQUIRED TO MATCH LUG DIMENSIONS AND NUMBER OF CONNECTIONS, FIELD COORDINATE WITH THE CONSTRUCTION MANAGER

**ANTENNA GROUND BAR**  
NOT TO SCALE

**DETAIL- EXOTHERMIC WELD**  
**PLATFORM STEEL**

**DETAIL- EXOTHERMIC WELD**  
**PARALLEL CABLES**

NOT TO SCALE

## ANTENNA GROUNDING NOTES

- ① FOR EACH ANTENNA COAXIAL CABLE TO THE EQUIPMENT PLATFORM, PROVIDE AND INSTALL A COPPER GROUND CABLE. GROUND CABLE SHALL ATTACH TO THE COAXIAL SHEILD AND TERMINATE ON THE WGS ON THE PLATFORM OR THE ANTENNA GROUND BAR AT THE ANTENNA MOUNT.
- ② AT THE ANTENNA POST, WELD #2 AWG GREEN INSULATED COPPER CONDUCTOR USING AN EXOTHERMIC WELD BELOW THE ANTENNA. COLO GALVANIZE WELD AFTER COOLING.
- ③ #2 AWG INSULATED COPPER CONDUCTOR/EXTEND FROM POST TO THE ANTENNA GROUND BAR. CONNECTION TO THE GROUND BAR SHALL BE WITH A TWO HOLE CRIMP TYPE LUG CONNECTION.
- ④ ANTENNA GROUND BAR, GROUND BAR TO BE ISOLATED FROM MOUNTING BRACKETS USING NON-METALLIC INSULATORS. SEE DETAIL ON SHEET E-4.
- ⑤ #2 AWG INSULATED GROUND CONDUCTOR FROM ANTENNA GROUND BARS TO THE WGS ON THE PLATFORM SHALL BE ROUTED PARALLEL WITH THE ANTENNA COAXIAL CABLES. USE PLASTIC HANGARS ON UNISTRUT SIMILAR TO THE COAX PLATFORM.

### CEILING/WALL MOUNT CONDUIT TRAY DETAIL

NOT TO SCALE

**CORE DRILL/FIRE STOP NOTES:**

1. FLOOR OR WALL ASSEMBLY-  
LIGHTWEIGHT OR NORMAL WEIGHT (100-150 pcf) CONCRETE, EXCEPT AS NOTED IN TABLE UNDER ITEM 4, MIN. THICKNESS OF SOLID CONCRETE FLOOR OR WALL ASSEMBLY IS 4 1/2" IN FLOOR MAY ALSO BE CONSTRUCTED OF ANY MIN. 6 IN THICK UL CLASSIFIED HOLLOW CORE PRECAST CONCRETE UNITS WHEN FLOOR IS CONSTRUCTED OF HOLLOW CORE PRECAST CONCRETE UNITS. PACKING MATERIAL (ITEM 3) AND CAULK FILL MATERIAL (ITEM 4) TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF FLOOR, FLUSH WITH FLOOR SURFACE. WALL ASSEMBLY MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX. DIA. OF OPENING IS 32 IN.  
  
SEE CONCRETE BLOCKS (CAZT) AND PRECAST CONCRETE UNITS (CFTV) CATEGORIES IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- 1A. STEEL SLEEVE-  
(OPTIONAL, NOT SHOWN) - MAX. IS IN ID (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAX. OF 12 IN ABOVE TOP OF FLOOR OR BEYOND EITHER SURFACE OF WALL. MAX. IS IN ID (OR SMALLER) MIN. 0.028 WALL THICKNESS (OR HEAVIER) GALVANIZED STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAX. OF 12 IN BEYOND EITHER SURFACE OF FLOOR OR WALL.

2. THROUGH PENETRANTS.- ONE METALLIC PIPE, PVC CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM, MAX. ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND EDGE OF THROUGH OPENING OR SLEEVE IS DEPENDENT ON THE PARAMETERS SHOWN IN ITEM 4. MIN. ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF THROUGH OPENING IS ZERO IN (POINT CONTACT). PIPE CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

- A. CONCRETE BLOCKS-NOM. 10 IN. DIAM. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.  
B. IRON PIPE-NOM. 30 IN. DIAM. (OR SMALLER) CAST OR DUCTILE IRON PIPE.  
C. CONDUIT-NOM. 8 IN. DIAM. (OR SMALLER) RIGID STEEL OR DUCTILE IRON PIPE.  
D. CONDUIT-NOM. 4 IN. DIAM. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.  
E. COPPER TUBING-NOM. 6 IN. DIAM. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBE.  
F. COPPER PIPE-NOM. 8 IN. DIAM. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

3. PACKING MATERIAL-  
POLYETHYLENE BACKER ROD OR NOM, 1 IN. THICKNESS OF TIGHTLY-PACKED MINERAL WOOL BATT OR GLASS FIBER INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM, PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM 4).

4. FILL, VOID OR CAVITY MATERIAL\* - CAULK
- APPLIED TO FILL THE ANNULAR SPACE FLUSH WITH TOP SURFACE OF FLOOR, IN WALL ASSEMBLIES, REQUIRED CAULK THICKNESS TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL, FLUSH WITH WALL SURFACE, THE HOURLY F RATINGS AND THE MIN. REQUIRED CAULK THICKNESSES ARE DEPENDENT UPON A NUMBER OF PARAMETERS, AS SHOWN IN THE FOLLOWING TABLE:

MIN. FLOOR OR WALL THICK. (IN)	NOM. PIPE TUBE OR CONDUIT DIA. (IN)	MAX. ANNULAR SPACE, (IN)	MIN. CAULK THICK., (IN)	F RATING, (HR)
2 1/2	1 1/2-12	3/4	1/2	2
2 1/2	1 1/2-12	3/4	1	2
4 1/2	1 1/2-5	1 1/4	1/4 (A)	2
4 1/2	1 1/2-12	1 1/4	1/2	3
4 1/2	1 1/2-20	2	1	3
4 1/2	1 1/2-20	2	1	3
4 1/2	1 1/2-12	3 1/4	1	3
4 1/2	1 1/2-30	2	2	3
5 1/2	1 1/2-6	1 3/4	1 (B)	4

(A) MIN. 2 IN. THICKNESS OF MINERAL WOOL BATT INSULATION REQUIRED IN ANNULAR SPACE.

(B) MIN. 1 IN. THICKNESS OF MINERAL WOOL BATT INSULATION REQUIRED IN ANNULAR SPACE ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY, MIN. 1 IN. THICKNESS OF CAULK TO BE INSTALLED FLUSH WITH EACH SURFACE OF FLOOR OR WALL ASSEMBLY.

## ROOFTOP ANTENNA GROUNDING LAYOUT

**NOT TO SCALE**

**DETAIL - CABLE HOLD DOWN ON ROOF**  
NOT TO SCALE

NOT TO SCALE

**SECTION A-A**

**DETAIL - CORE DRILL / FIRE STOP**

NOT TO SCALE

NOTE:  
UL SYSTEM - C-AJ-104  
F RATINGS - 2 1/2 HR (SEE ITEMS 2A AND 4)  
T RATING - 0 HR  
L RATING AT AMBIENT - 1 CFM/SQ. FT.  
L RATING AT 400° F - LESS THAN 1 CFM/SQ. FT.

DRAWN BY: D. REVELS	NO.	DATE	DESCRIPTION	BY:
CHECKED BY: J. FENNEL	1	10/12/07	CONCEPTUAL PLANS ISSUED FOR QA REVIEW	DR
APPROVED BY: L. VARGAS	2	02/05/08	PRELIM CONST PLANS ISSUED FOR DA REVIEW	DR
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**SHEET TITLE**  
**ELECTRICAL**  
**DETAILS**

SHEET

E-4