

Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Community Development staff at 775.328.6100.

Project Information		Staff Assigned Case No.: <u>SB14-002</u>	
Project Name (commercial/industrial projects only): Pleasant Valley Nevada (Verizon's Facility Name)			
Project Description: 50' x 50' lease area surrounded by 6' tall chain link fence w/ barbed wire. A pre-fabricated equipment shelter containing wireless telecommunication ground equipment. A 100' tall fauz windmill tower containing 6 antennas.			
Project Address: 205 US Highway 395N, Washoe Valley, NV. 89704			
Project Area (acres or square feet): 2500 SF			
Project Location (with point of reference to major cross streets AND area locator): North east of the intersection of Hwy 305 and Old Washoe City Road.			
Assessor's Parcel No(s):	Parcel Acreage:	Assessor's Parcel No(s):	Parcel Acreage:
046-080-42	35.73		
Section(s)/Township/Range:			
Indicate any previous Washoe County approvals associated with this application: Case Nos. NA			
Applicant Information (attach additional sheets if necessary)			
Property Owner:		Professional Consultant:	
Name: Washoe Valley Storage		Name: Complete Wireless Consulting	
Address: 205 US Highway 395N		Address: 2009 V Street	
Washoe Valley, NV	Zip: 89704	Sacramento, CA	Zip: 95818
Phone: 775-849-3433	Fax:	Phone: 916-217-7513	Fax:
Email:		Email: ddowns@completewireless.net	
Cell:	Other:	Cell: 916-217-7513	Other:
Contact Person:		Contact Person: David Downs	
Applicant/Developer:		Other Persons to be Contacted:	
Name: Sacramento-Valley LP dba Verizon Wireles		Name:	
Address: 2009 V Street		Address:	
Sacramento, CA	Zip: 95818		Zip:
Phone: 916-217-7513	Fax:	Phone:	Fax:
Email: ddowns@completewireless.net		Email:	
Cell: 916-217-7513	Other:	Cell:	Other:
Contact Person: David Downs		Contact Person:	
For Office Use Only			
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

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?

Wireless Telecommunications Facility

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

None

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?

50' x 50' lease area surrounded by 6' tall chain link fence w/ barbed wire. A pre-gabricated equipment shelter containing wireless telecommunication ground equipment. A 100' tall fauz windmill tower containing 6 antennas.

See attached site plan for detailed description.

Time frame for completion is approximately 120 days from SUP approval.

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

Project will be built in one 6 - 8 week phase.

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?

This location lies in the middle of the small search area provided for locating this site. This site is intended to provide capacity support to the existing Slide Mountain and McClellan Peak facilities. Especially McClellan Peak which currently suffers from a lack of capacity.

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

Continued quality wireless service.

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

We are willing to accommodate most any design preferences Staff and/or the Zoning Administrator may have with regard to the tower and/or ground equipment.

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 operate in an unmanned capacity 24/7, however, Verizon will access the site for maintenance approximately twice per month. The facility will only be accessed during normal working hours.

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

No improved parking is proposed.

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

No landscaping is proposed as landscaping would not blend with the existing surroundings. Also, there is not water within a reasonable proximity that could be accessed for irrigation.

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.)

Signage- Verizon typically places one sign on the outside of the lease area that contains a phone number to call, in the event that facility maintenance is needed.

Lighting- Verizon typically places one hooded motion sensor light on the outside of the prefabricated equipment shelter, so that there will be light if/when anyone approaches the facility.

We are willing to accommodate any preferences with regard to signage and lighting.

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.)

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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13. Community Sewer

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Community Water

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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**PROJECT SUPPORT STATEMENT
PLANNING APPLICATION FOR VERIZON WIRELESS COMMUNICATIONS SITE**

PLEASANT VALLEY NEVADA

APN: 046-080-42

205 US Highway 395 N, Washoe Valley, NV 889704

INTRODUCTION

Verizon Wireless seeks to improve cellular communication service and increase system capacity along Hwy 395, more specifically in the Pleasant Valley and Washoe City areas southwest of Reno. The increasing demand for mobile data services has strained Verizon's existing network and requires additional facilities to support current and future demands. In particular, the 4G LTE (Long Term Evolution) portion of Verizon's network in this area faces insufficient capacity due to the limitations of existing network infrastructure.

This project involves a Verizon Wireless communications facility to include a 50'x50' lease area within proposed 6' tall chain link fence, a 100' tall faux windmill, (6) proposed antennas, and associated ground equipment. This unmanned facility will provide service to area travelers, residents and businesses 24 hours a day, 7 days a week. In addition to improved mobile communications, it will serve as a backup to the existing landline service in the area, both of which are essential to modern day commerce & recreation.



This project is located within General Commercial zoning at 205 Hwy 395N, Washoe Valley, NA 89704

COMPLIANCE WITH COUNTY ZONING ORDINANCE

This project has been carefully designed to comply with all the applicable standards set forth in the Washoe County Zoning Code. Specific focus was given to Article 324 (Communication Facilities) and Section 110.324.35 (Commercial

Antennas). Below is an explanation for each of the specifically relevant requirements listed in the Washoe County Zoning Code:

Article 810, Special Use Permits

Section 110.810.30 Findings. *Prior to approving an application for a special use permit, the Planning Commission, Board of Adjustment or a hearing examiner shall find that all of the following are true:*

(a) *Consistency. The proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the applicable area plan;*

Wireless communications facilities are a conditionally allowed use within the General Commercial zoning designation. The proposed facility represents a conscious effort to comply with the Washoe County Zoning Ordinance

(b) *Improvements. Adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven;*

The parcel provides the necessary physical access, access to telephone utility lines, and access to power, which is needed to allow this proposed facility to function.

(c) *Site Suitability. The site is physically suitable for the type of development and for the intensity of development;*

This site provides an ideal location for addressing the current capacity issues experienced in the area. The size of the parcel allows for the facility to be setback from other structures and rights of way by a significant distance. This is important as it will limit public access to the facility. Finally, the proposed location contains the topography needed to allow for a quality wireless signal.

(d) *Issuance Not Detrimental. Issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area; and*

The proposed facility will not impact the health, safety, or welfare of any person or property in the surrounding area.

(e) *Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.*

The proposed facility will not negatively impact the military. The only impact to the military that this facility could have is improved wireless service.

Article 324, Communication Facilities

Section 110.324.45 Wireless Communication/Cellular Facilities Preferred Placement

As is discussed in the Alternatives Analysis section (below), each of the potential facility placement options were considered within this search area, in the order of Washoe County's preference. Given the fact that this location is the only feasible location for the proposed facility, a free standing tower is required for this proposed facility.

Section 110.324.50 Wireless Communication/Cellular Facilities Placement Standards

Although this facility involves a lattice design, it is technically considered to be a monopole antenna, per the Washoe County Zoning ordinance, as the facility is a stealth designed faux windmill. Monopole antennas are allowed within the General Commercial zoning designation. The height of the facility (100') complies with the fact that the antennas are over 1,000' from both Residentially zoned property and any Public Paved Right of Way, which allows for 80' in height. In addition, because the facility includes a stealth design, it is eligible for an additional 25% of height (i.e. 100').

Section 110.324.55 Significant Gap Coverage

The proposed site is needed for capacity, not coverage. There are some minor changes to coverage, which can be seen on the attached maps, but they are minimal and the attached maps don't provide an accurate representation of the proposed benefits of the facility. This area is served by two high level sites (Slide Mountain and McClellan Peak). McClellan Peak is the primary server for this area and is out of capacity. The proposed site is needed to provide necessary capacity for customers in this area.

Section 110.324.60 Wireless Communication/Cellular Facilities Permitting Requirements

(a) Information Required Prior to Issuance of Any Permit. In addition to the requirements of the Building and Safety Department, the following information must be provided to the Department of Community Development before any permit can be issued for the construction and installation of a wireless communication/cellular facility:

Regarding items 1 – 16, each item has been addressed by either the attached documents or within this Project Support Statement.

Section 110.324.75 Special Use Permit Required: Findings. Subsequent to review under

Sections 110.324.40 through 110.324.70, monopole antennas and lattice towers shall require the issuance of a special use permit under the process enumerated in Article 810, Special Use

Permits, by the Washoe County Planning Commission, subject to the findings enumerated below.

(a) That the communications facility meets all the standards of Sections 110.324.40 through 110.324.60 as determined by the Director of Community Development and/or his/her authorized representative;

(b) That public input was considered during the public hearing review process; and

(c) That the monopole or lattice tower will not unduly impact the adjacent neighborhoods or the vistas and ridgelines of the County.

ALTERNATIVE SITES CONSIDERED

- 1. 23600 Tinhorn Road, APN: 050-170-18**
Collocation on existing 60' slim line monopole owned by Crown Castle
Raw land site for a new 60' monopole

Existing facility unable to accommodate additional equipment. Facility would need to be replaced with larger structure to allow for collocation. Existing carriers unwilling to lose service during construction.

- 2. 23600 Tinhorn Road, APN: 050-170-18**
Raw land site for a new 60' monopole

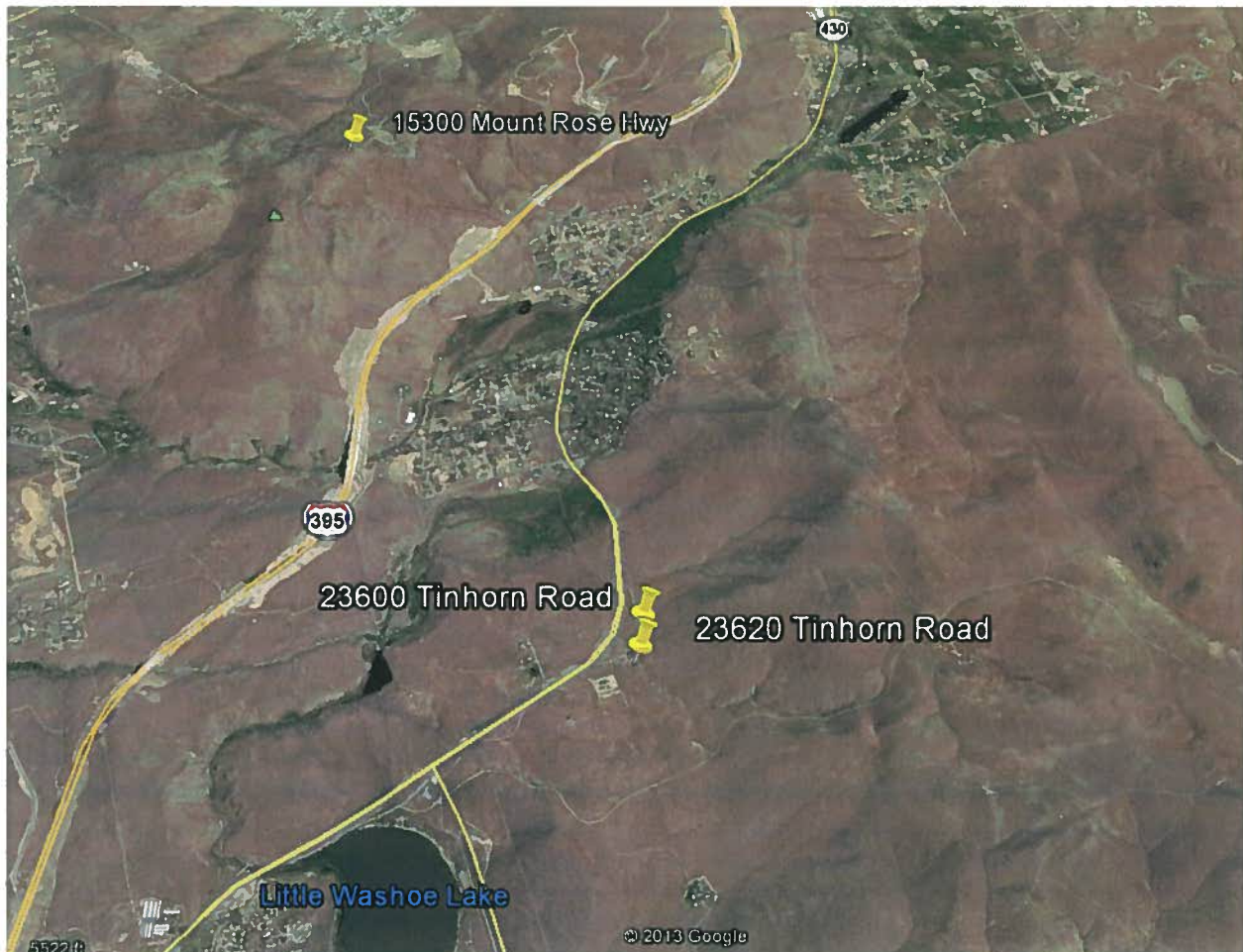
Proximity to residential, proximity to an existing facility and visual impact concerns were some of the reasons why this site was not selected.

3. 15300 MOUNT ROSE HWY, APN: 045-252-05
Raw land site for a new 20' monopole (BLM Property)

This site is located too far outside the Search Ring.

4. 23620 TINHORN RD, RENO, APN: 050-170-15
Raw land site for a new 60' monopole

Map of Alternative Sites Considered



FUTURE COLLOCATION POTENTIAL

VISUAL IMPACTS / DESIGN JUSTIFICATION

The Proposed facility design is a stealth / faux windmill. The lease area is situated on a non-vegetated area of this ____ acre parcel. The proposed facility has been designed to create the least possible visual impact to the area. While Verizon Wireless is certainly open to considering any other design options that Staff and/or the Planning Commission may feel to be a more appropriate fit for this particular location, we feel that either a faux windmill or faux water tower best blends with the surrounding area. The lack of large-scale vegetation in the area makes faux tree design inappropriate concepts for this location. Non-stealthed monopole or slim line monopole designs would likely create more of a conflict with the rural nature of the parcel and the surrounding area. In addition, landscaping is not being proposed as there is no opportunity to connect to existing water infrastructure within a reasonable distance of the proposed facility, which would make irrigation of landscaping extremely difficult. In addition, the climate in this area would make landscaping in this area extremely difficult to maintain. Finally, and possibly most

important, we feel that landscaping this facility would cause the facility to stand out in this area, rather than blend in with the existing surroundings (see zoomed-in photosimulation image below).



Because of the factors listed above, Verizon Wireless believes that landscaping is not appropriate for this site. However, we would be willing to further screen the proposed ground equipment with any fence material that the County sees as fit. It is important to note that the wall can be treated with any finish texture and/or color that the Planning Staff and/or Planning Commission prefers. The desired intent from Verizon's perspective is to select a finish/color that best matches the surroundings, which obviously change in appearance as the seasons change. Below are a few fence material options for consideration:

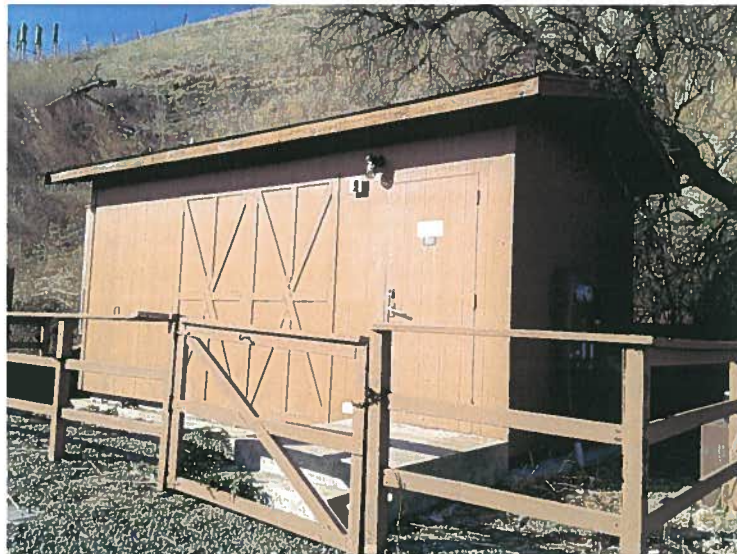
CMU Wall (which can be stucco'd or treated in numerous finishes and colors)



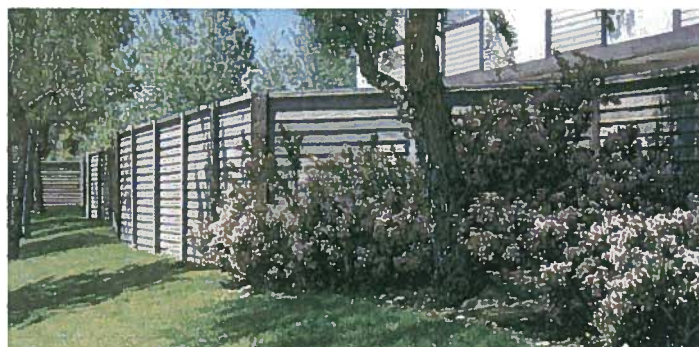
Slatted Fence material (which can be any color preferred)



Horse Stable / Barn Design



Wood-Crete (a very versatile material)



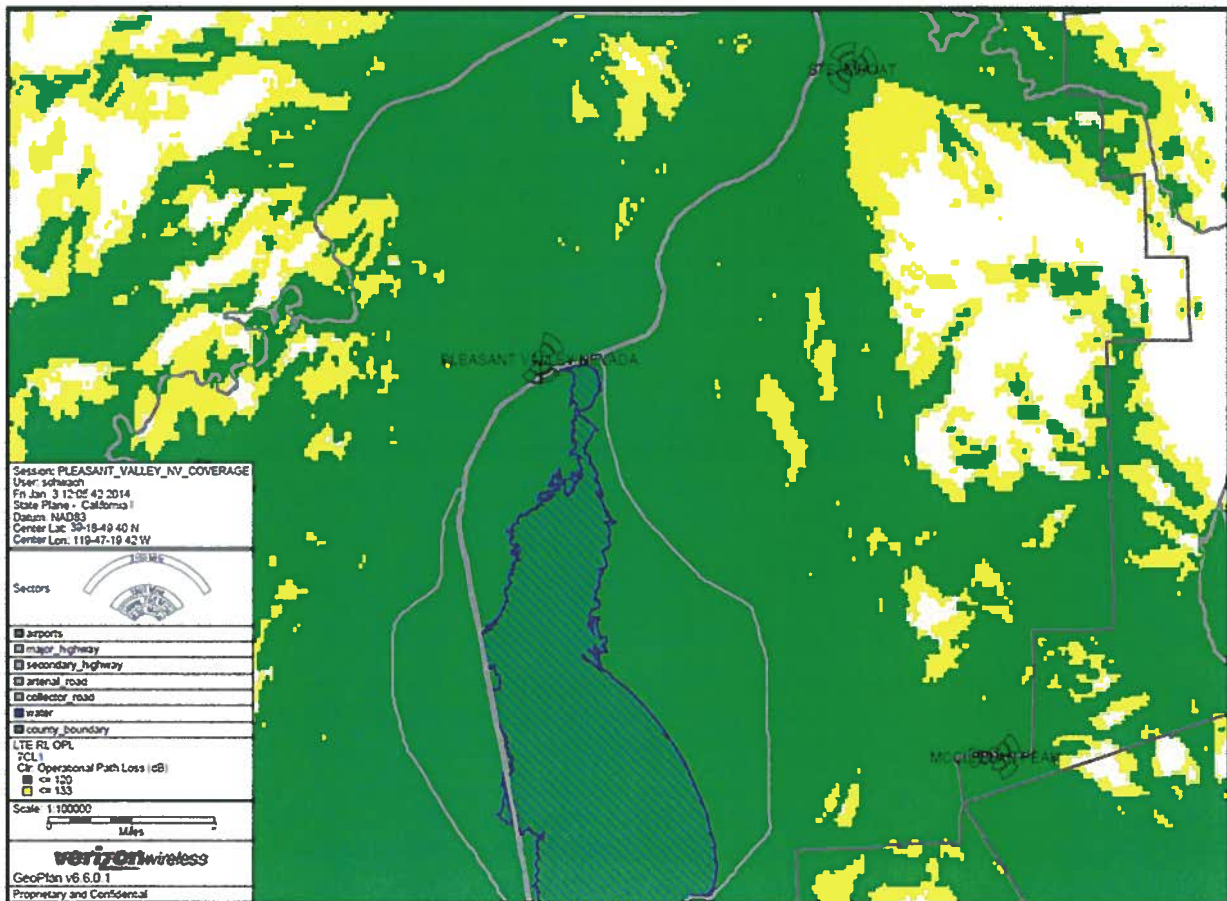
These are just some of the design options available to us, in lieu of screening via landscaping. We would like to encourage Staff to consider the fact that landscaping is not the most appropriate screening option for this area. Assuming Staff agrees with this statement, we would like to discuss the preferred screening options during the processing of the application.

COVERAGE MAPS

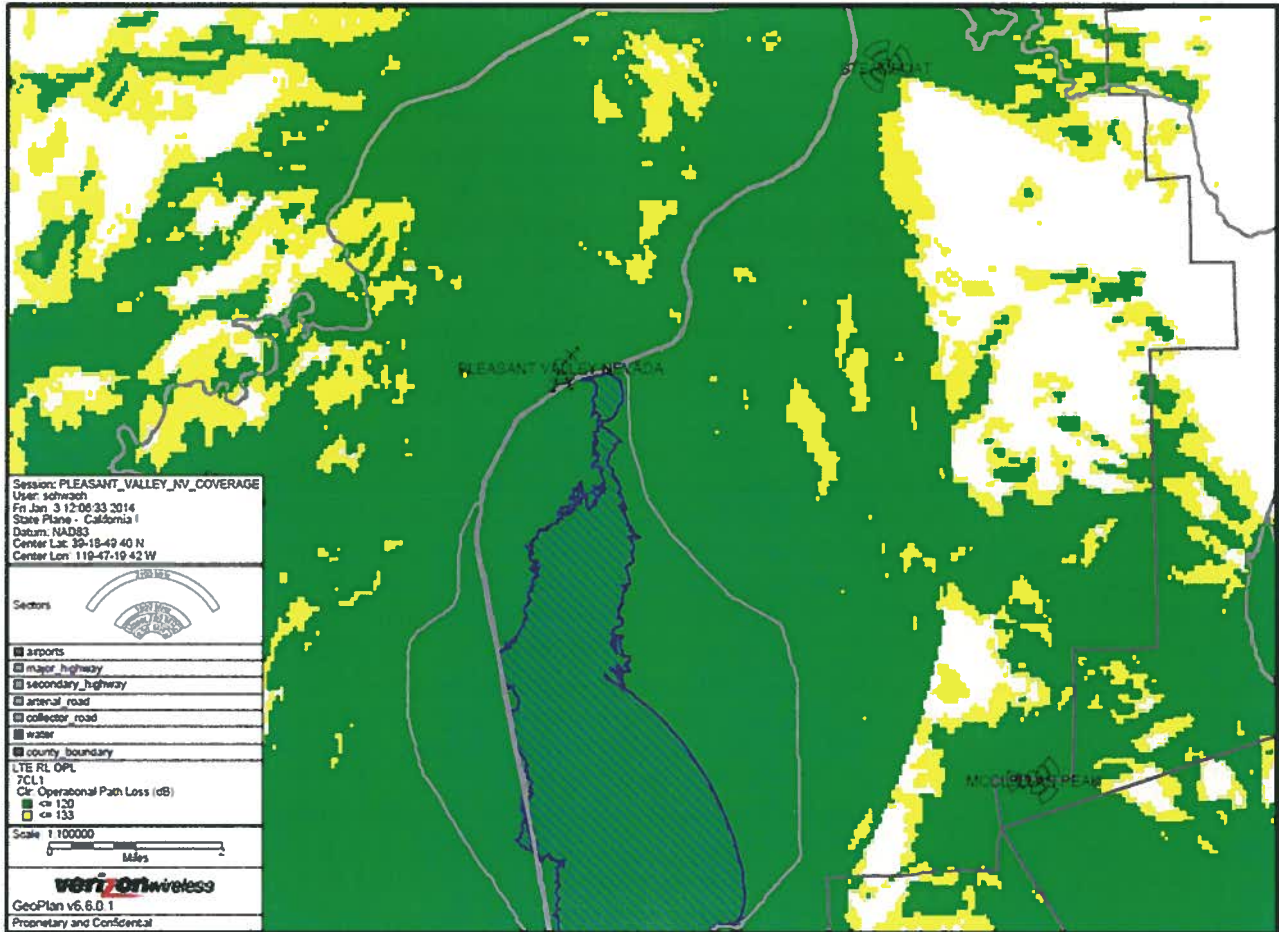
Below is a visual depiction of the coverage to be provided by the proposed facility. The first map represents Verizon's existing coverage conditions in the area. The second map represents Verizon's coverage conditions given approval of the proposed facility. The green areas on the map represent in building (best) service. The yellow areas represent good in-vehicle service, and the white areas represent areas that do not receive service.

Because the proposed facility is intended to alleviate existing capacity issues, versus provide additional coverage area, very little difference can be seen on traditional coverage maps. Therefore, these maps do not provide an accurate representation of the proposed benefits of the facility. This area is served by two high level sites (Slide Mountain and McClellan Peak). McClellan Peak is the primary server for this area and is out of capacity. The proposed site is needed to provide necessary capacity for customers in this area.

BEFORE



AFTER



SAFETY BENEFITS OF IMPROVED WIRELESS SERVICE

Mobile phone use has become an extremely important system for public safety. Along roads and highways without public call boxes, mobile phones are often the only means for emergency roadside communication. First responders, roadside assistance and other emergency services are just a phone call away in locations where adequate cellular coverage exists. Furthermore, as a backup system to traditional landline phone service, mobile phones have proven to be extremely important during natural disasters and other catastrophes.

Verizon Wireless has taken the responsibility for back up service very seriously. As one of the nation's largest service providers to Federal, State and Local public safety agencies, Verizon's wireless network serves as a reliable tool in their missions. While these organizations employ their own two-way radio systems for intra-agency communications, Verizon Wireless mobile phones create the links to other agencies and the outside world. The network also provides otherwise unavailable bandwidth for data traffic during power outages & other mass emergencies. Verizon Wireless has incurred the additional expense to install a standby generator at this facility to ensure quality communication during these times of greatest need.

CONVENIENCE BENEFITS OF IMPROVED WIRELESS SERVICE

Modern day life has become increasingly dependent on instant communications. Whether it is a parent calling their child, spouse calling a spouse, or general contractor ordering materials to the jobsite, wireless phone service is no longer just a convenience. It has become a way of life and a way of business.

TECHNOLOGY AND CONSUMER SERVICES THE CARRIER WILL PROVIDE ITS CUSTOMERS

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. Wireless service provides an ancillary benefit to public safety and emergency communications as well. See accompanying RF study.

LIGHTING

Unless tower lighting is required by the FAA the only lighting on the facility will be a shielded motion sensor light by the door on the equipment shelter.

NOISE

For testing & maintenance purposes, the standby generator will operate approximately 15 minutes per week, only to take place between 8:00 am and 7:00 pm on weekdays. In cases of extended power outages or natural disasters, the standby generator would run to keep the facility operational.

During construction of the facility, which typically lasts around two months, acceptable noise levels will not be exceeded.

STANDBY GENERATOR TESTING & MAINTENANCE

The standby generator and battery backup serve vital roles in the Verizon Wireless emergency & disaster preparedness effort, thus, Verizon incurs additional expense to install these backup power supplies at all of its cell sites. In the event of a power outage, the facility will first transition over to the battery backup, which can run the site for a few hours depending on demand placed upon the equipment. Should a power outage extend beyond the capacity of the batteries, the standby generator will start automatically to serve as the facility's power supply. To ensure this readiness, the standby generator will operate approximately 15 minutes per week.

A technician will visit the site approximately twice a month to check the facility and perform any necessary maintenance.

HAZARDOUS MATERIALS

A Hazardous Material Business Plan will be submitted upon project completion and stored on site after construction.

COMPLIANCE WITH FCC STANDARDS

This project will not interfere with any TV, radio, telephone, satellite, or any other signals. Any interference would be against the Federal Law and would be a violation of Verizon Wireless' FCC License. See accompanying RF Study.

CONSTRUCTION SCHEDULE

The construction of the facility will be in compliance with all local rules and regulations. The typical duration is two months. The crew size will range from two to ten individuals.

NOTICE OF ACTIONS AFFECTING THIS DEVELOPMENT PERMIT

In accordance with California Government Code Section 65945(a), 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.

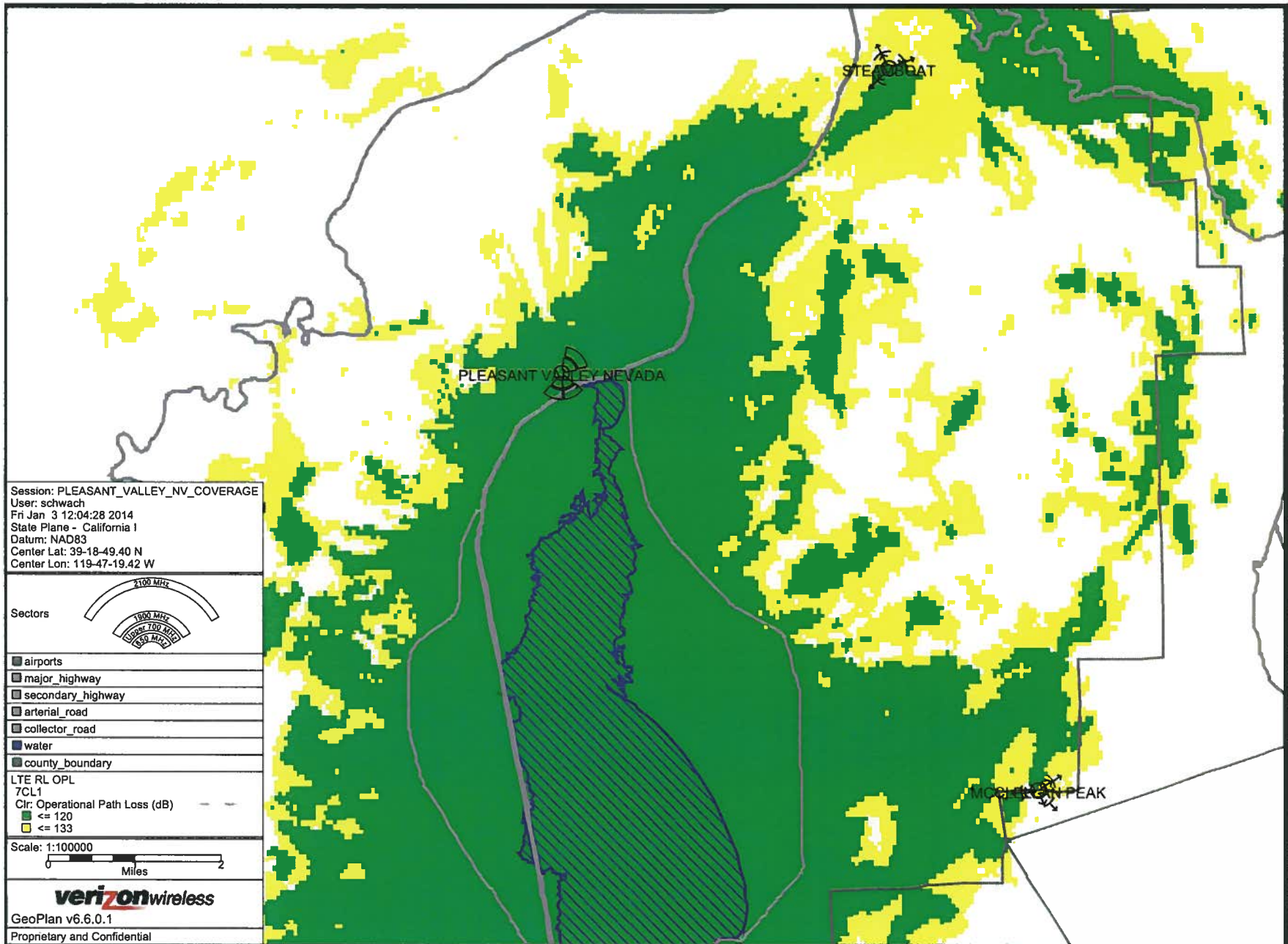
Verizon Wireless

Proposed "Pleasant Valley Nevada" Site

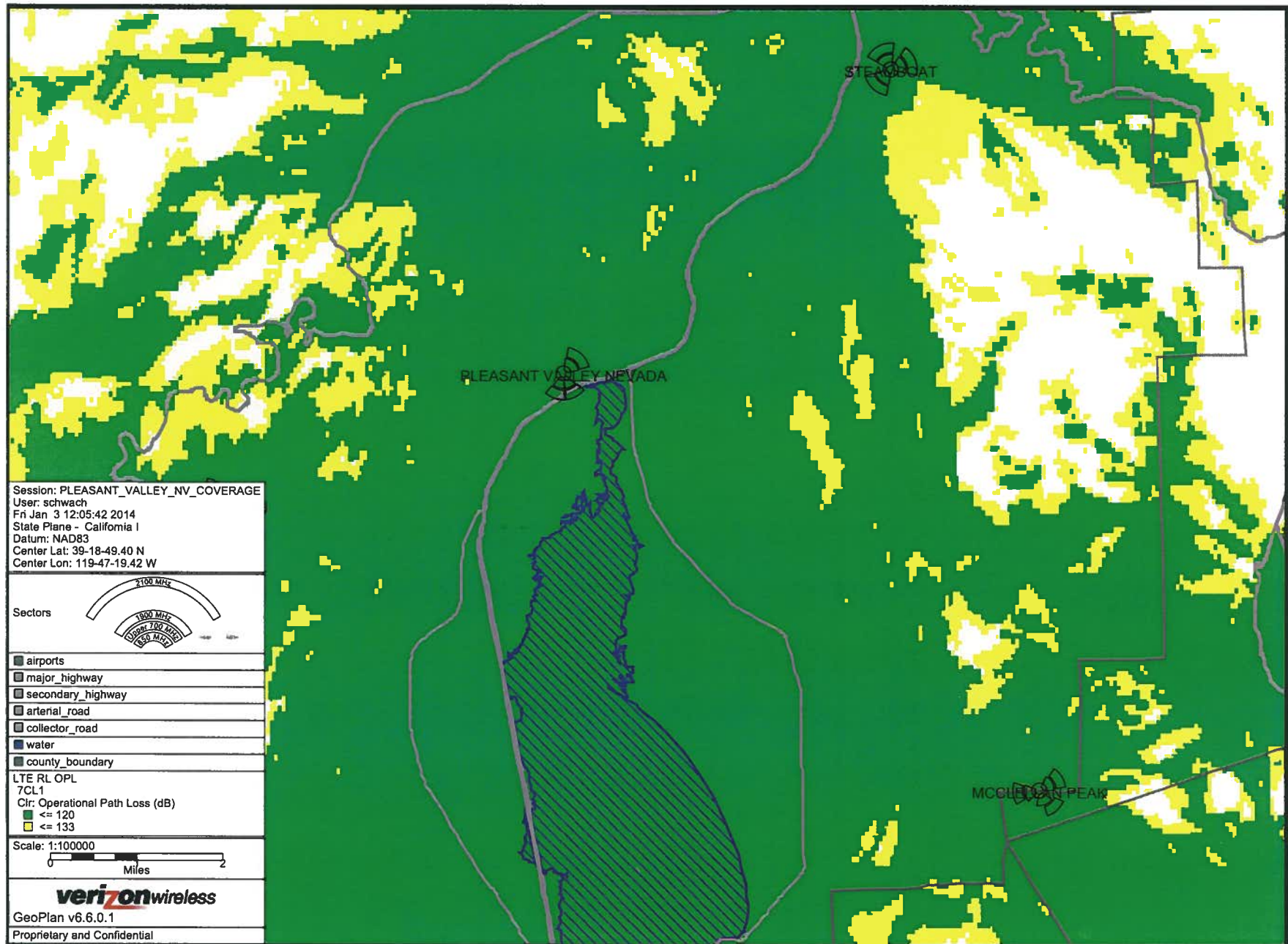
Coverage Maps

Attached are Coverage Maps for the Verizon Wireless proposed "Pleasant Valley Nevada" wireless communication facility site. The proposed site is needed for capacity, not coverage. There are some minor changes to coverage, which can be seen on the attached maps, but they are minimal and the attached maps don't provide an accurate representation of the proposed benefits of the facility. This area is served by two high level sites (Slide Mountain and McClellan Peak). McClellan Peak is the primary server for this area and is out of capacity. The proposed site is needed to provide necessary capacity for customers in this area.

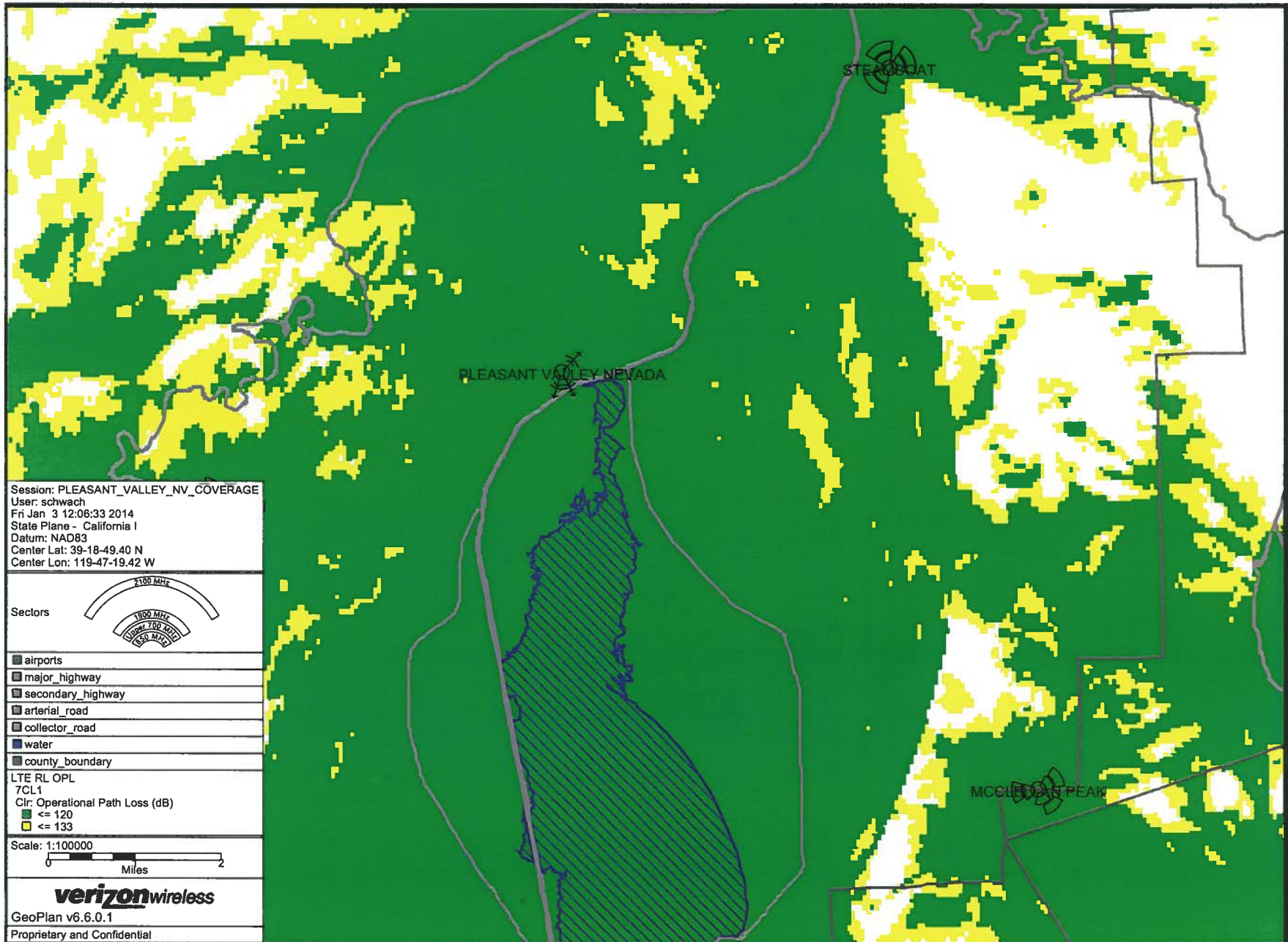
Proposed Site By Itself



Before Proposed Site



After Proposed Site



Pleasant Valley NV Feasibility: Washoe Storage



North



East

Pleasant Valley NV Feasibility: Washoe Storage



South

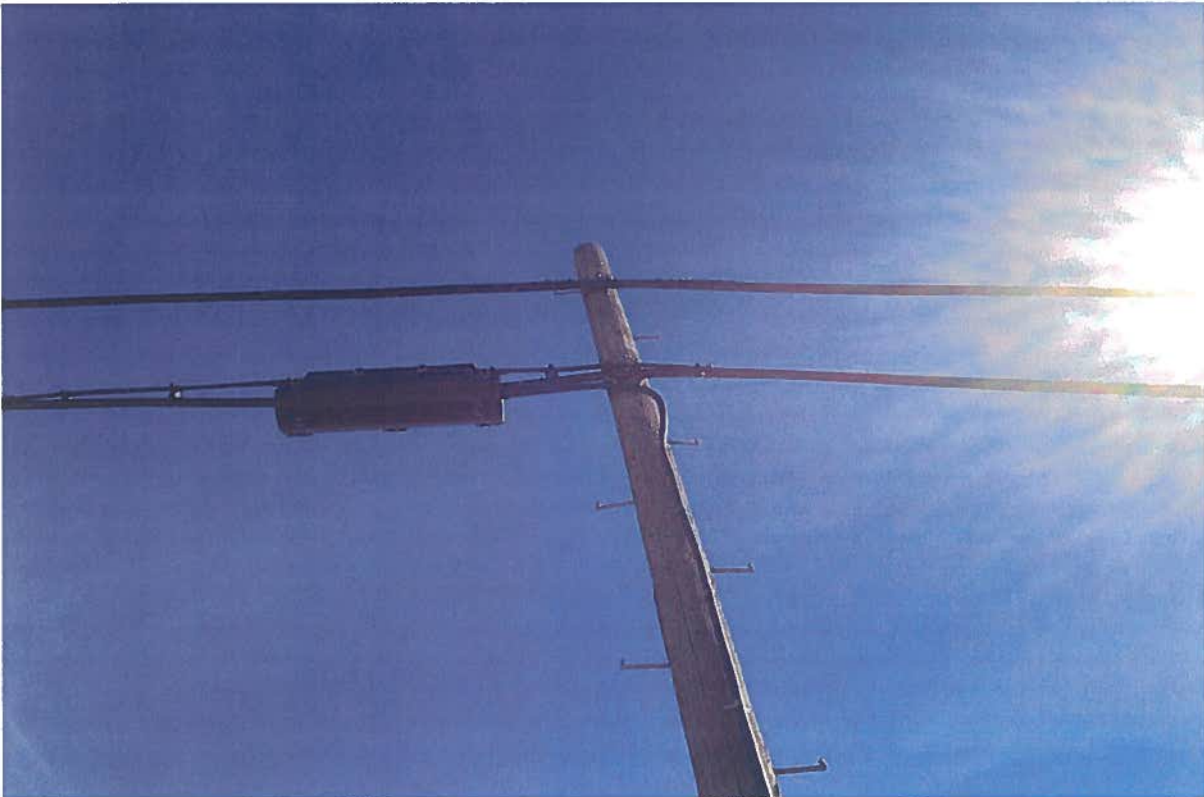


West

Pleasant Valley NV Feasibility: Washoe Storage



Power



Telco

Pleasant Valley NV Feasibility: Washoe Storage



Lease Site



Access

REFERENCE COPY

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**Federal Communications Commission
Wireless Telecommunications Bureau**

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
1120 SANCTUARY PKWY, #150 GASA5REG
ALPHARETTA, GA 30009-7630

Call Sign WQJQ694	File Number
Radio Service WU - 700 MHz Upper Band (Block C)	

FCC Registration Number (FRN): 0003290673

Grant Date 11-26-2008	Effective Date 01-14-2014	Expiration Date 06-13-2019	Print Date
Market Number REA006	Channel Block C	Sub-Market Designator 0	
Market Name West			
1st Build-out Date 06-13-2013	2nd Build-out Date 06-13-2019	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

ULS License

700 MHz Upper Band (Block C) License - WQJQ694 - Cellco Partnership

PA This license has pending applications: 0006109255, 0005977860, 0005962233, 0005826931

Call Sign WQJQ694 Radio Service WU - 700 MHz Upper Band (Block C)

Status Active Auth Type Regular

Market

Market REA006 - West

Channel Block C

Submarket 0

Associated Frequencies (MHz) 000746.00000000-000757.00000000-000776.00000000-000787.00000000

Dates

Grant 11/26/2008

Expiration 06/13/2019

Effective 01/14/2014

Cancellation

Buildout Deadlines

1st 06/13/2013

2nd 06/13/2019

Notification Dates

1st

2nd

Licensee

FRN 0003290673

Type General Partnership

Licensee

Cellco Partnership
1120 Sanctuary Pkwy, #150 GASA5REG
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Contact

Verizon Wireless
Licensing Manager
LicensingCompliance@VerizonWireless.com
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Ownership and Qualifications

Radio Service Mobile
Type

Regulatory Status Common Carrier Interconnected Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government? No

Is the applicant an alien or the representative of an alien? No

Is the applicant a corporation organized under the laws of any foreign government? No

Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? No

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? Yes

If the answer to the above question is 'Yes', has the applicant received a ruling(s) under Section 310(b)(4) of the Communications Act with respect to the same radio service involved in this application?

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender



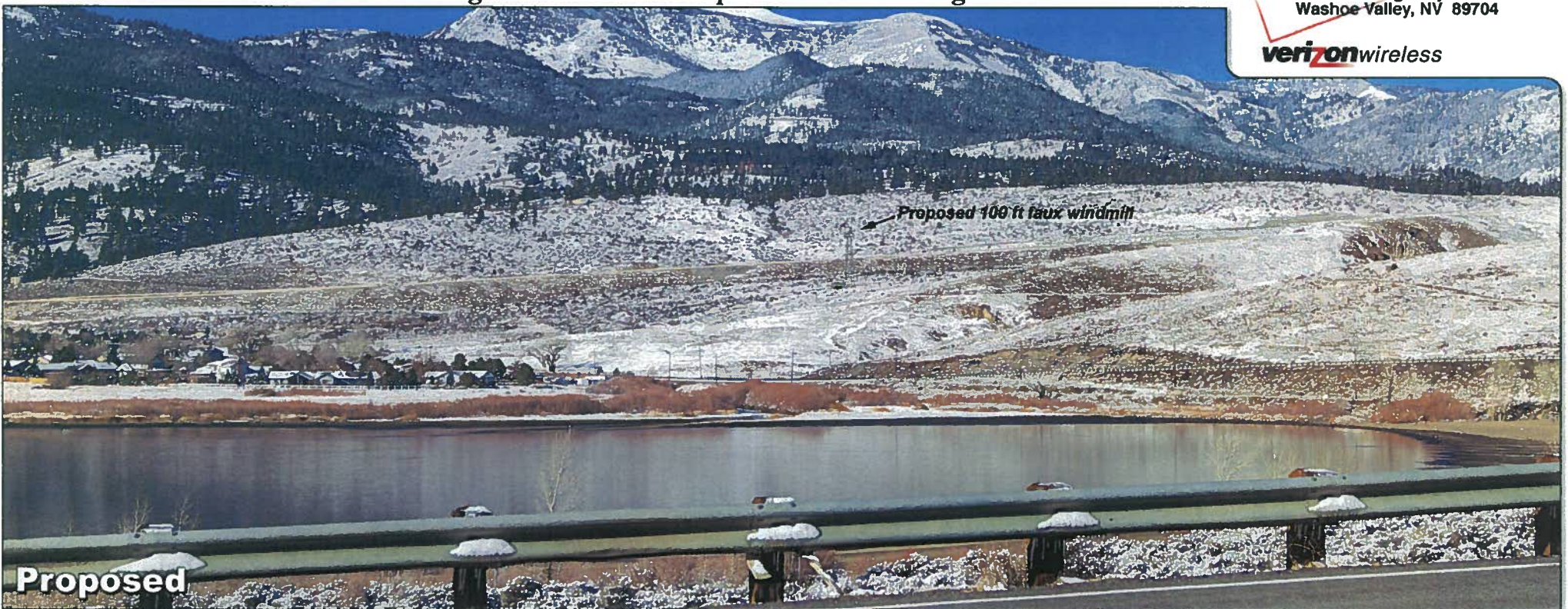
Existing

Photosimulation of the view looking west from the most prominent view along Eastlake Blvd.

Pleasant Valley

205 US Highway 395
Washoe Valley, NV 89704

verizonwireless



Proposed

Proposed 100 ft faux windmill



Existing

Photosimulation of the view looking east from across Hwy 395.

Pleasant Valley

205 US Highway 395
Washoe Valley, NV 89704

verizonwireless

Proposed 100 ft faux windmill



Proposed



Existing

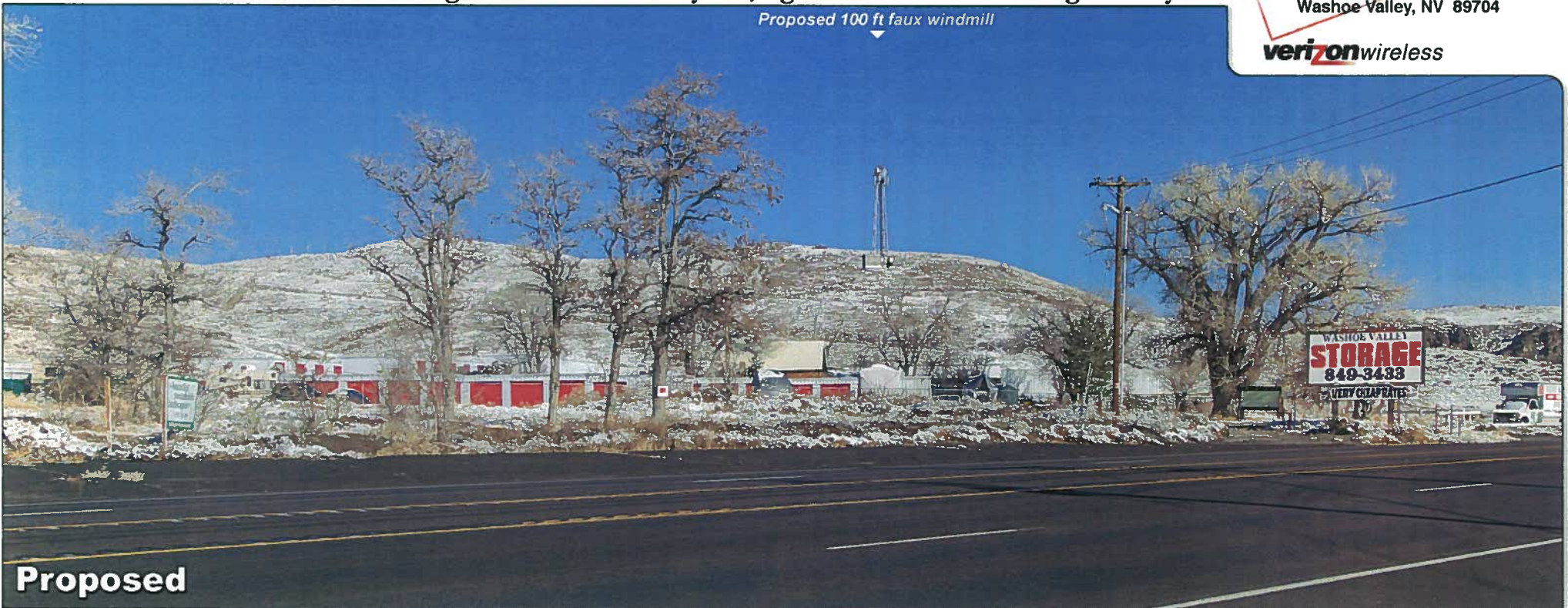
Photosimulation of the view looking north from Old Hwy 395, right across from the storage facility.

Pleasant Valley

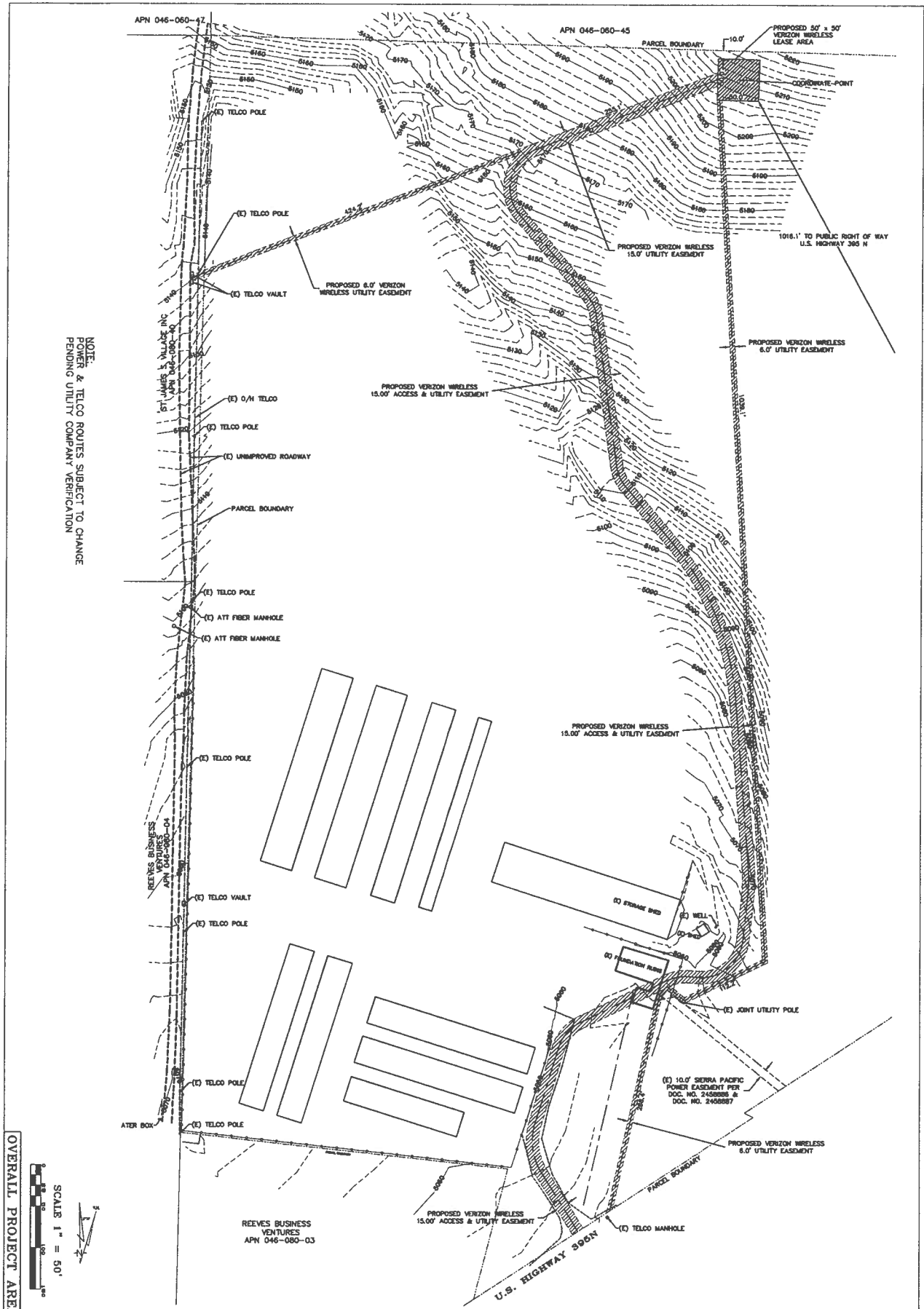
205 US Highway 395
Washoe Valley, NV 89704

verizonwireless

Proposed 100 ft faux windmill

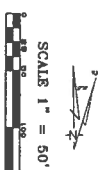


Proposed



NOTE:
POWER & TELCO ROUTES SUBJECT TO CHANGE
PENDING UTILITY COMPANY VERIFICATION

OVERALL PROJECT AREA



REV	08-20-13	BOB SURVEY	01
REV	10-04-13	CONV. SMT. LABEL	02
REV	10-04-13	REV. SMT. SMT.	03
REV	11-01-13	REV. LEASE AREA	04
REV	12-03-13	REVISIONS	05
REV			
REV			

PLEASANT VALLEY,
NEVADA
205 U.S. Highway 395N
Washoe Valley, NV 89704

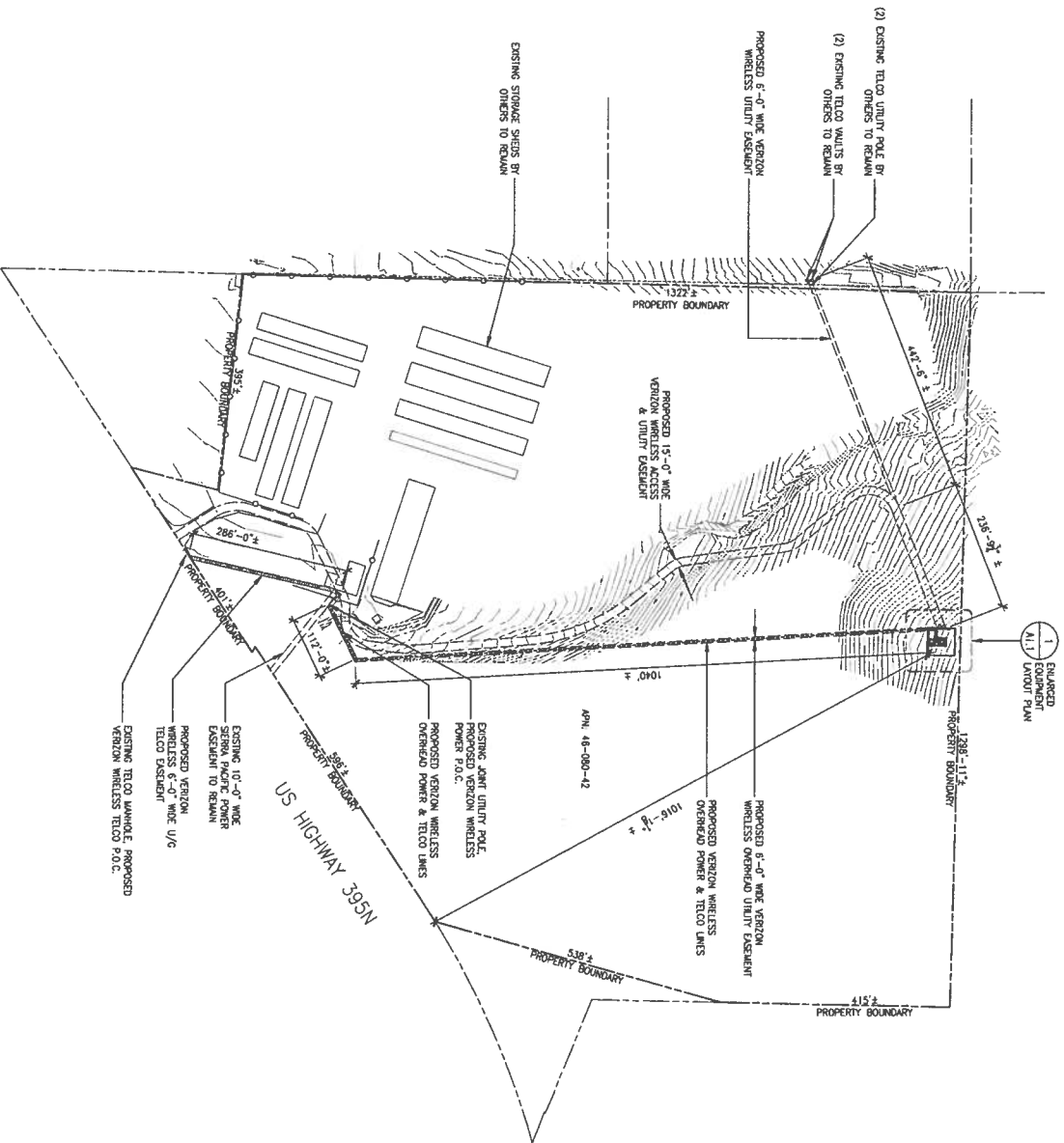
PLOT PLAN AND
SITE TOPOGRAPHY



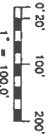
Architect



DEPT	APPROVED	DATE
ABC		
RE		
RF		
BIT		
EE\N		
OPS		
EE\OUT		



1
EQUATED
A1.1
LAYOUT PLAN



1
OVERALL SITE PLAN
SCALE: 1" = 100'

A1.1

500	100	1000
DATE: 11/26/13	SCALE: AS SHOWN	CHECKED BY: [signature]
DESIGN BY: [signature]	DATE: 11/26/13	SCALE: AS SHOWN

REVISIONS:	DATE:	BY:

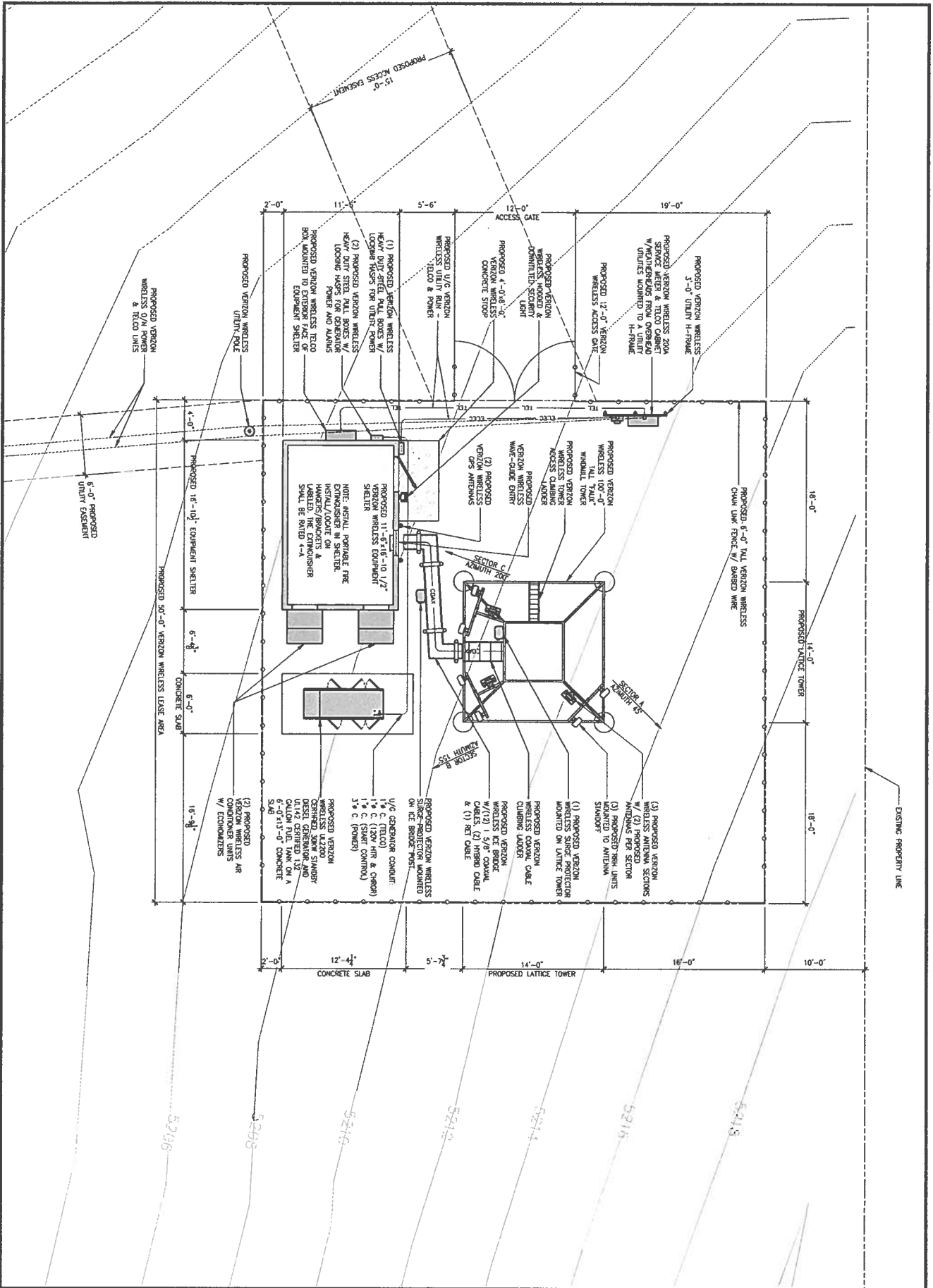
PLEASE CONTACT THE PROJECT MANAGER FOR ANY QUESTIONS.

verizon WIRELESS

PLEASANT VALLEY NEVADA
205 US HIGHWAY 395N
WASHOE VALLEY, NV, 89704

SHEET TITLE: **OVERALL SITE PLAN**

O'Connor Freeman & Associates
Structural Engineering Services
225 30th Street, Suite 201, Sacramento, CA 95816
Phone: (916) 441-5721 Fax: (916) 441-5697



A2.1

Job No. 12521
 Date: 1/26/11
 Scale: as noted
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 Drawn By: [Signature]
 File: 12521.dwg

REVISIONS
 1. [Signature]
 2. [Signature]
 3. [Signature]

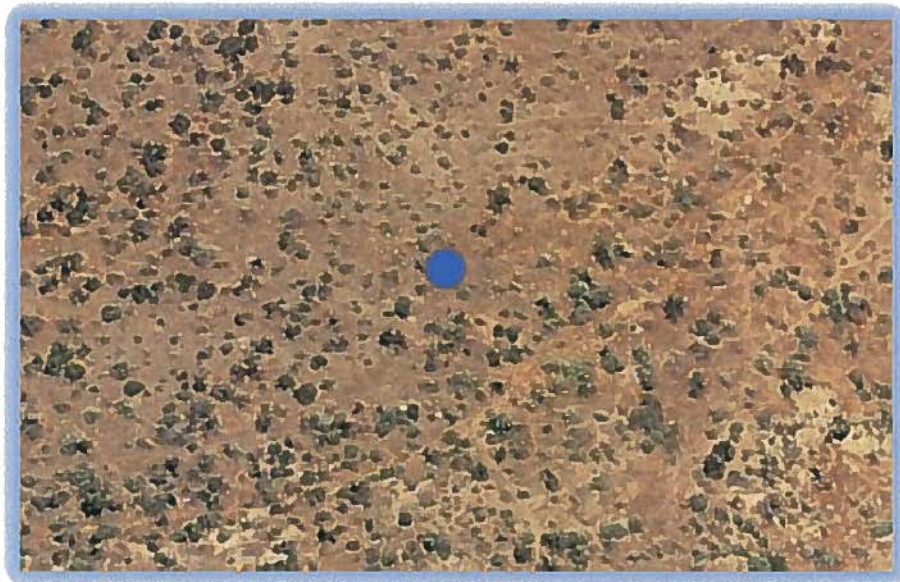
Verizon WIRELESS
 PLEASANT VALLEY NEVADA
 205 US HIGHWAY 395N
 WASHOE VALLEY, NV. 89704
 SHEET TITLE:
ENLARGED EQUIPMENT PLAN, ANTENNA PLAN

O'Connor Freeman & Associates
 Structural Engineering Services
 225 30th Street, Suite 201, Sacramento, CA 95816
 Phone: (916) 441-5721 Fax: (916) 441-5697

Radio Frequency- Electromagnetic Energy (RF-EME) Compliance Report

Site No. N/A
Pleasant Valley
205 US Highway 395 N
Washoe Valley, Nevada 89704
Washoe County
39.331253; -119.804981 NAD83

EBI Project No. 69132002
November 12, 2013



Prepared for:
Complete Wireless Consulting Inc
2009 V Street
Sacramento, CA 95818

Prepared by:
 **EBI Consulting**
environmental | engineering | due diligence

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EXECUTIVE SUMMARY

Purpose of Report

EnviroBusiness Inc. (dba EBI Consulting) has been contracted by Verizon Wireless to conduct radio frequency electromagnetic (RF-EME) modeling for Verizon Site N/A located at 205 US Highway 395 N in Washoe Valley, Nevada to determine RF-EME exposure levels from proposed Verizon wireless communications equipment at this site. As described in greater detail in Section 2.0 of this report, the Federal Communications Commission (FCC) has developed Maximum Permissible Exposure (MPE) Limits for general public exposures and occupational exposures. This report summarizes the results of RF-EME modeling in relation to relevant FCC RF-EME compliance standards for limiting human exposure to RF-EME fields.

Statement of Compliance

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

As presented in the sections below, based on worst-case predictive modeling, there are no modeled areas on any accessible rooftop or ground-level walking/working surface related to the proposed antennas that exceed the FCC's occupational or general public exposure limits at this site.

Recommended control measures are outlined in Section 5.0 and within a Site Safety Plan (attached); this plan includes instructions to shut down and lockout/tagout this wireless equipment in accordance with Verizon's standard operating protocol.

1.0 INTRODUCTION

Radio frequency waves are electromagnetic waves from the portion of the electromagnetic spectrum at frequencies lower than visible light and microwaves. The wavelengths of radio waves range from thousands of meters to around 30 centimeters. These wavelengths correspond to frequencies as low as 3 cycles per seconds (or hertz [Hz]) to as high as one gigahertz (one billion cycles per second).

Personal Communication (PCS) facilities used by Verizon in this area operate within a frequency range of 700-2100 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed a distance above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of in areas in the immediate vicinity of the antennas.

MPE limits do not represent levels where a health risk exists, since they are designed to provide a substantial margin of safety. 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.

2.0 SITE DESCRIPTION

This project site includes six (6) wireless telecommunication antennas (at three sector locations) on a windmill located at 205 US Highway 395 N in Washoe Valley, Nevada.

Verizon Antenna Information (proposed Configuration)									
Antenna# and Model	Frequency (MHz)	# of Transmitters	Transmit Power (Watts)	Azimuth	Gain (dBd)	Feet above Ground (CL)	X	Y	Z
A1 Unknown	850	6	20	45°	12	84 ft AGL	21	22	80
	1900	3	16		16				
A2 Unknown	700	1	20	45°	12	84 ft AGL	24	20	80
	2100	2	40		16				
B1 Unknown	850	6	20	155°	12	84 ft AGL	24	10	80
	1900	3	16		16				
B2 Unknown	700	1	20	155°	12	84 ft AGL	20	8	80
	2100	2	40		16				
C1 Unknown	850	6	20	200°	12	84 ft AGL	15	8	70
	1900	3	16		16				

C2	700	1	20		12				
Unknown	2100	2	40	200°	16	84 ft AGL	11	9	70

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general population/uncontrolled exposure limits for members of the general public that may be exposed to antenna fields. While access to this site is considered controlled, the analysis has considered exposures with respect to both controlled and uncontrolled limits as an untrained worker may access adjacent rooftop locations. Additional information regarding controlled/uncontrolled exposure limits is provided in Section 3.0. Appendix B presents a site safety plan that provides a plan view of the windmill with antenna locations.

3.0 FEDERAL COMMUNICATIONS COMMISSION (FCC) REQUIREMENTS

The FCC has established Maximum Permissible Exposure (MPE) limits for human exposure to Radiofrequency Electromagnetic (RF-EME) energy fields, based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC guidelines incorporate two separate tiers of exposure limits that are based upon occupational/controlled exposure limits (for workers) and general public/uncontrolled exposure limits for members of the general public.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general public/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

General public/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Table I and Figure I (below), which are included within the FCC's OET Bulletin 65, summarize the MPE limits for RF emissions. These limits are designed to provide a substantial margin of safety. They vary by frequency to take into account the different types of equipment that may be in operation at a particular facility and are "time-averaged" limits to reflect different durations resulting from controlled and uncontrolled exposures.

The FCC's MPEs are measured in terms of power (mW) over a unit surface area (cm²). Known as the power density, the FCC has established an occupational MPE of 5 milliwatts per square centimeter (mW/cm²) and an uncontrolled MPE of 1 mW/cm² for equipment operating in the 1900 MHz frequency

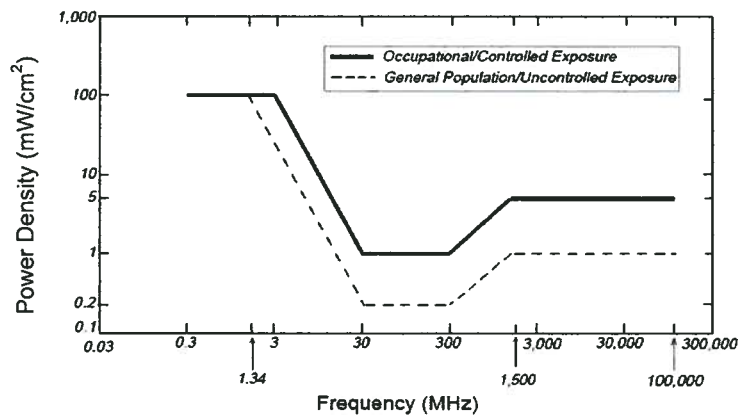
range. For the Verizon equipment operating at 700 MHz or 850 MHz, the FCC's occupational MPE is 2.83 mW/cm² and an uncontrolled MPE of 0.57 mW/cm². These limits are considered protective of these populations.

Table 1: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time [E] ² , [H] ² , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time [E] ² , [H] ² , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

f = Frequency in (MHz)

* Plane-wave equivalent power density

Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)
 Plane-wave Equivalent Power Density



Based on the above, the most restrictive thresholds for exposures of unlimited duration to RF energy for several personal wireless services are summarized below:

Personal Wireless Service	Approximate Frequency	Occupational MPE	Public MPE
Personal Communication (PCS)	1,950 MHz	5.00 mW/cm ²	1.00 mW/cm ²
Cellular Telephone	870 MHz	2.90 mW/cm ²	0.58 mW/cm ²

Personal Wireless Service	Approximate Frequency	Occupational MPE	Public MPE
Specialized Mobile Radio	855 MHz	2.85 mW/cm ²	0.57 mW/cm ²
Most Restrictive Freq, Range	30-300 MHz	1.00 mW/cm ²	0.20 mW/cm ²

MPE limits are designed to provide a substantial margin of safety. 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.

Personal Communication (PCS) facilities used by Verizon in this area operate within a frequency range of 700-2100 MHz. Facilities typically consist of: 1) electronic transceivers (the radios or cabinets) connected to wired telephone lines; and 2) antennas that send the wireless signals created by the transceivers to be received by individual subscriber units (PCS telephones). Transceivers are typically connected to antennas by coaxial cables.

Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of areas directly in front of the antennas.

4.0 WORST-CASE PREDICTIVE MODELING

EBI has performed theoretical modeling using RoofView® software to estimate the worst-case power density at the site rooftop and ground-level resulting from operation of the antennas. RoofView® is a widely-used predictive modeling program that has been developed by Richard Tell Associates to predict both near field and far field RF power density values for roof-top and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

The modeling is based on worst-case assumptions for the number of antennas and transmitter power. The modeling assumes a maximum 12-12-12 radio configuration for Sectors A, B and C, with a power level of 43 dBm (20 watts) per transmitter for 850 and 700 frequencies, 42 dBm (16 watts) per transmitter for the 1900 frequencies, and 46 dBm (40 watts) per transmitter for the 2100 frequencies, in order to provide a worst-case evaluation of predicted MPE levels. The assumptions used in the modeling are based upon information provided by Verizon, and information gathered from other sources. The parameters used for the modeling are summarized in the RoofView® export files presented in Appendix C.

There are no other wireless carriers with equipment installed at this site.

Based on worst-case predictive modeling, there are no modeled areas on any accessible rooftop or ground-level walking/working surface related to the proposed Verizon antennas that exceed the FCC's occupational or general public exposure limits at this site. At the nearest walking/working surfaces to the Verizon antennas, the maximum power density generated by the Verizon antennas is approximately 1.60 percent of the FCC's general public limit (0.32 percent of the FCC's occupational limit). The composite exposure level from all carriers on this site is approximately 1.60 percent of the FCC's general public limit (0.32 percent of the FCC's occupational limit) at the nearest walking/working surface to each antenna.

The Site Safety Plan also presents areas where Verizon Wireless antennas contribute greater than 5% of the applicable MPE limit for a site. A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards.

The inputs used in the modeling are summarized in the RoofView® export file presented in Appendix C. A graphical representation of the RoofView® modeling results is presented in Appendix B. It should be noted that RoofView is not suitable for modeling microwave dish antennas; however, these units are designed for point-to-point operations at the elevations of the installed equipment rather than ground level coverage.

5.0 MITIGATION/SITE CONTROL OPTIONS

EBI's modeling indicates that there are no areas in front of the Verizon antennas that exceed the FCC standards for occupational or general public exposure. All exposures above the FCC's safe limits require that individuals be elevated above the ground. In order to alert people accessing the rooftop, a NOC Information sign is recommended for installation at each access point to the rooftop.

Barriers are recommended for installation when possible to block access to the areas in front of the antennas that exceed the FCC general public and/or occupational limits. Barriers may consist of rope, chain, or fencing. Painted stripes should only be used as a last resort. There are no barriers recommended on this site.

These protocols and recommended control measures have been summarized and included with a graphic representation of the antennas and associated signage and control areas in a RF-EME Site Safety Plan, which is included as Appendix B. Individuals and workers accessing the roof should be provided with a copy of the attached Site Safety Plan, made aware of the posted signage, and signify their understanding of the Site Safety Plan.

Implementation of the signage recommended in the Site Safety Plan and in this report will bring this site into compliance with the FCC's rules and regulations.

6.0 SUMMARY AND CONCLUSIONS

EBI has prepared a Radiofrequency – Electromagnetic Energy (RF-EME) Compliance Report for telecommunications equipment installed by Verizon Site Number N/A located at 205 US Highway 395 N in Washoe Valley, Nevada to determine worst-case predicted RF-EME exposure levels from wireless communications equipment installed at this site. This report summarizes the results of RF-EME modeling in relation to relevant Federal Communications Commission (FCC) RF-EME compliance standards for limiting human exposure to RF-EME fields.

As presented in the sections above, based on the FCC criteria, there are no modeled areas on any accessible rooftop or ground-level walking/working surface related to the proposed antennas that exceed the FCC's occupational or general public exposure limits at this site. Workers should be informed about the presence and locations of antennas and their associated fields. Recommended control measures are outlined in Section 5.0 and within a Site Safety Plan (attached); this plan includes procedures to shut down and lockout/tagout this wireless equipment in accordance with Verizon's standard operating protocol.

7.0 LIMITATIONS

This report was prepared for the use of Verizon Wireless. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information provided by the client. The observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to EBI so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.

Appendix A

Certifications

Preparer Certification

I, Tama Troutman, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified "occupational" under the FCC regulations.
- I am familiar with the FCC rules and regulations as well as OSHA regulations both in general and as they apply to RF-EME exposure.
- I have reviewed the data provided by the client and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.



Appendix B

**Radio Frequency Electromagnetic Energy Safety/ Signage
Plans**

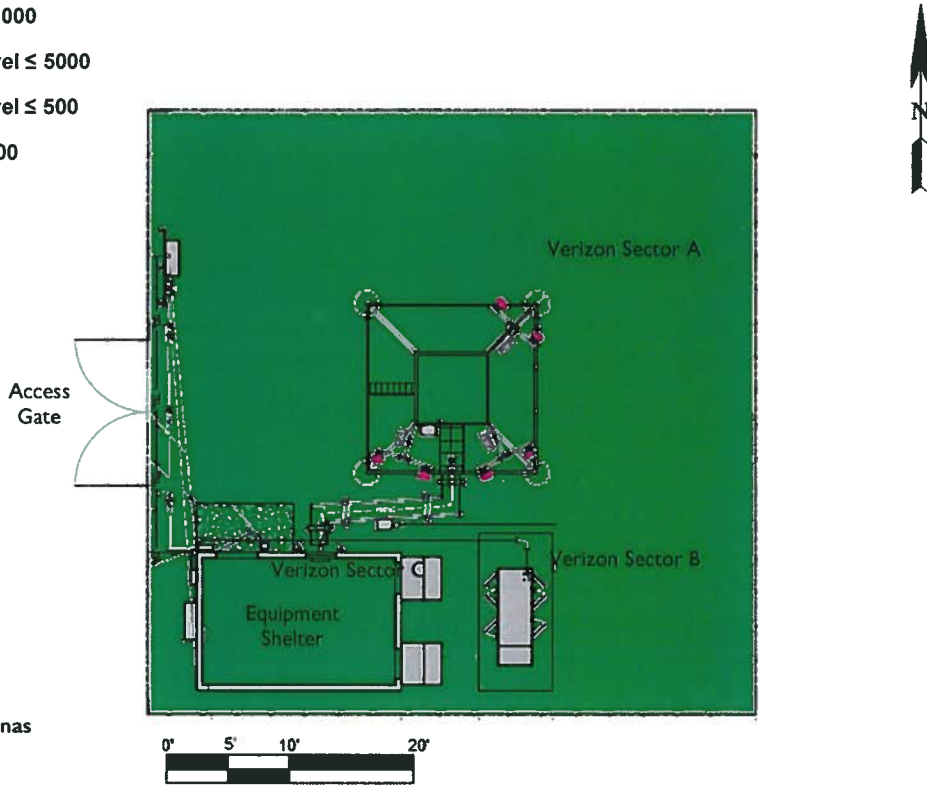
% of FCC Public Exposure Limit

- Exposure Level $\geq 5,000$
- $500 < \text{Exposure Level} \leq 5000$
- $100 < \text{Exposure Level} \leq 500$
- Exposure Level ≤ 100

*For Clarity, Other Carrier Antennas are Not Shown.

Legend

- Verizon Antennas
- Other Carrier Antennas



Roofview: Composite Exposure Levels


Facility Operator: Verizon Wireless

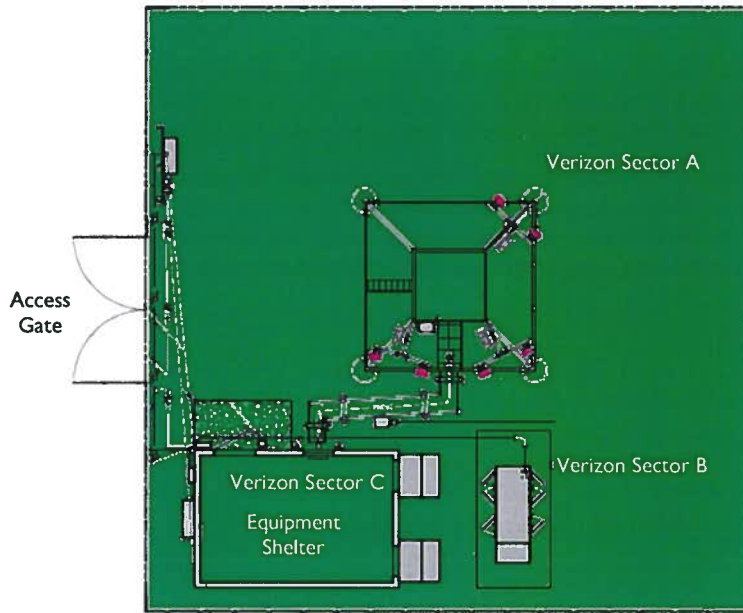
Site Name: Pleasant Valley

Verizon Site Number: N/A

Report Date: 11-12-13



% of FCC Public Exposure Limit

-  Exposure Level >5
-  Exposure Level ≤ 5



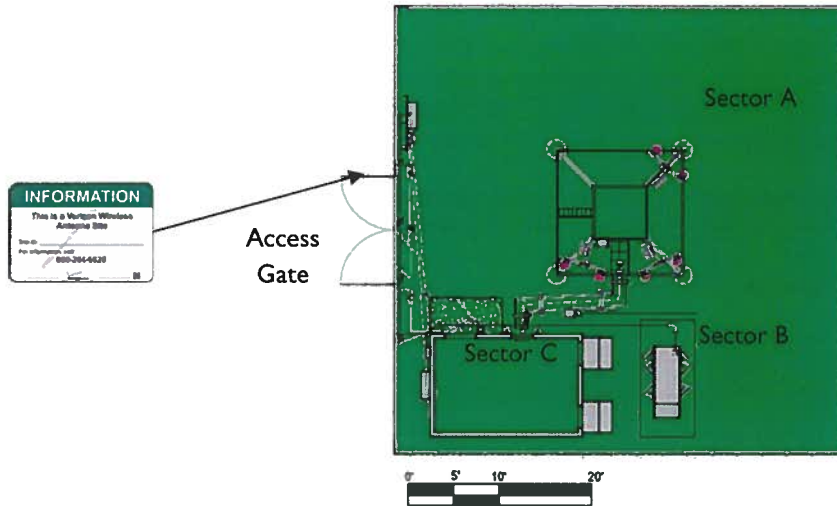
*For Clarity, Other Carrier Antennas are Not Shown.


Legend

-  Verizon Antennas
-  Other Carrier Antennas


Roofview: Verizon Exposure Levels
Facility Operator: Verizon Wireless
Site Name: Pleasant Valley
Verizon Site Number: N/A
Report Date: 11-12-13

Verizon Signage Plan



Sign Image	Description	Posting Instructions	Required Signage
	NOC Information Sign Informational sign with NOC Phone Number and Base Transceiver Station (BTS) Number	Securely post at every point of access to the site.	1 on compound access gate

Signage Plan
Facility Operator: Verizon Wireless
Site Name: Pleasant Valley
Verizon Site Number: N/A
Report Date: 11-12-13



EBI Consulting
 environmental | engineering | due diligence

Appendix C

Roofview® Export File

StartMapDefinition

Roof Max \ Roof Max \ Map Max \ Map Max \ Y Offset X Offset Number of envelope
 120 100 150 120 20 20 1 \$AE\$81:\$0 \$AE\$81:\$DZ\$200

List Of Area
 \$AE\$81:\$D

StartSettingsData

Standard Method Uptime Scale Factor Low Thr Low Color Mid Thr Mid Color HI Thr Hi Color Over Color Ap Ht Mult Ap Ht Method
 4 2 1 1 100 1 500 4 5000 2 3 1.5 1

StartAntennaData

It is advisable to provide an ID (ant 1) for all antennas

ID	Name	Freq (MHz)	Trans Power	Trans Count	Coax Len	Coax Type	Other Loss	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	(ft) Aper	dBd Gain	BWdth Pt Dir	Uptime Profile	ON flag
VZN A1		850	20	6	10	1/2 LDF	0.5		101.2002	Unknown	Unknown	21	22	80		8	12	85;45		ON+
VZN A1		1900	16	3	10	1/2 LDF	0.5		40.48007	Unknown	Unknown	21	22	80		8	16	85;45		ON+
VZN A2		700	20	1	10	1/2 LDF	0.5		17.14076	Unknown	Unknown	24	20	80		8	12	85;45		ON+
VZN A2		2100	40	2	10	1/2 LDF	0.5		67.46678	Unknown	Unknown	24	20	80		8	16	85;45		ON+
VZN B1		850	20	6	10	1/2 LDF	0.5		101.2002	Unknown	Unknown	24	10	80		8	12	85;155		ON+
VZN B1		1900	16	3	10	1/2 LDF	0.5		40.48007	Unknown	Unknown	24	10	80		8	16	85;155		ON+
VZN B2		700	20	1	10	1/2 LDF	0.5		17.14076	Unknown	Unknown	20	8	80		8	12	85;155		ON+
VZN B2		2100	40	2	10	1/2 LDF	0.5		67.46678	Unknown	Unknown	20	8	80		8	16	85;155		ON+
VZN C1		850	20	6	10	1/2 LDF	0.5		101.2002	Unknown	Unknown	15	8	70		8	12	85;200		ON+
VZN C1		1900	16	3	10	1/2 LDF	0.5		40.48007	Unknown	Unknown	15	8	70		8	16	85;200		ON+
VZN C2		700	20	1	10	1/2 LDF	0.5		17.14076	Unknown	Unknown	11	9	70		8	12	85;200		ON+
VZN C2		2100	40	2	10	1/2 LDF	0.5		67.46678	Unknown	Unknown	11	9	70		8	16	85;200		ON+

StartSymbolData

Sym	Map Mark	Roof X	Roof Y	Map Label	Description (notes for this table only)
Sym		5		35 AC Unit	Sample symbols
Sym		14		5 Roof Access	
Sym		45		5 AC Unit	
Sym		45		20 Ladder	