



## ALPINE CITY PLANNING COMMISSION MEETING

**NOTICE** is hereby given that the **PLANNING COMMISSION** of Alpine City, Utah will hold a **Regular Meeting** at **Alpine City Hall**, 20 North Main, Alpine, Utah on **Tuesday, November 4, 2014 at 7:00 pm** as follows:

### I. GENERAL BUSINESS

- A. Welcome and Roll Call: Jason Thelin
- B. Prayer/Opening Comments: Judi Pickell
- C. Pledge of Allegiance: By Invitation

### II. PUBLIC COMMENT

Any person wishing to comment on any item not on the agenda may address the Planning Commission at this point by stepping to the microphone and giving his or her name and address for the record.

### III. ACTION ITEMS

- A. **AT&T Antenna Modification - Jared White - approx. 650 South Rocky Mountain Drive (Shepherd's Hill)**  
The Planning Commission will review the proposed site plan for an antenna modification.
- B. **Open Space Discussion**  
The Planning Commission will discuss the advantages and disadvantages of public and private open space.

### IV. COMMUNICATIONS

### V. APPROVAL OF PLANNING COMMISSION MINUTES: October 21, 2014

### ADJOURN

Chairman Jason Thelin  
October 31, 2014

**THE PUBLIC IS INVITED TO ATTEND ALL PLANNING COMMISSION MEETINGS.** If you need a special accommodation to participate in the meeting, please call the City Recorder's Office at 801-756-6347 ext. 5.

CERTIFICATION OF POSTING. The undersigned duly appointed recorder does hereby certify that the above agenda notice was posted in three public places within Alpine City limits. These public places being a bulletin board located inside City Hall at 20 North Main and located in the lobby of the Bank of American Fork, Alpine Branch, 133 S. Main, Alpine, UT; and the bulletin board located at The Junction, 400 S. Main, Alpine, UT. The above agenda notice was sent by e-mail to The Daily Herald located in Provo, UT a local newspaper circulated in Alpine, UT. This agenda is also available on the City's web site at [www.alpynecity.org](http://www.alpynecity.org) and on the Utah Public Meeting Notices website at [www.utah.gov/pmn/index.html](http://www.utah.gov/pmn/index.html).

# PUBLIC MEETING AND PUBLIC HEARING ETIQUETTE

Please remember all public meetings and public hearings are now recorded.

- All comments **must** be recognized by the Chairperson and addressed through the microphone.
- When speaking to the Planning Commission, please stand, speak slowly and clearly into the microphone, and state your name and address for the recorded record.
- Be respectful to others and refrain from disruptions during the meeting. Please refrain from conversation with others in the audience as the microphones are very sensitive and can pick up whispers in the back of the room.
- Keep comments constructive and not disruptive.
- Avoid verbal approval or dissatisfaction of the ongoing discussion (i.e., booing or applauding).
- Exhibits (photos, petitions, etc.) given to the City become the property of the City.
- Please silence all cellular phones, beepers, pagers or other noise making devices.
- Be considerate of others who wish to speak by limiting your comments to a reasonable length, and avoiding repetition of what has already been said. Individuals may be limited to two minutes and group representatives may be limited to five minutes.
- Refrain from congregating near the doors or in the lobby area outside the council room to talk as it can be very noisy and disruptive. If you must carry on conversation in this area, please be as quiet as possible. (The doors must remain open during a public meeting/hearing.)

## Public Hearing v. Public Meeting

If the meeting is a **public hearing**, the public may participate during that time and may present opinions and evidence for the issue for which the hearing is being held. In a public hearing there may be some restrictions on participation such as time limits.

Anyone can observe a **public meeting**, but there is no right to speak or be heard there - the public participates in presenting opinions and evidence at the pleasure of the body conducting the meeting.

## **ALPINE PLANNING COMMISSION AGENDA**

**SUBJECT: AT&T Antenna Modification Site Plan**

**FOR CONSIDERATION ON: 4 November 2014**

**PETITIONER: Jared White**

**ACTION REQUESTED BY PETITIONER: Approve the Site Plan**

**APPLICABLE STATUTE OR ORDINANCE: Article 3.27 (Wireless Telecommunications)**

**PETITION IN COMPLIANCE WITH ORDINANCE: Yes**

### **BACKGROUND INFORMATION:**

See attached write-up from the applicant concerning the proposed modification.

Recently, Alpine City has also been working with the representative from AT&T to fund a landscaping project. Last week, that project was finished which included the addition of six (6) evergreen trees and sixteen (16) honeysuckle plants to buffer the visual impact of the cell tower and base equipment. Altogether, this project cost \$5,223 and was paid for by AT&T.

### **RECOMMENDED ACTION:**

Recommend approval to the City Council.

To: Alpine City Planning Department

RE: AT&T Public Meeting for antenna modification at approx. 650 South Rocky Mountain Drive

To whom it may concern

Per the requirements of the city code the following is a narrative to specific items that are to be addressed with this application:

1. Maintenance: Once constructed the site will remain unmanned, the site is visited by a single technician every 4-6 weeks to ensure it is function properly. This maintenance does not require any heavy equipment or significant impact on the surrounding properties.
2. The area that is currently covered by this site will not increase nor decrease with this modification. The modification is simply to improve performance by replacing older antennas with newer models. The newer model is a few inches smaller than the existing antennas.
3. Licenses: No other license or permits will be required for this modification beyond those required by Alpine city.
4. Radio Frequency Emissions: AT&T warrants that the site does currently comply with all FCC guidelines for radio frequency emissions and that this modification will not change that.
5. Liaison: All questions regarding this application may be directed to Jared White. (Contact info provided below).

Sincerely,  
Jared White  
Site Acquisition Contractor  
801-232-0953  
jaredw@uctechs.com

# ALPINE FA#10088454



## MONOPOLE

DO NOT SCALE DRAWINGS

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

### ENGINEERING

2012 INTERNATIONAL BUILDING CODE  
2011 NATIONAL ELECTRIC CODE  
2009 TIA-222-G OR LATEST EDITION

### GENERAL NOTES

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

### PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT CABINETS FOR AT&T'S WIRELESS TELECOMMUNICATIONS NETWORK.

### SITE INFORMATION

**PROPERTY OWNER:** THE PARK AT SOUTH POINT, LLC  
**ADDRESS:** 10 EAST 600 SOUTH ALPINE, UT 84004

**TOWER OWNER:** AT&T WIRELESS  
**SITE NAME:** ALPINE

**SITE CONTACT:**

**COUNTY:** UTAH

**LATITUDE (NAD 83)** 40° 26' 38.1" N

**LONGITUDE (NAD 83)** 111° 46' 43.8" W

**ZONING JURISDICTION:** ALPINE

**ZONING DISTRICT:**

**PARCEL #:** 110230096

**POWER COMPANY:** ROCKY MTN POWER

**TELEPHONE COMPANY:** CENTURYLINK

**SITE ACQUISITION CONTACT:** RAQUEL COLLINS (385) 313-3004

**RF ENGINEER:** ADAM GELLE (303) 888-0033

**CONSTRUCTION MANAGER:** ALEX LAWSON (801) 736-5162

### CONTACT INFORMATION

**ENGINEER:** TECHNOLOGY ASSOCIATES, EC INC.  
5710 SOUTH GREEN ST.  
SALT LAKE CITY, UT 84123

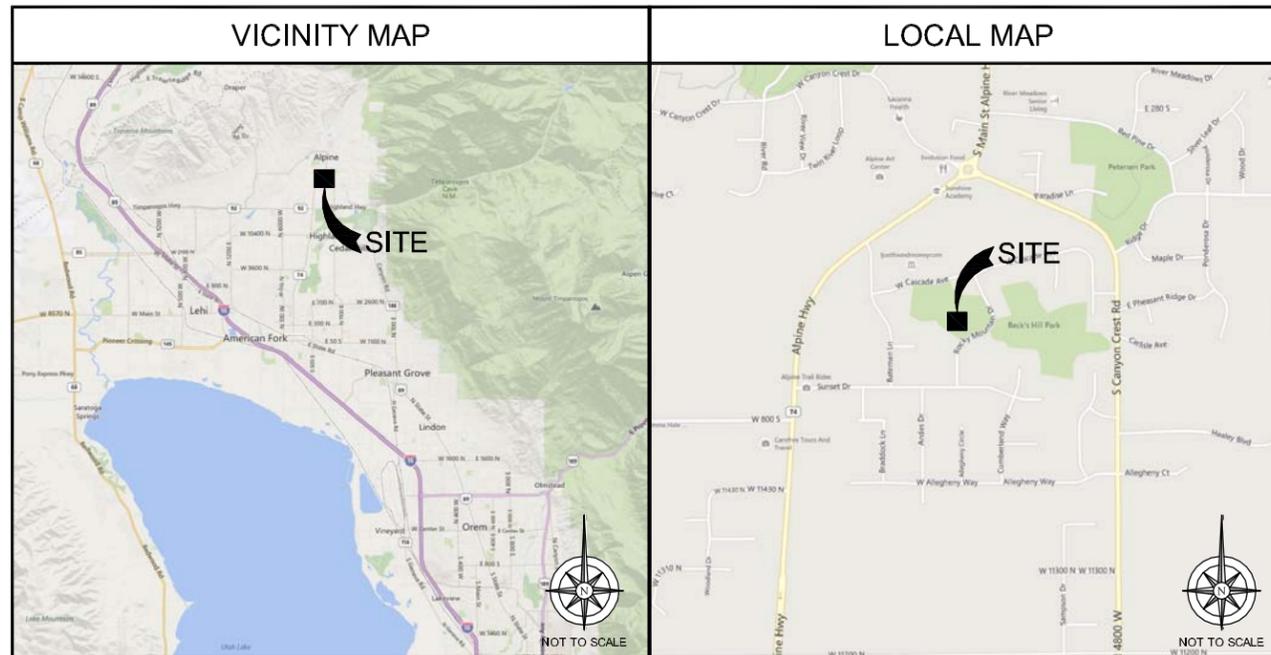
**CONTACT PHONE:** JEFF VANDERVEEN (801) 910-2965

UTL04002

LTE

LTE 2C

SECTOR ADD



### DRIVING DIRECTIONS

- STARTING FROM AT&T OFFICE: 4393 RIVERBOAT RD, TAYLORSVILLE, UT 84123
1. START OUT GOING SOUTH ON RIVERBOAT RD TOWARD W 4700 S/UT-266 W.
  2. TURN LEFT ONTO W 4500 S/UT-266 E.
  3. MERGE ONTO I-15 S TOWARD LAS VEGAS.
  4. TAKE EXIT 284 TOWARD HIGHLAND/ALPINE.
  5. TURN LEFT ONTO W 11000 N/UT-92. CONTINUE TO FOLLOW UT-92.
  6. TURN LEFT ONTO N 5300 W/N ALPINE HWY/UT-74. CONTINUE TO FOLLOW N ALPINE HWY/UT-74 N.
  7. TAKE THE 3RD RIGHT ONTO SUNSET DR.
  8. TAKE THE 2ND LEFT ONTO ROCKY MOUNTAIN DR.
  9. DESTINATION IS ON THE LEFT

### APPROVALS

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

AT&T WIRELESS COMPLIANCE REPRESENTATIVE: \_\_\_\_\_ DATE: \_\_\_\_\_

AT&T WIRELESS REPRESENTATIVE: \_\_\_\_\_ DATE: \_\_\_\_\_

AT&T WIRELESS RF ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_

GENERAL DYNAMICS ACQUISITION: \_\_\_\_\_ DATE: \_\_\_\_\_

TAEC SITE ACQUISITION: \_\_\_\_\_ DATE: \_\_\_\_\_

PROPERTY OWNER: \_\_\_\_\_ DATE: \_\_\_\_\_

GENERAL DYNAMICS CONSTRUCTION MANAGER: \_\_\_\_\_ DATE: \_\_\_\_\_

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY & CONFIDENTIAL. ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO IS STRICTLY PROHIBITED.

### DRAWING INDEX

SHEET NO:	DESCRIPTION:
T-1	TITLE SHEET
T-2	GENERAL NOTES
T-3	GENERAL NOTES
T-4	GENERAL NOTES
T-5	SIGNAGE & NOTES
C-1	OVERALL SITE PLAN
C-1.1	ENLARGED SITE PLAN
C-2	EQUIPMENT PLAN
C-2.1	ANTENNA PLANS
C-3	ELEVATIONS
C-4	ELEVATIONS
E-1	ELECTRICAL NOTES
E-2	ELECTRICAL ONE-LINE DIAGRAM
G-1	GROUNDING PLAN
G-2	GROUNDING DETAILS
RF-1	DETAILS
RF-2	RFDS DATA SHEET
RF-2.1	RFDS DATA SHEET
RF-2.2	RFDS DATA SHEET
RF-2.3	RFDS DATA SHEET
RF-2.4	RFDS DATA SHEET
RF-2.5	RFDS DATA SHEET
RF-2.6	RFDS DATA SHEET
RF-2.7	RFDS DATA SHEET
RF-2.8	RFDS DATA SHEET
RF-2.9	RFDS DATA SHEET
RF-2.10	RFDS DATA SHEET
RF-2.11	RFDS DIAGRAMS



Know what's below.  
CALL before you dig.

CALL AT LEAST TWO WORKING  
DAYS BEFORE YOU DIG



4393 RIVERBOAT ROAD, SUITE #400  
TAYLORSVILLE, UTAH 84123

GENERAL DYNAMICS  
Information Technology

1152 W 2400 S, SUITE C  
SALT LAKE CITY, UTAH 84119



Technology Associates

UTAH MARKET OFFICE  
5710 SOUTH GREEN ST.  
SALT LAKE CITY, UTAH 84123  
(801) 463-1020

REV	DATE	DESCRIPTION	BY
A	09/18/2014	90% CONSTRUCTION	Y.D.

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

ALPINE  
FA#10088454  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**TITLE SHEET**

SHEET NUMBER  
**T-1**

**GENERAL CONSTRUCTION NOTES:**

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:  
OWNER - AT&T  
SUBCONTRACTOR - CONTRACTOR (CONSTRUCTION)
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE NEW WORK AND SHALL MAKE PROVISIONS GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT / ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6. UNLESS OTHERWISE, THE WORK SHALL INCLUDE FURNISHING, MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO BE FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE SPACE FOR APPROVAL BY THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. SUBCONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. SUBCONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWING PRIOR TO THE BEGINNING CONSTRUCTION.
15. SUBCONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES, ANY DAMAGED PART SHALL BE REPAIRED AT THE SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND SUBCONTRACTORS TO THE SITE AND / OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION, ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
21. THE GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A TO 2-A-10B-C AND SHALL BE WITHIN 75 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ARCHITECT / ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW; THIS SHALL INCLUDE, BUT NOT BE LIMITED, TO: A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, D) TRENCHING & EXCAVATION.
23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, GAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ARCHITECT / ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND / OR LOCAL UTILITIES.
24. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OF DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
25. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND, FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL, PRE-APPROVED BY THE LOCAL JURISDICTION.
28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
30. SUBCONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
31. SUBCONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
32. THE NEW FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE NEW.
35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING," IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
36. SUBCONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF SUBCONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
37. SUBCONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING, IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
40. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS.
41. NO NOISE, SMOKE, DUST, OR VIBRATION WILL RESULT FROM THIS FACILITY. (DISREGARD THIS NOTE IF THIS SITE HAS A GENERATOR)
42. NO ADDITIONAL PARKING TO BE NEW. EXISTING ACCESS AND PARKING TO REMAIN, UNLESS NOTED OTHERWISE.
43. NO LANDSCAPING IS NEW AT THIS SITE, UNLESS NOTED OTHERWISE.

**SITE WORK & DRAINAGE**

**PART 1 - GENERAL**

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE NEW WORK SHOWN IN THESE PLANS.

**1.1 REFERENCES:**

- A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - CURRENT EDITION).
- B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
- C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).

**1.2 INSPECTION AND TESTING:**

- A. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY SUBCONTRACTORS INDEPENDENT TESTING LAB. THIS WORK IS TO BE COORDINATED BY THE SUBCONTRACTOR.
- B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE GENERAL CONTRACTOR 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 SUBCONTRACTORS RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF WORK INACCESSIBLE OR DIFFICULT TO INSPECT.

**1.3 SITE MAINTENANCE AND PROTECTION**

- A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE SUBCONTRACT.
- B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
- C. KEEP SITE FREE OF ALL PONDING WATER.
- D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT AND EPA REQUIREMENTS.
- E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS, AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.
- G. PROVIDE A MINIMUM 48-HOUR NOTICE TO THE ENGINEER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.

**PART 2 - PRODUCTS**

- 2.1 SUITABLE BACKFILL: ASTM D2321 (CLASS I, II, III OR IVA) FREE FROM FROZEN LUMPS, REFUSE, STONES, OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.2 NON-POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS III, IVA OR IVB) COARSE AGGREGATE, FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.3 POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM 52321 (CLASS IA, IB OR II) COARSE AGGREGATE FREE FROM FROZEN LUMPS, REFUSE STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.4 SELECT STRUCTURAL FILL: GRANULAR FILL MATERIAL MEETING THE REQUIREMENTS OF ASTM E850-95, FOR USE AROUND UNDER STRUCTURES WHERE STRUCTURAL FILL MATERIAL ARE REQUIRED.
- 2.5 GRANULAR BEDDINGS AND TRENCH BACKFILL: WELL - GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW SM).
- 2.6 COARSE AGGREGATE FOR ACCESS ROAD SUB-BASE COURSE SHALL CONFORM ASTM D2940.
- 2.7 UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC SILTS AND CLAYS (LL>45), MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSIONS AND DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICALLY WILL BE SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND OL.
- 2.8 GEOTEXTILE FABRIC: MIRAFI 500X OR APPROVED EQUAL.
- 2.9 PLASTIC MARKING TAPE: SHALL BE ACID AND ALKALI RESISTANT POLYETHYLENE FILM SPECIFICALLY MANUFACTURED FOR MARKING THE LOCATING UNDERGROUND UTILITIES 6 INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004 INCHES. TAPE SHALL HAVE MINIMUM STRENGTH OF 1500 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL CONDUCTORS. FOIL BACKING OR OTHER MEANS TO ENABLE DETECTION BY A METAL DETECTOR WHEN BURIED UP TO 3 FEET DEEP. THE METALLIC CORE OF THE TAPE SHALL BE ENCASED IN A PROTECTIVE JACKET OR PROVIDED WITH OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.

**PART 3 - EXECUTION**

**3.1 GENERAL:**

- A. BEFORE START 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 DRAINED AT ANY TIME.
- B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINE, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
- C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH, OTHER DEBRIS, AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.
  1. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS. BRUSH AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE. RAKE, DISK, OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
  2. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.
  3. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED TILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING, AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.
- D. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.
- E. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND / OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM THAT MIGHT INTERFERE WITH THE NEW CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
- F. SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.

**3.2 BACKFILL:**

- A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.
  1. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS AND UNSUITABLE MATERIALS.
  2. BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCHES LOOSE THICKNESS AND COMPACTED, WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.
  3. WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.
- B. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

**3.3 TRENCH EXCAVATION:**

- A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHINGS OF THE TRENCH WALLS.
- B. EXTEND THE TRENCH WIDTH A MINIMUM OF 7 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.
- C. WHEN SORE YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, BACKFILL AT THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.

**3.4 TRENCH BACKFILL:**

- A. PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWING AND THE UTILITY REQUIREMENTS.
- B. NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.
- C. CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING. BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.
- D. PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCHES UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TAMP BACKFILL INTO SPACE AROUND CONDUITS.
- E. PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE OR UNBALANCED LOADING.
- F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8-INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.
- G. COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAT THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH BUT NO LESS THAT A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

**3.5 AGGREGATE ACCESS ROAD:**

- A. CLEAR, GRUB, STRIP AND EXCAVATE FOR THE ACCESS ROAD TO THE LINES AND GRADES INDICATED ON THE DRAWINGS. SCARIFY TO A DEPTH OF 6 INCHES AND PROOF-ROLL. ALL HOLES, RUTS, SOFT PLACES AND OTHER DEFECTS SHALL BE CORRECTED.
- B. THE ENTIRE SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 1557.
- C. AFTER PREPARATION OF THE SUBGRADE IS COMPLETE, THE GEOTEXTILE FABRIC (MIRAFI 500X) SHALL BE INSTALLED TO THE LIMITS INDICATED ON THE DRAWINGS BY ROLLING THE FABRIC OUT LONGITUDINALLY ALONG THE ROADWAY THE FABRIC SHALL NOT BE DRAGGED ACROSS THE SUBGRADE. PLACE THE ENTIRE ROLL IN A SINGLE OPERATION, ROLLING OUT AS SMOOTHLY AS POSSIBLE.
  1. OVERLAPS PARALLEL TO THE ROADWAY WILL BE PERMITTED AT THE CENTERLINE AND AT LOCATIONS BEYOND THE ROADWAY SURFACE WIDTH (I.E. WITHIN THE SHOULDER WIDTH) ONLY. NO LONGITUDINAL OVERLAPS SHALL BE LOCATED BETWEEN THE CENTERLINE AND THE SHOULDER. PARALLEL OVERLAPS SHALL BE A MINIMUM OF 3 FEET WIDE.
  2. TRANSVERSE (PERPENDICULAR TO THE ROADWAY) OVERLAPS AT THE END OF A ROLL, SHALL OVERLAP IN THE DIRECTION OF THE AGGREGATE PLACEMENT (PREVIOUS ROLL ON TOP) AND SHALL HAVE A MINIMUM LENGTH OF 3 FEET.
  3. ALL OVERLAPS SHALL BE PINNED WITH STAPLES OF NAILS A MINIMUM OF 10 INCHES LONG TO INSURE POSITIONING DURING PLACEMENT OF AGGREGATE. PIN LONGITUDINAL SEAMS AT 25 FOOT CENTERS AND TRANSVERSE SEAMS EVERY 5 FEET.
- D. THE AGGREGATE BASE AND SURFACE COURSES SHALL BE CONSTRUCTED IN LAYERS NOT MORE THAN 4 INCH (COMPACTED) THICKNESS. AGGREGATE TO BE PLACED ON GEOTEXTILE FABRIC SHALL BE END - DUMPED ON THE FABRIC FROM THE FREE END OF THE FABRIC OR OVER PREVIOUSLY PLACED AGGREGATE. THE FIRST LIFT SHALL BE BLADED DOWN TO A THICKNESS OF 8 INCHES PRIOR TO COMPACTION. AT NO TIME SHALL EQUIPMENT, EITHER TRANSPORTING THE AGGREGATE OR GRADING THE AGGREGATE, BE PERMITTED ON THE ROADWAY WITH LESS THAN 4 INCHES OF MATERIAL COVERING THE FABRIC.
- E. THE AGGREGATE SHALL BE IMMEDIATELY COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE PROCTOR TEST, ASTM D 1557 WITH A TAMPING ROLLER, OR WITH A PNEUMATIC - TIRE ROLLER, OR WITH A VIBRATORY MACHINE OR ANY COMBINATION OF THE ABOVE. THE TOP LAYER SHALL BE GIVEN A FINAL ROLLING WITH A THREE-WHEEL OR TANDEM ROLLER.

**3.6 FINISH GRADING:**

- A. PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.
- B. UTILIZE SATISFACTORY FILL MATERIAL, RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENTS OF REMOVED UNSUITABLE MATERIALS.
- C. ACHIEVE FINISHED GRADE BY PLACING A MINIMUM OF 1/2" - 3/4" CRUSHED STONE ON TOP SOIL STABILIZER FABRIC.
- D. REPAIR ALL ACCESS ROADS AND SURROUND AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.

**3.7 ASPHALT PAVING ROAD:**

- A. DIVISION 600 - KDOT FLEXIBLE PAVEMENT (UPDATE PER LOCAL DOT)
- B. SECTION 403 - MODOT ASPHALT CONCRETE PAVEMENT.



4393 RIVERBOAT ROAD, SUITE #400  
TAYLORSVILLE, UTAH 84123

**GENERAL DYNAMICS**  
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SALT LAKE CITY, UTAH 84123  
(801) 463-1020

REV	DATE	DESCRIPTION	BY
A	09/18/2014	90% CONSTRUCTION	Y.D.

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

**ALPINE**  
**FA#10088454**  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**GENERAL NOTES**

SHEET NUMBER  
**T-2**

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

**ELECTRICAL NOTES:**

**PART 1 - GENERAL**

**1.1 GENERAL CONDITIONS:**

- A. CONTRACTOR SHALL INSPECT THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BIDS. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE SUBCONTRACTORS FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION. NOT AFTER THE CONTRACT HAS BEEN AWARDED.
- B. THE SUBCONTRACTOR SHALL OBTAIN PERMITS, LICENSES, MAKE ALL DEPOSITS, AND PAY ALL FEES REQUIRED FOR THE CONSTRUCTION PERFORMANCE FOR THE WORK UNDER THIS SECTION.
- C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. THE SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWINGS SHALL NOT BE SCALED TO DETERMINED DIMENSIONS

**1.2 LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES.**

- A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES. CONDUIT BENDS SHALL BE THE RADIUS BEND FOR THE TRADE SIZE OF CONDUIT IN COMPLIANCE WITH THE LATEST EDITIONS OF NEC.

**1.3 REFERENCES:**

- A. THE PUBLICATIONS LISTED BELOW ARE PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE. THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION UNLESS OTHERWISE NOTED. EXCEPT AS MODIFIED BY THE REQUIREMENT SPECIFIED HEREIN OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISION OF THESE PUBLICATIONS.

1. ANSI/IEEE (AMERICAN NATIONAL STANDARDS INSTITUTE)
2. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
3. ICE (INSULATED CABLE ENGINEERS ASSOCIATION)
4. NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
5. NEPA (NATIONAL FIRE PROTECTION ASSOCIATION)
6. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
7. UL (UNDERWRITERS LABORATORIES, INC.)
8. AT&T MOBILITY GROUNDING STANDARD ND-00071

**1.4 SCOPE OF WORK:**

- A. WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND ASSOCIATED SERVICES REQUIRED TO COMPLETE REQUIRED CONSTRUCTION AND BE OPERATIONAL.
- B. ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY TESTED, ADJUSTED, AND ALIGNED BY THE SUBCONTRACTOR.
- C. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATING, DRAINING, TRENCHING, BACKFILLING, AND REMOVAL OR EXCESS DIRT.
- D. THE SUBCONTRACTOR SHALL FURNISH TO THE OWNER WITH CERTIFICATES OF A FINAL INSPECTION AND APPROVAL FROM THE INSPECTION AUTHORITIES HAVING JURISDICTION.
- E. THE SUBCONTRACTOR SHALL PREPARE A COMPLETE SET OF AS-BUILT DRAWINGS, DOCUMENT ALL WIRING EQUIPMENT CONDITIONS, AND CHANGES WHILE COMPLETING THIS CONTRACT. THE AS-BUILT DRAWINGS SHALL BE SUBMITTED AT COMPLETION OF THE PROJECT.

**PART 2 - PRODUCTS**

**2.1 GENERAL:**

- A. ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED, NEW AND FREE FROM DEFECTS.
- B. ALL ITEMS OF MATERIALS AND EQUIPMENT SHALL BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.
- C. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OR APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- D. ALL OVER CURRENT DEVICES HAVE AN INTERRUPTING CURRENT RATING EQUAL TO OR GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED. 10,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT.

**2.2 MATERIALS AND EQUIPMENT:**

**A. CONDUIT:**

1. RIGID METAL CONDUIT (RMC) SHALL BE HOT - DIPPED GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED IN ADDITION TO GALVANIZING.
2. LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE UL LISTED.
3. CONDUIT CLAMPS, STRAPS AND SUPPORTS SHALL BE STEEL OR MALLEABLE IRON. ALL FITTINGS SHALL BE COMPRESSION AND CONCRETE TIGHT TYPE. GROUNDING BUSHINGS WITH INSULATED THROATS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS.
4. NON-METALLIC CONDUIT AND FITTINGS SHALL BE SCHEDULE 40 PVC. INSTALL USING SOLVENT - CEMENT - TYPE JOINTS AS RECOMMENDED BY THE MANUFACTURER.

**B. CONDUCTORS AND CABLE:**

1. CONDUCTORS AND CABLE SHALL BE FLAME - RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER, TYPE THHN/THWN-2, 600 VOLT, SIZE AS INDICATED. 12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR USED.
2. 10 AWG AND SMALLER CONDUCTOR SHALL BE SOLID OR STRANDED AND 8 AWG AND LARGER CONDUCTOR SHALL BE STRANDED.
3. SOLDERLESS, COMPRESSION - TYPE CONNECTORS SHALL BE USED FOR TERMINATION OF ALL STRANDED CONDUCTORS.
4. STRAIN-RELIEF SUPPORTS GRIPS SHALL BE HUBBELL KELLEMS OR APPROVED EQUAL. CABLES SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC AND CABLE MANUFACTURERS RECOMMENDATIONS.
5. ALL CONDUCTORS SHALL BE TAGGED AT BOTH ENDS OF THE CONDUCTOR, AT ALL PULL BOXES, J-BOXES, EQUIPMENT AND CABINETS AND SHALL BE IDENTIFIED WITH APPROVED PLASTIC TAGS (ACTION CRAFT, BRADY, OR APPROVED EQUAL).

**C. DISCONNECT SWITCHES:**

1. DISCONNECT SWITCHES SHALL BE HEAVY DUTY, DEAD - FRONT, QUICK - MAKE, QUICK - BREAK, EXTERNALLY OPERABLE, HANDLE LOCKABLE AND INTER-LOCK WITH COVER IN CLOSED POSITION. RATING AS INDICATED. UL LABELED FURNISHED IN NEMA 3R ENCLOSURE, SQUARE - D OR APPROVED EQUAL.

**D. CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:**

1. INSTALL CHEMICAL GROUNDING AS REQUIRED. THE SYSTEM SHALL BE ELECTROLYTIC MAINTENANCE FREE ELECTRODE CONSISTING OF RODS WITH A MINIMUM OF 2 AWG CU EXOTHERMICALLY WELDED RIGID TAIL, PROTECTIVE BOXES, AND BACKFILL MATERIAL. MANUFACTURER SHALL BE LYNCOLE XIT GROUNDING ROD TYPES K2 - (\*)CS OR K2L4(\*)CS (\*) LENGTHS REQUIRED.
2. GROUND ACCESS BOX SHALL BE A POLY-PLASTIC BOX FOR NON-TRAFFIC APPLICATIONS, INCLUDING BOLT DOWN FLUSH COVER WITH "BREATHERS" HOLES, XIT MODEL #XB-22. ALL DISCONNECT SWITCHES AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS ID NUMBERING, AND THE ELECTRICAL POWER SOURCE.
3. BACKFILL MATERIAL SHALL BE LYNCONITE AND LYNCOLE GROUNDING GRAVEL.

**E. SYSTEM GROUNDING:**

1. ALL GROUNDING COMPONENTS SHALL BE TINNED AND GROUNDING CONDUCTOR SHALL BE 2 AWG BARE, SOLID, TINNED, COPPER. ABOVE GRADE GROUNDING CONDUCTORS SHALL BE INSULATED WHERE NOTED.
2. GROUNDING BUSES SHALL BE BARE, TINNED, ANNEALED COPPER BARS OF RECTANGULAR CROSS SECTION, STANDARD BUS BARS MGB SHALL BE FURNISHED AND INSTALLED BY THE SUBCONTRACTOR. THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD. ALL GROUNDING BUSES SHALL BE IDENTIFIED WITH MINIMUM 3/4" LETTERS BY WAY OF STENCILING OR DESIGNATION PLATE.
3. CONNECTORS SHALL BE HIGH - CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED. USE TWO - HOLD COMPRESSION LUGS WITH HEAT SHRINK FOR MECHANICAL CONNECTIONS.
4. EXOTHERMIC WELDED CONNECTIONS SHALL BE PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.
5. GROUND RODS SHALL BE COPPER - CLAD STEEL WITH HIGH - STRENGTH STEEL CORE AND ELECTROLYTIC - GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE, 5/8" X 10'-0". ALL GROUNDING RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES.
6. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS IN COMPLIANCE WITH THE SPECIFICATIONS AND NEG. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.

**F. OTHER MATERIALS:**

1. THE SUBCONTRACTOR SHALL PROVIDE OTHER MATERIALS, THOUGH NOT SPECIFICALLY DESCRIBED, WHICH ARE REQUIRED FOR A COMPLETELY OPERATIONAL SYSTEM AND PROPER INSTALLATION OF THE WORK.
2. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.

**G. PANELS AND LOAD CENTERS:**

1. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN

**PART 3 - EXECUTION**

**3.1 GENERAL**

- A. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B. EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT OR WATER, AND AGAINST CHEMICAL OR MECHANICAL INJURY DURING INSTALLATION AND CONSTRUCTION PERIODS.

**3.2 LABOR AND WORKMANSHIP:**

- A. ALL LABOR FOR THE INSTALLATION OF MATERIALS AND EQUIPMENT FURNISHED FOR THE ELECTRICAL SYSTEM SHALL BE INSTALLED BY EXPERIENCED WIRE MEN, IN A NEAT AND WORKMANLIKE MANNER.
- B. ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE SUBCONTRACTOR AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.
- C. UPON COMPLETION OF WORK, THE SUBCONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, REMOVE ALL LABELS AND ANY DEBRIS, CRATING, OR CARTONS AND LEAVE THE INSTALLATION FINISHED AND READY FOR OPERATION.

**3.3 COORDINATION:**

- A. THE SUBCONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE OWNER - FURNISHED EQUIPMENT DELIVERY SCHEDULE TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

**3.4 INSTALLATION:**

**A. CONDUIT:**

1. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS SPECIFIED, NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH TRADE SIZE.
2. PROVIDE RIGID PVC SCHEDULE 80 CONDUITS FOR ALL RISERS, RMC OTHERWISE NOTED. EMT MAY BE INSTALLED FOR EXTERIOR CONDUITS WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
3. THE INSTALLATION OF SCHEDULE 40 PVC AND RMC CONDUITS SHALL BE 24 INCHES MINIMUM DEPTH. ALL 90 DEGREE BENDS SHALL BE RMC. EXPANSION JOINTS ARE REQUIRED ON ALL CONDUIT RISERS.
4. USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION TO EQUIPMENT WITH MOVEMENT, VIBRATION, OR FOR EASE OF MAINTENANCE. USE LIQUID TIGHT, FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORT TO ALLOW FOR EXPANSION AND CONTRACTION.
5. A RUN OF CONDUIT BETWEEN BOXES OR EQUIPMENT SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE QUARTER-BENDS. CONDUIT BEND SHALL BE MADE WITH THE UL LISTED BENDER OR FACTORY 90 DEGREE ELBOWS MAY BE USED.
6. FIELD FABRICATED CONDUITS SHALL BE CUT SQUARE WITH A CONDUIT CUTTING TOOL AND REAMED TO PROVIDE A SMOOTH INSIDE SURFACE.
7. PROVIDE INSULATED GROUNDING BUSHING FOR ALL CONDUITS.
8. SUBCONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENING IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. SUBCONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.
9. ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF CONDUCTORS OR CABLES. CONDUIT SHALL BE FREE OF DIRT AND DEBRIS.
10. INSTALL PULL STRINGS IN ALL CLEAN EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END.
11. INSTALL 2" HIGHLY VISIBLE AND DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUITS AND CONDUCTORS.
12. CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.
13. PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS TO ALLOW FOR RACEWAYS AND CABLES TO BE ROUTED THROUGH THE BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS, SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE EFFECTIVELY SEALED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATINGS OF THE WALL OR STRUCTURE. FIRE STOPS AT FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE, AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.

**B. CONDUCTORS AND CABLE:**

1. ALL POWER WIRING SHALL BE COLOR CODED AS FOLLOWS:

DESCRIPTION	208/240/120 VOLT SYSTEMS
PHASE A .....	BLACK
PHASE B .....	RED
PHASE C .....	BLUE
NEUTRAL .....	WHITE
GROUNDING .....	GREEN

2. SPLICES SHALL BE MADE ONLY AT OUTLETS, JUNCTION BOXES, OR ACCESSIBLE RACEWAY CONDULETS APPROVED FOR THIS PURPOSE.
3. PULLING LUBRICANTS SHALL BE UL APPROVED. SHALL USE NYLON OR HEMP ROPE FOR PULLING CONDUCTOR OR CABLES INTO THE CONDUIT.
4. CABLES SHALL BE NEATLY TRAINED, WITHOUT INTERLACING, AND BE OF SUFFICIENT LENGTH IN ALL BOXES & EQUIPMENT TO PERMIT MAKING A NEAT ARRANGEMENT. CABLES SHALL BE SECURED IN A MANNER TO AVOID TENSION ON CONDUCTORS OF TERMINALS. CONDUCTORS SHALL BE PROTECTED FROM MECHANICAL INJURY AND MOISTURE. SHARP BENDS OVER CONDUIT BUSHINGS ARE PROHIBITED. DAMAGED CABLES SHALL BE REMOVED AND REPLACED AT THE SUBCONTRACTORS EXPENSE.

**C. DISCONNECT SWITCHES**

1. INSTALL DISCONNECT SWITCHES LEVEL AND PLUMB. CONNECT TO WIRING SYSTEM AND GROUNDING SYSTEM AS INDICATED.

**D. GROUNDING:**

1. ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING MANUFACTURER, AT&T MOBILITY GROUNDING STANDARD ND-00071, ND-00135, AND THE NATIONAL ELECTRICAL CODE.
2. PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
3. ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPED OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES.
4. BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE SUBCONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM. THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 AWG COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM. THE BUILDING STEEL COLUMNS LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).
5. TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS, BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS, WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
6. SUBCONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN POINTS TO THE EXISTING GROUNDING SYSTEM. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELDED PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.
8. APPLY CORROSION-RESISTANCE FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED. USE KOPR-SHIELD ANTI-OXIDATION COMPOUND ON ALL COMPRESSION GROUNDING CONNECTIONS.
9. A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.
10. BOND ALL INSULATED GROUNDING BUSHING WITH A BARE 6 AWG GROUNDING CONDUCTOR TO A GROUND BAR.
11. DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE, USE GREATER OF THE TWO DISTANCES.
12. ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
13. THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
14. DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE, USING THE GREATER OF THE TWO DISTANCES.
15. IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUNDING BAR AT THE BASE OF THE TOWER, A SECOND GROUNDING BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE, TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LINE ARRESTERS.
16. SUBCONTRACTORS SHALL REPAIR, AND/OR REPLACE EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE SUBCONTRACTORS EXPENSE.

**3.5 ACCEPTANCE TESTING**

- A. CERTIFIED PERSONNEL USING CERTIFIED EQUIPMENT SHALL PERFORM REQUIRED TESTS AND SUBMIT WRITTEN TEST REPORTS UPON COMPLETION
- B. WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, THE NON-COMPLYING ITEMS SHALL BE REMOVED FROM THE PROJECT SITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE FOR NON-COMPLIANCE.
- C. TEST PROCEDURES:

1. ALL FEEDERS SHALL HAVE INSULATION TESTED AFTER INSTALLATION, BEFORE CONNECTION TO DEVICES. THE CONDUCTORS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS. TESTING SHALL BE FOR ONE MINUTE USING 1000V DC. PROVIDE WRITTEN DOCUMENTATION FOR ALL TESTS LISTED TO SUBCONTRACTOR.
2. PRIOR TO ENERGIZING CIRCUITRY, TEST WIRING DEVICES FOR ELECTRICAL CONTINUITY AND PROPER POLARITY CONNECTIONS.
3. MEASURE AND RECORD VOLTAGES BETWEEN PHASES AND BETWEEN PHASE CONDUCTORS AND NEUTRALS. SUBMIT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES.
4. PERFORM GROUNDING TEST TO MEASURE GROUNDING RESISTANCE OF GROUNDING SYSTEM USING THE IEEE STANDARD 3-POINT "FALL-OF-POTENTIAL" METHOD. PROVIDE PLOTTED TEST VALUES AND LOCATION SKETCH. NOTIFY THE ENGINEER IMMEDIATELY IF MEASURED VALUE IS OVER 5 OHMS.



4393 RIVERBOAT ROAD, SUITE #400  
TAYLORSVILLE, UTAH 84123

**GENERAL DYNAMICS**  
Information Technology

1152 W 2400 S, SUITE C  
SALT LAKE CITY, UTAH 84119



**Technology Associates**

**UTAH MARKET OFFICE**  
5710 SOUTH GREEN ST.  
SALT LAKE CITY, UTAH 84123  
(801) 463-1020

REV	DATE	DESCRIPTION	BY
A	09/18/2014	90% CONSTRUCTION	Y.D.

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

**ALPINE**  
**FA#10088454**  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**GENERAL NOTES**

SHEET NUMBER  
**T-3**

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

**GENERAL NOTES**

- THIS FACILITY IS EXEMPT FROM HANDICAP REQUIREMENTS PER 2010 CBC SECTION 1105B.3.4 EXCEPTION #1. THIS FACILITY IS NON-OCCUPIABLE SPACE AND ENTERED ONLY BY SERVICE PERSONNEL. THIS SPACE IS NOT FOR HUMAN OCCUPANCY.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO SUBMITTING BIDS, AND PROCEEDING WITH ANY WORK.
- THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES AS THEY MAY BE DISCOVERED IN THE PLANS, SPECIFICATIONS, & NOTES PRIOR TO STARTING CONSTRUCTION, INCLUDING BUT NOT LIMITED BY DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERRORS, OMISSIONS, OR INCONSISTENCY AFTER THE START OF CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND SHALL INCUR ANY EXPENSES TO RECTIFY THE SITUATION. THE METHOD OF CORRECTION SHALL BE APPROVED BY THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR HAS THE RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR OR SUBCONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGE TO THE UTILITIES CAUSED DURING THE EXECUTION OF THE WORK. CONTACT USA DIG ALERT @ 811
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGED AREAS.
- A COPY OF THE APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS AT THE SITE FOR THE PURPOSE OF DOCUMENTING ALL AS-BUILT CHANGES, REVISIONS, ADDENDA, OR CHANGE ORDERS. THE CONTRACTOR SHALL FORWARD THE AS-BUILT/THIRD DRAWINGS TO THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT AT THE CONCLUSION OF THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE WORK IS IN PROGRESS UNTIL THE JOB IS COMPLETE.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER, AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY.
- ALL CONSTRUCTION THROUGH THE PROJECT SHALL CONFORM TO THE LATEST C.B.C. AND ALL OTHER GOVERNING CODES, INCLUDING THE CALIFORNIA ADMINISTRATIVE CODES TITLE 8, 19, AND 24. THE MOST RESTRICTIVE CODE SHALL GOVERN.
- THE CONTRACTOR AND SUBCONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE REGULATIONS INCLUDING ALL OSHA REQUIREMENTS.
- WHEN REQUIRED STORAGE OF MATERIALS OCCURS, THEY SHALL BE EVENLY DISTRIBUTED OVER THE FLOOR OR ROOF SO AS NOT TO EXCEED THE DESIGNED LIVE LOADS FOR THE STRUCTURE. TEMPORARY SHORING OR BRACING SHALL BE PROVIDED WHERE THE STRUCTURE OR SOIL HAS NOT ATTAINED THE DESIGN STRENGTH FOR THE CONDITIONS PRESENT.
- THE CONTRACTOR SHALL SUPERVISE AND COORDINATE ALL WORK, USING HIS PROFESSIONAL KNOWLEDGE AND SKILLS. HE IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCING AND COORDINATING ALL PORTIONS OF THE WORK UNDER THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS WITH RESPECT TO THE WORK TO COMPLETE THE PROJECT. BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNER OR AUTHORIZED AGENT. CONTRACTOR SHALL OBTAIN THE PERMIT AND MAKE FINAL PAYMENT OF SAID DOCUMENT.
- ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE. DRAWINGS ARE NOT TO BE SCALED UNDER ANY CIRCUMSTANCES.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS, OR SUPPORTS FOR INSTALLATION OF ITEMS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE THE FIRE MARSHALL OR U.L. APPROVED MATERIALS TO FILL/SEAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
- NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS.
- THE CONTRACTOR IS TO PROVIDE PORTABLE FIRE EXTINGUISHERS HAVING A MINIMUM 2A:10-B:C RATING WITHIN 75FT. OF TRAVEL TO ALL PORTIONS OF THE CONSTRUCTION AREA. (2010 CFC SECTION 906.1-1 & 7 AND SECTION 906.3.1)
- MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AVAILABLE AS REQUIRED BY THE LOCAL GOVERNING AGENCY RESPONSIBLE FOR APPROVING THE RESULTS.
- ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE.
- ALL DEBRIS AND REFUSE IS TO BE REMOVED FROM THE PROJECT. PREMISES SHALL BE LEFT IN A CLEAN BROOM FINISHED CONDITION AT ALL TIMES.
- BUILDING INSPECTORS AND/OR OTHER BUILDING OFFICIALS ARE TO BE NOTIFIED PRIOR TO ANY GRADING AND CONSTRUCTION EFFORT AS MANDATED BY THE GOVERNING AGENCY.
- ALL SYMBOLS AND ABBREVIATIONS ARE CONSIDERED CONSTRUCTION INDUSTRY STANDARDS. IF A CONTRACTOR HAS A QUESTION REGARDING THEIR EXACT MEANING THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT SHALL BE NOTIFIED FOR CLARIFICATIONS.

**GENERAL FIRE NOTES:**

- BUILDINGS UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION SHALL BE IN ACCORDANCE WITH 2010 CFC SECTION 1401 AND ALL GOVERNING CODES.
- ADDRESS SHALL BE PROVIDED FOR ALL NEW AND EXISTING BUILDINGS IN A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. (2010 CFC SECTION 505.1)
- DECORATIVE MATERIALS SHALL BE MAINTAINED IN A FLAME-RETARDANT CONDITION. (2010 CFC SECTION 807.1.2)
- PORTABLE FIRE EXTINGUISHERS; AT LEAST ONE FIRE EXTINGUISHER WITH A MINIMUM RATING OF 2-A-10B-C SHALL BE PROVIDED WITHIN 75 FEET MAXIMUM TRAVEL DISTANCE FOR EACH 6,000 SQUARE FEET OR PORTION THEREOF ON EACH FLOOR. (2010 CFC SECTION 906.1.1 & 7 AND SECTION 906.3.1)

**ABBREVIATION DEFINITION**

A.B.	ANCHOR BOLT
ABV.	ABOVE
ACCA	ANTENNA CABLE COVER ASSEMBLY
ADDL	ADDITIONAL
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
ALUM.	ALUMINUM
ALT.	ALTERNATE
ANT.	ANTENNA
APPRX.	APPROXIMATE(LY)
ARCH.	ARCHITECT(URAL)
AWG.	AMERICAN WIRE GAUGE
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
B.N.	BOUNDARY NAILING
BTCW.	BARE TINNED COPPER WIRE
B.O.F.	BOTTOM OF FOOTING
BU	BACK-UP CABINET
CAB.	CABINET
CANT.	CANTILEVER(ED)
C.I.P.	CAST IN PLACE
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION(OR)
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
Ø	PENNY (NAILS)
DBL.	DOUBLE
DEPT.	DEPARTMENT
D.F.	DOUGLAS FIR
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DWG.	DRAWING(S)
DWL.	DOWEL(S)
EA.	EACH
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMT.	ELECTRICAL METALLIC TUBING
E.N.	EDGE NAIL
ENG.	ENGINEER
EQ.	EQUAL
EXP.	EXPANSION
EXST.(E)	EXISTING
EXT.	EXTERIOR

**ABBREVIATION DEFINITION**

FAB.	FABRICATION(OR)
F.F.	FINISH FLOOR
F.G.	FINISH GRADE
FIN.	FINISH(ED)
FLR.	FLOOR
FDN.	FOUNDATION
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
F.S.	FINISH SURFACE
FT.(F)	FOOT(FEET)
FTG.	FOOTING
G.	GROWTH (CABINET)
GA.	GAUGE
GL.	GALVANIZE(D)
G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER
GLB.(GLULAM)	GLUE LAMINATED BEAM
GPS	GLOBAL POSITIONING SYSTEM
GRND.	GROUND
HDR.	HEADER
HGR.	HANGER
HT.	HEIGHT
ICGB.	ISOLATED COPPER GROUND BUS
IN.(")	INCH(ES)
INT.	INTERIOR
LB.(#)	POUNDS(S)
L.B.	LAG BOLTS
L.F.	LINEAR FEET (FOOT)
L.	LONG(TUDINAL)
MAS.	MASONRY
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
(N)	NEW
NO.(#)	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OPNG.	OPENING
P/C	PRECAST CONCRETE
P.CS	PERSONAL COMMUNICATION SERVICES
PLY.	PLYWOOD
PPC	POWER PROTECTION CABINET
PRC	PRIMARY RADIO CABINET
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
P.T.	PRESSURE TREATED

**ABBREVIATION DEFINITION**

PWR.	POWER (CABINET)
QTY.	QUANTITY
RAD.(R)	RADIUS
REF.	REFERENCE
REINF.	REINFORCEMENT(ING)
REQ.D.	REQUIRED
RGS.	RIGID GALVANIZED STEEL
RRU.	RADIO REMOTE UNIT
SCH.	SCHEDULE
SHT.	SHEET
SHM.	SIMILAR
SPEC.	SPECIFICATION(S)
SO.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
STRUC.	STRUCTURAL
TEMP.	TEMPORARY
THK.	THICK(NESS)
TMA	TOWER MOUNTED AMPLIFIER
T.N.	TOE NAIL
T.O.A.	TOP OF ANTENNA
T.O.C.	TOP OF CURB
T.O.F.	TOP OF FOUNDATION
T.O.P.	TOP OF PLATE (PARAPET)
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.G.	UNDER GROUND
U.L.	UNDERWRITERS LABORATORY
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
W	WIDE(WIDTH)
W/	WITH
WD.	WOOD
WP.	WEATHERPROOF
WT.	WEIGHT
⊕	CENTERLINE
⊖	PLATE

**ABBREVIATIONS**

	NEW ANTENNA		GRID REFERENCE		CENTERLINE
	EXISTING ANTENNA		DETAIL REFERENCE		PROPERTY/LEASE LINE
	GROUND ROD		ELEVATION REFERENCE		MATCH LINE
	GROUND BUS BAR		SECTION REFERENCE		WORK POINT
	MECHANICAL GRND. CONN.		GROUT OR PLASTER		GROUND CONDUCTOR
	CADWELD		(E) BRICK		TELEPHONE CONDUIT
	GROUND ACCESS WELL		(E) MASONRY		ELECTRICAL CONDUIT (POWER)
	ELECTRIC BOX		CONCRETE		COAXIAL CABLE
	TELEPHONE BOX		EARTH		OVERHEAD SERVICE CONDUCTORS
	LIGHT POLE		GRAVEL		CHAIN LINK FENCING
	FND. MONUMENT		PLYWOOD		
	SPOT ELEVATION		SAND		
	SET POINT		WOOD CONT.		
	REVISION		WOOD BLOCKING		
			STEEL		

**2**

A	09/18/2014	90% CONSTRUCTION	Y.D.
REV	DATE	DESCRIPTION	BY

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

**ALPINE**  
**FA#10088454**  
 10 EAST 600 SOUTH  
 ALPINE, UT 84004  
 WOOD POLE

SHEET TITLE  
**GENERAL NOTES**

SHEET NUMBER  
**T-4**

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

**GENERAL NOTES**

**1 LEGEND**

**3**

**NOTICE**

**Beyond This Point** you are entering a controlled area where RF emissions may exceed the FCC General Population Exposure Limits.

Follow all posted signs and site guidelines for working in RF environment.

Ref: 47CFR 1.1317 (b)

**CAUTION**

**Beyond This Point** you are entering a controlled area where RF emissions may exceed the FCC Occupational Exposure Limits.

Obey all posted signs and site guidelines for working in RF environment.

Ref: 47CFR 1.1317 (b)



**ALERTING SIGN**

**ALERTING SIGNS**

**WARNING!**

**DANGER DO NOT TOUCH TOWER!**

**SERIOUS "RF" BURN HAZARD!**

**MAINTAIN AN ADEQUATE CLEARANCE BETWEEN TOWER SUPPORTS AND GUY WIRES**

FAILURE TO OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN A RADIO FREQUENCY ENVIRONMENT COULD RESULT IN SERIOUS INJURY. CONTACT CURRENT MAY EXCEED LIMITS PRESCRIBED IN ANSIEEE C95.1-1992 FOR CONTROLLED ENVIRONMENTS.

**ALERTING SIGN**

**PROPERTY OF AT&T**

**AUTHORIZED PERSONNEL ONLY**

IN CASE OF EMERGENCY, OR PRIOR TO PERFORMING MAINTANANCE ON THIS SITE, CALL 800-638-2822 AND REFERENCE CELL SITE NUMBER

**INFO SIGN #5**

**INFORMATION**

AT&T operates telecommunication antennas at this location. Remain at least 3 feet away from any antenna and obey all posted signs.

Contact the owner(s) of the antenna(s) before working closer than 3 feet from the antenna.

Contact AT&T at \_\_\_\_\_ prior to performing any maintenance or repairs near AT&T antennas. This is Site# \_\_\_\_\_

Contact the management office if this door/hatch/gate is found unlocked.

**INFORMACION**

En esta propiedad se ubican antenas de telecomunicaciones operadas por AT&T. Favor mantener una distancia de no menos de 3 pies y obedecer todos los avisos.

Comuníquese con el propietario o los propietarios de las antenas antes de trabajar o caminar a una distancia de menos de 3 pies de la antena.

Comuníquese con AT&T \_\_\_\_\_ antes de realizar cualquier mantenimiento o reparaciones cerca de las antenas de AT&T.

Esta es la estación base número \_\_\_\_\_

Favor de comunicarse con la oficina de la administración del edificio si esta puerta o compartimento se encuentra sin candado.

**INFO SIGN #1**



**INFORMATION**

**ACTIVE ANTENNAS ARE MOUNTED**

ON THE OUTSIDE OF THIS BUILDING

BEHIND THE PANEL

ON THIS STRUCTURE

**STAY BACK A MINIMUM OF 3 FEET FROM THESE ANTENNAS**

Contact AT&T at \_\_\_\_\_ and follow their instructions prior to performing any maintenance or repairs closer than 3 feet from the antennas.

This is Site# \_\_\_\_\_

**INFO SIGN #2**

STAY BACK 3 FEET FROM ANTENNA

**INFO SIGN #4**

**GENERAL SIGNAGE GUIDELINES**

STRUCTURE TYPE	INFO SIGN #1	INFO SIGN #2	INFO SIGN #3	INFO SIGN #4	INFO SIGN #5	STRIPING	NOTICE SIGN	CAUTION SIGN
<b>TOWERS</b>								
MONOPOLE/MONOPINE/MONOPALM	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MIN. 9FT ABOVE GROUND
SCE TOWERS/TOWERS WITH HIGH VOLTAGE	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MIN. 9FT ABOVE GROUND
LIGHT POLES/FLAG POLES	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			
UTILITY WOOD POLES (JPA)	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET		IF GP MAX VALUE OF MPE AT ANTENNA LEVEL IS: 0-99%: NOTICE SIGN; OVER 99% CAUTION SIGN AT NO LESS THAN 3FT BELOW ANTENNA AND 9FT ABOVE GROUND	
MICROCELLS MOUNTED ON NON-JPA POLES	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET		NOTICE OR CAUTION SIGN AT NO LESS THAN 9FT ABOVE GROUND; ONLY IF THE EXPOSURE EXCEEDS 90% OF THE GENERAL PUBLIC EXPOSURE AT 6FT ABOVE GROUND	
<b>ROOF TOPS</b>								
AT ALL ACCESS POINTS OF THE ROOF	X							
ON ANTENNAS	X		X	X				
CONCEALED ANTENNAS	X	X						
ANTENNAS MOUNTED FACING OUTSIDE THE BUILDING	X	X						
ANTENNAS ON SUPPORT STRUCTURE	X	X						
ROOFTOP GRAPH:								
RADIATION AREA IS WITHIN 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA						
RADIATION IS BEYOND 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA				DIAGONAL, YELLOW STRIPING AS TO ROOF VIEW GRAPH	EITHER NOTICE OR CAUTION SIGN (BASED ON ROOFVIEW RESULTS) AT ANTENNAS/BARRIER	
<b>CHURCH STEEPLES</b>	ACCESS TO STEEPLE	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			CAUTION SIGN AT THE ANTENNAS
<b>WATER STATIONS</b>	ACCESS TO STEEPLE	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			CAUTION SIGN AT THE ANTENNAS

**NOTES FOR ROOFTOP SITES:**

- EITHER NOTICE OR CAUTION SIGNS NEED TO BE POSTED AT EACH SECTOR AS CLOSE AS POSSIBLE TO: THE OUTER EDGE OF THE STRIPED OFF AREA OR THE OUTER ANTENNAS OF THE SECTOR
- IF ROOFVIEW SHOWS: ONLY BLUE = NOTICE SIGN, BLUE AND YELLOW = CAUTION SIGN, ONLY YELLOW = CAUTION SIGN TO BE INSTALLED.
- SHOULD THE REQUIRED STRIPING ARE INTERFERE WITH ANY STRUCTURES OR EQUIPMENT (A/C, VENTS, ROOF HATCH, DOORS, OTHER ANTENNAS, DISHES, ETS.), PLEASE NOTIFY AT&T TO MODIFY THE STRIPING AREA, PRIOR TO STARTING THE WORK.



4393 RIVERBOAT ROAD, SUITE #400  
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**GENERAL DYNAMICS**  
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**Technology Associates**

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SALT LAKE CITY, UTAH 84123  
(801) 463-1020

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**ALPINE**  
**FA#10088454**  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**SIGNAGE & NOTES**

SHEET NUMBER  
**T-5**

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

**DISCLAIMER**  
 THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. TAEC DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, EASEMENTS AND SETBACKS.



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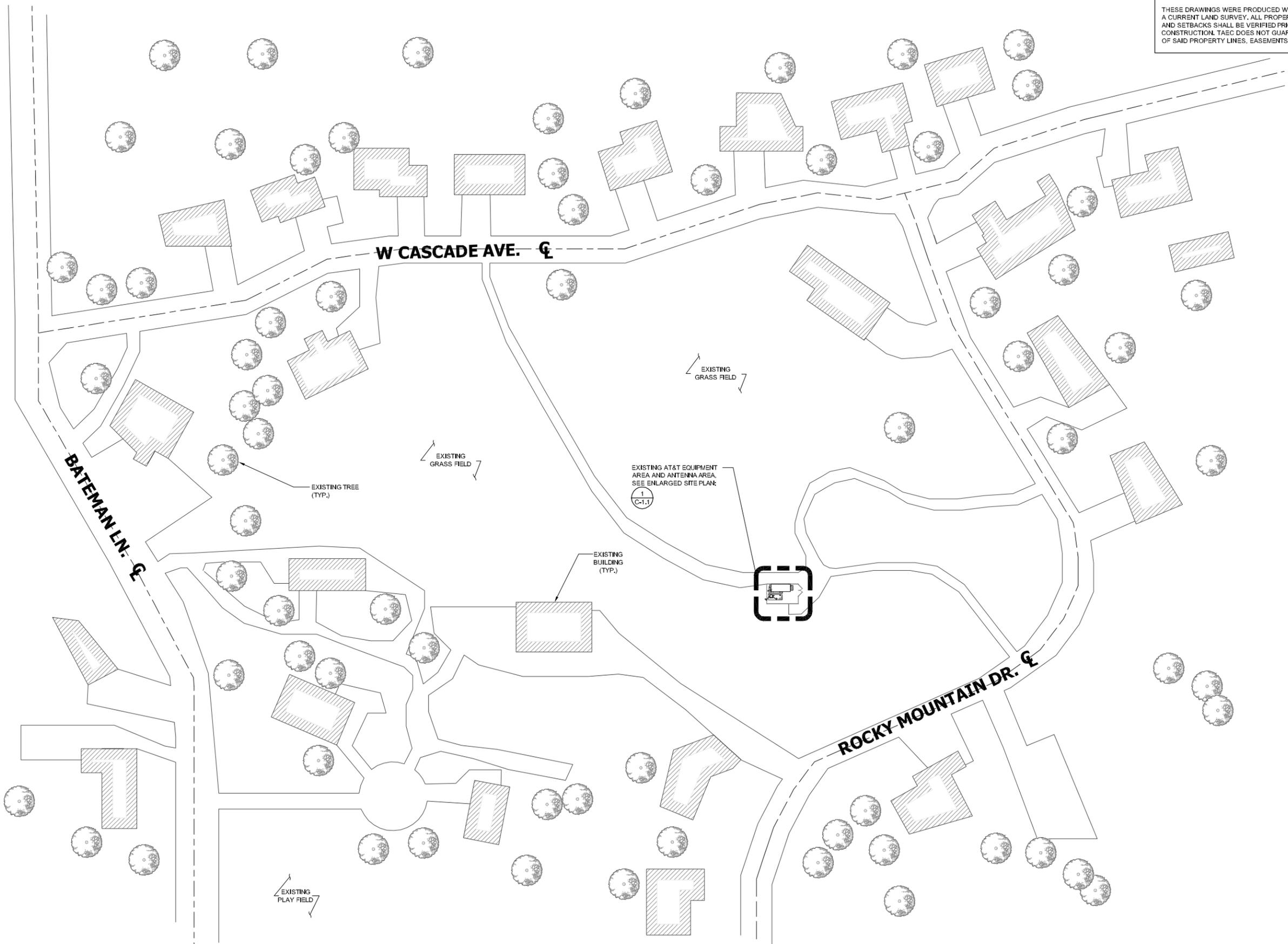
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**ALPINE**  
**FA#10088454**  
 10 EAST 600 SOUTH  
 ALPINE, UT 84004  
 WOOD POLE

SHEET TITLE  
**OVERALL  
 SITE PLAN**

SHEET NUMBER  
**C-1**



NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

**OVERALL SITE PLAN**

50' 0 25' 50' SCALE: 1" = 50'-0" (24x36)  
 (OR) 1/2" = 50'-0" (11x17)



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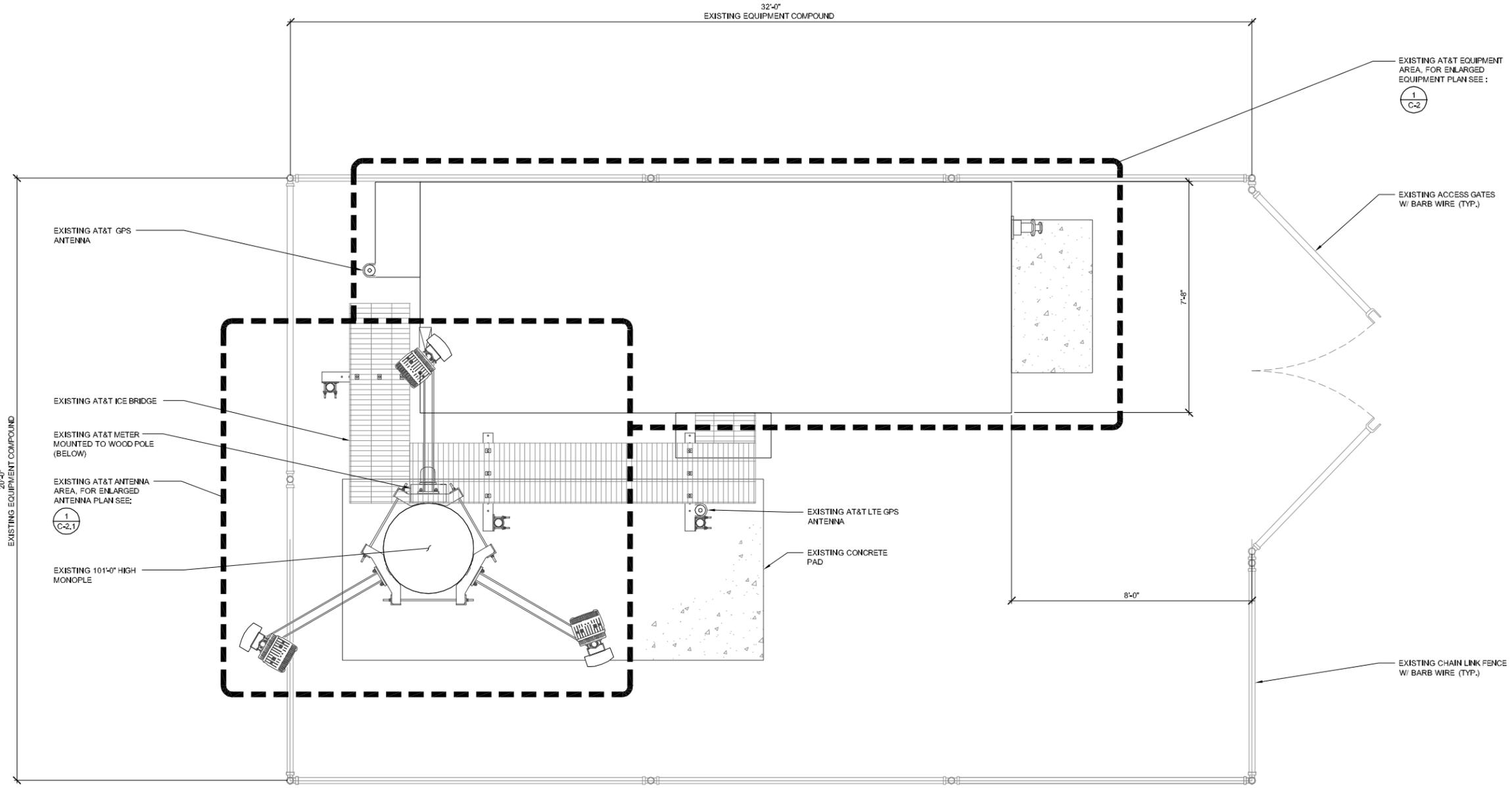
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**ALPINE**  
FA#10088454  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**ENLARGED  
SITE PLAN**

SHEET NUMBER  
**C-1.1**



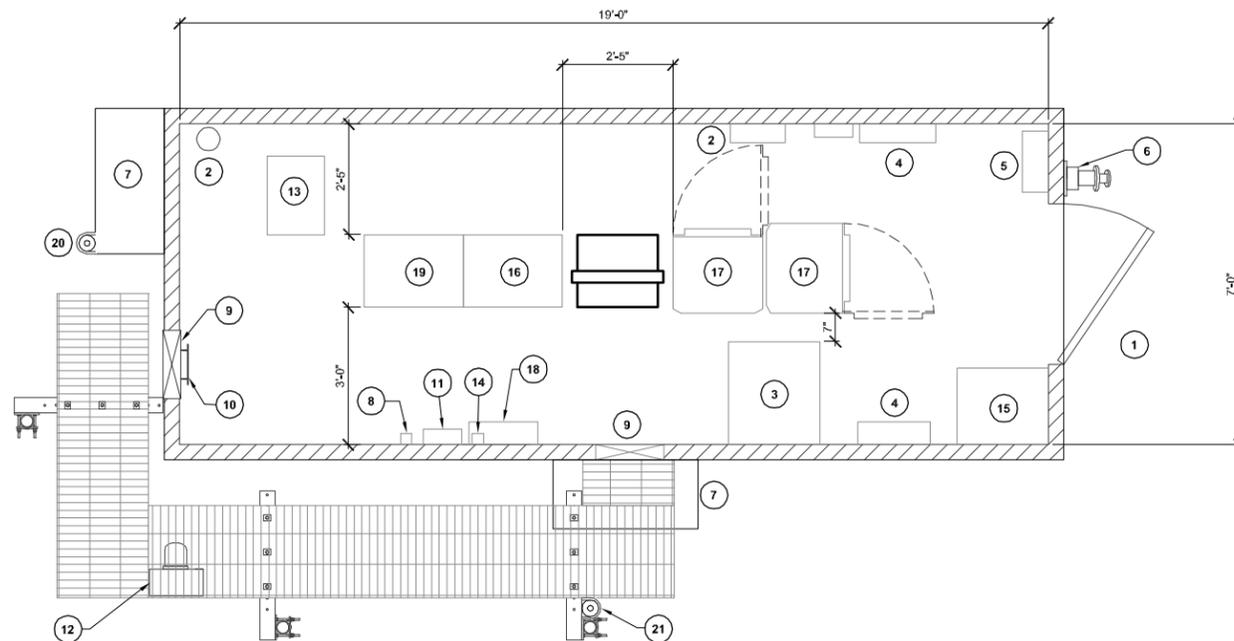
NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

**ENLARGED SITE PLAN**

0 6" 1' 2' SCALE: 1/2" = 1'-0" (24x36)  
(OR) 1/4" = 1'-0" (11x17)

**KEY NOTES:**

- 1 EXISTING CONCRETE STOOP
- 2 EXISTING FIRE SUPPRESSION/ HALON
- 3 EXISTING BATTERIES
- 4 EXISTING MAIN BREAKER PANEL
- 5 EXISTING TRANSFER SWITCH
- 6 EXISTING GENERATOR PLUG
- 7 EXISTING HVAC UNIT
- 8 EXISTING TELCO PUNCHDOWN BLOCK
- 9 EXISTING CABLE ENTRANCE
- 10 EXISTING GROUND BAR
- 11 EXISTING NIU
- 12 EXISTING METER
- 13 EXISTING 19" RACK W/CSU AND CDPD
- 14 EXISTING ALARM DEMARCATION
- 15 EXISTING RECTIFIER
- 16 EXISTING ERICSSON 850 GSM CABINET
- 17 EXISTING NOKIA CABINET
- 18 EXISTING TELCO BOARD
- 19 EXISTING UMTS CABINET
- 20 EXISTING AT&T GPS ANTENNA
- 21 EXISTING AT&T LTE GPS ANTENNA



**NOTES:**

- 1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING EQUIPMENT & CABINET LOCATIONS.
- 2. NO PROPOSED CHANGES TO EXISTING EQUIPMENT.



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**EQUIPMENT PLAN (EXISTING)**

0 6" 1' 2' SCALE: 1/2" = 1'-0" (24x36)  
(OR) 1/4" = 1'-0" (11x17) **1**

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10 EAST 600 SOUTH  
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WOOD POLE

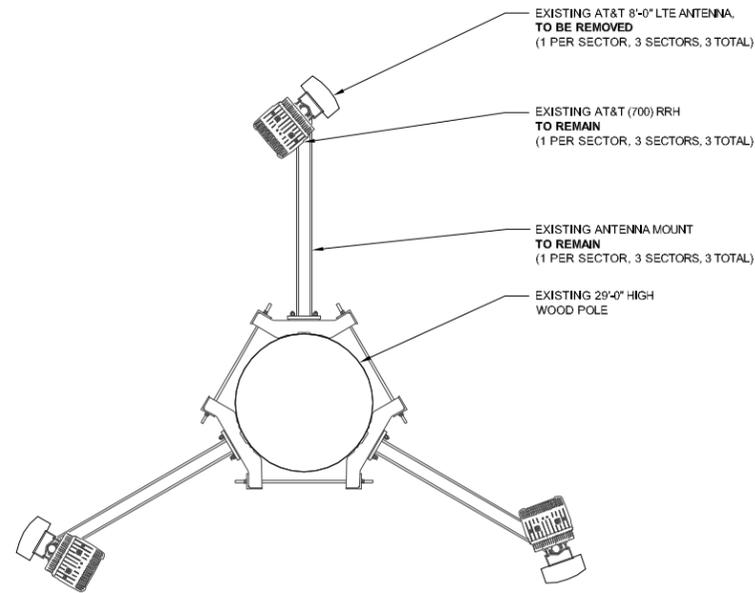
SHEET TITLE  
**EQUIPMENT PLAN**

SHEET NUMBER  
**C-2**

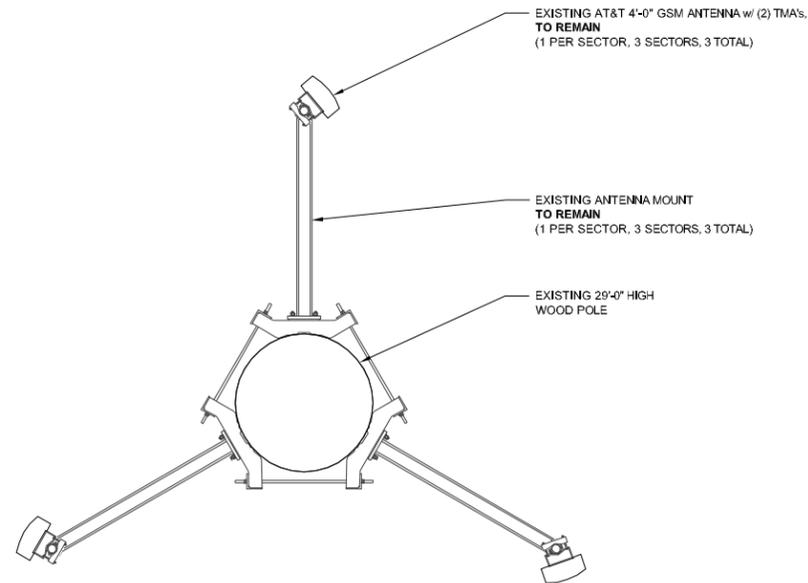
NOT USED

SCALE  
N.T.S. **2**

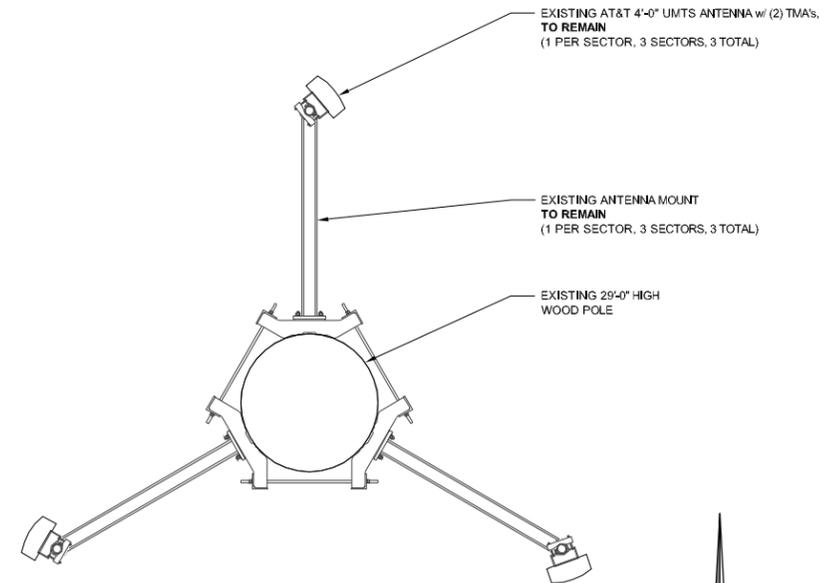
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**LTE ANTENNA @ 29'-6"**



**GSM ANTENNA @ 20'-6"**

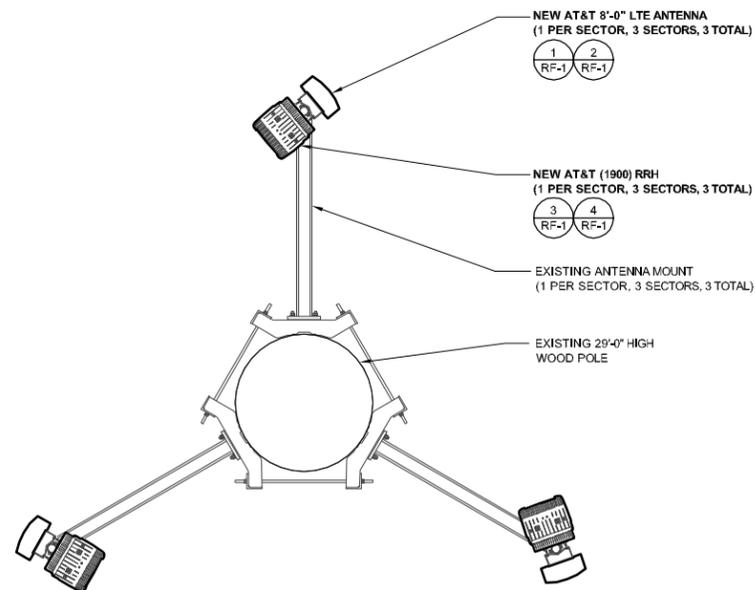


**UMTS ANTENNA @ 12'-11"**



**ANTENNA PLAN (EXISTING)**

0 6" 1' 2' SCALE: 1/2" = 1'-0" (24x36)  
(OR) 1/4" = 1'-0" (11x17) **1**



**LTE ANTENNA @ 29'-6"**

NEW ANTENNA AND TRANSMISSION CABLE REQUIREMENT						
SECTOR	ANTENNA TYPE	TECHNOLOGY	ANTENNA AZIMUTH	TRANSMISSION CABLE		
				QTY.	LENGTH	TYPE
A1	NEW ANTENNA	LTE	90°	1	48'	FIBER
A2	EXISTING ANTENNA	UMTS	50°	NO CHANGES		
A3	EXISTING ANTENNA	GSM	50°	NO CHANGES		
B1	NEW ANTENNA	LTE	160°	1	45'	FIBER
B2	EXISTING ANTENNA	UMTS	160°	NO CHANGES		
B3	EXISTING ANTENNA	GSM	160°	NO CHANGES		
C1	NEW ANTENNA	LTE	300°	1	45'	FIBER
C2	EXISTING ANTENNA	UMTS	300°	NO CHANGES		
C3	EXISTING ANTENNA	GSM	300°	NO CHANGES		

NOTE TO CONTRACTOR:  
ANTENNA CLEARANCE AND MOUNTING TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FINAL ANTENNA SPECIFICATIONS, MOUNTING HARDWARE, AND RF DESIGN. ANTENNA PIPE MOUNT MODIFICATION MAY BE REQUIRED.

NOTE TO CONTRACTOR:  
RF JUMPERS NEED TO BE OF EQUAL LENGTH FOR LTE AND LTE 2G. COIL EXCESS CABLE NEAR RRH.

Matching Azimuth LTE 1C: 330 deg.



**ANTENNA PLAN (FINAL)**

0 6" 1' 2' SCALE: 1/2" = 1'-0" (24x36)  
(OR) 1/4" = 1'-0" (11x17) **2**



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FA#10088454  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**ANTENNA PLANS**

SHEET NUMBER  
**C-2.1**

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES



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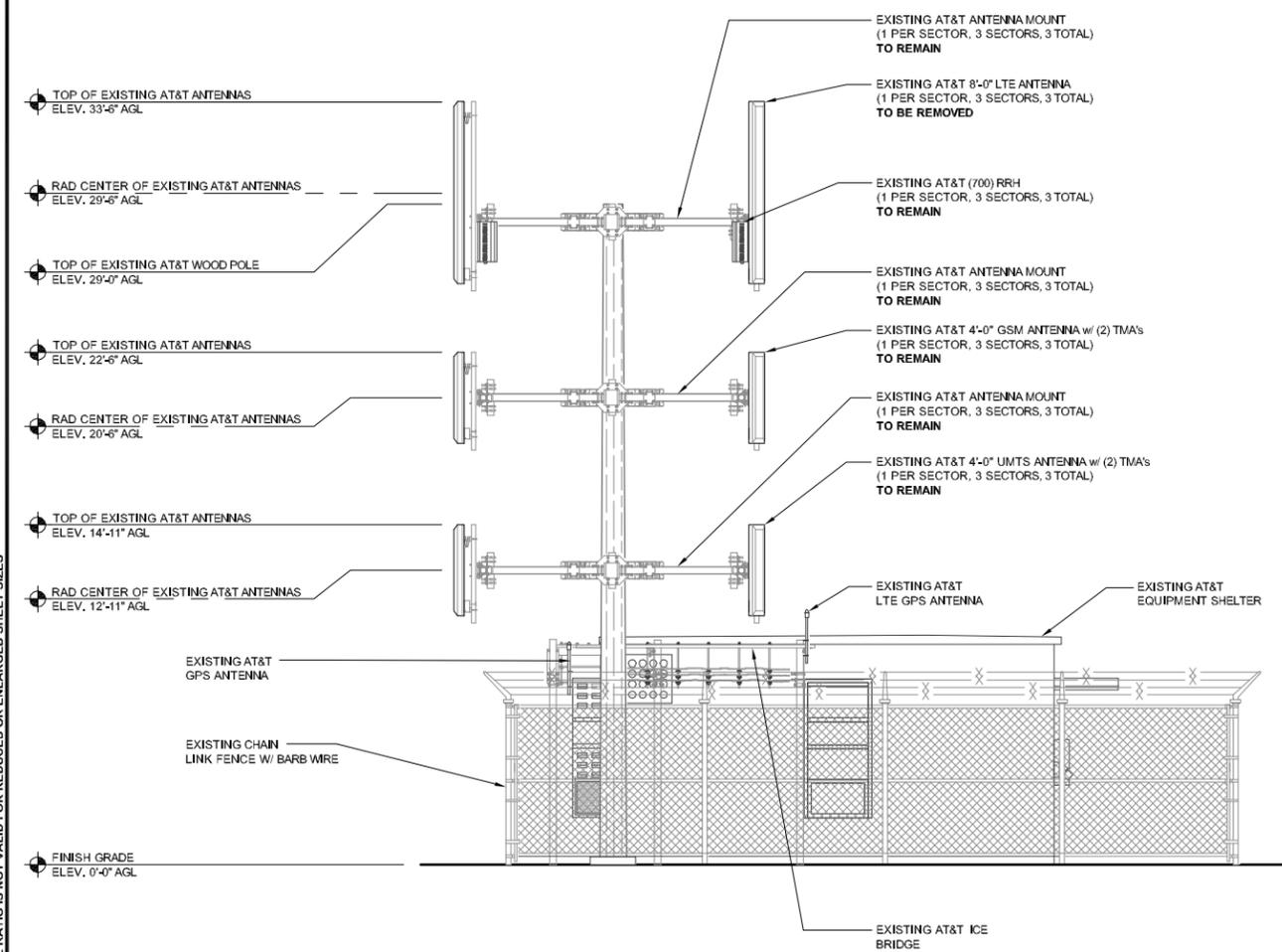
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10 EAST 600 SOUTH  
ALPINE, UT 84004  
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SHEET TITLE  
**ELEVATIONS**

SHEET NUMBER  
**C-3**

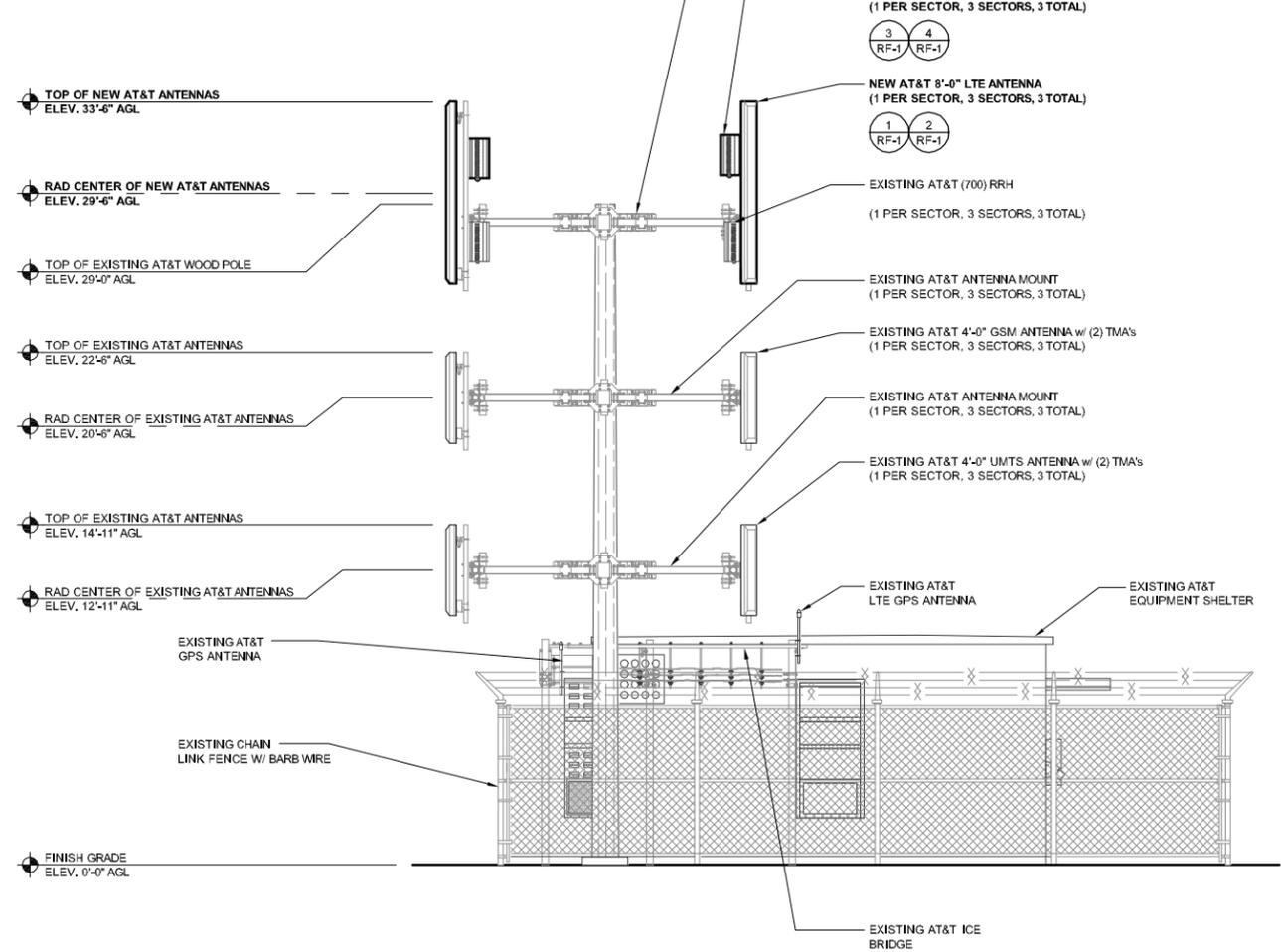
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**SOUTH ELEVATION (EXISTING)**

0 1' 2' 4' SCALE: 1/4" = 1'-0" (24x36)  
(OR) 1/8" = 1'-0" (11x17)

**1**



**SOUTH ELEVATION (FINAL)**

0 1' 2' 4' SCALE: 1/4" = 1'-0" (24x36)  
(OR) 1/8" = 1'-0" (11x17)

**2**



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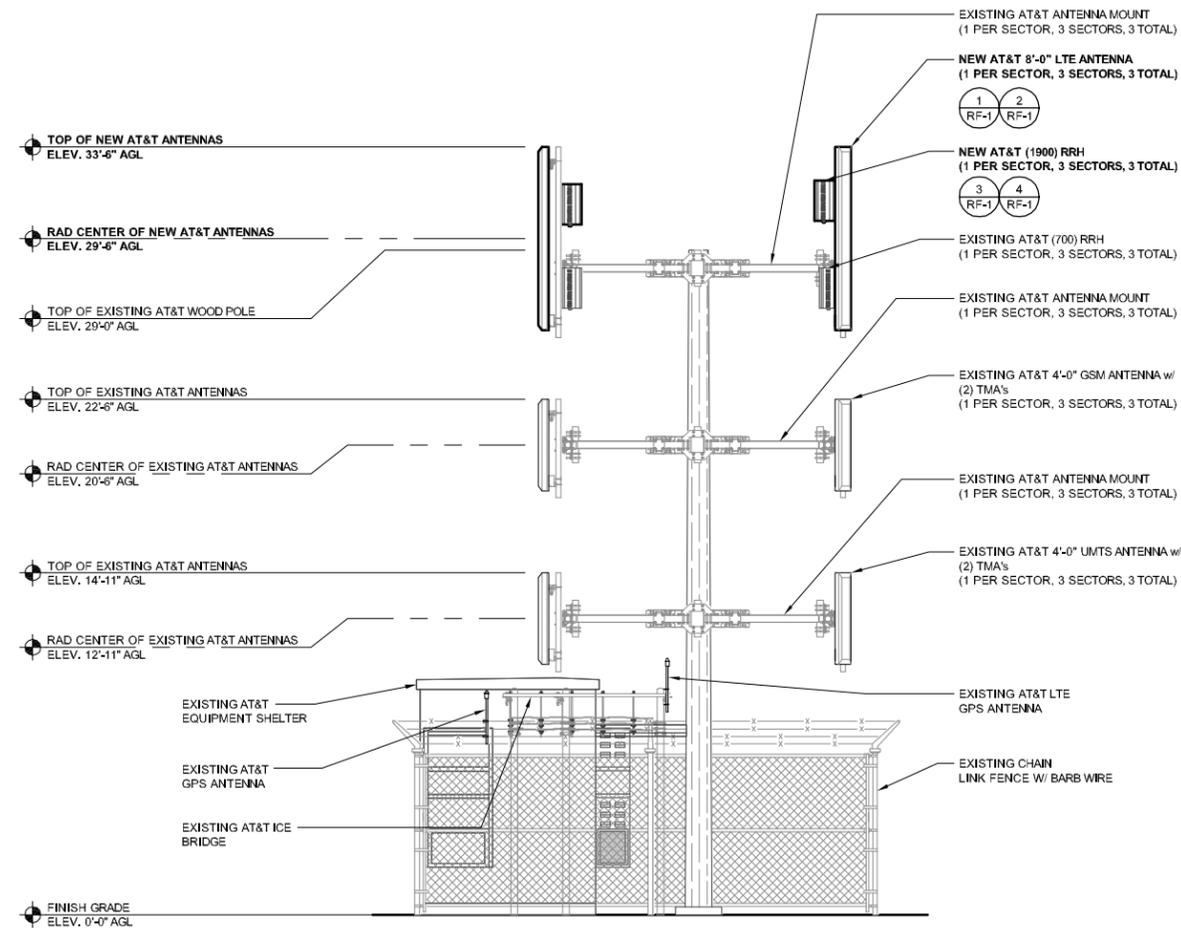
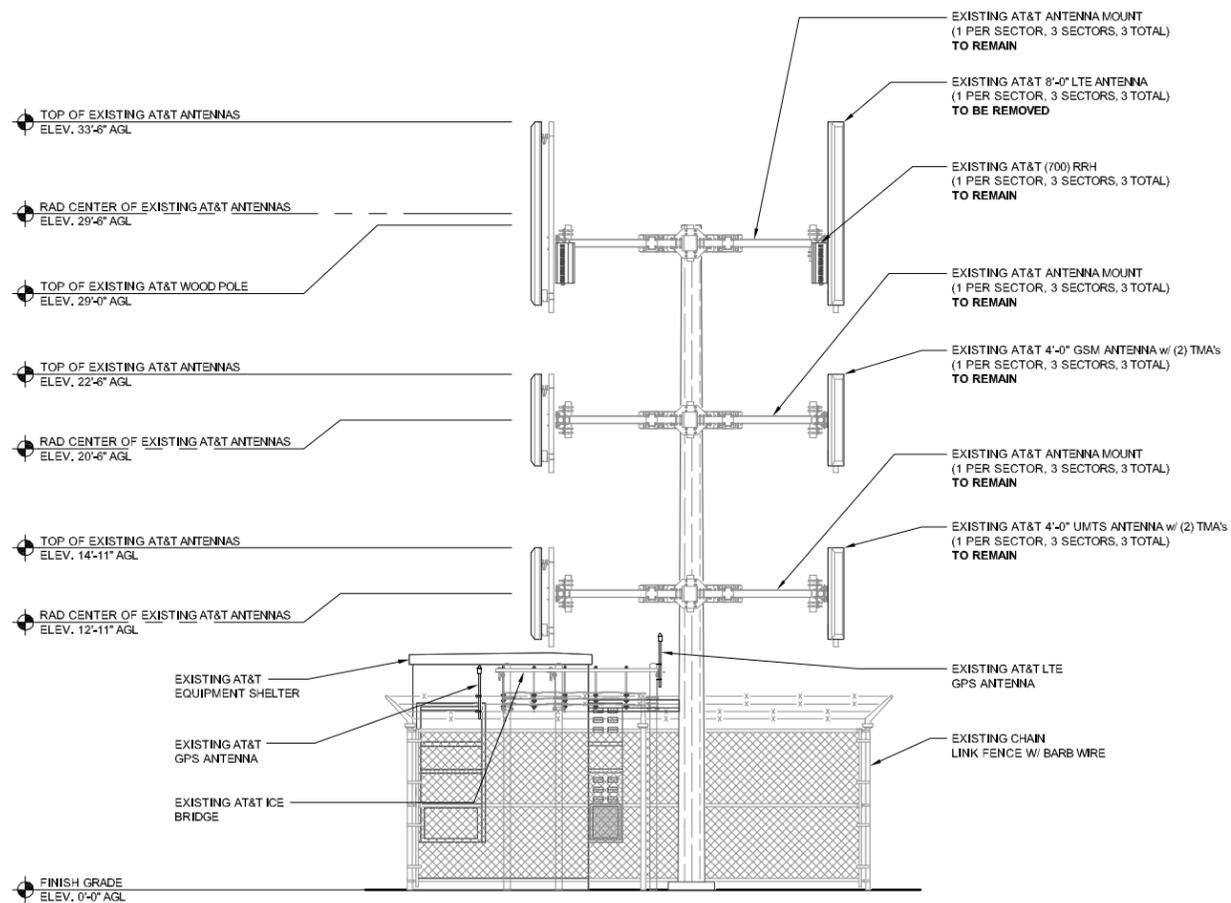
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**ALPINE**  
**FA#10088454**  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**ELEVATIONS**

SHEET NUMBER  
**C-4**



NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

**WEST ELEVATION (EXISTING)**

0 1' 2' 4' SCALE: 1/4" = 1'-0" (24x36)  
(OR) 1/8" = 1'-0" (11x17)

**1**

**WEST ELEVATION (FINAL)**

0 1' 2' 4' SCALE: 1/4" = 1'-0" (24x36)  
(OR) 1/8" = 1'-0" (11x17)

**2**

**1. GENERAL REQUIREMENTS**

- A. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE AND ALL STATE AND LOCAL CODES. NOTHING IN THESE PLANS OR SPECIFICATIONS SHALL BE CONSTRUED AS TO PERMIT WORK NOT CONFORMING TO THE MOST STRINGENT OF THESE CODES. SHOULD CHANGES BE NECESSARY IN THE DRAWINGS OR SPECIFICATIONS TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND CEASE WORK ON PARTS OF THE CONTRACT WHICH ARE AFFECTED.
- B. THE CONTRACTOR SHALL MAKE A SITE VISIT PRIOR TO BIDDING AND CONSTRUCTION TO VERIFY ALL EXISTING CONDITIONS AND SHALL NOTIFY THE ARCHITECT IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES THE CONTRACTOR ASSUMES ALL LIABILITY FOR FAILURE TO COMPLY WITH THIS PROVISION.
- C. THE EXTENT OF THE WORK IS INDICATED BY THE DRAWINGS, SCHEDULES, AND SPECIFICATIONS AND IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT. THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND SUPPLIES NECESSARY FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. THE WORK SHALL ALSO INCLUDE THE COMPLETION OF ALL ELECTRICAL WORK NOT MENTIONED OR SHOWN WHICH ARE NECESSARY FOR SUCCESSFUL OPERATION OF ALL SYSTEMS.
- D. THE CONTRACTOR SHALL PREPARE A BID FOR A COMPLETE AND OPERATIONAL SYSTEM, WHICH INCLUDES THE COST FOR MATERIAL AND LABOR.
- E. WORKMANSHIP AND NEAT APPEARANCE SHALL BE AS IMPORTANT AS THE OPERATION. DEFECTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL ACCEPTANCE IN A MANNER ACCEPTABLE TO OWNER AND ARCHITECT/ENGINEER.
- F. COMPLETE THE ENTIRE INSTALLATION AS SOON AS THE PROGRESS OF THE WORK WILL PERMIT. ARRANGE ANY OUTAGE OF SERVICE WITH THE OWNER AND BUILDING MANAGER IN ADVANCE. MINIMIZE DOWNTIME ON THE BUILDING ELECTRICAL SYSTEM.
- G. THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT SHALL BE DELIVERED IN PROPER WORKING ORDER, REPLACE WITHOUT ADDITIONAL COST TO THE OWNER, THE ENTIRE ELECTRICAL MATERIAL AND EQUIPMENT WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.
- H. ANY ERROR, OMISSION OR DESIGN DISCREPANCY ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION.
- I. "PROVIDE": INDICATES THAT ALL ITEMS ARE TO BE FURNISHED, INSTALLED AND CONNECTED IN PLACE.
- J. CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES.

**2. EQUIPMENT LOCATION**

- A. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE DESIRED LOCATIONS OR ARRANGEMENTS OF CONDUIT RUNS, OUTLETS, EQUIPMENT, ETC., AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. PROPER JUDGMENT MUST BE EXERCISED IN EXECUTING THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF STRUCTURE CONDITIONS ENCOUNTERED.
- B. IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO FIELD CONDITIONS IN THE BUILDING CONSTRUCTION OR REARRANGEMENT OF FURNISHINGS OR EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST, PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIT RUNS, ETC., AND WORK DIRECTLY CONNECTED TO THE SAME IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.
- C. LIGHTING FIXTURES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY. COORDINATE THE FIXTURE LOCATION WITH MECHANICAL EQUIPMENT TO AVOID INTERFERENCE. COORDINATE THE WORK OF THIS SECTION WITH THAT OF ALL OTHER TRADES, WHERE CONFLICTS OCCUR. CONSULT WITH THE RESPECTIVE CONTRACTOR AND COME TO AGREEMENT AS TO CHANGES NECESSARY. OBTAIN WRITTEN ACCEPTANCE FROM ARCHITECT/ENGINEER FOR THE NEW CHANGES BEFORE PROCEEDING.

**3. SHOP DRAWINGS**

- A. N/A UNLESS NOTED OTHERWISE.

**4. SUBSTITUTIONS**

- A. NO SUBSTITUTIONS ARE ALLOWED.

**5. TESTS**

- A. BEFORE FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL INSURE THAT ALL EQUIPMENT, SYSTEMS, FIXTURES, ETC., ARE WORKING SATISFACTORILY AND TO THE INTENT OF THE DRAWINGS.

**6. PERMITS**

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING OUT AND PAYING FOR ALL THE REQUIRED PERMITS, INSPECTION AND EXAMINATION WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

**7. GROUNDING**

- A. THE CONTRACTOR SHALL PROVIDE A COMPLETE AND APPROVED GROUNDING SYSTEM INCLUDING ELECTRODES, ELECTRODE CONDUCTOR, BONDING CONDUCTORS, AND EQUIPMENT CONDUCTORS AS REQUIRED BY ARTICLE 250 OF NATIONAL ELECTRICAL CODE.
- B. CONDUITS CONNECTED TO EQUIPMENT AND DEVICES SHALL BE METALLICALLY JOINED TOGETHER TO PROVIDE AN EFFECTIVE ELECTRICAL CONTINUITY.
- C. FEEDERS AND BRANCH CIRCUIT WIRING INSTALLED IN A NONMETALLIC CONDUIT SHALL INCLUDE A CODE SIZED GROUNDING CONDUCTOR HAVING GREEN INSULATION. THE GROUND CONDUCTOR SHALL BE PROPERLY CONNECTED AT BOTH ENDS TO MAINTAIN ELECTRICAL CONTINUITY.
- D. REFER TO GROUND BUS DETAILS, PROVIDE NEW SYSTEM, COMPLETE WITH CONDUCTORS, GROUND ROD(S) AND DESCRIBED TERMINATIONS.
- E. ALL GROUNDING CONDUCTORS SHALL BE SOLID LINE COPPER AND ANNEALED #2 UNLESS NOTED OTHERWISE.
- F. ALL NON-DIRECT BURIED TELEPHONE EQUIPMENT CONDUCTORS SHALL BE #2 STRANDED, GROUND THHN (GREEN) INSULATION.
- G. ALL GROUND CONNECTIONS SHALL BE MADE WITH "HYGROUND" COMPRESSION SYSTEM BURNDY CONNECTORS EXCEPT WHERE NOTED OTHERWISE.
- H. PAINT AT ALL GROUND CONNECTIONS SHALL BE REMOVED.
- I. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FUTURE INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBMIT TEST REPORTS AND FURNISH TO SMART SMR ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".

**8. UTILITY SERVICE**

- A. TELEPHONE AND ELECTRICAL METERING FACILITIES SHALL CONFORM TO THE REQUIREMENTS OF THE SERVING UTILITY COMPANIES. CONTRACTOR SHALL VERIFY SERVICE LOCATIONS AND REQUIREMENTS. SERVICE INFORMATION WILL BE FURNISHED BY THE SERVING UTILITIES.
- B. CONFORM TO ALL REQUIREMENTS OF THE SERVING UTILITY COMPANIES.

**9. PRODUCTS**

- A. ALL MATERIALS SHALL BE NEW, CONFORMING WITH THE NEC, ANSI, NEMA, AND THEY SHALL BE U.L. LISTED AND LABELED.
- B. CONDUIT:
  - 1. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR, RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUMTS WRAP ROCESS NO. 3.
  - 2. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
  - 3. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. SEAL TIGHT FLEXIBLE CONDUIT, ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.
  - 4. CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILING OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH ARCHITECT PRIOR TO INSTALLING.
  - 5. ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE.
  - 6. ALL CONDUIT ONLY (C.O.) SHALL HAVE FULL ROPE.
  - 7. CONDUITS RUN ON ROOFS SHALL BE INSTALLED ON 4 X 4 SLEEPERS, 6'-0" ON CENTER, SET IN NON-HARDENING MASTIC.

- C. ALL WIRE AND CABLE SHALL BE COPPER, 600 VOLT, #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. TYPE THHN INSULATION USED UNLESS CONDUCTORS INSTALLED IN CONDUIT EXPOSED TO WEATHER, IN WHICH CASE TYPE THWN INSULATION SHALL BE USED.
- D. PROVIDE GALVANIZED COATED STEEL BOXES AND ACCESSORIES SIZED PER CODE TO ACCOMMODATE ALL DEVICES AND WIRING.
- E. DUPLEX RECEPTACLES SHALL BE SPECIFICATION GRADE WITH WHITE FINISH (UNLESS NOTED BY ARCHITECT/ENGINEER), 20 AMP, 125 VOLT, THREE WIRE GROUNDING TYPE, NEMA 5-20R. MOUNT RECEPTACLE AT +12" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED ON DRAWINGS OR IN DETAILS. WEATHERPROOF RECEPTACLES SHALL BE GROUND FAULT INTERRUPTER TYPE WITH SIERRA #WPD-8 LIFT COVERPLATES.
- F. TOGGLE SWITCHES SHALL BE 20 AMP, 120 VOLT AC, SPECIFICATION GRADE WHITE (UNLESS NOTED OTHERWISE) FINISH. MOUNT SWITCHES AT +48" ABOVE FINISHED FLOOR.
- G. PANELBOARDS SHALL BE DEAD FRONT SAFETY TYPE WITH ANTI-BURN SOLDERLESS COMPRESSION APPROVED FOR COPPER CONDUCTORS, COPPER BUS BARS, FULL SIZED NEUTRAL BUS, GROUND BUS AND EQUIPPED WITH QUICK-MAKE QUICK-BREAK BOLT-IN TYPE THERMAL MAGNETIC CIRCUIT BREAKERS. MOUNT TOP OF THE PANELBOARDS AT 6'-3" ABOVE FINISHED FLOOR, PROVIDE TYPEWRITTEN CIRCUIT DIRECTORY.
- H. ALL CIRCUIT BREAKERS, MAGNETIC STARTERS AND OTHER ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.
- I. GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10' LONG. COPPERWELD OR APPROVED EQUAL.

**10. INSTALLATION**

- A. PROVIDE SUPPORTING DEVICES FOR ALL ELECTRICAL EQUIPMENT, FIXTURES, BOXES, PANEL, ETC., SUPPORT LUMINARIES FROM UNDERSIDE OF STRUCTURAL CEILING. EQUIPMENT SHALL BE BRACED TO WITHSTAND HORIZONTAL FORCES IN ACCORDANCE WITH STATE AND LOCAL CODE REQUIREMENTS, PROVIDE PRIOR ALIGNMENT AND LEVELING OF ALL DEVICES AND FIXTURES.
- B. CUTTING, PATCHING, CHASES, OPENINGS: PROVIDE LAYOUT IN ADVANCE TO ELIMINATE UNNECESSARY CUTTING OR DRILLING OF WALLS, FLOORS CEILINGS, AND ROOFS. ANY DAMAGE TO BUILDING STRUCTURE OR EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR. OBTAIN PERMISSION FROM THE ARCHITECT/ENGINEER BEFORE CORING.
- C. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- D. LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
- E. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE REQUIREMENTS OF THE U.B.C.

**11. PROJECT CLOSEOUT**

- A. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL, SUBMIT TEST REPORTS TO PROJECT MANAGER, CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- B. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS.
- C. ALL BROCHURES, OPERATING MANUALS, CATALOG, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.

- 1. EQUIPMENT POWER SHALL BE 200A, 1Ø, 3W, 120/208V OR 120/240V.
- 2. UTILITY RECEPTACLE IS A GFCI DUPLEX OUTLET INSTALLED IN THE DEADFRONT OF PFC.
- 3. PROVIDED A MIN. 36" WORK CLEARANCE IN FRONT OF PANELS / SERVICE EQUIPMENT.
- 4. ALL BREAKERS IN THE ELEC. PANEL ARE RATED 10,000 RMS SYMMETRICAL AMPS, 240V MAX. 75°C.
- 5. ALL WIRING SHALL BE COPPER 75°C U.N.O.
- 6. CONDUIT REQUIREMENTS (TYP., U.N.O.)  
 UNDERGROUND: PVC (SCHED 40 OR 80)  
 INDOOR: EMT (RGS IN TRAFFIC AREAS)  
 OUTDOOR: RGS (ABOVE GRADE)
- 7. APPLETON EMERGENCY GENERATOR PLUG AT 36" A.F.F. CONTRACTOR TO VERIFY EXACT LOCATION WITH LANDLORD AND UTILITY COORDINATOR.
- 8. PLACE "TRUE TAPE" AND PULL ROPE IN THE CONDUITS AS REQUIRED.

SCALE  
N.T.S. 2

**ELECTRICAL NOTES**

A	AMPERE	ELEC	ELECTRICAL	MFR	MANUFACTURER	SAF	SAFETY
ACCA	ANTENNA CABLE COVER ASSEMBLY	EMT	ELECTRICAL METALLIC TUBING	MIN	MINIMUM	SDBC	SOFT DRAWN BARE COPPER
		ENCL	ENCLOSURE	MLO	MAIN LUGS ONLY	SEC	SECONDARY
AIC	AMPERE INTERRUPTING CAPACITY	EXIST	EXISTING	MTD	MOUNTED	S.N.	SOLID NEUTRAL
APPROX	APPROXIMATELY	FAC	FACTOR	MTG	MOUNTING	SURF	SURFACE
AT	AMPERE TRIP	F/A	FIRE ALARM	MTS	MANUAL TRANSFER SWITCH	SW	SWITCH
AWG	AMERICAN WIRE GAGE	FLUOR	FLUORESCENT	N	NEUTRAL	TEL	TELEPHONE
BATT	BATTERY	FT	FOOT/FEET	(N)	NEW	TYP	TYPICAL
BD	BOARD	FU	FUSE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.	U/G	UNDERGROUND
BR	BRANCH	G	GROUND			U.L.	UNDERWRITER'S LABORATORY INC.
BRKR	BREAKER	GEN	GENERATOR	OH	OVERHEAD		
BTCW	BARE TINNED COPPER WIRE	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	P	POLE	U.N.O.	UNLESS NOTED OTHERWISE
BTS	BASE TRANSMISSION SYSTEM	GND	GROUNDING	PCS	PERSONAL COMMUNICATION SYSTEM	V	VOLT
C	CONDUIT	GND	GROUNDING	PH	PHASE	VAC	VOLT ALTERNATING CURRENT
CAB	CABINET	GPS	GLOBAL POSITIONING SYSTEM	PH	PHASE	W	WATT OR WIRE
CB	CIRCUIT BREAKER	GR	GROWTH	PNLBD	PANELBOARD	W/	WITH
CKT	CIRCUIT	HDBC	HARD DRAWN COPPER WIRE	PPC	POWER PROTECTION CABINET	W/O	WITHOUT
CONT	CONTINUOUS	HPS	HIGH PRESSURE SODIUM	PRC	PRIMARY RADIO CABINET	XFER	TRANSFER
DEM	DEMAND	LG	LENGTH	PRI	PRIMARY	XFMR	TRANSFORMER
(E)	EXISTING	LPS	LOW PRESSURE SODIUM	PWR	POWER	XLPE	CROSS-LINK POLYETHYLENE
EGR	EMERGENCY GEN. RECEPTACLE	MAX	MAXIMUM	RCPT	RECEPTACLE		
		MECH	MECHANICAL	RGS	RIGID GALVANIZED STEEL		

SCALE  
N.T.S. 3

**GENERAL ABBREVIATIONS**

—OHT/OHP—	OVERHEAD TELEPHONE/OVERHEAD POWER		LIGHTING FIXTURE, 1/175W, METAL HALIDE, HUBBELL CAT #MIC-0175H-336
—OHT—	OVERHEAD TELEPHONE LINE		5/8" X 10'-0" .CU. GND ROD 30" MIN. BELOW GRADE.
—OHP—	OVERHEAD POWER LINE		5/8" X 10'-0" .CU. GND ROD IN TEST WELL 30" MIN. BELOW GRADE.
—E—	POWER RUN		CHEMICAL GROUND ROD (XIT GROUND ROD)
—T—	TELCO RUN		CADWELD CONNECTION
—T/E—	POWER/TELCO RUN		MECHANICAL CONNECTION
—G—	GROUNDING CONDUCTOR		HALO GROUND CONNECTION
— — — — —	GROUNDING CONDUCTOR		CIRCUIT BREAKER
- - - - -	CONDUIT UNDERGROUND		UTILITY METER BASE
	FUSE, SIZE AND TYPE AS INDICATED.		TRANSFORMER
	SAFETY SWITCH, 2P-240V-60A, W/60A FUSES, NEMA 3R ENCLOSURE, SQ D CATALOG NO. H222NRB		STEPDOWN TRANSFORMER
	MANUAL TRANSFER SWITCH, 2P-240V-200A, NO FUSE, NEMA 3R ENCLOSURE		RECEPTACLE, 2P-3W-125V-15A, DUPLEX, GROUND TYPE, HUBBELL CATALOG #5362
	LIGHTING FIXTURE, FLUORESCENT, 10.94" x 4'-0", 240W, SURFACE MOUNTING TYPE, HUBBELL LIGHTING CATALOG #WSW232T		TOGGLE SWITCH, 1P-125V-15A, HUBBELL CATALOG #HBL1201CN
	LIGHTING FIXTURE, FLUORESCENT, 10.94" x 8'-0", 295W, SURFACE MOUNTING TYPE, HUBBELL LIGHTING CATALOG #TWSM232T		TOGGLE SWITCH, 1P-120V-15A, "WP"
	LIGHTING FIXTURE, HIGH PRESSURE SODIUM, 1/70W, WALL MOUNTING TYPE, HUBBELL LIGHTING CATALOG #NRG-307 OR 1/60W, HUBBELL LIGHTING CATALOG #NRG-121		IONIZATION SMOKE DETECTOR W/ALARM HORN & AUXILIARY CONTACT, 120 VAC, GENTEX PART NO. 7100F
	EXIT SIGN, THERMOPLASTIC LED, SINGLE FACE, UNIVERSAL MOUNTING, W/BATTERY PACK, HUBBELL LIGHTING CATALOG #PRB		POLE
	EMERGENCY LIGHTING, 2/50W, HUBBELL LIGHTING CATALOG #HE6-50-2-R91		(N) POLE MOUNTED XFMR
	LIGHTING FIXTURE, INCANDESCENT, 1/100W, WALL MOUNTING TYPE, HUBBELL LIGHTING CATALOG #BRH-100-06-1		(E) POLE MOUNTED XFMR
	LIGHTING FIXTURE, HALOGEN, QUARTZ, 1/300W, HUBBELL LIGHTING CATALOG #QL-606		(N) PAD MOUNTED XFMR
			(E) PAD MOUNTED XFMR

SCALE  
N.T.S. 4

**GENERAL LEGEND**

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**ELECTRICAL GENERAL NOTES**

1

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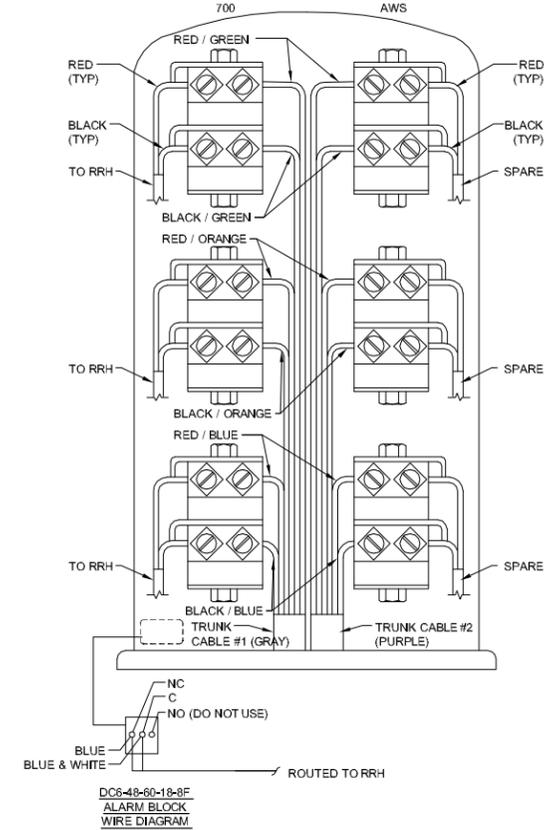
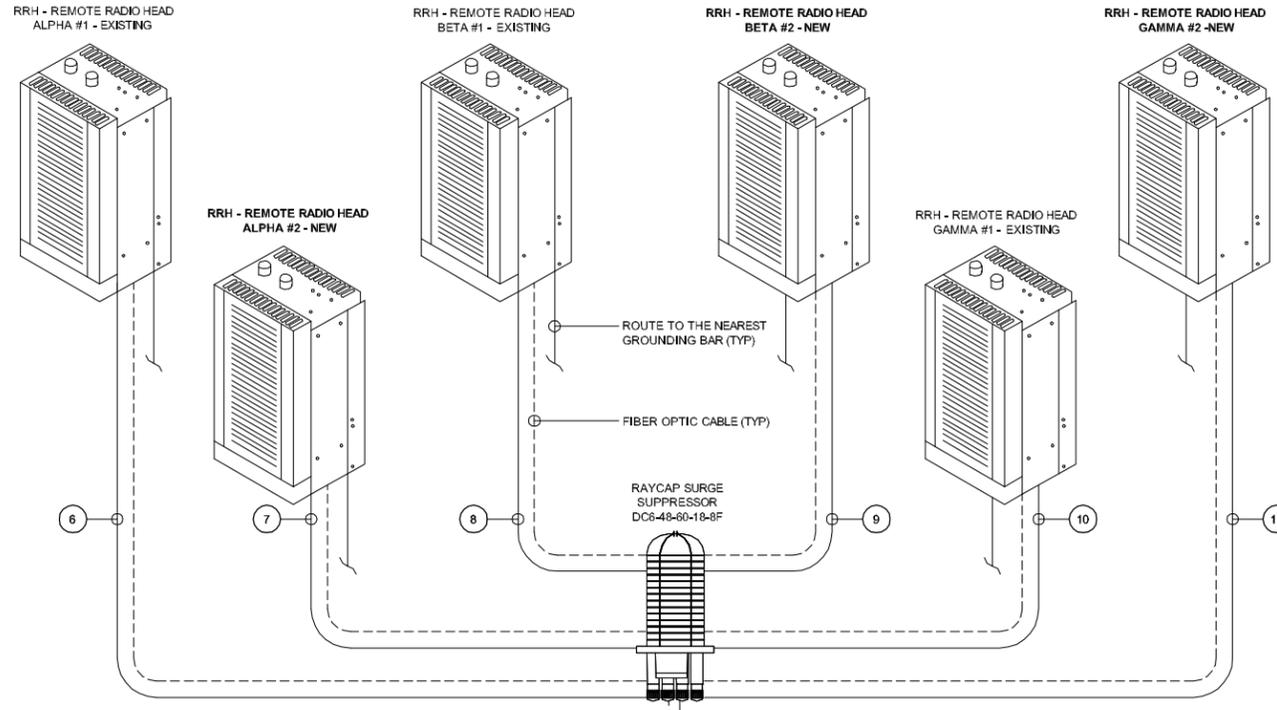
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FA#10088454  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**ELECTRICAL NOTES**

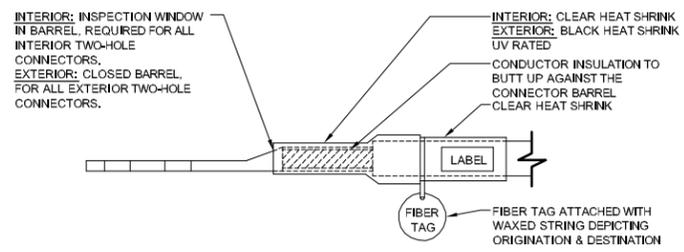
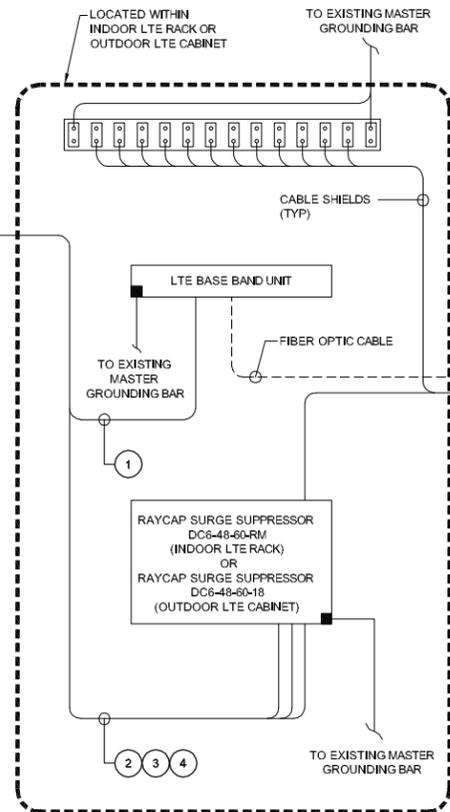
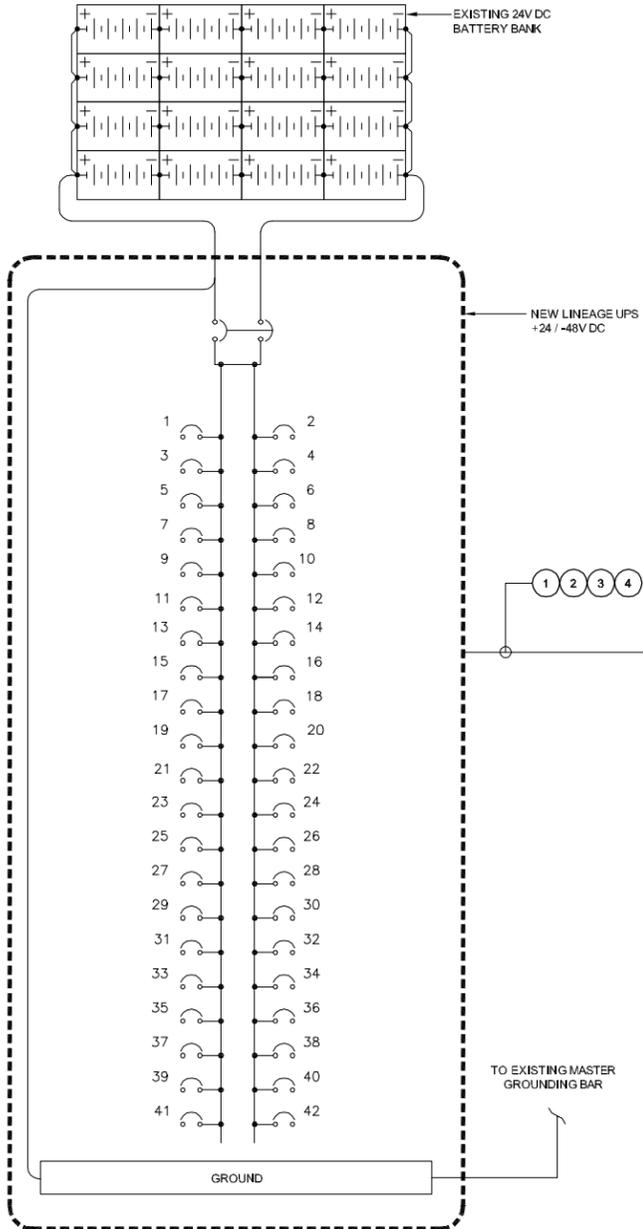
SHEET NUMBER  
**E-1**

**NOTES**

1. INSTALL ADDITIONAL CIRCUITS TO RECTIFIERS AS REQUIRED, TO PROVIDE ADDITIONAL -48V DC POWER FOR LTE SYSTEM.
2. THE SCOPE OF WORK SHALL DICTATE THE EQUIPMENT TO BE INSTALLED. EQUIPMENT SHALL BE EQUAL TO OR BETTER THAN REFERRED VENDORS.
3. THE CONTRACTOR SHALL VERIFY THE LOAD CENTER SCHEDULE IS ACCURATE AND TRUE. IF THE LOAD CENTER SCHEDULE IS NOT TRUE THE CONTRACTOR SHALL NOTIFY THE ENGINEERING STAFF THE CORRECTIONS AS SOON AS PRACTICABLE.
4. CONTRACTOR SHALL PROVIDE ALL CONDUITS, CIRCUITS REQUIRED OF A COMPLETED SYSTEM AND SHALL BE IN COMPLIANCE WITH THE MANUFACTURERS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT LOAD CENTER SCHEDULE AND SITE DRAWINGS.
6. THIS CIRCUIT SCHEDULE IS PULLED FROM LTE TEMPLATE FILE SUPPLIED BY GENERAL DYNAMICS. INDIVIDUAL CIRCUITS WERE NOT FIELD VERIFIED BY A&E VENDOR. CONTRACTOR IS TO VERIFY LOAD SCHEDULE.
7. ALL DC WIRE SHOULD BE RHH (OR OEM SUPPLIED) "LIST 3 CLASS B" OR "LIST 4 CLASS I" LIMITED SMOKE. ALL DC WIRE SHALL BE GRAY IN COLOR. COLOR CODE TAPE SHOULD BE USED TO IDENTIFY POLARITY AND CLEAR HEAT SHRINK SHALL COVER LUG CRIMP AND EXTEND OVER COLOR CODE. ENDS OF CABLES SHALL BE LABELED WITH FIBER TAGS ATTACHED WITH WAX STRING DEPICTING ORIGINATION TO DESTINATION.
8. CONTRACTOR SHALL VERIFY ADEQUATE CAPACITY EXISTS AT THE EXISTING DC POWER PLANT TO SUPPLY DC POWER TO THE NEW EQUIPMENT IN THE NEW RIF RACK OR CABINET. IF SUFFICIENT RECTIFIERS ARE NOT AVAILABLE IN THE EXISTING DC POWER PLANT, THE CONTRACTOR SHALL COORDINATE WITH THE DESIGN ENGINEER (TAEC) TO PROVIDE A DESIGN FOR NEW CIRCUITS TO THE EXISTING DC POWER PLANT FOR ADDITIONAL RECTIFIERS. CONTRACTOR SHALL ROUTE NEW DC POWER FROM THE EXISTING DC POWER PLANT TO THE NEW RIF RACK OR CABINET.



**DC6-48-60-18-8F DC SURGE SUPPRESSION WIRE DIAGRAM**



**FIBER WIRE RHH SLEEVE DETAIL**

DC CIRCUIT SCHEDULE			
	FROM	TO	CONFIGURATION
1	-48V DC CIRCUIT	LTE BASE BAND UNIT	(1) 2-#10 RHH TC-RE DC CABLE
2	-48V DC CIRCUIT	RAYCAP SURGE SUPPRESSOR DC6-48-60-RM OR DC6-48-60-18	(1) 2-#10 RHH TC-RE DC CABLE
3	-48V DC CIRCUIT	RAYCAP SURGE SUPPRESSOR DC6-48-60-RM OR DC6-48-60-18	(1) 2-#10 RHH TC-RE DC CABLE
4	-48V DC CIRCUIT	RAYCAP SURGE SUPPRESSOR DC6-48-60-RM OR DC6-48-60-18	(1) 2-#10 RHH TC-RE DC CABLE
5	RAYCAP SURGE SUPPRESSOR DC6-48-60-RM OR DC6-48-60-18	RAYCAP SURGE SUPPRESSOR DC6-48-60-18-8F	(2) 6-#8 RHH TC-RE DC CABLE
6	RAYCAP SURGE SUPPRESSOR DC6-48-60-18-8F	RRH REMOTE RADIO HEAD ALPHA #1	(1) 6-#12 RHH TC-RE-DC CABLE - EXISTING
7	RAYCAP SURGE SUPPRESSOR DC6-48-60-18-8F	RRH REMOTE RADIO HEAD ALPHA #2 - NEW	(1) 6-#12 RHH TC-RE-DC CABLE
8	RAYCAP SURGE SUPPRESSOR DC6-48-60-18-8F	RRH REMOTE RADIO HEAD BETA #1	(1) 6-#12 RHH TC-RE-DC CABLE - EXISTING
9	RAYCAP SURGE SUPPRESSOR DC6-48-60-18-8F	RRH REMOTE RADIO HEAD BETA #2 - NEW	(1) 6-#12 RHH TC-RE-DC CABLE
10	RAYCAP SURGE SUPPRESSOR DC6-48-60-18-8F	RRH REMOTE RADIO HEAD GAMMA #1	(1) 6-#12 RHH TC-RE-DC CABLE - EXISTING
11	RAYCAP SURGE SUPPRESSOR DC6-48-60-18-8F	RRH REMOTE RADIO HEAD GAMMA #2 - NEW	(1) 6-#12 RHH TC-RE-DC CABLE

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**ELECTRICAL ONE-LINE DIAGRAM**



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**ALPINE**  
FA#10088454  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**ELECTRICAL ONE-LINE DIAGRAM**

SHEET NUMBER  
**E-2**

**ELECTRICAL GROUNDING SPECIFICATIONS**

- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE CURRENTLY IN EFFECT FOR THE AUTHORITY HAVING JURISDICTION.
- ALL GROUNDING DEVICES SHALL BE U.L. LISTED FOR THEIR INTENDED USE.
- GROUND WIRES SHALL BE TINNED #2 AWG BARE SOLID COPPER UNLESS OTHERWISE NOTED.
- CONNECTIONS OF ALL GROUND WIRES TO THE GROUND RING SHALL BE EXOTHERMIC (CAD-WELDED), UNLESS OTHERWISE NOTED, AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AT&T WIRELESS BROADBAND STANDARDS.
- GROUNDING CONDUCTORS SHALL BE ROUTED ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. WHEN REQUIRED, GROUND LEADS SHALL BE BENT TO A MINIMUM OF 8" RADIUS.
- WHERE GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO THE GROUND RING, INSTALL WIRE IN 3/4" HEAVY WALL LIQUID TIGHT FLEXIBLE CONDUIT FROM CONNECTION POINT TO 5" BELOW GRADE AND SEAL THE TOP WITH SILICONE SEALANT.
- ALL GROUND BARS SHALL BE TINNED, 1/4" COPPER, SECTOR BARS 2", COLLECTOR AND MGB BARS 4", OF SUFFICIENT LENGTH TO ACCOMMODATE ALL REQUIRED CONNECTIONS WITHOUT DOUBLING LUGS, AND EACH INSTALLED WITH ISOLATORS. WHEN CONNECTING GROUND BARS (WITHIN 10 FEET OF GRADE) DIRECTLY TO THE GROUND RING, 2 EA. #2 SOLID DOWNLEADS SHALL BE CAD-WELDED TO THE GROUND BAR, 1 AT EACH OPPOSITE BOTTOM CORNER, AND EACH SHALL RUN IN 3/4" HEAVY WALL LIQUID TIGHT FLEXIBLE CONDUIT FROM GROUND BAR DOWN TO THE GROUND RING, WHEN CONNECTING SECTOR GROUND BARS, DAISY-CHAIN THE GROUND BARS AND RUN 1 EA. #2 AWG STRANDED COPPER WIRE WITH THWN INSULATION FROM THE MIDDLE GROUND BAR TO THE GROUND RING AND CAD-WELD TO THE RING.
- WHEN ATTACHING STRANDED GROUND LEADS TO THE GROUND BARS, 2 HOLE COMPRESSION LUGS SHALL BE USED, PROTECT WITH WEATHERPROOF HEAT SHRINK, AND WITH A THIN COAT OF "KOP'R-SHIELD" OR EQUIVALENT PROPERLY APPLIED AND ATTACHED ONLY WITH STAINLESS STEEL HARDWARE.
- WHEN GROUNDING EQUIPMENT ENCLOSURES, PANELS, FRAMES, AND OTHER METAL APPARATUS, A #6 AWG STRANDED COPPER WIRE WITH THWN INSULATION SHALL BE ATTACHED UTILIZING A 2 HOLE COMPRESSION TYPE LUG, PROTECTED WITH WEATHERPROOF HEAT A CLEAN AND CORROSION FREE METALLIC SURFACE UTILIZING STAINLESS STEEL SELF-TAPPING SCREWS AS NOTED IN NOTE 10 BELOW.
- PREPARE ALL BONDING SURFACES FOR GROUND CONNECTIONS BY REMOVING ANY AND ALL PAINT AND CORROSION TO SHINY METAL, FOLLOWING CAD-WELDED CONNECTIONS TO NON-COPPER SURFACES, APPLY ONE COAT OF ANY ANTI-OXIDIZING PAINT, "COLD GALV" OR EQUIVALENT.
- GROUND RODS SHALL BE COPPER-CLAD STEEL 5/8"x10', SPACED NO LESS THAN 10' ON CENTER.
- ALL GROUND SYSTEM CONDUCTORS AND CONDUITS SHALL BE SECURED UTILIZING ONLY NONMETALLIC, NON-CONDUCTIVE, UV RATED CLAMPS, BRACKET, AND OR SUPPORTS.
- WHEN REQUIRED, THE CONTRACTOR SHALL ENGAGE THE SERVICES OF AN INDEPENDENT TESTING FIRM TO VERIFY, UTILIZING A MEGGER TEST, THAT THE RESISTANCE TO EARTH OF THE NEW GROUND SYSTEM IS EQUAL TO OR LESS THAN 5 (OHMS), A COPY OF THE COMPLETE TESTING REPORT SHALL BE PROVIDED TO THE AT&T REPRESENTATIVE.
- ALL MATERIALS AND HARDWARE SHALL BR INSTALLED IN A WORKMAN-LIKE MANNER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND DEFINED IN NFPA-70 AND APPROVED BY A.H.J.



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**NOT USED**

SCALE  
N.T.S. **2**

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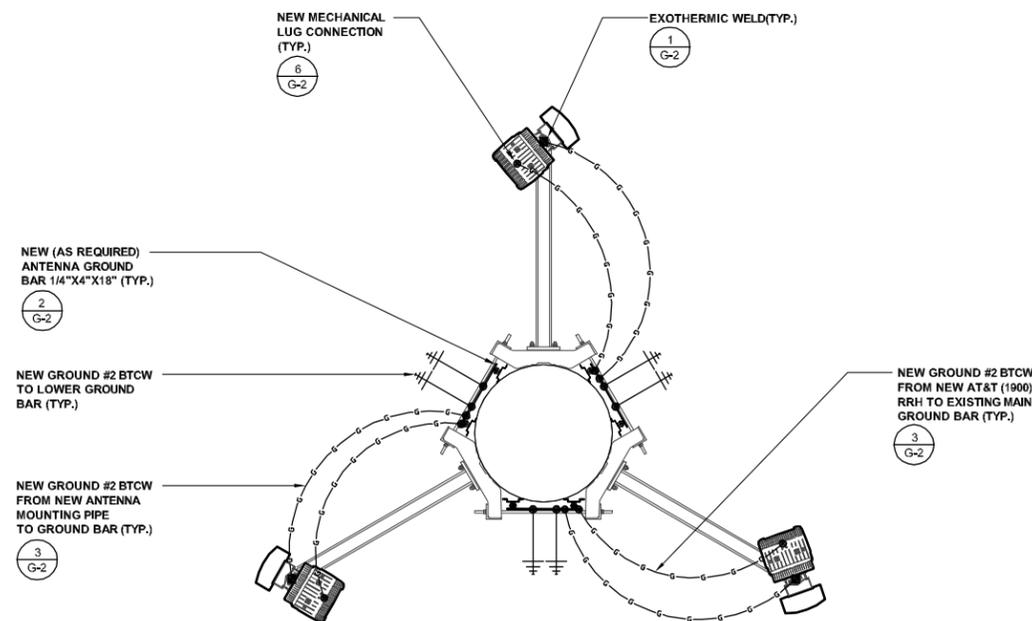
**ALPINE**  
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ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**GROUNDING PLAN**

SHEET NUMBER  
**G-1**

LEGEND	
■	EXOTHERMIC CONNECTION
●	MECHANICAL CONNECTION
⎓	EQUIPMENT GROUND BAR
⎓	ANTENNA GROUND BAR (AS REQUIRED)
⎓	#2 AWG GROUND LEAD (AS REQUIRED)

- NOTE:**
- CONTRACTOR TO REPLACE ALL MISSING GROUND BARS AND GROUNDING CONNECTIONS AS REQUIRED.



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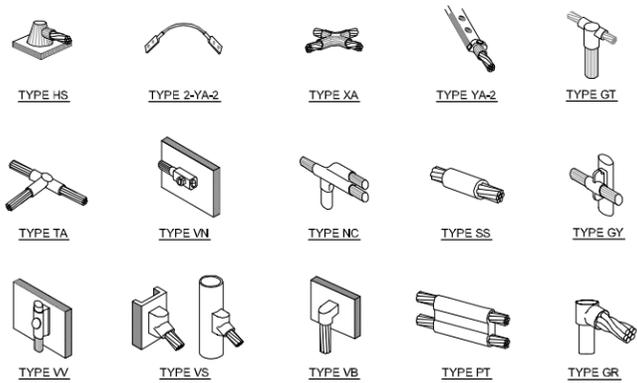
**NOTES & LEGEND**

SCALE  
N.T.S. **1**

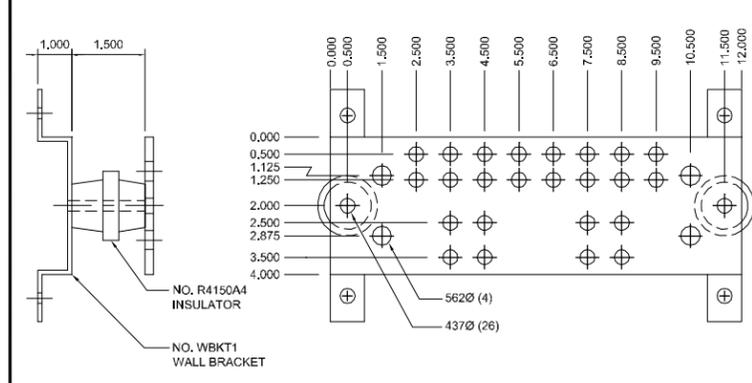
**ANTENNA GROUNDING**

SCALE  
N.T.S. **3**

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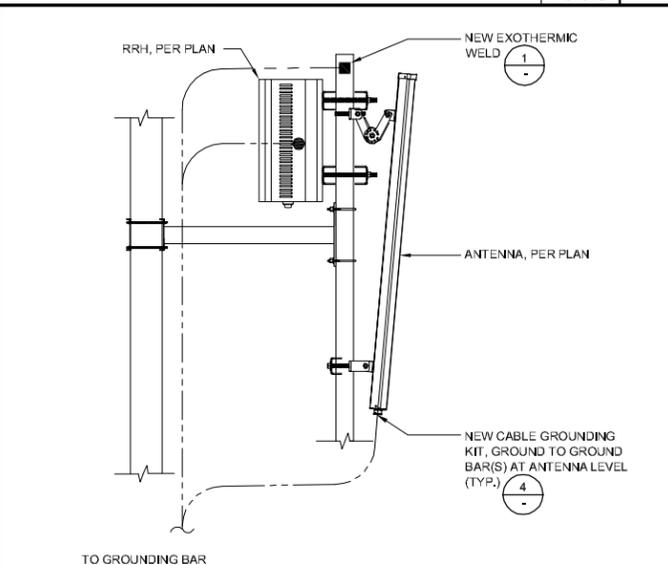


**NOTE:**  
 ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.



**EXOTHERMIC WELDING**

SCALE  
N.T.S. **1**

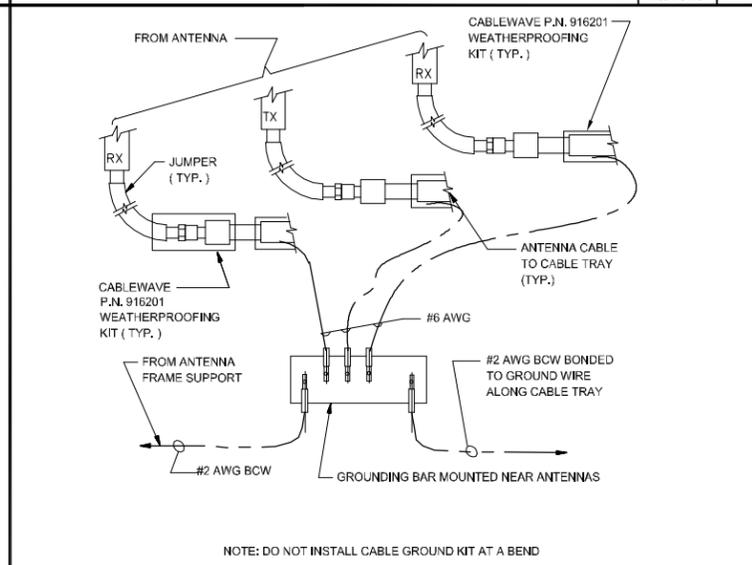


**ANTENNA GROUNDING**

SCALE  
N.T.S. **3**

**12" & 18" GROUND BAR**

SCALE  
N.T.S. **2**



**ANTENNA GROUND KIT**

SCALE  
N.T.S. **4**

WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT

**NOTES:**

- ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS; BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER, LOCK WASHER AND NUT.
- COPPER SHIELD, ANTI-OX. OR NO-OX OR EQUIVALENT SHALL BE PLACE WHERE ALL DISSIMILAR METALS CONNECT.
- ALL LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- ALL LUGS MUST HAVE INSPECTION WINDOWS.

**MECHANICAL LUG CONNECTION**

SCALE  
N.T.S. **6**

**NOT USED**

SCALE  
N.T.S. **5**

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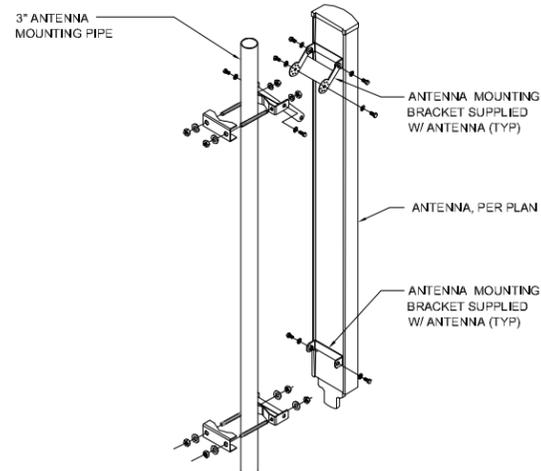
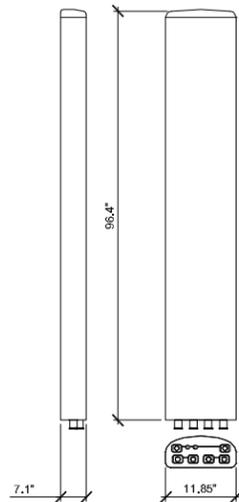
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SHEET TITLE  
**GROUNDING DETAILS**

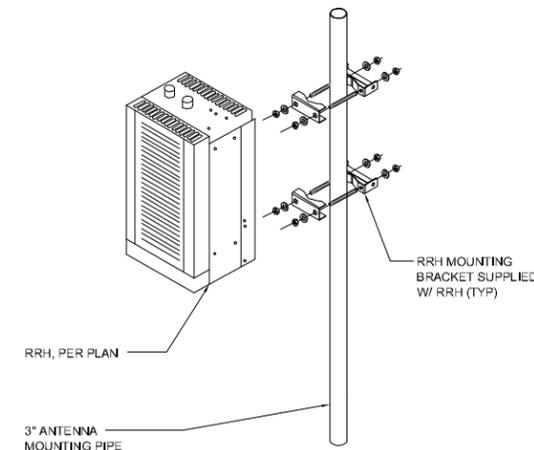
SHEET NUMBER  
**G-2**

RADOME MATERIAL: PVC, UV RESISTANT  
 RADOME COLOR: LIGHT GRAY  
 DIMENSIONS, HxWxD: 96.42" x 11.85" x 7.1"  
 WEIGHT, W/ PRE-MOUNTED BRACKETS: 66.14 lb  
 CONNECTOR: 4 x 7/16 DIN FEMALE



**ALCATEL - LUCENT RRH2X60-1900A-4R**

FREQUENCY BAND: 1900 (3GPP BAND 2)  
 TYPE OF OPTICAL FIBER: SINGLE-MODE (SM) & MULTI-MODE (MM) SFPs  
 POWER SUPPLY: -48V DC  
 WEIGHT: 46 LBS.  
 SIZE (HxWxD): 20,1x11,25x7,6



4393 RIVERBOAT ROAD, SUITE #400  
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**GENERAL DYNAMICS**  
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 (801) 463-1020

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**ALPINE**  
**FA#10088454**  
 10 EAST 600 SOUTH  
 ALPINE, UT 84004  
 WOOD POLE

SHEET TITLE  
**DETAILS**

SHEET NUMBER  
**RF-1**

**ANTENNA SPECIFICATIONS**

SCALE  
 N.T.S.

**1**

**ANTENNA MOUNTING**

SCALE  
 N.T.S.

**2**

**RRH SPECIFICATIONS**

SCALE  
 N.T.S.

**3**

**RRH MOUNTING**

SCALE  
 N.T.S.

**4**

**NOT USED**

SCALE  
 N.T.S.

**5**

**NOT USED**

SCALE  
 N.T.S.

**6**

**NOT USED**

SCALE  
 N.T.S.

**7**

**NOT USED**

SCALE  
 N.T.S.

**8**

**NOT USED**

SCALE  
 N.T.S.

**9**

**NOT USED**

SCALE  
 N.T.S.

**10**

**NOT USED**

SCALE  
 N.T.S.

**11**

**NOT USED**

SCALE  
 N.T.S.

**12**

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES



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**ALPINE**  
**FA#10088454**  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2**

**Section 1 - RFDS GENERAL INFORMATION**

<b>RFDS NAME:</b>	UTL04002	<b>DATE:</b>	05/15/2014	<b>RF DESIGN ENG:</b>	Chris Loo (ATT) / J. Maqui (GD)	<b>RF PERF ENG:</b>		<b>RFDS PROGRAM TYPE:</b>	2014 LTE Next Carrier
<b>ISSUE:</b>	LTE 2C Overlay PCS MHz C5 (5Mhz)	<b>Approved? (Y/N):</b>	Yes	<b>RF DESIGN PHONE:</b>	214.789.2027	<b>RF PERF PHONE:</b>		<b>RFDS TECHNOLOGY:</b>	LTE 2C
<b>REVISION:</b>	2.00	<b>RF MANAGER:</b>	David Black	<b>RF DESIGN EMAIL:</b>	joseph.maqui@gdwireless.com	<b>RF PERF EMAIL:</b>		<b>Status:</b>	Planned
<b>INITIATIVE PROJECT:</b>	v2.00 (051514) LTE 2C Overlay PCS C5 (5Mhz) E-UTRA Band 2 v1.00 (01/17/2014) Preliminary AT&T RFDS shell				<b>TRIDENT:</b>		<b>Status:</b>	Approved	
					<b>GSM FREQUENCY:</b>	850, 1900	<b>RFDS ID:</b>	257296	
					<b>UMTS FREQUENCY:</b>	850, 1900	<b>RFDS Version:</b>	2.00	
					<b>LTE FREQUENCY:</b>	700, 1900	<b>Created By:</b>	rs089v	
							<b>Date Created:</b>	1/17/2014 3:23:39 PM	
							<b>Date Updated:</b>	5/19/2014 8:18:50 AM	
							<b>Updated By:</b>	jm025x	
				<b>IPLAN JOB # 1:</b>	WR_RUTH-13-02284	<b>IPLAN PRD GRP    SUB GRP #1:</b>	LTE Next Carrier    LTE 2C		
				<b>IPLAN JOB # 2:</b>		<b>IPLAN PRD GRP    SUB GRP #2:</b>			
				<b>IPLAN JOB # 3:</b>		<b>IPLAN PRD GRP    SUB GRP #3:</b>			
				<b>IPLAN JOB # 4:</b>		<b>IPLAN PRD GRP    SUB GRP #4:</b>			

**Section 2 - LOCATION INFORMATION**

<b>USID:</b>	11162	<b>FA LOCATION CODE:</b>	10088454	<b>LOCATION NAME:</b>	ALPINE	<b>ORACLE PTN # 1:</b>	3752779626	<b>PACE JOB # 1:</b>	MRUTH009777
<b>REGION:</b>	WEST	<b>MARKET CLUSTER:</b>	COJUTANYMT/SO_ID	<b>MARKET:</b>	UTAH	<b>ORACLE PTN # 2:</b>		<b>PACE JOB # 2:</b>	
<b>ADDRESS:</b>	10 EAST 600 SOUTH	<b>CITY:</b>	ALPINE	<b>STATE:</b>	UT	<b>ORACLE PTN # 3:</b>		<b>PACE JOB # 3:</b>	
<b>ZIP CODE:</b>	84004	<b>COUNTY:</b>	UTAH	<b>MSA / RSA:</b>		<b>ORACLE PTN # 4:</b>		<b>PACE JOB # 4:</b>	
<b>LATITUDE (D-M-S):</b>	40d 26m 38.112s	<b>LONGITUDE (D-M-S):</b>	-111d -46m -43.536s	<b>LAT (DEC. DEG.):</b>	40.4439200	<b>SEARCH RING NAME:</b>		<b>CASPR INITIATIVE # 1:</b>	
<b>DIRECTIONS, ACCESS AND EQUIPMENT LOCATION:</b>	TAKE I-15 SOUTH TO EXIT 267 GO EAST ON HIGHLAND PARKWAY TO ALPINE WAY. TURN LEFT, THEN RIGHT ON CANYON CREST THEN RIGHT ON SIERRA AVE. THEN RIGHT ON CASCADE AVE. FOLLOW AROUND, SITE IS ON THE LEFT. TAKE DIRT ROAD UP THE HILL				<b>SEARCH RING ID:</b>		<b>CASPR INITIATIVE # 2:</b>		
					<b>BTA:</b>		<b>CASPR INITIATIVE # 3:</b>		
					<b>LONG (DEC. DEG.):</b>	-111.7787600	<b>CASPR INITIATIVE # 4:</b>		
					<b>BORDER CELL WITH CONTOUR COORD:</b>				
					<b>AM STUDY RE Q'D (Y/N):</b>	No			
					<b>FREQ COORD:</b>				

**Section 3 - LICENSE COVERAGE/FILING INFORMATION**

<b>CGSA - NO FILING TRIGGERED (Yes/No):</b>	No	<b>CGSA LOSS:</b>		<b>PCS REDUCED - UPS ZIP:</b>		<b>CGSA CALL SIGNS:</b>
<b>CGSA - MINOR FILING NEEDED (Yes/No):</b>	No	<b>CGSA EXT AGMT NEEDED:</b>		<b>PCS POPS REDUCED:</b>		
<b>CGSA - MAJOR FILING NEEDED (Yes/No):</b>	Yes	<b>CGSA SCORE CARD UPDATED:</b>				

**Section 4 - TOWER/REGULATORY INFORMATION**

<b>STRUCTURE AT&amp;T OWNED?:</b>	Yes	<b>GROUND ELEVATION (ft):</b>		<b>STRUCTURE TYPE:</b>	MONOP OLE	<b>MARKET LOCATION 700 MHz Band:</b>	
<b>ADDITIONAL REGULATORY?:</b>	Yes	<b>HEIGHT OVERALL (ft):</b>	29.00	<b>FCC ASR NUMBER:</b>	0	<b>MARKET LOCATION 850 MHz Band:</b>	
<b>SUB-LEASE RIGHTS?:</b>	Yes	<b>STRUCTURE HEIGHT (ft):</b>	29.00			<b>MARKET LOCATION 1900 MHz Band:</b>	
<b>LIGHTING TYPE:</b>	NOT REQUIRED					<b>MARKET LOCATION AWS Band:</b>	

**Section 5 - E-911 INFORMATION - existing**

	PSAP NAME:	PSAP ID:	E911 PHASE:	MPC SVC PROVIDER:	LMU REQUIRED:	ESRN:	DATE LIVE PH1:	DATE LIVE PH2:
<b>SECTOR A</b>	E-911 UTAH COUNTY SHERIFFS OFFICE	7067		INTRADO_LNGMONT				
<b>SECTOR B</b>	UTAH COUNTY SHERIFFS OFFICE	7067		INTRADO_LNGMONT				
<b>SECTOR C</b>	UTAH COUNTY SHERIFFS OFFICE	7067		INTRADO_LNGMONT				
<b>SECTOR D</b>								
<b>SECTOR E</b>								
<b>SECTOR F</b>								
<b>OMNI</b>								

**Section 5 - E-911 INFORMATION - final**

	PSAP NAME:	PSAP ID:	E911 PHASE:	MPC SVC PROVIDER:	LMU REQUIRED:	ESRN:	DATE LIVE PH1:	DATE LIVE PH2:
<b>SECTOR A</b>	E-911 UTAH COUNTY SHERIFFS OFFICE	7067		INTRADO_LNGMONT				
<b>SECTOR B</b>	UTAH COUNTY SHERIFFS OFFICE	7067		INTRADO_LNGMONT				
<b>SECTOR C</b>	UTAH COUNTY SHERIFFS OFFICE	7067		INTRADO_LNGMONT				
<b>SECTOR D</b>								
<b>SECTOR E</b>								
<b>SECTOR F</b>								
<b>OMNI</b>								

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**ALPINE**  
**FA#10088454**  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2.1**

Section 6 - RBS GENERAL INFORMATION - existing

	GSM 1ST RBS	GSM 2ND RBS	UMTS 1ST RBS	UMTS 2ND RBS	UMTS 3RD RBS	UMTS 4TH RBS	UMTS 5TH RBS	UMTS 6TH RBS	LTE 1ST RBS	LTE 2ND RBS
<b>RBS ID:</b>	66876	43035	231969	151461	365009				375208	
<b>CTS COMMON ID:</b>	SLKCUT4002_2	SLKCUT4002	UTUTU4002	UTUTUU4002	UTUTV4002				UTL04002	
<b>BTA/TID:</b>	365G	365P	365U	365V	365W				365L	
<b>4-DIGIT SITE ID:</b>	0036	0048	4002	4002	4002				04002	
<b>COW OR TOY?:</b>	No	No	No	No	No				No	
<b>CELL SITE TYPE:</b>	SECTORIZED	SECTORIZED	SECTORIZED	SECTORIZED	SECTORIZED				SECTORIZED	
<b>SITE TYPE:</b>	BTS-CONVENTIONAL	BTS-CONVENTIONAL	MACRO-CONVENTIONAL	MACRO-CONVENTIONAL	MACRO-CONVENTIONAL				MACRO-CONVENTIONAL	
<b>BTS LOCATION ID:</b>					INTERNAL				INTERNAL	
<b>ORIGINATING CO:</b>	CINGULAR	CINGULAR	CINGULAR	CINGULAR	CINGULAR				CINGULAR	
<b>CELLULAR NETWORK:</b>	GOLD	GOLD	GOLD	GOLD	GOLD				GOLD	
<b>OPS DISTRICT:</b>	RF TECH UTAH	RF TECH UTAH	RF TECH UTAH	RF TECH UTAH	RF TECH UTAH				RF TECH UTAH	
<b>RF DISTRICT:</b>	21	21	21	21	21				21	
<b>OPS ZONE:</b>	2	2	WE_UT_UTAH_LAKE_CS	2	WE_UT_UTAH_LAKE_CS				WE_UT_UTAH_LAKE_CS	
<b>RF ZONE:</b>	B	B	B	B	B				B	
<b>BASE STATION TYPE:</b>	OVERLAY	OVERLAY	OVERLAY	OVERLAY	OVERLAY				OVERLAY	
<b>EQUIPMENT NAME:</b>	ALPINE	ALPINE	ALPINE	ALPINE	ALPINE				ALPINE	
<b>DISASTER PRIORITY:</b>	1	0	1	2	2				2	

Section 6 - RBS GENERAL INFORMATION - final

	GSM 1ST RBS	GSM 2ND RBS	UMTS 1ST RBS	UMTS 2ND RBS	UMTS 3RD RBS	UMTS 4TH RBS	UMTS 5TH RBS	UMTS 6TH RBS	LTE 1ST RBS	LTE 2ND RBS
<b>RBS ID:</b>	66876	43035	231969	151461	365009				375208	
<b>CTS COMMON ID:</b>	SLKCUT4002_2	SLKCUT4002	UTUTU4002	UTUTUU4002	UTUTV4002				UTL04002	
<b>BTA/TID:</b>	365G	365P	365U	365V	365W				365L	
<b>4-DIGIT SITE ID:</b>	0036	0048	4002	4002	4002				04002	
<b>COW OR TOY?:</b>	No	No	No	No	No				No	
<b>CELL SITE TYPE:</b>	SECTORIZED	SECTORIZED	SECTORIZED	SECTORIZED	SECTORIZED				SECTORIZED	
<b>SITE TYPE:</b>	BTS-CONVENTIONAL	BTS-CONVENTIONAL	MACRO-CONVENTIONAL	MACRO-CONVENTIONAL	MACRO-CONVENTIONAL				MACRO-CONVENTIONAL	
<b>BTS LOCATION ID:</b>					INTERNAL				INTERNAL	
<b>ORIGINATING CO:</b>	CINGULAR	CINGULAR	CINGULAR	CINGULAR	CINGULAR				CINGULAR	
<b>CELLULAR NETWORK:</b>	GOLD	GOLD	GOLD	GOLD	GOLD				GOLD	
<b>OPS DISTRICT:</b>	RF TECH UTAH	RF TECH UTAH	RF TECH UTAH	RF TECH UTAH	RF TECH UTAH				RF TECH UTAH	
<b>RF DISTRICT:</b>	21	21	21	21	21				21	
<b>OPS ZONE:</b>	2	2	WE_UT_UTAH_LAKE_CS	2	WE_UT_UTAH_LAKE_CS				WE_UT_UTAH_LAKE_CS	
<b>RF ZONE:</b>	B	B	B	B	B				B	
<b>BASE STATION TYPE:</b>	OVERLAY	OVERLAY	OVERLAY	OVERLAY	OVERLAY				OVERLAY	
<b>EQUIPMENT NAME:</b>	ALPINE	ALPINE	ALPINE	ALPINE	ALPINE				ALPINE	
<b>DISASTER PRIORITY:</b>	1	0	1	2	2				2	

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**ALPINE**  
FA#10088454  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2.2**

**Section 7 - RBS SPECIFIC INFORMATION - existing**

	GSM 1ST RBS	GSM 2ND RBS	UMTS 1ST RBS	UMTS 2ND RBS	UMTS 3RD RBS	UMTS 4TH RBS	UMTS 5TH RBS	UMTS 6TH RBS	LTE 1ST RBS	LTE 2ND RBS
<b>MSC</b>										
<b>BSCRNCNME POOL ID</b>	SLKCBSC13	SLKCBSC13	SLKCUTJCCRAR01	SLKCUTJCCRAR01	SLKCUTJCCRAR01				FF58	
<b>LAC</b>	49032	49032	45996	45996	45996					
<b>RAC</b>										
<b>EQUIPMENT VENDOR</b>	NOKIA	NOKIA	ALU	ALU	ALU				ALU	
<b>EQUIPMENT TYPE</b>	ULTRASITE 850	ULTRASITE 1900	LUCENT MACRO INDOOR	FLEXENT	LUCENT MACRO INDOOR				9926 BASEBAND UNIT	
<b>LOCATION</b>										
<b>CABINET LOCATION</b>										
<b>MARKET STATE CODE</b>									UT	
<b>AGPS</b>	Yes	Yes	Yes	Yes	Yes				Yes	
<b>NODE B NUMBER</b>									4002	
<b>PARENT NAME</b>	SALT LAKE CITY BSC 13	SALT LAKE CITY BSC 13	SLC ALU RNC 9370-01	SLC ALU RNC 9370-01	SLC ALU RNC 9370-01				FF58	

**Section 7 - RBS SPECIFIC INFORMATION - final**

	GSM 1ST RBS	GSM 2ND RBS	UMTS 1ST RBS	UMTS 2ND RBS	UMTS 3RD RBS	UMTS 4TH RBS	UMTS 5TH RBS	UMTS 6TH RBS	LTE 1ST RBS	LTE 2ND RBS
<b>MSC</b>										
<b>BSCRNCNME POOL ID</b>	SLKCBSC13	SLKCBSC13	SLKCUTJCCRAR01	SLKCUTJCCRAR01	SLKCUTJCCRAR01				FF58	
<b>LAC</b>	49032	49032	45996	45996	45996					
<b>RAC</b>										
<b>EQUIPMENT VENDOR</b>	NOKIA	NOKIA	ALU	ALU	ALU				ALU	
<b>EQUIPMENT TYPE</b>	ULTRASITE 850	ULTRASITE 1900	LUCENT MACRO INDOOR	FLEXENT	LUCENT MACRO INDOOR				9926 BBU ECCM-J	
<b>LOCATION</b>										
<b>CABINET LOCATION</b>										
<b>MARKET STATE CODE</b>									UT	
<b>AGPS</b>	Yes	Yes	Yes	Yes	Yes				Yes	
<b>NODE B NUMBER</b>									4002	
<b>PARENT NAME</b>	SALT LAKE CITY BSC 13	SALT LAKE CITY BSC 13	SLC ALU RNC 9370-01	SLC ALU RNC 9370-01	SLC ALU RNC 9370-01					

**Section 8 - RBS INDIVIDUAL INFORMATION - existing**

	GSM 1ST 850	GSM 1ST 1900	GSM 2ND 850	GSM 2ND 1900	UMTS 1ST 850	UMTS 1ST 1900	UMTS 2ND 850	UMTS 2ND 1900	UMTS 3RD 850	UMTS 3RD 1900	UMTS 4TH 850	UMTS 4TH 1900	UMTS 5TH 850	UMTS 5TH 1900	UMTS 6TH 850	UMTS 6TH 1900	LTE 1ST 700	LTE 1ST 850	LTE 1ST 1900	LTE 1ST AWS	LTE 2ND 700	LTE 2ND 850	LTE 2ND 1900	LTE 2ND AWS
<b>RBS ID:</b>	66876	43035			231969	151461			365009						365009		375208							
<b>CELL ID/BCF:</b>	SLKCUT4002	SLKCUT4002			UTUTU4002_2	UTUTUU4002_2			UTUTV4002						UTUTV4002		UTL04002							
<b>CTS COMMON ID:</b>	SLKCUT4002_2	SLKCUT4002			UTUTU4002	UTUTUU4002			UTUTV4002						UTUTV4002		UTL04002							

**Section 8 - RBS INDIVIDUAL INFORMATION - final**

	GSM 1ST 850	GSM 1ST 1900	GSM 2ND 850	GSM 2ND 1900	UMTS 1ST 850	UMTS 1ST 1900	UMTS 2ND 850	UMTS 2ND 1900	UMTS 3RD 850	UMTS 3RD 1900	UMTS 4TH 850	UMTS 4TH 1900	UMTS 5TH 850	UMTS 5TH 1900	UMTS 6TH 850	UMTS 6TH 1900	LTE 1ST 700	LTE 1ST 850	LTE 1ST 1900	LTE 1ST AWS	LTE 2ND 700	LTE 2ND 850	LTE 2ND 1900	LTE 2ND AWS	
<b>RBS ID:</b>	66876	43035			231969	151461			365009						365009		375208			375208					
<b>CELL ID/BCF:</b>	SLKCUT4002	SLKCUT4002			UTUTU4002_2	UTUTUU4002_2			UTUTV4002						UTUTV4002		UTL04002			UTL04002					
<b>CTS COMMON ID:</b>	SLKCUT4002_2	SLKCUT4002			UTUTU4002	UTUTUU4002			UTUTV4002						UTUTV4002		UTL04002			UTL04002					

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**ALPINE**  
FA#10088454  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2.3**

Section 9 - SOFT SECTOR ID - existing

	GSM 1ST 850	GSM 1ST 1900	GSM 2ND 850	GSM 2ND 1900	UMTS 1ST 850	UMTS 1ST 1900	UMTS 2ND 850	UMTS 2ND 1900	UMTS 3RD 850	UMTS 3RD 1900	UMTS 4TH 850	UMTS 4TH 1900	UMTS 5TH 850	UMTS 5TH 1900	UMTS 6TH 850	UMTS 6TH 1900	LTE 1ST 700	LTE 1ST 850	LTE 1ST 1900	LTE 1ST AWS	LTE 2ND 700	LTE 2ND 850	LTE 2ND 1900	LTE 2ND AWS
USEID (excluding Hard Sector)	11162.850.25G.1	11162.1900.25G.1			11162.850.3G.1	11162.1900.3G.1		11162.1900.3G.2		11162.1900.3G.3							11162.700.4G.1							
SECTOR A SOFT SECTOR ID	SLKCUT4002X	SLKCUT4002A			UTUTU4002X	UTUTU4002A		UTUTV4002A		UTUTV4002D							UTL04002_7A_1							
SECTOR B	SLKCUT4002Y	SLKCUT4002B			UTUTU4002Y	UTUTU4002B		UTUTV4002B		UTUTV4002E							UTL04002_7B_1							
SECTOR C	SLKCUT4002Z	SLKCUT4002C			UTUTU4002Z	UTUTU4002C		UTUTV4002C		UTUTV4002F							UTL04002_7C_1							
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								
SECTOR A IS MULTI CARRIER	No	No			No	No		Yes		Yes							No							
SECTOR B	No	No			No	No		Yes		Yes							No							
SECTOR C	No	No			No	No		Yes		Yes							No							
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								
SECTOR A CELL NUMBER																	15							
SECTOR B																	16							
SECTOR C																	17							
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								

Section 9 - SOFT SECTOR ID - final

	GSM 1ST 850	GSM 1ST 1900	GSM 2ND 850	GSM 2ND 1900	UMTS 1ST 850	UMTS 1ST 1900	UMTS 2ND 850	UMTS 2ND 1900	UMTS 3RD 850	UMTS 3RD 1900	UMTS 4TH 850	UMTS 4TH 1900	UMTS 5TH 850	UMTS 5TH 1900	UMTS 6TH 850	UMTS 6TH 1900	LTE 1ST 700	LTE 1ST 850	LTE 1ST 1900	LTE 1ST AWS	LTE 2ND 700	LTE 2ND 850	LTE 2ND 1900	LTE 2ND AWS
USEID (excluding Hard Sector)	11162.850.25G.1	11162.1900.25G.1			11162.850.3G.1	11162.1900.3G.1		11162.1900.3G.2		11162.1900.3G.3							11162.700.4G.1		11162.1900.4G.111					
SECTOR A SOFT SECTOR ID	SLKCUT4002X	SLKCUT4002A			UTUTU4002X	UTUTU4002A		UTUTV4002A		UTUTV4002D							UTL04002_7A_1		UTL04002_9A_1					
SECTOR B	SLKCUT4002Y	SLKCUT4002B			UTUTU4002Y	UTUTU4002B		UTUTV4002B		UTUTV4002E							UTL04002_7B_1		UTL04002_9B_1					
SECTOR C	SLKCUT4002Z	SLKCUT4002C			UTUTU4002Z	UTUTU4002C		UTUTV4002C		UTUTV4002F							UTL04002_7C_1		UTL04002_9C_1					
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								
SECTOR A IS MULTI CARRIER	No	No			No	No		Yes		Yes							No		No					
SECTOR B	No	No			No	No		Yes		Yes							No		No					
SECTOR C	No	No			No	No		Yes		Yes							No		No					
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								
SECTOR A CELL NUMBER																	15		8					
SECTOR B																	16		9					
SECTOR C																	17		10					
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES

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Section 10 - CID/SAC - existing

	GSM 1ST 850	GSM 1ST 1900	GSM 2ND 850	GSM 2ND 1900	UMTS 1ST 850	UMTS 1ST 1900	UMTS 2ND 850	UMTS 2ND 1900	UMTS 3RD 850	UMTS 3RD 1900	UMTS 4TH 850	UMTS 4TH 1900	UMTS 5TH 850	UMTS 5TH 1900	UMTS 6TH 850	UMTS 6TH 1900	LTE 1ST 700	LTE 1ST 850	LTE 1ST 1900	LTE 1ST AWS	LTE 2ND 700	LTE 2ND 850	LTE 2ND 1900	LTE 2ND AWS
SECTOR A CID/SAC	20024	20021			40024	40027		09027		09021														
SECTOR B	20025	20022			40025	40028		09028		09022														
SECTOR C	20026	20023			40026	40029		09029		09023														
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								

Section 10 - CID/SAC - final

	GSM 1ST 850	GSM 1ST 1900	GSM 2ND 850	GSM 2ND 1900	UMTS 1ST 850	UMTS 1ST 1900	UMTS 2ND 850	UMTS 2ND 1900	UMTS 3RD 850	UMTS 3RD 1900	UMTS 4TH 850	UMTS 4TH 1900	UMTS 5TH 850	UMTS 5TH 1900	UMTS 6TH 850	UMTS 6TH 1900	LTE 1ST 700	LTE 1ST 850	LTE 1ST 1900	LTE 1ST AWS	LTE 2ND 700	LTE 2ND 850	LTE 2ND 1900	LTE 2ND AWS
SECTOR A CID/SAC	20024	20021			40024	40027		09027		09021														
SECTOR B	20025	20022			40025	40028		09028		09022														
SECTOR C	20026	20023			40026	40029		09029		09023														
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								

Section 11 - CURRENT RADIO COUNTS existing

	GSM 1ST 850	GSM 1ST 1900	GSM 2ND 850	GSM 2ND 1900	UMTS 1ST 850	UMTS 1ST 1900	UMTS 2ND 850	UMTS 2ND 1900	UMTS 3RD 850	UMTS 3RD 1900	UMTS 4TH 850	UMTS 4TH 1900	UMTS 5TH 850	UMTS 5TH 1900	UMTS 6TH 850	UMTS 6TH 1900	LTE 1ST 700	LTE 1ST 850	LTE 1ST 1900	LTE 1ST AWS	LTE 2ND 700	LTE 2ND 850	LTE 2ND 1900	LTE 2ND AWS
SECTOR A RADIO COUNTS	3	1			1	1		1		1							1xRRH2x40-07L-AT							
SECTOR B	2	1			1	1		1		1							1xRRH2x40-07L-AT							
SECTOR C	3	1			1	1		1		1							1xRRH2x40-07L-AT							
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								

Section 12 - CURRENT T1 COUNTS existing

	GSM 1st Cabinet	GSM 2nd Cabinet	UMTS 1st Cabinet	UMTS 2nd Cabinet	UMTS 3rd Cabinet	UMTS 4th Cabinet	UMTS 5th Cabinet	UMTS 6th Cabinet	LTE 1st Cabinet	LTE 2nd Cabinet
# T1s										
LINK PROFILE										
RF COMBINING										
FIBER or ETHERNET?										
Tx Board Model										
Tx Board QTY										
RAXE CU Board Model										
RAXE CU Board QTY										
BBU Board Model										
BBU Board QTY										
RRU - location										
FIBER JUMPER										
DC CABLE										
DC/Fiber Dem. Box										
Bundled Fiber Cable										
Bundled DC Cable										

Section 13 - NEW/PROPOSED RADIO COUNTS

	GSM 1ST 850	GSM 1ST 1900	GSM 2ND 850	GSM 2ND 1900	UMTS 1ST 850	UMTS 1ST 1900	UMTS 2ND 850	UMTS 2ND 1900	UMTS 3RD 850	UMTS 3RD 1900	UMTS 4TH 850	UMTS 4TH 1900	UMTS 5TH 850	UMTS 5TH 1900	UMTS 6TH 850	UMTS 6TH 1900	LTE 1ST 700	LTE 1ST 850	LTE 1ST 1900	LTE 1ST AWS	LTE 2ND 700	LTE 2ND 850	LTE 2ND 1900	LTE 2ND AWS
SECTOR A RADIO COUNTS																	1xRRH2x40-07L-AT		1xRRH2x60-1900A-4R					
SECTOR B																	1xRRH2x40-07L-AT		1xRRH2x60-1900A-4R					
SECTOR C																	1xRRH2x40-07L-AT		1xRRH2x60-1900A-4R					
SECTOR D																								
SECTOR E																								
SECTOR F																								
OMNI																								



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**ALPINE**  
FA#10088454  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2.4**



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10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
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**DATA SHEET**

SHEET NUMBER  
**RF-2.5**

Section 15A - CURRENT SECTOR/CELL INFORMATION - SECTOR A (OR OMNI)

ANTENNA COMMON FIELDS	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5	ANTENNA POSITION 6	ANTENNA POSITION 7
ANTENNA MAKE - MODEL	SBNH-1D6565C	7780	7750.00				
ANTENNA VENDOR	Andrew	Powerwave	Powerwave				
ANTENNA SIZE (H x W x D)	96.4X11.9X7.1	546X11X5	57X11X5				
ANTENNA WEIGHT	66.1	33	35				
AZIMUTH	50	50	50				
MAGNETIC DECLINATION							
RADIATION CENTER (feet)	12	24.75	31.5				
ANTENNA TIP HEIGHT	16	26.75	33.5				
MECHANICAL DOWNTILT	0	0	0				
FEEDER AMOUNT							
Antenna RET Motor (QTY/MODEL)							
SURGE ARRESTOR (QTY/MODEL)							
DIPLEXER (QTY/MODEL)							
DUPLEXER (QTY/MODEL)							
Antenna RET CONTROL UNIT (QTY/MODEL)							
DC BLOCK (QTY/MODEL)							
TMA/LNA (QTY/MODEL)							
CURRENT INJECTORS FOR TMA (QTY/MODEL)							
PDU FOR TMA (QTY/MODEL)							
FILTER (QTY/MODEL)							
RRH - 700 band (QTY/MODEL)							
RRH - 850 band (QTY/MODEL)							
RRH - 1900 band (QTY/MODEL)							
RRH - AWS band (QTY/MODEL)							
RRH - WCS band (QTY/MODEL)							
Additional RRH #1 - any band (QTY/MODEL)							
Additional RRH #2 - any band (QTY/MODEL)							
Additional Component1 (QTY/MODEL)							
Additional Component2 (QTY/MODEL)							
Additional Component3 (QTY/MODEL)							
Local Market Note1							
Local Market Note2							
Local Market Note3							

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (AtoI)	ATOLL TXID	TXRX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/Integrated/None)	FEEDERS TYPE	Feeder Length (feet)	RX/IT KIT MODULE?	TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MODULE?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID	
ANTENNA POSITION 1	PORT 1		11162.A.700.4G.1	UTL04002_7A_1		LTE 700	SBNH-1D6565C_725MHz_01DT	15.6	50	1	0	FIBER	45.01	0								
	PORT 2		11162.A.700.4G.1	UTL04002_7A_1		LTE 700	SBNH-1D6565C_725MHz_01DT	15.6	50	1	0	FIBER	45.01	0								
ANTENNA POSITION 2	PORT 1		11162.A.850.25G.1	SLKCUT4002X		GSM 850	7780_0850_14.5_02dg	14.5	50	2	0	LDF6-50 at 850 MHz	65.52	0			NO	12.58	223.87			
	PORT 2		11162.A.850.25G.1	SLKCUT4002X		GSM 850	7780_0850_14.5_02dg	14.5	50	2	0	LDF6-50 at 850 MHz	65.52	0			NO	12.58	223.87			
	PORT 3		11162.A.1900.25G.1	SLKCUT4002A		GSM 1900	7780_1900_14.8_00dg	14.8	50	0	0	LDF6-50 at 1900 MHz	48.03	0			NO	12.58	239.88			
	PORT 4		11162.A.1900.25G.1	SLKCUT4002A		GSM 1900	7780_1900_14.8_00dg	14.8	50	0	0	LDF6-50 at 1900 MHz	48.03	0			NO	12.58	239.88			
ANTENNA POSITION 3	PORT 1		11162.A.850.3G.1	UTUTU4002X		UMTS 850	7750.00_2_849_2	14.1	50	2	0	AVAS-50 @ 850	45.01	0			NO					
	PORT 2		11162.A.850.3G.1	UTUTU4002X		UMTS 850	7750.00_2_849_2	14.1	50	2	0	AVAS-50 @ 850	45.01	0			NO					
	PORT 3		11162.A.1900.3G.2	UTUTV4002A		UMTS 1900	7750.00_2_1920_0	17.6	50	0	0	AVAS-50 @ 1900	45.01	0			NO					
	PORT 4		11162.A.1900.3G.3	UTUTV4002A		UMTS 1900	7750.00_2_1920_0	17.6	50	0	0	AVAS-50 @ 1900	45.01	0			NO					

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**ALPINE**  
**FA#10088454**  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2.6**

Section 15B - CURRENT SECTOR/CELL INFORMATION - SECTOR B

ANTENNA COMMON FIELDS	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5	ANTENNA POSITION 6	ANTENNA POSITION 7
ANTENNA MAKE - MODEL	SBNH-1D6565C	7780	7750_00				
ANTENNA VENDOR	Andrew	Powerwave	Powerwave				
ANTENNA SIZE (H x W x D)	96.4X11.9X7.1	546X11X5	57X11X5				
ANTENNA WEIGHT	66.1	33	35				
AZIMUTH	160	160	160				
MAGNETIC DECLINATION							
RADIATION CENTER (feet)	12	24.75	31.5				
ANTENNA TIP HEIGHT	16	26.75	33.5				
MECHANICAL DOWNTILT	0	0	0				
FEEDER AMOUNT							
Antenna RET Motor (QTY/MODEL)							
SURGE ARRESTOR (QTY/MODEL)							
DIPLEXER (QTY/MODEL)							
DUPLEXER (QTY/MODEL)							
Antenna RET CONTROL UNIT (QTY/MODEL)							
DC BLOCK (QTY/MODEL)							
TMA/LNA (QTY/MODEL)							
CURRENT INJECTORS FOR TMA (QTY/MODEL)							
PDU FOR TMA (QTY/MODEL)							
FILTER (QTY/MODEL)							
RRH - 700 band (QTY/MODEL)							
RRH - 850 band (QTY/MODEL)							
RRH - 1900 band (QTY/MODEL)							
RRH - AWS band (QTY/MODEL)							
RRH - WCS band (QTY/MODEL)							
Additional RRH #1 - any band (QTY/MODEL)							
Additional RRH #2 - any band (QTY/MODEL)							
Additional Component1 (QTY/MODEL)							
Additional Component2 (QTY/MODEL)							
Additional Component3 (QTY/MODEL)							
Local Market Note1							
Local Market Note2							
Local Market Note3							

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoll)	ATOLL TXID	TXRX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/Integrated/None)	FEEDERS TYPE	Feeder Length (feet)	RX/IT KIT MODULE?	TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MODULE?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID	
ANTENNA POSITION 1	PORT 1		11162.A.700.4G.1	UTL04002_7A_1		LTE 700	SBNH-1D6565C_725MHz_09DT	15.6	160	9	0	FIBER	45.01	0								
	PORT 2		11162.A.700.4G.1	UTL04002_7A_1		LTE 700	SBNH-1D6565C_725MHz_09DT	15.6	160	9	0	FIBER	45.01	0								
ANTENNA POSITION 2	PORT 1		11162.B.850.25G.1	SLKCUT4002Y		GSM 850	7780_0850_14.5_12dg	14.5	160	12	0	LDF6-50 at 850 MHz	65.52	0			NO	7.07	125.89			
	PORT 2		11162.B.850.25G.1	SLKCUT4002Y		GSM 850	7780_0850_14.5_12dg	14.5	160	12	0	LDF6-50 at 850 MHz	65.52	0			NO	7.07	125.89			
	PORT 3		11162.B.1900.25G.1	SLKCUT4002B		GSM 1900	7780_1900_14.8_06dg	14.8	160	6	0	LDF6-50 at 1900 MHz	48.03	0			NO	7.07	134.89			
	PORT 4		11162.B.1900.25G.1	SLKCUT4002B		GSM 1900	7780_1900_14.8_06dg	14.8	160	6	0	LDF6-50 at 1900 MHz	48.03	0			NO	7.07	134.89			
ANTENNA POSITION 3	PORT 1		11162.B.850.3G.1	UTUTU4002Y		UMTS 850	7750.00_2_849_10	14.3	160	10	0	AVAS-50 @ 850	45.01	0			NO					
	PORT 2		11162.B.850.3G.1	UTUTU4002Y		UMTS 850	7750.00_2_849_10	14.3	160	10	0	AVAS-50 @ 850	45.01	0			NO					
	PORT 3		11162.B.1900.3G.2	UTUTU4002B		UMTS 1900	7750.00_2_1920_5	17.6	160	5	0	AVAS-50 @ 1900	45.01	0			NO					
	PORT 4		11162.B.1900.3G.3	UTUTU4002B		UMTS 1900	7750.00_2_1920_5	17.6	160	5	0	AVAS-50 @ 1900	45.01	0			NO					

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**FA#10088454**  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2.7**

Section 15C - CURRENT SECTOR/CELL INFORMATION - SECTOR C

ANTENNA COMMON FIELDS	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5	ANTENNA POSITION 6	ANTENNA POSITION 7
ANTENNA MAKE - MODEL	SBNH-1D6565C	7780	7750.00				
ANTENNA VENDOR	Andrew	Powerwave	Powerwave				
ANTENNA SIZE (H x W x D)	96.4X11.9X7.1	546X11X5	57X11X5				
ANTENNA WEIGHT	66.1	33	35				
AZIMUTH	300	300	300				
MAGNETIC DECLINATION							
RADIATION CENTER (feet)	12	24.75	31.5				
ANTENNA TIP HEIGHT	16	26.75	33.5				
MECHANICAL DOWNTILT	0	0	4				
FEEDER AMOUNT							
Antenna RET Motor (QTY/MODEL)							
SURGE ARRESTOR (QTY/MODEL)							
DIPLEXER (QTY/MODEL)							
DUPLEXER (QTY/MODEL)							
Antenna RET CONTROL UNIT (QTY/MODEL)							
DC BLOCK (QTY/MODEL)							
TMA/LNA (QTY/MODEL)							
CURRENT INJECTORS FOR TMA (QTY/MODEL)							
PDU FOR TMAS (QTY/MODEL)							
FILTER (QTY/MODEL)							
RRH - 700 band (QTY/MODEL)							
RRH - 850 band (QTY/MODEL)							
RRH - 1900 band (QTY/MODEL)							
RRH - AWS band (QTY/MODEL)							
RRH - WCS band (QTY/MODEL)							
Additional RRH #1 - any band (QTY/MODEL)							
Additional RRH #2 - any band (QTY/MODEL)							
Additional Component1 (QTY/MODEL)							
Additional Component2 (QTY/MODEL)							
Additional Component3 (QTY/MODEL)							
Local Market Note1							
Local Market Note2							
Local Market Note3							

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoll)	ATOLL TXID	TXRX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/Integrated/None)	FEEDERS TYPE	Feeder Length (feet)	RX/IT KIT MODULE?	TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MODULE?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID	
ANTENNA POSITION 1	PORT 1		11162.A.700.4G.1	UTL04002_7A_1		LTE 700	SBNH-1D6565C_725MHz_09DT	15.6	300	9	0	FIBER	45.01	0								
	PORT 2		11162.A.700.4G.1	UTL04002_7A_1		LTE 700	SBNH-1D6565C_725MHz_09DT	15.6	300	9	0	FIBER	45.01	0								
ANTENNA POSITION 2	PORT 1		11162.C.850.25G.1	SLKCUT4002Z		GSM 850	7780_0850_14.5_12dg	14.5	300	12	0	LDF6-50 at 850 MHz	65.52	0			NO	12.58	223.87			
	PORT 2		11162.C.850.25G.1	SLKCUT4002Z		GSM 850	7780_0850_14.5_12dg	14.5	300	12	0	LDF6-50 at 850 MHz	65.52	0			NO	12.58	223.87			
	PORT 3		11162.C.1900.25G.1	SLKCUT4002C		GSM 1900	7780_1900_14.8_07dg	14.8	300	7	0	LDF6-50 at 1900 MHz	48.03	0			NO	11.22	213.79			
	PORT 4		11162.C.1900.25G.1	SLKCUT4002C		GSM 1900	7780_1900_14.8_07dg	14.8	300	7	0	LDF6-50 at 1900 MHz	48.03	0			NO	11.22	213.79			
ANTENNA POSITION 3	PORT 1		11162.C.850.3G.1	UTUTU4002Z		UMTS 850	7750.00_2_849_10	14.3	300	10	0	AVAS-50 @ 850	45.01	0			NO					
	PORT 2		11162.C.850.3G.1	UTUTU4002Z		UMTS 850	7750.00_2_849_10	14.3	300	10	0	AVAS-50 @ 850	45.01	0			NO					
	PORT 3		11162.C.1900.3G.2	UTUTV4002C		UMTS 1900	7750.00_2_1920_5	17.6	300	5	0	AVAS-50 @ 1900	45.01	0			NO					
	PORT 4		11162.C.1900.3G.3	UTUTV4002C		UMTS 1900	7750.00_2_1920_5	17.6	300	5	0	AVAS-50 @ 1900	45.01	0			NO					

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**ALPINE**  
**FA#10088454**  
10 EAST 600 SOUTH  
ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2.8**

Section 17A - FINAL SECTOR/CELL INFORMATION - SECTOR A (OR OMNI)

ANTENNA COMMON FIELDS	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5	ANTENNA POSITION 6	ANTENNA POSITION 7
ANTENNA MAKE - MODEL	SBNHH-1D65C	7780	7750.00				
ANTENNA VENDOR	Andrew	Powerwave	Powerwave				
ANTENNA SIZE (H x W x D)	96.4X11.9X7.1	546X11X5	57X11X5				
ANTENNA HEIGHT	66.1	33	35				
AZIMUTH	50	50	50				
MAGNETIC DECLINATION							
RADIATION CENTER (feet)	29.5	20.6	12.9				
ANTENNA TIP HEIGHT	33.5	22.6	14.9				
MECHANICAL DOWNTILT	0	0	0				
FEEDER AMOUNT							
Antenna RET Motor (QTY/MODEL)							
SURGE ARRESTOR (QTY/MODEL)							
DIPLEXER (QTY/MODEL)							
DUPLEXER (QTY/MODEL)							
Antenna RET CONTROL UNIT (QTY/MODEL)							
DC BLOCK (QTY/MODEL)							
TMA/LNA (QTY/MODEL)							
CURRENT INJECTORS FOR TMA (QTY/MODEL)							
PDU FOR TMA (QTY/MODEL)							
FILTER (QTY/MODEL)							
RRH - 700 band (QTY/MODEL)	1	RRH2x40W-07L					
RRH - 850 band (QTY/MODEL)							
RRH - 1900 band (QTY/MODEL)	1	RRH2x60-1900A-4R					
RRH - AWS band (QTY/MODEL)							
RRH - WCS band (QTY/MODEL)							
Additional RRH #1 - any band (QTY/MODEL)							
Additional RRH #2 - any band (QTY/MODEL)							
Additional Component1 (QTY/MODEL)							
Additional Component2 (QTY/MODEL)							
Additional Component3 (QTY/MODEL)							
Local Market Note1							
Local Market Note2							
Local Market Note3							

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoll)	ATOLL TXID	TX/RX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/Integrated/None)	FEEDERS TYPE	Feeder Length (feet)	RX/IT KIT MODULE?	TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MODULE?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID		
ANTENNA POSITION 1	PORT 1		11162.A.700.4G.1	UTL04002_7A_1	TX/RX	LTE 700	SBNHH-1D65C_725MHz_01DT	15.6	50	1	TOP	FIBER	45.01	0									
	PORT 2		11162.A.700.4G.1	UTL04002_7A_1	TX/RX	LTE 700	SBNHH-1D65C_725MHz_01DT	15.6	50	1	TOP	FIBER	45.01	0									
	PORT 3		11162.A.1900.4G.1	UTL04002_9A_1	TX/RX	LTE 1900	SBNHH-1D65C	18.1	50	0	TOP	FIBER	45.01	0									
	PORT 4		11162.A.1900.4G.1	UTL04002_9A_1	RX	LTE 1900	SBNHH-1D65C	18.1	50	0	TOP	FIBER	45.01	0									
	PORT 5		11162.A.1900.4G.1	UTL04002_9A_1	RX	LTE 1900	SBNHH-1D65C	18.1	50	0	TOP	FIBER	45.01	0									
	PORT 6		11162.A.1900.4G.1	UTL04002_9A_1	TX/RX	LTE 1900	SBNHH-1D65C	18.1	50	0	TOP	FIBER	45.01	0									
ANTENNA POSITION 2	PORT 1		11162.A.850.25G.1	SLKCUT4002X	TX/RX	GSM 850	7780_0850_14.5_02dg	14.5	50	2	0	LDF6-50 at 850 MHz	65.52	0			NO	12.58	223.87				
	PORT 2		11162.A.850.25G.1	SLKCUT4002X	TX/RX	GSM 850	7780_0850_14.5_02dg	14.5	50	2	0	LDF6-50 at 850 MHz	65.52	0			NO	12.58	223.87				
	PORT 3		11162.A.1900.25G.1	SLKCUT4002A	TX/RX	GSM 1900	7780_1900_14.8_00dg	14.8	50	0	0	LDF6-50 at 1900 MHz	48.03	0			NO	12.58	239.88				
	PORT 4		11162.A.1900.25G.1	SLKCUT4002A	TX/RX	GSM 1900	7780_1900_14.8_00dg	14.8	50	0	0	LDF6-50 at 1900 MHz	48.03	0			NO	12.58	239.88				
ANTENNA POSITION 3	PORT 1		11162.A.850.3G.1	UTUTU4002X	TX/RX	UMTS 850	7750.00_2_849_2	14.1	50	2	0	AVAS-50 @ 850	45.01	0			NO						
	PORT 2		11162.A.850.3G.1	UTUTU4002X	TX/RX	UMTS 850	7750.00_2_849_2	14.1	50	2	0	AVAS-50 @ 850	45.01	0			NO						
	PORT 3		11162.A.1900.3G.2	UTUTV4002A	TX/RX	UMTS 1900	7750.00_2_1920_0	17.6	50	0	0	AVAS-50 @ 1900	45.01	0			NO						
	PORT 4		11162.A.1900.3G.3	UTUTV4002A	TX/RX	UMTS 1900	7750.00_2_1920_0	17.6	50	0	0	AVAS-50 @ 1900	45.01	0			NO						

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES



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TAYLORSVILLE, UTAH 84123

**GENERAL DYNAMICS**  
Information Technology

1152 W 2400 S, SUITE C  
SALT LAKE CITY, UTAH 84119



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**FA#10088454**  
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ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2.9**

**Section 17B - FINAL SECTOR/CELL INFORMATION - SECTOR B**

ANTENNA COMMON FIELDS	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5	ANTENNA POSITION 6	ANTENNA POSITION 7
ANTENNA MAKE - MODEL	SBNHH-1D65C	7780	7750.00				
ANTENNA VENDOR	Andrew	Powerwave	Powerwave				
ANTENNA SIZE (H x W x D)	96.4X11.9X7.1	546X11X5	57X11X5				
ANTENNA WEIGHT	66.1	33	35				
AZIMUTH	160	160	160				
MAGNETIC DECLINATION							
RADIATION CENTER (feet)	29.5	20.6	12.9				
ANTENNA TIP HEIGHT	33.5	22.6	14.9				
MECHANICAL DOWNTILT	0	0	0				
FEEDER AMOUNT							
Antenna RET Motor (QTY/MODEL)							
SURGE ARRESTOR (QTY/MODEL)							
DIPLEXER (QTY/MODEL)							
DUPLEXER (QTY/MODEL)							
Antenna RET CONTROL UNIT (QTY/MODEL)							
DC BLOCK (QTY/MODEL)							
TMA/LNA (QTY/MODEL)							
CURRENT INJECTORS FOR TMA (QTY/MODEL)							
PDU FOR TMAS (QTY/MODEL)							
FILTER (QTY/MODEL)							
RRH - 700 band (QTY/MODEL)	1	RRH2x40W-07L					
RRH - 850 band (QTY/MODEL)							
RRH - 1900 band (QTY/MODEL)	1	RRH2x60-1900A-4R					
RRH - AWS band (QTY/MODEL)							
RRH - WCS band (QTY/MODEL)							
Additional RRH #1 - any band (QTY/MODEL)							
Additional RRH #2 - any band (QTY/MODEL)							
Additional Component1 (QTY/MODEL)							
Additional Component2 (QTY/MODEL)							
Additional Component3 (QTY/MODEL)							
Local Market Note1							
Local Market Note2							
Local Market Note3							

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoll)	ATOLL TXID	TX/RX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Battery/Integrated/None)	FEEDERS TYPE	Feeder Length (feet)	RX/IT KIT MODULE?	TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCP/AMCPA MODULE?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID	
ANTENNA POSITION 1	PORT 1		11162.B.700.4G.1	UTL04002_7B_1	TX/RX	LTE 700	SBNHH-1D65C_725MHz_090T	15.6	160	9	TOP	FIBER	45.01	0								
	PORT 2		11162.B.700.4G.1	UTL04002_7B_1	TX/RX	LTE 700	SBNHH-1D65C_725MHz_090T	15.6	160	9	TOP	FIBER	45.01	0								
	PORT 3		11162.B.1900.4G.1	UTL04002_9B_1	TX/RX	LTE 1900	SBNHH-1D65C	18.1	160	4	TOP	FIBER	45.01	0								
	PORT 4		11162.B.1900.4G.1	UTL04002_9B_1	RX	LTE 1900	SBNHH-1D65C	18.1	160	4	TOP	FIBER	45.01	0								
	PORT 5		11162.B.1900.4G.1	UTL04002_9B_1	RX	LTE 1900	SBNHH-1D65C	18.1	160	4	TOP	FIBER	45.01	0								
	PORT 6		11162.B.1900.4G.1	UTL04002_9B_1	TX/RX	LTE 1900	SBNHH-1D65C	18.1	160	4	TOP	FIBER	45.01	0								
ANTENNA POSITION 2	PORT 1		11162.B.850.25G.1	SLKCUT4002Y	TX/RX	GSM 850	7780_0850_14.5_12dg	14.5	160	12	0	LDF6-50 at 850 MHz	65.52	0			NO	7.07	125.89			
	PORT 2		11162.B.850.25G.1	SLKCUT4002Y	TX/RX	GSM 850	7780_0850_14.5_12dg	14.5	160	12	0	LDF6-50 at 850 MHz	65.52	0			NO	7.07	125.89			
	PORT 3		11162.B.1900.25G.1	SLKCUT4002B	TX/RX	GSM 1900	7780_1900_14.8_06dg	14.8	160	6	0	LDF6-50 at 1900 MHz	48.03	0			NO	7.07	134.89			
	PORT 4		11162.B.1900.25G.1	SLKCUT4002B	TX/RX	GSM 1900	7780_1900_14.8_06dg	14.8	160	6	0	LDF6-50 at 1900 MHz	48.03	0			NO	7.07	134.89			
ANTENNA POSITION 3	PORT 1		11162.B.850.3G.1	UTUTU4002Y	TX/RX	UMTS 850	7750.00_2_849_10	14.3	160	10	0	AVAS-50 @ 850	45.01	0			NO					
	PORT 2		11162.B.850.3G.1	UTUTU4002Y	TX/RX	UMTS 850	7750.00_2_849_10	14.3	160	10	0	AVAS-50 @ 850	45.01	0			NO					
	PORT 3		11162.B.1900.3G.2	UTUTV4002B	TX/RX	UMTS 1900	7750.00_2_1920_5	17.6	160	5	0	AVAS-50 @ 1900	45.01	0			NO					
	PORT 4		11162.B.1900.3G.3	UTUTV4002B	TX/RX	UMTS 1900	7750.00_2_1920_5	17.6	160	5	0	AVAS-50 @ 1900	45.01	0			NO					

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ALPINE, UT 84004  
WOOD POLE

SHEET TITLE  
**RFDS**  
**DATA SHEET**

SHEET NUMBER  
**RF-2.10**

Section 17C - FINAL SECTOR/CELL INFORMATION - SECTOR C

ANTENNA COMMON FIELDS	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5	ANTENNA POSITION 6	ANTENNA POSITION 7
ANTENNA MAKE - MODEL	SBNHH-1D65C	7780	7750.00				
ANTENNA VENDOR	Andrew	Powerwave	Powerwave				
ANTENNA SIZE (H x W x D)	96.4X11.9X7.1	546X11X5	57X11X5				
ANTENNA WEIGHT	66.1	33	35				
AZIMUTH	300	300	300				
MAGNETIC DECLINATION							
RADIATION CENTER (feet)	29.5	20.6	12.9				
ANTENNA TIP HEIGHT	33.5	22.6	14.9				
MECHANICAL DOWNTILT	2	0	4				
FEEDER AMOUNT							
Antenna RET Motor (QTY/MODEL)							
SURGE ARRESTOR (QTY/MODEL)							
DIPLEXER (QTY/MODEL)							
DUPLEXER (QTY/MODEL)							
Antenna RET CONTROL UNIT (QTY/MODEL)							
DC BLOCK (QTY/MODEL)							
TMA/LNA (QTY/MODEL)							
CURRENT INJECTORS FOR TMA (QTY/MODEL)							
PDU FOR TMAS (QTY/MODEL)							
FILTER (QTY/MODEL)							
RRH - 700 band (QTY/MODEL)	1	RRH2x40W-07L					
RRH - 850 band (QTY/MODEL)							
RRH - 1900 band (QTY/MODEL)	1	RRH2x60-1900A-4R					
RRH - AWS band (QTY/MODEL)							
RRH - WCS band (QTY/MODEL)							
Additional RRH #1 - any band (QTY/MODEL)							
Additional RRH #2 - any band (QTY/MODEL)							
Additional Component1 (QTY/MODEL)							
Additional Component2 (QTY/MODEL)							
Additional Component3 (QTY/MODEL)							
Local Market Note1							
Local Market Note2							
Local Market Note3							

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoll)	ATOLL TXID	TX/RX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/Integrated/None)	FEEDERS TYPE	Feeder Length (feet)	RX/IT KIT MODULE?	TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MODULE?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID			
ANTENNA POSITION 1	PORT 1		11162.C.700.4G.1	UTL04002_7C_1	TX/RX	LTE 700	SBNHH-1D65C_725MHz_09DT	15.6	300	9	TOP	FIBER	45.01	0										
	PORT 2		11162.C.700.4G.1	UTL04002_7C_1	TX/RX	LTE 700	SBNHH-1D65C_725MHz_09DT	15.6	300	9	TOP	FIBER	45.01	0										
	PORT 3		11162.C.1900.4G.1	UTL04002_9C_1	TX/RX	LTE 1900	SBNHH-1D65C	18.1	300	3	TOP	FIBER	45.01	0										
	PORT 4		11162.C.1900.4G.1	UTL04002_9C_1	RX	LTE 1900	SBNHH-1D65C	18.1	300	3	TOP	FIBER	45.01	0										
	PORT 5		11162.C.1900.4G.1	UTL04002_9C_1	RX	LTE 1900	SBNHH-1D65C	18.1	300	3	TOP	FIBER	45.01	0										
	PORT 6		11162.C.1900.4G.1	UTL04002_9C_1	TX/RX	LTE 1900	SBNHH-1D65C	18.1	300	3	TOP	FIBER	45.01	0										
ANTENNA POSITION 2	PORT 1		11162.C.850.25G.1	SLKCUT4002Z	TX/RX	GSM 850	7780_0850_14.5_12dg	14.5	300	12	0	LDF6-50 at 850 MHz	65.52	0			NO	12.58	223.87					
	PORT 2		11162.C.850.25G.1	SLKCUT4002Z	TX/RX	GSM 850	7780_0850_14.5_12dg	14.5	300	12	0	LDF6-50 at 850 MHz	65.52	0			NO	12.58	223.87					
	PORT 3		11162.C.1900.25G.1	SLKCUT4002C	TX/RX	GSM 1900	7780_1900_14.8_07dg	14.8	300	7	0	LDF6-50 at 1900 MHz	48.03	0			NO	11.22	213.79					
	PORT 4		11162.C.1900.25G.1	SLKCUT4002C	TX/RX	GSM 1900	7780_1900_14.8_07dg	14.8	300	7	0	LDF6-50 at 1900 MHz	48.03	0			NO	11.22	213.79					
ANTENNA POSITION 3	PORT 1		11162.C.850.3G.1	UTUTU4002Z	TX/RX	UMTS 850	7750.00_2_849_10	14.3	300	10	0	AVAS-50 @ 850	45.01	0			NO							
	PORT 2		11162.C.850.3G.1	UTUTU4002Z	TX/RX	UMTS 850	7750.00_2_849_10	14.3	300	10	0	AVAS-50 @ 850	45.01	0			NO							
	PORT 3		11162.C.1900.3G.2	UTUTV4002C	TX/RX	UMTS 1900	7750.00_2_1920_5	17.6	300	5	0	AVAS-50 @ 1900	45.01	0			NO							
	PORT 4		11162.C.1900.3G.3	UTUTV4002C	TX/RX	UMTS 1900	7750.00_2_1920_5	17.6	300	5	0	AVAS-50 @ 1900	45.01	0			NO							

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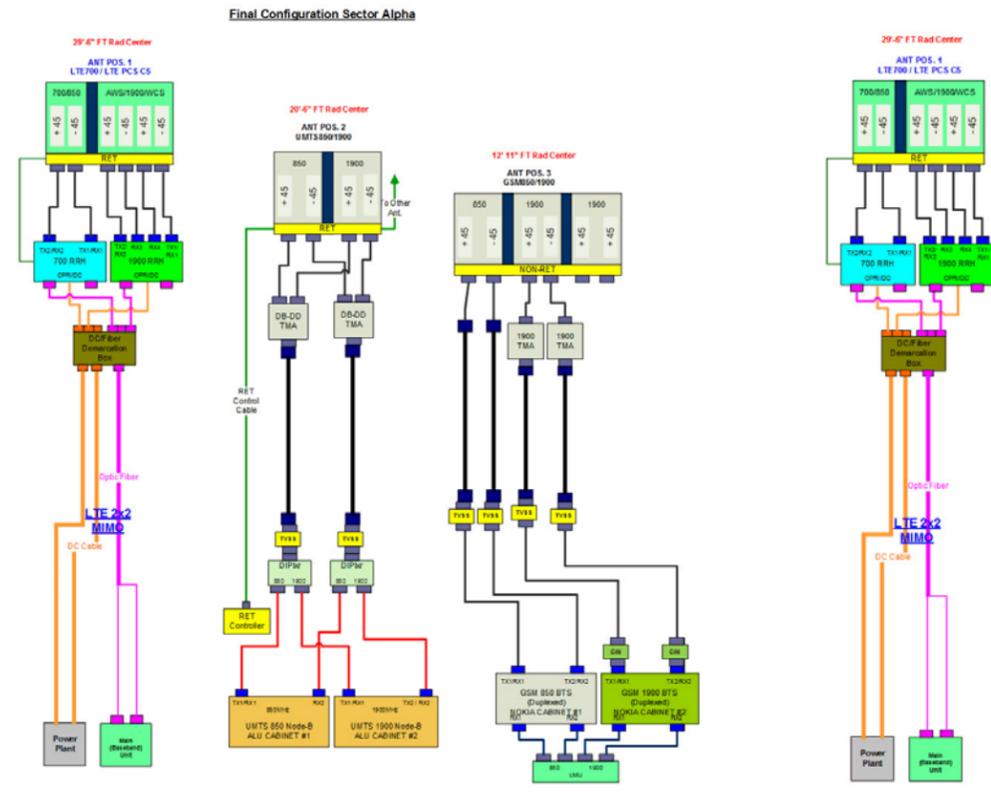
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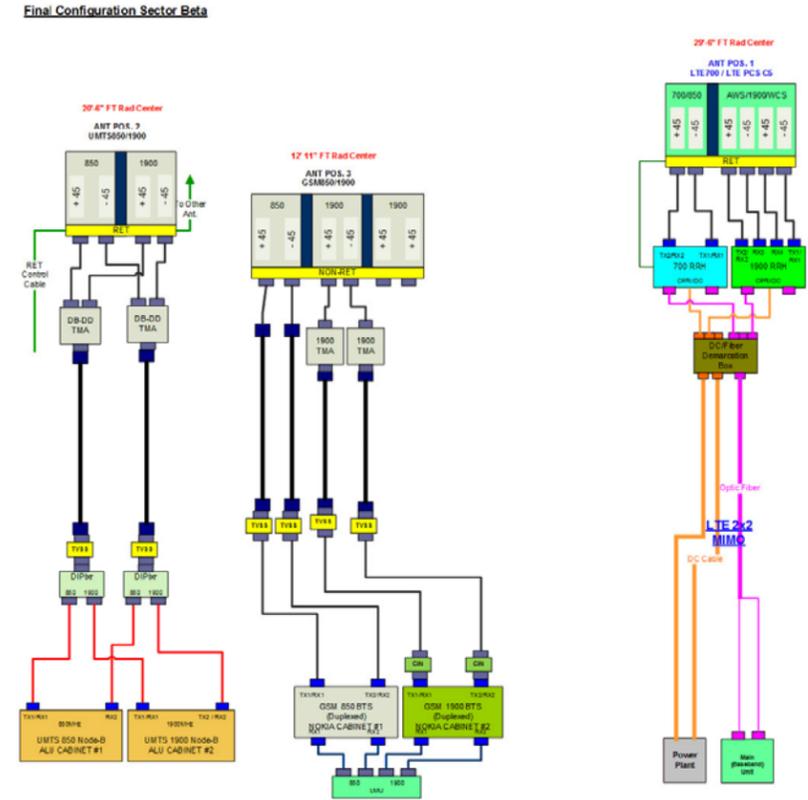
SHEET TITLE  
**RFDS**  
**DIAGRAMS**

SHEET NUMBER  
**RF-2.11**

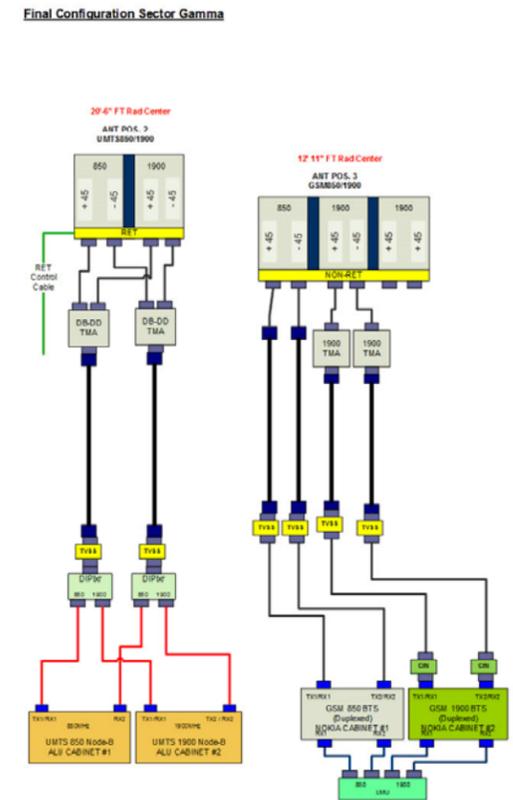
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**ALPHA SECTOR**



**BETA SECTOR**



**GAMMA SECTOR**

## **ALPINE PLANNING COMMISSION AGENDA**

**SUBJECT:** Alpine City Open Space

**FOR CONSIDERATION ON:** 4 November 2014

**PETITIONER:** Staff

**ACTION REQUESTED BY PETITIONER:** Discuss and Make Recommendation

**BACKGROUND INFORMATION:**

See attached memo from staff.

**RECOMMENDED ACTION:**

Discuss open space in Alpine City and make a recommendation to the City Council.

# MEMO



To: Planning Commission  
From: Jason Bond and Rich Nelson  
Date: November 4, 2014  
Subject: Public vs. Private Open Space

Access to the mountains and open space is part of what makes Alpine City such a wonderful place. We highly recommend having trails and open space to make a city more livable. Our concern is that trails and open space in Alpine City is not being utilized to its maximum potential.

By definition public open space is land that is open to the public without any access restrictions while private open space is open areas that can be enjoyed for view related purposes by the general public but cannot be accessed by the general public. Such access to private open space is granted to the owners of the private open space, usually the home owners of the subdivision. The general purpose of open space is to provide areas in a city where open spaces can be enjoyed for their aesthetic beauty and can be used for trails to access other trails, parks and forest land.

Alpine City gives the developers of subdivisions the opportunity to secure a number of benefits for their subdivision if they are willing to provide public or private open space in their developments. The benefits include mostly an increase in density or configuration related opportunities. The City grants the developer more benefits for giving public open space and fewer benefits for giving private open space. In the urban national forest transition area developers are required to utilize the PRD concept for their development. The purpose of this requirement is to provide both, spaces that are left natural and to provide access points to the national forest.

There are a number of questions that Alpine City should address regarding public vs. private open space as it approaches built out. These questions are as follows:

1. Should public and private open space subdivision requests get the same number of benefits or should public open space receive more benefits?
2. From this point on, should public open space be only natural open space or should it be a mixture of natural open space and groomed open space?
3. If it is only natural open space, should the City be responsible for the area where it is adjacent to private lots?

4. Does the City want only public open space where there is an obvious public purpose?
5. Should trails and open spaces be maintained?
6. Who pays for maintaining all the public open space and trails?
7. Should the neighbors of public open space and trails be responsible for maintaining those spaces and trails?
8. Who decides which open spaces and trails are maintained by the City and which ones are not maintained?
9. What areas of trails and open space are highest on the City's priority list?
10. Should the City have a master plan for the development of open space and for trails regardless of proposed developments?

The major issues are:

1. Who gets the benefits?
2. How does access to open space work?
3. Who provides maintenance?
4. How is all of this paid for?
5. Are we master planning or just reacting?
6. Should we master plan the current areas of open space?

**ALPINE CITY PLANNING COMMISSION MEETING at  
Alpine City Hall, 20 North Main, Alpine, Utah  
Oct 21, 2014**

**I. GENERAL BUSINESS**

**A. Welcome and Roll Call:** The meeting was called to order at 7:05pm by Co-Chairman Judi Pickell. The following commission members were present and constituted a quorum.

Chairman:

Commission Members: Bryce Higbee, Steve Cosper, David Fotheringham, Chuck Castleton, Steve Swanson, Judi Pickell

Commission Members Not Present: Jason Thelin

Staff: Jason Bond, Marla Fox, Jed Muhlestein

Others: Will Jones, Gale Rudolph, Bruce Baird, Laird Bellon, Margaret Bellon, Jeff Neil, Bob Antrim, Lisa Brown, Paul Bennett, Colin Grant, Lon Lott, Dancy Brockbank, Jan Braithwaite, Marla Rogers, Bruce Parker, Jay Beck, Martha Beck, Erin Darlington

**B. Prayer/Opening Comments:** Steve Swanson

**II. PUBLIC COMMENT**

Judi Pickell asked the Planning Commission members to consider saying the Pledge of Allegiance at the Planning Commission meetings.

**III. ACTION ITEMS**

**A. Hangan Estates Plat A Amendment**

Jason Bond said this is an ongoing, recorded and approved development but the developer is here for an amendment on the plat and proceed forward with a new plan.

The proposed Three Falls Ranch development consists of 54 lots on 725 acres. The lots range in size from 1.37 to 6.96 acres. The development is located at the north end of Fort Canyon in the CE-5 zone. This proposal is to amend the existing Hangan Estates plat with the submitted Three Falls Ranch preliminary plat. The developer wishes to phase the project and obtain Final Approval for each phase of construction with its associated plat as they progress.

The first phase would include 5 lots, improvements to Fort Canyon Road, a water tank, infrastructure to support the development, and 2.5 acres of developed open space which includes a parking area and trailhead.

Development of this property has been in the works since 1984. Much work and effort from both the developer and the City has taken place over the years. From recent discussions, there are three remaining obstacles to overcome, which are:

1. Fort Canyon Road Improvements.
2. The Beck properties and whether or not they should be part of the development.
3. What to do with Sliding Rock

Jason Bond said two weeks ago, we had our City Attorney here and he gave a history of this development and said this is a complicated development. Steve Swanson said he would like to know more about the natural fault lines. Jed Muhlestein said they have done geological hazard studies and we have to make sure the building pads are away from the fault lines. Jed Muhlestein said the developer is aware of this and will keep an eye on it and they will know more once they start digging. Steve Cosper said the fault lines on the map are estimated and advisory to people, it is not the law. Jed Muhlestein said we will warn people but legally, you can build on a fault line. Chuck Castleton asked if a study is required. Will Jones said we have this information because a study was already done a few years ago. He said that is why the development can't just add a few more lots because the lots have to work around the fault lines.

1 Steve Swanson asked Will Jones if any contact was made with the Beck family. Will Jones said nothing was able to  
2 be accomplished with that. They were not able to reach a compromise and mostly because of price. Will Jones said  
3 they have spent a lot of time and money for this development and the studies he has done show that he can't get an  
4 additional seven lots in the development. This is the number of lots the Beck family would like out of the deal. Will  
5 Jones said he can come up with two lots only and would have to rearrange all the other lots in order to get the  
6 additional five lots. Will Jones said it would have to make financial sense to make the money needed to cover the  
7 cost of buying the Beck family property. He said he has deeded property for an access road to the Beck property  
8 and would like the road to be seventy five feet away from his lots.  
9

10 Steve Cospers asked why there hasn't been some sort of engineered plan with the Beck family in the last thirty years;  
11 why has there been no viable solution? Will Jones said the issue is expense and the ordinance requires two road,  
12 water system, and sewer. Steve Cospers said if there is no engineering plan for the Beck property and never as been,  
13 is all this talk about seven lots just to drive the price of the land up? Will Jones said yes. He said there are seven  
14 lots on the Beck property based on a slope analysis but how do you get to them, how do you get amenities up there.  
15 Bruce Baird said this is simply a case of one property owner trying to use the leverage of the Planning Commission  
16 and the City Council to extort money from another neighboring developer.  
17

18 Steve Cospers asked Will Jones if he owned the Beck property, would he have a plan to develop it and is it feasible to  
19 develop there. Will Jones said no, it is not feasible because you would need to build forty foot high retaining walls.  
20 Jed Muhlestein said engineering staff would be highly against that as well because it is way too much road for such  
21 a small number of lots and way too much road for the City to maintain.  
22

23 Bruce Parker said the Beck family provided the City with engineering a few years ago. He said they feel like the  
24 property is developable and that is their plan to develop. He said they want to look at all of their options. Bruce  
25 Parker said with the revised design layout of the Three Falls development, he would like to look at a new place to  
26 stub a street to the Beck property. Steve Cospers said it is the responsibility of the first developer to stub a street and  
27 then the next property can connect from there. Bruce Parker said the ordinance requires the developer has to stub  
28 two streets.  
29

30 Jed Muhlestein said the Fort Canyon improvements have been discussed and is part of a development agreement in  
31 order for the development to be able to amend the plat and get more lots. Part of that agreement, which has not been  
32 written up yet, is for them to provide funds for the City to upgrade that road and make it a safer road and to be able  
33 to get more vehicles up to their development. Jed Muhlestein said the developers have worked with the City  
34 engineers quite a bit and through the DRC meetings to come up with the road cross section. This is not a typical  
35 road cross section but the DRC felt like this was a good compromise because a typical road cross section would  
36 require pretty extensive retaining walls. The City does not want this because they do not want to maintain it.  
37

38 Jed Muhlestein said what is being proposed is no sidewalk, but a little bit more asphalt on the right side that would  
39 be striped for bikers and runners. Judi Pickell asked if parking would be allowed and Jed Muhlestein said no. Jason  
40 Bond said this would be curb and gutter and two ten foot travel lanes a 4 foot road bike lane on one side. Chuck  
41 Castleton said he sees the need for the narrower profile but has concerns about safety especially with more homes  
42 being built up Fort Canyon. Will Jones said if the bike lane is inside the sidewalk, it raises the elevation and also  
43 with it being on the outside, it will get plowed and can be used all year long. He said the road will actually be 28  
44 feet in width when you add the curb and gutter; his requirement was only 24 feet and they added extra to make it  
45 better. Bryce Higbee said it needs to be more than just stripes. He said it needs reflectors in the road to help light it  
46 up at night. Jed Muhlestein said rumble stripes may work better because the snow plows may tear out the reflectors.  
47

48 Judi Pickell asked how many homes are currently up Fort Canyon. Will Jones said there are 28 homes with a few  
49 more coming in the near future with the Larsen subdivision and a few empty buildable lots. He said he will be  
50 adding 54 new lots and has acquired an easement for the road. He said his improvements will help several  
51 homeowners with runoff. With this plan there will be no parking on the side of the road. Bryce Higbee asked where  
52 parking was going to be. Will Jones said they are building a public parking spot at the bottom of the development so  
53 the public can access the trailhead. Judi Pickell asked where homeowner's guests will park for an event, party or  
54 wedding. Will Jones said they will do the same thing the rest of the canyon does and that is shuttle guests up the  
55 canyon. He also mentioned that these lots will all be over an acre and will have big driveways that are set way back  
56 and can handle multiple vehicles.

1  
2 Judi Pickell asked Will Jones if he was comfortable with the amount of parking he was providing. Will Jones said  
3 he can handle the normal amount of walkers and bikers which is about 100 people, but he can't handle 400 people  
4 who come from out of the area to visit Sliding Rock. He said the development doesn't want Sliding Rock and  
5 doesn't want the responsibility and liability of it. He said their maps show that area as public open space.

6  
7 Bruce Baird said there is something called the Recreational Land Owner Limitation Liability Act. This Act states  
8 that if you do not charge, then you are not responsible for any negligence. He said you can't be reckless, but  
9 generally, if you don't charge then you won't be charged with negligence even if you provide assistance. Bryce  
10 Higbee said it is an issue of getting insured and having coverage. Mr. Baird said the City's insurance would be  
11 covering it anyway and would not be liable because there is a specific immunity under the state law for landowners  
12 who use their property for recreational purposes for free. Steve Cosper said this has been a feature in Alpine for  
13 decades and it would be a shame to shut it down. Judi Pickell said the purpose of the Planning Commission is to  
14 recommend ways that we can keep it if we want it and the City Council's responsibility to figure out the access, and  
15 manage the liability. Steve Cosper said a good trail and control the parking and you're there because liability isn't  
16 an issue.

17  
18 Judi Pickell asked how far it is to walk to Sliding Rock from the proposed parking lot. Will Jones said it is about a  
19 mile and people are walking on the road because it's a lot of moms with strollers. He said they would have to have  
20 the area gated with a guard shack and once the parking lot is full, people will have to be turned away. He said the  
21 City can own the property and the developers will help regulate it. He said there is a big issue with people coming  
22 from all over the state to visit Sliding Rock. There is not enough parking up the canyon, people are ignoring the no  
23 trespassing signs, and they are ignoring the no fire rules. They have no consideration for the neighbors and the time  
24 they are up there, and the rules they are breaking. Judi Pickell asked if our Police and Fire departments have said  
25 anything about the City taking this responsibility on. Jason Bond said they hate the idea because they despise the  
26 idea of going up Fort Canyon and writing tickets. He said the City has had a dozen meetings on the Sliding Rock  
27 issue with the Police and Fire departments and they do not want it and neither does the City staff. Steve Cosper said  
28 maybe the fines need to be stiffer and the word will get out about it.

29  
30 Steve Cosper asked if the stub street needed to be discussed because it is not a recommended action. Jason Bond  
31 said that David Church said to approve it with a stub street to the edge of the property or approve it without a stub  
32 street and an easement.

33  
34 **MOTION:** Bryce Higbee moved to recommend Preliminary approval for the proposed amended plat for Three  
35 Falls Ranch with the following conditions:

- 36  
37 1. The City will prepare a development agreement outlining the requirements of the development.  
38 The City Attorney will determine the appropriate time for the signing of the agreement.  
39 2. Prior to final approval, the developer submit lot slope calculations, lot specific geotechnical &  
40 geologic hazard studies, construction drawings for developed open space and infrastructure, anything  
41 deemed necessary to ensure the safety and welfare of the public, and anything needed to ensure city  
42 ordinances are met.  
43 3. Fort Canyon Road improvements be allowed as proposed.  
44 4. Sliding Rock remain as public open space.  
45 5. Private open space be trimmed to allow more public open space.  
46 6. Include a North/South trail up to Three Falls.  
47 7. Fort Canyon Road and the road to Three Falls include raised reflectors and/or rumble stripes.

48  
49 David Fotheringham recused himself because of family ties to the property.

50  
51 Steve Swanson seconded the motion. The motion passed with 5 Ayes and 0 Nay. Bryce Higbee, Steve Cosper,  
52 Chuck Castleton, Steve Swanson, and Judi Pickell all voted Aye.

#### 53 54 **B. Business Commercial Zone Boundaries**

55 Jason Bond said it has been brought up in previous meetings that the current Business Commercial zone boundaries  
56 are not realistic and should be reconsidered. He showed a map of the existing boundaries and a proposed amended

1 area that was prepared by staff. Any Business Commercial activities in the rezoned area would be grandfathered  
2 and will be able to continue operating the way it does currently. He also said a new business could come into an  
3 existing building because it would be based on the land use. The reason for the change is because the northern part  
4 of the current Business Commercial zone is mostly residential.

5  
6 Judi Pickell said you get into messy, legal situations when you grandfather properties. She said she would rather see  
7 the zone stay the same. Bryce Higbee said Main Street should be Business Commercial. Maybe you could cut out  
8 the secondary properties west of Main Street but you can't have one side of Main Street be Commercial and the  
9 other side not. Jason Bond said we aren't promoting businesses coming into the residential area, they don't seem to  
10 thrive. The Planning commission said to streamline the area but keep it how it is, they said we can promote  
11 businesses where we want them but leave the zone how it is.

12  
13 Jason Bond said this defined boundary reflects a smaller Business Commercial area that will hopefully not just be  
14 zoned Business Commercial, but is actively encouraged to be Commercial in its use. A sales tax leakage study is  
15 currently being done that will help Alpine City better understand what types of Commercial activities will work in  
16 this area. The results of this study will be presented within the next month.

17  
18 Staffs suggest readdressing the regulations within the Business Commercial zone and amend the ordinance as  
19 necessary. Staff would also suggest continuing to plan for what would be the best zoning designation for the  
20 property that has frontage on Alpine Highway south of the roundabout. Bryce Higbee asked if the City wanted this  
21 property to be for residential homes or to extend our Commercial Business zone into this area. Steve Swanson said  
22 that is the only area that could be extended for Commercial properties.

23  
24 Jason Bond showed on a map what a future Commercial zone could look like with property included south of the  
25 roundabout. He said it would not be wise to rezone this area until there is a much clearer vision or an actual  
26 proposed plan. Judi Pickell said we can say in our General Plan that this property is Business Commercial. That  
27 way, if the owners want to come in and present a plan to build Commercial, we can say yes, that's allowed in our  
28 Business Commercial for you to do that. Then we can move forward when everyone comes in to fight that decision.  
29 She said we shouldn't move forward in rezoning someone else's property because that could be considered a taking.

30  
31 Steve Swanson said there is a dual use in the Business Commercial zone and we could end up getting something we  
32 don't like with the mixed use. Jason Bond said we need to decide if we want housing on this property because right  
33 now 10,000 square foot lots are allowed in the Business Commercial zone. He said if we want this to be Business  
34 Commercial, then let's talk about zoning it that way and promote Commercial and have a plan in mind. Bryce  
35 Higbee asked Jason Bond if he is saying no residential in this area. Jason Bond said we need to have a plan in place.

36  
37 Jason Bond read from ordinance 3.7.2 in the Business Commercial zone where it states under permitted uses:

- 38  
39 7. Single unit detached dwellings located on a lot in a recorded subdivision and subject to compliance  
40 with the applicable conditions within the zone.  
41 8. Residential structures, provided that said structures existed as a residence prior to the affected date of  
42 this chapter.  
43 9. Residential structures located within or on the same premises as a permitted or conditional Commercial  
44 use.  
45

46 The Planning Commission agreed that the zone needs to be cleaned up. Bryce Higbee said he doesn't want to  
47 rewrite a whole new zone for this area. The Planning Commission said they need to get input from the residents to  
48 see what they want to zone to look like. They suggested having a work meeting to spend more time on this issue.  
49 They also said they want to wait until the sales tax leakage study comes back so they have a reference point to lead  
50 the discussion. Judi Pickell said she would like to see a map of current operating businesses.

#### 51 52 **IV. COMMUNICATIONS**

53 Judi Pickell said she would like to see something in writing for the Historic Gateway criteria to help with future  
54 building. She would like to see it have historic content and she would like to have some sort of standard to follow.  
55

1 Jason Bond said AT&T gave the City a check for \$5,000 for trees to be planted around their tower on Shepherd's  
2 Hill. He said they were planted on October 21, 2014.

3

4 **V. APPROVAL OF PLANNING COMMISSION MINUTES OF:** Oct 07, 2014

5

6 **MOTION:** Steve Cospers moved to approve the Planning Commission Minutes for Oct 07, 2014 subject to changes.

7

8 David Fotheringham seconded the motion. The motion passed unanimously with 6 Ayes and 0 Nays. Bryce Higbee,  
9 Steve Cospers, David Fotheringham, Chuck Castleton, Steve Swanson and Judi Pickell all voted Aye.

10

11 Judi Pickell stated that the Planning Commission had covered all of the items on the agenda and adjourned the  
12 meeting at 8:50pm.

13

DRAFT