COMPLETE
Wireless Consulting, Inc.

January 11, 2018
Via Overnight Mail

Washoe County
Planning and Development Division
1001 E. Ninth Street
Reno, NV 89512
Attn: Roger Pelham

APPLICATION FOR SPECIAL USE PERMIT

RE: *Axe Handle Canyon* (14855 Pyramid Way, Reno, NV 89510**/ APN: 076-272-03)**

Dear Mr. Pelham,

This package contains materials intended to supplement Verizon's Special Use Permit application for a new telecommunications facility at the above referenced location. All materials are included as we discussed this week. Six packets are included, containing the following materials:

1. Development Application
2. Owner Affidavit
3. Supplemental Information
4. Project Support Statement
5. Photosimulations
6. Coverage Maps
7. Radio Frequency Report
8. Title Report
9. Vesting Deed
10. Treasurer Statement
11. Fire Response Acknowledgement
12. Site Plans 24" x 36" (1 copy), 11" x 17" (1 copy)

A CD is also enclosed containing these items. I am the project manager and the main point of contact for this application. Should you have any questions regarding the submittal or need additional materials, I can be reached at 916-764-2454.

Respectfully,

Michelle Ellis

Senior Land Use Planning Manager
MEllis@completewireless.net

Enclosures

Community Services Department

Planning and Development

SPECIAL USE PERMIT

(see page 5)

SPECIAL USE PERMIT FOR GRADING

(see page 11)

SPECIAL USE PERMIT FOR STABLES

(see page 16)

APPLICATION

Community Services Department
Planning and Development
1001 E. Ninth St., Bldg. A
Reno, NV 89520

Telephone: 775.328.3600

Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Development staff at 775.328.3600.

Project Information	**Staff Assigned Case No.:**

Project Name: Verizon Wireless "Axe Handle Canyon"

Project Description: Verizon Wireless proposes a new unmanned wireless telecommunications facility serving residents along Hwy 445.

Project Address: 14855 Pyramid Way, Reno, NV 89510

Project Area (acres or square feet): 1,125 square feet

Project Location (with point of reference to major cross streets **AND** area locator):

Hillside set back on rural parcel, located at 14855 Pyramid Way. Parcel located on Hwy 445 just south of Axe Handle Canyon Rd.

Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
076-272-03	79.82		

Section(s)/Township/Range: 076-27

Indicate any previous Washoe County approvals associated with this application:

Case No.(s). DCA16-007

Applicant Information (attach additional sheets if necessary)

Property Owner:		**Professional Consultant:**	
Name: 14855 Pyramid Way Land Trust		Name: Complete Wireless Consulting, Inc.	
Address: c/o Renia Smith, PO Box 17283		Address: 2009 V Street	
Reno, NV	Zip: 89510-7283	Sacramento, CA	Zip: 95818
Phone: 951-488-7573	Fax:	Phone: 916-764-2454	Fax: 916-313-3730
Email: renia_smith@hotmail.com		Email: MEllis@completewireless.net	
Cell:	Other:	Cell: 916-764-2454	Other:
Contact Person: Renia Smith		Contact Person: Michelle Ellis, Planning Manager	
Applicant/Developer:		**Other Persons to be Contacted:**	
Name: Sacramento Valley LP d/b/a Verizon Wireless		Name:	
Address: Attn: CWC, 2009 V Street		Address:	
Sacramento, CA	Zip: 95818		Zip:
Phone: 916-764-2454	Fax: 916-313-3730	Phone:	Fax:
Email: MEllis@completewireless.net		Email:	
Cell: 916-764-2454	Other:	Cell:	Other:
Contact Person: Michelle Ellis		Contact Person:	

For Office Use Only

Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Property Owner Affidavit

Applicant Name: Verizon Wireless

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA)
)
COUNTY OF WASHOE)

I, Renia P. Smith
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Development.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 076-272-03

Printed Name Renia P. Smith

Signed Renia P. Smith

Address P.O. Box 17283

Reno, NV 89511

Subscribed and sworn to before me this 21 day of September, 2015.

Notary Public in and for said county and state

My commission expires: 8/20/2018

(Notary Stamp)

RICHARD SAHLBERG
Notary Public - State of Nevada
Appointment Recorded in Washoe County
No: 10-2643-2 - Expires August 20, 2018

*Owner refers to the following: (Please mark appropriate box.)

- ☒ Owner/Trustee: One Four Eight Five Five Pyramid Way Land Trust
- ☐ Corporate Officer/Partner (Provide copy of recorded document indicating authority to sign.)
- ☐ Power of Attorney (Provide copy of Power of Attorney.)
- ☐ Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- ☐ Property Agent (Provide copy of record document indicating authority to sign.)
- ☐ Letter from Government Agency with Stewardship

Special Use Permit Application
Supplemental Information

(All required information may be separately attached)

Chapter 110 of the Washoe County Code is commonly known as the Development Code. Specific references to special use permits may be found in Article 810, Special Use Permits.

1. What is the type of project being requested?

Verizon Wireless proposes an unmanned telecommunications facility on the parcel located at 14855 Pyramid Way. The facility is a 104' monopole to be constructed on a hillside near the center of the parcel. This application is submitted to request:
1. Special Use Permit for new wireless telecommunications facility
2. Special Use Permit for proposed grading on access road to facility
3. Variance from landscaping requirement

2. What currently developed portions of the property or existing structures are going to be used with this permit?

Verizon will utilize existing paved driveway to access facility

3. What improvements (e.g. new structures, roadway improvements, utilities, sanitation, water supply, drainage, parking, signs, etc.) will have to be constructed or installed and what is the projected time frame for the completion of each?

New 104' monopole, 1,125 sq ft of lease areas, grading at road and lease areas

4. What is the intended phasing schedule for the construction and completion of the project?

Construction will last approximately two months.

5. What physical characteristics of your location and/or premises are especially suited to deal with the impacts and the intensity of your proposed use?

Elevated hillside, clear view over Hwy 445 for excellent coverage.

6. What are the anticipated beneficial aspects or effects your project will have on adjacent properties and the community?

Improved Verizon 4G LTE coverage. Please see Project Support Statement.

7. What will you do to minimize the anticipated negative impacts or effects your project will have on adjacent properties?

No impacts on other properties anticipated.

8. Please describe operational parameters and/or voluntary conditions of approval to be imposed on the project special use permit to address community impacts:

Facility will be unmanned, technician visit 1-2 times per month.

9. How many improved parking spaces, both on-site and off-site, are available or will be provided? (Please indicate on site plan.)

No parking proposed. Facility will be unmanned.

10. What types of landscaping (e.g. shrubs, trees, fencing, painting scheme, etc.) are proposed? (Please indicate location on site plan.)

6' chain link fence with barbed wire at lease area perimeter.

11. What type of signs and lighting will be provided? On a separate sheet, show a depiction (height, width, construction materials, colors, illumination methods, lighting intensity, base landscaping, etc.) of each sign and the typical lighting standards. (Please indicate location of signs and lights on site plan.)

Down-tilted light at equipment cabinets, contact signage on fence. See site plans.

12. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that apply to the area subject to the special use permit request? (If so, please attach a copy.)

☐ Yes	☑ No

13. Utilities:

a. Sewer Service	N/A
b. Electrical Service	Yes, see site plans
c. Telephone Service	Yes, see site plans
d. LPG or Natural Gas Service	N/A
e. Solid Waste Disposal Service	N/A
f. Cable Television Service	N/A
g. Water Service	N/A

For most uses, the Washoe County Code, Chapter 110, Article 422, Water and Sewer Resource Requirements, requires the dedication of water rights to Washoe County. Please indicate the type and quantity of water rights you have available should dedication be required:

h. Permit #		acre-feet per year	
i. Certificate #		acre-feet per year	
j. Surface Claim #		acre-feet per year	
k. Other #		acre-feet per year	

l. Title of those rights (as filed with the State Engineer in the Division of Water Resources of the Department of Conservation and Natural Resources):

Not applicable.

14. Community Services (provided and nearest facility):

a. Fire Station	Scott Fire Protection
b. Health Care Facility	N/A
c. Elementary School	N/A
d. Middle School	N/A
e. High School	N/A
f. Parks	N/A
g. Library	N/A
h. Citifare Bus Stop	N/A

Special Use Permit Application
for Grading
Supplemental Information

(All required information may be separately attached)

Chapter 110 of the Washoe County Code is commonly known as the Development Code. Specific references to special use permits may be found in Article 810, Special Use Permits. Article 438, Grading, and Article 418, Significant Hydrologic Resources, are the ordinances specifically involved in this request.

1. What is the purpose of the grading?

Extend existing access road to reach wireless facility

2. How many cubic yards of material are you proposing to excavate on site?

803

3. How many square feet of surface of the property are you disturbing?

Please see site plans

4. How many cubic yards of material are you exporting or importing? If none, how are you managing to balance the work on-site?

Importing 15,871 cubic yards

5. Is it possible to develop your property without surpassing the grading thresholds requiring a Special Use Permit? (Explain fully your answer.)

No, access road must support technicians and emergency services.

6. Has any portion of the grading shown on the plan been done previously? (If yes, explain the circumstances, the year the work was done, and who completed the work.)

No, new grading work proposed

7. Have you shown all areas on your site plan that are proposed to be disturbed by grading? (If no, explain fully your answer.)

Yes, plans cover entire parcel.

8. Can the disturbed area be seen from off-site? If yes, from which directions, and which properties or roadways?

No, road set into hillside and will not be visible from Hwy 445

9. Could neighboring properties also be served by the proposed access/grading requested (i.e. if you are creating a driveway, would it be used for access to additional neighboring properties)?

No, road extension is completely contained within landlord's parcel

10. What is the slope (Horizontal:Vertical) of the cut and fill areas proposed to be? What methods will be used to prevent erosion until the revegetation is established?

Please see site plans.

11. Are you planning any berms?

☐ Yes	☑ No	If yes, how tall is the berm at its highest?

12. If your property slopes and you are leveling a pad for a building, are retaining walls going to be required? If so, how high will the walls be and what is their construction (i.e. rockery, concrete, timber, manufactured block)?

Yes. Please see site plans for retaining wall details.

13. What are you proposing for visual mitigation of the work?

Road extension will be graveled and set into hillside.

14. Will the grading proposed require removal of any trees? If so, what species, how many and of what size?

No, no trees will be removed.

15. What type of revegetation seed mix are you planning to use and how many pounds per acre do you intend to broadcast? Will you use mulch and, if so, what type?

To be determined during building permit application, as directed by County.

16. How are you providing temporary irrigation to the disturbed area?

To be determined during building permit application, as directed by County.

17. Have you reviewed the revegetation plan with the Washoe Storey Conservation District? If yes, have you incorporated their suggestions?

No, N/A

18. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that may prohibit the requested grading?

☐ Yes	☑ No	If yes, please attach a copy.

PROJECT SUPPORT STATEMENT
VERIZON WIRELESS

SITE NAME: AXE HANDLE CANYON
LOCATION: 14855 Pyramid Way, Reno, NV 89510
APN: 076-272-03

Introduction

Verizon Wireless is seeking to improve communications service to residences, businesses, public services, and area travelers in Washoe County. Verizon maintains a strong customer base in Washoe County and strives to improve coverage for both existing and potential customers. The proposed facility is needed to bring improved wireless communication coverage to Warm Springs and Spanish Springs area residents and along Hwy 445, south of Pyramid Lake. This project will expand Verizon's existing network and improve call quality, signal strength, and wireless connection services in Washoe County. The improved wireless service will benefit residents, local businesses, and public services, and roadway safety throughout the region.

Location/Design

Verizon Wireless proposes a new wireless communications facility on a new 104' monopole on the property located at 14855 Pyramid Way, in unincorporated Reno. The property is located in the General Rural Agricultural (GRA) zone and is largely undeveloped. Surrounding parcels are zoned GRA and General Rural (GR). The nearest residentially zoned property is approximately 1.59 miles from the proposed facility.

Project Description

The proposed facility consists of six (6) Verizon Wireless panel antennas, to be installed on a proposed 104' monopole. A 25' by 25' monopole lease area will be surrounded by a 6' chain link fence with barbed wire and a CMU wall. A separate 25' by 20' equipment lease area will be surrounded by similar fencing, and will contain outdoor equipment cabinets on a new concrete pad, as well as a standby diesel generator. Power and telecommunications cables will be installed underground between the two lease areas. Verizon will utilize an existing paved driveway to access the site, and proposes additional grading work on the western portion of the road. The unmanned facility will provide enhanced wireless network coverage 24 hours a day, 7 days a week.

Public Benefits of Improved Wireless Service

Modern life has become increasingly dependent upon wireless communications. Wireless access is critical to many facets of everyday life, such as safety, recreation, and commerce. This site will allow current and future Verizon Wireless customers to have access to wireless services in the areas shown on the Coverage Plots included in this application. Additionally, this site will serve as a backup to the existing landline service in the area and will provide improved wireless communication, which is essential to first responders, community safety, local businesses and area residents. As a backup system to traditional landline phone service, mobile phones have proven to be extremely important during natural disasters and other catastrophes.

Aesthetic Impacts

Verizon is proposing a slim monopole, of similar height and character to other utility poles and structures in the area. The height of pole and size of lease area will provide other carriers with opportunities for future co-location. Verizon Wireless has carefully chosen a location that will minimize any visual impact to the surrounding area. The facility will be located on a hillside deep within the parcel, set back significantly from Hwy 445. Ground equipment will be enclosed within outdoor equipment cabinets and screened from view, and equipment areas will be surrounded by security fencing.

The proposed facility height complies with the County's development standards for wireless facilities in the General Rural Agricultural zoning designation. Because of the surrounding topography, the proposed facility needs to be a total of 104' for the signal to reach the intended service area. The proposed facility has been designed at its minimum functional height.

Statement of Commitment to Allow Co-location

The proposed facility has been designed in a manner that will structurally accommodate additional antennas and future co-location. Verizon Wireless welcomes other carriers to co-locate on their facilities whenever possible.

Alternative Site Analysis

The selection of a location for a wireless telecommunications facility that is needed to improve wireless coverage is dependent upon many factors, such as: topography, zoning regulations, existing structures, co-location opportunities, available utilities, access, and the existence of a willing landlord. Wireless communication utilizes line-of-sight technology that requires facilities to be in relative close proximity to the wireless handsets to be served. Each proposed site is unique and must be investigated and evaluated on its own terms.

The proposed coverage area consists of agricultural and residential uses in Washoe County. Verizon strives to minimize visual and acoustic impacts for each facility and seeks to incorporate ways to preserve the local community character to the greatest extent feasible at all stages of site selection and the design process. The proposed location best serves the interest of Washoe County, the Warm Springs area, and the Spanish Springs area because it is the least intrusive means available to improve service. The process that Verizon implements to identify the least intrusive location is outlined below.

Selection Process and Candidates Considered

In April 2015, Verizon Wireless determined that the service objectives discussed above must be met. After establishing the need for the proposed facility, Verizon set out to identify the least intrusive means of achieving the necessary service objective. A total of twelve candidates were considered prior to selecting the proposed location. Verizon begins its process by identifying a search area called a "search ring" (see image below) and a required centerline height.

The search ring represents the area within which a facility can be located to achieve the desired coverage objective. The centerline height of 100' represents the required height of the antennas to produce the desired coverage. After reviewing the County's zoning regulations, the next step is to identify any existing towers within the search ring that could allow for co-location.

In this case, Verizon determined a new tower must be constructed to adequately meet its coverage goals in this search ring. Verizon identified several potential alternative sites prior to selecting the proposed location. Below is a list of the candidate properties that were considered for the proposed facility, as well as an explanation as to why each site was not selected:

1. **Mager** (400 Descanso Ln / APN 076-281-05)
   Verizon investigated this site for a new monopole. This candidate is located in the southeastern portion of the search ring, and the property owner was interested in leasing space to Verizon. This candidate was not selected because the proposed candidate (14855 Pyramid Way) better achieves Verizon's coverage objectives for this search ring. Mager covers some of Verizon's objectives, but less effectively than the proposed site.

2. **Bubbico** (14655 Pyramid Way / APN 076-161-01)
   Verizon investigated this site for a new monopole. This candidate is located in the northern portion of the search ring, and the property owner was interested in leasing space to Verizon. This candidate was not selected by Verizon because the proposed candidate (14855 Pyramid Way) better achieves Verizon's coverage objectives for this search ring. Bubbico remains in a back-up position.

3. **Cabral** (14455 Pyramid Way / APN 076-161-03)
   Verizon investigated this site for a new monopole. The property owner was interested in leasing space to Verizon. However, Verizon's radio frequency engineer rejected this

candidate because it offers only a limited view of the road to the south, due to terrain blockage.

4. **Collins** (365 Cabrillo Ln / APN 076-282-03)
   Verizon investigated this site for a new monopole. The landlord did not respond to contact attempts, including two interest letters and phone calls.

5. **Eleftheriades** (14955 Pyramid Way / APN 076-272-07)
   Verizon investigated this site for a new monopole. The property owner was interested in leasing space to Verizon, but was very slow to respond to multiple contact attempts. The candidate was not preferred by Verizon's radio frequency engineer due to its lower elevation.

6. **Frontage 177 LLC** (Pyramid Way / APN 076-172-03)
   Verizon investigated this site for a new monopole. The landlord did not respond to contact attempts, including two interest letters and phone calls.

7. **Iacometti** (15000 Pyramid Way / APN 076-271-05)
   Verizon investigated this site for a new monopole. The landlord did not respond to contact attempts, including two interest letters and phone calls.

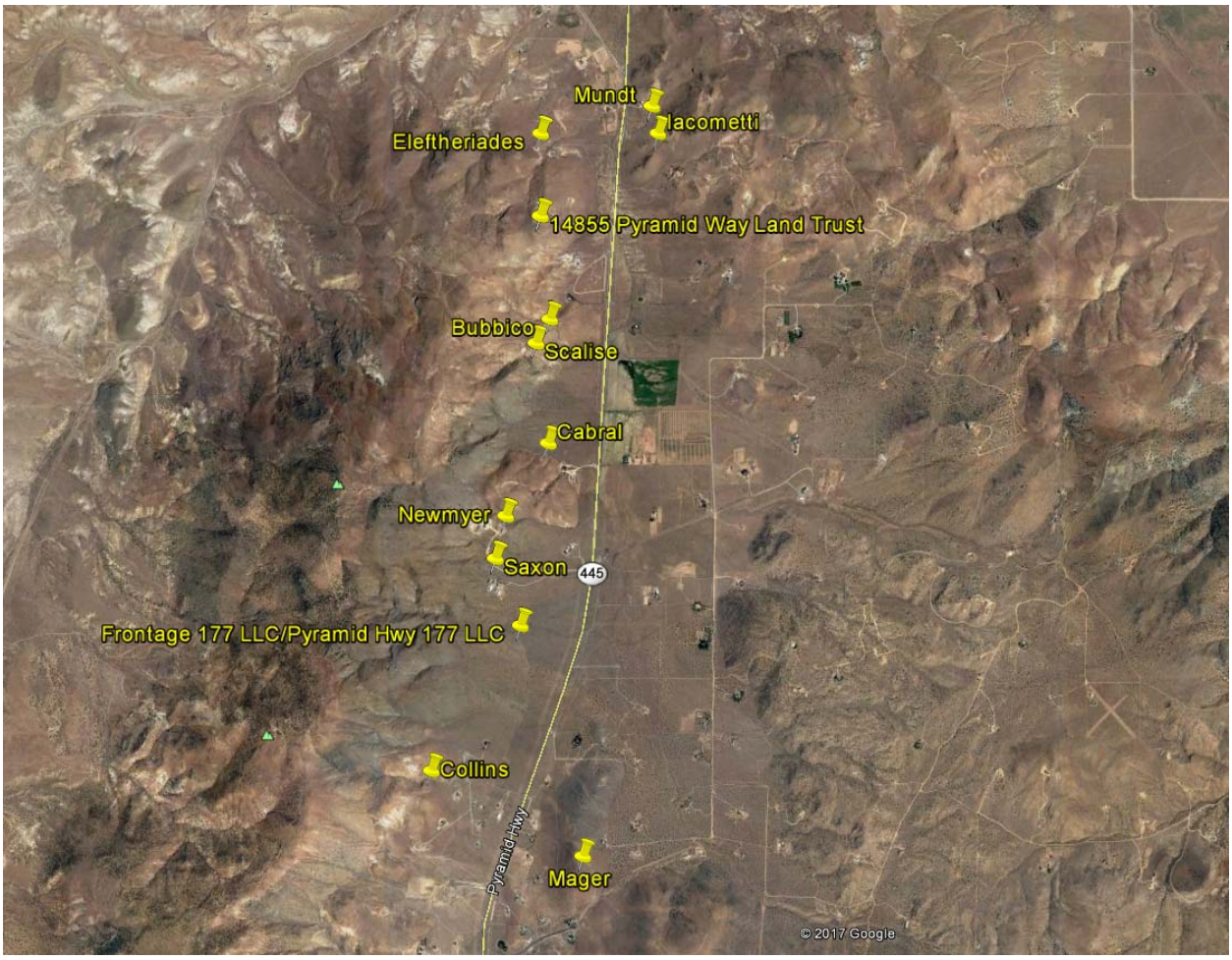
8. **Mundt** (15100 Pyramid Way / APN 076-271-06)
   Verizon investigated this site for a new monopole. The landlord did not respond to contact attempts, including two interest letters and phone calls.

9. **Newmyer** (14175 Pyramid Way / APN 076-172-09)
   Verizon investigated this site for a new monopole. However, this candidate was rejected by Verizon's radio frequency engineer because the site does not offer a good view to the north, due to terrain blockage.

10. **Saxon** (14155 Pyramid Way / APN 076-172-08)
    Verizon investigated this site for a new monopole. However, this candidate was rejected by Verizon's radio frequency engineer because the site does not offer a good view to the north, due to terrain blockage.

11. **Scalise** (14555 Pyramid Way / APN 076-161-02)
    Verizon investigated this site for a new monopole. The landlord did not respond to contact attempts, including two interest letters and phone calls.

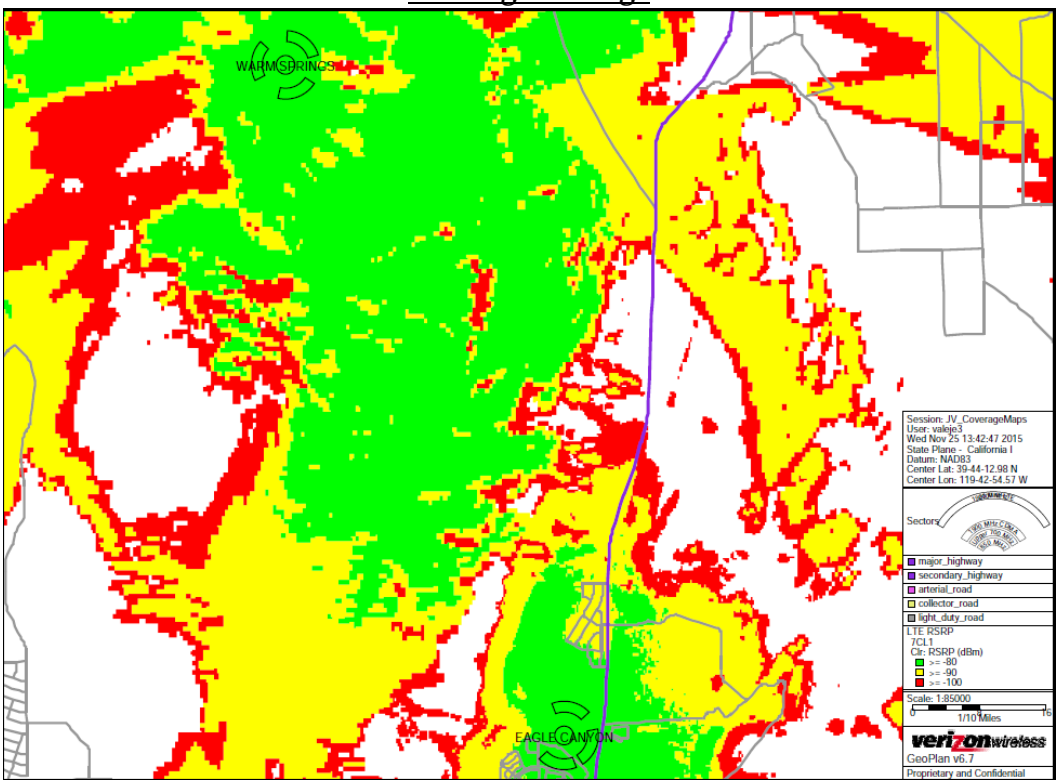
The map below shows the locations of each of the properties listed above.



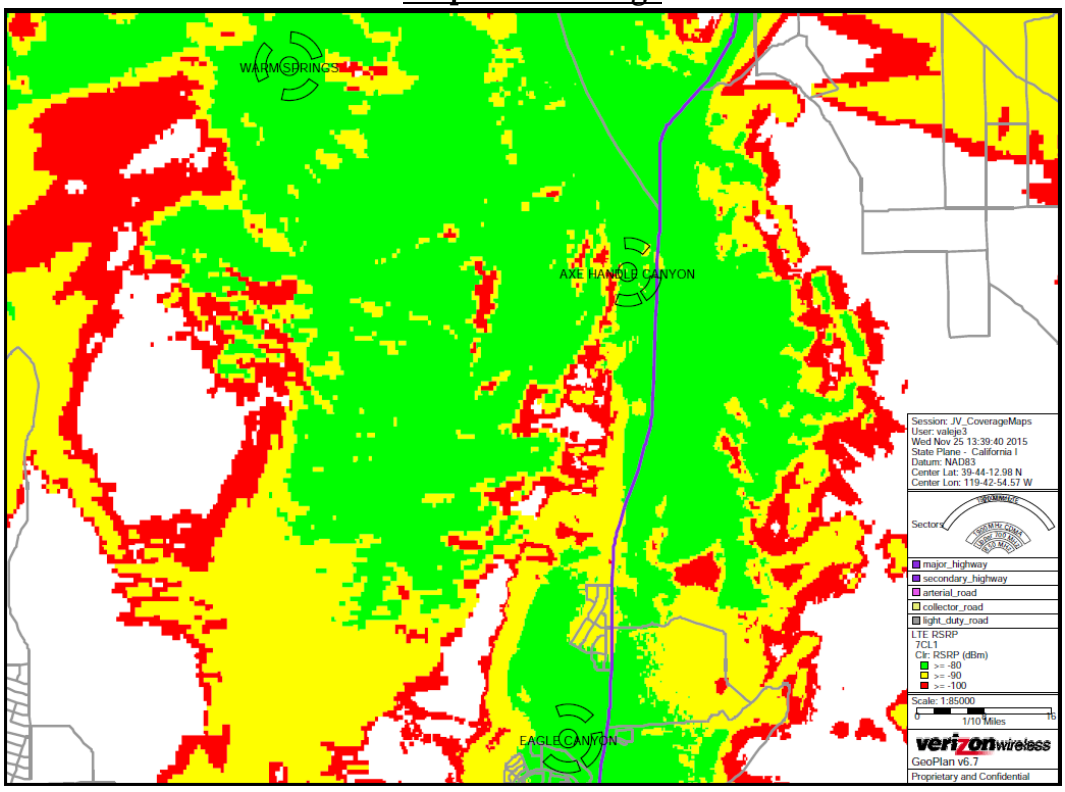
The proposed facility, labeled on the image above as "14855 Pyramid Way Land Trust," was selected by Verizon's radio frequency engineer as the best candidate in this search ring for achieving Verizon's coverage objectives, and the least intrusive option. 14855 Pyramid Way offers a lease area significantly removed from Hwy 445, and an elevated hillside location with excellent views over the area, looking both north and south along Hwy 445.

Coverage Area

Existing Coverage



Proposed Coverage



Safety Benefits of Improved Wireless Service
Verizon Wireless offers its customers multiple services such as voice calls, text messaging, mobile email, picture/video messaging, mobile web, navigation, broadband access, V CAST, and E911 services. Mobile phone use has become an extremely important tool for first responders and serves as a back-up system in the event of a natural disaster.

Compliance with FCC and FAA Standards
This project will not interfere with any TV, radio, telephone, satellite, or any other signals. Any interference would be against federal law and a violation of Verizon Wireless's FCC License. Unless tower lighting is required by the FAA, the only lighting on the facility will be a hooded and down-titled security light near the equipment cabinets.

Maintenance and Standby Generator Testing
Verizon Wireless installs a standby generator and batteries at all of its cell sites. The generator and batteries play a vital role in Verizon's emergency and disaster preparedness plan. In the event of a power outage, Verizon's communications equipment will first transition to the back-up batteries. The batteries can run the site for a few hours depending on the demand placed on the equipment. Should the power outage extend beyond the capacity of the batteries, the back-up generator will automatically start and continue to run the site for up to 24 hours. The standby generator will operate for approximately 15 minutes per week for maintenance purposes, during the daytime. Back-up batteries and generators allow Verizon sites to continue providing valuable communications services in the event of a power outage, natural disaster or other emergency. Following construction, the security fence will include a small sign indicating the facility owner and a 24-hour emergency telephone number.

Construction Schedule
The construction of the facility will be in compliance with all local rules and regulations. The crew size will range from two to ten individuals. The construction phase of the project will last approximately two months and will not exceed acceptable noise levels.

Landscaping
No landscaping is proposed at the facility. The lease area is over 1,599' from the nearest road, and is not visible to the public. In an attempt to conserve water and to reduce ongoing maintenance at unmanned facilities, Verizon avoids live landscaping whenever possible.

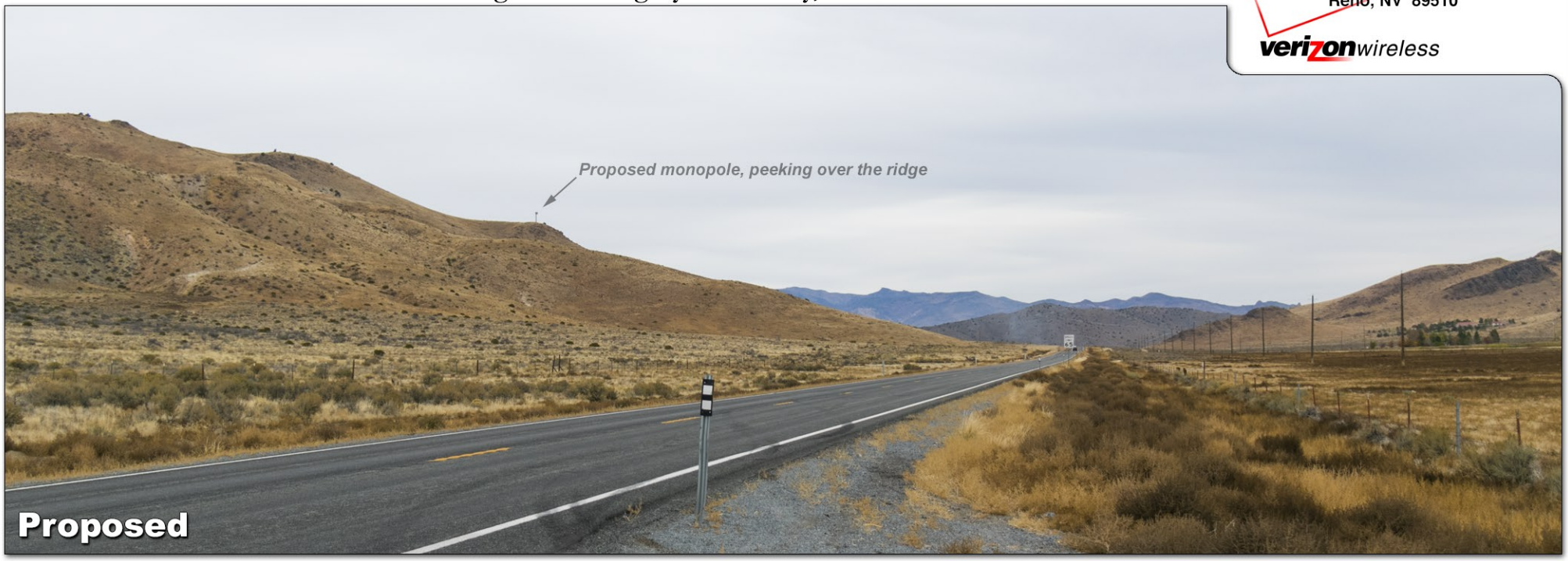
Notice of Actions Affecting Development Permit
Verizon Wireless requests notice of any proposal to adopt or amend the: general plan, specific plan, zoning ordinance, ordinance(s) affecting building or grading permits that would in any manner affect this development permit. Any such notice may be sent to 2009 V Street, Sacramento, CA 95818.

Photosimulation of the view looking north along Pyramid Hwy, about a mile from the site.

Axe Handle Canyon

14855 Pyramid Way
Reno, NV 89510

verizonwireless



Photosimulation of the view looking south from the nearest point along Winnemucca Ranch Road.

Axe Handle Canyon

14855 Pyramid Way
Reno, NV 89510

verizonwireless

Photosimulation of the view looking southwest from Pyramid Hwy.

Axe Handle Canyon

14855 Pyramid Way
Reno, NV 89510

verizonwireless

Photosimulation of the view looking northwest from across Pyramid Hwy.

Axe Handle Canyon

14855 Pyramid Way
Reno, NV 89510

verizonwireless

Verizon Wireless • Proposed Base Station (Site No. 296901 "Axe Handle Canyon")
14855 Pyramid Way • Reno, Nevada

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 296901 "Axe Handle Canyon") proposed to be located at 14855 Pyramid Way in Reno, Nevada, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

Verizon proposes to install directional panel antennas on a tall pole to be located at 14855 Pyramid Way in Reno. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5–80 GHz	5.00 mW/cm^2	1.00 mW/cm^2
WiFi (and unlicensed uses)	2–6	5.00	1.00
BRS (Broadband Radio)	2,600 MHz	5.00	1.00
WCS (Wireless Communication)	2,300	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky.

Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Verizon, including zoning drawings by MST Architects, Inc., dated November 13, 2015, it is proposed to install six Andrew Model SBNHH-1D45C directional panel antennas on a new 104-foot steel pole to be sited about 500 feet south of the residence on the 75± acre parcel located at 14855 Pyramid Way in unincorporated Washoe County near Reno. The antennas would employ no downtilt, would be mounted at an effective height of about 100 feet above ground, and would be oriented in pairs toward 20°T, 125°T, and 180°T. The maximum effective radiated power in any direction would be 18,480 watts, representing simultaneous operation at 7,210 watts for AWS, 6,760 watts for PCS, and 4,510 watts for 700 MHz service; no operation on cellular frequencies is presently proposed from this site. Also proposed to be mounted lower on the pole are two microwave "dish" antennas, for interconnection of this site with others in the Verizon network. There are reported no other wireless telecommunications base stations at the site or nearby.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation, including the contribution of the microwave antennas, is calculated to be 0.0048 mW/cm^2, which is 0.53% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of the nearby residence is 0.18% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

No Recommended Mitigation Measures

Due to their mounting location and height, the Verizon antennas would not be accessible to unauthorized persons, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by Verizon Wireless at 14855 Pyramid Way in Reno, Nevada, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2017. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

William F. Hammett, P.E.
707/996-5200

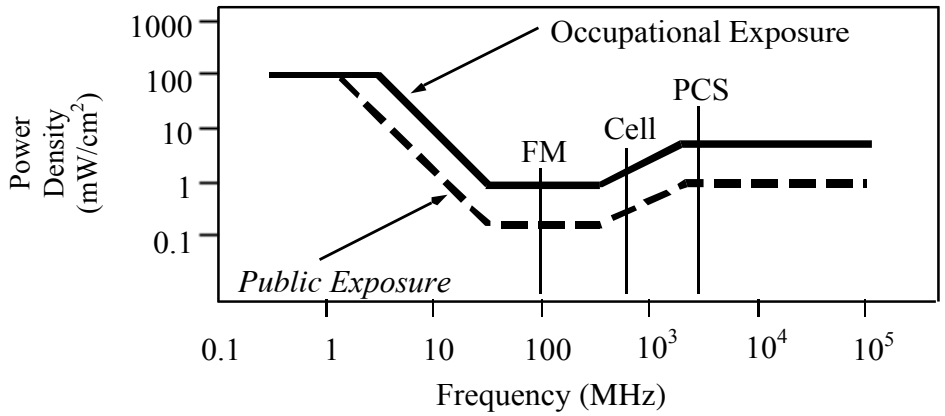
December 18, 2015

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of the antenna, in degrees, and
P_{net} = net power input to the antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of the antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

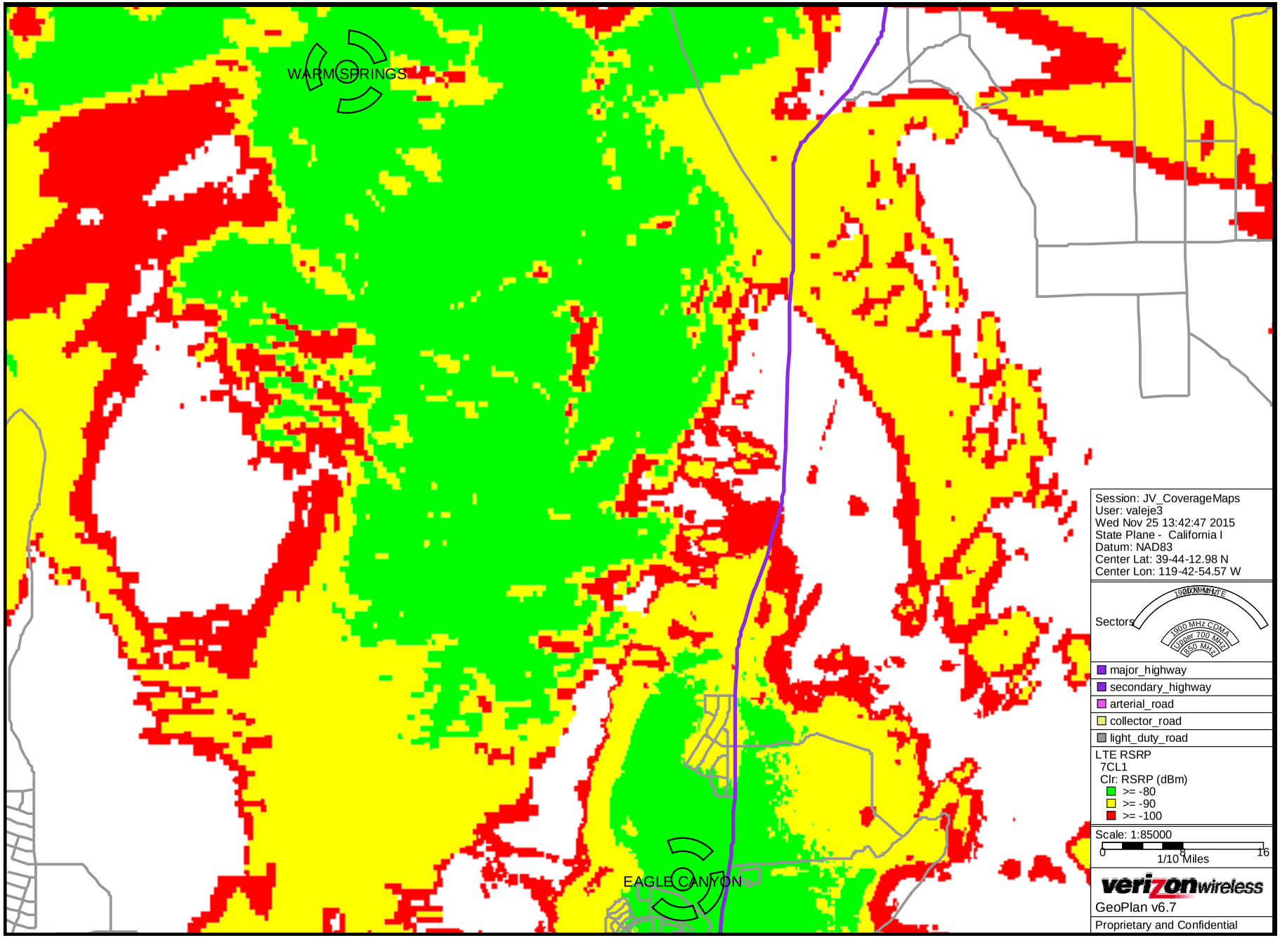
Far Field.

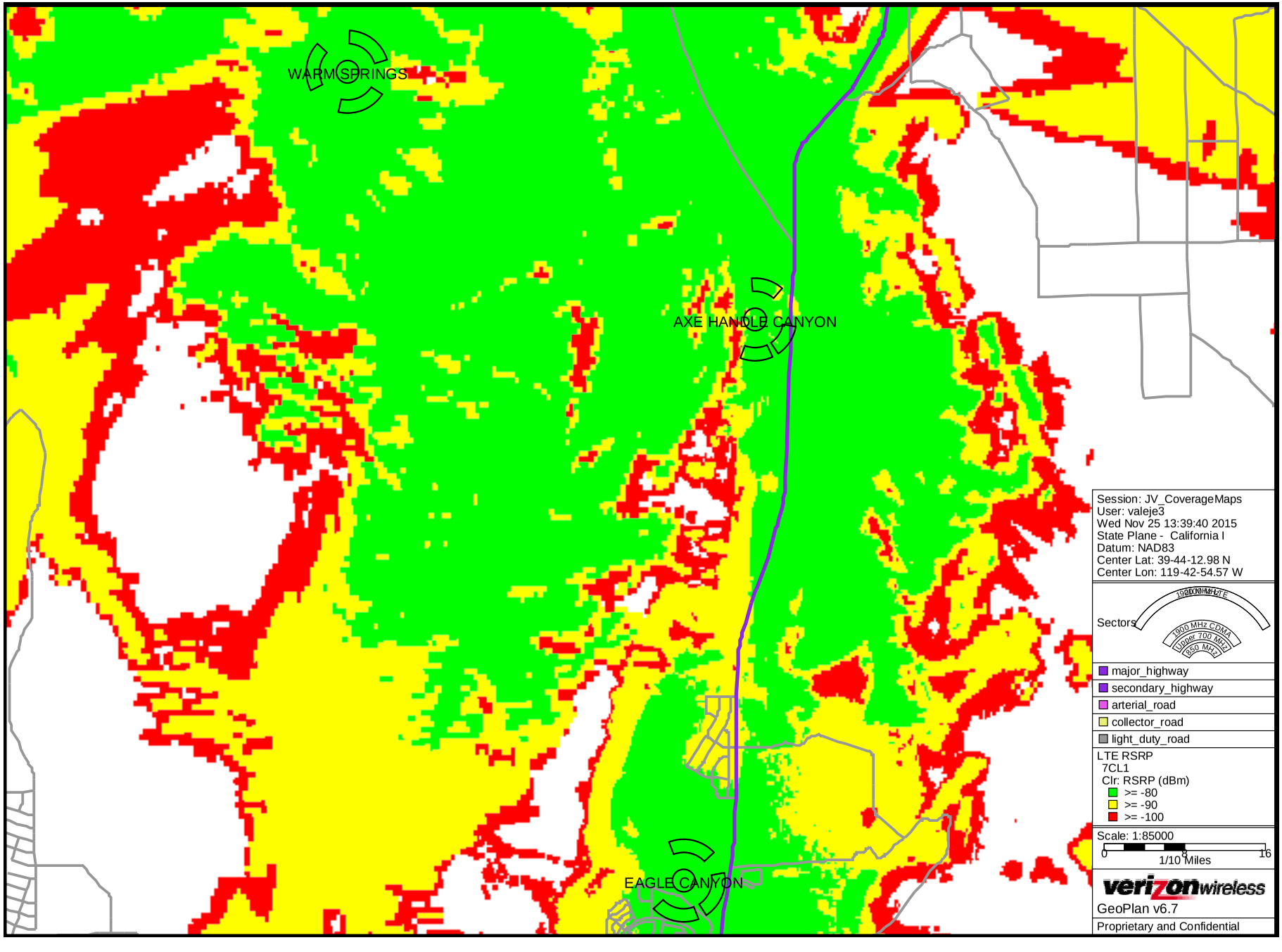
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.


WARM SPRINGS
EAGLE CANYON
Session: JV_CoverageMaps
User: valeje3
Wed Nov 25 13:42:47 2015
State Plane - California I
Datum: NAD83
Center Lat: 39-44-12.98 N
Center Lon: 119-42-54.57 W
Sectors
1900 MHz LTE
1900 MHz CDMA
Upper 700 MHz
850 MHz
major_highway
secondary_highway
arterial_road
collector_road
light_duty_road
LTE RSRP
7CL1
Clr: RSRP (dBm)
>= -80
>= -90
>= -100
Scale: 1:85000
0
8
16
1/10 Miles
verizon wireless
GeoPlan v6.7
Proprietary and Confidential


WARM SPRINGS
AXE HANDLE CANYON
EAGLE CANYON
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User: valeje3
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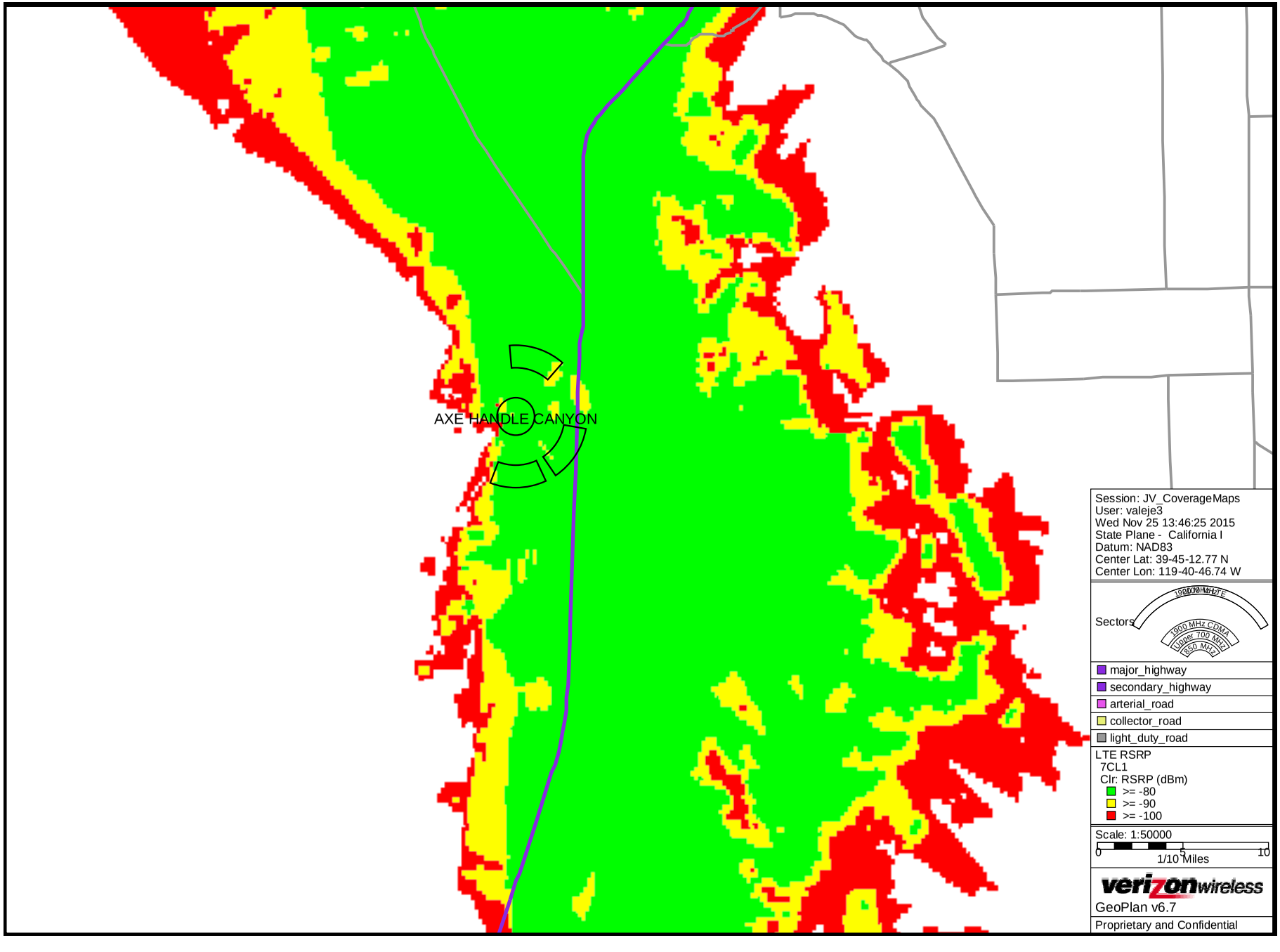
State Plane - California I
Datum: NAD83
Center Lat: 39-44-12.98 N
Center Lon: 119-42-54.57 W
Sectors
1900 MHz LTE
1900 MHz CDMA
Upper 700 MHz
850 MHz
major_highway
secondary_highway
arterial_road
collector_road
light_duty_road
LTE RSRP
7CL1
Clr: RSRP (dBm)
>= -80
>= -90
>= -100
Scale: 1:85000
0
8
16
1/10 Miles
verizonwireless
GeoPlan v6.7
Proprietary and Confidential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User: valeje3
Wed Nov 25 13:46:25 2015
State Plane - California I
Datum: NAD83
Center Lat: 39-45-12.77 N
Center Lon: 119-40-46.74 W
Sectors
1900 MHz LTE
1900 MHz CDMA
Upper 700 MHz
850 MHz
major_highway
secondary_highway
arterial_road
collector_road
light_duty_road
LTE RSRP
7CL1
Clr: RSRP (dBm)
>= -80
>= -90
>= -100
Scale: 1:50000
0
5
10
1/10 Miles
verizonwireless
GeoPlan v6.7
Proprietary and Confidential

DOC # 3486311
01/12/2007 04:43:04 PM
Requested By
FOUNDERS TITLE COMPANY OF NEVADA
Washoe County Recorder
Kathryn L. Burke - Recorder
Fee: $15.00 RPTT: $3,628.50
Page 1 of 2

Escrow No.: 78378-NH

APN: 076-272-03
R.P.T.T. $3,628.50
ESCROW NO: 78378-NH

WHEN RECORDED MAIL TO and MAIL TAX STATEMENT TO:
THOMAS MAXWELL PRENTICE
31202 COUNTRYSIDE LANE
CASTAIC, CA 91384

GRANT, BARGAIN, SALE DEED

THIS INDENTURE WITNESSETH: That Shon Berg and Lisa Berg, husband and wife as joint Tenants
In consideration of $10.00, the receipt of which is hereby acknowledged, do hereby Grant, Bargain, Sell and Convey to
~~Thomas Maxwell Prentice~~ Rena P. Smith, as Trustee of the One Four Eight Five Five Pyramid Way Land Trust, dated January 12, 2007
all that real property situated in the City of Sparks, County of Washoe, State of Nevada, described as follows:

See Exhibit A attached hereto and made a part hereof.

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining.

Shon Berg

Lisa Berg

STATE OF NEVADA
COUNTY OF WASHOE } SS:

This instrument was acknowledged before me on January 8, 2007, by Son Berg and Lisa Berg.

J. HARROWA
Notary Public - State of Nevada
Appointment Recorded in Washoe County
No: 93-3931-2 - Expires June 5, 2009

NOTARY PUBLIC

Exhibit A

All that certain real property situate in the County of Washoe, State of Nevada, described as follows:

Parcel 24-2-0-5 as shown on the Record of Survey Map filed in the office of the Washoe County Recorder, Washoe County, Nevada on September 9, 1976, under File No. 425174, and Division of Land Map filed in the office of the Washoe County Recorder, Washoe County, Nevada, under File No. 425180, more particularly described as follows:

A portion of the Southwest ¼ of Section 24, Township 22 North, Range 20 East, Mount Diablo Base and Meridian in the County of Washoe, State of Nevada, and being more particularly described as follows:

PARCEL A:

Commencing at the Northwest corner of Section 24, thence South 01°43'16" West, 2,677.60 feet to the TRUE POINT OF BEGINNING; thence South 89°47'12" East, 2,566.27 feet; thence South 04°05'29" West, 1,332.89 feet; thence North 89°43'10" West, 2,518.33 feet; thence North 02°02'07" East 1,327.54 feet to the TRUE POINT OF BEGINNING.

PARCEL B:

Being described as all that land lying Easterly of said Parcel "A" and Westerly of the existing right-of-way line for State Highway No. 33 and also lying Southerly of the prolongation of the North line of said Parcel "A" and Northerly of the prolongation of the South line of said Parcel "A".

PARCEL C:

An easement for ingress and egress as granted to the Palomino Valley General Improvement District as set forth in a document recorded September 23, 1976, as Document No. 427136, in Book 1009, Page 277 of Official Records.

APN: 076-272-03 PREVIOUS DOCUMENT NO. 3062068

Washoe County Treasurer
P.O. Box 30039, Reno, NV 89520-3039
ph: (775) 328-2510 fax: (775) 328-2500
Email: tax@washoecounty.us

Washoe County Treasurer
Tammi Davis

Account Detail

Back to Account Detail | Change of Address | Print this Page

Washoe County Parcel Information

Parcel ID	Status	Last Update
07627203	Active	6/12/2017 2:10:55 AM

Current Owner:
14855 PYRAMID WAY LAND TRUST

PO BOX 17283
RENO, NV 89511

SITUS:
14855 PYRAMID WAY

Taxing District
4400

Geo CD:

Legal Description
Township 22 Section 24 Lot Block Range 20 SubdivisionName _UNSPECIFIED

Tax Bill (Click on desired tax year for due dates and further details)

Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
2016	$6,775.10	$6,842.85	$0.00	$0.00	$0.00
2015	$6,761.58	$6,761.58	$0.00	$0.00	$0.00
2014	$6,616.96	$6,616.96	$0.00	$0.00	$0.00
2013	$6,491.24	$6,491.24	$0.00	$0.00	$0.00
2012	$6,419.20	$6,483.39	$0.00	$0.00	$0.00
				Total	$0.00

Important Payment Information

- ALERTS: If your real property taxes are delinquent, the search results displayed may not reflect the correct amount owing. Please contact our office for the current amount due.
- For your convenience, online payment is available on this site. E-check payments are accepted without a fee. However, a service fee does apply for online credit card payments. See Payment Information for details.

Pay Online

No payment due for this account.

$0.00

Pay By Check

Please make checks payable to:
WASHOE COUNTY TREASURER

Mailing Address:
P.O. Box 30039
Reno, NV 89520-3039

Overnight Address:
1001 E. Ninth St., Ste D140
Reno, NV 89512-2845

Payment Information

Special Assessment District

Installment Date Information

Assessment Information

verizon

2785 Mitchell Drive
Building 9
Walnut Creek, CA 94598

October 9, 2017

Denise Reynolds, Fire Chief
Truckee Meadows Fire Protection District, Washoe County
1001 East Ninth Street, Building D, Second Floor
Reno, NV 89520

RE: Fire Road Design
Verizon Wireless Cellular Facilities
- Rolling Thunder – 5205 Wayside Road, Reno, NV
- Axe Handle Canyon – 14855 Pyramid Way, Reno, NV

Dear Ms. Reynolds:

Thank you taking the time to meet with our site acquisition reprentatives on September 7, 2017. We also appreciate your flexibility regarding the access design to our proposed cellular facilities referenced above.

Pursuant to the meeting, this letter is intended to acknowledge that Verizon Wireless understands that the response time by the Truckee Meadows Fire Protection District ("Fire District") to a fire on the Verizon Wireless Facilities may be increased due to the design width and grade slope of the access roads and Verizon agrees to waive any claims against the Fire District for damage to Verizon property or equipment arising out of a longer response time by the Fire District due to the design of the access roads.

We do appreciate your cooperation in bringing much needed cellular service to these areas. Should you have any questions or concerns, please feel free to contact me directly.

Sincerely,
Verizon Wireless

Radha Sharma
Real Estate Manager

CD DRAWING SIGN-OFF

DATE: TIME: % CWC-PLEASE RETURN BY:

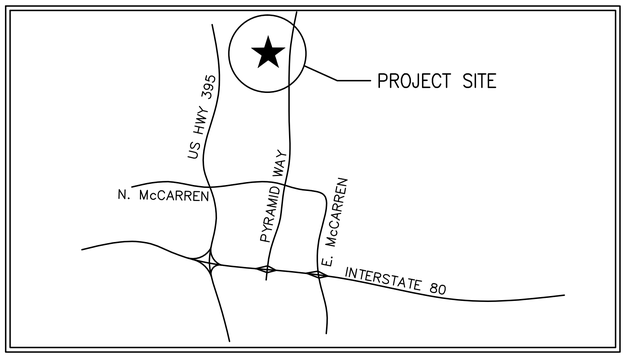
	SIGNATURE	DATE
COMPLETE Wireless Consulting, Inc.		
SITE ACQUISITION:		
PLANNING:		
CONSTRUCTION:		
MANAGEMENT:		
verizon	SIGNATURE	DATE
CONSTRUCTION:		
RF ENGINEER:		
MW ENG./TRANSPORT:		
EQUIPMENT ENGINEER:		
OTHER (IF APPLICABLE)	SIGNATURE	DATE

verizon

295 Parkshore Drive, Folsom, CA 95630

AXE HANDLE CANYON

14855 PYRAMID WAY
RENO, NV 89510
APN: 076-272-03
LOCATION #: 296901



LOCATION PLAN

DIRECTIONS

FROM VERIZON OFFICE @ 295 PARKSHORE DRIVE, FOLSOM, CA 95630:

1. GET ON I-80 E IN LOOMIS FROM FOLSOM BLVD, FOLSOM-AUBURN RD, AUBURN FOLSOM RD AND LAIRD RD
2. HEAD NORTHEAST ON PARKSHORE DR
3. TURN LEFT ONTO COOLIDGE DR
4. TURN LEFT ONTO GLENN DR
5. USE THE RIGHT 2 LANES TO TURN RIGHT ONTO FOLSOM BLVD
6. CONTINUE ONTO FOLSOM-AUBURN RD
7. CONTINUE ONTO AUBURN FOLSOM RD
8. TURN LEFT ONTO CAVITT STALLMAN RD
9. TURN RIGHT AT THE 1ST CROSS STREET ONTO LAIRD RD
10. TURN RIGHT ONTO HORSESHOE BAR RD
11. TURN LEFT TO STAY ON HORSESHOE BAR RD
12. TURN RIGHT TO MERGE ONTO I-80 E
PARTS OF THIS ROAD MAY BE CLOSED AT CERTAIN TIMES OR DAYS
13. MERGE ONTO I-80 E
ENTERING NEVADA
14. USE THE RIGHT 2 LANES TO TAKE EXIT 18 TO MERGE ONTO NV-445 N/PYRAMID WAY
15. MERGE ONTO NV-445 N/PYRAMID WAY

INDEX OF DRAWINGS

PROJECT DIRECTORY

APPLICANT:
VERIZON WIRELESS
295 PARKSHORE DRIVE
FOLSOM, CA 95630

LANDLORD:
14855 PYRAMID WAY LAND TRUST
PO BOX 17283
RENO, NV 89510
ATTN: RENIA SMITH
951-488-7573

ARCHITECT:
MANUEL S. TSIHLAS
MST ARCHITECTS, INC.
1520 RIVER PARK DRIVE
SACRAMENTO, CA 95815
916-567-9630
manuel@mstarchitects.com

CONSTRUCTION MANAGER:
BOB SCHROEDER
COMPLETE WIRELESS CONSULTING, INC.
2009 V STREET
SACRAMENTO, CA 95818
916-217-7512
bschroeder@completewireless.net

PROJECT SUMMARY

ASSESSOR'S PARCEL NUMBER:	076-272-03
JURISDICTION:	WASHOE COUNTY
OCCUPANCY:	U (TOWER)
TYPE OF CONSTRUCTION:	V-B
ZONING:	GRA (GENERAL RURAL AGRICULTURAL)

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. 2012 INTERNATIONAL BUILDING CODE
2. 2012 INTERNATIONAL RESIDENTIAL CODE
3. 2012 INTERNATIONAL MECHANICAL CODE
4. 2012 INTERNATIONAL FUEL GAS CODE
5. 2012 UNIFORM MECHANICAL CODE
6. 2012 UNIFORM PLUMBING CODE
7. 2011 NATIONAL ELECTRIC CODE
8. 2009 INTERNATIONAL ENERGY CONSERVATION CODE W/AMENDMENTS
9 2003 INTERNATIONAL FIRE CODE W/AMENDMENTS
10. 2012 NORTHERN NEVADA AMENDMENTS

ACCESSIBILITY REQUIREMENTS:
THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE.

PROJECT DESCRIPTION

PROPOSED VERIZON WIRELESS UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING:

- A 25'-0"x20'-0" EQUIPMENT LEASE AREA.
- A 25'-0"x25'-0" MONOPOLE LEASE AREA.
- OUTDOOR EQUIPMENT CABINETS.
- POWER & TELCO UTILITIES BROUGHT TO FACILITY.
- A STANDBY GENERATOR.
- RETAINING WALLS/CHAIN LINK FENCE WITH BARBED WIRE @ LEASE AREA PERIMETERS
- ANTENNAS W/ ASSOCIATED TOWER MOUNTED EQUIPMENT MOUNTED ON A PROPOSED MONOPOLE.

PROJECT MILESTONES

09/15/2015	90% ZONING DOCUMENTS
11/13/2015	100% ZONING DOCUMENTS
02/24/2016	100% ZONING DOCUMENTS REV1
05/12/2016	100% ZONING DOCUMENTS REV2
07/26/2017	100% ZONING DOCUMENTS REV3
08/02/2017	100% ZONING DOCUMENTS REV4
08/23/2017	90% CONSTRUCTION DOCUMENTS
12/05/2017	90% CONSTRUCTION DOCUMENTS REV1
XX/XX/XXXX	100% CONSTRUCTION DOCUMENTS

COMPLETE Wireless Consulting, Inc.
Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: TITLE SHEET, LOCATION PLAN, PROJECT DATA

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
1 --
2 --
3 --
4 --
5 --

File:162.1654_T11.dwg
Drawn By: MWS
Checked By: TST
Scale: AS NOTED
Date: 12/05/17

Job No. 162.1654

T1.1

INTENTIONALLY LEFT BLANK

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS PER 2016 CBC SECTION 1704 ARE REQUIRED FOR THE FOLLOWING:

A.) ALL STRUCTURAL WELDING, INCLUDING WELDING OF REINFORCEMENT OF STRUCTURAL STEEL
B.) INSTALLATION & TIGHTENING OPERATIONS FOR ALL HIGH-STRENGTH FRICTION BOLTING
C.) INSTALLATION & TIGHTENING OPERATIONS FOR ALL ANCHOR BOLTS
D.) DURING THE TAKING OF TEST SPECIMENS & PLACING OF ALL REINFORCED CONCRETE WHERE THE SPECIFIED CONCRETE STRENGTH EXCEEDS 2500 PSI
E.) DURING PLACEMENT OF REINFORCING STEEL
F.) SOILS & FOUNDATION COMPLIANCE WITH PROJECT SOIL REPORT PRIOR TO FOUNDATION INSPECTION

STRUCTURAL DESIGN CRITERIA:

1) SOIL SITE CLASSIFICATION:	D
2) SOIL BEARING CAPACITY:	SLABS: 1500 PSF
3) SEISMIC IMPORTANCE FACTOR:	I
4) SPECTRAL RESPONSE ACCELERATIONS:	Ss = 1.351g S1 = 0.465g
5) SPECTRAL RESPONSE COEFFICIENTS:	SDS = 0.900g SD1 = 0.476g
6) SITE COEFFICIENTS:	Fa = 1.0
7) SEISMIC DESIGN CATEGORY:	D

GENERAL NOTES

1. DRAWINGS ARE NOT TO BE SCALED, WRITTEN DIMENSIONS TAKE PRECEDENCE, AND THIS SET OF PLANS IS INTENDED TO BE USED FOR DIAGRAMMATIC PURPOSES ONLY, UNLESS NOTED OTHERWISE. THE GENERAL CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ANYTHING ELSE DEEMED NECESSARY TO COMPLETE INSTALLATIONS AS DESCRIBED HEREIN.

2. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS INVOLVED SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT, WITH THE CONSTRUCTION AND CONTRACT DOCUMENTS, FIELD CONDITIONS AND CONFIRM THAT THE PROJECT MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY ERRORS, OMISSIONS, OR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ ENGINEER.

3. THE GENERAL CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.

4. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

5. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

6. ALL WORK PERFORMED ON PROJECT AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK.

7. GENERAL CONTRACTOR SHALL PROVIDE AT THE PROJECT SITE A FULL SET OF CONSTRUCTION DOCUMENTS UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.

8. THE STRUCTURAL COMPONENTS OF THIS PROJECT SITE/FACILITY ARE NOT TO BE ALTERED BY THIS CONSTRUCTION PROJECT UNLESS NOTED OTHERWISE.

9. DETAILS HEREIN ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS OR SITUATIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE SCOPE OF WORK.

10. SEAL PENETRATIONS THROUGH FIRE-RATED AREAS WITH U.L. LISTED OR FIRE MARSHALL APPROVED MATERIALS IF APPLICABLE TO THIS FACILITY AND OR PROJECT SITE.

11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO THE CONSTRUCTION ON OR ABOUT THE PROPERTY.

12. CONTRACTOR SHALL SEE TO IT THAT GENERAL WORK AREA IS KEPT CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.

13. THE ARCHITECTS/ENGINEERS HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. CONTRACTORS BIDDING THE JOB ARE NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS. THE BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE ARCHITECT/ENGINEER OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED OTHERWISE.

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

COMPLETE Wireless Consulting, Inc.

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: GENERAL NOTES

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
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Checked By: TST
Scale: AS NOTED
Date: 12/05/17

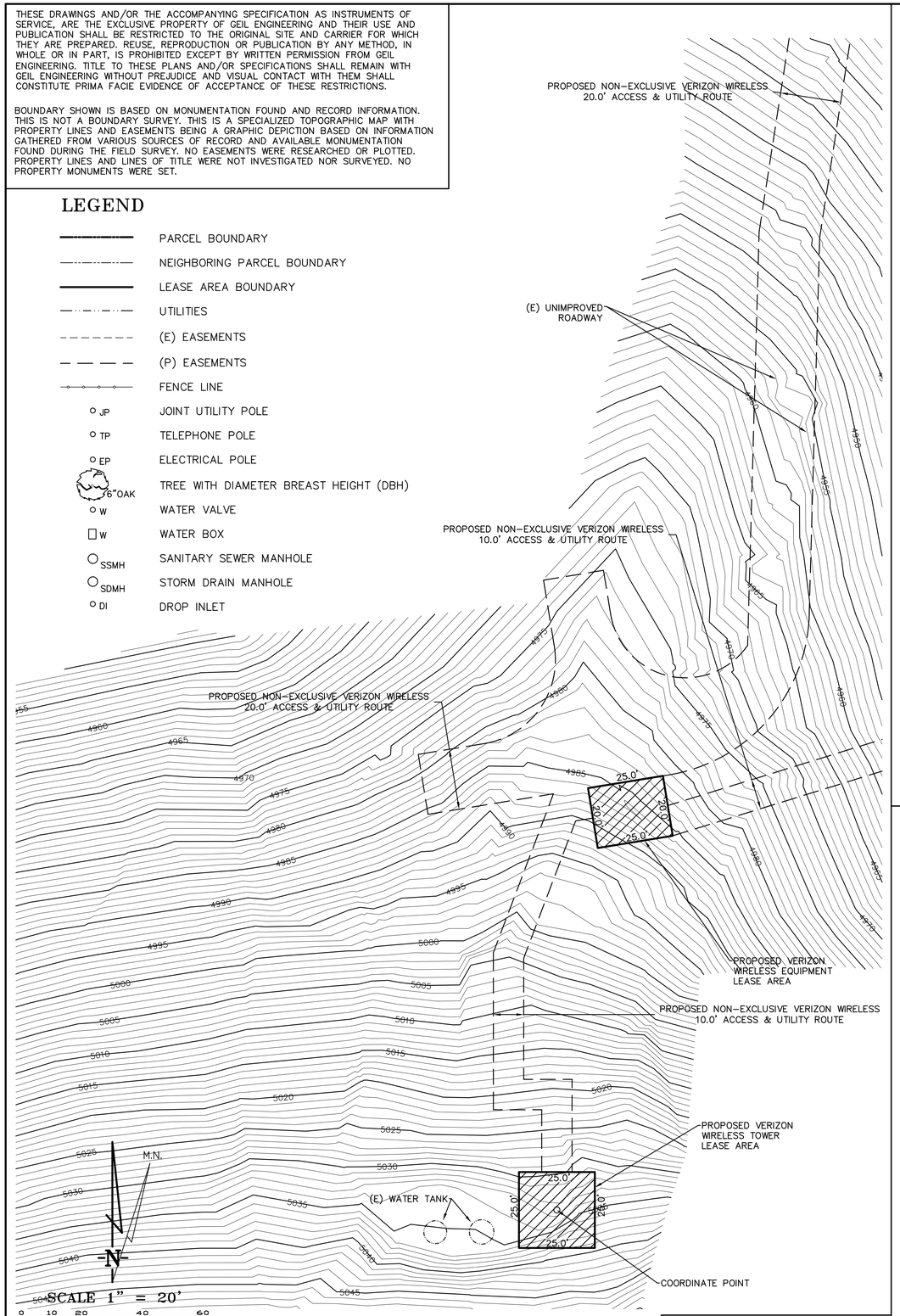
Job No. 162.1654

T1.2

BOUNDARY SHOWN IS BASED ON MONUMENTATION FOUND AND RECORD INFORMATION. THIS IS NOT A BOUNDARY SURVEY. THIS IS A SPECIALIZED TOPOGRAPHIC MAP WITH PROPERTY LINES AND EASEMENTS BEING A GRAPHIC DEPICTION BASED ON INFORMATION GATHERED FROM VARIOUS SOURCES OF RECORD AND AVAILABLE MONUMENTATION FOUND DURING THE FIELD SURVEY. NO EASEMENTS WERE RESEARCHED OR PLOTTED. PROPERTY LINES AND LINES OF TITLE WERE NOT INVESTIGATED NOR SURVEYED. NO PROPERTY MONUMENTS WERE SET.

LEGEND

- PARCEL BOUNDARY
- NEIGHBORING PARCEL BOUNDARY
- LEASE AREA BOUNDARY
- UTILITIES
- (E) EASEMENTS
- (P) EASEMENTS
- FENCE LINE
- JP — JOINT UTILITY POLE
- TP — TELEPHONE POLE
- EP — ELECTRICAL POLE
- 6"OAK — TREE WITH DIAMETER BREAST HEIGHT (DBH)
- W — WATER VALVE
- W — WATER BOX
- SSMH — SANITARY SEWER MANHOLE
- SDMH — STORM DRAIN MANHOLE
- DI — DROP INLET



LEASE AREA DETAIL

Axe Handle Canyon
Lease Area Description

All that certain lease area being a portion Parcel 24-2-0-5 as shown on Record of Survey 986 Document No. 425174 Official Records of Washoe County, Nevada being more particularly described as follows:

Equipment Lease Area
Commencing at a T-Bar fence post set for the Southeast corner of said parcel of land which bears South 04°05'29" West 1333.36 feet from a T-Bar post set for the Northeast corner of said parcel; thence along the South boundary thereof North 89°43'10" West 1728.66 feet; thence leaving said South boundary North 00°16'50" East 697.79 feet to the True Point of Beginning; thence from said point of beginning North 09°17'03" West 20.00 feet; thence North 80°42'57" East 25.00 feet; thence South 09°17'03" East 20.00 feet; thence South 80°42'57" West 25.00 feet to the point of beginning.

Tower Lease Area
Commencing at a T-Bar fence post set for the Southeast corner of said parcel of land which bears South 04°05'29" West 1333.36 feet from a T-Bar post set for the Northeast corner of said parcel; thence along the South boundary thereof North 89°43'10" West 1754.00 feet; thence leaving said South boundary North 00°16'50" East 565.93 feet to the True Point of Beginning; thence from said point of beginning North 25.00 feet; thence East 25.00 feet; thence South 25.00 feet; thence West 25.00 feet to the point of beginning.

Together with an easement for utility purposes, ten feet in width, the centerline of which is described as follows: Beginning at a point which bears North 09°17'03" West 5.05 feet from the Southeast corner of the above described Equipment Lease Area; thence from said point of beginning North 72°51'03" East 473.18 feet more or less to an existing electrical pole said point hereafter referred to as Point B; thence along said pole line South 38°04'25" East 656.0 feet and South 12°02'15" East 347.1 feet to an existing public utility easement; thence along said public utility easement South 89°43'10" 773 feet more or less to the public right of way.

Also together with an easement for access and utility purposes, over and across the East 6.0 feet of the South 220.0 feet of the aforementioned parcel of land.

Also together with an easement for access and utility purposes, six feet in width, from the aforementioned Point B and running thence North 18°24'10" East 48.0 feet to an existing electrical meter.

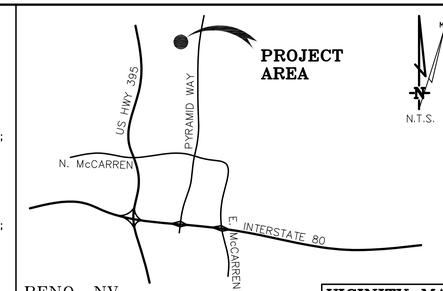
Also together with an easement for access purposes, twenty feet in width the centerline of which is described as follows: Commencing at a point on the East boundary of the aforementioned parcel of land which bears North 04°05'29" East 10.02 feet from the Southeast corner thereof; thence along an existing traveled way North 89°43'10" West, 638.57 feet; thence along a tangent curve to the West, having a radius of 250.00 feet and a central angle of 102°52'19"; thence along said curve a distance of 448.86 feet, ; thence North 13°09'09" East, 301.26 feet; thence along a tangent curve to the North, having a radius of 525.00 feet and a central angle of 35°29'36"; thence along said curve a distance of 325.22 feet, ; thence North 22°20'27" West, 83.12 feet; thence along a tangent curve to the North, having a radius of 200.00 feet and a central angle of 33°32'13"; thence along said curve a distance of 117.07 feet, ; thence North 11°11'46" East, 96.73 feet; thence along a tangent curve to the North, having a radius of 25.00 feet and a central angle of 158°53'50"; thence along said curve a distance of 69.33 feet, ; thence South 32°17'56" West, 143.96 feet; thence along a tangent curve to the Southwest, having a radius of 300.00 feet and a central angle of 31°47'09"; thence along said curve a distance of 166.43 feet, ; thence South 0°30'47" West, 106.31 feet; thence along a tangent curve to the South, having a radius of 55.00 feet and a central angle of 151°31'19"; thence along said curve a distance of 145.45 feet, ; thence North 27°57'54" West, 83.36 feet; thence along a tangent curve to the Northwest, having a radius of 150.00 feet and a central angle of 23°20'40"; thence along said curve a distance of 61.12 feet, ; thence North 51°18'34" West, 140.42 feet; thence along a tangent curve to the Northwest, having a radius of 125.00 feet and a central angle of 73°54'18"; thence along said curve a distance of 161.24 feet, ; thence South 54°47'08" West, 46.42 feet; thence along a tangent curve to the Southwest, having a radius of 50.00 feet and a central angle of 101°58'08"; thence along said curve a distance of 88.98 feet, ; thence North 23°14'44" West, 20.39 feet; thence along a tangent curve to the Northwest, having a radius of 25.00 feet and a central angle of 147°56'22"; thence along said curve a distance of 64.55 feet, ; thence South 8°48'53" West, 141.67 feet; thence South 1°23'07" West, 122.53 feet; thence along a tangent curve to the South, having a radius of 45.00 feet and a central angle of 79°19'50"; thence along said curve a distance of 62.31 feet, ; thence South 80°42'57" West, 20.69 feet to a point hereafter referred to as Point A; thence continuing South 80°42'57" West, 60.00 feet.

Also together with an easement for access purposes, twenty feet in width the centerline of which is described as follows: beginning at the aforementioned Point A; thence South 09°17'03" East 10.0 feet more or less to the above described Equipment Lease Area.

Also together with an easement for access purposes, twenty feet in width the centerline of which is described as follows: beginning at the aforementioned Point A; thence North 09°17'03" West 60.0 feet and as necessary for fire safe turn around.

Also together with an easement for access and utility purposes, ten feet in width the centerline of which is described as follows: beginning at a point on the West boundary of the above described equipment lease area which bears South 9°17'03" East, 5.00 feet from the Northwest corner thereof; thence from said point of beginning South 80°42'57" West, 8.65 feet; thence South 20°43'53" West, 52.16 feet; thence South 0°00'00" West, 45.85 feet; thence North 90°00'00" East, 15.93 feet; thence South South 0°00'00" East, 25.51 feet more or less to a point on the South boundary of the above described tower lease area.

Also together with an easement for utility purposes, ten feet in width, the centerline of which is described as follows: Beginning at the above described Point B; thence from said point of beginning North 0°00'00" East, 45.85 feet; thence North 20°43'53" East, 52.16 feet; thence North 80°42'57" East, 8.65 feet more or less to the above described equipment lease area.



VICINITY MAP

DATE OF SURVEY: 08-27-15

SURVEYED BY OR UNDER DIRECTION OF: KENNETH D. GEIL, PLS 13385 LOCATED IN THE COUNTY OF WASHOE, STATE OF NEVADA

CONTRACTOR IS RESPONSIBLE TO VERIFY LEASE AREA PRIOR TO CONSTRUCTION.

BEARINGS SHOWN ARE BASED UPON MONUMENTS FOUND AND RECORD INFORMATION. THIS IS NOT A BOUNDARY SURVEY.

ELEVATIONS SHOWN ON THIS PLAN ARE BASED UPON U.S.G.S. N.A.V.D. 88 DATUM. ABOVE MEAN SEA LEVEL UNLESS OTHERWISE NOTED.

N.G.V.D. 1929 CORRECTION: SUBTRACT 3.53' FROM ELEVATIONS SHOWN.

CONTOUR INTERVAL: 1 FT.

FLOOD ZONE PER FIRM

ASSESSOR'S PARCEL NUMBER: 076-272-03

LANDLORD(S): 14855 PYRAMID WAY TRUST
P.O. BOX 17283
RENO, NV 89511

Project Name: Axe Handle Canyon

Project Site Location: 14855 Pyramid Way
Reno, NV 89510
Washoe County

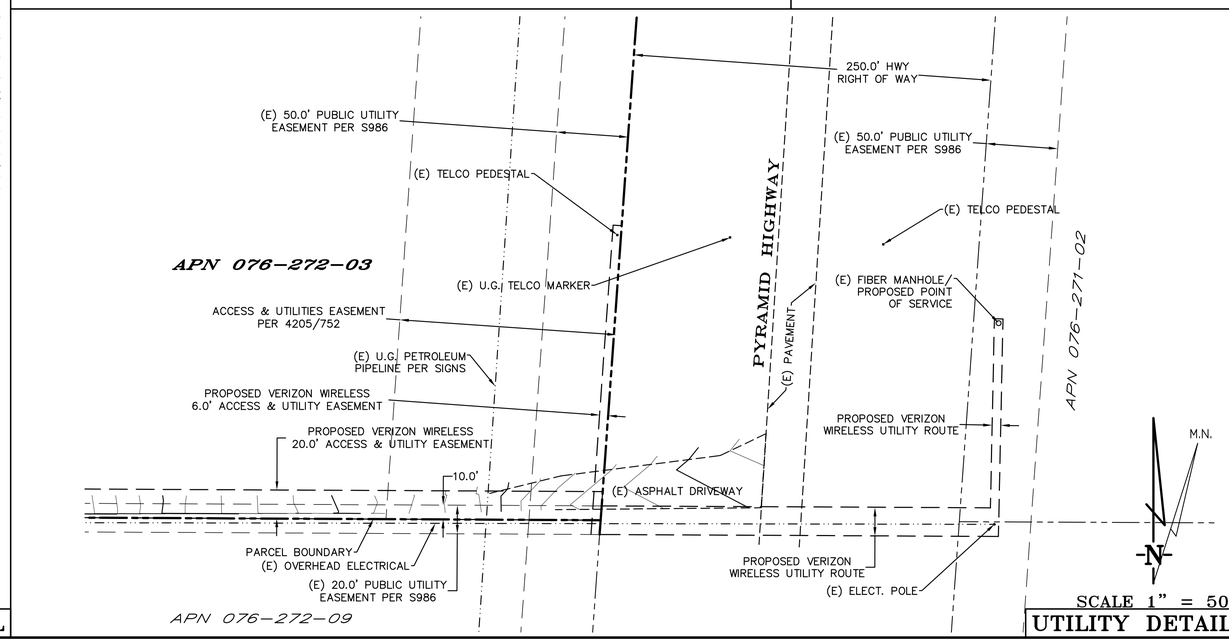
Date of Observation: 08-27-15

Equipment/Procedure Used to Obtain Coordinates: Trimble GeoXT post processed with Pathfinder Office software.

Type of Antenna Mount: Proposed Monopole
Coordinates:

Latitude: N 39°45'29.61" (NAD83) N 39°45'29.94" (NAD27)
Longitude: W 119°41'35.21" (NAD83) W 119°41'31.54" (NAD27)

ELEVATION of Ground at Structure (NAVD88) 5035' AMSL



UTILITY DETAIL

DEPT	APPROVED	DATE
A&C		
RE		
RF		
INT		
EE\IN		
OPS		
EE\OUT		

Surveyor
GEIL ENGINEERING
ENGINEERING • SURVEYING • PLANNING
1626 HIGH STREET
AUBURN, CALIFORNIA 95603
phone: (530) 885-0428
fax: (530) 823-1309

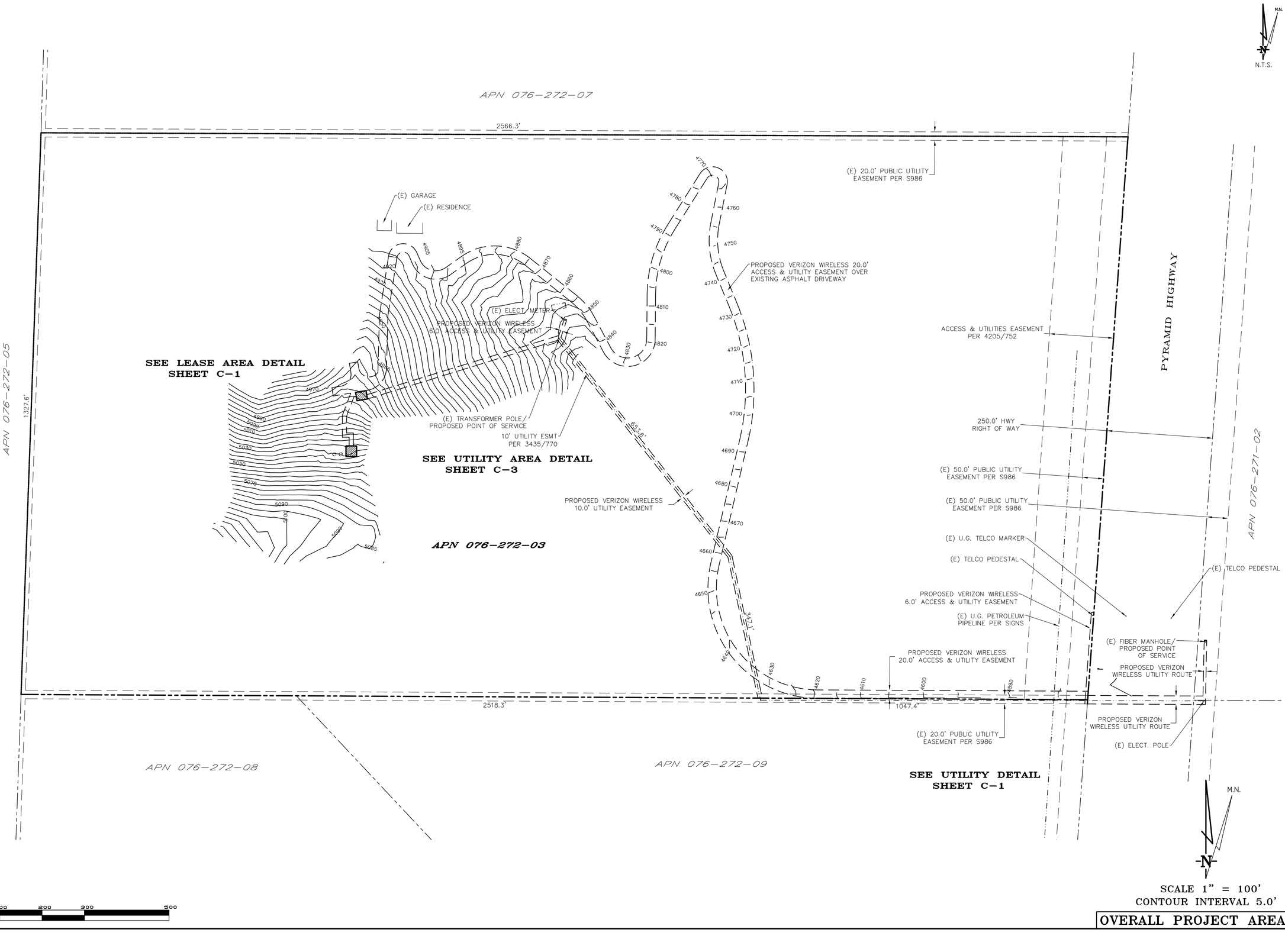
verizon

Axe Handle Canyon
14855 Pyramid Way
Reno, NV 89510

PLOT PLAN AND SITE TOPOGRAPHY

REVISIONS			
09-06-15	Preliminary Drawing	DG	
09-16-15	rev. lease area	DG	
11-12-15	redlines	DG	
05-05-16	rev. lease area	DG	
05-10-16	redlines	DG	
10-09-17	Sheet C-3 added	DG	
12-07-17	rev. esmts.	DG	

Sheet
C-1



N.T.S.

DEPT	APPROVED	DATE
A&C		
RE		
RF		
INT		
EE\IN		
OPS		
EE\OUT		

Surveyor

GEIL ENGINEERING
ENGINEERING • SURVEYING • PLANNING
1226 HIGH STREET
AUBURN, CALIFORNIA 95603
Phone: (530) 885-0426
Fax: (530) 823-1309

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PLOT PLAN AND SITE TOPOGRAPHY

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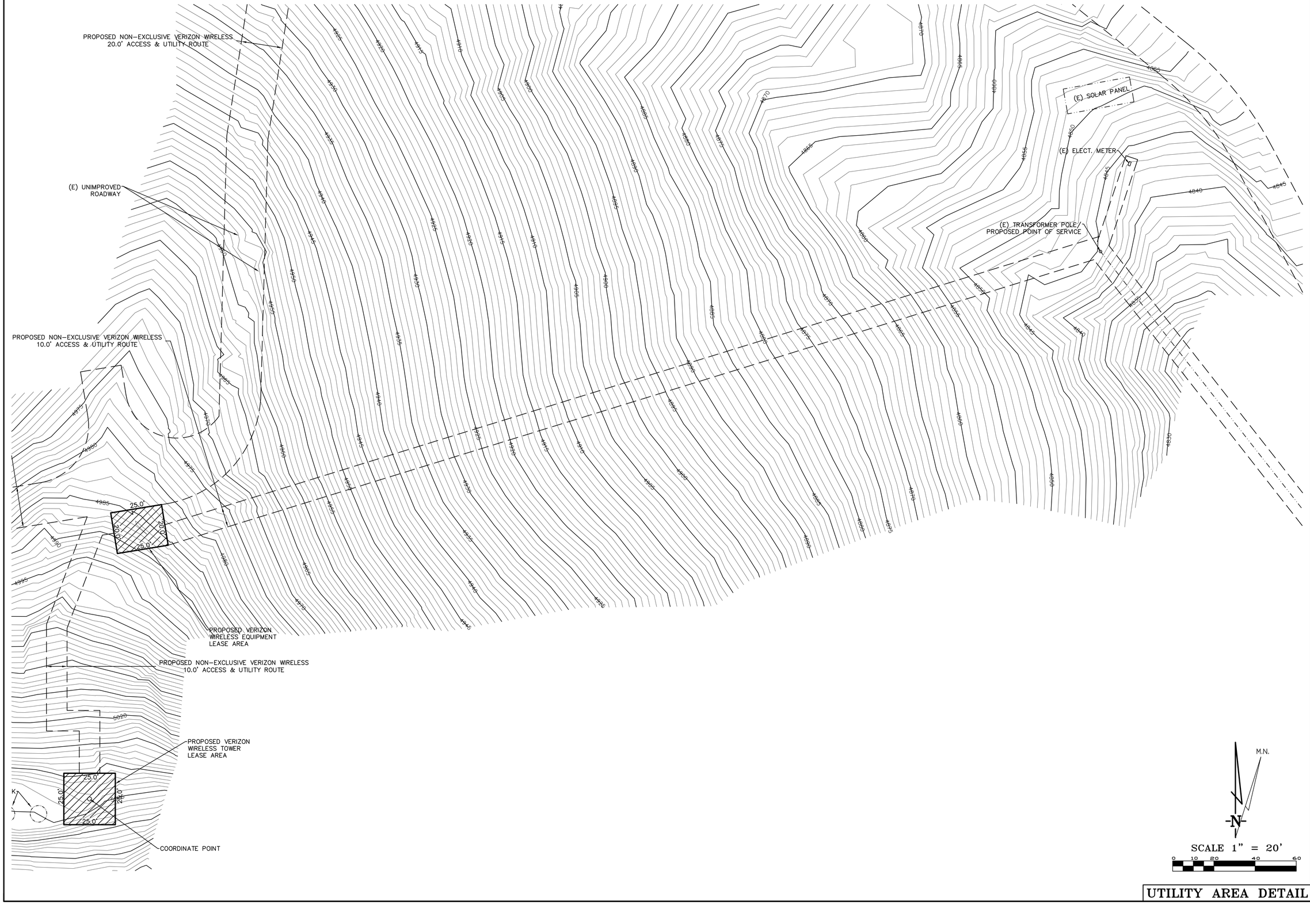
10-09-17	Sheet C-3 added	DG
12-07-17	rev. esmts	DG

Sheet
C-2



UTILITY AREA DETAIL

DEPT	APPROVED	DATE
A&C		
RE		
RF		
INT		
EE\IN		
OPS		
EE\OUT		

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C.R.I.L. ENGINEERING
ENGINEERING • SURVEYING • PLANNING
1226 HIGH STREET
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PLOT PLAN AND SITE TOPOGRAPHY

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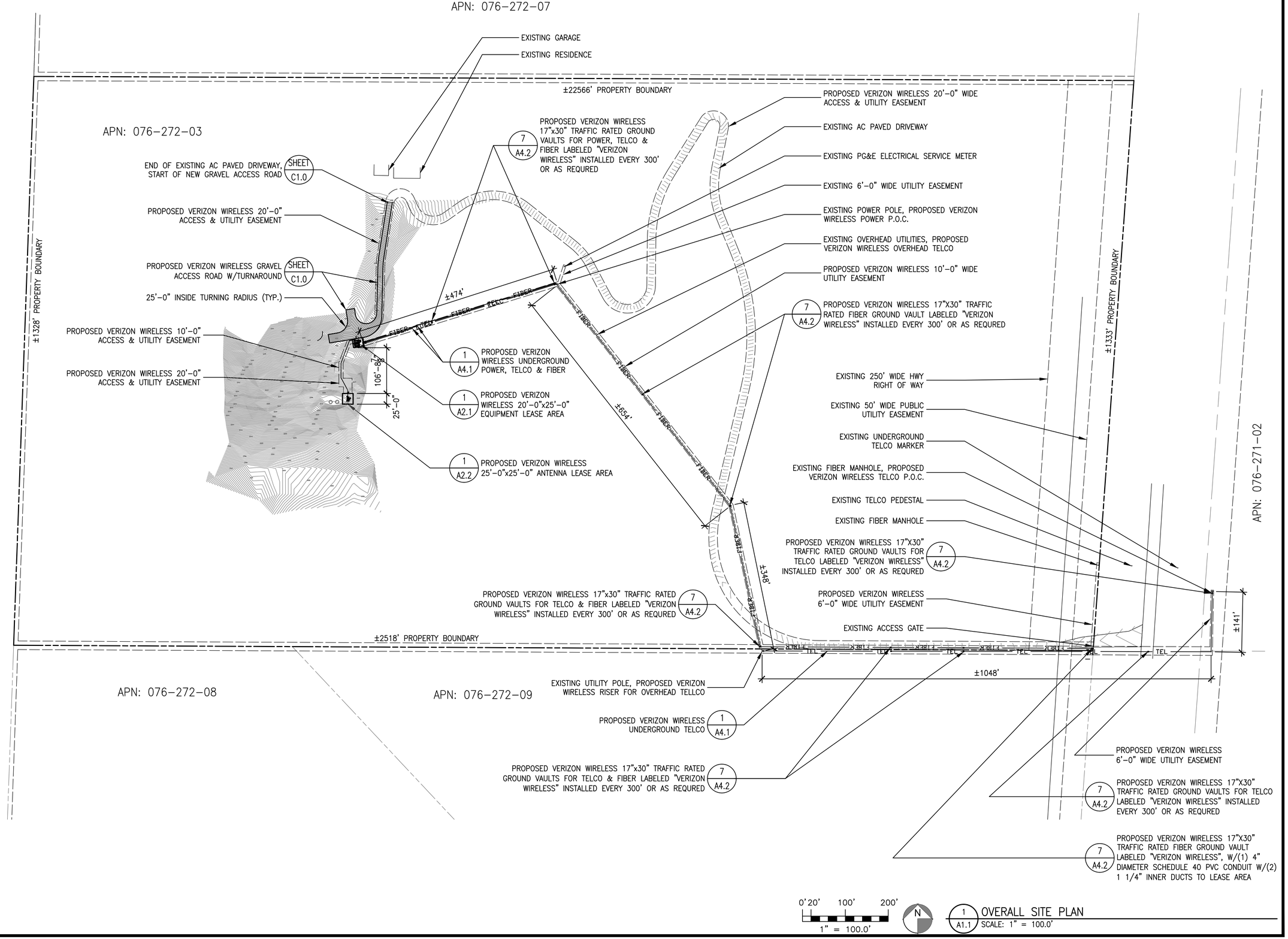
05-10-16	redlines	DG
10-09-17	Sheet C-3 added	DG
12-07-17	rev. esmts.	DG

Sheet

C-3



Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

COMPLETE Wireless Consulting, Inc.

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: OVERALL SITE PLAN

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
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Scale: AS NOTED
Date: 12/05/17

Job No. 162.1654

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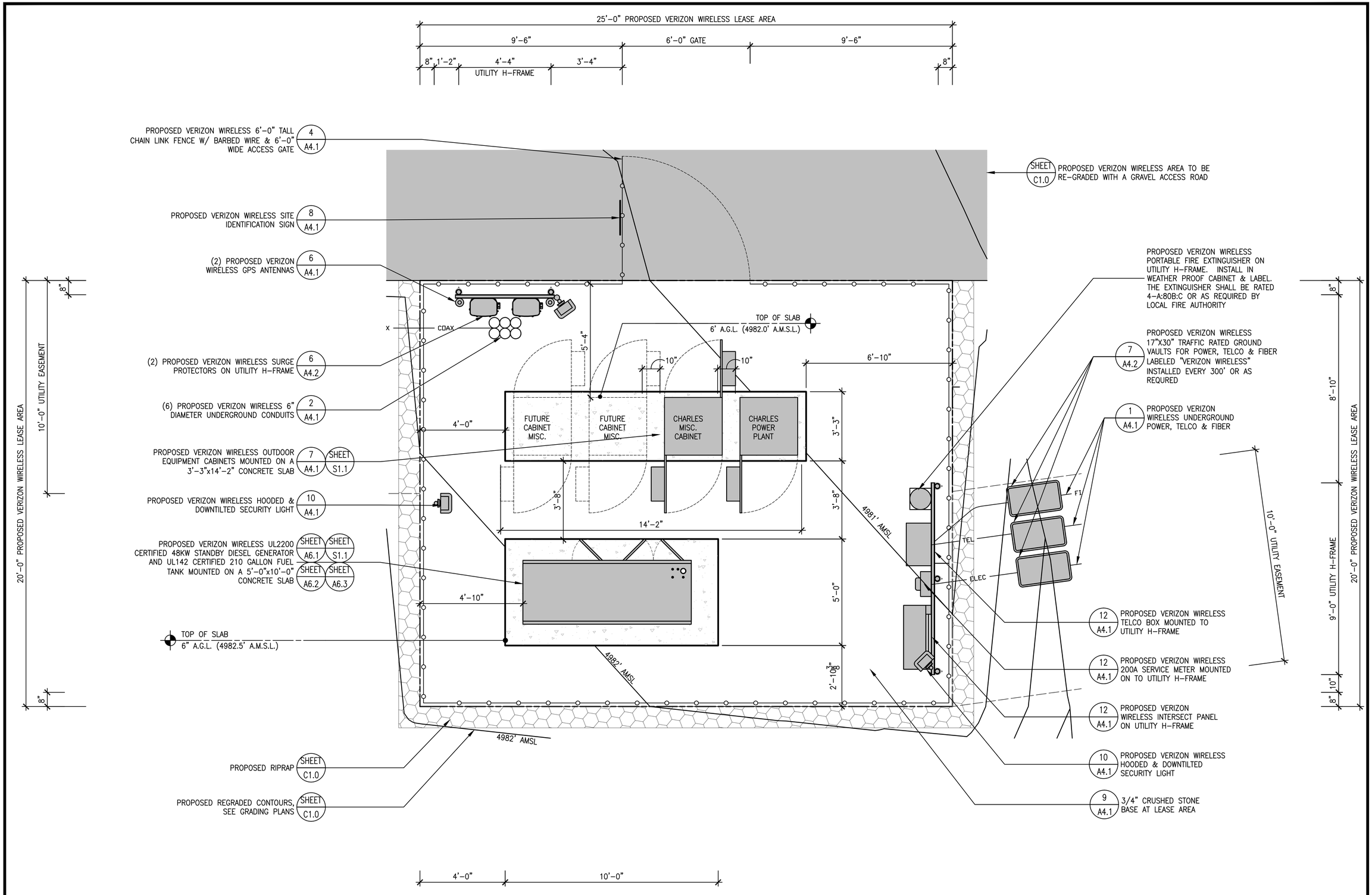

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916-505-3811

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AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: EQUIPMENT LAYOUT PLAN

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

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Checked By: TST
Scale: AS NOTED
Date: 12/05/17

Job No. 162.1654

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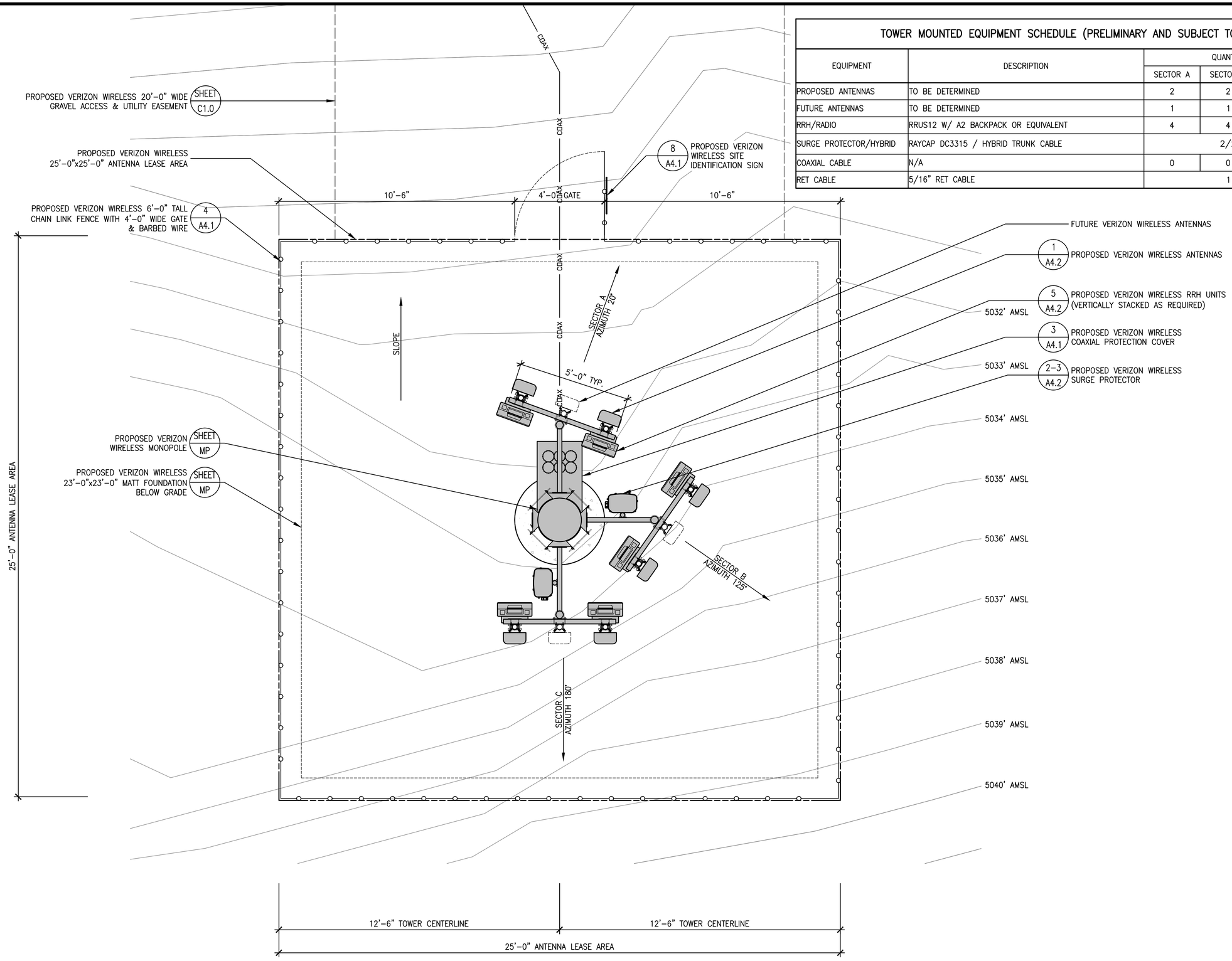
TOWER MOUNTED EQUIPMENT SCHEDULE (PRELIMINARY AND SUBJECT TO CHANGE)

EQUIPMENT	DESCRIPTION	QUANTITY			TOTAL
		SECTOR A	SECTOR B	SECTOR C	
PROPOSED ANTENNAS	TO BE DETERMINED	2	2	2	6
FUTURE ANTENNAS	TO BE DETERMINED	1	1	1	3
RRH/RADIO	RRUS12 W/ A2 BACKPACK OR EQUIVALENT	4	4	4	12
SURGE PROTECTOR/HYBRID	RAYCAP DC3315 / HYBRID TRUNK CABLE	2/2			2/2
COAXIAL CABLE	N/A	0	0	0	0
RET CABLE	5/16" RET CABLE	1			1



0' 1' 5' 10'

1/2" = 1'-0"

1 A2.2 ANTENNA LAYOUT PLAN

SCALE: 1/2" = 1'-0"

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

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AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: ANTENNA LAYOUT PLAN

MANUEL S TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

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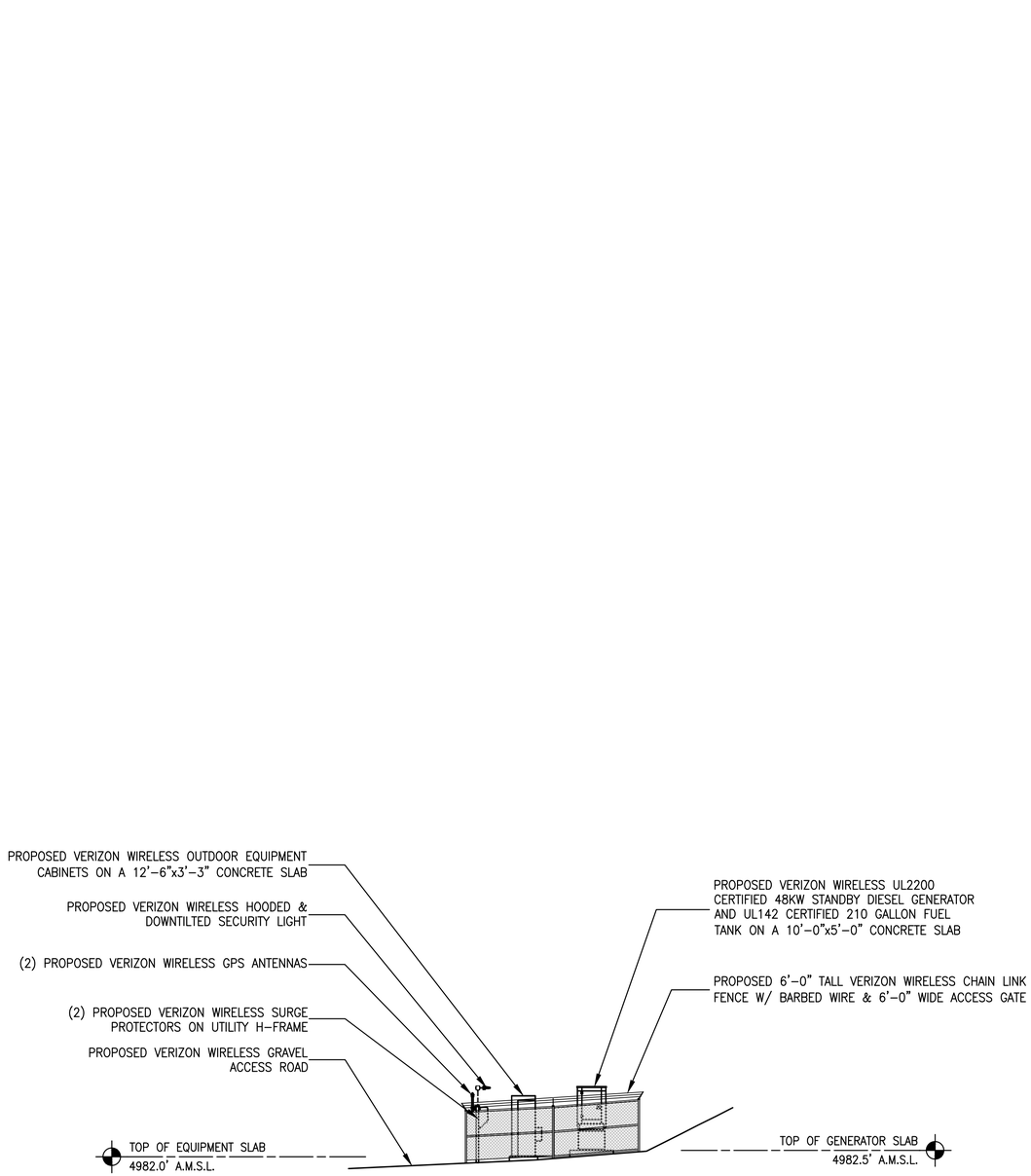

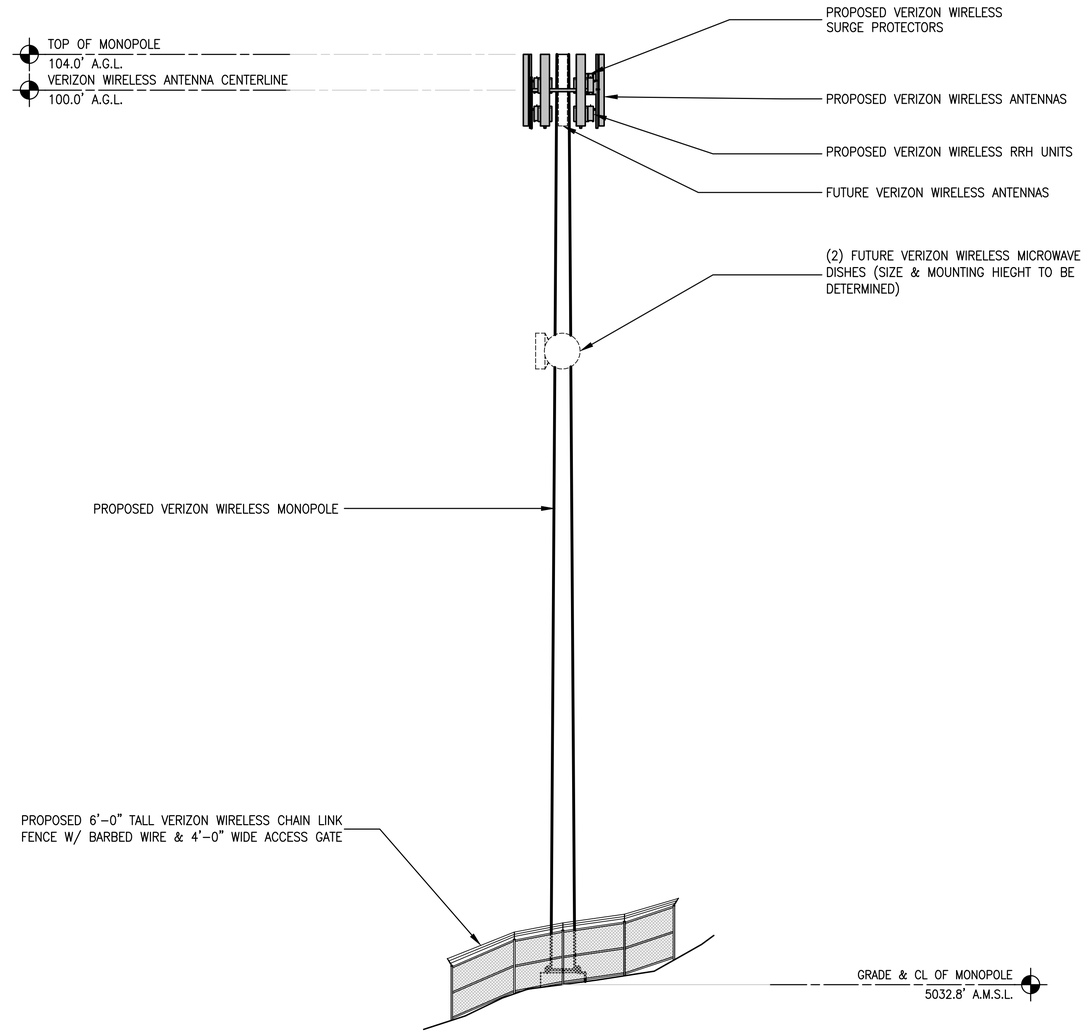

1 A3.1 WEST ELEVATION
SCALE: 1/8" = 1'-0"

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

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AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: PROJECT ELEVATIONS

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
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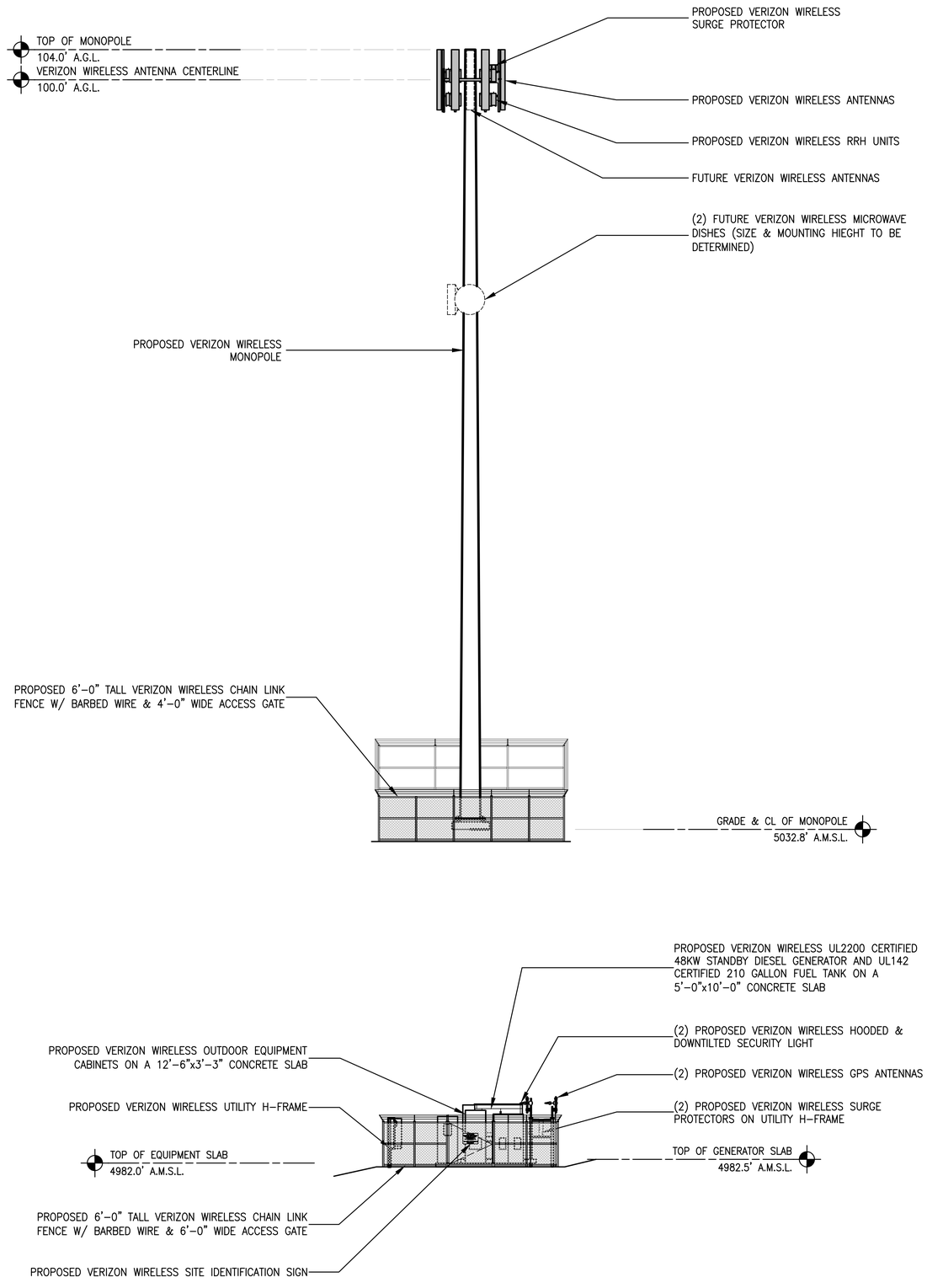

1 A3.2 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

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verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: PROJECT ELEVATIONS

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA
Not valid unless signed in ink by licensee.

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Scale: AS NOTED
Date: 12/05/17

Job No. 162.1654

A3.2

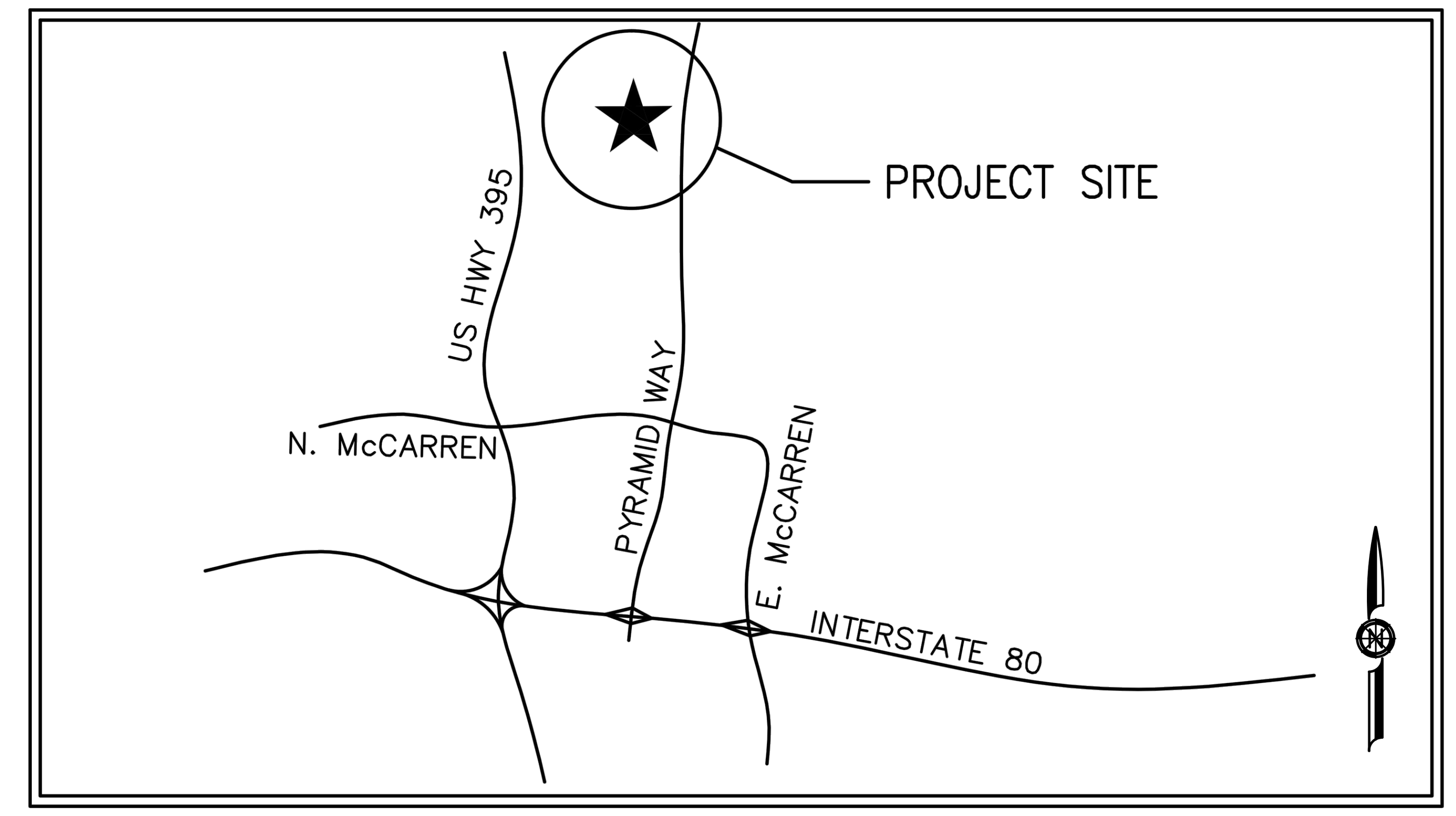
GENERAL CONSTRUCTION NOTES:

1. ALL GRADING SHALL CONFORM TO WASHOE COUNTY GRADING STANDARDS CODE SECTION 110.438.
2. FOR SITE PREPARATION, SUITABLE FILL MATERIAL, GRADING AND EARTHWORK ACTIVITIES, FOUNDATION SETBACKS AND OTHER GEOTECHNICAL RECOMMENDATIONS, REFER TO GEOTECHNICAL INVESTIGATION REPORT PREPARED BY MID PACIFIC ENGINEERING, INC., TITLED AXE HANDLE CANYON, LOCATION 296901, DATED SEPTEMBER 8, 2017. CONTACT TODD KAMISKY, PE AT 916–927–7000.
3. SURFACES RECEIVING FILL TO BE SCARIFIED TO A DEPTH OF EIGHT INCHES, UNIFORMLY MOISTURE CONDITIONED TO BETWEEN 0 AND 5 PERCENT ABOVE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557. SUBGRADE AREAS TO BE SURFACED WITH GRAVEL TO BE UNIFORMLY MOISTURE CONDITIONED BETWEEN 1 AND 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION. IN THE EVENT THE EXPOSED SUBGRADE CONSISTS OF UNDISTURBED ON–SITE ROCK, SCARIFICATION AND COMPACTION MAY BE OMITTED IF APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER.
4. WITHIN AREAS GRUBBED OR OTHERWISE DISTURBED BELOW AN APPROXIMATE DEPTH OF 12 INCHES, IN–PLACE SCARIFICATION AND COMPACTION MAY NOT BE ADEQUATE TO DENSIFY ALL DISTURBED SOIL. THEREFORE, OVER–EXCATION OF THE DISTURBED SOIL, SCARIFICATION AND COMPACTION OF THE EXPOSED SUBGRADE, AND REPLACEMENT WITH ENGINEERED FILL MAY BE REQUIRED IN THESE AREAS.
5. IF GRADING IS PERFORMED DURING RAINY SEASON (WINTER OR SPRING MONTHS) OR AFTER SIGNIFICANT PRECIPITATION OR IRRIGATION, AND OVER–OPTIMUM SOIL CONDITIONS ARE ENCOUNTERED, THE PROJECT GEOTECHNICAL ENGINEER IS TO BE CONSULTED TO REVIEW CONDITIONS AND PROVIDE TREATMENT RECOMMENDATIONS.

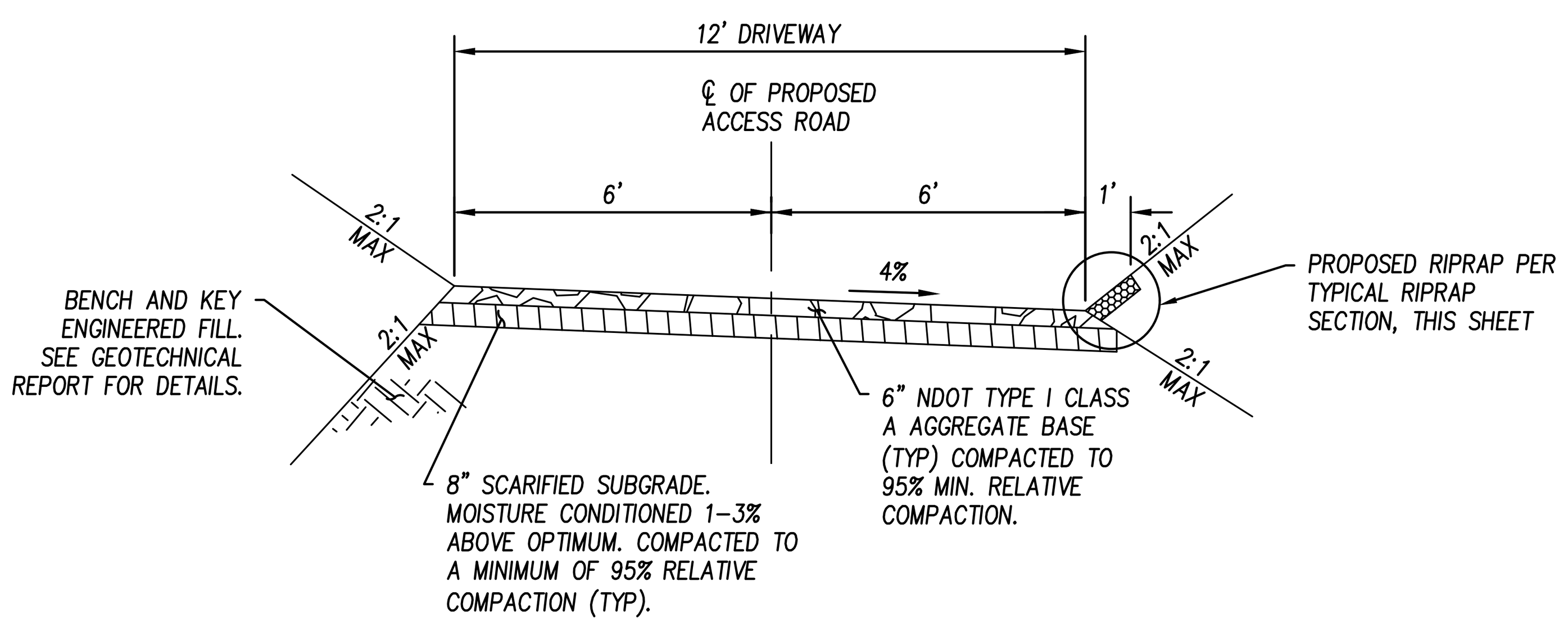
EARTHWORK SUMMARY (LIME TREATED) (CY)			
	CUT	FILL	NET (CUT-FILL)
RAW SURFACE GRADING	908.06	825.26	82.8
SECTION GRADING ADJUSTMENTS			
ACCESS ROADWAY	57.9		57.9
FIRETRUCK TURNAROUND	80.6		80.6
EQUIPMENT PAD	4.6		4.6
TOTAL	1051.13	825.26	225.9 CUT/EXPORT

*ALL VOLUMES ARE PRELIMINARY AND ARE BASED ON GEOTECHNICAL REPORT MINIMUM RECOMMENDATIONS.

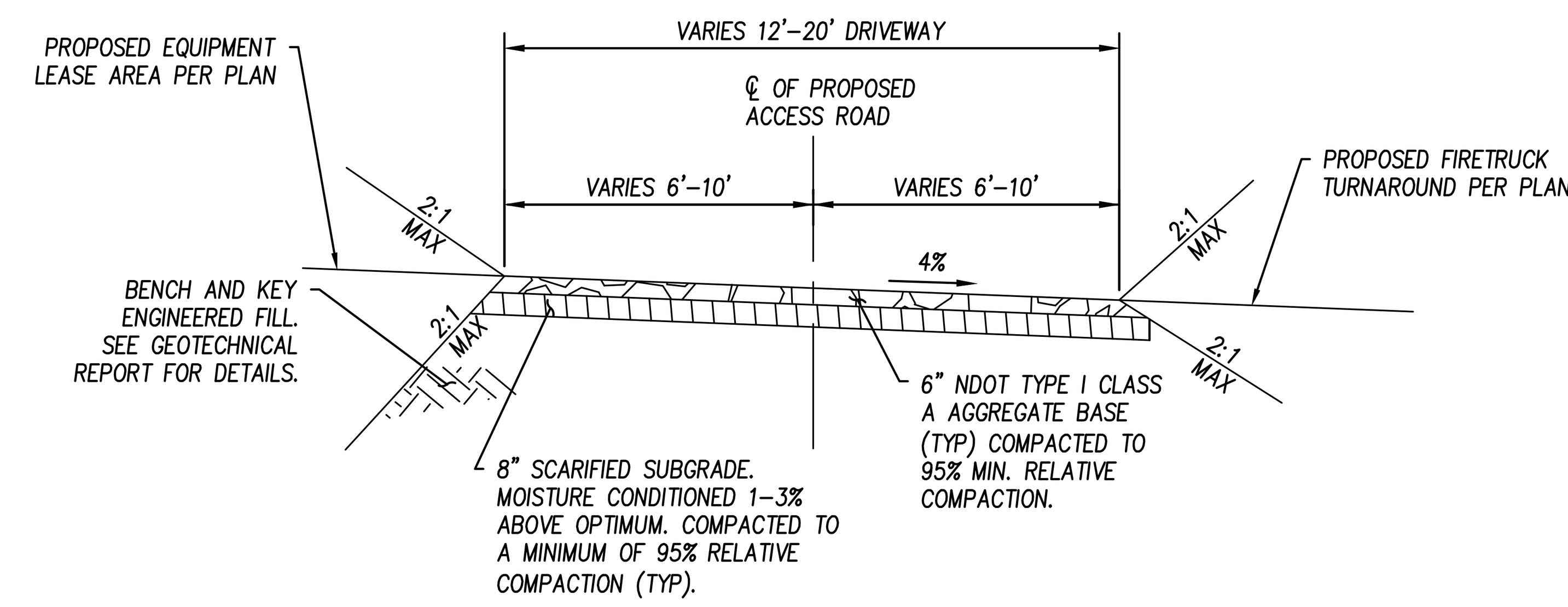
DISTURBED AREA = 0.448 ACRES
MAX CUT DEPTH = 9.94 FT
MAX FILL HEIGHT = 6.85 FT



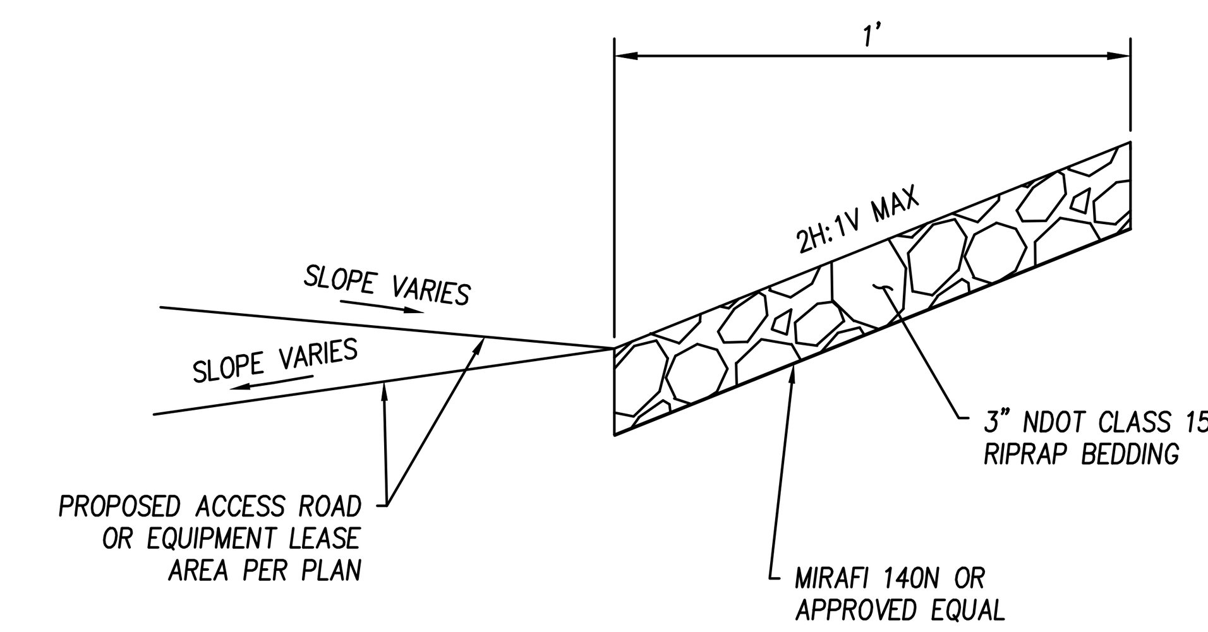
VICINITY MAP
NOT TO SCALE



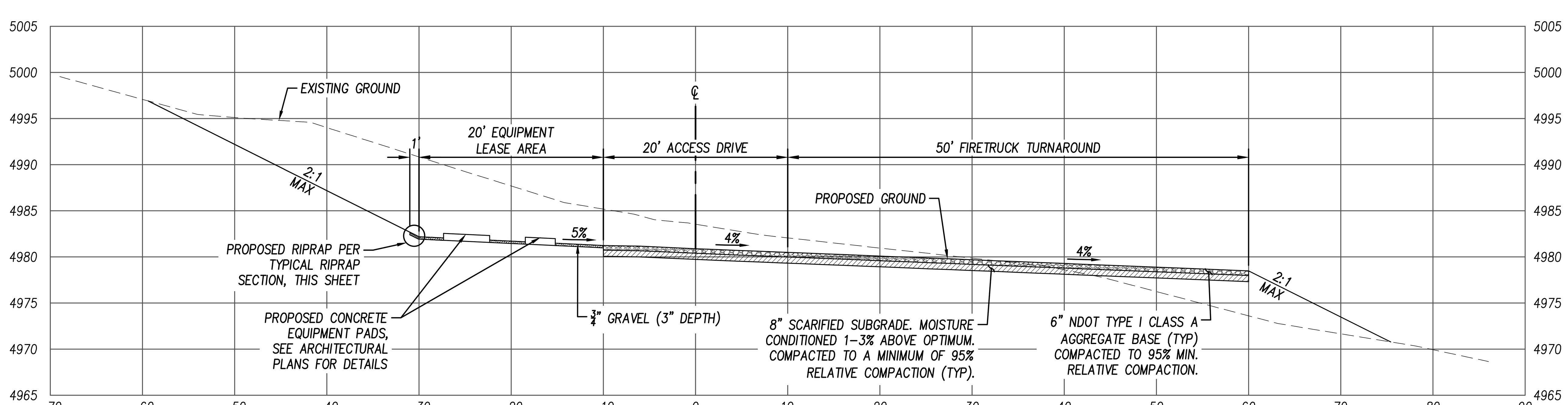
TYPICAL GRAVEL ACCESS ROAD SECTION
STA 0+03.84-2+61.16
NOT TO SCALE



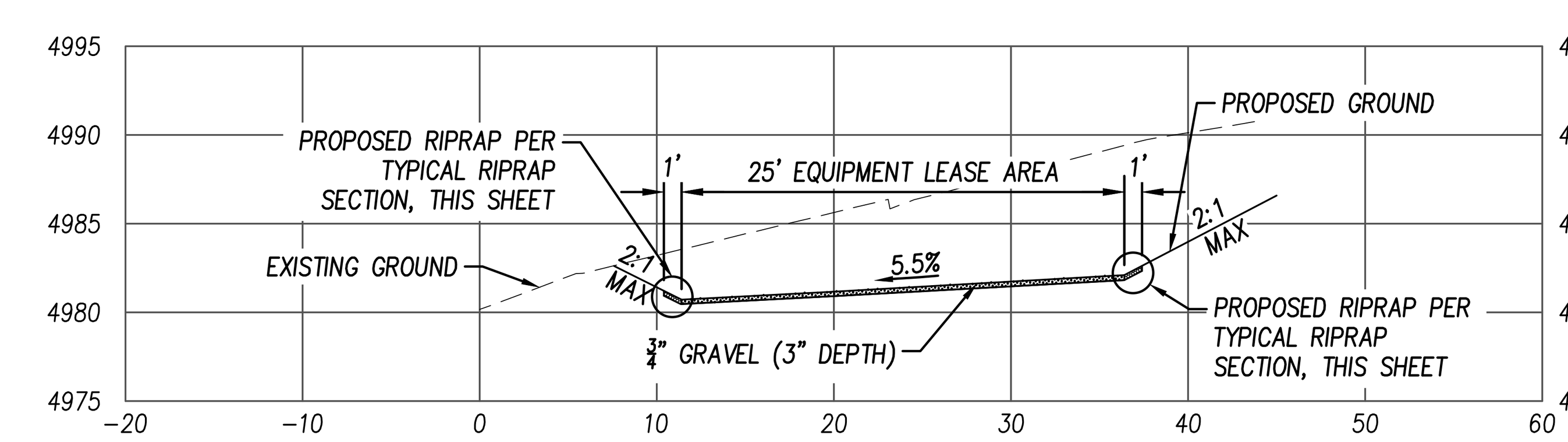
TYPICAL GRAVEL ACCESS ROAD SECTION
STA 2+61.16-4+07.16
NOT TO SCALE



TYPICAL RIPRAP SECTION
NOT TO SCALE



SECTION A-A
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=10'



SECTION B-B
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=10'

CARTWRIGHT ENGINEERS
4180 Douglas Blvd, Suite 200
Granite Bay, California 95746
T (916) 978-4001
www.cartwrightengineers.com

REVISIONS

MARK	DATE	DESCRIPTION
1		
2		
3		
4		
5		

PROFESSIONAL ENGINEER–STATE OF NEVADA
JEREMY CHRISTIANSEN
Exp: 12/31/18
CIVIL
No. 24668

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510
APN: 076-272-03

PROJECT #: 216013

SCALE: NTS

DATE: 11/08/2017

APPROVALS

DESIGNED BY:	JDC
DRAWN BY:	SD
CHECKED BY:	JDC/SL

SHEET TITLE
GENERAL NOTES AND ACCESS ROAD TYPICAL SECTIONS

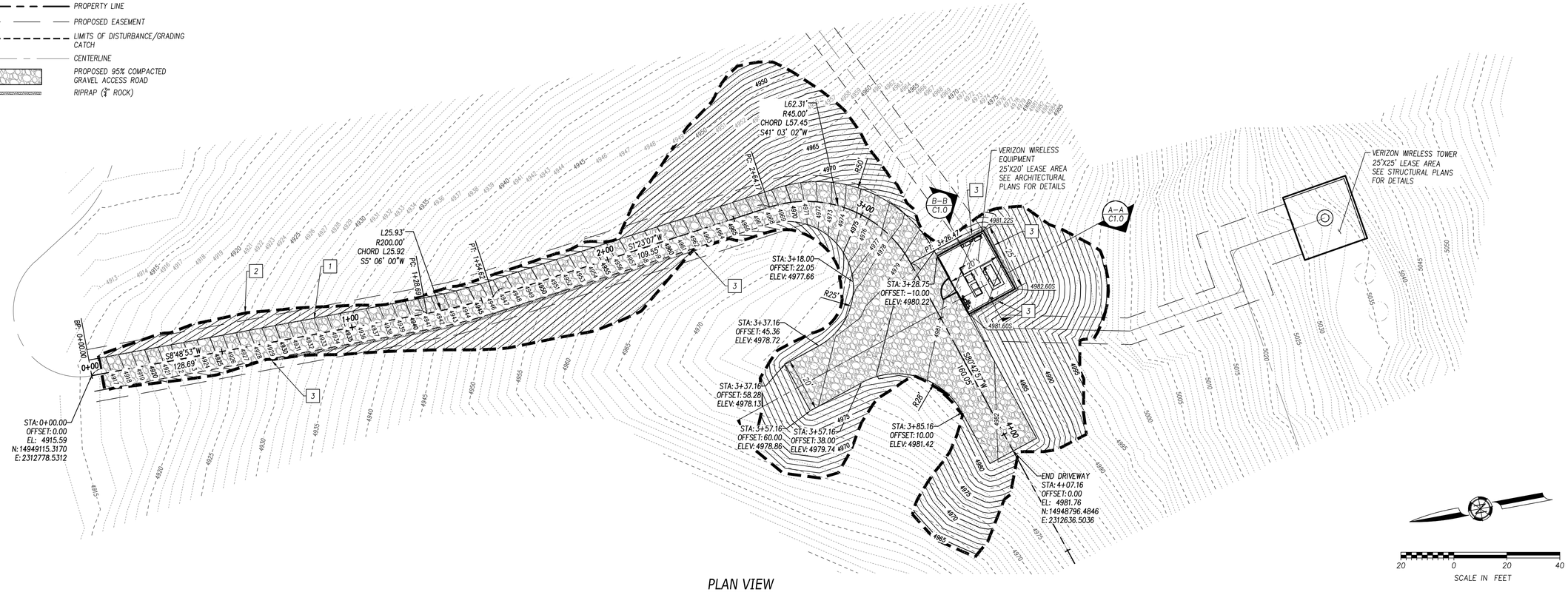
SHEET NUMBER
C1.0

LEGEND

- 5014 — EXISTING 1-FT CONTOUR
- 5015 — EXISTING 5-FT CONTOUR
- 5014 — PROPOSED 1-FT CONTOUR
- 5015 — PROPOSED 5-FT CONTOUR
- XX.XXS — SPOT ELEVATION
- PROPERTY LINE
- PROPOSED EASEMENT
- LIMITS OF DISTURBANCE/GRADING CATCH
- CENTERLINE
- PROPOSED 95% COMPACTED GRAVEL ACCESS ROAD
- RIPRAP (3" ROCK)

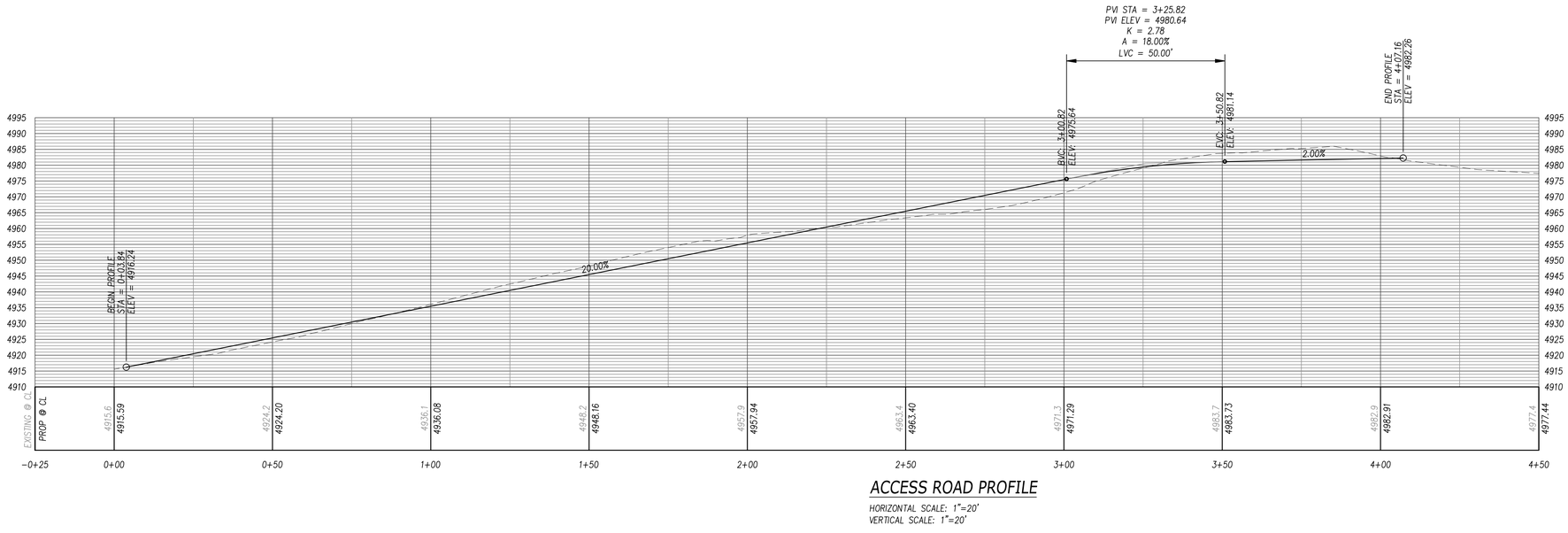
SITE CONSTRUCTION NOTES:

1. CONSTRUCT 12' WIDE GRAVEL ROAD.
2. LIMITS OF DISTURBANCE. DAYLIGHT MAX 2:1 SLOPE.
3. PROPOSED RIPRAP PER TYPICAL RIPRAP SECTION ON SHEET C1.0.



PLAN VIEW

HORIZONTAL SCALE: 1"=20'



ACCESS ROAD PROFILE

HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=20'

20 0 20 40
SCALE IN FEET

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REVISIONS

MARK	DATE	DESCRIPTION
1		
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3		
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PROFESSIONAL ENGINEER — STATE OF NEVADA — JEREMY CHRISTIANSEN — Exp: 12/31/18 — CIVIL — No. 24588

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510
APN: 076-272-03

PROJECT #: 216013

SCALE: 1"=20'

DATE: 11/08/2017

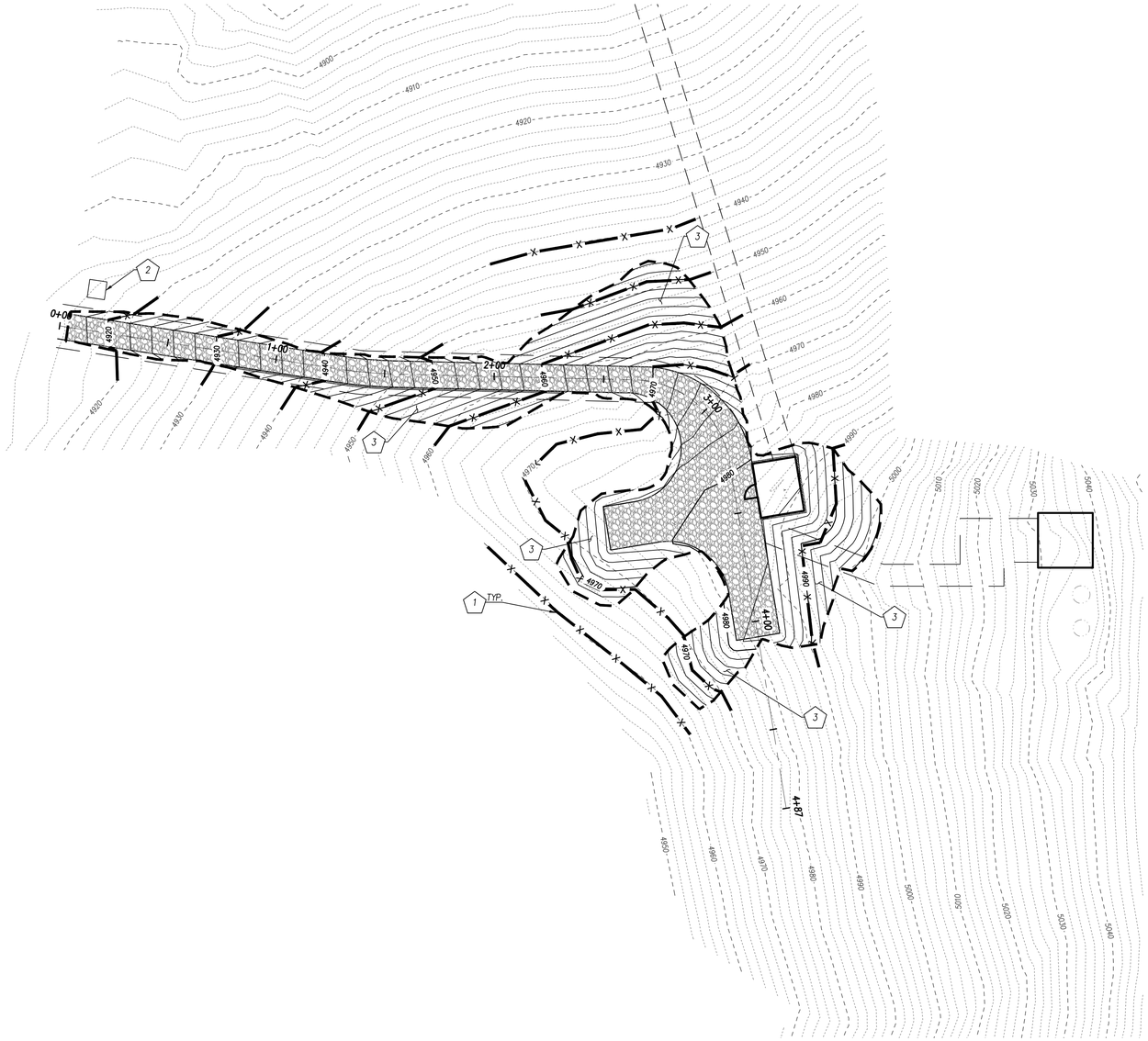
APPROVALS

DESIGNED BY:	JDC
DRAWN BY:	SD
CHECKED BY:	JDC/SL

SHEET TITLE
ACCESS ROAD
PLAN AND PROFILE

SHEET NUMBER
C1.1

Login Name: sdarnell
Plot Date: November 09, 2017 - 9:06 am
File Name: U:\216013-MST - Axe Handle-NV\CAD_CD\Production Drawings\216013-CD-C1.0-Grade.dwg
XREFS: 216013-XR-CD-TB | 216013-XR-SITE | 216013-XR-SITE | 216013-XR-Topo



LEGEND

- EXISTING 2-FT CONTOUR
- EXISTING 10-FT CONTOUR (4940)
- PROPOSED 2-FT CONTOUR
- PROPOSED 10-FT CONTOUR (4940)
- SEDIMENT LOG PER NDOT BMP STD SC-5
- LIMITS OF DISTURBANCE

EROSION AND SEDIMENT CONTROL NOTES:

1. CONSTRUCT TEMPORARY EROSION CONTROL – UTILIZE SEDIMENT LOGS PER NDOT BMP STD. SC-5. SEE DETAIL ON SHEET C2.1.
2. PROPOSED SITE CONCRETE WASTE MANAGEMENT AREA PER NDOT BMP STD. WM-6.
3. CONSTRUCT PERMANENT EROSION CONTROL – TRACKWALK AND INSTALL BIODEGRADABLE ROLLED EROSION CONTROL PRODUCT ON ALL SLOPES GREATER THAN 3H:1V. HYDROSEED WITH MIX MEETING WASHOE COUNTY STANDARDS. SEE NDOT BMP STD. SS-7 ON SHEET C2.1.

30 0 30 60
SCALE IN FEET

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REVISIONS

MARK	DATE	DESCRIPTION
1		
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PROFESSIONAL ENGINEER – STATE OF NEVADA – JEREMY CHRISTIANSEN – Exp: 12/31/18 – CIVIL – No. 24589

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510
APN: 076-272-03

PROJECT # : 216013
SCALE: 1"=30'
DATE: 11/08/2017

APPROVALS

DESIGNED BY:	JDC
DRAWN BY:	SD
CHECKED BY:	JDC/SL

SHEET TITLE
EROSION AND SEDIMENT CONTROL

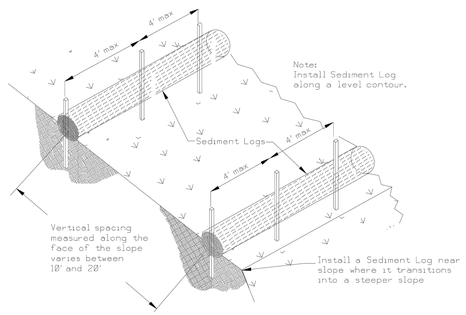
SHEET NUMBER
C2.0

Login Name: kusorof
Plot Date: November 09, 2017 - 8:05 am
File Name: U:\216013-MST - Axe Handle-NV\CAD_CD\Production Drawings\216013-CD-C2.0-EROSION CONTROL.dwg
XREFS: 216013-XR-CD-TB | 216013-XR-SITE | 216013-XR-Topo

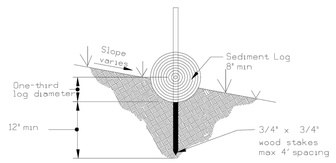
Sediment Logs

SC-5

Adapted from Caltrans Construction Site BMPs



TYPE 1 SEDIMENT LOG INSTALLATION
N.T.S.

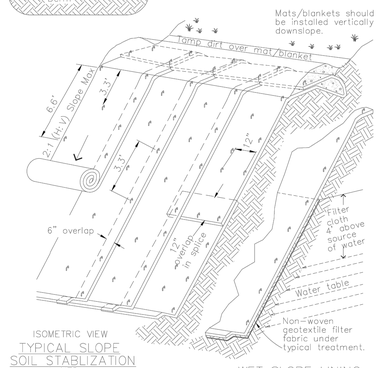


ENTRENCHMENT DETAIL
N.T.S.

SS-7

Geotextiles, Mats, Plastic Covers and Erosion Control Blankets

Adapted from Caltrans Construction Site BMPs



ISOMETRIC VIEW
TYPICAL SLOPE
SOIL STABLIZATION
NTS

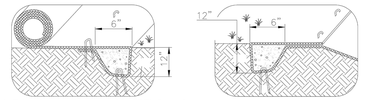
WET SLOPE LINING
NTS

NOTES:
1. Slope surface shall be free of rocks, clods, sticks and grass. Mats/blankets shall have good soil contact.
2. Lay blankets loosely and stake or staple to maintain direct contact with the soil. Do not stretch.
3. Install per manufacturer's recommendations

Geotextiles, Mats, Plastic Covers and Erosion Control Blankets

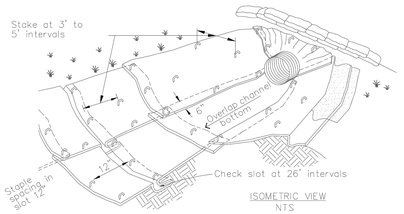
SS-7

Adapted from Caltrans Construction Site BMPs

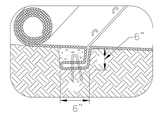


INITIAL CHANNEL ANCHOR TRENCH XS
NTS

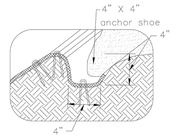
TERMINAL SLOPE AND CHANNEL
ANCHOR TRENCH XS
NTS



ISOMETRIC VIEW
NTS



INTERMITTENT CHECK SLOT XS
NTS



LONGITUDINAL ANCHOR TRENCH XS
NTS

NOTES:
1. Check slots to be constructed per manufacturers specifications.
2. Staking or stapling layout per manufacturers specifications.
3. Install per manufacturer's recommendations

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4180 Douglas Blvd, Suite 200
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REVISIONS

MARK	DATE	DESCRIPTION
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PROFESSIONAL ENGINEER – STATE OF NEVADA
JEREMY CHRISTIANSEN
Exp: 12/31/18
CIVIL
No. 24585

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510
APN: 076-272-03

PROJECT # : 216013

SCALE: N/A

DATE: 11/08/2017

APPROVALS

DESIGNED BY:	JDC
DRAWN BY:	SD
CHECKED BY:	JDC/SL

SHEET TITLE
EROSION AND SEDIMENT CONTROL DETAILS

SHEET NUMBER
C2.1

From: Michelle Ellis
To: Krause, Eva
Subject: Additional grading details - Axe Handle Canyon
Date: Wednesday, January 17, 2018 2:29:51 PM

Hi Eva,

Additional grading details are listed below:

3. We are disturbing 0.448 acres of the surface of the property. That is 19,514.88 square feet.

4. 825.26 cubic yards of material will be imported to complete the grading work. The updated earthwork summary is below:

EARTHWORK SUMMARY (LIME TREATED) (CY)				
	CUT	FILL	NET (CUT-FILL)	
RAW SURFACE GRADING	908.06	825.26	82.8	
SECTION GRADING ADJUSTMENTS				
ACCESS ROADWAY	57.9		57.9	
FIRETRUCK TURNAROUND	80.6		80.6	
EQUIPMENT PAD	4.6		4.6	
TOTAL	1051.13	825.26	225.9	CUT/EXPORT

*ALL VOLUMES ARE PRELIMINARY AND ARE BASED ON GEOTECHNICAL REPORT MINIMUM RECOMMENDATIONS.

DISTURBED AREA =	0.448 ACRES
MAX CUT DEPTH =	9.94 FT
MAX FILL HEIGHT =	6.85 FT

10. The slope varies from 4-5.5% in the cut and fill areas. The slope stability on the gravel access road is: STA 0+3.84-2+61.16 and STA 2+61.16-4+7.16. Disturbance is limited to a daylight max 2:1 slope.
The architect's notes on erosion and sediment control measures are as follows:

EROSION AND SEDIMENT CONTROL NOTES:

1. CONSTRUCT TEMPORARY EROSION CONTROL – UTILIZE SEDIMENT LOGS PER NDOT BMP STD. SC-5. SEE DETAIL ON SHEET C2.1.
2. PROPOSED SITE CONCRETE WASTE MANAGEMENT AREA PER NDOT BMP STD. WM-6.
3. CONSTRUCT PERMANENT EROSION CONTROL – TRACKWALK AND INSTALL BIODEGRADABLE ROLLED EROSION CONTROL PRODUCT ON ALL SLOPES GREATER THAN 3H:1V. HYDROSEED WITH MIX MEETING WASHOE COUNTY STANDARDS. SEE NDOT BMP STD. SS-7 ON SHEET C2.1.

12. No retaining walls will be required.

Let me know if you need anything else!

Thanks,
Michelle

Michelle Ellis
Senior Land Use Planning Manager
Complete Wireless Consulting

(916) 764-2454
(916) 313-3730 fax
MEllis@completewireless.net
2009 V Street
Sacramento, CA 95818

Items to be Attached to All New Site Build Drawings

ZDs

LEASING

- ☐ 1A (always)
- ☐ If colo, attach tower owner's FAA/ASR. Note on our surveyor's 1A "for reference only, use attached tower owner's FAA/ASR."
- ☐ If colo, have T1 sheet note tower owner's GPS coordinates & remove our surveyor's coordinates on survey page.
- ☐ If colo, make certain heights on elevation pages match tower owner's FAA/ASR.
- ☐ If colo, attached colo app.

PLANNING

none

CONSTRUCTION

- ☐ Note on sign off telco provider or microwave

ALL

- ☐ Note initials for VZW team & any "other" necessary reviewer

CDs

LEASING

- ☐ Colo app/lease exhibit (if applicable)

PLANNING

- ☐ COAs (with all applicable COAs checked off & referenced in plans)

N/A Still in Planning (ME)

CONSTRUCTION

- ☐ Power Engineering (previously sent to the entire team, upon receipt to insure compliance w/ lease & planning approval)
- ☐ Telco Engineering (previously sent to the entire team, upon receipt to insure compliance w/ lease & planning approval)

ALL

- ☐ Note initials for VZW team & any "other" necessary reviewer

Geil Engineering
Engineering * Surveying * Planning
1226 High Street
Auburn, California 95603–5015
Phone: (530) 885–0426 * Fax: (530) 823–1309

Verizon Wireless

Project Name: Axe Handle Canyon

Project Site Location: 14855 Pyramid Way
Reno, NV 89510
Washoe County

Date of Observation: 08–27–15

Equipment/Procedure Used to Obtain Coordinates: Trimble GeoXT post processed with Pathfinder Office software.

Type of Antenna Mount: Proposed Monopole
Coordinates:

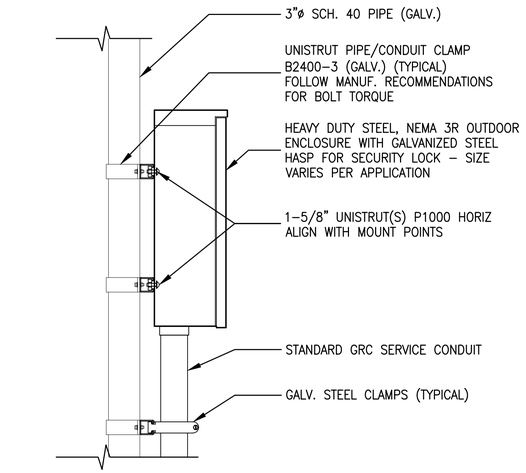
Latitude: N 39°45'29.61" (NAD83) N 39°45'29.94" (NAD27)
Longitude: W 119°41'35.21" (NAD83) W 119°41'31.54" (NAD27)

ELEVATION of Ground at Structure (NAVD88) 5035' AMSL

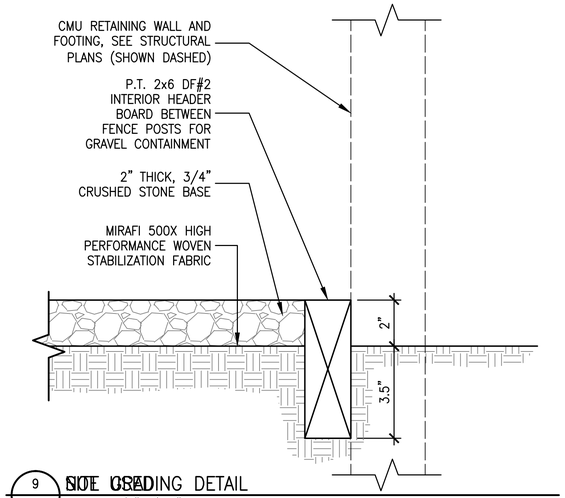
CERTIFICATION: I, the undersigned, do hereby certify elevation listed above is based on a field survey done under my supervision and that the accuracy of those elevations meet or exceed 1–A Standards as defined in the FAA ASAC Information Sheet 91:003, and that they are true and accurate to the best of my knowledge and belief.

Kenneth D. Geil PLS 13385

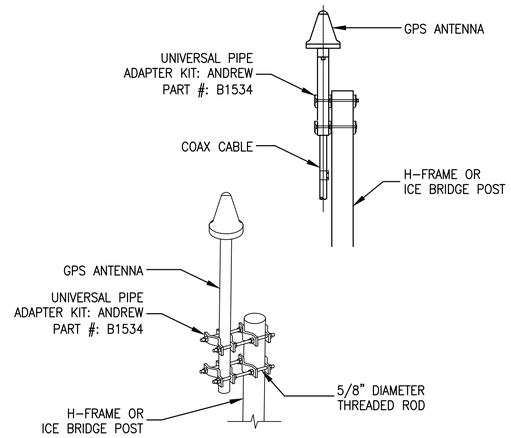
EXP. 06–30–19



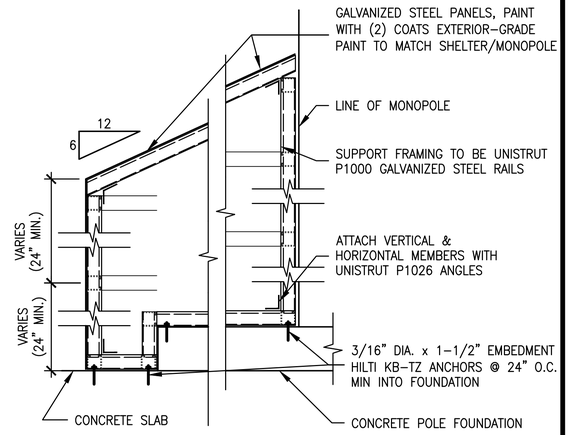
12 A4.1 UTILITY BOX MOUNTING DETAIL
SCALE: 1-1/2" = 1'-0"



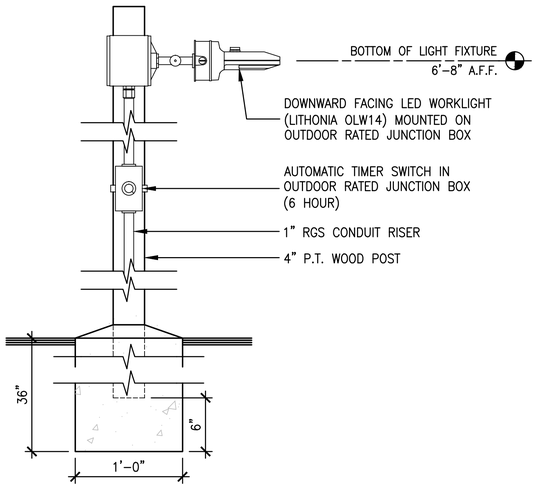
9 A4.1 SITE GRADING DETAIL
SCALE: NONE 1'-0"



6 A4.1 GPS ANTENNA MOUNTING DETAIL
SCALE: 1-1/2" = 1'-0"



3 A4.1 TYPICAL COAXIAL PROTECTION COVER DETAIL
SCALE: 1-1/2" = 1'-0"



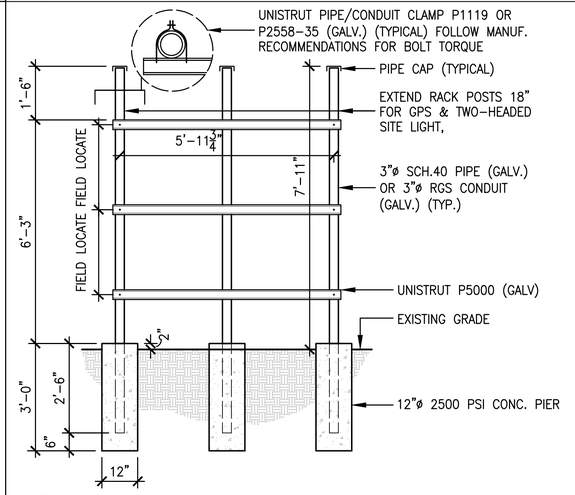
11 A4.1 WORKLIGHT DETAIL
SCALE: 1-1/2" = 1'-0"

SITE ID# 296901
14855 PYRAMID WAY
RENO, NV 89510
FOR LEASE INFORMATION CALL
1-XXX-XX-XXXX
FOR 24 HOUR EMERGENCY SERVICE CALL
1-XXX-XXX-XXXX
2" HIGH → FCC TOWER REGISTRATION NO.
XXXXXXX

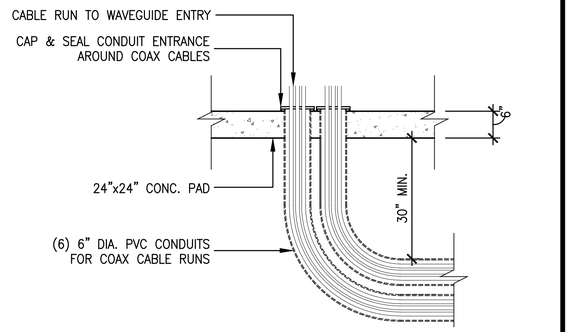
NOTE: GENERAL CONTRACTOR TO VERIFY PHONE NUMBERS AND REGISTRATION NUMBERS W/ VERIZON WIRELESS PRIOR TO FABRICATION

24" WIDE X 18" HIGH

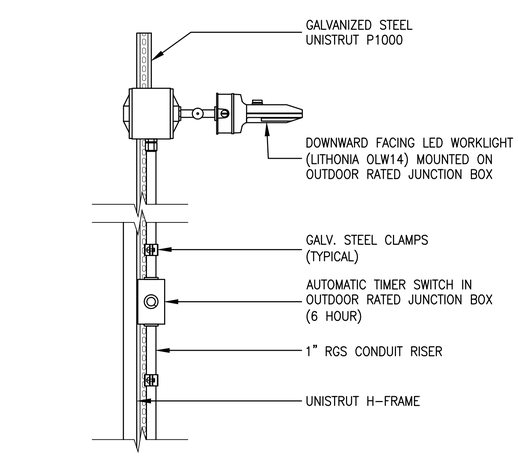
8 A4.1 SITE ID & CONTACT SIGNAGE
SCALE: NONE



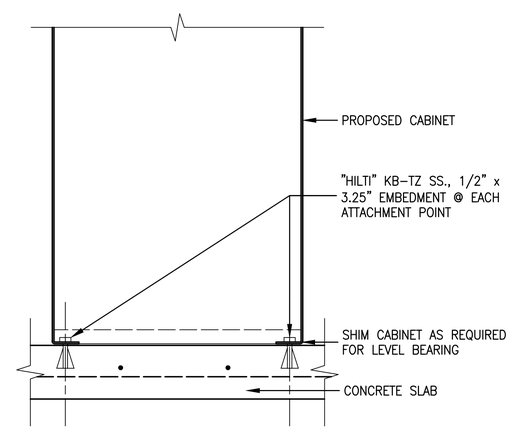
5 A4.1 H-FRAME DETAIL
SCALE: 1/2"=1'-0"



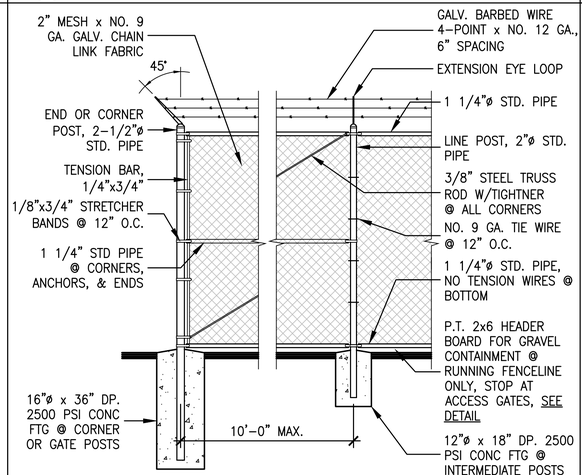
2 A4.1 COAX CABLE STUB-UP DETAIL
SCALE: 3/4" = 1'-0"



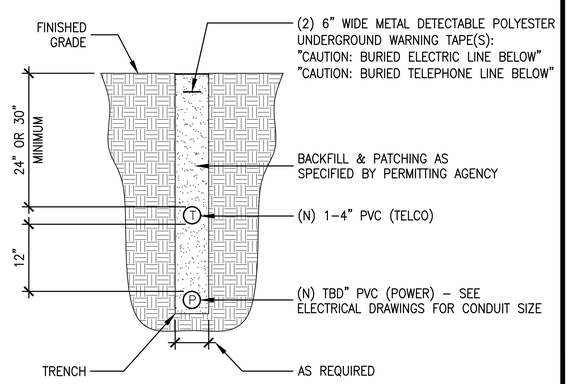
10 A4.1 WORKLIGHT DETAIL
SCALE: 1-1/2" = 1'-0"



7 A4.1 CABINET ANCHORAGE DETAIL
SCALE: 1-1/2" = 1'-0"



4 A4.1 TYPICAL CHAIN LINK FENCE W/ BARBED WIRE
SCALE: 1/2" = 1'-0"



NOTE: RESTORE GRADE TO ORIGINAL CONDITION OR BETTER. FILL WITH WELL COMPACTED BACKFILL. IF TRENCH IS UNDER CONCRETE PAD, BACKFILL WITH CRUSHED STONE

1 A4.1 JOINT POWER/TELCO TRENCH DETAIL
SCALE: NONE

COMPLETE Wireless Consulting, Inc.
Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: CONSTRUCTION DETAILS

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
△ --
△ --
△ --
△ --
△ --

File:162.1654_A41.dwg
Drawn By: MWS
Checked By: TST
Scale: AS NOTED
Date: 12/05/17

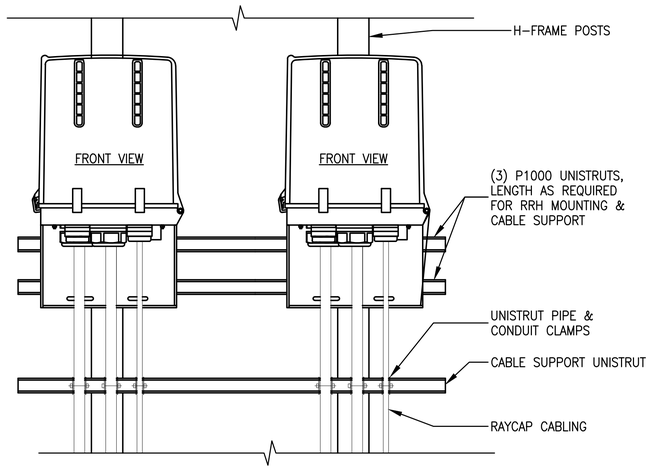
Job No. 162.1654

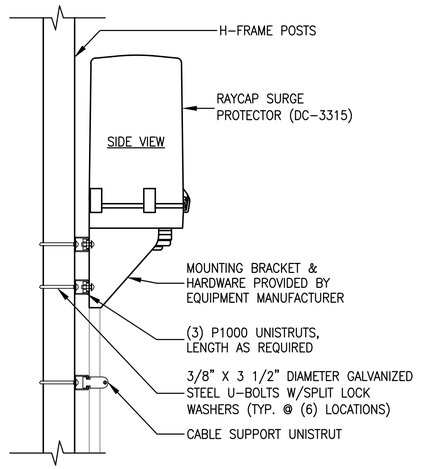
A4.1

10 A4.2 NOT USED
SCALE: NONE

9 A4.2 NOT USED
SCALE: NONE

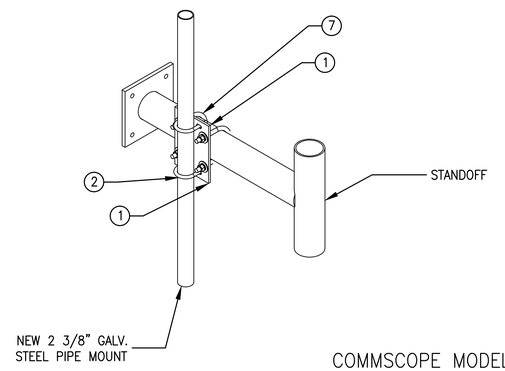
8 A4.2 NOT USED
SCALE: NONE





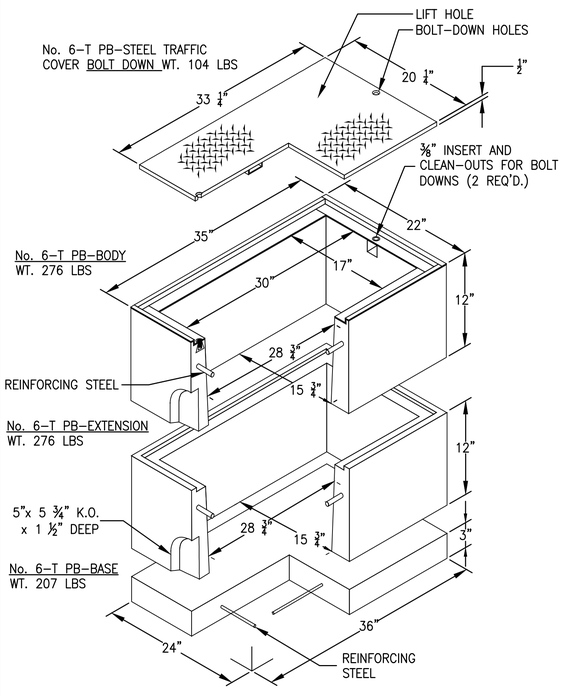
6 A4.2 RAYCAP SURGE PROTECTOR @ EQUIP. DC-3315
SCALE: 1-1/2" = 1'-0"

ITEM	PART NU.	DESCRIPTION	QTY.	WEIGHT
1	XP2040.01	CROSSOVER PLATE, 2-3/8" O.D. TO 4-1/2" O.D.	2	7.13 LBS
2	GUB-4240	1/2" X 2-1/2" X 4" GALV U-BOLT	2	1.44 LBS
3	MT-381-8	5/8" X 8" GALV THREADED ROD	4	0.69 LBS
4	GWF-05	5/8" GALV FLAT WASHER	12	0.06 LBS
5	GWL-05	5/8" GALV LOCK WASHER	12	0.09 LBS
6	GN-05	5/8" GALV HEX NUT	12	0.04 LBS
7	GUB-5456	5/8" X 4-5/8" X 6-1/2" GALV U-BOLT	2	1.88 LBS

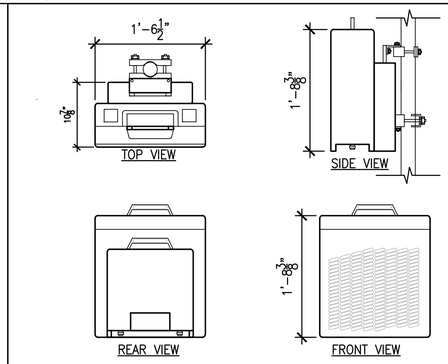


COMMSCOPE MODEL #: XP-197-S

3 A4.2 STAND-OFF ARM PIPE MOUNT DETAIL
SCALE: 1-1/2" = 1'-0"



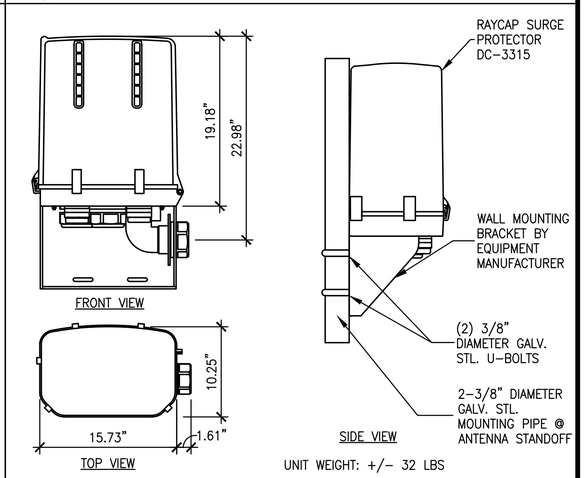
7 A4.2 17"x30" TRAFFIC RATED PULL BOX (STATE SPEC 6-T)
SCALE: 1/4" = 1'-0"



RRUS12 W/RRUS A2 BACKPACK NOTES:
TO ENSURE ADEQUATE AIRFLOW BETWEEN UNITS:
- ALLOW A MINIMUM OF 15.75" VERTICAL SEPARATION BETWEEN RRH'S.
- ALLOW A MINIMUM OF 19.68" VERTICAL SEPARATION BETWEEN RRH AND ANTENNA.
- ALLOW A MINIMUM OF 7.87" HORIZONTAL SEPARATION BETWEEN RRH'S AND BETWEEN RRH'S AND ANTENNA.
- THE MINIMUM DISTANCE FROM THE BOTTOM OF THE RRH TO THE FLOOR IS 11.8".
- MOUNTING BRACKETS & HARDWARE PROVIDED BY MANUFACTURER

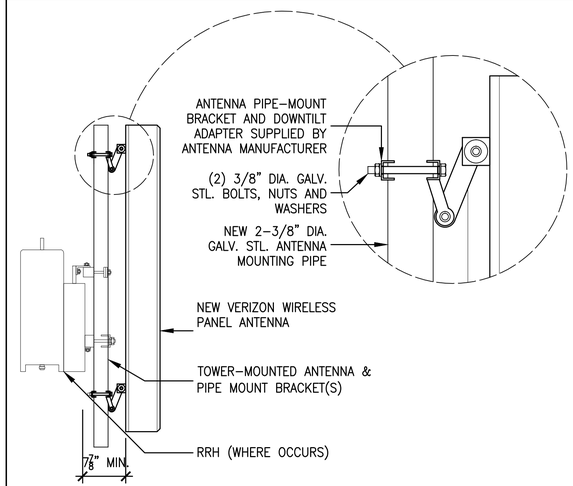
5 A4.2 RRUS12 W/A2 BACKPACK DETAIL
SCALE: 1" = 1'-0"

4 A4.2 NOT USED
SCALE: 1-1/2" = 1'-0"



UNIT WEIGHT: +/- 32 LBS

2 A4.2 RAYCAP SURGE @ ANTENNAS DC-3315
SCALE: 1-1/2" = 1'-0"



1 A4.2 TYPICAL ANTENNA MOUNT DETAIL
SCALE: 1" = 1'-0"

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

COMPLETE Wireless Consulting, Inc.

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: CONSTRUCTION DETAILS

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
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Drawn By: MWS
Checked By: TST
Scale: AS NOTED
Date: 12/05/17

Job No. 162.1654

A4.2

VERIZON WIRELESS COAX COLOR CODE (REV 5)

MINE LINE & JUMPERS BELOW:				
ALPHA	MAIN/JUMPER ALPHA 850	MAIN/JUMPER ALPHA LTE	MAIN/JUMPER ALPHA PCS	MAIN/JUMPER ALPHA AWS
LINE 1	YR	PPYR	PYR	PYRP
LINE 2	YG	PPYG	PYG	PYGP
BETA	MAIN/JUMPER BETA 850	MAIN/JUMPER BETA LTE	MAIN/JUMPER BETA PCS	MAIN/JUMPER BETA AWS
LINE 1	BR	PPBR	PBR	PBRP
LINE 2	BG	PPBG	PBG	PBGP
GAMMA	MAIN/JUMPER GAMMA 850	MAIN/JUMPER GAMMA LTE	MAIN/JUMPER GAMMA PCS	MAIN/JUMPER GAMMA AWS
LINE 1	OR	PPOR	POR	PORP
LINE 2	OG	PPOG	POG	POGP
RRU/A2/TRIPLEXER/DIPEXER BELOW:				
	PCS A-2/LTE _4 WAY/RX	LTE A-2/LTE _4 WAY/RX	AWS A-2/LTE _4 WAY/RX	850 LTE _(FUTURE)
LINE 1	ALPHA 1__PYRW	ALPHA 1__PPYRW	ALPHA 1__PYRPW	ALPHA 1__PPPYG
LINE 2	ALPHA 2__PYGW	ALPHA 2__PPYGW	ALPHA 2__PYGPW	ALPHA 2__PPPYG
LINE 1	BETA 1__PBRW	BETA 1__PPBRW	BETA 1__PBRPW	BETA 1__PPPBR
LINE 2	BETA 2__PBGW	BETA 2__PPBGW	BETA 2__PBGPW	BETA 2__PPPBG
LINE 1	GAMMA 1__PORW	GAMMA 1__PPORW	GAMMA 1__PORPW	GAMMA 1__PPPOR
LINE 2	GAMMA 2__POGW	GAMMA 2__PPOGW	GAMMA 2__POGPW	GAMMA 2__PPPOG
	DIPLEXERS/TRIPLEXERS #1 SET (ANY FREQ)	DIPLEXERS/TRIPLEXERS #2 SET (ANY FREQ)	DIPLEXERS/TRIPLEXERS #3 SET (ANY FREQ)	TBD
LINE 1	ALPHA 1__YY	ALPHA 1__YYR	ALPHA 1__YYG	
LINE 2	ALPHA 2__YYY	ALPHA 2__YYYR	ALPHA 2__YYYG	
LINE 1	BETA 1__BB	BETA 1__BBR	BETA 1__BBG	
LINE 2	BETA 2__BBB	BETA 2__BBBR	BETA 2__BBBG	
LINE 1	GAMMA 1__OO	GAMMA 1__OOR	GAMMA 1__OOG	
LINE 2	GAMMA 2__OOO	GAMMA 2__OOOR	GAMMA 2__OOOG	
	COMBINERS PCS/AWS (HIGH BAND)	COMBINERS LTE(LOW BAND)	TBD	TBD
LINE 1	ALPHA 1__PYY	ALPHA 1__PPYY		
LINE 2	ALPHA 2__PYYY	ALPHA 2__PPYYY		
LINE 1	BETA 1__PBB	BETA 1__PPBB		
LINE 2	BETA 2__PBBB	BETA 2__PPBBB		
LINE 1	GAMMA 1__POO	GAMMA 1__PPOO		
LINE 2	GAMMA 2__POOO	GAMMA 2__PPOOO		

2 A4.3 ANTENNA COLOR CODE TABLE
SCALE: NONE

RAYCAP INSTALL GUIDE FOR 1-3 SECTOR SITES (REV 6)

RAYCAP #1 FIBER CONNECTIONS (1 - 3 SECTOR SITE)						
UPPER POSITION	7	8	9	10	11	12
FIBER CONNECTION	OPEN	OPEN	OPEN	AWS - A2 ALPHA 2	AWS - A2 BETA 2	AWS GAMMA 1
VZW COLOR CODE	OPEN	OPEN	OPEN	BR/P/Y/P/W	BR/P/B/P/W	BR/P/O/P/W
LOWER POSITION	1	2	3	4	5	6
FIBER CONNECTION	700 ALPHA 1	700 BETA 1	700 GAMMA 1	AWS ALPHA 1	AWS BETA 1	AWS GAMMA 1
FIBER COLOR CODE	BR/P/P/Y	BR/P/P/B	BR/P/P/O	BR/P/Y/P	BR/P/B/P	BR/P/O/P
POWER COLOR CODE	R/P/P/Y	R/P/P/B	R/P/P/O	R/P/Y/P	R/P/B/P	R/P/O/P
RAYCAP #2 FIBER CONNECTIONS (1- 3 SECTOR SITE)						
UPPER POSITION	7	8	9	10	11	12
FIBER CONNECTION	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
VZW COLOR CODE	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
LOWER POSITION	1	2	3	4	5	6
FIBER CONNECTION	PCS ALPHA 1	PCS BETA 1	PCS GAMMA 1	850 ALPHA 1	850 BETA 1	850 GAMMA 1
FIBER COLOR CODE	BR/P/Y	BR/P/B	BR/P/O	BR/P/P/P/Y	BR/P/P/P/B	BR/P/P/P/O
POWER COLOR CODE	R/P/Y	R/P/B	R/P/O	R/P/P/P/Y	R/P/P/P/B	R/P/P/P/O

1 A4.3 RRU/RAYCAP CONNECTION GUIDE
SCALE: NONE

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

COMPLETE Wireless Consulting, Inc.

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: RAYCAP CONNECTION GUIDE/ ANTENNA COLOR CODE TABLE

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
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Date: 12/05/17

Job No. 162.1654

A4.3

GENERAC | INDUSTRIAL POWER

SD050

3.4L

Industrial Diesel Generator Set

EPA Certified Stationary Emergency

Standby Power Rating
50 kW 63 kVA 60 Hz

Prime Power Rating*
45 kW 56 kVA 60 Hz

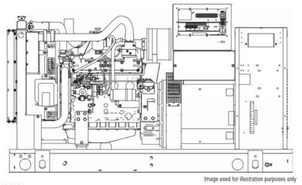


Image used for illustration purposes only

*EPA Certified Prime ratings are not available in the U.S. or its Territories

Codes and Standards

Generac products are designed to the following standards:

UL2200, UL508, UL142, UL498

NFPA70, 99, 110, 37

NEC700, 701, 702, 708

ISO9001, 8528, 3046, 7637, Pluses #2b, 4

NEMA ICS10, MG1, 250, ICS6, AB1

ANSI C62.41
American National Standards Institute

Powering Ahead

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

GENERAC | INDUSTRIAL POWER

SD050

Configurable Options

ENGINE SYSTEM

General
- Oil Make-Up System
- Oil Heater
- Industrial Exhaust Silencer

Fuel System
- Flexible fuel lines
- Primary fuel filter

Engine Electrical System
- 10A UL battery charger
- 2.5A UL battery charger
- Battery Warmer

ALTERNATOR SYSTEM
- Alternator Upsizing
- Anti-Condensation Heater
- Tropical coating
- Permanent Magnet Excitation

CIRCUIT BREAKER OPTIONS
- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

GENERATOR SET
- Gen-Link Communications Software (English Only)
- 8 Load Position Load Center
- 2 Year Extended Warranty
- 5 Year Warranty
- 5 Year Extended Warranty

ENCLOSURE
- Weather Protected
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Steel Enclosure
- Aluminum Enclosure
- 150 MPH Wind Kit
- 12 VDC Enclosure Lighting Kit
- 120 VAC Enclosure Lighting Kit
- AC/DC Enclosure Lighting Kit
- Door Alarm Switch

TANKS (Size on last page)
- Electrical Fuel Level
- Mechanical Fuel Level
- 54 Gal (204.4 L) Usable Capacity
- 132 Gal (499.7 L) Usable Capacity
- 211 Gal (798.7 L) Usable Capacity
- 300 Gal (1135.6 L) Usable Capacity
- 8" Vent Extension
- 13" Vent Extension
- 19" Vent Extension

CONTROL SYSTEM
- 21-Light Remote Annunciator
- Remote Relay Panel (8 or 16)
- Oil Temperature Sender with Indication Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- Remote Communication - Modem
- Remote Communication - Ethernet
- 10A Run Relay
- Ground fault indication and protection functions

Engineered Options

ENGINE SYSTEM
- Coolant heater ball valves
- Block Heaters
- Fluid containment pans

CONTROL SYSTEM
- Spare inputs (x4) / outputs (x4) - H Panel Only
- Battery Disconnect Switch

ALTERNATOR SYSTEM
- 3rd Breaker System

GENERATOR SET
- Special Testing
- IBC Seismic Certification

ENCLOSURE
- Motorized Dampers
- Door switched for intrusion alert
- Enclosure ambient heaters

TANKS
- Overfill protection valve
- UL2085 Tank
- ULC S-601 Tank
- Stainless Steel Tank
- Special Fuel Tanks (MIDEO and FL DEP/DERM, etc.)
- Vent Extensions

Rating Definitions

Standby – Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.
Prime – Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. A 10% overload capacity is available for 1 out of every 12 hours. The Prime Power option is only available on International applications.

Power ratings in accordance with ISO 8528-1, Second Edition dated 2005-06-01, definitions for Prime Power (PRP) and Emergency Standby Power (ESP).

GENERAC | INDUSTRIAL POWER

SD050 operating data

POWER RATINGS

	Standby	
Single-Phase 120/240 VAC @1.0pf	50 kW	Amps: 208
Three-Phase 120/208 VAC @0.8pf	50 kW	Amps: 173
Three-Phase 120/240 VAC @0.8pf	50 kW	Amps: 150
Three-Phase 277/480 VAC @0.8pf	50 kW	Amps: 75
Three-Phase 346/600 VAC @0.8pf	50 kW	Amps: 60

STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip

		480 VAC						208/240 VAC					
Alternator	kW	10%	15%	20%	25%	30%	35%	10%	15%	20%	25%	30%	35%
Standard	50	34	52	69	86	103	120	26	39	52	65	77	90
Upsize 1	60	42	63	83	104	125	146	32	47	62	78	94	110

FUEL CONSUMPTION RATES*

Fuel Pump Lift - ft (m)
3 (1)

Total Fuel Pump Flow (Combustion + Return)
5.5 gph

Diesel - gph (lph)

Percent Load	gph (lph)
25%	1.3 (4.92)
50%	2.3 (8.71)
75%	3.3 (12.50)
100%	4.3 (16.36)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Coolant Flow per Minute	gpm (lpm)	12.2 (46)
Coolant System Capacity	gal (L)	2.5 (9.5)
Heat Rejection to Coolant	BTU/hr	135,900
Inlet Air	cfm (m3/hr)	7500 (212)
Max. Operating Radiator Air Temp	F° (C°)	122 (50)
Max. Ambient Temperature (before derate)	F° (C°)	104 (40)
Maximum Radiator Backpressure	in H_2O	0.5

COMBUSTION AIR REQUIREMENTS

		Standby
Flow at Rated Power	cfm (m3/min)	166 (4.7)

ENGINE

		Standby
Rated Engine Speed	rpm	1800
Horsepower at Rated kW**	hp	86
Piston Speed	ft/min (m/min)	1335
BMEP	psi	169

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

EXHAUST

		Standby
Exhaust Flow (Rated Output)	cfm (m³/min)	448 (12.7)
Max. Backpressure (Post Silencer)	inHg (Kpa)	1.5 (5.1)
Exhaust Temp (Rated Output)	°F (°C)	1044 (562)
Exhaust Outlet Size (Open Set)	mm (in)	63.5 (2.5)

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

GENERAC | INDUSTRIAL POWER

SD050 Standard Features

ENGINE SYSTEM

General
- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel flexible exhaust connection
- Critical Exhaust Silencer (enclosed only)
- Factory Filled Oil
- Radiator Duct Adapter (open set only)

Fuel System
- Fuel lockoff solenoid
- Primary fuel filter

Cooling System
- Closed Coolant Recovery System
- UV/Ozone resistant hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene glycol antifreeze
- 120 VAC Coolant Heater

Engine Electrical System
- Battery charging alternator
- Battery cables
- Battery tray
- Solenoid activated starter motor
- Rubber-booted engine electrical connections

ALTERNATOR SYSTEM
- UL2200 GENprotect™
- 12 leads (3-phase, non 600 V)
- Class H insulation material
- Vented rotor
- 2/3 pitch
- Skewed stator
- Auxiliary voltage regulator power winding
- Amortisseur winding
- Brushless Excitation
- Sealed Bearings
- Automated manufacturing (winding, insertion, lacing, varnishing)
- Rotor dynamically spin balanced (get tolerance)
- Full load capacity alternator
- Protective thermal switch

GENERATOR SET
- Internal Genset Vibration Isolation
- Separation of circuits - high/low voltage
- Separation of circuits - multiple breakers
- Silencer Heat Shield
- Wrapped Exhaust Piping
- Silencer housed in discharge hood (enclosed only)
- Standard Factory Testing
- 2 Year Limited Warranty (Standby rated Units)
- 1 Year Limited Warranty (Prime rated units)
- Silencer mounted in the discharge hood (enclosed only)

ENCLOSURE (if selected)
- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material
- Gasketed doors
- Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- Stainless steel lift off door hinges
- Stainless steel lockable handles
- Rhino Coat™ - Textured polyester powder coat

TANKS (if selected)
- UL 142
- Double wall
- Vents
- Sloped top
- Sloped bottom
- Factory pressure tested (2 psi)
- Rupture basin alarm
- Fuel level
- Check valve in supply and return lines
- Rhino Coat™ - Textured polyester powder coat
- Stainless hardware

CONTROL SYSTEM

Control Panel
- Digital H Control Panel - Dual 4x20 Display
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232/485
- All-Phase Sensing DVR
- Full System Status
- Utility Monitoring
- Low Fuel Pressure Indication
- 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus protocol
- Predictive Maintenance algorithm
- Sealed Boards
- Password parameter adjustment protection
- Single point ground
- 15 channel data logging
- 0.2 msec high speed data logging
- Alarm information automatically comes up on the display

Alarms
- Oil Pressure (Pre-programmable Low Pressure Shutdown)
- Coolant Temperature (Pre-programmed High Temp Shutdown)
- Coolant Level (Pre-programmed Low Level Shutdown)
- Low Fuel Pressure Alarm
- Engine Speed (Pre-programmed Over speed Shutdown)
- Battery Voltage Warning
- Alarms & warnings time and date stamped
- Alarms & warnings for transient and steady state conditions
- Snap shots of key operation parameters during alarms & warnings
- Alarms and warnings spelled out (no alarm codes)

GENERAC | INDUSTRIAL POWER

SD050 application and engineering data

ENGINE SPECIFICATIONS

General

Make	Generac
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emissions Data Sheet
Cylinder #	4
Type	In-Line
Displacement - L (cu in)	3.4 (207.48)
Bore - mm (in)	98 (3.86)
Stroke - mm (in)	113 (4.45)
Compression Ratio	18.5:1
Intake Air Method	Turbocharged/Aftercooled
Cylinder Head Type	Cast Iron OHV
Piston Type	Aluminum
Crankshaft Type	Forged Steel

Engine Governing

Governor	Electronic Isochronous
Frequency Regulation (Steady State)	± 0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full Flow Cartridge
Crankcase Capacity - L (qts)	7 (7.4)

Cooling System

Cooling System Type	Closed Recovery
Water Pump Flow	Pre-Lubed, Self Sealing
Fan Type	Pusher
Fan Speed (rpm)	NA
Fan Diameter mm (in)	560 (22)
Coolant Heater Wattage	1500
Coolant Heater Standard Voltage	120 V /240 V

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Specifications	ASTM
Fuel Filtering (microns)	10
Fuel Inject Pump	Bosch (VE)
Fuel Pump Type	Engine Driven Gear
Injector Type	Pintel – 2100 PSI
Fuel Supply Line - mm (in)	7.92 (0.312)
Fuel Return Line - mm (in)	7.92 (0.312)

Engine Electrical System

System Voltage	12 VDC
Battery Charging Alternator	20 A
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

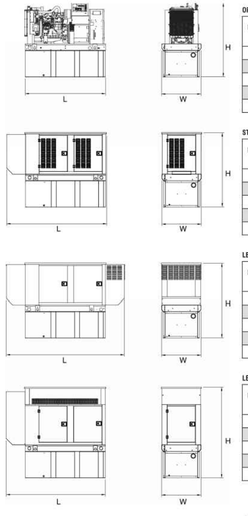
ALTERNATOR SPECIFICATIONS

Standard Model	390
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	< 3%
Telephone Interference Factor (TIF)	< 50
Standard Excitation	Synchronous
Bearings	Single Sealed Cartridge
Coupling	Direct, Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes

Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	± 0.25%

GENERAC | INDUSTRIAL POWER

SD050 dimensions and weights*



OPEN SET

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Tank & Open Set
NO TANK	-	76 (1930.4) x 38 (914.4) x 45 (1143)	1756 (796)
13	54 (204.4)	76 (1930.4) x 38 (914.4) x 58 (1473.2)	2236 (1014)
31	132 (499.7)	76 (1930.4) x 38 (914.4) x 70 (1778)	2466 (1119)
49	211 (798.7)	76 (1930.4) x 38 (914.4) x 82 (2082.8)	2675 (1213)
70	300 (1135.6)	93 (2362.2) x 38 (914.4) x 86 (2184.4)	2738 (1242)

STANDARD ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	95 (2413) x 38 (965.2) x 50 (1270)	334 (152)	115 (52)
13	54 (204.4)	95 (2413) x 38 (965.2) x 63 (1600.2)		
31	132 (499.7)	95 (2413) x 38 (965.2) x 75 (1905)		
49	211 (798.7)	95 (2413) x 38 (965.2) x 87 (2209.8)		
70	300 (1135.6)	95 (2413) x 38 (965.2) x 91 (2311.4)		

LEVEL 1 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	113 (2870.2) x 38 (965.2) x 50 (1270)	435 (198)	150 (68)
13	54 (204.4)	113 (2870.2) x 38 (965.2) x 63 (1600.2)		
31	132 (499.7)	113 (2870.2) x 38 (965.2) x 75 (1905)		
49	211 (798.7)	113 (2870.2) x 38 (965.2) x 87 (2209.8)		
70	300 (1135.6)	113 (2870.2) x 38 (965.2) x 91 (2311.4)		

LEVEL 2 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	95 (2413) x 38 (965.2) x 62 (1574.8)	520 (236)	179 (81)
13	54 (204.4)	95 (2413) x 38 (965.2) x 75 (1905)		
31	132 (499.7)	95 (2413) x 38 (965.2) x 87 (2209.8)		
49	211 (798.7)	95 (2413) x 38 (965.2) x 99 (2514.6)		
70	300 (1135.6)	95 (2413) x 38 (965.2) x 103 (2616.2)		

* All measurements are approximate and for estimation purposes only. Sound dBA can be found on the sound data sheet. Enclosure Only weight is added to Tank & Open Set weight to determine total weight.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

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Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

COMPLETE Wireless Consulting, Inc.

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

verizon

SHEET TITLE: STANDBY GENERATOR DATASHEETS

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
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File:162.1654_A61.dwg
Drawn By: MWS
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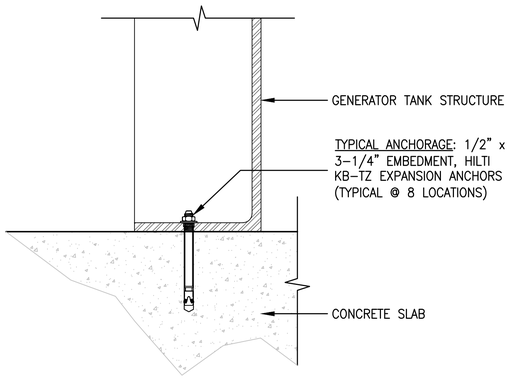
Date: 12/05/17

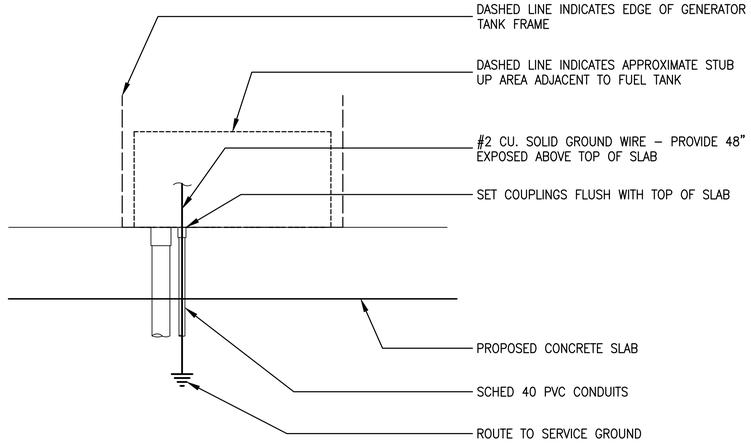
Job No. 162.1654

A6.1

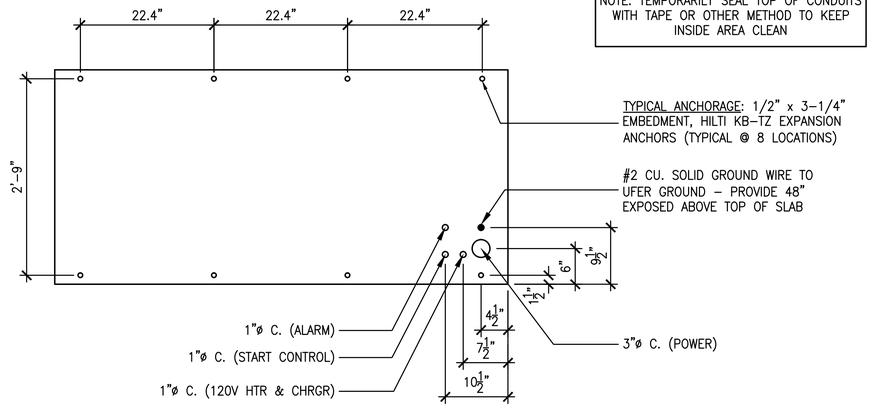
1 A6.1 STANDBY GENERATOR DATASHEETS
SCALE: NONE



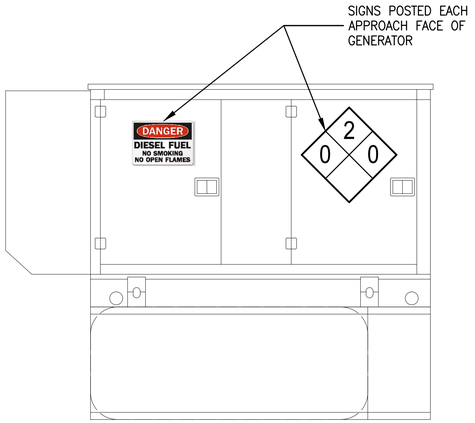
5 A6.2 GENERATOR ATTACHMENT DETAIL
SCALE: NO SCALE



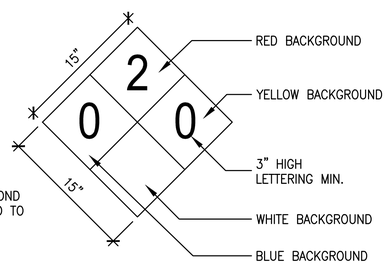
3 A6.2 SECTION @ CONDUIT STUB UP
SCALE: 1" = 1'-0"



2 A6.2 CONDUIT STUB-UP & ANCHORAGE DETAIL
SCALE: 1" = 1'-0"

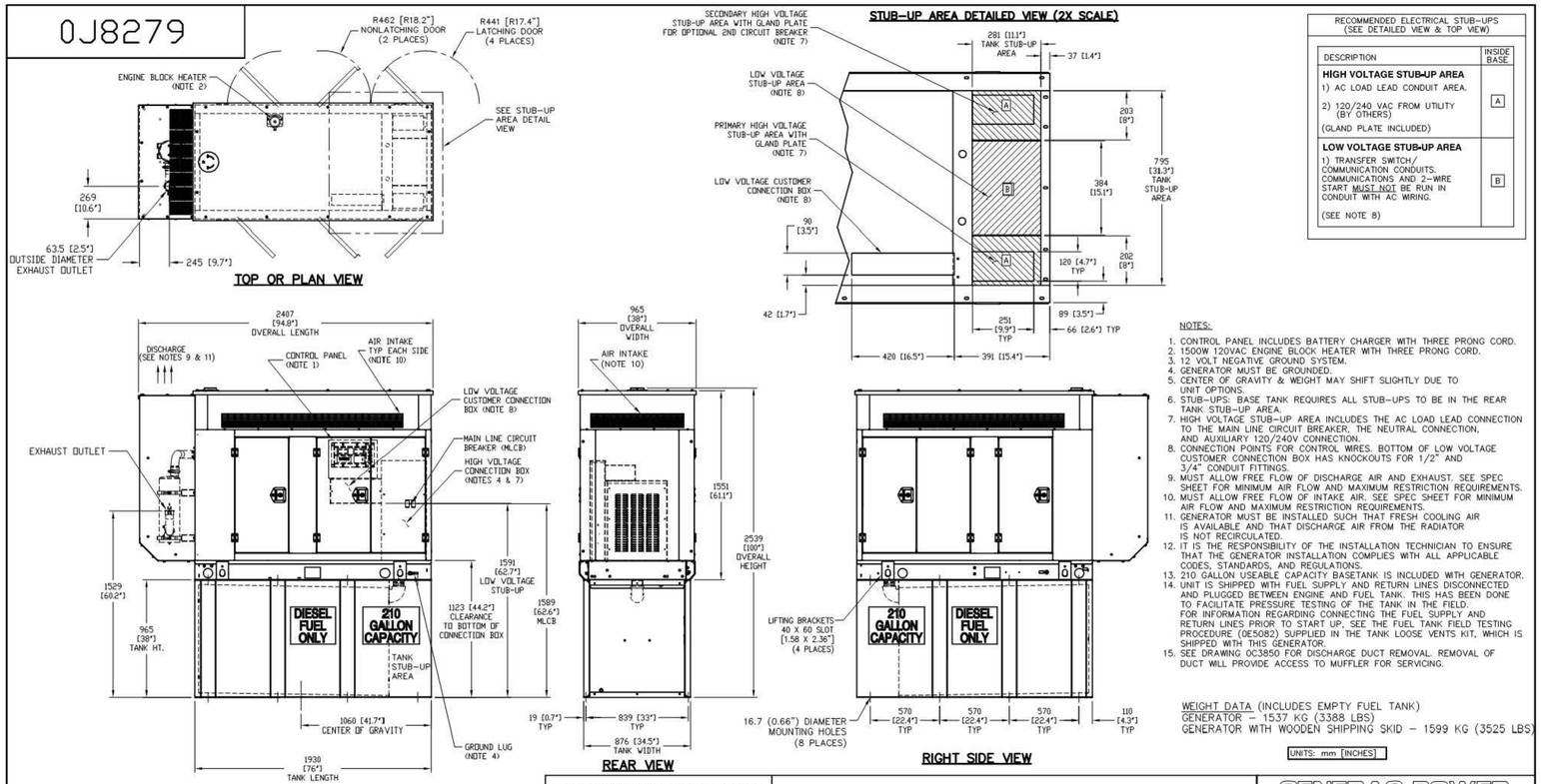


10"X14" ALUMINUM NO SMOKING SIGN



NFPA 704 DIAMOND TO BE MOUNTED TO ALL SIDES OF GENERATOR

4 A6.2 GENERATOR SAFETY SIGNAGE
SCALE: NONE



1 A6.2 STANDBY GENERATOR INSTALLATION DETAIL
SCALE: NONE

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

COMPLETE Wireless Consulting, Inc.

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: STANDBY GENERATOR INSTALLATION DETAILS

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

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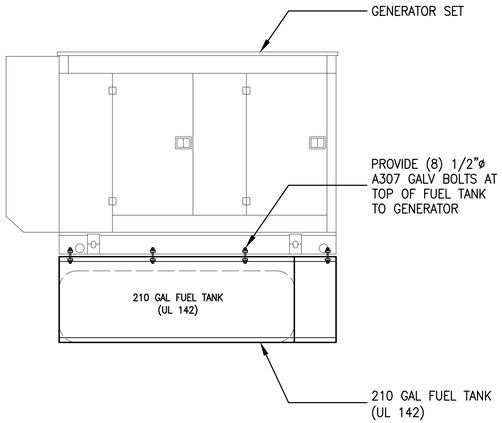
A6.2



3 A6.3 GENERATOR FUEL TANK ATTACHMENT DETAIL
SCALE: 1/2" = 1'-0"

EXHAUST EMISSIONS DATA

GENERAC | INDUSTRIAL POWER

CERTIFICATION DATA

STATEMENT OF EXHAUST EMISSIONS
2015 DIESEL FUELED GENERATOR

The measured emissions values provided here are proprietary to Generac and it's authorized dealers. This information may only be disseminated upon request, to regulatory governmental bodies for emissions permitting purposes or to specifying organizations as submittal data when expressly required by project specifications, and shall remain confidential and not open to public viewing. This information is not intended for compilation or sales purposes and may not be used as such, nor may it be reproduced without the expressed written permission of Generac Power Systems, Inc. The data provided shall not be meant to include information made public by Generac.

Generator Model:	SD050	EPA Certificate Number:	FKMCL3.41D43-005
kW, Rating:	50	CARB Certificate Number:	Not Applicable
Engine Family:	FKMCL3.41D43	SCAQMD CEP Number:	536263
Engine Model:	D3400T-Gen1	Emission Standard Category:	Tier 3
Rated Engine Power (BHP)*:	85	Certification Type:	Stationary Emergency CI (40 CFR Part 60 Subpart IIII)
Fuel Consumption (gal/hr)*:	4.32		
Aspiration:	Turbo/Aftercooled		
Rated RPM:	1800		

*Engine Power and Fuel Concumption are declared by the Engine Manufacturer of Record and the U.S. EPA.

Emissions based on engine power of specific Engine Model.
(These values are actual composite weighted exhaust emissions results over the EPA 5-mode test cycle.)

CO	NOx + NMHC	PM	
3.51	4.27	0.15	Grams/kW-hr
2.64	3.19	0.11	Grams/bhp-hr

- The stated values are actual exhaust emission test measurements obtained from an engine representative of the type described above.
- Values based on 5-mode testing are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted in accordance with prevailing EPA protocol, which is typically accepted by SCAQMD and other regional authorities.
- No emissions values provided above are to be construed as guarantees of emission levels for any given Generac generator unit.
- Generac Power Systems, Inc. reserves the right to revise this information without prior notice.
- Consult state and local regulatory agencies for specific permitting requirements:.
- The emission performance data supplied by the equipment manufacturer is only one element required toward completion of the permitting and installation process. State and local regulations may vary on a case-by-case basic and local agencies must be consulted by the permit application/equipment owner prior to equipment purchase or installation. The data supplied herein by Generac Power Systems cannot be construed as a guarantee of installability of the generating set.

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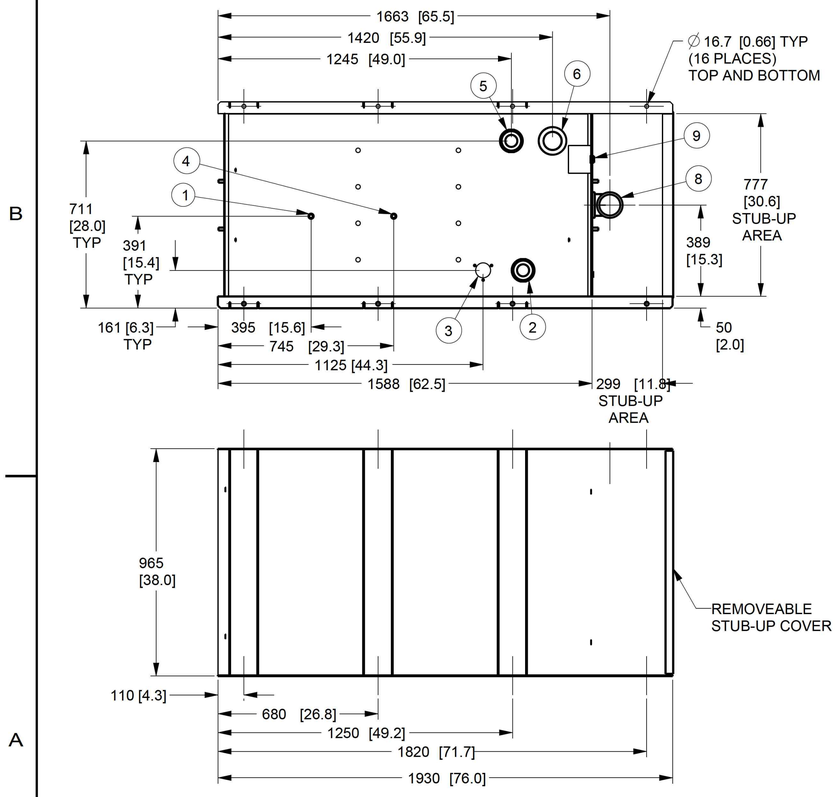
2 A6.3 EXHAUST EMISSIONS DATA
SCALE: NONE

SH 1/1 REV A



I/N	DESCRIPTION	FUNCTION
1	3/8" NPT COUPLING	FUEL SUPPLY
2	2" NPT WELD FLANGE	FUEL FILL
3	FUEL LEVEL GAUGE	ELECTRONIC SENDER/VISUAL GAUGE
4	3/8" NPT COUPLING	FUEL RETURN
5	2" NPT WELD FLANGE	NORMAL VENT
6	3" NPT WELD FLANGE	INNER TANK EMERGENCY VENT
7	1/2" NPT HALF COUPLING	OUTER TANK LEAK DETECTOR
8	3" NPT STREET ELBOW	OUTER TANK EMERGENCY VENT
9	1/2" NPT HALF COUPLING	FLUID BASIN ALARM

TANK P/N	0J81730ST03
TOTAL CAPACITY	825 [218]
USABLE CAPACITY	795 [210]
DRY WEIGHT	448 [988]

CAPACITY: LITER (GALLONS)
WEIGHT: KILOGRAMS (POUNDS)
DIMENSIONS: MM (INCH)

UL #142 LISTED

DRAWING CREATED FROM PRO/ENGINEER 3D FILE. ECO MODIFICATION TO BE APPLIED TO SOLID MODEL ONLY.

INSTALLATION DRAWING

ELECTRONICALLY APPROVED
INSIDE WINDCHILL

LIFECYCLE STATE: Production Released

GENERAC

TITLE
INSTALL BASETANK A-GRP
210 GAL WITH FLUID CONTAINMENT

ISSUE DATE:

SIZE	CAGE NO	DWG NO	REV
B	N/A	0J8971	A
SCALE 0.063	WT-KG 0.00	SHEET 1 of 1	

1 A6.3 U.L. 142 CERTIFIED, 210 GALLON TANK DETAIL
SCALE: NONE

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

COMPLETE Wireless Consulting, Inc.

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: U.L. 142 CERTIFIED, 210 GALLON TANK DETAIL

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
- 1 --
- 2 --
- 3 --
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Job No. 162.1654

A6.3

STRUCTURAL NOTES

GENERAL STRUCTURAL NOTES

1. ALL NEW WORK SHALL BE IN CONFORMANCE WITH THE 2016 CALIFORNIA BUILDING CODE, CBC, TITLE 24, PART 2
2. FOUNDATION DESIGN PRESSURES PER CHAPTER 18A OF CBC:
   DL + LL = 1,500 PSF
   DL + LL + LATERAL = 2,000 PSF
3. FOOTINGS SHALL BEAR ON FIRM UNDISTURBED NATIVE SOILS OR ENGINEERED FILL AT OR EXCEEDING DEPTHS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH CHAPTER 18 OF THE 2016 CBC
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB
5. CONTRACTOR SHALL NOTIFY THE ARCHITECT WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DRAWINGS OR DOCUMENTS. CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE STRUCTURE THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED WITH THE AFFECTED PARTIES

CONCRETE NOTES

1. CONCRETE CONSTRUCTION SHALL CONFORM TO ACI-318.
2. CONCRETE FOR SHELTER FOUNDATIONS, EQUIPMENT & GENERATOR SLABS:
   MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS WITH A 4" MAXIMUM SLUMP.
3. CONCRETE FOR FENCE POSTS, H-FRAME POSTS, STOOPS & MISC:
   MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS WITH A 4" MAXIMUM SLUMP.
4. REFER TO TOWER DESIGNER FOUNDATION DRAWINGS FOR CONCRETE SPECIFICATIONS FOR TOWER FOUNDATIONS
5. ALL REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.
6. LAP ALL REINFORCING 40 BAR DIAMETERS (24" MINIMUM) UNLESS NOTED OTHERWISE ON DRAWINGS.
7. MAINTAIN MINIMUM 3" COVER AT ALL REINFORCING STEEL UNLESS NOTED OTHERWISE.

STEEL NOTES

1. FABRICATION, ERECTION AND MATERIALS SHALL CONFORM WITH THE AISC SPECIFICATIONS AND THE 2016 CBC
2. MATERIALS:

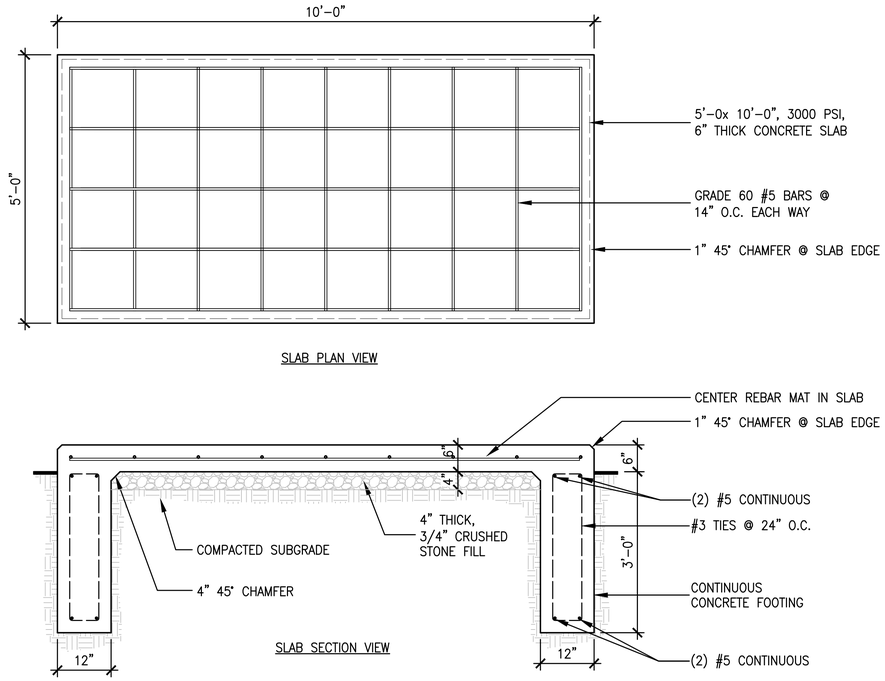
W SHAPES	ASTM A-992, GRADE 50
C SHAPES, L SHAPES & PLATES	ASTM A-36
RECTANGULAR HSS	ASTM A-500, GRADE B
PIPES	ASTM A-53, GRADE B
MACHINE BOLTS & U-BOLTS	ASTM A-307, GRADE A
HIGH STRENGTH BOLTS	ASTM A-325, TYPE 1
ANCHOR BOLTS	ASTM F-1554, GRADE 36
HEAVY HEX NUTS	ASTM A563A
WASHERS	ASTM F436
HIGH STRENGTH THREADED ROD	ASTM F-1554, GRADE 105

3. ALL JOINTS TO BE INSTALLED SNUG-TIGHT PER THE AISC/RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS 2009 EDITION
4. USE STANDARD AISC GAGE AND PITCH FOR BOLTS EXCEPT AS NOTED
5. HOLES FOR BOLTS SHALL BE SAME DIAMETER AS BOLT PLUS 1/16"
6. WELDING SHALL CONFORM TO AWS D1.1 LATEST EDITION. USE E70XX SERIES ELECTRODES AS REQUIRED FOR INTENDED USE
7. FINISHES:
   ALL EXTERIOR STEEL AND HARDWARE TO BE HOT DIP GALVANIZED PER THE FOLLOWING STANDARDS:

STRUCTURAL SHAPES	ASTM A-123
HARDWARE & FASTENERS	ASTM A-153

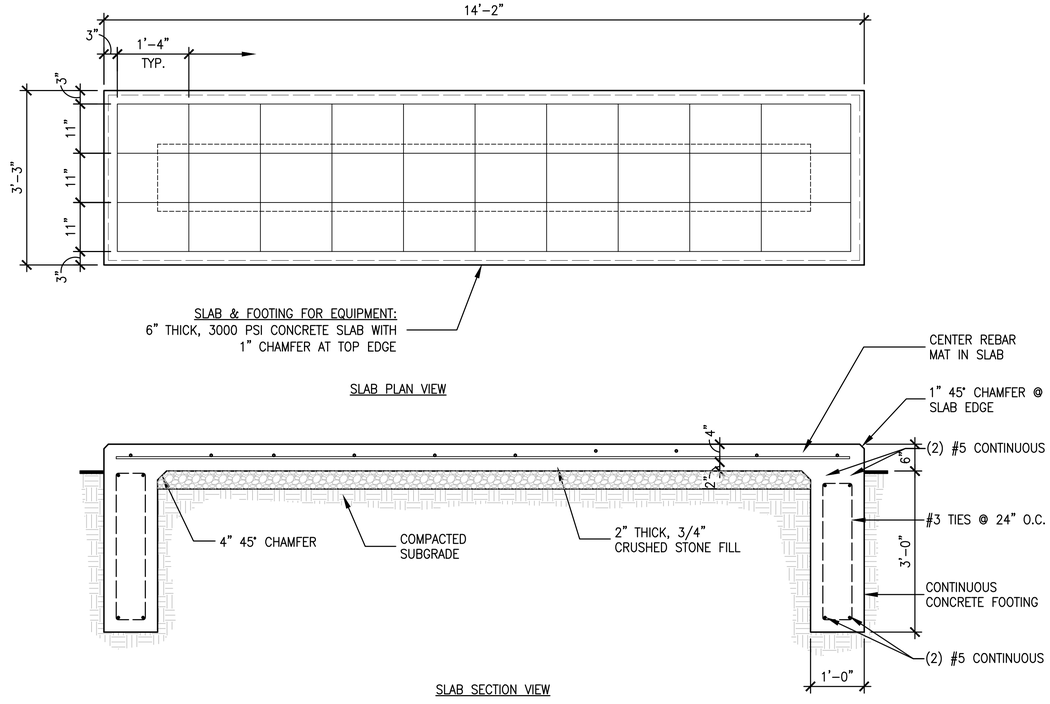
POST-INSTALLED CONCRETE ANCHORS:

1. UNLESS NOTED OTHERWISE, ALL POST-INSTALLED CONCRETE ANCHORS SHALL BE "HILTI" KB-TZ STAINLESS STEEL. DIAMETER AND EMBEDMENT DEPTH AS SPECIFIED ON THE DRAWINGS
2. INSTALL ANCHORS PER MANUFACTURER'S PUBLISHED INSTRUCTIONS AND IN ACCORDANCE WITH ICC-ES REPORT ESR-1917
3. PERIODIC SPECIAL INSPECTION IS REQUIRED IN ACCORDANCE WITH 2016 CBC SECTION 1705.1.1 AND TABLE 1705.3, ITEM 4.



NOTE: MAINTAIN MINIMUM 3" COVER @ ALL REINFORCING STEEL

8 / S1.1 GENERATOR SLAB DETAIL
SCALE: 3/4" = 1'-0"



NOTE: MAINTAIN MINIMUM 3" COVER @ ALL REINFORCING STEEL

1 / S1.1 EQUIPMENT SLAB DETAIL
SCALE: 3/4" = 1'-0"

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811

COMPLETE Wireless Consulting, Inc.

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AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: STRUCTURAL DETAILS

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
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File:162.1654_S11.dwg
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Scale: AS NOTED
Date: 12/05/17

Job No. 162.1654

S1.1

PANEL CIRCUIT AND LOAD SCHEDULE

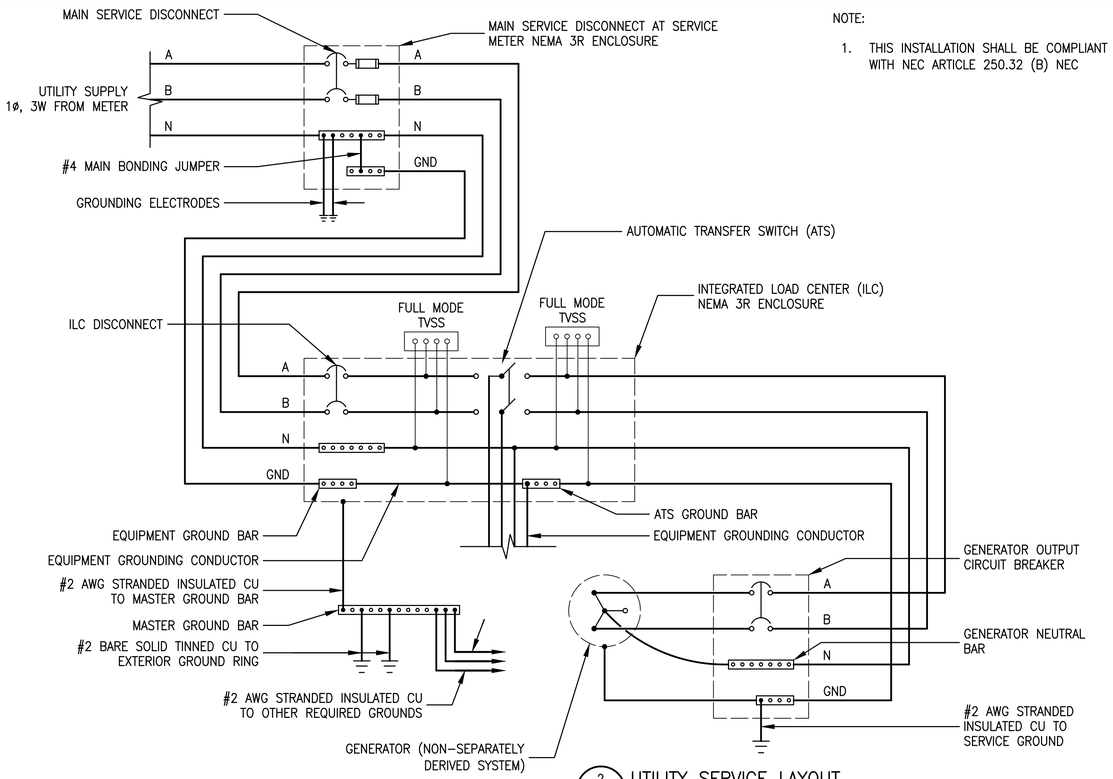
DESIGNATION: PANEL "VERIZON"

LOAD DESCRIPTION	QTY	UNIT VA	LOAD PER PHASE (VA) A	LOAD PER PHASE (VA) B	Continuous Load	TRIP	POLES	WIRE	AIC	WIRE TYPE	WIRE TYPE	AIC	WIRE	POLES	TRIP	Continuous Load	LOAD PER PHASE (VA) A	LOAD PER PHASE (VA) B	UNIT VA	QTY	LOAD DESCRIPTION	
			0		☐						THWN	Verify	12	1	20	☑	1200		1200	1	MISC CAB	2
				0	☐						THWN	Verify	12	1	20	☐		180	180	1	EXTERIOR GFCI RECEPTACLE	4
			0		☐						THWN	Verify	12	1	20	☐	36		18	2	EXTERIOR LIGHTS	6
				0	☐						THWN	Verify	12	1	20	☐		1500	1500	1	GENERATOR HEATER	8
			0		☐						THWN	Verify	12	1	20	☐	240		240	1	GENERATOR CHARGER	10
				0	☐						THWN	Verify	12	1	20	☐		180	180	1	TELCO PANEL	12
13	48V PLANT RECEPTACLE	1	180	180	☐	20	1	12	Verify	THWN						☐	0					14
15	48V PLANT RECT #1	1	1600		1600	☑	20	2	10	Verify	THWN	THWN	Verify	10	2	20	☑		1600	1600	1	48V PLANT RECT #5	16
17		1	1600	1600		☑											☑	1600		1600	1		18
19	48V PLANT RECT #2	1	1600		1600	☑	20	2	10	Verify	THWN	THWN	Verify	10	2	20	☑		1600	1600	1	48V PLANT RECT #6	20
21		1	1600	1600		☑											☑	1600		1600	1		22
23	48V PLANT RECT #3	1	1600		1600	☑	20	2	10	Verify	THWN	THWN	Verify	10	2	20	☑		1600	1600	1	48V PLANT RECT #7	24
25		1	1600	1600		☑											☑	1600		1600	1		26
27	48V PLANT RECT #4	1	1600		1600	☑	20	2	10	Verify	THWN	THWN	Verify	10	2	20	☑		1600	1600	1	48V PLANT RECT #8	28
29		1	1600	1600		☑											☑	1600		1600	1		30
Subtotal Continuous			6400	6400													7600	6400	Subtotal Continuous			
Subtotal Non-Continuous			180	0													276	1860	Subtotal Non-Continuous			

Voltage:	120/240 1 ph 3w	AIC:	VERIFY WITH SERVICING UTILITY
Bus:	200 amps	Main:	BREAKER
Enclosure:	NEMA 3R Outdoor	Mount:	Surface

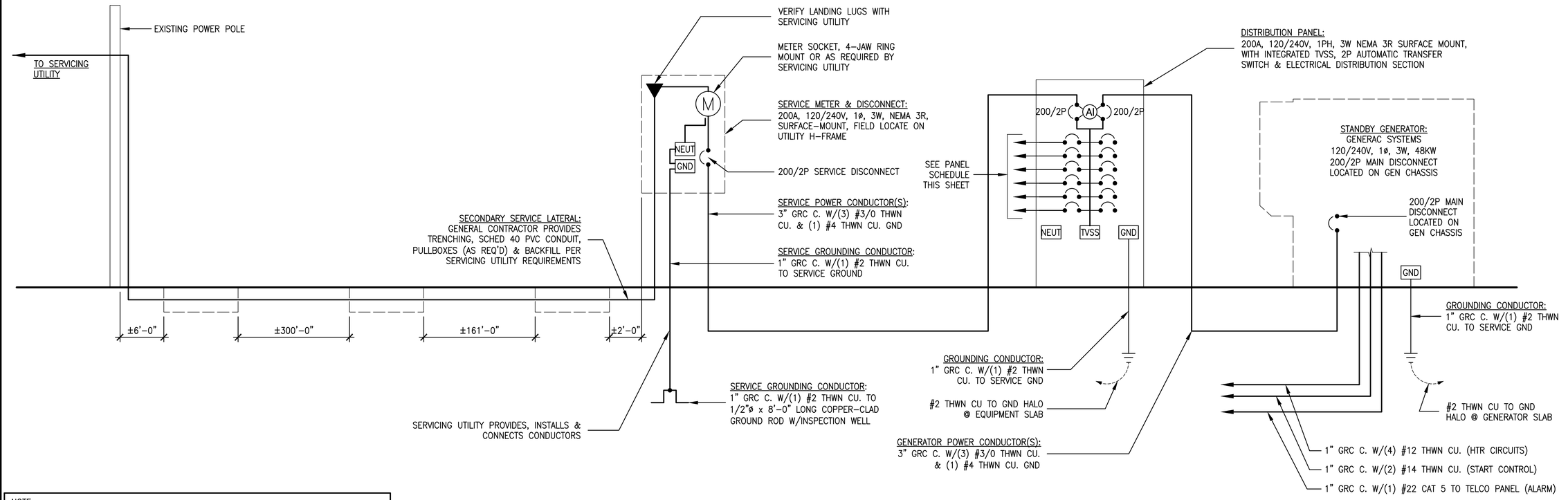
Total KVA Continuous X 1.25 =	**33.50**
Total KVA Non-Continuous =	**2.32**
TOTAL KVA =	**35.82**
Total Amperage =	**149.23**

3 E1.1 PANEL SCHEDULE
SCALE: NO SCALE



NOTE:
1. THIS INSTALLATION SHALL BE COMPLIANT WITH NEC ARTICLE 250.32 (B) NEC

2 E1.1 UTILITY SERVICE LAYOUT
SCALE: NONE



NOTE:
* THIS DIAGRAM IS BASED ON A 200A, 120/240V 1ø SERVICE.
* ALL ABOVE GROUND CONDUITS SHALL BE GRC, UNDERGROUND CONDUITS SHALL BE SCHED. 40 PVC, PROVIDE WATER TIGHT COUPLINGS BELOW GRADE.

NOTE: ALL ABOVE GROUND CONDUITS SHALL BE GRC, UNDERGROUND CONDUITS SHALL BE SCHED. 40 PVC, PROVIDE WATER TIGHT COUPLINGS BELOW GRADE

1 E1.1 ELECTRICAL ONE-LINE DIAGRAM
SCALE: NONE

RTM Engineers and Consultants
7550 Amy Ave, Fair Oaks, California 95628
Phone: 916-965-4598 E-Mail: rtmeng@comcast.net

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: ELECTRICAL DETAILS

Revisions:
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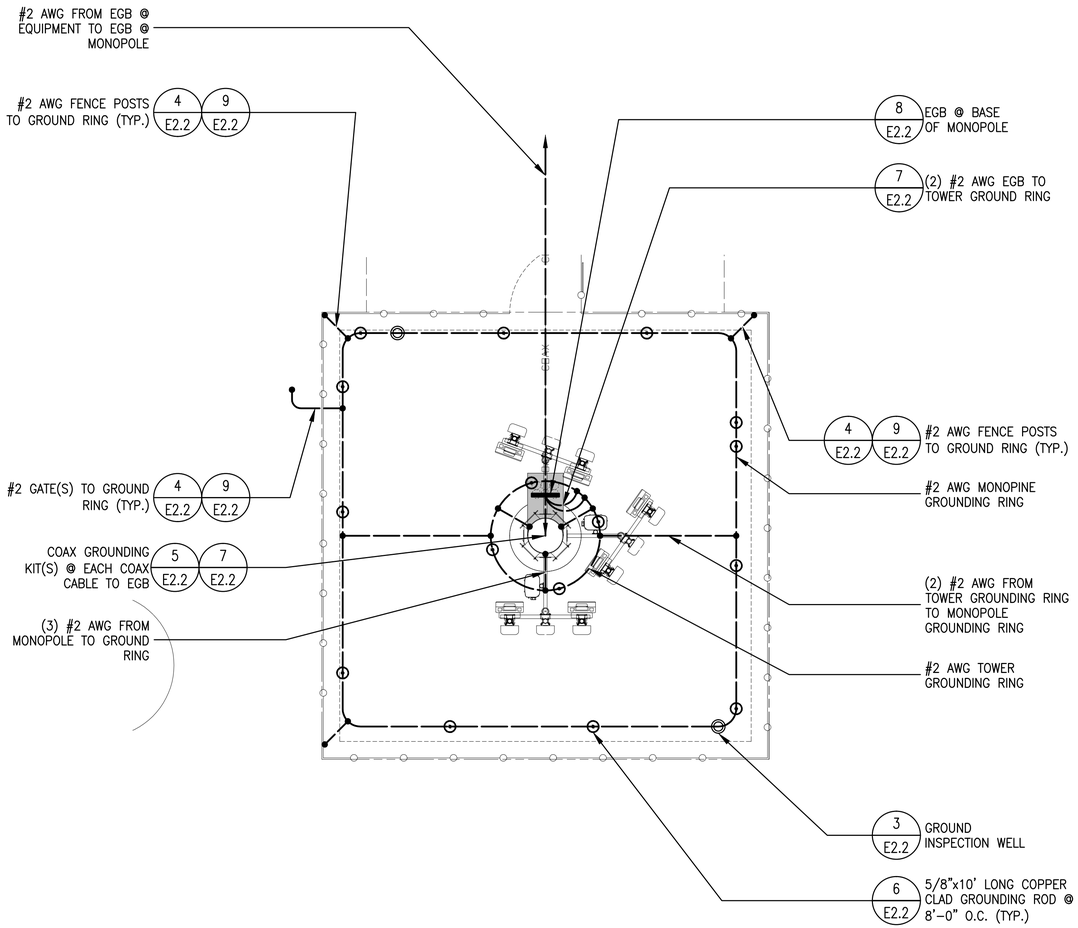
Job No. 162.1654

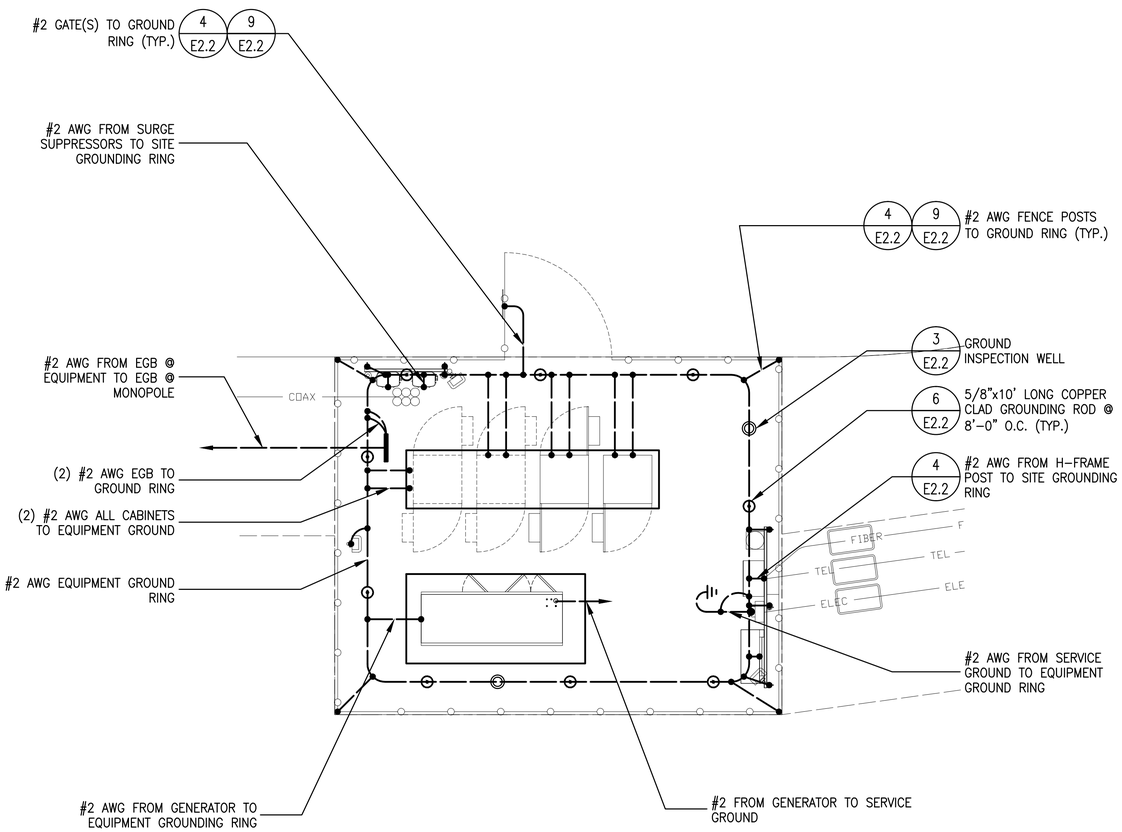
E1.1

NOTES:
#1 NO CADWELDS TO ANY GROUND BARS
#2 RUN 2/0 GREEN INSULATED GROUND FROM THE COAX GROUND BAR TO THE MASTER GROUND BAR
#3 CONNECT LEAD 20 FROM THE GROUND BAR INSIDE THE ILC PANEL TO THE MASTER GROUND BAR
#4 BE SURE NEUTRAL & GROUND ARE NOT BONDED IN THE GENERATOR
#5 GROUND ALL METAL ENCLOSURES TO THE HALO, INCLUDING LOUVERS, ALARM BLOCK, ETC.
#6 PLASTIC TY-RAPS ARE NOT TO BE USED ON ANY GROUND ATTACHMENTS BUT ONLY WAX STRING



0' 1' 5' 10'
1/4" = 1'-0"

2 E2.1 GROUNDING PLAN AT MONOPOLE
SCALE: 1/4" = 1'-0"



0' 1' 5' 10'
1/4" = 1'-0"

1 E2.1 GROUNDING PLAN AT EQUIPMENT AREA
SCALE: 1/4" = 1'-0"

RTM Engineers and Consultants
7550 Amy Ave, Fair Oaks, California 95628
Phone: 916-965-4598 E-Mail: rtmeng@comcast.net

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

SHEET TITLE: GROUNDING PLAN

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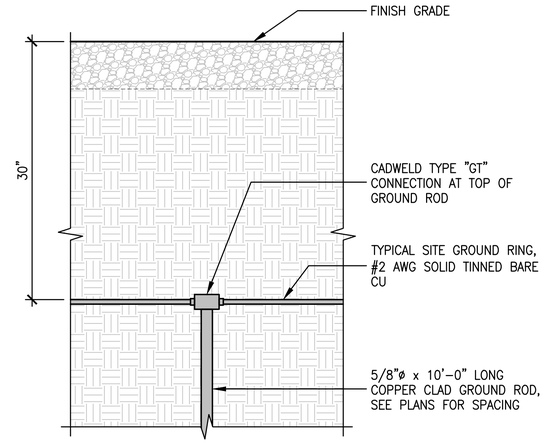
Job No. 162.1654

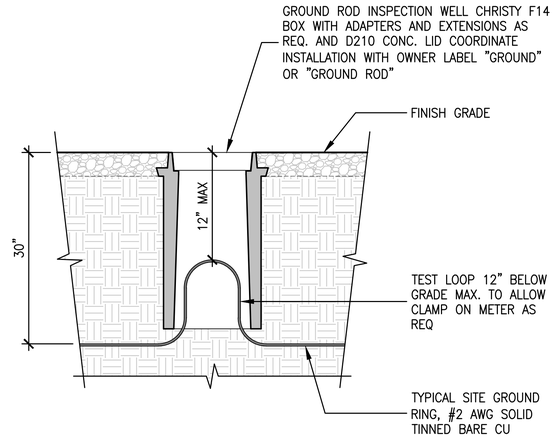
E2.1

GROUNDING NOTES

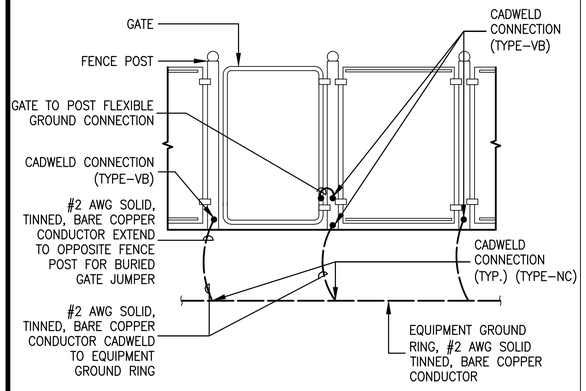
1. GROUNDING SHALL COMPLY WITH NEC ART. 250.
2. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURER'S COAX CABLE GROUNDING KITS SUPPLIED BY PBMS.
3. USE #2 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
4. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
5. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY.
6. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PBMS EQUIPMENT OR CABINET TO THE MASTER GROUND BAR.
7. CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PRODUCERS (COAXIAL CABLE GROUND KITS, TELCO AND POWER PEDESTAL GROUND OR SURGE PROTECTOR); SURGE ABSORBERS (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON-SURGING OBJECTS (EGB GROUND IN BTS)
8. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS AND NO-OX OR EQUIVALENT PLACED BETWEEN CONNECTOR AND GROUND BAR.
9. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS UNIFORMLY SPACED AROUND CELL SITE. THE GROUND RODS SHALL BE 5/8"X8'-0" COPPER CLAD STEEL. THE RODS SHALL BE INTERCONNECTED WITH #2 SOLID TINNED COPPER GROUND WIRE BURIED A MINIMUM 2-1/2' BELOW THE SURFACE OF THE SOIL.
10. ALL UNDERGROUND ELECTRODES SHALL BE BONDED TO STEEL REINFORCING EMBEDDED IN THE CONCRETE SLAB AND CONCRETE MONOPOLE FOUNDATION.
11. MUST APPLY BUTYL & ELECTRICAL TAPE OVER COLD SHRINK AT ALL LOCATIONS. FOR WEATHER PROOFING OVER GROUND KITS. MORE BUTYL TAPE MAY NEED TO BE APPLIED THAN WHAT IS PROVIDED WITH THE MFGR. KIT.
12. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.



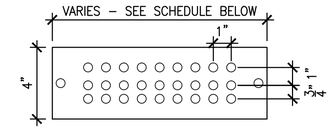
6 E2.2 TYPICAL GROUND ROD
SCALE: 3" = 1'-0"



3 E2.2 TYPICAL GROUND RING & INSPECTION WELL DETAIL
SCALE: 1-1/2" = 1'-0"

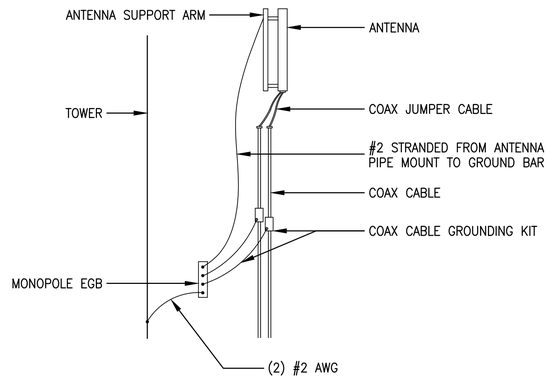


9 E2.2 FENCE GROUNDING DETAIL
SCALE: NONE

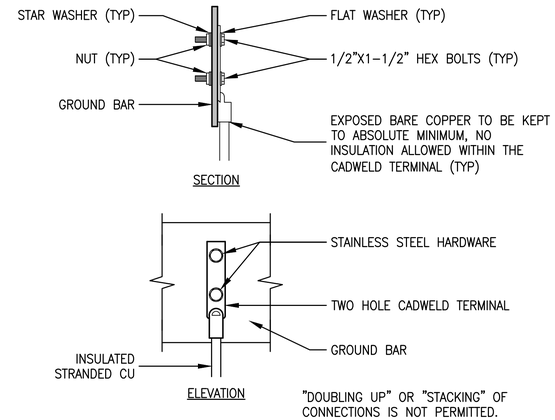


VERIZON WIRELESS GALVANIZED STEEL GROUND BAR W/ANTI-THEFT HARDWARE, NON-REMOVABLE PROVIDED BY ELECTRIC MOTION COMPANY	
PART #	BAR DESCRIPTION
EM SGC 49-VZW-NR	1/4"x4"x9"
EM SGC 412-VZW-NR	1/4"x4"x12"
EM SGC 418-VZW-NR	1/4"x4"x18"
EM SGC 420-VZW-NR	1/4"x4"x20"
EM SGC 424-VZW-NR	1/4"x4"x24"
INCLUDES TWO STAINLESS STEEL TORQUE SHEAR HEAD BOLTS, W/ANTI LOOSENING COMPOUND GENERAL CONTRACTOR TO STAMP "VERIZON WIRELESS" & SITE NUMBER BAR & PAINT ANTI-THEFT COMPOUND PROVIDED BY ELECTRIC MOTION COMPANY, PRODUCT #EM 5101	

8 E2.2 GROUND BAR DETAIL
SCALE: NONE



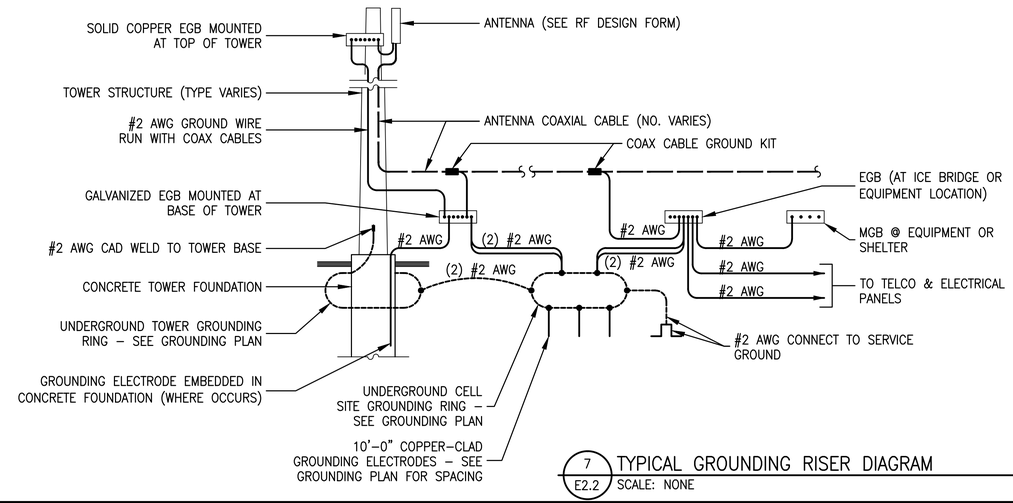
5 E2.2 COAX CONNECTION & GROUNDING DETAIL
SCALE: NONE



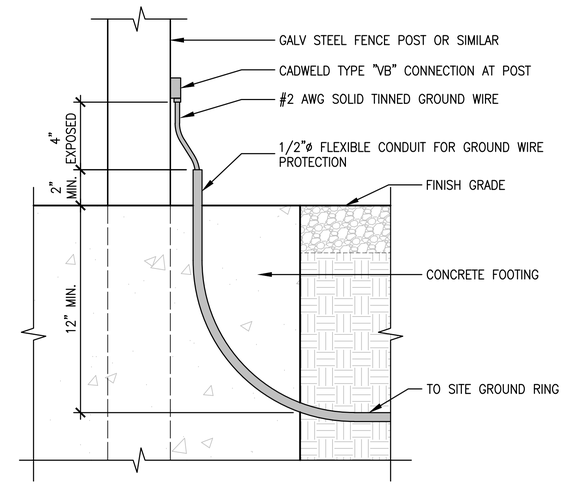
"DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.

ANTIOXIDANT JOINT COMPOUND SHALL BE USED AT ALL LOCATIONS.

2 E2.2 TYPICAL GROUND BAR CONNECTIONS
SCALE: NONE



7 E2.2 TYPICAL GROUNDING RISER DIAGRAM
SCALE: NONE



4 E2.2 POST GROUNDING DETAIL
SCALE: 3" = 1'-0"

TWO HOLE OFFSET LUG	TYPE TA	ONE HOLE OFFSET LUG
TYPE HS	TYPE VN	TYPE NC
TYPE VV	TYPE VS	TYPE VB
TYPE GT	TYPE GY	TYPE GR

TYPICAL CADWELD CONNECTION TYPES BY "ERICO"

1 E2.2 GROUNDING CONNECTION DETAIL
SCALE: NONE

RTM Engineers and Consultants
7550 Amy Ave, Fair Oaks, California 95628
Phone: 916-965-4598 E-Mail: rtmeng@comcast.net

verizon

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

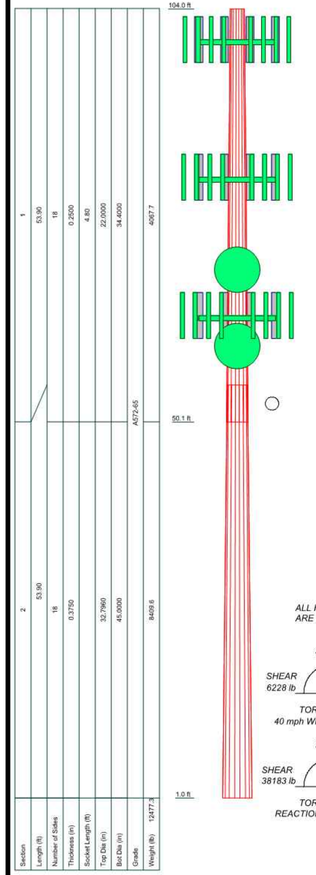
SHEET TITLE: GROUNDING DETAILS

Revisions:
1 --
2 --
3 --
4 --
5 --

File: 162.1654_E22.dwg
Drawn By: MWS
Checked By: TST
Scale: AS NOTED
Date: 08/21/17

Job No. 162.1654

E2.2



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
10-FT T-ARM ARRAY	100	(4) Ericsson RRUS 12 w/ A2	82
(4) GENERIC ANTENNA 8'X1'	100	(4) Ericsson RRUS 12 w/ A2	82
(4) GENERIC ANTENNA 8'X1'	100	(4) RC3DC-3315-PF-48	82
(4) GENERIC ANTENNA 8'X1'	100	MW DISH 6' W/RADOME (VZW)	70
(4) Ericsson RRUS 12 w/ A2	100	(4) GENERIC ANTENNA 8'X1'	64
(4) Ericsson RRUS 12 w/ A2	100	(4) GENERIC ANTENNA 8'X1'	64
(4) Ericsson RRUS 12 w/ A2	100	(4) GENERIC ANTENNA 8'X1'	64
(2) RC3DC-3315-PF-48	100	(4) Ericsson RRUS 12 w/ A2	64
10-FT T-ARM ARRAY	82	(4) Ericsson RRUS 12 w/ A2	64
(4) GENERIC ANTENNA 8'X1'	82	(4) Ericsson RRUS 12 w/ A2	64
(4) GENERIC ANTENNA 8'X1'	82	(4) RC3DC-3315-PF-48	64
(4) GENERIC ANTENNA 8'X1'	82	10-FT T-ARM ARRAY	64
(4) Ericsson RRUS 12 w/ A2	82	MW DISH 6' W/RADOME (VZE)	60

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65000 psi	80000 psi			

TOWER DESIGN NOTES

1. Tower is located in Washoe County, Nevada.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 90 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 40 mph basic wind with 0.25 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 5 with Crest Height of 420.00 ft
8. TOWER RATING: 80.5%

ALL REACTIONS ARE FACTORED

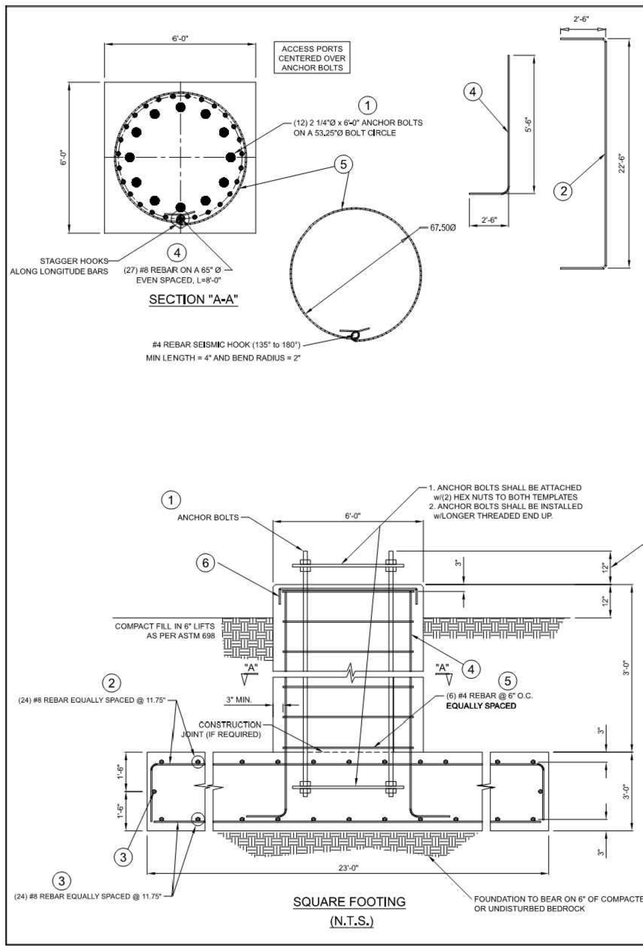
AXIAL 40776 lb
SHEAR 6228 lb
MOMENT 426 kip-ft
TORQUE 1 kip-ft
40 mph WIND - 0.2500 in ICE
AXIAL 30720 lb
SHEAR 38183 lb
MOMENT 2745 kip-ft
TORQUE 6 kip-ft
REACTIONS - 90 mph WIND

PROFESSIONAL ENGINEER STATE OF NEVADA
BORIS FAYMAN
Exp: 06-30-2019
CIVIL
No. 24339

09-29-2017

Engineered Endeavors
10975 Kinsman Road
Newbury, OH
Phone: 440.564.5484
FAX: www.engend.com
Consulting Engineers

Job: 18234			
Project: 104 ft Monopole. Axe Handle Canyon			
Client: Verizon Wireless	Drawn by: bfayman	App'd:	
Code: TIA-222-G	Date: 09/29/17	Scale: NTS	
Path:		Dwg No. E-1	



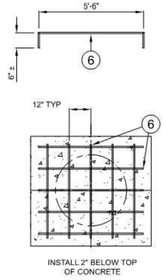
FOUNDATION LOADING
(PER TIA-222G w/OLF)

MOMENT	2745 kip-ft
SHEAR	38.2 kips
AXIAL	30.7 kips

MATERIAL LIST

ITEM	QTY.	DESCRIPTION
1	12	2 1/4"Ø x 6'-0" (A615-GR.75) ANCHOR BOLTS w/(3) HEX NUTS
2	48	#8 REBAR x 28'-0" (ASTM A615-GR.60)
3	52	#8 REBAR x 22'-6" (ASTM A615-GR.60)
4	27	#8 REBAR x 8'-0" (ASTM A615-GR.60)
5	6	#4 REBAR x 19'-6" (ASTM A615-GR.60)
6	10	#4 REBAR x 6'-6" (ASTM A615-GR.60)

VOL. CONCRETE @ 4000 psi (TYPE II CEMENT)	63 yd 3
STEEL (ASTM A615-GR.60)	7500 lbs



GENERAL NOTES:

1. FOUNDATION DESIGN IS BASED ON THE FOLLOWING: EEI JOB# 18234-E01. SOIL REPORT BY Mid Pacific Engineering, Inc., REPORT NO. 03364-01 DATED 09/08/2017.
2. FOUNDATION EMBEDMENT IS SHOWN FROM THE GROUND LEVEL AT THE TIME OF SOIL INVESTIGATION AS DEPICTED IN THE SOIL REPORT. SHOULD THE ACTUAL SOIL CONDITIONS DIFFER FROM THOSE IN THE REPORT, THE GEOTECHNICAL ENGINEER AND FOUNDATION DESIGNER SHOULD BE NOTIFIED IN ORDER TO RE-EVALUATE THE FOUNDATION DESIGN.
3. SOIL REPORT SHOULD BE CONSULTED PRIOR TO CONSTRUCTION. CONCRETE REINFORCEMENT TO INCLUDE SEISMIC HOOKS.
4. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES,AND PROCEDURES.
5. SPECIAL INSPECTION IS REQUIRED IN ACCORDANCE WITH 2015 IBC.
   5.1. SOIL
   5.1.a. FOUNDATION EXCAVATION SHALL BE INSPECTED PRIOR TO INSTALLATION OF REINFORCEMENT.
   5.1.b. VERIFY DEPTH AND DIAMETER OF THE EXCAVATION.
   5.1.c. VERIFY ACTUAL SOIL CONDITIONS AGAINST THE GEOTECHNICAL REPORT.
   5.2. REINFORCING STEEL
   5.2.a. VERIFY GRADE, LENGTH, DIAMETER, AND QUANTITY OF REBARS AND COMPLIANCE WITH THE DRAWINGS.
   5.2.b. VERIFY GRADE, LENGTH, DIAMETER, AND QUANTITY OF ANCHOR BOLTS AND BOLT PATTERN ON THE TEMPLATES.
   5.3. CONCRETE.
   5.3.a. VERIFY STRENGTH, SLUMP, AIR, TEMPERATURE OF CONCRETE, AND DESIGN MIX.
6. REINFORCING STEEL.
   6.1. REINFORCING STEEL SHALL CONFORM TO ASTM A615-87, Fy=60 ksi.
   6.2. ALL REINFORCEMENT SHALL BE ASSEMBLED USING STEEL WIRE. WELDING IS NOT PERMITTED.
   6.3. MINIMUM SPLICE LENGTH FOR LONGITUDINAL BARS: No. 6 BARS AND SMALLER = 44 x Øbar; No. 7 BARS AND LARGER 55 x Øbar.
   6.4. HORIZONTAL STIRRUPS SHALL BE STAGGERED ALONG THE REBAR CAGE WITH NO MORE THAN 50% OF SPLICES IN ONE PLACE.
7. CONCRETE:
   7.1. MIX DESIGN AND CONSTRUCTION PROCEDURE SHALL BE IN COMPLIANCE WITH ACI 318-05, ACI 336.3R-93 AND ALL APPLICABLE STATE AND LOCAL CODES.
   7.2. MINIMUM COMPRESSIVE STRENGTH - 4000 psi AT 28 DAYS AND TYPE II CEMENT SHALL BE USED UNLESS STATED OTHERWISE.
   7.3. SLUMP: DRILLED PIER - 7" (±1"), MAT FOUNDATION - 3" (±1").
   7.4. CONCRETE SHALL BE DEPOSITED AS NEARLY AS PRACTICAL IN ITS FINAL POSITION TO AVOID SEGREGATION DUE TO REHANDLING OR FLOWING.
   7.5. CONCRETE SHALL BE THOROUGHLY CONSOLIDATED BY ALL SUITABLE MEANS DURING PLACEMENT AND SHALL BE THOROUGHLY WORKED AROUND REINFORCEMENT AND EMBEDDED FIXTURES AND INTO CORNERS OF FORMS.
8. ANCHOR BOLT INSTALLATION. ANCHOR BOLT ORIENTATION SHALL BE VERIFIED WITH THE SITE PLANS AND MONOPOLE DRAWING FOR PROPER ACCESS PORT ORIENTATION AND ANCHOR BOLT ALIGNMENT PRIOR TO CONCRETE PLACEMENT.

PROFESSIONAL ENGINEER STATE OF NEVADA
BORIS FAYMAN
Exp: 06-30-2019
CIVIL
No. 24339

09-29-2017

ENGINEERED ENDEAVORS
The Experienced Point of View
15175 Kinsman Road * Burton, OH 44062
PH: (440) 970-9004 * Ph: (888) 270-3855
www.engend.com

Verizon Wireless
104-ft Monopole
Axl Handle Canyon
Washoe Co., NV

0	COMPLETED DRAWING	09/29/2017	BF		
REV	DESCRIPTION	DATE	DWN	CHK	

SCALE: N.T.S.	PROJECT NO.	18234	
SHEET 1 of 1	DRAWING NO.	18234S-104	

NOTE: SEE FULL DESIGN PACKAGE & CALCULATIONS BY ENGINEERING ENDEAVORS PROJECT #18234 DATED 09/29/2017

1 MP — 104' MONOPOLE DRAWING
SCALE: 1/4" = 1'-0"

Manuel S. Tsihlas, Architect
1520 River Park Drive, Sacramento, CA 95815
916-505-3811
COMPLETE Wireless Consulting, Inc.

verizon

SHEET TITLE: 104' MONOPOLE DRAWINGS

AXE HANDLE CANYON
14855 PYRAMID WAY
RENO, NV 89510

MANUEL S. TSIHLAS REGISTERED No. 7295 EXPIRES: 12/31/17 ARCHITECT STATE OF NEVADA

Revisions:
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File:162.1654_MP.dwg
Drawn By: MWS
Checked By: TST
Scale: AS NOTED
Date: 12/05/17

Job No. 162.1654

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