

#### ALPINE CITY COUNCIL PUBLIC HEARING & MEETING

NOTICE is hereby given that the CITY COUNCIL of Alpine City, Utah will hold a PUBLIC HEARING and a REGULAR MEETING on Tuesday, November 11, 2014 at 7:00 pm at Alpine City Hall, 20 North Main, Alpine, Utah as follows:

I. CALL MEETING TO ORDER\*

A. Roll Call: Mayor Don Watkins

B. Prayer: Troy StoutC. Pledge of Allegiance: By Invitation

II. PUBLIC COMMENT: The public may comment on items that are not on the agenda.

- III. CONSENT CALENDAR
  - A. Approve the minutes of October 14, 2014
- IV. REPORTS AND PRESENTATIONS
- V. ACTION/DISCUSSION ITEMS
  - A. County Zone Change Request: The City Council will discuss and take a position on the proposed amendment to the Utah County General Plan Land Use Element Map from Agricultural/Watershed to Residential, and amendment of the Official Utah County Zoning Map from the Critical Environment (CE-1) Zone to the Critical Environment (CE-2) and Transitional Residential (TR-5) Zones, 100 acres, located at approximately 13650 N. Grove Drive, Section 8, T4S R2E, Alpine area of Utah County.
  - B. Questar Property Purchase and Conditional Use Site Plan approx. 600 North Pfeifferhorn Drive: The City Council will review a proposal from Questar Gas Company to acquire some additional easement that would allow the installation of a new gas flow meter in an underground vault with a lid and some required above ground components, similar to those currently existing at this location.
  - C. AT&T Antenna Modification approx. 650 South Rocky Mountain Drive (Shepherd's Hill): The City Council will review the proposed site plan for an antenna modification.

#### PUBLIC HEARING - Ilangeni Estates Plat Amendment

- **D.** Ilangeni Estates Plat Amendment Three Falls Ranch Preliminary Plan Fort Canyon: The City Council will review the proposed Three Falls Ranch PRD preliminary plat consisting of 54 lots on 725 acres located at the north end of Fort Canyon Road.
- E. Open Space Discussion

The City Council will discuss Open Space in Alpine City including the advantages and disadvantages of public and private open space and review a recommendation made by the Planning Commission.

- VI. STAFF REPORTS
- VII. COUNCIL COMMUNICATION
- VIII. EXECUTIVE SESSION: Discuss litigation, property acquisition or the professional character, conduct or competency of personnel.

**ADJOURN** 

\*Council Members may participate electronically by phone.

Don Watkins, Mayor November 7, 2014

THE PUBLIC IS INVITED TO PARTICIPATE IN ALL CITY COUNCIL MEETINGS. If you need a special accommodation to participate, please call the City Recorder's Office at (801) 756-6241.

CERTIFICATE 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 the 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 our web site at <a href="https://www.alpinecity.org">www.alpinecity.org</a> and on the Utah Public Meeting Notices website at <a href="https://www.utah.gov/pmn/index.html">www.utah.gov/pmn/index.html</a>

1 2 3	ALPINE CITY COUNCIL MEETING ALPINE CITY HALL, 20 North Main, Alpine, UT October 14, 2014
3 4	October 14, 2014
5 6 7	<b>I. CALL MEETING TO ORDER:</b> The meeting was called to order at 7:15 pm by Mayor Don Watkins.
8 9	<b>A. Roll Call:</b> The following were present and constituted a quorum:
10	Mayor Don Watkins
11	Council Members: Roger Bennett, Will Jones, Kimberly Bryant participated by phone.
12	Council Members not present: Lon Lott and Troy Stout were excused.
13	Staff: Rich Nelson, Charmayne Warnock, David Church, Shane Sorensen, Jason Bond, Joe McCrae,
14	Brian Gwilliam
15 16	Others: Jadon Edwards, Andrew Hansen, Payton Bolder, Elijah Whisman, Justin Hunt, David Bolda, Gilbert Lamoureux, Chris Lamoureux, Cathy Lamoureux, Rachel Lamoureux, Melanie Ewing
17	D. Dromon, Donor Donath
18	B. Prayer: Roger Bennett C. Pledge of Allegiance: Taylor Anderson
19 20	C. Pledge of Allegiance: Taylor Anderson
21	II. PUBLIC COMMENT: Gilbert Lamoureux said he had completed his Eagle project which was to
22	paint the curbs adjacent to fire hydrants on the north and east side of Alpine. They painted curbs by 55
23	hydrants. He said one of the successes in his project was the number of people who showed up to help.
24	The challenges were the changing plans and supervising different groups in different locations. He
25	recommended that if the Council did the project again they should set some standards on the paint that
26	was used and the number of curbs and fire hydrants.
27	
28	Mayor Watkins said Kimberly Bryant had a sewer backup in the basement but was joining the meeting by
29	phone.
30	
31	III. CONSENT CALENDAR
32	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
33	A. Approve minutes of September 23, 2014  P. Final Poyment Progress Applied Overlay, Stalton & Borgon Companies, \$102, 210, 72
34 35	<ul> <li>B. Final Payment Request – Asphalt Overlay - Staker &amp; Parson Companies - \$192,319.72</li> <li>C. Payment Request – Beck and Beck – Box Elder Trail Water Line - \$53,163.16</li> </ul>
36	D. Resolution No. R2014-06 Appointing Jason Bond to the Utah Valley District Special Service
37	Board
38	E. Resolution No. R2014-07Amending the Consolidated Fee Schedule to reflect changes in the
39	Timpanogos Special Service District Impact Fee.
40	impunogos special service Bistriet impuet i ett
41	MOTION: Will Jones moved to approve the Consent Calendar which included a final payment to Staker
42	& Parson Companies in the amount of \$192,319.72 and a final payment to Beck and Beck for the Box
43	Elder Trail waterline in the amount of \$53,163.16. Roger Bennett seconded. Ayes: 3 Nays: 0. Will Jones,
44	Roger Bennett, Kimberly Bryant voted aye. Motion passed.
45	
46	IV. REPORTS AND PRESENTATIONS: None
47	
48	V. ACTION DISCUSSION ITEMS
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50 51	<b>A.</b> Old Moyle Mound PRD, Plat B - Final Plat Approval - Lon Nield: Plat B consisted of 3 lots on 1.92 acres on Quail Ridge. Shane Sorensen said that when Plat A was approved, one of the

conditions was that the developer provide an executable open space preservation easement agreement with Alpine City outlining the conditions for the private open space. but it had never been done. It would need to be provided with approval of Plat B.

**MOTION**: Will Jones moved to approve Olde Moyle Mound PRD, Plat B with the condition that it not be recorded until there was an executable preservation easement and agreement explaining what needed to be done and how the home owners association would handle it and outline details on trails and other items, and meet the water requirement. Roger Bennett seconded. Ayes: 3 Nays: 0. Will Jones, Roger Bennett, Kimberly Bryant voted aye. Motion passed.

**B.** Alpine City Emergency Operations Plan (EOP): Rich Nelson said a city was required to have an adopted emergency operations plan in order to receive any federal funding in the event of an emergency. He said Alpine City hadn't had an EOP for the flood and fire that happened in 2012 and 2013, but if the fire had spread to homes or the flooding had been worse, they would have needed it to qualify for FEMA funding. He briefly reviewed the EOP which listed the chain of command and listed the different responsibilities of the different groups. The plan had been reviewed by David Church and the Emergency Committee of the Alpine City.

Will Jones said the plan stated certain things that needed to be done in preparation for an emergency. He asked if they were creating liability for the City if they didn't do those preparatory things. It stated that staff would be totally familiar with the plan. Rich Nelson said adopting the plan was phase one. The second phase required training for the Council and staff.

 Will Jones asked about the organizational chart and suggested the City Council be listed off to the side of the Mayor. There was more discussion about the structure and chain of command. The default team leader was the mayor. Mayor Watkins suggested that, on an annual basis, they list the deputies in order of selection if the mayor was not available. David Church said that under the state law they were supposed to do that by July of each year. There were to be three interim successors listed in order of succession.

**MOTION:** Will Jones moved to approve the Alpine City Emergency Operations plan with the correction that the City Council would be included in the plan and there would be an annual meeting to select deputies in order of succession and adopt Resolutions No. R2014-08, Resolution No. R2014-09, and Resolution No. R2014-10. Roger Bennett seconded. Ayes: 3 Nays: 0. Will Jones, Roger Bennett, Kimberly Bryant voted aye. Motion passed.

**C. Alpine Days Chairperson Discussion:** Kimberly Bryant had requested that a discussion on payment of the Alpine Days Chairperson be on the agenda. She said she had concerns about it being a paid position because she didn't want to attract someone who was doing it only for the money rather than a love of the community. She said that when she had served as chair for Alpine Days, she'd wouldn't have felt good about being paid because other people were also doing a lot of work and they were not being paid. She said that if it was a paid position, the money should trickle down to other who also put in time and effort on Alpine Days. She didn't think it was right that a lot of different people did the work but only one person got paid.

 Will Jones said that in recent years the sub chairs did receive a gift card or a gift basket. He asked Ms. Bryant if she was totally against paying the chair. She said she wasn't totally against it, but if they did pay the chairperson, they needed to have something set up so the funds were shared with others who worked on Alpine Days, and not have it just left up to whoever happened to be the chairperson that year.

Mayor Watkins asked if anyone had expressed an interest in serving as the chair for Alpine Days in 2015. Rich Nelson said there had been two applicants.

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2

Will Jones said he would be willing to be the Councilman over Alpine Days if there was a chairman.

Mayor Watkins said he was excited that there were applicants. He asked the Council if they would be

MOTION: Roger Bennett moved to authorize Kimberly Bryant, Will Jones, and Mayor Watkins to

select the chairperson for Alpine Days. Will Jones seconded. Ayes: 3 Nays: 0. Roger Bennett, Will Jones,

willing to give Kimberly Bryant, Will Jones, and himself the authority to make the selection.

Kimberly Bryant left the meeting at 7:50 p. The meeting was closed for lack of a quorum.

Kimberly Bryant indicated that she would also help.

Melanie Ewing was present and said she was a candidate.

Kimberly Bryant voted aye. Motion passed.

#### ALPINE CITY COUNCIL AGENDA

**SUBJECT:** County Zone Change Request

FOR CONSIDERATION ON: November 11, 2014

**PETITIONER:** Mayor Don Watkins

ACTION REQUESTED BY PETITIONER: The Council will discuss and take a position on the proposed amendment to the Utah County General Plan Land Use Element Map from Agricultural/Watershed to Residential, and amendment of the Official Utah County Zoning Map from the Critical Environment (CE-1) Zone to the Critical Environment (CE-2) and Transitional Residential (TR-5) Zones, 100 acres, located at approximately 13650 N. Grove Drive, Section 8, T4S R2E, Alpine area of Utah County.

**INFORMATION:** A request has been made by Patterson Development to have Utah County rezone the Pine Grove area as listed above. Attached please find the correspondence from Utah County on this matter, the proposed change, and maps reflecting where the proposed change should happen.

Utah County asked the City to respond to two questions in their last email. These are:

1. Question: I've noticed this area is not included in Alpine City's annexation policy declaration area. Has this area even been included in an annexation petition or application to be included within Alpine's annexation policy declaration area?

Answer: This area has been included in an annexation petition in the past and at one time was in Alpine's annexation policy declaration area. An annexation petition for this area, which the City calls the Pine Grove area, was considered by the City in the 1990's but no agreement between the City and the landowners could be reached on the appropriate density for this property if it were to be annexed into the City. This disagreement resulted in a lawsuit by the landowners which was eventually settled in 2011. As part of that settlement the City did agree to provide culinary water "service for three and only three culinary water connection(s) for Pine Grove". It has not been a part of Alpine's annexation policy declaration area for a number of years.

2. Question: What is Alpine's general level of support for this zone change request? The current zoning has a minimum lot size of 50 acres. The proposed TR-5 zoning would have a minimum lot size of 5 acres, unless a central water system is provided, in which case the minimum lot size is 20,000 square feet. The CE-2 Zoning has a minimum lot size of 20 acres, with higher densities provided for certain types of developments (mountain home development, recreational resort). One of the stated purposes of the TR-5 Zone is to facilitate annexation, so Alpine City's input on this request is helpful.

Answer: (This is the purpose of this agenda item.)

RECOMMENDED ACTION: That the City Council adopt a official position on the proposed County zone change request.

From: Bryce Armstrong [BRYCEA@utahcounty.gov]

Sent: Monday, October 27, 2014 4:02 PM

To: Rich Nelson

Subject: Notice

Attachments: Agenda-PC Work 2014 Nov 3.pdf

Mr. Nelson,

Attached is the agenda/notice of a site visit of the Utah County Planning Commission regarding a proposed zone map and general plan amendment of property in the Alpine City area. I've spoken with Mayor Watkins and he asked that I send this to you. Feel free to call me with any questions or concerns on the matter.

Thanks,

Bryce Armstrong
Associate Director
Utah County Community Development
(801)851-8343



# PUBLIC NOTICE OF SPECIAL WORK SESSION/SITE VISIT OF THE UTAH COUNTY PLANNING COMMISSION

## COUNTY ADMINISTRATION BUILDING 100 E Center Street, Room 1400 Provo, Utah, 84606 (801) 851-8352

#### **AGENDA**

#### November 3, 2014 2:00 p.m

The Utah County General Plan and the Utah County Land Use Ordinance can be found on line at: www.utahcounty.gov/Dept/ComDev/Planning

(The proceedings of this agenda are open to the public)

#### A. CALL TO ORDER

#### B. ZONE MAP/GENERAL PLAN AMENDMENT

1. Patterson Construction, Inc.

Site visit\* of area of proposed amendment to the Utah County General Plan Land Use Element Map from Agricultural/Watershed to Residential, and amendment of the Official Utah County Zoning Map from the Critical Environment (CE-1) Zone to the Critical Environment (CE-2) and Transitional Residential (TR-5) Zones, 100 acres, located at approximately 13650 N. Grove Drive, Section 8, T4S R2E, Alpine area of Utah County. (Note: No action can be taken on this item. This item is scheduled to be heard at a public hearing on Nov 18, 2014 at 5:30 p.m.)

\*Note: This meeting will commence at 2:00 p.m. at the County Administration Building at the above-listed address for general instructions of the site visit. The meeting will then recess and reconvene at approximately 3:00 p.m. at the approximate address of the site listed above. The meeting will adjourn at the completion of the site visit from that location.

#### C. MOTION TO ADJOURN

In compliance with the American with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Joshua Ivie at (801) 851-8343 at least one day prior to the meeting.

From: Bryce Armstrong [BRYCEA@utahcounty.gov]

Sent: Wednesday, November 05, 2014 3:22 PM

To: Rich Nelson

**Subject:** Zone change

**Attachments:** Patterson vicinity.jpg; Patterson zone change.jpg

Mr. Nelson,

This is a follow-up to the notice sent to Alpine City regarding the recent site visit of the Utah County Planning Commission to an area adjacent to Alpine City that is the subject of a proposed zone change/general plan map amendment. The matter is scheduled to be heard at a public hearing on November 18th. Notice of that public hearing will be sent to Alpine City in a couple days.

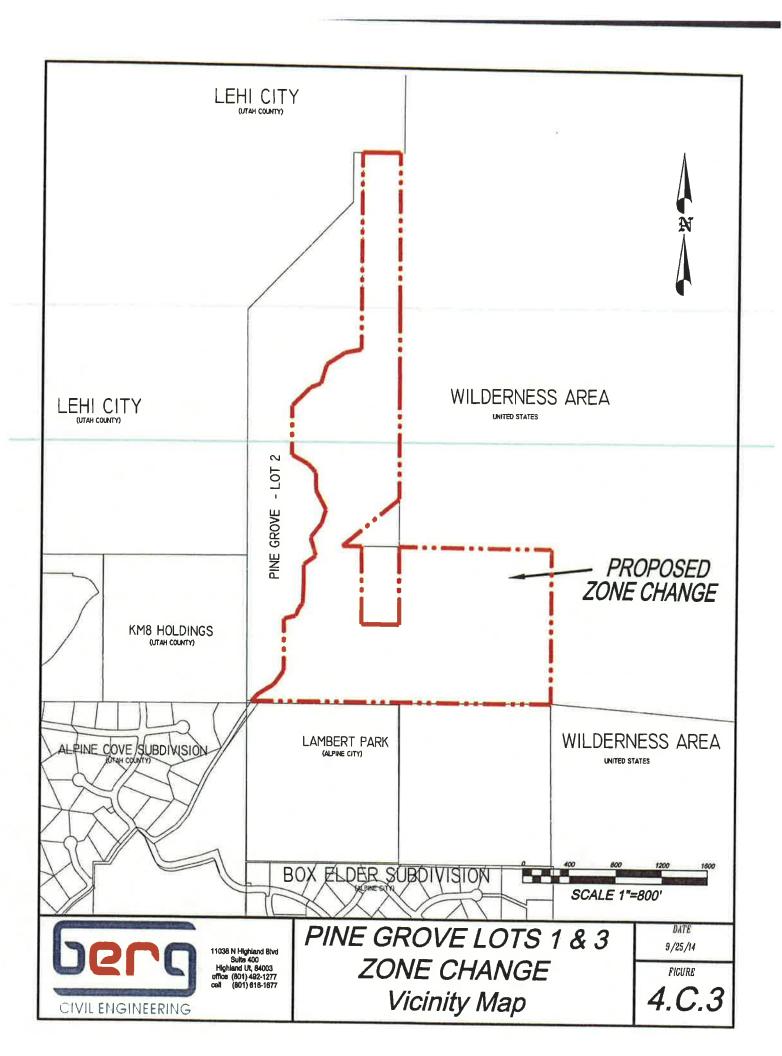
In preparing the staff report for this item, I have a couple questions for Alpine City:

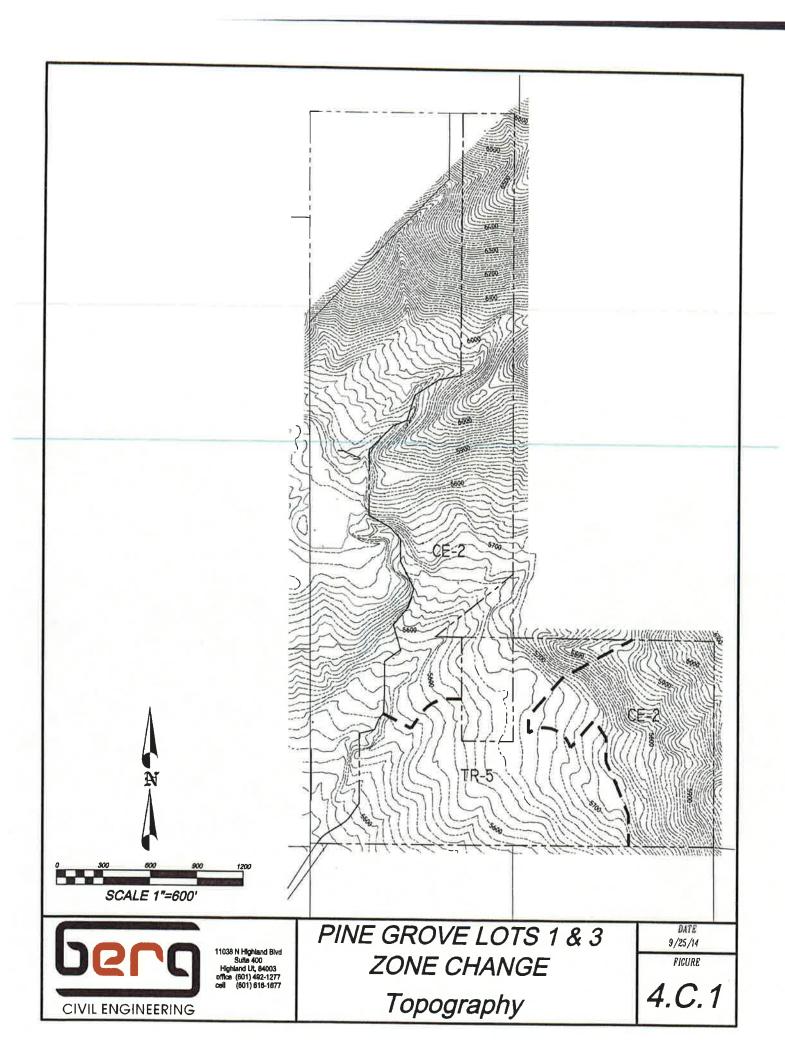
- 1) I've noticed this area is not included in Alpine City's annexation policy declaration area. Has this area even been included in an annexation petition or application to be included within Alpine's annexation policy declaration area? (I've attached the applicant's vicinity map for reference.)
- 2) What is Alpine's general level of support for this zone change request? The current zoning has a minimum lot size of 50 acres. The proposed TR-5 zoning would have a minimum lot size of 5 acres, unless a central water system is provided, in which case the minimum lot size is 20,000 square feet. The CE-2 Zoning has a minimum lot size of 20 acres, with higher densities provided for certain types of developments (mountain home development, recreational resort). One of the stated purposes of the TR-5 Zone is to facilitate annexation, so Alpine City's input on this request is helpful. (I've attached the applicant's proposed zoning map for reference.)

Thank you for any information you may be able to provide. Feel free to contact me with any questions on this matter.

Bryce Armstrong Associate Director Utah County Community Development (801)851-8343









**November 6, 2014** 

## Dear Property Owner:

The Utah County Planning Commission will hold a public hearing at its regular meeting on November 18, 2014, at 5:30 p.m. in Room 1400 of the Utah County Administration Building, 100 East Center Street, Provo, Utah, to consider an application by Patterson Construction, Inc. to amend the Utah County General Plan land use designation from Agricultural/Watershed to Residential, and to amend the Utah County Zone Map from the Critical Environment (CE-1) Zone to the Critical Environment (CE-2) and Transitional Residential (TR-5) Zones for property located in Section 8, T4S, R2E, approximately 100 acres, Alpine City area of Utah County. The proposed request includes the following information:

## -Owner(s) of record of affected property:

- -Parcel 49:764:0001 PHI Properties Inc.
- -Parcel 49:764:0003 Meadowbrook Properties Limited Partnership
- -Parcel 49:764:0004 Utah County (Public road)

#### -Current zoning designation of property:

-Critical Environment (CE-1)

#### -Proposed zoning designation of property:

- -Critical Environment (CE-2) and
- -Transitional Residential (TR-5)

#### -Information on regulations, prohibitions, and permitted uses of proposed amendment:

-The requirements of the Transitional Residential (TR-5) and Critical Environment (CE-2) Zones can be found in Sections 5-4 and 5-6, respectively, of the Utah County Land Use Ordinance. The Land Use Ordinance can be found on the Internet at: <a href="www.utahcounty.gov">www.utahcounty.gov</a> (choose: *Department Directory*, choose: *Community Development*, choose: *Links*, choose: *Land Use Ordinance*).

#### -Protest:

-Any owner of real property may, no later than 10 days after the day of the first public hearing, file a written objection to the inclusion of the owner's property in the proposed zoning map amendment. Such written objection filed with the county will be provided to the Utah County Commission. Any protest should be filed at the following address:

Utah County Community Development 51 S. University Ave., Suite 117 Provo, UT 84601

If you know of anyone who may be interested in this matter and has not received notice, please forward this information. If you have questions, please contact the Utah County Community Development office at (801) 851-8343, or attend the public hearing at the date and time indicated above.

Respectfully,

Josh Ivie, Secretary Utah County Planning Commission

## ALPINE CITY COUNCIL AGENDA

**SUBJECT: Questar Gas Easement Purchase Proposal** 

FOR CONSIDERATION ON: 11 November 2014

**PETITIONER:** Questar Gas Company

ACTION REQUESTED BY PETITIONER: Consider Questar's Proposal

**APPLICABLE STATUTE OR ORDINANCE:** Section 3.16.4.2 (Open Space)

PETITION IN COMPLIANCE WITH ORDINANCE: Yes

#### **BACKGROUND INFORMATION:**

Questar Gas approached the city a few months ago with a proposal to purchse land and an easement. The representatives from Questar were told no on this proposal and are now proposing a new plan that only involves an easement purchase. This would include 9,701 square feet of ground and Questar is offering \$37,000 for the easement. This would essentially just widen the current easement that Questar has in that area so that they could have the room to install an underground vault with a lid and some required above ground components, similar to those currently existing at that location.

The Planning Commission made the following motion (see below) on August 19, 2014 in response to the first proposal. A public hearing was held that night. Questar's proposals have yet to be on a City Council agenda. It has been determined that because a public hearing and a recommendation from the Planning Commission have already occurred, Questar's proposal will go to the City Council.

### PLANNING COMMISSION MOTION:

Chuck Castleton moved to recommend to the City Council to deny the sale of Open Space for the Questar Gas Conditional Use Permit and Site Plan.

Steve Swanson seconded the motion. The motion passed with 4 Ayes and 1 Nay. Jason Thelin, Chuck Castleton, Steve Swanson and Judi Pickell all voted Aye. Steve Cosper voted Nay.



**Questar Gas Company** 

1140 West 200 South P.O. Box 45360 Salt Lake City, UT 84145-0360 Tel 801 324 5555

October 3, 2014

Attn: Rich Nelson Alpine City 20 North Main Street Alpine, UT 84004 RECEIVED OCT OB 2014

RE:

Questar Gas Company Proposed Easement Purchase 600 North Pfeifferhorn Drive

Dear Rich,

This letter is in follow-up to our September 9, 2014 meeting with the Mayor and Alpine City staff concerning the potential sale, and subsequent denial, of Alpine City property to Questar Gas Company (QGC).

After review by our engineering staff, it has been determined that the Draper City site that the Mayor has directed us to consider does not meet QGC's needs for a proposed meter site. Consequently, upon review of our existing pipeline alignment and easement rights, it has been determined that QGC will install the new gas flow meter in an underground vault within its existing pipeline easement.

In order to better protect QGC's pipeline and facilities from future encroachments, I would like to propose the purchase of additional easement width from Alpine City, for the portion of the easement lying within the Semi-Developed Public Open Space currently owned by the City.

The proposal is for QGC to acquire additional easement width (17,861 square feet, less 8,160 square feet currently encumbered by QGC's easement = 9,701 square feet, 0.22 acre). The proposed easement is for the construction of natural gas pipelines, power, and drive access to the proposed underground meter facility. Using the current assessed values of adjoining properties in Alpine City (\$5.50 - 7.50 per square foot) QGC would offer as follows:

**Easement Purchase** 

9,701.0 square feet X \$7.50 X .50

\$ 36,378.75

Based on the above calculations, with the easement valued at 50% of the assessed value, QGC hereby offers \$37,000.00 for the easement rights as outlined herein. Granting of the easement rights is to be on the form enclosed with this offer.

Under this proposal, a new meter will be installed in an underground vault with a lid and some required above ground components, similar to those currently existing at this location. The above ground components would already be allowed in the existing easement or the adjacent public utility easements.

Please call me if you have any questions concerning this proposal, and let me know how I can move this proposal forward.

Rick Hellstrom

Sincerely 1

Lead Property Agent (801) 324-3737

enclosures

#### **EASEMENT DESCRIPTION**

PART OF AN ENTIRE TRACT OF PROPERTY, SITUATE IN THE SWISS ONE PLANNED RESIDENTIAL DEVELOPMENT PHASE 1, A SUBDIVISION LOCATED IN THE NORTHEAST QUARTER OF SECTION 23, TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN. THE BOUNDARIES OF SAID PART OF AN ENTIRE TRACT ARE DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID SWISS ONE PLANNED RESIDENTIAL DEVELOPMENT PHASE 1 SUBDIVISION; AND RUNNING THENCE NORTH 89°46'49" EAST 27,16 FEET ALONG THE NORTHERN BOUNDARY LINE OF SAID SUBDIVISION; THENCE SOUTH 43°57'37" EAST 346.96 FEET TO AN EXTERIOR CORNER OF SAID SUBDIVISION; THENCE ALONG THE EXTERIOR BOUNDARY LINE OF SAID SUBDIVISION THE FOLLOWING FOUR (4) COURSES AND DISTANCES: (1) SOUTH 43°57'37" EAST 149,19 FEET; THENCE (2) SOUTH 89°59'16" EAST 95.84 FEET TO THE WESTERLY RIGHT OF WAY LINE OF PFEIFFERHORN DRIVE; THENCE (3) SOUTHERLY ALONG SAID RIGHT OF WAY 6,06 FEET ALONG THE ARC OF A NON-TANGENT 15,00-FOOT RADIUS CURVE TO THE RIGHT, THROUGH A 89°59'16" WEST 114,61 FEET; THENCE NORTH 43°57'37" WEST 151,97 FEET TO THE EXTERIOR BOUNDARY OF SAID SUBDIVISION; THENCE ALONG SAID EXTERIOR BOUNDARY LINE THE FOLLOWING TWO (2) COURSES AND DISTANCES: (1) NORTH 00°03'32" WEST 12,48 FEET; THENCE (2) SOUTH 89°56'28" WEST 12,01 FEET; THENCE NORTH 43°57'37" WEST 340 58 FEET TO THE EXTERIOR BOUNDARY LINE OF SAID SUBDIVISION; THENCE NORTH 00°13'11" WEST 15.01 FEET ALONG SAID EXTERIOR BOUNDARY LINE TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PART OF AN ENTIRE TRACT CONTAINS 17,861 SQUARE FEET IN AREA OR 0,410 ACRES.

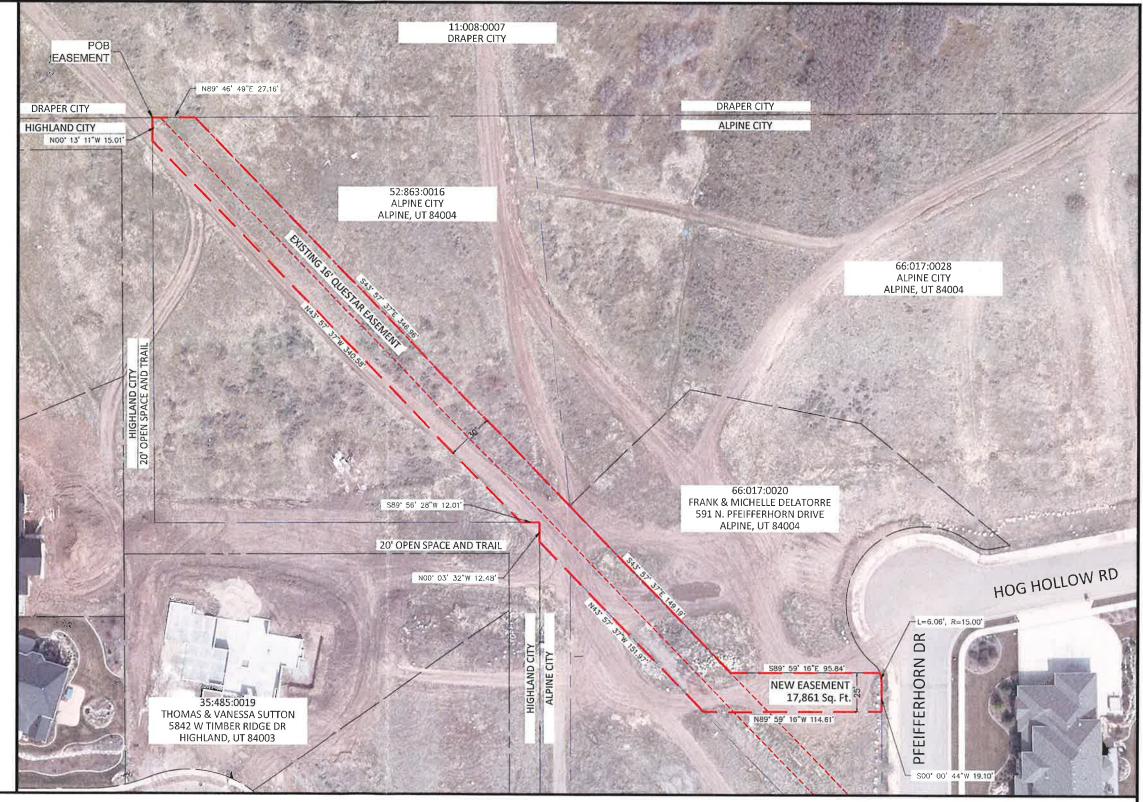




EXHIBIT "A"
Alpine City
52:863:0016
SWISS ONE PLANNED RESIDENTIAL DEVELOPMENT









WHEN RECORDED MAIL TO: Questar Gas Company P.O. Box 45360, Right-of-Way Salt Lake City, UT 84145-0360 FL24/Alpine Easement revised 3.cc

Space above for County Recorder's use PARCEL I.D. #

## RIGHT-OF-WAY AND EASEMENT AGREEMENT

ALPINE CITY \_\_\_\_\_\_, a municipal corporation of the State of Utah, Grantor, does hereby convey and warrant to QUESTAR GAS COMPANY, a corporation of the State of Utah, Grantee, its successors and assigns, for the sum of ONE DOLLAR (\$1.00) in hand paid and other good and valuable consideration, receipt of which is hereby acknowledged, a non-exclusive right-of-way and easement over, across, under and through the following land situated in Utah County, State of Utah and more particularly described as follows, to-wit:

PART OF AN ENTIRE TRACT OF PROPERTY, SITUATE IN THE SWISS ONE PLANNED RESIDENTIAL DEVELOPMENT PHASE 1, A SUBDIVISION LOCATED IN THE NORTHEAST QUARTER OF SECTION 23, TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN. THE BOUNDARIES OF SAID PART OF AN ENTIRE TRACT ARE DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID SWISS ONE PLANNED RESIDENTIAL DEVELOPMENT PHASE 1 SUBDIVISION; AND RUNNING THENCE NORTH 89°46'49" EAST 27.16 FEET ALONG THE NORTHERN BOUNDARY LINE OF SAID SUBDIVSION; THENCE SOUTH 43°57'37" EAST 346.96 FEET TO AN EXTERIOR CORNER OF SAID SUBDVISION; THENCE ALONG THE EXTERIOR BOUNDARY LINE OF SAID SUBDIVISION THE FOLLOWING FOUR (4) COURSES AND DISTANCES: (1) SOUTH 43°57'37" EAST 149.19 FEET; THENCE (2) SOUTH 89°59'16" EAST 95.84 FEET TO THE WESTERLY RIGHT OF WAY LINE OF PFEIFFERHORN DRIVE; THENCE (3) SOUTHERLY ALONG SAID RIGHT OF WAY 6.06 FEET ALONG THE ARC OF A NON-TANGENT 15.00-FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 23°09'15" (NOTE: CHORD TO SAID CURVE BEARS SOUTH 11°33'54" EAST FOR A DISTANCE OF 6.02 FEET); THENCE (4) CONTINUING ALONG SAID RIGHT OF WAY LINE SOUTH 00°00'44" WEST 19.10 FEET; THENCE NORTH 89°59'16" WEST 114.61 FEET; THENCE NORTH 43°57'37" WEST 151.97 FEET TO THE EXTERIOR BOUNDARY OF SAID SUBDIVISON;

THENCE ALONG SAID EXTERIOR BOUNDARY LINE THE FOLLOWING TWO (2) COURSES AND DISTANCES: (1) NORTH 00°03'32" WEST 12.48 FEET; THENCE (2) SOUTH 89°56'28" WEST 12.01 FEET; THENCE NORTH 43°57'37" WEST 340.58 FEET TO THE EXTERIOR BOUNDARY LINE OF SAID SUBDIVISION; THENCE NORTH 00°13'11" WEST 15.01 FEET ALONG SAID EXTERIOR BOUNDARY LINE TO THE POINT OF BEGINNING. THE ABOVE DESCRIBED PART OF AN ENTIRE TRACT CONTAINS 17,861 SQUARE FEET IN AREA.

EASEMENT SCOPE: Grantor and Grantee agree that Grantee, its successors and assigns, shall be entitled to have and to hold the right-of-way and easement granted by this Right-of-Way and Easement Agreement (the "Easement") with the right of ingress to, egress from, and access on and along the Easement to construct, install, lay, maintain, operate, repair, alter, inspect, protect, make connections to, remove and replace underground pipelines, valves, meters, valve and meter boxes and install underground and above ground cathodic monitoring and mitigation facilities and other gas transmission and distribution facilities (hereinafter collectively called "Facilities").

The Easement shall also carry with it the right to use and improve existing roads and drainage, and the right to the construction, operation, maintenance, repair, replacement, enlargement, and removal or electric utilities and all necessary or desirable accessories and appurtenances thereto, including without limitation: wires, fibers, cables and other conductors and conduits therefor; and pads, transformers, switches, cabinets, and vaults on, across, or under the surface of the land on or within the boundaries of the Easement.

During temporary periods, Grantee may use such portion of the property along and adjacent to said Easement as may be reasonably necessary in connection with construction, maintenance, repair, removal or replacement of the Facilities. Grantor shall have the right to use said premises except for the purposes for which this Easement is granted to Grantee, provided such use does not interfere with the Facilities or any other rights granted to Grantee hereunder.

Without limiting the generality of the foregoing, Grantor and Grantee do hereby covenant, warrant and agree as follows:

- 1. Grantor shall not build or construct, nor permit to be built or constructed, over or across the Easement, any building, retaining walls, rock walls, footings or improvement which impairs the maintenance or operation of the Facilities.
- 2. Grantor shall not change the contour within the Easement without prior written consent of Grantee.
- 3. Grantor shall not plant, or permit to be planted, any deep rooted trees, or any vegetation with roots that may damage the Facilities, within the Easement, without prior written consent of Grantee.
- 4. Grantor shall not place personal property within the Easement that impairs the maintenance or operation of the Facilities.

- 5. Grantee shall have the right to cut and remove timber, trees, brush, overhanging branches, landscaping and improvements or other obstructions of any kind and nature which may injure or interfere with Grantee's use, occupation or enjoyment of this Easement, without liability to Grantor, and without any obligation of restoration or compensation.
- 6. Grantee, following the installation or maintenance, of the Facilities, shall restore the surface of the Easement, and any improvements, to, as near as practicable, the condition of the surface, prior to said installation or maintenance.
- 7. Grantee agrees to release, indemnify, defend and hold harmless Grantor from and against any and all claims, liabilities, demands, actions, expenses or costs arising out of Grantee's use of the premises and where Grantee is found to be solely negligent.

SUCCESSORS and ASSIGNS: This Easement shall be binding upon and inure to the benefit of the successors and assigns of Grantor and the successors and assigns of Grantee, and may be assigned in whole or in part by Grantee.

It is hereby understood that any parties securing this grant on behalf of Grantee are without authority to make any representations, covenants or agreements not herein expressed.

IN WITNESS WHEREOF, Granto affixed this day of	or has caused its corporate name and seal to be hereunto, 20
ATTEST:	ALPINE CITY
Clerk	By:Mayor
	QUESTAR GAS COMPANY
	By:

STATE OF UTAH	)		
COUNTY OF UTAH	) ss. )		
On the day of me	. and	, 20	personally appeared before who, being
duly sworn, did say that they	are the	ano	l
respectively, of	W	, and that	the foregoing instrument was
signed on behalf of same.			
			Notary Public
STATE OF UTAH	) ) ss.		
COUNTY OF SALT LAKE	)		
The foregoing instrument w 2014, by James B. Hasty, Ge GAS COMPANY.			day of, Management, of QUESTAR
		<u> </u>	N
			Notary Public

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## **ALPINE CITY COUNCIL AGENDA**

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

FOR CONSIDERATION ON: 11 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.

At the Planning Commission meeting, the representative from AT&T explained that the wooden pole needs to be replaced by a metal pole for structural stability. This will be explained more at the City Council meeting by the AT&T representative.

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.

#### PLANNING COMMISSION MOTION:

Chuck Castleton moved to recommend to the City Council approval of the AT&T Antenna upgrade as it has been described. We also recommended that the new pole not exceed 58 feet in height.

Steve Cosper seconded the motion. The motion passed with 6 Ayes and 0 Nay. Steve Cosper, David Fotheringham, Jason Thelin, Chuck Castleton, Steve Swanson, and Judi Pickell all voted Aye.

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

### 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 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

OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMEN CABINETS FOR AT&T'S WIRELESS TELECOMMUNICATIONS NETWORK.

#### SITE INFORMATION

PROPERTY OWNER: ADDRESS:

THE PARK AT SOUTH POINT, LLC 10 EAST 600 SOUTH ALPINE, UT 84004

SITE CONTACT:

COUNTY UTAH

LATITUDE (NAD 83) 40° 26′ 38.1″ N

LONGITUDE (NAD 83) 111° 46' 43.8" W

ZONING JURISDICTION

ZONING DISTRICT:

PARCEL#: 110230096

ROCKY MTN POWER TELEPHONE COMPANY:

SITE ACQUISITION CONTACT:

RF ENGINEER

ADAM GELLE

ALPINE

CONSTRUCTION MANAGER:

ALEX LAWSON

#### CONTACT INFORMATION

5710 SOUTH GREEN ST. SALT LAKE CITY, UT 84123

CONTACT

JEFF VANDERVEEN

# **ALPINE** FA#10088454



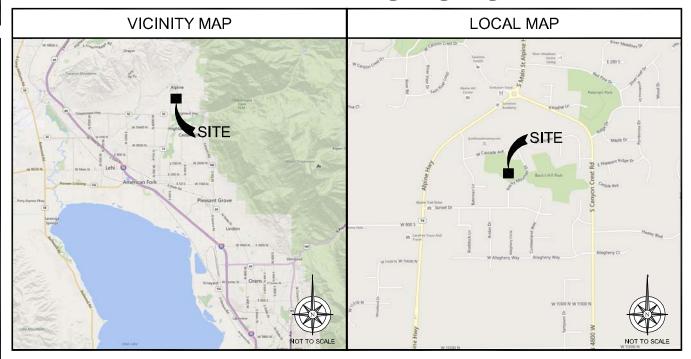
# **⊠ UTL04002**

LTE

LTE 2C

**SECTOR ADD** 

# **MONOPOLE**



## 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.
- 3. MERGE ONTO 1:15 S TOWARD LAS VEGA
- 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

#### **APPROVALS**

DRAWING INDEX

DESCRIPTION:

SHEET NO

T-4

T-5

C-1.1

C-2

C-2.1

C-3

C-4

E-1

E-2

G-2

RF-1

RF-2

RF-2.1

RF-2.3

RF-2.4

RF-2.5

RF-2.6

RF-2.7

RF-2.8

RF-2.9

RF-2.10

RF-2.11

TITLE SHEET

**GENERAL NOTES** 

**GENERAL NOTES** 

**GENERAL NOTES** 

SIGNAGE & NOTES

**OVERALL SITE PLAN** 

**ENLARGED SITE PLAN** 

**EQUIPMENT PLAN** 

ANTENNA PLANS

**ELECTRICAL NOTES** 

GROUNDING PLAN

**RFDS DATA SHEET** 

RFDS DATA SHEET

**RFDS DATA SHEET** 

RFDS DIAGRAMS

**GROUNDING DETAILS** 

**ELECTRICAL ONE-LINE DIAGRAM** 

**ELEVATIONS** 

**ELEVATIONS** 

**DETAILS** 

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS A NUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DES IEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DE ND MAY IMPOSE CHANGES OR MODIFICATIONS.	CRIBED	THIS SET OF NFIDENTIAL THAN AS IT TED
.T&T WIRELESS COMPLIANCE REPRESENTATIVE:	DATE:	D IN & CO STHER SOHIBI
.T&T WIRELESS REPRESENTATIVE:	DATE:	NTAINED TARY & URE OTH
.T&T WIRELESS RF ENGINEER:	DATE:	N COI ROPRIE SCLOS STRIC
SENERAL DYNAMICS ACQUISITION:	DATE:	RMATION IS PR OR DIS TO IS S
AEC SITE ACQUISITION:	DATE:	NFO NGS JSE ES
PROPERTY OWNER:	DATE:	THE I DRAWI ANY U RELAT
SENERAL DYNAMICS CONSTRUCTION MANAGER:	DATE:	
		1

# **T**'Assoclates Technology

4393 RIVERBOAT ROAD, SUITE #400 TAYLORSVILLE, UTAH 84123

GENERAL DYNAMICS

1152 W 2400 S, SUITE C

SALT LAKE CITY, UTAH 84119

nformation Technology

## **UTAH MARKET OFFICE**

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

$\cap$			
А	09/16/2014	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

**TITLE SHEET** 

SHEET NUMBER



Know what's below. CALL before you dig.

CALL AT LEAST TWO WORKING DAYS BEFORE YOU DIG

#### **GENERAL CONSTRUCTION NOTES:**

- 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
- 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, FILED 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.
- 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 LAVYS, ORDINANCES, 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
- UNLESS OTHERWISE, THE WORK SHALL INCLUDE FURNISHING, MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 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 SHOWN 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.
- 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 JURISIO(TION).
- 11, GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLES,
- 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.
- SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH ULLISTED 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
- 16. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES, ANY DAMAGED PART SHALL BY 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 A
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
- 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-108: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 GREW. THIS FLALL 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, CAPPED, 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 OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OF DRIVEWAY, SHALL BY GRADED TO A UNFORM 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
- 26. NO FILL OR EMBANKMENT MATERIAL SHALL BY 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 88 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENDAES IN PUBLIC RIGHT OF WAY SHALL BY 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.
- 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 UNIMANNED 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 OF PROCEEDING WITH CONSTRUCTION.
- 39. NO WHITE STROBIC LIGHTS ARE PERMITTED. LIGHTING, IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS
- 40. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S 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 BY 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
- 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 INDRIGANCE.
- 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 OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILD.
- 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 BEDDING AND TRENCH BACKFILL; WELL GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR
- 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 BITMINIOUS 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 AND FT, MH, OH, OH, ML, AND OL.
- 2.8 GEOTEXTILE FABRIC: MIRAFI 500X OR APPROVED FOUAL.
- 2.9 PLASTIC MARKING TAPE: SHALL BE ACID AND ALKALI RESISTANT POLYETHYLENE FILM SPECIFICALLY MANUFACTURED FOR MARKING THE LOCATING UNDERGROUND UTILITIES & INCHES WIDE WITH A MINIMUM THICKNESS OF 0,004 INCHES, TAPE SHALL HAVE MINIMUM STRENGTH OF 1509 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL CONDUCTORS, FOIL BACKING OR OTHER MEMBAS ENABLE DETECTION BY A METAL DETECTOR WHEN BURIED UP TO 3 FEET DEEP. THE METALLIC CORE OF THE TAPE SHALL BE ENCASEINA PROTECTIVE JACKET OR PROTECTIVE JACKET OR PROTECTIVE THE MEAN TO PROTECT THE FACET OF THE METALLIC CORE OF THE TAPE SHALL BE FED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.

#### PART 3 - EXECUTION

- 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 THAT 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, UDBERGROUND 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.

- 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
  - 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 UNFORM HORIZONTAL LAYERS OF NO GREATER THAN S-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED. THE FILL MATERIAL SHALL BE PLACED IN UIFFS NOT TO EXCEED 4 INVESS IN LOOSE DEPTH AND COMPACTED
  - 3. WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE METUALESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL DEGISEE, THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE
- 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 SLOUGHING 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 BACKELL

- A. PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWING AND THE UTILITY REQUIREMENTS.
- 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 GRATER THAT THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY AJUACENT 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 500XI) 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.
  - 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 SET 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)
- THE AGBRESH TESSE AND SUFFICE COURSES SHILLE BE COMEN TO THE ATERS TO MINORE THAN THE THROUGH COMEN TO THE THE THROUGH COMEN THROUGH THROUGH COMEN THROUGH T
- 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. TIRED ROLLER, OR WITH A VIBRATORY MACHINE OR ANY COMBINATION OF THE ABOVE. THE TOP LAYER SHALL BE GIVEN A FINAL ROLLING WITH A THREE-WHELL OR TANDEM ROLLER.

- 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 4 INCHES OF  $1/2^{\circ}$   $3/4^{\circ}$  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.
- 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 nformation Technology

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



#### **UTAH MARKET OFFICE**

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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

#### **ELECTRICAL NOTES:**

## PARTI-GENERAL

- 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 BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANGER FOR CLARIFICATION, OFFICE THE CONTRACT HAS BEEN ADDITIONAL THE BID PERIOD WITH THE PROJECT MANGER FOR CLARIFICATION, OFFICE THE TO THIM ACT HAS BEEN ADDITIONAL THE BID PERIOD WITH THE PROJECT MANGER FOR CLARIFICATION, OFFICE THE THE CONTRACT HAS BEEN ADDITIONAL THE BID PROJECT MANGER FOR CLARIFICATION, OFFICE THE THE THE CONTRACT HAS BEEN ADDITIONAL THE BID PROJECT MANGER FOR CLARIFICATION, OFFICE THE THE CONTRACT HAS BEEN ADDITIONAL THE BID PROJECT MANGER FOR CLARIFICATION.
- 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.
- 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.

- A. THE PUBLICATIONS LISTED BELOW ARE PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDEDDUM 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 MANUFACTURER'S 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
- 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 ULLISTED, 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

- 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.
- 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:

- CONDUCTORS AND CABLE SHALL BE FLAME RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER TYPE THHN/TH/NH2, 600 VOLT, SIZE AS INDICATED, 12 AWG SHALL BE THE MINMUM 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 MANUFACTURER'S 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:

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

#### D. CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:

- INSTALL CHEMICAL GROUNDING AS REQUIRED. THE SYSTEM SHALL BE ELECTROLYTIC MAINTENANCE FREE ELECTRODE CONSISTING
  OF RODS WITH A MINIMUM OF 2 AWIG OU EXTOTHERMALLY WELDED PIGTAIL, PROTECTIVE BOXES, AND BAGKFILL MATERIAL.
  MANUFACTURER SHALL BE LYNDOLE XIT OFFICIAR FRO TYPERS EZ. (")CS OR KLZL-(")CS ("). LENGTH AS REQUIRED."
- 2. GROUND ACCESS BOX SHALL BE A POLY-PLASTIC BOX FOR NON-TRAFFIC APPLICATIONS, INCLUDING BOLT DOWN FLUSH COVER WITH "BREATHER" 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

- 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.
- GROUNDING BUSES SHALL BE BARE, TINNED, ANNEALED COPPER BARS OF RECTANGULAR CROSS SECTION. STANDARD BUS BARS
  MIGB. SHALL BE FURNISHED AND INSTALLED BY THE SUBCONTRACTOR. THEY SHALL NOT BE FABRICATED OR MODIFIED HTM. THE FIRE
  ALL GROUNDING BUSES SHALL BE IDENTIFIED WITH MINIMM 3/4\* LETTERS BY WAY OF STENCING OR DESIGNATION PLATE.
- 3. CONNECTORS SHALL BE HIGH- CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDED CONNECTORS FOR THE MATERIALS 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 NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.

- 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

- 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.

- 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 FIN SHED AND READY FOR OPERATION.

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 EXPANSIONAMO 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 RATING 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 S
PHASE A	BLACK
PHASE B.	RED
PHASE C	
NEUTRAL	WHITE

- 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.
- 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 SUBCONTRACTOR'S EXPENSE.

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

- 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.
- 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 20 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 NON-TERROUS 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 EXOTHERMICWELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS 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

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 MANUFACTURER'S 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
- 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 AR
- 16. SUBCONTRACTORS SHALL REPAIR, AND/OR REPLACE EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE SUBCONTRACTORS EXPENSE.

- 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 RENOVED FROM THE PROJECT SITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE FOR NON-COMPLIANCE.

#### C. TEST PROCEDURES:

- 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
- 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 nformation Technology

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



#### **UTAH MARKET OFFICE**

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

А	09/16/2014	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

- 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, S. NOTES PRIOR TO STARTING CONSTRUCTION, INCLUDING BUT NOT LIMITED BY DEMOLITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORNECTING ANY ERRORS, OMISSION, OR INCONSISTENCY AFTER THE START OF CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF THE ARCHITECTIENGINEER AND SHALL INCUR ANY EXPENSES TO RECTIFY THE STUATION. 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 CONTRACTORS RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTORS SHALL ALSO MAINO 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 ASSULT HERED DRAWINGS TO THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT AT THE CONCLUSION OF THE PROJECT.
- 7. 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 CALIFORN A ADMINISTRATIVE CODES TITLE 8, 19, AND 24. THE MOST RESTRICTIVE CODE SHALL GOVERN.
- 10. THE CONTRACTOR AND SUBCONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE REGULATIONS INCLUDING ALL OSHA REQUIREMENTS.
- 11. 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 CONDINS PRESENT.
- 12. 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.
- 13. 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.
- 14. ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE, DRAWINGS ARE NOT TO BE SCALED UNDER ANY CIRCUMSTANCES.
- 15. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS, OR SUPPORTS FOR INSTALLATION OF ITEMS INDICATED ON THE DRAWINGS.
- 16. 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 996-1-1 & 7 AND SECTION 9905.3.1)
- 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.
- 23. 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)
  906.3.1)

**ABBREVIATION** ABV.
ACCA
ADDL
A.F.G.
ALUM.
ALT.
ANT.X.
ARCH.
AWG.
BLDG.
BLK.
BLDG.
BLK.
B.N.
B.N.
CANT.
CANT.
CONT.
CONT.
CONT.
CONT.
CONT.
CONT.
CONT.
CONT. DBL DEPT D.F. DIA. DIAG DIM. DWL. EA. ELEC ELEC EMT. E.N. ENG.

EQ EXP EXST (E) EXT

DEFINITION ANCHOR BOLT ABOVE
ANTENNA CABLE COVER ASSEMBLY
ADDITIONAL
ABOVE FINISHED FLOOR
ABOVE FINISHED GRADE
ATTIMATINE
ADDITIONAL
ABOVE FINISHED GRADE ALUMINUM ALTERNATE ANTENNA APPROXIMATE(LY) ARCHITECT(URAL) AMERICAN WIRE GAUGE BUILDING BLOCKING BLOCKING BEAM BOUNDARY NAILING BARE TINNED COPPER WIRE BOTTOM OF FOOTING BACK-UP CABINET CABINET CANTILEVER(ED) CAST IN PLACE CEILING DOUGLAS FIR

DIMENSION DRAWING(S) DOWEL(S)

ENGINEER

EXISTING EXTERIOR

REVISION

EQUAL EXPANSION

EACH
ELEVATION
ELECTRICAL
ELEVATOR
ELECTRICAL METALLIC TUBING

FINISH SURFACE FOOT(FEET) FOOTING GROWTH (CABINET) GAUGE
GALVANIZE(D)
GROUND FAULT CIRCUIT INTERRUPTER
GLUE LAMINATED BEAM G.F.I. GLB.(GLU-LAM) GPS GRND. HDR. HGR. HT. ICGB. GLOBAL POSITIONING SYSTEM ISOLATED COPPER GROUND BUS IN.(") INT. LB.(#) LB. LF. INCH(ES) INTERIOR MAS.
MAS.
MAS.
MAS.
MAS.
MECH.
MFR.
MIN.
MIN.
(N) (#)
NO.C.
OPNG.
P/CS
PLY.
CPRC
P.S.F.
P.S.F.

**ABBREVIATION** 

F.F. F.G. FIN. FLR. F.O.C. F.O.M. F.O.S. F.O.W.

<u>DEFINITION</u>

FINISH FLOOR
FINISH GRADE
FINISH(ED)
FLOOR
FOUNDATION
FACE OF CONCRETE

POUND(S) LAG BOLTS MASONRY MAXIMUM MAXIMUM MACHINE BOLT MECHANICAL MANUFACTURER MISCELLANEOUS OPENING
PRECAST CONCRETE
PERSONAL COMMUNICATION SERVICES PERSONAL COMMUNICATION'S PLYWOOD POWER PROTECTION CABINET PRIMARY RADIO CABINET

ABBREVIATION DEFINITION

POWER (CABINET)
QUANTITY
RADIUS
REFERENCE
REINFORCEMENT(ING)
REQUIRED
RIGID GALVANIZED STEEL RADIO REMOTE UNIT SCHEDULE SIMILAR SPECIFICATION(S) SQ. S.S. STD. STL. STRUC. STRUC. TEMP. THK. TMA T.N. T.O.C. T.O.F. T.O.F. T.O.P. T.O.S. T.O.W. TYP. U.G. U.L. U.N.O. VI.F. SQUARE STAINLESS STEEL STANDARD STEEL STRUCTURAL TEMPORARY THICK(NESS) TOWER MOUNTED AMPLIFIER TOE NAIL TOP OF ANTENNA TOP OF ANTENNA
TOP OF CURB
TOP OF FOUNDATION
TOP OF PLATE (PARAPET)
TOP OF STEEL
TOP OF WALL TOP OF WALL
TYPICAL
UNDER GROUND
UNDERWRITERS LABORATORY
UNLESS NOTED OTHERWISE
VERIFY IN FIELD
WIDE(WIDTH)
WITH WOOD WEATHERPROOF WEIGHT CENTERLINE

CENTERLINE

MATCH LINE

WORK POINT

PROPERTY/LEASE LINE

GROUND CONDUCTOR

TELEPHONE CONDUIT

ELECTRICAL CONDUIT

OVERHEAD SERVICE

CHAIN LINK FENCING

COAXIAL CABLE

CONDUCTORS

4393 RIVERBOAT ROAD, SUITE #400 TAYLORSVILLE, UTAH 84123

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#### **UTAH MARKET OFFICE**

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**ABBREVIATIONS** 

Ģ	NEW ANTENNA	X	GRID REFERENCE	
<u></u>	EXISTING ANTENNA	XXXX	DETAIL REFERENCE	
$\otimes$	GROUND ROD			$\overline{}$
	GROUND BUS BAR	<del>X</del>	ELEVATION REFERENCE	•
•	MECHANICAL GRND. CONN.		SECTION REFERENCE	
•	CADWELD		GROUT OR PLASTER	т
$\boxtimes$	GROUND ACCESS WELL		(E) BRICK	ғ
E	ELECTRIC BOX		(E) MASONRY	
T	TELEPHONE BOX		CONCRETE	— A ——
$\Leftrightarrow$	LIGHT POLE		EARTH	T/E
0	FND. MONUMENT	000000000000000000000000000000000000000	GRAVEL	x
<b>♦</b>	SPOT ELEVATION		PLYWOOD	
Α	SET POINT		SAND	

WOOD CONT.

WOOD BLOCKING

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

**GENERAL NOTES** 

SHEET NUMBER

**GENERAL NOTES** LEGEND 1



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

Ref: 47CFR 1.1307 (b)

# CAUTION

Beyond This Point you are

entering a controlled area where RF cmissions may exceed the FCC Occupational Exposure Limits.

Ref: 47 CFR 1.1307 (b)

PROPERTY OF AT&T



**ALERTING SIGN** 

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## **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 FAILLER TO USE ALL POSTED SIGNS AND SHE GUIDELINES FOR WORKING IN A RADIO FREQUENCY ENVIRONMENT COLLD RESULT IN SERIOLS INJURY. CONTACT CURRENT MAY EXCEED LIMITS PRESCRIBED IN ANSIEEE C95.1-1992 FOR CONTROLLED ENVIRONMENTS.

## **ALERTING SIGN**

**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**



**atet** 

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

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

Cumuniquese con AT&T \_\_\_\_\_antes de realizar cualquier mantenimiento reparaciones cerca de las antenas de AT&T.

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

**INFO SIGN #1** 

atat O



IN	NFORMATION
AC	FIVE ANTENNAS ARE MOUNTE
	ON THE OUTSIDE OF THIS BUILDING BEHIND THE PANEL ON THIS STRUCTURE
	STAY BACK A MINIMUM OF 3 FEET FROM THESE ANTENNAS
Conta instru repair	set AT&T at and follow their citions prior to performing any maintenance or selo ser than 3 feet from the antennas.
This i	s Sinex

**INFO SIGN #2** 

**INFO SIGN #4** 

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atet 🥏

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## **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
TOWERS								
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	
ROOF TOPS								
AT ALL ACCESS POINTS OF THE ROOF	х							
ON ANTENNAS	х		х	х				
CONCEALED ANTENNAS	х	х						
ANTENNAS MOUNTED FACING OUTSIDE THE BUILDING	х	х						
ANTENNAS ON SUPPORT STRUCTURE	х	х						
ROOFTOP GRAPH:								
RADIATION AREA IS WITHIN 3FT FROM ANTENNA	х	ADJAČENT TO EACH ANTENNA					EITHER MOTICE OF CO	ALITION SIGN
RADIATION IS BEYOND 3FT FROM ANTENNA	х	ADJAČENT TO EACH ANTENNA				DIAGONAL, YELLOW STRIPING AS TO ROOF VIEW GRAPH	EITHER NOTICE OR CAUTION SIGN (BASED ON ROOFVIEW RESULTS) AT ANTENNAS/BARRIER	
CHURCH STEEPLES	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
WATER STATIONS	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:

1. 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

STRIPED OF AREA OR THE OUTER AN ENNAS OF THE SECTIOR
2. IF ROOFVIEW SHOWS: ONLY BLUE= NOTICE SIGN, BLUE AND YELLOW= CAUTION SIGN, ONLY YELLOW= CAUTION SIGN TO BE INSTALLED.
3. 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.

TAYLORSVILLE, UTAH 84123

4393 RIVERBOAT ROAD, SUITE #400

GENERAL DYNAMICS Information Technology

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



#### **UTAH MARKET OFFICE**

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Н	Α	09/16/2014	90% CONSTRUCTION	Y.D.
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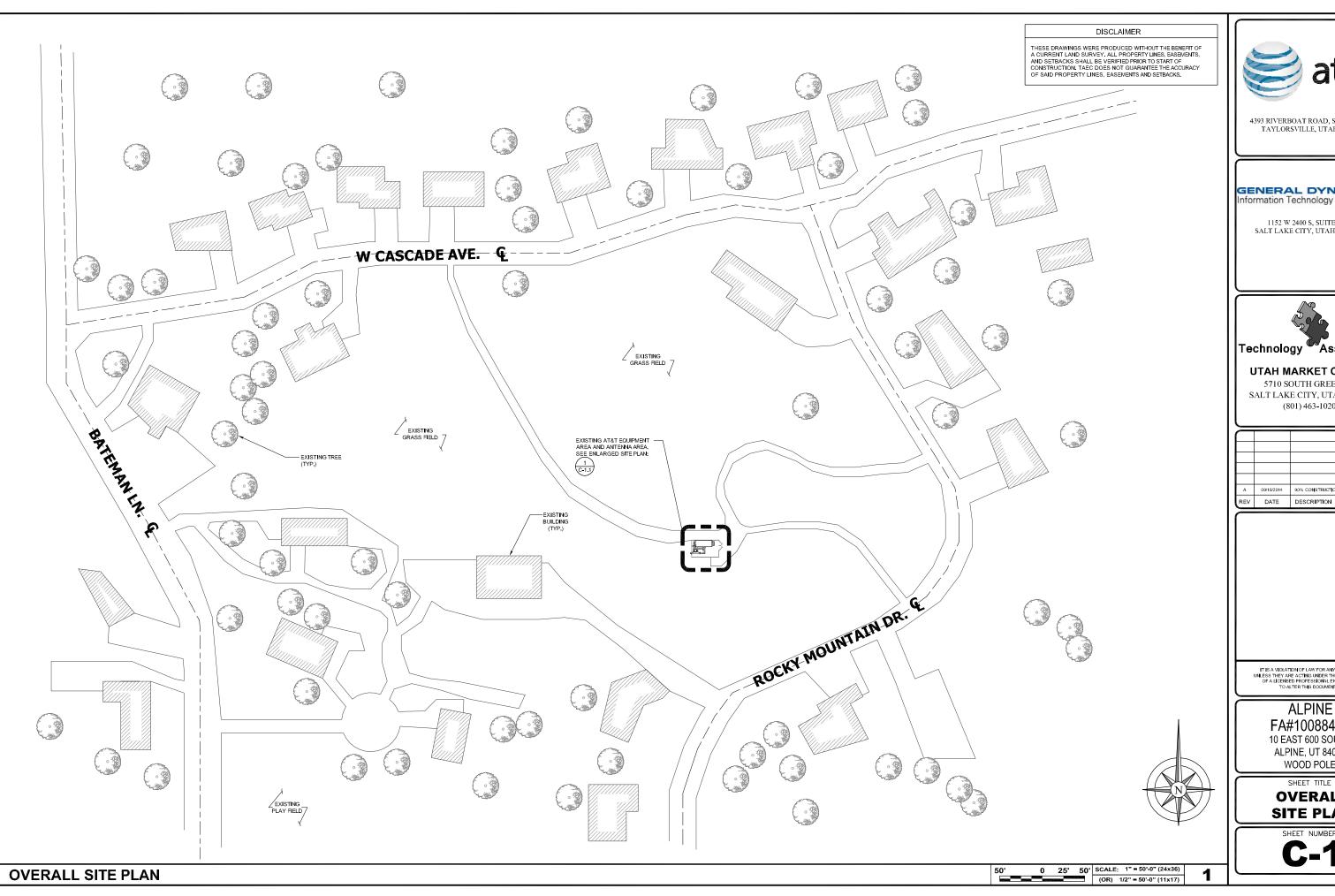
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**ALPINE** FA#10088454 10 EAST 600 SOUTH ALPINE, UT 84004 WOOD POLE

> SIGNAGE & NOTES

SHEET NUMBER

**T-5** 





4393 RIVERBOAT ROAD, SUITE #400 TAYLORSVILLE, UTAH 84123

GENERAL DYNAMICS

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



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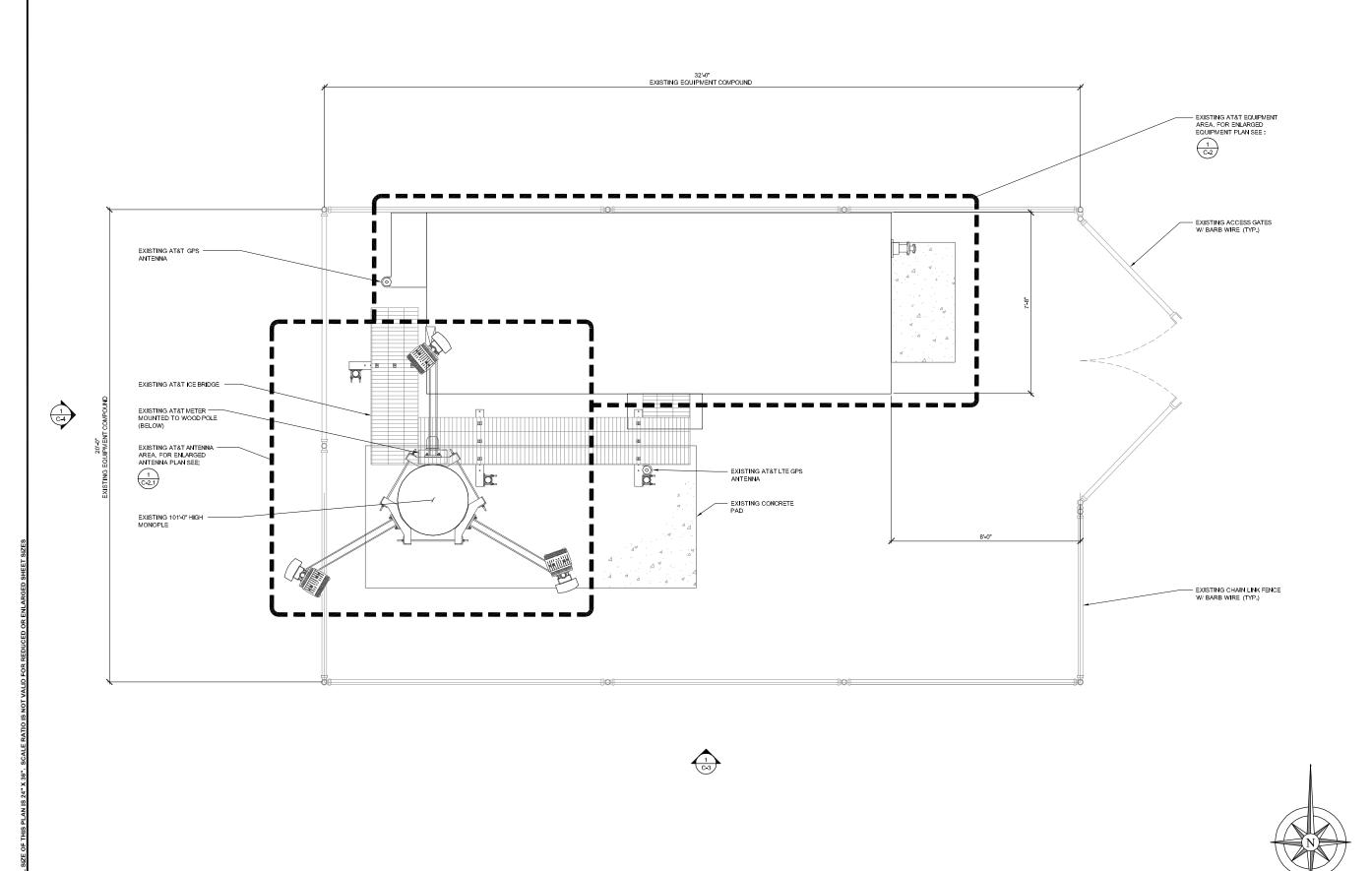


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**ALPINE** FA#10088454 10 EAST 600 SOUTH ALPINE, UT 84004 WOOD POLE

**OVERALL SITE PLAN** 

SHEET NUMBER





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ı		А	09/16/2014	90% CONSTRUCTION	Y.D.
ı		REV	DATE	DESCRIPTION	ву

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

ENLARGED SITE PLAN

SHEET NUMBER

C-1.1

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

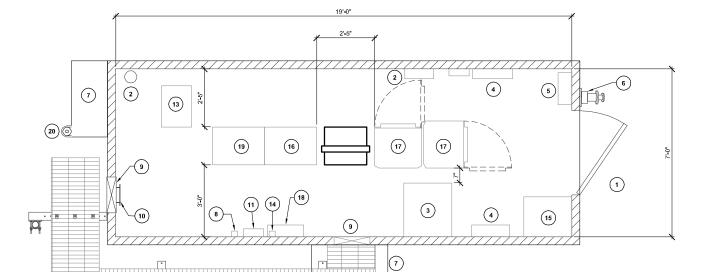
(17) EXISTING NOKIA CABINET

(18) EXISTING TELCO BOARD

(19) EXISTING UMTS CABINET

(20) EXISTING AT&T GPS ANTENNA

(21) EXISTING AT&T LTE GPS ANTENNA



#### NOTES:

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



4393 RIVERBOAT ROAD, SUITE #400 TAYLORSVILLE, UTAH 84123

GENERAL DYNAMICS Information Technology

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



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



**UTAH MARKET OFFICE** 

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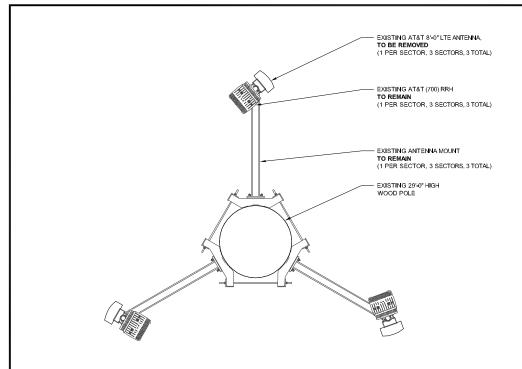
**EQUIPMENT** PLAN

SHEET NUMBER

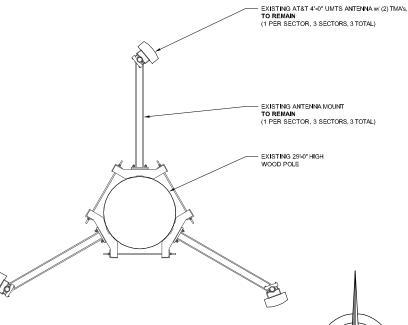
**EQUIPMENT PLAN (EXISTING)** 

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

**NOT USED** 



EXISTING AT&T 4'-0" GSM ANTENNA w/ (2) TMA's, TO REMAIN (1 PER SECTOR, 3 SECTORS, 3 TOTAL) - EXISTING ANTENNA MOUNT TO REMAIN (1 PER SECTOR, 3 SECTORS, 3 TOTAL) EXISTING 29'-0" HIGH WOOD POLE



1

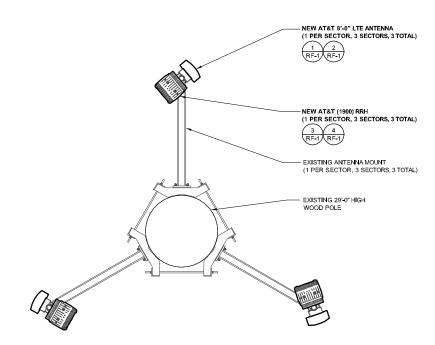
0 6" 1' 2" SCALE: 1/2" = 1'-0" (24x36) (OR) 1/4" = 1'-0" (11x17)

LTE ANTENNA @ 29'-6"

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

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

**ANTENNA PLAN (EXISTING)** 



LTE ANTENNA @ 29'-6"

NEW ANTENNA AND TRANSMISSION CABLE REQUIREMENT								
050700	TRANSMISSION CABLE							
SECTOR	ANTENNA TYPE	TECHNOLOGY	AZIMUTH	QTY.	LENGTH	TYPE		
(A1)	NEW ANTENNA	LTE	50°	1	45'	FIBER		
(A2)	EXISTING ANTENNA	UMTS	50°	NO CHANGES				
(A3)	EXISTING ANTENNA	GSM	50°	NO CHANGES		ANGES		
<b>B1</b>	NEW ANTENNA	LTE	160°	1	45'	FIBER		
B2	EXISTING ANTENNA	UMTS	160°		NO CH.	ANGES		
B3	EXISTING ANTENNA	GSM	160°	NO CHANGES		ANGES		
©1)	NEW ANTENNA	LTE	300	1	45'	FIBER		
(2)	EXISTING ANTENNA	UMTS	300		NO CH	ANGES		
(3)	EXISTING ANTENNA	GSM	300		NO CH.	ANGES		

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 2C. COIL EXCESS CABLE NEAR RRH.

Matching Azimuth LTE 1C: 330 deg.



2

C-2.1

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

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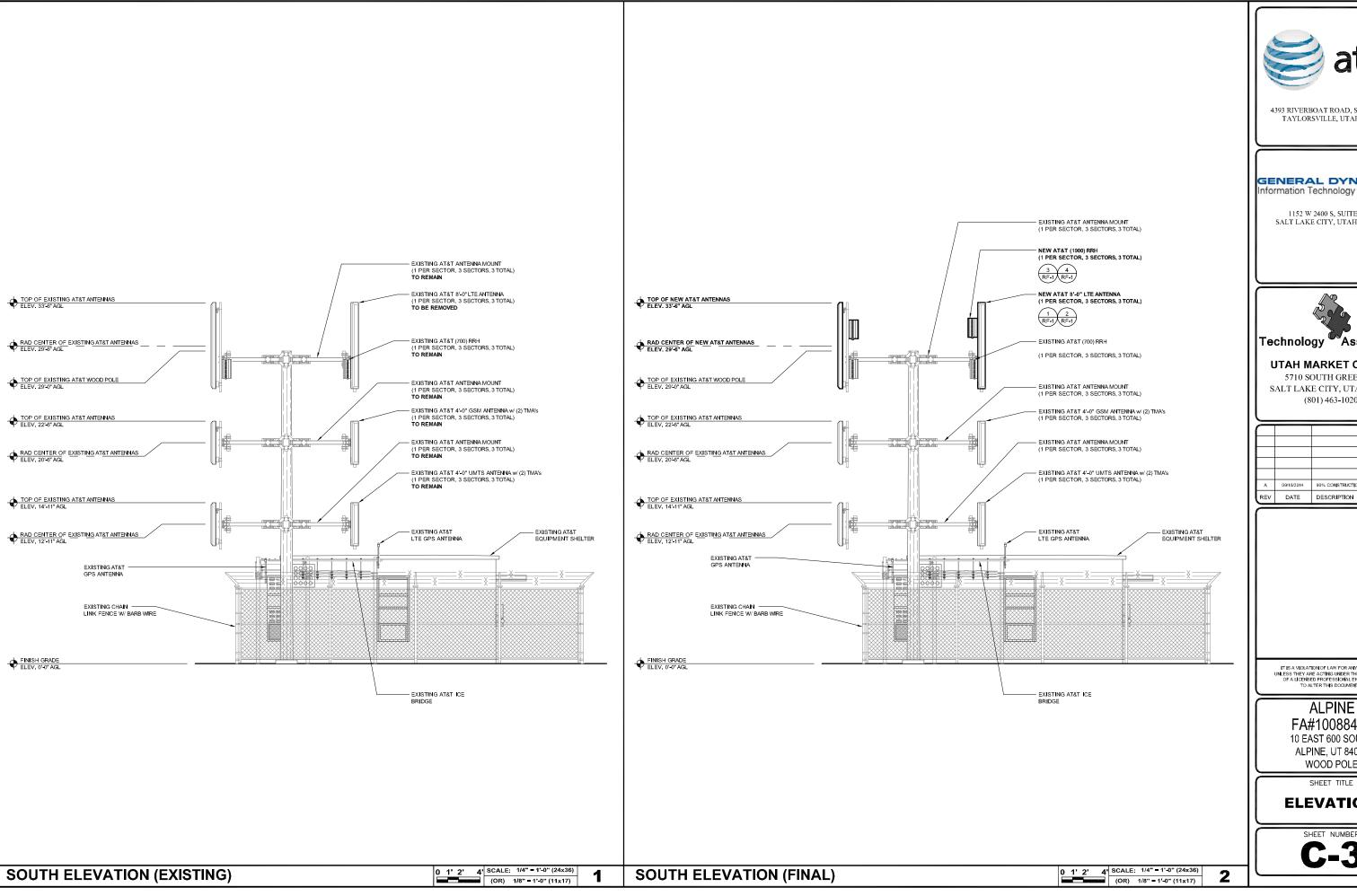
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**ANTENNA PLANS** 





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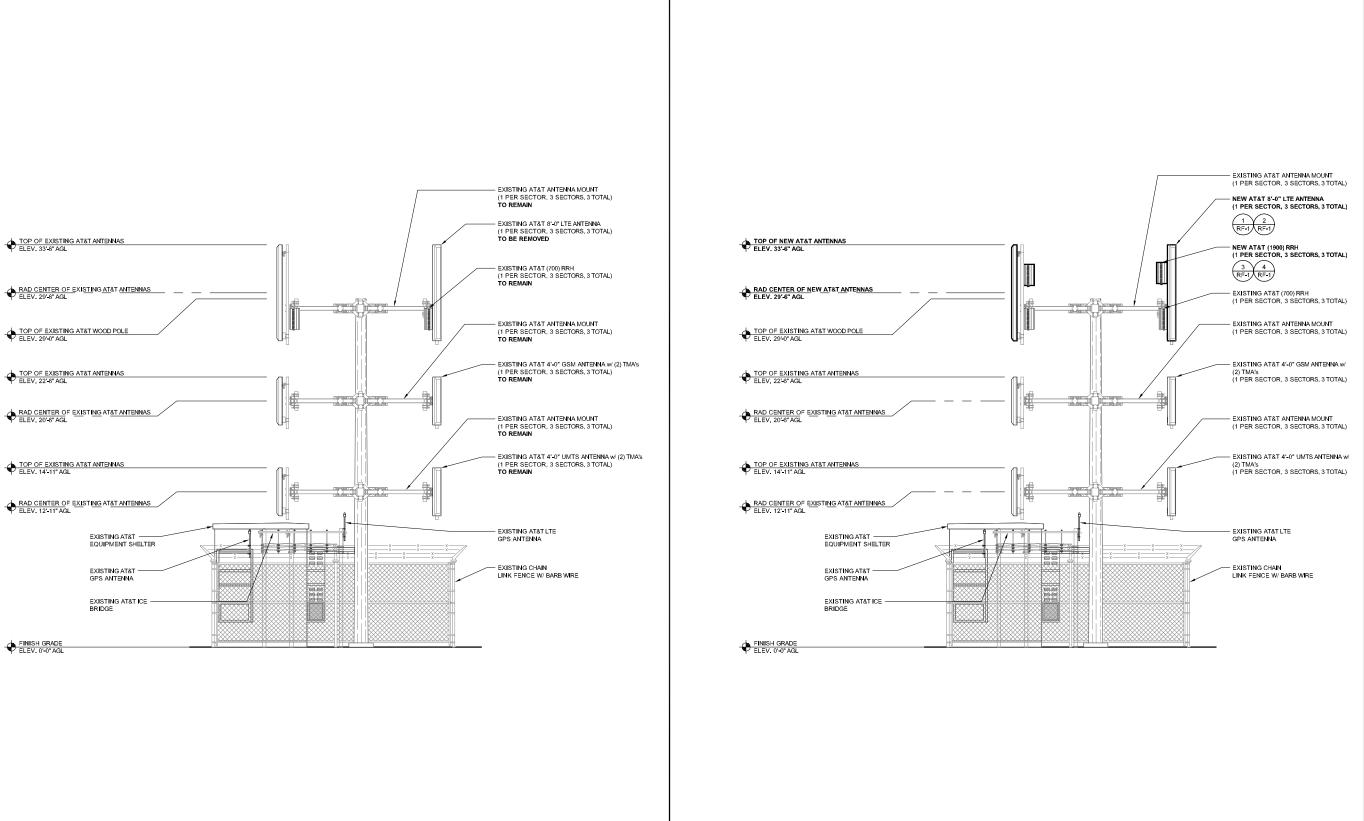
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**ELEVATIONS** 

**C-3** 



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

**WEST ELEVATION (EXISTING)** 



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**ELEVATIONS** 

**WEST ELEVATION (FINAL)** 

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

#### 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 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
- 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 THE EXTENSION THE WORK IS INDICATED BY THE DRAWNINGS, 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.
- OPERATIONAL SYSTEM, WHICH INCLUDES THE COST FOR MATERIAL
- WORKMANSHIP AND NEAT APPEARANCE SHALL BE AS IMPORTANT AS WORMMANSHIP AND NEAT APPEARANCE STALL 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 SYSTE
- G. THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT SHALL BE DELIVERED IN PROPER WORKING ORDER, REPLACE, WITHOUT ADDITIONAL COST TO THE OWNER. ANY DEFECTIVE MATERIAL AND EQUIPMENT WITHIN ONE YEAR FROM THE DATE OF
- 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
- . "PROVIDE": INDICATES THAT ALL ITEMS ARE TO BE FURNISHED, INSTALLED AND CONNECTED IN PLACE.
- 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 RRANGEMENTS ARE NECESSARY, DUE TO FIELD CONDITIONS IN THE ARRANGEMENTS ARE NECESSARI, DOE OF PERLOCATIONS WHEN BUILDING CONSTRUCTION OR REARRANGEMENT OF FURNISHINGS OR EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST, PROVIDING THE CHANGES 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

#### 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

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
- 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 LINED COPPER AND ANNEALED #2 UNLESS NOTED OTHERWISE.
- 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 GROUNDING STSTEM RESISTANCE SHALL ON EXCEED SOHINS. IT 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

#### 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
- 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.

- 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 HUNTS WRAF
- 2. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS
- 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
- 4 CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILING OR WALLS CONDUIT RUNS MAY BE SURFACE MOUNT 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
- 6. ALL CONDUIT ONLY (C.O.) SHALL HAVE PULL 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 ALL WIRE AND CABLE SHALL BE COMPER, 500 VOL.1, #12 AWG
  MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE
  DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE STANDED. TYPE
  THHN INSULATION USED UNLESS CONDUCTORS INSTALLED IN CONDUIT EXPOSED TO WEATHER, IN WHICH CASE TYPE THWN INSULATION SHALL BE USED.
- 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 WHITE FINISH (UNLESS NOTED BY ARCHITECTIENGINEER), 20 AMP, 125 VOLT, THREE WIRE GROUNDING TYPE, NEWS 2-5CR, 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 FOUIPPED WITH OUICK-NEUTRAL BUS, AROUND BUS AND EQUIPPED WITH QUICA-MAKE QUICK-BREAK BOLT-IN TYPE THERMAL MACNETIC CIRCUIT BREAKERS. MOUNT TOP OF THE PANELBOARDS AT 6'-3" ABOVE FINISHED FLOOR, PROVIDE TYPEWRITTEN CIRCUIT
- H. ALL CIRCUIT BREAKERS, MAGNETIC STARTERS AND OTHER ELECTRICAL FOUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN MAXIMUM SHORT CIRCUIT CURRENT
- 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 DAWAGE 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 EASTENING OR IN DRILLING HOLES INTO CONCRETE WHE FIRST HER FOR FASTERING ANOCHORING 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.
- PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS,
- ALL BROCHURES, OPERATING MANUALS, CATALOG, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.

- EQUIPMENT POWER SHALL BE 200A, 1Ø, 3W, 120/208V OR
- 2. UTILITY RECEPTACLE IS A GFCI DUPLEX OUTLET INSTALLED IN THE DEADFRONT OF PPO
- PROVIDED A MIN. 36" WORK CLEARANCE IN FRONT OF PANELS /
- ALL BREAKERS IN THE ELEC. PANEL ARE RATED 10,000 RMS SYMMETRICAL AMPS, 240V MAX. 75°C.

**ELECTRICAL NOTES** 

- ALL WIRING SHALL BE COPPER 75°C U.N.O.
- CONDUIT REQUIREMENTS (TYP., U.N.O.) UNDERGROUND: PVC (SCHED 40 OR 80) EMT (RGS IN TRAFFIC AREAS) RGS (ABOVE GRADE) INDOOR: OUTDOOR:
- APPLETON EMERGENCY GENERATOR PLUG AT 36" A F. CONTRACTOR TO VERIFY EXACT LOCATION WITH LANDLORD AND UTILITY COORDINATOR.
- 8. PLACE "TRUE TAPE" AND PULL ROPE IN THE CONDUITS AS REQUIRED.

#### SCALE 2 N.T.S.

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

## GENERAL ABBREVIATIONS -OHT/OHP---- OVERHEAD TELEPHONE/OVERHEAD POWER

OHT — OVERHEAD TELEPHONE LINE

OHP OVERHEAD POWER LINE

─ E ──── POWER RUN

− T — TELCO RUN

— T / F — POWER/TELCO RUN

- - GROUNDING CONDUCTOR

- - - - CONDUIT UNDERGROUND

 $\Box$ H

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 $+\otimes$ 

EXIT

—— GROUNDING CONDUCTOR

FUSE, SIZE AND TYPE AS INDICATED.

NEMA 3R ENCLOSURE

#WSW232T

#TWSM232T

ENCLOSURE, SQ D CATALOG NO. H222NRB

SAFETY SWITCH, 2P-240V-60A W/60A FUSES, NEMA 3R

MANUAL TRANSFER SWITCH, 2P-240V-200A, NO FUSE,

LIGHTING FIXTURE, FLUORESCENT, 10.94" x 4'-0", 2/40W

LIGHTING FIXTURE, FLUORESCENT, 10.94" x 8'-0", 2/95W

SURFACE MOUNTING TYPE, HUBBELL LIGHTING CATALOG

SURFACE MOUNTING TYPE, HUBBELL LIGHTING CATALOG

LIGHTING FIXTURE, HIGH PRESSURE SODIUM, 1/70W, WALL

MOUNTING TYPE HUBBELL LIGHTING CATALOG #NRG-307

EXIT SIGN, THERMOPLASTIC LED, SINGLE FACE, UNIVERSAL MOUNTING,

OR 1/50W, HUBBELL LIGHTING CATALOG #NRG-121

W/BATTERY PACK, HUBBELL LIGHTING CATALOG #PR

COMBINATION, EXIT SIGN & EMERGENCY LIGHTING,

HUBBELL LIGHTING CATALOG #PRC

D GALVA	NIZED STEEL				
			SCALE N.T.S.	3	_
¤	LIGHTING FIXTUR	E, 1/175W. METAL HALIDE, HI	JBBELL CAT #N	/IC-0175H-336	5
•	5/8" X 10'-0" ,CU. G	SND ROD 30" MIN. BELOW GRA	DE.		
•	5/8" X 10'-0" ,CU. G	IND ROD IN TEST WELL 30" M	IN. BELOW GR	ADE.	
8	CHEMICAL GROUN	ID ROD (XIT GROUND ROD)			
	CADWELD CONNEC	CTION			
	MECHANICAL CON	NECTION			
•	HALO GROUND CO	NNECTION			
~	CIRCUIT BREAKE	3			
W)	UTILITY METER B.	ASE			

STEPDOWN TRANSFORMER

TRANSFORMER

 $\ominus$ HUBBEL CATALOG #5362 TOGGLE SWITCH, 1P-125V-15A, HUBBELL CATALOG #HBL S

TOGGLE SWITCH, 1P-120V-15A, "WP"

IONIZATION SMOKE DETECTOR W/ALARM HORN & AUXILIARY CONTACT 120 VAC. GENTEX PART NO. 7100F

RECEPTACLE, 2P-3W-125V-15A, DUPLEX, GROUND TYPE,

 $\bigcirc$ POLE (N) POLE MOUNTED XEMER

EMERGENCY LIGHTING, 2/50W, HUBBELL LIGHTING CATALOG (E) POLE MOUNTED XFMR

LIGHTING FIXTURE, INCANDESCENT, 1/100W, WALL MOUNTING TYPE, HUBBELL LIGHTING CATALOG

LIGHTING FIXTURE, HALOGEN, QUARTZ, 1/300W, HUBBELL LIGHTING CATALOG #QL-505

(N) PAD MOUNTED XFMER

(E) PAD MOUNTED XFMER



4393 RIVERBOAT ROAD, SUITE #400 TAYLORSVILLE, UTAH 84123

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#### **UTAH MARKET OFFICE**

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

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DATE	DESCRIPTION	BY

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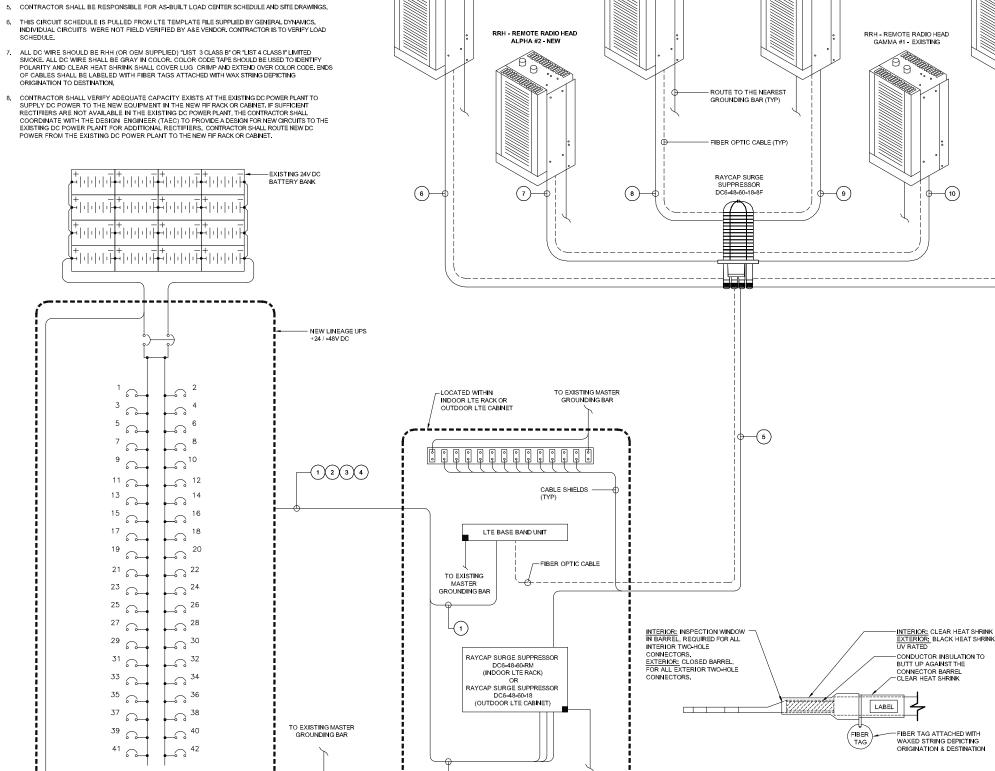
ALPINE FA#10088454 10 EAST 600 SOUTH ALPINE. UT 84004 WOOD POLE

**ELECTRICAL NOTES** 

SHEET NUMBER

#### NOTES

- 1. INSTALL ADDITIONAL CIRCUITS TO RECTIFIERS AS REQUIRED, TO PROVIDE ADDITIONAL 48V DC POWER
- 2. THE SCOPE OF WORK SHALL DICTATE THE EQUIPMENT TO BE INSTALLED, EQUIPMENT SHALL BE EQUAL TO OR BETTER THAN REFERRED VENDORS.
- 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 MANUFACTURER'S.
- INDIVIDUAL CIRCUITS WERE NOT FIELD VERIFIED BY A&E VENDOR, CONTRACTOR IS TO VERIFY LOAD SCHEDULE.



TO EXISTING MASTER

-(2)(3)(4)

RRH - REMOTE RADIO HEAD

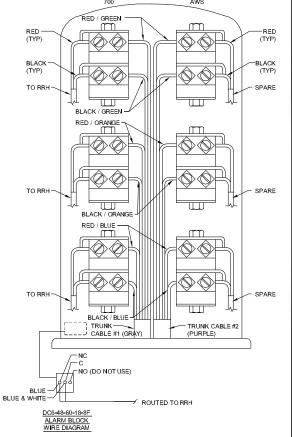
ALPHA #1 - EXISTING

RRH - REMOTE RADIO HEAD

RRH - REMOTE RADIO HEAD

FIBER WIRE RHH SLEEVE DETAIL

RRH - REMOTE RADIO HEAD



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

DC CIRCUIT SCHEDULE						
	FROM	то	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 - <b>NEW</b>	(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 - <b>NEW</b>	(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 - <b>NEW</b>	(1) 6-#12 RHH TC-RE-DC CABLE			



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

WOOD POLE

**ELECTRICAL** ONE-LINE DIAGRAM

**ELECTRICAL ONE-LINE DIAGRAM** 

GROUND

#### ELECTRICAL GROUNDING SPECIFICATIONS

- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE CURRENTLY IN EFFECT FOR THE AUTHORITY HAVING JURISDICTION.
- 2. 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 ALL GROUND BARS STALL BE INVIDED. IN OFFER, SO 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 BARS, 1 AT EACH OPPOSITE BOTTOM CORNER, AND EACH SHALL RUN IN 3/4" HEAVY WALL LIQUID TIBET FLEXIBLE CONDUIT FROR 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.
- 10. 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.
- 11. GROUND RODS SHALL BE COPPER-CLAD STEEL 5/8"x10", SPACED NO LESS THAN 10' ON CENTER.
- 12. ALL GROUND SYSTEM CONDUCTORS AND CONDUITS SHALL BE SECURED UTILIZING ONLY NONMETALLIC, NON-CONDUCTIVE, UV RATED CLAMPS,
- 13. 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
- 14. 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,

	LEGEND				
	EXOTHERMIC CONNECTION				
•	MECHANICAL CONNECTION				
<del>其</del>	EQUIPMENT GROUND BAR				
:::::::::::::::::::::::::::::::::::::::	ANTENNA GROUND BAR (AS REQUIRED)				
++	#2 AWG GROUND LEAD (AS REQUIRED)				

1. CONTRACTOR TO REPLACE ALL MISSING GROUND BARS AND GROUNDING CONNECTIONS AS REQUIRED

4393 RIVERBOAT ROAD, SUITE #400

GENERAL DYNAMICS

TAYLORSVILLE, UTAH 84123

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

GROUNDING

SHEET NUMBER

**PLAN** 

**G-1** 

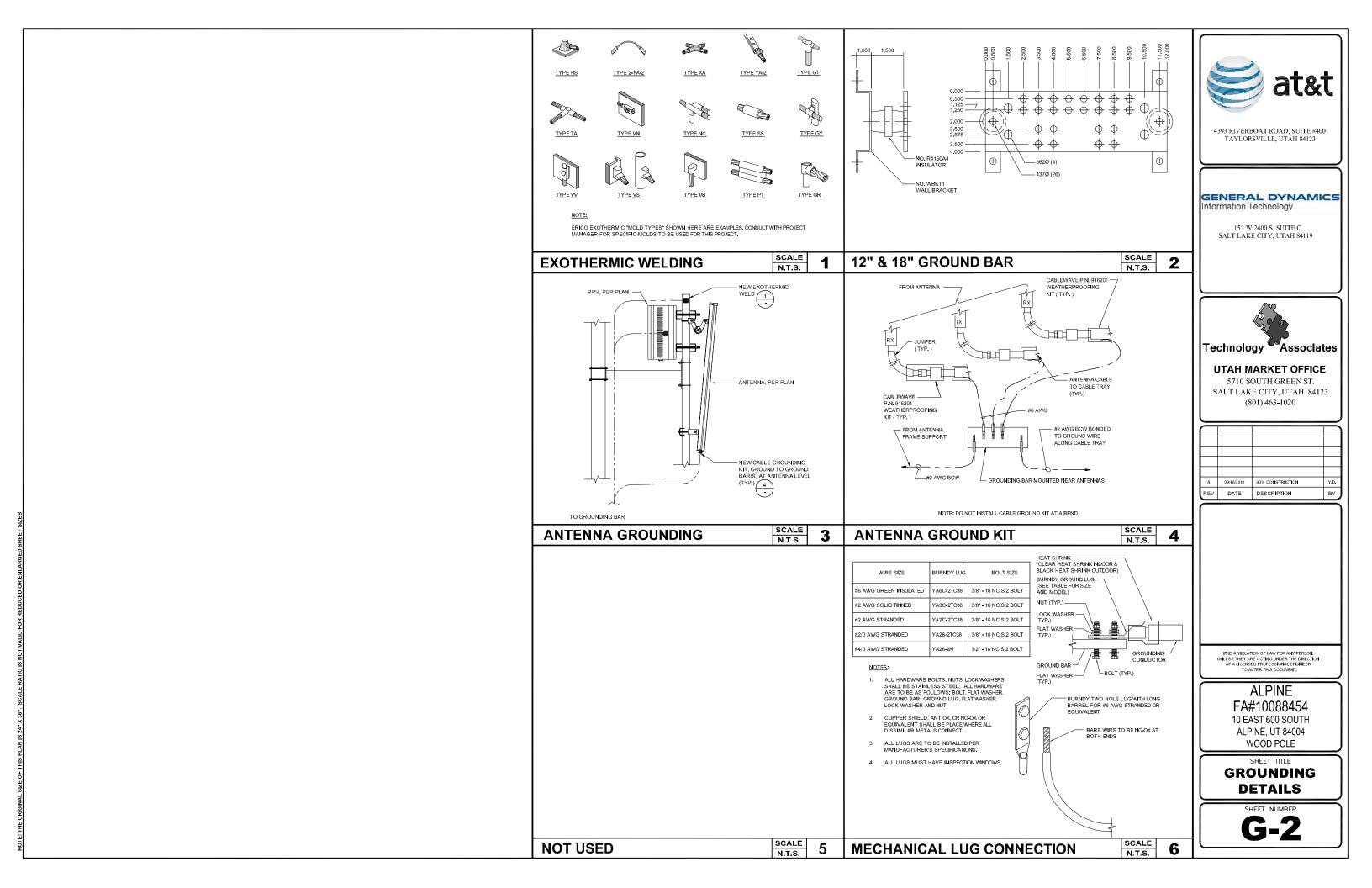
SCALE 2 **NOT USED** N.T.S. EXOTHERMIC WELD(TYP.) LUG CONNECTIO (TYP.) 6 G-2 ANTENNA GROUND BAR 1/4"X4"X18" (TYP.) NEW GROUND #2 BTCW FROM NEW AT&T (1900) RRH TO EXISTING MAIN GROUND BAR (TYP.) TO LOWER GROUND BAR (TYP.) NEW GROUND #2 BTCW FROM NEW ANTENNA MOUNTING PIPE TO GROUND BAR (TYP.) 3 G-2

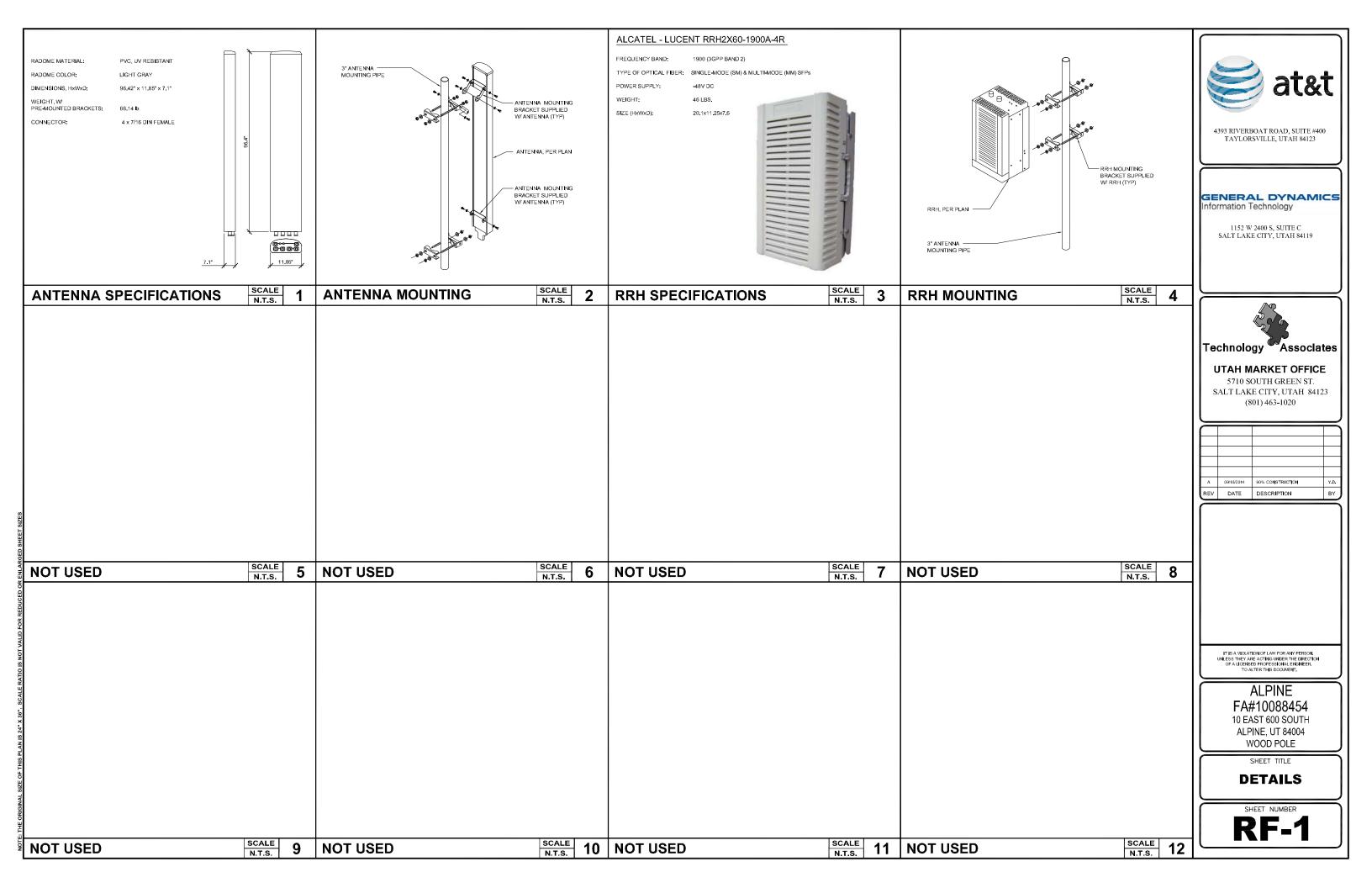
**NOTES & LEGEND** 

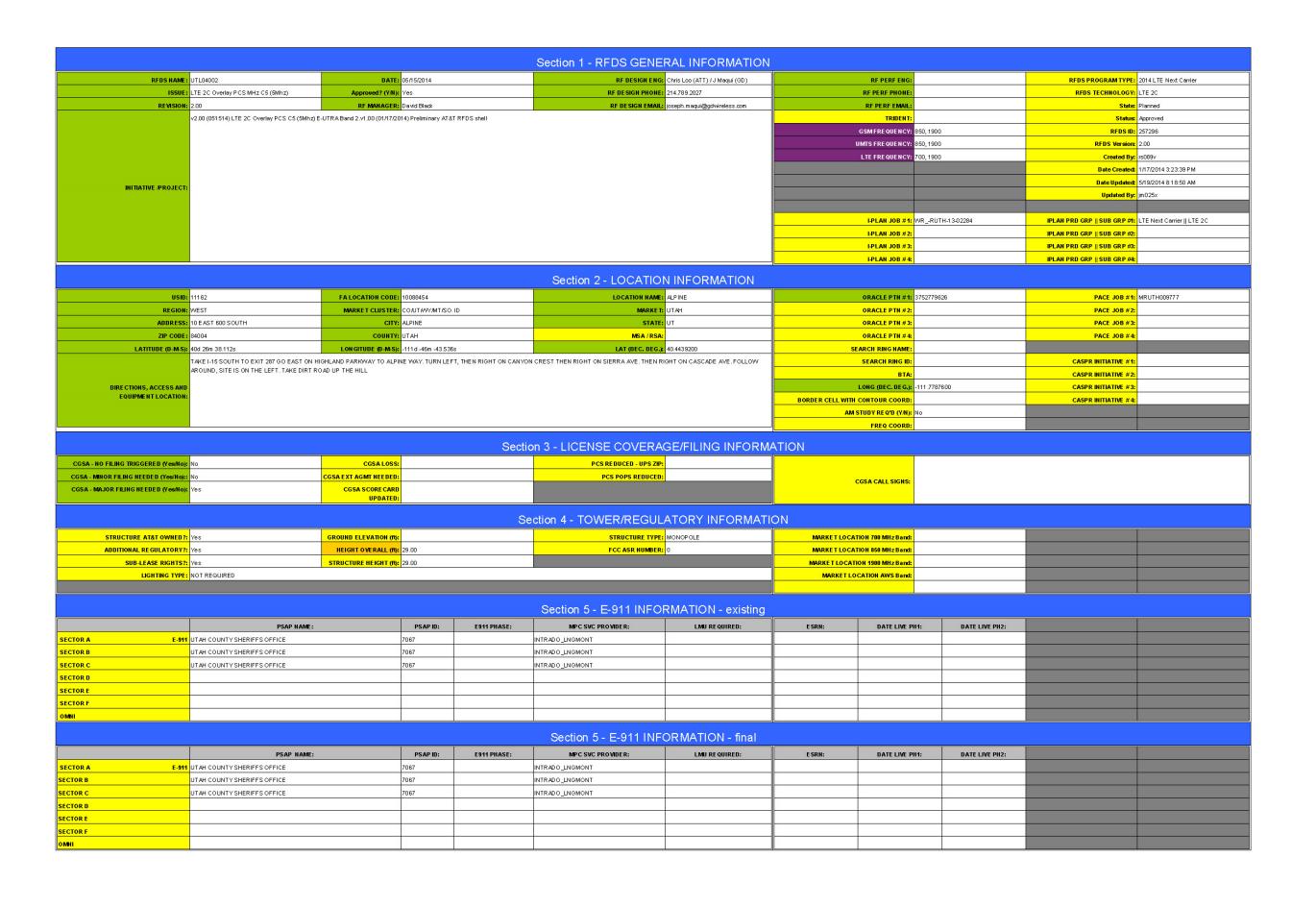
SCALE

**ANTENNA GROUNDING** 

3









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

> > SHEET TITL

RFDS DATA SHEET

SHEET NUMBER

**RF-2** 

				Se	ction 6 - RBS GEI	NERAL INFORMA	TION - 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
RBS ID:	66876	43035	231969	151461	365009				375208	
CTS COMMON IB:	SLKCUT4002_2	SLKCUT4002	UTUTU4002	UTUTUU4002	UTUTV4002				UTL04002	
BTA/TID:	365G	365P	365U	365V	365W				365L	
4-DIGIT SITE ID:	0036	0048	4002	4002	4002				04002	
COW OR TOY?:	No	No	No	No	No				No	
CELL SITE TYPE:	SECTORIZED	SECTORIZED	SECTORIZED	SECTORIZED	SECTORIZED				SECTORIZED	
SITE TYPE:	BTS-CONVENTIONAL	BTS-CONVENTIONAL	MACRO-CONVENTIONAL	MACRO-CONVENTIONAL	MACRO-CONVENTIONAL		· .		MACRO-CONVENTIONAL	
BTS LOCATION ID:					INTERNAL		7.		INTERNAL	
ORIGINATING CO:	CINGULAR	CINGULAR	CINGULAR	CINGULAR	CINGULAR				CINGULAR	
CELLULAR NETWORK:	GOLD	GOLD	GOLD	GOLD	GOLD				GOLD	
OPS DISTRICT:	RF TECH UTAH	RF TECH UTAH	RF TECH UTAH	RF TECH UT AH	RF TECH UTAH				RF TECH UTAH	
RF DISTRICT:	21	21	21	21	21				21	
OPS ZONE:	2	2	WE_UT_UTAH_LAKE_CS	2	WE_UT_UTAH_LAKE_CS				WE_UT_UTAH_LAKE_CS	
RF ZONE:	В	В	В	В	В				В	
BASE STATION TYPE:	OVERLAY	OVERLAY	OVERLAY	OVERLAY	OVERLAY				OVERLAY	
E QUIPMENT NAME:	ALPINE	ALPINE	ALPINE	ALPINE	ALPINE				ALPINE	
DISASTER PRIORITY:	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

								Secti	ion 7 - R	BS SPE	CIFIC IN	FORMAT	ION - ex	risting										
	GSM 1	ST RBS	GSM 2	ND RBS	UMTS	1ST RBS	UMTS 2	ND RBS	UMTS	3RD RBS	UMTS 4	ITH RBS	UMTS 6	STH RBS	UMTS 6	TH RBS		LTE 15	ST RBS			LTE 2	ND RBS	
MSC																								
BSC/RNC/MME POOL ID	SLKCBSC13		SLKCBSC13		SLKCUTJCCRA	AR01	SLKCUTJCCRA	R 01	SLKCUTJCCR.	AR01							FF58							
LAC 4	49032		49032		45996		45996		45996															
RAC																								
EQUIPMENT VENDOR	NOKIA		NOKIA		ALU		ALU		ALU								ALU							
EQUIPMENT TYPE L	ULTRASITE 85	0	ULTRASITE 19	00	LUCENT M ACF	RO INDOOR	FLEXENT		LUCENT MACE	ROINDOOR							9926 BASEBAN	ND UNIT						
LOCATION																								
CABINET LOCATION																								
MARKET STATE CODE																	UT							
AGPS Y	Yes		Yes		Yes		Yes		Yes				N. Committee				Yes							
NODE B NUMBER																	4002							
PARENT NAME S	SALT LAKE CIT	YBSC 13	SALT LAKE CI	TY BSC 13	SLC ALU RNC	9370-01	SLC ALU RNC	370-01	SLC ALU RNC	9370-01							FF58							
								Se	ction 7 -	RBS SP	ECIFIC II	NFORMA	ATION - 1	final										
	GSM 1	ST RBS	GSM 2	ND RBS	UMTS	1ST RBS	UMTS 2	ND RBS	UMTS	3RD RBS	UMTS 4	ITH RBS	UMTS 6	STH RBS	UMTS 6	TH RBS		LTE 19	ST RBS			LTE 2	ND RBS	
MSC																								
B SC/RNC/MME POOL ID	SLKCBSC13		SLKCBSC13		SLKCUTJCCRA	AR01	SLKCUTJCCRA	R 01	SLKCUTJCCR.	AR01							FF58							
LAC 4	Same and the second sec		49032		45996 45996				45996															
RAC																								
EQUIPMENT VENDOR	NOKIA		NOKIA		ALU		ALU		ALU								ALU							
EQUIPMENT TYPE	ULTRASITE 85	0	ULTRASITE 19	00	LUCENT M ACR	ROINDOOR	FLEXENT		LUCENT MACE	ROINDOOR							9926 BBU ECC	M-U						
LOCATION																								
CABINET LOCATION																								
MARKET STATE CODE																	UT							
AGPS \	Yes		Yes		Yes		Yes		Yes								Yes							
NODE B NUMBER																	4002							
PARENT NAME S	SALT LAKE CIT	YBSC 13	SALT LAKE CIT	TY BSC 13	SLC ALU RNC	9370-01	SLC ALU RNC	370-01	SLC ALU RNC	9370-01														
					·			Section	on 8 - RE	S INDIV	IDUAL IN	IFORMA	TION - e	xistina										
	GSM1ST	GSM1ST	GSM 2ND	GSM 2ND	UMTS 1ST	UMTS 1ST	UMTS 2ND	UMTS 2ND	UMTS 3RD	UMTS 3RD	UMTS 4TH	UMTS 4TH	UMTS 5TH	UMTS 5TH	UMTS 6TH	UMTS 6TH	LTE 1ST	LTE 1ST	LTE 1ST	LTE 1ST	LTE 2ND	LTE 2ND	LTE 2ND	LTE 2NI
RBS ID: 6	850	<b>1900</b> 43035	850	1900	231969	<b>1900</b>	850	<b>1900</b> 365009	850	<b>1900</b> 365009	850	1900	850	1900	850	1900	700 375208	850	1900	AWS	700	850	1900	AWS
CELL ID/BCF: S						UTUTUU4002_		UTUTV4002		UTUTV4002							UTL04002							+
070 00174		OL 1/ OL 17 4000				2 UTUTUU4002																		+
		ISLKCU I 4002			UTUTU4002	0101004002		UTUTV4002		UTUTV4002							UTL04002							
CTS COMMON ID: S	SLKCUT4002_ 2												ATION	ein al										
CTS COMMON ID:	SLKCUT4002_ 2							Sect	tion 8 - F	RBS INDI	VIDUAL	INFORM	ATION -	Tinai										
CIS COMMON IB:	SLKCUT4002_ 2 GSM1ST 850	GSM1ST 1900	GSM 2ND 850	GSM 2ND 1900	UMTS 1ST 850	UMTS 1ST 1900	UMTS 2ND 850	Sector Se	UMTS 3RD 850		UMTS 4TH	UMTS 4TH	UMTS 5TH 850	UMTS 5TH	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	
CTS COMMON ID: S	GSM1ST 850							UMTS 2ND	UMTS 3RD	UMTS 3RD	UMTS 4TH	UMTS 4TH	UMTS 5TH	UMTS 5TH										LTE 2ND AWS
	GSM1ST 850 66876	<b>1900</b> 43035			<b>850</b> 231969	1900		UMTS 2ND 1900	UMTS 3RD	UMTS 3RD 1900	UMTS 4TH	UMTS 4TH	UMTS 5TH	UMTS 5TH			700		1900					



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

> > SHEET TITLE

RFDS DATA SHEET

DE 9

										Section	n 9 - SOF	T SECT	OR ID -	existing											
		GSM 1ST 850	GSM 1ST 1900	GSM 2N D 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	r)	11162.850.25G .1	11162.1900.25 G.1			11162.850.3G.	11162.1900.3G		11162.1900.3G		11162.1900.3G .3							11162.700.4G. 1							
SECTOR A S	SOFT SECTOR ID	SLKCUT4002X	SLKCUT4002A			UTUTU4002X	UTUTU4002A		UTUTV4002A		UTUT∨4002D							UTL04002_7A_ 1							
SECTOR B		SLKCUT4002Y	SLKCUT4002B			UTUTU4002Y	UTUTU4002B		UTUTV4002B		UTUTV4002E							UTL04002_7B_							
SECTOR C		SLKCUT4002Z	SLKCUT4002C			UTUTU4002Z	UTUTU4002C		UTUTV4002C		UTUTV4002F							UTL04002_7C_							
SECTOR D																									
ECTOR 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																i i									
SECTOR F																									
OMNI																									
SECTOR A	CELL NUMBER																	15							
SECTOR B																		16							
SECTOR C																		17							
SECTOR D																									
SECTOR E																									
SECTOR F																									
OMNI																									

										Section	on 9 - SC	FT SEC	TOR ID	- final											
		GSM1ST 850	GSM 1ST 1900	GSM 2N D 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	11162.1900.25 G.1			11162.850.3G	11162.1900.3G .1		11162.1900.3G .2		11162.1900.3G .3							11162.700.4G. 1		11162.1900.4G .111					
SECTOR A SO	FT 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 M	IULTI CARRIER	No	No			No	No		Yes		Yes							No		No					
SECTOR B	1	No	No			No	No		Yes		Yes							No		No					-
SECTOR C	1	No	No			No	No		Yes		Yes							No		No					-
SECTOR D																									-
SECTOR E																									-
SECTOR F																									-
OMNI																									-
	CELL NUMBER										10					Si .		15		8					
SECTOR B																		16		9					-
SECTOR C																		17		10		10 0			
SECTOR D																									<del></del>
SECTOR E																		2							
SECTOR F																									
OMNI																									



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



## **UTAH MARKET OFFICE**

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

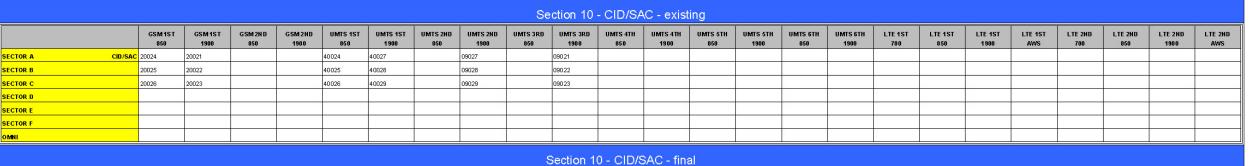
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ALPINE FA#10088454 10 EAST 600 SOUTH ALPINE, UT 84004 WOOD POLE

SHEET TITLE

**RFDS DATA SHEET** 



										٤	Section 1	0 - CID/8	SAC - fin	al											
		GSM 1ST 850	GSM 1ST 1900	GSM 2N D 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																									
																									(

								Sec	ction 11 -	- CURRE	ENT RAD	IO COU	NTS exis	sting										
	GSM 1ST 850	GSM1ST 1900	GSM 2N D 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 RABIO COU	NTS 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    SSM 1st Cabinet   GSM 2nd Cabinet   UMTS 1st Cabinet   UMTS 2nd Cabinet   UMTS 3nd Cabinet   UMTS 4th Cabinet   UMTS 5th C													
	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														
RAXÆCU Board Model														
RAX/ECU Board QTY														
BBU Board Model														
BBU Board QTY														
RRU - location														
FIBER JUMPER														
DC CABLE														
DC/Fiber Dem. Box														
Bundled Fiber Cable														
Bundled BC Cable														

## Section 13 - NEW/PROPOSED RADIO COUNTS

																V .								y	
		GSM 1ST	GSM 1ST	GSM 2N D	GSM 2ND	UMTS 1ST	UMTS 1ST	UMTS 2ND	UMTS 2ND	UMTS 3RD	UMTS 3RD	UMTS 4TH	UMTS 4TH	UMTS 5TH	UMTS 5TH	UMTS 6TH	UMTS 6TH	LTE 1ST	LTE 1ST	LTE 1ST	LTE 1ST	LTE 2ND	LTE 2ND	LTE 2ND	LTE 2ND
		850	1900	850	1900	850	1900	850	1900	850	1900	850	1900	850	1900	850	1900	700	850	1900	AWS	700	850	1900	AWS
SECTOR A	RADIO COUNTS																	1xRRH2x40-		1 xRRH2x60-					
																		07L-AT		1900A-4R					
SECTOR B																		1xRRH2x40-		1 xRRH2x60-					
																		07L-AT		1900A-4R					
SECTOR C																		1xRRH2x40-		1 xRRH2x60-					
																		07L-AT		1900A-4R					
SECTOR D																									
SECTOR E																									
SECTOR F			15															,							
OMNI																									



4393 RIVERBOAT ROAD, SUITE #400 TAYLORSVILLE, UTAH 84123

GENERAL DYNAMICS Information Technology

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#### **UTAH MARKET OFFICE**

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

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	Α	09/16/2014	90% CONSTRUCTION	Υ.Ε
Į	REV	DATE	DESCRIPTION	BY

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

SHEET TITLE

**RFDS DATA SHEET** 

Local Market Note2

ANTENNA COMMON FIELDS ANTENNA POSIT	ION 1 AN TENNA 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				
ME CHANICAL DOWNTILT 0	О	0				
FEEDER AMOUNT					<u>,</u>	
Antenna RET Motor (QTY/MODEL)						
SURGE ARRESTOR (QTY/MODEL)						
DIPLEXER (QTY/MODEL)						
DUPLEXER (QTY/MODEL)						
ntenna RET CONTROL UNIT (QTY/MODEL)						
DC BLOCK (QTY/MODEL)						
TMA/LNA (QTY/MODEL)						
RENTINJECTORS 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)						
dditional RRH #2 - any band (QTY/MODEL) Additional Component1 (QTY/MODEL)						
Additional Component's (QTY/MODEL)  Additional Component2 (QTY/MODEL)						
Additional Component3 (QTY/MODEL)						
Local Market Note1						

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoli)	ATOLL TXID	TX/RX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	E LE CTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/ Integrated/No ne)	FEEDERS TYPE	Feeder Length (feet)		TRIPLEXER or LLC (QTY)	TRIPLE XER or LLC (MODEL)	SCPA/MCPA MODULE ?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable
ANTENNA POSITION 1	PORT 1		111 62.A.700.4G.1	UTL04002_7A_1		LTE 700	SBNH- 1D6565C_725MHz_01DT	15.6	50	1	0	FIBER	45.01	0							
ANTENNA POSITION 1	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							
	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	05.50	0			NO.	12.58	223.87		+-
	PORT 2		11162.A.850.25G.1	SLKCUT4002X		GSM 850		14.5	50	2		LDF6-50 at 850 MHz		0			NO.	20000	223.87		+
ANTENNA POSITION 2	PORT 3		11162.A.650.25G.1	SLKCUT4002A			7780_0850_14.5_02dg 7780_1900_14.8_00dg	14.5	50	0		LDF6-50 at 1900 MHz		0			NO.		239.88		+
	PORT 4		11162.A.1900.25G.1	SLKCUT4002A		GSM 1900		14.0	50	0		LDF6-50 at 1900 MHz		0			NO.		239.88		+
	PORT 4		11162.A.1900.25G.1	SLRCU14002A		GSW 1900	7780_1900_14.8_00dg	14.0	50	U	0	LDF6-50 at 1900 MHz	40.03	U			NO	12.50	239.00		+
	PORT 1		11162.A.850.3G.1	UTUTU4002X		UMTS 850	7750.00_2_849_2	14.1	50	2	0	AVA5-50 @ 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	AVA5-50 @ 850	45.01	0			NO				
ANTENNA POSITION 3	PORT 3		11162.A.1900.3G.2	UTUTV4002A		UMTS 1900	7750.00_2_1920_0	17.6	50	0	0	AVA5-50 @ 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	AVA5-50 @ 1900	45.01	0			NO				



4393 RIVERBOAT ROAD, SUITE #400 TAYLORSVILLE, UTAH 84123

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## **UTAH MARKET OFFICE**

5710 SOUTH GREEN ST. 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

**RFDS** DATA SHEET

Local Market Note2 Local Market Note

		Sec	ction 15B - CURRENT SECTOR/	CELL INFORMATION - SEC	TOR B		
ANTENNA COMMON FIELDS	ANTENNA POSITION 1	AN TENNA 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 × W × D)	96.4 X11.9 X7.1	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				
ME CHANICAL 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)	)						
RRENTINJECTORS 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)	<u> </u>						
Local Market Note1							

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoli)	ATOLL TXID	TX/RX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/ Integrated/No ne)	FEE DERS TYPE	Feeder Length (feet)		TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MOBULE?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID
	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							
ANTENNA POSITION 1	PORT 2		11162.A.700.4G.1	UTL04002_7A_1			SBNH- 1D6565C_725MHz_09DT	15.6	160	9	0	FIBER	45.01	0							
	PORT 1		111 62.B.850.25 G.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		111 62.B.850.25 G.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		
ANTENNA POSITION 2	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		111 62.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 1		111 62.B.850.3G.1	UTUTU4002Y		UMTS 850	7750.00_2_849_10	14.3	160	10	0	AVA5-50 @ 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	AVA5-50 @ 850	45.01	0			NO				
ANTENNA POSITION 3	PORT 3		11162.B.1900.3G.2	UTUT V4002B		UMTS 1900	7750.00_2_1920_5	17.6	160	5	0	AVA5-50 @ 1900	45.01	0			NO				
	PORT 4		11162.B.1900.3G.3	UTUTV4002B		UMTS 1900	7750.00_2_1920_5	17.6	160	5	0	AVA5-50 @ 1900	45.01	0			NO				



4393 RIVERBOAT ROAD, SUITE #400 TAYLORSVILLE, UTAH 84123

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# **UTAH MARKET OFFICE**

5710 SOUTH GREEN ST. 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

**RFDS DATA SHEET** 

Local Market Note2 Local Market Note3

ANTENNA COMMON FIELDS	ANTENNA POSITION 1	AN TENNA POSITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5	ANTENNA POSITION 6	ANTENNA POSITION 7
ANTENNA MAKE - MODI		7780	7750.00	THE I LABOR TO STATE OF THE STA	HAILMAN VOITION V	HAILBART VOITION V	AN ICHINA I VOI IIVII I
ANTENNA VENDO	2	Powerwave	Powerwave				
ANTENNA SIZE (H x W x		546X11X5	57X11X5				
ANTENNA WEIGI		33	35				
AZIMUT		300	300				
MAGNETIC DECLINATIO	3.000						
RADIATION CENTER (fe	S	24.75	31.5				
ANTENNA TIP HEIGI		26.75	33.5				
ME CHANICAL DOWNTII		0	4				
FEEDER AMOUI							
Antenna RET Motor (QTY/MODE							
SURGE ARRESTOR (QTY/MODE	L)						
DIPLEXER (QTY/MODE	L)						
DUPLEXER (QTY/MODE	L)						
Antenna RET CONTROL UNIT (QTY/MODE)	L)						
DC BLOCK (QTY/MODE	L)						
ТМАЛ.НА (QТУЛМОВЕ	<mark>L)</mark>						
RENTINJECTORS FOR TMA (QTY/MODE)	<mark>L)</mark>						
PDU FOR TMAS (QTY/MODE)	L)						
FILTER (QTY/MODE	<mark>U</mark>						
RRH - 700 band (QTY/MODE	<mark>L)</mark>						
RRH - 850 band (QTY/MODE	<mark>U</mark>						
RRH - 1900 band (QTY/MODE	<mark>L)</mark>						
RRH - AWS band (QTY/MODE	<mark>D</mark>						
RRH - WCS band (QTY/MODE	<mark>L)</mark>						
Additional RRH #1 - any band (QTY/MODE	<mark>D</mark>						
Additional RRH #2 - any band (QTY/MODE	<mark>D</mark>						
Additional Component1 (QTY/MODE	<mark>U</mark>						
Additional Component2 (QTY/MODE	<mark>U</mark>						
Additional Component3 (QTY/MODE	<mark>L)</mark>						

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoli)	ATOLL TXID	TX/RX?	TECHNOLOGY#REQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	THE	RRH LOCATION (Top/Bottom/ Integrated/No ne)	FEEDERS TYPE	Feeder Length (feet)		TRIPLEXER or LLC (QTY)	or LLC	SCPA/MCPA MODULE ?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID
AUTE HUA DOCUTION A	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							
ANTENNA POSITION 1	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							
	PORT 1		111 62.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		
ANTENNA POSITION 2	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		
																					+
	PORT 1		111 62.C.850.3G.1	UTUTU4002Z		UMTS 850	7750.00_2_849_10	14.3	300	10	0	AVA5-50 @ 850	45.01	0			NO				_
ANTENNA POSITION 3	PORT 2		111 62.C.850.3G.1	UTUTU4002Z		UMTS 850	7750.00_2_849_10	14.3	300	10	0	AVA5-50 @ 850	45.01	0			NO				
ANTENNA POSITION 3	PORT 3		11162.C.1900.3G.2	UTUTV4002C		UMTS 1900	7750.00_2_1920_5	17.6	300	5	0	AVA5-50 @ 1900	45.01	0			NO				
	PORT 4		111 62.C.1900.3G.3	UTUTV4002C		UMTS 1900	7750.00_2_1920_5	17.6	300	5	0	AVA5-50 @ 1900	45.01	0			NO				



4393 RIVERBOAT ROAD, SUITE #400 TAYLORSVILLE, UTAH 84123

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## **UTAH MARKET OFFICE**

5710 SOUTH GREEN ST. 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

**RFDS DATA SHEET** 

Local Market Note2

ANTENNA COMMON FIELDS	ANTENNA POSITION 1	ANTENNA POS	SITION 2	ANTENNA POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION 5	ANTENNA POSITION 6	ANTENNA POSITION 7
ANTENNA MAKE - MODEL		7780		7750.00				
ANTENNA VENDOR	,	Powerwave		Powerwave				
ANTENNA SIZE (H × W × D		546X11X5		57X11X5				
ANTENNA WEIGHT	66.1	33		35				
AZIMUTH	50	50		50				
MAGNETIC DECLINATION	ı							
RADIATION CENTER (feet	<mark>)</mark> 29.5	20.6		12.9				
ANTENNA TIP HEIGHT	r 33.5	22.6		14.9				
ME CHANICAL DOWNTILT	r <mark>o</mark>	0		0				
FEEDER AMOUNT	r .			_				
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	<mark>)</mark>							
TMA/LNA (QTY/MODEL	) 							
RRENT IN JECTORS FOR TMA (QTY/MODEL	<u>)</u>							
PDU FOR TMAS (QTY/MODEL	<u> </u>							
FILTER (QTY/MODEL								
RRH - 700 band (QTY/MODEL								
RRH - 850 band (QTY/MODEL	V							
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								

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoli)	ATOLL TXID	TX/RX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELE CTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/ Integrated/No	FEEDERS Type	Feeder Length (feet)		TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MOBULE?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable
	PORT 1		111 62.A.700.4G.1	UTL04002_7A_1	TX/RX	LTE 700	SBNHH- 1D65C_725MHz_01DT	15.6	50	1	ne)	FIBER	45.01	0			<u> </u>				Т
	PORT 2		111 62.A.700.4G.1	UTL04002_7A_1	TX/RX	LTE 700	SBNHH- 1D65C_725MHz_01DT	15.6	50	1	ТОР	FIBER	45.01	0							
ANTENNA POSITION 1	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		111 62.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							
	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		
ANTENNA POSITION 2	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		
ANTENNA POSITION 2	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		
	PORT 1		11162.A.850.3G.1	UTUTU4002X	TX/RX	UMTS 850	7750.00_2_849_2	14.1	50	2	0	AVA5-50 @ 850	45.01	0			NO				
ANTENNA POSITION 3	PORT 2		11162.A.850.3G.1	UTUTU4002X	TX/RX	UMTS 850	7750.00_2_849_2	14.1	50	2	0	AVA5-50 @ 850	45.01	0			NO				
ANTENNA POSITION 3	PORT 3		11162.A.1900.3G.2	UTUT∀4002A	TX/RX	UMTS 1900	7750.00_2_1920_0	17.6	50	0	0	AVA5-50 @ 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	o	AVA5-50 @ 1900	45.01	0			NO				



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## UTAH MARKET OFFICE

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REV	DATE	DESCRIPTION	BY

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

> > SHEET TITLE

RFDS DATA SHEET

Local Market Note2

Local Market Note3

			Section 17B - FINAL SECTOR/	CELL INFORMATION - SECT	OR B		
ANTENNA COMMON FIELDS	ANTENNA POSITION 1	AN TENNA 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 × W × D)	96.4X11.9X7.1	546X11X5	57X11X5				
ANTENNA WEIGHT	66.1	33	35				
AZIMUTH 1	160	160	160				
MAGNETIC DECLINATION							
RADIATION CENTER (feet) 2	29.5	20.6	12.9				
ANTENNA TIP HEIGHT	33.5	22.6	14.9				
ME CHANICAL 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)							2
URRENTINJECTORS 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					· · · · · · · · · · · · · · · · · · ·		

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoli)	ATOLL TXID	TX/RX?	TECHNOLOGY#REQUENCY	ANTE HNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/ Integrated/No ne)	FEEDERS TYPE	Feeder Length (feet)	RXAIT KIT MODULE?	TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MODULE ?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID
	PORT 1		111 62.B.700.4G.1	UTL04002_7B_1	TX/RX	LTE 700	SBNHH- 1D65C_725MHz_09DT	15.6	160	9	тор	FIBER	45.01	0							
	PORT 2		111 62.B.700.4G.1	UTL04002_7B_1	TX/RX	LTE 700	SBNHH- 1D65C_725MHz_09DT	15.6	160	9	TOP	FIBER	45.01	0							
ANTENNA POSITION 1	PORT 3		111 62.B.1900.4G.1	UTL04002_9B_1	TX/RX	LTE 1900	SBNHH-1D65C	18.1	160	4	TOP	FIBER	45.01	0							
	PORT 4		111 62.B.1900.4G.1	UTL04002_9B_1	RX	LTE 1900	SBNHH-1D65C	18.1	160	4	ТОР	FIBER	45.01	0							
	PORT 5		11162.B.1900.4G.1	UTL04002_9B_1	RX	LTE 1900	SBNHH-1D65C	18.1	160	4	ТОР	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							_
	PORT 1		11162.B.850.25 G.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		111 62.B.850.25 G.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		
ANTENNA POSITION 2	PORT 3		111 62.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		<u> </u>
	PORT 1		11162.B.850.3G.1	UTUTU4002Y	TX/RX	UMTS 850	7750.00_2_849_10	14.3	160	10	0	AVA5-50 @ 850	45.01	0	,-		NO				
	PORT 2		111 62.B.850.3G.1	UTUTU4002Y	TX/RX	UMTS 850	7750.00_2_849_10	14.3	160	10	0	AVA5-50 @ 850	45.01	0			NO				
ANTENNA POSITION 3	PORT 3		11162.B.1900.3G.2	UTUT∀4002B	TX/RX	UMTS 1900	7750.00_2_1920_5	17.6	160	5	0	AVA5-50 @ 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	AVA5-50 @ 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

	Section 17C - FINAL SECTOR/CELL INFORMATION - SECTOR C									
ANTENNA COMMON FIELDS	ANTENNA POSITION 1	AN TENNA POSITION 2		POSITION 3	ANTENNA POSITION 4	ANTENNA POSITION	5 ANTENNA	POSITION 6	ANTENNA	РОЅІПОН 7
ANTENNA MAKE - MODEL	SBNHH-1D65C	7780	7750.00							
ANTENNA VENDOR	Andrew	P owerwave	Powerwave							
ANTENNA SIZE (H ×W×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		22.6	14.9							
ME CHANICAL DOWNTILT	2	0	4							
FEEDER AMOUNT	<u> </u>									
Antenna RET Motor (QTY/MODEL)										
SURGE ARRESTOR (QTY/MODEL)										
DIPLEXER (QTY/MODEL)										
DUPLEXER (QTY/MODEL)	s .									
Antenna RET CONTROL UNIT (QTY/MODEL )										
DC BLOCK (QTY/MODEL)										
TMA/LNA (QTY/MODEL)										
RRENTINJECTORS 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 Note

Local Market Note:

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoli)	ATOLL TXID	TX/RX?	TECHNOLOGY/FREQUENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/ Integrated/No ne)		Feeder Length (feet)		TRIPLEXER or LLC (QTY)	TRIPLE XER or LLC (MODEL)	SCPA/MCPA MODULE ?	HATCHPLATE POWER (Watts)	ERP (Watts)	Cable Number	Cable ID
	PORT 1		11162.C.700.4G.1	UTL04002_7C_1	TX/RX	LTE 700	SBNHH- 1D65C_725MHz_09DT	15.6	300	9	ТОР	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	ТОР	FIBER	45.01	0							
ANTENNA POSITION 1	PORT 3		111 62.C.1900.4G.1	UTL04002_9C_1	TX/RX	LTE 1900	SBNHH-1D65C	18.1	300	3	TOP	FIBER	45.01	0							
	PORT 4		111 62.C.1900.4G.1	UTL04002_9C_1	RX	LTE 1900	SBNHH-1D65C	18.1	300	3	TOP	FIBER	45.01	0							
	PORT 5		111 62.C.1900.4G.1	UTL04002_9C_1	RX	LTE 1900	SBNHH-1D65C	18.1	300	3	TOP	FIBER	45.01	0							
	PORT 6		111 62.C.1900.4G.1	UTL04002_9C_1	TX/RX	LTE 1900	SBNHH-1D65C	18.1	300	3	ТОР	FIBER	45.01	0							Ш
	PORT 1		111 62.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		
ANTENNA POSITION 2	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		111 62.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 1		111 62.C.850.3G.1	UTUTU4002Z	TX/RX	UMTS 850	7750.00_2_849_10	14.3	300	10	0	AVA5-50 @ 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	AVA5-50 @ 850	45.01	0			NO				
ANTENNA POSITION 3	PORT 3		11162.C.1900.3G.2	UTUT∨4002C	TX/RX	UMTS 1900	7750.00_2_1920_5	17.6	300	5	0	AVA5-50 @ 1900	45.01	0			NO				
	PORT 4		11162.C.1900.3G.3	UTUT∨4002C	TX/RX	UMTS 1900	7750.00_2_1920_5	17.6	300	5	0	AVA5-50 @ 1900	45.01	0			NO				



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ı	Α	09/16/2014	90% CONSTRUCTION	Y.D.
ı	REV	DATE	DESCRIPTION	BY

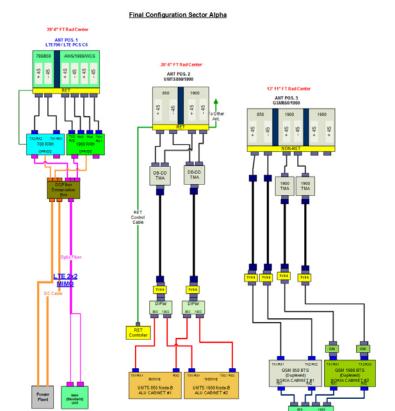
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

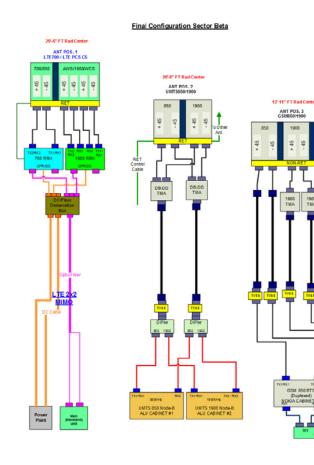
> ALPINE FA#10088454 10 EAST 600 SOUTH ALPINE, UT 84004 WOOD POLE

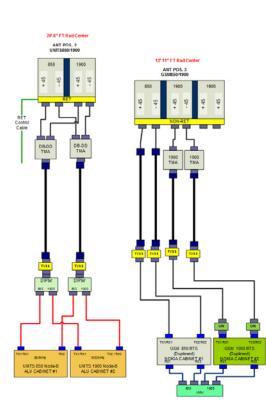
> > SHEET TITLE

RFDS DATA SHEET

SHEET NUMBER







Final Configuration Sector Gamma

ALPHA SECTOR BETA SECTOR GAMMA SECTOR



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## **UTAH MARKET OFFICE**

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

> > SHEET TITL

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## **ALPINE CITY COUNCIL AGENDA**

**SUBJECT: Ilangeni Estates Plat Amendment - Three Falls Ranch Preliminary Review** 

FOR CONSIDERATION ON: 11 November 2014

**PETITIONER:** Will Jones

**ACTION REQUESTED BY PETITIONER:** Grant Preliminary Approval

#### **BACKGROUND INFORMATION:**

On October 7th, The Planning Commission discussed this proposal and decided to table this item for two weeks at which a recommendation would be made.

The proposed Three Falls Ranch development consists of 54 lots on 725 acres. The lots range in size from 1.37 to 6.97 acres. The development is located at the north end of Fort Canyon in the CE-5 zone. This proposal is to amend the existing Ilangeni 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

See Engineers review for further information.

#### PLANNING COMMISSION MOTION:

Bryce Higbee moved to recommend Preliminary approval for the proposed amended plat for Three Falls Ranch with the following conditions:

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

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

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



Date:

October 2, 2014

By:

Jed Muhlestein, P.E. M Assistant City Engineer

Subject:

Three Falls Ranch - Preliminary Review - Plat Amendment

54 lots on 725 acres

## Background

The proposed Three Falls Ranch (hereto known as "TFR") development consists of 54 lots on 725 acres. The lots range in size from 1.37 to 6.97 acres. The development is located at the north end of Fort Canyon in the CE-5 zone. This proposal is to amend the existing Ilangeni Estates plat with the submitted TFR 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 trail head.

Development of this property has been in the works since 1984. Much work and effort from both the developer and 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

#### Fort Canyon Road.

The City requires that the developer improve Fort Canyon Road from International Way to the development with the first phase of development. Due to the topography of Fort Canyon, improving it with the typical road cross section with 30 feet of asphalt and sidewalk on both sides would leave the city with very extensive retaining walls to maintain. Through coordination with the DRC the developer has proposed a more palatable road cross-section to be presented for approvals. Plans have not yet been submitted for this and would be required for review prior to Final Approval.

#### Beck Properties.

In a letter written by the City Engineer dated November 2, 2009 (attached) it was indicated that the Beck's did not want their property to be included with the TFR development, hence the need to revise the TFR preliminary plan from 59 lots to 54. This property has been excluded from the plan. In order to not create a land-locked piece of property, the TFR development is showing an easement to and for the Beck properties to be able to develop in the future.

## Sliding Rock.

Sliding Rock is shown in public open space on the current plan. Some issues associated with acquiring this piece of ground as open space are safety, liability, and regulation. This topic needs to be discussed amongst the Planning Commission and City Council to decide what direction to take.

## **Prior Exceptions**

Several exceptions have been approved as this development has progressed over the years. These exceptions are detailed in two previous memos written by the City Engineer. With this plat amendment, the DRC recommends these exceptions stand as the phasing moves forward. A final review will detail these again as each phase comes forth for Final Approval.

# **PRD Requirements**

A slope analysis has been previously performed for this development both with and without the Beck properties. It was determined that up to 54 lots could be developed if the maximum bonus density was allowed without the Beck properties as part of the development. The open space provided exceeds the amount required for the maximum bonus density. Proposed is 99.2 acres of private open space, 395.8 acres of public open space, and 23.1 acres of developed open space. The developed open space includes a trail head and parking area at the beginning of the development as well as a developed 20.6 acre area further north into the development. Detailed plans for the developed open space will be required prior to Final Approval in the phase in which they are located.

The Alpine City Development Code allows lots in the CE-5 zone up to 15% of the lot to contain lands over 25% slopes, subject to an exception being recommended by the DRC and Planning Commission and approved by the City Council. This analysis was done on previous layouts of the plan but has not yet been completed on this proposal. It is recommended the developer submit a layout with lot slope calculations prior to Final Approval per phase.

#### **Street System**

Though this submittal is at the Preliminary level for a plat amendment, extensive design work and coordination with the City has taken place over the years for the road system. A detailed review of the road system is included herewith in the City Engineer review letter as attached. The road system has not changed from that review to this submittal besides the addition of an

easement for the potential future development of the Beck properties. In regards to this easement, section 4.7.4.3 of the Development Code states that stub streets shall be built to provide circulation and provide for the subsequent development of adjacent properties. This section mentions factors to help determine the responsibility of the developer and to what extent the stub street is built. The Planning Commission and City Council need make a recommendation and decision as to whether or not a fully improved stub street is built to the adjoining Beck property or if only street dedication is required as well as determine how this is to apply to a plat amendment. Section 4.7.4.3 of the Development Code is attached herewith.

#### Sewer, Culinary, Pressurized Irrigation, and Storm Drain Systems

As with the street system, the design of the infrastructure is unchanged from the previous submittal. Please refer to the attached letter for details. One thing to note is that the previous submittal was designed for 59 lots, not 54. The major parts of the infrastructure should remain unchanged, but we'd expect to see the locations of sewer and water laterals adjusted for the new layout. This will be reviewed prior to Final Approval.

#### **General Subdivision Remarks**

The property falls within the Geologic Hazards Overlay Zone. The potential hazards identified on this property are debris flow, rockfall and slide hazards. The Urban/Wildland Interface Overlay area (Section 3.12.7 of the development code) outlines the requirements for when property falls within this area, mainly secondary access. The plans show a secondary access as required. This topic has been discussed quite extensively in the past, what is shown on the plans is the result of these discussions. A Geotechnical and Geologic Hazard study shall be performed and submitted on every lot prior to Final Approval of any phase.

The water policy will need to be met.

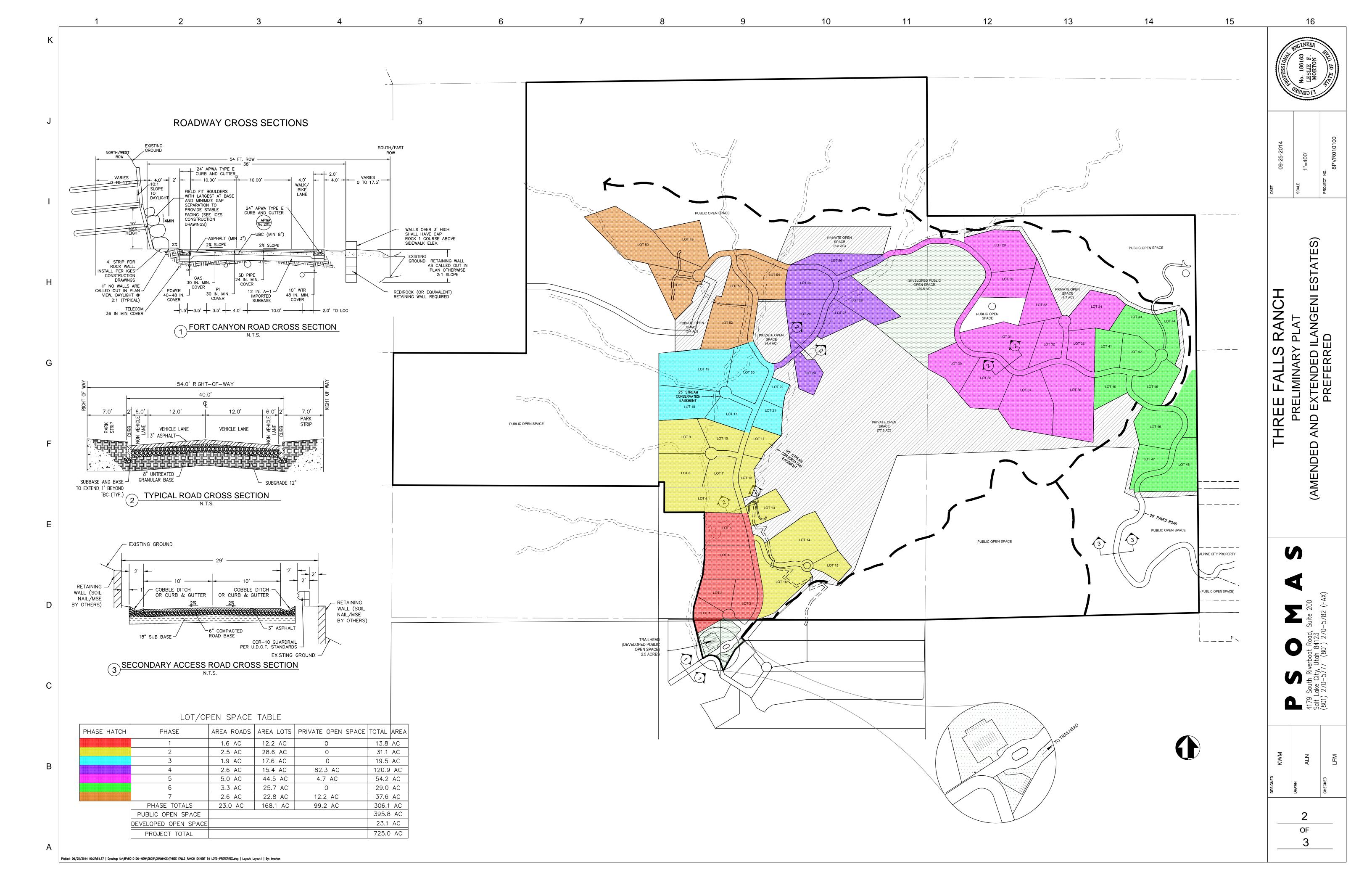
We recommend that Preliminary approval of the proposed development be granted with the following conditions:

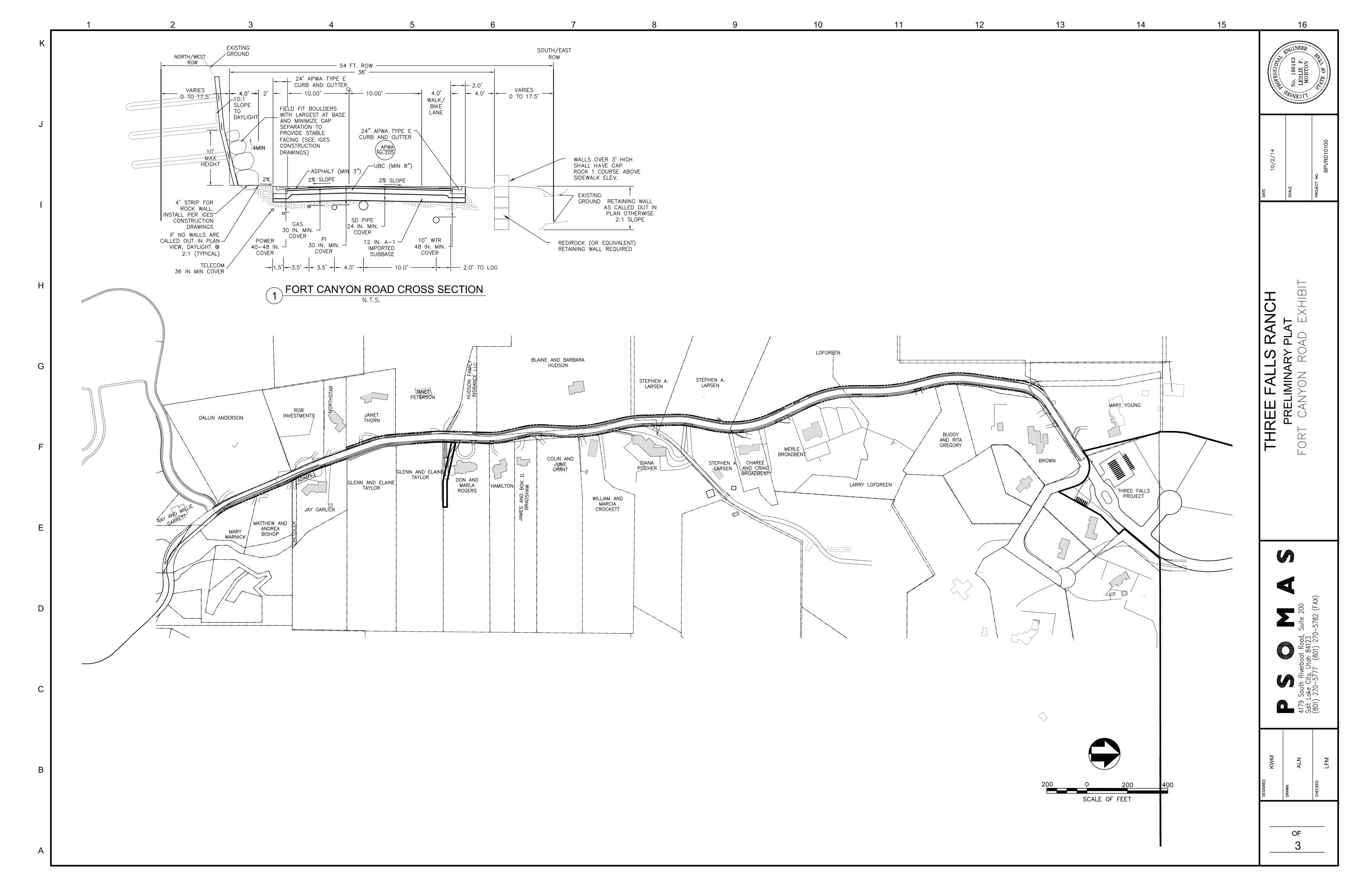
- The City will prepare a Development Agreement outlining the requirements of the development, the City Attorney will determine the appropriate time for the signing of the agreement
- Prior to Final Approval the Developer submit lot slope calculations, lot specific geotechnical & geologic hazard studies, construction drawings for developed open space and infrastructure, anything deemed necessary to ensure the safety and welfare of the public, and anything needed to ensure city ordinances are met.

#### Attached:

- TFR Preliminary Plat
- Fort Canyon Alignment
- (CONTINUED NEXT PAGE)

- City Engineer Letter dated January 21, 2009 TFR PRD Exceptions
- City Engineer Letter dated January 21, 2009 TFR PRD Retaining Wall/Grading Exceptions
- City Engineer Letter dated February 24, 2009 TFR PRD Preliminary Review
- Developer's Attorney Letter dated September 24, 2014 Ilangeni Estates Subdivision Plat Amendment
- Alpine City Development Code, Section 4.7.4.3, "Stub Streets"







January 21, 2009

Mayor Willoughby and City Council Alpine City 20 North Main Alpine, Utah 84004

Subject:

Three Falls Ranch PRD - Exceptions

Dear Mayor Willoughby and City Council Members:

The Development Review Committee (DRC) has reviewed the proposed Three Falls Ranch PRD Subdivision preliminary plan submittal. Following is a list of exceptions which will need to be granted to allow the development to move forward. These exceptions have been presented to the Planning Commission.

- Sheet 4: Lot 9, The owner of this lot does not want to be a part of the Three Falls Ranch Subdivision, but wants the lot to remain as it is in the Ilangheni Estates Subdivision. If the lot has to be recorded as part of the Three Falls Ranch Subdivision, the issue is that there is more than the allowable percentage of 25 percent slope included in the lot. This item may or may not require an exception.
- Typically in PRD developments, all floodplain areas and creek channels have been included in the open space areas. However, the issue was before the Planning Commission on January 3, 2006, and a motion was made to allow the floodplain areas to be within the lots where necessary, but could not be included in the building envelope. The motion passed. A separate motion was made in the same meeting to remove flood areas from the rear of lots wherever possible. This motion also passed. These recommendations were taken to the City Council meeting on January 10, 2006, but the items were presented for information only. Since the City Council did not vote on the exceptions, they are still pending approval.

The development plan currently includes a 75-foot wide conservation easement on Fort Creek and a 25-foot wide conservation easement on the smaller channels that do not have constant flows, with portions of the floodplain remaining within some of the lots. The lots with the 75-foot wide conservation easement are as follows: 1, 2, 3, 4, 17, 18, 19, 24, 25, 26, 30, and 31. The lots with the 25-foot wide conservation easement are the following: 9, 10, 11, 12, 13, 20, 21, 22, 23, 54, 55, 56, and 57. The purpose of the conservation easement is to protect the channels and prevent alteration of them.

- The development code limits grades through intersections to 3% for 50 feet each way from the intersection. This proved difficult on several intersections throughout the development. Following is a list of intersections where exceptions have been requested that exceed the maximum allowable grade through the intersections:
  - Sheet 13: Proposes a 5% grade on Three Falls Way at Fawn Meadow.
  - Sheet 16: Proposes a 5% grade on Three Falls Way at the intersection of Summerfield Court and at Snow Meadow Drive/Mountain Park Drive.
  - o Sheet 18: Proposes a 5% grade on Mountain Park Drive at the intersection with Three Falls Way.
  - o Sheet 18: Proposes a 4% grade on Snow Meadow Drive at the intersection with Three Falls Way.
  - Sheet 35: Proposes a 5% grade on Snow Meadow Drive at the intersection with Sliding Rock Ridge.

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- Sheets 30-32, 32A: On August 28, 2007, the City Council granted an exception to allow the secondary
  access to have 20-feet of pavement with curb and gutter on both sides. In addition, an exception was
  granted to allow 80-foot centerline radii.
- The cul-de-sac called Daybreak Way exceeds the 450 foot maximum length. The DRC recommended that an exception be granted for this cul-de-sac, and the Planning Commission recommended the exception be approved at their September 20, 2005, meeting. The City Council has not acted on this exception.
- The Hillside Protection Ordinance limits the height of structures in this area to 25 feet. Due to the location
  of the development not being visible from other parts of the City, the DRC and the Planning Commission
  have recommended that the structures be allowed to be up to 34 feet in height, as they are in other parts of
  the City.

Following are the recommendations of the DRC for each issue:

- Lot 9: We are awaiting a recommendation from David Church, City Attorney, on this issue. Our preliminary recommendation is that this lot be allowed to be withheld from the new development plat, since it is an existing lot in a recorded subdivision and it is our understanding that the property owner would like the lot to remain as is. Based on this recommendation, we do not believe that an exception will be necessary.
- Floodplain areas within lots: This is an item that we have previously addressed and a recommendation was given by the Planning Commission to allow the floodplain areas to be within lots where necessary but could not be included in building envelopes. The City Council will need to vote on this exception.
- Grades through intersections: The requirement of a maximum grade of 3% for 50 feet each way of the intersection has caused some problems with the mountainous terrain in this area. We have been working with the developer's engineer on this issue for some time. They submitted a drawing for Three Falls Way showing what including 3% grades through intersections would do to the design. The design was not desirable in this case. We discussed the issue at length a determined that if the intersections could be designed not to exceed 5% grades through the intersections, that we could recommend an exception to this requirement. The intersections have been designed with grades not exceeding 5%, therefore, we recommend that an exception be granted for the intersections outlined above as designed.
- Secondary Access Design Parameters: This issue has been before the City Council where they granted an
  exception to allow the secondary access to have 20-feet of pavement with curb and gutter on both sides. In
  addition, an exception was granted to allow 80-foot centerline radii.
- Daybreak Way Cul-de-Sac: We recommend that the exception be granted for the length of the cul-de-sac.
- **Height of Structures:** We recommend that the structures be allowed to be up to 34 feet in height, as they are in other parts of the City.

We feel that recommendation of these exceptions is based on sound engineering and planning principles and will not have a negative impact on the City.

Please call me if you have any questions.

Sincerely,

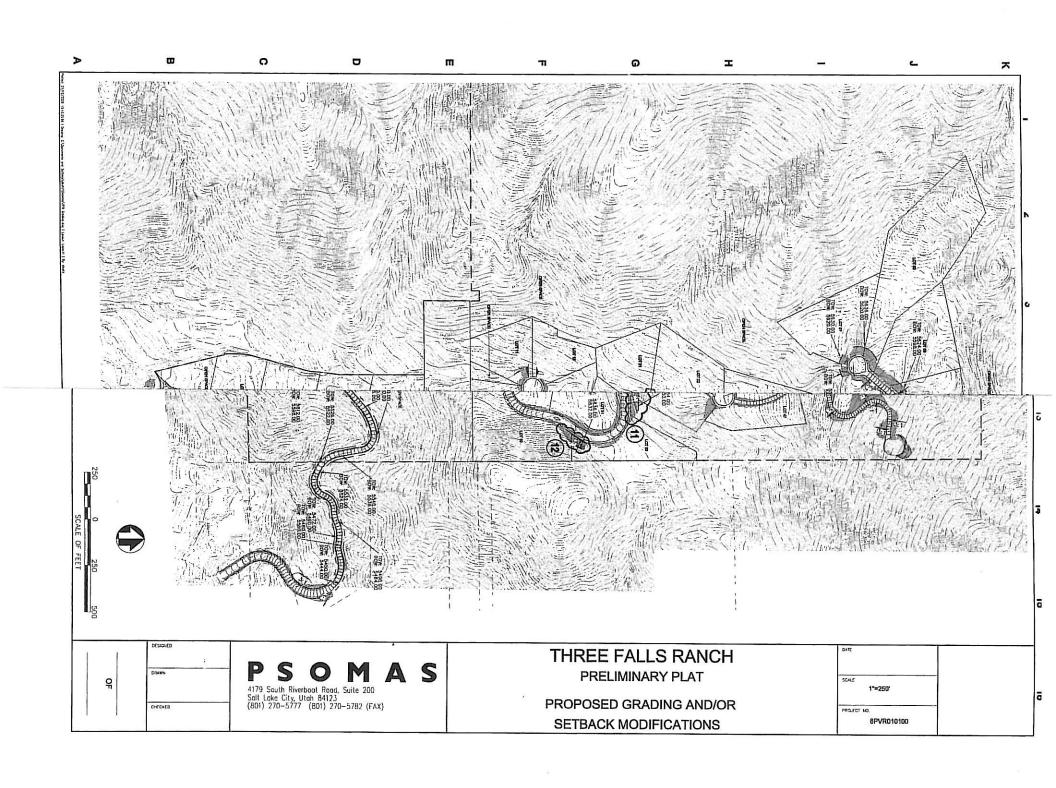
ALPINE CITY

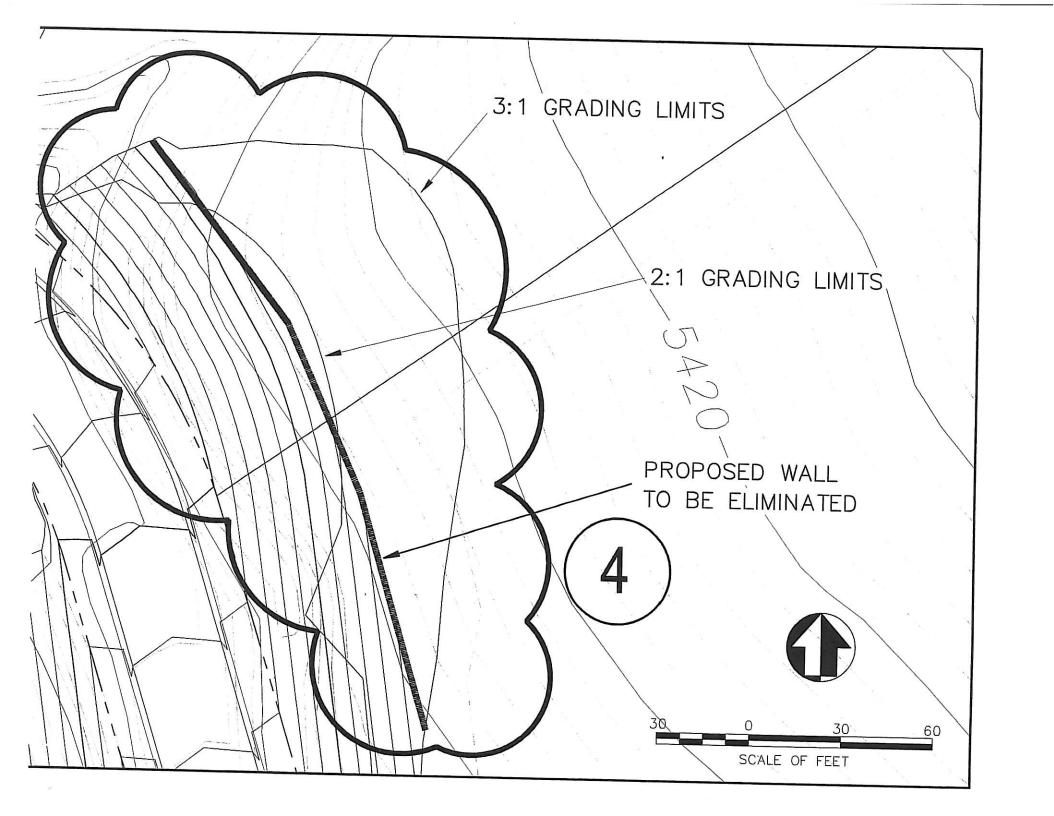
Shane L. Sorensen, P.E.

City Engineer

cc: F

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January 21, 2009

Mayor Willoughby and City Council Alpine City 20 North Main Alpine, Utah 84004

Subject:

Three Falls Ranch PRD - Retaining Wall/Grading Exceptions

Dear Mayor Willoughby and City Council Members:

The Three Falls Ranch development is progressing towards a preliminary approval. As the preliminary plans were presented to the Planning Commission at the January 6 and 20, 2009, Planning Commission meetings, we had a discussion concerning the grading and retaining walls. The City's cutfill ordinance limits the area of disturbance for cuts and fills to a distance of 50 feet from the right-of-way line. In certain areas, retaining walls had to be used to prevent the cut or fill line from daylighting beyond the limit of disturbance. In eviewing the plans, it was evident that some retaining walls could be eliminated by allowing the grading to extend a distance beyond the limit of disturbance. The developer was asked to have his engineer review the plans and bring back a plan showing whee some walls could be eliminated if extended grading was allowed.

Attached is a drawing showing proposed grading modifications and what setback or slope would be required to grade these areas without the use of retaining walls. The Planning Commissionrecommended approval of the revised grading plan with the exception of number 3. The 140-foot setback that would be required for this one would encroach a significant distance on a lot. There was one additional change recommended near lot 27 that would eliminate a 2-foot high retaining wall by extending the grading a short distance beyond the limit of disturbance.

The thought behind this recommendation is that there would initially be some additional scarring of the hillsides, but with the 3H:1V slopes, revegetation should be able to be accomplished readily. The alternative is a retaining wall that would remain in place forever.

The developer is now seeking approval from the City Council for the revised grading plan.

Please call me if you have any questions.

Sincerely,

ALPINE CITY

Shane L. Sorensen City Engineer

cc:

File

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Alpine City Engineering 20 North Main · Alpine, Utah 84004 Phone/Fax: (801) 763-9862



Date:

February 24, 2009

By:

Shane L. Sorensen, P.E.

City Engineer

Subject:

Three Falls Ranch PRD - Preliminary Review

59 lots on 805.98 acres (this includes Lot 9 owned by Gary Young)

#### Background

The proposed Three Falls Ranch PRD Subdivision which consists of 59 lots on 805.98 acres, is located at the north end of Fort Canyon Road. There is an existing, recorded development called Ilangeni Estates which consists of 37 lots on 167.457 acres (according to the recorded plats), with an additional 512 acres being dedicated as common area (private open space). The plat was recorded in 1985, but due to financial problems, development of the property was never completed.

The development as proposed will require vacating the existing Ilangeni Estates plat. The property is currently zoned CE-5 and if re-platted would be required to be a planned residential development (PRD) since the parcels involved include areas designated as sensitive lands. In accordance with the PRD ordinance, a minimum of 50 percent of the property, or approximately 403.5 acres, will be required to be designated as common open space area. The proposed plan provides approximately 652 acres of dedicated open space. There is approximately 19.08 acres of the total open space area that is proposed as private open space.

#### **PRD** Requirements

A slope analysis has been previously performed for this development. It was determined that up to 59 lots could be developed if the maximum bonus density was allowed.

The Alpine City Development Code to allow lots in the CE-5 zone up to a maximum of 15% of the lot area to be over 25%, subject to an exception being recommended by the DRC and Planning Commission and approved by the City Council. An additional requirement is that the lots must be able to meet the standard ordinance of no more than 5% of the lot exceeding the 25% slope limit. The development engineer has analyzed the lots to determine the amount of each lot that is over 25% slope. Sheets 4-9 of the preliminary drawings show the percentage of

each lot that exceeds the 25% slope. It appears that the only lot that has an issue is lot 9, assuming that the Planning Commission is satisfied with the information that has been presented in the past concerning the layout of the lots. However, lot 9 will not be included in the redevelopment of the subdivision.

The developer has proposed a change from public to private open space for 0.93 acres of land north of lot 56. This is a change from what was approved with the concept plan. It is our understanding that the proposed change is to better protect an area that has several springs. In addition, the boundaries of this parcel have been designed to allow it to be a potential lot in the future, if one of the current lots has geologic issues that make it non-buildable. This change will need to be addressed. In return, there is a portion of the large piece of private open space that will be set aside as public open space for a future parking area for visitors of Sliding Rock.

## Street System

The development plan includes maintaining the alignment of some of the existing roads, in addition to some additional streets that will accommodate frontage for the proposed arrangement of lots. The existing roads in the Ilangeni Estates area are surfaced with asphalt. All of the existing asphalt will be replaced. The proposed plan does provide for a different entrance to the subdivision, which is further west, than the access used by Ilangeni Estates.

Plan and profile sheets have been submitted for Fort Canyon Road. These plan sheets are not included in the preliminary plan submittal, but were submitted separately several months ago after working with City Staff in refining the design. We have reviewed the design and feel that it is the best fit for the circumstances, knowing that there will be some minor changes as right-of-way is acquired and construction begins. The anticipated cut and fill limits are shown on the drawings. The retaining wall design has been completed for walls along Fort Canyon Road. The majority of the retaining walls are on the cut side or west side of the road. It is approximately 4,680 feet or 0.89 miles from the intersection of Fort Canyon Road and Meadowlark Drive and the entrance to the Three Falls Ranch development. The proposed cross section is the rural street cross section, which consists of 26 feet of pavement, curb and gutter on each side of the street, and in this case a 5-foot wide sidewalk on the east side of the street. The sidewalk is shown as being adjacent to the curb. The developer is in the process of negotiating right-of-way for acquisition along the alignment.

Plan and profile sheets have been provided for the interior of the subdivision and the secondary access road. All of the streets within the cul-de-sacs will have 36 feet of pavement, with the exception of the cul-de-sacs which will have the standard 30 feet of pavement. The pavement widths have been presented to the Planning Commission at previous meetings. The reason for the additional six feet of pavement on the main streets is to accommodate bike lanes. There is a significant amount of retaining walls within the development to maintain the cuts and fills within the 50-foot clear zone, which is a requirement of the cut/fill ordinance. There are some areas that have been granted an exception to grade beyond the 50-foot clear zone, which will allow some retaining walls to be eliminated. These changes are reflected on the revised plans. The location

and the heights of the necessary retaining walls are shown on the plans, however the retaining wall design within the development is not fully complete. IGES, the consultant that has been hired by the developer to design the retaining walls, has completed a geotechnical study within the development. They have indicated that they do not see any areas of concern that would cause problems with the design of retaining walls. The developer has requested that we not require a full design of these retaining walls until he is confident that the layout and design of the streets is acceptable to the City. This could be a condition of preliminary approval.

One design issue that has been difficult to deal with in this area is the City's requirement of a maximum 3% grade for 50 feet each way from intersections. The intersections that had design issues have been previously presented to the Planning Commission and City Council for an exception. The City Council approved exceptions to the problem intersections at the February 10, 2009, City Council meeting. The intersections where exceptions were granted do not exceed 5% grades.

The secondary access road has been designed based on some criteria that were approved by the City Council, which included a 20-foot pavement width and a minimum 80-foot radius at centerline. Again, there are significant retaining walls that will be required along this alignment. The location and height of the walls is shown on the plans, however the full design of the walls is not complete. A portion of the secondary access road alignment goes through an annexation that is pending approval of the City. There will be geotechnical work required in this area prior to construction. It is our understanding that Utah County would not issue a permit for this work to be done.

The issue of where sidewalks will be required has been before the Planning Commission and the City Council. The City Council recently approved a design that would not require any sidewalks on cul-de-sacs. A 5-foot wide sidewalk will be required, on one side only and adjacent to the curb, on all streets except the cul-de-sacs and the secondary access road beyond the last lot.

The development code requires two working accesses for developments with more than 20 lots. The issue of when the secondary access would be required to be constructed was taken before the City Council. The City Council approved allowing development of the lots that are essentially west of the Sliding Rock area to be developed without a working second access. Any lots that are developed east of the Sliding Rock area will require completion of the secondary access road.

## Sewer System

The City recently completed a sewer line extension up Fort Canyon that has been planned since 1997. The sewer system can now serve all properties in Fort Canyon. There is an existing 8-inch sewer line that is stubbed to the entrance of the Three Falls Ranch development. The development plans include extending this line throughout the development. There will be a second sewer main that will be extended to provide sewer service to lots 44-53. This will require an extension of the sewer system from the Alpine Cove subdivision, which is operated and maintained by Alpine City, along the alignment of the secondary access road. Due to the curved

design of the road, a curved alignment has been designed using HDPE pipe that will reduce the number of manholes required significantly. The only other alternative to this design is a lift station, which the Public Works Department is not in favor of.

The sewer lines at the end of the Fawn Meadow and Summerfield Court cul-de-sacs are fairly shallow. A note should be placed on the plat indicating this issue to potential lot buyers.

# **Culinary Water System**

The majority of the proposed development is above the 5,350 foot elevation. Developments above the 5,350 foot elevation are required to meet the requirements of the Hillside Protection ordinance. This ordinance requires the developer to provide all additional infrastructure required to provide adequate water and pressure". City ordinances require a minimum of 40 psi to all homes.

In order to meet these requirements, a satellite water system, similar to the system in the Box Elder and Willow Canyon subdivisions, has been proposed. The system includes two 500,000 gallon water tanks, and two booster pump stations. The lower booster pump station would pump water from the Grove pressure zone in the City's current system, to fill the intermediate water tank. A second set of booster pumps would pump water from the intermediate tank to the upper tank. Three separate pressure reducing valves would create four pressure zones within the development. The system is designed to provide sufficient capacity for indoor water, irrigation for a maximum of 1 acre per lot, and fire protection. We believe that it will be the most cost effective to serve indoor and outdoor water to the lots from the culinary system. This system will require the existing culinary water line in Fort Canyon road to be replaced from Meadowlark Drive going north. The line currently ends approximately half way up the canyon.

Complete designs for the water tanks and booster pump stations have not been provided. We recommend that a schematic of the water system meet the requirements for this stage of the development, and that full plans and specifications be required prior to final approval and construction. This schematic is provided in the current plan set. It is our understanding that the Division of Drinking Water will also have to review and approve the plans.

It is our understanding that the location of the fire hydrants has been reviewed and approved by the Fire Chief. One area of concern was access and fire protection to lots 57-59. We have met with the developer and Fire Chief to discuss this area. The Fire Chief indicated that if turnaround area would be constructed where he needed them along the shared access driveway and if fire hydrants were required where he needed them in the area, that he could accept the plan.

#### Pressurized Irrigation System/Irrigation System

We anticipate that outdoor irrigation water will be provided through the culinary water system for this development. However, the developer is investigating potential water sources within the development to determine if there is sufficient supply to serve part of the lots through a

pressurized irrigation system.

The City owns rights to springs within the area of this development. The City will determine what measures will need to be taken to develop these springs as the development progresses.

There is an existing open irrigation ditch that diverts water from Fort Creek and serves two shareholders in the Alpine Irrigation Company. The Alpine City development code requires that all open ditches be piped. A design has been provided for piping the ditch. An easement will be required along the alignment.

## Storm Water Drainage System

A storm water drainage system has been designed throughout the development. The system includes a collection system and some detention basins. The water will drain through the system and then into the various channels throughout the development.

#### **General Subdivision Remarks**

There is a pending annexation that needs to be finalized prior to final approval of any phase of this development.

Driveway access to lots 57-59 appears to be difficult. A plan has been proposed for access to the lots.

A landscape plan has been submitted for some of the trailhead areas within the development. In addition, a trail plan has been provided. These plans need to be reviewed by the Planning Commission.

There are some redlines on the plans that need to be addressed.

A storm water pollution prevention plan has been provided. A more detailed plan will be required with each phase of the development. A UPDES permit will be required prior to beginning any construction.

## **Geologic Hazards Evaluation**

A geologic hazards evaluation has been performed for this development area. Included in the evaluation were excavation and logging of seven exploratory trenches, in addition to reviewing other published geologic maps and reports for the area. Following is a quote from the Geologic Hazards Evaluation Report executive summary:

Due to the large scale of the development, geologic hazards potentially impact every lot at the site, including earthquake ground shaking, surface fault rupture, liquefaction, tectonic subsidence, stream flooding, debris flows, shallow ground-water, landslides, and rock fall. To

reduce the risk from these hazards, the report recommends constructing homes to current seismic standards to reduce the potential ground-shaking hazard; locating no structures designed for occupancy within the fault setback zone; evaluation of and recommendations regarding debris flows and stream flooding in the civil engineering design for the development; and conducting a design-level geotechnical engineering study prior to construction for addressing soil conditions, shallow ground water, and slope stability hazards. Data regarding expected debris flow volumes is provided for use in the civil engineering design.

The Geologic Hazards Evaluation Report appears to have been prepared in a very professional manner. The authors outlined the hazards for the area and proposed mitigation measures. Following is a summary of the information. Figure 4 of the report also indicates low and high hazard potential by lot for each of the identified hazards.

Geologic Hazard	Proposed Mitigation
Earthquake ground shaking	Design and construction of homes in accordance with appropriate building codes.
Surface fault rupture	Minimum setbacks from faults for occupied structures as determined by the fault setback formula, with a minimum setback of 15 feet.
Liquefaction and lateral- spread ground failure	Address in geotechnical engineering evaluation during the subdivision approval process.
Tectonic deformation	No mitigation measure stated. High hazard for several lots.
Seismic Seiche and Storm Surge	No mitigation measure stated. However, it is considered a low hazard for all lots.
Stream Flooding	Site hydrology and runoff should be addressed by the civil engineering design for the development.
Shallow ground water	Address in geotechnical engineering evaluation during the subdivision approval process.
Landslide and slope failures	Address in geotechnical engineering evaluation during the subdivision approval process.
Debris flows	Address in geotechnical engineering evaluation during the subdivision approval process. PSOMAS has prepared a map identifying debris flow risk for each lot.
Rock fall	Deflection berms or ditches may be effective and should be considered to protect lots in high hazard areas. However, lot owner and developer should be willing to accept the risk from

	rock falls as an inherent hazard.
Snow avalanche	Lot owner and developer should be willing to accept the risk from snow avalanches as an inherent hazard.
Radon	Moderate hazard rating. Indoor testing following construction is the best method to characterize the radon hazard and determine if mitigation measures are required.
Swelling and collapsible soils	Address in geotechnical engineering evaluation during the subdivision approval process to address soil conditions and provide specific recommendations for site grading, subgrade preparation, and footing and foundation design.
Volcanic eruption	No hazard.

Also see 8.0 Conclusions and Recommendations on page 22 of the Geologic Hazards Evaluation.

The geologic hazards for this site have been identified. Based on the recommendations of the geologists, some additional studies were recommended to finalize the development plans. Since the time that the Geologic Hazards Evaluation was performed, a supplemental surface fault rupture hazard study and landslide investigation has been completed. In addition, a geotechnical investigation was completed for roadway cut slopes and fill embankment stability analyses.

When the Planning Commission recommended approval of the concept plan, there was condition that required all lots to have a lot specific study for hazards for each lot prior to final approval. We anticipate that these lot specific studies will indentify more specifically any hazard issues associated with each lot.

#### RECOMMENDATIONS

We recommend preliminary approval of the proposed development subject to the following conditions:

- The proposal of the additional 0.93 acres of private open space be approved by the Planning Commission.
- The design of the retaining walls within the development be completed. The City's independent consultant will need to review and approve the design.
- The necessary geotechnical studies be completed on the secondary access road prior to final approval.
- Cross sections be provided for the secondary access and other areas where there are significant retaining walls.
- A note be placed on the final plat indicating the shallow depth of the sewer line at the end of the Fawn Meadow and Summerfield Court cul-de-sacs.

- Full design of all components of the water system be provided, reviewed and approved prior to final plat approval.
- The annexation be finalized.
- The landscape and trail plans be approved.
- The redlines be corrected.
- Detailed stormwater pollution prevention plans be submitted for each phase of the development.
- A UPDES permit be obtained prior to construction.
- A lot specific study for hazards be completed for each lot prior to final approval.

# DRAFT PRIVILEGED AND CONFIDENTIAL

BRUCE R. BAIRD P.C.

ATTORNEY AND COUNSELOR
2150 SOUTH 1300 EAST, FIFTH FLOOR
SALT LAKE CITY, UTAH 84106
TELEPHONE (801) 328-1400
BBAIRD@DIFFICULTDIRT.COM

September 24, 2014

VIA EMAIL ONLY

Mr. Will Jones Pine Valley Realty

Re: Ilangeni Estates – Subdivision Plat Amendment

Dear Will:

You have asked me for a legal opinion on a very narrow question: Can an amendment to a previously recorded subdivision plat add property to the plat or, instead, is there a requirement to process and record a completely new plat. I have researched the Land Use, Development, and Management Act ("LUDMA"), Sections 10-9a-101, et seq., specifically sections 601 – 609 dealing directly with subdivisions and amendments (much of which I have helped re-write over the years as a part of the Land Use Task Force) and, also, Chapter 4 of the Alpine City Development Code as found on the City's website specifically including Section 4.6.3.15 dealing with "Resubdivision Procedure". I have also kept in mind Brown v. Sandy City Board of Adjustment, 957, 207 (Utah App. 1998) and Patterson v. Utah County Board of Adjustment, 893 P. 2d 602 (Utah Ct. App. 1995) both articulating the strong, and constitutionally-based presumption in favor of a private party's rights to develop their land free from government interference unless clearly and specifically discussed by properly enacted legislation.

I find nothing in either LUDMA or the Alpine City Code that prohibits the addition of land to a previously recorded subdivision plat nor any requirement that any such addition of land is required to go through all of the requirements for a new plat. I believe that is especially true where, as here, no development is being contemplated on the added land. It seems pointless to me to require a new subdivision application in this situation as all legitimate interests of Alpine City are being addressed by the "resubdivision". I understand that the City's attorney has a similar opinion and, of course, the City's interpretation of its own Code is entitled to deference in that regard.

If you have any questions please feel free to call me.

Sincerely,

Bruce R. Baird

#### ALPINE CITY DEVELOPMENT CODE SECTION 4.7.4.3 – STUB STREETS

- 3. <u>Stub Streets</u> (Amended by Ord. 96-08, 5/28/96; Amended by Ord. 2013-01, 1/15/13) Shall be required to provide adequate circulation -- Temporary turnaround required in certain instances--Subsequent development of adjacent property to incorporate.
  - (1) In order to facilitate the development of an adequate and convenient circulation system within the City, and to provide access for the logical development of adjacent vacant properties, the City shall, as a condition of approval, require the subdivision plan to include one or more temporary dead end streets (stub streets) which extend to the boundary of the parcel, and dedicate the rightof-way to the property line to the City to insure that adjacent properties are not landlocked.
  - (2) All such stub streets shall be fully developed with full City street and utility improvements to the boundary of the subdivision unless it can be shown by the applicant for the subdivision that the need for a fully improved street does not have an essential link to a legitimate government interest or that the requirement to fully improve the stub street is not roughly proportionate, both in nature and extent to the impact of the proposed subdivision on the City.
  - (3) Factors to be considered in determining whether or not the requirement to install a fully improved street is considered proportionate may include but not be limited to:
    - The estimated cost to improve the stub street;
    - Whether or not the stub street will be essential to provide reasonable access to the undeveloped parcel;
    - The number of lots in the proposed subdivision that will be accessed from the improved stub street;
    - The estimated number of lots that can be developed in the future on the adjacent undeveloped parcel through use of the stub street.

After receiving a recommendation by the Planning Commission, if the City Council determines that the stub street need not be fully developed either because it does not further a legitimate government interest or that the requirement is disproportionate to the impact of the proposed subdivision on the City, then only the right-of-way for the stub street shall be dedicated to the City and the requirement to improve the stub street shall be placed on the undeveloped adjacent parcel as a condition of the development if the adjacent property is ever developed.

Dear Property Owner or Affected Entity,

This letter is to inform you that the City Council will review a preliminary site plan to amend the Ilangeni Estates subdivision plat. This proposed development will now be referred to as the Three Falls Ranch subdivision. The site is located at the north end of Alpine City at the end of Fort Canyon Road.

A copy of the proposed plan is available for review at City Hall. The development is governed by Alpine City Zoning and Subdivision Ordinances and applicable state and federal laws and regulations.

The City Council will hold a public hearing for this item Tuesday, November 11, 2014. The public meeting will be at 7:00 p.m. and is held at Alpine City Hall, 20 North Main Street in Alpine, Utah. This site plan will be presented to the City Council as an agenda item.

The public is invited to attend all City Council meetings.

Com Boul

Sincerely,

Jason Bond City Planner

(801) 756-6347 x 6

jbond@alpinecity.org

ALPINE CITY

**Utah County Commission** Robert Nash Mary Young 1831 North Fort Canyon Road 100 E Center, Suite 2300 1876 North Fort Canyon Rd Provo, UT 84606 Alpine, UT 84004 Alpine, UT 84004 Jonathan Peterson, et al Merle & Lynn Broadbent Joseph Brockbank 539 Blackhawk Lane 1590 N FORT CANYON 1896 North Fort Canyon Rd Alpine, UT 84004 ALPINE, UT 84004 Alpine, UT 84004 Darrell Duty Nancy M & Terry L Brown **Blair Holmes** 1801 North Fort Canyon Rd 113 S MAIN ST 1873 N. Fort Canyon Rd Alpine, UT 84004 ALPINE, UT 84004 Alpine, UT 84004 **Buddy Gregory** Stephen Larsen Diana Pitcher 1313 Campbell Rd. #D 1500 North Fort Canyon Road 1430 North FORT CANYON RD Houston, TX 77055 Alpine, UT 84004 ALPINE, UT 84004-1117 William and Marcia Crockett Blaine T & Barbara H Hudson L Colin & June L Grant 1368 North FORT CANYON RD 1241 North Fort Canyon Road 1352 North Fort Canyon Rd ALPINE, UT 84004-1136 Alpine, UT 84004 Alpine, UT 84004 James & Jeanie Bradshaw Joseph & Debra Hart Don and Marla Rogers 1236 North Fort Canyon Rd 2496 Comet Cloud Ct 1280 North Fort Canyon Rd Henderson, NV 89044 Alpine, UT 84004 Alpine, UT 84004 Elain and Glen Taylor Janet Peterson United States of America 4286 Lynne La 1325 North Fort Canyon Rd **%Division of Property Management** Holladay, UT 84124 Alpine, UT 84004 2370 S. 2300 W. Salt Lake City, UT 84119-2022 Janet and Blaine Thorn **Bruce Parker** John and Terah Bromley 1141 North Fort Canyon Rd 3007 E. Cruise Way 1017 North Fort Canyon Rd Salt Lake City, UT 84109 Alpine, UT 84004 Alpine, UT 84004 Jay and Anna Garlick Mark Crosby **Draper City** 1016 North Fort Canyon Rd 1010 North Fort Canyon Rd 1020 E. Pioneer Road Alpine, UT 84004 Alpine, UT 84004 Draper City, UT 84020

Highland City 5400 W. Civic Center Dr, Suite 1 Highland, UT 84003 U.S. Forest Service Pam Garner 390 N 100 E Pleasant Grove, UT 84062 Matt and Andrea Bishop 1004 North Fort Canyon Rd Alpine, UT 84004 Elizabeth and Dallin Anderson 1001 North Fort Canyon Rd Alpine, UT 84004 Lehi City 153 North 100 East Lehi, UT 84043 Alpine School District 575 North 100 East American Fork, UT 84003

# **ALPINE CITY COUNCIL AGENDA**

**SUBJECT:** Alpine City Open Space

FOR CONSIDERATION ON: 11 November 2014

**PETITIONER:** Staff

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

**BACKGROUND INFORMATION:** 

See attached memo from staff.

#### PLANNING COMMISSION MOTION:

Judi Pickell moved to recommend to the City Council to form two committees. The first committee to address trails, parks, and open space with the representative from the Planning Commissioning being David Fotheringham. The second committee to address the Business Commercial District with the representative from the Planning Commission being Judi Pickell.

Steve Swanson seconded the motion. The motion was unanimous with 6 Ayes and 0 Nays. Steve Cosper, David Fotheringham, Jason Thelin, Chuck Castleton, Steve Swanson, and Judi Pickell all voted Aye.



#### **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?