COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: February 16, 2023

TO: Zoning Hearing Officer

FROM: Planning Staff

SUBJECT: Consideration of a Use Permit renewal, pursuant to Section 6500 of the County of San Mateo Zoning Regulations to allow the continued operation of a wireless telecommunications facility located on Coastside County Water District property at 661 Miramar Drive, in the unincorporated Miramar area of San Mateo County.

County File Number: PLN 2007-00480 (T-Mobile)

PROPOSAL

The applicant is proposing the continued operation of an unmanned wireless cellular facility adjacent to the existing Coastside County Water District water storage tank. The facility includes three panel antennas and one new GPS antenna which are mounted on a 36-foot-tall monopole. The monopole and associated equipment cabinets are located in a 170 sq. ft. equipment enclosure. The equipment area is enclosed by a 6-foot-tall chain link fence with green slats. A 101-foot-long underground power conduit provides a connection to the existing joint utility pole shared by the existing Sprint facility.

RECOMMENDATION

That the Zoning Hearing Officer approve the Use Permit renewal, County File Number PLN 2007-00480, by adopting the required findings and conditions of approval identified in Attachment A.

BACKGROUND

Report Prepared By: Angela Chavez, Senior Planner

Applicant: Nicole Comach for Crown Castle on behalf of T-Mobile

Owner: Coastside County Water District (CCWD)

Public Notification: Ten (10) day advanced notification for the hearing was mailed to property owners within 300 feet of the project parcel and a notice for the hearing posted in a newspaper (San Mateo Times and Half Moon Bay Review) of general public circulation.

Location: 661 Miramar Drive, Miramar

APN: 048-076-070

Size: 17,740 sq. ft.

Existing Zoning: R-1/S-94/DR/CD (Single-Family Residential/10,000 sq. ft. minimum parcel size/Design Review District/Coastal Development District)

General Plan Designation: Medium-Low Density Residential.

Local Coastal Plan Designation: Medium-Low Density Residential.

Sphere-of-Influence: City of Half Moon Bay

Existing Land Use: Existing CCWD water storage tank and wireless telecommunications facilities.

Water Supply: The subject property is located within the service area of the Coastside County Water District. However, the existing wireless telecommunications facility is unmanned and does not involve activities that necessitate potable water.

Sewage Disposal: The subject property is located within the service area of the Granada Sanitary District. However, the existing wireless telecommunications facility is unmanned and does not involve activities that necessitate sewage disposal.

Flood Zone: The project site is located within FEMA Flood Zone X, areas of minimal flooding; Community Panel Number 06081C0252F, effective August 2, 2017.

Environmental Evaluation: Exempt under Section 15301, Class 1, of the California Environmental Quality Act, which allows for the continued operation of an existing use.

Setting: The project site is located at 661 Miramar Drive east of Cabrillo Highway in the unincorporated Miramar area. The immediate neighborhood is bordered by the Urban/Rural Boundary to the north and the City of Half Moon Bay boundary to the south. Single-family residential development surrounds the site to the north and west. The cellular facility is located on Coastside County Water District (CCWD) property adjacent to an existing 75,000-gallon, 35-foot-high water storage tank. There is also an existing Sprint facility located at the northernmost corner of the subject property. The property has several tall, mature cypress and pine trees that effectively screen the existing structures from most public viewpoints.

Chronology:

Date		Action
December 2, 2007	-	Original Application Submitted.
April 17, 2008	-	ZHO Approved Application.
May 10, 2016	-	Use Permit Minor Amendment Submitted/Approved
January 26, 2021	-	Use Permit Minor Amendment to Add an Emergency Generator Submitted.
April 1, 2021	-	Use Permit Submitted.
May 4,2021	-	Use Permit Minor Amendment to Change Site Configuration Approved.
February 16, 2023	-	Zoning Hearing Officer Meeting.

DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

The project continues to conform with the applicable General Plan policies for Vegetative, Water, Fish, and Wildlife Resources, Soil Resources, Visual Quality, and Urban Land Use as no physical changes to the existing facility are proposed.

2. Compliance with the Zoning Regulations

The project site is located within the R-1/S-94/DR/CD (Single-Family Residential/ 10,000 sq. ft. minimum parcel size/Design Review, Coastal District) Zoning District. The existing wireless telecommunication facility is operating under a previously approved Use Permit and no physical changes are proposed. No complaints regarding the project have been received. The project remains consistent with the R-1/S-94/DR/CD Zoning District requirements.

3. Compliance with Wireless Telecommunications Facilities Ordinance

Staff has determined that the project complies with the applicable standards of the Wireless Telecommunication Facilities (WTF) Ordinance, as discussed below:

a. Development and Design Standards

Section 6512.2 of the WTF ordinance discusses location, minimizing visual impacts, maximum height, and future co-location of wireless facilities. The cellular facility is located on Coastside County Water District (CCWD) property adjacent to an existing 75,000-gallon, 35-foot-high water storage tank. Visual impacts of the facility are minimal due to the topography of the site, existing tree cover, and surrounding development. The renewal application does not include any proposal to modify the height of the existing facility. Based on the Radio Frequency emissions analysis completed by Sophie Thein of SiteSafe, LLC., composite exposure levels are at a spatial average of 15.2% of the Federal Communications Commission (FCC) public exposure limit for all facilities at this location. There is one other carrier present on the site. However, there are no pending applications for additional carriers to co-locate at the site and there are no further expansions planned or anticipated at this time.

b. Performance Standards

The project was found to be compliant with Sections 6512.2, 6512.4, and 6512.5 of the WTF Ordinance, as the existing facility has maintained a valid FCC license.

The facility is not lighted, the original facility was constructed with a building permit, has been maintained in accordance with the conditions of approval, has routine and emergency road access, and T-Mobile has maintained a valid FCC license. The applicant has submitted all required materials specified in Section 6512.5.

4. Conformance with Use Permit Findings

In order to approve the subject Use Permit Renewal, the Zoning Hearing Officer must make the following findings:

a. *That the establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, result in significant impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in the neighborhood.*

The subject wireless facility has been in operation since 2008 and has not resulted in any adverse impacts to the surrounding area. The radio frequency analysis submitted by the applicant indicates that the facility continues to comply with the FCC's current prevailing standards for limiting human exposure to Radio Frequency (RF) energy. As this is an unmanned communication facility, the operation

does not create additional traffic, noise, or intensity of use of the property.

b. *That the telecommunication facilities are necessary for the public health, safety, convenience or welfare of the community.*

Staff found that the continued operation of the existing cellular facility at this location will allow for continued cellular communication coverage for private citizens and businesses. The existing wireless telecommunication facility has been in existence for many years and the community has come to rely on the coverage provided by this site. The site facilitates both routine daily conversation but also communication services in emergency situations.

5. Conformance with Conditions of Last Use Permit Approvals

Staff has reviewed the previous Use Permit conditions of approval for this permit, last approved April 17, 2008, and have determined that the project is in compliance with all previous conditions, see Attachment E. No physical changes are proposed as part of the renewal. Previous conditions that remain relevant, are included in Attachment A of this staff report.

B. ENVIRONMENTAL REVIEW

The project is categorically exempt pursuant per Section 15301, Class 1, of the CEQA Guidelines for the continued operation of existing public or private facilities involving no alterations or expansion of use as no physical changes are proposed.

C. REVIEWING AGENCIES

Department of Public Works
Coastside Fire Protection District
California Coastal Commission
MidCoast Community Council

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Location Map
C. Plans
D. Radio Frequency Report
E. 2008 Letter of Decision

ACC:cmc – ACCHH0021_WCU.DOCX

Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2007-00480 Hearing Date: February 16, 2023

Prepared By: Angela Chavez, Senior Planner For Adoption By: Zoning Hearing Officer

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That the project is categorically exempt under provisions of Class 1, Section 15301 of the California Environmental Quality Act Guidelines, Existing Facilities. The proposed project includes the continued operation of an existing facility.

Regarding the Use Permit, Find:

2. That this personal telecommunications facility is necessary for the public health, safety, convenience or welfare of the community because the FCC has established the desirability and need for mobile and wireless telephone service to facilitate enhanced communication between mobile units. The subject cellular facility provides mobile and wireless services to all carriers of T-Mobile within the area and allows for unobstructed communication and cellular transmission between both private individuals and emergency/official vehicles. The range of personal communication services provided by this facility enhances telephone services in the area and is a necessary component of public health, safety, convenience and welfare. The cellular facility provides an efficient way to access this essential communication component, and thus, can be considered as necessary for the public health, safety, convenience and welfare.

3. That the establishment, maintenance and conducting of the use, as proposed and conditioned, will not result in significant impacts to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in the neighborhood and will not be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood as staff has reviewed the project file, referred the project to appropriate parties for comments, and reviewed previous conditions of approval and finds no issues concerning non-compliance with Current Planning Section requirements or issues from neighboring parcels in the vicinity. In addition, staff has reviewed the RF report, and has found that the continued use of the existing facility is in full conformance

with the requirements of the Federal Communications Commission. The required findings for this project can be made.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies only to the proposal, documents and plans described in this report and approved by the Zoning Hearing Officer on February 16, 2023. The Community Development Director may approve minor revisions or modifications to the project if they are consistent with the intent of and in substantial conformance with this approval.

2. The use permit shall be valid for a period of 10 years. The applicant shall apply for renewal of the use permit and pay applicable renewal fees six months prior to the permit's expiration on February 16, 2033. Applications for renewal shall be accompanied by the fees applicable at that time.

4. Any change in use shall require an amendment to the use permit. Amendment to this use permit requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

5. The applicant shall receive and maintain approval from the FCC and the CPUC concerning the operation of the project at this site. Upon receipt of each of these approvals, the applicant shall supply the Current Planning Section with proof of these approvals. If these approvals are ever revoked, the applicant shall inform the Current Planning Section of the revocation immediately.

6. The applicant shall adhere to all FCC guidelines regarding on-site radio frequency exposure. The applicant shall minimally install warning signs at the antennas and on signposts approximately 8 feet from the antennas such that the signs would be readily visible from any angle of approach. The applicant shall close and lock all fences and gates at all times to keep members of the general public at a safe distance from the antennas and equipment area.

7. All vegetation that serves as the screening mechanism to mitigate the visual impact of the facility shall be maintained for the life of the project. Should any of the vegetation on-site die or become diseased or hazardous, the applicant shall replace the vegetation with similar trees of substantial size consistent with vegetation in the area and to the satisfaction of the Community Development Director.

8. The chain link fence surrounding the 170 sq. ft. equipment enclosure shall be maintained at 6 feet tall, with slats, and painted a dark green color.

9. The dark green color of the monopole and all associated equipment (including the fence slats) shall be maintained for the duration of the use.

10. The installation shall be removed in its entirety at that time when this technology becomes obsolete, or this facility is no longer needed.

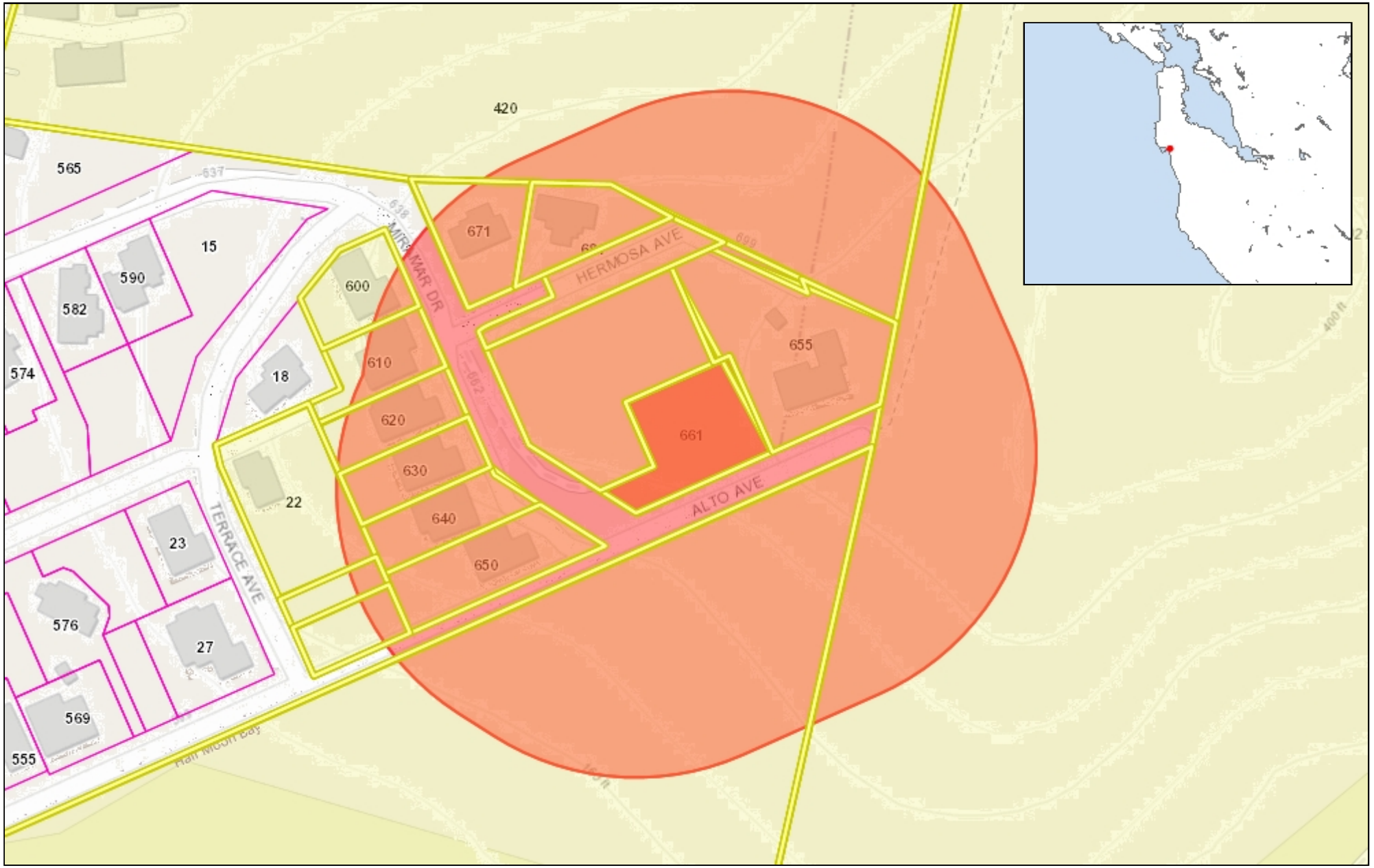
ACC:cmc – ACCHH0021_WCU.DOCX

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT B

San Mateo County

County San Mateo, CA



0.07 0 0.04 0.07 Miles

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1: 2,257

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT C

ANCHOR/AAS/67D5A997DB ODE+6160
RFDS VER 4

T-Mobile®

SITE NUMBER: SF71943M
SITE NAME: SF1943 WATER TANK MONO
SITE TYPE: MONOPOLE
CITY: HALF MOON BAY
COUNTY: SAN MATEO
JURISDICTION: COUNTY OF SAN MATEO

PROJECT SUMMARY

SITE ADDRESS:
661 MIRAMAR DR
HALF MOON BAY, CA 94019

PROPERTY OWNER CONTACT:
COASTSIDE COUNTY WATER DISTRICT
766 MAIN STREET HALF MOON BAY,
CA. 94019

APPLICANT:
T-MOBILE WEST LLC
1855 GATEWAY BLVD. SUITE 900
CONCORD, CA 94520

REPRESENTATIVE:	TROY EGGLESTON
T-MOBILE PROJECT MANAGER:	JAMES WEILAND
PROJECT MANAGER:	JESSE BURGESS
CONSTRUCTION MANAGER:	JORDAN EGLER

SITE SUMMARY

OCCUPANCY CLASSIFICATION: (UNMANNED TELECOMMUNICATIONS FACILITY)
OCCUPANCY CLASSIFICATION MAIN BUILDING: B (TELEPHONE EXCHANGE)
ZONE CLASSIFICATION : R-1
BUILDING TYPE: NO CHANGE
APN: 048-076-070
CASE NO.: TBD

PROJECT DESCRIPTION

THE PROJECT ENTAILS:
T-MOBILE PROPOSES TO MODIFY (E) WIRELESS TELECOMMUNICATIONS SITE BY:

ANCHOR:
1. ADD (9) NEW POLE FOR NEW ANTENNA (3) PER SECTOR
2. REMOVE AND REPLACE (3) EXISTING APXVFW24-C-A20 (QUAD) ANTENNAS WITH (3) NEW AIR32 KRD901146-1_B66A_B2A (OCTO) ANTENNAS, (1) PER SECTOR
3. ADD (3) NEW APXVAARR24_43-U-NA20 (OCTO) ANTENNAS, (1) PER SECTOR
4. ADD (3) NEW AIR6449 B41 ANTENNAS, (1) PER SECTOR
5. ADD (3) NEW RADIO 4415 B25 RRUS, 1 PER SECTOR
6. ADD (3) NEW RRU'S 4449 B71+B85, (1) PER SECTOR
7. REMOVE (3) EXISTING RRUS11 B12, (1) PER SECTOR
8. REMOVE (9) EXISTING TMA AND AWS/PCS DIPLEXER (3) PER SECTOR

EQUIPMENT NOTE:
1. ADD (3) 6X12 HCS 60M 6AWG
2. ADD (1) 6160 SITE SUPPORT CABINET
3. ADD (3) BB 6630 & (1) BB6648 INTO NEW 6160 SITE SUPPORT CABINET
4. ADD (1) PROPOSED B160 BATTERY CABINET.
5. ADD (1) NEW PSU4813

CONSULTING TEAM

SAC/ZONING/PERMITTING:
SYNERGY A DIVISION OF
ADVANTAGE ENGINEERS, LLC
3663 N. LAUGHLIN RD. STE. 201
SANTA ROSA, CA 95403
CONTACT: TROY EGGLESTON
PHONE: (707) 888-5191

ARCHITECTURAL/ENGINEERING:
ADVANTAGE ENGINEERS, LLC
7151 COLUMBIA GATEWAY DR., SUITE A
COLUMBIA, MD 21046
CONTACT: STANLEY J. JARZOMBEK, P.E.
PHONE: (443) 367-0003

STRUCTURAL ENGINEERING:
ADVANTAGE ENGINEERS, LLC
7151 COLUMBIA GATEWAY DR., SUITE A
COLUMBIA, MD 21046
CONTACT: STANLEY J. JARZOMBEK, P.E.
PHONE: (443) 367-0003

LATITUDE / LONGITUDE

LAT:	37° 29' 45.41" N	LAT:	37.495947°
LONG:	122° 26' 56.95" W	LONG:	-122.449153°

UTILITY PURVEYOR

POWER:
COMPANY: - PG&E

TELCO:
COMPANY: - AT&T

APPROVAL

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

	PRINT NAME	SIGNATURE	DATE
LANDLORD:			
ZONING MGR:			
DEVELOP. MGR:			
CONST. MGR:			
PROJECT MGR:			
SR. RF ENGINEER:			
RF ENGINEER:			
OPERATIONS:			
SAC REP.:			
UTILITIES:			
REAL ESTATE MGR:			

DRAWING INDEX

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T-2	GENERAL NOTES
T-3	ABBREVIATIONS, SPECIFICATIONS AND SYMBOLS
T-4	GENERAL STRUCTURAL NOTES
A-1	OVERALL SITE PLAN
A-1.1	ENLARGED ROOF PLAN
A-2	EXISTING ANTENNA LAYOUT PLAN
A-3	NEW ANTENNA LAYOUT PLAN
A-4	EQUIPMENT LAYOUT PLANS AND ENLARGED EQUIPMENT ELEVATIONS
A-5	ELEVATIONS I
A-6	ELEVATIONS II
D-1	DETAILS AND SPECIFICATIONS I
D-2	DETAILS AND SPECIFICATIONS II
D-3	DETAILS AND SPECIFICATIONS III
D-4	DETAILS AND SPECIFICATIONS IV
G-1	GROUNDING NOTES AND DETAILS

LEGAL DESCRIPTION

TBD

ACCESSIBILITY REQUIREMENTS

THE FACILITY IS UNMANNED AND NOT FOR CONTINUOUS HUMAN HABITATION. HANDICAPPED ACCESS IS NOT REQUIRED PER CBC 2019,
SECTION 11B-203.4 (LIMITED ACCESS SPACES)
SECTION 11B-203.5 (MACHINERY SPACES)

CODE COMPLIANCE

1. CALIFORNIA ADMINISTRATIVE CODE (INCL. TITLES 24 & 25) 2019
2. CALIFORNIA BUILDING CODE 2019
3. CALIFORNIA ELECTRICAL CODE 2019
4. CALIFORNIA MECHANICAL CODE 2019
5. CALIFORNIA PLUMBING CODE 2019
6. ANSI / TIA-222-H-2017
7. LOCAL BUILDING CODE
8. CITY / COUNTY ORDINANCES
9. CALIFORNIA FIRE CODE 2019 EDITION
10. ASCE 7-16
11. ACI 318-14
12. AISC STEEL CONSTRUCTION MANUAL, 15TH EDITION

GENERAL LOCATION MAP

VICINITY MAP

DRIVING DIRECTION

FROM T-MOBILE OFFICE: 1855 GATEWAY BLVD STE 900, CONCORD, CA 94520

Follow CA-1 N/Cabrillo Hwy N to I-280 N in Daly City 26 min (17.0 mi) Head southwest on Miramar Dr toward Terrace Ave 0.3 mi Turn left onto Purisima Way 105 ft Slight right onto Miramar Dr 0.1 mi Turn right onto CA-1 N/Cabrillo Hwy N 16.6 mi Continue on I-280 N. Take I-80 E, CA-24 E and I-680 N to Clayton Rd in Concord. Take exit 1 from CA-242 N 35 min (36.5 mi) Merge with CA-1 N/I-280 N 1.2 mi Keep right to stay on I-280 N, follow signs for San Francisco/Bay Bridge/signs for Bay Bridge 7.5 mi Use the right 3 lanes to take exit 8B for I-580 E toward Downtown Oakland/Hayward/Stockton/CA-24 0.9 mi Continue onto I-580 E 0.7 mi Use the right 2 lanes to take exit 19B to merge with CA-24 E toward Walnut Creek 4.4 mi Keep left at the Y junction to stay on CA-24 E 8.9 Continue on Clayton Rd to your destination 2 min (0.2 mi) Continue onto Clayton RD.2 mi Turn left 69 ft Slight left at Clayton RdDestination will be on the right 79 ft 1855 Gateway Blvd #900 Concord Gateway 2, Concord, CA 94520, USA

T-Mobile
Stick Together ®
1855 GATEWAY BLVD.
CONCORD, CA 94520

PROJECT INFORMATION:
(ANCHOR)
SF71943M
SF1943 WATER TANK MONO
661 MIRAMAR DR
HALF MOON BAY, CA 94019
SAN MATEO

CURRENT ISSUE DATE:
12/15/20

ISSUED FOR:
CONSTRUCTION

REV.:	DATE:	DESCRIPTION:	BY:
A	11/25/20	90% CD	EDS
B	12/15/20	100% CD	EDS

PLANS PREPARED BY:
Synergy a division of advantage engineers
7543 Woodley Ave., #201, Van Nuys, CA 91406
Office: (818) 840-0808 Fax: (818) 840-0708

CONSULTANT:
Synergy a division of advantage engineers
7543 Woodley Ave., #201, Van Nuys, CA 91406
Office: (818) 840-0808 Fax: (818) 840-0708

DRAWN BY:	CHK.:	APV.:
EDS	AB	AB

LICENSURE:
REGISTERED PROFESSIONAL ENGINEER
WISSAM ZALZALI
C 71655
CIVIL
STATE OF CALIFORNIA

SHEET TITLE:
TITLE SHEET

SHEET NUMBER: T-1
REVISION: B
SF71943M

ROOFING & WATERPROOFING NOTES

1. CONTRACTOR SHALL CONTACT THE BUILDING OWNER TO DETERMINE IF ROOF IS UNDER WARRANTY. CONTRACTOR SHALL GUARANTEE THAT ANY AND ALL NEW ROOFING WORK MEETS THE SPECIFICATION OF ANY EXISTING ROOFING WARRANTIES SUCH THAT THE WARRANTY IS NOT MADE INVALID AS A RESULT OF THIS WORK. IF IT IS DETERMINED THAT THE ARCHITECT'S DETAILING IS INADEQUATE OR IMPROPER OR IF ANY OTHER DISCREPANCY IS FOUND, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND THE CLIENT PROJECT MANAGER IN WRITING. ULTIMATELY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE ORIGINAL ROOF MANUFACTURER'S SPECIFICATIONS.

2. CONTRACTOR SHALL USE METHODS AND MATERIALS SIMILAR AND COMPATIBLE WITH EXISTING MATERIALS & CONDITIONS FOR ROOF PATCHING, NEW PENETRATIONS, ETC.

3. THE CONTRACTOR SHALL PROPERLY SEAL ALL NEW ROOF & BUILDING ENVELOPE PENETRATIONS SUCH THAT THE INTEGRITY OF THE ORIGINAL BUILDING ASSEMBLY AND ALL APPLICABLE WARRANTIES ARE MAINTAINED.

4. IF IT DEEMED NECESSARY TO REMOVE EXISTING FINISHED AND/OR MATERIALS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONSTRUCTING FINISHES AND MATERIALS TO LINE-NEW CONDITIONS. CONTRACTOR SHALL MAINTAIN THE ORIGINAL COLORS, TEXTURES & FINISHES UNLESS SPECIFICALLY NOTED TO THE CONTRARY OR APPROVED 'T-MOBILE CONSTRUCTION MANAGER IN ADVANCE.

5. AT THE CLIENT CONSTRUCTION MANAGER'S DISCRETION, THE CONTRACTOR SHALL PROVIDE ROOFTOP WALKPADS TO ALL NEW EQUIPMENT INCLUDING ANTENNAS AND BTS UNITS AND ALONG COAX CABLE ROUTING. ON CONVENTIONAL ROOFING, THE WALK PADS SHALL BE "DUCK BOARDS" AS MANUFACTURED BY APC OR EQUAL. ON SPECIAL ROOFING SYSTEMS SUCH AS SINGLE MEMBRANE ROOFS WILL REQUIRE A SPECIFIC PRODUCT AS NOTED ON PLANS OR AS REQUIRED BY NOTES 1 & 2 ABOVE.

PENETRATION AT FIRE RATED ASSEMBLIES NOTES

1. AT THE CLIENT PROJECT MANAGER'S DIRECTION, THE CONTRACTOR SHALL PROVIDE "HILTI" HIGH PERFORMANCE FIRESTOP SYSTEM #FS601 AT ALL FIRE RATED PENETRATIONS INSTALLED PER MANUFACTURER'S LATEST INSTALLATION SPECIFICATIONS.

2. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE CONSTRUCTED SO AS TO MAINTAIN AN EQUAL OR GREATER FIRE RATING.

GENERAL NOTES

1. THE LATEST EDITION OF THE AMERICAN INSTITUTE OF ARCHITECTS DOCUMENT A201 "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION" ARE INCLUDED IN THESE SPECIFICATIONS AS IF COMPLETELY REPRODUCED HEREIN.

2. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATION.

3. THIS FACILITY IS AN UNOCCUPIED T-MOBILE TELECOMMUNICATIONS SITE AND IS EXEMPT FROM DISABLED ACCESS REQUIREMENTS.

4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS PARTICIPATING SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH ALL FIELD CONDITIONS AFFECTING THE PROPOSED PROJECT INCLUDING DEMOLITION, ELECTRICAL, MECHANICAL AND STRUCTURAL INSTALLATIONS, AS WELL AS WITH THE CONSTRUCTION AND CONTRACT DOCUMENTS AND SHALL CONFIRM THAT THE PROJECT CAN BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH THE CONSTRUCTION. SHOULD ANY ERRORS, OMISSION, OR DISCREPANCIES BE FOUND, THE GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY SYNERGY AND THE PROJECT ARCHITECT / ENGINEER IN WRITING. IN THE EVENT OF DISCREPANCIES FOUND, THE GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY SYNERGY AND THE PROJECT ARCHITECT / ENGINEER IN WRITING. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL INCLUDE THE MORE COSTLY OR EXTENSIVE WORK IN THE BID, UNLESS SPECIFICALLY DIRECTED OTHERWISE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERROR, OMISSION, OR INCONSISTENCY AFTER THE START OF THE CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT / ENGINEER AND SHALL INCUR ANY EXPENSES TO RECTIFY THE SITUATION. THE MEANS OF CORRECTING ANY ERROR SHALL FIRST BE APPROVED BY THE PROJECT ARCHITECT / ENGINEER.

5. THE CONTRACTOR SHALL INCLUDE IN HIS OR HER BID ALL MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE THE WORK AS INDICATED OR IMPLIED BY THESE DRAWINGS.

6. THE CONTRACTOR SHALL PROVIDE CONTINUOUS SUPERVISION WHILE ANY SUBCONTRACTORS OR WORKMEN ARE IN THE SITE AND SHALL SUPERVISE AND DIRECT ALL WORK, USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

7. WORKMANSHIP THROUGHOUT SHALL BE OF THE BEST QUALITY OF THE TRADE INVOLVED, AND SHALL MEET OR EXCEED THE FOLLOWING MINIMUM REFERENCE STANDARDS FOR QUALITY AND PROFESSIONAL CONSTRUCTION PRACTICE:

   NCRA NATIONAL ROOFING CONTRACTORS ASSOCIATION
   O' HARE INTERNATIONAL CENTER
   10255 W. HIGGENS ROAD, SUITE 600
   ROSEMONT, IL 60018

   SMACNA SHEET METAL AND AIR CONDITIONING CONTRACTORS
   NATIONAL ASSOCIATION
   4201 LAFAYETTE CENTER DRIVE
   CHANTILLY, VA 20151

   ILP INTERNATIONAL INSTITUTE FOR LATH AND PLASTER
   P.O. BOX 1663
   LAFAYETTE, CA 94549

8. INSTALL ALL EQUIPMENT AND MATERIALS PER THE LATEST EDITION OF THE MANUFACTURER'S INSTALLATION SPECIFICATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED, OR WHERE LOCAL CODES OR REGULATIONS PRECEDENCE.

9. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL GIVE ALL NOTICES AND SHALL COMPLY WITH ALL APPLICABLE LOCAL CODES, REGULATIONS, LAWS AND ORDINANCES AS WELL AS STATE DEPARTMENT OF INDUSTRIAL REGULATIONS AND DIVISION OF INDUSTRIAL SAFETY (OSHA) REQUIREMENTS.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REMEDY ALL FAULTY, INFERIOR, AND/OR IMPROPER MATERIALS, DAMAGED GOODS, AND/OR FAULTY WORKMANSHIP FOR ONE (1) YEAR AFTER THE PROJECT IS COMPLETE AND ACCEPTED UNDER THIS CONTRACT; UNLESS NOTED OTHERWISE IN THE CONTRACT BETWEEN THE OWNER AND CONTRACTOR. (EXCEPTION) THE ROOFING SUBCONTRACTOR SHALL FURNISH A MAINTENANCE AGREEMENT FOR ALL WORK DONE, COSIGNED BY THE GENERAL CONTRACTOR, TO MAINTAIN THE ROOFING IN A WATER TIGHT CONDITION FOR A PERIOD OF TWO (2) YEARS STARTING AFTER THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT, UNLESS OTHERWISE WRITTEN IN THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR.

GENERAL NOTES (CONTINUATION)

11. THE GENERAL CONTRACTOR MUST PERFORM WORK DURING PROPERTY OWNER'S PREFERRED HOURS TO AVOID DISRUPTION OF NORMAL ACTIVITY.

12. ALL EXPOSED METAL SHEET SHALL BE HOT-DIPPED GALVANIZED.

13. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA CONSTRUCTION.

14. THE GOVERNING AGENCIES, CODE AUTHORITIES, AND BUILDING INSPECTORS SHALL PROVIDE THE MINIMUM STANDARDS FOR CONSTRUCTION TECHNIQUES, MATERIALS, AND FINISHES USED THROUGHOUT THE PROJECT TRADE STANDARDS AND/OR PUBLISHED MANUFACTURERS SPECIFICATIONS MEETING OR EXCEEDING DESIGN REQUIREMENTS SHALL BE USED FOR INSTALLATION.

15. PRIOR TO STARTING CONSTRUCTION OF THE CONTRACTOR HAS THE RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR OR SUBCONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGE TO THE UTILITIES CAUSED DURING THE EXECUTION OF THE WORK.

16. A COPY OF THE APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES.

17. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS AT THE SITE FOR THE PURPOSE OF DOCUMENTING ALL AS-BUILT CHANGES, REVISIONS, ADDENDUM'S, OR CHANGE ORDERS. THE CONTRACTOR SHALL FORWARD THE AS-BUILT DRAWINGS TO THE ARCHITECT/ENGINEER AND THE LANDLORD/LESSOR AT THE CONCLUSION OF THE PROJECT.

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE FROM THE START TO THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE SITE AT ALL TIMES FOR THE LANDLORD/LESSOR PERSONNEL.

19. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY POWER, WATER AND TOILET FACILITIES.

20. ALL CONSTRUCTION PHASES OF THE PROJECT SHALL CONFORM TO THE CURRENT CBC-2019, I.B.C.-2018 AND ALL OTHER GOVERNING CODES.

21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE OR PROVIDE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.

22. THE CONTRACTOR SHALL SUPERVISE AND COORDINATE ALL WORK, USING HIS PROFESSIONAL KNOWLEDGE AND SKILLS. HE IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, SEQUENCING AND COORDINATING ALL PORTIONS OF THE WORK.

23. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND/OR INSPECTIONS TO COMPLETE THE PROJECT. BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNER OR HIS REPRESENTATIVE. CONTRACTOR SHALL OBTAIN THE PERMIT AND MAKE FINAL PAYMENT OF THE SAID DOCUMENT.

24. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE UNLESS OTHERWISE NOTED.

25. THE CONTRACTOR SHALL PROVIDE THE FIRE MARSHALL APPROVED MATERIALS TO FILL/SEAL PENETRATIONS THROUGH THE FIRE RATE ASSEMBLIES.

26. (N) CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS.

27. WHERE SPECIFIED, MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AVAILABLE AS REQUIRED BY THE LOCAL GOVERNING AGENCY RESPONSIBLE FOR RECORDING THE RESULTS.

28. 29. ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE.

29. ALL DEBRIS AND REFUSE IS TO BE REMOVED FROM THE PROJECT DAILY. PREMISES SHALL BE LEFT IN A CLEAN/SWEPT CONDITION AT ALL TIMES.

30. ALL SYMBOLS AND ABBREVIATIONS ARE CONSIDERED CONSTRUCTION INDUSTRY STANDARDS. IF A CONTRACTOR HAS A QUESTING REGARDING THEIR EXACT MEANING THE ARCHITECT/ENGINEER SHALL BE NOTIFIED FOR CLARIFICATIONS.

31. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK. THE SUPERVISION OF THE WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

32. CONTRACTORS SHALL BID WALK THE PROJECT TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OR COST THEREOF.

33. 34. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, THE DIMENSIONS, ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE (N) WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR THE FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY THE SUBCONTRACTOR(S).

34. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT IN CONJUNCTION WITH THE EXECUTION OF THIS WORK. GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER AND ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES FOUND WITHIN THE CONTRACT DOCUMENTS, PRIOR TO STARTING WORK.

35. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES.

36. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF WORK, SHALL BE REMOVED AND SHALL BE CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF WORK, SUBJECT TO THE APPROVAL OF THE ENGINEER.

37. NO CHANGES ARE TO BE MADE TO THESE PLANS WITHOUT THE KNOWLEDGE AND WRITTEN CONSENT OF THE ARCHITECT/ENGINEER. UNAUTHORIZED CHANGES RENDER THESE DRAWINGS VOID.

38. ANY REFERENCES TO THE WORDS APPROVED, OR APPROVAL IN THESE DOCUMENTS SHALL BE HERE DEFINED TO MEAN GENERAL ACCEPTANCE OR REVIEW AND SHALL NOT RELIEVE THE CONTRACTOR AND/OR HIS SUBCONTRACTORS OF ANY LIABILITY IN FURNISHING THE REQUIRED MATERIALS OR LABOR SPECIFIED.

GENERAL NOTES (CONTINUATION)

40. A PRE-CONSTRUCTION CONFERENCE OF REPRESENTATIVES FROM AFFECTED AGENCIES SHALL BE HELD ON THE JOB AT LEAST ONE (1) WEEK PRIOR TO BEGINNING CONSTRUCTION.

41. DRAWINGS ARE NOT TO BE SCALED UNDER ANY CIRCUMSTANCES, WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE, AND THIS SET OF PLANS IS INTENDED TO BE USED FOR DIAGRAMMATIC PURPOSES ONLY, UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE FIELD MEASUREMENTS AS NECESSARY TO COMPLETE ALL WORKS AND THE GENERAL CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR, AND ANYTHING ELSE DEEMED NECESSARY TO COMPLETE INSTALLATIONS AS DESCRIBED HEREIN. SYNERGY IS NOT RESPONSIBLE FOR ANY ERRORS RESULTING FROM THIS PRACTICE WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS.

42. DETAILS INCLUDED HEREIN ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS OR SITUATIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE SCOPE OF WORK.

SITE PREPARATION NOTES

1. THE PREPARATION OF THE SITE FOR CONSTRUCTION SHALL INCLUDE THE REMOVAL OF ALL BROKEN CONCRETE, TREE TRUNKS AND ANY OTHER DEBRIS THAT MIGHT DAMAGE THE FOOTINGS OF THE (N) STRUCTURE.

2. BACKFILL ALL TRENCHES WITH CLEAN, STERILE SOIL HAVING A SAND EQUIVALENT OF 30% OR GREATER. BACKFILL IN 8 INCH LAYERS, MOISTURE CONDITIONED AND PROPERLY COMPACTED. ADEQUATE DRAINAGE SHALL BE PROVIDED SUCH THAT NO PONDING OCCURS.

3. ALL FOUNDATION FOOTINGS SHALL EXTEND INTO AND BEAR AGAINST NATURAL UNDISTURBED SOIL OR APPROVED COMPACTED FILL. FOOTINGS SHALL EXTEND INTO SOIL DEPTH AS INDICATED IN PLANS.

4. SHOULD ANY LOOSE FILL, EXPANSIVE SOIL, GROUND WATER OR ANY OTHER UNEXPECTED CONDITIONS BE ENCOUNTERED DURING THE EXCAVATION FOR THE (N) FOUNDATION, THE ARCHITECT/ENGINEER SHALL BE NOTIFIED AND ALL FOUNDATION WORK SHALL CEASE IMMEDIATELY.

5. WITHIN AN AREA A MINIMUM OF 5 FEET BEYOND THE BUILDING LIMITS, EXCAVATE A MINIMUM OF 4" OF EXISTING SOIL. REMOVE ALL ORGANICS, PAVEMENT, ROOTS, DEBRIS AND OTHERWISE UNSUITABLE MATERIAL.

6. THE SURFACE OF THE EXPOSED SUBGRADE SHALL BE INSPECTED BY PROBING OR TESTING TO CHECK FOR POCKETS OF SOFT OR UNSUITABLE MATERIAL. EXCAVATE UNSUITABLE SOIL AS DIRECTED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY.

7. PROOF ROLL THE SURFACE OF THE EXPOSED SUBGRADE WITH A LOADED TANDEM AXLE DUMP TRUCK. REMOVE ALL SOILS WHICH PUMP OR DO NOT COMPACT PROPERLY AS DIRECTED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY.

8. FILL ALL EXCAVATED AREAS WITH APPROVED CONTROLLED FILL. PLACE IN 8" LOOSE LIFTS AND THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-698. COMPACT TO A MINIMUM OF 90% RELATIVE COMPACTION

9. ANY STRUCTURAL DRAWINGS HERE IN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

10. THE ARCHITECT/ENGINEER IS NOT RESPONSIBLE FOR COMPLICATIONS, DAMAGES, INJURY, OR DEATH ARISING OUT OF ANY KIND OF NEGLIGENCE PRIOR TO COMPLETION OF THE FINISHED STRUCTURE.

11. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO (N) OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGED AREAS.

12. WHEN REQUIRED STORAGE OF MATERIALS OCCURS, THEY SHALL BE EVENLY DISTRIBUTED OVER THE FLOOR OR ROOF SO AS NOT TO EXCEED THE DESIGNED LIVE LOADS FOR THE STRUCTURE. TEMPORARY SHORING OR BRACING SHALL BE PROVIDED WHERE THE STRUCTURE OR SOIL HAS NOT ATTAINED THE DESIGN STRENGTH FOR THE CONDITIONS PRESENT.

13. PRIOR TO PROCEEDING WITH ANY WORK WITHIN AN EXISTING FACILITY, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING STRUCTURAL AND OTHER CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.

SHOP DRAWING REVIEW

1. REVIEW BY THE ARCHITECT/ENGINEER IS FOR GENERAL COMPLIANCE WITH THE DESIGN CONCEPT AND THE CONTRACT DOCUMENTS. MARKINGS OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLIANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, NOR DEPARTURES THERE FROM. THE CONTRACTOR REMAINS RESPONSIBLE FOR DETAILS AND ACCURACY, FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FOR SELECTION FABRICATION PROCESSES.

LANDLORD/LESSOR NOTES

1. A PRECONSTRUCTION CONFERENCE OF REPRESENTATIVES FROM APPLICABLE AGENCIES SHALL BE HELD ON SITE AT LEAST ONCE PRIOR TO BEGINNING CONSTRUCTION AT WHICH TIME A CONSTRUCTION SCHEDULE AND 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO LANDLORD/LESSOR.

2. CONTRACTOR SHALL MAINTAIN ACCESS TO THE SITE AT ALL TIMES FOR LANDLORD/LESSOR PERSONNEL. OPEN TRENCHES SHALL BE PROPERLY PLATED AT THE END OF EACH WORKING DAY TO ALLOW FOR 24-HOUR LANDLORD/LESSOR ACCESS TO THE SITE.

3. THE CONTRACTOR AND CELL CARRIER SHALL BE RESPONSIBLE FOR ANY DAMAGE DUE TO CONSTRUCTION ACTIVITIES TO THE EXISTING SITE AND SHALL RETURN DAMAGED FACILITIES TO EXISTING CONDITION OR BETTER AT NO COST TO THE LANDLORD/LESSOR.

4. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (DIG ALERT) AT LEAST TWO (2) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION AT 1-800-422-4133.

5. ALL (N) AND EXISTING FACILITIES OWNED BY THE REPRESENTED CELLULAR CARRIER SHALL BE PROPERLY TAGGED IDENTIFYING THE OWNER'S NAME AND 24-HOUR PHONE NUMBER.

6. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE SITE IS SECURE DURING BOTH WORKING AND NON-WORKING HOURS.

ACCESSIBILITY EXCEPTION NOTES

1. SECTION 11B-203.4: LIMITED ACCESS SPACES - SPACES NOT CUSTOMARILY OCCUPIED AND ACCESSED ONLY BY LADDERS, CATWALKS, CRAWL SPACES OR VERY NARROW PASSAGEWAYS SHALL NOT BE REQUIRED TO COMPLY WITH THESE REQUIREMENTS OR TO BE ON AN ACCESSIBLE ROUTE.

2. SECTION 11B-203.5: MACHINERY SPACES - SPACES FREQUENTED ONLY BY SERVICE PERSONNEL FOR MAINTENANCE, REPAIR OR OCCASIONAL MONITORING OF EQUIPMENT SHALL NOT BE REQUIRED TO COMPLY WITH THIS REQUIREMENT OR TO BE ON AN ACCESSIBLE ROUTE. MACHINERY SPACES INCLUDE, BUT ARE NOT LIMITED TO, ELEVATOR PITS OR ELEVATOR PENTHOUSES; MECHANICAL. ELECTRICAL OR COMMUNICATIONS EQUIPMENT ROOMS; PIPING OR EQUIPMENT CATWALKS; WATER OR SEWAGE TREATMENT PUMP ROOMS AND STATIONS; ELECTRIC SUBSTATIONS AND TRANSFORMER VAULTS; AND HIGHWAY AND TUNNEL FACILITIES.

GENERAL RF NOTES

1. ALL ANTENNAS AND ANTENNA CABLE SHALL BE FURNISHED BY T-MOBILE WIRELESS AND INSTALLED BY ANTENNA INSTALLATION CONTRACTOR.

2. PRIOR TO INSTALLATION OF ANTENNAS THE CONTRACTOR SHALL VERIFY THAT THE AZIMUTH AND DIMENSIONS SHOWN ON THE PLANS MATCH ACTUAL FIELD CONDITIONS.

3. ANTENNA INSTALLATION CONTRACTOR SHALL PROVIDE ALL CONDUIT, CABLE TRAYS, GROUND KITS, CLAMPS, GROUNDS, ETC., FOR COMPLETE INSTALLATION OF ANTENNAS AND CABLES SHOWN AND INTENDED AS REQUIRED FOR A COMPLETE OPERATING SYSTEM IN ACCORDANCE WITH T-MOBILE WIRELESS STANDARDS.

4. ANTENNA CONDUIT SHALL INCLUDE FACTORY-MADE LARGE RADIUS SWEEPS AT ALL CHANGES IN DIRECTION. SWEEP RADIUS SHALL BE AS REQUIRED TO MEET COAX MANUFACTURER'S MINIMUM BENDING RADIUS.

5. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC WITH STEEL BENDS. ALL EXPOSED CONDUIT ABOVE GRADE LEVEL SHALL BE IMC OR RIGID GALVANIZED. ALL EXPOSED CONDUIT PROTECTED IN A BUILDING OR ON A ROOF SHALL BE EMT OR UV STABILIZED, PAINTED, SCHEDULE 80 PVC.

6. IN HIGH TRAFFIC AREAS OR WHERE SUSCEPTIBLE TO DAMAGE CONTRACTOR SHALL PROVIDE FORMED 14 GA GALVANIZED SHEET METAL COVER OVER COAXIAL CABLE ROUTES. WHERE CABLE IS RUN ON THE WALL, ATTACH UNISTRUT TO WALL AND COVER WITH 14 GA GALVANIZED FORMED SHEET METAL COVER OR MATERIAL AS DIRECTED BY T-MOBILE WIRELESS PROJECT MANAGER.

7. VERIFY ROUTE AND LENGTH OF CABLE PRIOR TO CUTTING. ADJUST INDICATED ROUTE AS REQUIRED TO CLEAR EXISTING OBSTRUCTIONS AND MAINTAIN REQUIRED CLEARANCE FROM EXISTING EQUIPMENT AND FACILITIES.

8. MAXIMUM LENGTH OF 7/8" COAXIAL CABLE SHALL BE 140'-0". MAXIMUM LENGTH OF 1-5/8" COAXIAL CABLE SHALL BE 240'-0".

9. VERIFY MODEL NUMBERS OF ANTENNAS WITH T-MOBILE WIRELESS SERVICES.

10. THE CONTRACTOR SHALL PROVIDE TESTING OF ANTENNAS AND SHALL PROVIDE DOCUMENTATION TO THE T-MOBILE WIRELESS PROJECT MANAGER.

11. INSTALL EMBOSSED ALUMINUM IDENTIFICATION TAGS AT THE END OF THE MAIN COAXIAL CABLE RUNS, ALONG WITH THE END OF THE JUMPER CABLE LOCATED WITHIN THE PLINTH SECTION OF THE BTS UNIT.

NOTE:
CONTRACTOR TO FIELD VERIFY ALL (E) CONSTRUCTION CONDITIONS BEFORE SUBMITTAL OF FINAL BIDS, START OF CONSTRUCTION AND OR FABRICATION.

T-Mobile
Stick Together ®

1855 GATEWAY BLVD.
CONCORD, CA 94520

PROJECT INFORMATION:

(ANCHOR)
SF71943M
SF1943 WATER TANK MONO
661 MIRAMAR DR
HALF MOON BAY, CA 94019
SAN MATEO

CURRENT ISSUE DATE:
12/15/20

ISSUED FOR:
CONSTRUCTION

REV.:	DATE:	DESCRIPTION:	BY:
A	11/25/20	90% CD	EDS
B	12/15/20	100% CD	EDS

PLANS PREPARED BY:

Synergy
a division of advantage engineers
7543 Woodley Ave., #201, Van Nuys, CA 91406
Office: (818) 840-0808 Fax: (818) 840-0708

CONSULTANT:

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DRAWN BY:	CHK.:	APV.:
EDS	AB	AB

LICENSURE:

REGISTERED PROFESSIONAL ENGINEER
WISSAM ZALZALI
C 71655
CIVIL
STATE OF CALIFORNIA

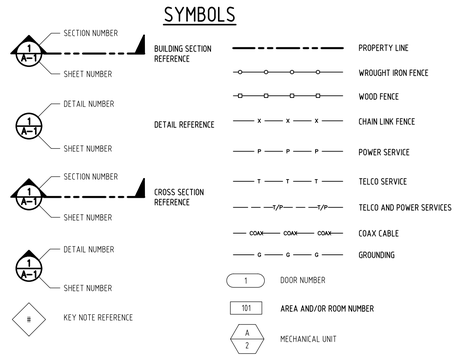
SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:	REVISION:
T-2	B
	SF71943M

ABBREVIATIONS

AB	ANCHOR BOLT
AC	ASPHALTIC CONCRETE
A.C.	AIR CONDITIONING
ADJ	ADJUSTABLE
A.F.F.	ABOVE FINISH FLOOR
ARCH	ARCHITECTURAL
APPROX.	APPROXIMATELY
A.G.L.	ABOVE GRADE LEVEL
A.M.S.L.	ABOVE MEAN SEA LEVEL
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BOT	BOTTOM
BSMT	BASEMENT
BTS	BASE TRANSCEIVER STATION
C	COURSE(S)
CEM	CEMENT
CL	CHAIN LINK
CLG	CEILING
CLR	CLEAR
CO	CONDUIT ONLY
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CORR	CORRIDOR
CPRI	COMMON PUBLIC RADIO INTERFACE CABLE
DIA	DIAMETER
DBL	DOUBLE
DEPT	DEPARTMENT
DEMO	DEMOLITION
DIM	DIMENSION
DN	DOWN
DR	DOOR
DTL	DETAIL
DUG	DIGITAL UNIT GSM
DUL	DIGITAL UNIT LTE
DUW	DIGITAL UNIT WCDMA
DWG	DRAWING
(E)	EXISTING
EA	EACH
ELEC	ELECTRIC
ELEV	ELEVATION
EQUIP	EQUIPMENT
EXP	EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FB	FLAT BAR
FF	FINISH FLOOR
FH	FLAT HEAD
FIN	FINISH(ED)
FLR	FLOOR
FOS	FACE OF STUDS
FS	FINISH SURFACE
FT	FOOT, FEET
FTG	FOOTING
FW	FINISH WALL
F.G.	FINISH GRADE
FUT	FUTURE
GA	GAUGE
GALV	GALVANIZED
GL	GLASS
GR	GRADE
GYP	GYPSUM
GFCI	GROUND FAULT CIRCUIT INTERRUPT
GND	GROUND
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE COMMUNICATION
HC	HOLLOW CORE
HDW	HARDWARE
HTR	HEATER
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
HV	HIGH VOLTAGE
ID	INSIDE DIMENSION
INS	INSULATION
INT	INTERIOR
JT	JOINT
LA	LIGHTNING ARRESTOR
LAM	LAMINATED
LBS	POUNDS
LNA	LOW NOISE AMPLIFIER
LT	LIGHT
LTE	LONG TERM EVOLUTION
MFR	MANUFACTURER
MAT	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
ML	METAL LATH
MO	MASONRY OPENING
MS	MACHINE SCREW
MTD	MOUNTED
MTL	METAL
(N)	NEW
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OA	OVERALL
O.C.	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
PARTN	PARTITION
PL	PLATE
PLAS	PLASTER
PLYWD	PLYWOOD
POC	POINT OF CONNECTION
PROP	PROPERTY
PSUs	POWER SUPPLY UNIT SYSTEM
PT	PRESSURE TREATED
R	RISER
REQD	REQUIRED
RD	ROOF DRAIN
RM	ROOM
RMS	ROOMS
RO	ROUGH OPENING
SAR M	TELCO INTERFACE UNIT
SC	SOLID CORE
SCHED	SCHEDULE
SECT	SECTION
SFP	SMALL PLUGGABLE TRANSCEIVER
SHT	SHEET
SIM	SIMILAR
SPECS	SPECIFICATIONS
SS	STAINLESS STEEL
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SW	SWITCH
SWBO	SWITCHBOARD
THK	THICK
TI	TENANT IMPROVEMENT
TMA	TOWER MOUNTED AMPLIFIER
TOS	TOP OF SURFACE
TS	TUBE STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
VG	VERTICAL GRAIN
W/	WITH
WCDMA	WIREBAND CODE DIVISION MULTIPLE ACCESS
WD	WOOD
WR	WATER RESISTANT
WT	WEIGHT
XFMR	TRANSFORMER
@	AT
⊏	CHANNEL
℄	CENTERLINE
∠	ANGLE
ℙ	PROPERTY LINE

SYMBOLS



PAINTING SPECIFICATIONS

A. GENERAL

1. ALL PAINT PRODUCT LINES SHALL BE SHERWIN WILLIAMS UNLESS SPECIFICALLY NOTED OTHERWISE.

2. CONTRACTOR SHALL PREPARE ALL SURFACES AND APPLY ALL FINISHES PER LATEST EDITION OF MANUFACTURER'S SPECIFICATIONS.

3. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS REGARDING SUFFICIENT DRYING TIME BETWEEN COATS WITH PROVISIONS AS RECOMMENDED BY MANUFACTURER FOR EXISTING WEATHER CONDITIONS.

4. FINISH COLOR AND TEXTURE OF ALL PAINTED SURFACES SHALL MATCH EXISTING ADJACENT SURFACES UNLESS OTHERWISE NOTED.

5. ALL PAINT MATERIAL DATA SHEETS SHALL BE PROVIDED TO THE CINGULAR WIRELESS CONSTRUCTION MANAGER.

6. PREPARE PREVIOUSLY PAINTED SURFACE BY LIGHT SANDING WITH 400 GRIT SANDPAPER AND NON-HYDROCARBON WASH. PREPARE GALVANIZED SURFACES BY ACID ETCH OR SOLVENT CLEANING IN ACCORDANCE WITH SSPC-SP1.

7. FURNISH DROP CLOTHES, SHIELDS, MASKING AND PROTECTIVE METHODS TO PREVENT SPRAY OR DROPPINGS FROM DAMAGING ADJACENT SURFACES AND FACILITIES.

8. APPLY PAINT BY AIRLESS SPRAY, SANDING LIGHTLY BETWEEN EACH SUCCEEDING ENAMEL COAT ON FLAT SURFACES. APPLY MATERIAL TO ACHIEVE A COATING NO THINNER THAN THE DRY FILM THICKNESS INDICATED.

9. APPLY BLOCK FILTER TO CONCRETE BLOCK CONSTRUCTION AT A RATE TO ENSURE COMPLETE COVERAGE WITH PORES COMPLETELY FILLED.

10. CONTRACTOR SHALL CORRECT RUNS, SAGS, MISSES AND OTHER DEFECTS INCLUDING INADEQUATE COVERAGE AS DIRECTED BY THE CINGULAR WIRELESS CONSTRUCTION MANAGER. REPAINT AS NECESSARY TO ACHIEVE SURFACES WHICH ARE SMOOTH, EVENLY COATED WITH UNIFORM SHEEN AND FREE FROM BLEMISHES.

B. PAINTING SCOPE

1. PAINT THE FOLLOWING MATERIALS AND SYSTEMS CHECKED BELOW WITH THE COATING SYSTEM INDICATED.

PAINTING SCOPE

SURFACE TO BE PAINTED	COATING SYSTEM	PAINT	DO NOT PAINT	N/A
BTS UNIT				
ALL EQUIPMENT & CABINETS OTHER THAN THE BTS UNIT				
ANTENNA COVERS, TILT BRACKETS, MOUNTING BRACKETS AND ASSOCIATED HARDWARE, CABLE AND CABLE COVERS EXPOSED TO VIEW, EXPOSED CONDUIT AND HANGERS, ETC.				
FLASHING UNITS, METAL TRIM AND OTHER METAL SURFACES				
STUCCO, CONCRETE, CONCRETE BLOCK AND CEMENTIOUS TYPE FINISH SYSTEMS.				
PLYWOOD, LUMBER AND WOOD TRIM INCLUDING THE BACK SIDE OF ALL SCREENWALLS				
DRYWALL				
CONCRETE POLES				
METAL POLES AND METAL POLE STAND-OFF				

C. COATING SYSTEM SPECIFICATIONS

1. DTM ACRYLIC COATING (SERIES B66) BY SHERWIN WILLIAMS CO. 1MIL DFT PER COAT APPLIED IN TWO COATS OVER DTM BONDING PRIMER (B66A50).

2. 100% ACRYLIC, LATEX COATING EQUIVALENT TO A-100 (SERIES A-82) BY SHERWIN WILLIAMS CO. 1 MIL DFT PER COAT APPLIED IN TWO COATS OVER SPECIFIED PRIMER

PAINT & PRIMER

D. ANTENNAS
PRIMER - KEM AQUA E61-W525
TOPCOAT - COROTHANE II B65W200/B60V22

BTS CABINET
PRIMER - KEM AQUA E61-W525
TOPCOAT - COROTHANE II B65W200/B60V22

COAXIAL JUMPER CABLES
PRIMER - AS REQUIRED FOR ADHESION. APPLY ONE COAT OF KEM AQUA WATER REDUCIBLE PRIMER E61W25 REDUCED 25%
TOPCOAT - 2 COATS COROTHANE II POLYURETHANE B65W200/B60V2

RAW STEEL
PRIMER - KEM BOND HS B50WZ4, DMT ACRYLIC PRIMER
TOPCOAT - 2 COATS COROTHANE II POLYURETHANE B65W200/B60V2

GALVANIZED METAL
ACID ETCH WITH COMMERCIAL ETCH OR VINEGAR PRIMER COAT AND FINISH COAT (GALVITE HIGH SOLIDS OR DTM PRIMER/FINISH)

STAINLESS STEEL
PRIMER - OTM WASH PRIMER, B71Y1
TOPCOAT - 2 COATS COROTHANE II POLYURETHANE B65W200/B60V2

PRE-PRIMED STEEL
TOUCH UP ANY RUST OR UN-PRIMED STEEL WITH KEM BOND HS, SSOWZ4

ALUMINUM & COPPER
PRIMER - DTM WASH PRIMER, B71Y1
TOPCOAT - 2 COATS COROTHANE II POLYURETHANE B65W200/B60V2

CONCRETE MASONRY
PRIMER - PRO MAR EXTERIOR BLOCK FILLER
TOPCOAT - 2 COATS A-100 LATEX HOUSE & TRIM, SHEEN TO MATCH

CONCRETE STUCCO(EXISTING)
2 COATS A-100 LATEX HOUSE & TRIM, SHEEN TO MATCH

STUCCO
PRIMER - PRO MAR MASONRY CONDITONER B-46-W21000
TOPCOAT - SUPERPAINT A-80 SERIES A-89 SATIN A-84 GLOSS

WOOD
PRIMER - A-100 EXTERIOR ALKYD WOO9D PRIMER Y-24W20
TOPCOAT - 2 COATS A-100 LATEX HOUSE & TRIM SHEEN TO MATCH ADJACENT SURFACES

FIELD CUTS/DAMAGE(PRIOR TO PRIME & PAINT)
FIRST & SECOND COAT - CUPRINOL CLEAR WOOD PRESERVATIVE #158-0356
ALL PENETRATIONS INTO FINISHED CLU-LAMS SHALL BE CAULKED WITH "SIKAFLEX" SEALANT

STEEL TOUCH UP
STEEL THAT HAS BEEN WELDED, CUT OR SCRATCHED IN THE FIELD SHALL BE TOUCHED UP WITH COLD GALVANIZED PAINT

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CONCORD, CA 94520

PROJECT INFORMATION:

(ANCHOR)
SF71943M
SF1943 WATER TANK MONO
661 MIRAMAR DR
HALF MOON BAY, CA 94019
SAN MATEO

CURRENT ISSUE DATE:
12/15/20

ISSUED FOR:
CONSTRUCTION

REV.:	DATE:	DESCRIPTION:	BY:
A	11/25/20	90% CD	EDS
B	12/15/20	100% CD	EDS

PLANS PREPARED BY:
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DRAWN BY:	CHK.:	APV.:
EDS	AB	AB

LICENSURE:

SHEET TITLE:
ABBREVIATIONS, SPECIFICATIONS AND SYMBOLS

SHEET NUMBER:	REVISION:
T-3	B
	SF71943M

GENERAL NOTES

1. ALL CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND CBC–2019 SPECIFICATIONS.
2. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND CONDITIONS OF ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUBCONTRACTORS. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE STRUCTURAL ENGINEER IMMEDIATELY AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
3. STRUCTURAL DRAWINGS SHALL WORK IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.
4. DESIGN, MATERIALS, EQUIPMENT, AND PRODUCTS OTHER THAN THOSE DESCRIBED OR INDICATED ON THE DRAWINGS MAY BE CONSIDERED FOR USE PROVIDED PRIOR APPROVAL IS OBTAINED FROM THE STRUCTURAL ENGINEER.
5. ALL CONDITIONS SHOWN OR NOTED AS EXISTING ARE BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS. NO WARRANTY IS IMPLIED TO THEIR ACCURACY. CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS. SHOULD CONDITIONS BECOME APPARENT THAT DIFFER FROM THE CONDITIONS SHOWN, THEY SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE PROFESSIONAL ENGINEER. PROFESSIONAL ENGINEER WILL THEN PREPARE ADDITIONAL DRAWINGS AS MAY BE NEEDED TO ACCOMMODATE THE CONDITIONS AS BROUGHT TO THEIR ATTENTION.
6. MECHANICAL EQUIPMENT MUST BE FIRMLY ATTACHED TO THE STRUCTURE. ISOLATORS, FASTENERS, AND OTHER ELEMENTS PROVIDING STABILITY FOR MECHANICAL EQUIPMENT SHALL BE CAPABLE OF TRANSMITTING CODE REQUIRED LOADS, BUT IN NO EVENT LESS THAN A SHEAR LOAD EQUIVALENT TO 0.45 TIMES THE OPERATING WEIGHT OF THE EQUIPMENT.
7. WATERPROOFING: SEE ARCHITECTURAL DRAWINGS.
8. THE FOUNDATION DESIGN IS BASED ON CBC–2019 TABLE 1806.2. ALLOWABLE SOIL BEARING VALUE IS 1500.
9. THE NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS.
10. TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY UNLESS NOTED OTHERWISE.

CONCRETE

1. ALL POURED–IN–PLACE CONCRETE SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. UNLESS OTHERWISE NOTED, CEMENT TO BE TYPE–8 FROM TESTED STOCK PER ASTM C–150.
2. CONCRETE FORM TOLERANCES SHALL BE WITHIN THE STANDARDS SET BY THE AMERICAN CONCRETE INSTITUTE.
3. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS OR OTHER INSERTS SHALL BE SECURED IN POSITION AND INSPECTED BY THE LOCAL BUILDING DEPARTMENT INSPECTOR PRIOR TO THE POURING OF ANY CONCRETE.
4. NO PIPES OR DUCTS SHALL BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR LOCATIONS.
5. FORM EXPOSED CORNERS OF COLUMNS, BEAMS, WALLS, ETC. WITH 3/4" CHAMFERS UNLESS DETAILED OTHERWISE.
6. PROVIDE LIGHT BROOM FINISH ON ALL EXPOSED CONCRETE UNLESS NOTED OTHERWISE.

REINFORCING STEEL

1. REINFORCING STEEL SHALL CONFORM TO ASTM A–615 GRADE 60 U.N.O.
2. BARS SHALL BE CLEAN OF MUD, OIL, OR OTHER COATINGS LIKELY TO IMPAIR BONDING.
3. ALL REINFORCING SHALL BE SECURED IN PLACE PRIOR TO PLACING CONCRETE OR GROUTING MASONRY. ALL REINFORCING SHALL BE CHAIRED TO ENSURE PROPER CLEARANCES. SUPPORT OF FOUNDATION REINFORCING MUST PROVIDE ISOLATION FROM MOISTURE/CORROSION BY USE OF A PLASTIC OR CONCRETE CHAIR. DUCT–TAPE IS NOT AN ACCEPTABLE MOISTURE/CORROSION PROTECTION.
4. REINFORCING STEEL SHALL BE SPLICED AS SHOWN OR NOTED. SPLICES AT OTHER LOCATIONS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER. ALL VERTICAL WALL REINFORCEMENT SHALL BE CONTINUOUS BETWEEN SPLICE LOCATIONS SHOWN IN THE DRAWINGS.
5. ALL GRADE 60 REINFORCING TO BE WELDED SHALL BE ASTM A706.
6. CLEAR CONCRETE COVERAGE IS AS FOLLOWS:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER	
#6 OR LARGER	2"
#5 AND SMALLER	1–1/2"
COLUMNS (TO TIES)	1–1/2"
BEAMS (TO STIRRUPS)	1–1/2"
FLAT SLABS	3/4"
WALLS	SEE SCHEDULE AND OR DETAILS
ALL OTHER PER LATEST EDITION OF ACI 318	

STRUCTURAL STEEL

1. THE LABOR, MATERIALS AND EXECUTION REQUIRED FOR ALL CONCRETE WORK AS INDICATED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH THOSE APPLICABLE PORTIONS OF CHAPTER 22 OF THE LATEST ADOPTED EDITION OF THE CALIFORNIA BUILDING CODE.
2. STRUCTURAL STEEL NOT ENCASED IN CONCRETE SHALL BE SHOP PAINTED WITH TNEMEC99 METAL PRIMER OR APPROVED EQUIVALENT.
3. UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE ASTM A307. THIS INCLUDES EXPANSION/ADHESIVE ANCHORS. BOLTED CONNECTIONS SHALL CONFORM TO AISC SPECIFICATIONS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
4. UNLESS NOTED OTHERWISE ALL WELDS PER THE LATEST EDITIONS OF THE AWS STANDARDS SHALL CONFORM TO AISC SPECIFICATIONS. WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES. THESE DRAWINGS DO NOT DISTINGUISH BETWEEN SHOP AND FIELD WELDS.
5. CONTRACTOR IS PERMITTED TO CUT AND WELD ANTENNA SUPPORT ASSEMBLY ARMS AS NECESSARY TO MEET THE LENGTH REQUIREMENTS IN THE FIELD. WELDS SHALL CONSIST OF A 3/16" FILLET ALL THE WAY AROUND FOR 1/4" THICK STEEL OR LESS AND 3/8" FILLET WELD FOR STEEL 1/2" THICK OR LESS. CONTRACTOR SHALL RESTORE CORROSION BARRIER WITH AN APPROVED PAINT IN ACCORDANCE WITH BS 729–1971 AND PREN 1029."

STRUCTURAL NOTES (CONTINUATION)

6. MATERIAL CONFORMANCE:
   A. WIDE FLANGE STEEL SECTIONS PER ASTM A572 OR A992 WITH Fy = 50 KSI
   B. PIPES SECTIONS PER ASTM A501 WITH Fy = 36 KSI
   C. TUBE STEEL SECTIONS PER ASTM A500 WITH Fy = 46 KSI
   D. COLD FORMED STEEL PER ASTM A653 WITH Fy = 50 KSI
   E. WELDING ELECTRODES PER AWS CODE, E70XX UNLESS NOTED OTHERWISE ON PLANS
   F. ALL OTHER MISCELLANEOUS STEEL SHALL BE ASTM A36 WITH Fy = 36 KSI UNLESS NOTED OTHERWISE ON THE PLANS

ADHESIVE / MECHANICAL ANCHORS

1. ALL POST–INSTALLED ANCHORS SHALL BE PER SIMPSON OR HILTI MANUFACTURING AS INDICATED ON THE PLANS.
2. MECHANICAL ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING APPROVAL CODES:
   FOR HILTI KWIK BOLT 3 ANCHORS, INSTALLATION SHALL COMPLY WITH ICC–ES ESR–1385 AND LARR 25901 FOR ANCHORAGE TO MASONRY. FOR HILTI KWIK BOLT ANCHORS, INSTALLATION SHALL COMPLY WITH ICC–ES ESR–1917 AND LARR 25701 FOR ANCHORAGE TO CONCRETE.

   ADHESIVE ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING APPROVAL CODES:
   FOR SIMPSON SET–XP EPOXY ANCHORS, INSTALLATION SHALL BE IN ACCORDANCE WITH ICC–ES ESR–2508 AND LARR 25744 FOR ANCHORAGE TO CONCRETE, IAPMO UES ER–265 AND LARR 25965 FOR ANCHORAGE TO MASONRY.
   FOR HILTI HIT–HY 200 EPOXY ANCHORS, INSTALLATION SHALL BE IN ACCORDANCE WITH ICC ESR–3187 AND LARR 25964 FOR ANCHORAGE TO CONCRETE.
3. ALLOW A MINIMUM OF 72 HOURS AFTER NEW CONCRETE IS PLACED PRIOR TO LOCATING MECHANICAL OR ADHESIVE ANCHORS. ALL MECHANICAL/ADHESIVE ANCHORS REQUIRE SPECIAL STRUCTURAL INSPECTION PER THE BUILDING CODE.

MASONRY

1. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90, MEDIUM WEIGHT, GRADE N WITH Fm = 1500 PSI.
2. MORTAR TYPE S, Fm = 1800 PSI
3. PROVIDE EXPANSION JOINTS IN MASONRY WALLS EVERY 24'–0" O.C.
4. VERTICAL REINFORCING SHALL BE 1 #5 VERTICAL IN CENTER OF GROUTED CELL CONTINUOUS FULL HEIGHT OF WALL AT ALL CORNERS, INTERSECTIONS, WALL ENDS, BEAM BEARINGS, JAMBS, EACH SIDE OF CONTROL JOINTS AND AT INTERVALS NOT TO EXCEED 48" O.C. UNLESS NOTED OTHERWISE ON THE PLANS. TIE AT 8'–0" O.C. VERTICALLY WITH SINGLE WIRE LOOP TIE BY AA WIRE PRODUCTS COMPANY OR EQUIALENT. DOWEL VERTICAL REINFORCING TO FOUNDATION WITH DOWELS TO MATCH VERTICAL REINFORCING.
5. HORIZONTAL REINFORCING SHALL CONSIST OF 2 #5 CONTINUOUS AT ELEVATED FRAMING ASSEMBLIES. 1 #5 CONTINUOUS AT TOP OF PARAPETS AND FREESTANDING WALLS. PLACE THESE BARS CONTINUOUS THROUGH CONTROL JOINTS. INSTALL BENT BARS TO MATCH HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS TO MAINTAIN BOND BEAM CONTINUITY. STANDARD WEIGHT (NO. 9 GAGE WIRE) DUR–O–WALL OR DUR–O–WIRE (OR EQUIVALENT) LADDER TYPE JOINT REINFORCING AT 16" O.C. LAP LADDER TYPE JOINT REINFORCING 12" MINIMUM.
6. LAP SPLICES FOR VERTICAL AND HORIZONTAL REINFORCING SHALL BE PER TYPICAL DETAILS. DO NOT SPLICE WITHIN 8'–0" OF CONTROL JOINTS.

WOOD

1. IN STUD WALLS, UNLESS NOTED OTHERWISE, INSTALL DOUBLE STUDS AT ALL JAMBS, CORNERS, INTERSECTIONS AND AT ISOLATED BEARING POINTS OF FRAMING MEMBERS ABOVE. EVERY OTHER STUD OF WOOD FRAME BEARING WALL SHALL HAVE A SIMPSON H3 ANCHOR TOP AND BOTTOM, EXCEPT AT THOSE WALLS WHERE PLYWOOD SHEATHING IS NAILED DIRECTLY TO THE TOP AND BOTTOM PLATES. PROVIDE 2X SOLID BLOCKING AT MID–HEIGHT OF BEARING STUD WALLS.
2. SAWN LUMBER FRAMING SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WWPA OR THE WCLIB. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL HAVE MINIMUM PROPERTIES WHICH MEET OR EXCEED THE FOLLOWING WOOD TYPES:

MEMBER	WOOD TYPE
JOISTS	
2X4 (PANELIZED)	D.F. SELECT
2X4	D.F. #2
2X6 OR LARGER	D.F. #2
BEAMS	
WIDTH OF 4" OR LESS	D.F. #1
WIDTH GREATER THAN 4"	D.F. SELECT
LEDGERS AND TOP PLATES	D.F.#2
STUDS	
2X4	D.F. STD
2X6 OR LARGER	D.F. #2
POSTS	
4X4	D.F. #2
6X6 OR LARGER	D.F. SELECT

3. GLU–LAMINATED BEAMS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2,400 PSI, Fy = 240 PSI, E = 1,800,000 PSI. BEAMS CANTILEVERING OVER SUPPORTS SHALL HAVE THE SPECIFIED MINIMUM PROPERTIES TOP AND BOTTOM. ALL BEAMS SHALL BE FABRICATED USING WATERPROOF GLUE. FABRICATION AND HANDLING PER LATEST AITC AND WCLA STANDARDS. BEAMS TO BEAR GRADE STAMP AND AITO STAMP AND CERTIFICATE. CAMBER AS SHOWN ON DRAWINGS. IN THE ABSENCE OF CAMBER SHOWN ON THE PLAN, PROVIDE STANDARD CAMBER. STANDARD CAMBER IS DEFINED AS A RADIUS OF CURVATURE EQUAL TO 2500 FEET.
4. PLYWOOD SHALL BE APA "CDX" RATED SHEATHING OR BETTER AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. LAY UP PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. (ON ROOFS WHERE PLYWOOD IS LAYED UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE A MINIMUM OF 5–PLY PLYWOOD). STAGGER JOINTS. ALL NAILING SHALL BE COMMON NAILS UNLESS NOTED OTHERWISE. WHERE SCREWS ARE INDICATED FOR WOOD TO WOOD ATTACHMENTS, USE WOOD SCREWS. ALL PLYWOOD SHALL BE OF THE FOLLOWING NOMINAL THICKNESS, SPAN/INDEX RATIO AND SHALL BE ATTACHED AS FOLLOWS UNLESS NOTED OTHERWISE.

USE	THICKNESS	SPAN/INDEX RATIO	ATTACHMENT EDGE	INTERMEDIATE
ROOF	5/8"	32/16	10d@6" O.C.	10d@12" O.C.
ROOF	3/4"	40/20	10d@6" O.C.	10d@12" O.C.
FLOOR	3/4"	40/20	SCREWS@6" O.C.	SCREWS@12" O.C.

FIBER REINFORCED PLASTIC (FRP)

1. ALL CONNECTIONS SHALL BE $\frac{3}{8}$" DIAMETER FIBER BOLTS, U.N.O. (PULTEX 1625 OR EQUIVALENT) AND ALL HOLES UNLESS NOTED OTHERWISE SHALL BE PUNCHED OR DRILLED $\frac{1}{16}$" LARGER IN DIAMETER THAN THE BOLTS THEY RECEIVE.
2. ALL CONTACT SURFACES OF FRP STRUCTURAL SHAPES AND/OR HYBRID POLYMER COMPOSITE ARCHITECTURAL PANELS SHALL BE BONDED PER MANUFACTURER'S RECOMMENDATIONS. USE $\frac{1}{4}$" FRP SCREEN SKIN AND EPOXY GLUE SKIN TO FRAMING MEMBERS WITH $\frac{3}{8}$" DIAMETER FIBER BOLTS AT 24" O.C. EIFS SHALL MATCH BUILDING AND BE ATTACHED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. ALL LIQUID NAILS MULTI–PURPOSE CONSTRUCTION ADHESIVE SHALL BE PER MACCO OR APPROVED EQUIVALENT. BONDING SURFACE SHALL BE CAREFULLY PREPARED TO ENSURE A GOOD ADHESIVE BOND BY WIPING THE SURFACE WITH A STERILIZING SOLVENT, REMOVING SURFACE GLOSS BY LIGHT SANDING, APPLY ADHESIVE, AND FASTEN OR CLAMP BONDING SURFACES UNTIL CURED.
4. ALL EXPOSED JOINTS AT ARCHITECTURAL PANELS AHD SHAPES (EDGES, CORNERS, ETC.) SHALL BE CAULKED WITH AN APPROVED FLEXIBLE POLYURETHANE SEALANT/CAULK.
5. ALL OPEN ENDS OR GAPS OF SCREEN FRAMING WHERE WATER SUSCEPTIBLE TO WATER INFILTRATION SHALL BE WEATHER CAPPED OR SEALED BY THE GENERAL CONTRACTOR.
6. ALL FRP MATERIAL TO BE LOCATED IN THE CITY OF LOS ANGELES SHALL CONFORM TO LARR 25536.
7. ALL FRP MATERIAL SHALL CONFORM TO ASTM D–638, 695, 790, 2344, 732, ADDITIONALLY WITH BOLTS CONFORMING TO ASTM B–565. ALL FRP MATERIAL SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES FOR ALLOWABLE STRESS DESIGN (BASED ON A SAFETY FACTOR OF 7). VALUES ARE REPRESENTED IN KSI.

MECHANICAL PROPERTY	LENGTHWISE	CROSSWISE
TENSILE STRESS Ft	4.3	1.0
COMPRESSIVE STRESS Fc	4.3	2.1
FLEXURAL STRESS Fy	4.3	1.4
MODULUS OF ELASTICITY E	2.8X10^6	--
SHEAR Fv	0.6	--
BOLT SHEAR	1.2	--

SPECIAL STRUCTURAL INSPECTION – STRUCTURAL ONLY

1. SPECIAL STRUCTURAL INSPECTION IS TO BE PROVIDED FOR THE ITEMS LISTED BELOW IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE BUILDING JURISDICTION. SPECIAL STRUCTURAL INSPECTION IS REQUIRED FOR THE FOLLOWING:

VERIFICATION AND INSPECTION	INSPECTION TYPE CONTINUOUS	INSPECTION TYPE PERIODIC	REFERENCE STANDARD
STEEL CONSTRUCTION			
WELDING			
AT FLOOR AND ROOF DECK WELDS			AWS D1.3
FOR REINFORCING STEEL			AWS D1.4, ACI 318
FOR STRUCTURAL STEEL			
HIGH STRENGTH BOLTING		X	AISC 360–16, 2014 RCSC
CONCRETE CONSTRUCTION			
REINFORCING STEEL			ACI 318
POST–INSTALLED ANCHORS		X	ACI 318
USE OF REQUIRED DESIGN MIX			ACI 318
MASONRY CONSTRUCTION			TMS 402 AND 602/ ACI 530
SHEARWALL REINFORCING STEEL	24/0	8d@6" O.C.	8d@12" O.C.
GROUT PLACEMENT			
CLEANOUTS PRIOR TO CLOSURE			
POST–INSTALLED ANCHORS			

2. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN THAT IT CONFORMS TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE SPECIAL INSPECTOR IS NOT AUTHORIZED TO APPROVE DEVIATIONS FROM THE DESIGN DRAWINGS OR SPECIFICATIONS AND ALL DEVIATIONS MUST BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO PROCEEDING WITH THE WORK. ALL REQUESTS FOR DEVIATIONS SHALL BE INITIATED BY THE CONTRACTOR VIA A WRITTEN REQUEST FOR INFORMATION.
3. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE ENGINEER OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
4. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE SPECIAL INSPECTOR ACCESS TO ALL ITEMS REQUIRING SPECIAL INSPECTION. INSPECTOR IS NOT AUTHORIZED TO OPERATE CONTRACTOR'S EQUIPMENT.
5. FOR ADDITIONAL INFORMATION ON SPECIAL STRUCTURAL INSPECTIONS, CONTACT THE ENGINEER OF RECORD PRIOR TO START OF CONSTRUCTION.

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SHEET TITLE:
GENERAL STRUCTURAL NOTES

SHEET NUMBER: T-4
REVISION: B
SF71943M

NOTE:
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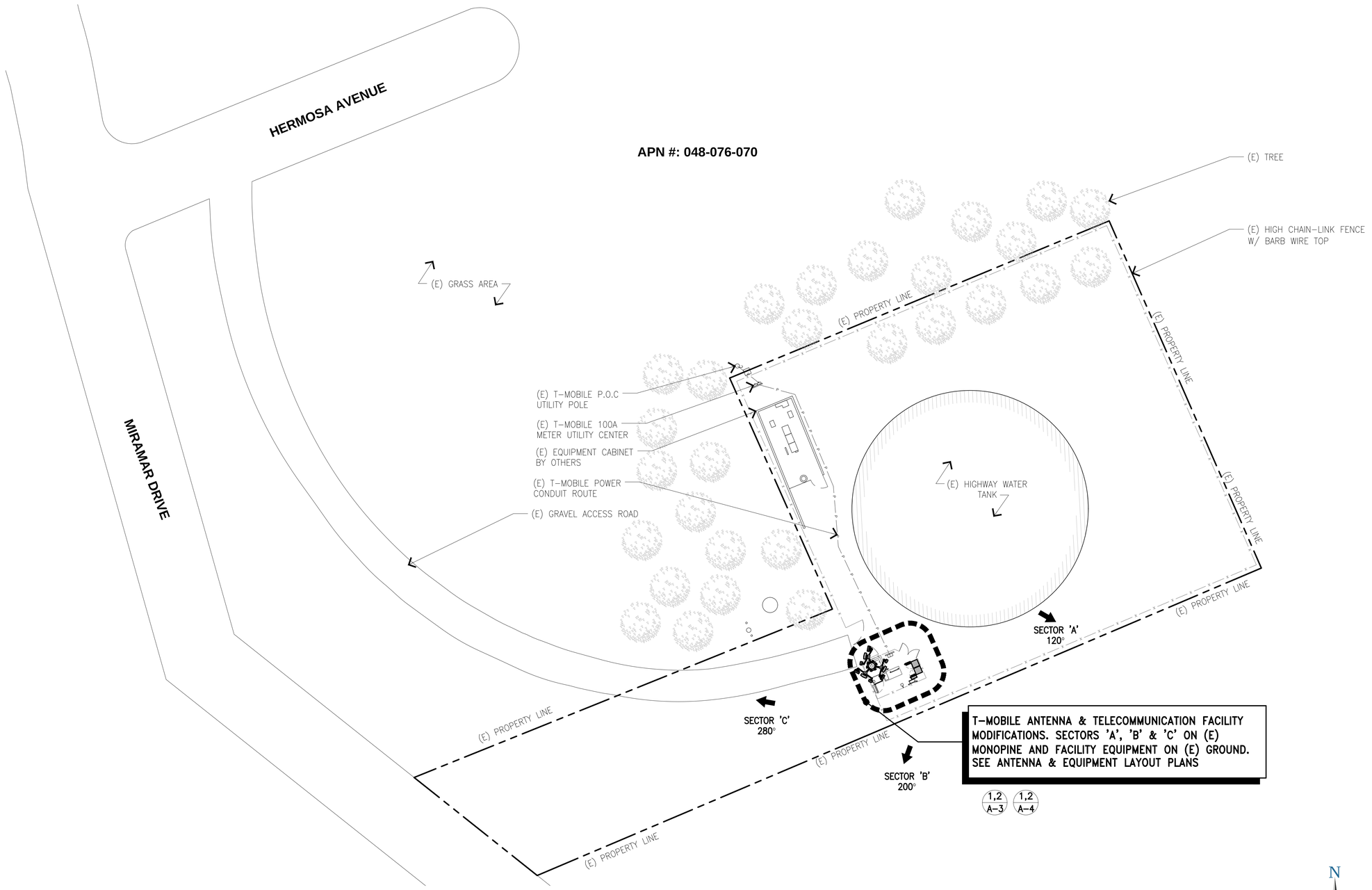

OVERALL SITE PLAN

SCALE: 1/16"=1'-0" | 0 5' 15' 30'

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SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER: A-1
REVISION: B
SF71943M

NOTE:
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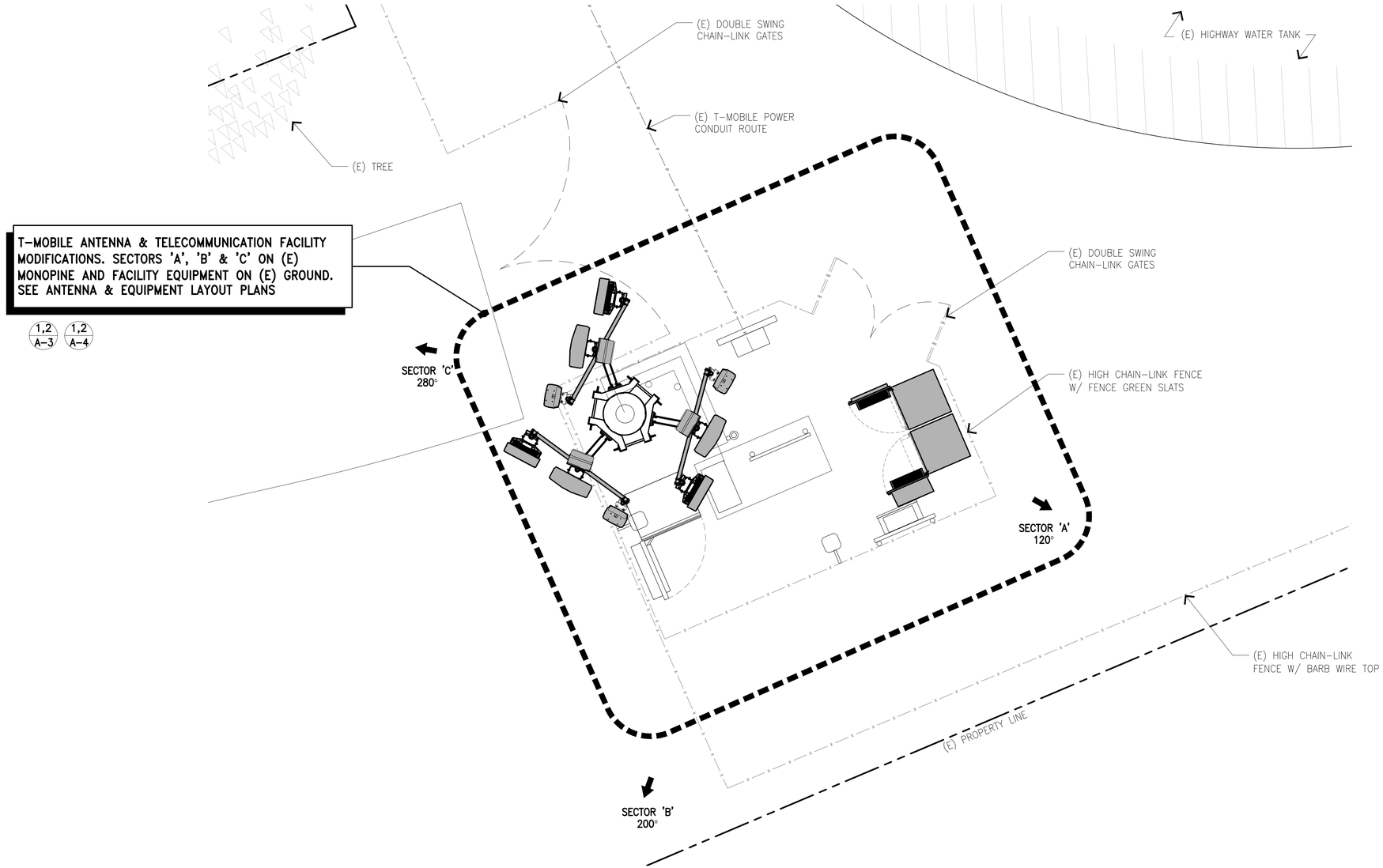

N

ENLARGED ROOF PLAN

SCALE: 3/8"=1'-0" 0 1' 2' 5'

1

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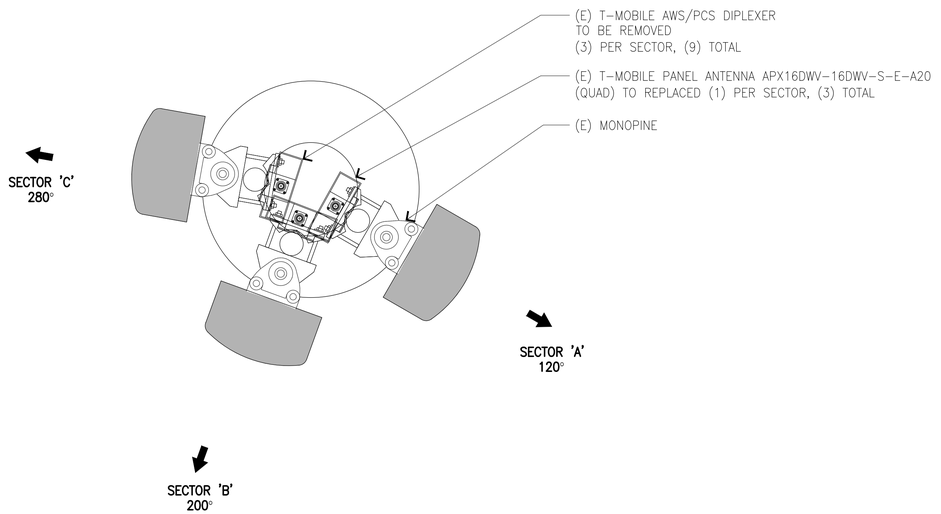
SHEET TITLE:
ENLARGED ROOF PLAN

SHEET NUMBER: A-1.1
REVISION: B
SF71943M

EXISTING ANTENNA SCHEDULE

SECTOR	AZIMUTH	RAD CENTER	ANTENNA		RRU/TMA/SMART BIAS T			COAX JUMPER	FIBER JUMPER	HCS/COAX CABLE		POWER	
			MODEL NO.	SIZE	QTY.	TYPE	QTY.	QTY.	QTY.	SIZE & TYPE	QTY.	SIZE & TYPE	QTY.
SECTOR "A"	120°	±34'-0"	APXVFW24-C-A20 (QUAD)	93.0"L X 14.5"W X 6.9"D	1	TMA TWIN STYLE 4	1	4	–	6x12 HCS	1		
						AWS/PCS	2						
SECTOR "B"	200°	±34'-0"	APXVFW24-C-A20 (QUAD)	93.0"L X 14.5"W X 6.9"D	1	TMA TWIN STYLE 4	1	4	–	6x12 HCS	1		
						AWS/PCS	2						
SECTOR "C"	280°	±34'-0"	APXVFW24-C-A20 (QUAD)	93.0"L X 14.5"W X 6.9"D	1	TMA TWIN STYLE 4	1	4	–	6x12 HCS	1		
						AWS/PCS	2						
TOTAL					3		9	12	–		3		–



N

(E) ANTENNA LAYOUT PLAN

SCALE: 1-1/2"=1'-0" 0 3" 6" 1'

1

T-Mobile
Stick Together ®

1855 GATEWAY BLVD.
CONCORD, CA 94520

PROJECT INFORMATION:

(ANCHOR)
SF71943M
SF1943 WATER TANK MONO
661 MIRAMAR DR
HALF MOON BAY, CA 94019
SAN MATEO

CURRENT ISSUE DATE:
12/15/20

ISSUED FOR:
CONSTRUCTION

REV.:	DATE:	DESCRIPTION:	BY:
A	11/25/20	90% CD	EDS
B	12/15/20	100% CD	EDS

PLANS PREPARED BY:

Synergy
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CONSULTANT:

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EDS	AB	AB

LICENSURE:

REGISTERED PROFESSIONAL ENGINEER
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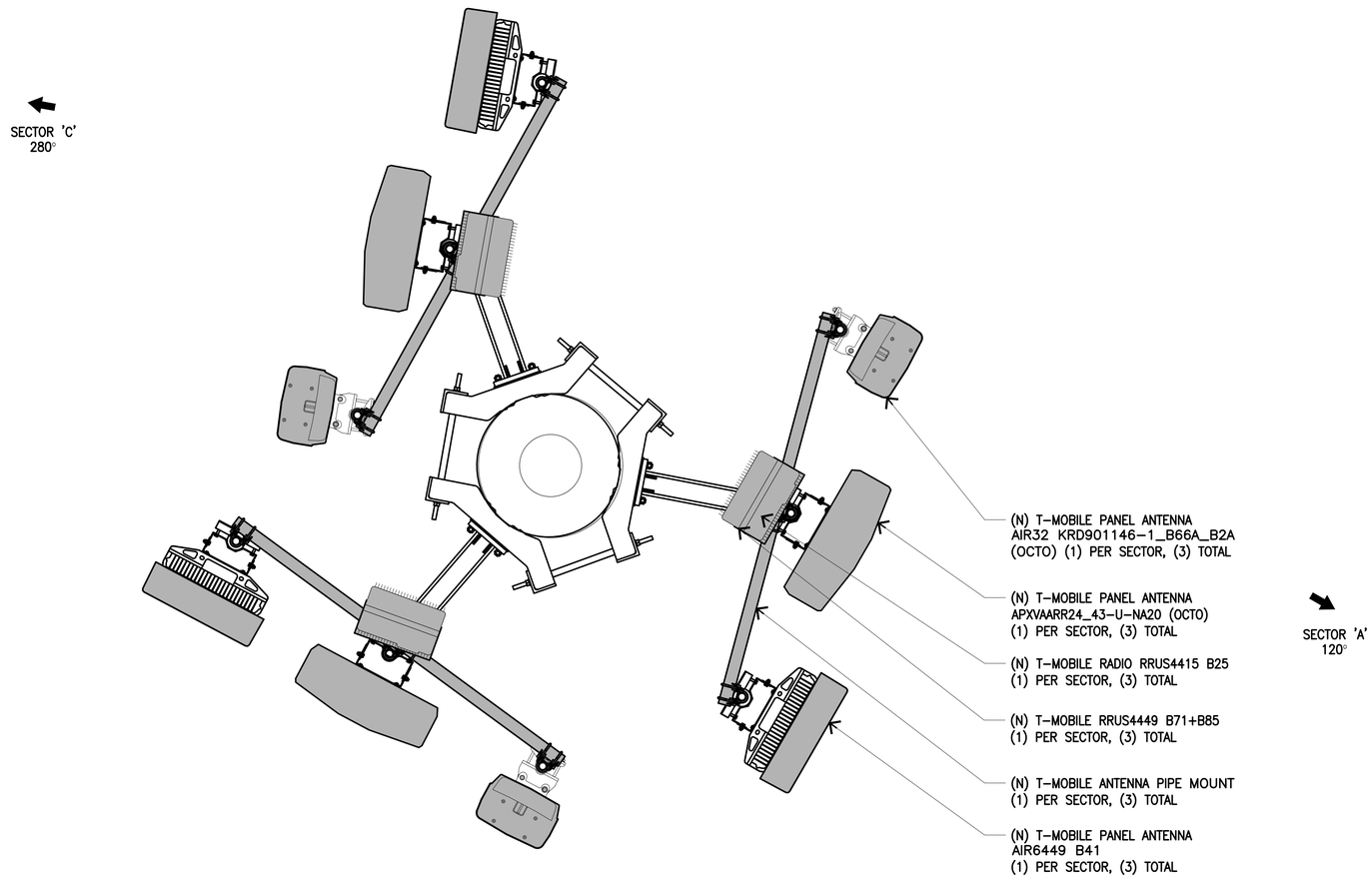
CIVIL
STATE OF CALIFORNIA

SHEET TITLE:
EXISTING ANTENNA LAYOUT PLAN

SHEET NUMBER: A-2
REVISION: B
SF71943M

NEW ANTENNA SCHEDULE

SECTOR	AZIMUTH	RAD CENTER	ANTENNA			RRU/TMA/SMART BIAS T		COAX JUMPER	FIBER JUMPER	HCS/COAX CABLE		POWER	
			MODEL NO.	SIZE	QTY.	TYPE	QTY.	QTY.	QTY.	SIZE & TYPE	QTY.	SIZE & TYPE	QTY.
SECTOR "A"	120°	±34'-0"	AIR32 KRD901146-1_B66A_B2A (OCTO)	56.6"L X 12.9"W X 8.7"D	1	–	–	–	4	6x12 HCS	1	–	–
			APXVAARR24_43-U-NA20 (OCTO)	72.0"L X 24.0"W X 8.7"D	1	RRUS4449 B71 B85	1	8	4	6x12 HCS	1		
						RRUS4415 B25	1						
			AIR6449 B41	33.1"L X 20.6"W X 8.3"D	1	–	–	–	4	6x12 HCS	1		
SECTOR "B"	200°	±34'-0"	AIR32 KRD901146-1_B66A_B2A (OCTO)	56.6"L X 12.9"W X 8.7"D	1	–	–	–	4	6x12 HCS	1	–	–
			APXVAARR24_43-U-NA20 (OCTO)	72.0"L X 24.0"W X 8.7"D	1	RRUS4449 B71 B85	1	8	4	6x12 HCS	1		
						RRUS4415 B25	1						
			AIR6449 B41	33.1"L X 20.6"W X 8.3"D	1	–	–	–	4	6x12 HCS	1		
SECTOR "C"	280°	±34'-0"	AIR32 KRD901146-1_B66A_B2A (OCTO)	56.6"L X 12.9"W X 8.7"D	1	–	–	–	4	6x12 HCS	1	–	–
			APXVAARR24_43-U-NA20 (OCTO)	72.0"L X 24.0"W X 8.7"D	1	RRUS4449 B71 B85	1	8	4	6x12 HCS	1		
						RRUS4415 B25	1						
			AIR6449 B41	33.1"L X 20.6"W X 8.3"D	1	–	–	–	4	6x12 HCS	1		
MW DISH	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL					9		6	24	36		9		–



(N) ANTENNA LAYOUT PLAN

SCALE: 1"=1'-0" (0 5' 10' 20')

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1855 GATEWAY BLVD.
CONCORD, CA 94520

PROJECT INFORMATION:

(ANCHOR)
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SAN MATEO

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CONSTRUCTION

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EDS	AB	AB

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REGISTERED PROFESSIONAL ENGINEER
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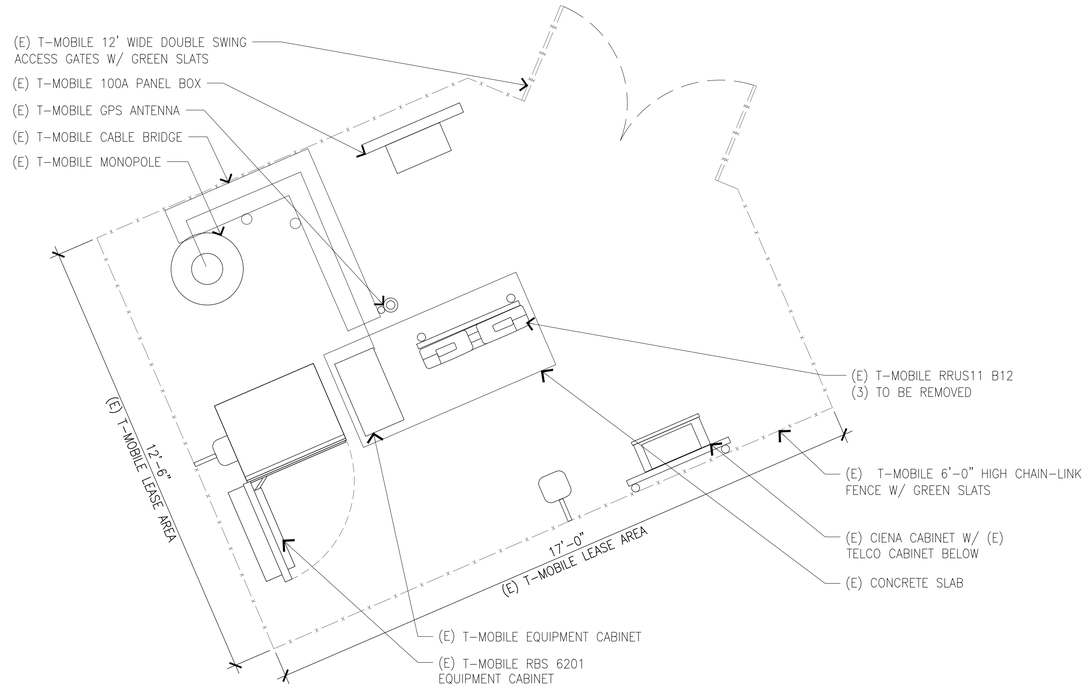
SHEET TITLE:
NEW ANTENNA
LAYOUT PLAN

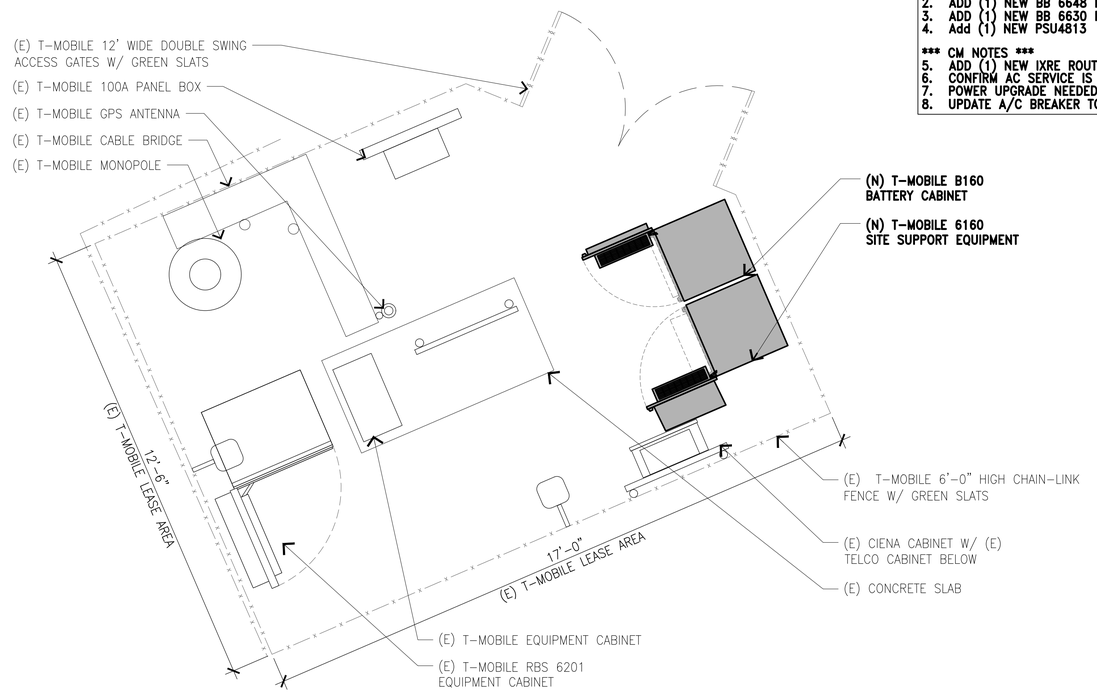
SHEET NUMBER: A-3
REVISION: B
SF71943M



(E) ENLARGED EQUIPMENT ELEVATION

SCALE: 1/2"=1'-0" (0, 1', 2', 4')

1



EQUIPMENT NOTES:
1. ADD (1) NEW 6160 SITE SUPPORT CABINET & B160 BATTERY CABINET
2. ADD (1) NEW BB 6648 FOR N2.5G AND (1) NEW BB 6630 FOR L2.5G.
3. ADD (1) NEW BB 6630 FOR N600
4. Add (1) NEW PSU4813

*** CM NOTES ***
5. ADD (1) NEW IXRE ROUTER
6. CONFIRM AC SERVICE IS 200AMPS; REPLACE EXISTING PPC WITH 200AMPS IF REQUIRED
7. POWER UPGRADE NEEDED (DC POWER)
8. UPDATE A/C BREAKER TO 150 AMPS AND WIRING AS REQUIRED

(N) ENLARGED EQUIPMENT ELEVATION

SCALE: 1/2"=1'-0" (0, 1', 2', 4')

2

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1855 GATEWAY BLVD.
CONCORD, CA 94520

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HALF MOON BAY, CA 94019
SAN MATEO

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EDS	AB	AB

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STATE OF CALIFORNIA

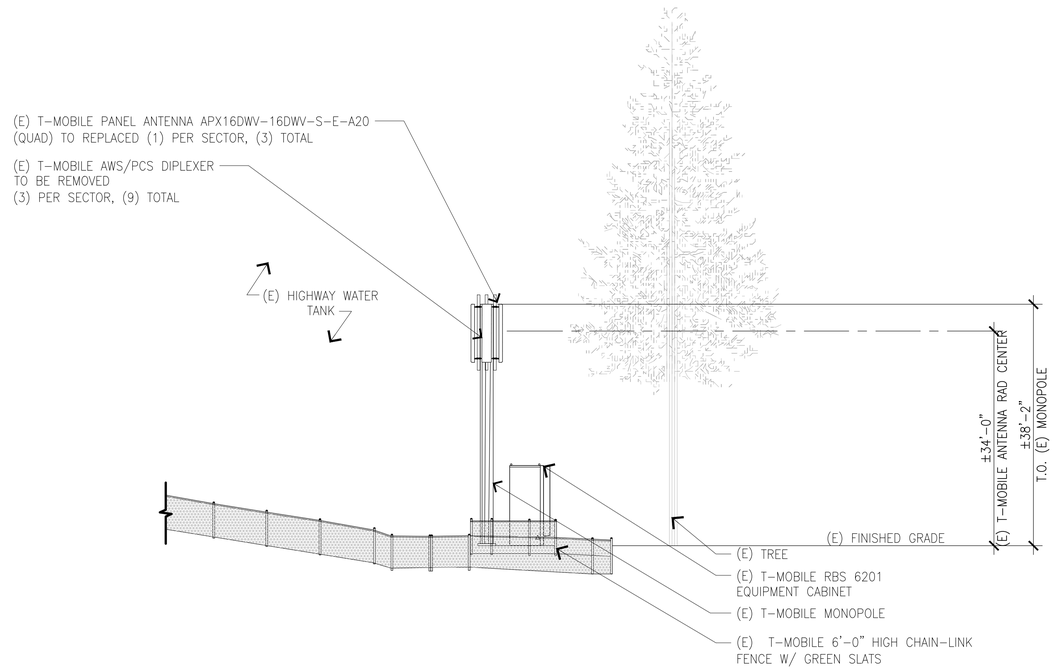
SHEET TITLE:

EQUIPMENT LAYOUT PLANS AND ENLARGED EQUIPMENT ELEVATIONS

SHEET NUMBER: A-4

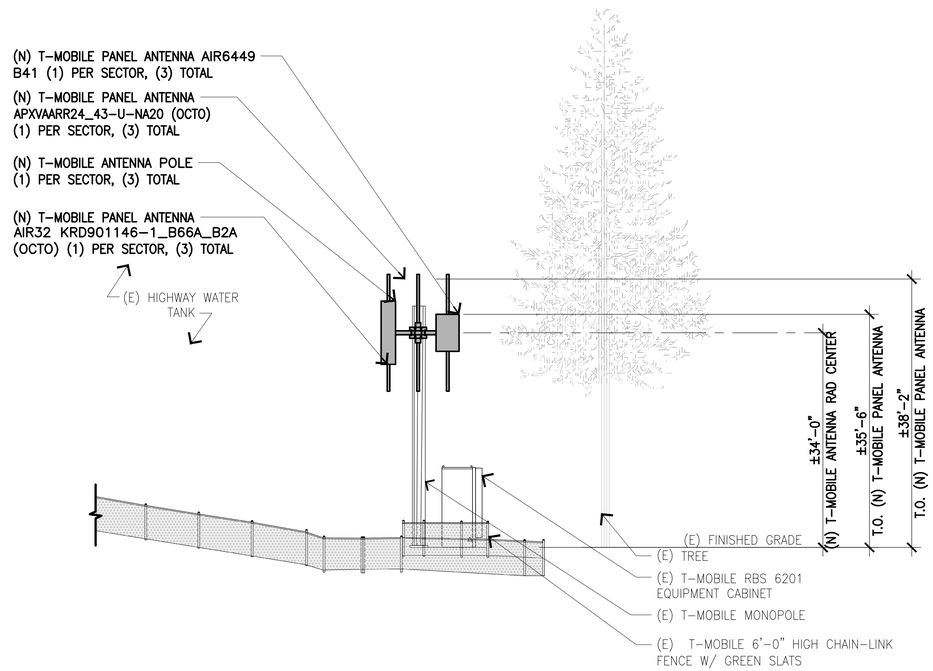
REVISION: B

SF71943M



(E) SOUTH ELEVATION

SCALE: 3/16"=1'-0" | 0 1' 3' 5' 10' | 1



(N) SOUTH ELEVATION

SCALE: 3/16"=1'-0" | 0 1' 3' 5' 10' | 2

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1855 GATEWAY BLVD.
CONCORD, CA 94520

PROJECT INFORMATION:

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SAN MATEO

CURRENT ISSUE DATE:
12/15/20

ISSUED FOR:
CONSTRUCTION

REV.:	DATE:	DESCRIPTION:	BY:
A	11/25/20	90% CD	EDS
B	12/15/20	100% CD	EDS

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EDS	AB	AB

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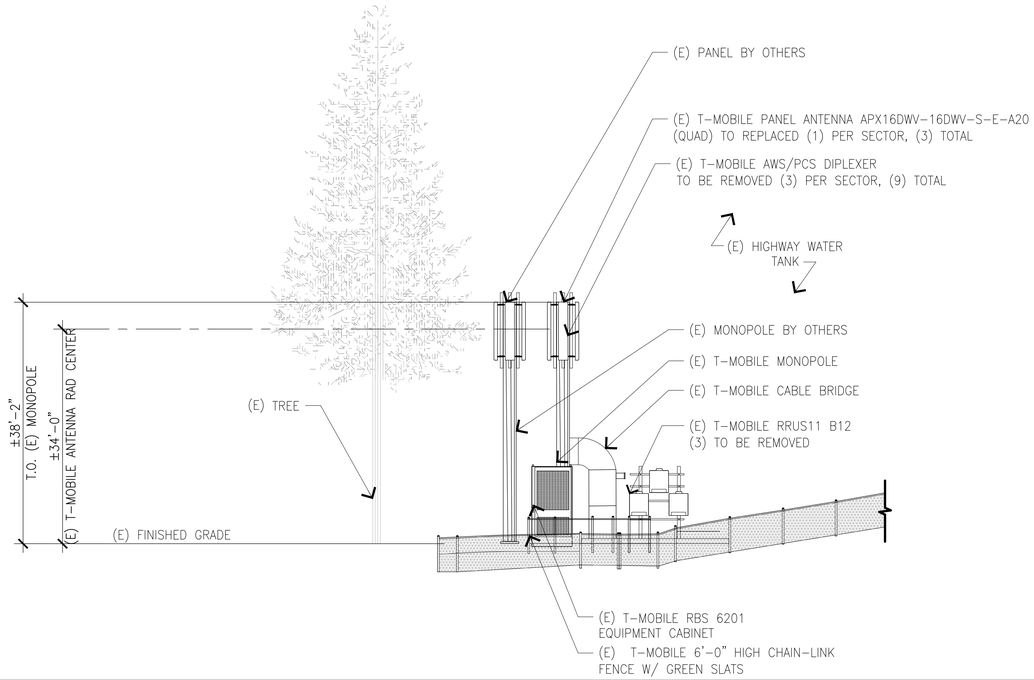
SHEET TITLE:
ELEVATIONS I

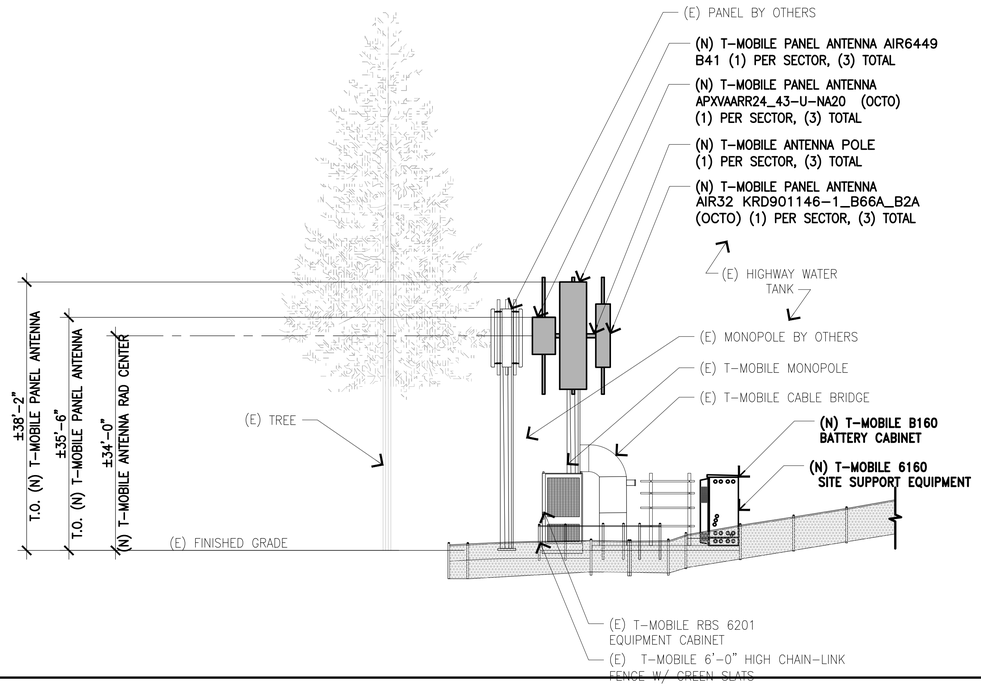
SHEET NUMBER:	REVISION:
A-5	B
	SF71943M



(E) NORTH ELEVATION

SCALE: 3/16"=1'-0" (0 1' 3' 5' 10')

1



(N) NORTH ELEVATION

SCALE: 3/16"=1'-0" (0 1' 3' 5' 10')

2

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1855 GATEWAY BLVD.
CONCORD, CA 94520

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SAN MATEO

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EDS	AB	AB

LICENSURE:

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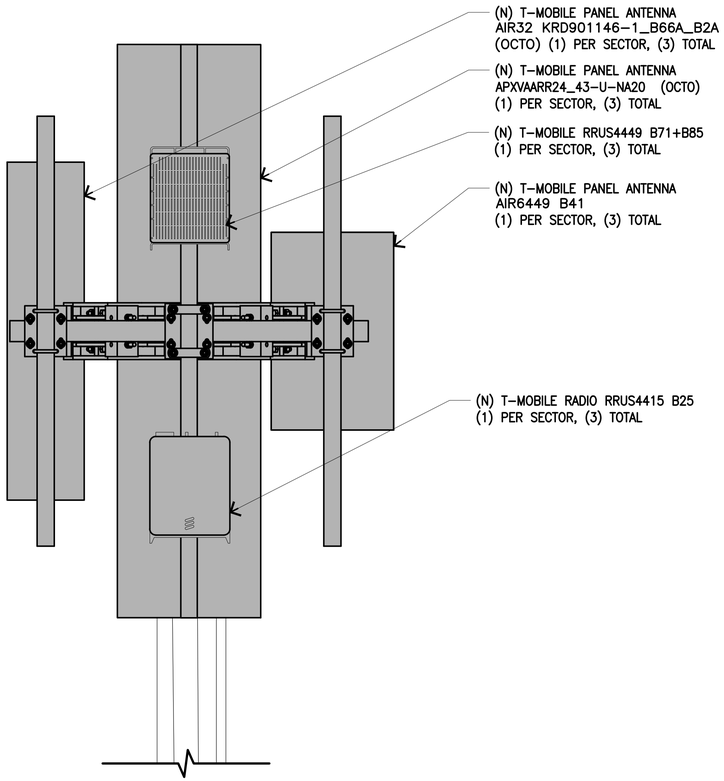
SHEET TITLE:

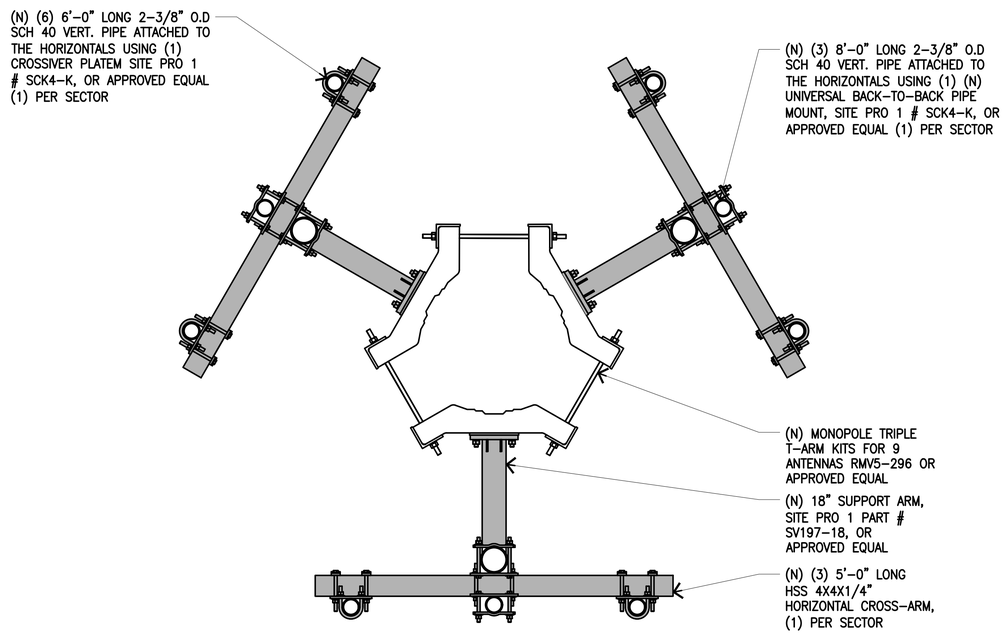
ELEVATIONS II

SHEET NUMBER:	REVISION:
A-6	B
	SF71943M

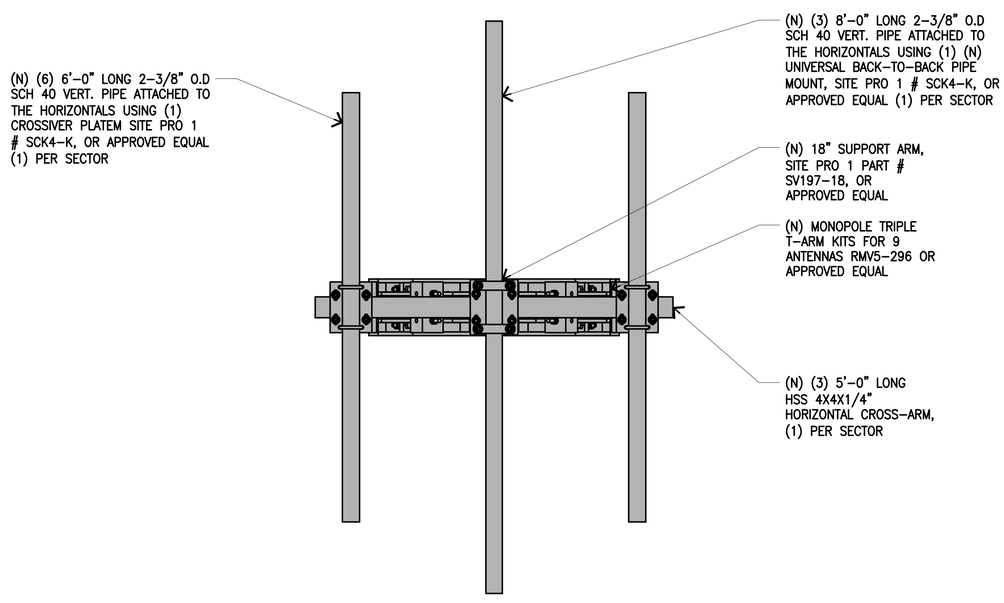


TYPICAL ANTENNA MOUNTING

1



ANTENNA MOUNTING DETAILS - TOP VIEW



ANTENNA MOUNTING DETAILS - TOP VIEW

ANTENNA MOUNTING DETAILS

2

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1855 GATEWAY BLVD.
CONCORD, CA 94520

PROJECT INFORMATION:

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SF1943 WATER TANK MONO
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HALF MOON BAY, CA 94019
SAN MATEO

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EDS	AB	AB

LICENSURE:

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CIVIL
STATE OF CALIFORNIA

SHEET TITLE:

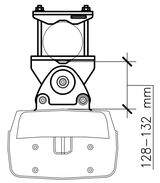
DETAILS AND SPECIFICATIONS I

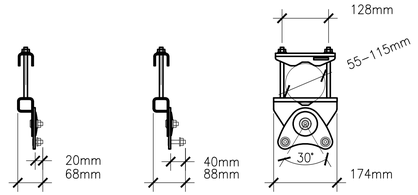
SHEET NUMBER: D-1

REVISION: B

SF71943M

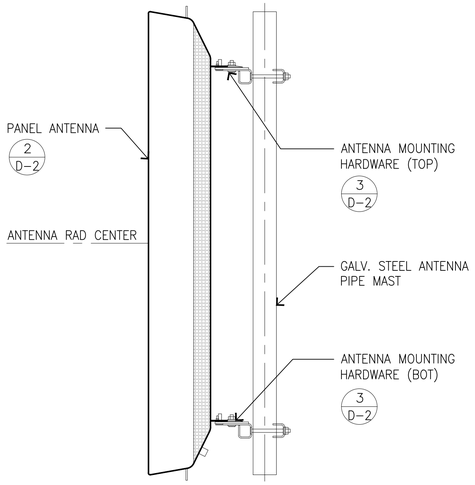
TYPE NO,	85010070
NAME	AIR CLAMP KIT 55–115 mm
STATUS	BESTELLT
SUITABLE MAST DIAMETER	55–115 mm
ANTENNA – MAST DISTANCE F	128–132 mm
NUMBER OF PIECES	2 CLAMPS
MATERIAL	HOT DIPPED GALV. STL
CLAMP	HOT DIPPED GALV. STL. STAINLESS STEEL
SCREWS	STAINLESS STEEL
NUTS	STAINLESS STEEL
WEIGHT	4.3 KG.





ANTENNA MOUNTING HARDWARE

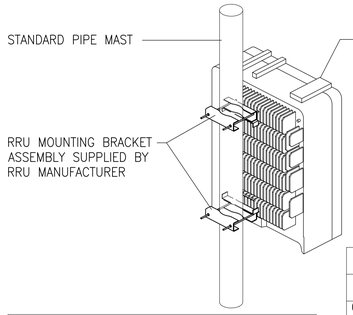
SCALE: NO SCALE | 4



ANTENNA MOUNTING DETAIL

SCALE: NO SCALE | 3

RADIO 4415 B25



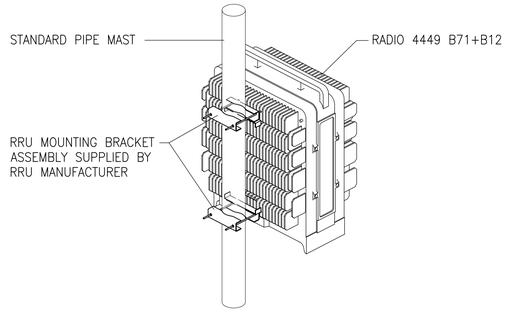
SPECIFICATION
MAX WIND LOAD: @ 50M/SEC= 260N
DIMENSION H x W x D: 16.5"x 13.4"x 5.9"
WEIGHT: 46 LBS
BREAKER SIZE = 25A DC POWER CONSUMPTION = 670W

BANDS		
	B2/B25	B66A
OUTPUT POWER	4X40(W)	4X40(W)
DL IBW	60(65) 40 20 (MHz)	70(MHz)
UL IBW	60(65) (MHz)	70 (MHz)

RADIO 4415 B25 DETAIL

SCALE: NO SCALE | 5

DUAL BAND RADIO 4449 B71+B85



SPECIFICATION	
VOLUME:	30+L
DIMENSION HxWxD:	14.95"x13.19"x9.25"
WEIGHT:	75 lbs
58+mm FINISH HEIGHT FILTER DOUBLE–SIDED CHASIS IN–BETWEEN B12 AND B71 RADIO BOARD	

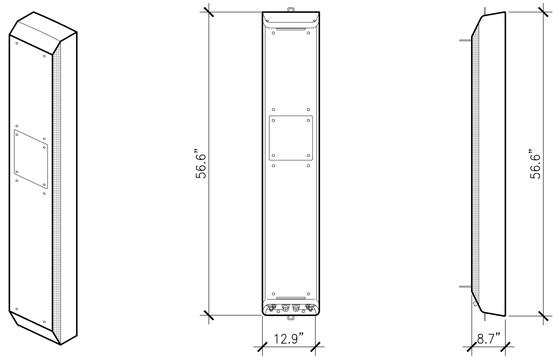
RADIO 4449 B71+B85 DETAIL

SCALE: NO SCALE | 5

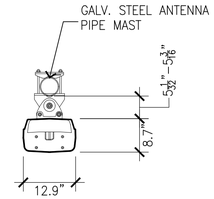
ERICSSON

AIR32KRD901146-1_B66A_B2A

WEIGHT = 143.3 LBS



ISOMETRIC VIEW | REAR VIEW | SIDE VIEW



PLAN VIEW

AIR32KRD901146-1_B66A_B2A

RADIO	
	AIR32 (B66A_B2A) (OCTO BAND)
BAND 2 (1850–1910 / 1930–1990 MHz)	ACTIVE FREQUENCY BAND
BAND 4 (1710–1755 / 2110–2155 MHz)	SUBSET OF BAND 66A (AWS 1+3)
BAND 66A (1710–1780 / 2110–2180 MHz)	ACTIVE FREQUENCY BAND
PA OUTPUT	2 x (4 x 30) W
DOWNLINK EIRP IN BORE–SIGHT DIRECTION FOR EACH ACTIVE BAND	4 x 62.5 dBmi
INSTANTANEOUS BANDWIDTH	B2: 40 MHz (W, L) B2: 20 MHz B66A: 70 MHz (W, L)
CAPACITY (SINGLE STANDARD PER UNIT)	B2: 40 MHz (W, L) B2: 20 MHz B66A: 70 MHz (W, L)
MULTI–RAT CAPABILITY	WCDMA AND GSM N BOTH PAs (B2 ONLY) WCDMA AND LTE ON BOTH PAs (B2 AND B4) GSM AND LTE (B2 ONLY)
INTERFACES	
OPTICAL CPRI	2 x 10 Gbps PER ACTIVE FREQUENCY BAND
DC POWER	–48 VDC 3–WIRE OR 2–WIRE (SEPARATE INPUT FOR BOTH RADIOS)
AC POWER (OPTIONAL)	PSU–AC 08
PASSIVE ANTENNA	N/A

ENVIRONMENTAL	
OPERATING TEMPERATURE RANGE	–40 TO 55 °C
SOLAR RADIATION	<1,120 W/m²
RELATIVE HUMIDITY	5 TO 100%
ABSOLUTE HUMIDITY	0.26 TO 40 g/m²
MAXIMUM TEMPERATURE CHANGE	1.0°C/min
ANTENNA	
TILT RANGE	2° – 12° (B66A) 2° – 12° (B2)
BORE–SIGHT ANTENNA GAIN	18 dBi (B4) 17.5 dBi (B2)
NOMINAL BEAM–WIDTH, AZIMUTH	65° (B4) 63° (B2)
MECHANICAL	
WEIGHT	60 Kg (132.2 lbs)
DIMENSIONS (H x W x D)	1439 x 327 x 220 mm (56.6" x 12.9" x 8.7")
WIND LOAD AT 42 m/s (150km/h) LATERAL	– 900 N
INTERFACES	
OPTICAL CPRI	2 x 10 Gbps PER ACTIVE FREQUENCY BAND
DC POWER	–48 VDC 3–WIRE OR 2–WIRE
AC POWER (OPTIONAL)	PSU–AC 08
PASSIVE ANTENNA	N/A

AIR32KRD901146-1_B66A_B2A ANTENNA SPECIFICATION

SCALE: NO SCALE | 5

T-Mobile
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PROJECT INFORMATION:

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SAN MATEO

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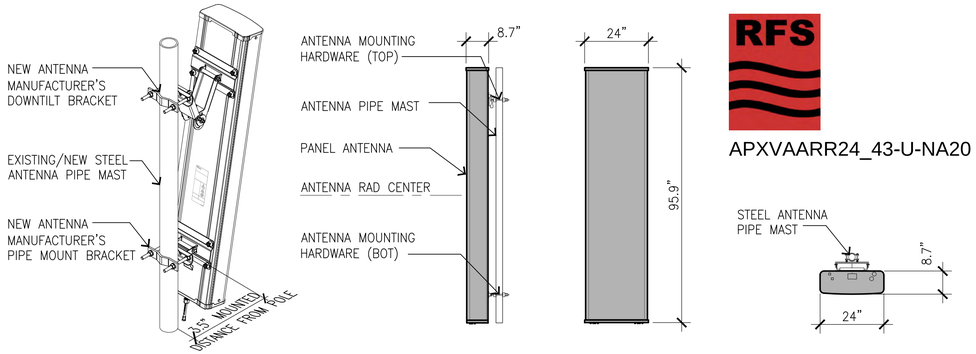
DRAWN BY:	CHK.:	APV.:
EDS	AB	AB

LICENSURE:

SHEET TITLE:
DETAILS AND SPECIFICATIONS II

SHEET NUMBER:	REVISION:
D-2	B
	SF71943M



ISOMETRIC VIEW | SIDE | FRONT | PLAN

APXVAARR24_43-U-NA20

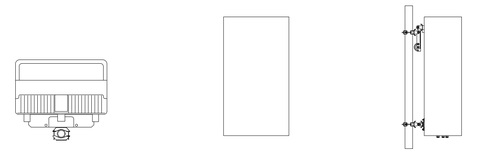
APXVAARR24_43-U-NA20 ANTENNA

ELECTRICAL SPECIFICATIONS		
IMPEDANCE	OHM	50.0
POLARIZATION	DEG	±45°
MECHANICAL SPECIFICATIONS		
DIMENSIONS – H x W x D	mm (in)	2436 x 609 x 222 (95.9 x 24 x 8.7)
WEIGHT (ANTENNA ONLY)	kg (lb)	58.1 (128)
PACKING SIZE – H x W x D	mm (in)	2590 x 560 x 411 (102 x 22 x 16.2)
SHIPPING WEIGHT	kg (lb)	60.5 (133.4)
CONNECTOR TYPE		6 X 4.3–10 LONG NECK FEMALE/BOTTOM + 6 AISG RET CONNECTORS
ADJUSTMENT MECHANISM		INTEGRATED RET SOLUTION AISG COMPLIANT (FIELD REPLACEABLE)
MOUNTING HARDWARE MATERIAL		DIECAST ALUMINUM AND GALVANIZED STEEL
RADOME MATERIAL / COLOR		FIBERGLASS / LIGHT GREY RAL7035
TESTING AND ENVIRONMENTAL		
TEMPERATURE RANGE	°C (°F)	–40 TO 60 (–40 TO 140)
LIGHTNING PROTECTION		DIRECT GROUND
SURVIVAL/RATE WIND VELOCITY	km/h	241 (150)
ENVIRONMENTAL		ETSI 300–019–2–4 CLASS 4.1E

APXVAARR24_43-U-NA20 ANTENNA SPECIFICATION

SCALE: NO SCALE | 1

MANUFACTURER: ERICSSON
MODEL NO.: AIR6449 B41
DIMENSIONS, HxWxD: 33.1"x20.5"x8.3"
WEIGHT: 103.0 lbs.



TOP VIEW | FRONT VIEW | SIDE VIEW

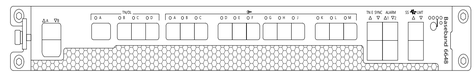
AIR6449 B41

SCALE: NTS | 1

ERICSSON BASEBAND UNIT 6648

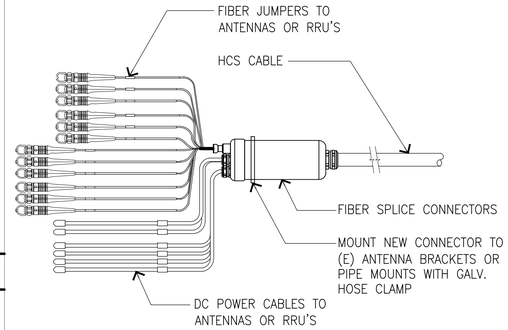
DC POWER SUPPLY

NOMINAL VOLTAGE:	–48VDC
TEMPERATURE:	0 TO + 55 DEG C
DIMENSION:	19" W X 13.86"D
WEIGHT:	16.53 lbs



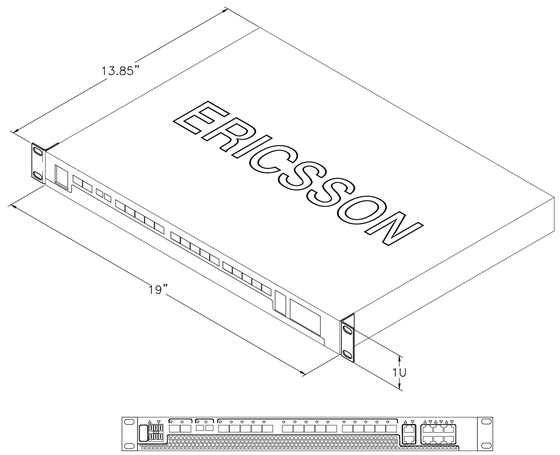
BASEBAND 6648 SPECIFICATION

SCALE: NTS | 8



HCS DETAIL

SCALE: N.T.S. | 10



BASEBAND 6630

OPTIMIZED FOR MAIN–REMOTE CONFIGURATIONS
- 19 INCH WIDE, 1U HIGH, <352mm DEEP
- 15 SFP/SFP+FOR CPRI INTER–CONNECT TO RADIO UNITS REDUCING THE NEED FOR BASEBAND R503
- 2 OPTICAL 1/10Gbps SFP/SFP+ PORTS AND 2 ELECTRICAL 1Gbps RJ45 PORTS
- EGHT EXTERNAL ALARM PORTS
- DUAL 48V DC POWER FEEDING
- SELF–CONTAINED ENVIRONMENTAL CONTROL & FIELD REPLACEABLE FAN UNITS
- HARDWARE PREPARED FOR NR (5G) AND eCPRI

COMPARISON
- BASEBAND 6630 IS STANDALONE & HAS ITS OWN CLIMATE CONTROL
- BASEBAND 663 HAS 15 CPRI PORTS & DUAL POWER FEEDING
- 123W est. POWER CONSUMPTION (@ 25°C, TYPICAL LOAD)

LTE, WCDMA AND GSM CAPACITY AND MIXER MODE CAPABILITY
- BASEBAND 6630 CAPACITY & CAPABILITIES EQUIVALENT TO BASEBAND 5216

FRO NR, BASEBAND 6630 HAS CONNECTIVITY ADVANTAGES OVER BASEBAND 5216 (UNDER STUDY)
- BB 6630: 4 TO 6 CPRI–8 PORTS (10.1 Gbps) ACCESSIBLE FOR mm WAVE RADIO WITH NR CONFIGURED
- BB 5216: 2 TO 3 CPRI–8 PORTS ACCESSIBLE FOR mmWAVE RADIOS WITH NR CONFIGURED

BASEBAND 6630 SPECIFICATION

SCALE: N.T.S. | 3

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1855 GATEWAY BLVD.
CONCORD, CA 94520

PROJECT INFORMATION:

(ANCHOR)
SF71943M
SF1943 WATER TANK MONO
661 MIRAMAR DR
HALF MOON BAY, CA 94019
SAN MATEO

CURRENT ISSUE DATE:
12/15/20

ISSUED FOR:
CONSTRUCTION

REV.:	DATE:	DESCRIPTION:	BY:
A	11/25/20	90% CD	EDS
B	12/15/20	100% CD	EDS

PLANS PREPARED BY:

Synergy
a division of advantage engineers
7543 Woodley Ave., #201, Van Nuys, CA 91406
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CONSULTANT:

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a division of advantage engineers
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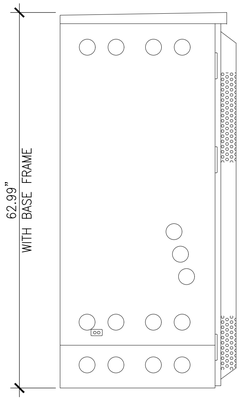
DRAWN BY:	CHK.:	APV.:
EDS	AB	AB

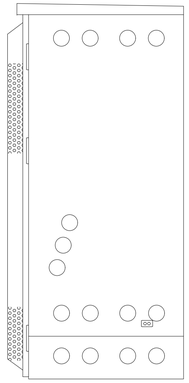
LICENSURE:

SHEET TITLE:
DETAILS AND SPECIFICATIONS III

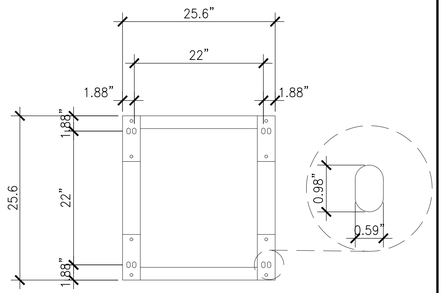
SHEET NUMBER: D-3
REVISION: B
SF71943M



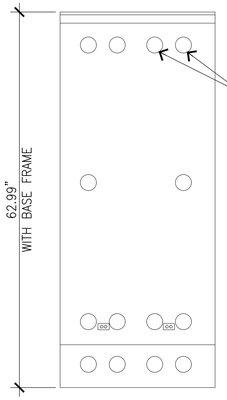
LEFT VIEW



RIGHT VIEW



INSTALLATION HOLE PATTERN

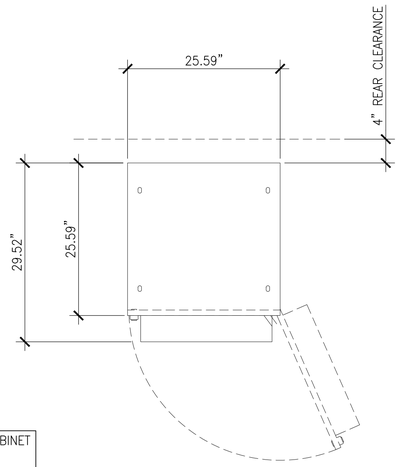


2" KNOCKOUTS WITH LBs FOR ALARM CABLE AND TEMPO SENSOR ROUTING

REAR VIEW

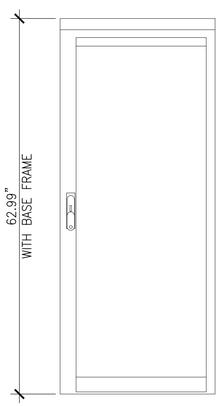
MANUFACTURER: ERICSSON BATTERY CABINET
MODEL: B160
SKU: 33954
DIMENSIONS: 63" H x 25.6" W x 25.6" D
WEIGHT: 1885 LBS MAX (FULLY LOADED)

NOTE:
- CORRECT KNOCKOUT TOOL REQUIRED FOR PUNCHING KNOCKOUTS. DO NOT DRILL KNOCKOUTS THROUGH
- CONDUIT MUST BE PROPERLY SECURED TO PREVENT DAMAGE TO CABINETS AND/OR CABLING

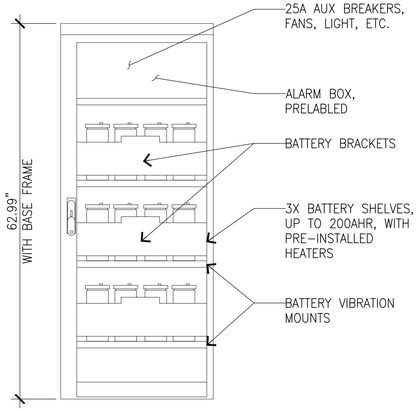


PLAN VIEW

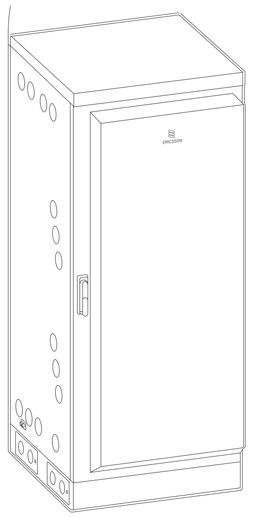
- ANCHORAGE TO BE MIN. (4) HILTI 5/8" SS KB-TZ BOLTS w/ MIN 3-1/4" EMBED. TO EXISTING CONCRETE PAD – SPECIAL INSPECTION REQUIRED – ESR 1917



FRONT VIEW



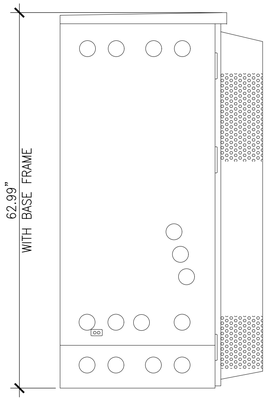
FRONT VIEW (OPEN)



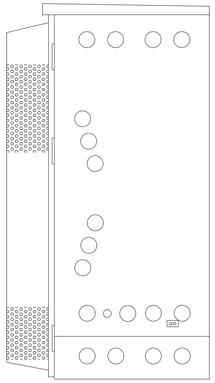
ISOMETRIC VIEW

ERICSSON B160 BATTERY CABINET DETAILS

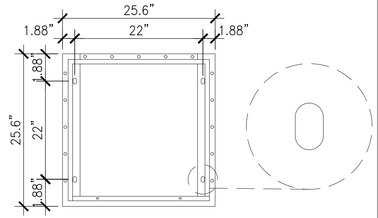
SCALE: N.T.S. | 1



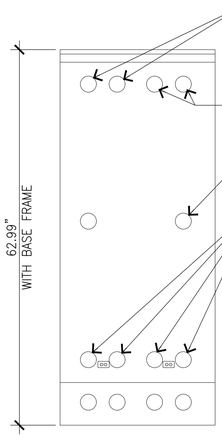
LEFT VIEW



RIGHT VIEW



INSTALLATION HOLE PATTERN



2" KNOCKOUTS WITH RIGID CONDUIT AND LB FOR 3/0 BATTERY CABLE INSTALL, AND AUX POWER CABLE OUTSIDE KNOCKOUTS WORK BEST FOR EASE OF INSTALL

2" KNOCKOUTS WITH LBs FOR ALARM CABLE AND TEMPO SENSOR ROUTING

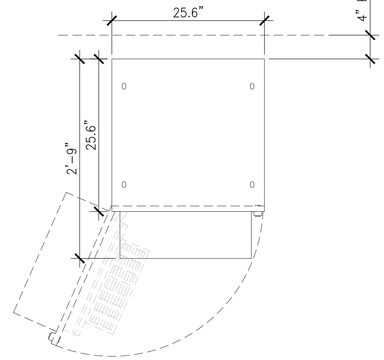
2" KNOCKOUTS FOR AAV AND FIBER ROUTING BETWEEN MACRO CABINETS ON SITE. LB WITH RIGID CONDUIT IS PREFERRED.

2" KNOCKOUTS AT LOWER REAR OF THE CABINET PROVIDE A CLEANER INSTALL AND EASIER FIBER AND DC CABLE ROUTING. PROTECTION AND TRIP HAZARD PREVENTION SHOULD BE ADDED FOR SAFETY OF CABLES AND TECHNICIANS.

REAR VIEW

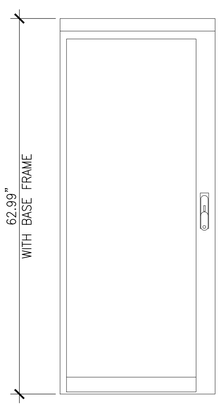
MANUFACTURER: ERICSSON SITE SUPPORT CABINET
MODEL: 6160
SKU: 33953
DIMENSIONS: 63" H x 25.6" W x 25.6" D
WEIGHT: 1000 LBS (FULLY LOADED)

NOTE:
- CORRECT KNOCKOUT TOOL REQUIRED FOR PUNCHING KNOCKOUTS. DO NOT DRILL KNOCKOUTS THROUGH
- CONDUIT MUST BE PROPERLY SECURED TO PREVENT DAMAGE TO CABINETS AND/OR CABLING

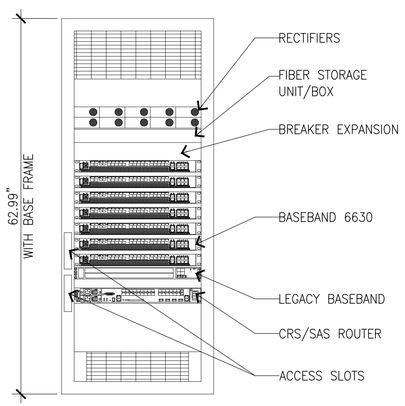


PLAN VIEW

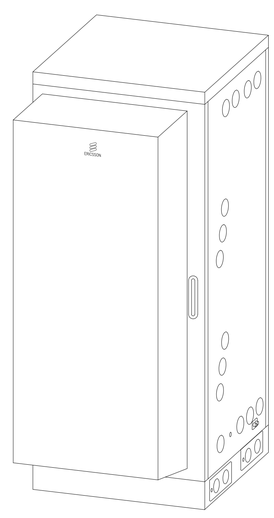
- ANCHORAGE TO BE MIN. (4) HILTI 5/8" SS KB-TZ BOLTS w/ MIN 3-1/4" EMBED. TO EXISTING CONCRETE PAD – SPECIAL INSPECTION REQUIRED – ESR 1917



FRONT VIEW



FRONT VIEW (OPEN)



ISOMETRIC VIEW

ERICSSON 6160 SUPPORT CABINET DETAILS

SCALE: N.T.S. | 2

T-Mobile
Stick Together ®
1855 GATEWAY BLVD.
CONCORD, CA 94520

PROJECT INFORMATION:

(ANCHOR)
SF71943M
SF1943 WATER TANK MONO
661 MIRAMAR DR
HALF MOON BAY, CA 94019
SAN MATEO

CURRENT ISSUE DATE:
12/15/20

ISSUED FOR:
CONSTRUCTION

REV.:	DATE:	DESCRIPTION:	BY:
A	11/25/20	90% CD	EDS
B	12/15/20	100% CD	EDS

PLANS PREPARED BY:

Synergy
a division of advantage engineers
7543 Woodley Ave., #201, Van Nuys, CA 91406
Office: (818) 840-0808 Fax: (818) 840-0708

CONSULTANT:

Synergy
a division of advantage engineers
7543 Woodley Ave., #201, Van Nuys, CA 91406
Office: (818) 840-0808 Fax: (818) 840-0708

DRAWN BY:	CHK.:	APV.:
EDS	AB	AB

LICENSURE:

REGISTERED PROFESSIONAL ENGINEER
WISSAM ZALZALI
C 71655
CIVIL
STATE OF CALIFORNIA

SHEET TITLE:
DETAILS AND SPECIFICATIONS IV

SHEET NUMBER: D-4
REVISION: B
SF71943M

NOT USED

SCALE: N.T.S. | 6

NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNIC ION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE CEC.
2. METAL RACEWAY SHALL NOT BE USED AS THE CEC REQUIRED EQUIPMENT GROUND CONDUCTOR STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
3. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
4. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE
5. APPROVED ANTIOXIDANT COATINGS (I E , CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS
6. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED WITH STAINLESS STEEL HARDWARE TO THE BRIDGE AND THE TOWER GROUND BAR.
7. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS
8. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE W/ THE CEC
9. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS

SYMBOLS:

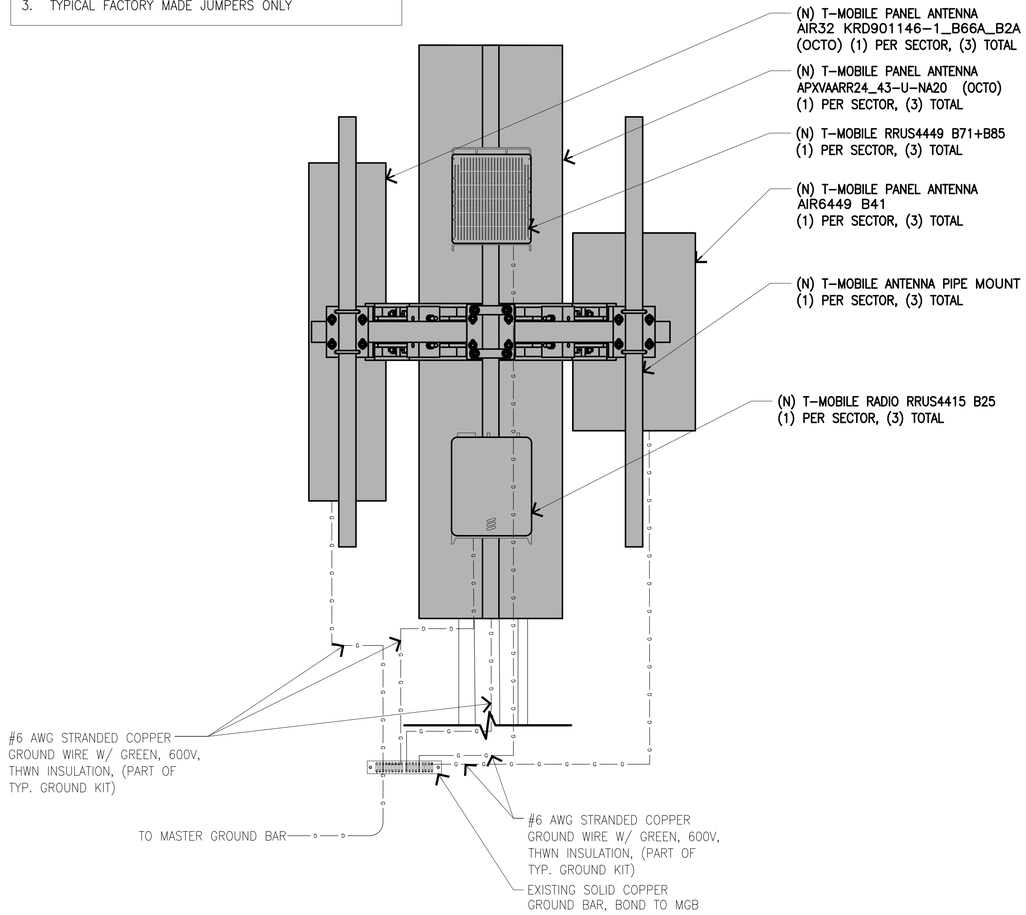
⊠	GROUND TEST WELL
⊗	GROUND ROD
●	COMPRESSION / MECHANICAL TYPE CONNECTION
■	CADWELD TYPE CONNECTION
— G —	GROUND WIRE
++++	GROUND BAR

NOT USED | SCALE: N.T.S. | 7

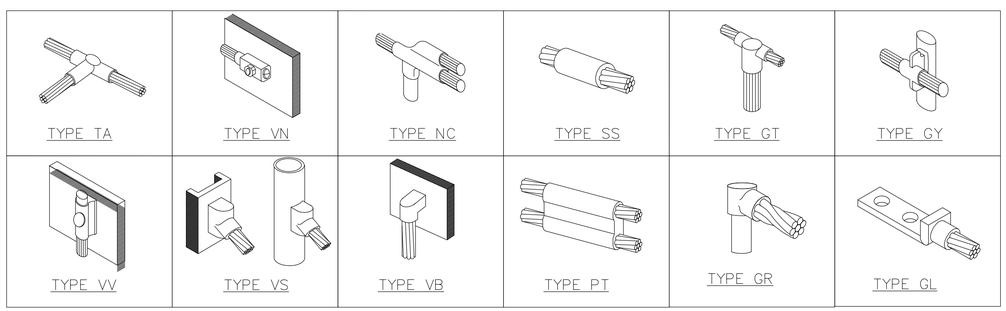
NOTES AND SYMBOLS | SCALE: N.T.S. | 4

NOTES:

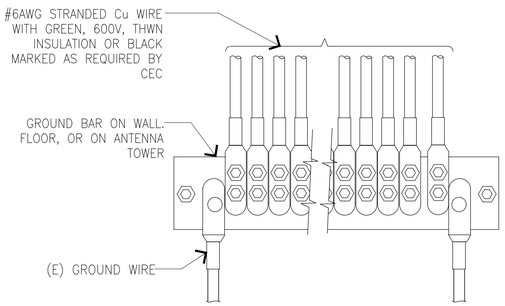
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND
2. ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR
3. TYPICAL FACTORY MADE JUMPERS ONLY



TYPICAL ANTENNA GROUNDING | SCALE: N.T.S. | 1



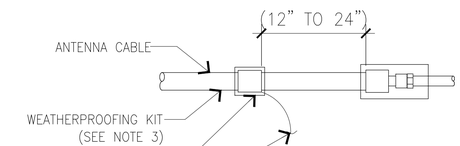
TYPICAL CADWELD CONNECTIONS | SCALE: N.T.S. | 5



NOTES:

1. APPLY NO-OX TO LUG AND BAR CONTACT SURFACE. DO NOT COAT INLINE LUG
2. IF STOLEN GROUND BARS ARE ENCOUNTERED, CONTACT T-MOBILE CM

GROUND CONDUCTOR TO GROUND BAR | SCALE: N.T.S. | 3



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHERPROOFING SHALL BE (TYPE AND PART NUMBER) AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER AND APPROVED BY CONTRACTOR

GROUNDING KIT | SCALE: N.T.S. | 2

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CONCORD, CA 94520

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(ANCHOR)
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CURRENT ISSUE DATE:
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A	11/25/20	90% CD	EDS
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PLANS PREPARED BY:

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DRAWN BY:	CHK.:	APV.:
EDS	AB	AB

LICENSURE:

REGISTERED PROFESSIONAL ENGINEER
WISSAM ZALZALI
C 71655
CIVIL
STATE OF CALIFORNIA

SHEET TITLE:
GROUNDING NOTES AND DETAILS

SHEET NUMBER:	REVISION:
G-1	B

SF71943M

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT D

SITESAFE
RF COMPLIANCE EXPERTS

8618 Westwood Center Drive, Suite 315, Vienna, VA 22182
703.276.1100 • 703.276.1169 fax
info@sitesafe.com • www.sitesafe.com

Crown Castle on behalf of Sprint
Site BU – 880457
Application ID - 391240
Assessment Purpose – Sprint app 391240
Site Name – Miramar (Water Tank)
Site Compliance Report

655 Miramar Drive
Half Moon Bay, CA 94019

Latitude: N37-29-46.03
Longitude: W122-26-57.31
Structure Type: Monopole

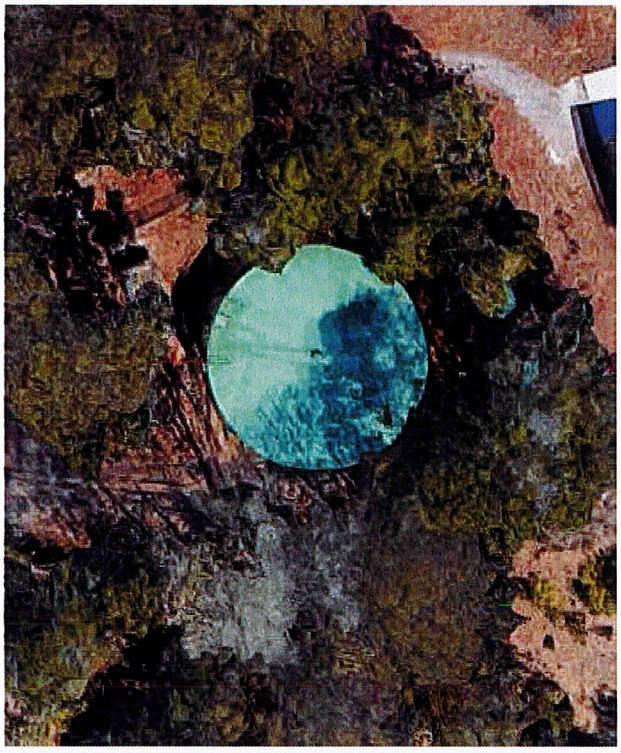
Report generated date: February 12, 2019
Report by: Zyotty Thamsil
Customer Contact: Daniel Pierce

Sprint will be compliant upon completion of the remediation identified in Section 3.2.

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. McGUIRE
E18898
EXP. 30 SEP 19
ELECTRICAL
STATE OF CALIFORNIA

sealed 22feb2019

Crown Castle on behalf of
Sprint
Miramar (Water Tank) - 880457
Radio Frequency (RF) Site Compliance Report



655 Miramar Drive, Half Moon Bay, CA 94019

8618 Westwood Center Drive • Suite 315 • Vienna, VA 22182
703.276.1100 • info@sitesafe.com

Table of Contents

1 Executive Summary

Sprint has contracted with Sitesafe, LLC. (Sitesafe), an independent Radio Frequency (RF) regulatory and engineering consulting firm, to determine whether the proposed communications site, 880457 - Miramar (Water Tank), located at 655 Miramar Drive, Half Moon Bay, CA, is in compliance with Federal Communication Commission (FCC) Rules and Regulations for RF emissions.

This report contains a detailed summary of the RF environment at the site including:

- Diagram of the site
- Inventory of the make / model of all antennas
- Theoretical MPE based on modeling

This report addresses exposure to radio frequency electromagnetic fields in accordance with the FCC Rules and Regulations for all individuals, classified in two groups, "Occupational or Controlled" and "General Public or Uncontrolled." **Sprint will be compliant** with the FCC rules and regulations, as described in OET Bulletin 65 **upon implementation of the proposed remediation.** The corrective actions needed to make this site compliant are located in Section 3.2.

Sprint proposes to add L862, L1900, and L2500 technology to an existing configuration. The proposed antennas are noted as "proposed" in the antenna table under section 6.

This document and the conclusions herein are based on the information provided by Sprint.

If you have any questions regarding RF safety and regulatory compliance, please do not hesitate to contact Sitesafe's Customer Support Department at (703) 276-1100.

2 Regulatory Basis

2.1 FCC Rules and Regulations

In 1996, the Federal Communications Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

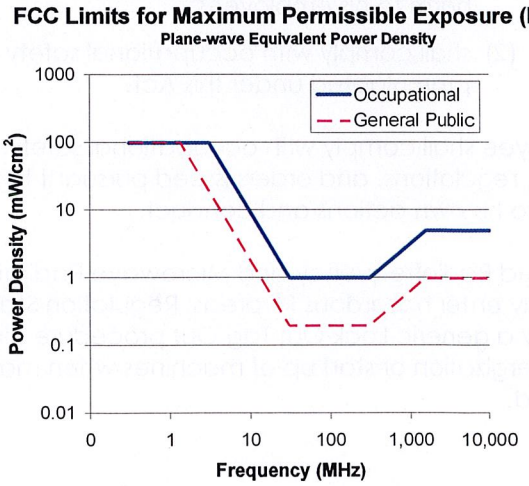
FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

2.2 OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

3 Site Compliance

3.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, Sitesafe has determined that:

Sprint will be compliant with the FCC rules and regulations, as described in OET Bulletin 65 **upon implementation of the proposed remediation.** The corrective actions needed to make this site compliant are located in Section 3.2.

The compliance determination is based on theoretical modeling, RF signage placement recommendations, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the Sprint's proposed deployment plan could result in the site being rendered non-compliant.

3.2 Actions for Site Compliance

Based on common industry practice and our understanding of FCC and OSHA requirements, this section provides a statement of recommendations for site compliance. RF alert signage recommendations have been proposed based on theoretical analysis of MPE levels. Barriers can consist of locked doors, fencing, railing, rope, chain, paint striping or tape, combined with RF alert signage.

The site will be made compliant if the following changes are implemented:

Monopole Location

Ensure that a Warning sign is installed.

Gate Location

Ensure that the gate is locked/restricted.

Note: Ensure all existing signage and barriers documented in this report still exist on site.

4 Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3 foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram: Section 5 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

5 Analysis

5.1 RF Emissions Diagram

The RF diagram(s) below display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix B.

The key at the bottom of each diagram indicates if percentages displayed are referenced to FCC General Population Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Gray represents areas predicted to be at 5% of the MPE limits, or below.
- Green represents areas predicted to be between 5% and 100% of the MPE limits.
- Blue represents areas predicted to be between 100% and 500% of the MPE limits.
- Yellow represents areas predicted to be between 500% and 5000% of the MPE limits.
- Red areas indicated predicted levels greater than 5000% of the MPE limits.

The theoretical analysis identified the maximum predicted MPE levels on the rooftop to be:

Maximum Cumulative Theoretical General Public MPE level:	51.2%
Maximum Sprint Theoretical General Public or Uncontrolled MPE level:	6.26%

The theoretical analysis identified the maximum predicted MPE levels on the ground to be:

Maximum Cumulative Theoretical General Public MPE level:	0%
Maximum Sprint Theoretical General Public or Uncontrolled MPE level:	0%

General Population diagrams are specified when an area is accessible to the public; i.e. personnel that do not meet Occupational or RF Safety trained criteria, could gain access.

If trained occupational personnel require access to areas that are delineated as **Blue** or above 100% of the limit, Sitesafe recommends that they utilize the proper personal protection equipment (RF monitors), coordinate with the carriers to reduce or shutdown power, or make real-time power density measurements with the appropriate power density meter to determine real-time MPE levels. This will allow the personnel to ensure that their work area is within exposure limits.

The key at the bottom also indicates the level or height of the modeling with respect to the main level. The origin is typically referenced to the main rooftop level, or ground level for a structure without access to the antenna level. For example:

Average from 0 feet above to 6 feet above origin

and

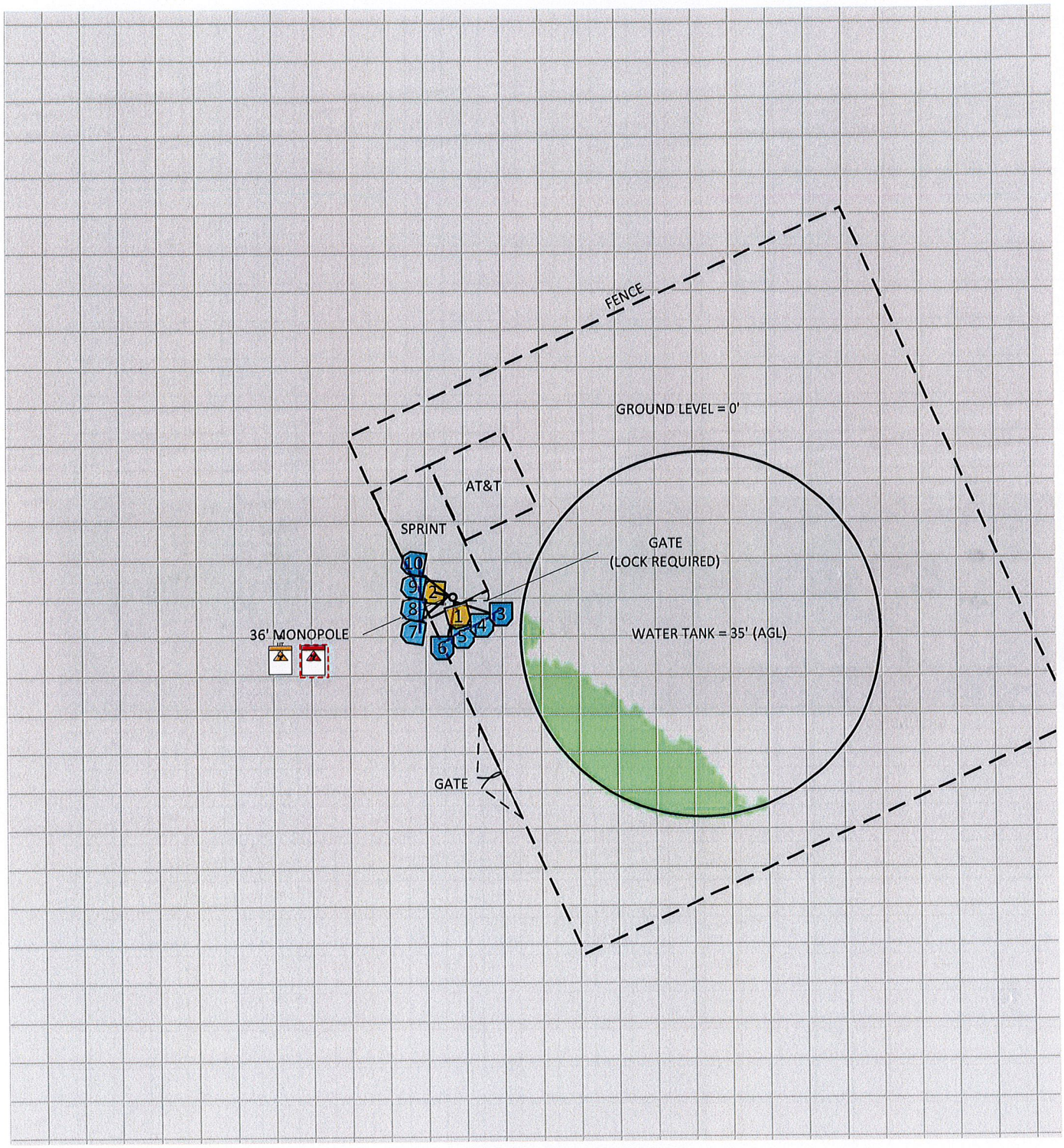
Average from 20 feet above to 26 feet above origin

The first indicates modeling at the main rooftop (or ground) level averaged over 6 feet. The second indicates modeling at a higher level (possibly a penthouse level) of 20 feet averaged over 6 feet.

Abbreviations used in the RF Emissions Diagrams

PH=##'	Penthouse at ## feet above main roof

RF Exposure Simulation For: Miramar (Water Tank)
Composite Diagram



% of FCC Public Exposure Limit
Spatial average 0' - 6'

% of FCC Public Exposure Limit
>= 5000 | >= 500 | >= 100 | >= 5 | < 5

Carrier Identification
AT&T MOBILITY LLC | VERIZON WIRELESS | T-MOBILE | SPRINT | UNKNOWN CARRIER

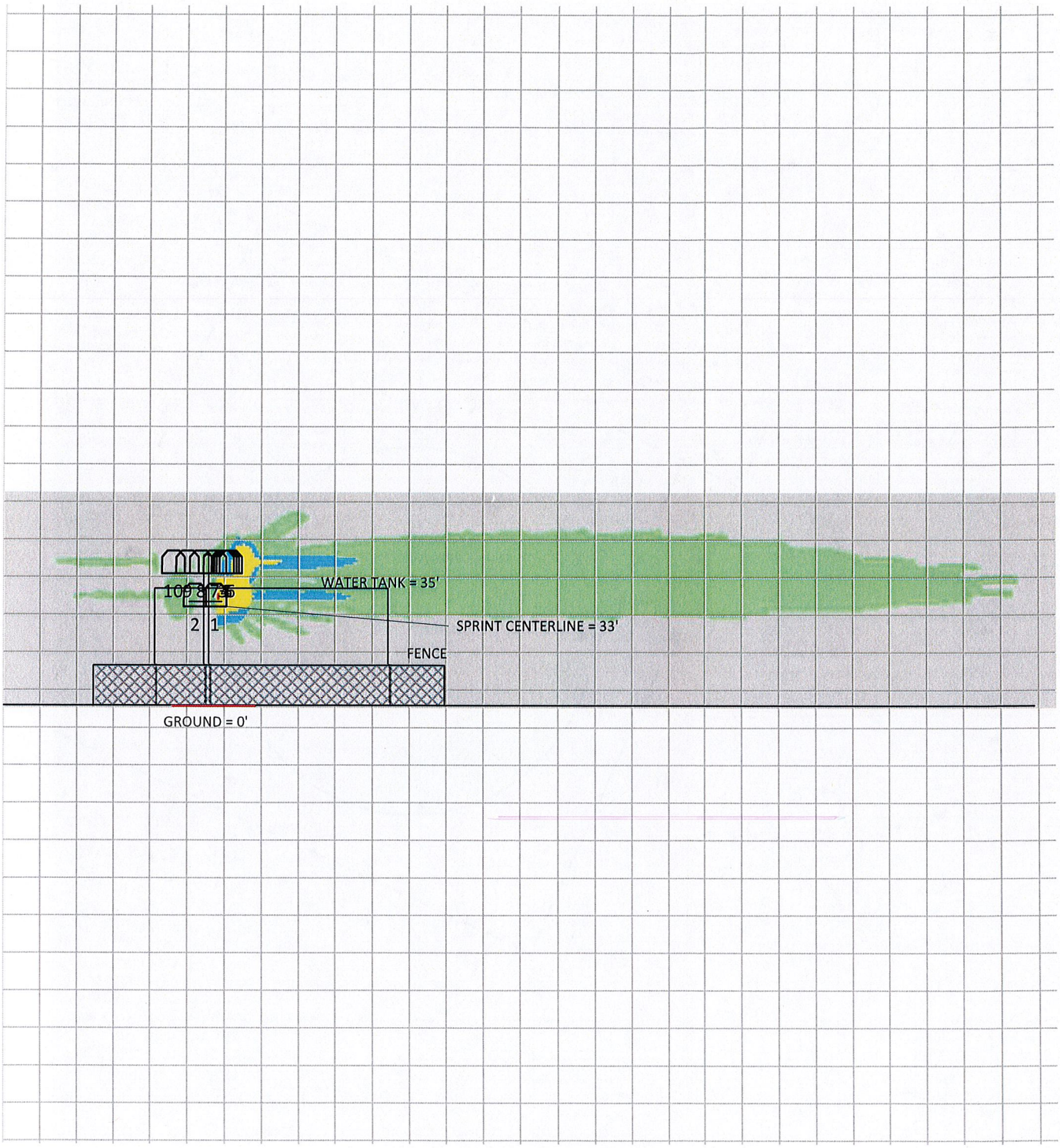
Barrier | Proposed Barriers/ Signs

(Feet)
0 14.7 29.3

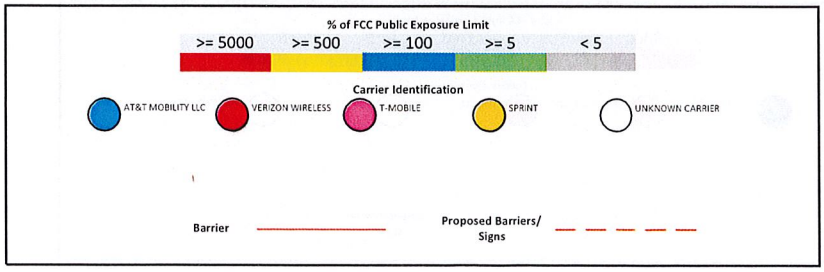
www.sitesafe.com
Site Name:Miramar (Water Tank)
2/12/2019 2:36:53 PM

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: Miramar (Water Tank)
Elevation View



% of FCC Public Exposure Limit



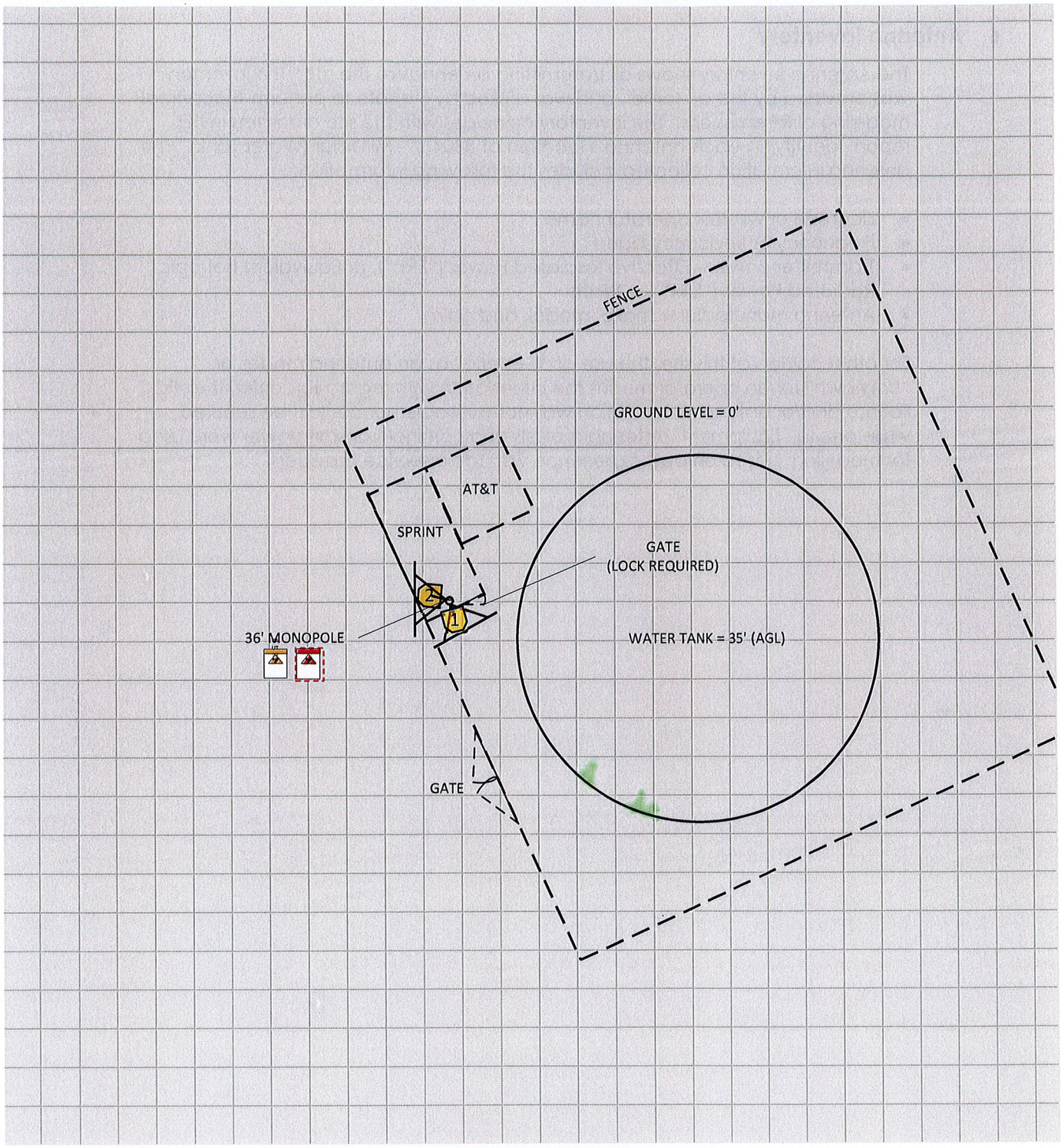
(Feet)

0 21.3 42.7

www.sitesafe.com
Site Name:Miramar (Water Tank)
2/12/2019 2:34:31 PM

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Single Level (0)

RF Exposure Simulation For: Miramar (Water Tank)
Sprint Contribution



% of FCC Public Exposure Limit
Spatial average 0' - 6'

% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Carrier Identification

AT&T MOBILITY LLC | VERIZON WIRELESS | T-MOBILE | SPRINT | UNKNOWN CARRIER

Barrier ——— Proposed Barriers/ Signs — — — — —

(Feet)

0 14.6 29.3

www.sitesafe.com
Site Name:Miramar (Water Tank)
2/12/2019 2:40:15 PM

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

6 Antenna Inventory

The Antenna Inventory shows all transmitting antennas at the site. This inventory was provided by the customer, and was utilized by Sitesafe to perform theoretical modeling of RF emissions. The inventory coincides with the site diagrams in this report, identifying each antenna's location at 880457 - Miramar (Water Tank). The antenna information collected includes the following information:

- Licensee or wireless operator name
- Frequency or frequency band
- Transmitter power – Effective Radiated Power ("ERP"), or Equivalent Isotropic Radiated Power ("EIRP") in Watts
- Antenna manufacturer make, model, and gain

For other carriers at this site, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information with regard to carrier, their FCC license and/or antenna information was not available nor could it be secured while on site. Equipment, antenna models and nominal transmit power were used for modeling, based on past experience with radio service providers.

The following antenna inventory was provided by the customer and was utilized to create the site model diagrams:

Table 3: Antenna Inventory

Ant #	Operated By	Antenna Model	Ant Type	Len (ft)	TX Freq (MHz)	TECH	Az (Deg)	Antenna Gain (dBd)	Horizontal Half Power Beamwidth (Deg)	POWER	POWER TYPE	POWER UNITS	# of Trans	ERP (Watts)	Z (ft) (AGL)	DT	EDT
1	SPRINT (PROPOSED)	KMW ETCR-654L12H6	Panel	7.1	862	LTE	165	12.86	68	100	TPO	Watt	1	1932	33	0	0
1	SPRINT (PROPOSED)	KMW ETCR-654L12H6	Panel	7.1	1900	LTE	165	16.66	60.58	90	TPO	Watt	1	4171	33	0	0
1	SPRINT (PROPOSED)	KMW ETCR-654L12H6	Panel	7.1	2496	LTE	165	16.16	73	160	TPO	Watt	1	6608.8	33	0	0
2	SPRINT (PROPOSED)	KMW ETCR-654L12H6	Panel	7.1	862	LTE	275	12.86	68	100	TPO	Watt	1	1932	33	0	0
2	SPRINT (PROPOSED)	KMW ETCR-654L12H6	Panel	7.1	1900	LTE	275	16.66	60.58	90	TPO	Watt	1	4171	33	0	0
2	SPRINT (PROPOSED)	KMW ETCR-654L12H6	Panel	7.1	2496	LTE	275	16.16	73	160	TPO	Watt	1	6608.8	33	0	0
3	AT&T MOBILITY LLC	Commscope NNHH-65B-R4	Panel	6	850		180	12.76	64	40	TPO	Watt	1	755.2	43	0	0
4	AT&T MOBILITY LLC	Commscope NNHH-65B-R4	Panel	6	737		180	11.46	66	160	TPO	Watt	1	2239.3	43	0	0
5	AT&T MOBILITY LLC	Commscope NNHH-65B-R4	Panel	6	1900		180	15.06	60	160	TPO	Watt	1	5130	43	0	0
6	AT&T MOBILITY LLC	Commscope NNHH-65B-R4	Panel	6	2100		180	14.76	62	160	TPO	Watt	1	4787.6	43	0	0
7	AT&T MOBILITY LLC	Commscope NNHH-65B-R4	Panel	6	850		280	12.76	64	40	TPO	Watt	1	755.2	43	0	0
8	AT&T MOBILITY LLC	Commscope NNHH-65B-R4	Panel	6	737		280	11.46	66	160	TPO	Watt	1	2239.3	43	0	0
9	AT&T MOBILITY LLC	Commscope NNHH-65B-R4	Panel	6	1900		280	15.06	60	160	TPO	Watt	1	5130	43	0	0
10	AT&T MOBILITY LLC	Commscope NNHH-65B-R4	Panel	6	2100		280	14.76	62	160	TPO	Watt	1	4787.6	43	0	0

NOTE: Z indicates relative position of the antenna to the origin location on the site, displayed in the model results diagram. The Z reference indicates antenna height above the main site level unless otherwise indicated. ERP values provided by the client and used in the modeling may be greater than are currently deployed. For other carriers at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to carrier, their FCC license and/or antenna information was not available nor could it be secured while on site. Equipment, antenna models and nominal transmit power were used for modeling, based on past experience with radio service providers.

7 Engineer Certification

The professional engineer whose seal appears on the cover of this document hereby certifies and affirms:

That I, Michael A McGuire, am currently and actively licensed to provide (in this state/jurisdiction as indicated within the professional electrical engineering seal on the cover of this document) professional electrical engineering services, as an employee of Hurricane Hill Development Company, PLLC , a duly authorized/registered engineering firm (in this state, as applicable) on behalf of SiteSafe, LLC; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Zyotty Thamsil.

February 12, 2019

Appendix A – Statement of Limiting Conditions

Sitesafe will not be responsible for matters of a legal nature that affect the site or property.

Due to the complexity of some wireless sites, Sitesafe performed this analysis and created this report utilizing best industry practices and due diligence. Sitesafe cannot be held accountable or responsible for anomalies or discrepancies due to actual site conditions (i.e., mislabeling of antennas or equipment, inaccessible cable runs, inaccessible antennas or equipment, etc.) or information or data supplied by Sprint, the site manager, or their affiliates, subcontractors or assigns.

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, observed during the survey of the subject property or that Sitesafe became aware of during the normal research involved in performing this survey. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data provided by a second party and physical data collected by Sitesafe, the physical data will be used.

Appendix B – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The site has been modeled with these assumptions to show the maximum RF energy density. Sitesafe believes this to be a *worst-case* analysis, based on best available data. Areas modeled to predict emissions greater than 100% of the applicable MPE level may not actually occur, but are shown as a *worst-case* prediction that could be realized real time. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Thus, at any time, if power density measurements were made, we believe the real-time measurements would indicate levels below those depicted in the RF emission diagram(s) in this report. By modeling in this way, Sitesafe has conservatively shown exclusion areas – areas that should not be entered without the use of a personal monitor, carriers reducing power, or performing real-time measurements to indicate real-time exposure levels.

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

Gain (of an antenna) – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

General Population/Uncontrolled Environment – Defined by the FCC, as an area where RFR exposure may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are **aware** of the potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

***OSHA* (Occupational Safety and Health Administration)** – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency Radiation – Electromagnetic waves that are propagated from antennas through space.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.

Appendix C – Rules & Regulations

Explanation of Applicable Rules and Regulations

The FCC has set forth guidelines in OET Bulletin 65 for human exposure to radio frequency electromagnetic fields. Specific regulations regarding this topic are listed in Part 1, Subpart I, of Title 47 in the Code of Federal Regulations. Currently, there are two different levels of MPE - General Public MPE and Occupational MPE. An individual classified as Occupational can be defined as an individual who has received appropriate RF training and meets the conditions outlined below. General Public is defined as anyone who does not meet the conditions of being Occupational. FCC and OSHA Rules and Regulations define compliance in terms of total exposure to total RF energy, regardless of location of or proximity to the sources of energy.

It is the responsibility of all licensees to ensure these guidelines are maintained at all times. It is the ongoing responsibility of all licensees composing the site to maintain ongoing compliance with FCC rules and regulations. Individual licensees that contribute less than 5% MPE to any total area out of compliance are not responsible for corrective actions.

OSHA has adopted and enforces the FCC's exposure guidelines. A building owner or site manager can use this report as part of an overall RF Health and Safety Policy. It is important for building owners/site managers to identify areas in excess of the General Population MPE and ensure that only persons qualified as Occupational are granted access to those areas.

Occupational Environment Explained

The FCC definition of Occupational exposure limits apply to persons who:

- are exposed to RF energy as a consequence of their employment;
- have been made aware of the possibility of exposure; and
- can exercise control over their exposure.

OSHA guidelines go further to state that persons must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

In order to consider this site an Occupational Environment, the site must be controlled to prevent access by any individuals classified as the General Public. Compliance is also maintained when any non-occupational individuals (the General Public) are prevented from accessing areas indicated as Red or Yellow in the attached RF Emissions diagram. In addition, a person must be aware of the RF environment into which they are entering. This can be accomplished by an RF Safety Awareness class, and by appropriate written documentation such as this Site Compliance Report.

All Sprint employees who require access to this site must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

Appendix D – General Safety Recommendations

The following are *general recommendations* appropriate for any site with accessible areas in excess of 100% General Public MPE. These recommendations are not specific to this site. These are safety recommendations appropriate for typical site management, building management, and other tenant operations.

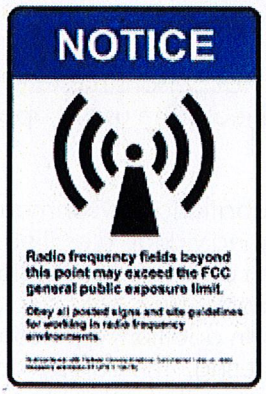
1. All individuals needing access to the main site (or the area indicated to be in excess of General Public MPE) should wear a personal RF Exposure monitor, successfully complete proper RF Safety Awareness training, and have and be trained in the use of appropriate personal protective equipment.

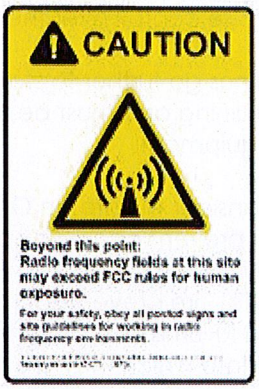
2. All individuals needing access to the main site should be instructed to read and obey all posted placards and signs.

3. The site should be routinely inspected and this or similar report updated with the addition of any antennas or upon any changes to the RF environment including:

- adding new antennas that may have been located on the site
- removing of any existing antennas
- changes in the radiating power or number of RF emitters

4. Post the appropriate **NOTICE**, **CAUTION**, or **WARNING** sign at the main site access point(s) and other locations as required. Note: Please refer to RF Exposure Diagrams in Appendix B, to inform <u>everyone</u> who has access to this site that beyond posted signs there may be levels in excess of the limits prescribed by the FCC. In addition to RF Advisory Signage, a RF Guideline Signage is recommended to be posted at the main site access point(s). The signs below are examples of signs meeting FCC guidelines.





5. Ensure that the site door remains locked (or appropriately controlled) to deny access to the general public if deemed as policy by the building/site owner.

6. For a General Public environment the four color levels identified in this analysis can be interpreted in the following manner:

- Gray represents area at below 5% of the General Public MPE limits or below. This level is safe for a worker to be in at any time.

- Green represents areas predicted to be between 5% and 100% of the General Public MPE limits. This level is safe for a worker to be in at any time.
- Blue represents areas predicted to be between 100% and 500% of the General Public MPE limits. This level is safe for a worker to be in at any time.
- Yellow represents areas predicted to be between 500% and 5000% of the General Public MPE limits. This level is safe for a worker to be in.
- Red areas indicated predicted levels greater than 5000% of the General Public MPE limits. This level is not safe for the General Public to be in.

7. For an Occupational environment the five color levels identified in this analysis can be interpreted in the following manner:

- Areas indicated as Gray are at 5% of the Occupational MPE limits or below. This level is safe for a worker to be in at any time.
- Green represents areas predicted to be between 5% and 20% of the Occupational MPE limits. This level is safe for a worker to be in at any time.
- Blue represents areas predicted to be between 20% and 100% of the Occupational MPE limits. This level is safe for a worker to be in at any time.
- Yellow represents areas predicted to be between 100% and 500% of the Occupational MPE limits. Only individuals that have been properly trained in RF Health and Safety should be allowed to work in this area. This is not an area that is suitable for the General Public to be in.s
- Red areas indicated predicted levels greater than 500% of the Occupational MPE limits. This level is not safe for the Occupational worker to be in for prolonged periods of time. Special procedures must be adhered to such as lock out tag out procedures to minimize the workers exposure to EME.

8. Use of a Personal Protective Monitor: When working around antennas, Sitesafe strongly recommends the use of a Personal Protective Monitor (PPM). Wearing a PPM will properly forewarn the individual prior to entering an RF exposure area.

Keep a copy of this report available for all persons who must access the site. They should read this report and be aware of the potential hazards with regards to RF and MPE limits.

Additional Information

Additional RF information is available by visiting both www.Sitesafe.com and www.fcc.gov/oet/rfsafety. OSHA has additional information available at: http://www.osha-slc.gov/SLTC/radiofrequencyradiation.

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT E

County of San Mateo
Planning & Building Department
455 County Center, 2nd Floor
Redwood City, California 94063
650/363-4161 Fax: 650/363-4849
Mail Drop PLN122
plngbldg@co.sanmateo.ca.us
www.co.sanmateo.ca.us/planning

Please reply to: Joe Camicia
650/599-1537

April 17, 2008

PROJECT FILE

Metro PCS; Leah Hernikl
410 Clubhouse Road
Aptos, CA 95003

Subject: **PLN 2007-00480**
Location: **661 Miramar Drive, Miramar**
APN: **048-076-070**

On April 17, 2008, the Zoning Hearing Officer considered your request for a Use Permit and Coastal Development Permit, pursuant to Sections 6500 and 6328.4, respectively, of the San Mateo County Zoning Regulations, to construct a celluar communications facility consisting of three panel antennas and one GPS antenna mounted to a new 36 foot tall monopole and associated equipment. The monopole and equipment cabinets will be located within a 170 sq. ft. fenced enclosure to be located on Coastside County Water District property at 661 Mirimar Drive, in the unincorporated Miramar area of San Mateo County. This project is appealable to the California Coastal Commission. Application filed December 3, 2007

The Zoning Hearing Officer made the findings and approved this project subject to the conditions of approval as attached.

Any interested party aggrieved by the determination of the Zoning Hearing Officer may appeal this decision to the Planning Commission within ten (10) working days from such date of determination. The appeal period for this project will end on **May 1, 2008, at 5:00 p.m.**

This approval is appealable to the California Coastal Commission. Any aggrieved party who has exhausted their local appeals may appeal this decision to the California Coastal Commission within ten (10) working days following the Coastal Commission's receipt of the County's final decision. Please contact the Coastal Commission's North Central Coast District Office at 415/904-5260 for further information concerning the Commission's appeal process. The County and Coastal Commission appeal periods are sequential, not concurrent, and together total approximately one month. A project is considered approved when these appeal periods have expired and no appeals have been filed.

If you have any questions concerning this item, please contact the Project Planner on page one.

Very truly yours,

George Bergman
Zoning Hearing Officer

cc: Public Works Department
Building Inspection Section
Assessor's Office
City of Half Moon Bay Planning Director
Coastside Fire Protection District
Coastside County Water District
Midcoast Community Council

Attachment A

County of San Mateo
Planning and Building Department

FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2007-00480 Hearing Date: April 17, 2008

Prepared By: Joe Camicia, Project Planner For Adoption By: Zoning Hearing Officer

FINDINGS

Regarding the Environmental Review, Found:

1. That the project is exempt from the California Environmental Quality Act (CEQA) under provisions of Section 15303, Class 3, regarding the construction of new minor structures in an urban area.

Regarding the Use Permit, Found:

2. That the establishment, maintenance and/or conducting of the use, as conditioned, will not, under the circumstances of the particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in said neighborhood because the visual impact will be minimal and the project will not generate additional traffic, noise or intensity of use of the property. The radio frequency and electromagnetic emissions will be well below the maximum permissible exposure as stipulated by the Federal Communications Commission (FCC).

3. That the proposed project is necessary for the public health, safety, and convenience or welfare because the FCC has established the desirability and need for wireless telephone service to facilitate communication between mobile units and the wire-dependent telephone system, and the proposed facility will support that service. Additionally, the project will increase and improve the capacity of wireless services in the area during times of both "normal" day occurrences, as well as during emergencies and natural disasters.

Regarding the Coastal Development Permit, Found:

4. That the project, as described in the application and accompanying materials required by Zoning Regulations Section 6328.7 and as conditioned in accordance with Section 6328.14, conforms with the plans, policies, requirements and standards of the San Mateo County LCP, because it is located and designed to minimize visual and environmental impacts.

5. That the project conforms to the specific findings required by policies of the San Mateo County LCP. Specifically, the project complies with the policies contained in the Land Use and Visual Resources Components.

CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies only to the proposal, documents and plans described in this report and approved by the Zoning Hearing Officer on April 17, 2008. The Community Development Director may approve minor revisions or modifications to the project if they are consistent with the intent of and in substantial conformance with this approval.

2. These permits shall be valid for one year, in which time the applicant shall be issued a building permit. Any extension of these permits shall require submittal of an application for permit extension at least 30 days prior to the permit's expiration.

3. The use permit shall be valid for a period of 10 years. The applicant shall apply for renewal of the use permit and pay applicable renewal fees six months prior to the permit's expiration on April 17, 2018. There shall be one administrative review to verify compliance with conditions of approval in October 2013. Applications for renewal and administrative review shall be accompanied by the fees applicable at that time.

4. Any change in use shall require an amendment to the use permit. Amendment to this use permit requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

5. The applicant shall receive and maintain approval from the FCC and the CPUC concerning the operation of the project at this site. Upon receipt of each of these approvals, the applicant shall supply the Current Planning Section with proof of these approvals. If these approvals are ever revoked, the applicant shall inform the Current Planning Section of the revocation immediately.

6. The applicant shall adhere to all FCC guidelines regarding on-site radio frequency exposure. The applicant shall minimally install warning signs at the antennas and on signposts approximately 8 feet from the antennas such that the signs would be readily visible from any angle of approach. The applicant shall close and lock all fences and gates at all times to keep members of the general public at a safe distance from the antennas and equipment area.

7. The applicant shall apply for and be issued a building permit prior to beginning construction.

9. The applicant shall secure an encroachment permit from the Department of Public Works for all work conducted within the public right-of-way.

10. This permit only includes grading that is minimally required to dig the underground trenches for the new utility lines. Should additional grading be proposed or required, the applicant shall be subject to the San Mateo County Grading Ordinance, and may be required to apply for a grading permit or exemption prior to commencement of any grading activity.

11. The applicant shall submit an erosion and sediment control plan to be reviewed and approved by the Current Planning Section prior to the issuance of the building permit. The approved plan shall be implemented prior to beginning any construction activities and shall be maintained throughout the duration of construction.

12. The applicant shall adhere to the San Mateo County Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:

    a. Delineation with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses within the vicinity of areas to be disturbed by construction and/or grading.

    b. Protection of adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

    c. Performing clearing and earth-moving activities only during dry weather.

    d. Stabilization of all denuded areas and maintenance of erosion control measures continuously between October 15 and April 15. Stabilization shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.

    e. Storage, handling, and disposal of construction materials and wastes properly, so as to prevent their contact with stormwater.

    f. Control and prevention of the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water, or sediments, and non-stormwater discharges to storm drains and watercourses.

    g. Use of sediment controls or filtration to remove sediment when dewatering site and obtain all necessary permits.

h. Avoiding cleaning, fueling, or maintaining vehicle on-site, except in a designated area where wash water is contained and treated.

i. Limiting and timing applications of pesticides and fertilizers to prevent polluted runoff.

j. Limiting construction access routes and stabilization of designated access points.

k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

l. Training and providing instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and Construction Best Management Practices.

13. The applicant shall submit a dust control plan to the Current Planning Section for review and approval prior to the issuance of a building permit. The plan shall include the following control measures:

a. Water all active construction areas at least twice daily.

b. Water or cover stockpiles of debris, soil, sand or other materials that can be blown by the wind.

c. Cover all trucks hauling soil, sand and other loose materials or require all trucks to maintain at least 2 feet of freeboard.

d. Apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking and staging areas at construction sites. Also, hydro-seed or apply non-toxic soil stabilizers to inactive construction areas.

e. Sweep daily (preferably with water sweepers) all paved access roads, parking and staging areas at construction sites.

f. Sweep adjacent public streets daily (preferably with water sweepers) if visible soil material is carried onto them.

g. Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).

h. Limit traffic speeds on unpaved roads within the project parcel to 15 mph.

i. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

j. Replant vegetation in disturbed areas as quickly as possible.

The approved plan shall be implemented for the duration of any grading and construction activities that generate dust and other airborne particles.

14. Noise levels produced by the proposed construction activities shall not exceed the 80-dBA level at any one moment. Construction activities shall be limited to the hours from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction operations shall be prohibited on Sunday and any national holiday.

15. All vegetation that serves as the screening mechanism to mitigate the visual impact of the facility shall be maintained for the life of the project. Should any of the vegetation on-site die or become diseased or hazardous, the applicant shall replace the vegetation with similar trees of substantial size consistent with vegetation in the area and to the satisfaction of the Community Development Director.

16. The chain link fence surrounding the 170 sq. ft. equipment enclosure shall be 6 feet tall and shall include dark green slats and/or painted a dark green color as required by Condition No. 17.

17. The applicant shall submit exterior color samples of the monopole, equipment, and cabinets to the Current Planning Section for review and approval prior to the issuance of the building permit. The monopole and all associated equipment (including the fence slats) shall be a dark green color similar to that of the existing Sprint monopole and shall blend, to the extent possible, with the surrounding tree cover and vegetation. The applicant shall include the file/case number with all color samples. Color verification by a building inspector shall occur in the field after the applicant has painted the equipment an approved color but prior to a final inspection.

18. The installation shall be removed in its entirety at that time when this technology becomes obsolete or this facility is no longer needed.

19. The applicant shall revise the proposed location of the monopole and associated equipment to comply with the development standards as stipulated in the S-94 combining district. All plans submitted for a building permit shall reflect this condition.

Building Inspection Section

20. A building permit shall be required prior to beginning construction.

Coastside Fire Protection District

21. The applicant shall identify the equipment owner and emergency response information on the exterior of equipment enclosure to the satisfaction of the Coastside Fire Protection District.

17. The chain link fence surrounding the 157 square foot equipment enclosure shall be six feet tall and shall include green slats.

18. The coaxial cable tray from the antennas to the equipment enclosure shall be painted a tan or dark green color to match the existing ground cover vegetation on-site.

19. The monobush's proposed location shall be amended to comply with all Planned Agricultural District development standards prior to issuance of a building permit. Specifically, the monobush's location must meet the minimum setbacks required by Section 6359.B of the PAD Zoning Regulations.

20. The color of the monopole and the associated equipment shall match the colors of the surrounding vegetation in order to minimize, as much as possible, any new visual impact created by the facility. The applicant shall submit color samples prior to issuance of the building permit to verify that colors of the monobush and all associated equipment shall be painted to match the existing surroundings as much as practicable.

Building Inspection Section

21. A building permit shall be required prior to beginning construction.

Coastside Fire Protection District

22. The applicant shall comply with all Coastside Fire Protection District regulations at the time of application for a building permit.