SAN FRANCISCO
PLANNING DEPARTMENT

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Certificate of Appropriateness Case Report

CONSENT CALENDAR

Hearing Date:	March 3, 2010
Filing Date:	February 3, 2010
Case No.:	**2010.0070A**
Project Address:	**150 Broadway**
Zoning:	C-2 (Community Business) 65-X Height and Bulk District
Block/Lot:	0141/011
Applicant:	Joe Camicia (415) 722-1183
Staff Contact	Angela Threadgill - (415) 558-6602 angela.threadgill@sfgov.org
Reviewed By	Tina Tam – (415) 558-6325 tina.tam@sfgov.org

PROPERTY DESCRIPTION

150 Broadway is located at the northeast corner of Broadway and Battery Street, in Assessor's Block 0141, Lot 011, within the Northeast Waterfront Historic District. The eight-story office building was built in 2008 and is considered non-contributory to the Historic District. The property is within a C-2 (Community Business) Zoning District and a 65-X Height and Bulk District. The site is also within the Waterfront Special Use District No. 3.

PROJECT DESCRIPTION

The proposed project is for the installation of four (4) wireless telecommunication antennas mounted to the existing rooftop penthouse and for the installation of four (4) wireless telecommunication equipment cabinets located adjacent to the existing rooftop penthouse within a new 10 ft. X 20 ft. enclosure (either chain link with dark slats or a solid wall painted to match the penthouse). The antennas will be partially screened and painted to match the surface to which they are attached.

OTHER ACTIONS REQUIRED

None.

COMPLIANCE WITH THE PLANNING CODE PROVISIONS

The proposed project complies with all other provisions of the Planning Code.

APPLICABLE PRESERVATION STANDARDS

ARTICLE 10

150 Broadway has been deemed as Non-Contributory to the Northeast Waterfront Historic District under Article 10 of the Planning Code. A Certificate of Appropriateness is required for any work involving a sign, awning, marquee, canopy, mural, or other appendage, for which a City permit is required in a historic district. In appraising a proposal for a Certificate of Appropriateness, the Historic Preservation Commission should (1) consider the factors of height, massing, fenestration, materials, color, texture, detail, style, scale and proportion, signage, landscaping and street furniture; and (2) preserve, enhance or restore, and not damage or destroy, the exterior architectural appearance of the subject site, building, structure and object which is compatible with the character of the Historic District. Section 1006.7(d) of the Planning Code provides, in relevant part, as follows:

> For applications pertaining to all property in historic districts, the proposed work shall also conform to such further standards as may be embodied in the ordinance designating the historic district. [The designating ordinance for the Northeast Waterfront Historic District is Appendix D, Article 10.]

THE SECRETARY OF THE INTERIOR'S STANDARDS

Rehabilitation is the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values. The Rehabilitation Standards provide, in relevant part(s):

> **Standard 9.**
> New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

PUBLIC/NEIGHBORHOOD INPUT

The Department has received no public input on the project at the date of this report.

ISSUES & OTHER CONSIDERATIONS

None.

STAFF ANAYLSIS

Particular to wireless communication facilities, Staff considered the proposed location, method of attachment, screening material, size, and number in relation to the subject building and historic district. Based on the requirements of Article 10 and the *Secretary of Interior's Standards*, staff has

determined that the proposed work will not adversely effect the non-historic subject building, nor the special architectural and historic character of the Northeast Waterfront Historic District.

Two of the four wireless communication antennas would be located on a secondary elevation and the other two antennas would be located on an existing rooftop penthouse; each face-mounted at a height not to exceed the structure to which the antennas are attached; therefore, no antenna would disrupt the existing cornice or parapet lines. The equipment cabinets and screen enclosure would be setback approximately 15 feet and 45 feet from the west and south elevations, respectively, and would not exceed approximately 7 feet above the roof surface, or 2 feet above the height of the parapet. Additionally, the view from Telegraph Hill over the roofs of the Northeast Waterfront District would be largely the same, as the new enclosed screen wall and cabinets are located downslope on the south side of the much taller penthouse, thus hidden within the viewscape. The proposed wireless communication facilities have been strategically positioned to be minimally visible from adjacent public rights-of-way and public open spaces.

ENVIRONMENTAL REVIEW STATUS

The Planning Department determined that the proposed project is exempt/excluded from environmental review, pursuant to CEQA Guideline Section 15301(a) (Class 1 – Minor structures appurtenant to commercial facilities) because the project consists of the leasing, minor alteration, and operation of wireless telecommunication facilities at an existing private structure, involving no expansion of use.

BASIS FOR RECOMMENDATION

- That the proposed wireless communication facilities have been strategically positioned to be minimally visible from adjacent public rights-of-way and public open spaces.
- That the four (4) proposed wireless communication antennas would be located on a secondary elevation and on an existing rooftop penthouse at a height not to exceed the structure to which the antennas are attached; therefore, no antenna would disrupt the existing cornice or parapet lines.
- That the equipment cabinets and screen enclosure would be sufficiently setback from street-facing elevations and the height would not exceed approximately 7 feet above the roof surface, or 2 feet above the height of the parapet; thereby reducing visibility.
- That the new screen enclosure and cabinets are located downslope on the south side of the much taller penthouse, thus hidden within the viewscape from Telegraph Hill.
- For these reasons, the proposal overall, is appropriate for and consistent with the purposes of Article 10, meets the standards of Article 10, and the *Secretary of Interior's Standards for Rehabilitation*.

RECOMMENDATION: Approve

ATTACHMENTS

Draft Motion and Exhibit A: Certificate of Appropriateness
Project Sponsor Submittal
- Application
- Photo Simulations of Proposed Project
- Technical Specifications
- Plans

Zoning Maps

AFT: G:\DOCUMENTS\C of A's\150 Broadway\2010.0070A_150 Broadway_HPC Case Report.doc

SAN FRANCISCO
PLANNING DEPARTMENT

Historic Preservation Commission
Draft Motion

HEARING DATE: MARCH 3, 2010

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ADOPTING FINDINGS FOR A CERTIFICATE OF APPROPRIATENESS FOR PROPOSED WORK DETERMINED TO BE APPROPRIATE FOR AND CONSISTENT WITH THE PURPOSES OF ARTICLE 10, TO MEET THE STANDARDS OF ARTICLE 10 AND TO MEET THE SECRETARY OF INTERIOR'S STANDARDS FOR REHABILITATION, FOR THE PROPERTY LOCATED ON LOT 011 IN ASSESSOR'S BLOCK 0141, WITHIN AN C-2 (COMMUNITY BUSINESS) ZONING DISTRICT, AND A 65-X HEIGHT AND BULK DISTRICT.

PREAMBLE

WHEREAS, On February 3, 2010, Mr. Joe Camicia (hereinafter "Project Sponsor") filed an application with the San Francisco Planning Department (hereinafter "Department") for a Certificate of Appropriateness for the installation of four (4) wireless telecommunication antennas mounted to the existing rooftop penthouse and for the installation of four (4) wireless telecommunication equipment cabinets located adjacent to the existing rooftop penthouse within a new 10 ft. X 20 ft. enclosure (hereinafter "Project") at the subject building located on Lot 011 in Assessor's Block 0141.

WHEREAS, The Project was determined by the Department to be categorically exempt from environmental review. The Historic Preservation Commission (hereinafter "Commission") has reviewed and concurs with said determination.

WHEREAS, On March 3, 2010, the Commission conducted a duly noticed public hearing on the current project, Case No. 2010.0070A ("Project") for its appropriateness.

WHEREAS, In reviewing the Application, the Commission has had available for its review and consideration case reports, plans, and other materials pertaining to the Project contained in the

Department's case files, has reviewed and heard testimony and received materials from interested parties during the public hearing on the Project.

MOVED, that the Commission hereby grants the Certificate of Appropriateness, in conformance with the architectural plans dated December 9, 2009 and labeled Exhibit A on file in the docket for Case No. 2010.0070A based on the following findings:

FINDINGS

Having reviewed all the materials identified in the recitals above and having heard oral testimony and arguments, this Commission finds, concludes, and determines as follows:

1. The above recitals are accurate and also constitute findings of the Commission.

2. Findings pursuant to Article 10:

   - That the proposed wireless communication facilities have been strategically positioned to be minimally visible from adjacent public rights-of-way and public open spaces.
   - That the four (4) proposed wireless communication antennas would be located on a secondary elevation and on an existing rooftop penthouse at a height not to exceed the structure to which the antennas are attached; therefore, no antenna would disrupt the existing cornice or parapet lines.
   - That the equipment cabinets and screen enclosure would be sufficiently setback from street-facing elevations and the height would not exceed approximately 7 feet above the roof surface, or 2 feet above the height of the parapet; thereby reducing visibility.
   - That the new screen enclosure and cabinets are located downslope on the south side of the much taller penthouse, thus hidden within the viewscape from Telegraph Hill.
   - The proposed project meets the following *Secretary of the Interior's Standards for Rehabilitation*:

     Standard 9.
     New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

3. For these reasons, the proposal overall, is appropriate for and consistent with the purposes of Article 10, meets the standards of Article 10, and the *Secretary of Interior's Standards for Rehabilitation.*

4. **General Plan Compliance.** The Project is consistent with the Objectives and Policies of the General Plan in that:

URBAN DESIGN ELEMENT

Objectives and Policies

OBJECTIVE 2:
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

Policy 2.4:
Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.

5. **Planning Code Section 101.1(b)** establishes eight priority-planning policies and requires review of permits for consistency with said policies. On balance, the project does comply with said policies in that:

   A. That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses be enhanced.

      The proposed project would not displace any existing neighborhood-serving businesses.

   B. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods.

      The proposed project is located in a C-2 Zoning District characterized by low- and mid-rise office uses interspersed with residential and ground-floor commercial uses. The proposed project would not effect the current cultural and economic diversity of the Northeast Waterfront.

   C. That the City's supply of affordable housing be preserved and enhanced,

      Although the proposed Project is lcaoted at a site occupied by affordable housing, the Project would not remove or displace the existing affordable housing.

   D. That commuter traffic not impede MUNI transit service or overburden our streets or neighborhood parking.

      The proposed Project would not generate commuter traffic nor impede MUNI transit service.

   E. That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for resident employment and ownership in these sectors be enhanced.

      The proposed project would not displace any tenants, and would have no material effect on industrial or service sector space.

F. That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.

The Project will conform to the structural and seismic requirements of the San Francisco Building Code through its methods of attachment.

G. That landmarks and historic buildings be preserved.

The proposed project would involve a non-contributory building to the Northeast Waterfront Historic District and would have no adverse effect on the building's interior or exterior architectural features. The Project preserves the architectural and historic importance of the District through sensitive placement of the wireless telecommunication facilities.

H. That our parks and open space and their access to sunlight and vistas be protected from development.

The Project will not impact parks, open space, or their access to sunlight or vistas.

DECISION

That based upon the Record, the submissions by the Applicant, the staff of the Department and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **GRANTS Certificate of Appropriateness No. 2010.0070A** attached hereto as "EXHIBIT A" which is incorporated herein by reference as though fully set forth**.**

APPEAL AND EFFECTIVE DATE OF MOTION: APPEAL: Any aggrieved person may appeal this Motion to the Board of Appeals within fifteen (15) days after the date of this Motion No. XXXX. The effective date of this Motion shall be the date of this Motion. For further information, please contact the Board of Appeals in person at 1650 Mission Street, (Room 304) or call 575-6880.

I hereby certify that the Historical Preservation Commission ADOPTED the foregoing Motion on March 3, 2010.

Linda D. Avery
Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED: March 3, 2010

EXHIBIT A

Certificate of Appropriateness

Case No: 2010.0070A

Assessor's Block: Lot: 0141/011

Address of Property: 150 Broadway

Date Application Filed: February 3, 2010

Historic District: Northeast Waterfront Historic District

Description of Work Proposed:
The proposed project is for the installation of four (4) wireless telecommunication antennas mounted to the existing rooftop penthouse and for the installation of four (4) wireless telecommunication equipment cabinets located adjacent to the existing rooftop penthouse within a new 10 ft. X 20 ft. enclosure (either chain link with dark slats or a solid wall painted to match the penthouse). The antennas will be partially screened and painted to match the surface to which they are attached.

Final Action by the Historic Preservation Commission on March 3, 2010:
The Commission has reviewed the proposed work and has determined that the work would not have a significant impact upon and would not be potentially detrimental to the subject building or the Northeast Waterfront Historic District. A motion to was passed X-X by the Historic Preservation Commission in conformance with the drawings stamped Exhibit A, on file in the docket for **Case No. 2010.0070A**, based upon the following findings:

Findings of the Historic Preservation Commission:

- The proposed wireless communication facilities have been strategically positioned to be minimally visible from adjacent public rights-of-way and public open spaces.
- The four (4) proposed wireless communication antennas would be located on a secondary elevation and on an existing rooftop penthouse at a height not to exceed the structure to which the antennas are attached; therefore, no antenna would disrupt the existing cornice or parapet lines.
- The equipment cabinets and screen enclosure would be sufficiently setback from street-facing elevations and the height would not exceed approximately 7 feet above the roof surface, or 2 feet above the height of the parapet; thereby reducing visibility.
- The new screen enclosure and cabinets are located downslope on the south side of the much taller penthouse, thus hidden within the viewscape from Telegraph Hill.
- The proposed project meets the following *Secretary of the Interior's Standards for Rehabilitation*:

> ***Standard 9.***
> *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.*

For these reasons, the proposal overall, is appropriate for and consistent with the purposes of Article 10, meets the standards of Article 10, and the Secretary of Interior's Standards for Rehabilitation.

Duration of this Certificate of Appropriateness: This Certificate of Appropriateness is issued pursuant to Article 10 of the Planning Code and is valid for a period of three (3) years from the effective date of approval by the Historic Preservation Commission. Implementation of this Certificate of Appropriateness is accomplished by completion of construction work (verified through a job card signed by a District Building Inspector) after issuance of an appropriate Building Permit.

APPEAL: Any aggrieved person may appeal the action on this Certificate of Appropriateness by appeal of the issuance of the Building Permit required to implement the proposed work. Contact the Board of Appeals (575-6880) for instructions on filing a permit appeal.

THIS IS NOT A PERMIT TO COMMENCE ANY WORK OR CHANGE OF OCCUPANCY UNLESS NO BUILDING PERMIT IS REQUIRED. PERMITS FROM THE DEPARTMENT OF BUILDING INSPECTION (and any other appropriate agencies) MUST BE SECURED BEFORE WORK IS STARTED OR OCCUPANCY IS CHANGED.

Zoning Map

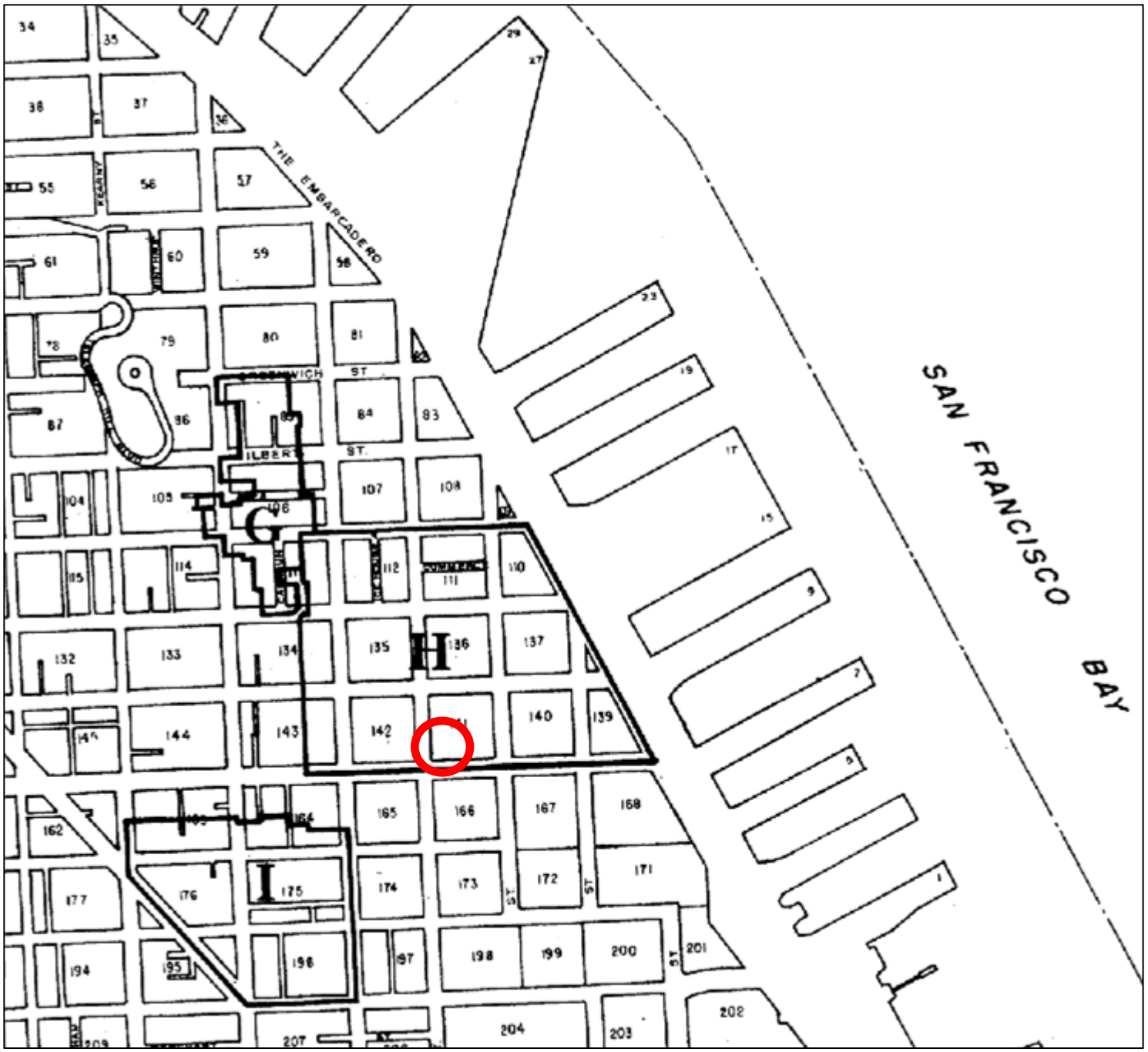
(Height and Bulk Districts)

Certificate of Appropriateness Hearing
Case Number 2010.0070A
150 Broadway

SAN FRANCISCO
PLANNING DEPARTMENT

Zoning Map

(Art. 10 Preservation Districts)



"G" – Telegraph Hill Historic District
"H"- Northeast Waterfront Historic District
"I" – Jackson Square Historic District

Certificate of Appropriateness Hearing
Case Number 2010.0070A
150 Broadway

A. OWNER/PROJECT SPONSOR INFORMATION

Property Owner's Name: Chinatown Community Development Center

Address: 1525 Grant Ave., San Francisco, CA. 94133 **Telephone:** (415) 984-1450

Applicant's Name: T-Mobile West Corporation

Address: 1855 Gateway Blvd., 9th floor, Concord, CA. 94520 **Telephone:** (415) 309-8979

***Primary Contact for Project Information*:** Joseph Camicia

Address: 3850 23rd St., San Francisco, CA. 94114 **Telephone:** (415) 722-1883

Fax Number: n/a **File Date:**_____

Email: CamiciaConsultant@gmail.com

B. PROJECT INFORMATION

Address of Project: 150 Broadway (aka 810 Battery)

Cross Streets: Broadway at Battery St.

***Complete if applicable*:**
Building Permit Application (BPA) No.: 2009.0723.3316

BPA File Date: 7/23/2009

C. APPLICANT'S AFFIDAVIT

Under penalty of perjury, I, the applicant, declare that I am the owner or authorized agent of the owner(s) of this property, and that the information presented is true and correct to the best of my knowledge.

Signed: _____

Joseph Camicia
(Print Name of Applicant in Full)

Date: December 14, 2009

D. ENVIRONMENTAL DETERMINATION (To be filled out by Preservation Technical Specialist during application intake)

Determination:_____

E. ZONING CLASSIFICATION / HISTORIC RATINGS

Assessor's Block/Lot: 0141/011

Zoning District: C-2

Height/Bulk: 65-X

Landmark No. and Name: n/a

Historic District: Northeast Waterfront District

Article 11 Category: n/a

Conservation District: n/a

1976 AS Survey Rating: n/a

Here Today Page: n/a

Heritage Rating: n/a

Other Surveys: n/a

F. PROJECT DESCRIPTION

☒ Alteration ☒ Addition ☐ New Construction ☐ Demolition

Other: _____

Present/Previous Use: Mixed commercial and residential **Proposed Use:** Same, with new wireless telecommunications facilities on roof

Describe proposed scope of work: T-Mobile proposes to install a new wireless telecommunications facility on the roof of 150 Broadway (aka 810 Battery St.) consisting of three (3) antennas mounted to the rooftop penthouse and four (4) equipment cabinets located within a new 10' x 20' enclosure directly adjacent to the penthouse. The antennas will be partially screened and painted to match the penthouse to which they are to be mounted. The equipment area will be enclosed within a new fence (either chain link with dark slats or a solid wall painted to match).

Describe existing features and materials to be removed: No existing features or materials are proposed to be removed.

Note: Attach continuation sheets, if necessary.

G. COMPLIANCE WITH APPLICABLE PLANNING CODE PRESERVATION STANDARDS

In reviewing applications for Certificates of Appropriateness, the Landmarks Board will consider whether the proposed work would be appropriate for and consistent with the purpose of Article 10 of the Planning Code. Please describe below how the proposed work would preserve, enhance, or restore, and not damage or destroy, the building's exterior architectural features:

The proposed wireless facilities have been designed to have minimal new visual impact and will not significantly alter any exterior feastures of the subject building. The antennas will be flush-mounted to various areas of the rooftop penthouse and will be painted to match their surroundings. The enclosed equipment area will be situated at the base of the central

penthouse underneath an existing staircase. Neither the antennas nor the equipment cabinets will add any height to the building and will only be minimally visible from surrounding public rights of way.

This question applies to proposed work in historic districts only. Describe how the proposed project is compatible with the character of the pertinent historic district described in the specific appendix to Article 10 of the Planning Code. (Appendices B through K of Article 10 provide in-depth information on each of the individual historic districts, describing their unique features and particular standards for review within the district.)

The proposal constitutes a minor exterior alteration that is consistent with Appendix D to Article 10 of the San Francisco Planning Code (Northeast Waterfront Historic District). The subject building, constructed in 2007, is consistent with the material, size, and bulk requirements stipulated in Section 6 of Appendix D and the proposed T-Mobile facility does not significantly alter any of those features or otherwise bring the site out of compliance with any part of the Planning Code.

Note: Attach continuation sheets, if necessary.

H. COMPLIANCE WITH *THE SECRETARY OF THE INTERIOR'S STANDARDS (STANDARDS) FOR THE REHABILIATION OF HISTORIC PROPERTIES*

Please describe how the proposed project meets the following 10 rehabilitation Standards. Please respond to each statement as completely as possible (i.e. give reasons as to *how* and *why* the project meets the Standards rather than merely concluding that it does so).

1. The property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships:

The T-Mobile antennas and associated equipment cabinets are to be mounted to existing penthouse structures and will not result in any change to building materials, features, spaces or spatial relationships. To ensure as little visual impact as possible, all new facilities will be painted to match their surroundings. The proposal will not result in any additions to the existing height of the building and will not cast any shadows on adjacent properties. The newly introduced use (rooftop wireless facility) will not have any impact on the existing residential or commercial uses of the subject building or any similar uses that may be located in adjacent buildings.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided:

The subject building, while it is located within the locally designated Northeast Waterfront Historic District, is not considered a historic building. However, the building was clearly design with the intent to preserve the existing characteristics of the historic neighborhood, and the T-Mobile will not alter any prominent exterior features. The proposal does not include any removal or of distinctive materials or significant alteration of any features, spaces, and spatial relationships.

3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken:

This project consists only of minor facilities that will blend, as much as possible, with the building's existing aesthetics. All facilities will be painted to match their surroundings and screened from view to fullest extent practicable. The proposed antennas and equipment will not add a false sense of historical development as they are small auxiliary facilities located among other similar facilities on the building's roof.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved:

Because the subject building was only constructed two years ago, it likely doesn't yet qualify as a building that has acquired historic significance. However, as previously discussed, none of the building's prominent features will be altered by the T-Mobile proposal, and any acquired historic significance shall be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of fine craftsmanship that characterize a property will be preserved:

All materials, features, finishes and construction techniques will not be adversely affected by the proposal. The proposal simply consists of installing three antennas and an equipment enclosure on the roof, none which will significantly alter any of the prominent features of the subject building.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence:

Not applicable. The building is new and does not contain any deteriorated historic features.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used:

Not applicable. No chemical or physical treatment is proposed.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken:

Not applicable. The project will not impact any archeological resources.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment:

Installation of the proposed T-Mobile facilities will not destroy any historic materials, features or spatial relationships.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would not be impaired:

If ever required or desirable, the T-Mobile facility could be removed without any permanent impact. The form and integrity would be entirely preserved.

Note: Attach continuation sheets, if necessary.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
FCC-FOCUSED CHECKLIST EVALUATION

T-MOBILE USA - SITE NAME: 801 Battery
T-MOBILE USA - SITE NUMBER: SF-23213E

Prepared for:

T-Mobile

T-Mobile West Corporation
dba T-Mobile USA
1855 Gateway Boulevard, 9th Floor
Concord, California 94520

30-Nov-2009

Prepared by:

earthTouch inc
www.earthtouchinc.com

EarthTouch, Inc.
3135 North Fairfield Road, Suite D
Layton, Utah 84041

and "unintentional" *take* (*take* that results from, but is not the purpose of, the activity in question). Impacts to active migratory birds' nests are interpreted by the USFWS as "*take*" of migratory birds under the MBTA. During the site inspection, no bird nests were noted on the building or within nearby landscaped areas. Development of the proposed PCS facility would not involve removing or trimming trees and would not occur in areas adjacent to trees that may provide for potential nesting locations. The proposed PCS facility would not involve disturbance to naturally occurring grasslands and therefore would not impact ground-nesting birds. Therefore, the proposed action would not result in "*take*" of migratory birds protected under the MBTA.

47 CFR 1.1307 (a)(4)

Would the proposed PCS facility affect sites, districts, buildings, structures, or objects significant in American history, architecture, engineering, archaeology, and/or cultural resources that are listed or eligible for listing in the National Register of Historic Places?

- **No Effect**

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies to evaluate the effects of proposed undertakings on historical, archaeological, and cultural resources. Guidelines for implementing the Section 106 process are promulgated by the Advisory Council on Historic Preservation (ACHP) in "Protection of Historic Properties" (36 CFR Part 800), which mandate Federal agency compliance with other laws related to historic preservation including the Archaeological and Historic Preservation Act (AHPA), Executive Order 11593, and NEPA. Other agency-specific rules also require consideration of a proposed project's impact on *historic properties* and cultural resources. *Historic properties* is a term of defined statutory meaning defined by the FCC to include "…any historic or prehistoric site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places (NRHP)."

An initial step in the process outlined in 36 CFR Part 800 is delineating an area of potential effect (APE), which is defined as the geographic area within which a proposed action facility may have an effect on *historic properties*, if present. The FCC has defined the APE for wireless telecommunications projects to include the area affected by construction and project staging as well as visual impacts, which varies depending upon the height of the structure.

The *Nationwide Programmatic Agreement for the Collocation of Wireless Antennas* (16-Mar-2001) aka "Collocation Agreement" provides three sets of conditions ("Stipulations") that categorically exclude a proposed PCS facility from the consultative requirements set forth in 36 CFR Part 800 and Section 106 of the NHPA in some cases. Stipulation V applies to proposed wireless telecommunication facility collocations on buildings and non-FCC regulated tower structures. Conformance with the conditions of Stipulation V requires the following:

- The building, structure, or object be less than 45 years old; and
- The building, structure, or object that cannot be within a historic district, or within 250 feet of a historic district, or have deployed antennas be visible from ground level from within a historic district; and
- The building, structure, or object is not listed on, or *eligible, determined eligible,* or *potentially eligible* for listing on the NRHP; and
- The collocation licensee has not received a letter or notification of complaint to the FCC regarding the proposed PCS facility from the public.

Relevant information pertaining to the subject property includes:

- Information obtained from the San Francisco Planning Department indicated that the building on the site was constructed in 2007.
- Review of the *Directory of Properties in the Historic Property Data File for San Francisco County* (Historic Properties Directory) indicated that the subject property is not listed in this directory.
- The subject property is not located within 250 feet of a historic property or a historic district;
- To our knowledge, T-Mobile USA has not received notification from a member of the public, the California Office of Historic Preservation (OHP), or other party regarding potential adverse effect to a historic property associated with the PCS facility collocation.

The proposed antenna deployment locations, lease area, access easement, and utility easement are located within the building. No trenching outside the building appears necessary during construction of the proposed PCS facility or to enable operation of the proposed PCS facility. Therefore, the proposed PCS facility collocation would not likely result in direct impacts to a *historic property.*

Based upon a review of readily available information; the proposed PCS facility collocation, as depicted in Construction Drawings appears to conform to the conditions of Stipulation V of the *Nationwide Programmatic Agreement for the Collocation of Wireless Antennas* (16-Mar-2001) and would, therefore, be *categorically excluded* by FCC rule from the consultation requirements of Section 106. As such, consultation with the California OHP, pursuant to Section 106 would not be warranted.

47 CFR 1.1307 (a)(5)

Would the proposed PCS facility affect Native American religious sites?

- **No Effect**

Numerous federal statutes, laws, and implementing regulations require consultation with Native American tribes, including the National Historic Preservation Act (NHPA), Archaeological Resources Protection Act, Native American Graves Protection and Repatriation Act, and Archaeological and Historic Preservation Act. Implementing regulations found in 36 CFR Part 800 require agencies of the federal government to determine if their actions would have an affect on archaeological sites or properties of historic or cultural significance to Native American communities or other ethnic groups.

There are more than 100 federally recognized Native American tribes within the State of California. The Native American Heritage Commission (NAHC) was established in 1976

Product Data Sheet APX16DWV-16DWV-S-E-A20

Optimizer® Panel Dual Polarized Antenna equipped with (2) AISG 2.0 ACU motors

Product Description

A combination of two X-Polarized antennas in a single radome, this pair of variable tilt antennas provides exceptional suppression of all upper sidelobes at all downtilt angles. It also features a wide downtilt range. This antenna is optimized for performance across the entire AWS frequency band (1710-2155 MHz). The antenna comes pre-connected with two antenna control units (ACU).

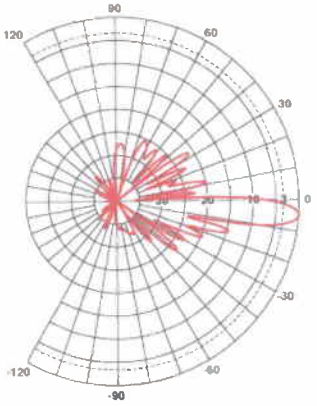
Features/Benefits

- **Variable electrical downtilt - provides enhanced precision in controlling intercell interference. The tilt is infield adjustable 0-10 deg.**
- **High Suppression of all Upper Sidelobes (Typically <-20dB).**
- **Gain tracking – difference between AWS UL (1710-1755 MHz) and DL (2110-2155 MHz) <1dB.**
- **Two X-Polarised panels in a single radome.**
- **Azimuth horizontal beamwidth difference <4deg between AWS UL (1710-1755 MHz) and DL (2110-2155 MHz)**
- **Low profile for low visual impact.**
- **Dual polarization; Broadband design.**
- **Includes (2) AISG 2.0 Compatible ACU-A20-N antenna control units**

Technical Specifications

Electrical Specifications

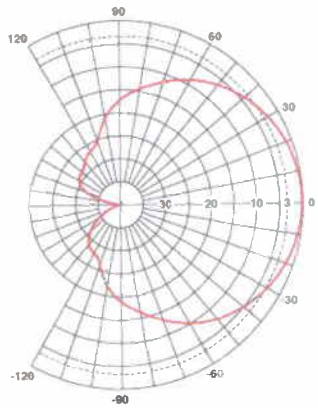
Frequency Range, MHz	1710-2170
Antenna Type	Panel Dual Polarized
Electrical Down Tilt Option	Variable
Gain, dBi (dBd)	18.4 (16.3)
Electrical Downtilt, deg	0-10 , 0-10
Horizontal Beamwidth, deg	65
VSWR	< 1.5:1
Vertical Beamwidth, deg	5.9 to 7.7
1st Upper Sidelobe Suppression, dB	> 18 (typically > 20)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)
Polarization	Dual pol +/-45°
Front-To-Back Ratio, dB	>26 (typically 28)
Maximum Power Input, W	300
Isolation between Ports, dB	> 30
Lightning Protection	Direct Ground
3rd Order IMP @ 2 x 43 dBm, dBc	> 150 (155 Typical)



Vertical Pattern

Mechanical Specifications

Rated Wind Speed, km/h (mph)	160 (100)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.64 (6.6)
Maximum Thrust @ Rated Wind, N (lbf)	787 (177)
Front Thrust @ Rated Wind, N (lbf)	787 (177)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	Fiberglass
Connector Type	(4) 7-16 DIN Female
Connector Location	Bottom
Mount Type	Downtilt Kit w/Scissor Kit
Mounting Hardware	APM40-2 + APM40-E2
Weight w/o Mtg Hardware, kg (lb)	18.5 (40.7)
Packing Dimensions, HxWxD, mm (in)	1550 x 420 x 260 (61 x 16.5 x 10.3)
Overall Length, m (ft)	1.42 (4.6)
Dimensions - HxWxD, mm (in)	1420 x 337 x 80 (55.9 x 13.3 x 3.15)
Shipping Weight, kg (lb)	25 (55)



Horizontal Pattern

* This data is provisional and subject to change.

ANDREW®
A CommScope Company

TMZXXX-6516-R2M

DualPol®, Hex Port Panel Antenna

DualPol®
Teletilt®

- Patented cross dipole and feed system
- Rugged, reliable design with excellent PIM suppression
- Includes factory installed AISG 2.0 RET actuator
- Fully compatible with Andrew Teletilt® remote control antenna system

ELECTRICAL

Frequency Range (MHz):	1710–2155			
Characteristic Impedance (Ohms):	50			
Azimuth BW (Deg):	63 ± 8			
Elevation BW (Deg):	7.3 ± 1.0			
Gain (dBi) :	17.4 ± 0.8			
Polarization:	±45°			
Front-to-Back Ratio (dB)	**2°**	**4°**	**6°**	**8°**
Copol, 180° ± 30°:	>30	>30	>30	>30
Upper Sidelobe (dB)	**2°**	**4°**	**6°**	**8°**
Main Beam to +30°:	>16	>18	>18	>18
VSWR / Return Loss (dB):	1.35:1 / 16.5			
Port-to-Port Isolation (dB):	>30			
Electrical Tilt Range (Deg):	2–8*			
Electrical Downtilt Accuracy (Deg):	± 0.3			
Cross-pol (dB)	**2°**	**4°**	**6°**	**8°**
3 dB Beamwidth:	>13	>13	>12	>12
Intermodulation Products (dBc)				
3rd Order, 2 x 20 Watts:	155			
Max. Input Power (Watts):	250			
Lightning Protection:	DC Ground			

*Antenna full tilt range includes 0–10°, specs reduced at 0°, 1°, 9°, and 10°.

PERFORMANCE TRACKING

Gain Variation (dB) (between UL and DL frequency pair):	1.6
Electrical Tilt Accuracy (Deg) (between UL and DL frequncy pair within 0.5°):	<0.5
Azimuth HPBW (Deg) (between UL and DL frequency pair):	16

MECHANICAL

Net Weight (kg / lbs):	16 / 35.2
Dimensions–LxWxD: (with actuator)	1523 x 500 x 90 mm 60 x 19.7 x 3.5 inch
Max. Wind Area (m² / ft²):	0.65 / 7.0
Max. Wind Load (N / lbf):	990 / 223
Max. Wind Speed (km/h / mph):	241 / 150
Hardware Material:	Hot Dip Galvanized
Connector Type:	7-16 DIN, Female (4)
Color:	Off White
Standard Mounting Hardware:	DB5083

Note: Actuators and protective shrouds included with this antenna are not shown.

Andrew Wireless Solutions
Customer Service 24 hours
U.S.A., Canada, Mexico 1-800-255-1479
U.K.: 0800 250055
Other Europe +44 592 782 612

www.andrew.com
Visit our Web site at www.andrew.com or contact your local Andrew Wireless Solutions representative for more information.

Information correct at date of issue but may be subject to change without notice.

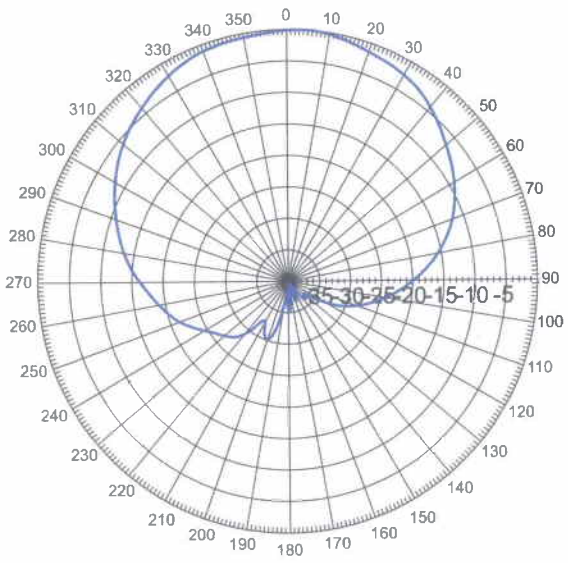
ANDREW®
A CommScope Company

TMZXXX-6516-R2M

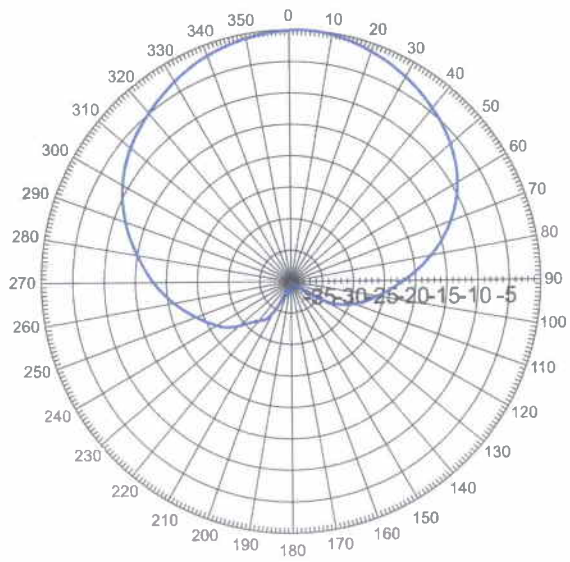
DualPol®, Hex Port Panel Antenna

DualPol®
Teletilt®

AZIMUTH PATTERN

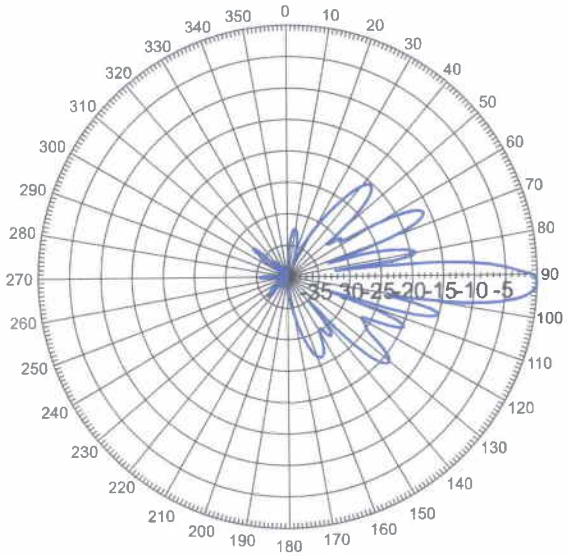


1732 MHz, Tilt: 2°

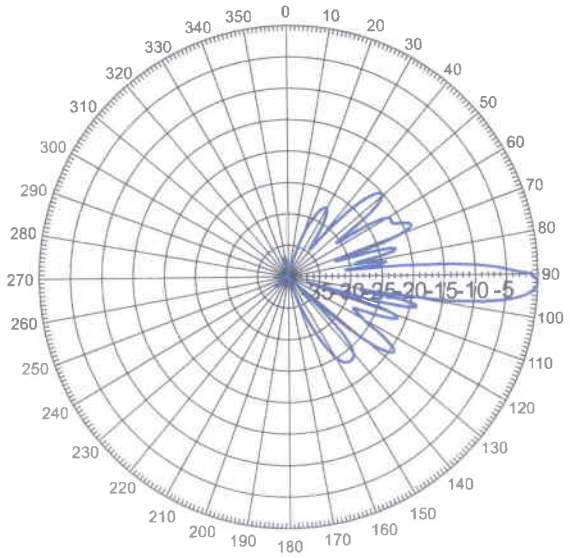


1880 MHz, Tilt: 2°

ELEVATION PATTERN



1732 MHz, Tilt: 2°



1880 MHz, Tilt: 2°

Note: Scale 5 dB per division.

Andrew Wireless Solutions
Customer Service 24 hours
U.S.A., Canada, Mexico: 1-800-255-1479
U.K.: 0800 250055
Other Europe: +44 592 782 612

www.andrew.com
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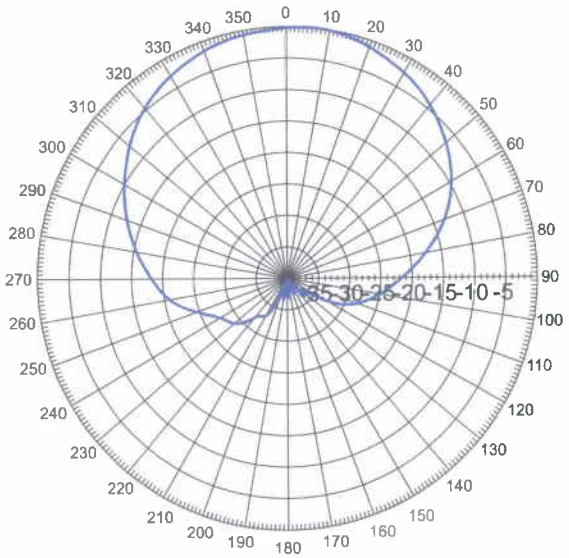
ANDREW®
A CommScope Company

TMZXXX-6516-R2M

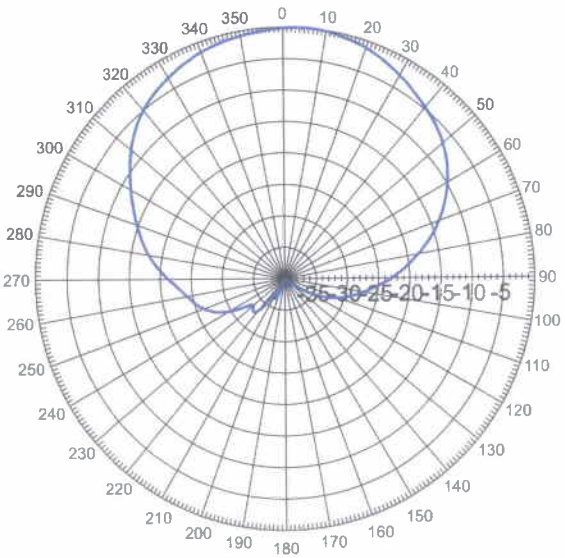
DualPol®, Hex Port Panel Antenna

DualPol®
Teletilt®

AZIMUTH PATTERN

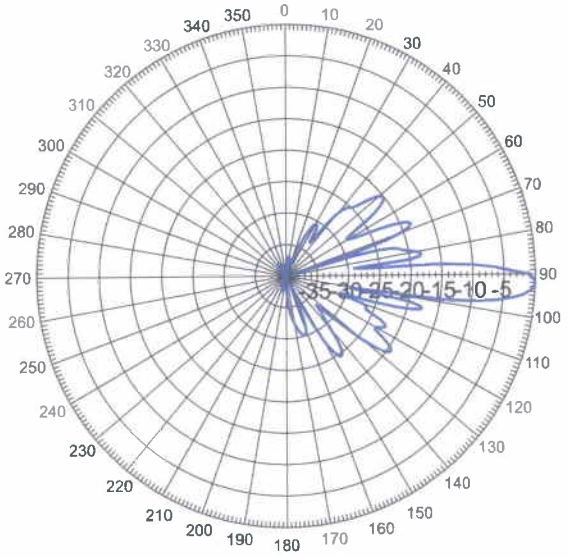


1960 MHz, Tilt: 2°

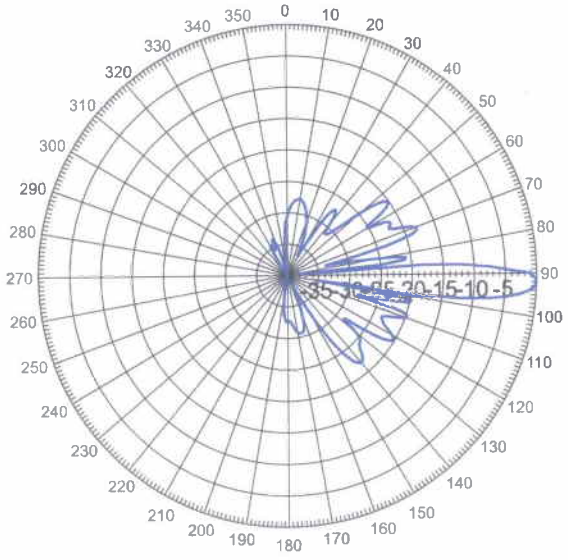


2132 MHz, Tilt: 2°

ELEVATION PATTERN



1960 MHz, Tilt: 2°



2132 MHz, Tilt: 2°

Note: Scale 5 dB per division.

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Other Europe:+44 592 782 612

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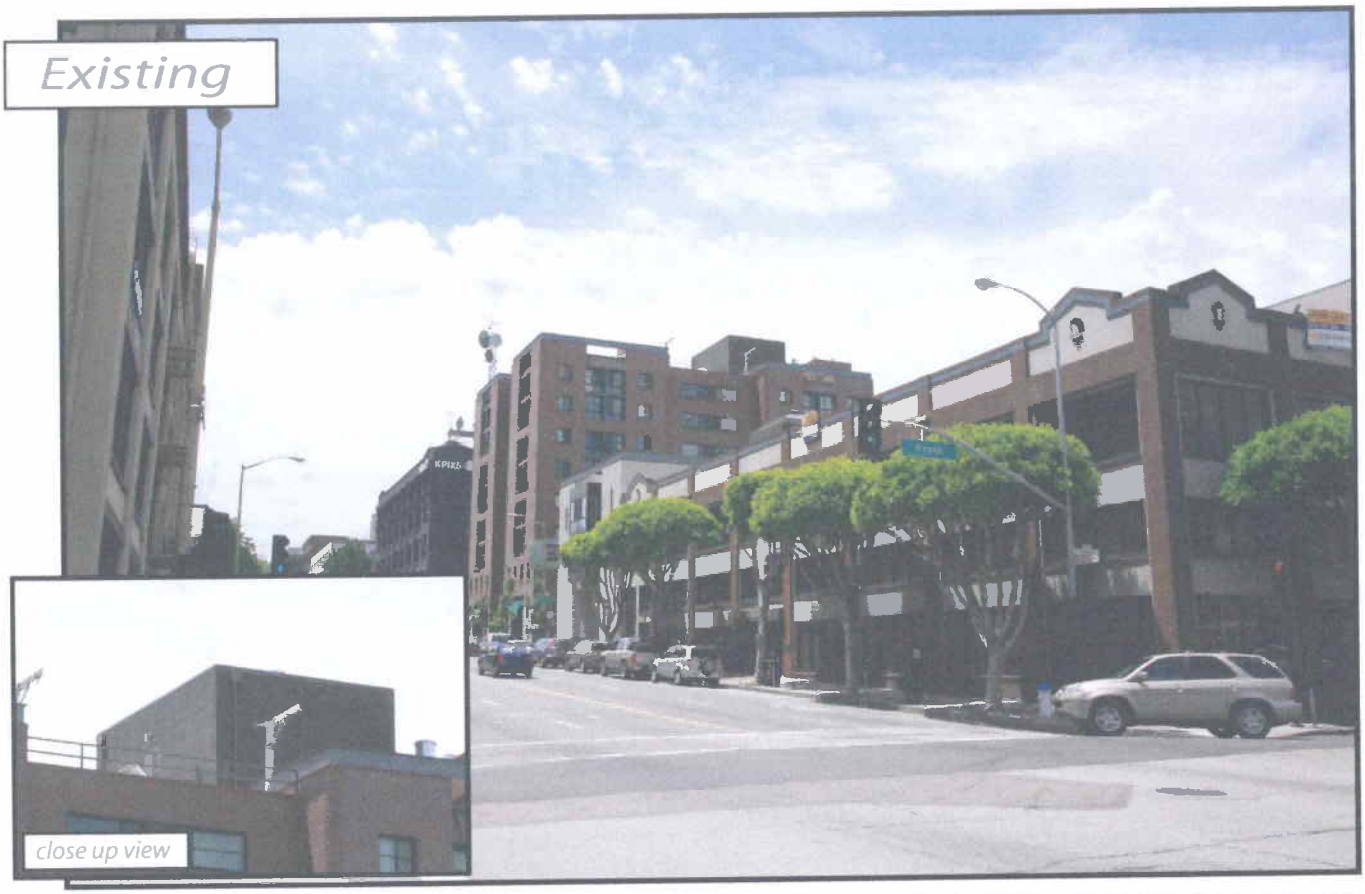
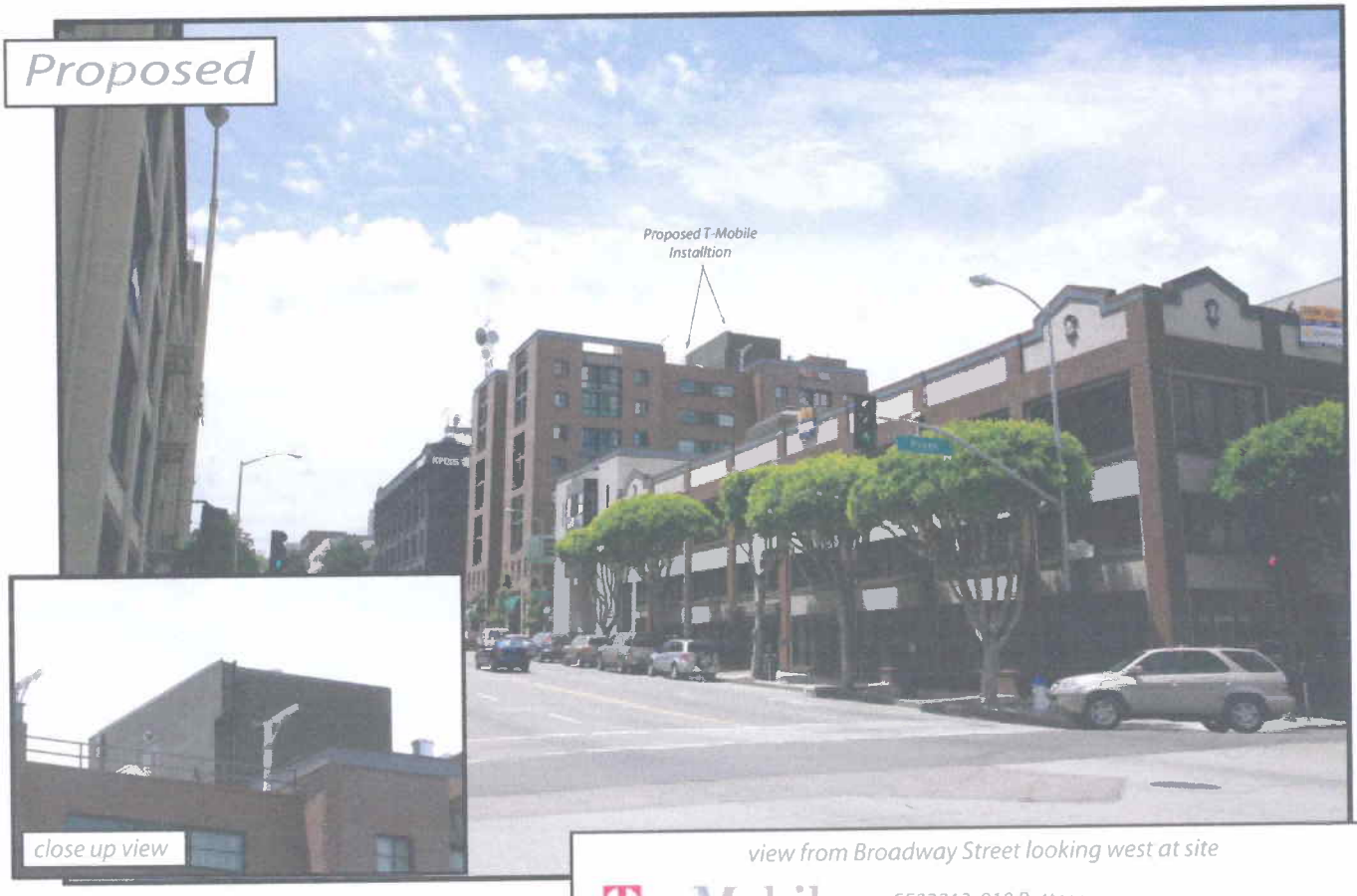
Existing



Proposed



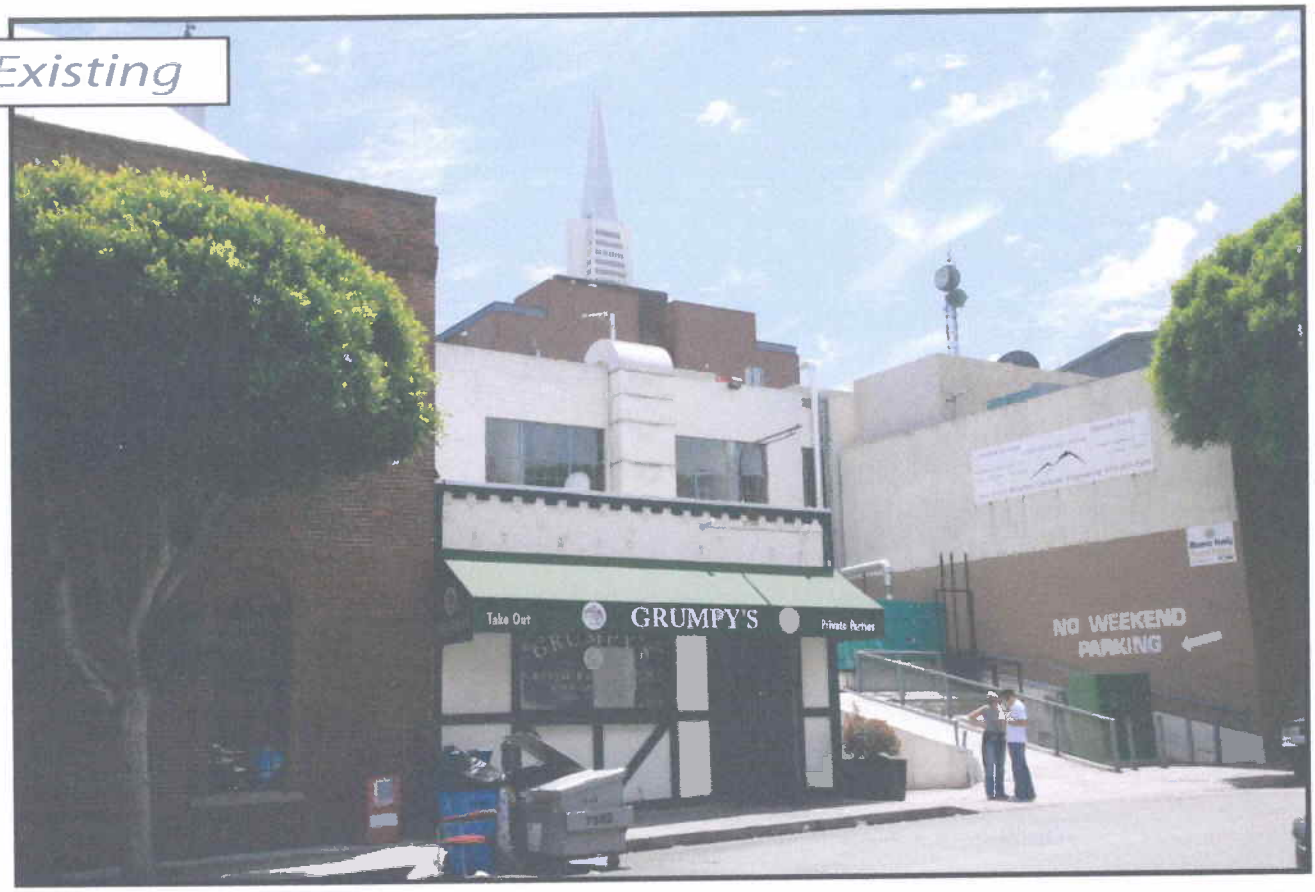
view from Broadway Street looking west at site

T··Mobile·

SF23213 810 Battery
810 Battery Street, San Francisco, CA

AdvanceSim
Photo Simulation Solutions
Contact / 925 / 202-8507

Existing



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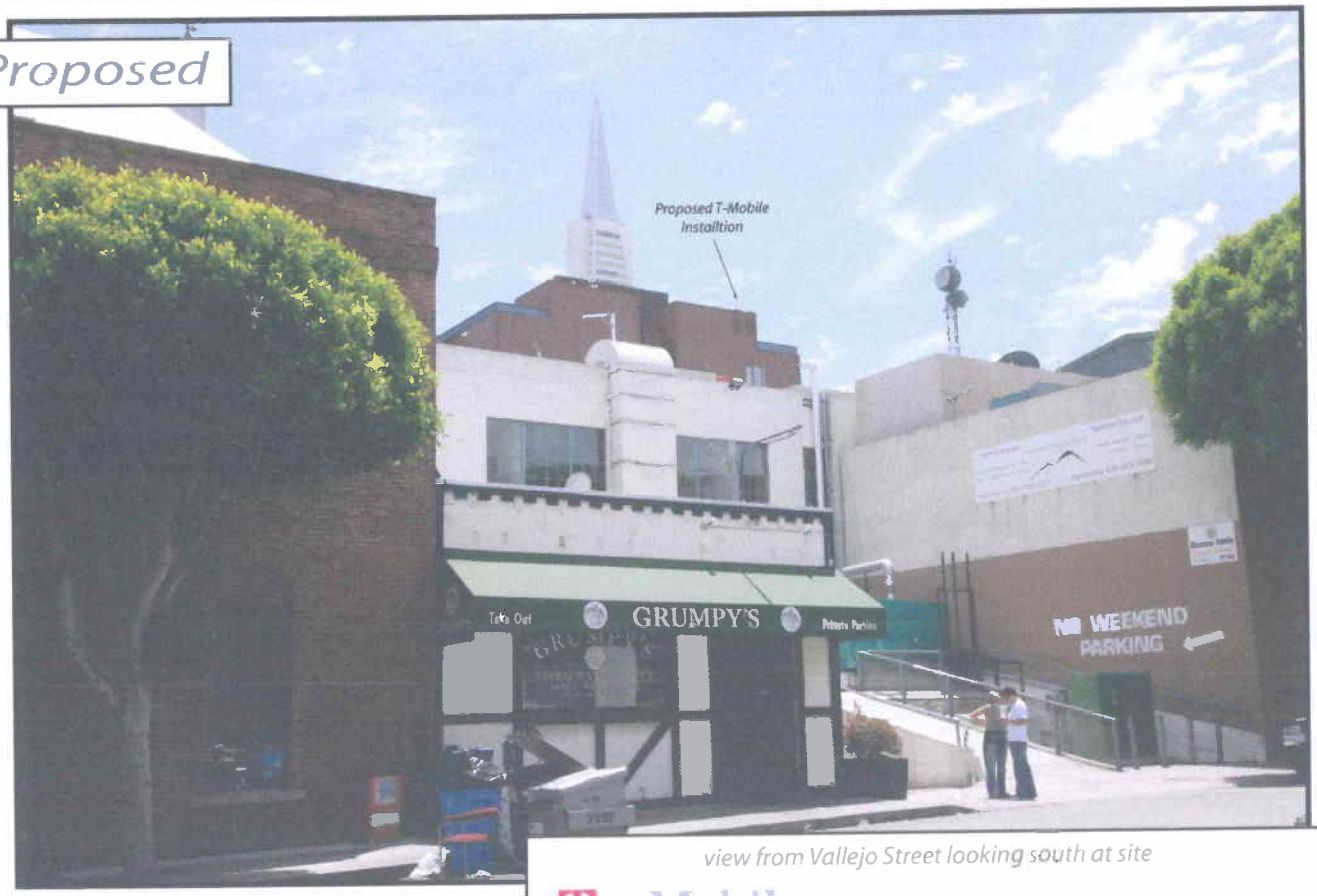


view from Vallejo Street looking south at site

T··Mobile·

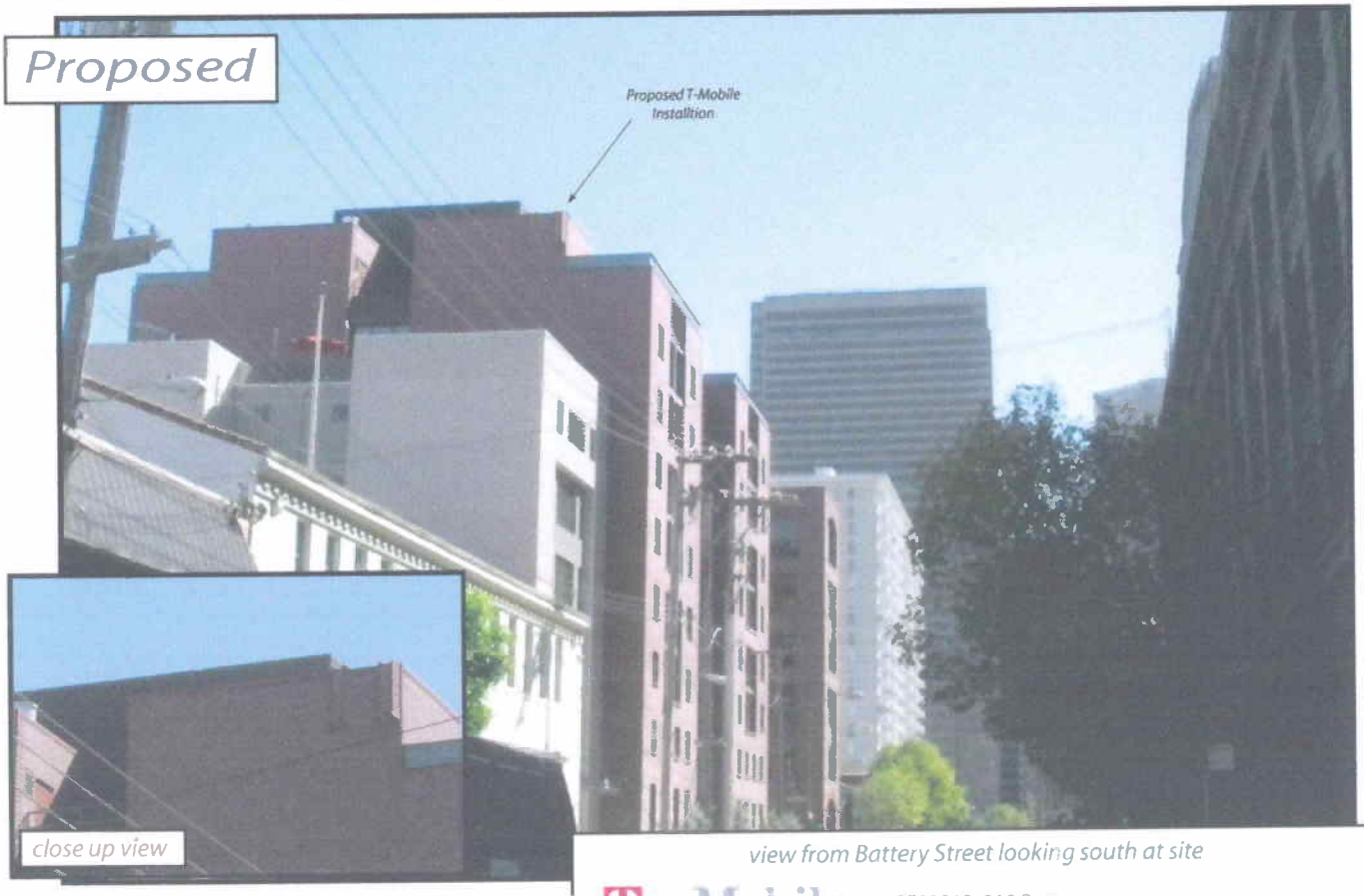
SF23213 810 Battery
810 Battery Street, San Francisco, CA

AdvanceSim
Photo Simulation Solutions

Existing

close up view

Proposed



close up view

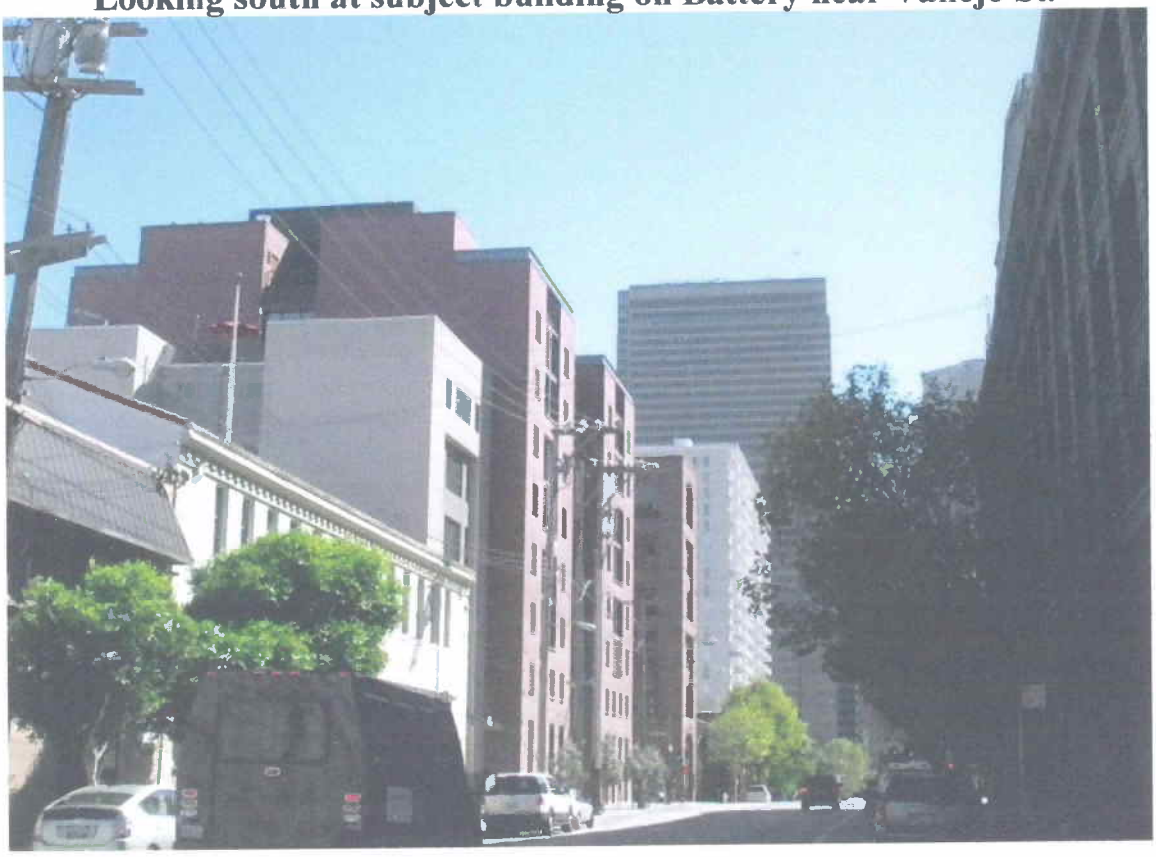
view from Battery Street looking south at site

T··Mobile·

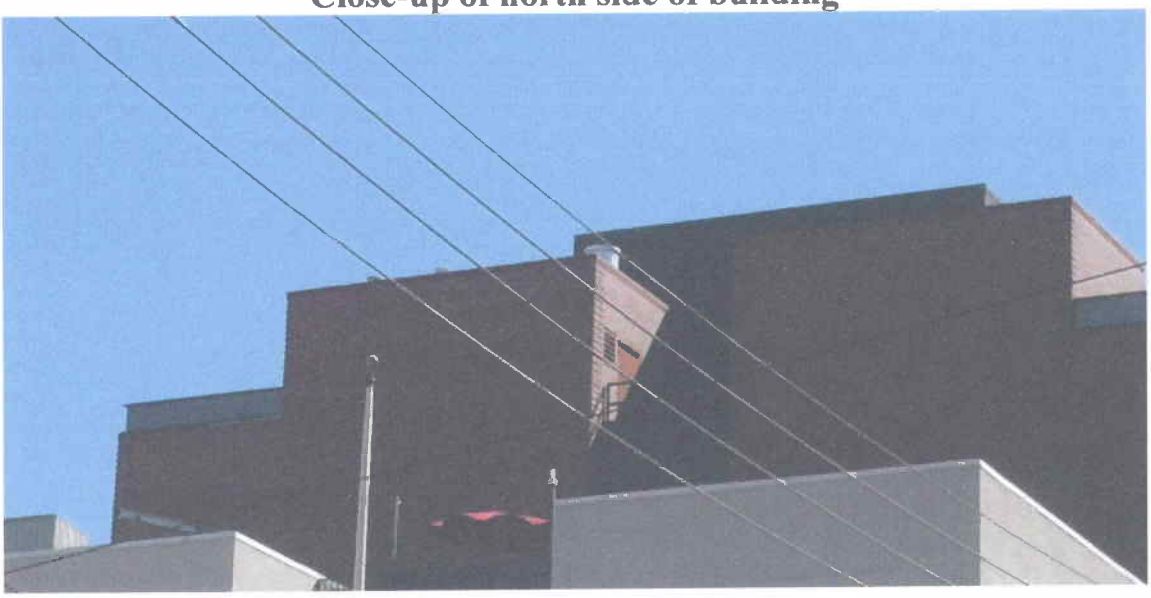
SF23213 810 Battery
810 Battery Street, San Francisco, CA

Looking west at subject building from Broadway near Front St.

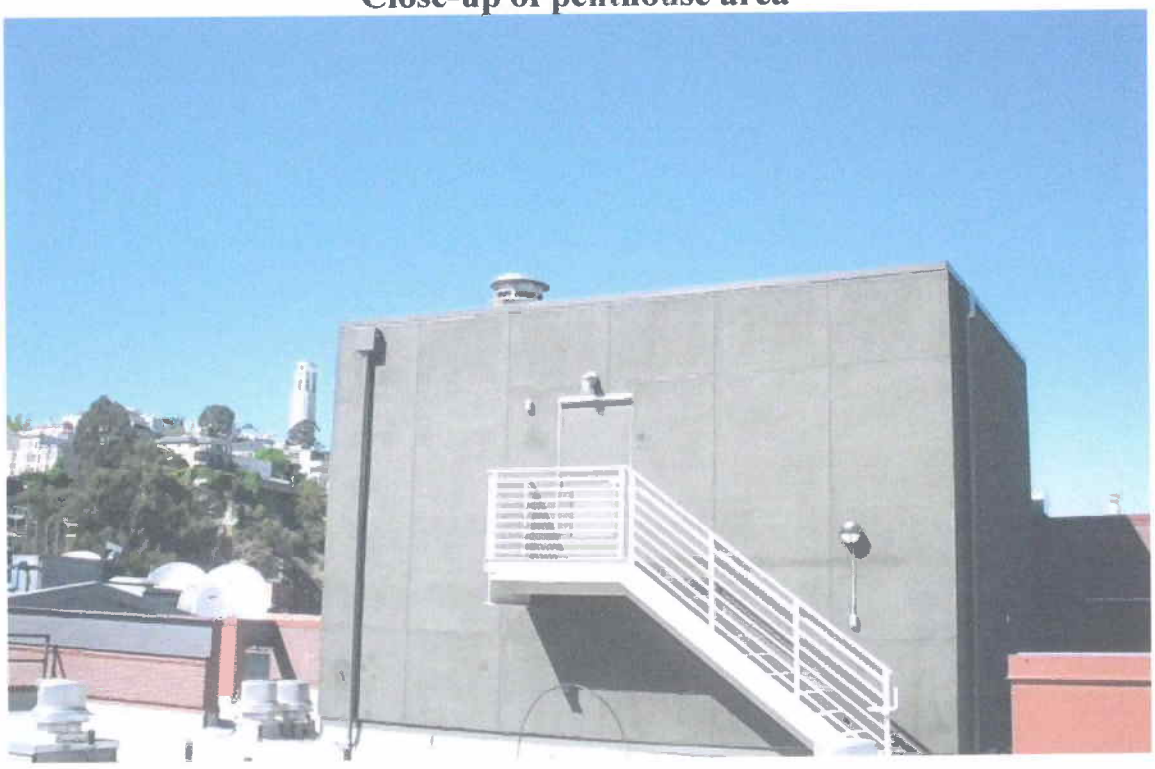
Looking south at subject building on Battery near Vallejo St.



Close-up of north side of building



Close-up of penthouse area



T-MOBILE WEST CORPORATION

T-Mobile®

1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

810 BATTERY

SF23213E

REGISTERED PROFESSIONAL ENGINEER
BRET A. McCOMB
C 69891
EXP 9/30/10
CIVIL
STATE OF CALIFORNIA

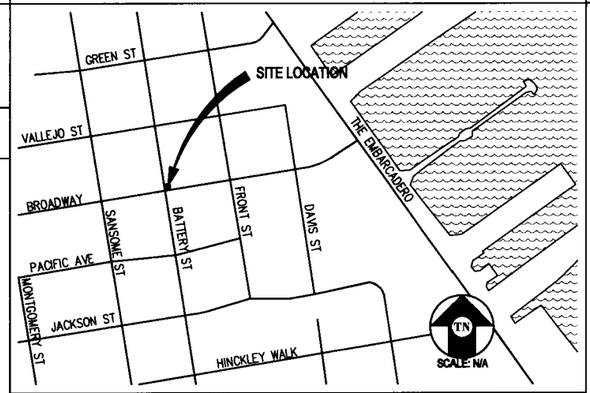
PROJECT DESCRIPTION

A (N) UNMANNED TELECOMMUNICATION FACILITY CONSISTING OF A (N) LEASE AREA W/ (4) (N) EQUIPMENT CABINETS & ~~(3)~~ (4) (N) ANTENNAS W/ (N) FRP BLINDERS.

PROJECT INFORMATION

SITE NAME:	810 BATTERY	SITE #:	SF23213E
COUNTY:	SAN FRANCISCO	JURISDICTION:	CITY OF SAN FRANCISCO
APN:	0141-011	POWER:	PG&E
SITE ADDRESS:	810 BATTERY ST SAN FRANCISCO, CA 94111	TELEPHONE:	AT&T
CURRENT ZONING:	C-2		
CONSTRUCTION TYPE:	IV		
OCCUPANCY TYPE:	U		
PROPERTY OWNER:	CHINATOWN COMMUNITY DEVELOPMENT CENTER 1525 GRANT AVE SAN FRANCISCO, CA 94133		
APPLICANT:	T-MOBILE 1855 GATEWAY BLVD, 9TH FLOOR CONCORD, CA 94520-3200		
LEASING CONTACT:	ATTN: JIM JAGGERS (916) 213-8407 PERMIT ME INC 3850 23RD STREET SAN FRANCISCO, CA 94114		
ZONING CONTACT:	ATTN: JOSEPH CAMICIA (415) 722-1183 PERMIT ME INC 3850 23RD STREET SAN FRANCISCO, CA 94114		
CONSTRUCTION CONTACT:	ATTN: KRESSTON HAYNES (209) 938-7251 SITE SERVICES LLC 100 TOWER ROAD AMERICAN CANYON, CA 94503		
LATITUDE: LONGITUDE:	N 37° 47' 55.36" NAD 83 W 122° 24' 03.45" NAD 83		
AMSL:	±23.52'		

VICINITY MAP



DRIVING DIRECTIONS

FROM: 1855 GATEWAY BLVD, CONCORD, CA 94520-3200
TO: 810 BATTERY ST, SAN FRANCISCO, CA 94111

1.	HEAD SOUTHEAST ON GATEWAY BLVD	230 FT
2.	TURN RIGHT TOWARD CLAYTON RD	112 FT
3.	TURN RIGHT AT CLAYTON RD	0.2 MI
4.	TAKE THE RAMP ONTO CA-242 S	1.3 MI
5.	MERGE ONTO I-680 S	3.2 MI
6.	TAKE THE EXIT ONTO CA-24 W TOWARD OAKLAND/LAFAYETTE	13.6 MI
7.	TAKE THE EXIT ONTO I-580 W	1.5 MI
8.	TAKE EXIT 19A ON THE LEFT TO MERGE ONTO I-80 W	6.7 MI
9.	TAKE THE FREMONT ST EXIT	0.4 MI
10.	KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR FOLSOM ST	0.2 MI
11.	TURN LEFT AT FOLSOM ST	0.3 MI
12.	TURN LEFT AT THE EMBARCADERO	0.4 MI
13.	CONTINUE STRAIGHT TO STAY ON THE EMBARCADERO	0.3 MI
14.	TURN LEFT AT BROADWAY ST	0.1 MI
15.	TURN RIGHT AT FRONT ST	354 FT
16.	TURN LEFT AT VALLEJO ST	348 FT
17.	TURN LEFT AT BATTERY ST	279 FT

END AT 810 BATTERY ST, SAN FRANCISCO, CA 94111

ESTIMATED TIME: 37 MINUTES ESTIMATED DISTANCE: 28.5 MILES

CODE COMPLIANCE

ALL WORK & MATERIALS SHALL BE PERFORMED & INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

1. 2007 CALIFORNIA ADMINISTRATIVE CODE (INCL. TITLES 24 & 25)
2. 2007 CALIFORNIA BUILDING CODE
3. 2007 CALIFORNIA ELECTRICAL CODE
4. 2007 CALIFORNIA MECHANICAL CODE
5. 2007 CALIFORNIA PLUMBING CODE
6. 2007 CITY OF SAN FRANCISCO FIRE CODE
7. LOCAL BUILDING CODES
8. CITY/COUNTY ORDINANCES
9. ANSI/EIA-TIA-222-G

ALONG WITH ANY OTHER APPLICABLE LOCAL & STATE LAWS AND REGULATIONS

HANDICAP REQUIREMENTS

THIS FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS & REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE, TITLE 24 PART 2, SECTION 1105B.3.4.2, EXCEPTION 1

SHEET INDEX

APPROVAL

RF

LEASING

ZONING

CONSTRUCTION

T-MOBILE

810
BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

ISSUE STATUS

△	DATE	DESCRIPTION	BY
	04-24-09	ZD 90%	–
	04-26-09	ZD 100%	–
	07-19-09	CD 90%	–
	07-22-09	CD 100%	–
1	12-09-09	CD 100%	CL
	–	–	–

DRAWN BY:	C. SYLVESTER
CHECKED BY:	L. HOUGHTBY
APPROVED BY:	B. McCOMB
DATE:	12/09/09

Streamline Engineering and Design Inc.
11768 Atwood Rd, Suite 20 Auburn, CA 95603
Contact: Larry Houghtby Phone: 916-275-4180
E-Mail: larry@streamlineeng.com Fax: 530-823-8783

REGISTERED PROFESSIONAL ENGINEER
BRET A. McCOMB
C 69891
EXP 9/30/10
CIVIL
STATE OF CALIFORNIA

T-MOBILE WEST CORPORATION
T-Mobile

1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:
TITLE

SHEET NUMBER:
T-1

SAN FRANCISCO FIRE DEPT CHECKLIST - PAGE 1 OF 4

2.06 PERMIT APPLICATION CHECKLIST FOR CELLULAR ANTENNA SITES AND ALL EQUIPMENT SERVING THE CELLULAR ANTENNA SITE

This checklist shall be printed on a drawing sheet and submitted as part of the plans submitted with any building permit application creating or modifying cellular antenna sites regardless of RF emission quantities. This checklist is designed to assist designers, installers, plan reviewers, and field inspectors. This checklist shall be prepared by the design professional and shall be stamped and wet-signed.

This document is not all-inclusive of all requirements for cellular antenna sites and it is the responsibility of the designer to research the applicable codes. Documents referenced for this bulletin are as follows:

FCC OET Bulletin 56 - Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields (August 1999)
FCC OET Bulletin 65 - Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (Ed. 97-01:August 1997)
FCC - A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance (June 2, 2000)
2007 California Building Code (2007 CBC)
2007 California Fire Code (2007 CFC)
2007 California Mechanical Code (2007 CMC)
2007 San Francisco Fire Code (2007 SFFC)
2002 NFPA 13 Automatic Sprinkler Systems
2002 NFPA 72 National Fire Alarm Code

1. Description of scope of work (both on the application and plans) shall match the actual work being done.
2. Plans shall include plan views and elevations showing all equipment locations and cable runs.
3. Submit on a drawing sheet the San Francisco Health Department Cellular Antenna Site (WTS) Checklist/Proposal/Engineer's RF Report. The FCC requires carriers to inform and prevent occupational exposure (i.e. building maintenance workers, fire fighters, etc.) The RF report shall not specify locking the roof access door to keep the general public off of the roof per 2007 SFFC 1207.7.1. The RF report shall be wet stamped and signed by an engineer.
4. Drawings shall reflect the striped/exclusion areas per the above RF Report

SAN FRANCISCO FIRE DEPT CHECKLIST - PAGE 2 OF 4

COMPLETE / SEE PAGE T-3 — 5. Notice to Workers warning signage as applicable per the above RF Report: Signage shall be in English, Mandarin and Spanish; The signage shall be permanently mounted at the stairwell side of the roof-access stairwell, door, in the Fire Control Room within proximity of the cell-site shutdown signage and any other space necessary to warn workers (ie. parapets, street side of fire escapes); The signage shall be clearly labeled and visible from any direction of approach; The sign shall be weatherproof with contrasting background and lettering colors and shall be readable from at least fifteen (15) feet from the sign; There is a yellow triangle around the antenna symbol (see ANSI C95.2-1999); and Location and signage detail with site specific information shall be included on a drawing sheet.

SEE EMF — 6. Provide a quantitative three-dimensional perimeter of the RF levels if the antennas appear to encroach on any means of exiting.

COMPLETE — 7. Camouflaged antennas shall have 4inch x 4inch signage permanently mounted to the exterior of the RF screen as provided below. These antennas shall also have the stripped exclusion area to the fullest extent of the antenna location with a minimum radius of 1 foot:
The signage shall be clearly labeled and visible from any direction of approach even if access is achieved from the building face (i.e. ladders, cherry picker, etc.); The sign shall be weatherproof with contrasting background color and shall be recognizable from at least fifteen (15) feet from the sign; The sign shall contain the yellow triangle around the antenna symbol (see ANSI C95.2-1999); and Location and signage detail shall be included on a drawing sheet.

COMPLETE / SEE PAGE E-1 — 8. Plans shall show whether a new electrical service is installed for the cell site. In general, buildings should only have one electrical service. However, with the prior approval of the San Francisco Fire Department and the Electrical Inspection Division, buildings may have one additional service to serve rooftop antenna equipment, provided a permanent placard is provided at the location of each service disconnect stating the location of the other and identifying the equipment served by each service.

COMPLETE — 9. Provide route of all cables from their origin to the equipment (plan, elevation and section views). Cables/wiring shall not be allowed in exit enclosures or in front of dry standpipes (2007 CBC 1020.1.1).

COMPLETE — 10. EITHER:
Provide a manual battery disconnect:

N/A — * Instructional signage shall be provided on the Procedure To Disconnect or De-Energize Radio Frequency (RF) Signal for the above manual disconnect for the batteries.

SAN FRANCISCO FIRE DEPT CHECKLIST - PAGE 3 OF 4

N/A — * Signage shall be permanently mounted next to the battery's electrical panel and clearly labeled in a phenolic label with a white background and black lettering. The title block shall be a red background and 1" high white lettering.

N/A — * The actual breaker(s) shall be a phenolic label (red background and white lettering) with lettering not less than 1/8" high.

N/A — * The signage shall also be like posted in the FCC Room within proximity of the Fire Alarm Panel and building's main electrical room within proximity of the main shutoff.

N/A — * A copy of the signage shall be included on a drawing sheet.

N/A — * Provide SFFD approved key lock box for equipment/electrical room for battery/equipment shutdown.

N/A — * The permanently mounted label above the lock box shall read "SFFD BATTERY DISCONNECT ACCESS KEY" and shall be a phenolic label with a red background and white lettering.

N/A — * Location and label of the key lock box shall be included on a drawing sheet.

OR:
Provide 24 hour/7 days a week telephone service center shut-down:

SPECIFIED — * Provide instructional signage for emergency shutdown of the cell site including telephone number and cell site identification number.

SPECIFIED — * The sign shall state that there is no manual shut down for the cell site and to call the contact number (the number shall be printed on the sign) with the site identification number (the number shall be printed on the sign) for immediate shut-down of the site 24hr/7days a week.

SPECIFIED — * The sign shall also state whether or not the back-up battery power to the antennas is also shut-down.

SPECIFIED — * The signage shall be permanently mounted next to the main electrical shut-off, in the FCC room within close proximity to the Fire Alarm Panel, at the battery cabinet and at the equipment room.

SPECIFIED — * The sign shall be clearly labeled in a phenolic label with a white background and black lettering. The title block shall be a red background and 1" high white lettering.

COMPLETE — * A copy of the signage shall be included on a drawing sheet.

NO — 11. Is a new HVAC system being installed?
___ Yes

N/A — * What is the volume of refrigerant used by the cooling unit(s)? __________

N/A — * What is the type of refrigerant per 2007 CMC? __________

N/A — * Assure compliance with 2007 CFC Section 606.
X No

N/A — 12. Plans state sequence of operations for any new detection, dampers, or fans.

SAN FRANCISCO FIRE DEPT CHECKLIST - PAGE 4 OF 4

COMPLETE — 13. Plans shall clearly show locations of batteries and battery cabinets.

COMPLETE — 14. Plans shall state whether the building is fully sprinklered or not.

COMPLETE — 15. In fully sprinklered buildings, equipment rooms shall be provided with sprinklers in accordance with NFPA 13.

COMPLETE / SEE PAGE T-5 — 16. Provide a table on a drawing sheet showing the manufacturer, model, type, amount (gallons or pounds) of electrolyte, flooded lead acid, Ni-Cd, VRLA or Li-Ion. Please show detailed compliance with 2007 CFC Section 608 on the drawing sheets. When compliance with Section 608 of the 2007 California Fire Code is required, the following additional information shall be provided:

N/A — * Rooftop battery rooms exceeding the above requirements shall be separated from the building and any openings as specified by the 2007 CBC and CMC.

N/A — * Plans state that a separate fire department permit will be obtained from SFFD Headquarters at 698 2nd St.

Prepared by: Mr. Bret McComb, PE
(Please include professional title and stamp)

Firm Name: STREAMLINE ENGINEERING & DESIGN, INC.
Address: 11768 ATWOOD RD, SUITE 20
AUBURN, CA 95603
Phone Number: 1-530-368-0532

For further Information see the FCC website: http://www.fcc.gov/oet/rfsafety
or contact the
San Francisco Fire Department
1660 Mission Street, 4th Floor
San Francisco, CA 94103
(415) 558-6187

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810 BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

ISSUE STATUS

△	DATE	DESCRIPTION	BY
	04-24-09	ZD 90%	-
	04-26-09	ZD 100%	-
	07-19-09	CD 90%	-
	07-22-09	CD 100%	-
△	12-09-09	CD 100%	CL
	-	-	-

DRAWN BY:	C. SYLVESTER
CHECKED BY:	L. HOUGHTBY
APPROVED BY:	B. McCOMB
DATE:	12/09/09

Streamline Engineering and Design Inc.
11768 Atwood Rd, Suite 20 Auburn, CA 95603
Contact: Larry Houghtby Phone: 916-275-4180
E-Mail: larry@streamlineeng.com Fax: 530-823-8783

REGISTERED PROFESSIONAL ENGINEER BRET A. McCOMB C 69891 EXP. 9/30/10 CIVIL STATE OF CALIFORNIA

T-MOBILE WEST CORPORATION
T · · Mobile ·
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:
FIRE DEPARTMENT CHECKLIST

SHEET NUMBER:
T-2

SIGNAGE AND STRIPING INFORMATION

1. THE FOLLOWING INFORMATION IS A GUIDE LINE WITH RESPECT TO PREVAILING STANDARDS LIMITING HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY AND SHOULD BE USED AS SUCH. IF THE SITE'S EMF REPORT OR ANY LOCAL, STATE OR FEDERAL GUIDELINES OR REGULATION SHOULD BE IN CONFLICT WITH ANY PART OF THESE NOTES OR PLANS, THE MORE RESTRICTIVE GUIDE LINE OR REGULATION SHALL BE FOLLOWED AND OVER RIDE THE LESSER.
2. THE PUBLIC LIMIT OF RF EXPOSURE ALLOWED BY T-MOBILE IS $1mWcm^2$ AND THE OCCUPATIONAL LIMIT OF RF EXPOSURE ALLOWED BY T-MOBILE IS $5mWcm^2$
3. IF THE BOTTOM OF THE ANTENNA IS MOUNTED (8) EIGHT FEET ABOVE THE GROUND OR ROOF LINE OF THE PERSONAL COMMUNICATION SYSTEM (PCS) AND DOSE NOT EXCEED THE PUBLIC LIMIT OF RF EXPOSURE LIMIT THEN NO STRIPING OR BARRICADES SHOULD BE NEEDED.
4. IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND THE AREA IS PUBLICLY ACCESSIBLE (e.g. ROOF ACCESS DOOR THAT CANNOT BE LOCKED OR HAVING A FIRE EGRESS), THEN BOTH BARRICADES AND STRIPING WILL BE NEEDED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES AND STRIPING WILL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER THE CONSTRUCTION OF THE SITE. USE THE PLANS AS A GUIDE LINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING.
5. IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS NOT EXCEEDED AND THE AREA IS NOT PUBLICLY ACCESSIBLE (e.g. ROOF ACCESS DOOR IS LOCKED), THEN JUST STRIPING OUT TO THE PUBLIC LIMIT WILL BE NEEDED AROUND THE ANTENNAS.THE EXACT EXTENT OF THE STRIPING WILL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER THE CONSTRUCTION OF THE SITE. USE THE PLANS AS A GUIDE LINE FOR PLACEMENT OF SUCH STRIPING.
6. ALL TRANSMIT ANTENNAS REQUIRE A (3) THREE LANGUAGE WARNING SIGN WRITTEN IN ENGLISH, SPANISH, AND CHINESE. THIS SIGN WILL BE PROVIDED TO THE CONTRACTOR BY THE T-MOBILE CONSTRUCTION MANAGER AT THE TIME OF CONSTRUCTION. THE LARGER SIGN SHALL BE PLACED AT ALL ROOF ACCESS LOCATIONS AND ON ALL BARRICADES IN PLANE SITE AND THE SMALLER SIGN SHALL BE PLACED ON THE ANTENNAS THEMSELVES OR ON THE OUTSIDE OF THE ANTENNA ENCLOSURES IN A MANNER THAT IS EASILY SEEN BY ANY PERSON ON THE ROOF. WARNING SIGNS SHALL COMPLY WITH ANSI C95.2 COLOR, SYMBOL, AND CONTENT CONVENTIONS. ALL SIGNS WILL HAVE T-MOBILE'S NAME AND THE COMPANY CONTACT INFORMATION (e.g. TELEPHONE NUMBER) TO ARRANGE FOR ACCESS TO THE RESTRICTED AREAS. THIS TELEPHONE NUMBER WILL BE PROVIDED TO THE CONTRACTOR BY THE T-MOBILE CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION.
7. PHOTOS OF ALL STRIPING, BARRICADES, AND SIGNAGE WILL BE PART OF THE CONTRACTORS CLOSE OUT PACKAGE AND WILL BE TURNED INTO THE T-MOBILE CONSTRUCTION PROJECT MANAGER AT THE END OF CONSTRUCTION. STRIPING SHALL BE DONE WITH FADE RESISTANT YELLOW SAFETY PAINT IN A CROSS HATCH PATTERN. ALL BARRICADES SHALL BE MADE OF AN RF FRIENDLY MATERIAL SO THAT THEY DO NOT BLOCK OR INTERFERE WITH THE OPERATION OF THE SITE AND SHALL BE PAINTED WITH FADE RESISTANT YELLOW SAFETY PAINT. THE CONTRACTOR SHALL PROVIDE ALL RF FRIENDLY BARRICADES NEEDED AND SHALL PROVIDE THE T-MOBILE CONSTRUCTION PROJECT MANAGER WITH A DETAILED SHOP DRAWING OF EACH BARRICADE.
8. ALL REQUIRED SIGNAGE WILL BE INSTALLED AS NEEDED AND FIELD VERIFIED.

NOTICE TO WORKERS

RADIO FREQUENCY ANTENNAS ON THIS ROOF.
PLEASE EXERCISE CAUTION AROUND ANTENNAS AND OBEY POSTED SIGNS AND/OR MARKINGS. FOR ACCESS TO RESTRICTED AREAS OR FOR FURTHER INFORMATION, PLEASE CALL 1-888-662-4662 (SITE NUMBER: SF23213)

IN ACCORDANCE WITH FCC RULES 47 CFR 1.1310

AVISO A TRABAJADORES

EXISTEN ANTENAS DE RADIOFRECUENCIA EN ESTE TECHO. POR FAVOR USE PRECAUCION ALREDOR DE LAS ANTENAS Y OBEDEZCA A LAS ZONAS RESTRINGIDAS O PARA OBTENER MAS INFORMACION, LLAME AL TELEFONO 1-888-859-1400 (NUMERO DE SITIO: SF23213)

DE ACUERDO A LAS REGLAS DE FCC 47 CFR 1.130

工作人員注意

此屋宇房頂有射頻天線裝置
在天線範圍四周務請小心,並遵照各已張貼之指示及/或標誌行事
如需進入禁區範圍或索取更多資料
請致電1-888-859-1400 此站區號: (SF23213)

依據FCC條例第47 CFR1.1310 款執行

NOTES:

1. WARNING SIGN TO BE MOUNTED AT ANTENNAS LOCATIONS.
2. SIGN SHALL COMPLY WITH ANSI C95.2 COLOR, SYMBOL, AND CONTENT CONVENTIONS.
3. SIGNAGE SHALL BE CLEARLY LABELED IN A PHENOLIC LABEL WITH A WHITE BACKGROUND AND BLACK LETTERING, AND SHALL BE READABLE FROM AT LEAST (15) FEET FROM THE SIGN.
4. PROPOSED 12"X20" PLASTIC SIGN

1 MULTI-LANGUAGE SIGN

NOTICE

Radio frequency fields beyond this point may exceed the FCC general public exposure limit.

Obey all posted signs and site guidelines for working in radio frequency environments.

In accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1307(b)

SITE NO. SF23213

2 TYPICAL CAUTION SIGN

NOTE: SIGN TO BE PERMANENTLY MOUNTED AT ANTENNA LOCATIONS.

NOTICE

GUIDELINES FOR WORKING IN RADIO FREQUENCY ENVIRONMENTS

- All personnel should have electromagnetic energy (EME) awareness training.
- All personnel entering this site must be authorized. obey all posted signs.
- Assume all antennas are active. Before working on antennas, notify owners and disable appropriate transmitters.
- Maintain minimum 3 feet clearance from all antennas Do not stop in front of antennas. Use personal RF monitors while working near antennas.
- Never operate transmitters without shields during normal operation.
- Do not operate base station antennas in equipment rooms.

3 TYPICAL CAUTION SIGN

NOTE: SIGN TO BE PERMANENTLY MOUNTED TO THE STAIRWELL SIDE OF THE ROOF ACCESS

INFORMATION-
DISCONNECT PROCEDURE

PROCEDURE TO DISCONNECT OR DE-ENERGIZE RADIO FREQUENCY (RF SIGNAL)

1. DISCONNECT POWER AT MAIN SERVICE DISCONNECT
2. DISCONNECT BACK-UP POWER AT BATTERY DISCONNECT

Contact T-Mobile at 1-888-662-4662 and follow their instructions prior to performing any maintenance or repairs closer than 3 feet from the antennas.

This is T-Mobile Wireless Site# SF23213

T-Mobile

NOTES:

1. SIGN SHALL BE A PHENOLIC LABEL WITH WHITE BACKGROUND AND BLACK LETTERING. THE TITLE BLOCK SHALL BE A RED BACKGROUND AND 1" HIGH WHITE LETTERING.
2. CONTRACTOR TO PLACE SIGNS IN FOLLOWING LOCATIONS: BATTERY LOCATION WITHIN PROXIMITY OF BATTERY DISCONNECT, FCC ROOM WITHIN PROXIMITY OF THE FIRE ALARM PANEL, AND THE BUILDING'S MAIN ELECTRICAL ROOM WITHIN PROXIMITY OF THE MAIN SHUTOFF.

4 BATTERY DISCONNECT SIGN

FOR IMMEDIATE SHUT DOWN OF ALL RADIO FREQUENCY EMISSIONS OF THIS SITE, PLEASE CALL CONTACT NUMBER AND GIVE SITE IDENTIFICATION NO.

CONTACT PHONE NUMBER:

1-888-662-4662

SITE IDENTIFICATION NUMBER:

Site No: SF23213

ENTER SITE ID ABOVE

LOCATION OF EQUIPMENT:

- ☒ ROOF TOP
- ☐ OTHER

THIS EQUIPMENT HAS BATTERY BACKUP:

- ☒ YES
- ☐ NO

5 TYPICAL CAUTION SIGN

NOTE: SIGN TO BE PERMANENTLY MOUNTED ON DOOR OF BTS CABINET

810 BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

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DRAWN BY:	C. SYLVESTER
CHECKED BY:	L. HOUGHTBY
APPROVED BY:	B. McCOMB
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Streamline Engineering and Design, Inc.
11768 Atwood Rd. Suite 20 Auburn, CA 95603
Contact: Larry Houghtby Phone: 916-275-4180
E-Mail: larry@streamlineeng.com Fax: 530-823-8783

REGISTERED PROFESSIONAL ENGINEER BRET A. McCOMB C 69891 EXP. 9/30/10 CIVIL STATE OF CALIFORNIA

T-MOBILE WEST CORPORATION
T-Mobile
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:
SIGNAGE DETAILS

SHEET NUMBER:
T-3

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by T-Mobile, West Corp., a personal wireless telecommunications carrier, to evaluate the proposed base station (Site No. SF23213C) located at 810 Battery Street in San Francisco, California for compliance with appropriate guidelines limiting human exposure to radiofrequency ("RF") electromagnetic fields.

Background

The San Francisco Department of Public Health has adopted a 10-point checklist for determining compliance of WTS facilities with prevailing safety standards. The acceptable thresholds for exposures of unlimited duration come from the guidelines adopted by the FCC at the direction of the U.S. Congress:

Personal Wireless Service	Approx. Frequency	Occupational Limit	Public Limit
Advanced Wireless ("AWS")	2,100 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Personal Communication ("PCS")	1,950	5.00	1.00
Cellular Telephone	870	2.90	0.58
Specialized Mobile Radio	855	2.85	0.57
[most restrictive frequency range]	30–300	1.00	0.20

The site was visited by Rajat Mathur, P.E., a qualified engineer employed by Hammett & Edison, Inc., during normal business hours on June 24, 2009, a non-holiday weekday, and reference has been made to additional information provided by T-Mobile and drawings by Streamline Engineering and Design, Inc., dated November 4, 2009.

Checklist

1. *The location of all existing antennas and facilities at site. Existing RF levels.*

There were reported no other wireless facilities installed at this site. Existing RF levels for a person anywhere at ground near the site were less than 1% of the most restrictive public exposure limit.

2. *The location of all approved (but not installed) antennas and facilities. Expected RF levels from approved antennas.*

No other WTS facilities or other communications facilities are reported to be approved for this site but not yet installed.

3. *The number and types of WTS within 100 feet of proposed site and estimates of additive EMR emissions at proposed site.*

There were observed no other WTS facilities within 100 feet of the proposed site although antennas for use by TV Station KPIX are located about 140 feet away across Battery Street and antennas for use by Sprint Nextel are located about 200 feet to the north.

4. *Location (and number) of Applicant's antennas and back-up facilities per building and location (and number) of other WTS at site.*

T-Mobile proposes to install four directional panel antennas above the roof of the eight-story building. Two RFS Model APX16DWV-16DWV-S-E-A20 antennas would be mounted on the north face of a mechanical equipment penthouse at an effective height of about 84 feet above ground and would be oriented toward 350°T. The two other antennas would be Andrew Model TMZXXX-6516-R2M, mounted on another mechanical equipment penthouse at an effective height of about 91 1/2 feet above ground, 16 feet above the roof, and would be oriented singly toward 100°T and 230°T.

5. *Power rating (maximum and expected operating power) for all existing and proposed backup equipment subject to application.*

T-Mobile proposes to install Ericsson RBS transmitters whose maximum power rating is 60 watts, but are expected to operate below 40 watts, such that the power radiated from the antenna does not exceed the level given in Item 6 below.

6. *Total number of watts per installation and total number of watts for all installations at site.*

The maximum effective radiated power by T-Mobile in any direction would be 2,960 watts, representing simultaneous operation at 1,960 watts for PCS and 1,000 watts for AWS.

7. *Plot or roof plan showing method of attachment of antennas, directionality of antennas, and height above roof level. Discuss nearby inhabited buildings.*

The proposed antennas are to be installed as described in Item 4 above. There were observed buildings of similar height nearby, at least 90 feet away; closer buildings are all lower.

8. *Estimated ambient RF levels for proposed site and identify three-dimensional perimeter where exposure standards are exceeded.*

For a person anywhere at ground, the maximum ambient RF exposure level due to the proposed T-Mobile operation is calculated to be 0.0020 mW/cm^2, which is 0.20% of the applicable public exposure limit; cumulative RF levels at the site are estimated to remain below 1% of the public limit. The maximum calculated RF exposure level at the nearest building of similar height is 12% of the public limit. The maximum calculated cumulative level on the roof of the subject building is 14% of the public exposure limit. The three-dimensional perimeter of RF levels equal to the public exposure limit is calculated to extend up to 19 feet out from the antenna face and to much lesser distances above, below, and to the sides of the antennas and does not extend into uncontrolled areas.

9. *Describe proposed signage at site.*

Due to their mounting locations, the T-Mobile antennas are not accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access within 4 feet directly in front of the

T-Mobile antennas themselves, such as might occur during maintenance work on the building, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Posting explanatory warning signs* at the roof access door and at the antennas, such that the signs would be readily visible from any angle of approach to persons who might need to work within that distance, would be sufficient to meet FCC-adopted guidelines.

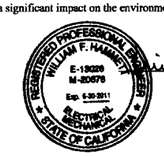
10. Statement of authorship.

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2011. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

Conclusion

Based on the information and analysis above, it is my professional opinion that the T-Mobile West Corp. base station operation located at 810 Battery Street in San Francisco can comply with the prevailing standards for limiting human exposure to radio frequency energy and, therefore, need not for this reason cause a significant impact on the environment.

December 4, 2009



William F. Hammett, P.E.

* Warning signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (*e.g.*, a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required.

810 BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

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DRAWN BY: C. SYLVESTER
CHECKED BY: L. HOUGHTBY
APPROVED BY: B. McCOMB
DATE: 12/09/09

Streamline Engineering and Design, Inc.
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E-Mail: larry@streamlineeng.com Fax: 530-823-8783

REGISTERED PROFESSIONAL ENGINEER
BRET A. McCOMB
C 69891
EXP 9/30/10
CIVIL
STATE OF CALIFORNIA

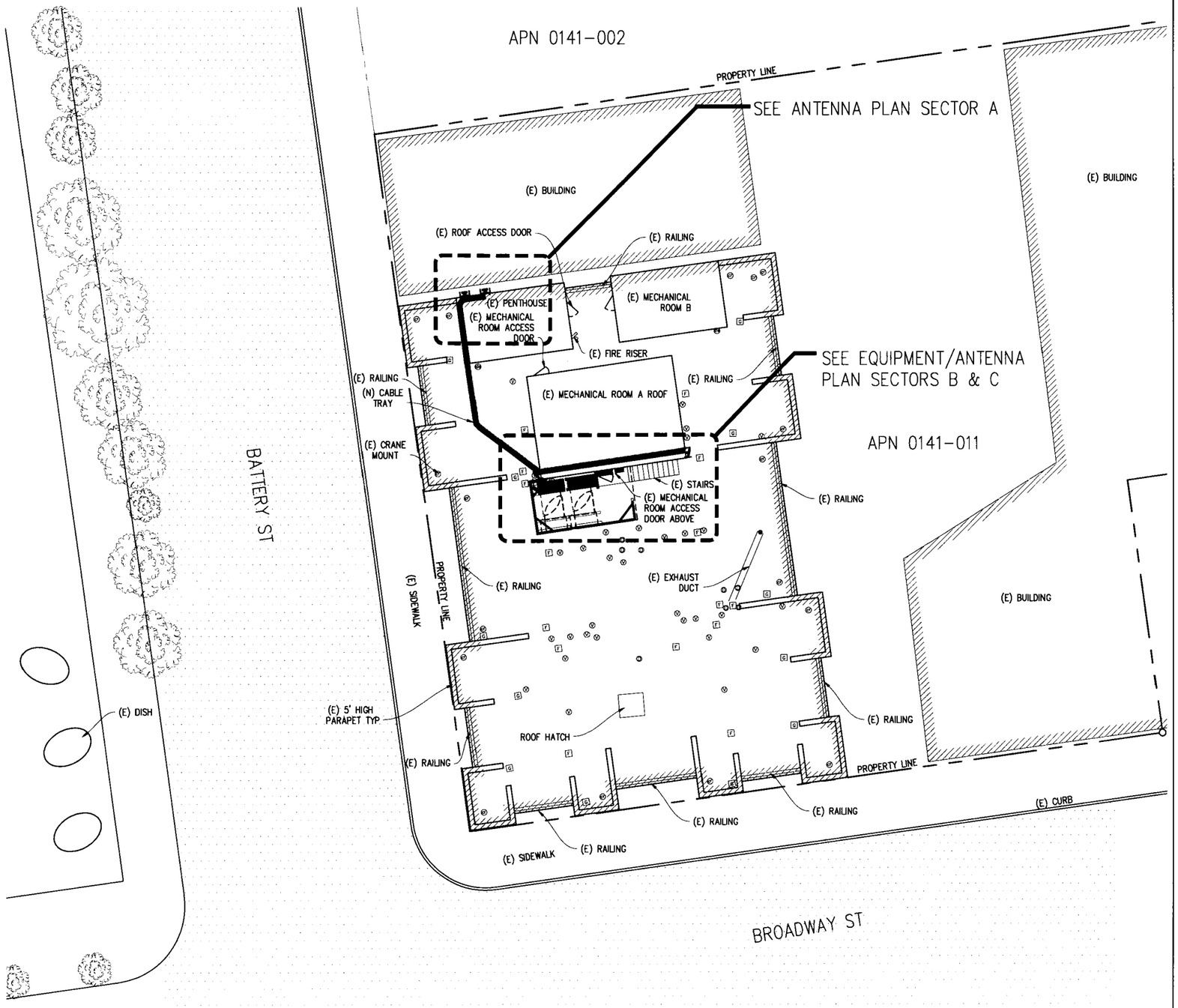
T-MOBILE WEST CORPORATION
T-Mobile
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:
EMF REPORT

SHEET NUMBER:
T-4

PROJECT GENERAL NOTES

1. THIS FACILITY IS AN UNOCCUPIED WIRELESS TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS NOTED OTHERWISE.
3. THE SCOPE OF WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRM THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PAY FOR PERMIT FEES AND TO OBTAIN SAID PERMITS AND TO COORDINATE INSPECTIONS.
6. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
7. CALL BEFORE YOU DIG. CONTRACTOR IS REQUIRED TO CALL 811 (NATIONWIDE "CALL BEFORE YOU DIG" HOTLINE) AT LEAST 72 HOURS BEFORE DIGGING.
8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
9. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. CONTRACTOR SHALL ALSO COORDINATE ALL PORTIONS OF THE WORK UNDER THE CONTRACT; INCLUDING CONTACT AND COORDINATION WITH THE CONSTRUCTION MANAGER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
10. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF THE PROJECT MANAGER.
11. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY, LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED, OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
13. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND ALL OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES.
14. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
15. CONTRACTOR SHALL PROVIDE A TOILET FACILITY DURING ALL PHASES OF CONSTRUCTION.
16. SUFFICIENT MONUMENTATION WAS NOT RECOVERED TO ESTABLISH THE POSITION OF THE BOUNDARY LINES SHOWN HEREON. THE BOUNDARY REPRESENTED ON THIS MAP IS BASED ON COMPILED RECORD DATA AND BEST FIT ONTO EXISTING IMPROVEMENTS. IT IS POSSIBLE FOR THE LOCATION OF THE SUBJECT PROPERTY TO SHIFT FROM THE PLACEMENT SHOWN HEREON WITH ADDITIONAL FIELD WORK AND RESEARCH. THEREFORE ANY SPATIAL REFERENCE MADE OR SHOWN BETWEEN THE RELATIONSHIP OF THE BOUNDARY LINES SHOWN HEREON AND EXISTING GROUND FEATURES, EASEMENTS OR LEASE AREA IS INTENDED TO BE APPROXIMATE AND IS SUBJECT TO VERIFICATION BY RESOLVING THE POSITION OF THE BOUNDARY LINES.
17. CONTRACTOR TO VERIFY THE LATEST/CURRENT RF DESIGN.



SITE PLAN

1"=10'

810 BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

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DRAWN BY:	C. SYLVESTER
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REGISTERED PROFESSIONAL ENGINEER
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STATE OF CALIFORNIA

T-MOBILE WEST CORPORATION
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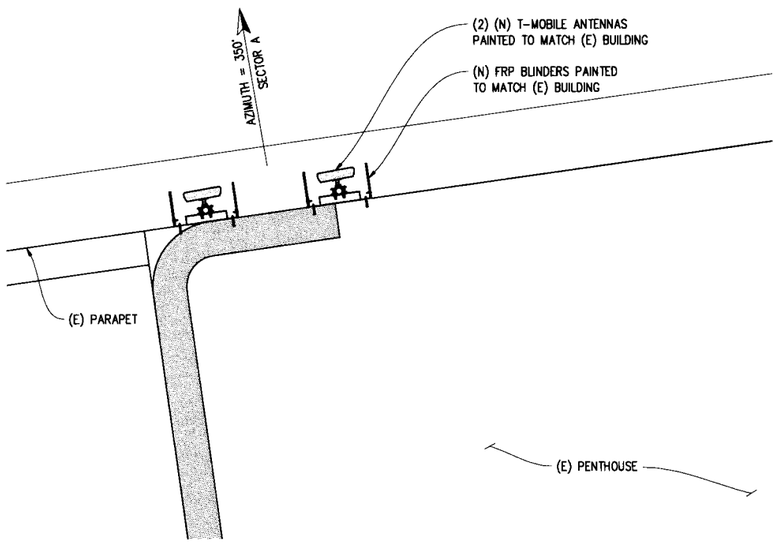
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
A-1

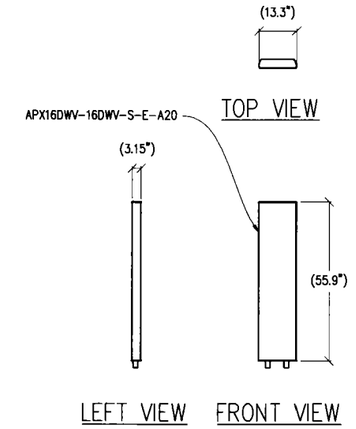


ANTENNA PLAN SECTOR A

½"=1'

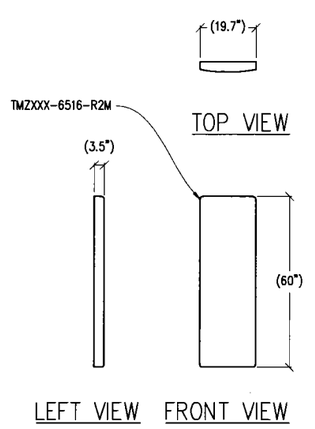
SECTOR	RF CONFIGURATION										
	COAX			ANTENNA							
	#	LENGTH	SIZE	MODEL	#	TMA	MDT	EDT	RET	RAD	AZIMUTH
ALPHA	6	56'	7/8"	APX16DWV-16DWV-S-E-A20	2	2	0°	3°	NO	91'-7"	350°
BETA	6	57'	7/8"	TMZXXX-6516-R2M	1	2	0°	5°	NO	91'-7"	100°
GAMMA	6	25'	7/8"	TMZXXX-6516-R2M	1	2	0°	3°	NO	91'-7"	230°

NOTE: CONTRACTOR TO VERIFY LATEST RF DESIGN



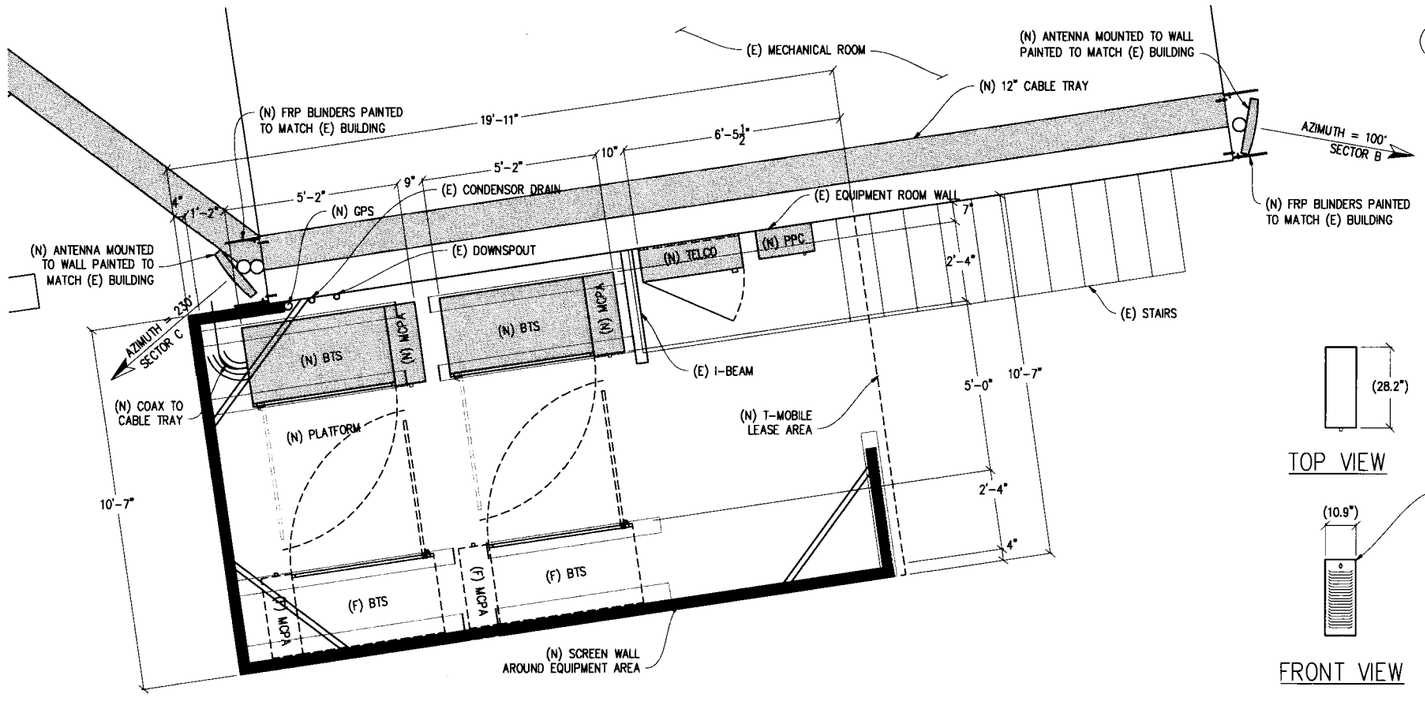
ANTENNA DETAIL

① ½"=1'



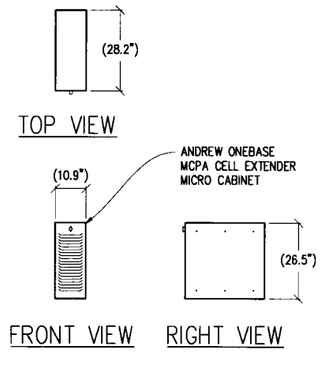
ANTENNA DETAIL

② ½"=1'



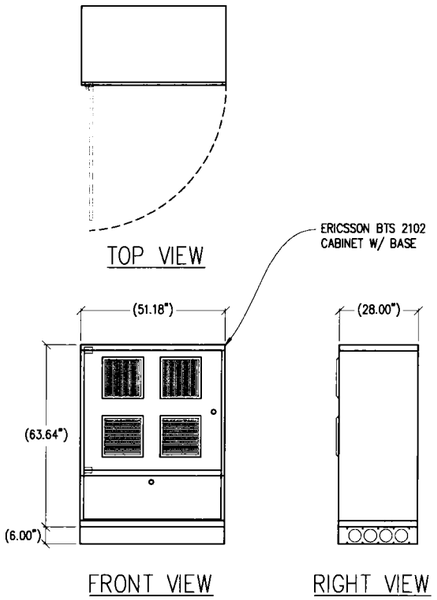
EQUIPMENT/ANTENNA PLAN SECTORS B & C

½"=1'



MCPA DETAIL

③ ½"=1'



BTS DETAIL

④ ½"=1'

810 BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

ISSUE STATUS

△	DATE	DESCRIPTION	BY
	04-24-09	ZD 90%	-
	04-26-09	ZD 100%	-
	07-19-09	CD 90%	-
	07-22-09	CD 100%	-
1	12-09-09	CD 100%	CL
	-	-	-

DRAWN BY:	C. SYLVESTER
CHECKED BY:	L. HOUGHTBY
APPROVED BY:	B. McCOMB
DATE:	12/09/09

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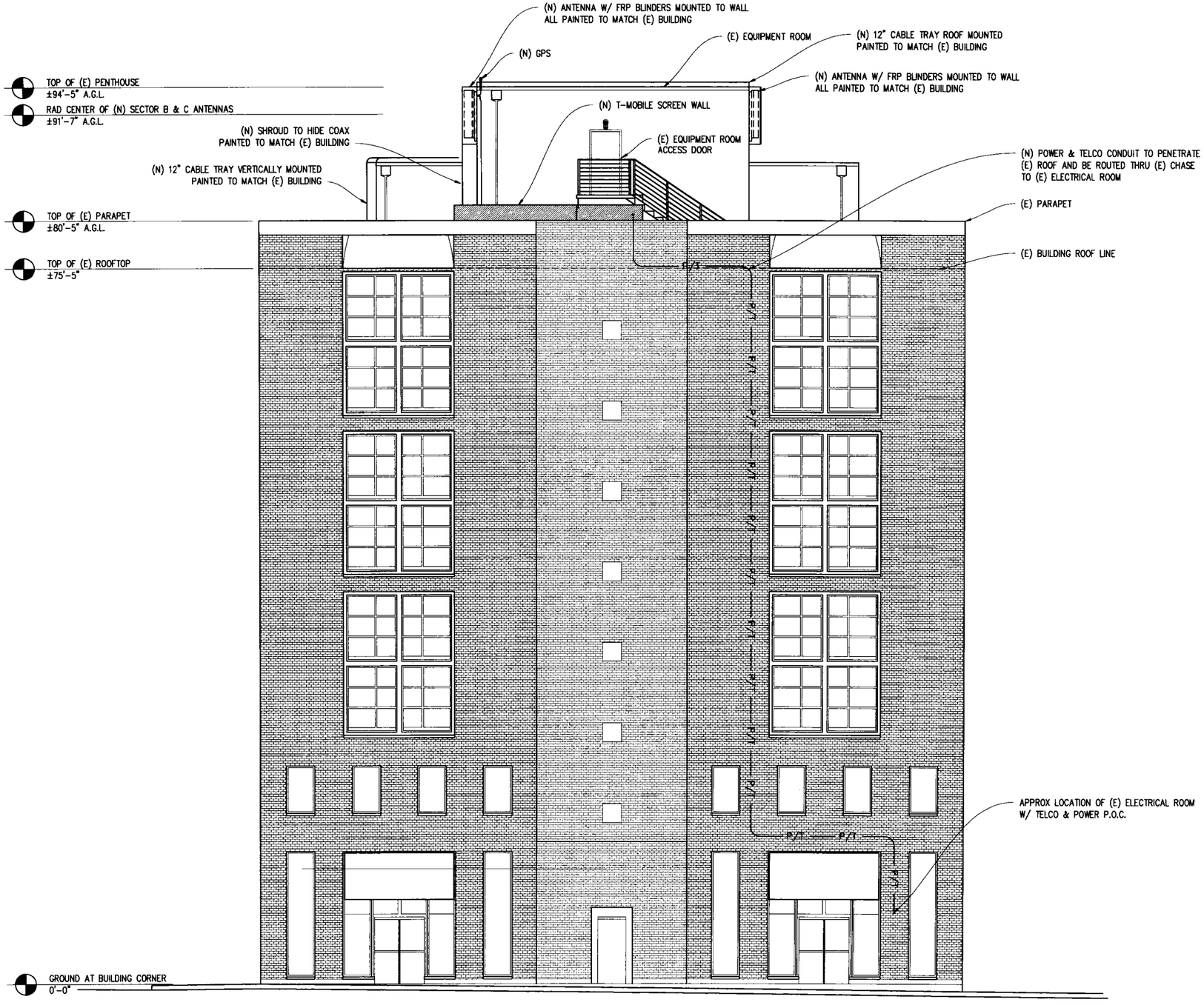
REGISTERED PROFESSIONAL ENGINEER
BRET A. McCOMB
C 69891
EXP. 9/30/10
CIVIL
STATE OF CALIFORNIA

T-MOBILE WEST CORPORATION
T··Mobile·
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:
EQUIP PLAN, ANTENNA PLANS, & DETAILS

SHEET NUMBER:
A-2



SOUTH ELEVATION

1/4"=1'

810 BATTERY

SF23213E

810 BATTERY ST
SAN FRANCISCO, CA 94111

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CIVIL
STATE OF CALIFORNIA

T-MOBILE WEST CORPORATION

T-Mobile

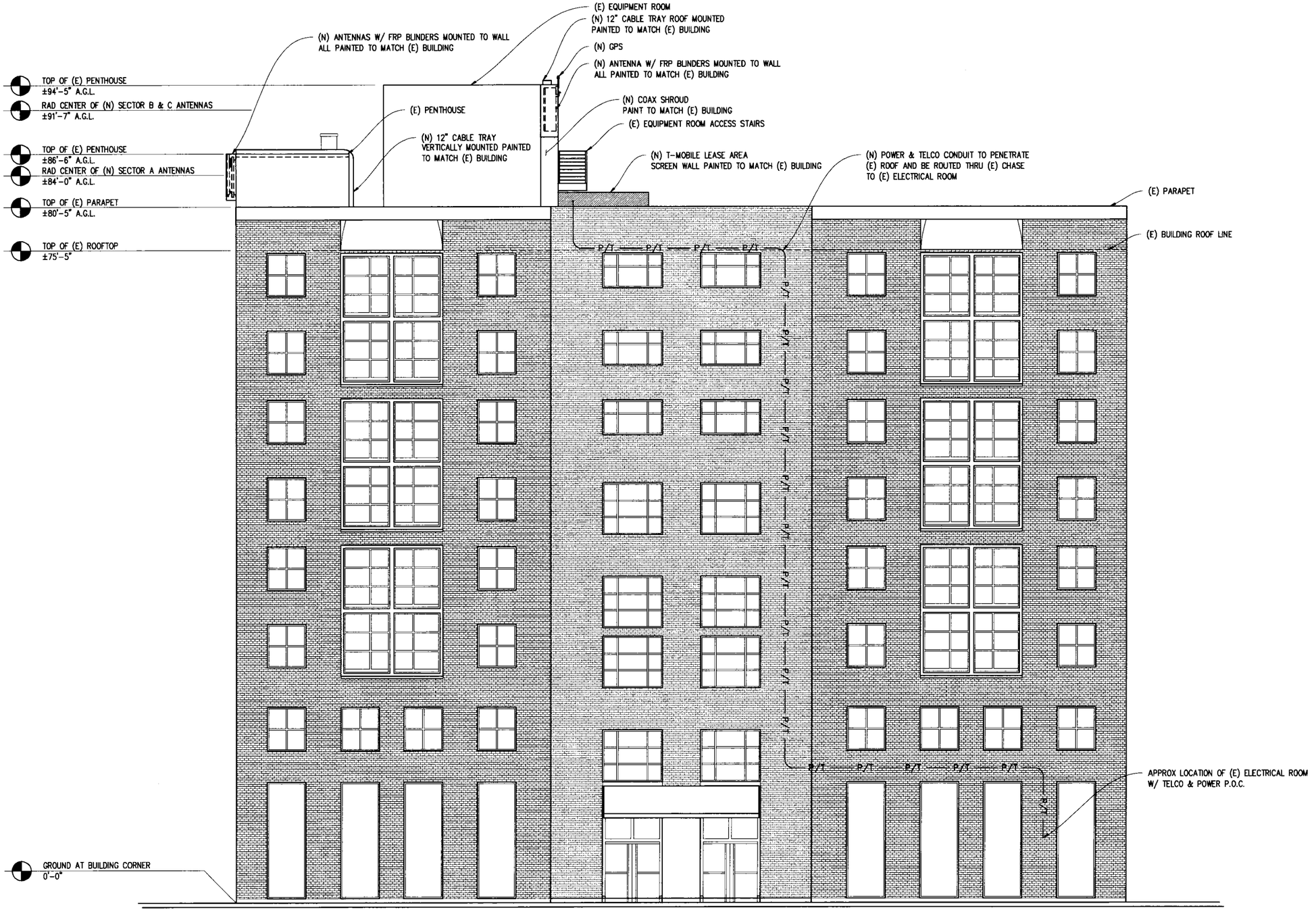
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:

ELEVATION

SHEET NUMBER:

A-3



WEST ELEVATION

1/4"=1'

810 BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

ISSUE STATUS

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	07-22-09	CD 100%	-
1	12-09-09	CD 100%	CL
	-	-	-

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STATE OF CALIFORNIA

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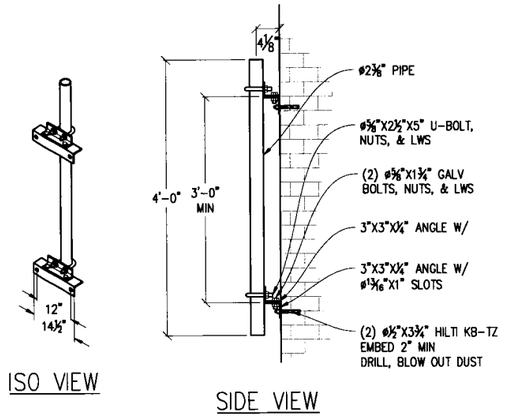
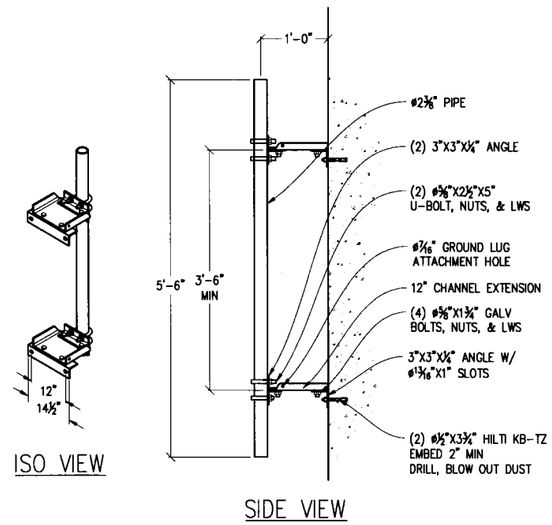
T-Mobile
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:
ELEVATION

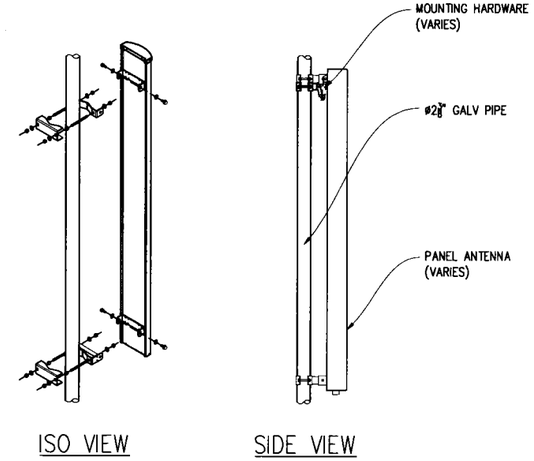
SHEET NUMBER:
A-4



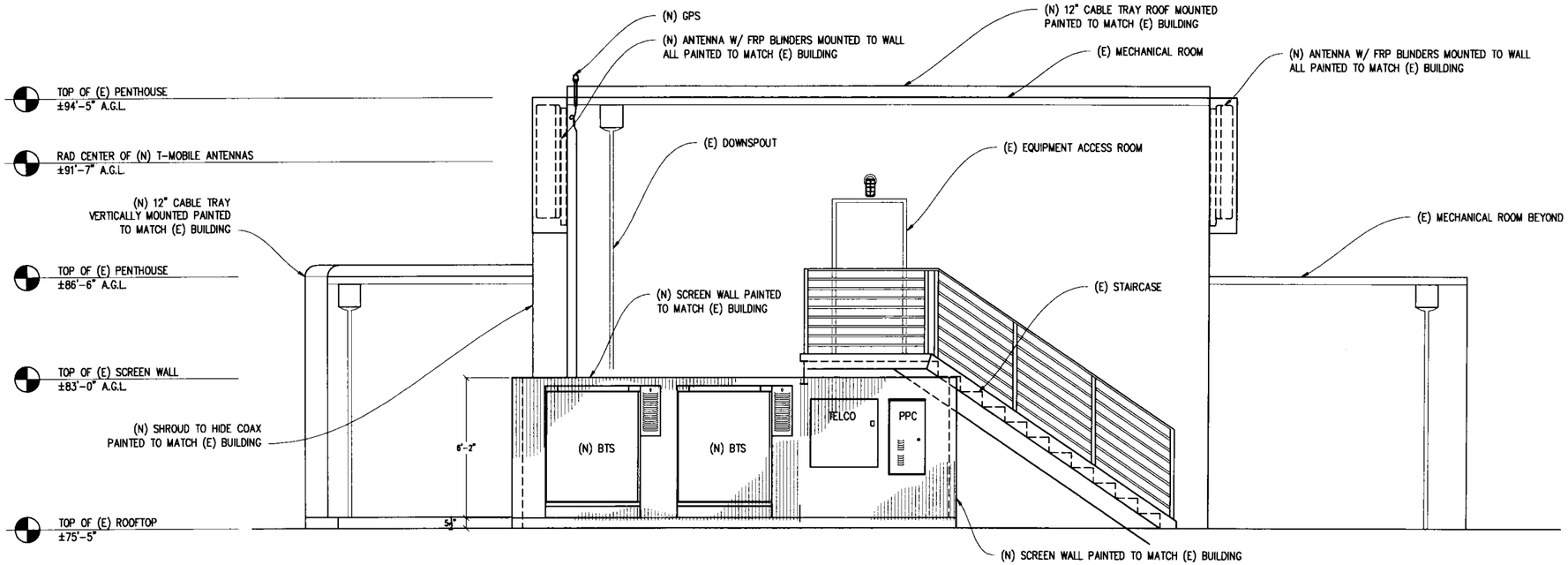
1 WALL MOUNT DETAIL
1"=1'



2 ANTENNA MOUNT DETAIL
1"=1'



3 ANTENNA MOUNT DETAIL
1"=1'



EQUIPMENT ELEVATION
⅜"=1'

810 BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

ISSUE STATUS

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T··Mobile·
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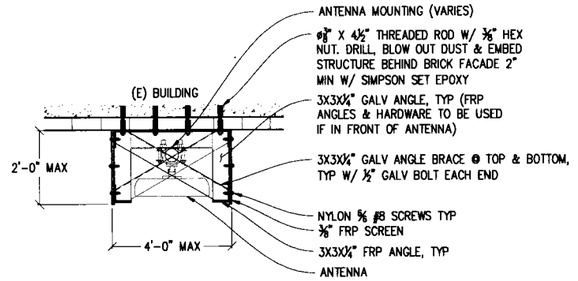
CONCORD, CA 94520

SHEET TITLE:
EQUIP ELEVATION & DETAILS

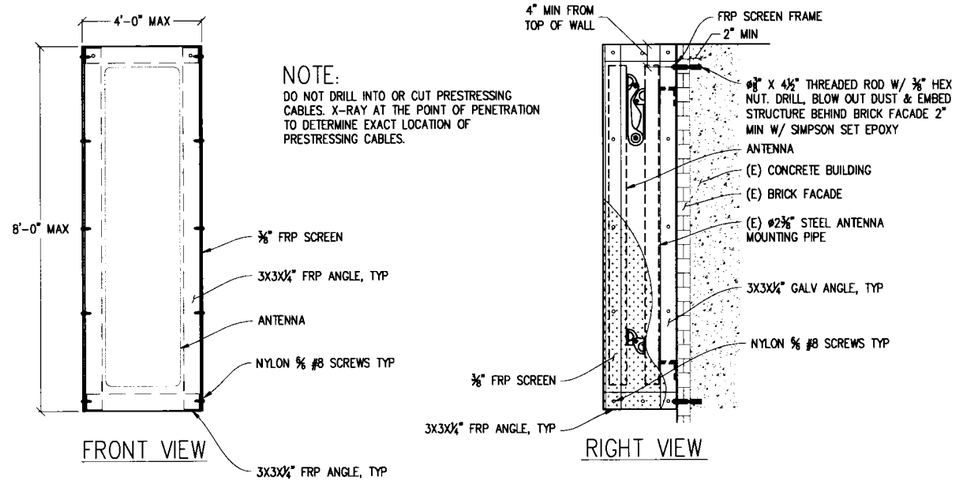
SHEET NUMBER:
A-5

FRP NOTES

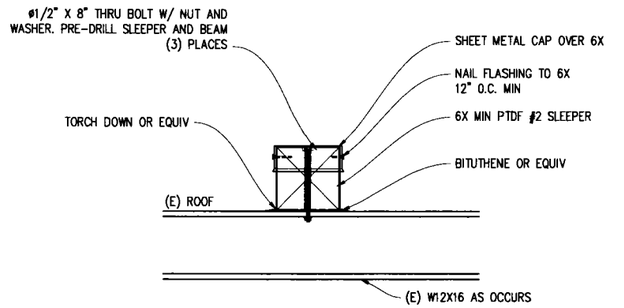
1. THE FRP FRAME PERIMETER IN FRONT OF ANTENNAS SHALL BE ASSEMBLED W/ FRP STRUCTURAL MEMBERS ONLY. STEEL MAY BE USED BEHIND ANTENNAS.
2. FIR OUT VERTICAL FRP FRAME WHERE FIBERGLASS PANELS DO NOT REST FLUSH AGAINST FRAME WITH A 1" OR EQUIVALENT SIZE TO DEPTH OF FIRRING REQUIRED. FRP SHIM SHOULD RUN THE ENTIRE LENGTH OF THE FRAME WHEN NEEDED. FRP SCREEN SHALL BE FLUSH AGAINST THE FRAME AT ALL CONNECTION POINTS.
3. THE FRP SCREEN SHALL BE SUPPORTED WITH FRAME PLACEMENT PER MANUFACTURER SPECS.
4. THE FRP SCREEN SHALL BE SCREWED TO FRAME AS OUTLINED IN THE SCHEDULE PER MANUFACTURER SPECS.
5. ALL WEATHER PROOFING, INCLUDING BUT NOT LIMITED TO TORCH DOWN, CAULKING, Z-FLASHING, OR ANY OTHER MATERIAL THAT MAY BE ALTERED DURING INSTALLATION SHALL BE REPAIRED, REPLACED, AND/OR MODIFIED TO ENSURE THE BUILDING AT THE INSTALLATION SITE IS WEATHER PROOF.
6. ALL STEEL MEMBERS SHALL BE HOT DIP GALVANIZED PER ASTM A123 AFTER FABRICATION & COLD GALVANIZED WHEN CUT, DRILLED, OR WELDED.



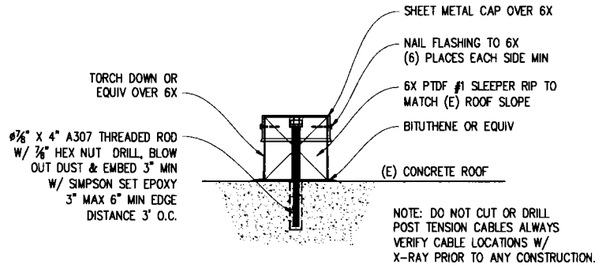
TOP VIEW



1 FRP BLINDERS DETAIL
1"=1'



2 SLEEPER FLASHING DETAIL
1"=6"



3 SLEEPER FLASHING DETAIL
1"=6"

810 BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

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CHECKED BY:	L. HOUGHTBY
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STATE OF CALIFORNIA

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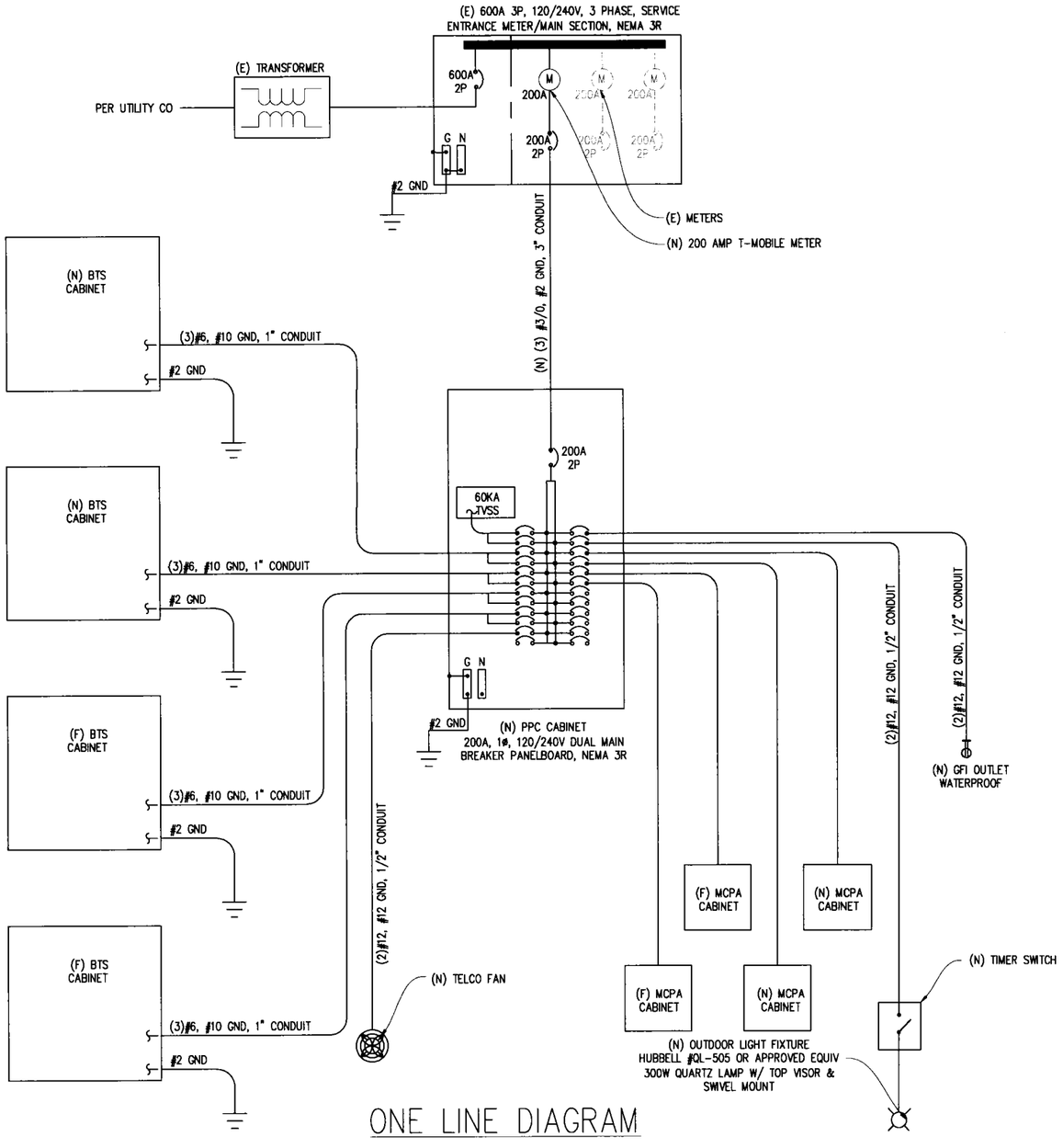
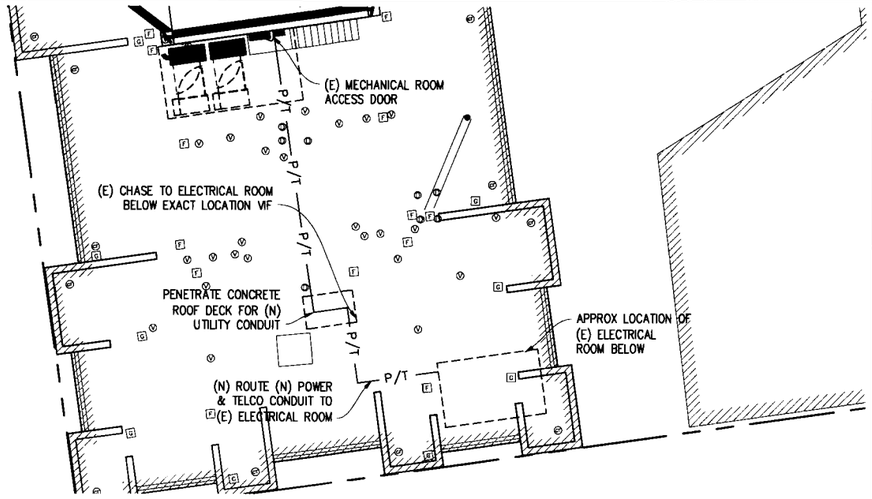
T-Mobile
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:
DETAILS

SHEET NUMBER:
S-2



ONE LINE DIAGRAM



ROOFTOP ELECTRICAL PLAN

1"=10'

ELECTRIC LEGEND

- (M) METER
- CIRCUIT BREAKER
- MAIN SERVICE GROUND
- WIRED CONNECTION
- SWITCH
- LIGHTS
- GFI RECEPTACLE
- TELCO FAN

ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE NEC AS WELL AS ALL APPLICABLE STATE AND LOCAL CODES.
2. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT, CONDUCTORS, PULL BOXES, TRANSFORMER PADS, POLE RISERS, AND PERFORM ALL TRENCHING AND BACKFILLING REQUIRED IN THE PLANS.
3. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER PLAN SPECIFICATIONS.
4. ALL CIRCUIT BREAKERS, FUSES, AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTION RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED WITH A MINIMUM OF 10,000 A.I.C. OR AS REQUIRED.
5. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
6. ELECTRICAL WIRING SHALL BE COPPER #12 MIN WITH TYPE XHHW, THWN, OR THHN INSULATION.
7. ALL OUTDOOR EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE.
8. ALL BURIED WIRE SHALL RUN THROUGH SCHEDULE 40 PVC CONDUIT UNLESS OTHERWISE NOTED.
9. A GROUND WIRE IS TO BE PULLED IN ALL CONDUITS.
10. WHERE ELECTRICAL WIRING OCCURS OUTSIDE A STRUCTURE AND HAS THE POTENTIAL FOR EXPOSURE TO WEATHER, WIRING SHALL BE IN WATERTIGHT GALVANIZED RIGID STEEL OR FLEXIBLE CONDUIT.

PANEL SCHEDULE

NAMEPLATE: PANEL A								SC LEVEL: 10,000	VOLTS: 120V/240V, 1ø	
LOCATION : INSIDE									BUSS AMPS: 200A	
MOUNTING : WALL MOUNTED									MAIN CB: 200A	
øA LOAD VA	øB LOAD VA	LOAD DESCRIPTION	BKR AMP/ POLE	CIRCUIT NO		BKR AMP/ POLE	LOAD DESCRIPTION		øA LOAD VA	øB LOAD VA
800		SURGE ARRESTOR	60/2	01	02	20/1	GFI RECEPTACLES		800	
	800	" "	–	03	04	20/1	LIGHTS			300
2,974		(N) BTS #1	30/2	05	06	20/1	(N) MCPA		850	
	2,974	" "	–	07	08	20/1	(N) MCPA			850
2,974		(N) BTS #2	30/2	09	10	20/1	(F) MCPA		850	
	2,974	" "	–	11	12	20/1	(F) MCPA			850
2,974		(F) BTS #3	30/2	13	14					
	2,974	" "	–	15	16					
2,974		(F) BTS #4	30/2	17	18					
	2,974	" "	–	19	20					
500		TELCO FAN	20/1	21	22					
		SPARE		23	24					
13,196	12,696	PHASE TOTALS						PHASE TOTALS	2,500	2,000
TOTAL VA = 30,392		TOTAL AMPS = 127A								

NOTE: EXISTING LOADS HAVE NOT BEEN FIELD VERIFIED. THEY ARE APPROXIMATE BASED ON EXISTING CB SIZES. CONTACT THE ENGINEER IF THE LOADS DIFFER FROM THAT WHICH IS SHOWN ON THE PLANS

810 BATTERY

SF23213E
810 BATTERY ST
SAN FRANCISCO, CA 94111

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CIVIL
STATE OF CALIFORNIA

T-MOBILE WEST CORPORATION
T-Mobile
1855 GATEWAY BLVD 9TH FLOOR
CONCORD, CA 94520

SHEET TITLE:
ELECTRICAL PLAN

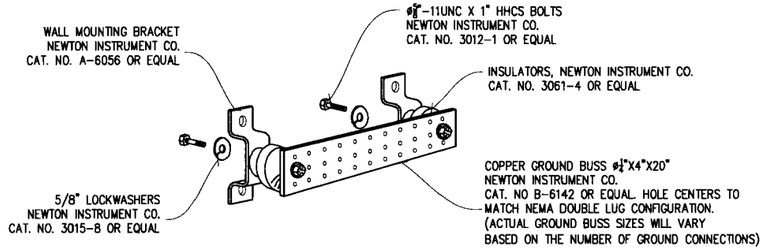
SHEET NUMBER:
E-1

GROUNDING NOTES

1. GROUNDING SHALL COMPLY WITH NEC ART. 250.
2. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS. THE GROUND RODS SHALL BE ⅝" X 10' COPPER CLAD STEEL SPACED AT 10' INTERVALS MAX. RODS SHALL BE INTERCONNECTED WITH #2 SOLID TINNED BARE COPPER GROUND WIRE BURIED A MINIMUM 18" BELOW GRADE. AN ONSITE INSPECTION BY THE OWNER SHALL BE REQUIRED PRIOR TO ANY BACKFILL.
3. USE #2 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
4. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
5. EXPOSED GROUNDING CONNECTIONS SHALL BE MADE WITH BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR EXOTHERMIC WELDS AS SPECIFIED IN THE PLANS.
6. CONNECTIONS TO EQUIPMENT SHALL BE MADE USING STAINLESS STEEL HARDWARE.
7. APPLY BUTYL & ELECTRICAL TAPE OVER COLD SHRINK AT ALL LOCATIONS FOR WEATHER PROOFING OVER COAX GROUND KITS.
8. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS WITH STAR WASHERS AND NO-OX OR EQUIVALENT PLACED BETWEEN CONNECTOR AND GROUND BAR.
9. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLES. ALWAYS MAKE A 12" RADIUS BEND, HOWEVER, #6 WIRE CAN BE BENT AT A 6" RADIUS WHEN NECESSARY.
10. THE SYSTEM GROUND RESISTANCE MUST BE 10 OHMS OR LESS. TO ACHIEVE THIS LEVEL OF RESISTANCE THE CONTRACTOR SHALL PURSUE ONE OF THE FOLLOWING FOUR OPTIONS:

    A. CONNECT TO EXISTING GROUNDING SYSTEMS
    B. CONNECT TO BUILDING STEEL COLUMNS
    C. INSTALL A NEW GROUNDING SYSTEM OR
    D. INSTALL NEW CHEMICAL RODS

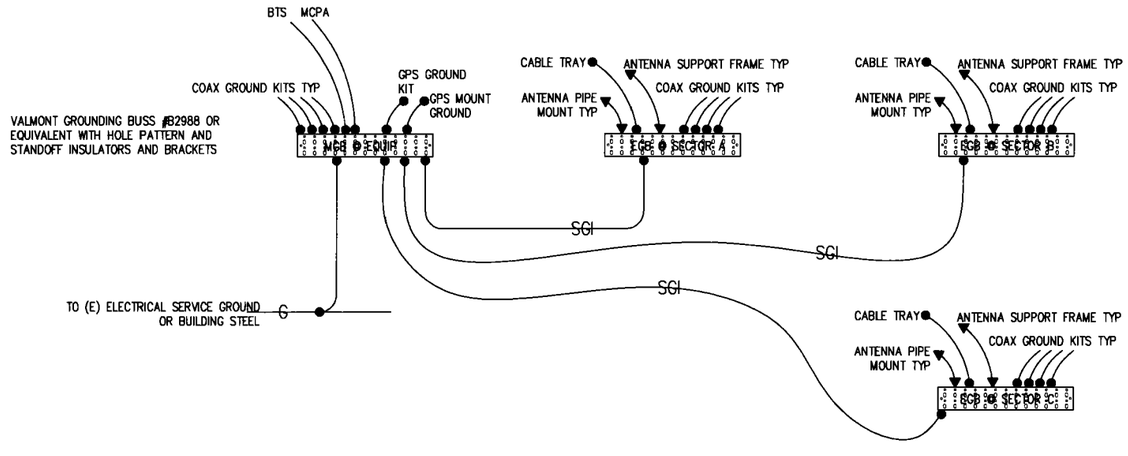
    UPON COMPLETION OF THE GROUNDING INSTALLATION THE CONTRACTOR SHALL EMPLOY AN OWNER APPROVED 3RD PARTY TO CONDUCT A "FALL OF POTENTIAL" TEST AND SUBMIT A REPORT OF SUCH TEST FOR APPROVAL TO EITHER THE OWNER OR CONSTRUCTION MANAGER.



1 GROUND BUSS DETAIL
1"=6"

GROUND LEGEND

- MECHANICAL CONNECTION
- EXOTHERMIC CADWELD
- TYP. CADWELD INSPECTION WELL
- TYP ⅝" DIA. X 10'-0" LONG COPPER CLAD GROUND ROD @ 10' O.C. MAX & 18" MIN BELOW FINISH GRADE
- GATE GROUNDING STRAP
- G — TYP #2 TINNED BCW UNDERGROUND GND RING @ 18" MIN BELOW FINISH GRADE
- SGI — GROUND WIRE #2 STRANDED GREEN INSULATED WIRE



2 GROUND BUSS CONNECTION DIAGRAM
NOT TO SCALE

810 BATTERY

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SHEET TITLE:
GROUNDING PLAN

SHEET NUMBER:
E-2