



ATC ASSET #: 310318

SITE NAME: HUNTSVILLE\_GRAVEL

SITE NUMBER: SL01507C

FILE NAME: 310318\_SL01507C\_MODIFICATION\_FCD\_REV 0\_07192019

LOCATION: 676 N 7100 E ST, HUNTSVILLE, UT 84317
41.2711°, -111.7713°

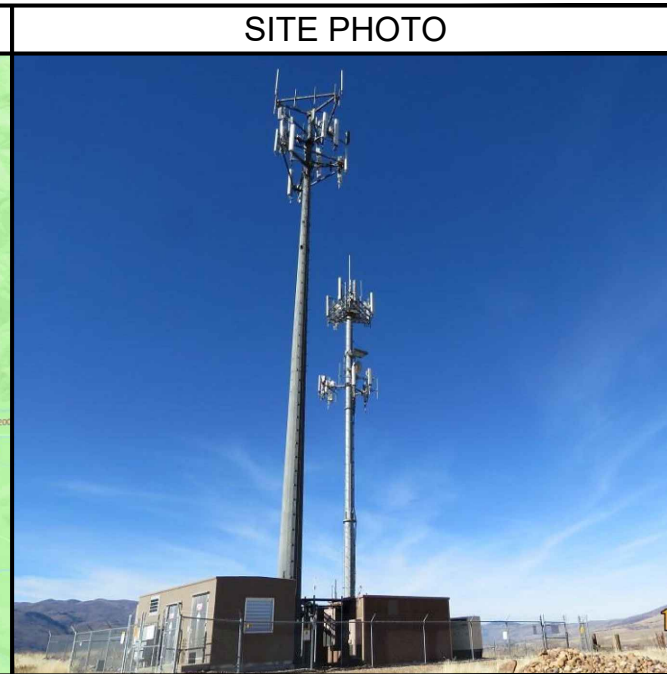
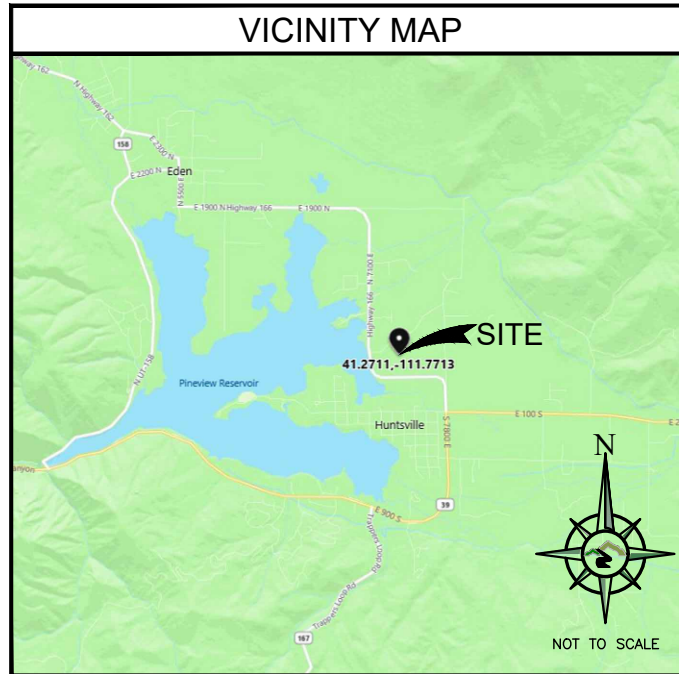
120' MONOPOLE MODIFICATION



BUSINESS LICENSE #: N/A

Table with 4 columns: REV, DATE, DESCRIPTION, INT. Contains revision history entries.

Table with 2 columns: SITE INFORMATION, TOWER MANAGER, SITE ADDRESS, COUNTY, LATITUDE, LONGITUDE, GROUND ELEVATION, OCCUPANCY TYPE, ZONING JURISDICTION, ZONING CODE, PARCEL NUMBER, POWER PROVIDER, TELCO PROVIDER.



DRAWING INDEX table with columns: SHEET NO., DESCRIPTION, REV. Lists sheets T-1 through G-2.

Table with 2 columns: CONTACT INFORMATION, A&E SERVICES, SITE ACQUISITION, APPLICANT, TOWER CONTACT.

DRIVING DIRECTIONS: DIRECTIONS FROM SALT LAKE CITY INTERNATIONAL AIRPORT: DEPART AIRPORT TOWARD..... DEPART N TERMINAL DR TOWARD TERMINAL DR. ROAD NAME CHANGES TO TERMINAL DR. TAKE RAMP LEFT FOR I-80 EAST TOWARD OGDEN / PROVO / SALT LAKE CITY.

APPLICABLE CODES: BUILDING CODE 2015 IBC, ELECTRICAL CODE 2017 NEC

SCOPE OF WORK: RFDS VERSION: 2.1 DATE: 04/23/2019. AT ANTENNA LEVEL, REMOVE (3) ANTENNAS AND INSTALL (3) ANTENNAS, (3) RRU AND (1) HYBRID CABLE. AT GROUND LEVEL, REMOVE (1) DUS41 AND (3) RRUS11 B12.



07/19/19 THESE PLANS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF POWDER RIVER DEVELOPMENT SERVICES, LLC...

SITE INFORMATION: T-MOBILE #: SL01507C, ATC #: 310318, 676 N 7100 E ST HUNTSVILLE, UT 84317, SHEET TITLE: TITLE SHEET, SHEET NUMBER: T-1



## ELECTRICAL NOTES

- THESE NOTES DESCRIBE THE MINIMUM REQUIREMENT FOR INSTALLATION OF ALL ELECTRICAL SYSTEMS. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- THE PUBLICATIONS LISTED BELOW FORM PART OF THESE NOTES. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION, UNLESS NOTED OTHERWISE. EXCEPT AS MODIFIED BY THE REQUIREMENTS SPECIFIED HEREIN, OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THESE PUBLICATIONS:
  - ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE)
  - IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS)
  - NEC (NATIONAL ELECTRICAL CODE), LATEST EDITION
  - NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
  - NFPA 70 (NATIONAL FIRE PROTECTION ASSOCIATION)
  - OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), INCLUDING ALL APPLICABLE AMENDMENTS
  - UL (UNDERWRITERS LABORATORIES)
  - APPLICABLE LOCAL CODES AND ORDINANCES
- THE CONTRACTOR SHALL INSTALL UNDERGROUND ELECTRICAL AND TELEPHONE CONDUITS AND CABLE AS SPECIFIED HEREIN AND AS SHOWN ON THE DRAWINGS.
- WHEN FINISHED, WORK SHALL BE IN A COMPLETE AND UNDAMAGED STATE, AS REQUIRED IN THE CONTRACT DOCUMENTS.
- ITEMS SHALL BE NEW AND SHALL BE INSTALLED ONLY IF IN FIRST-CLASS CONDITION.
- SUBSTITUTIONS FOR MATERIAL WILL BE PERMITTED ONLY BY WRITTEN APPROVAL OF THE CARRIER CONSTRUCTION SUPERVISOR AND BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIAL EXCEPT AS SPECIFIED IN THE CONTRACT DOCUMENTS. ALL MATERIAL SHALL BE APPROVED AND LISTED BY OR BEAR THE UL LABEL, AND WILL COMPLY WITH ANSI, IEEE AND NEMA STANDARDS WHERE APPLICABLE.
- CONDUITS:
  - ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC, SIZED AS SHOWN ON THE CONSTRUCTION DRAWINGS.
  - ALL EXTERIOR ABOVEGROUND CONDUIT SHALL BE PER LOCAL CODE REQUIREMENTS.
  - ALL INTERIOR CONDUIT SHALL BE EMT WITH COMPRESSION-TYPE FITTINGS.
  - LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR OUTDOOR LOCATIONS WHERE FLEXIBLE CONNECTION IS REQUIRED.
- CABLES CONDUCTORS FOR GENERAL WIRING SHALL BE NEC STANDARD ANNEALED COPPER WIRE WITH NEC 600-VOLT INSULATION.
  - #8 AND LARGER-STRANDED TYPE, THHN OR THWN.
  - #10 AND SMALLER-SOLID TYPE THHN OR THWN.
  - CONDUCTORS IN CONDUIT IN OR ADJACENT TO HIGH HEAT SOURCE SHALL BE TYPE XHHW.
  - CONDUCTORS IN CONDUITS ABOVE ROOF, ON TOP OF ROOF OR INSIDE BUILT-UP ROOFING MATERIAL SHALL BE TYPE XHHW
- CONVENIENCE OUTLET, UNLESS NOTED OTHERWISE, SURFACE-MOUNTED OUTLETS FOR EXTERIOR LOCATIONS SHALL BE FERALLOY, CAD/ZINC ELECTROPLATED WITH THREADED HUBS OR CONDUIT ENTRANCES DRILLED AND TAPPED. ALL COVERS SHALL BE SELF-CLOSING AND GASKETED. SURFACE MOUNTED OUTLETS FOR INTERIOR LOCATIONS SHALL BE GALVANIZED, PRESSED STEEL WITH COVER PLATE, SIERRA PLASTIC STYLE, IVORY COLOR.
- COAXIAL CABLE SUPPORTS 1. ALL WAVE GUIDE SUPPORTS SHALL BE MANUFACTURED TO MEET ALL COAX MINIMUM BENDING REQUIREMENTS. SUPPORTS SHALL BE PROVIDED EVERY 3'-0" ON CENTER.
- BEFORE LAYING OUT WORK, EXERCISE PROPER PRECAUTION TO VERIFY EACH MEASUREMENT.
- USE EXTREME CAUTION BEFORE EXCAVATING IN EXISTING AREAS TO LOCATE EXISTING UNDERGROUND SERVICES.
- A VISUAL CHECK OF ELECTRICAL AND TELEPHONE CABLES, CONDUITS AND OTHER ITEMS SHALL BE MADE BY A CARRIER CONSTRUCTION SUPERVISOR BEFORE THESE ITEMS ARE PERMANENTLY INSTALLED.
- THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR 24 HOURS PRIOR TO TRENCH BACK FILL.
- TRENCHING, BACK FILLING, BEDDING AND COMPACTING SHALL COMPLY WITH SITE WORK SPECIFICATIONS.
- DIG TRENCHES TO THE REQUIRED DEPTH AS SHOWN ON THE DRAWINGS WITHOUT POCKETS OR DIPS. REMOVE LARGE STONES FROM THE BOTTOM OF THE TRENCH AND FIRMLY TAMP LOOSE FILL IN THE BOTTOM BEFORE CONDUIT IS LAID.
- INSTALL UNDERGROUND CONDUIT WITH A MINIMUM 3-INCH TO 100-FOOT SLOPE OR TO A SLOPE SHOWN ON THE DRAWINGS.
- UNLESS SHOWN OTHERWISE ON THE DRAWINGS, TERMINATE AND CAP ALL STUB-UPS 12 INCHES ABOVE FINISHED GRADE ELEVATION.
- WHEREVER CONDUITS CROSS UNDER ROADWAYS, USE GALVANIZED RIGID STEEL CONDUITS IN ALL CASES, EXTENDING 5 FEET BEYOND THE EDGE OF THE ROAD BED. MINIMUM DEPTH FOR CONDUIT SHALL BE 4 FEET BELOW ROADWAY GRADE.
- MARK UNDERGROUND CONDUITS WITH A 6-INCH WIDE RED POLYETHYLENE TAPE BURIED 6 INCHES UNDER THE SURFACE DIRECTLY OVER THE CONDUITS. MARK THE TAPE THUS: CAUTION-BURIED ELECTRICAL CABLE.
- FOR SEALING CONDUITS, USE ONLY NON-THERMOPLASTIC COMPOUNDS SUCH AS J.M. DUXSEAL, OR AN CARRIER-APPROVED SUBSTITUTE. THE COMPOUND SHALL HAVE NO EFFECT ON RUBBER OR RUBBER-LIKE INSULATIONS, LEAD, ALUMINUM OR FERROUS ALLOYS; IT SHALL BE INSOLUBLE IN WATER AND WITHSTAND MAXIMUM TEMPERATURE RANGES OF THE LOCALITY.
- COAXIAL - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.
- ANTENNA - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.
- LNA/MHA - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.

## GROUNDING NOTES

- THIS SPECIFICATION PRESCRIBES THE REQUIREMENTS FOR FURNISHING, INSTALLATION AND TESTING OF THE GROUNDING CABLE, CONNECTORS AND ASSOCIATED COMPONENTS AS INDICATED ON THE DRAWINGS.
- APPLICATIONS OF ELECTRICAL GROUNDING AND BONDING WORK SPECIFIED IN THIS SPECIFICATION INCLUDE THE FOLLOWING:
  - FENCE AND GATE POSTS
  - ELECTRICAL POWER SYSTEMS
  - GROUNDING ELECTRODES
  - GROUND BUS BAR
  - SERVICE EQUIPMENT
  - ENCLOSURES
  - MONOPOLE / LATTICE TOWER
  - ICE BRIDGE
- REFERENCES: THE PUBLICATIONS LISTED BELOW FORM PART OF THESE DRAWINGS. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE THESE DRAWINGS ARE ISSUED FOR CONSTRUCTION, UNLESS NOTED OTHERWISE. EXCEPT AS MODIFIED BY THE REQUIREMENTS SPECIFIED HEREIN, OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THESE DRAWINGS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THESE PUBLICATIONS.
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  - NEC (NATIONAL ELECTRICAL CODE), LATEST EDITION
  - NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
  - NESC (NATIONAL ELECTRICAL SAFETY CODE), LATEST EDITION
  - OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
  - UL (UNDERWRITERS' LABORATORIES)
  - APPLICABLE LOCAL CODES AND ORDINANCES
- MATERIALS: EXCEPT AS OTHERWISE INDICATED, PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEMS INDICATED; WITH ASSEMBLY OF MATERIAL, INCLUDING, BUT NOT LIMITED TO, GROUNDING ELECTRODES, BONDING JUMPER AND ADDITIONAL ACCESSORIES NEEDED FOR A COMPLETE INSTALLATION. WHERE MORE THAN ONE TYPE OF COMPONENT PRODUCT MEETS INDICATED REQUIREMENTS, SELECTION IS INSTALLER'S OPTION. WHERE MATERIALS OR COMPONENTS ARE NOT INDICATED, PROVIDE PRODUCTS WHICH COMPLY WITH NEC, UL, AND IEEE REQUIREMENTS AND WITH ESTABLISHED INDUSTRY STANDARDS FOR THOSE APPLICATIONS INDICATED.
  - GROUNDING:
    - THE EQUIPMENT SHALL BE GROUNDED AS FOLLOWS, AS SHOWN ON THE DRAWINGS AND IN COMPLIANCE WITH NEC ARTICLE 250 AND STATE AND LOCAL CODES.
    - GROUND RODS AND QUANTITY SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL PERFORM A GROUND-RESISTANCE-TO-EARTH TEST. SHOULD THE INSTALLATION HAVE A RESISTANCE OF 5 OHMS OR MORE, CONTRACTOR SHALL INSTALL MORE GROUND RODS AS NECESSARY SO THAT THE OVERALL GROUND-TO-EARTH RESISTANCE IS LESS THAN 5 OHMS.
    - INSTALL ELECTRICAL GROUNDING AND BONDING SYSTEMS AS INDICATED, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, NEC'S "STANDARD OF INSTALLATION," AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT PRODUCTS COMPLY WITH REQUIREMENTS.
    - COORDINATE WITH OTHER ELECTRICAL WORK AS NECESSARY TO INTERFACE INSTALLATION OF ELECTRICAL GROUNDING AND BONDING SYSTEMS.
    - INSTALL GROUND CONDUCTORS A MINIMUM OF 36 INCHES BELOW FINISHED GRADE WHICH ENIRCLE THE TOWER AND EQUIPMENT, AND ARE CONNECTED TO EACH DRIVEN GROUND ROD. GROUND TRENCH SHALL BE AT LEAST 24 INCHES AWAY FROM FOUNDATIONS.
    - TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUE FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUE SPECIFIED IN UL 486A TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
    - APPLY CORROSION-RESISTANT FINISH (NO-OX OR CARRIER-APPROVED EQUIVALENT) TO FIELD-CONNECTIONS, AT COPPER GROUND BARS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATING HAVE BEEN DESTROYED, OR ARE SUBJECTED TO CORROSIVE AND/OR OXIDATION PROCESS.
    - ON EXISTING LATTICE TOWERS, WATER TOWERS AND ROOF TOPS, WHEN A NEW GROUNDING SYSTEM IS INSTALLED, THE CONTRACTOR SHALL TIE THE NEW GROUND SYSTEM TO THE EXISTING WATER TOWER, LATTICE TOWER STRUCTURAL STEEL OR BUILDING STRUCTURAL STEEL AS THE CASE MAY BE AT A MINIMUM OF ONE LOCATION SO THAT THEY ARE AT THE SAME VOLTAGE POTENTIAL.
    - ALL TOWER AND TOP GROUND WIRES SHALL BE SUPPORTED EVERY TWO FEET MAXIMUM.
  - GROUND RODS:
    - GROUND RODS SHALL BE 5/8" DIAMETER WITH 8'-0" EMBEDMENT MIN., COPPER CLAD DRIVEN ROD(S).
    - GROUND ROD(S) SHALL BE LOCATED AT THE PERIMETER OF EQUIPMENT AS TO CREATE A GROUND RING AS SHOWN ON THE DRAWINGS.
    - GROUND ROD(S) SHALL BE SPACED AT A MINIMUM OF 8'-0" AND A MAXIMUM SPACING OF 10'-0" ON CENTER.
    - GROUND RODS SHALL BE BURIED BELOW THE FROSTLINE. AT NO TIME SHALL THIS DEPTH BE LESS THAN 18" BELOW FINISHED GRADE.
    - GROUND RODS WHICH CANNOT BE DRIVEN STRAIGHT DOWN THE ENTIRE 10'-0", SHALL BE DRIVEN AT AN ANGLE NOT GREATER THAN 45 DEGREES (NEC 250-83 AND 250-84).
    - GROUND ROD LOCATIONS SHALL BE NOTED ON THE AS-BUILT DRAWING

- COMPLETE WITH DIMENSIONS.
- PROVIDE GROUND TEST WELLS SHOWN ON THE CONSTRUCTION DRAWINGS.
- GROUND CONDUCTOR:
  - ALL DIRECT BURIED GROUND CONDUCTORS SHALL BE TINNED SOLID (#2 AWG) WIRE. BURIED GROUND CONDUCTOR SHALL BE INSTALLED AT MINIMUM DEPTH OF 36" BELOW GRADE.
  - ALL SUB GRADE GROUND CONNECTIONS SHALL BE MADE USING EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE SPLICES, TEES AND ALL GROUND ROD CONNECTIONS. MOLD, WELD KITS, ETC., SHALL BE MANUFACTURED BY CADWELD AND SHALL BE INSTALLED AS PER THE MANUFACTURER'S INSTRUCTIONS.
  - GROUND CONDUCTORS SHALL BE ROUTED IN THE SHORTEST AND C STRAIGHTEST DISTANCES POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES. CONDUCTORS SHALL BE INSTALLED AS FOLLOWS:
  - ALL GROUND CONDUCTORS SHALL FOLLOW A CONTINUOUS DOWNWARD PATTERN TO THE GROUND SOURCE. (NEVER RUN GROUND CONDUCTOR IN AN UPWARD DIRECTION.)
  - CONDUCTORS SHALL BE INSTALLED WITH A MINIMUM OF 12-INCH MINIMUM BENDING RADIUS.
  - WHEN THE MINIMUM BENDING RADIUS CANNOT BE ACHIEVED, GROUND CABLES SHALL BE ROUTED AT 90-DEGREE BENDS WITH THE USE OF EXOTHERMIC CONNECTIONS AT 90 DEGREES, WITH THE INTENT IS TO ELIMINATE THE CABLE BEND RADIUS AND REPLACE THE RADIUS WITH AN EXOTHERMIC CONNECTION.
- PREPARATION:
  - ALL SURFACES TO WHICH GROUND CONNECTIONS WILL BE MADE SHALL BE FREE OF PAINT, GALVANIZING DIRECT CORROSION, ETC.
  - ALL METAL SURFACES EXPOSED ON GROUNDING SHALL BE EITHER COLD GALVANIZE, OR PAINTED TO MATCH ORIGINAL SURFACE.
- EXAMINE AREAS AND CONDITIONS UNDER WHICH ELECTRICAL GROUNDING AND BONDING CONNECTIONS ARE TO BE MADE AND NOTIFY CARRIER CONSTRUCTION SUPERVISOR AND ENGINEER OF RECORD IN WRITING OF CONDITIONS DETRIMENTAL TO PROPER COMPLETION OF WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR A MINIMUM OF 24 HOURS PRIOR TO TRENCH BACK FILL. ALL WORK DONE BELOW FINISHED GRADE SHALL BE INSPECTED BY THE CONSTRUCTION SUPERVISOR DURING THAT PERIOD.
- GROUND TESTING:
  - THE CONTRACTOR SHALL TEST THE GROUND ELECTRODE ROD RESISTANCE IN ACCORDANCE WITH THE METHODS OF MEASUREMENT DEFINED IN THE FALL OF POTENTIAL METHOD.
  - TEST INSTRUMENTS SHALL OPERATE AT A FREQUENCY OTHER THAN 60 HERTZ AND SHALL CONTAIN STRAY CURRENT AND DC FILTERS, FAULT CURRENT PROTECTION AND HAVE SENSITIVITY TO OPERATE A LOW SIGNAL STRENGTH.
  - PRIOR TO TESTING, THE CONTRACTOR SHALL DE-ENERGIZE ALL POWER SOURCES, DISCONNECT THE ELECTRODE CONDUCTOR FROM THE GROUND ROD, WEAR HIGH VOLTAGE RUBBER SAFETY GLOVES.
  - GROUND TESTS ARE TO BE PERFORMED BY QUALIFIED PERSONS FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE EQUIPMENT AND THE HAZARDS INVOLVED.
  - AN INDEPENDENT, APPROVED OUTSIDE FIRM SHALL PERFORM THE GROUND TEST AS OUTLINED. ALL TEST RESULTS SHALL BE FORWARDED TO THE CARRIER CONSTRUCTION SUPERVISOR FOR APPROVAL.

T-Mobile



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
0	07/19/19	100% CONSTRUCTION	KS
B	06/25/19	ISSUED FOR REVIEW 90%	JPN
A	05/31/19	ISSUED FOR REVIEW 90%	JPN



07/19/19

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### SITE INFORMATION

**T-MOBILE #: SL01507C**

**ATC #: 310318**

**676 N 7100 E ST  
HUNTSVILLE, UT  
84317**

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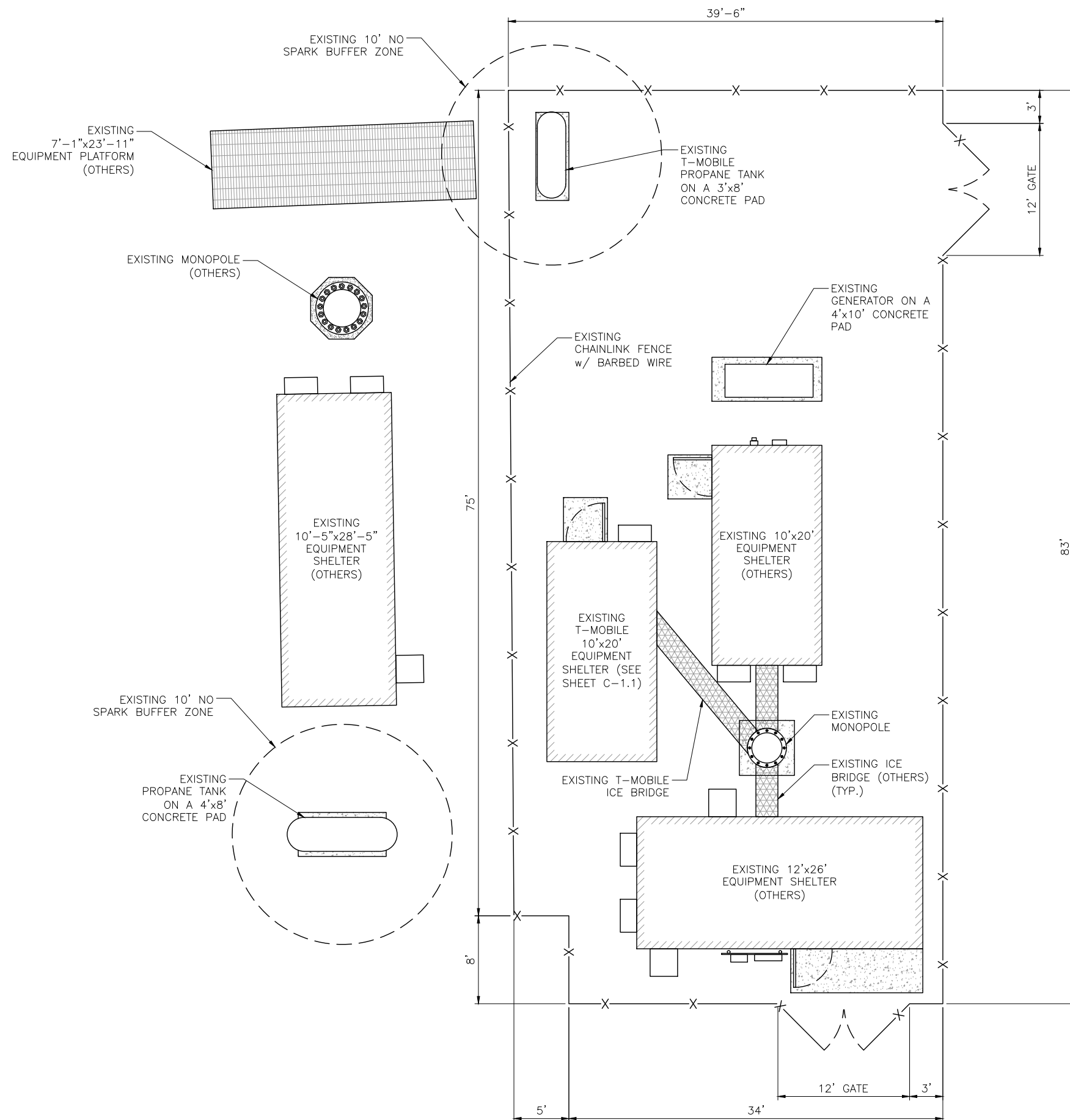
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NOTES**

SHEET NUMBER:

**GN-2**

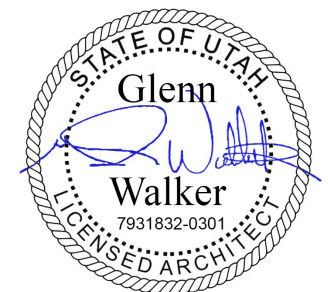
**DISCLAIMER:**

THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, SETBACKS, AND DIMENSIONS SHOWN SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. POWDER RIVER DEVELOPMENT SERVICES, LLC. DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, EASEMENTS, SETBACKS, AND DIMENSIONS SHOWN.



BUSINESS LICENSE #: N/A

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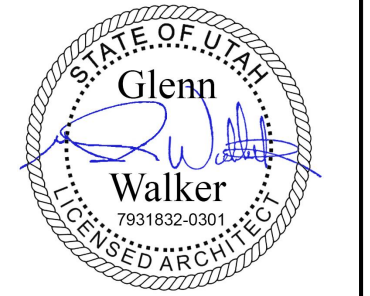
**SITE PLAN**

SHEET NUMBER:

**C-1**

BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
0	07/19/19	100% CONSTRUCTION	KS
B	06/25/19	ISSUED FOR REVIEW 90%	JPN
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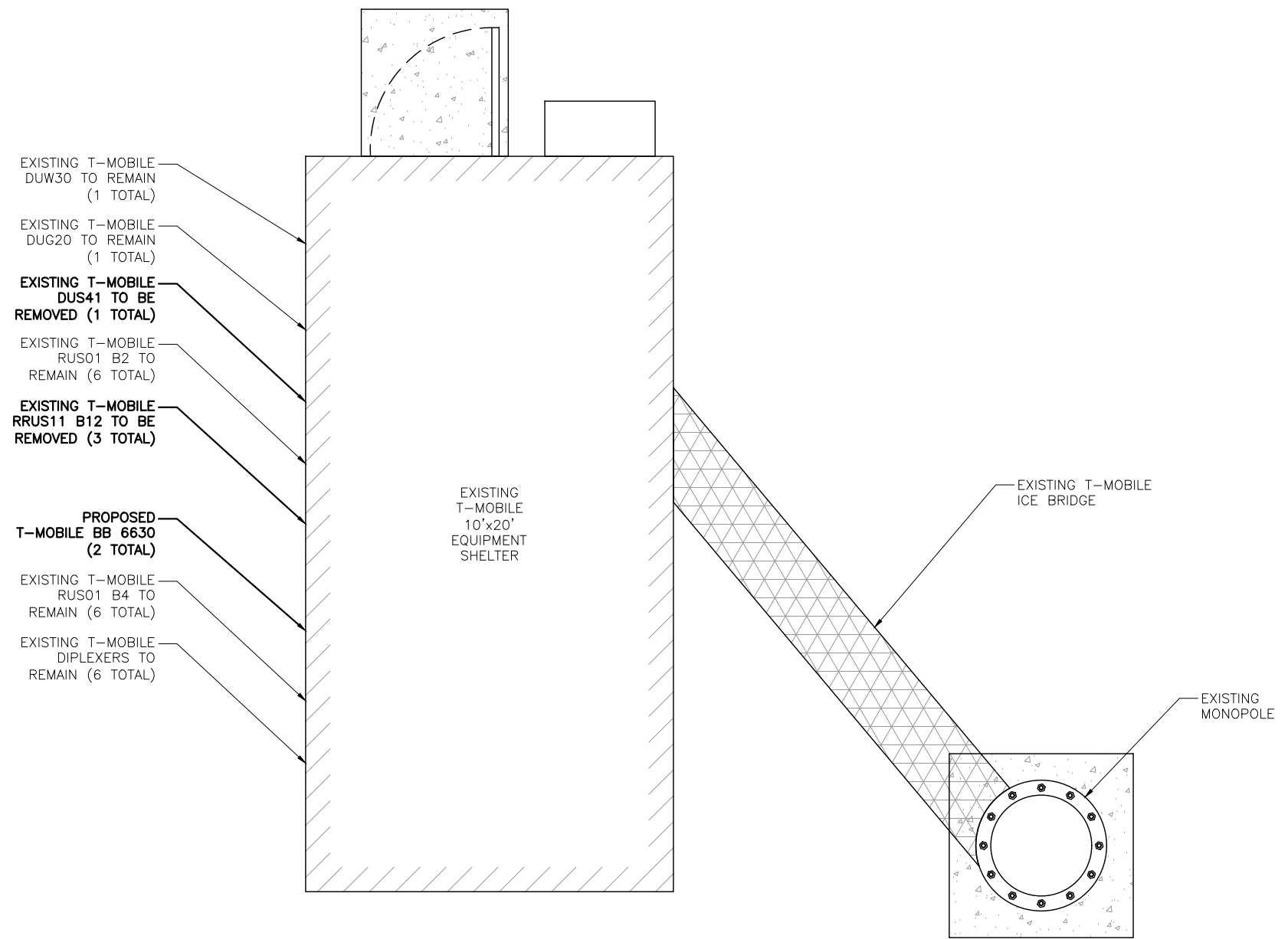
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**676 N 7100 E ST**  
**HUNTSVILLE, UT**  
**84317**

SHEET TITLE:

**EQUIPMENT PLAN**

SHEET NUMBER:

**C-1.1**





POWDER RIVER DEVELOPMENT SERVICES, LLC HAS NOT PERFORMED STRUCTURAL ANALYSES FOR THE NEW EQUIPMENT MOUNTS, NOR THE SUPPORTING STRUCTURE, AND ASSUMES NO RESPONSIBILITY FOR ITS ABILITY TO SUPPORT THE PROPOSED MODIFICATIONS. PRIOR TO CONSTRUCTION, STRUCTURAL ANALYSIS (BY OTHERS) SHALL BE PERFORMED FOR ALL TOWERS, ROOFTOPS, FLAGPOLES, LIGHT POLES AND ASSOCIATED EQUIPMENT MOUNTS.

ANTENNA SCHEDULE						
SECTOR	ALPHA (RED)		BETA (GREEN)		GAMMA (BLUE)	
ANTENNA POSITION	A1	A2	B1	B2	G1	G2
ANTENNA TYPE	U19/L21/G19	L600/L700	U19/L21/G19	L600/L700	U19/L21/G19	L600/L700
AZIMUTH	315°	315°	125°	125°	215°	215°
RAD CENTER (AGL)	100'-0"	100'-0"	100'-0"	100'-0"	100'-0"	100'-0"
MODEL	CELLMAX CMA-B-6521	RFS APXVAARR24_43-U-NA20	CELLMAX CMA-B-6521	RFS APXVAARR24_43-U-NA20	CELLMAX CMA-B-6521	RFS APXVAARR24_43-U-NA20
CABLE LENGTH	±120'					

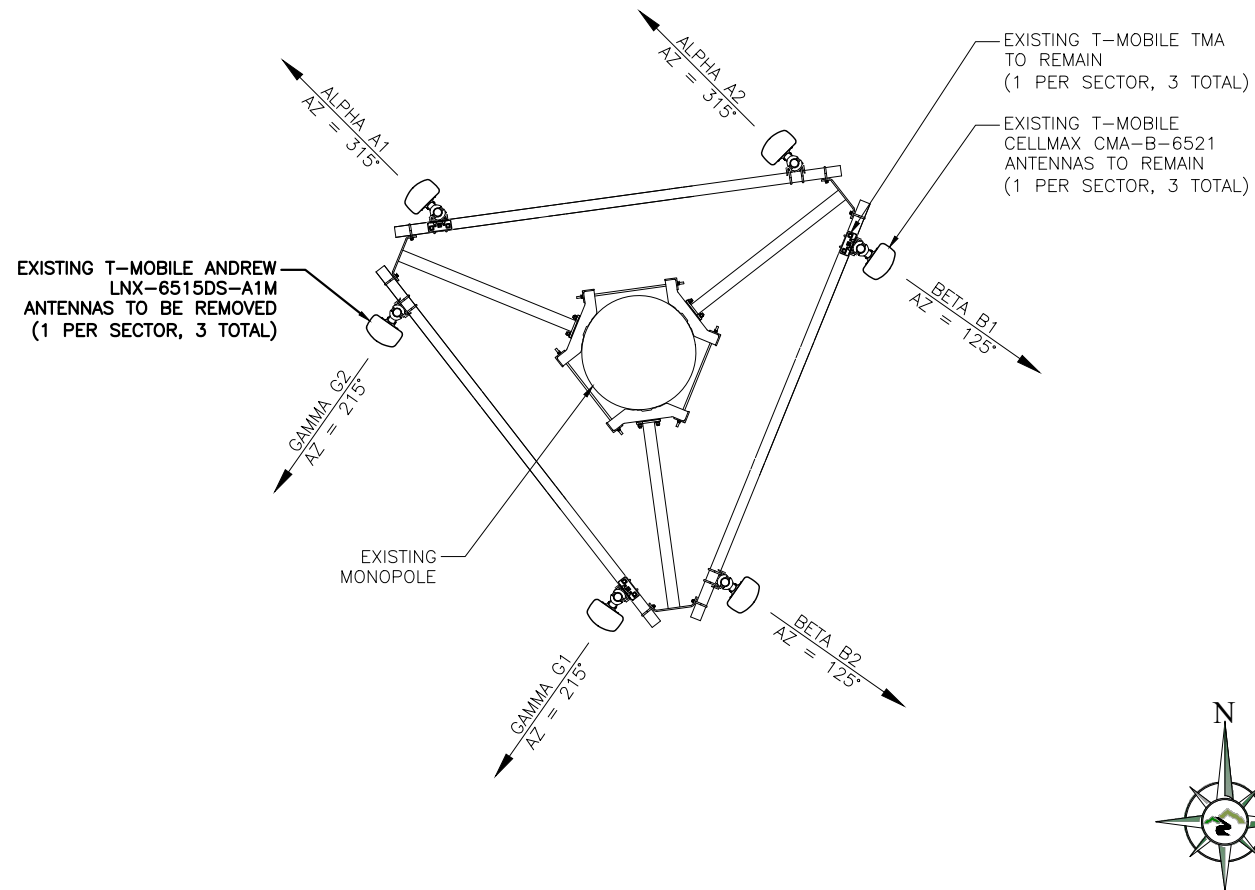


ANTENNA SCHEDULE (PROPOSED)

1

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0	07/19/19	100% CONSTRUCTION	KS
B	06/25/19	ISSUED FOR REVIEW 90%	JPN
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ANTENNA PLAN (EXISTING)

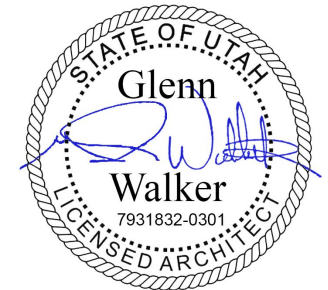
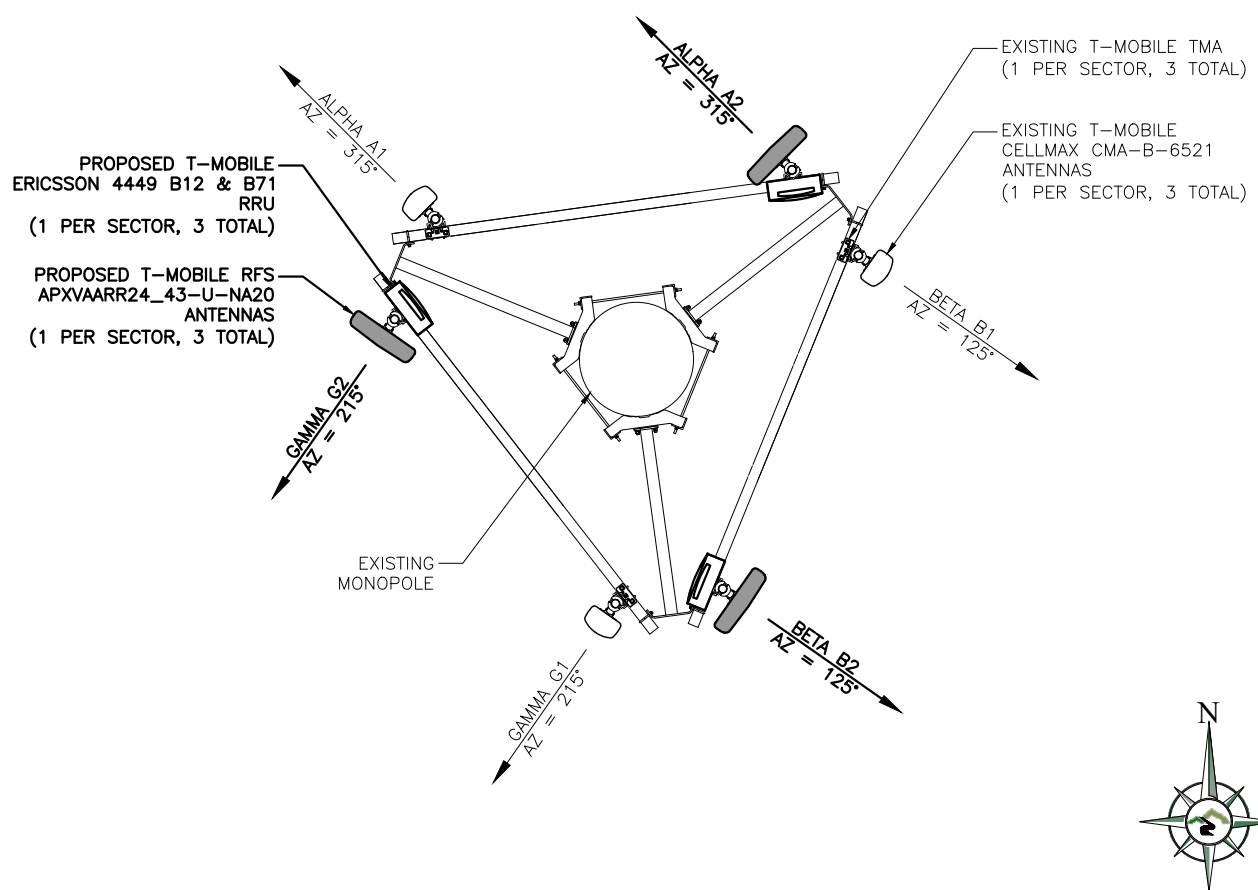
SCALE: N.T.S.

3

ANTENNA PLAN (PROPOSED)

SCALE: N.T.S.

2



07/19/19

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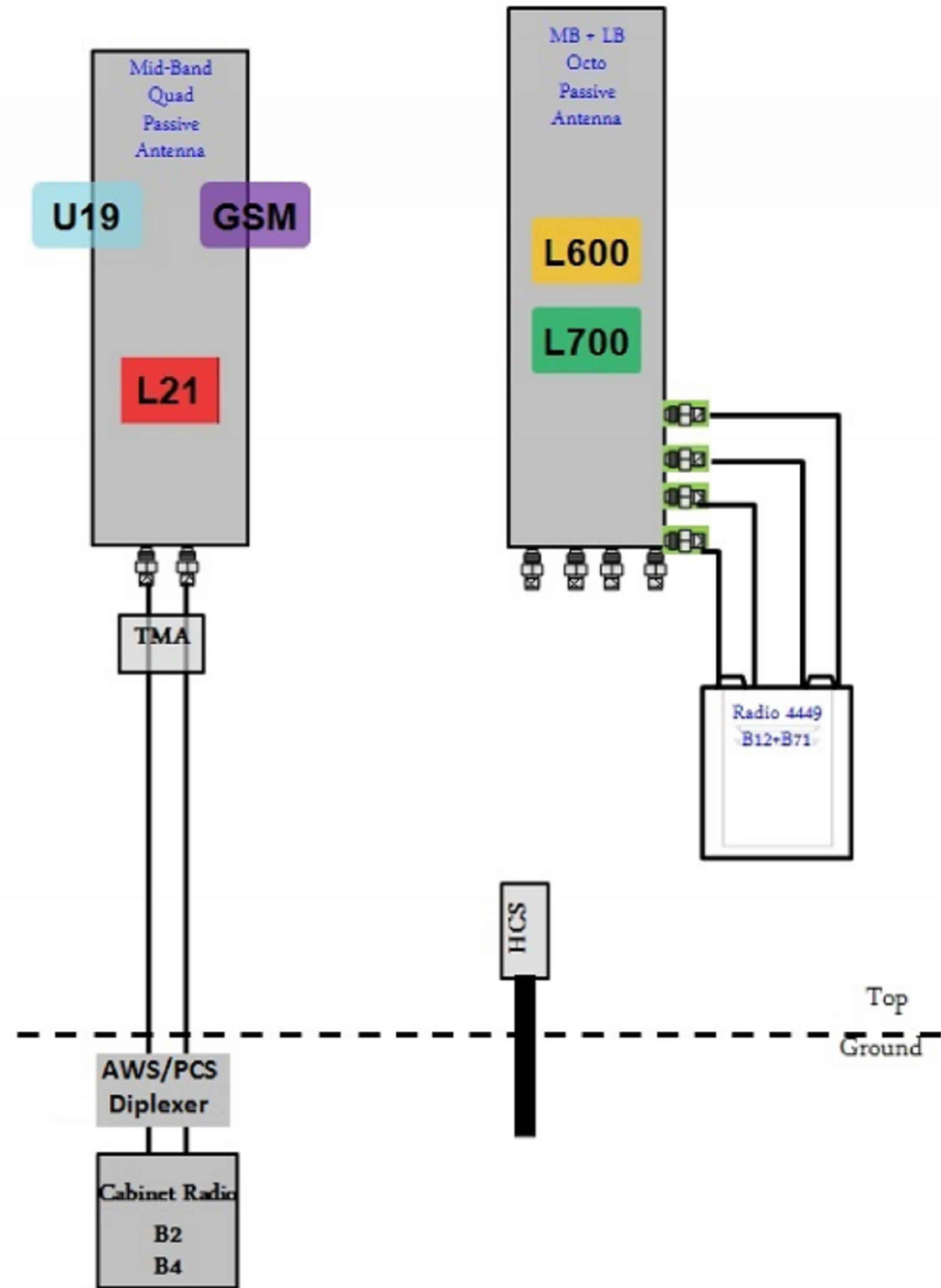
ANTENNA PLANS

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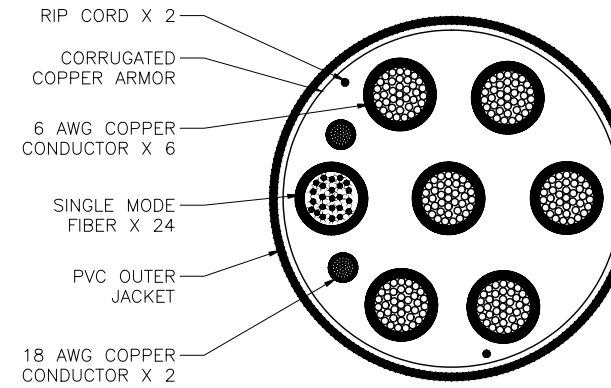
C-3

Section 3 - Proposed Template Images

67D04B-1DP and 1OP-AWS-PCS Diplex.jpg



Notes:



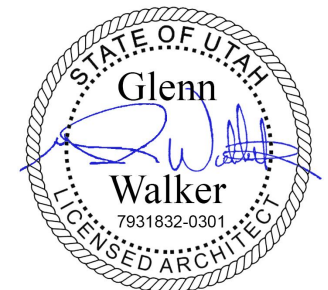
SECTORIZED COLOR IDENTIFICATION	
SECTOR A	RED
SECTOR B	GREEN
SECTOR C	BLUE
SECTOR D	YELLOW
SECTOR E	WHITE
SECTOR F	PURPLE
LMU	BROWN
FIBER IS	GRAY
UNUSED COAX	PINK
MICROWAVE	ORANGE
PWET-1'S	ID w/ LABEL MAKER

CABLE TYPE	NUMBER, SIZE (AWG)	6/C #6 + 2/C #18
	VOLTAGE	600
	OUTER JACKET	PVC
	SHIELDING	CORRUGATED COPPER
	MAX SHIELD RESISTANCE (OHM/FT @ 20° C)	0.0035
	DRAIN	N/A
	RIPCORDER	KEVLAR
	DC CONDUCTOR MATERIAL	COPPER
	DC CONDUCTOR SIZE (AWG)	6
	MAX DC RESISTANCE (OHM/1000FT)	0.411 @ 20° C
	COLOR CODE	BLACK/RED
	ALARM CONDUCTOR MATERIAL	COPPER
	ALARM CONDUCTOR SIZE (AWG)	18
	MAX DC RESISTANCE (OHM/1000FT)	6.7
	COLOR CODE	TBD
	FIBER CABLES	SM
	OUTER DIAMETER (IN) - NOMINAL	1.24
	WEIGHT (LB/FT)	1.05
	MINIMUM BEND RADIUS (IN)	15
	BEND MOMENT (LB/FT)	N/A
	TENSILE STRENGTH (LB)	325
	CRUSH RESISTANCE, FOTP-41 (N/MM)	22
	STRENGTH MEMBER	NO
	OPERATING TEMPERATURE RANGE (LOW)	-40° C
	OPERATING TEMPERATURE RANGE (HIGH)	80° C
FIBER TYPE		LOW WATER PEAK SINGLE MODE LOOSE TUBE
FIBER STANDARD COMPLIANCE		ITU-T REC. G.652.D, G.657.A2 IEC 60793-2-50 TYPE B.1.3 & TYPE B.6 A&B
FIBER COATING DIAMETER (um)		.242 +/- .007 OR .9 +/- .005 MM
FIBER COUNT		24
NUMBER OF FIBER SUBUNITS		1
FIBER COUNT EACH UNIT		24
FIBER OUTER JACKETS		FR JACKET
MAX ATTENUATION, 1310 nm (dB/Km)		LESS THAN/EQUALTO 0.5
MAX ATTENUATION, 1550 nm (dB/Km)		LESS THAN/EQUALTO 0.5



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
0	07/19/19	100% CONSTRUCTION	KS
B	06/25/19	ISSUED FOR REVIEW 90%	JPN
A	05/31/19	ISSUED FOR REVIEW 90%	JPN



07/19/19

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SITE INFORMATION

T-MOBILE #: SL01507C

ATC #: 310318

676 N 7100 E ST  
HUNTSVILLE, UT  
84317

SHEET TITLE:  
RFDS & CABLE  
SPECIFICATIONS

SHEET NUMBER:

C-3.1

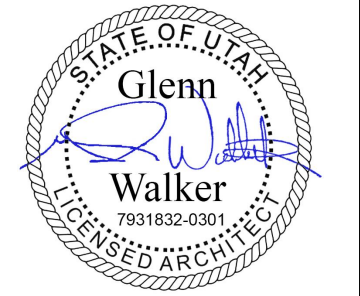


T-Mobile



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
0	07/19/19	100% CONSTRUCTION	KS
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SITE INFORMATION

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**ATC #: 310318**  
**676 N 7100 E ST**  
**HUNTSVILLE, UT**  
**84317**

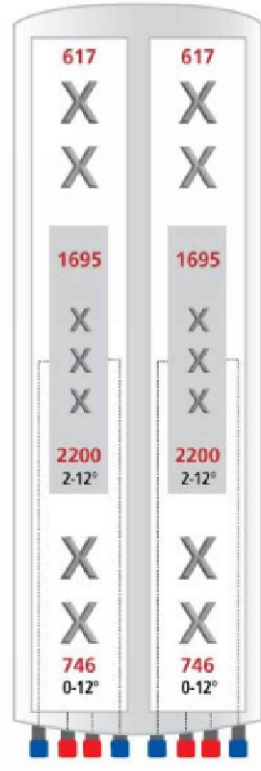
SHEET TITLE:  
**EQUIPMENT**  
**DETAILS**

SHEET NUMBER:

**C-4**



MANUFACTURER: ERICSSON  
 MODEL: 4449 B12 & B71  
 WEIGHT: 85 LBS  
 DIMENSIONS: HxWxD: 28" x 15" x 10"  
 FREQUENCY:  
 BAND 12: 699 - 716 MHz (UL)  
 729 - 746 MHz (DL)  
 BAND 71: 663 - 698 MHz (UL)  
 617 - 652 MHz (DL)



MANUFACTURER: RFS  
 MODEL: APXVAARR24\_43-U-NA20  
 WEIGHT: 58.0 LBS  
 DIMENSIONS: HxWxD: 95.9" x 24.0" x 8.7"  
 FREQUENCY: 617 - 746 MHz  
 1695 - 2200 MHz  
 CONNECTION: (8) 4.3-10 FEMALE

NOT USED

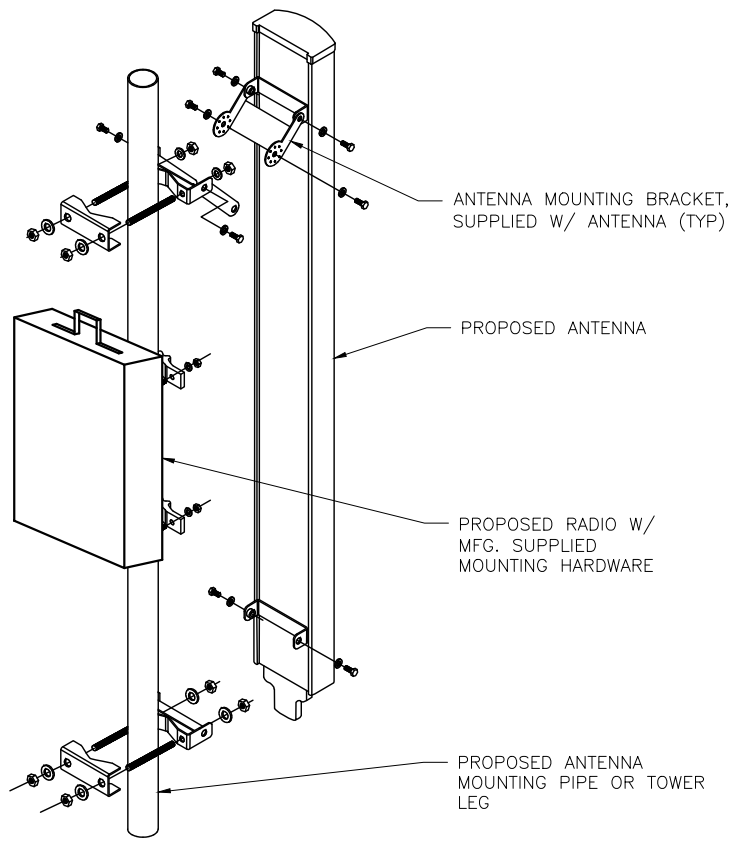
5 RRH INFORMATION

SCALE: N.T.S.

3 ANTENNA INFORMATION

SCALE: N.T.S.

1



NOT USED

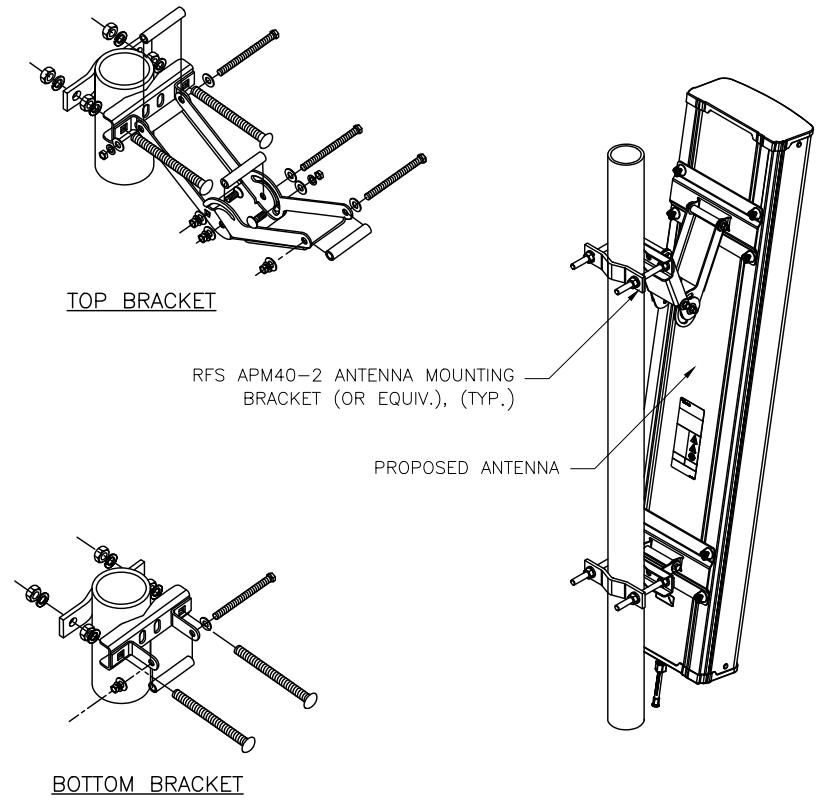
6 RADIO MOUNTING DETAIL

SCALE: N.T.S.

4 ANTENNA ATTACHMENT

SCALE: N.T.S.

2



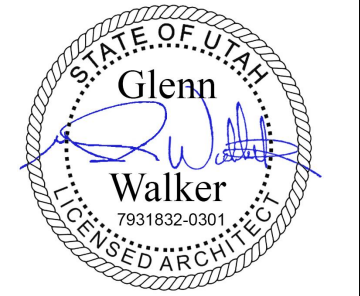


T-Mobile



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
0	07/19/19	100% CONSTRUCTION	KS
B	06/25/19	ISSUED FOR REVIEW 90%	JPN
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07/19/19

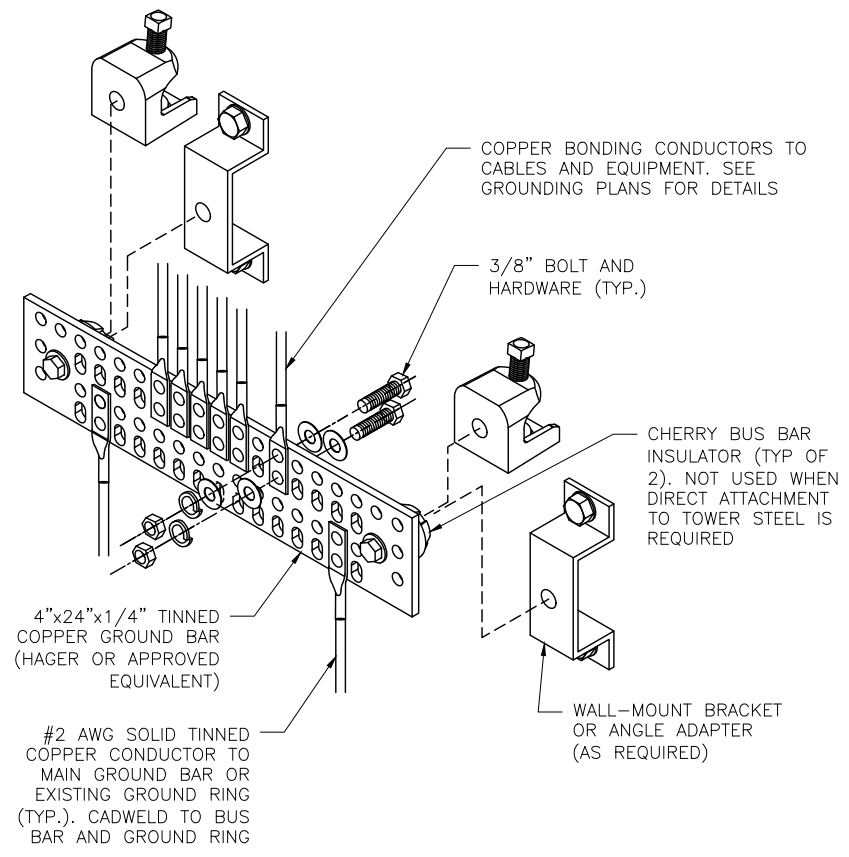
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SITE INFORMATION

**T-MOBILE #: SL01507C**  
**ATC #: 310318**  
**676 N 7100 E ST**  
**HUNTSVILLE, UT**  
**84317**

SHEET TITLE:  
**GROUNDING**  
**DETAILS**

SHEET NUMBER:  
**G-2**



NOT USED

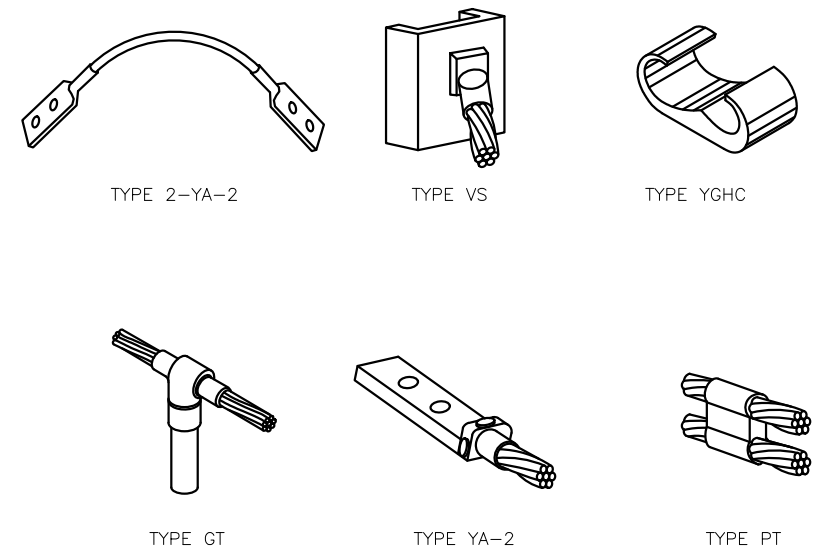
5 NOT USED

3 GROUND BAR DETAIL

SCALE: N.T.S. 1

NOTES:

1. CADWELD "TYPES" SHOWN ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC TYPES OF CADWELDS TO BE USED FOR THIS PROJECT.
2. CONFIRM WITH TOWER OWNER THAT THE USE OF CADWELDS IS ACCEPTABLE, PRIOR TO INSTALLATION.



NOT USED

6 NOT USED

4 CADWELD CONNECTION TYPES

SCALE: N.T.S. 2