

Land Use Application

Applicant(s): Amanda Nations, Crown Castle on behalf of T-Mobile Property Owner(s): Lee Strom

Mailing Address: 1505 Westlake Ave N, Suite 800
Seattle, WA 98109

Mailing Address: 9603 47TH AVE SW
Seattle, WA 98136

Phone: 206-336-2889

Phone:

Email: amanda.nations.contractor@crowncastle.com

Email:

Location of property:

Township: 3N

Range: 11E

Parcel address:

Section & Qtr. Section: NW 1/4 of Section 28

County:

Tax Lot No(s): 03112853000200

Parcel Size (acres): 5.14

Existing use of parcel: wireless telecommunications

Use of adjacent parcels: vacant, residential

Project description: This should include all proposed activities and details on size, height, exterior colors, and construction materials of proposed structures. Any areas of ground disturbance and landscaping details should also be described. It is important to describe all aspects of your project so that you may gain approval for all of the development activities you plan to do.

Replace (4) panel antennas with (2) panel antennas; replace antenna mounts; remove (4) TMAs; add (4) RRUs.

Replace (2) cabinets within existing ground lease area.

TRANSMISSION CANNOT EXCEED 23GHz PER EASEMENT AGREEMENT. 15

Application checklist: The following is required to complete your application:

- ☐ Application form completed and signed
- ☐ Site plan
- ☐ Key viewing areas checklist, elevation drawings, and landscape details, if required
- ☐ Names and addresses of adjacent property owners, if required
- ☐ Any additional information as required

Signature of the property owner(s) indicates that the property owner(s) is/are aware that an application is being made on the subject property. Signature of the property owner(s) also authorizes the Gorge Commission or the Commission's designee(s) reasonable access to the site in order to evaluate the application.

Applicant(s) signature:

date



date

7/8/2019

Property owner(s) signature:

date



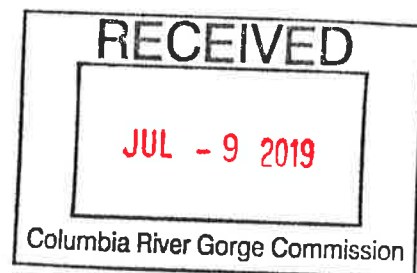
date

7/3/19



1505 Westlake Ave N
Seattle, WA 98109

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www.crowncastle.com



July 8, 2019

COLUMBIA RIVER GORGE COMMISSION
57 Wauna Ave
White Salmon, WA 98672

RE: Eligible Facilities Request to modify equipment on a communications tower located at:
Burdoin Mountain, White Salmon, WA, 98672
Crown Site Number: 829066 / Crown Site Name: White Salmon
Customer Site Number: PO02423A / Application Number: 439434

Crown Castle USA Inc. ("Crown Castle") on behalf of T-Mobile West LLC ("T-Mobile") is submitting the attached Eligible Facilities Request application to modify transmission equipment on a telecommunications tower located at Burdoin Mountain, White Salmon, WA 98672 in COUNTY OF KLIKITAT, WA (the "White Salmon Tower").

Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, commonly known as the "Spectrum Act" (Pub. Law No. 112-96, 126 Stat 156), mandates that state and local governments "may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station."

T-Mobile proposes to modify the "White Salmon Tower" as follows: **Replace (4) panel antennas with (2) panel antennas; replace antenna mounts; remove (4) TMAs; add (4) RRUs. Replace (2) cabinets within existing ground lease area.**

Itemized list of submittal documents:

- Cover Letter and Certification of Non-Substantial Changes
- Land Use Application
- Site plan (2)
- Construction drawings, stamped and signed by a Washington State-registered engineer (2)
- 47 CFR § 1.40001 (for reference)

T-Mobile is committed to working cooperatively with all jurisdictions around the country to secure expeditious approval of requests to modify existing personal wireless service facilities. If you should require more information regarding the Spectrum Act, please do not hesitate to contact me with your questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Amanda Nations'. Below the signature, the name 'Amanda Nations' is printed in a small, black, sans-serif font.

Amanda.Nations.Contractor@crowncastle.com
(206) 336-2889

The Foundation for a Wireless World.
CrownCastle.com

**ELIGIBLE FACILITIES REQUEST CERTIFICATION FOR NON-SUBSTANTIAL
CHANGES
TO A WIRELESS TOWER NOT LOCATED WITHIN A PUBLIC RIGHT OF WAY**

1) Address of the Wireless Tower: NW 1/4 of Section 28, Township 3N, Range 11 East,
Willamette Meridian, Klickitat County, WA

2) The height (measured in feet above ground level) of the existing Tower as originally
approved, including any modifications approved prior to February 22, 2012: 64'-7"

3) What is the height (measured in feet above ground level) at which the modifications to the
Transmission Equipment will occur on the Tower? 57'-0"

4. What will be the height (measured in feet above ground level) of the existing Tower after the
modifications to the Transmission Equipment are installed? 64'-7"

5) Effect of modifications of Transmission Equipment on Tower height:

(A) Will the modifications in Transmission Equipment (addition, removal or replacement of
Transmission Equipment) result in increasing the height above ground level of the
existing Tower?

☐ Yes ☒ No

(B) Will the modifications in Transmission Equipment result in increasing the height above
ground level of the existing Tower by more than: (i) 10% of the height of the existing
Tower, as originally approved, including any modifications approved prior to February
22, 2012; or (ii) twenty feet above the height of the existing Tower, as originally
approved, including any modifications approved prior to February 22, 2012, whichever
height increase is greater?

☐ Yes ☒ No

6) Will the modifications in Transmission Equipment (measured at the height above ground level
where the Transmission Equipment will be attached to the tower) result in any Transmission
Equipment protruding horizontally from the edge of tower by more than twenty (20) feet or by
more than the existing width of the tower at that height, whichever of these dimensions is
greater?

☐ Yes ☒ No

7) Will the proposed changes in Transmission Equipment involve excavation or placement of
new equipment outside the existing Tower site or outside any access or utility easements
currently related to the site?

☐ Yes ☒ No

8) Will the proposed modification in Transmission Equipment involve installation of more than
the standard number of new equipment cabinets for the technology involved, but not to exceed
four?

☐ Yes ☒ No

9) Will the proposed modification in Transmission Equipment defeat the existing concealment elements of the Tower?

☐ Yes ☒ No

(10) Prior Conditions of Approval

(A) Will the proposed modification in Transmission Equipment comply with conditions of approval imposed on the Tower prior to February 22, 2012?

☒ Yes ☐ No

(B) If the answer to 10(A) is "No," is the non-compliance due solely to any of the conditions addressed in questions 5-9 above?

☐ Yes ☐ No

If the answer to either question 5A or 5B is "No", and the answers to questions 6-9 are "No", and the answer to either 10A or B is "Yes" then the proposed modifications do not substantially change the physical dimensions of the existing Tower. Please provide a brief explanation, if necessary, to clarify any answer.

Explanatory Comments (If Needed):

Question No. _____

Comment:

This certification is dated this 8th day of July, 2019.


Signature

Amanda Nations, Real Estate Specialist

Name & Title



PO02423A_WHITE SALMON_L600_CD_CCI_07-11-2018

SITE NAME: WHITE SALMON

SITE NUMBER: PO02423A

CROWN CASTLE BU #: 829066, APP #: 439434

BURDOIN MOUNTAIN

WHITE SALMON, WA 98672



12920 SE 38TH ST
BELLEVUE, WA 98006



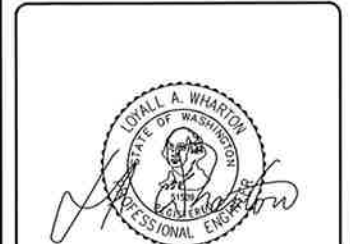
1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109



1387 CALLE AVANZADO
SAN CLEMENTE CA 92673 (949) 391-6824

DRAWN BY: JAC
CHECKED BY: MM

REV	DATE	DESCRIPTION	BY
2	05/13/2019	100% CD'S FOR SUBMITTAL	CP
1	08/07/2018	100% CD'S FOR REVIEW	DAM
0	07/11/2018	90% CD'S FOR REVIEW	JAC



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

CROWN CASTLE SITE ID: 829066
WHITE SALMON
BURDOIN MOUNTAIN
WHITE SALMON, WA 98672
MONOPOLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

SITE INFORMATION

PROPERTY OWNER: STORM, LEE
9603 47TH AVE SW
SEATTLE, WA 98136

TOWER OWNER: CROWN CASTLE
8547 154TH AVE NE
REDMOND, WA 98052

APPLICANT: T-MOBILE
ADDRESS: 8960 ALDERWOOD RD
PORTLAND, OR 97220

LAT/LONG TYPE: NAD-83

LATITUDE: 45° 43' 18.899" N

LONGITUDE: -121° 26' 18.20" W

ZONING JURISDICTION: KLIKITAT COUNTY

ZONING CLASSIFICATION: OS - OPEN SPACE

CURRENT USE: UNMANNED TELECOMMUNICATIONS FACILITY

ASSESSOR'S PARCEL NO.: 03112953000200

PROPOSED USE: UNMANNED TELECOMMUNICATIONS FACILITY

TYPE OF CONSTRUCTION: V-B

OCCUPANCY GROUP: U-2

LEGAL DESCRIPTION: TRACT 2 SP 79-24 IN NW 1/4, 28-3-11

VICINITY MAP



DRIVING DIRECTIONS

DIRECTIONS FROM PORTLAND INTERNATIONAL AIRPORT:

1. HEAD NORTHWEST ON NE AIRPORT WAY
2. TURN RIGHT ONTO THE INTERSTATE 205 S RAMP TO INTERSTATE 84/PORTLAND/SALEM
3. TAKE EXIT 64 FOR MT HOOD HWY TOWARD OR-35/WHITE SALMON/GOVT. CAMP
4. TURN LEFT ONTO BUTTON BRIDGE RD/MT HOOD HWY
5. CONTINUE ONTO HOOD RIVER BRIDGE
6. TURN LEFT ONTO WA-14 W
7. TURN RIGHT ONTO DOCK GRADE RD
8. TURN LEFT ONTO E JEWETT BLVD
9. TURN RIGHT ONTO N MAIN AVE
10. SLIGHT RIGHT ONTO SNOWDEN RD
11. TURN RIGHT ONTO BATES RD
12. TURN RIGHT ONTO TUNNEL RD
13. TURN RIGHT ONTO RAMSAY LN
14. TURN RIGHT ONTO CRESTVIEW LN
15. TURN LEFT ONTO DIRT ROAD
16. FOLLOW PATH TO DESTINATION

PROJECT DESCRIPTION

T-MOBILE PROPOSES TO MODIFY AN EXISTING WIRELESS INSTALLATION. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- REMOVE (4) EXISTING T-MOBILE PANEL ANTENNAS
- REMOVE (4) EXISTING T-MOBILE TMA'S
- REMOVE (2) EXISTING T-MOBILE CHAIN MOUNTS
- REMOVE (2) EXISTING T-MOBILE SECTOR FRAME MOUNTS
- REMOVE (1) EXISTING T-MOBILE ULTRASITE CABINET
- REMOVE (1) EXISTING T-MOBILE RADIO CHAIR @ EQUIPMENT LEVEL
- INSTALL (2) NEW T-MOBILE PANEL ANTENNAS
- INSTALL (1) NEW T-MOBILE SITE PRO UWSB-NP MOUNTS
- INSTALL (2) NEW T-MOBILE AHLOA @ ANTENNA LEVEL
- INSTALL (2) NEW T-MOBILE EXFO @ ANTENNA LEVEL
- INSTALL (1) NEW T-MOBILE COVP @ ANTENNA LEVEL
- INSTALL (1) NEW T-MOBILE HYBRID LINE
- INSTALL (2) NEW T-MOBILE FDOA CABINET @ EQUIPMENT LEVEL
- INSTALL (2) NEW T-MOBILE ABIA UNITS @ EQUIPMENT LEVEL
- INSTALL (1) NEW T-MOBILE ABIA UNIT @ EQUIPMENT LEVEL
- INSTALL (1) NEW T-MOBILE ABIL UNIT @ EQUIPMENT LEVEL
- INSTALL (1) NEW T-MOBILE ASIK UNIT @ EQUIPMENT LEVEL
- INSTALL (2) NEW T-MOBILE AMOB UNITS @ EQUIPMENT LEVEL
- INSTALL (1) NEW T-MOBILE COVP @ EQUIPMENT LEVEL
- INSTALL (1) NEW T-MOBILE 400A POWER PLANT UPGRADE IN (E) CABINET
- INSTALL (1) NEW T-MOBILE LED LIGHT W/ TIMER SWITCH @ EQUIPMENT LEVEL
- NO NEW ELECTRICAL WORK OR BATTERIES ARE TO BE INSTALLED ON THIS PROJECT.
- DESIGN PACKAGE BASED ON APP # 439434, DATED 06/21/2018, REV. 0 AND RFDS # PO02423A_L600_2.2, DATED 06/11/2018, VERSION: 2.2.
- STRUCTURAL ANALYSIS: BY OTHERS.
- MOUNT ANALYSIS: BY OTHERS.

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS NEW.

ENGINEERING

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

- 2015 INTERNATIONAL BUILDING CODE
- 2015 FIRE CODE
- CITY/COUNTY ORDINANCES
- 2015 PLUMBING CODE
- BUILDING OFFICIALS & CODE
- 2015 ELECTRICAL CODE
- ADMINISTRATORS (BOCA)
- LOCAL BUILDING CODE
- 2015 MECHANICAL CODE

DO NOT SCALE DRAWINGS

SUBCONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



Know what's below.
Call before you dig.

Call THREE Working Days Before You Dig!
811 / 800-424-5555
WASHINGTON811.COM

CONSTRUCTION DRAWING

IF USING 11"X17" PLOT, DRAWINGS WILL BE HALF SCALE

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
GN-1	GENERAL NOTES
A-1	SITE PLAN & ENLARGED SITE PLAN
A-2	EQUIPMENT LAYOUT
A-3	ANTENNA LAYOUT
A-4	ELEVATIONS
D-1	DETAILS
D-2	DETAILS
G-1	GROUNDING DETAILS
RF-1	CABLE LINE DIAGRAM

APPROVALS

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
PROJECT MANAGER:			
T-MOBILE RF ENGINEER:			
SITE ACQUISITION:			
CONSTRUCTION MANAGER:			
SITE OWNER:			
T-MOBILE DEVELOPMENT MANAGER:			
T-MOBILE CONSTRUCTION MANAGER:			
T-MOBILE OPS MANAGER:			
T-MOBILE REGULATORY REVIEW:			
T-MOBILE PROJECT MANAGER:			

3. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO: A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, D) TRENCHING AND EXCAVATION.
3. ALL SITE WORK COMPLY WITH QHQAAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE TOWER SITE" AND LATEST VERSION OF TIA 1019 "STANDARD FOR INSTALLATION, ALTERNATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS".
4. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS.
5. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
6. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
7. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.
8. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
9. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND, FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
10. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
11. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE PROJECT SPECIFICATIONS.
12. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
13. NOTICE TO PROCEED - NO WORK TO COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF A PURCHASE ORDER.
14. ALL CONSTRUCTION MEANS AND METHODS: INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA 1019 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-1019 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.

1. ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.
2. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4" Ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
3. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" Ø ASTM A307 BOLTS UNLESS NOTED OTHERWISE.
4. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S RECOMMENDED PROCEDURE, THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS.

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 338, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. SLAB FOUNDATION DESIGN ASSUMING ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

CONCRETE CAST AGAINST EARTH.....3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:
 #6 AND LARGER.....2 IN.
 #5 AND SMALLER & WWF.....1 1/2 IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
 SLABS AND WALLS.....3/4 IN.
 BEAMS AND COLUMNS.....1 1/2 IN.
5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

1. HOLLOW CONCRETE MASONRY UNITS SHALL MEET A S.T.M. SPECIFICATION C90, GRADE N, TYPE 1. THE SPECIFIED DESIGN COMPRESSIVE STRENGTH OF CONCRETE MASONRY (F' m) SHALL BE 1500 PSI.
2. MORTAR SHALL MEET THE PROPERTY SPECIFICATION OF A S.T.M. C270 TYP. "S" MORTAR AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
3. GROUT SHALL MEET A S.T.M. SPECIFICATION C475 AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI.
4. CONCRETE MASONRY SHALL BE LAID IN RUNNING (COMMON) BOND.
5. WALL SHALL RECEIVE TEMPORARY BRACING. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL GROUT IS FULLY CURED.

FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR -	GENERAL CONTRACTOR (CONSTRUCTION)
SUBCONTRACTOR -	T-MOBILE
CARRIER -	CROWN CASTLE
TOWER OWNER -	ORIGINAL EQUIPMENT MANUFACTURER
OEM -	

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR AND CROWN CASTLE.

3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

4. DRAWINGS PROVIDED HERE ARE NOT TO SCALE AND ARE INTENDED TO SHOW OUTLINE ONLY.

5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR, ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.

7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

8. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS.

10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

3. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC. HILTI EPOXY ANCHORS ARE REQUIRED BY CROWN CASTLE.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
5. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
6. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING AND TI CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT IDS).
8. PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
9. ALL THE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. POWER, CONTROL AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2 CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION CLASS B STRANDED CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION WITH OUTER JACKET LISTED OR LABELED FOR THE LOCATION USED UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSII/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90S AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSII/IEEE AND NEC.

4. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BOUNDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
5. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
6. THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
7. 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.
8. METAL RACEWAY SHALL NOT BE USED AS THE ENEC 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.
9. EACH 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 SOLID TINNED COPPER FOR OUTDOOR BTS.
10. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
11. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
12. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
13. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
14. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
15. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
16. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
17. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
18. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
19. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
20. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
21. BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
22. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS, WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS. NON-METALLIC USE OF METAL SHALL BE UNAVOIDABLE (E.G. NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
23. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 TINNED SOLID IN 3/4" LIQUID TIGHT CONDUIT FROM 24" THE EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

AGL	ABOVE GRADE LEVEL
(E)	EXISTING
MIN.	MINIMUM
TYP.	TYPICAL
AWG	AMERICAN WIRE GAUGE
GEN	GENERATOR
RBS	RADIO BASE STATION
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING

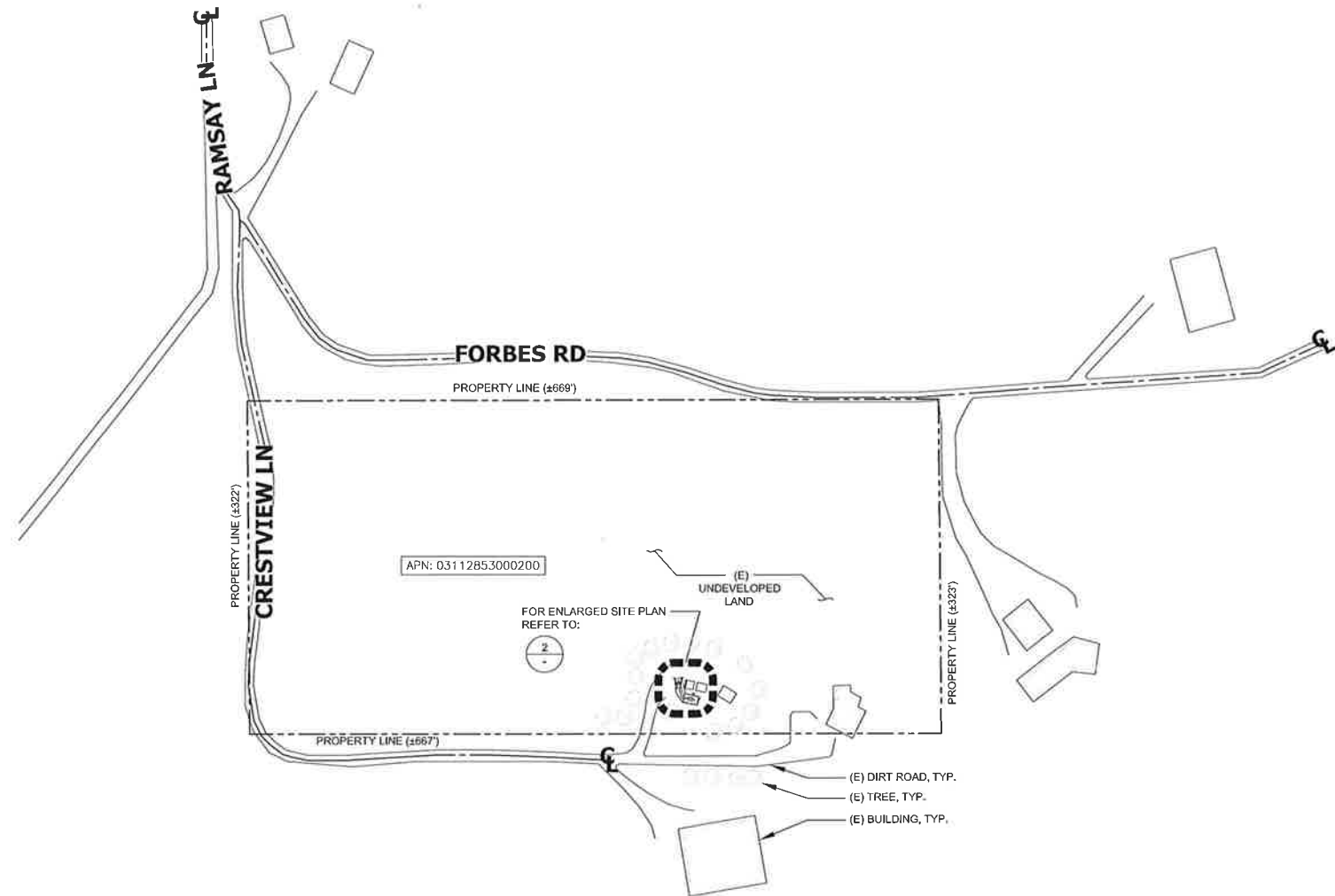


NOTES:

1. THE WIRELESS COMMUNICATION FACILITY COMPLIES WITH FEDERAL STANDARDS FOR RADIO FREQUENCY IN ACCORDANCE WITH THE TELECOMMUNICATION ACT OF 1996 AND SUBSEQUENT AMENDMENTS AND ANY OTHER REQUIREMENTS IMPOSED BY STATE OR FEDERAL REGULATORY AGENCIES.
2. NO EXISTING PARKING STALLS ARE BEING ADDED OR REMOVED AS PART OF THE NEW INSTALLATION.
3. THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, SETBACKS, AND EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION.

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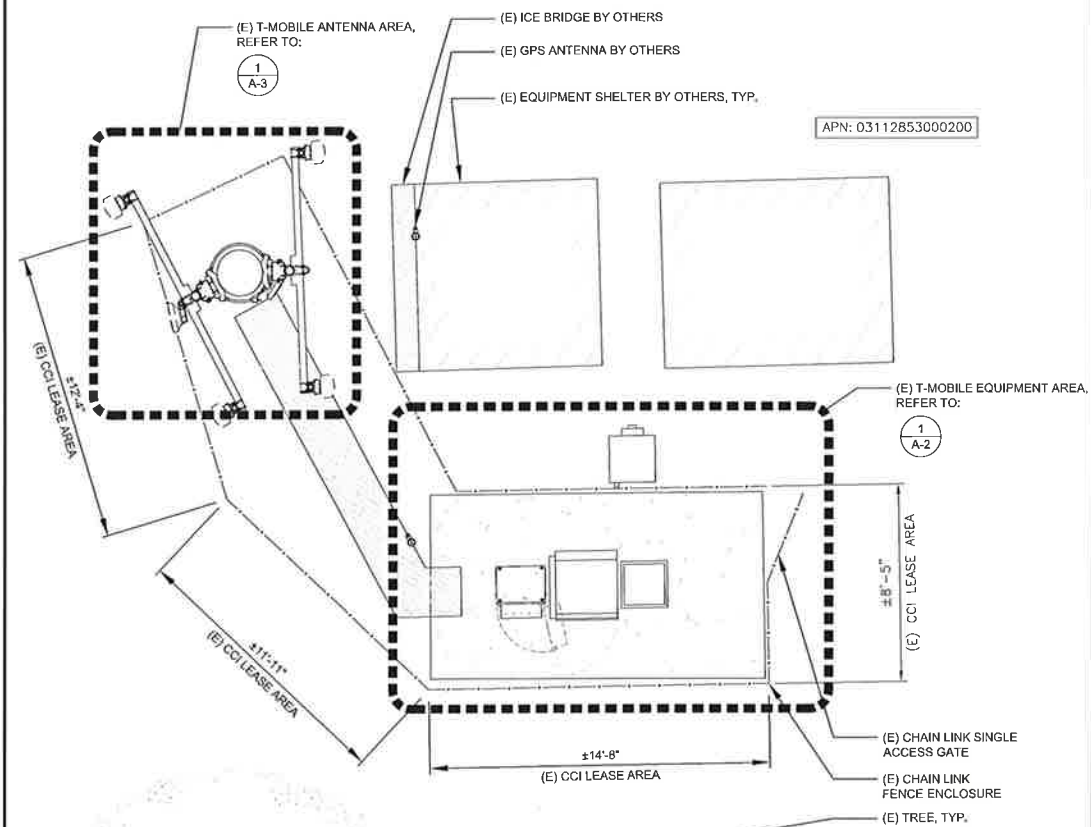
SITE PLAN

24"x36" SCALE: 1" = 80'-0"
11"x17" SCALE: 1" = 160'-0"



1

ENLARGED SITE PLAN



24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"



2

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CROWN CASTLE

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SEATTLE, WA 98109

M SQUARE WIRELESS

1387 CALLE AVANZADO
SAN CLEMENTE CA 92673 (949) 391-6824

DRAWN BY: JAC

CHECKED BY: MM

REV	DATE	DESCRIPTION	BY
2	05/13/2019	100% CD'S FOR SUBMITTAL	CP
1	08/07/2018	100% CD'S FOR REVIEW	DAM
0	07/11/2018	90% CD'S FOR REVIEW	JAC



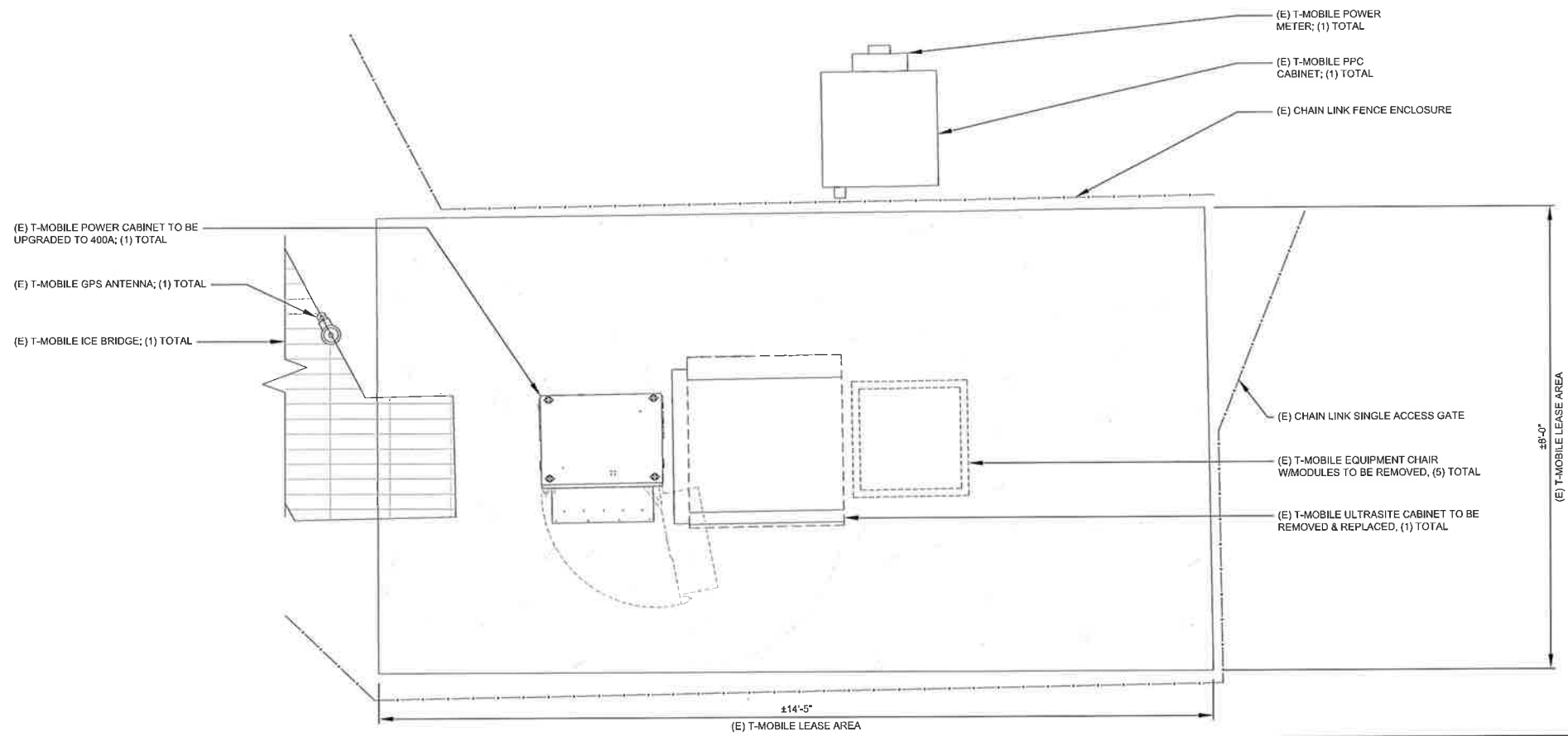
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CROWN CASTLE SITE ID: 829066
WHITE SALMON
BURDOIN MOUNTAIN
WHITE SALMON, WA 98672
MONOPOLE

SHEET TITLE
**SITE PLAN AND
ENLARGED SITE PLAN**

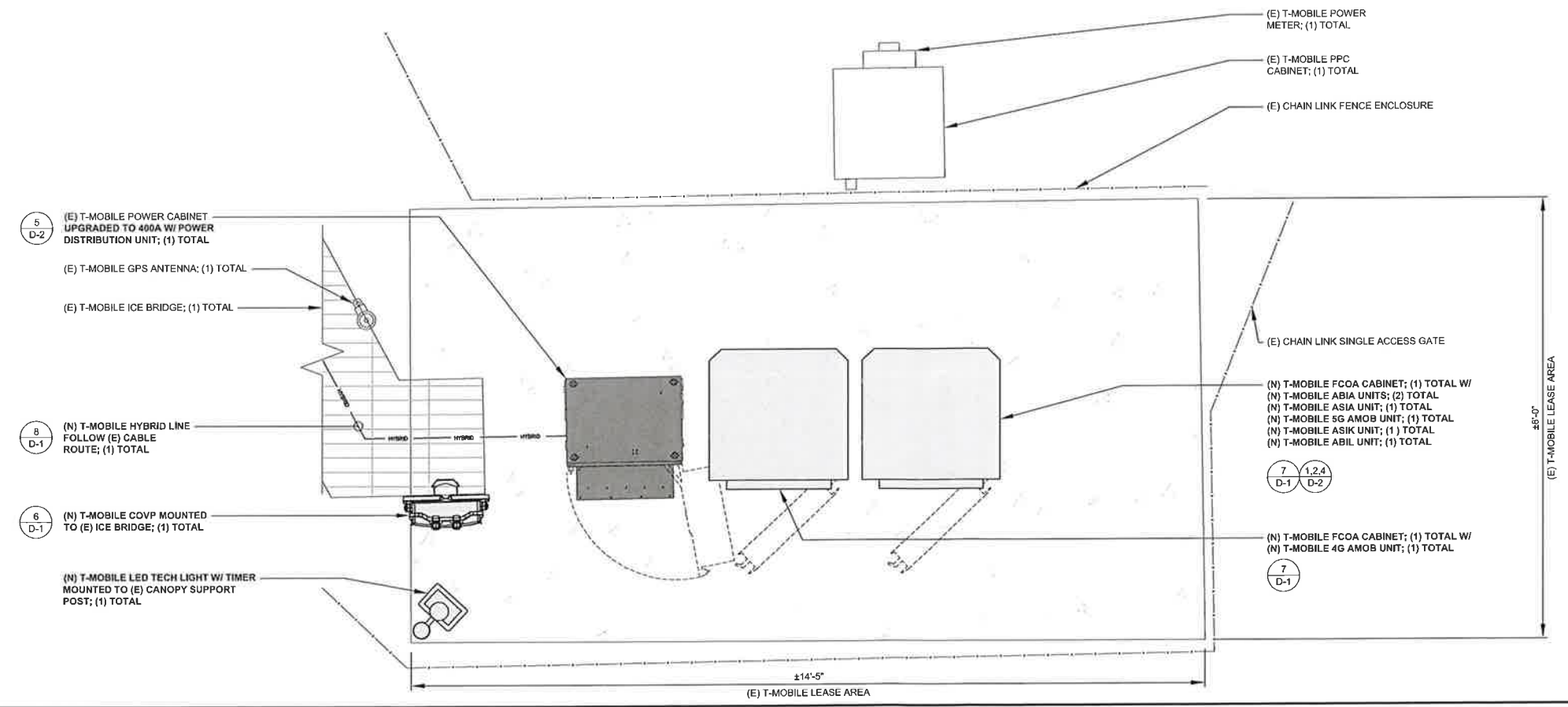
SHEET NUMBER

A-1



EXISTING EQUIPMENT LAYOUT

24"x36" SCALE: 3/4" = 1'-0"
11"x17" SCALE: 3/8" = 1'-0"



NEW EQUIPMENT LAYOUT

24"x36" SCALE: 3/4" = 1'-0"
11"x17" SCALE: 3/8" = 1'-0"

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CROWN CASTLE SITE ID: 829066
WHITE SALMON
BURDOIN MOUNTAIN
WHITE SALMON, WA 98672
MONOPOLE

SHEET TITLE
EQUIPMENT LAYOUT

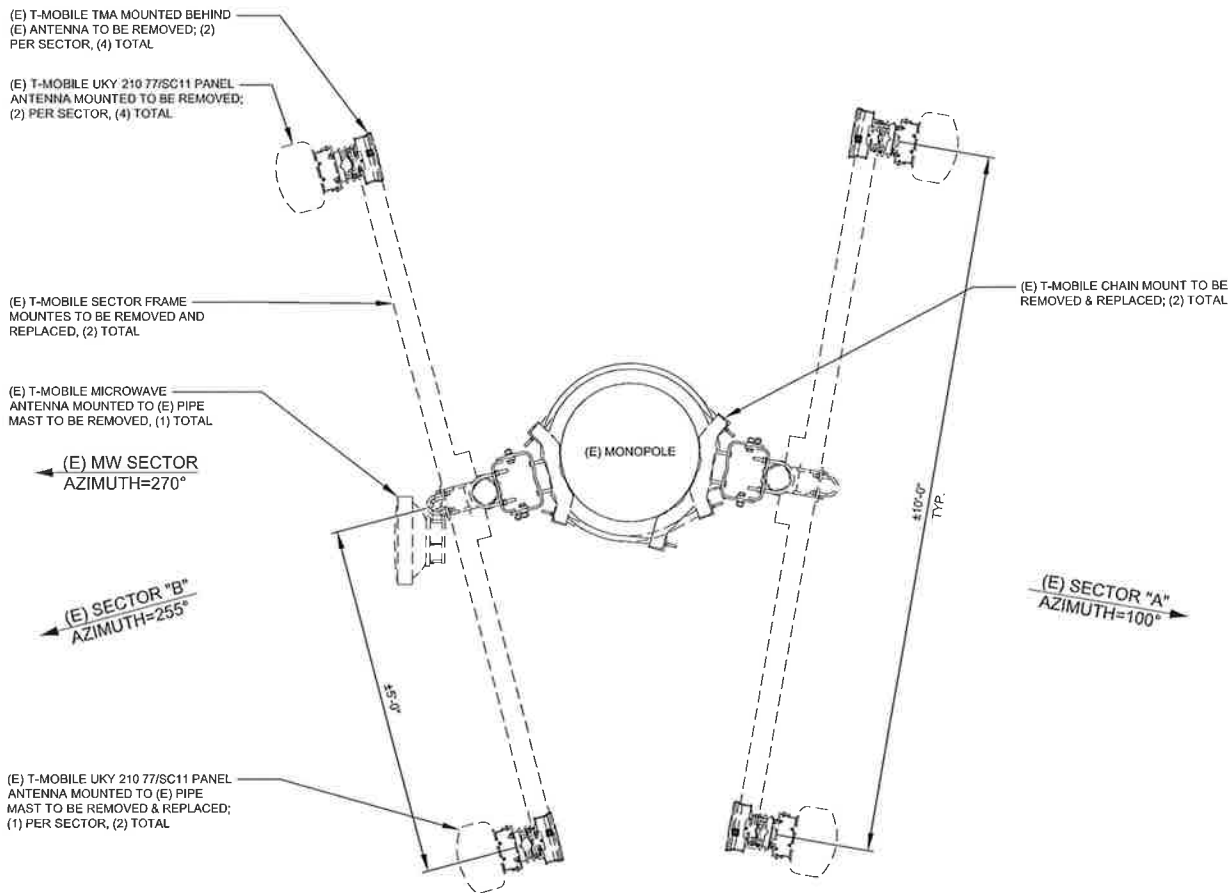
SHEET NUMBER
A-2

NEW OPTIMAL ANTENNA REQUIREMENTS (VERIFY WITH CURRENT RFDS)			ANTENNA MAKE AND MODEL		RAD CENTER		AZIMUTH		TRANSMISSION LINE			
			EXISTING	FINAL	EXISTING	NEW	EXISTING	NEW	CABLE LENGTH	CABLE QTY.	FEEDER TYPE	
SECTOR A	1	100/70/100/5100/100	1	DECIBEL - 980H90-M (SINGLE)	(N) COMMSCOPE FFHH-65C-R3 (OCTA)	57'-0"	57'-0"	100'	100'	±125'	1	(N) HYBRID
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	DECIBEL - 980H90-M (SINGLE)	-	57'-0"	-	100'	-	±68'	1	(E) COAX
	4	-	-	-	-	-	-	-	-	-	-	-
SECTOR B	1	100/70/100/5100/100	1	DECIBEL - 980H90-M (SINGLE)	(N) COMMSCOPE FFHH-65C-R3 (OCTA)	57'-0"	57'-0"	255'	255'	±68'	1	(E) COAX
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	DECIBEL - 980H90-M (SINGLE)	-	57'-0"	-	255'	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	-	-
SECTOR C	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	-	-
MICROWAVE	1	MW	1	ERICSSON UKY 210 77/SC11	(N) RFS CELWAVE SB1-220AMPT	57'-0"	57'-0"	270'	135'	±68'	1	(E) COAX
	2	MW	1	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	-	-

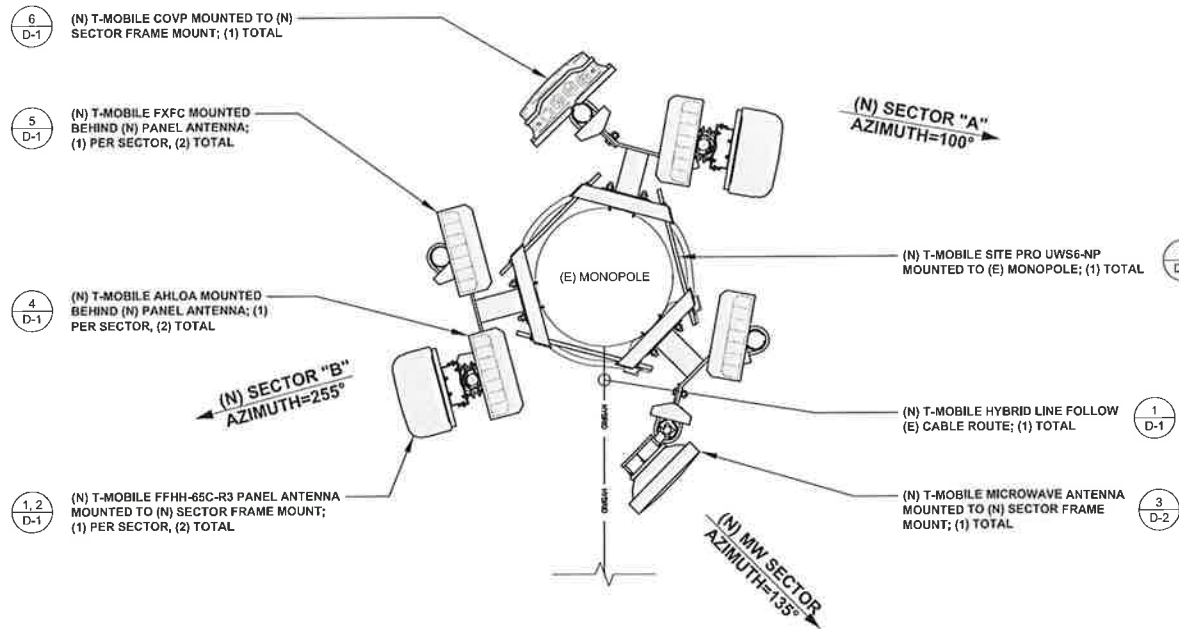
- NOTES TO CONTRACTOR:
- CONTRACTOR IS TO REFER TO T-MOBILE'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION
 - CABLE LENGTHS WERE DETERMINED BASED ON VISUAL INSPECTION DURING SITE-WALK. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK
 - CONTRACTOR TO VERIFY PORTS HAVE SUFFICIENT ROOM
- NOTE:
- (E) ANTENNA AZIMUTHS ARE ESTIMATED AND ARE TO BE VERIFIED BY RF.
 - NEW PANEL ANTENNAS AND ALL MOUNTING HARDWARE TO BE PAINTED TO MATCH EXISTING STRUCTURE IF REQUIRED. VERIFY PAINT MANUFACTURER AND FINISH WITH OWNER

ANTENNA & EQUIPMENT SCHEDULE

- NOTE:
- (E) ANTENNA / EQUIPMENT BY OTHERS NOT SHOW FOR CLARITY, (IF APPLICABLE)



- NOTE:
- CONTRACTOR TO VERIFY APPROVED STRUCTURAL ANALYSIS PRIOR TO INSTALLATION.
 - CONTRACTOR TO VERIFY ANTENNA TECHNOLOGIES PRIOR TO REMOVAL OF ANY ANTENNAS.
 - CONTRACTOR TO SUPPLY WEATHERPROOFING FOR CONNECTIONS.
 - GENERAL CONTRACTOR TO PROVIDE MOUNTS OR ADDITIONAL HARDWARE IF REQUIRED TO SUPPORT PROPOSED ANTENNAS. ALL ANTENNAS & MOUNTING HARDWARE SHALL CONFORM TO DESIGN REQUIREMENTS PER 201 IBC/2013 CBC AND EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.



EXISTING ANTENNA PLAN

24"x36" SCALE: 3/4" = 1'-0"
11"x17" SCALE: 3/8" = 1'-0"

NEW ANTENNA PLAN

24"x36" SCALE: 3/4" = 1'-0"
11"x17" SCALE: 3/8" = 1'-0"

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CROWN CASTLE

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SAN CLEMENTE CA 92673 (949) 391-8824

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CHECKED BY: MM

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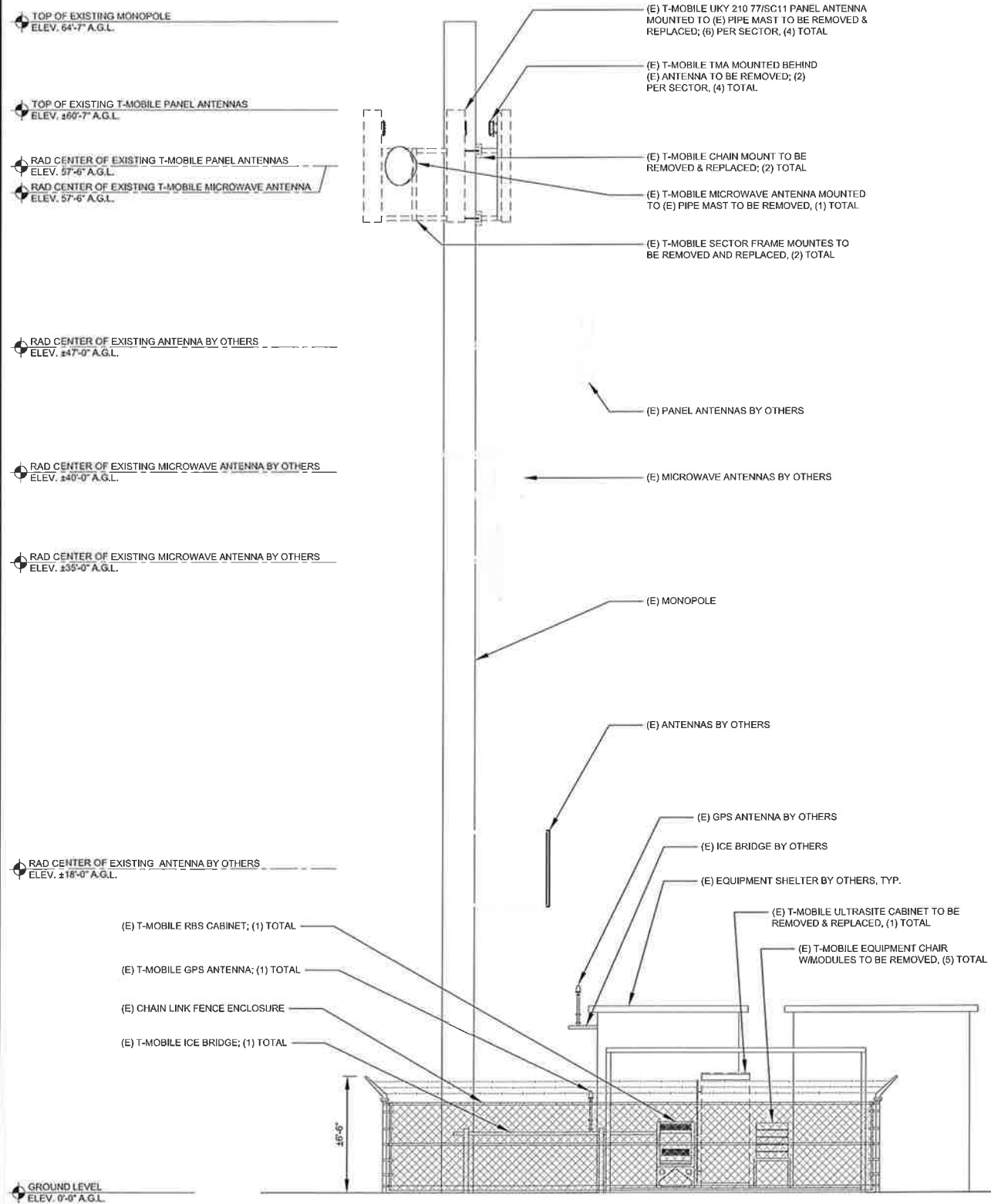
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CROWN CASTLE SITE ID: 829066
WHITE SALMON
BURDOIN MOUNTAIN
WHITE SALMON, WA 98672
MONOPOLE

SHEET TITLE
ANTENNA LAYOUT

SHEET NUMBER

A-3



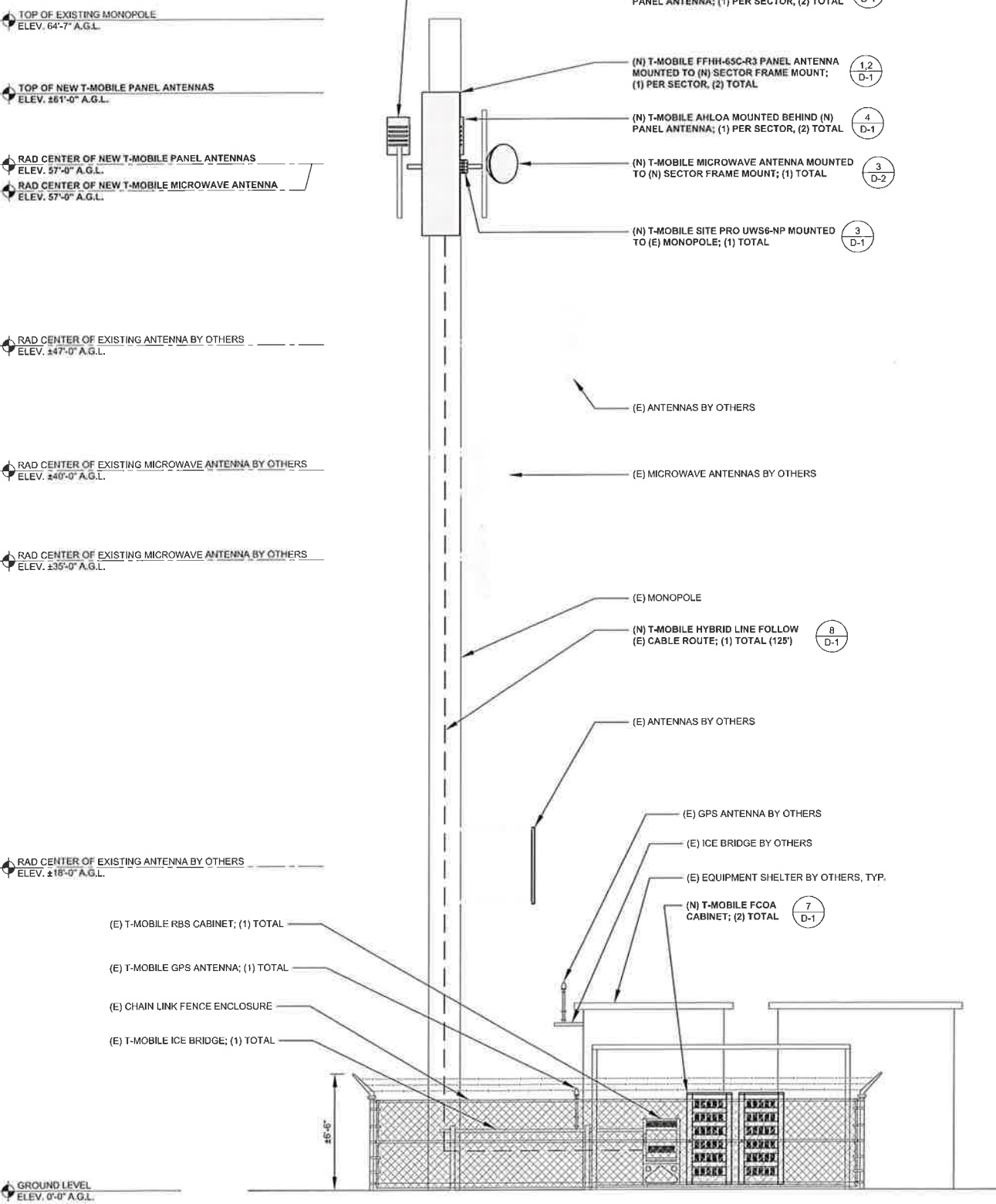
EXISTING SOUTHWEST ELEVATION

24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"

1

NOTE:
1. NEW PANEL ANTENNAS AND ALL MOUNTING HARDWARE TO BE PAINTED TO MATCH EXISTING STRUCTURE IF REQUIRED, VERIFY PAINT MANUFACTURER AND FINISH WITH OWNER.

NOTES:
1. CAPACITY OF EXISTING MONOPOLE TO SUPPORT PROPOSED EQUIPMENT TO BE VERIFIED BY OTHERS
2. CAPACITY OF EXISTING ANTENNA MOUNTS TO SUPPORT PROPOSED EQUIPMENT TO BE VERIFIED BY OTHERS



NEW SOUTHWEST ELEVATION

24"x36" SCALE: 1/4" = 1'-0"
11"x17" SCALE: 1/8" = 1'-0"

2

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SAN CLEMENTE CA 92673 (949) 391-6624

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CROWN CASTLE SITE ID: 829066
WHITE SALMON
BURDOIN MOUNTAIN
WHITE SALMON, WA 98672
MONOPOLE

SHEET TITLE

ELEVATIONS

SHEET NUMBER

A-4

MANUFACTURER:	RAYCAP
MODEL NO.:	RNSNDC-7771-PF-4B
DIMENSIONS:	TOTAL WEIGHT :
A	20.38"
B	18.86"
C	5.83"
±19 LBS	

HYBRID TRUNK IN

POWER & FIBER JUMPER OUT

FRONT VIEW

SIDE VIEW

SITE PRO UWS6-NP
ANTENNA MOUNT - MONOPOLE (14-1/2" STANDOFF)

21-5/8"

14-7/16"

10-3/4" TO 28" MONOPOLE RING MOUNT

PLAN VIEW

ISO VIEW

MANUFACTURER:	COMMSCOPE		
MODEL NO.:	FFHH-65C-R3		
DIMENSIONS:	CONNECTOR TYPE:	TOTAL WEIGHT :	
A	95.9"	(8) 4.3-10 FEMALE	27.6 LBS
B	25.2"	CONNECTOR LOCATION:	
C	9.3"	BOTTOM	

TOP VIEW

FRONT VIEW

SIDE VIEW

RAYCAP COVP RNSNDC-7771-PF-48

24"x36" SCALE: NTS
11"x17" SCALE: NTS

6

STANDOFF BRACKET RING MOUNT

24"x36" SCALE: NTS
11"x17" SCALE: NTS

3

COMMSCOPE FFHH-65C-R3

24"x36" SCALE: NTS
11"x17" SCALE: NTS

1

FCOA CABINET	
HEIGHT (H)	61.0"
WIDTH (W)	30.3"
DEPTH (D)	30.3"
WEIGHT	134.0 LBS.

ORTHO VIEW

FRONT VIEW

SIDE VIEW

AHLOA RADIO MODULE	
HEIGHT (H)	22.1"
WIDTH (W)	12.2"
DEPTH (D)	7.5"
WEIGHT	83.9 LBS.

FRONT VIEW

SIDE VIEW

TOP VIEW

FCOA CABINET

24"x36" SCALE: NTS
11"x17" SCALE: NTS

7

AHLOA

24"x36" SCALE: NTS
11"x17" SCALE: NTS

4

MANUFACTURER:	NOKIA
MODEL NO.:	ASU932STYP01
OUTER DIAMETER (NOMINAL):	1.584"
OPERATING VOLTAGE:	600 V DC
RESISTANCE:	6.7 Ω/ft
NOMINAL CABLE WEIGHT:	1.614 LBS/FT
MIN BENDING RADIUS:	19"IN

SINGLE MODE FIBER X 36

6 AWG COPPER CONDUCTOR X 10

CORRUGATED COPPER ARMOR

PVC OUTER JACKET

RIP CORD X 2

18 AWG COPPER CONDUCTOR X 2

CROSS SECTION

MANUFACTURER:	NOKIA
MODEL NO.:	FLEX1 RRH 41ARB7 X (600) 160WFH0A
DIMENSIONS:	TOTAL WEIGHT :
A	22.1"
B	19.4"
C	5.2"
±55.1 LBS	

FRONT VIEW

SIDE VIEW

ARMORED TRUNK HYBRID CABLE

24"x36" SCALE: NTS
11"x17" SCALE: NTS

8

NOKIA FXFC

24"x36" SCALE: NTS
11"x17" SCALE: NTS

5

ANTENNA MOUNTING DETAIL

24"x36" SCALE: NTS
11"x17" SCALE: NTS

2

MAXIMUM TORQUE	
M8	15N.m (11FT.LBS)
M10	37N.m (27FT.LBS)
M12	58N.m (43FT.LBS)

M10 BOLT

M10 BOLT

M12 BOLT

NEW ANTENNA MOUNTING BRACKET; BSAMNT-1 (INCLUDED)

PANEL ANTENNA

NEW ANTENNA MOUNTING BRACKET; BSAMNT-1 (INCLUDED)

3" STD. PIPE (3-1/2" O.D.) ANTENNA MOUNTING MAST, MIN. 6'-0" L (ATTACH TO EXISTING CROSSARM W/ SITE PRO 1 PN: SCX-4 CROSSOVER KIT)

CRITICAL: FOR INITIAL INSTALLATION TO PIPE, DOWNTILT BRACKETS MUST BE CONFIGURED IN PRE-ASSEMBLY POSITION (FULLY COLLAPSED)

ATTENTION: INSERT M12 BOLTS AND M12 FLAT WASHERS INTO BRACKET WITH TABS PRIOR TO ATTACHING BRACKET TO ANTENNA.

MAXIMUM TORQUE	
M10	37N.m (27FT.LBS)
M12	58N.m (43FT.LBS)

M12 BOLT

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M SQUARE WIRELESS

1387 CALLE AVANZADO
SAN CLEMENTE CA 92673 (949) 391-6824

DRAWN BY: JAC

CHECKED BY: MM

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0	07/11/2018	90% CD'S FOR REVIEW	JAC
REV	DATE	DESCRIPTION	BY

LOYAL A. WHARTON

STATE OF WASHINGTON

REGISTERED PROFESSIONAL ENGINEER

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CROWN CASTLE SITE ID: 829066

WHITE SALMON
BURDOIN MOUNTAIN
WHITE SALMON, WA 98672
MONOPOLE

SHEET TITLE

DETAILS

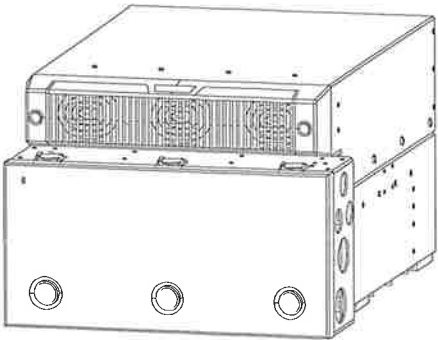
SHEET NUMBER

D-1

NOT USED

24"x36" SCALE: NTS
11"x17" SCALE: NTS

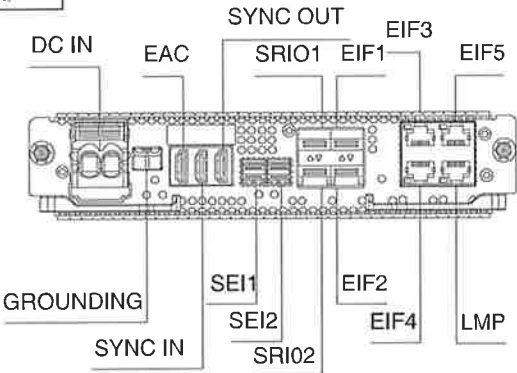
NOKIA AMOB	
HEIGHT (H)	12.2"
WIDTH (W)	17.6"
DEPTH (D)	23.8"
WEIGHT	50.7 lbs.



7 AMOB DETAIL


24"x36" SCALE: NTS
11"x17" SCALE: NTS

NOKIA ABIA	
HEIGHT (H)	1.1"
WIDTH (W)	14.2"
DEPTH (D)	8.6"
WEIGHT	4.4 lbs.




4 ABIA DETAIL


24"x36" SCALE: NTS
11"x17" SCALE: NTS



12920 SE 38TH ST
BELLEVUE, WA 98006



1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

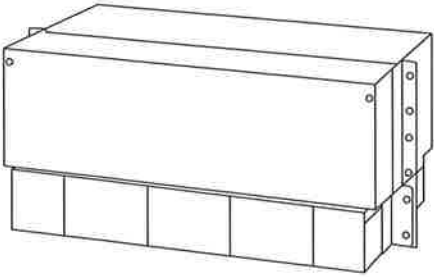


1387 CALLE AVANZADO
SAN CLEMENTE CA 92673 (949) 391-8824

NOT USED

24"x36" SCALE: NTS
11"x17" SCALE: NTS

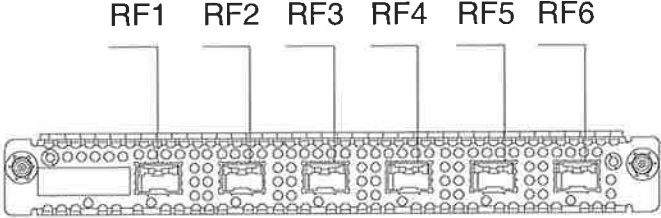
ALPHA E3 DCPP SPECIFICATIONS	
-48V	
400A	
5 RU, 23" RACK	
60.0 LBS	



8 SFX31-3031 ALPHA E3 DCPP UPGRADE

24"x36" SCALE: NTS
11"x17" SCALE: NTS

NOKIA ASIA	
HEIGHT (H)	1.7"
WIDTH (W)	14.2"
DEPTH (D)	8.6"
WEIGHT	6.6 lbs.




5 ASIA DETAIL

24"x36" SCALE: NTS
11"x17" SCALE: NTS

DRAWN BY: JAC

CHECKED BY: MM

2	05/13/2019	100% CD'S FOR SUBMITTAL	CP
1	08/07/2018	100% CD'S FOR REVIEW	DAM
0	07/11/2018	90% CD'S FOR REVIEW	JAC
REV	DATE	DESCRIPTION	BY



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NOT USED

24"x36" SCALE: NTS
11"x17" SCALE: NTS

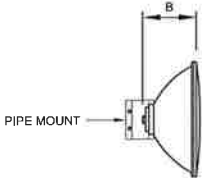
NOT USED

24"x36" SCALE: NTS
11"x17" SCALE: NTS

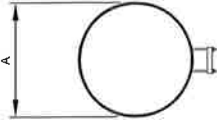
MANUFACTURER:	RFS
MODEL NO.:	SB1-220AMPT
DIMENSIONS:	TOTAL WEIGHT:
A 15"	
B 6.7"	8.8 LBS
C -	



TOP VIEW



SIDE VIEW



FRONT VIEW

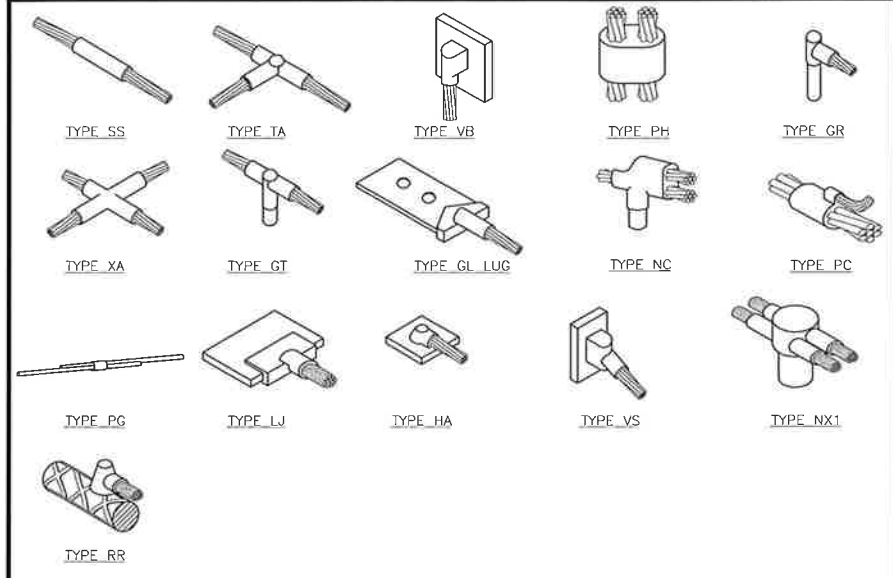
6 2' MICROWAVE ANTENNA

24"x36" SCALE: NTS
11"x17" SCALE: NTS

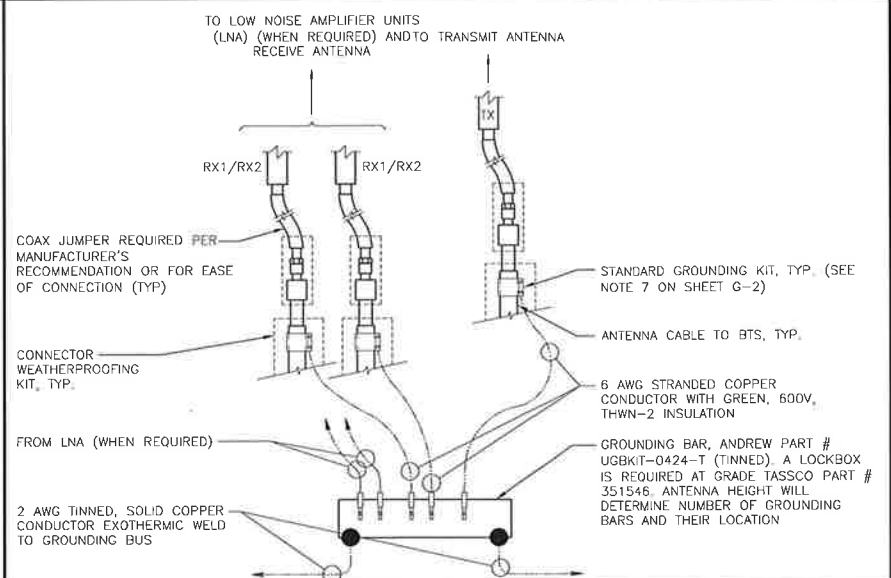
CROWN CASTLE SITE ID: 829066
WHITE SALMON
BURDOIN MOUNTAIN
WHITE SALMON, WA 98672
MONOPOLE

SHEET TITLE
DETAILS

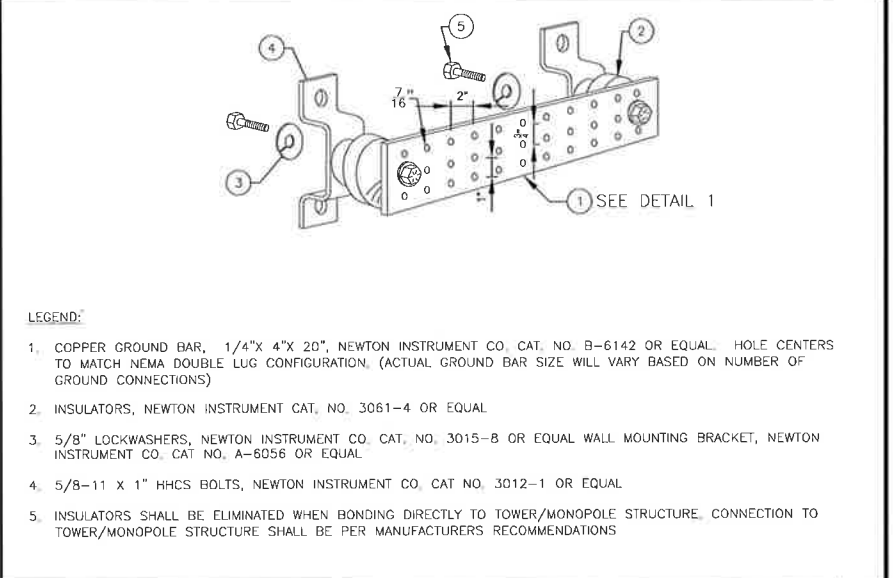
SHEET NUMBER
D-2



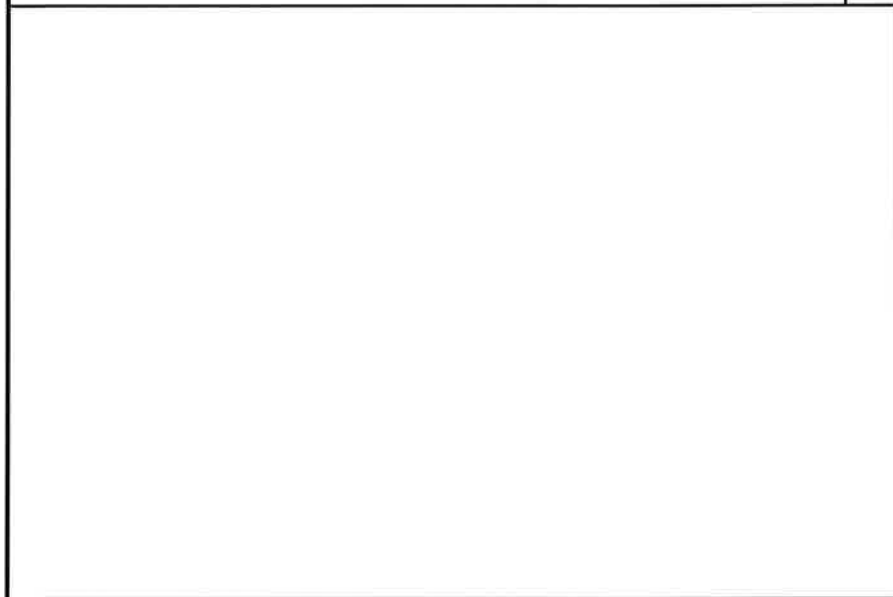
TYPICAL CADWELD TYPES 24"x36" SCALE: NTS 11"x17" SCALE: NTS



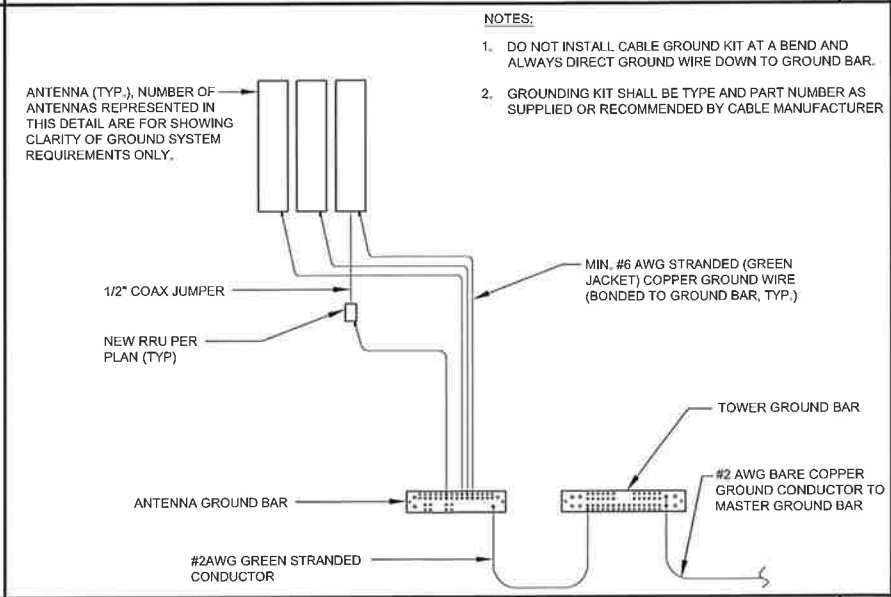
GROUNDING BAR CONNECTION 24"x36" SCALE: NTS 11"x17" SCALE: NTS



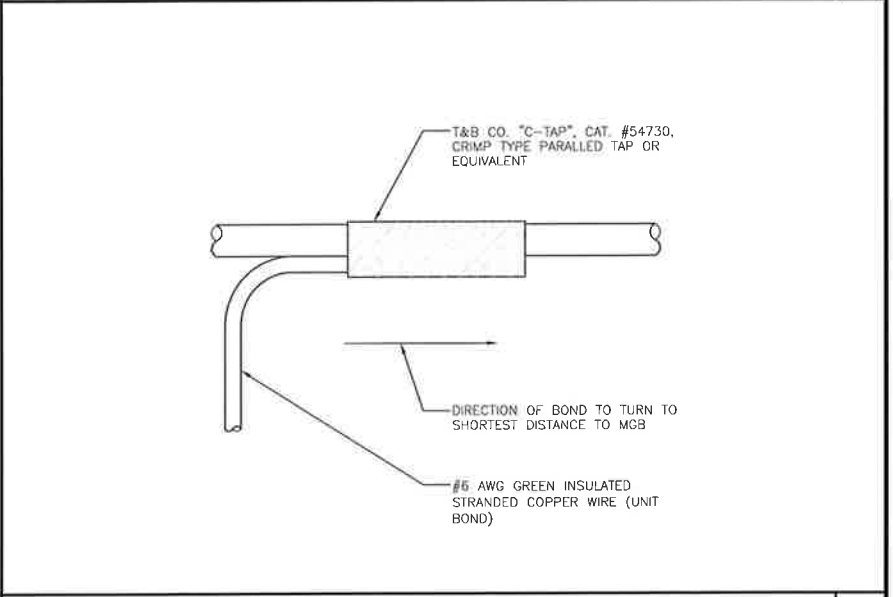
GROUNDING BAR DETAIL 24"x36" SCALE: NTS 11"x17" SCALE: NTS



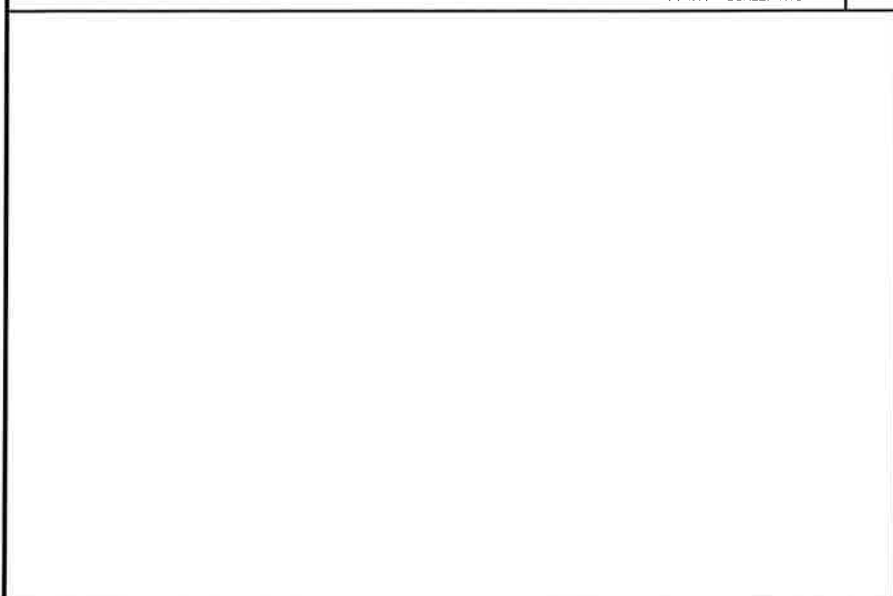
NOT USED 24"x36" SCALE: NTS 11"x17" SCALE: NTS



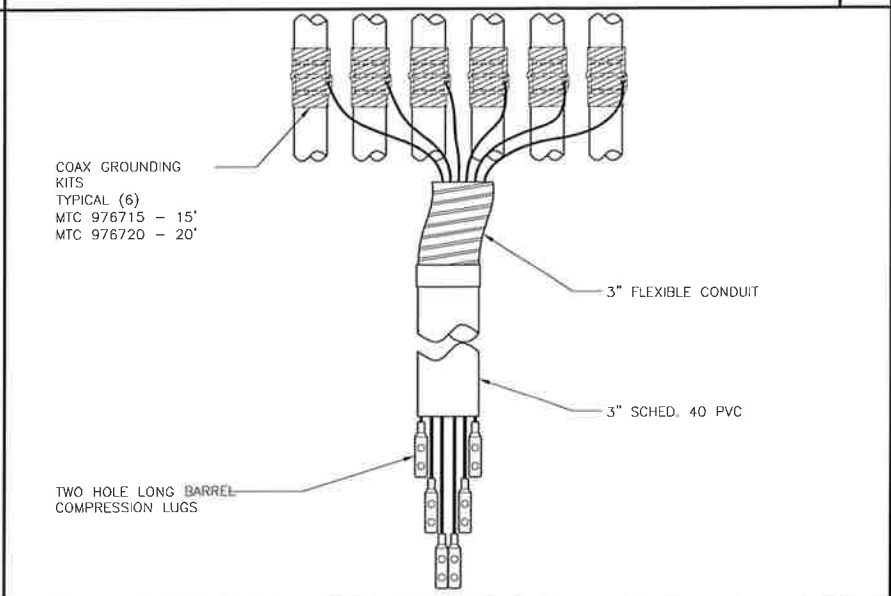
ANTENNA GROUNDING PLAN 24"x36" SCALE: NTS 11"x17" SCALE: NTS



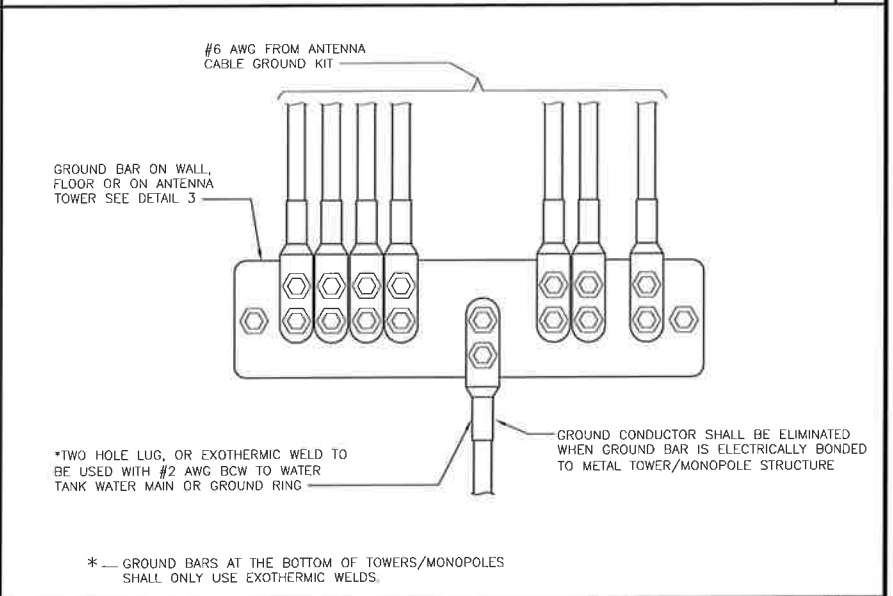
GROUNDING WIRE CONNECTION 24"x36" SCALE: NTS 11"x17" SCALE: NTS



NOT USED 24"x36" SCALE: NTS 11"x17" SCALE: NTS



COAX GROUND KIT 24"x36" SCALE: NTS 11"x17" SCALE: NTS



WIRE TO GROUND BAR CONNECTION 24"x36" SCALE: NTS 11"x17" SCALE: NTS

T-Mobile
12920 SE 38TH ST
BELLEVUE, WA 98006

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M SQUARE WIRELESS
1387 CALLE AVANZADO
SAN CLEMENTE CA 92673 (949) 381-0824

DRAWN BY:	JAC
CHECKED BY:	MM



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CROWN CASTLE SITE ID: 829066
WHITE SALMON
BURDOIN MOUNTAIN
WHITE SALMON, WA 98672
MONOPOLE

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-1

SHEET NUMBER

CABLE LINE DIAGRAM

SHEET TITLE

CROWN CASTLE SITE ID: 829066
WHITE SALMON
BURDOIN MOUNTAIN
WHITE SALMON, WA 98772
MONOPOLE

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REV	DATE	DESCRIPTION	BY
0	07/11/2018	90% CDS FOR REVIEW	JAC
1	08/07/2018	100% CDS FOR REVIEW	DAM
2	06/13/2019	100% CDS FOR SUBMITTAL	CP

DRAWN BY: _____

CHECKED BY: _____

BY:

BY:

M SQUARE WIRELESS
1387 CALLE AVANZADO
SAN CLEMENTE CA 92673 (949) 391-6824



CROWN
CASTLE

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