

RESOLUTION NO. 81-2021

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MESQUITE, TEXAS, APPROVING THE TERMS AND CONDITIONS OF THE SEVENTH AMENDMENT TO THE COMMUNICATIONS FACILITIES LICENSE WITH CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS (“LICENSE AGREEMENT”), TO AMEND THE SITE PLAN TO REFLECT UPDATED EQUIPMENT LOCATED ON THE CITY’S SERVICE CENTER COMMUNICATIONS TOWER, AS SPECIFIED IN THE LICENSE AGREEMENT; AND AUTHORIZING THE CITY MANAGER TO EXECUTE AND ADMINISTER THE LICENSE AGREEMENT ON BEHALF OF THE CITY.

WHEREAS, the City of Mesquite (the “City”) and Dallas MTA, L.P., d/b/a Verizon Wireless entered into a Communications Facilities License on October 13, 1997 (the “Agreement”); and

WHEREAS, the Agreement was previously amended on June 5, 2012, March 19, 2015, July 30, 2015, July 18, 2017, March 7, 2018, and December 3, 2018, and

WHEREAS, Dallas MTA, L.P., d/b/a Verizon Wireless was dissolved by operation of law effective December 31, 2018, and its assets and liabilities, including the Agreement, were redistributed to Cellco Partnership d/b/a Verizon Wireless (“Licensee”); and

WHEREAS, Licensee is requesting a seventh amendment to the Agreement that will allow Licensee to amend the site plan to reflect updated equipment located on the City’s Service Center Communications Tower.

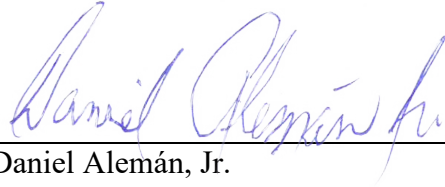
NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MESQUITE, TEXAS:

SECTION 1. That the terms and conditions of the Seventh Amendment to Communications Facilities License (the “Amendment”), attached hereto as Exhibit A, are found to be acceptable and in the best interest of the City and its citizens, and are hereby approved.

SECTION 2. That the City Manager is hereby authorized to finalize and execute the Amendment and all other documents necessary to consummate the transactions contemplated by the Amendment.

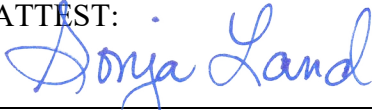
SECTION 3. That the City Manager is further hereby authorized to administer the Agreement, as amended, on behalf of the City including, without limitation, the City Manager shall have the authority to: (i) provide any notices required or permitted by the Agreement; (ii) approve minor amendments to the Agreement provided such amendments do not change either party’s use of the property or change the rent charged; (iii) exercise any rights and remedies available to the City under the Agreement; and (iv) execute any notices, amendments, approvals, consents, denials, and waivers authorized by the Agreement.

DULY RESOLVED by the City Council of the City of Mesquite, Texas, on the 6th day of December 2021.



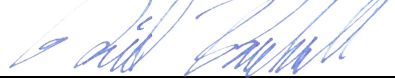
Daniel Alemán, Jr.
Mayor

ATTEST:



Sonja Land
City Secretary

APPROVED AS TO LEGAL FORM:



David L. Paschall
City Attorney

EXHIBIT A

**SEVENTH AMENDMENT TO THE
COMMUNICATIONS FACILITIES LICENSE AGREEMENT**

BETWEEN

**THE CITY OF MESQUITE, TEXAS, AND
CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS**

APPROVED BY CITY COUNCIL
DATE 12.6.2021
AGENDA ITEM NO. 10

Licensee Site Name: Samuel Park
Licensee Contract No.: 25519

SEVENTH AMENDMENT TO COMMUNICATIONS FACILITIES LICENSE

This SEVENTH AMENDMENT TO COMMUNICATIONS FACILITIES LICENSE ("**Seventh Amendment**"), dated as of the Effective Date (as hereinafter defined), is by and between the **City of Mesquite**, a Texas home rule municipality, having a mailing address of 1515 N. Galloway Avenue, Mesquite, TX 75149 ("**City**") and **Cellco Partnership d/b/a Verizon Wireless**, having a principal office located at One Verizon Wireless Way, Mail Stop 4AW100, Basking Ridge, New Jersey 07920 ("**Licensee**").

WHEREAS, City and Dallas MTA, L.P. d/b/a Verizon Wireless entered into a Communications Facilities License dated October 13, 1997, whereby City licensed to Licensee use of certain premises therein described that are a portion of the premises owned by the City located at 1101 E. Main Street, Mesquite, Texas 75149 (the "**Original License Agreement**"); and

WHEREAS, the Original License Agreement has been amended by: (i) the First Amendment to Communications Facilities License dated as of June 5, 2012 ("**First Amendment**"); (ii) the Second Amendment to Communications Facilities License dated as of March 19, 2015 ("**Second Amendment**"); (iii) the Third Amendment to Communications Facilities License dated as of July 30, 2015 ("**Third Amendment**"); (iv) the Fourth Amendment to Communications Facilities License dated as of July 18, 2017 ("**Fourth Amendment**"); (v) the Fifth Amendment to Communications Facilities License dated March 7, 2018 ("**Fifth Amendment**"); and (vi) the Sixth Amendment to Communications Facilities License dated March 5, 2019 ("**Sixth Amendment**"); and

WHEREAS, the Original License Agreement, as amended by the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment, the Fifth Amendment, and the Sixth Amendment are collectively referred to in this Seventh Amendment as the "**Agreement**"; and

WHEREAS, all capitalized terms used in this Seventh Amendment but not defined herein have the same meanings as defined in the Agreement; and

WHEREAS, pursuant to Assistant Secretary's Certificate dated January 14, 2019, Dallas MTA, L.P. was dissolved by operation of law effective December 31, 2018 and its assets and liabilities redistributed to Cellco Partnership; and

WHEREAS, the City and Licensee desire to further amend the Agreement as more fully set forth herein.

NOW THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, City and Licensee agree as follows:

1. **Amendment of Site Plan.** The SITE PLAN attached as Attachment A-2(B) to the Sixth Amendment is hereby deleted and replaced with **Attachment A-2(C)**, attached hereto and incorporated herein by reference. As of the Effective Date, all references in the Agreement to Attachment A-2, Attachment A-2(A), and Attachment A-2(B) are references to Attachment A-2(C).

2. **Amendment of Equipment Compound and Antenna Facilities.** The list of Equipment and Compound Facilities attached as Attachment B-5 to the Sixth Amendment is hereby deleted and replaced with **Attachment B-6**, attached hereto and incorporated herein by reference. As of the Effective Date, all references in the Agreement to Attachments B, B-1, B-2, B-3, B-4, and B-5 are references to Attachment B-6.

3. **Equipment.** From and after the Effective Date, the City agrees that Licensee may install the equipment described in Attachment B-6 on the Premises.

4. **Permitted Antenna Facilities and Equipment.** From and after the Effective Date, the Antenna Facilities and equipment permitted under the terms of the Agreement are limited to the Antenna Facilities and equipment described in Attachment B-6.

5. **Other Terms and Conditions Remain.** In the event of any inconsistencies between the Agreement and this Seventh Amendment, the terms of this Seventh Amendment shall control. This Seventh Amendment amends the Agreement in no other manner except as expressly set forth herein. The Parties acknowledge and agree that Exhibit A-3 of the Agreement has not been revised in any way by this Amendment. Except as expressly set forth in this Seventh Amendment, the Agreement is unmodified and remains in full force and effect. Each reference to the "Agreement" in the Agreement shall be deemed to refer to the Original License Agreement, as amended by the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment, the Fifth Amendment, the Sixth Amendment, and this Seventh Amendment.

6. **Effective Date.** This Seventh Amendment shall not be effective unless and until it is executed by both the City and the Licensee. "**Effective Date**" as used herein means the later of the two dates this Seventh Amendment is executed by the City and Licensee.

7. **Signing Authority.** City and Licensee each warrant to the other that the person executing this Seventh Amendment on behalf of the warranting party has the full right, power

and authority to enter into, and execute, this Seventh Amendment on that party's behalf, and that no consent from any other person or entity is necessary as a condition precedent to the legal effect of this Seventh Amendment.

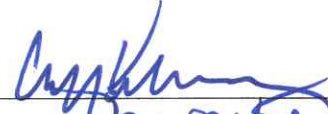
8. **Entire Agreement.** This Seventh Amendment, together with its attachments, sets forth the entire agreement of the parties with respect to the matters set forth herein. There are no oral agreements between the parties.

[Signatures on following page]


IN WITNESS WHEREOF, the City and the Licensee have executed this Seventh Amendment on the dates set forth below:

CITY:

City of Mesquite,
a Texas home rule municipality

By: 
Printed Name: Cliff Ketrakoy
Title: City Manager
Date: 12-7-21

APPROVED AS TO FORM:

By: 
Printed Name: David L. Paschal
Title: City Attorney
Date: 11-22-21

LICENSEE:

Cellco Partnership d/b/a Verizon Wireless

By: 
Amanda Eastin

Verizon Sr. Manager – Central Texas
Modifications, Small Cells, MLA &
Community Outreach

Nov 18, 2021
Date: _____

ATTACHMENT A-2(C)

Site Plan

(See attached)



5G L-SUB 6 PROJECT

SITE NAME: SAMUEL_PARK
 LOCATION CODE: 104821
 STRUCTURE TYPE: 250'-0" SELF-SUPPORT TOWER



KGI WIRELESS, INC. TEXAS TRM NO. F-186927
 805 LAS CINAS PKWY. SUITE 370
 AUSTIN, TEXAS 78746
 P. LICENSE NUMBER: 08/31/2021



KGI WIRELESS, INC.
 ENGINEERING
 805 LAS CINAS PKWY
 BUILDING THREE, SUITE 370
 AUSTIN, TX 78746
 512.345.9595

SITE NAME
 SAMUEL_PARK
 LOCATION CODE
 104821
 SITE ADDRESS:
 1101 E MAIN ST.
 MESQUITE, TX 75149

THESE DRAWINGS ARE THE PROPERTY OF VERIZON WIRELESS. THEY ARE INTENDED FOR THE EXCLUSIVE USE OF THIS PROJECT ONLY. ANY REUSE OR REPRODUCTION OF THESE DRAWINGS WITHOUT THE EXPRESS WRITTEN CONSENT OF VERIZON WIRELESS IS PROHIBITED.

ISSUED FOR:
 PERMITTING REV 0 04/01/2021
 PERMITTING REV 1 08/31/2021

| NO | DESCRIPTION | BY | DATE |
|----|----------------------------|----|------------|
| 1 | UPDATE DWG'S AND CABLES RA | RA | 08/31/2021 |

SHEET TITLE:
 TITLE SHEET

SHEET NUMBER:
 T1

DRAWINGS INDEX

| GENERAL SHEETS | REVISION |
|--------------------------------------|----------|
| T1 TITLE SHEET | 1 |
| G01 GENERAL NOTES | 0 |
| C01 GENERAL PLANS | 0 |
| C1 SITE PLAN | 1 |
| C2 TOWER ELEVATION AND ANTENNA PLANS | 1 |
| C3 EQUIPMENT MOUNTING DETAILS | 1 |
| RF INFORMATION | 0 |
| RF1 ANTENNA SPECIFICATIONS | 0 |
| RF2 PROPOSED EQUIPMENT SPECS | 0 |
| RF3 PROPOSED EQUIPMENT SPECS | 0 |
| RF4 PROPOSED EQUIPMENT SPECS | 0 |

ATTACHMENTS:
 MOUNT MODIFICATION DESIGN BY T.E.S., DATED 08/26/2021

VICINITY MAP



TEAM SIGN-OFF

| | |
|-------------------------|------|
| SITE ACQUISITION | DATE |
| CONSTRUCTION SUPERVISOR | DATE |
| RF ENGINEERING | DATE |
| EQUIPMENT | DATE |
| TELCO | DATE |
| CONSTRUCTION MANAGER | DATE |

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND ORDER CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

CONTACTS

APPLICANT:
 VERIZON WIRELESS
 5804 TRI COUNTY PARKWAY
 SCHERTZ, TX 78154
 CONTACT: DANNY DELEON
 PHONE: 806.291.3853

SITE ACQUISITION:
 KGI WIRELESS, INC.
 BUILDING THREE, SUITE 370
 805 LAS CINAS PKWY.
 AUSTIN, TX 78746
 PHONE: 512.345.9595

ENGINEER:
 KGI WIRELESS, INC.
 805 LAS CINAS PKWY.
 AUSTIN, TX 78746
 TYLER BOLLINGER, P.E.
 PRINCIPAL ENGINEER
 PHONE: 512.334.3296

UTILITY PROVIDER
 AT SITE

PROJECT SUMMARY

LATITUDE: 32° 46' 07.42" N
 LONGITUDE: 96° 35' 10.95" W
 GROUND ELEVATION: ± 508.5' AMSL
 SITE ADDRESS: 1101 E MAIN ST
 MESQUITE, TX 75149
 DALLAS COUNTY

CONSTRUCTION TYPE: UNMANNED TELECOMMUNICATIONS

JURISDICTION: CITY OF MESQUITE

SCOPE OF WORK

- 1) THIS WIRELESS COMMUNICATIONS FACILITY IS NOT INTENDED FOR HUMAN OCCUPANCY
- 2) THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL PRODUCE ANY SEWAGE.
- 3) THE SCOPE OF WORK FOR THIS PROJECT IS TO REMOVE EXISTING WIRELESS INSTALLATION OF MODIFYING THE EXISTING WIRELESS INSTALLATION:
 - A. REMOVE (6) RRHS (REMOTE RADIO HEADS)
 - B. REMOVE (10) COAX CABLES
 - C. REMOVE (2) HYBRID CABLES
 - D. INSTALL (3) ANTENNAS
 - E. INSTALL (6) RRHS
 - F. INSTALL (4) HYBRID DISTRIBUTION BOXES
 - G. INSTALL (2) HYBRID CABLES

APPLICABLE CODES & STANDARDS

- INTERNATIONAL BUILDING CODE, 2015 EDITION
- AS ADOPTED BY LOCAL JURISDICTION
- NATIONAL ELECTRICAL CODE, 2014 EDITION
- AS ADOPTED BY LOCAL JURISDICTION



Know what's below.
 Call before you dig.

THESE DRAWINGS ARE FOR PERMITTING AND CONSTRUCTION PURPOSES

NOTE: DRAWING SCALES ARE FOR 11"x17" SHEETS UNLESS OTHERWISE NOTED.

GENERAL NOTES

1. THE CONTRACTOR 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 FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE TO REVIEW THE SCOPE OF WORK AND EXISTING JOB SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL SERVICE, AND OVERALL CONDITION.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS, ETC. SHALL BE REPORTED TO VERIZON BEFORE PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING CONSTRUCTION, STRUCTURE, OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE TENANT OR BUILDING OWNER, OR OWNER'S REPRESENTATIVE AT THE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL REPLACE OR REMEDY ANY FAULTY, IMPROPER, OR INFERIOR MATERIALS OR WORKMANSHIP OR ANY DAMAGE WHICH SHALL APPEAR WITHIN ONE YEAR AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK UNDER THIS CONTRACT.
6. THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND WASTE MATERIALS ON A REGULAR BASIS, AND SHALL EXERCISE STREET CONTROL OVER JOB CLEANING THROUGHOUT CONSTRUCTION, INCLUDING FINAL CLEAN-UP UPON COMPLETION OF WORK. ALL AREAS ARE TO BE LEFT IN A BROOM CLEAN CONDITION AT THE END OF EACH DAY.
7. THE CONTRACTOR SHALL SAFEGUARD THE OWNER'S PROPERTY DURING CONSTRUCTION AND SHALL REPLACE ANY DAMAGED PROPERTY OF THE OWNER TO ORIGINAL CONDITION OR BETTER.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO, WATER, GAS, FIBER, AND CABLES. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONNECTION WITH THE EXECUTION OF WORK.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETED PER CHAPTER 44 OF THE U.S.C.
10. THE CONTRACTOR DURING CONSTRUCTION SHALL PROVIDE TEMPORARY WATER, POWER, AND TOILET FACILITIES AS REQUIRED BY THE CITY OR GOVERNING AGENCY.
11. ALL CONSTRUCTION WORK SHALL CONFORM TO THE U.S.C. AND ALL OTHER GOVERNING CODES, ALONG WITH THE GOVERNING RESTRICTIVE CODES.
12. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH ALL LOCAL CODE REGULATIONS AND STATE DEPARTMENT OF INDUSTRIAL REGULATIONS AND DIVISION OF INDUSTRIAL SAFETY (OSHA) REQUIREMENTS.
13. THE CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS, LICENSES, AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK AND INCLUDE THOSE IN THE COST OF THE WORK TO THE OWNER.
14. FIGURED DIMENSIONS HAVE PRECEDENCE OVER DRAWINGS SCALE AND DETAIL DRAWINGS HAVE PRECEDENCE OVER SMALL SCALE DRAWINGS. OVERLAPPING DIMENSIONS SHALL BE USED TO SHOW THE CONSTRUCTION UNTIL THE ACCURACY OF DRAWINGS DIMENSIONS HAS BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS.
15. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS OR DISCREPANCIES WITHIN THE CONTRACT DOCUMENTS WITH THE CONTRACT DOCUMENTS AND THE FIELD CONDITIONS PRIOR TO EXECUTING THE WORK IN QUESTION.
16. CONTRACTOR SHALL NOTIFY THE ENGINEER IF DETAILS ARE CONSIDERED UNSOUND, UNSAFE, NOT WEATHERPROOF, OR IN VIOLATION OF THE RESTRICTIVE CODES. WORK IS TO BE STOPPED IMMEDIATELY UNTIL THE ENGINEER HAS REVIEWED THE DETAILS AND BEEN ADVISED TO SHOW THE END RESULT OF THE DESIGN, WHICH MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.
17. EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION. IF THE DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK.
18. ALL SYMBOLS AND ABBREVIATIONS USED IN THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
19. CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCCING, BRACING, FRAMING, HANGERS OR OTHER SUPPORT FOR ALL OTHER ITEMS REQUIRING THE SAME.
20. CITY APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN, IN GOOD CONDITION, ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA AND OTHER CHANGE ORDERS ON THE PREMISE AT ALL TIMES. THESE ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT.
21. ALL CONDUITS AND CABLE RUNS ARE DRAWN DIAGRAMMATICALLY. CONTRACTOR SHALL RUN CONDUITS AND CABLES IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE ALONG THE BEST POSSIBLE ROUTE. THE INSTALLATION OF CONDUITS AND CABLES WILL FOLLOW THE DRAWINGS AS TO SUPPORT AND EQUIPMENT.

22. KGI'S SCOPE OF WORK DOES NOT INCLUDE A STRUCTURAL EVALUATION OF THE SITE, THIS APPURTENANCE, EQUIPMENT, AND TRANSMISSION CABLES SHOWN ON THESE DRAWINGS ARE SCHEMATIC AND FOR REFERENCE ONLY. A STRUCTURAL EVALUATION OF THE SITE STRUCTURE, ANTENNA MOUNTINGS AND HARDWARE SHOULD BE PERFORMED AND RECOMMENDATIONS IMPLEMENTED PRIOR TO THE INSTALLATION OF THIS SCOPE OF WORK. THENCE, INFORMATION INDICATED IN THE STRUCTURAL ANALYSIS REGARDING FINAL APPURTENANCE/EQUIPMENT/CABLE ARRANGEMENT AND DETAILS SUPERCEDES THESE DRAWINGS.

EQUIPMENT NOTES

1. ALL RADIO EQUIPMENT PLACEMENT AND INSTALLATION IS BY AN EQUIPMENT SUPPLIER WHO IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF OTHERS AS IT RELATES TO THE RADIO EQUIPMENT.
1. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OF 2-410BC WITHIN 75 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF THE BUILD OUT AREA DURING CONSTRUCTION.
2. ANY ALTERATION TO EXISTING FIRE PROTECTION FACILITIES WILL REQUIRE CLEARANCE AND PERMITS FROM THE GOVERNING FIRE DEPARTMENT AND OTHER AGENCIES BY A LICENSED FIRE PROTECTION CONTRACTOR.

TENANT IMPROVEMENT NOTES

ANTENNA NOTES

1. ANTENNA CONTRACTOR SHALL ENSURE THAT ALL ANTENNA MOUNTING PIPES ARE PLUMB.
2. COAXIAL FEEDER AND FIBER LENGTHS INDICATED ARE APPROXIMATE.
3. ANTENNA COAXIAL FEEDERS AND ANTENNA JUMPERS SHALL BE COLOR CODED PER VERIZON REQUIREMENTS.
4. MULTI-PORT ANTENNAS: TERMINATE UNUSED ANTENNA PORTS WITH CONNECTOR CAP AND WEATHERPROOF THROUGHOUT. JUMPERS FROM TMA'S MUST TERMINATE TO OPPOSITE POLARIZATIONS IN EACH SECTOR.
5. CONTRACTOR MUST FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING THE INSTALLATION OF COAXIAL CABLES, CONNECTORS, AND ANTENNAS.
6. CONTRACTOR SHALL RECORD THE SERIAL#, SECTOR, AND POSITION OF EACH ANTENNA AND ACTUATOR INSTALLED AT THE ANTENNAS AND FURNISH THE INFORMATION TO VERIZON.
7. ANTENNA CONTRACTOR SHALL PERFORM A "TAPE DROP" MEASUREMENT TO CONFIRM/VALIDATE ANTENNA CENTERLINE (ACS) HEIGHT. CONTRACTOR SHALL SUBMIT A COMPLETED HEIGHT VERIFICATION FORM TO THE CONSTRUCTION MANAGER.
8. ALL FIBER RUNS TO BE CONTAINED IN A SINGLE HYBRID DC POWER/FIBER CABLE FROM UPPER OVP TO LOWER OVP (COLOR CODE COAX JUMPERS ONLY).
9. WEATHERPROOF UNUSED TMA AND RADIO UNIT PORTS.
10. ALL ANTENNA ADMITTITS TO BE FROM TRUE NORTH.



KGI WIRELESS, INC. TEXAS PERM. NO. P-108927
 1101 E. MAIN ST.
 MESQUITE, TEXAS 75149
 EXPIRES PERMANAL 06/30/2022



KGI WIRELESS, INC.
 ENGINEERING
 805 LAS CIMAS PKWY
 BUILDING THREE, SUITE 370
 AUSTIN, TX 78748
 512.345.9595

SITE NAME
 SAMUEL PARK
 LOCATION CODE
 104821
 SITE ADDRESS:
 1101 E. MAIN ST.
 MESQUITE, TX 75149

THESE DRAWINGS ARE THE PROPERTY OF VERIZON WIRELESS. THEY ARE INTENDED FOR THE USE OF THE LICENSEE(S) ONLY. ANY REUSE OF THESE PLANS (DRAWINGS) WITHOUT THE EXPRESS WRITTEN CONSENT OF VERIZON WIRELESS IS PROHIBITED.

ISSUED FOR:
 PERMITTING REV 0
 PERMITTING REV 1
 DATE
 04/01/2021
 06/31/2021

| REVISION | |
|----------------|---------|
| NO DESCRIPTION | BY/DATE |
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SHEET TITLE:
 GENERAL NOTES

SHEET NUMBER:
 GN1



KG WIRELESS, INC. TEXAS PERM NO. F-109972
 PERM EXPIRES 08/31/2021
 FL LICENSE NO. 061701252



KGI WIRELESS, INC.
 ENGINEERING
 805 LAS CIMAS PKWY
 BUILDING THREE, SUITE 370
 AUSTIN, TX 78746
 512.345.9595

SITE NAME
 SAMUEL PARK
 LOCATION CODE
 104821
 SITE ADDRESS:
 1101 E. MAIN ST.
 MESSOUIE, TX 75149

THESE DRAWINGS ARE THE PROPERTY OF VERIZON WIRELESS. THEY ARE INTENDED FOR THE USE OF THIS PROJECT ONLY. ANY REUSE OF THESE DRAWINGS WITHOUT THE EXPRESS WRITTEN CONSENT OF VERIZON WIRELESS IS PROHIBITED.

ISSUED FOR: DATE
 PERMITTING REV 0 04/01/2021
 PERMITTING REV 1 08/31/2021

| NO | DESCRIPTION | BY | DATE |
|----|----------------------------|----|------------|
| 1 | UPDATE OVP'S AND CABLES RA | | 08/31/2021 |

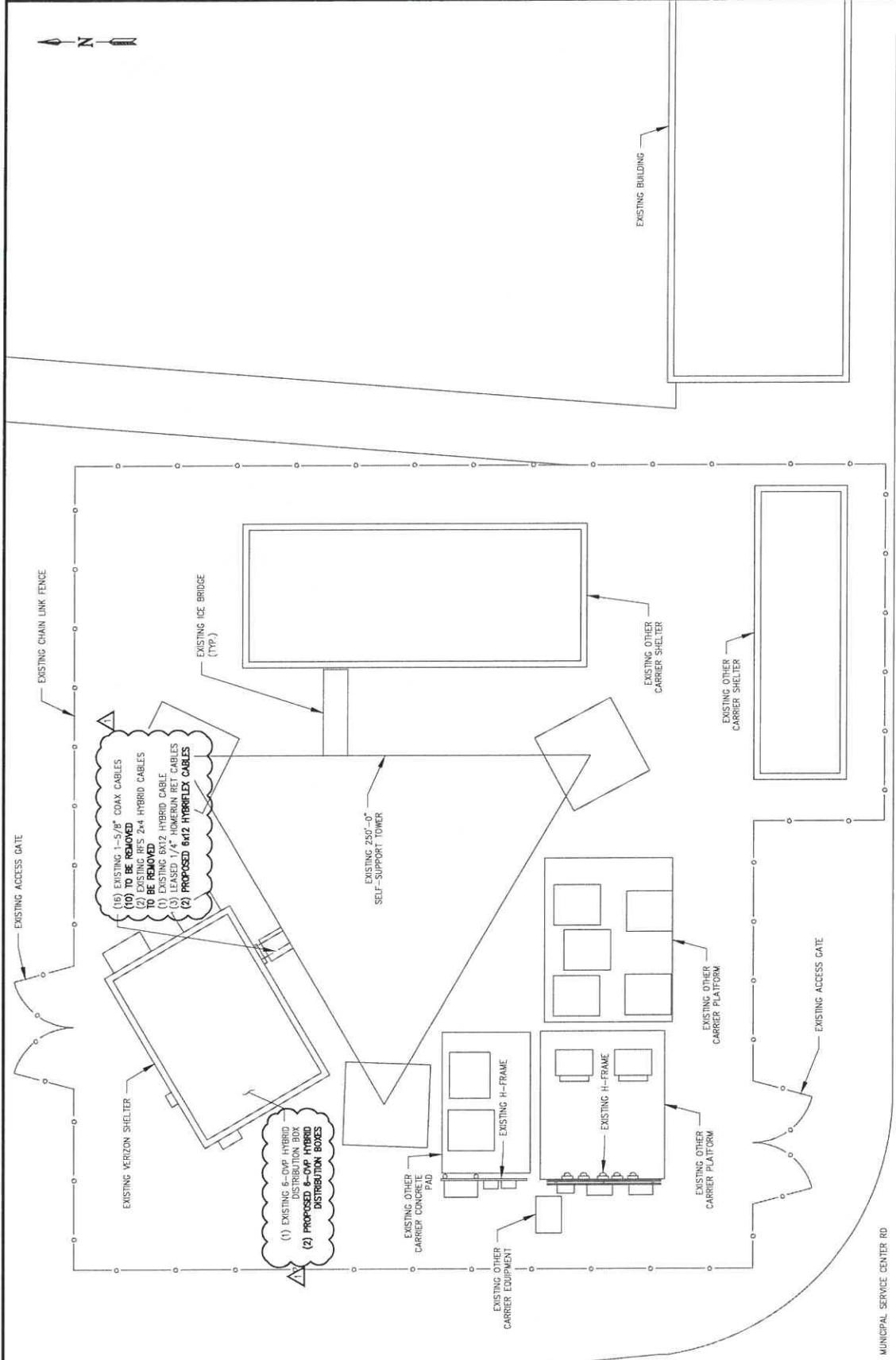
REVISION

SHEET TITLE:

SITE PLAN

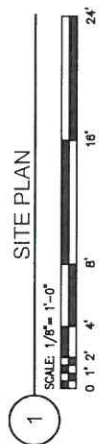
SHEET NUMBER:

C1



- (16) EXISTING 1-5/8" COAX CABLES
- (10) TO BE REMOVED
- (2) EXISTING 1/4" HYBRID CABLES
- (2) EXISTING 3/4" HYBRID CABLES
- (1) EXISTING 1/4" HYBRID CABLE
- (3) LEASED 1/4" HOMERUN RET. CABLES
- (2) PROPOSED 6/12 HYBRIFLEX CABLES

- (1) EXISTING 6-OVP HYBRID DISTRIBUTION BOX
- (2) PROPOSED 8-OVP HYBRID DISTRIBUTION BOXES



SCALE: 1/8" = 1'-0"

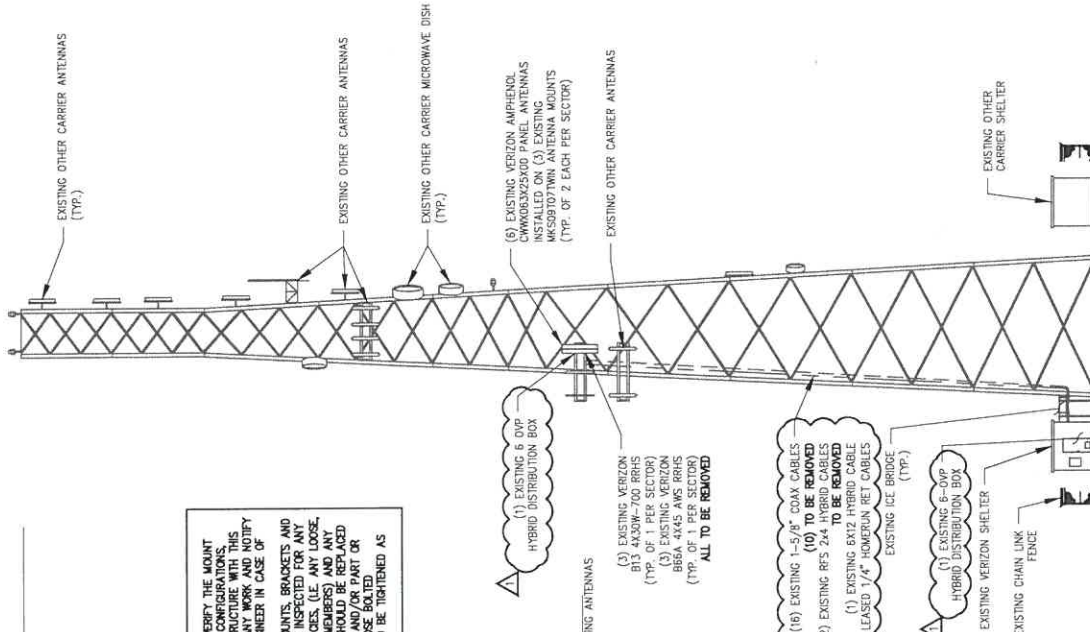
1

THIS SITE PLAN WAS DRAWN WITHOUT THE BENEFIT OF A CIVIL SURVEY; THEREFORE, THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, QUANTITIES AND DIMENSIONS BEFORE STARTING ANY WORK. NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK.



NOTE:

- CONTRACTOR SHALL VERIFY THE MOUNT HEIGHT, MOOR, AND EXISTING CONFIGURATIONS, CONNECTIONS AND STRUCTURE WITH THIS DRAWING. ALL CONNECTIONS SHALL BE REWORKED BY THE STRUCTURAL ENGINEER IN CASE OF ANY DISCREPANCIES.
- ALL EXISTING PIPE MOUNTS, BRACKETS AND STRUCTURAL DEFICIENCIES, (IE ANY LOOSE, DAMAGED OR MISSING BOLTS AND NUTS) SHALL BE REWORKED TO BE BETTER AND ANY LOOSE BOLTED CONNECTIONS SHOULD BE TIGHTENED AS REQUIRED.

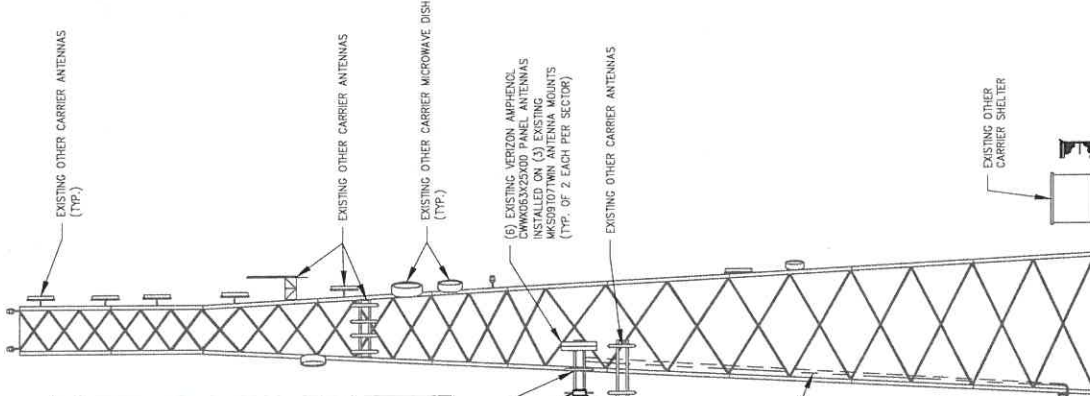


1

EXISTING TOWER ELEVATION
SCALE: N.T.S.

NOTE:

- TOWER STRUCTURAL ANALYSIS WAS PERFORMED BY MALOUF ENGINEERING, DATED 06/10/2021. RESULTS AND CONCLUSIONS CONTAINED THEREIN ARE THE RESPONSIBILITY OF THAT ENGINEER.
- MOUNT STRUCTURAL ANALYSIS WAS PERFORMED BY TOWER ENGINEERING SOLUTIONS, DATED 08/22/2021. MOUNT MODIFICATION DESIGN WAS PERFORMED BY TOWER ENGINEERING SOLUTIONS. ANY CHANGES TO THE MOUNT DESIGN SHOULD BE REVIEWED AND APPROVED BY THE ENGINEER RESPONSIBLE FOR THE ANALYSIS OF THAT ENGINEER.
- STRUCTURAL EVALUATION OF THE EXISTING AND PROPOSED ANTENNA MOUNTING SYSTEM IS BEYOND KGI'S SCOPE OF SERVICE FOR THIS PROJECT. REFERENCE STRUCTURAL ANALYSIS DONE BY OTHERS FOR ADEQUACY OF THE EXISTING TOWER AND ANTENNA MOUNTING SYSTEM. ANY CHANGES TO THE EXISTING TOWER AND ANTENNA MOUNTING EQUIPMENT MUST HAVE A MATCHING APPLICATION AND STRUCTURAL ANALYSIS.
- VERIFY AZIMUTHS WITH IRDS.
- PRIOR TO ATTACHING ANTENNAS AND MOUNTING SECTIONS, (E) TOWER AND TOWER FOUNDATION MUST BE ANALYZED BY A LICENSED STRUCTURAL ENGINEER TO BE ABLE TO SUPPORT THE PROPOSED LOADS. REFER TO STRUCTURAL ANALYSIS BY OTHERS.
- PROPOSED ANTENNA PLACEMENT LOCATION TO BE FIELD VERIFIED BY GENERAL CONTRACTOR PRIOR TO CONSTRUCTION TO AVOID ANY INTERFERENCE OR SHADOWING OF EXISTING ANTENNAS IS DISCOVERED DURING FIELD VERIFICATION, PLEASE CONTACT KGI WIRELESS FOR DESIGN REVISION PRIOR TO ANY NEW ANTENNA INSTALLATION.



2

PROPOSED TOWER ELEVATION
SCALE: N.T.S.

ALEXANDER HERSEY
128023
PROFESSIONAL ENGINEER
STATE OF TEXAS
08/31/2021

KGI WIRELESS, INC.
ENGINEERING
805 LAS CIMAS PKWY
BUILDING THREE, SUITE 370
AUSTIN, TX 78748
512.346.9595

SITE NAME
SAMUEL_PARK
LOCATION CODE
104821
SITE ADDRESS:
1101 E MAIN ST
MESQUITE, TX 75149

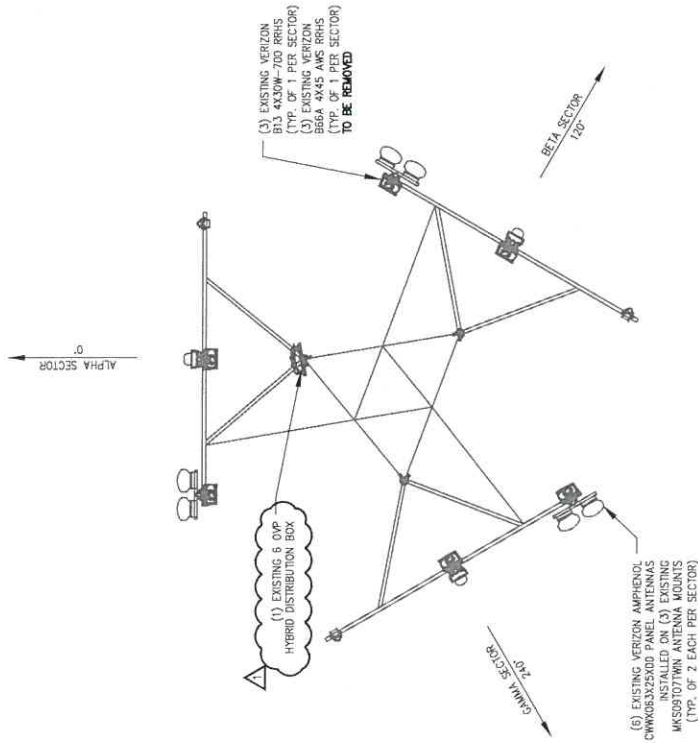
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| ISSUED FOR: | DATE |
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| PERMITTING REV 1 | 08/31/2021 |

| NO DESCRIPTION | BY DATE |
|--|---------|
| 1 UPDATE OF PS AND CABLES PER 10/29/2021 | |

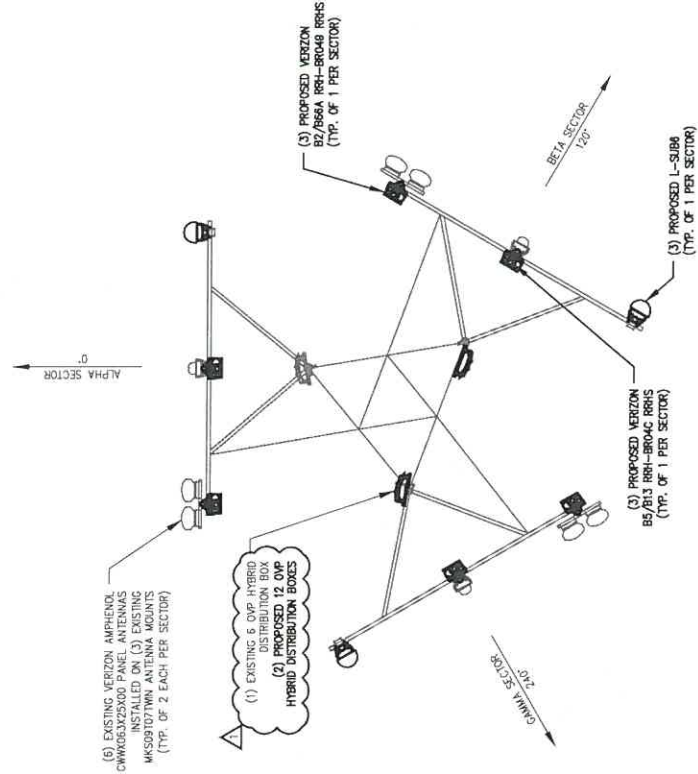
SHEET TITLE:
TOWER ELEVATION
AND ANTENNA PLANS
SHEET NUMBER:
C2

NOTE:
 1. CONTRACTOR SHALL VERIFY THE MOUNT MODEL AND EXISTING CONFIGURATIONS, CONNECTIONS AND STRUCTURE WITH THIS DRAWING AND STOP ANY WORK AND NOTIFY THE STRUCTURAL ENGINEER IN CASE OF ANY DISCREPANCIES.
 2. ALL EXISTING PRE-MOUNTS, BRACINGS, AND CONNECTIONS SHALL BE INSPECTED FOR ANY STRUCTURAL DEFICIENCIES. (I.E. ANY LOOSE, BENT AND DAMAGED MEMBERS) AND ANY DAMAGED MEMBERS SHOULD BE REPLACED WITH EQUAL MEMBER AND/OR PART OR BETTER AND ANY LOOSE BOLTED CONNECTIONS SHOULD BE TIGHTENED AS REQUIRED.



1 EXISTING ANTENNA PLAN
 SCALE: N.T.S.

NOTE:
 1. CONTRACTOR SHALL VERIFY THE MOUNT MODEL AND EXISTING CONFIGURATIONS, CONNECTIONS AND STRUCTURE WITH THE ATTACHED SPECIFICATIONS AND STOP ANY WORK AND NOTIFY THE STRUCTURAL ENGINEER IN CASE OF ANY DISCREPANCIES.
MODIFICATION NOTE:
 MOUNT REQUIRES MODIFICATION BEFORE ANY NEW EQUIPMENT IS INSTALLED. REFERENCE T.E.S. MOUNT MODIFICATION DRAWINGS DATED 03/23/2021.



2 PROPOSED ANTENNA PLAN
 SCALE: N.T.S.



KGI WIRELESS, INC. TEXAS PERM NO. F-19692
 PER REGISTRATION RENEWAL 12/31/2021
 P.E. LICENSE RENEWAL 09/30/2022



KGI WIRELESS, INC.
 ENGINEERING
 805 LAS CUMAS PIQWAY
 BUILDING THREE, SUITE 370
 AUSTIN, TX 78746
 512.345.9595

SITE NAME
SAMUEL PARK
 LOCATION CODE
 104821
 SITE ADDRESS:
 100 MAIN STREET
 MESQUITE, TX 75149

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 PERMITTING REV 1 08/31/2021

| NO | DESCRIPTION | BY | DATE |
|----|----------------------------|----|------------|
| 1 | UPDATE OVP'S AND CABLES RA | | 08/31/2021 |

SHEET TITLE:
ANTENNA PLANS
 SHEET NUMBER:
C3

Amphenol
ANTENNA SOLUTIONS

696-960 MHz

CX063X25x00

X-Pol | Single Band VET Panel | 65° | 16.8 dBi

| Ordering Options | |
|---|--------------|
| Manual Electrical Tilt | CX063X25V100 |
| Remote Electrical Tilt (AESG v1.1) | CX063X25R00 |
| Remote Electrical Tilt (AESG v2.0 / 3GPP) | CX063X25C00 |

| Electrical Characteristics | |
|----------------------------|-------------|
| Frequency bands (MHz) | 696-960 MHz |
| Polarization | 14.5° |
| Horizontal beamwidth | 70° |
| Vertical beamwidth | 6.9° |
| Gain | 16.3 dBi |

| | |
|----------------------------|--------------------------------------|
| Electrical downtilt | 0-10° |
| Impedance | 50Ω |
| VSWR | < 1.5:1 |
| Upper sideband suppression | < -18 dB typical |
| Front-to-back ratio | > 25 dB |
| In-band isolation | > 25 dB |
| Input power | 2+ 500 W |
| IM3 (2x20W carriers) | < -153 dBc |
| Lightning protection | Direct Ground |
| Operating temperature | -40° to +140° C (-40° to +140° F) |
| Connectors | 2 Ports / 7/16 DIN / Female / Bottom |

| Mechanical Characteristics | |
|--|---------------------------|
| Dimensions Length x Width x Depth | 2588 x 305 x 180 mm |
| Weight without mounting brackets | 15.9 kg |
| Weight without mounting brackets (RET) | 16.2 kg |
| Survival wind speed | 241 km/hr |
| Wind load at 100 km/hr or 100 mph | Front: 920 N, Side: 550 N |
| Front: 209, Side: 124 lbf | |

Remote Electrical Tilt (RET) Control
The remote control of the electrical tilt is enabled by a module (MOCU) which is inserted at the bottom of the antenna. One single module controls individually the tilt of each band (no need of daisy chain cables between the bands). This module does not add any additional length at the bottom of the antenna. For RET control, the visible and the antenna still has manual tilt control (manual overalls).

RET Module Part Number
(one per antenna)
MOCU-A009 for AESG v1.1 protocol
(one will be included in CX063X25R00)
MOCU-C000 for 3GPP/AESG v2.0 protocol
(one will be included in CX063X25C00)

Important Installation Instructions
In order to operate RET control, the transparent cap covering the RET control must be engaged and locked. Do not cut the cap from the antenna.

| Mounting Options | |
|---|----------|
| 3-Point Mounting Bracket Kit | MKS3P02Z |
| 3-Point Mounting & Downtilt Bracket Kit | MKS3P02Z |
| Ti-Stacker UNICELL Options | UNX-20-A |

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

www.amphenol-antennas.com

REV:021413

1 of 3

1

EXISTING ANTENNA SPECS
SCALE: N.T.S.

Amphenol
ANTENNA SOLUTIONS

1710-2170 MHz

W85-19-x28

Single Band | Panel Antenna | X-Pol | 85° | 18.3 dBi | Variable Tilt

- Single band, X-Pol, variable tilt, panel antenna
- MET and RET versions, AISG v1.1 or 3GPP/AISG v2.0
- External RET unit

| Ordering Options | |
|---|-------------|
| Manual Electrical Tilt | W85-19-A128 |
| Remote Electrical Tilt (AESG v1.1) | W85-19-R28 |
| Remote Electrical Tilt (3GPP/AISG v2.0) | W85-19-R28C |

| Electrical Characteristics | |
|--|------------------------------------|
| Frequency Bands | 1710-1980 MHz |
| Polarization | ±45° |
| Horizontal Beamwidth | 85° |
| Vertical Beamwidth | 5.3° |
| Gain | 17.5 dBi |
| Electrical Downtilt | 2.8° Variable Electrical Tilt |
| Impedance | 50Ω |
| VSWR | < 1.4:1 |
| Upper Sideband Suppression | < -18 dB |
| Front-to-Back Ratio | > 25 dB |
| Intra-Port Isolation | > 28 dB |
| IM3 (2x20W Carriers) | < -153 dBc |
| Input Power | 2 x 200W |
| Total Number of Connectors / Type / Location | 2 Ports / 7/16-DIN Female / Bottom |
| Operating Temperature | -40° to +60° C (-40° to +140° F) |

| Mechanical Characteristics | |
|--|---------------------------|
| Dimensions (L x W x D) | 1935 x 170 x 100 mm |
| Antenna Weight without Mounting Brackets | 11.0 kg |
| Dimensions (L x W x D) | 2105 x 170 x 100 mm |
| Antenna Weight without Mounting Brackets | 11.7 kg |
| Survival Wind Speed | 241 km/hr |
| Wind Load at 161 km/hr (100 mph) | Front: 402 N, Side: 234 N |
| Front: 90 lbf, Side: 53 lbf | |

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

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REV:0811160

1 of 4



EQUIPMENT SPECIFICATIONS AND INFORMATION FOR REFERENCE ONLY



KGI WIRELESS, INC.
ENGINEERING
805 LAS CIMAS PKWY
BUILDING THREE, SUITE 370
AUSTIN, TX 78746
512.345.9595

SITE NAME
SAMUEL PARK
LOCATION CODE
104821
SITE ADDRESS
110 E MARKET
MESQUITE, TX 75149

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PERMITTING REV 0 04/01/2021
PERMITTING REV 1 08/31/2021

| NO. | DESCRIPTION | BY | DATE |
|-----|-------------|----|------|
| | | | |
| | | | |

SHEET TITLE: ANTENNA SPECIFICATIONS
SHEET NUMBER: RF1

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ENGINEERING
805 LAS CIMAS PKWY
BUILDING THREE, SUITE 370
AUSTIN, TX 78746
512.345.9595

SITE NAME: SAMUEL PARK
LOCATION CODE: 104821
SITE ADDRESS: 110 E MAIN ST, MESQUITE, TX 75149

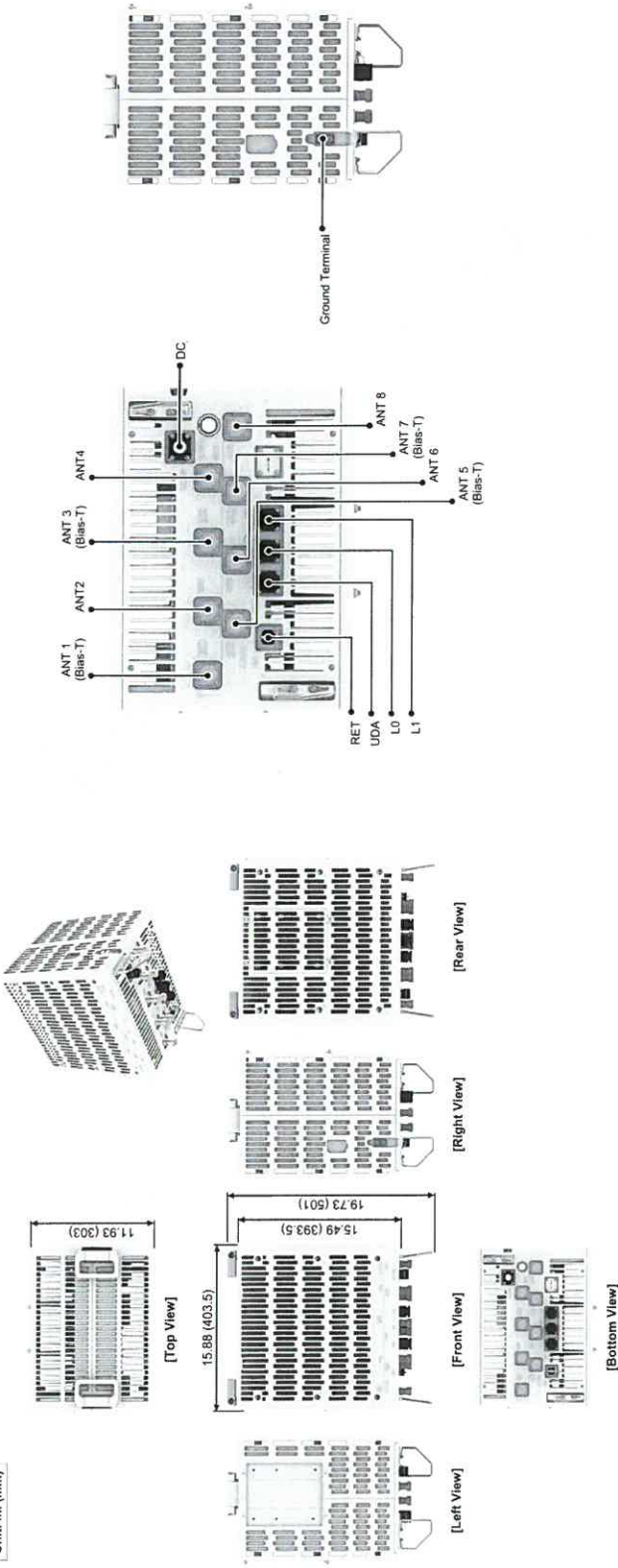
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PERMITTING REV 0 04/01/2021
PERMITTING REV 1 08/31/2021

| NO | DESCRIPTION | BY | DATE |
|----|-------------|----|------|
| | | | |
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| | | | |

SHEET TITLE: PROPOSED EQUIPMENT SPECS
SHEET NUMBER: RF2

Unit: in. (mm)



1 PROPOSED EQUIPMENT SPECS
SCALE: N.T.S.

EQUIPMENT SPECIFICATIONS AND INFORMATION FOR REFERENCE ONLY



KGI WIRELESS, INC.
ENGINEERING
805 LAS CIMAS PKWY
BUILDING THREE, SUITE 370
AUSTIN, TX 78748
512.345.9595

SITE NAME
SAMUEL PARK
LOCATION CODE
104821
SITE ADDRESS:
1101 E. ARMY ST.
MESQUITE, TX 75149

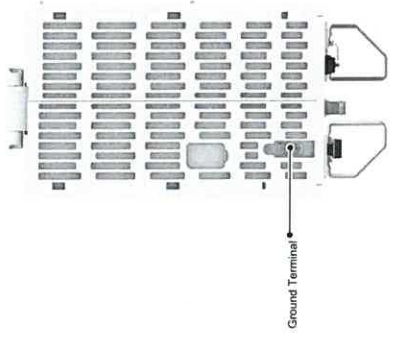
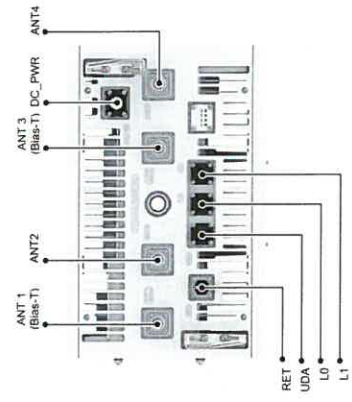
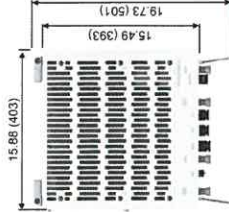
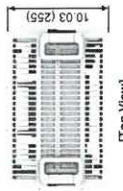
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PERMITTING REV 1 08/31/2021

| REVISION | |
|----------|---------------------|
| NO | DESCRIPTION BY DATE |
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| | |

SHEET TITLE:
PROPOSED EQUIPMENT SPECS
SHEET NUMBER:
RF3

Unit: in. (mm)



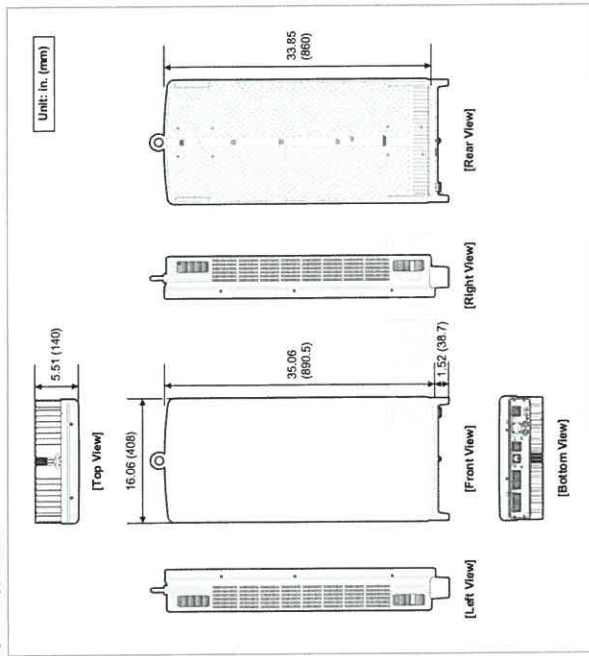
1 PROPOSED EQUIPMENT SPECS
SCALE: N.T.S.

Confidential
Overview

SAMSUNG

The following figures depict the physical views of the MT6407-77A.

Figure 1. Appearance



102 MT6407-77A Product Specification v3.0
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Confidential
Specifications

SAMSUNG

Specifications

The following table displays the main specifications of the MT6407-77A.

Table 2. Specifications

| Item | Description |
|-------------------------|--|
| Air Technology | NR |
| Frequency | 3700-3980 MHz |
| IBW | 280 MHz |
| OBW | 200 MHz |
| Carrier Bandwidth | 20/40/60/80/100 MHz |
| Number of Carriers | 2 carriers (Contiguous, Non-Contiguous) • NR 1C: 20/40/60/80/100M • NR 1CC+1CC 20/40/60/80/100M + 20/40/60/80/100M |
| Layer | • DL: 16 Layers • UL: 16 RX (8 Layers) |
| RF Chain | 64T64R |
| Antenna Configuration | 4 Y16H with 192 AE |
| EIRP | 78.5 dBm (53 dBm + 25.5 dBi) |
| Conductive Power | 200 W |
| Spectrum Analyzer | TX/RX support |
| Modulation | DL 256QAM support, (DL 1024QAM with 1-2 dB power back-off) |
| Function Split | DU/LU Option 7-2x |
| Fronthaul Interface | CPRI, eCPRI |
| Optic Interface | 4 ports (25 Gbps x 4), SFP28, single mode, Bi-di (Option: Duplex), 15 km |
| External Alarm | 4 RX |
| Input Power | -48 VDC (-38 to -57 VDC) |
| Power Consumption[Note] | • 1.395 W @ 100 % RF load, room temperature • 1.428 W @ 100 % RF load, all temperature • 1.003 W @ 40% RF load, room temperature |
| Size (WHD) | 408 x 600.5 x 140 mm (16.06 x 35.06 x 5.51 inch) |
| Volume | 50.9 L |
| Weight | 37 kg or less |
| Operating Temperature | -40-55 °C (w/o solar load) |
| Operating Humidity | 5-100 % RH RH, non-condensing, not to exceed 30 g/m ³ absolute humidity. |
| Waterproof/Dustproof | IEC 60529 IP65 |
| Earthquake | Telcordia GR-63-Core, Zone4 |
| Cooling | Natural convection |
| Mounting Options | Pole, wall |

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EQUIPMENT SPECIFICATIONS AND INFORMATION FOR REFERENCE ONLY



KGI WIRELESS, INC.
ENGINEERING
805 LAS CIMAS PKWY
BUILDING THREE, SUITE 370
AUSTIN, TX 78748
512.345.9955

SITE NAME: SAMUEL_PARK
LOCATION CODE: 104821
SITE ADDRESS: 1101 E MAIN ST
MESSOUITE, TX 75149

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| PERMITTING REV 1 | 06/31/2021 |

| REVISION | |
|----------|-------------|
| NO | DESCRIPTION |
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| | |

SHEET TITLE: PROPOSED EQUIPMENT SPECS
SHEET NUMBER: RF4

PROPOSED L-SUB 6 EQUIPMENT SPECS

SCALE: N.T.S.

1

2
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MOUNT MODIFICATION DRAWINGS

PROPOSED CARRIER: VERIZON

CARRIER SITE NUMBER: 104821-VZW
 CARRIER SITE NAME: SAMUEL_PARK

COORDINATES (LATITUDE: 32.768730°, LONGITUDE: -96.586380°)

FUZE ID # 16229054



Tower Engineering Solutions
 1320 GREENWAY BLVD, SUITE 600
 IRVING, TX 75039
 PH: (972) 483-0067



TS JOB NO: 10096019
 CUSTOMER SITE NO: 104821-VZW
 CUSTOMER SITE NAME: SAMUEL_PARK
 1101 E MAIN ST
 MESQUITE, TX 75149
 TOWER ENGINEERING SOLUTIONS, LLC
 TEXAS REGISTRATION NUMBER: 113009
 Exp: 09/30/2021



MUSTAPHA ASSI
 101771
 LICENSED PROFESSIONAL ENGINEER
 STATE OF TEXAS
 08/26/2021

DRAWN BY: MG | CHECKED BY: PK/SK
 REV: DESCRIPTION BY DATE
 Δ: ISSUE MG 08/26/21
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 SHEET FILE: TITLE SHEET

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| SHEET | SHEET TITLE | REV |
|-------|------------------------------------|-----|
| ST-1 | TITLE SHEET | 0 |
| SR0M | BILL OF MATERIALS | 0 |
| SGM-1 | GENERAL NOTES | 0 |
| SCF-1 | CLIMBING FACILITY DETAILS | 0 |
| SS-1 | ANTENNA MOUNT MODIFICATION DETAILS | 0 |
| SS-2 | STANDARD DETAILS | 0 |
| SS-3 | STANDARD DETAILS | 0 |
| SS-4 | STANDARD DETAILS | 0 |
| SS-5 | STANDARD DETAILS | 0 |
| SS-6 | MOUNT PHOTOS | 0 |
| - | SPECIFICATION SHEETS | 0 |

| Contractor PMI Requirements | |
|--|---|
| PMI Accessed At | https://pmi.vzwsmart.com |
| Smart Tool Vendor Number | 10096019 |
| Post MOD Analysis Report Project Number | 10096019 |
| VzW Location Code (PSLC) | 104821 |
| Report Dated | 8/23/2021 |
| *** PMI and Requirements embedded in Mount Analysis Report | |
| VZW APPROVED SMART KIT VENDORS | |
| Refer to Mount Modification Drawings Page for VzW SMART KIT Approved Vendors | |

BILL OF MATERIALS

| QUANTITY COUNTED | QUANTITY PROVIDED | PART NUMBER | DESCRIPTIONS | SHEET LIST | PIECE WEIGHT (LBS) | WEIGHT (LB) | NOTES | |
|---|-------------------|---------------|---|---------------------|--------------------|-------------|---|--|
| 4 | 4 | VZWSMART-MSK7 | ANGLE TO ANGLE CROSSOVER MATERIAL & HARDWARE | SS-1, VZWSMART-MSK7 | 7.0 | 28.0 | Galvanized | |
| FOLLOWING ITEMS ARE "CUSTOM" PARTS | | | | | | | | |
| 3 | 3 | PV-MD-CS-18R | PERFECT VISION MICROWAVE STRUT SUPPORT FACE MOUNT KIT | SS-1, SS-2 | 120.00 | 378.0 | GALVANIZED | |
| 2 | 2 | P40-238M072 | PIPE 2 SCH40 (2.375" OD X 0.154" THK) X 6'-0" LONG | SS-1, SS-5 | 22.61 | 45.2 | GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD) | |
| 3 | 3 | P40-238M174 | PIPE 2 SCH40 (2.375" OD X 0.154" THK) X 14'-6" LONG | SS-3 | 0.00 | 0.0 | GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD) | |
| 6 | 6 | PL375-4511 | PL 3/8" X 4 1/2" X 11" A36 | SS-3 | 0.00 | 0.0 | GALVANIZED | |
| 6 | 6 | V-CLAMP | PL 1/2" X 4 1/4" X 8 5/8" A36 | SS-3 | 0.00 | 0.0 | GALVANIZED | |
| 6 | 6 | BP2-875 | PL 1/4" X 2" X 8 3/4" A36 BENT PLATE | SS-3 | 0.00 | 0.0 | GALVANIZED | |
| 24 | 26 | --- | BOLT 5/8" X 6" FUL. THREAD SAE GR 5 | SS-3 | 0.00 | 0.0 | (1) HHN & LKW-EA GALVANIZED | |
| 6 | 7 | --- | BOLT 5/8" X 4 1/4" A325 | SS-3 | 0.00 | 0.0 | (1) HHN & LKW-EA GALVANIZED | |
| 6 | 7 | --- | BOLT 5/8" X 2" A325 | SS-3 | 0.00 | 0.0 | (1) HHN & LKW-EA GALVANIZED | |
| TOTAL WEIGHT (LBS) = | | | | | | | 451.2 | |

V2W Mount Modification Kits - Approved Vendors

| | |
|--|---|
| Contact: Perfect Vision Wireless Sales 844.887.6723 Website wirelessales@perfect-vision.com www.perfect-vision.com | Contact: Sabre Industries Inc Angie Welch 866.428.6937 Website awelch@sabreindustries.com www.sabresitesolutions.com |
| Contact: SitePro1 Paula Boswell 972.236.9843 Website paula.boswell@salimont.com www.charrn1.com | Contact: CommsScope Salvador Anguilano 817.304.7492 Website Salvador.Anguilano@commscope.com www.commscope.com |



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 1320 GREENWAY DRIVE, SUITE 600
 HOUSTON, TX 75038
 PH: (972) 483-0607



IES JOB NO:
10096019

CUSTOMER SITE NO:
104821-VZW

CUSTOMER SITE NAME:
SAMUEL_PARK

1101 E MAIN ST
MCSOURLE, TX 75149

| | | | |
|--------------|-------------------|----|----------|
| OWNER BY: MG | CHECKED BY: PW/SK | | |
| REV | DESCRIPTION | BY | DATE |
| 1 | FIRST ISSUE | MC | 08/26/21 |
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BILL OF MATERIALS

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GENERAL NOTES

- ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-H, ANSI/ASSP A10.48, AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
- ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND CHAINING, ETC. PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
- THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
- GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ON-SITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO ITS BEFORE PROCEEDING CONSTRUCTION.
- TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
- IT IS THE RESPONSIBILITY OF THE GC TO VERIFY THAT THERE IS NO INTERFERENCES (WITH SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.
- PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-TESTORDERS@TESTOWER.US

FABRICATION

- ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
- ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH, ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

- ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1. UNO. (E70XX) UNLESS NOTED OTHERWISE).
- PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
- ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
- WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
- AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

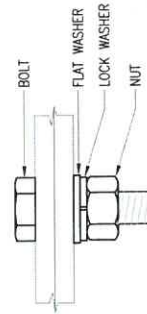
BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

- ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
- FLANGE BOLTS SHALL BE TIGHTENED BY THE RCSC.
- THE "TURN-OF-THE-NUT" TIGHTENING.
- SPRUE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
- THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPRUE WRENCH TO BRING THE CONNECTED PILES INTO FIRM CONTACT.
- FOR THREADED ROD CONNECTIONS, TRIM EXCESS THREADED ROD TO NO MORE THAN 3" PAST THE NUT AND COAT WITH ZINGA COLD GALVANIZING COMPOUND.

VERIFICATION AND INSPECTION

- IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IRC-2018 SECTION 1705.2 FOR STEEL CONSTRUCTION AND TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

TYPICAL BOLT ASSEMBLY



NOTES

- ALL DIMENSIONS REPRESENTED IN THIS SHEET ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
- THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS.
- MATCH EXISTING GAGES WHEN APPLICABLE. UNLESS MINIMUM

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING^{a,b}

| BOLT LENGTH | DISPOSITION OF OUTER FACE OF BOLTED PARTS | |
|--|---|---|
| | BOTH FACES NORMAL TO BOLT AXIS | BOTH FACES SLOPED FROM NORMAL TO BOLT AXIS ^d |
| NOT MORE THAN 4d _b | 1/3 TURN | 1/2 TURN |
| MORE THAN 4d _b BUT NOT MORE THAN 8d _b | 1/2 TURN | 2/3 TURN |
| MORE THAN 8d _b BUT NOT MORE THAN 12d _b | 2/3 TURN | 5/6 TURN |
| | | 1 TURN |

^a NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

^b APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

^c WHEN THE BOLT LENGTH EXCEEDS 12d_b, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SMOOTH FITTING STEEL.

^d BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004 RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

| BOLT DIAMETER | NOMINAL HOLE DIMENSIONS | |
|---------------|-------------------------|-------------------|
| | STANDARD HOLE | SHORT SLOT |
| 1/2" | 9/16" | 9/16" x 11/16" |
| 5/8" | 11/16" | 11/16 x 7/8" |
| 3/4" | 13/16" | 13/16" x 1" |
| 7/8" | 15/16" | 15/16" x 1 1/8" |
| 1" | 1 1/16" | 1 1/16" x 1 5/16" |

| BOLT DIAMETER | BOLT EDGE AND SPACING | |
|---------------|-----------------------|---------|
| | MIN EDGE | SPACING |
| 1/2" | 3/8" | 1 1/2" |
| 5/8" | 1 1/8" | 1 7/8" |
| 3/4" | 1 1/4" | 2 1/4" |
| 7/8" | 1 1/2" | 2 5/8" |
| 1" | 1 3/4" | 3" |

| ANGLE SIZE | WORKABLE GAGES | |
|------------|----------------|------|
| | MIN | EDGE |
| 1 3/4" | 1" | |
| 2" | 1 1/8" | |
| 2 1/2" | 1 3/8" | |
| 3 1/2" | 1 3/4" | |
| 4" | 2" | |

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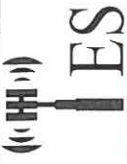

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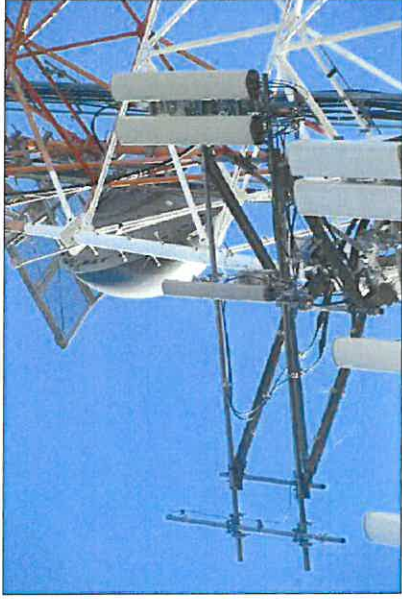
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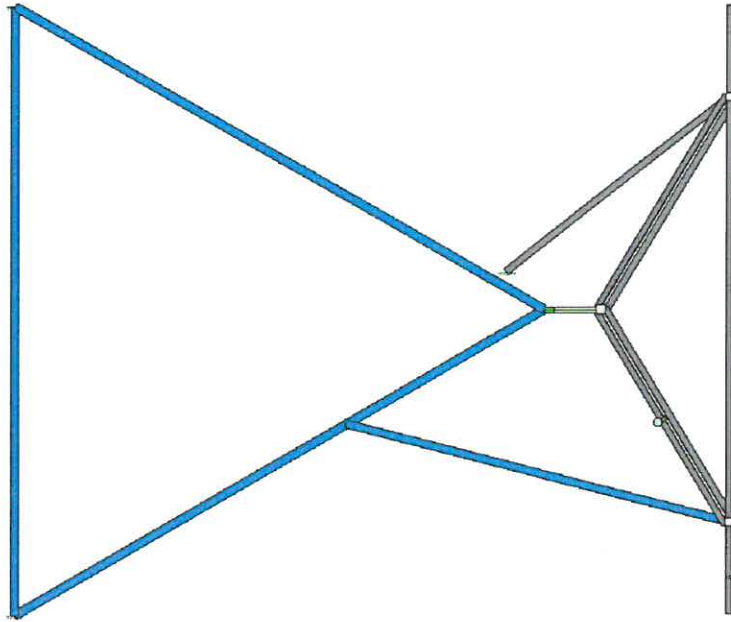
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| CUSTOMER SITE NAME: SAMUEL_PARK | |
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PICTURE OF SAFETY CLIMB

NO SAFETY CABLE OBSERVED IN THE TOWER



NOTE:
 1. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB OR ANY SYSTEM INSTALLED ON THE STRUCTURE.

MOUNT MODIFICATION SCHEDULE

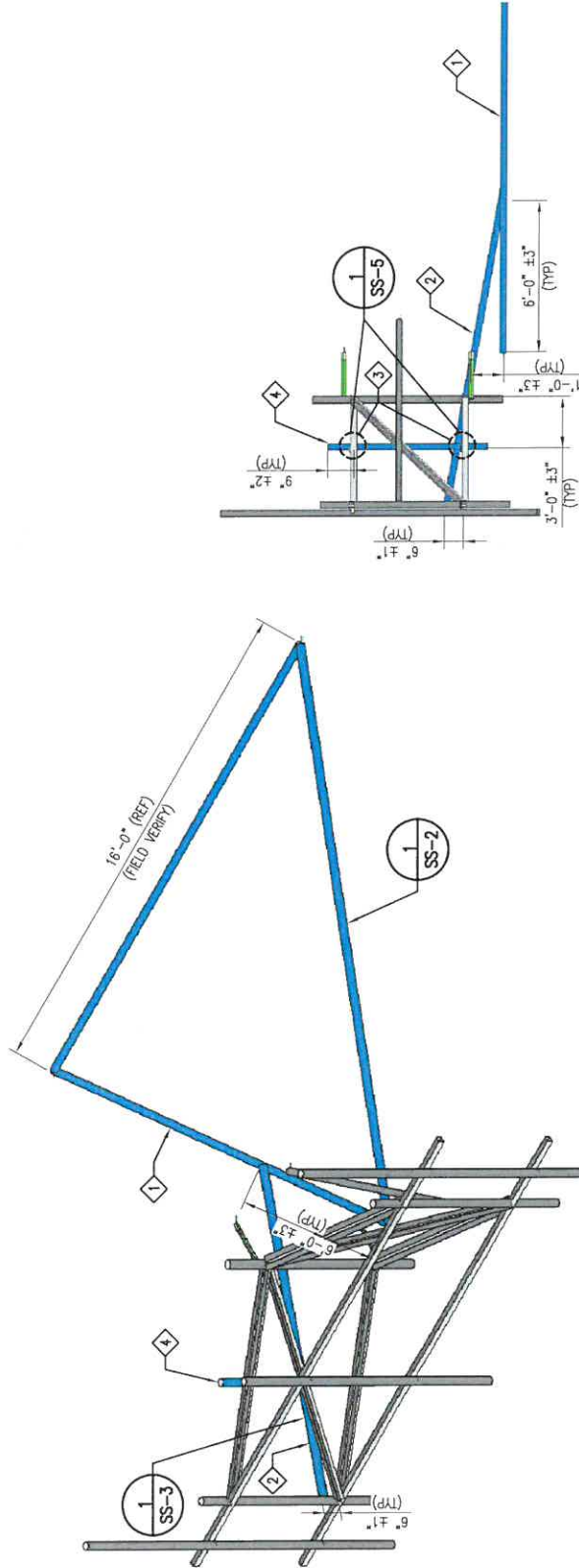
| SL. NO. | MOUNT MODIFICATION DESCRIPTION | REFERENCE SHEET NO. |
|---------|--|----------------------------|
| 1 | INSTALL NEW PERFECT VISION MICROWAVE STRUT SUPPORT FACE MOUNT KIT (PV-MD-CS-1BR) | SS-2 |
| 2 | INSTALL NEW TIE BACK PIPE. | SS-3 |
| 3 | INSTALL NEW VZW SMART ANGLE TO ANGLE CROSSOVER | VZW SMART-MSK7, SS-5 |
| 4 | INSTALL NEW 2" PST RAYCAP MOUNT PIPE (P40-238X072), (1) FOR (2) SECTOR ONLY | VZW SMART-PIPE, SS-1, SS-5 |

FIELD CUTTING AND FIELD DRILLING MAY BE NECESSARY TO ACHIEVE THE REQUIRED DIMENSIONS FOR THREADED ROD CONNECTIONS. TRIM EXCESS THREADED ROD TO NO MORE THAN 3" PAST THE NUT AND COAT WITH ZINGA COLD GALVANIZING COMPOUND.

IF EXISTING TOWER IS PAINTED, CONTRACTOR TO VERIFY WITH TOWER OWNER IF NEW MODIFICATION MEMBERS ARE TO BE PAINTED TO MATCH EXISTING TOWER COLOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.

MEMBERS IN BLUE COLOR ARE NEW REINFORCEMENTS AND MEMBERS IN AQUA COLOR (IF SHOWN) ARE RELOCATED MEMBERS



1 ISOMETRIC VIEW
SS-1 EXISTING ANTENNA MOUNT @ 124' ELEV.
 (MODIFICATION IS TYPICAL FOR ALL (3) SECTORS)

2 SIDE VIEW
SS-1

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CUSTOMER SITE NAME:
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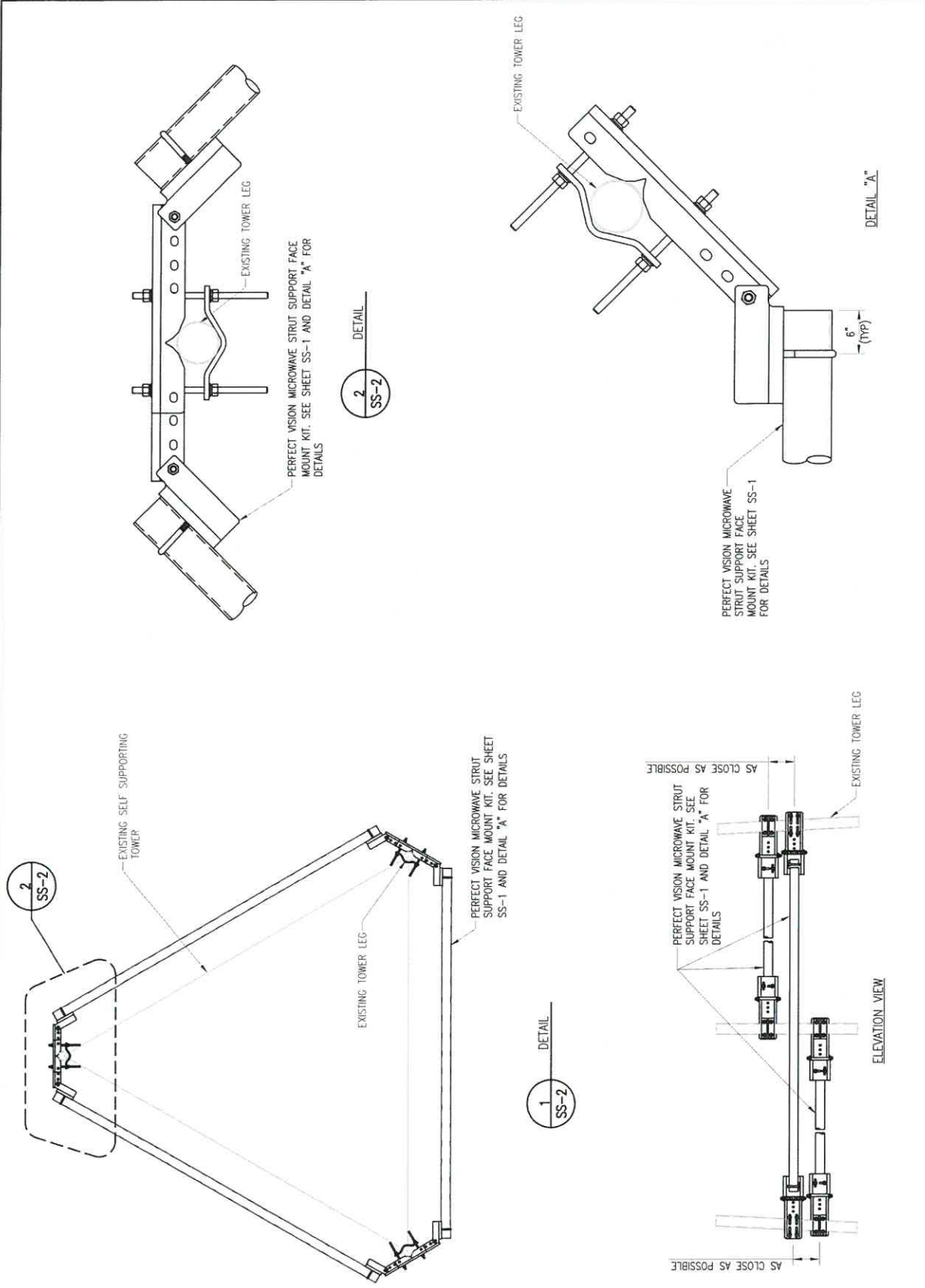
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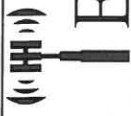
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**ANTENNA MOUNT
 MODIFICATION DETAILS**

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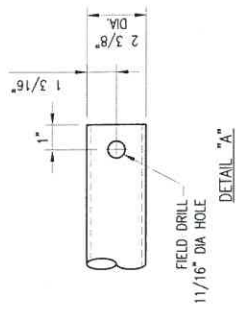
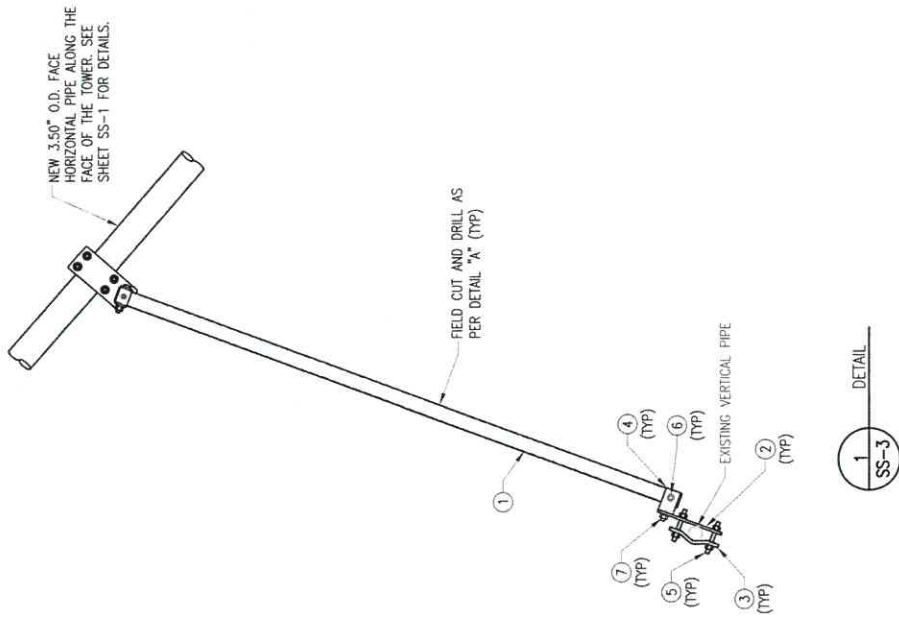
TOWER HEIGHT: 100 FT
TOWER WEIGHT: 1000 LBS
TOWER FOOTING: 1000 LBS

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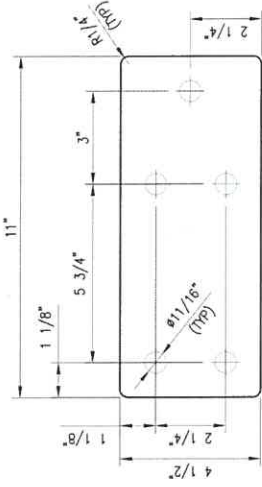
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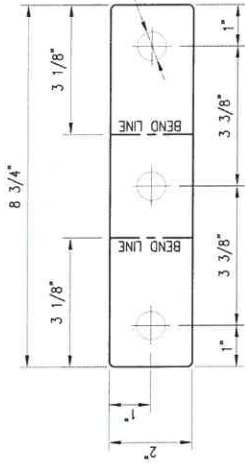


| ITEM NO. | QTY. | PART NO. | DESCRIPTIONS |
|----------|------|-------------|-------------------------|
| 1 | 3 | P40-238X174 | PIPE 2 SCH40 (2.375\"/> |
| 2 | 6 | PL375-4511 | PL 3/8\"/> |

1
SS-3
DETAIL

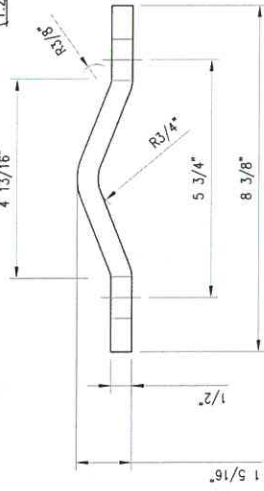


PL 3/8" X 4 1/2" X 11" A36
(3.64 LBS)

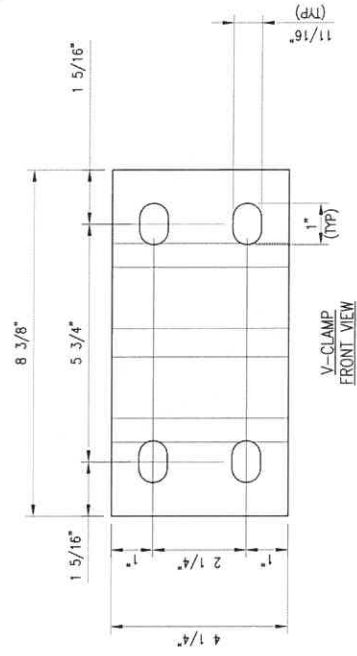


BEFORE BENDING

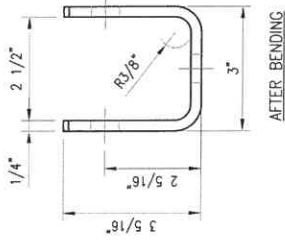
BP2-875
PL 1/4" X 2" X 8 3/4" A36 BENT PLATE
(1.27 LBS)



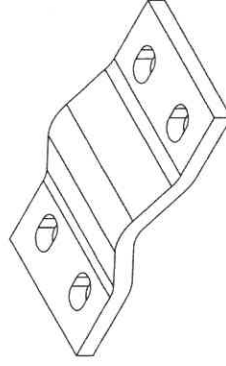
V-CLAMP
TOP VIEW



V-CLAMP
FRONT VIEW



AFTER BENDING



V-CLAMP
ISOMETRIC VIEW

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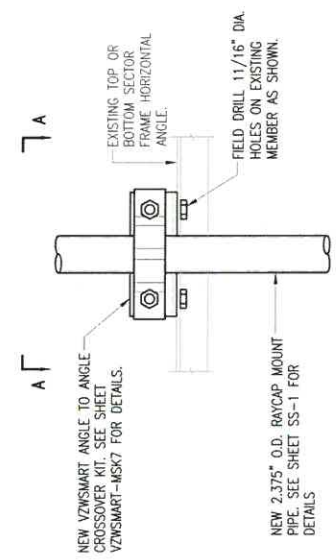
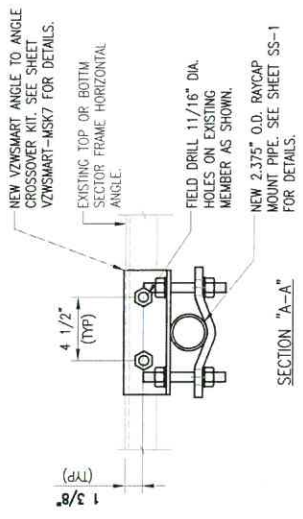
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 IES APPROVED CAPTION: JES
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1
 SS-5
 DETAIL

NOTE:
EXISTING RRIS/EQUIPMENT MAY BE RELOCATED
ALONG THE MEMBER TO ACCOMMODATE THE
INSTALLATION OF NEW MOUNT MODIFICATION

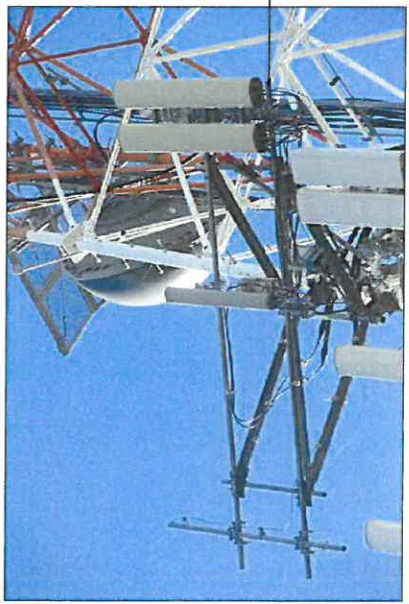


PHOTO 1



PHOTO 2



PHOTO 3



PHOTO 4



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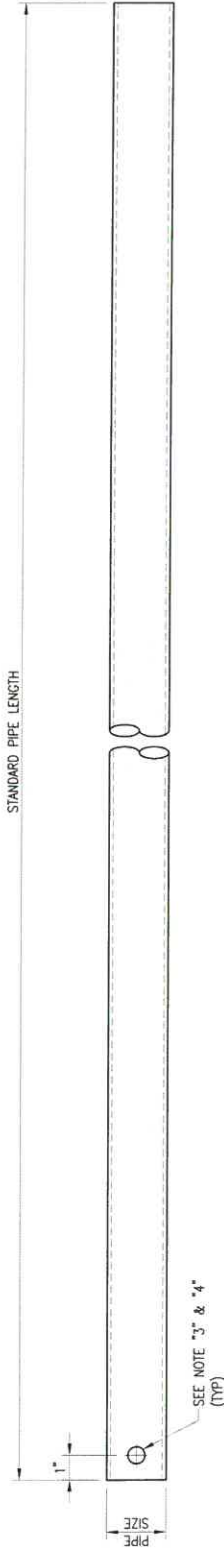
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THE FOLLOWING DRAWINGS ARE INCLUDED FOR REFERENCE ONLY
PLEASE REFER TO THE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION DETAILS



| VZWSMART Standard Pipe | | |
|------------------------|---|--------|
| VZWSMART Number | Size | Length |
| P40-238X048 | PIPE 2 SCH40 (2.375" OD x 0.154" THK) | 48" |
| P40-238X072 | PIPE 2 SCH40 (2.375" OD x 0.154" THK) | 72" |
| P40-238X096 | PIPE 2 SCH40 (2.375" OD x 0.154" THK) | 96" |
| P40-238X120 | PIPE 2 SCH40 (2.375" OD x 0.154" THK) | 120" |
| P40-238X126 | PIPE 2 SCH40 (2.375" OD x 0.154" THK) | 126" |
| P40-238X150 | PIPE 2 SCH40 (2.375" OD x 0.154" THK) | 150" |
| P40-238X174 | PIPE 2 SCH40 (2.375" OD x 0.154" THK) | 174" |
| P40-278X048 | PIPE 2.5 SCH40 (2.875" OD x 0.203" THK) | 48" |
| P40-278X072 | PIPE 2.5 SCH40 (2.875" OD x 0.203" THK) | 72" |
| P40-278X096 | PIPE 2.5 SCH40 (2.875" OD x 0.203" THK) | 96" |
| P40-278X120 | PIPE 2.5 SCH40 (2.875" OD x 0.203" THK) | 120" |
| P40-278X126 | PIPE 2.5 SCH40 (2.875" OD x 0.203" THK) | 126" |
| P40-278X150 | PIPE 2.5 SCH40 (2.875" OD x 0.203" THK) | 150" |
| P40-278X174 | PIPE 2.5 SCH40 (2.875" OD x 0.203" THK) | 174" |
| P40-312X048 | PIPE 3 SCH40 (3.5" OD x 0.216" THK) | 48" |
| P40-312X072 | PIPE 3 SCH40 (3.5" OD x 0.216" THK) | 72" |
| P40-312X126 | PIPE 3 SCH40 (3.5" OD x 0.216" THK) | 126" |
| P40-312X150 | PIPE 3 SCH40 (3.5" OD x 0.216" THK) | 150" |

NOTE:
 APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION
 PIPES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE.
 SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

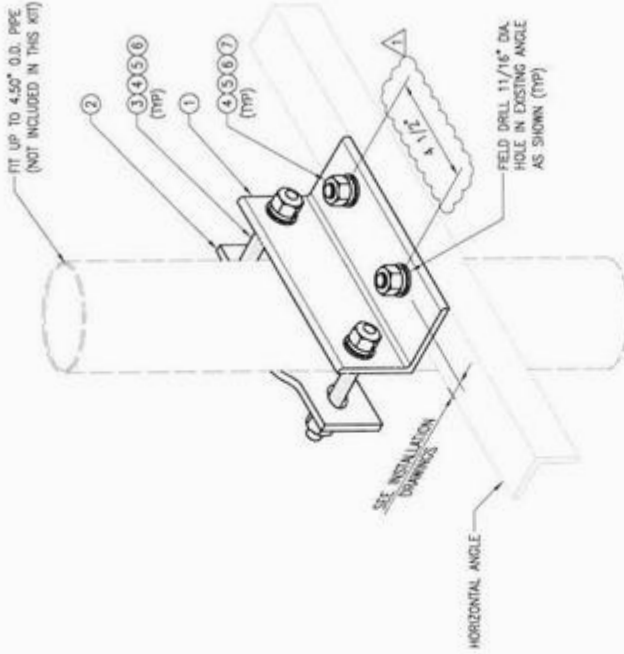
NOTES:
 1 ALL DIMS CORRE AS SHOWN ON SHEET

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| 4 | |
| SHEET TITLE: | |

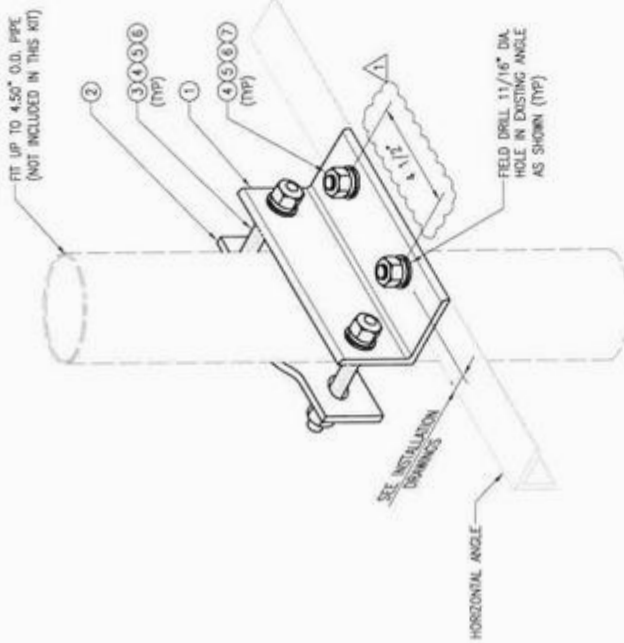
VZWSMART
 STANDARD PIPE



| | |
|---------------|--|
| DATE BY: DA | CHECKED BY: BT/WK |
| REV | DESCRIPTION |
| BY: SKT | DATE: 05/06/20 |
| LAST ISSUE | BY: 06/29/21 |
| NO. OF ISSUES | |
| NO. OF SHEETS | |
| SHEET TITLE | VZWSMART-MSK7 ANGLE TO ANGLE CROSSOVER KIT |
| SHEET NUMBER | REV # |
| VZWSMART-MSK7 | 1 |



OPTION 2



OPTION 1

ANGLE TO ANGLE CROSSOVER KIT

| ITEM NO. | QTY. | PART NO. | DESCRIPTION | SHEET # | WT |
|----------|------|-----------|--|---------------|------|
| 1 | 1 | L3325-0.7 | 1. 3" X 3" X 1/4" X 0"-8" A36 | MSK7-F2 | 3.33 |
| 2 | 1 | HCP | PL 1/2" X 2" X 6 5/8" A36 BENT PLATE | MSK7-F1 | 2.4 |
| 3 | 2 | --- | BOLT 5/8" DIA. X 6" FULL THREAD SAE GR 5 | --- | --- |
| 4 | 4 | NUT-625 | 5/8" HOG HEX NUT | --- | 0 |
| 5 | 6 | FW-625 | 5/8" HOG USS FLAT WASHER | --- | 0 |
| 6 | 4 | LW-625 | 5/8" HOG LOCK WASHER | --- | 0 |
| 7 | 2 | --- | BOLT 5/8" X 2" A325 | --- | 0 |
| | | | | GALVANIZED WT | 7 |

- NOTES:
 1. HOT-DIPPED GALVANIZED PER ASTM A123.
 2. USE PROVIDED ADDITIONAL FLAT WASHERS FOR CONNECTING TO 3/16" THICK HORIZONTAL ANGLE

ATTACHMENT B-6

Equipment Compound and Antenna Facilities

Equipment Compound and Shelter: 11'-8" x 16' area identified as the Licensee's Shelter on Attachment A-2(C) and A-3.

Antenna Facilities:

Type: (6) Amphenol CWWX063X25G00 Antennas
(3) Amphenol W85-19-X28-T2-1920 Antennas
(3) Samsung L-SUB 6 MT6407-77A Antennas
(3) B2/B66A RRH BR049
(3) B5/B13 RRH BR04C
(1) 12-OVP Tower
(2) 6-OVP Tower
(2) 6-OVP Shelter
(3) Amphenol MKS09T07TWIN mounts

Centerline Height: 121-124'

Cables: (6) 1-5/8" Coax Cables
(1) 12 x 24 Hybriflex Cable
(2) 6 x 12 Hybriflex Cables
(3) 1/4" Homerun RET Cables

Fiber Junction Box and 4" Fiber Conduit