



Staff Report

PLANNING DIVISION
DEPARTMENT of COMMUNITY and NEIGHBORHOODS

To: Administrative Hearing Officer, Salt Lake City Planning Division

From: Chris Earl, Associate Planner
(801) 535-7932
christopher.earl@slcgov.com

Date: June 13, 2019

Re: Conditional Use for a Cellular Monopole Antenna Array Expansion (PLNPCM2019-00212)

Conditional Use

PROPERTY ADDRESS: 558 W Pacific Avenue
MASTER PLAN: Gateway Specific Plan (1998)
ZONING DISTRICT: CG General Commercial District

REQUEST: T-Mobile, represented by Janet Keller of Powder River Development, is requesting to increase the size of an existing antenna array mounted on a 60 foot tall monopole from less than 24 inches to a 36 inch radius on the property located at 558 W Pacific Avenue. The subject property is located within the CG General Commercial District. The number of existing antennas (six total) will increase to nine total antennas. The larger antenna array is required to accommodate faster data speeds/more data capacity to surrounding cell customers.

RECOMMENDATION/MOTION: Based on the information in this staff report, planning staff recommends that the Administrative Hearing Officer approve the proposed conditional use for the telecommunications facility array expansion subject to the conditions listed below.

The following motion is provided in support of the recommendation:

Based on the findings and information listed in the staff report and the testimony and plans presented, I move that the Administrative Hearing Officer approve the requested conditional use application for the Cellular Monopole Antenna Array Expansion filed under Planning application PLNPCM2019-00212 subject to the following conditions:

- 1. Any modifications to the approved plans after the issuance of a building permit must be specifically requested by the applicant and approved by the Planning Division prior to execution.*
- 2. Applicant shall comply with all other department/division requirements.*

ATTACHMENTS:

- A. [Vicinity Aerial](#)
- B. [Applicant's Narrative](#)
- C. [Site and Facility Plans](#)
- D. [Existing Conditions](#)
- E. [Analysis of Standards](#)
- F. [Public Process and Comments](#)
- G. [Department Review Comments](#)

PROJECT DESCRIPTION:

This petition is to increase the size of an existing antenna array mounted on a 60 foot tall monopole from less than a 24 inches to a 36 inch radius in the CG General Commercial District. A monopole with a height of 60 feet or less and an antenna support structure of 2 feet or less in width is a permitted use in the zone, however, per section 21A.40.090 (E) of the Zoning Ordinance, all monopoles taller than 60 feet or with an antenna support structure exceeding 2 feet in width in the CG zone require Conditional Use approval.

Background

The subject property is approximately .16 acres in size and is used specifically to facilitate the existing monopole antenna and related equipment. The existing wireless facility is located in the northwest corner of the subject property within a 48 foot by 48 foot chainlink fence enclosure. A new generator will be installed inside the enclosure, but there will be no expansion to this enclosure area. The location of the facility in relation to Zoning Ordinance requirements is discussed in more detail in the Key Considerations section below.

**KEY CONSIDERATIONS:**

The key considerations were identified through the analysis of the project ([Attachment E](#)) and department review comments ([Attachment G](#)) and are discussed further in the following section of this report.

Consideration 1 – Visual and Neighborhood Impacts:

The property is currently used specifically to facilitate the existing monopole antenna and related equipment. Adjacent properties have been developed for a variety of industrial, commercial, manufacturing and warehouse uses. There is also a considerable amount of vacant land in the area. The Union Pacific Railroad and Utah transit authority tracks are located to the west of the property across 600 West. There are no residential uses in or near the vicinity.

Given the industrial nature of the area and activities that take place on adjacent properties, no detrimental impacts either visually, or on other properties are anticipated. The proposed array expansion will be minimally bigger than the existing array. While the monopole and antenna array will be visible from other properties, it is compatible with the height in the CG zoning district that buildings could be built up to by right. The CG district generally allows building up to 60-feet in height.

Consideration 2 – Location of the Wireless Site Compound and Monopole on the Site

The existing monopole is located on the northern portion of a parcel that is adjacent to Pacific Avenue and in close proximity to 600 West and 400 South. The location is illustrated on the aerial photograph included in [Attachment A](#). The following provisions of the Zoning Ordinance apply to such facilities in general and more specifically in the CG zoning district where the property is located.

21A.40.090: ANTENNA REGULATIONS:

6. Location and Minimum Setbacks: Monopoles with antennas and antenna support structure less than two feet (2') in width, monopoles with antennas and antenna support structure greater than two feet (2') in width and lattice towers shall be allowed only in the rear yard area of any lot. These structures shall not be located in a required landscaped area, buffer area or required parking area.

21A.26.070: CG GENERAL COMMERCIAL DISTRICT:***D. Minimum Yard Requirements:***

- 1. Front Yard: Ten feet (10').*
- 2. Corner Side Yard: Ten feet (10').*
- 3. Interior Side Yard: None required.*
- 4. Rear Yard: Ten feet (10').*

E. Landscape Yard Requirements:

A landscape yard of ten feet (10') shall be required on all front or corner side yards, in conformance with the requirements of chapter 21A.48 of this title.

DISCUSSION:

The existing wireless facility is allowed as a permitted use in the CG General Commercial District. The proposed array expansion is allowed as a conditional use. The use for the wireless telecommunications facility should be approved if reasonable conditions are proposed, or can be imposed, to mitigate the reasonably detrimental effects of the proposed use.

The proposed use meets the Conditional Use standards and Detrimental Effects Determination as analyzed and discussed in [Attachment E](#) of this report. No detrimental impacts are anticipated and as such, the conditional use should be approved by the Administrative Hearing Officer.

NEXT STEPS:

If the conditional use is approved, the applicant will be required to comply with all other department/division requirements and obtain all necessary building permits for the project.

ATTACHMENT A: VICINITY AERIAL



ATTACHMENT B: APPLICANT'S NARRATIVE



Powder River Development Services, LLC
408 S. Eagle Rd, Ste. 200
Eagle, ID 83616
(208) 938-8844 office
(208) 938-8855 fax
www.powderriverdev.com

February 28, 2019

Salt Lake City
Planning Center
PO Box 145471
Salt Lake City, UT 84114

Subject: **Parcel:** 15013030150000
Site Address: 420 S 500 W Salt Lake City, UT 84101
Project Name: 310280 ATC I-15/ I80 Interchange

Planning Center,

Powder River Development Services is representing American Tower Corporation (ATC) regarding the T-Mobile modification project on an existing wireless communication facility in Salt Lake City, referenced above.

The scope of work of this project consists of: At antenna level remove (3) existing antennas, (3) flush mounts & relocate (1) lightning rod. Install (3) T-arms, (9) antennas, (9) RRU & (3) hybrid cables. At ground level install (1) cabinet, (1) 4' x 6' concrete pad & (1) generator. There will be no expansion to the existing tower height and there will be no expansion to the existing compound.

Attached is the conditional use application, check for \$758.00, (1) 11 x 17 construction drawings and (1) 24 x 36 construction drawings. Please email me with any additional requirements or concerns (Janet.Keller@powderriverdev.com).

Respectfully,

Janet Keller

Site Acquisition Agent
Powder River Development Services, LLC
408 S. Eagle Rd, Ste. 200
Eagle, ID 83616
(208) 963-4016

ATTACHMENT C: SITE AND FACILITY PLANS



ATC ASSET #:
310280

SITE NAME:
ATC I-15 / I80 INTERCHANGE

SITE NUMBER:
SL01317B

FILE NAME:
310280_SL01317B_COLOCATION_FCD_REV 1_03122019

LOCATION:
558 W PACIFIC AVE, SALT LAKE CITY, UT 84101
40.75995°, -111.9071°

60' MONOPOLE
CO-LOCATION



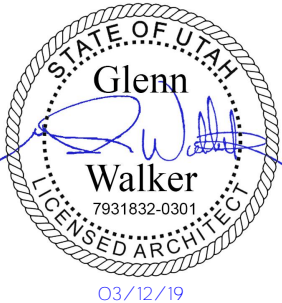
AMERICAN TOWER®



POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	03/12/19	REVISIONS	MAB
0	01/11/19	100% CONSTRUCTION	MAB
B	01/09/19	ISSUED FOR REVIEW 90%	TFW
A	12/03/18	ISSUED FOR REVIEW 90%	JPN



THESE PLANS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF POWDER RIVER DEVELOPMENT SERVICES, LLC WHETHER THE PROJECTS FOR WHICH THEY ARE MADE ARE EXECUTED OR NOT. THESE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY ANY PERSON OR ENTITY ON OTHER PROJECTS WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER.

SITE INFORMATION

T-MOBILE #: SL01317B

ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

SITE INFORMATION

TOWER MANAGER: AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBBURN, MA 01801

SITE ADDRESS: 558 W PACIFIC AVE
SALT LAKE CITY, UT 84101

COUNTY: SALT LAKE

LATITUDE: 40.75995°
LONGITUDE: -111.9071°
GROUND ELEVATION: 4229' AMSL

OCCUPANCY TYPE: UNMANNED
ZONING JURISDICTION: SALT LAKE CITY
ZONING CODE: CG
PARCEL NUMBER: 15013030150000

POWER PROVIDER: N/A
TELCO PROVIDER: N/A

CONTACT INFORMATION

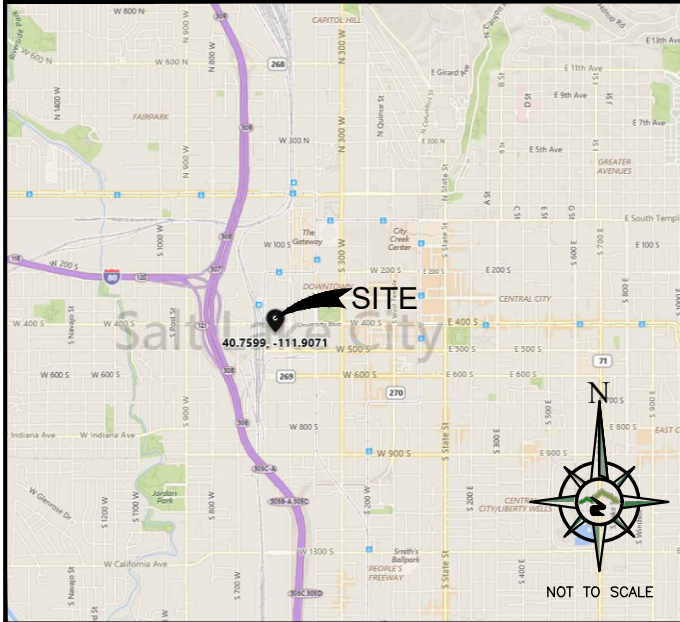
A&E SERVICES:
POWDER RIVER DEVELOPMENT SERVICES, LLC.
408 S. EAGLE ROAD, SUITE 200
EAGLE, ID 83616
CONTACT: BRIAN HUME
PHONE: 208.938.8844
EMAIL: brian.hume@powderriverdev.com

SITE ACQUISITION:
POWDER RIVER DEVELOPMENT SERVICES, LLC.
408 S. EAGLE ROAD, SUITE 200
EAGLE, ID 83616
CONTACT: JANET KELLER
PHONE: 208.963.4016
EMAIL: janet.keller@powderriverdev.com

APPLICANT:
T-MOBILE WEST LLC
3625 132ND AVE SE
BELLEVUE, WA 98006
CONTACT:
PHONE:
EMAIL:

TOWER CONTACT:
AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBBURN, MA 01801
CONTACT: DUSTIN EVANS
PHONE: 916.284.7537
EMAIL: dustin.evans@americantower.com

VICINITY MAP



SITE PHOTO



DRIVING DIRECTIONS

DIRECTIONS FROM SALT LAKE CITY INTERNATIONAL AIRPORT:

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. TAKE RAMP AND FOLLOW SIGNS FOR 600 SO. TURN LEFT ONTO S 400 W. TURN LEFT ONTO UT-269 W / CESAR E CHAVEZ BLVD / W 500 S. BEAR RIGHT ONTO W 500 S. TURN RIGHT ONTO S 600 W. TURN RIGHT ONTO W PACIFIC AVE. ARRIVE AT W PACIFIC AVE ON THE LEFT. THE LAST INTERSECTION IS S 600 W.

APPLICABLE CODES

BUILDING CODE 2015 IBC
ELECTRICAL CODE 2017 NEC

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
GN-2	GENERAL NOTES	1
C-0	PROPERTY PLAN	1
C-1	SITE PLAN	1
C-1.1	CONSTRUCTION DETAILS	1
C-2	EQUIPMENT PLAN	1
C-3	ELEVATIONS	1
C-4	ANTENNA PLAN	1
C-4.1	RFDS & CABLE SPECIFICATIONS	1
C-4.2	RFDS INFORMATION	1
C-5	EQUIPMENT DETAILS	1
C-6	EQUIPMENT DETAILS	1
C-7	EQUIPMENT DETAILS	1
C-8	EQUIPMENT DETAILS	1
C-9	WARNING SIGNS	1
C-10	DIAGRAM DETAILS	1
G-1	GROUNDING PLANS	1
G-2	GROUNDING DETAILS	1

SCOPE OF WORK

AT ANTENNA LEVEL

REMOVE (3) EXISTING ANTENNAS, & (3) EXISTING FLUSH MOUNTS
RELOCATE (1) LIGHTNING ROD
INSTALL (3) T-ARMS, (9) ANTENNAS, (9) RRU & (3) HYBRID CABLES

AT GROUND LEVEL

INSTALL (1) CABINET, (1) 4' x 6' CONCRETE PAD & (1) GENERATOR

GENERAL NOTES

- 1.GENERAL NOTES AND TYPICAL DETAILS SHALL APPLY TO ALL PARTS OF THE JOB EXCEPT WHERE THEY MAY CONFLICT WITH DETAILS AND NOTES ON OTHER SHEETS. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW BY THE ENGINEER.
- 2.WORK SHALL CONFORM TO THE REQUIREMENTS, AS AMENDED TO DATE, OF THE LATEST EDITION OF THE BUILDING CODE AND ALL OTHER LOCAL, STATE AND FEDERAL REGULATIONS.
- 3.OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH ANY WORK INVOLVED.
- 4.ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, THEY SHALL BE REPORTED TO THE ENGINEER SO THAT THE PROPER REVISION MAY BE MADE. MODIFICATIONS OF CONSTRUCTION DETAILS SHALL NOT BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- 5.THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING BUT NOT LIMITED TO BRACING, TEMPORARY SUPPORTS AND SHORING. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES. ANY SUPPORT SERVICES PERFORMED BY THE ENGINEER DURING THE CONSTRUCTION SHALL BE DISTINGUISHED FROM CONSTRUCTION AND DETAILED INSPECTION SERVICES WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ENGINEER, WHETHER OF MATERIAL OR WORK, ARE FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DOCUMENTS, BUT DO NOT GUARANTEE CONTRACTORS PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. NEITHER THE OWNER NOR ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
- 6.SAFETY: CONFORM TO ALL APPLICABLE OSHA CONSTRUCTION SAFETY REGULATIONS FOR ALL WORK PERFORMED DURING CONSTRUCTION. JOB SITE SAFETY IS STRICTLY THE RESPONSIBILITY OF THE CONTRACTOR AND NOT THE ENGINEER OR OWNER.
- 7.ANY PROPRIETARY COMPONENTS, MOUNTS, MATERIALS, CHEMICAL, EPOXY AND WEDGE ANCHORS, AND SHOT PINS SHALL BE EXACTLY AS CALLED FOR IN THESE DRAWINGS. ANY DEVIATIONS SHALL BE APPROVED OR DISAPPROVED BY THE ENGINEER AT THE EXPENSE OF THE ENTITY REQUESTING THE SUBSTITUTION PRIOR TO THE INSTALLATION.
- 8.THE CONTRACTOR’S SCOPE OF WORK SHALL INCLUDE ALL ITEMS DEFINED IN THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: THE CONTRACT, SPECIFICATIONS AND CONSTRUCTION DRAWINGS.
- 9.THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR COORDINATION AND ASSEMBLY OF ALL PARTS OF THE CONSTRUCTION DEPICTED HEREIN. THE CONTRACTOR SHALL PERFORM ANY CONSTRUCTABILITY REVIEW OR COORDINATION DRAWINGS NECESSARY TO IDENTIFY CONSTRUCTABILITY PROBLEMS PRIOR TO CONSTRUCTION.
10. 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 COORDINATION. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS, ETC., SHALL BE REPORTED TO THE CARRIER CONSTRUCTION SUPERVISOR BEFORE PROCEEDING WITH THE WORK.
11. THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING STRUCTURES, LANDSCAPING OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE TENANT, BUILDING OWNER OR OWNER’S REPRESENTATIVE AT THE EXPENSE OF THE CONTRACTOR.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETED.
14. THE CONTRACTOR SHALL PROVIDE TEMPORARY WATER, POWER AND TOILET FACILITIES AS REQUIRED BY THE GOVERNING AGENCY.
15. THE CONTRACTOR AND ALL SUBORDINATE CONTRACTORS SHALL COMPLY WITH ALL LOCAL AND STATE AND FEDERAL REGULATIONS.
16. 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 CARRIER.
17. CHECK ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED, DO NOT FABRICATE ANY MATERIALS OFF SITE, NOR PERFORM ANY CONSTRUCTION ACTIVITIES UNTIL THE ACCURACY OF DRAWING DIMENSIONS HAVE BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS. IN ALL CASES WHERE A CONFLICT MAY OCCUR, SUCH AS BETWEEN ITEMS COVERED IN SPECIFICATIONS AND NOTES ON THE DRAWINGS OR BETWEEN GENERAL NOTES AND SPECIFIC PLANS OR DETAILS, THE ENGINEER SHALL BE NOTIFIED, AND HE/SHE WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS PRIOR TO THE INSTALLATION OF THAT PORTION OF WORK.
18. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR OF ANY CONFLICTS OR DISCREPANCIES IN THE CONTRACT DOCUMENTS OR FIELD CONDITIONS PRIOR TO EXECUTING THE WORK IN QUESTION.
19. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR IF DETAILS ARE CONSIDERED UNSOUND, UNSAFE, NOT WATERPROOF, OR NOT WITHIN CUSTOMARY TRADE PRACTICE. IF WORK IS PERFORMED, IT WILL BE ASSUMED THAT THERE IS NO OBJECTION TO THE DETAIL. DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB

- CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.
20. EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION. IF THEY DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK.
21. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE ENGINEER SHALL BE CONTACTED FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
22. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORT NOT OTHERWISE SHOWN HEREIN. ALL SUSPENDED MECHANICAL EQUIPMENT TO BE SWAY OR Laterally BRACED.
23. GOVERNING AGENCY–APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT SAME INFORMATION. AT ALL TIMES THESE ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT.
24. DESIGN DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION CONDITIONS WILL PERMIT. ANY ERROR, OMISSION, OR DESIGN DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE CARRIER CONSTRUCTION SUPERVISOR FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION.
25. AS–BUILT REQUIREMENTS: DO NOT USE RECORD DOCUMENTS FOR CONSTRUCTION PURPOSES. PROTECT RECORD DOCUMENTS FROM DETERIORATION AND LOSS IN A SECURE, FIRE–RESISTANT LOCATION. PROVIDE ACCESS TO RECORD DOCUMENTS FOR THE CARRIER CONSTRUCTION SUPERVISOR’S REFERENCE DURING NORMAL WORKING HOURS. MAINTAIN A CLEAN, UNDAMAGED SET OF BLUE OR BLACK LINE PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK WHICH DRAWINGS ARE MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS–REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD SETS WITH RED ERASABLE PENCIL. USE OTHER COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE WORK. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER BUT WAS NOT SHOWN ON THE CONTRACT DRAWINGS, DETAILS OR SHOP DRAWINGS. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE. NOTE RELATED RECORD DRAWING INFORMATION AND PRODUCT DATA. UPON COMPLETION OF THE WORK, SUBMIT ONE (1) COMPLETE SET OF RECORD DOCUMENTS TO THE CARRIER CONSTRUCTION SUPERVISOR FOR THE OWNER’S RECORDS.
26. A CLOSEOUT BOOK CONTAINING THE FOLLOWING, SHALL BE PROVIDED BY THE CONTRACTOR, AS APPLICABLE:

A.AS BUILT DESIGN DRAWINGS

B.SWEEP TEST RESULTS

C.RESISTIVELY TEST

D.PHOTO DOCUMENTATION OF:

I. UNDERGROUND CONDUITS AND GROUND RING

II. ANTENNA, COAX, JUMPER ATTACHMENTS AND GROUND KIT ATTACHMENTS

III. ANTENNA DOWN TILT MEASUREMENT USING AN INCLINOMETER ON THE BACK PLANE OF THE ANTENNA

IV. GROUND BAR ATTACHMENTS

E.SIGNED OFF PERMIT CARDS

F.CERTIFICATE OF OCCUPANCY

G.RETURN OF KEYS AND/OR ACCESS AUTHORIZATION

H.ORIGINAL BUILDING PERMIT

SITE WORK NOTES

- 1.SCOPE: CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUB GRADE PREPARATION, FINISH GRADING AND SECURITY FENCE, AS REQUIRED BY CONSTRUCTION DRAWINGS AND DETAIL DRAWINGS.
- 2.REFERENCES:

A.DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR THE STATE IN WHICH THE PROJECT IS LOCATED.

B.ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

C.OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)

D.AASHTO (AMERICAN ASSOCIATION OF STATE TRANSPORTATION OFFICIALS)
- 3.INSPECTION AND TESTING:

A.FIELD TESTING OF EARTHWORK, AGGREGATE BASE COURSE, COMPACTION AND CONCRETE TESTING SHALL BE PERFORMED BY THE CONTRACTOR’S INDEPENDENT TESTING LAB.

B.ALL WORK SHALL BE INSPECTED AND RELEASED BY THE CARRIER CONSTRUCTION SUPERVISOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE CONTRACTOR’S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF THE WORK INACCESSIBLE OR DIFFICULT TO INSPECT.
- 4.SITE MAINTENANCE AND PROTECTION:

A.PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF THE WORK UNTIL COMPLETION OF THE CONTRACT.

B.CONTACT THE ONE–CALL UTILITY LOCATION SERVICE PRIOR TO ANY EXCAVATING ACTIVITIES TO HAVE LOCATIONS OF UNDERGROUND UTILITIES VERIFIED.

C.AVOID DAMAGE TO THE SITE INCLUDING EXISTING FACILITIES, STRUCTURES, TREES AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING ITEMS THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.

D.KEEP SITE FREE OF ALL PONDING WATER.

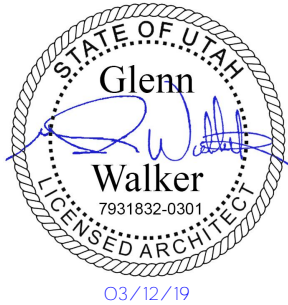
E.CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, CITY, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT

- ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS AND CHECK DAMS.
- F.PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT LIFE AND PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- 5.BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE WELL DRAINED AT ALL TIMES.
- 6.ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
- 7.PERFORM ALL SURVEY, LAYOUT, STAKING AND MARKING TO ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
- 8.CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE AND ONLY THE IMMEDIATE SURROUNDINGS NECESSARY TO COMPLETE THE WORK. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED AND GRUBBED.
- 9.REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING IS NOT PERMITTED.
10. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS, AND ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, CULVERT, STREAM CROSSING OR OTHER ITEM NOT SHOWN THAT MIGHT AFFECT OR INTERFERE WITH THE NEW CONSTRUCTION. NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
11. SEPARATE AND STOCKPILE ALL EXCAVATED MATERIALS SUITABLE FOR BACK FILL. ALL EXCESS EXCAVATED, AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN AN AREA DESIGNATED BY THE CARRIER CONSTRUCTION SUPERVISOR. (UNSUITABLE MATERIAL MAY BE REQUIRED TO BE REMOVED FROM THE SITE.)



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	03/12/19	REVISIONS	MAB
0	01/11/19	100% CONSTRUCTION	MAB
B	01/09/19	ISSUED FOR REVIEW 90%	TFW
A	12/03/18	ISSUED FOR REVIEW 90%	JPN



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SITE INFORMATION

T-MOBILE #: SL01317B

ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:

GENERAL
NOTES

SHEET NUMBER:

GN-1

ELECTRICAL NOTES

- 1.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.
- 2.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:
- A. ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE)
 - B. IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS)
 - C. NEC (NATIONAL ELECTRICAL CODE), LATEST EDITION
 - D. NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
 - E. NFPA 70 (NATIONAL FIRE PROTECTION ASSOCIATION)
 - F. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), INCLUDING ALL APPLICABLE AMENDMENTS
 - G. UL (UNDERWRITERS LABORATORIES)
 - H. APPLICABLE LOCAL CODES AND ORDINANCES
- 3.THE CONTRACTOR SHALL INSTALL UNDERGROUND ELECTRICAL AND TELEPHONE CONDUITS AND CABLE AS SPECIFIED HEREIN AND AS SHOWN ON THE DRAWINGS.
- 4.WHEN FINISHED, WORK SHALL BE IN A COMPLETE AND UNDAMAGED STATE, AS REQUIRED IN THE CONTRACT DOCUMENTS.
- 5.ITEMS SHALL BE NEW AND SHALL BE INSTALLED ONLY IF IN FIRST-CLASS CONDITION.
- 6.SUBSTITUTIONS FOR MATERIAL WILL BE PERMITTED ONLY BY WRITTEN APPROVAL OF THE CARRIER CONSTRUCTION SUPERVISOR AND BY THE ENGINEER.
- 7.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.
- 8.CONDUITS:
- A. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC , SIZED AS SHOWN ON THE CONSTRUCTION DRAWINGS.
 - B. ALL EXTERIOR ABOVEGROUND CONDUIT SHALL BE PER LOCAL CODE REQUIREMENTS.
 - C. ALL INTERIOR CONDUIT SHALL BE EMT WITH COMPRESSION-TYPE FITTINGS.
 - D. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR OUTDOOR LOCATIONS WHERE FLEXIBLE CONNECTION IS REQUIRED.
- 9.CABLES CONDUCTORS FOR GENERAL WIRING SHALL BE NEC STANDARD ANNEALED COPPER WIRE WITH NEC 600-VOLT INSULATION.
- A. #8 AND LARGER-STRANDED TYPE, THHN OR THWN.
 - B. #10 AND SMALLER-SOLID TYPE THHN OR THWN.
 - C. CONDUCTORS IN CONDUIT IN OR ADJACENT TO HIGH HEAT SOURCE SHALL BE TYPE XHHW.
 - D. CONDUCTORS IN CONDUITS ABOVE ROOF, ON TOP OF ROOF OR INSIDE BUILT-UP ROOFING MATERIAL SHALL BE TYPE XHHW
10. CONVENIENCE OUTLET, UNLESS NOTED OTHERWISE, SURFACE-MOUNTED OUTLETS FOR EXTERIOR LOCATIONS SHALL BE FERALOY, 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.
11. 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.
12. BEFORE LAYING OUT WORK, EXERCISE PROPER PRECAUTION TO VERIFY EACH MEASUREMENT.
13. USE EXTREME CAUTION BEFORE EXCAVATING IN EXISTING AREAS TO LOCATE EXISTING UNDERGROUND SERVICES.
14. 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.
15. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR 24 HOURS PRIOR TO TRENCH BACK FILL.
16. TRENCHING, BACK FILLING, BEDDING AND COMPACTING SHALL COMPLY WITH SITE WORK SPECIFICATIONS.
17. 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.
18. INSTALL UNDERGROUND CONDUIT WITH A MINIMUM 3-INCH TO 100-FOOT SLOPE OR TO A SLOPE SHOWN ON THE DRAWINGS.
19. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, TERMINATE AND CAP ALL STUB-UPS 12 INCHES ABOVE FINISHED GRADE ELEVATION.
20. 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.
21. 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.
22. 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.
23. COAXIAL - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.
24. ANTENNA - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.
25. LNA/MHA - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.

GROUNDING NOTES

- 1.THIS SPECIFICATION PRESCRIBES THE REQUIREMENTS FOR FURNISHING, INSTALLATION AND TESTING OF THE GROUNDING CABLE, CONNECTORS AND ASSOCIATED COMPONENTS AS INDICATED ON THE DRAWINGS.
- 2.APPLICATIONS OF ELECTRICAL GROUNDING AND BONDING WORK SPECIFIED IN THIS SPECIFICATION INCLUDE THE FOLLOWING:
- A. FENCE AND GATE POSTS
 - B. ELECTRICAL POWER SYSTEMS
 - C. GROUNDING ELECTRODES
 - D. GROUND BUS BAR
 - E. SERVICE EQUIPMENT
 - F. ENCLOSURES
 - G. MONOPOLE / LATTICE TOWER
 - H. ICE BRIDGE
- 3.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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 - C. NEC (NATIONAL ELECTRICAL CODE), LATEST EDITION
 - D. NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
 - E. NESC (NATIONAL ELECTRICAL SAFETY CODE), LATEST EDITION
 - F. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
 - G. UL (UNDERWRITERS' LABORATORIES)
 - H. APPLICABLE LOCAL CODES AND ORDINANCES
- 4.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.
- A. GROUNDING:
- I. THE EQUIPMENT SHALL BE GROUNDED AS FOLLOWS, AS SHOWN ON THE DRAWINGS AND IN COMPLIANCE WITH NEC ARTICLE 250 AND STATE AND LOCAL CODES.
 - II. 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.
 - III. 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.
 - IV. COORDINATE WITH OTHER ELECTRICAL WORK AS NECESSARY TO INTERFACE INSTALLATION OF ELECTRICAL GROUNDING AND BONDING SYSTEMS.
 - V. INSTALL GROUND CONDUCTORS A MINIMUM OF 36 INCHES BELOW FINISHED GRADE WHICH ENCIRCLE THE TOWER AND EQUIPMENT, AND ARE CONNECTED TO EACH DRIVEN GROUND ROD. GROUND TRENCH SHALL BE AT LEAST 24 INCHES AWAY FROM FOUNDATIONS.
 - VI. 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.
 - VII. 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.
 - VIII. 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.
 - IX. ALL TOWER AND TOP GROUND WIRES SHALL BE SUPPORTED EVERY TWO FEET MAXIMUM.
- B. GROUND RODS:
- I. GROUND RODS SHALL BE 5/8" DIAMETER WITH 8'-0" EMBEDMENT MIN., COPPER CLAD DRIVEN ROD(S).
 - II. GROUND ROD(S) SHALL BE LOCATED AT THE PERIMETER OF EQUIPMENT AS TO CREATE A GROUND RING AS SHOWN ON THE DRAWINGS.
 - III. GROUND ROD(S) SHALL BE SPACED AT A MINIMUM OF 8'-0" AND A MAXIMUM SPACING OF 10'-0" ON CENTER.
 - IV. GROUND RODS SHALL BE BURIED BELOW THE FROSTLINE. AT NO TIME SHALL THIS DEPTH BE LESS THAN 18" BELOW FINISHED GRADE.
 - V. 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).
 - VI. GROUND ROD LOCATIONS SHALL BE NOTED ON THE AS-BUILT DRAWING

- COMPLETE WITH DIMENSIONS.
- VII. PROVIDE GROUND TEST WELLS SHOWN ON THE CONSTRUCTIONDRAWINGS.
- C. GROUND CONDUCTOR:
- I. 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.
 - II. 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 I INSTALLED AS PER THE MANUFACTURER'S INSTRUCTIONS.
 - III. GROUND CONDUCTORS SHALL BE ROUTED IN THE SHORTEST AND C STRAIGHTEST DISTANCES POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES. CONDUCTORS SHALL BE INSTALLED AS FOLLOWS:
 - IV. ALL GROUND CONDUCTORS SHALL FOLLOW A CONTINUOUS DOWNWARD PATTERN TO THE GROUND SOURCE. (NEVER RUN GROUND CONDUCTOR IN AN UPWARD DIRECTION.)
 - V. CONDUCTORS SHALL BE INSTALLED WITH A MINIMUM OF 12-INCH MINIMUM BENDING RADIUS.
 - VI. 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.
- 5.PREPARATION:
- A. ALL SURFACES TO WHICH GROUND CONNECTIONS WILL BE MADE SHALL BE FREE OF PAINT, GALVANIZING DIRECT CORROSION, ETC.
 - B. ALL METAL SURFACES EXPOSED ON GROUNDING SHALL BE EITHER COLD GALVANIZE, OR PAINTED TO MATCH ORIGINAL SURFACE.
- 6.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.
- 7.GROUND TESTING:
- A. THE CONTRACTOR SHALL TEST THE GROUND ELECTRODE ROD RESISTANCE IN ACCORDANCE WITH THE METHODS OF MEASUREMENT DEFINED IN THE FALL OF POTENTIAL METHOD.
 - B. 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.
 - C. 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.
 - D. GROUND TESTS ARE TO BE PERFORMED BY QUALIFIED PERSONS FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE EQUIPMENT AND THE HAZARDS INVOLVED.
 - E. 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



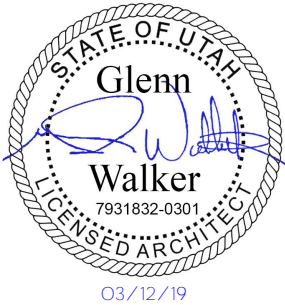
AMERICAN TOWER®



POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

REVISIONS				
REV	DATE	DESCRIPTION	INT	
1	03/12/19	REVISIONS	MAB	
0	01/11/19	100% CONSTRUCTION	MAB	
B	01/09/19	ISSUED FOR REVIEW 90%	TFW	
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SITE INFORMATION

T-MOBILE #: SL01317B

ATC #: 310280

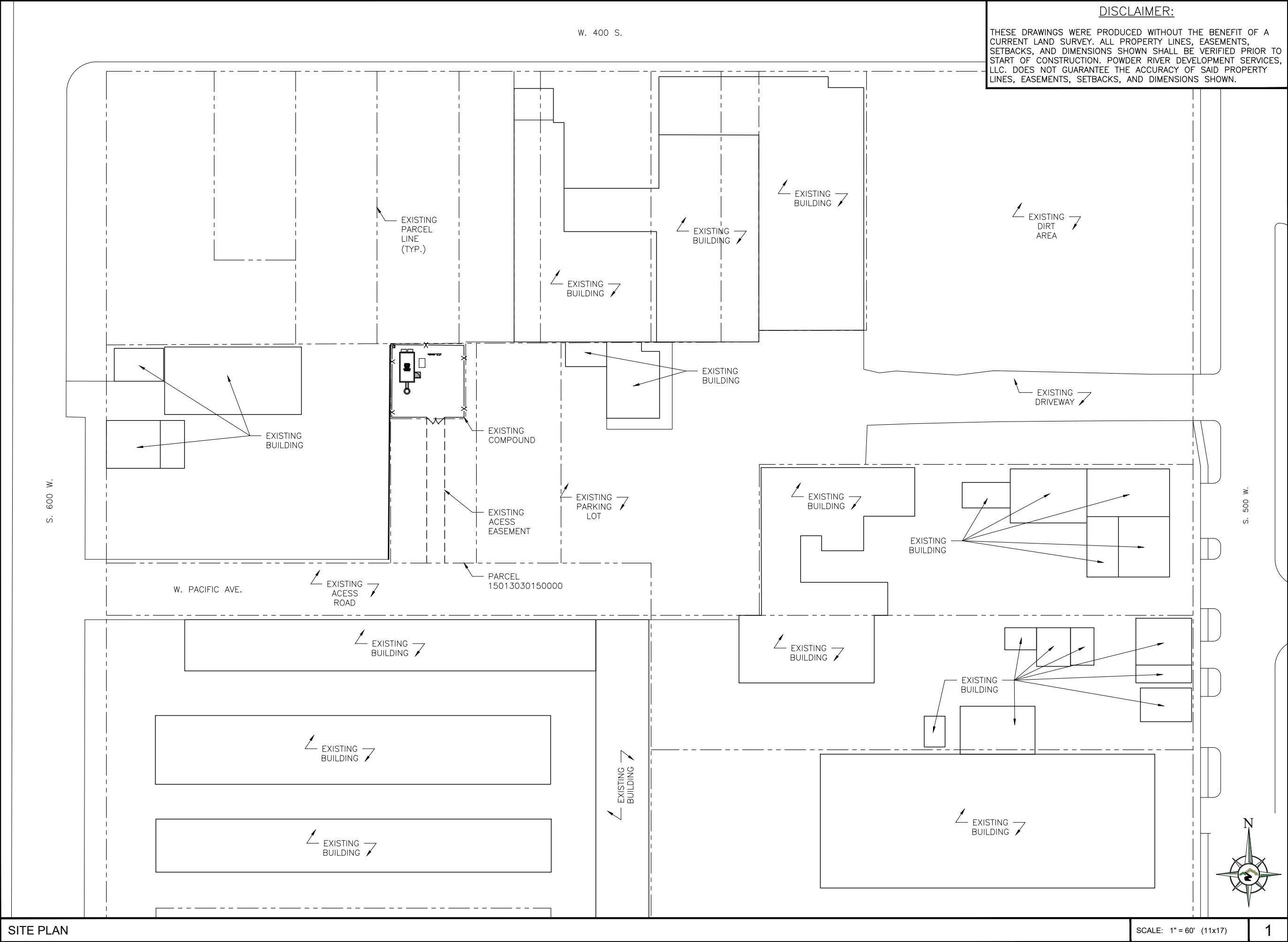
558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:

GENERAL
NOTES

SHEET NUMBER:

GN-2



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BUSINESS LICENSE #: N/A

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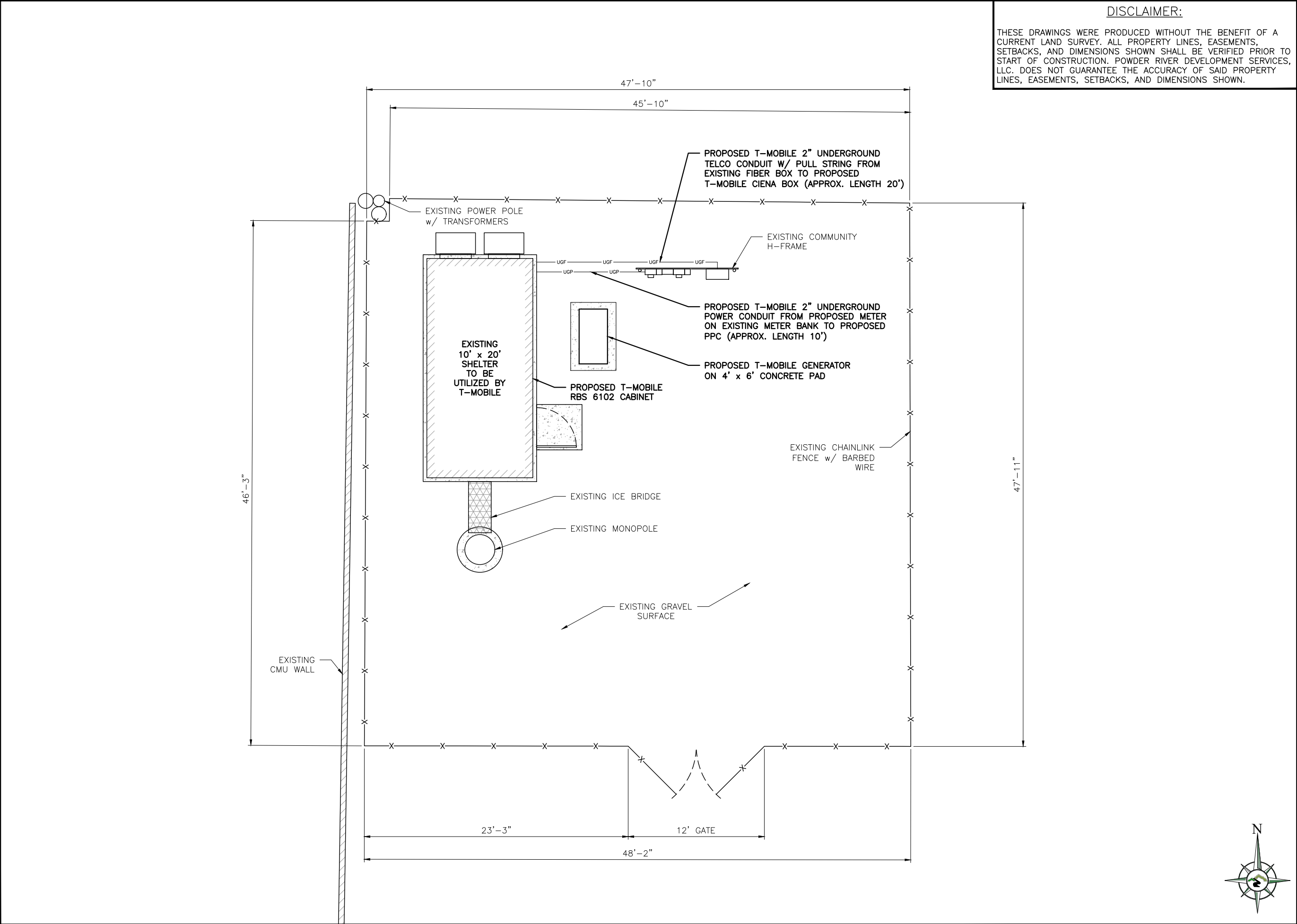
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**558 W PACIFIC AVE
SALT LAKE CITY, UT
84101**

SHEET TITLE:
PROPERTY PLAN

SHEET NUMBER:
C-0

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BUSINESS LICENSE #:

N/A

REVISIONS			
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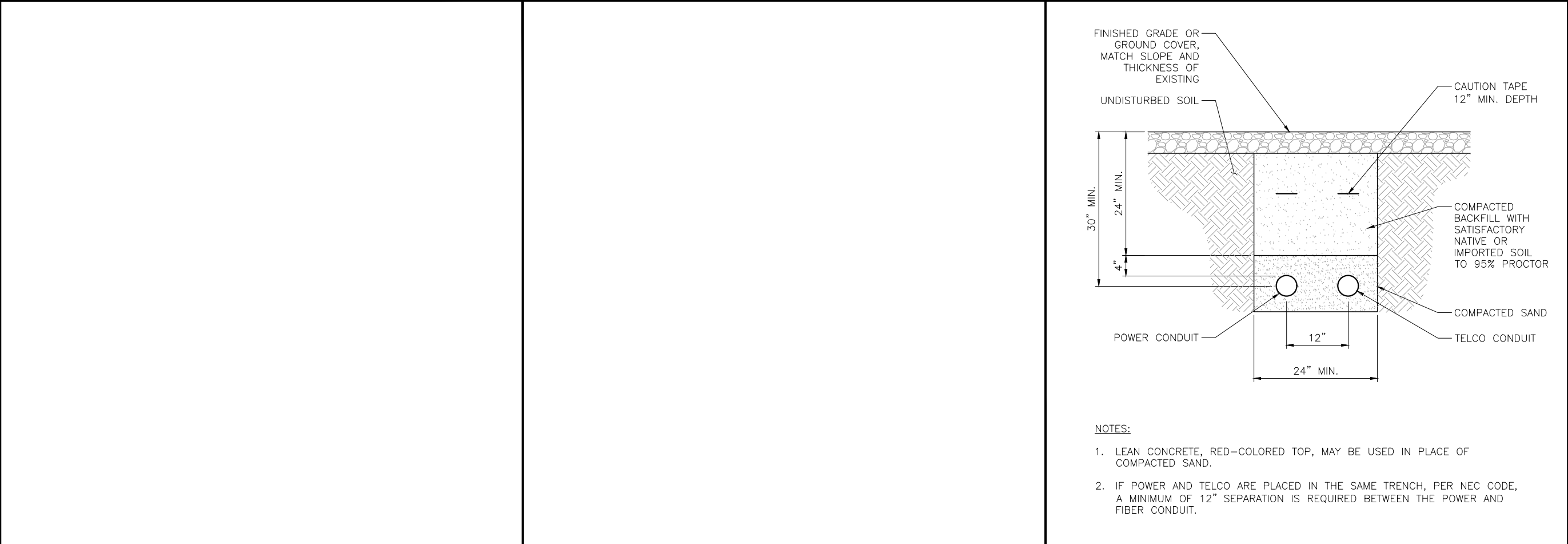
**558 W PACIFIC AVE
SALT LAKE CITY, UT
84101**

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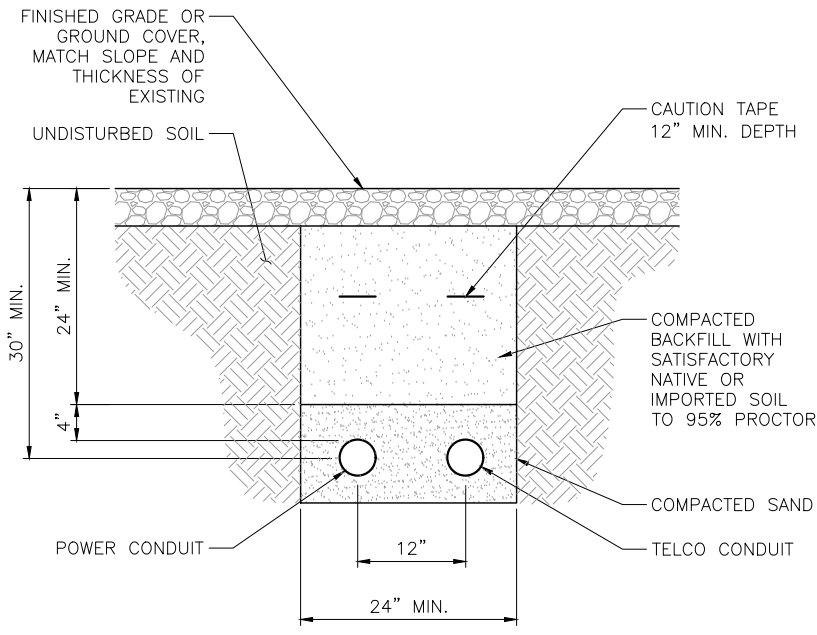
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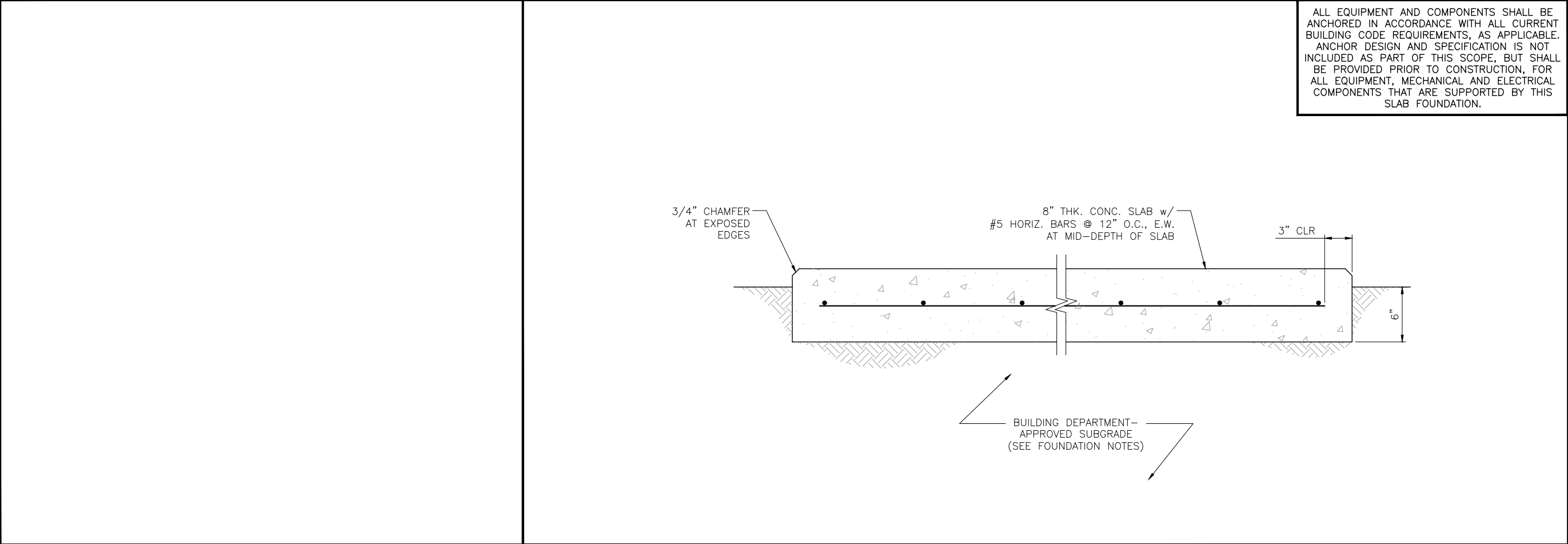
C-1



NOT USED	5	NOT USED	3	CONDUIT TRENCH DETAIL	SCALE: N.T.S.	1
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- NOTES:
- LEAN CONCRETE, RED-COLORED TOP, MAY BE USED IN PLACE OF COMPACTED SAND.
 - IF POWER AND TELCO ARE PLACED IN THE SAME TRENCH, PER NEC CODE, A MINIMUM OF 12" SEPARATION IS REQUIRED BETWEEN THE POWER AND FIBER CONDUIT.



ALL EQUIPMENT AND COMPONENTS SHALL BE ANCHORED IN ACCORDANCE WITH ALL CURRENT BUILDING CODE REQUIREMENTS, AS APPLICABLE. ANCHOR DESIGN AND SPECIFICATION IS NOT INCLUDED AS PART OF THIS SCOPE, BUT SHALL BE PROVIDED PRIOR TO CONSTRUCTION, FOR ALL EQUIPMENT, MECHANICAL AND ELECTRICAL COMPONENTS THAT ARE SUPPORTED BY THIS SLAB FOUNDATION.

NOT USED	4	CONCRETE PAD DETAIL	SCALE: N.T.S.	2
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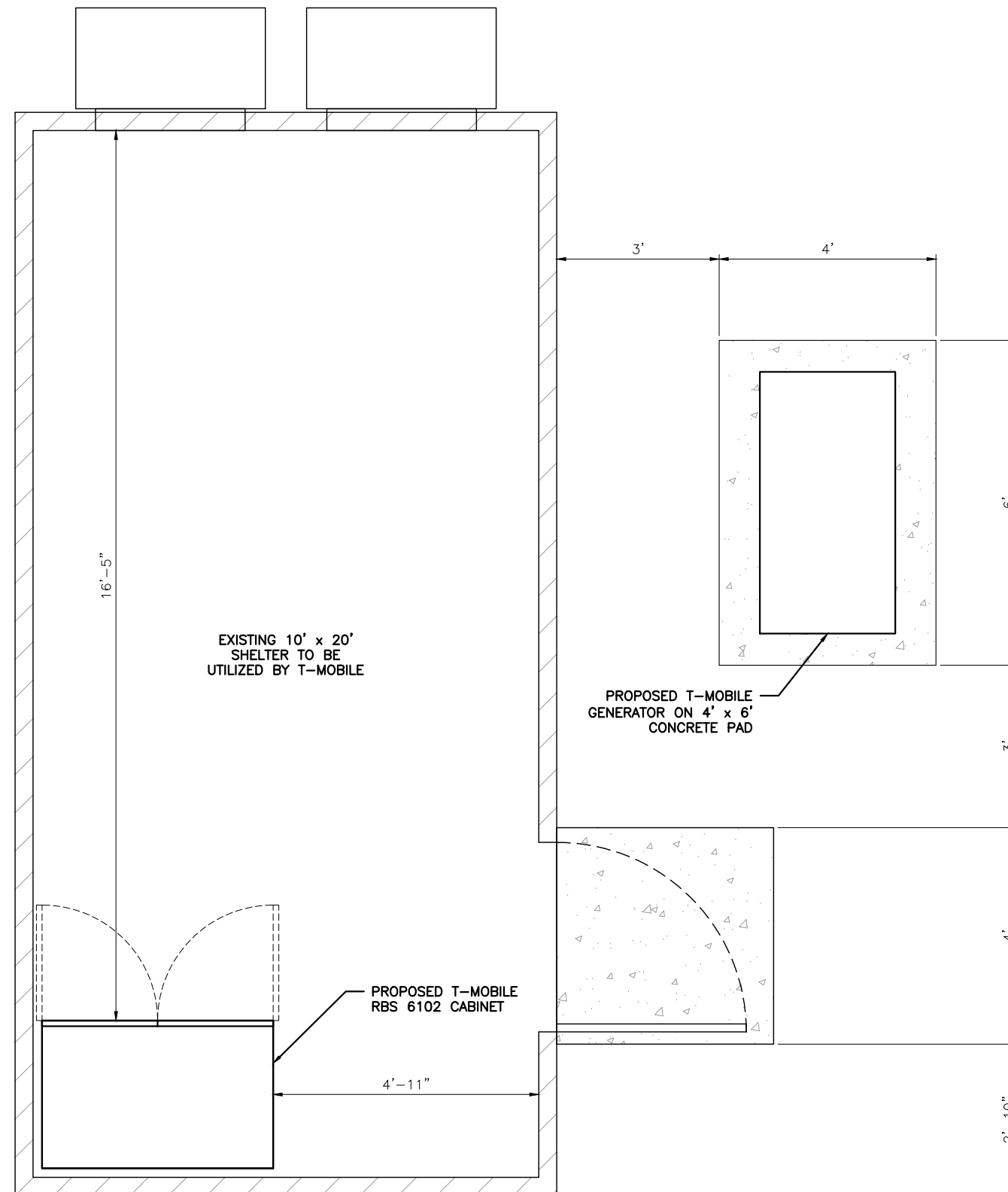
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REVISIONS			
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558 W PACIFIC AVE SALT LAKE CITY, UT 84101
SHEET TITLE: CONSTRUCTION DETAILS
SHEET NUMBER: C-1.1

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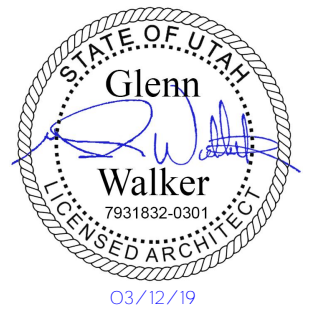


1



BUSINESS LICENSE #:	N/A
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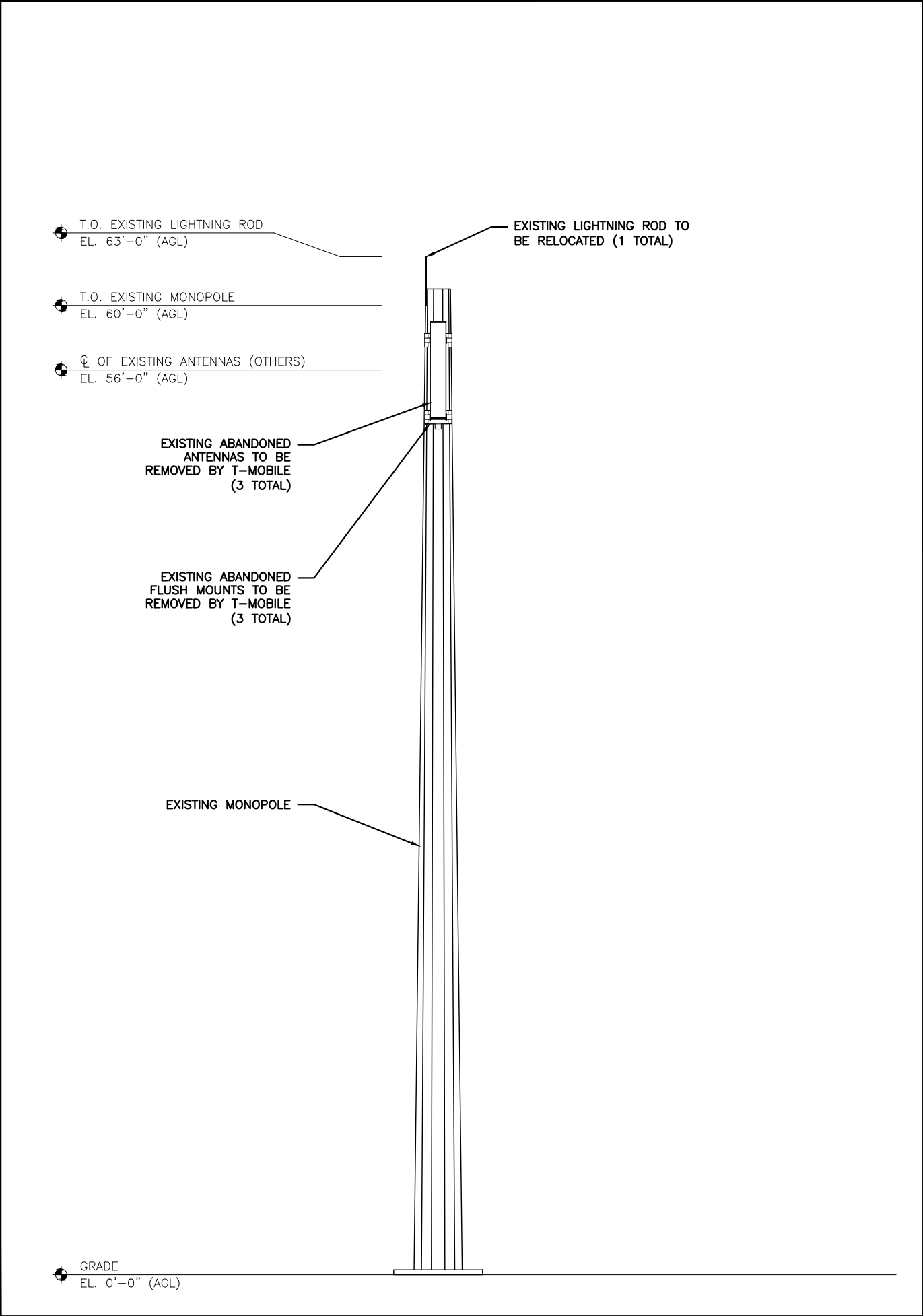


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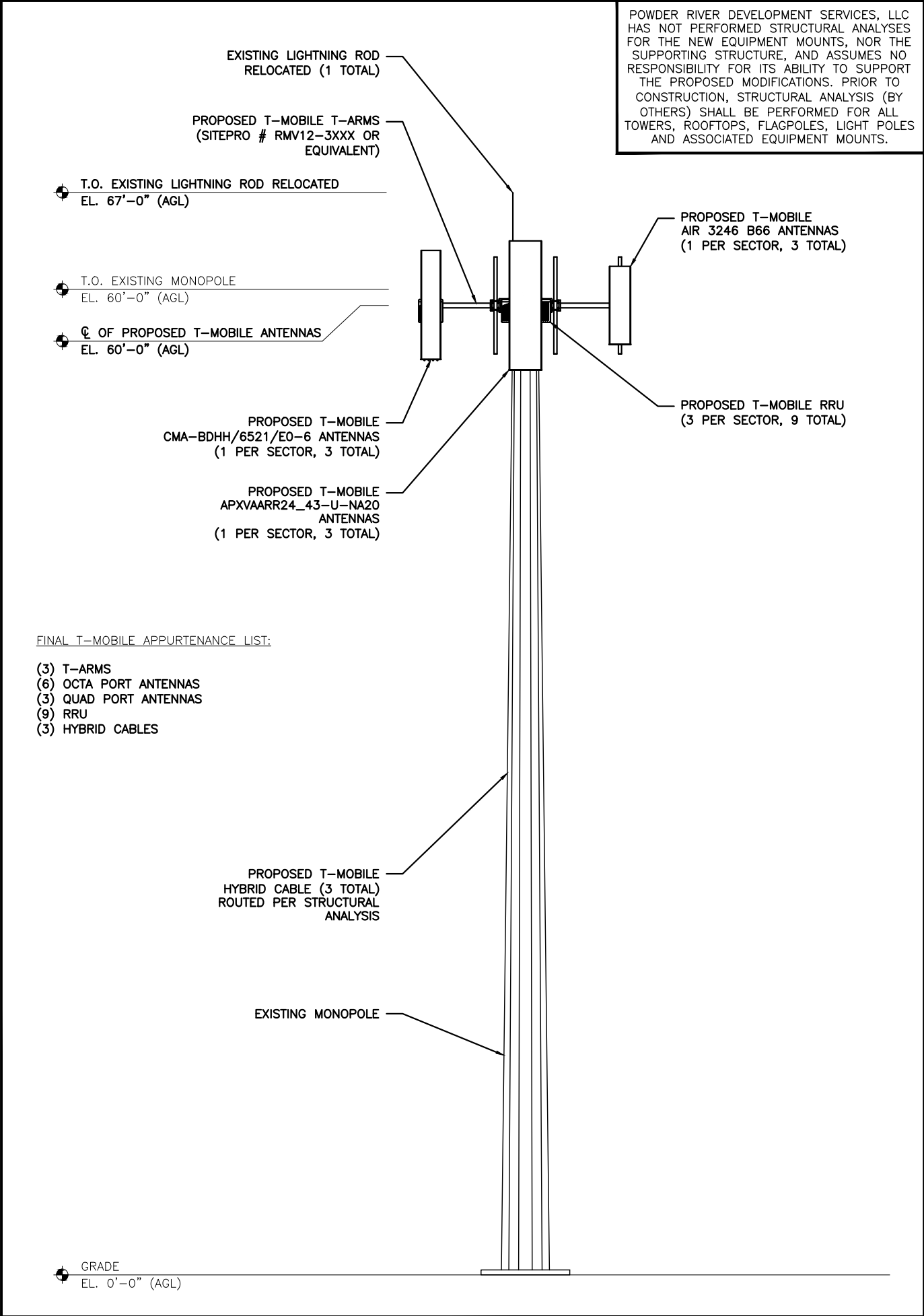
558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

EQUIPMENT PLAN

C-2



TOWER ELEVATION (EXISTING) SCALE: 1/8" = 1'-0" (11x17) 2



TOWER ELEVATION (PROPOSED) SCALE: 1/8" = 1'-0" (11x17) 1

BUSINESS LICENSE #: N/A

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84101**

SHEET TITLE:
ELEVATIONS

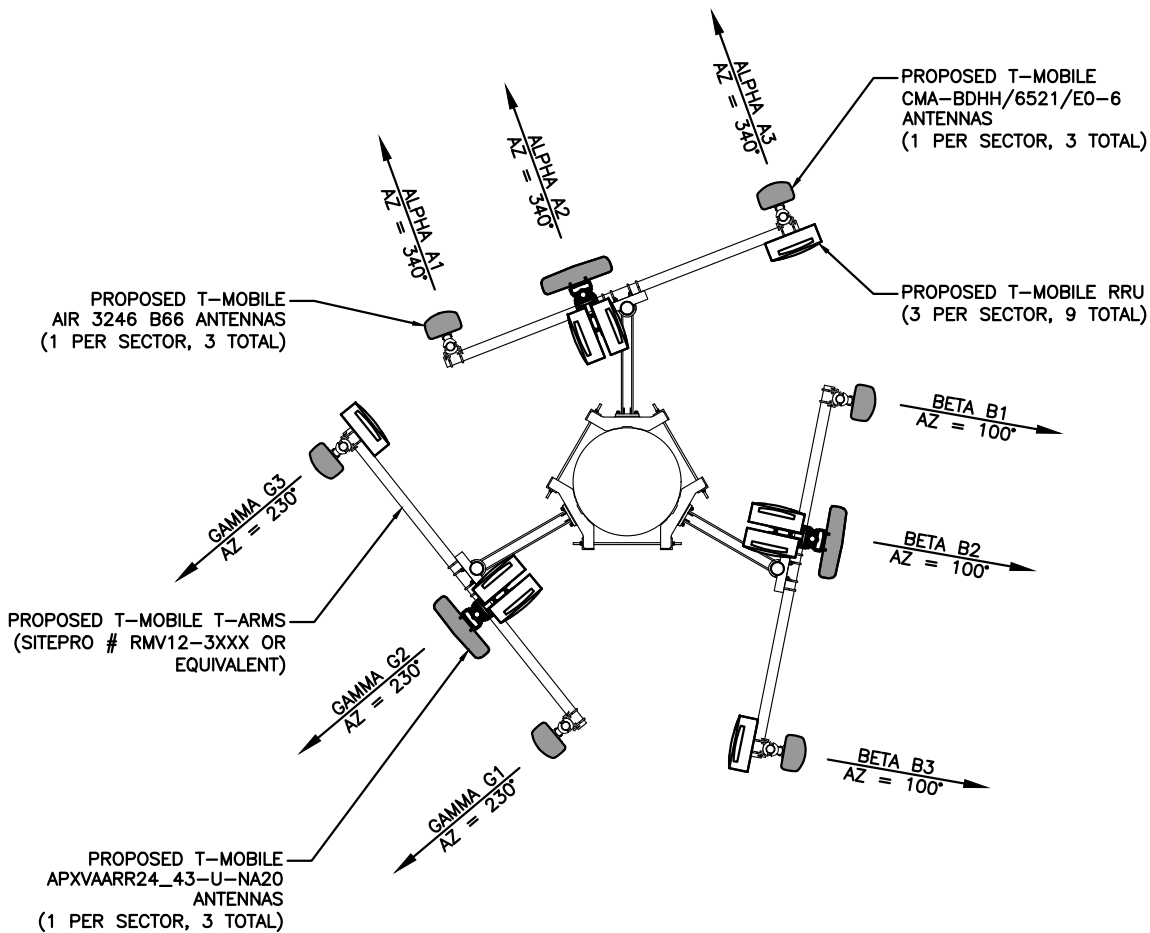
SHEET NUMBER:
C-3

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	A3	B1	B2	B3	G1	G2	G3
ANTENNA TYPE	L2100	L600/L700/LAWS3	U1900/L1900	L2100	L600/L700/LAWS3	U1900/L1900	L2100	L600/L700/LAWS3	U1900/L1900
AZIMUTH	340°	340°	340°	100°	100°	100°	230°	230°	230°
RAD CENTER (AGL)	60'-0"	60'-0"	60'-0"	60'-0"	60'-0"	60'-0"	60'-0"	60'-0"	60'-0"
MODEL	ERICSSON AIR3246 B66	RFS APXVAARR24_43-U-NA20	CELLMAX CMA-BDHH/6521/E0-6	ERICSSON AIR3246 B66	RFS APXVAARR24_43-U-NA20	CELLMAX CMA-BDHH/6521/E0-6	ERICSSON AIR3246 B66	RFS APXVAARR24_43-U-NA20	CELLMAX CMA-BDHH/6521/E0-6
RRU		ERICSSON 4449 B71 + B12 ERICSSON 4415 B66A	ERICSSON 4415 B25		ERICSSON 4449 B71 + B12 ERICSSON 4415 B66A	ERICSSON 4415 B25		ERICSSON 4449 B71 + B12 ERICSSON 4415 B66A	ERICSSON 4415 B25
CABLE LENGTH	66' ±								

ANTENNA SCHEDULE (PROPOSED)

1



ANTENNA PLAN (PROPOSED)

SCALE: N.T.S.

2

T-Mobile



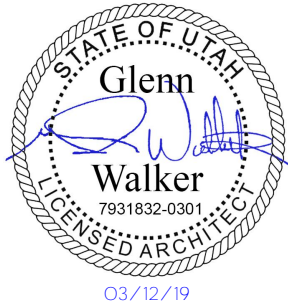
AMERICAN TOWER®



POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	03/12/19	REVISIONS	MAB
0	01/11/19	100% CONSTRUCTION	MAB
B	01/09/19	ISSUED FOR REVIEW 90%	TFW
A	12/03/18	ISSUED FOR REVIEW 90%	JPN



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SITE INFORMATION

T-MOBILE #: SL01317B

ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:

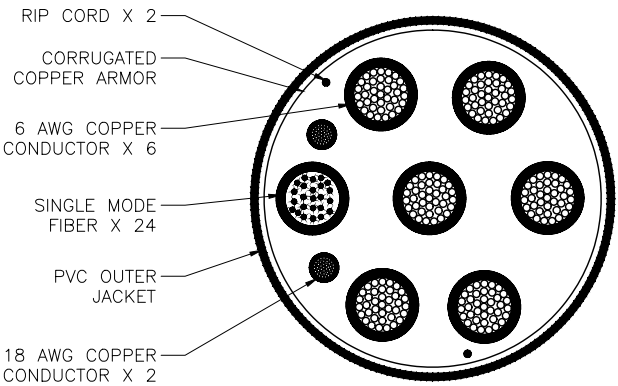
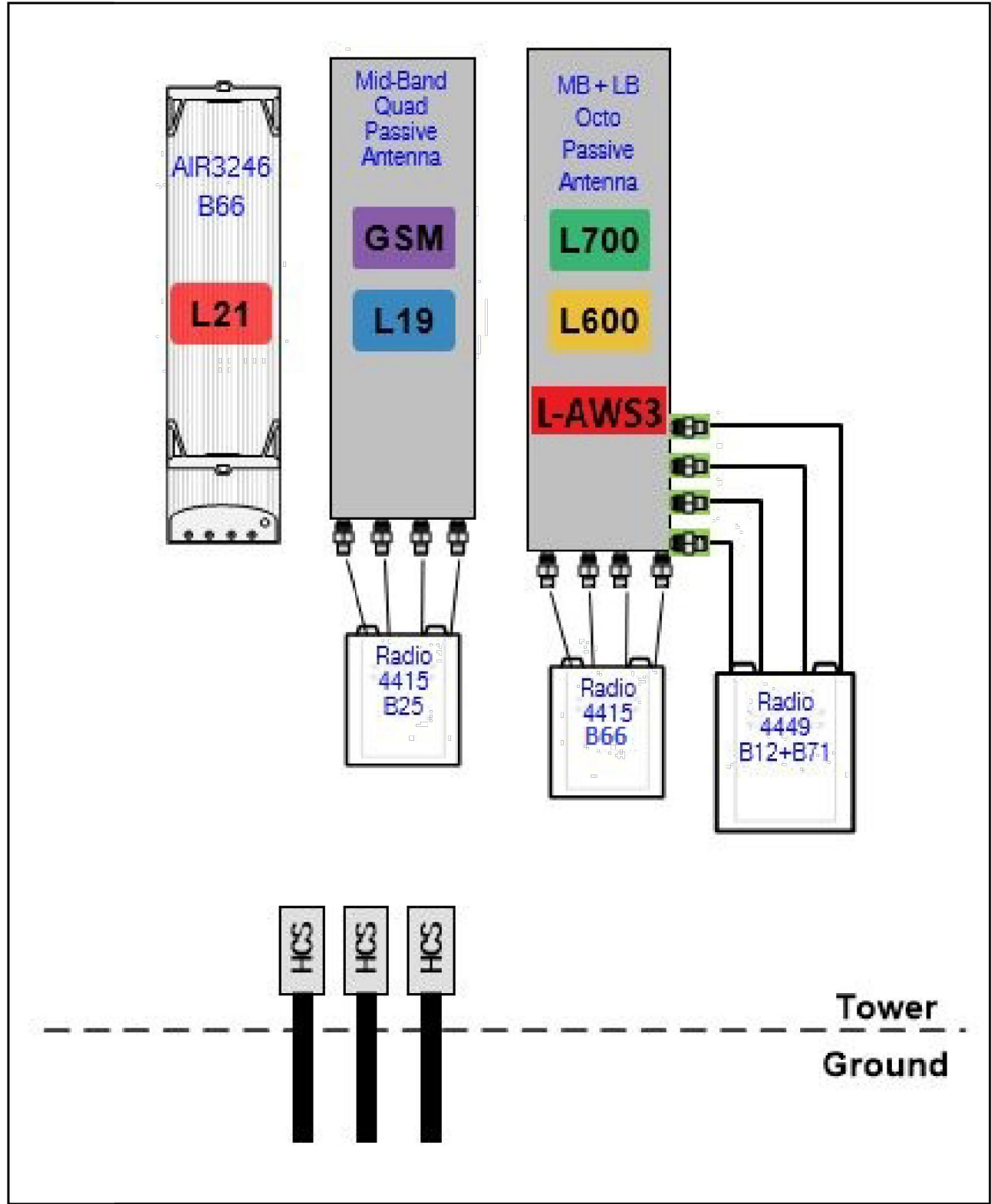
ANTENNA PLAN

SHEET NUMBER:

C-4

Section 3 - Proposed Template Images

67D98M-With GSM and AWS3.jpg



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
	RIPCORD	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



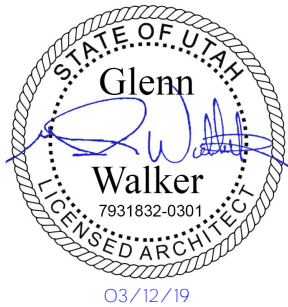
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SITE INFORMATION

T-MOBILE #: SL01317B

ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:

RFDS & CABLE
SPECIFICATIONS

SHEET NUMBER:

C-4.1

11/13/2018

SL01317B_Cell Split_0.2_2018-11-13

RAN Template: 67D98M

A&L Template: 67D98M_1xAIR+1QP+1OP

Power System Template: Custom

SL01317B_Cell Split_0.2

Section 5 - RAN Equipment

Existing RAN Equipment

----- This section is intentionally blank. -----

Proposed RAN Equipment

Template: 67D98M

Enclosure	1	2
Enclosure Type	RBS 6102 MU AC	Ancillary Equipment
Baseband	<div>BB 6630</div> <div>L1900</div> <div>L700</div> <div>G1900</div> <div>LAWS3</div> <div>L600</div>	<div>BB 6630</div> <div>L2100</div> <div>BB 6630</div> <div>N600 (DARK)</div>
Hybrid Cable System	Ericsson 6x12 HCS 6AWG 30m (x3)	

RAN Scope of Work:

Comments from SCIP - Existing ATC monopole with flush mounted antennas. ATC Site ID # 310280. Proposed collocation on existing 60' tower. Top RAD is taken by other carrier, which leaves the next RAD available of around 50'. Power would be plug and play with existing empty meter spots. Plenty of room in compound for an 11' x 20' Enviro shelter.

11/13/2018

SL01317B_Cell Split_0.2_2018-11-13

RAN Template: 67D98M

A&L Template: 67D98M_1xAIR+1QP+1OP

Power System Template: Custom

SL01317B_Cell Split_0.2

Section 6 - A&L Equipment

Existing Template: Custom

Proposed Template: 67D98M_1xAIR+1QP+1OP

Sector 1 (Proposed) view from behind

A - Outdoor Macro

Antenna	1	2	3
Antenna Model	Ericsson - AIR3246 B66 (Octo)	RFS - APXVAARR24_43-U-NA20 (Octo)	CellMax - CMA-BDHH/6521/E0-6/RET/TB05 (Quad)
Azimuth	340	340	340
M. Tilt	0	0	0
Height	60	60	60
Ports	P1P2P3P4	P5P6P7P8	P9P10
Active Tech.	L2100L2100L2100L2100	L700L700LAWS3LAWS3	L1900G1900L1900G1900
Dark Tech.			
Restricted Tech.			
Decomm. Tech.			
E. Tilt	2222	4422	22
Cables	Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.	Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.	Fiber Jumper - 9 ft.Coax Jumper - 10 ft. (x2)Fiber Jumper - 9 ft.Coax Jumper - 10 ft. (x2)
TMA's			
Diplexers / Combiners			
Radio		Radio 4449 B71+B1 2 (At Antenna)	Radio 4415 B66A (At Antenna)

Sector Equipment

Unconnected Equipment:

Scope of Work:

11/13/2018

SL01317B_Cell Split_0.2_2018-11-13

RAN Template: 67D98M

A&L Template: 67D98M_1xAIR+1QP+1OP

Power System Template: Custom

SL01317B_Cell Split_0.2

Sector 2 (Proposed) view from behind

A - Outdoor Macro

Antenna	1	2	3
Antenna Model	Ericsson - AIR3246 B66 (Octo)	RFS - APXVAARR24_43-U-NA20 (Octo)	CellMax - CMA-BDHH/6521/E0-6/RET/TB05 (Quad)
Azimuth	100	100	100
M. Tilt	0	0	0
Height	60	60	60
Ports	P1P2P3P4	P5P6P7P8	P9P10
Active Tech.	L2100L2100L2100L2100	L700L700LAWS3LAWS3	L1900G1900L1900G1900
Dark Tech.			
Restricted Tech.			
Decomm. Tech.			
E. Tilt	2222	4444	2222
Cables	Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.	Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.	Fiber Jumper - 9 ft.Coax Jumper - 10 ft. (x2)Fiber Jumper - 9 ft.Coax Jumper - 10 ft. (x2)
TMA's			
Diplexers / Combiners			
Radio		Radio 4449 B71+B1 2 (At Antenna)	Radio 4415 B66A (At Antenna)

Sector Equipment

Unconnected Equipment:

Scope of Work:

11/13/2018

SL01317B_Cell Split_0.2_2018-11-13

RAN Template: 67D98M

A&L Template: 67D98M_1xAIR+1QP+1OP

Power System Template: Custom

SL01317B_Cell Split_0.2

Sector 3 (Proposed) view from behind

A - Outdoor Macro

Antenna	1	2	3
Antenna Model	Ericsson - AIR3246 B66 (Octo)	RFS - APXVAARR24_43-U-NA20 (Octo)	CellMax - CMA-BDHH/6521/E0-6/RET/TB05 (Quad)
Azimuth	230	230	230
M. Tilt	0	0	0
Height	60	60	60
Ports	P1P2P3P4	P5P6P7P8	P9P10
Active Tech.	L2100L2100L2100L2100	L700L700LAWS3LAWS3	L1900G1900L1900G1900
Dark Tech.			
Restricted Tech.			
Decomm. Tech.			
E. Tilt	2222	4444	2222
Cables	Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.	Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.Fiber Jumper - 9 ft.	Fiber Jumper - 9 ft.Coax Jumper - 10 ft. (x2)Fiber Jumper - 9 ft.Coax Jumper - 10 ft. (x2)
TMA's			
Diplexers / Combiners			
Radio		Radio 4449 B71+B1 2 (At Antenna)	Radio 4415 B66A (At Antenna)

Sector Equipment

Unconnected Equipment:

Scope of Work:

RF INFORMATION (PROVIDED BY T-MOBILE)

1

AMERICAN TOWER®

POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	03/12/19	REVISIONS	MAB
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B	01/09/19	ISSUED FOR REVIEW 90%	TFW
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SITE INFORMATION

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ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:

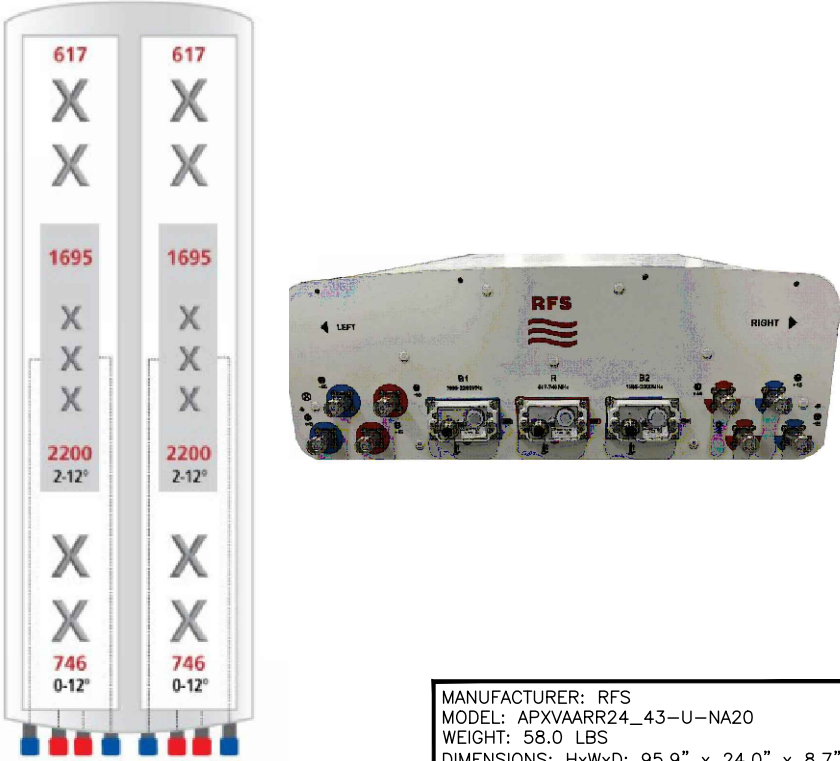
RFDS INFORMATION

SHEET NUMBER:

C-4.2




MANUFACTURER: CELLMAX
MODEL: CMA-BDHH/6521/E0-6
WEIGHT: 75.0 LBS
DIMENSIONS: HxWxD: 81.1" x 15.9" x 5.0"
FREQUENCY: 1710 - 2170 MHz
CONNECTION: (4) 7-16 DIN FEMALE



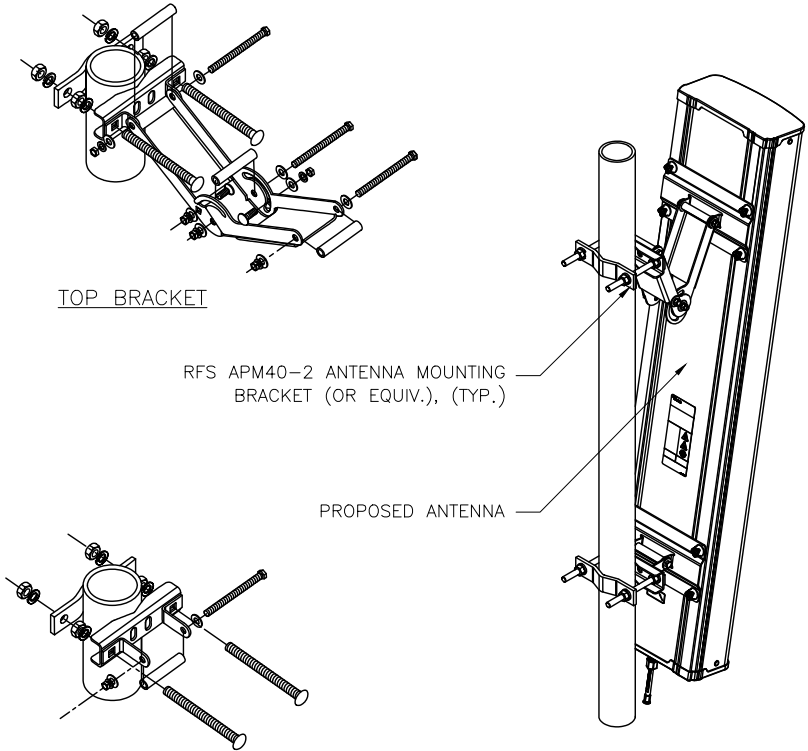
MANUFACTURER: RFS
MODEL: APXVAARR24_43-U-NA20
WEIGHT: 58.0 LBS
DIMENSIONS: HxWxD: 95.9" x 24.0" x 8.7"
FREQUENCY: 617 - 746 MHz
1695 - 2200 MHz
CONNECTION: (8) 4.3-10 FEMALE

NOT USED5ANTENNA INFORMATIONSCALE: N.T.S.3ANTENNA INFORMATIONSCALE: N.T.S.1



PRODUCT DESCRIPTION

Frequency Range	LTE FDD Full B66 UL 1710 - 1780 MHz / DL 2110 - 2200 MHz
Instantaneous BW	UL 70 MHz / DL 90 MHz
Antenna Ports	32T32R
Antenna Arrangements	4 columns, 4 rows, sub-array size 1x3, so in total 96 elements (or 48 X-pol). One subarray connected to 2T2R.
Output RF Power	160 W (=32 TRX x 5W)
Data Ports	4 x 10.1Gb/s CPRI
5G NR Support	YES
DC Feed	-48 V DC power connector
Cooling	Passive cooling (vs. active cooling on AIR32 DB)
Power Consumption	1200W nominal, 1300W worst case
Dimensions (H x W x D)	58.1" x 15.7" x 9.4" (=1475 x 400 x 238 mm)
Weight	180 lbs (=81 kg)
Electrical Downtilt	2 to 12 degrees
Steering	Horizontal +/- 45 deg
HW/SW Availability	Aug 2018
Material SAP #	TBD (Once available, we will create SAP # for AIR3246 B66 as well as other ancillaries, e.g., mounting kit and install kit)






TOP BRACKET

RFS APM40-2 ANTENNA MOUNTING BRACKET (OR EQUIV.), (TYP.)

PROPOSED ANTENNA

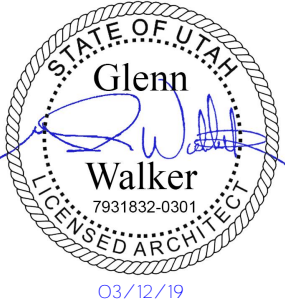
BOTTOM BRACKET

NOT USED6ANTENNA INFORMATIONSCALE: N.T.S.4ANTENNA ATTACHMENTSCALE: N.T.S.2



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
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SITE INFORMATION

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ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:
EQUIPMENT
DETAILS

SHEET NUMBER:
C-5



MANUFACTURER: ERICSSON
MODEL: RADIO 4415 B66A (AWS)
WEIGHT: 47.4 LBS (W/ FANS)
DIMENSIONS: HxWxD: 16.5" x 13.5" x 6.3"
FREQUENCY: 1710 - 1780 MHz (UPLINK)
2110 - 2180 MHz (DOWNLINK)



MANUFACTURER: ERICSSON
MODEL: RADIO 4415 B25
WEIGHT: 46 LBS (W/ FANS)
DIMENSIONS: HxWxD: 16.5" x 13.4" x 5.9"
FREQUENCY: 1930 - 1995 MHz (UPLINK)
1850 - 1915 MHz (DOWNLINK)



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)

RRU INFORMATION

SCALE: N.T.S.

5

RRU INFORMATION

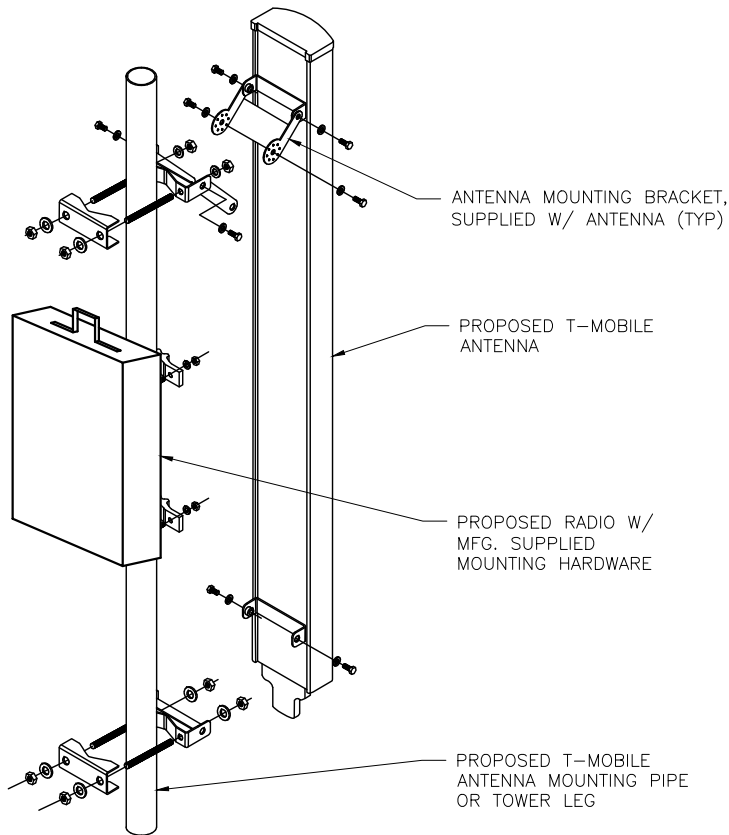
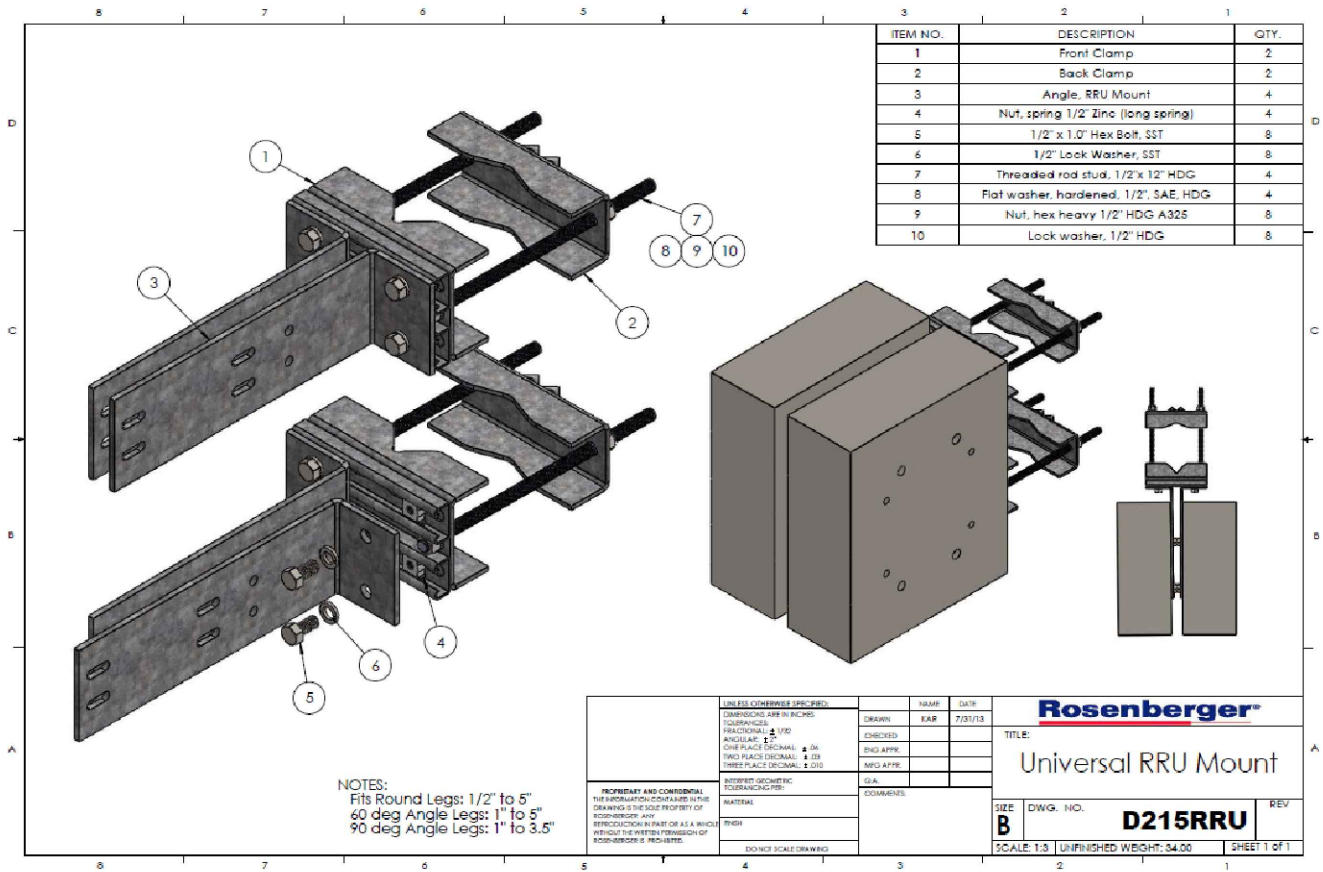
SCALE: N.T.S.

3

RRH INFORMATION

SCALE: N.T.S.

1



RRu MOUNT DETAIL

SCALE: N.T.S.

4

RADIO MOUNTING DETAIL

SCALE: N.T.S.

2

T-Mobile



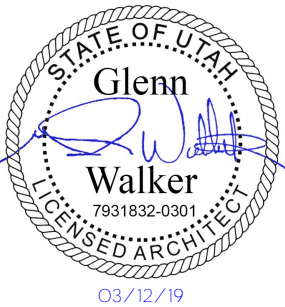
AMERICAN TOWER



POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

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ATC #: 310280

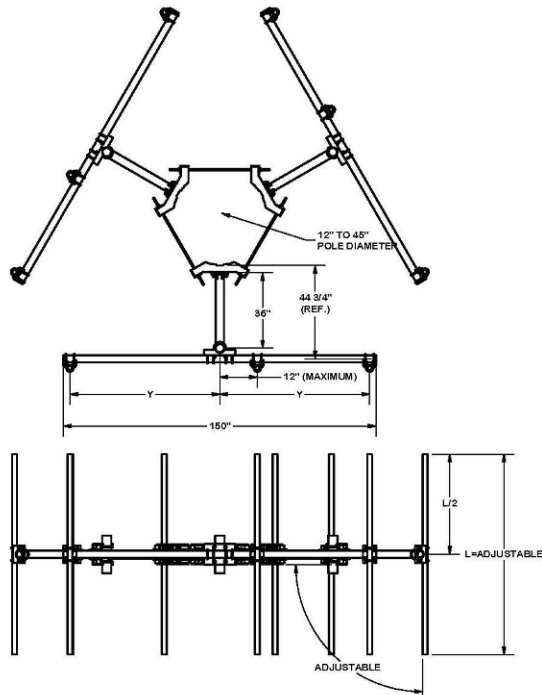
558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:
EQUIPMENT
DETAILS

SHEET NUMBER:

C-6

SHEET INCLUDED FOR REFERENCE ONLY. POWDER RIVER ENGINEERING SERVICES HAS NOT PERFORMED A STRUCTURAL ANALYSIS FOR THE NEW EQUIPMENT MOUNTS, SUPPORTING STRUCTURE, CANOPY, ETC. AND DOES NOT CERTIFY THE STRUCTURAL INTEGRITY OF THE PROPOSED NEW EQUIPMENT OR SUPPORTING STRUCTURES. STRUCTURAL ANALYSIS (BY OTHERS) SHALL BE PERFORMED FOR ALL NEW EQUIPMENT, EQUIPMENT MOUNTS AND SUPPORTING STRUCTURES PRIOR TO CONSTRUCTION.



TOLERANCE NOTES				DESCRIPTION				SEE "ASSEMBLY NO."			
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE: SAWED, SHEARED AND GAS CUT EDGES (± 0.007) DRILLED AND GAS CUT HOLES (± 0.030) - NO CONING OF HOLES LASER CUT EDGES AND HOLES (± 0.010) - NO CONING OF HOLES BENDS ARE 1/2 DEGREE ALL OTHER MACHINING (± 0.030) ALL OTHER ASSEMBLY (± 0.060)				MONOPOLE TRIPLE T-ARM FOR 9 ANTENNAS				SEE "ASSEMBLY NO."			
CPD NO. 4516				DRAWN BY CEK 4/15/2011				ENG. APPROVAL			
CLASS 81				SUB 01				CHECKED BY BMC 7/1/2015			
REVISION HISTORY				DRAWING USDR				DWG. NO. RMV12-3XX			

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-LWRM	RING MOUNT WELDMENT		68.81	206.42
2	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)		0.40	3.59
2	9	G58R-48	5/8" X 48" GALV THREADED ROD		4.39	39.52
3	3	X-SV197-36	SUPPORT ARM WELDMENT - 36"		67.29	201.86
4	12	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2.75	0.36	4.27
5	12	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.41
6	42	G58LW	5/8" HDG LOCKWASHER		0.03	1.10
7	24	A58NUT	5/8" HDG A325 HEX NUT		0.13	3.12
8	6	X-UB5458	5/8" X 4-5/8" X 7" X 3" U-BOLT (HDG.)		0.26	1.64
9	18	G58FW	5/8" HDG USS FLATWASHER		0.07	1.27
10	18	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	2.34
11	30	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.26	7.71
12	90	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	6.45
13	90	G12FW	1/2" HDG USS FLATWASHER		0.03	3.07
14	90	G12LW	1/2" HDG LOCKWASHER		0.01	1.25
15	18	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.26	4.63
16	3	P3150	3-1/2" X 150" SCH 40 GALVANIZED PIPE	150.000 in	94.80	284.40
17	9	A	B	C	D	
18	9	X-SP219	SMALL SUPPORT CROSS PLATE	8.250 in	6.61	77.50
19	3	X-SP216	LARGE SUPPORT CROSS PLATE		20.83	62.48

ANTENNA MOUNTING PIPES					
"ASSEMBLY NO."	PART NO. "A"	PART DESCRIPTION "B"	LENGTH "C"	UNIT WT. "D"	TOTAL WT.
RMV12-365	P265	2-3/8" O.D. SCH. 40 PIPE	65"	19.22	1,155.34
RMV12-372	P272	2-3/8" O.D. SCH. 40 PIPE	72"	23.07	1,159.59
RMV12-384	P284	2-3/8" O.D. SCH. 40 PIPE	84"	26.91	1,194.55
RMV12-395	P295	2-3/8" O.D. SCH. 40 PIPE	95"	30.76	1,229.20
RMV12-3126	P3126	2-3/8" O.D. SCH. 40 PIPE	126"	40.75	1319.11

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.005")
DRILLED AND GAS CUT HOLES (± 0.005") - NO CORING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CORING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.005")
ALL OTHER ASSEMBLY (± 0.005")

PROPRIETARY NOTE: THE DATA AND TECHNICAL INFORMATION CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALPOINT INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF VALPOINT INC.

DESCRIPTION
MONOPOLE TRIPLE T-ARM
FOR 9 ANTENNAS

VALPOINT
A valpoint COMPANY
Engineering
Support Team
1-855-755-7446
Locations:
New York, NY
Atlanta, GA
New Angeles, CA
Plymouth, MI
Dallas, TX

B	ADDED 10' 6" ANTENNA MOUNTING PIPES	4516	CEK	7/1/2015
A	REMOVED FLATWASH. AT ARM TO CLAMPING CONNECTION	4516	CEK	11/4/2011
RE	DESCRIPTION OF REVISIONS	QPD	BY	DATE
REVISION HISTORY				

QPD NO.	4516	DRAWN BY	CEK 4/15/2011	ENG. APPROVAL	
GLASS	81	DRAWING USAGE	CUSTOMER	CHECKED BY	7/1/2015

PART NO.	SEE "ASSEMBLY NO."
ENG. NO.	RMV12-3XX

T-ARM MOUNT DETAIL

SCALE: N.T.S.

1

T-Mobile



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	03/12/19	REVISIONS	MAB
0	01/11/19	100% CONSTRUCTION	MAB
B	01/09/19	ISSUED FOR REVIEW 90%	TFW
A	12/03/18	ISSUED FOR REVIEW 90%	JPN

FOR
REFERENCE
ONLY

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SITE INFORMATION

T-MOBILE #: SL01317B

ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:
EQUIPMENT
DETAILS

SHEET NUMBER:

C-7

RBS 6102



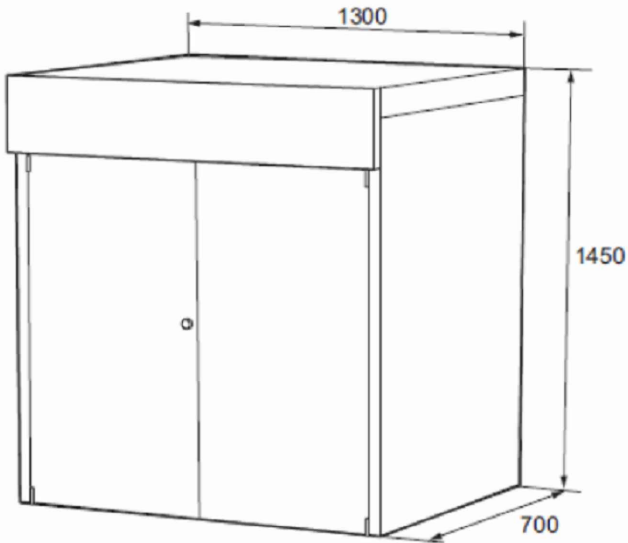
- Outdoor RBS member of the RBS 6000 family
 - Supports GSM, WCDMA, CDMA and LTE
- Complete RBS including transmission equipment and internal battery backup
- Can be equipped with various Digital Units (DU) and Radio Units (RU)
 - Can be configured with up to 12 RUs
 - Power supply alternatives
 - 200-250 V AC
 - -48 V DC
- Supports up to 6 U transmission spaces
- Global Positioning System (GPS) as a synchronization source
 - Supports up to 32 external alarms



RBS 6102 Technical Data



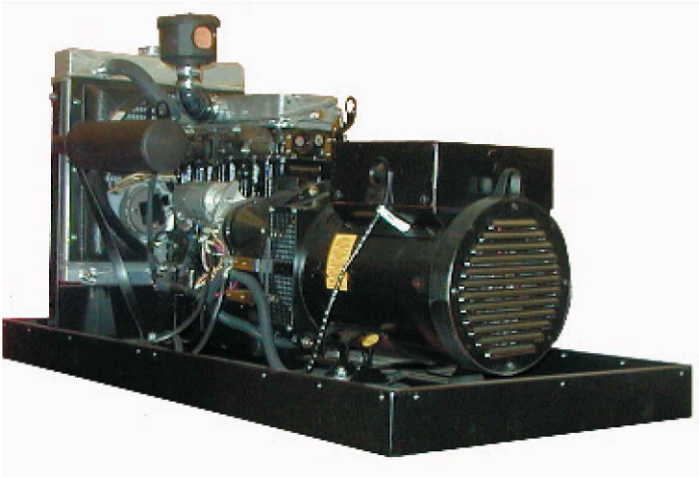
Dimensions (in mm)	
Height	1450
Width	1300
Depth	700
Weight (in kg)	
RBS standard equipped, w/o backup batteries	330
Color	
Grey	Ref. No.: RAL 7035, glossy



nor'pro
A Global Power Solutions Company

21PMI

Standby Rating 60Hz: 21kW
Prime Rating 60Hz: 19kW



Engine Specifications	60Hz	50Hz
Manufacturer	Isuzu	
Engine model	4LE	
Cylinder arrangement	4 in-line 4-cycle	
Displacement, cu.in. (cc)	133 (2197)	
Bore and stroke, in. (mm)	3.35(85) x 3.78(96)	
Compression ratio	21.5:1	
Rated rpm	1800	1500
Max power at rated rpm (bhp)	34.5	27.8
Cylinder head material	Cast Iron	
Block material	Cast Iron	
Governor type	Mechanical	
Frequency regulation	3-5%	
Air cleaner type	Replaceable Element	

Engine Electrical System	
Ignition system	Electric
Battery charging system voltage (DC)	12V
Battery charging system (amps)	35
Starter system voltage (DC)	12V
Battery recommendation (CCA)	500
Battery voltage (DC)	12V
Starter kW	1.8

Generator Specifications	
Manufacturer	Marathon
Type	4 Pole
Exciter type	Brushless
Leads: Quantity	4
Voltage regulator	AVR
Insulation material	H type
Temperature rise	105° C
Bearing type	Sealed
Coupling	Direct Bolt-up
Voltage regulation	1%
Phase type	3 [1]
Power factor	0.8 [1.0]
Power rating kW (kVA) [kVA 1 Phase]	21 (28) 17.5 (22)
Mainline breaker (amps) optional	70 70

Generator Ratings		
Amps @ 120	175	145.8
Amps @ 240	87.5	72.9

Weights and Dimensions					
	Length in. (cm)	Height in. (cm)	Width in. (cm)	Dry Weight lbs. (kg)	Wet Weight lbs. (kg)
Open Unit	57.5 (146)	32.5 (82.5)	30.0 (76)	823 (373.5)	835 (379)
Enclosed	58.0 (147.5)	33.0 (83.8)	30.5 (77.5)	878 (398)	890 (404)
Open w/Sub. Tank	48.0 (117)	43.5 (110.5)	30.5 (77.5)		
Stand Alone Fuel Tanks					
165 gal./620L	29 (74)	61 (155)	28 (72)	132 (60)	1287 (584)
275 gal./1000L	51 (130)	54 (137)	30 (76)	208 (94)	2133 (968)

Lubrication System	60Hz	50Hz
Type	Full pressure	
Engine oil capacity w/filter, qt.(L)	8.8 (8.1)	
Oil filter type	Spin-on	

Fuel System	
Fuel shutoff solenoid	Electric
Fuel pump	Mechanical
Fuel pump priming	Electric
Fuel type	#2 Diesel
Fuel pump lift, ft (m)	3.28 (1)
Fuel line supply	5/16
Fuel line return	5/16

Cooling System	
Engine coolant capacity, qt.(L)	3.0 (2.8)
Radiator coolant capacity, qt.(L)	6.98 (6.5)
Water pump type	Centrifugal
Fan diameter, in.(cm)	15(38)
Fan & Alternator (hp)	1
Fan type	6 Blade Pusher
Fan rotation from front of engine	Clockwise
Air Requirements	
Engine combustion air intake (cfm)	67
Generator end cooling (cfm)	220
Sound shield air space, in. (cm)	18 (46)

Exhaust System	
Exhaust type	Residential Muffler
Max allowable back pressure (in.hg)	4.0
Exhaust outlet size, in.(cm)	1.5 (3.81)

Fuel Consumption		
100% Load, gph (lph)	1.80 (6.8)	1.50 (5.66)
75% Load, gph (lph)	1.41 (5.3)	1.17 (4.41)
50% Load, gph (lph)	0.98 (3.7)	0.82 (3.08)

Sound Tables			
dB(A) Without Sound Shield			
Load	100%	75%	50%
3'	87	88	85
10'	82	81	81
21'	77	78	75
dB(A) With Sound Shield			
Load	100%	75%	50%
3'	80	78	77
10'	72	75	72
21'	70	69	67

T-Mobile



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	03/12/19	REVISIONS	MAB
0	01/11/19	100% CONSTRUCTION	MAB
B	01/09/19	ISSUED FOR REVIEW 90%	TFW
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FOR
REFERENCE
ONLY

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SITE INFORMATION

T-MOBILE #: SL01317B

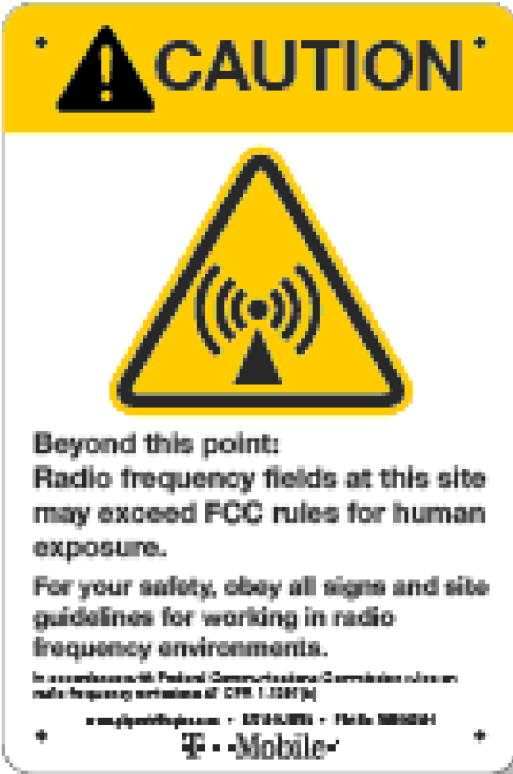
ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

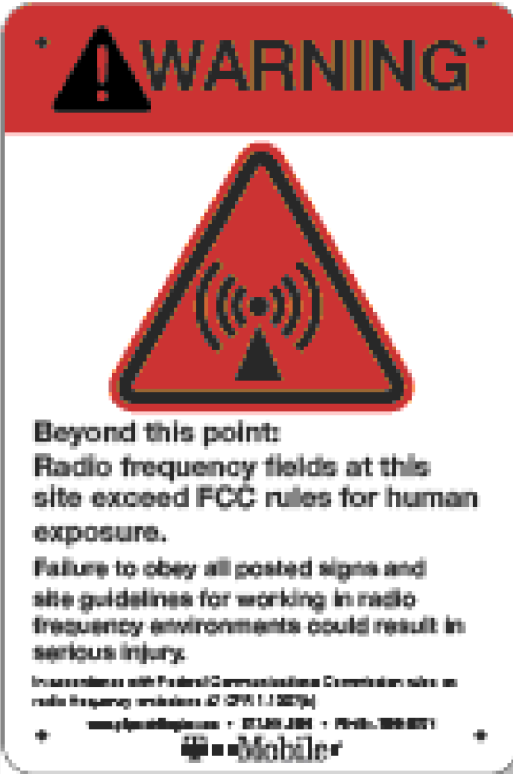
SHEET TITLE:
EQUIPMENT
DETAILS

SHEET NUMBER:

C-8



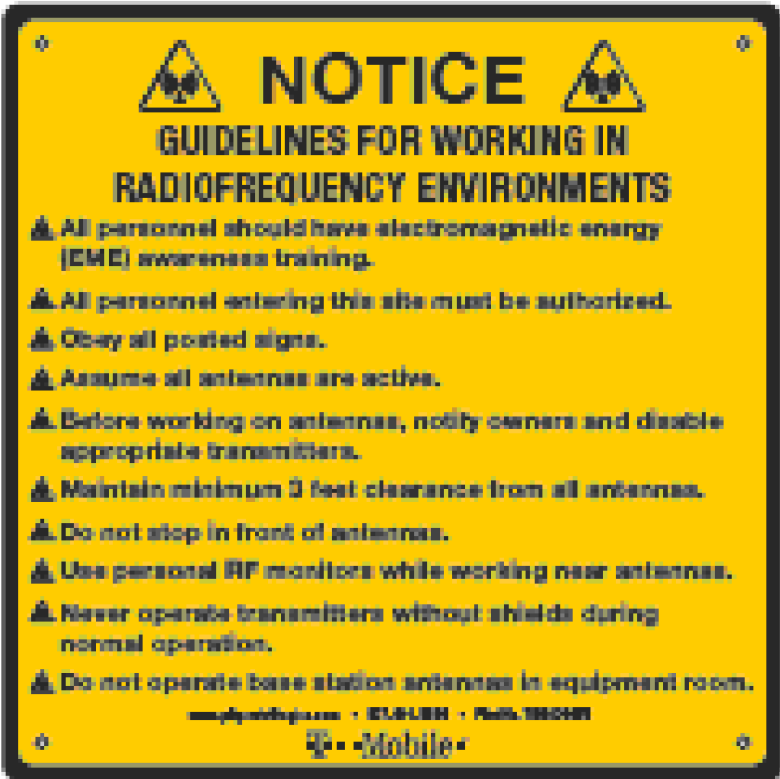
PART NO. **TM0142851**



PART NO. **TM0145771**



PART NO. **TM0142862**



PART NO. **TM0130956**



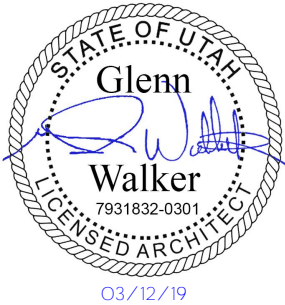
PART NO. **TM0299382-MXL**

T-Mobile



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	03/12/19	REVISIONS	MAB
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SITE INFORMATION

T-MOBILE #: SL01317B

ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:

WARNING
SIGNS

SHEET NUMBER:

C-9



ELECTRIC METER DETAIL

SCALE: N.T.S.

2



NOTE:
REPLACE THE STANDARD SWITCH
SUPPLIED WITH THE ENCLOSURE WITH
AN INTERMATIC 20A, SPST, SPRING
WOUND TIMER SWITCH WITH A RANGE
FROM 0 TO 2 HOURS (INTERMATIC PART
NO. FF2H) OR EQUIVALENT. THE
SWITCH SHALL NOT HAVE A HOLD
FEATURE TO OVERRIDE THE TIMER.

MANUFACTURER:	MIDWEST ELECTRIC PRODUCTS (OR EQUIVALENT)
MODEL:	U010S010GRP
DIMENSIONS:	5"x7"
WEIGHT:	4.5 LBS
AMPS:	20
VOLTS:	120

GFCI W/ TIMER DETAIL

SCALE: N.T.S.

3



1. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. ALL NEW CONDUCTOR WIRE TO BE INSTALLED SHALL BE COPPER. ALL WIRE LARGER THAN #10 SHALL BE THWN-2, THW-2, RHW-2, OR XHHW-2 WIRE UNLESS NOTED OTHERWISE.
3. ALL GROUNDING AND BONDING TO BE PER THE RECOGNIZED EDITION OF THE NATIONAL ELECTRIC CODE (NEC)

ONE-LINE DIAGRAM

SCALE: N.T.S.

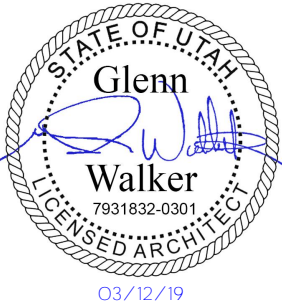
1

**AMERICAN TOWER®**

POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	IN
1	03/12/19	REVISIONS	MA
B	01/11/19	100% CONSTRUCTION	MA
B	01/09/19	ISSUED FOR REVIEW 90%	TF
A	12/03/18	ISSUED FOR REVIEW 90%	JP



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SITE INFORMATION

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ATC #: 310280

**558 W PACIFIC AVE
SALT LAKE CITY, UT
84101**

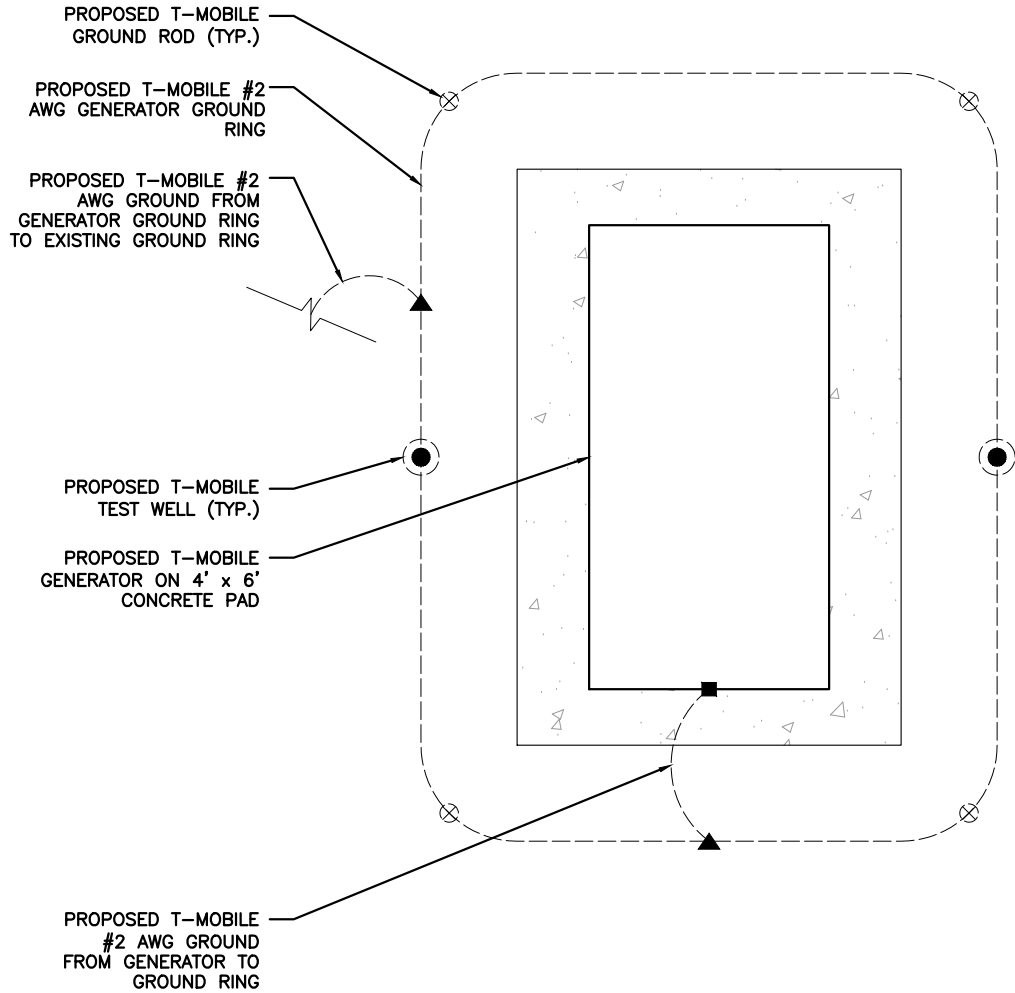
SHEET TITLE:

DIAGRAM DETAILS

SHEET NUMBER:

C-10

NOTE: THE GROUNDING PLAN PROVIDED HEREIN IS SCHEMATIC BY NATURE. REFER TO GROUNDING NOTES ON SHEET GN-2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



LEGEND:

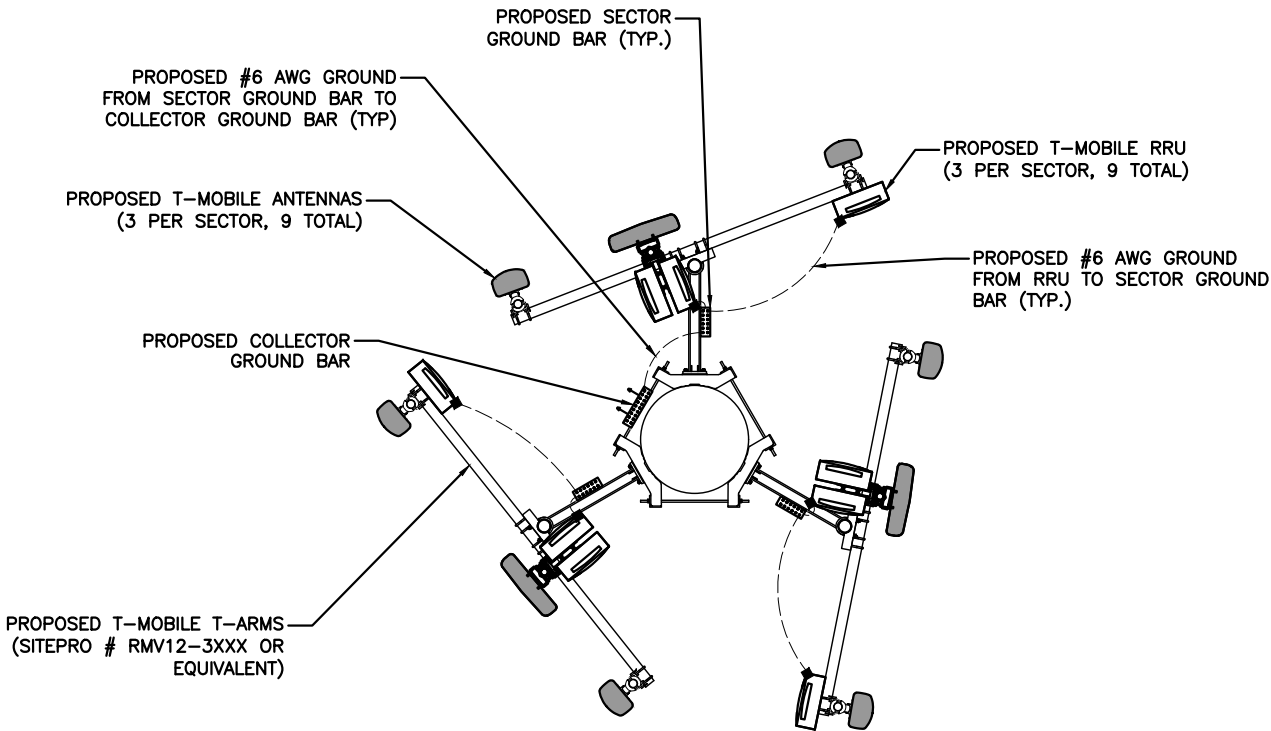
- GROUND WIRE
- ▲ CADWELD CONNECTION (EXOTHERMIC WELD)
- MECHANICAL CONNECTION
- ⊗ GROUND ROD
- TEST WELL

GENERATOR GROUNDING PLAN

SCALE: N.T.S.

2

EQUIPMENT GROUNDING PLAN



LEGEND:

- GROUND WIRE
- MECHANICAL CONNECTION



SCALE: N.T.S.

1

T-Mobile



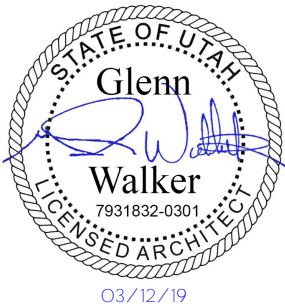
AMERICAN TOWER®



POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

REVISIONS				
REV	DATE	DESCRIPTION	INT	
1	03/12/19	REVISIONS		MAB
0	01/11/19	100% CONSTRUCTION		MAB
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SITE INFORMATION

T-MOBILE #: SL01317B

ATC #: 310280

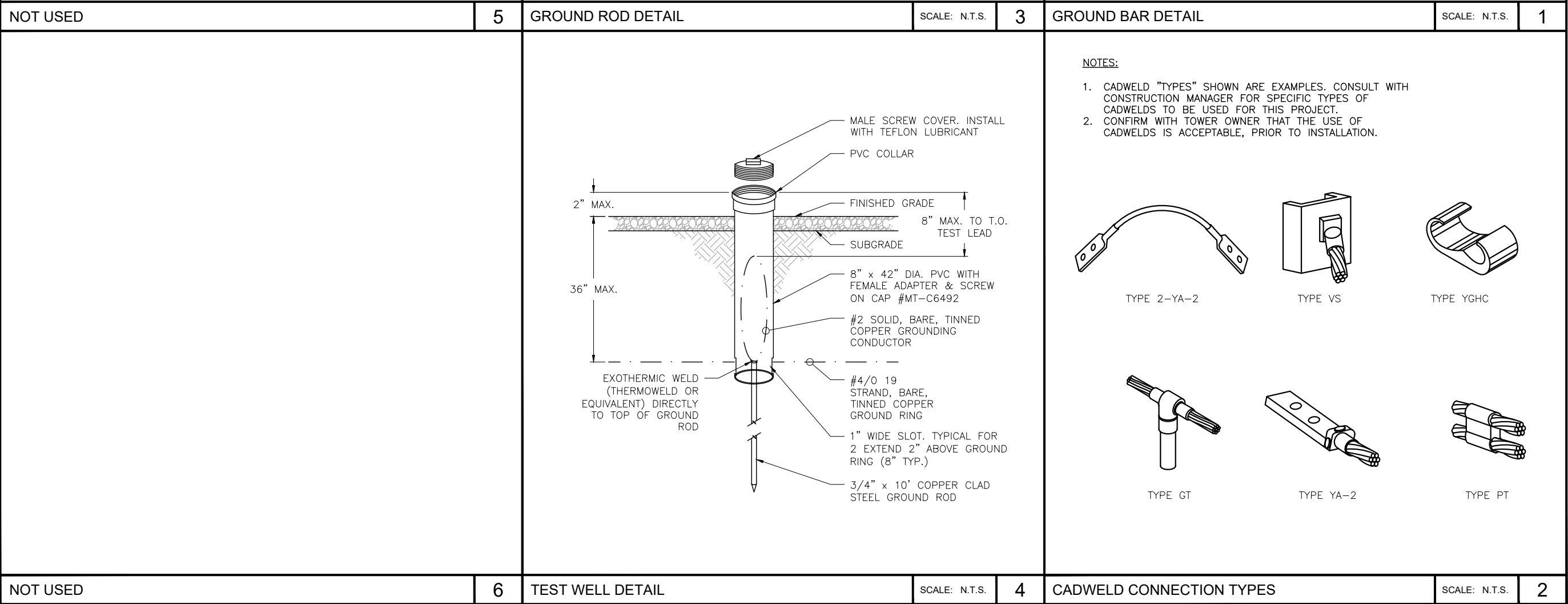
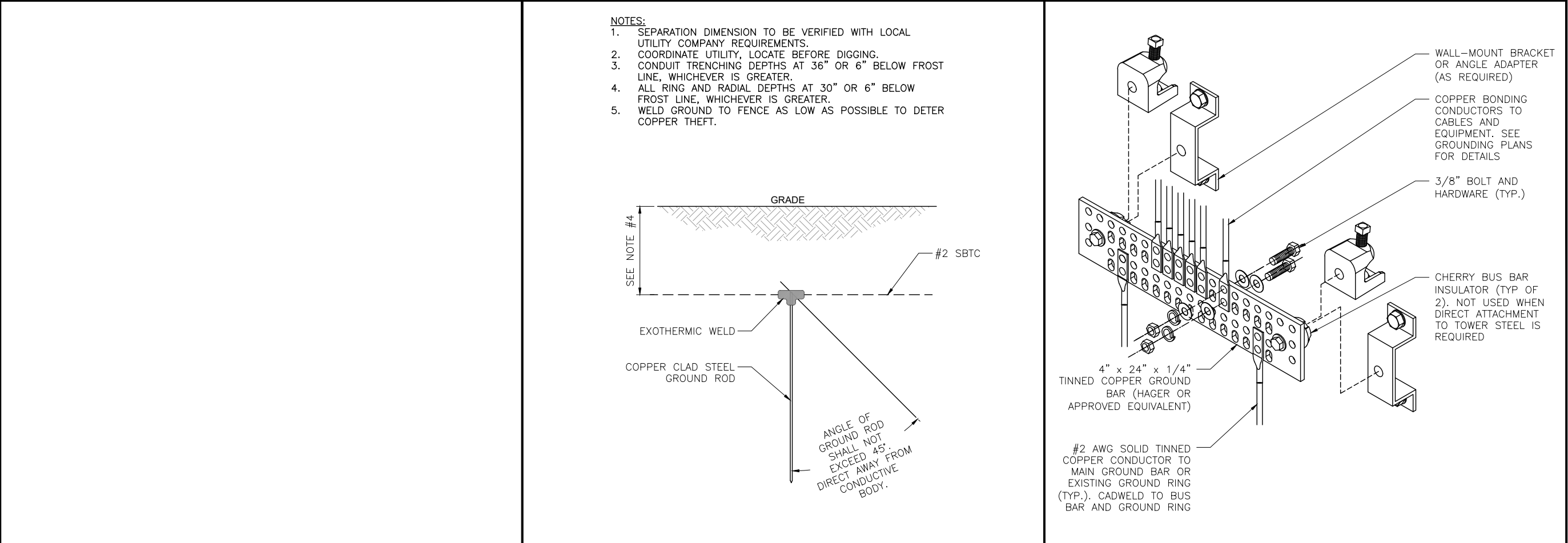
558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:

GROUNDING
PLANS

SHEET NUMBER:

G-1



T-Mobile

AMERICAN TOWER

POWDER RIVER

Development Services, LLC

BUSINESS LICENSE #:

N/A

REVISIONS

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0	01/11/19	100% CONSTRUCTION	MAB
B	01/09/19	ISSUED FOR REVIEW 90%	TFW
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STATE OF UTAH

Glenn Walker

7931832-0301

LICENSED ARCHITECT

03/12/19

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SITE INFORMATION

T-MOBILE #: SL01317B

ATC #: 310280

558 W PACIFIC AVE
SALT LAKE CITY, UT
84101

SHEET TITLE:

GROUNDING
DETAILS

SHEET NUMBER:

G-2

ATTACHMENT D: EXISTING CONDITIONS

Adjacent Land Uses and Zoning

- North: CG – Industrial use, fabrication facility
- South: CG – Commercial use, self-storage facility
- East: CG – Industrial uses, fabrication and warehouse facilities
- West: CG – Union Pacific and Utah Transit Authority railroad tracks.

The property is located in a commercial and industrial area south of the 400 South overpass and between 500 West and 600 West. The general area is zoned CG General Commercial with some G-MU zoning to the north of 400 South. Adjacent properties have been developed for a variety of commercial, industrial, manufacturing and warehouse uses. There are no residential uses in or near the vicinity.

Applicable Master Plan Policies

The property is included within the Gateway Specific Plan adopted in 1998. The Master Plan recognizes that the vast majority of businesses are industrial, warehousing and distribution, and service commercial activities.

The Future Land Use objective is to provide for the continuation of existing uses within the Gateway District.

The proposed use is in concert with the Master Plan and the existing character of the area.

Salt Lake City Zoning Ordinance Provisions

21A.40.090: ANTENNA REGULATIONS:

E. Wireless Telecommunications Facilities

Monopoles 60 feet in height or less with an antenna support structure greater than 2' wide in the CG Zone require Conditional Use approval.

ATTACHMENT E: ANALYSIS OF STANDARDS

21A.54.080 Standards for Conditional Use

Approval Standards: A conditional use shall be approved unless the planning commission, or in the case of administrative conditional uses, the planning director or designee, concludes that the following standards cannot be met:

Standard	Finding	Rationale
1. The use complies with applicable provisions of this title	Complies	See detailed analysis below.
2. The use is compatible, or with conditions of approval can be made compatible, with surrounding uses	Complies	See detailed analysis below.
3. The use is consistent with applicable adopted city planning policies, documents, and master plans	Complies	See detailed analysis below.
4. The anticipated detrimental effects of a proposed use can be mitigated by the imposition of reasonable conditions	Complies	See detailed analysis below.

21A.54.080 Standards for Conditional Use

Approval Standards: A conditional use shall be approved unless the planning commission, or in the case of administrative conditional uses, the planning director or designee, concludes that the following standards cannot be met:

1. The use complies with applicable provisions of this title

Analysis: The proposed wireless facility will be constructed on a property in the CG zoning district. Wireless facilities including a monopole are allowed as Permitted Uses in the zoning district with a maximum monopole height of 60-feet. Per section 21A.40.090 (E) of the Zoning Ordinance, all monopoles with antenna support structures greater than 2 feet in width in the CG zone require Conditional Use approval. The proposed antenna array will have a 36 inch radius which necessitates that it be reviewed as a Conditional Use.

Finding: The proposal complies with the applicable provisions of the Salt Lake City Zoning Ordinance, provided that the request meets the conditions recommended as part of this staff report.

2. The use is compatible, or with conditions of approval can be made compatible, with surrounding uses;

Analysis: The proposed wireless facility will be located within a commercial and industrial area of the city, surrounded by properties that are being used for a variety of industrial and commercial uses including fabrication and warehousing, self-storage facilities and for railyard operations for the Union Pacific Railroad and Utah Transit Authority. The height of the monopole is in line with the height of buildings allowed in the underlying zoning district by right and the array expansion will be a minimal visual impact.

Finding: Given the commercial and industrial nature of the area and activities that take place in the general vicinity, no detrimental impacts either visually, or otherwise are anticipated to neighboring properties. The proposal is compatible with the nature of the area.

3. The use is consistent with applicable adopted city planning policies, documents, and master plans; and

Analysis: The Gateway Specific Plan recognizes the area as being industrial and commercial in nature. The future land use map in that plan shows that this area is to provide for the continuation of existing uses.

Finding: The use is consistent with the adopted Gateway Specific Plan and the character of the area. The proposed use is listed as a conditional use in this zoning district.

4. The anticipated detrimental effects of a proposed use can be mitigated by the imposition of reasonable conditions. (Refer to Detrimental Effects Table below for details)

21a.54.080B: Detrimental Effects Determination: In analyzing the anticipated detrimental effects of a proposed use, the planning commission, or in the case of administrative conditional uses, the planning director or designee, shall determine compliance with each of the following:

Criteria	Finding	Rationale
1. This title specifically authorizes the use where it is located	Complies	A monopole up to 60-feet is allowed as a permitted use with an antenna support structure of 2 feet or less in width. The existing monopole is 60-feet in height with an array radius less than 24 inches. The proposed array expansion will create a 36 inch radius array which requires conditional use approval. If the conditional use is approved according to the Zoning Ordinance process and all required standards, the proposal will not create a detrimental effect.
2. The use is consistent with applicable policies set forth in adopted citywide, community, and small area master plans and future land use maps	Complies	The use is located in an area zoned and designated by the associated master plan as light industrial and commercial (see analysis from standard 3 above).
3. The use is well-suited to the character of the site, and adjacent uses as shown by an analysis of the intensity, size, and scale of the use compared to existing uses in the surrounding area	Complies	Surrounding the wireless facility are a variety of industrial and commercial uses such as fabrication and warehousing, self-storage and railyard facilities. The use is well suited to the character of the site. The antenna will provide service connectivity to property owners and businesses in the area.
4. The mass, scale, style, design, and architectural detailing of the surrounding structures as they relate to the proposed have been considered	Complies	There are few surrounding structures and the proposed facility will not be intrusive in nature.
5. Access points and driveways are designed to minimize grading of natural topography, direct vehicular traffic onto major streets, and not impede traffic flows	Complies	The proposal will have no traffic impact.
6. The internal circulation system is designed to mitigate adverse impacts on adjacent property from motorized, non-motorized, and pedestrian traffic	Complies	The proposal will have no traffic impact.
7. The site is designed to enable access and circulation for pedestrian and bicycles	Complies	The proposal will have no traffic impact.
8. Access to the site does not unreasonably impact the service level of any abutting or adjacent street	Complies	The proposal will have no traffic impact.
9. The location and design of off-street parking complies with applicable standards of this code	Complies	The proposal will not require additional off-street parking.
10. Utility capacity is sufficient to support the use at normal service levels	Complies	The proposal will not require additional utility service.
11. The use is appropriately screened, buffered, or separated from adjoining dissimilar uses to mitigate potential use conflicts	Complies	The proposal will not change the land use.
12. The use meets City sustainability plans, does not significantly impact the quality of surrounding	Complies	The proposal will not significantly impact the environment or introduce any hazard.

air and water, encroach into a river or stream, or introduce any hazard or environmental damage to any adjacent property, including cigarette smoke		
13. The hours of operation and delivery of the use are compatible with surrounding uses	Complies	The equipment will be serviced by a technician as needed for routine maintenance and repair.
14. Signs and lighting are compatible with, and do not negatively impact surrounding uses	Complies	The proposal will not require signs and lighting.
15. The proposed use does not undermine preservation of historic resources and structures	Complies	The proposal is not associated with any historic resources or structures.

Section 21A.40.090.E.9 Additional Conditional Use Requirements (for antennas)

In addition to conditional use standards outlined in Section 21A.54 (above) of the zoning ordinance; the following shall be considered by the Planning Commission:

- a. Compatibility of the proposed structure with the height and mass of existing buildings and utility structures;
- b. Whether collocation of the antenna on the other existing structures in the same vicinity such as other towers, buildings, water towers, utility poles, etc., is possible without significantly impacting antenna transmission or reception;
- c. The location of the antenna in relation to existing vegetation, topography and buildings to obtain the best visual screening;
- d. Whether the spacing between monopoles and lattice towers creates detrimental impacts to adjoining properties.

Analysis: Surrounding the monopole are a variety of commercial and light industrial uses. Monopoles and other wireless equipment installations are common in industrial areas of the City where they are needed to provide services to businesses in the area. There are generally few if any concerns with compatibility that come up when wireless facilities are located in these areas. At a 36 inches radius, the proposed antenna array expansion will be minimally larger than the existing array and will not be a greater visual impact.

It would be difficult to attempt to screen the antenna with existing vegetation, topography or buildings but this should not be a problem given the industrial nature of the area.

There are no other monopoles or lattice towers in the area so spacing will not be an issue in terms creating detrimental impacts on adjoining properties.

Finding: This project satisfies the additional requirements of Section 21A.40.090.E.7.

ATTACHMENT F: PUBLIC PROCESS AND COMMENTS

Public Notice, Meetings, Comments

The following is a list of public meetings that have been held, and other public input opportunities, related to the proposed project:

- Notice of the project and request for comments sent to the Chair of the Downtown Community Council (DCC) on March 19, 2019 in order to solicit comments.
- Staff sent an early notification announcement of the project to all residents and property owners located within 300 feet of the project site March 19, 2019 providing notice about the project and information on how to give public input on the project.
- Staff held an Open House for the project at the Salt Lake City Main Public Library to solicit comments on May 2, 2019. One public comment was received in favor of the project with no objections.

Notice of the public hearing for the proposal included:

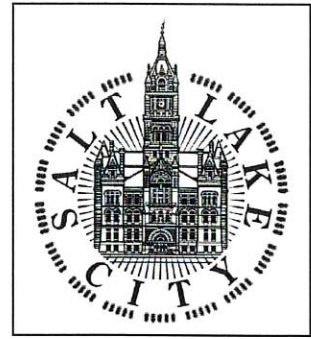
- Public hearing notice mailed on: May 30, 2019
- Public hearing notice sign posted on the property: May 31, 2019
- Public notice posted on City and State websites & Planning Division list serve: May 30, 2019

Public Input:

The Downtown Community Council Chair did not ask staff to attend a meeting to present the project. No additional public comments were submitted for this proposal from any neighboring property owners or residents.

OPEN HOUSE PUBLIC COMMENT FORM

May 2, 2019



Planning Division
Department of Community and
Neighborhoods

Pacific Ave Cell Tower Expansion Conditional Use

Name: Michelle Howard

Address: (Prescott Muir Architects)

Zip Code _____

Phone: _____ E-mail Michelle @ PrescottMuir.com

Comments: The proposed cell tower change seems
reasonable and I have no reservations with
the proposed project.

Please provide your contact information so we can notify you of other meetings or hearings on this issue. You may submit this sheet before the end of the Open House, or you can provide your comments via e-mail at christopher.earl@slcgov.com or via mail at the following address: Chris Earl, Salt Lake City Planning Division, PO Box 145480, Salt Lake City, UT 84114-5480. Please provide your comments by May 12, 2019

ATTACHMENT G: DEPARTMENT REVIEW COMMENTS

CITY DEPARTMENT COMMENTS

Engineering: (Scott Weiler at scott.weiler@slcgov.com or 801-535-6159)
No objections.

Transportation: (Michael Barry at michael.barry@slcgov.com or 801-535-7147)
No objections.

Zoning: (Katilynn Harris at katilynn.harris@slcgov.com or 801-535-6179)
No objections.

Public Utilities: (Jason Draper at jason.draper@slcgov.com or 801-486-6751)
No objections.