Board of Adjustment Staff Report

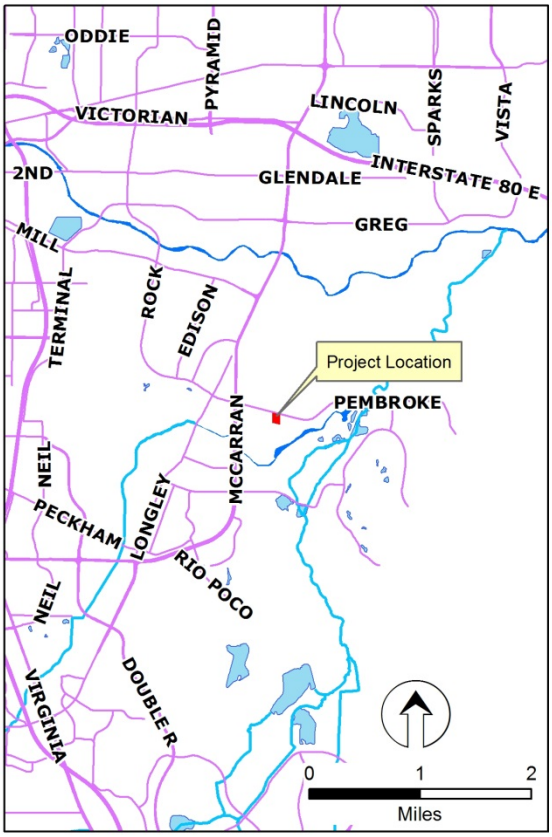
Meeting Date: October 4, 2018 **Agenda Item: 8A**

STAFF REPORT CASE NUMBER:	WSUP18-0007 (T-Mobile/Lighthouse Baptist Church)
BRIEF SUMMARY OF REQUEST:	To approve the construction of a new 55-foot high wireless cellular facility utilizing a stealth design
STAFF PLANNER:	Planner's Name: Chad Giesinger, AICP, Senior Planner Phone Number: 775.328.3626 E-mail: cgiesinger@washoecounty.us
APPLICANT/PROPERTY OWNER:	T-Mobile / Lighthouse Baptist Church Reno

CASE DESCRIPTION

For possible action, hearing, and discussion to approve an application by T-Mobile for a Special Use Permit for the construction of a new wireless cellular facility consisting of a 55-foot high tower utilizing a stealth design disguised as a pine tree (also known as a monopine) with faux branches screening the proposed antenna panels. The associated 30' x 30' (900 s.f.) lease area and equipment cabinets will be enclosed by a 7 foot concrete block wall, which will be treated with a stucco finish and painted to match the existing church building on property owned by the Lighthouse Baptist Church of Reno.

- Applicant: T-Mobile
- Property Owner: Lighthouse Baptist Church Reno
- Location: 5350 Pembroke Drive, 1/3 mile east of McCarran Blvd
- APN: 021-140-20
- Parcel Size: 4 acres
- Master Plan Category: Rural (R)
- Regulatory Zone: General Rural (GR)
- Area Plan: Southeast Truckee Meadows
- Citizen Advisory Board: South Truckee Meadows/Washoe Valley
- Development Code: Authorized in Article 324, Communication Facilities and Article 810, Special Use Permits
- Commission District: 2 – Commissioner Lucey



STAFF RECOMMENDATION

APPROVE **APPROVE WITH CONDITIONS** **DENY**

POSSIBLE MOTION

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment approve with conditions Special Use Permit Case Number WSUP18-0007 for T-Mobile, having made all seven findings in accordance with Washoe County Code Section 110.810.30 and 110.324.35.

(Motion with Findings on Page 24)

Staff Report Contents

Exhibits Contents

Special Use Permit

The purpose of a special use permit is to allow a method of review to identify any potential harmful impacts on adjacent properties or surrounding areas for uses that may be appropriate within a regulatory zone; and to provide for a procedure whereby such uses might be permitted by further restricting or conditioning them so as to mitigate or eliminate possible adverse impacts. The Board of Adjustment is authorized to issue special use permits under NRS 278.315 and Washoe County Code (WCC) Article 810. Certain notice requirements must be met, which are discussed in this report. In approving the special use permit, the Board must consider and make five Findings of Fact, which are discussed below. [WCC Section 110.810.30] The notice requirements and findings are discussed in this report. The Board of Adjustment is allowed to grant an approval of the special use permit that is subject to Conditions of Approval. Conditions of Approval are requirements that need to be completed during different stages of the proposed project, including conditions prior to permit issuance, prior to obtaining a final inspection and/or certificate of occupancy, prior to issuance of a business license, or ongoing "operational conditions" which must be continually complied with for the life of the project.

Conditions of Approval. The Conditions of Approval for this case are attached to this staff report as Exhibit A and will be included with the Action Order.

Variances. As a part of approval of a special use permit, the Board of Adjustment may also vary standards of the Development Code as they would apply to the Project. [See WCC Section 110.810.20 (e).] In so doing, the Board must make the five findings required for variances as set out in WCC Section 110.804.25.

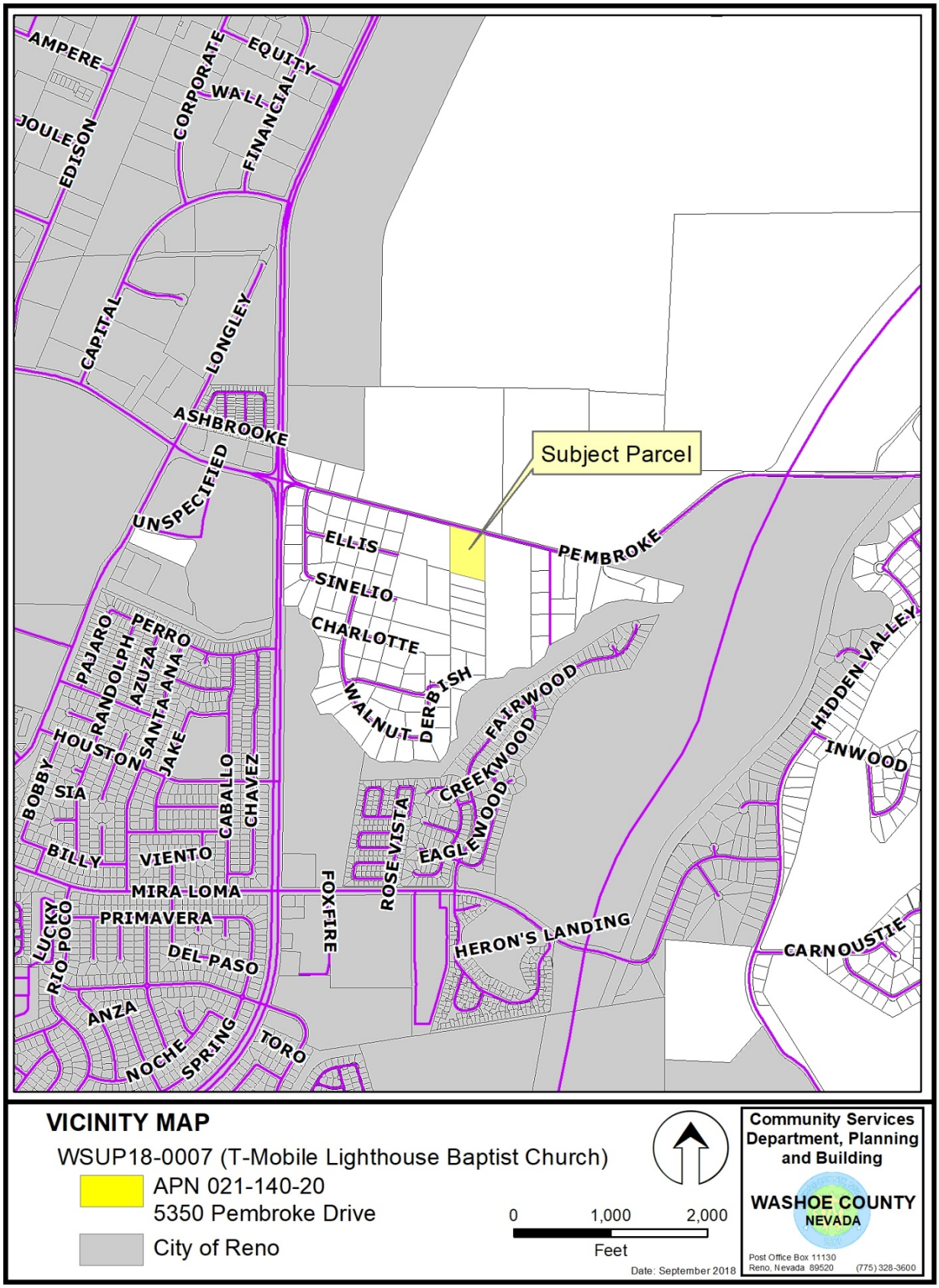
Special Communications Facility requirements. The proposed facility is a "communications facility" under Article 324 of the County Development Code which imposes specialized requirements and provides that when approving a special use permit, the Board must adopt the three additional findings listed in WCC Section 110.324.75 which are discussed in this staff report.

Special Federal and State Rules The proposed facility is a "personal wireless service facility" protected by federal law (Telecommunications Act of 1996, 47 U.S.C. Section 332 (c) (7)) and state law (NRS 707.550 – 707. 920). Generally, federal and state laws provide that when regulating the placement, construction or modification of wireless facilities:

- We shall not unreasonably discriminate among providers of functionally equivalent services;
- We shall not prohibit or have the effect of prohibiting the provision of personal wireless services;
- We must act within a reasonable time on applications for permits (presumed to be 150 days under FCC "shot clock" rules);
- If we deny a request to place, construct, or modify personal wireless service facilities, we must do so in a separate writing, and the decision must be supported by substantial evidence (evidence that a reasonable mind might accept as adequate to support a conclusion) contained in a written record. State law (NRS 707.585) requires that a decision denying an application must set forth with specificity each ground on which the authority denied the approval of the application, and must describe the documents relied on by the Board in making its decision.
- We may not regulate the placement, construction and modification of personal wireless facilities on the basis of environmental effects of radio frequency emissions to the extent that such facilities comply with FCC regulations concerning such emissions.

The subject property has a regulatory zone of General Rural (GR). Monopole wireless communication facilities are allowed in the GR zone but only with a special use permit per WCC Section 110.324.50(e)(2). The applicant is, therefore, seeking approval from the Board of Adjustment of the proposed special use permit.

Vicinity Map

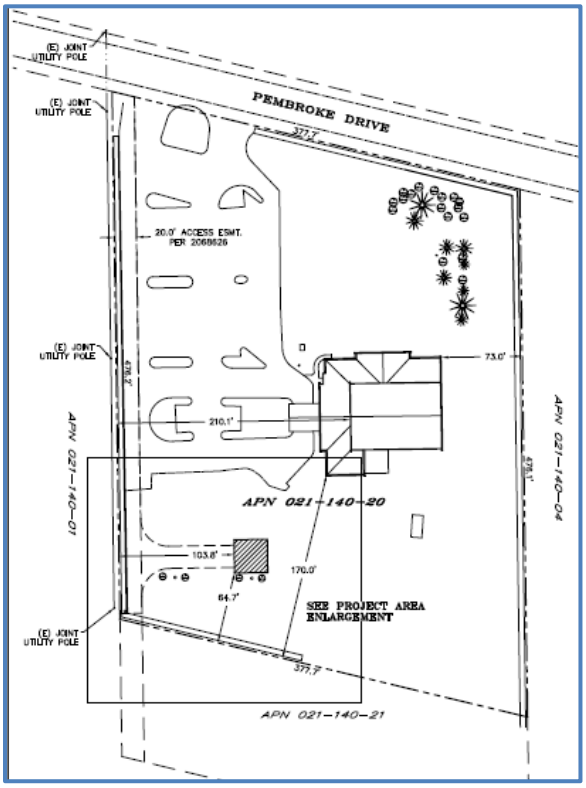


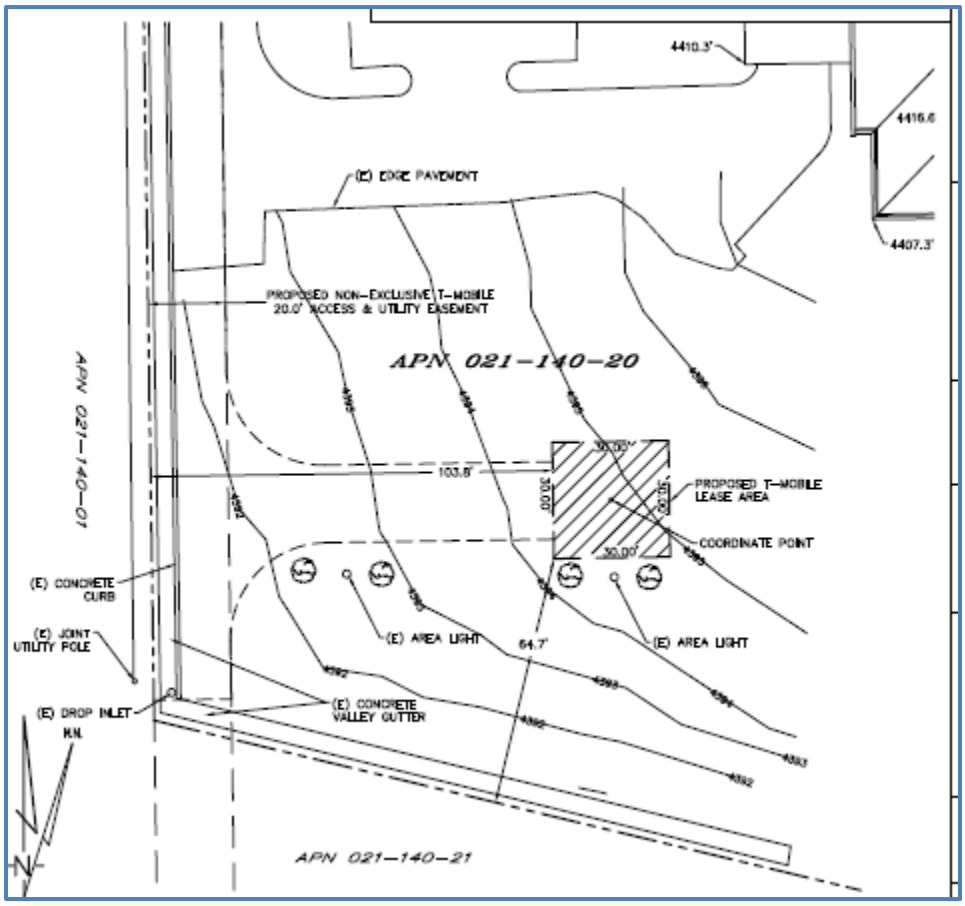
Project Location

Aerial View Looking West

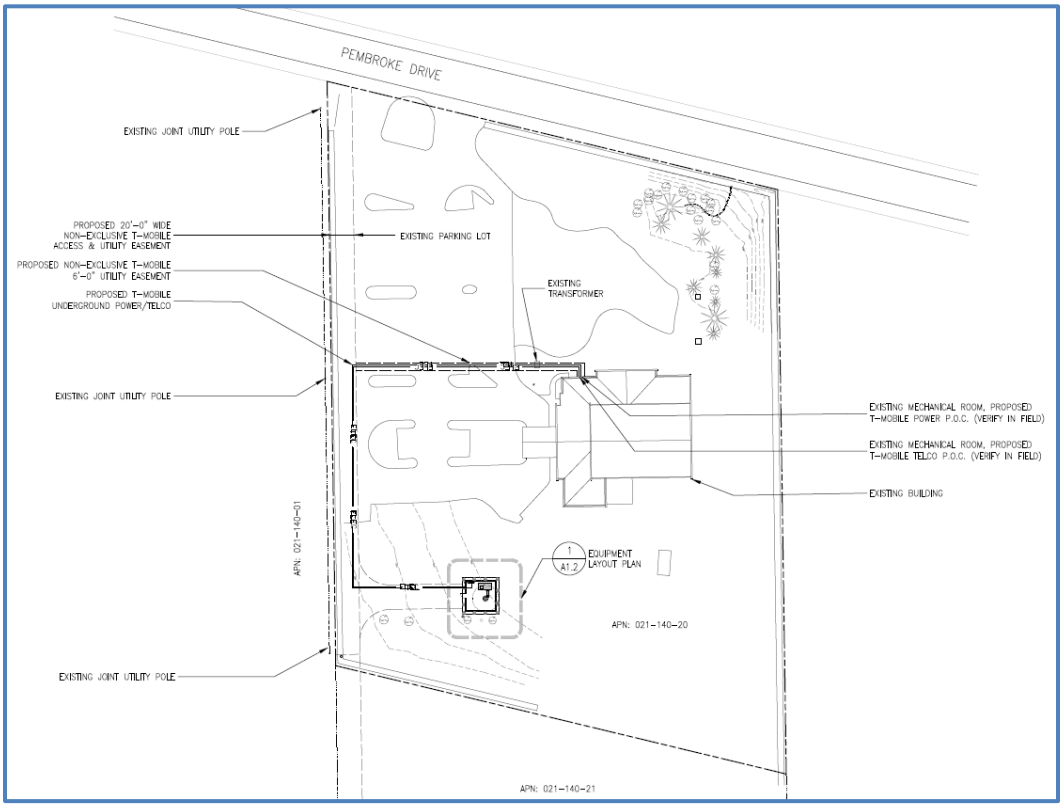
Tower Location Close Up

Site Plan Overview





Overall Site Plan



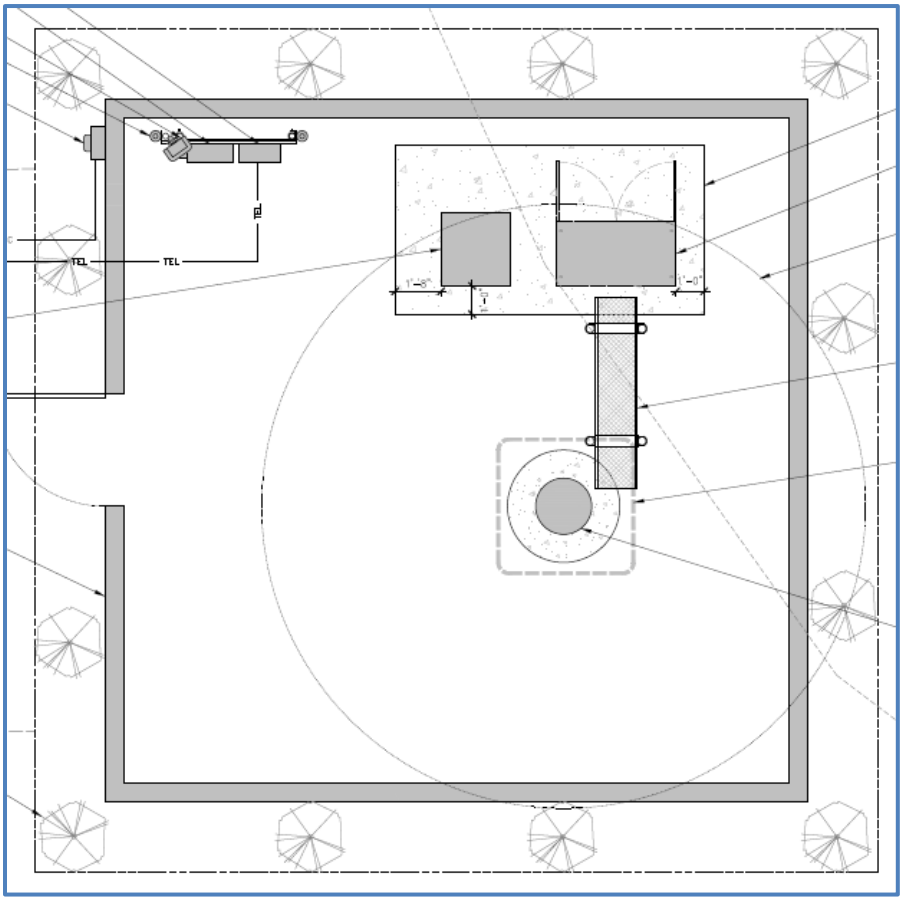
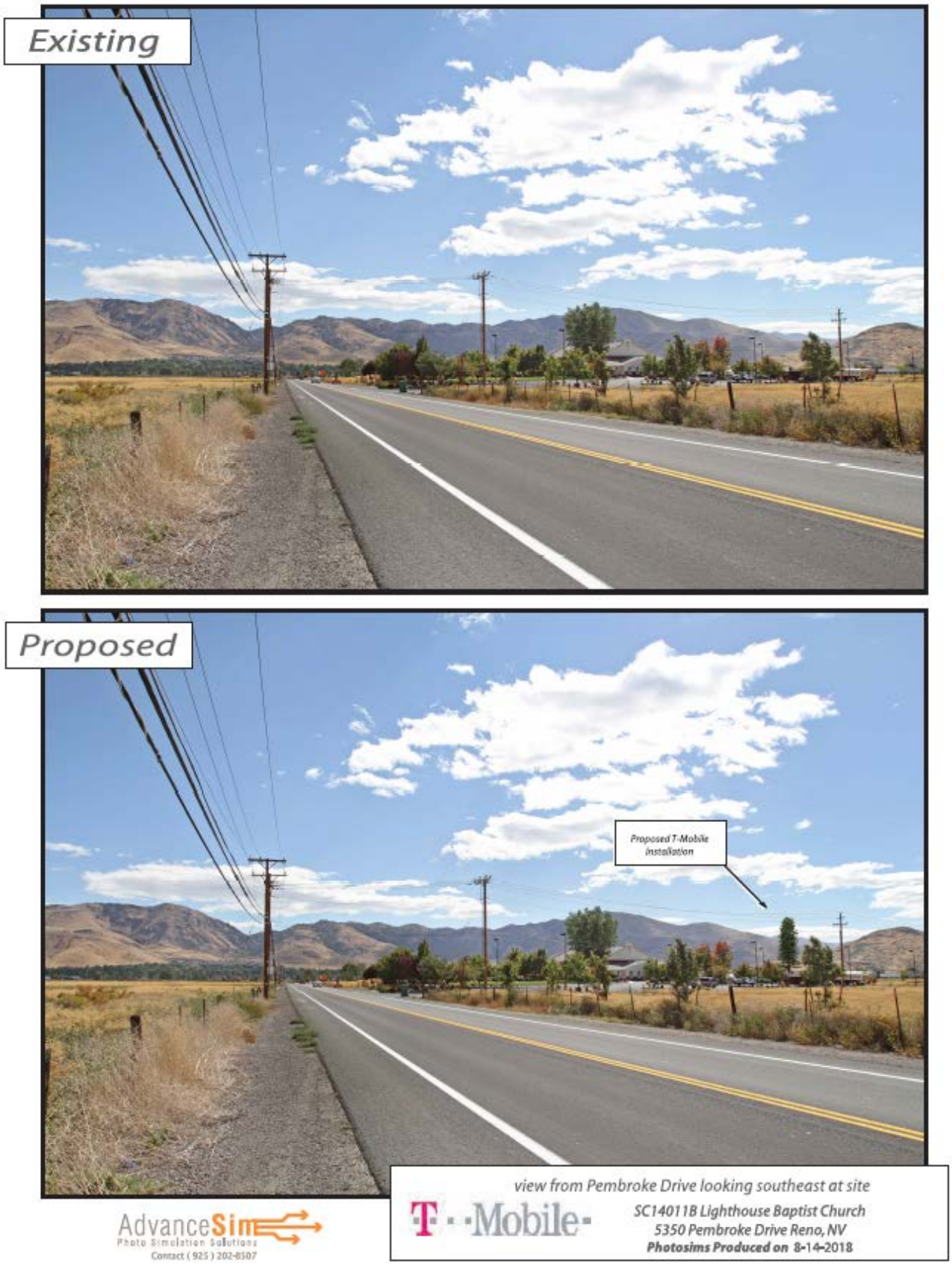
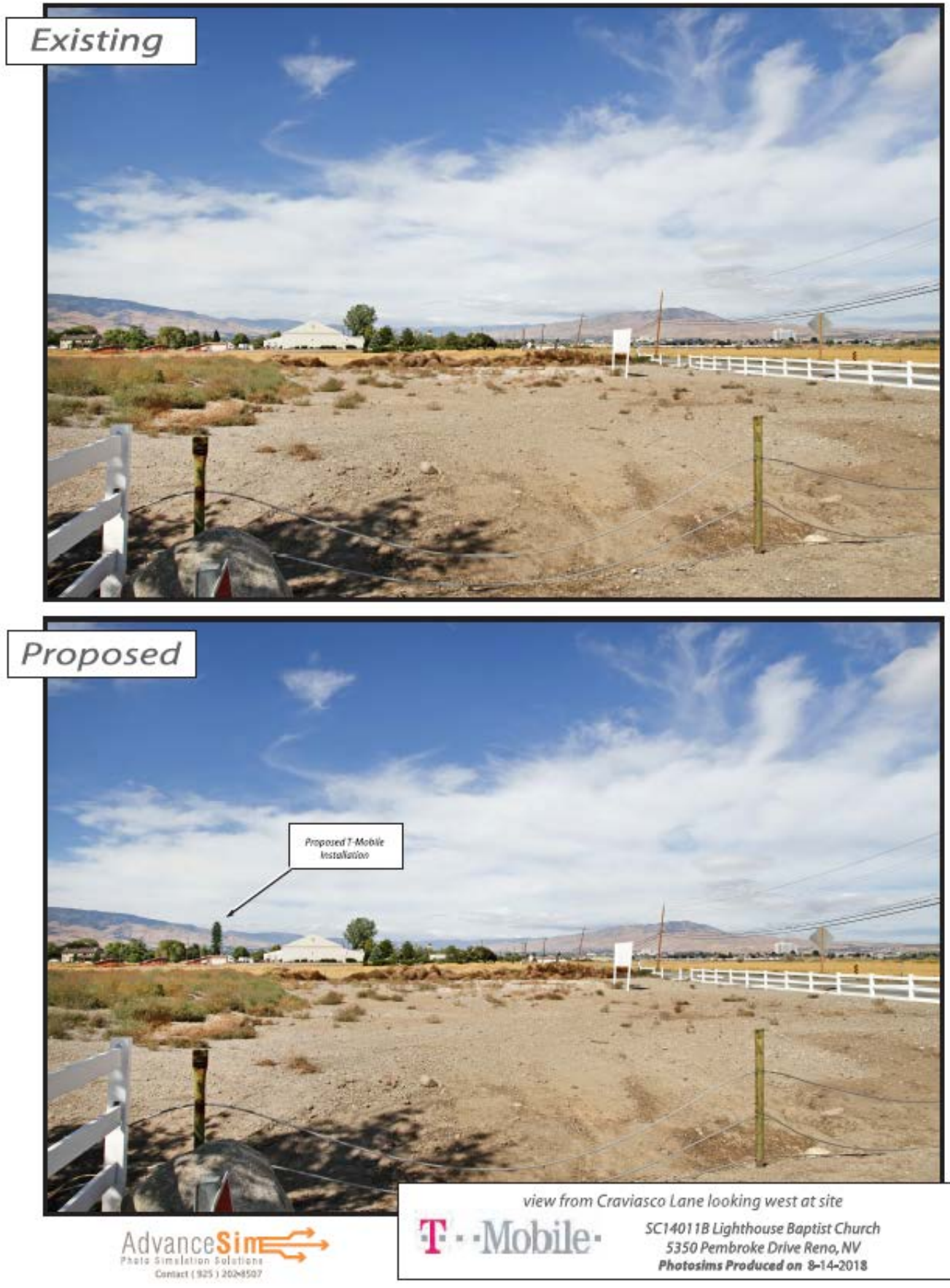


Photo Simulations




Existing
Proposed
Proposed T-Mobile Installation
AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507
view from Craviasco Lane looking west at site
T-Mobile
SC14011B Lighthouse Baptist Church
5350 Pembroke Drive Reno, NV
Photosims Produced on 8-14-2018

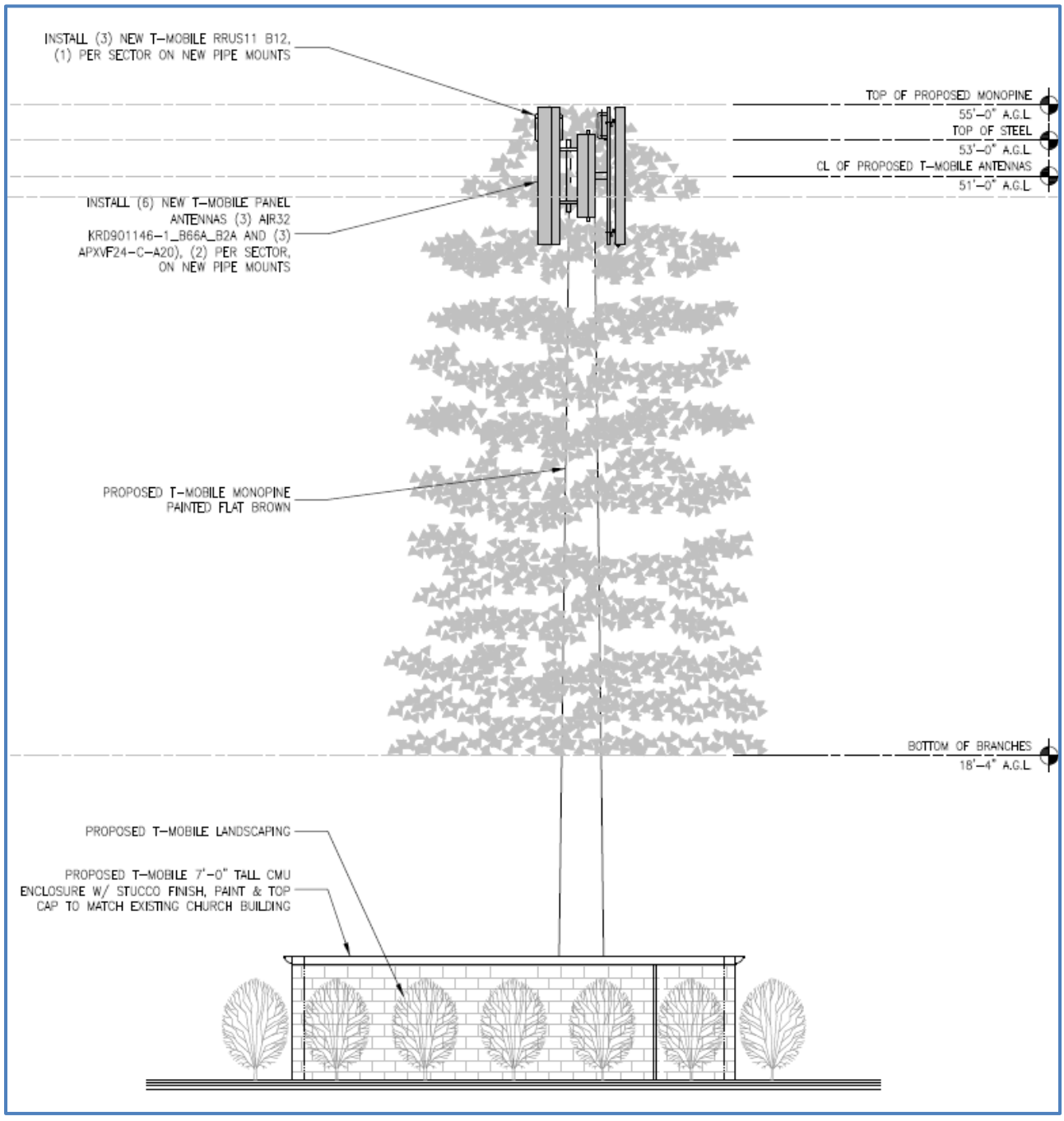

Existing


Proposed
Proposed T-Mobile installation
AdvanceSim
Photo Simulation Solutions
Contact (925) 2024507
view from Derbish Way looking northeast at site
T-Mobile
SC14011B Lighthouse Baptist Church
5350 Pembroke Drive Reno, NV
Photosims Produced on 8-14-2018


Existing


Proposed
Proposed T-Mobile Installation
view from S. McCarran Boulevard looking southeast at site
T-Mobile
SC14011B Lighthouse Baptist Church
5350 Pembroke Drive Reno, NV
Photosims Produced on 8-14-2018
AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

Elevations


INSTALL (3) NEW T-MOBILE RRUS11 B12, (1) PER SECTOR ON NEW PIPE MOUNTS
INSTALL (6) NEW T-MOBILE PANEL ANTENNAS (3) AIR32 KRD901146-1_B66A_B2A AND (3) APXVF24-C-A20), (2) PER SECTOR, ON NEW PIPE MOUNTS
PROPOSED T-MOBILE MONOPINE PAINTED FLAT BROWN
PROPOSED T-MOBILE LANDSCAPING
PROPOSED T-MOBILE 7'-0" TALL CMU ENCLOSURE W/ STUCCO FINISH, PAINT & TOP CAP TO MATCH EXISTING CHURCH BUILDING
TOP OF PROPOSED MONOPINE 55'-0" A.G.L.
TOP OF STEEL 53'-0" A.G.L.
CL OF PROPOSED T-MOBILE ANTENNAS 51'-0" A.G.L.
BOTTOM OF BRANCHES 18'-4" A.G.L.

Project Description and Evaluation

T-Mobile has requested this special use permit in order to construct a new wireless cellular facility consisting of a 55 foot high tower utilizing a stealth design disguised as a pine tree (also known as a "monopine"). The proposed monopine tower will support three antenna arrays, each with six antenna panels, installed at the top of the tower structure with room for future collocation lower down on the tower. T-Mobile is proposing the facility to improve cellular service and coverage to its existing and potential customers. The facility would also potentially improve emergency service communications in the area.

The unmanned facility and associated ground mounted equipment within the 30' x 30' lease area would be enclosed by a 7 foot tall concrete masonry wall. The wall will be treated with a stucco finish designed to match the architecture of the adjacent church building. Although unmanned, the facility will be visited by a technician 1 or 2 times per month to ensure proper maintenance. The applicant estimates that construction of the facility would take approximately 6 weeks.

The project site is on the grounds of the Lighthouse Baptist Church currently operating on the property. The proposed lease pad would be located in an area of existing disturbance and little to no grading will be required. The subject property is abutted by vacant land with a similar General Rural (GR) regulatory zone. A small single family residential subdivision with varying lot sizes lies to the southwest. The nearest dwelling is located southwest of the site approximately 480 feet from the proposed lease pad.

Analysis

Communication facilities are an allowed use in the GR regulatory zone subject to approval of a Special Use Permit by the Board of Adjustment and compliance with certain location and height requirements (see WCC Section 110.324.50(e)). The applicant is not claiming a "significant gap" in coverage and is not utilizing the provisions of Washoe County Code (WCC) Section 110.324.55; therefore, review of the project is proceeding under the "standard" placement criteria and height provisions. The proposed location of the cell tower is not within 1,000 feet of any public trail, but is within the FEMA designated 1% chance floodplain (as is the entire surrounding neighborhood). Engineering is requiring compliance with Article 416 *Flood Hazards* to address potential flood issues.

The subject 4 acre parcel has a regulatory zone of General Rural (GR), which requires a 30 foot building setback from the front and rear property lines and a 50 foot side yard setback. The property is actually a corner lot by code because there is a 36 foot access easement that runs from Pembroke along the western property line. Therefore, the required setback, which in this circumstance is a front yard setback, must be measured from the edge of the 36 foot easement for a total required setback of 66 feet from the western property line. The proposed location complies with required setbacks as the pad is located 103 feet from the west property line (front yard), 64 feet from the south property line (the rear yard), and approximately 260 feet from the east property line (side yard).

Use Type:

Section 110.304.25 Commercial Use Types. Commercial use types include the distribution and sale or rental of goods, and the provision of services other than those classified as civic or industrial use types.

(i) Communication Facilities Communication facilities use type refers to establishments primarily engaged in the transmission and/or receiving of electromagnetic waves. Typical uses include television station, radio stations, satellite dishes, antennas and wireless communication facilities. Refer to Article 324, Communication Facilities, for subcategories of communication facilities.

Section 110.324.40 Wireless Communication/Cellular Facilities: Definitions

Wireless communication facilities, including antennas mounted on structures and freestanding monopoles and lattice towers and supporting equipment which are used for the commercial broadcasting/receiving of telecommunication transmissions that are regulated under the Telecommunications Act of 1996 are a principal use and are classified under the communication facilities use type in Article 304, Use Classification System. The following definitions apply to the regulation of wireless communication facilities contained in this article:

(a) Antenna An antenna is defined for the purposes of Sections 110.324.40 through 110.324.75 as a device that transmits and/or received an electronic signal for the purposes of facilitating the communication of personal wireless services that has the meaning ascribed to it in 47 U.S.C. §332(c)(7)(C) as that provision existed on July 1, 2003.

(5) Monopole Mounted Antenna. A monopole mounted antenna means a communications receiving and/or transmitting device that is attached to a ground mounted, free-standing pole that is erected for the purposes of supporting one (1) or more antennas.

The following placement standards by type of antenna shall be complied with notwithstanding the preferred location and type of antenna enumerated in this section:

(e) Monopole Antenna. The placement of a monopole antenna shall comply with the following criteria:

(1) "Antennas shall be allowed in all Rural Residential, Public/Semi-Public Facilities (PSP), General Commercial (GC), Neighborhood Commercial/Office (NC), Tourist Commercial (TC), Industrial (I), Parks and Recreation (PR), and Specific Plan (SP) regulatory zones. Antennas shall be limited to the building standard height for an allowed main structure plus up to ten (10) feet above that height."

(2) Antennas shall be permitted in the General Rural (GR) and Open Space (OS) land use designations (see Open Space limitations within this article) with the placement standards depicted in Table 110.324.50.1, Antenna Placement Standards.

Antenna Height:

The allowed height of monopole antennas proposed in the GR regulatory zone is governed by the placement standards enumerated in WCC Table 110.324.50.1, as shown below:

Table 110.324.50.1

ANTENNA PLACEMENT STANDARDS

Design Standards	Distance from Residential Property						
Distance from Residentially Zoned Property or Public Paved Right of Way (closest adjacent use will be applied)	50'	200'	400'	600'	1,000'	1,500'	2,000'
Permitted Height of Pole	45'	50'	60'	70'	80'	90'	+100'
Supporting Mechanism for Antenna System	2*	2.5*	3*	4*	5*	6*	+7*

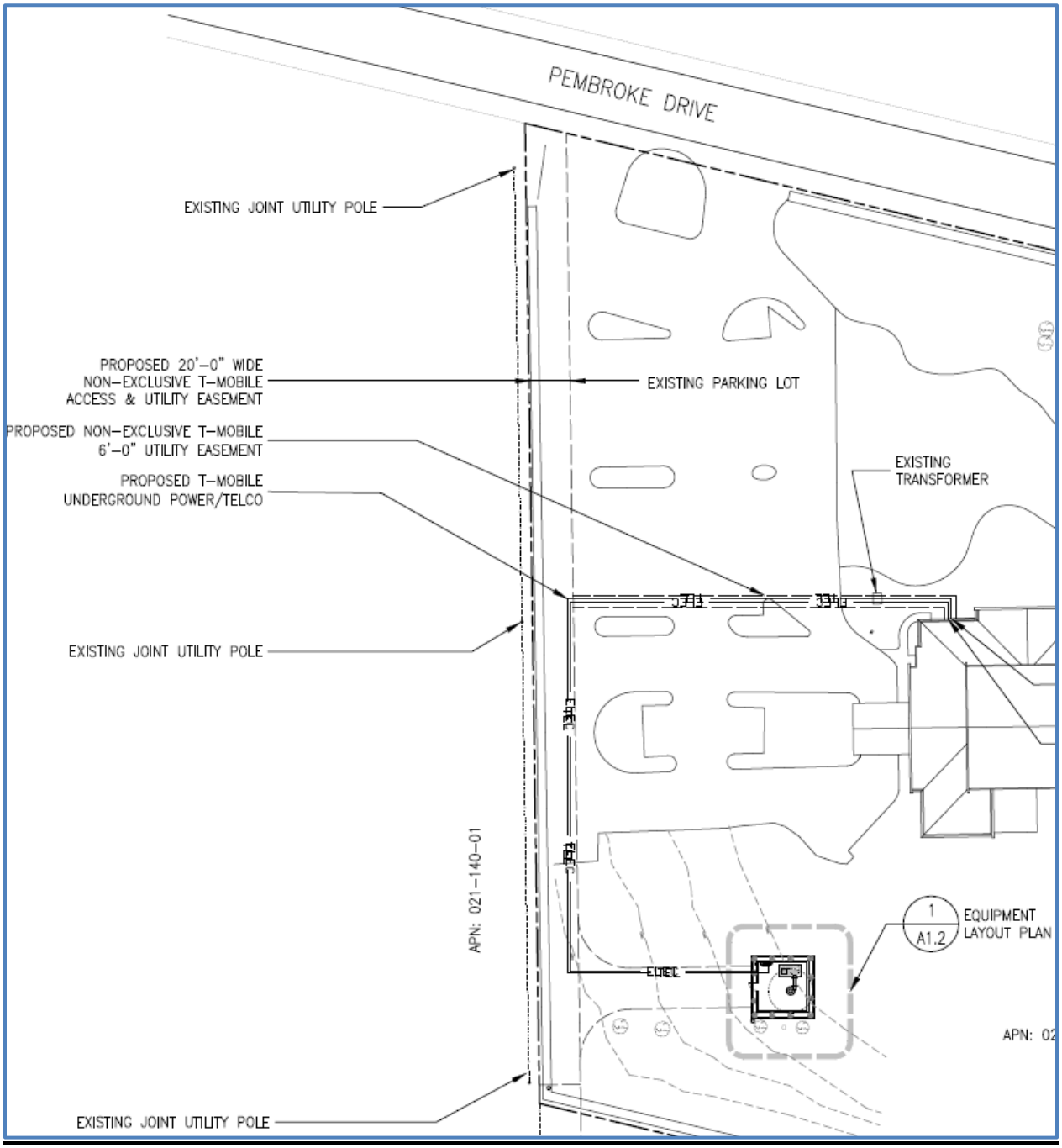
Although the project site is immediately surrounded by properties with a GR regulatory zone, GR is not designated as a "residential" regulatory zone in the Development Code. Therefore, the closest adjacent use to apply under Table 110.324.50.1 to determine permitted pole height is the public paved right of way of Pembroke Drive. The proposed tower location is approximately 400 feet from Pembroke Drive, thus satisfying the required placement standard for the proposed 55 foot height.

Surrounding Zoning and Distance from Pembroke Dr.

Access/Parking/Utilities:

Access to the lease pad will be directly off of Pembroke Drive through an existing 36 foot access easement and paved driveway/parking lot. A 20 foot wide access and utility easement for use by T-Mobile will be provided as shown in the following graphic. The proposed access point complies with the Regional Transportation Commission's Access Management Standards for Collectors regarding driveway spacing. A 6 foot utility easement will run from the western edge of the lease pad to existing power connections adjacent to the church building. Since the facility will be unmanned, no parking improvements are proposed, but there will be ample space for the technician that visits once or twice a month to park adjacent to the lease area. All power and telecommunications to the site will be placed underground.

Site Plan – Access and Utilities



Grading:

Grading details were not provided with the application, but based on the flat topography of the site, staff assumes minimal grading will be necessary to construct the tower, access road, and lease pad. The proposed lease pad is located, however, within the FEMA designated 1% hazard flood area (a.k.a the 100-year floodplain), which may require elevating the lease pad through the placement of fill. Grading of any amount within a FEMA designated flood hazard area requires a grading permit; therefore, staff will review grading plans as part that permitting process. The project will also be required to demonstrate compliance with Development Code Article 416 *Flood Hazards*.

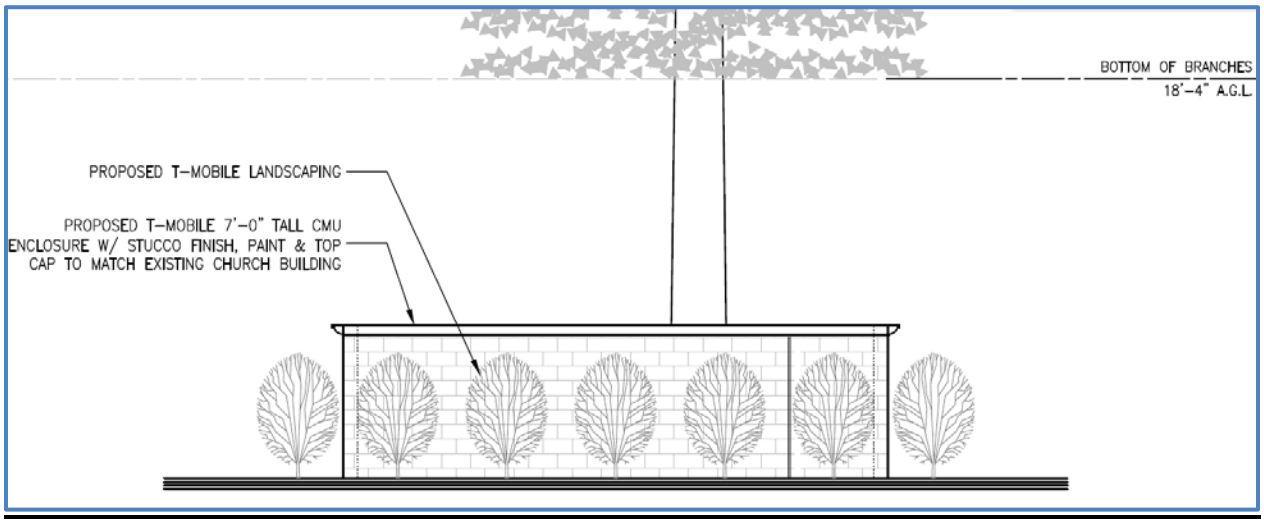
Lighting / Signage:

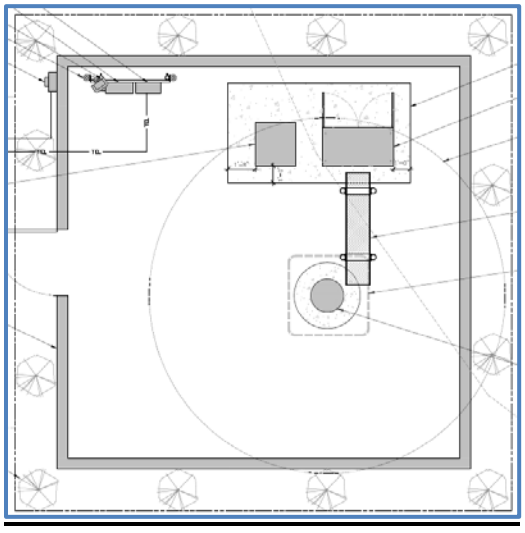
Signage and lighting will be minimal except as required by FAA, FCC, or other jurisdictional entities. A small sign indicating the facility owner and a 24-hour emergency telephone number will be placed on the wall of the lease pad enclosure. One down shielded sensor light will be installed at the radio cabinets, but inside the stucco enclosure, thus ensuring the light will not be visible from the outside. Staff is recommending a condition of approval prohibiting any lighting on the monopine tower (with exception of any lighting required by the FAA for aviation safety purposes).

Landscaping:

The proposed location of the 900 square foot lease pad is in an area of existing disturbance that is not landscaped. The adjacent parking lot and the area in front of the church building are landscaped and exceed code requirements. Per WCC Section 110.412.40, the project is required to provide 180 square feet of landscaping. The applicant is proposing to plant shrubs (Oleanders) around the entire perimeter of the equipment closure wall as shown in the below graphic. Staff feels with the existing landscaping elements already provided on site, and with the proposed shrub plantings, the combined elements satisfy the 180 square feet required.

Proposed Landscaping





Visual Impacts:

The project will create visual impacts to surrounding uses as there are no other tall structures of similar size in the immediate vicinity. The tower will be approximately 20 feet taller than any other structure in the area (staff estimates the adjacent church building is approximately 30 to 35 feet in height). Use of the proposed stealth design, however, should make the structure more compatible with surrounding uses (mainly the church building). In addition, there are a significant number of mature trees along the western approach of Pembroke Drive and in the surrounding neighborhood to the southwest that will help to screen the facility and provide a backdrop for views from the east (see photo below and also the photo simulations). As noted previously, the equipment cabinets (which are usually just screened by a slated chain link fence) will be enclosed by a stucco wall painted and designed to match the architecture of the church building. To minimize potential visual impacts, staff is recommending that no portion of the structure be illuminated (unless required by the FAA). No significant ridgelines will be impacted by the facility. As mentioned previously, the closest adjacent dwelling is approximately 480 feet away.

Pembroke Dr. looking east at the intersection with McCarran Blvd.

Alternative Sites Considered (per WCC 110.324.60(a)(3):

The applicant provided the following response to this requirement:

In choosing new coverage sites the first thing that is looked for are collocation tower opportunities. Within the coverage for this site there were no existing towers identified. The second alternative is to look for any structure that is tall enough to not require the construction of a new tower. There were no transmission lines or buildings tall enough to provide the required rad center. Once it was identified that a new structure was required, we explored several options. The sites that were considered are:

1. The City of Reno was contacted to potentially install a new tower at the City golf course. The City was not interested.
2. Washoe County was contacted regarding an installation with Hidden Valley Regional Park. Washoe County's Regional Open Space & Natural Resource Management Plan has policies in place that do not allow for these facilities within its parks. Furthermore, there are policies in place that require these facilities to be a minimum of 1000 feet away from regional trails systems.
3. Truckee Meadows Water Authority was contacted regarding possible construction at their water tank facility. We met with the water agency on site and their space was very limited. In addition, they did not have adequate power on site and did not have required telephone facilities. We contacted the adjacent neighbor to discuss the potential for a utility easement and they were not interested. Additionally, the impact of bringing the required utilities to the water tank would be significant.
4. The owners of 7415 Native Dancer Place were contacted due to the fact that their parcel is 40 acres. Utilities to the site were an issue and the owners were not interested.
5. Lighthouse Baptist Church was identified due to the fact that it is a large parcel and a non-residential use in a primarily residential area.

Avigation / Airport Authority Review:

The proposed project would be located less than 4,500 feet from the east end of Runway 7/25 at the Reno-Tahoe International Airport, which places the project underneath the approach surface as defined by the Federal Aviation Regulations (FAR) Part 77. The Washoe County Airport Authority, per required compliance with Federal Code, is therefore requesting that the applicant submit the required forms to the Federal Aviation Administration (FAA) to initiate an obstruction analysis. The project must receive a favorable FAA airspace determination and incorporate any changes, special requirements, or supplemental information requested by the FAA in its review. Through this analysis, the FAA will determine whether or not the proposed structure would negatively impact aircraft approaching or departing Runway 7/25 and what, if any, painting, marking, or lighting will be required.

The applicant has submitted the required filing for the FAA analysis, which is currently underway. Staff understands that the outcome of this analysis will not be complete by the time the BOA holds a public hearing on this Special Use Permit and renders a land use decision. Staff will therefore include a condition of approval requiring compliance with the determination of the FAA. Building permits for the project will not be issued if the FAA does not make a favorable airspace determination.

Consistency with the Southeast Truckee Meadows Area Plan:

Policy SETM.2.2 – The installation of new streetlights will be minimized and if approved will be for safety reasons. Any lighting proposed must show how it is consistent with current best practice "dark-sky" standards. Lights shall be shielded to prevent light spillage onto adjacent properties or streets.

Staff Comment: To ensure compliance with this policy, staff is recommending a condition of approval that installation of lighting on the monopine is prohibited (unless required by the FAA for avigation safety purposes).

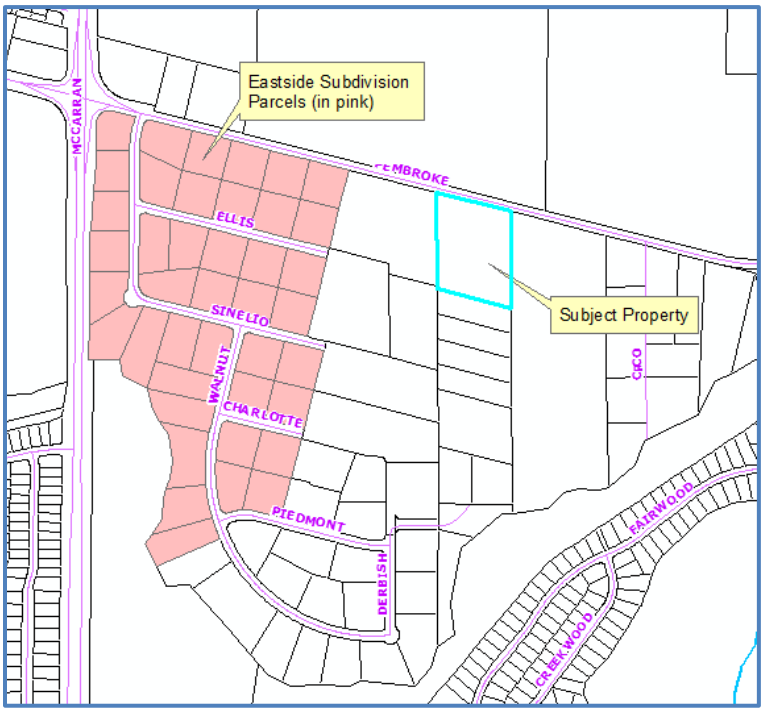
Policy SETM.2.14 – The visual integrity of significant ridgelines in the SETM planning area will be protected by prohibiting structures from being located on ridgelines.

Staff Comment: The proposed project will not impact or be located on any ridgeline.

Policy SETM.3.4 – Commercial or industrial development is not permitted in the Eastside Subdivision area or on Pembroke Drive. No commercial or industrial development will be

considered within established residential neighborhoods, or adjacent to those neighborhoods without a minimum 50 foot buffer zone.

Staff Comment: While the proposed wireless cellular facility is technically a commercial use, it is a use allowed within the General Rural regulatory zone and within residential neighborhoods, subject to approval of a Special Use Permit. Additionally, the use is not proposed to front Pembroke Drive and does not generate additional commercial activity. The use is also more than 50 feet away from the Pembroke Drive right of way and adjacent property lines, so the buffer contemplated in the above policy is being provided. The subject property is not located within the Eastside Subdivision as shown in the below graphic:



South Truckee Meadows/Washoe Valley Citizen Advisory Board (STM/WV CAB)

The proposed project was presented by the applicant's representative at the regularly scheduled Citizen Advisory Board meeting on September 6, 2018. Minutes of this CAB meeting were not available as of the writing of this staff report; however, staff attended the meeting and took notes of the discussion. One person made public comments and the CAB members engaged in a brief discussion. No other public comment has been received by staff from those properties which received public notice. The Board did not express any major concerns and unanimously recommended that the project be approved subject to conditions, to include approval by the FAA (regarding an obstruction analysis) and prohibiting or minimizing lighting.

Reviewing Agencies

The following agencies received a copy of the project application for review and evaluation.

- Washoe County Community Services Department
  - Planning and Building Division
  - Engineering and Capital Projects – Land Development
- Washoe County Health District – Environmental Health
- Truckee Meadows Fire Protection District
- Regional Transportation Commission

- Washoe Storey Conservation District
- Washoe County Airport Authority

Three out of the seven above listed agencies/departments provided comments and/or recommended conditions of approval in response to their evaluation of the project application. A **summary** of each agency's comments and/or recommended conditions of approval and their contact information is provided. The Conditions of Approval document is attached as Exhibit A to this staff report and will be included with the Action Order, if approved.

- Washoe County Planning and Building Division is recommending approval of this application subject to standard development conditions, prohibiting any illumination of the structure, compliance with FAA analysis, and substantial compliance to submitted plans.

  Contact: Chad Giesinger, AICP, Senior Planner, 775.328.3626, cgiesinger@washoecounty.us

- Washoe County Engineering and Capitol Project Division, Land Development proposed conditions of approval requiring the submittal of complete construction plans, BMP's, proof of permanent easements, and compliance with Washoe County Development Code Article 416, *Flood Hazards*.

  Contact: Leo Vesely, P.E., 775.328.2313, Lvesely@washoecounty.us

- Washoe County Airport Authority is requiring that the applicant submit one executed form set of FAA Form 7460-1 to the Chief of Air Traffic Division, FAA Western-Pacific Regional Office for obstruction analysis.

  Contact: Dan Bartholomew, Manager of Planning and Environmental Services, 775.328.6801, dbartholomew@renoairport.com

Staff Comment on Required Findings

Following are required findings from WCC Sections 110.810.30 (*Special Use Permits)* and 110.324.35 (*Communication Facilities)*. All of these findings must be made to the satisfaction of the Board before granting approval of the request. Staff has completed an analysis of the Special Use Permit application, has provided comment under each of the following findings, and has determined that the proposal is in compliance with all of the following findings, provided the recommended conditions of approval are met.

Findings from WCC Section 110.810.30:

1. **Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the Southeast Truckee Meadows Area Plan.**

   Staff Comment: The proposed facility does not conflict with the action programs, policies, standards, and maps of the Master Plan and the Southeast Truckee Meadows Area Plan as discussed previously in this report regarding compliance with applicable area plan policies.

2. **Improvements. That 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.**

   Staff Comment: Staff finds that adequate improvements and facilities have been provided to satisfy this policy. Adequate access and utility easements have been proposed and utilities can easily be extended to the project site. No roadway improvements are necessary other than site specific improvements to access the facility. Sanitation and water supply are not necessary for the project. The Engineering division did not have any comments or concerns relating to drainage, other than compliance with Article 416, Flood Hazards.

3. **Site Suitability. That the site is physically suitable for the type of development and for the intensity of development.**

   Staff Comment: After conducting a site visit and analyzing the application, staff finds that the site is physically suitable for the type and intensity of development proposed. While this commercial venture is located on property with a GR regulatory zone, WCC Section 110.324.50(e) allows the proposed use subject to a special use permit. The project appears to meet all applicable code requirements.

4. **Issuance Not Detrimental. That 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.**

   Staff Comment: Provided the recommended conditions of approval are met, the project will not be significantly detrimental to the public health, safety or welfare. In fact, it could be argued that approval of the facility will improve public health and safety since emergency 911 service coverage will be enhanced. Due to the project design and location, the facility does not appear to be injurious to the property or improvements of adjacent properties, or detrimental to the character of the surrounding area.

5. **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.**

   Staff Comment: There is no nearby military installation within 3,000 feet of the proposed site.

Findings from WCC Section 110.324.35:

1. **Meets Standards. That the wireless communications facility meets all the standards of Sections 110.324.40 through 110.324.60 as determined by the Director of the Planning and Development Division and/or his authorized representative;**

   Staff Comment: The proposed wireless communications facility meets the standards of WCC Sections 110.324.40 through 110.324.60 regarding such standards as height, location, access, photo simulations, setbacks, etc.

2. **Public Input. That public input was considered during the public hearing review process;**

   Staff Comment: Public notification of Special Use Permit Case Number WSUP18-0007 was provided per code. A minimum of 30 separate property owners were noticed. The project was reviewed by the CAB, which unanimously recommended approval of the project subject to conditions, and public comment was received.

3. **Impacts. That the wireless communications facility will not unduly impact the adjacent neighborhoods or the vistas and ridgelines of the County.**

   Staff Comment: Determining whether undue impacts to adjacent neighborhoods would result from approval of the project is subjective and depends upon one's point of view. Surrounding property owners have not commented on the project or expressed concerns. Staff has determined that the project does not impact any ridgelines or significant vistas. The applicant is proposing a stealth design in the form of a pine tree to mitigate potential visual impacts to the extent possible. If approved, staff will include a condition of approval prohibiting lighting on the structure (unless required by the FAA for safety purposes).

Public Notice

NRS 278.315 and WCC Section 110.810.25 require a minimum 500 foot notice radius from the subject parcel and notice of the public hearing to a minimum of 30 separate property owners. The notices must be mailed at least 10 days prior to the public hearing date. Selection of properties within a 500 foot radius did not result in the minimum of 30 separate property owners; therefore,

staff manually selected additional properties to ensure at least 30 properties were selected. Staff attempted to select properties that were near the sight line of the proposed project or which were developed/occupied with dwellings (see public notice map attached as Exhibit C).

A courtesy notification of Special Use Permit Case Number WSUP18-0007 was mailed on August 18, 2018 to a minimum of 30 separate property owners. The notice advised of the tentatively scheduled October 4, 2018 public hearing date before the Washoe County Board of Adjustment (BOA). All notices included a telephone number and email address for the assigned staff planner. Additional legal notices will be mailed to these same properties at least 10 days prior to the public hearing.

Recommendation

Those agencies which reviewed the application recommended conditions in support of approval of the project. Therefore, after a thorough analysis and review, Special Use Permit Case Number WSUP18-0007 is being recommended for approval with conditions. Staff offers the following motion for the Board's consideration.

Motion

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment approve with conditions Special Use Permit Case Number WSUP18-0007 for T-Mobile, having made all four findings required in accordance with Washoe County Code Section 110.810.30; and the three additional findings required by WCC Section 110.324.35 for approval of wireless communication facilities:

Article 810 findings:

1. Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the Southeast Truckee Meadows Area Plan;
2. Improvements. That 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;
3. Site Suitability. That the site is physically suitable for a wireless communication facility, and for the intensity of such a development;
4. Issuance Not Detrimental. That 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;

Article 324 findings:

1. Meets Standards. That the wireless communications facility meets all the standards of Sections 110.324.40 through 110.324.60 as determined by the Director of the Planning and Development Division and/or his authorized representative;
2. Public Input. That public input was considered during the public hearing review process;
3. Impacts. That the wireless communications facility will not unduly impact the adjacent neighborhoods or the vistas and ridgelines of the County.

Appeal Process

Board of Adjustment action will be effective 10 calendar days after the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant, unless the action is appealed to the Washoe County Board of County Commissioners, in which case the outcome of the appeal

shall be determined by the Washoe County Board of County Commissioners. Any appeal must be filed in writing with the Planning and Building Division within 10 calendar days after the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant.

Applicant:	T-Mobile Attn: Karen Lienert 1755 Creekside Oaks Drive #190 Sacramento, CA 95833
Owner:	Lighthouse Baptist Church Reno 5350 Pembroke Drive Reno, NV 89502
Staff Report:	Dan Bartholomew, Manager of Planning and Environmental Services Washoe County Airport Authority

Conditions of Approval

Special Use Permit Case Number WSUP18-0007

The project approved under Special Use Permit Case Number WSUP18-0007 for T-Mobile Lighthouse Baptist Church shall be carried out in accordance with the Conditions of Approval granted by the Board of Adjustment on October 4, 2018. Conditions of Approval are requirements placed on a permit or development by each reviewing agency. These Conditions of Approval may require submittal of documents, applications, fees, inspections, amendments to plans, and more. These conditions do not relieve the applicant of the obligation to obtain any other approvals and licenses from relevant authorities required under any other act or to abide by all other generally applicable Codes.

Unless otherwise specified, all conditions related to the approval of this special use permit shall be met or financial assurance must be provided to satisfy the Conditions of Approval prior to issuance of a grading or building permit. The agency responsible for determining compliance with a specific condition shall determine whether the condition must be fully completed or whether the applicant shall be offered the option of providing financial assurance. All agreements, easements, or other documentation required by these conditions shall have a copy filed with the County Engineer and the Planning and Building Division of the Washoe County Community Services Department.

Compliance with the Conditions of Approval related to this Special Use Permit is the responsibility of the applicant, his/her successor in interest, and all owners, assignees, and occupants of the property and their successors in interest. Failure to comply with any of the conditions imposed in the approval of the Special Use Permit may result in the initiation of revocation procedures.

Washoe County reserves the right to review and revise the Conditions of Approval related to this Special Use Permit should it be determined that a subsequent license or permit issued by Washoe County violates the intent of this approval.

For the purpose of conditions imposed by Washoe County, “may” is permissive and “shall” or “must” is mandatory.

Conditions of Approval are usually complied with at different stages of the proposed project. Those stages are typically:

- Prior to permit issuance (i.e., grading permits, building permits, etc.).
- Prior to obtaining a final inspection and/or a certificate of occupancy.
- Prior to the issuance of a business license or other permits/licenses.
- Some “Conditions of Approval” are referred to as “Operational Conditions.”

These conditions must be continually complied with for the life of the project or business.

FOLLOWING ARE CONDITIONS OF APPROVAL REQUIRED BY THE REVIEWING AGENCIES. EACH CONDITION MUST BE MET TO THE SATISFACTION OF THE ISSUING AGENCY.

Washoe County Planning and Building Division

1. The following conditions are requirements of the Planning and Building Division, which shall be responsible for determining compliance with these conditions.

   Contact: Chad Giesinger, AICP, Senior Planner, 775.328.3626, cgiesinger@washoecounty.us

   a. The applicant shall demonstrate substantial conformance to the plans approved as part of this special use permit. The Planning and Building Division shall determine compliance with this condition.

   b. All related utilities, including telephone and electrical lines connected with the proposed wireless communications facility and within any and all T-Mobile utility easements on the subject site shall be placed underground.

   c. The total height of the cell tower, including all antennas or any other apparatus, shall not exceed 55 feet from finished grade.

   d. The applicant shall submit complete construction plans and building permits shall be issued within two years from the date of approval by Washoe County. The applicant shall complete construction within the time specified by the building permits. Compliance with this condition shall be determined by the Planning and Building Division.

   e. A 7 foot high concrete masonry wall with a stucco finish shall be erected around the entire 30' x 30' foot wireless communications lease area. All associated ground mounted equimpment shall be enclosed within this walled area. The stucco finish shall match the architecture of the adjacent church building. No lighting shall be visible from within this enclosure.

   f. No lighting shall be installed on the cellular facility (unless required by the FAA for avigation safety purposes). In no instance shall reflective metal materials be utilized that could result in light and glare.

   g. The applicant shall attach a copy of the action order granting approval of this project to all administrative permit applications (including building permits) applied for as part of this special use permit.

   h. Prior to building permit issuance, the applicant shall provide proof that the FAA has completed its obstruction analysis and has issued a favorable airspace determination. The applicant shall incorporate any elements required by the FAA regarding painting, marking, or lighting.

   i. All disturbed areas (except for compacted/engineered gravel surfaces) resulting from construction of the project and related access roads and utilities shall be restored/re-vegetated with seed mixes that are native and/or adapted to the area.

   j. A note shall be placed on all construction drawings and grading plans stating:

      NOTE

      Should any cairn or grave of a Native American be discovered during site development, work shall temporarily be halted at the specific site and the Sheriff's Office as well as the State Historic Preservation Office of the Department of Conservation and Natural Resources shall be immediately notified per NRS 383.170

   k. The following **Operational Conditions** shall be required for the life of the project:

i. This Special Use Permit shall expire and become null and void within 2 years from the final date of approval if final building permits have not been issued by said date.

ii. The applicant and any successors shall be responsible for maintenance and repairs of everything within the 30 x 30 foot wireless communications compound and shall be responsible for all maintenance and repairs of the entire wireless communications facility, including required maintenance of the walled enclosure and replacement of any part of the stealth design pine tree should it deteriorate or become damaged. The applicant shall take action not more than 30 days after receiving notification from Washoe County of any damage to the wireless communications facility or the walled enclosure, to include graffiti removal.

iii. If the facility ceases operations, or if abandonment is contemplated, then the operator/owner of record shall notify Washoe County of its intent at least 2 months in advance and shall submit demolition plans to the Washoe County Planning and Building Division. The abandoned site shall be restored to its pre-development condition. The owner shall be responsible for all costs associated with demolition and restoration of the site.

iv. Failure to comply with the Conditions of Approval shall render this approval null and void. Compliance with this condition shall be determined by Washoe County Planning and Building Division.

v. The applicant and any successors shall direct any potential purchaser/operator of the site and/or the special use permit to meet with Washoe County Planning and Building to review conditions of approval prior to the final sale of the site and/or the special use permit. Any subsequent purchaser/operator of the site and/or the special use permit shall notify Washoe County Planning and Building of the name, address, telephone number, and contact person of the new purchaser/operator within 30 days of the final sale.

vi. This special use permit shall remain in effect as long as the subject wireless communications facility is in operation and remains in compliance with the conditions of approval.

Washoe County Engineering and Capital Projects Division

2. The following conditions are requirements of the Engineering and Capital Projects Division, which shall be responsible for determining compliance with these conditions.

   Contact: Leo Vesely, P.E., 775.328.2313, lvesely@washoecounty.us

   a. A complete set of construction improvement drawings, **including an on-site grading plan** (to include the access road), shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. All grading shall comply with Washoe County Code Chapter 110, Article 438, Grading Standards. Silts shall be controlled on-site.

   b. The site is in a FEMA 100-year floodplain, all grading and construction shall be in conformance with the Washoe County Code Article 416.

***** End of Conditions *****

WASHOE COUNTY
COMMUNITY SERVICES DEPARTMENT
Engineering and Capital Projects

1001 EAST 9TH STREET
PO BOX 11130
RENO, NEVADA 89520-0027
PHONE (775) 328-3600
FAX (775) 328.3699

INTEROFFICE MEMORANDUM

DATE: September 10, 2018

TO: Chad Giesinger, Planning and Building Division

FROM: Leo R. Vesely, P.E., Engineering and Capitol Projects Division

SUBJECT: **WSUP18-0007**
APN 021-140-20
T-MOBILE LIGHTHOUSE BAPTIST CHURCH SPECIAL USE PERMIT

Washoe County Engineering and Capital Project staff has reviewed the referenced special use permit case and has the following condition(s) with respect to Drainage (County Code 110.420), Grading (County Code 110.438), Traffic and Roadway (County Code 110.436) or Utilities (County Code 110.422 & Sewer Ordinance).

1. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building permit. Any grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan.

2. Any development with the FEMA flood zone shall be in accordance with the Washoe County Code Article 416 Flood Hazards.

LRV/lrv

Reno-Tahoe International Airport

P.O. Box 12490 • Reno, NV 89510-2490 • (775) 328-6400 • Fax (775) 328-6510

October 31, 2017

Chad Giesinger, AICP
Senior Planner
Washoe County Community Services Department
Planning and Building Division
PO Box 11130
Reno, NV 89520-0027
cgiesinger@washoecounty.us

Re: Lighthouse Baptist Church Project (APN 021-140-20)

Dear Mr. Giesinger:

Thank you for the opportunity to comment on the above referenced project. The proposed project will be located less than 4,500 feet from the east end of Runway 7/25 at the Reno-Tahoe International Airport and underneath the approach surface as defined by Federal Aviation Regulations (FAR) Part 77.

Title 49 US Code Section 44718 and Title 14 Code of Federal Regulations Part 77.9 require that the Federal Aviation Administration (FAA) be notified when a structure is to be installed within 20,000 feet of the Reno-Tahoe International Airport, if that structure exceeds a 100:1 surface from the closest point on the nearest runway.

As currently proposed, the 55' structure will exceed the 100:1 surface. As a result, the Reno-Tahoe Airport Authority (RTAA) requests that *the applicant and/or property owner submit one executed form set of FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Chief, Air Traffic Division, FAA Western-Pacific Regional Office, for obstruction analysis. The application and/or property owner shall receive a favorable FAA airspace determination and incorporate any changes, special requirements, or supplemental information requested by the FAA, in its review.* This notification will allow the FAA to determine whether or not the proposed structure would negatively impact aircraft approaching or departing Runway 7/25 and what, if any, painting, marking or lighting is required.

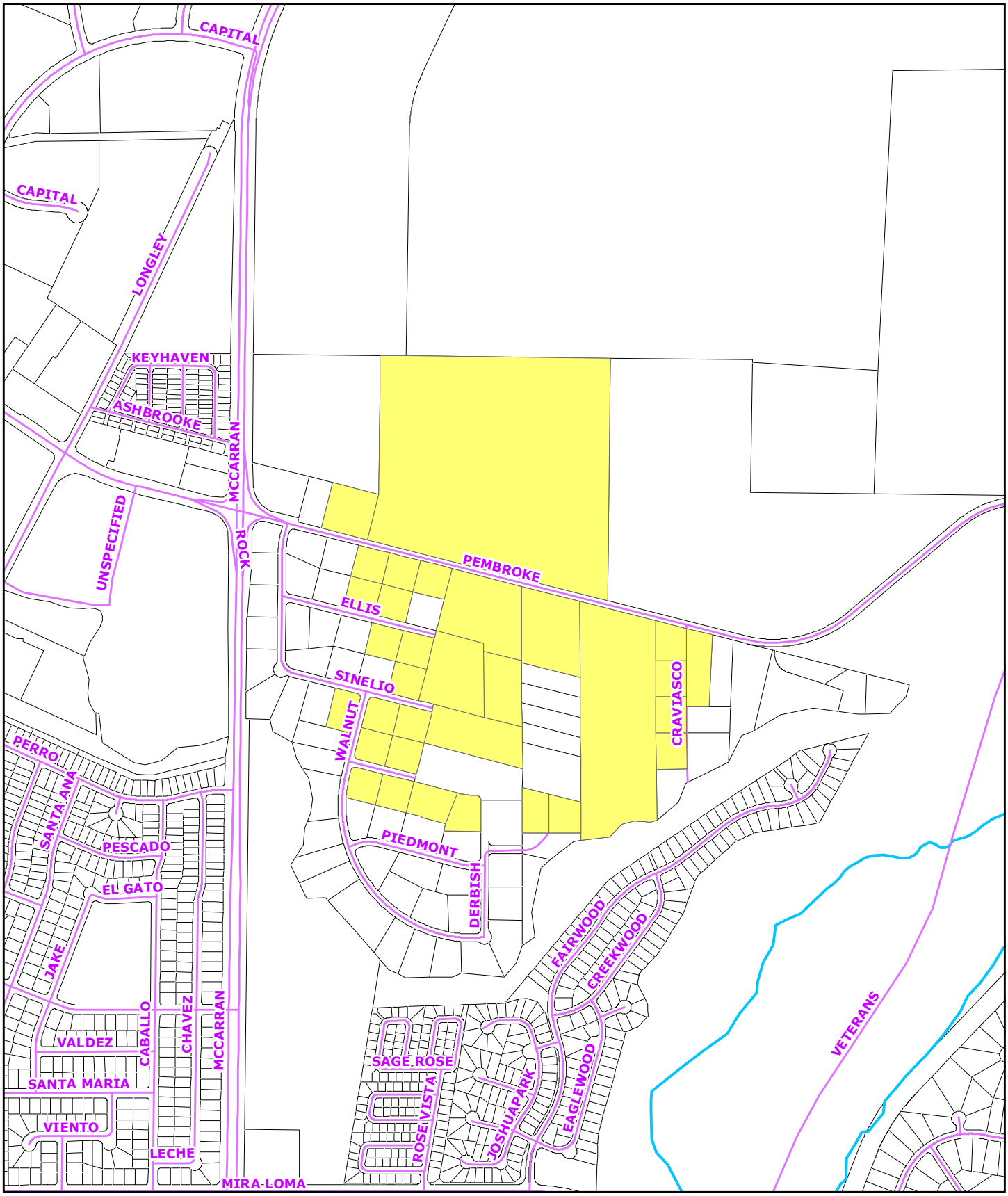
Additionally, should crane use be planned for the construction of this project, the RTAA also requests the following: *The applicant(s) and/or property owner(s) shall submit one executed form set of FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Chief, Air Traffic Division, FAA Western-Pacific Regional Office, for any temporary crane. The application and/or property owner shall receive a favorable FAA airspace determination and incorporate any changes, special requirements, or supplemental information requested by the FAA, in its review.*

Thank you for your continuous cooperation. If you have any questions, please contact me at (775) 328-6476 or lbutterfield@renoairport.com or Dan Bartholomew, Manager of Planning and Environmental Services at (775) 328-6801 or dbartholomew@renoairport.com.

Sincerely,

Lissa K. Butterfield
Senior Airport Planner

WSUP18-0007
EXHIBIT B



WSUP18-0007 (T-Mobile Lighthouse Baptist Church)

PUBLIC NOTICE MAP

Noticed Parcels

0 250 500

Feet

Source: Planning and Building

Date: October, 2017

Community Services Department

WASHOE COUNTY
NEVADA

Post Office Box 11130
Reno, Nevada 89520 (775) 328-3600

WSUP18-0007
EXHIBIT C

Federal Aviation Administration

« OE/AAA

Notice of Proposed Construction or Alteration - Off Airport

Add a new Case Off Airport - Desk Reference Guide V_2017.4.0

Add a New Case Off Airport for Wind Turbines - Met Towers - Desk Reference Guide V_2017.4.0

Project Name: T-MOB-000481973-18 **Sponsor:** T-Mobile West, LLC. - SC

Details for Case : SC14011B

Show Project Summary

Case Status

ASN: 2018-AWP-12893-OE
Status: Accepted
Public Comments: None

Date Accepted: 08/06/2018
Date Determined:
Letters: None
Documents: 08/06/2018 SC14011B_Complian...

Project Documents:
None

Construction / Alteration Information

Notice Of: Construction
Duration: Temporary
if Temporary : Months: 18 Days: 0
Work Schedule - Start:
Work Schedule - End:

For temporary cranes-Does the permanent structure require separate notice to the FAA? To find out, use the Notice Criteria Tool. If separate notice is required, please ensure it is filed. If it is not filed, please state the reason in the Description of Proposal.

State Filing: Not filed with State

Structure Summary

Structure Type: Crane
Structure Name: SC14011B
FDC NOTAM:
NOTAM Number:
FCC Number:
Prior ASN:

Structure Details

Latitude: 39° 29' 43.29" N
Longitude: 119° 44' 28.91" W
Horizontal Datum: NAD83
Site Elevation (SE): 4394 (nearest foot) PASSED
Structure Height (AGL): 75 (nearest foot)
Current Height (AGL): (nearest foot)
** For notice of alteration or existing provide the current AGL height of the existing structure. Include details in the Description of Proposal*

Minimum Operating Height (AGL): 55 (nearest foot)
** For aeronautical study of a crane or construction equipment the maximum height should be listed above as the Structure Height (AGL). Additionally, provide the minimum operating height to avoid delays if impacts are identified that require negotiation to a reduced height. If the Structure Height and minimum operating height are the same enter the same value in both fields.*

Requested Marking/Lighting: None
Other :
Recommended Marking/Lighting:
Current Marking/Lighting: N/A Proposed Structure
Other :
Nearest City: Reno
Nearest State: Nevada
Description of Location: New wireless telecommunications facility located at 5350 Pembroke Drive, Reno, Nevada
On the Project Summary page upload any certified survey.
Description of Proposal: install new CMU wall enclosure, new 55' monopine, 6 new antennas, 3 new RRUs, 1 new equipment cabinet, 2 new 6x12 hybrid cables, 1 new concrete pad, new landscaping, and new power/fiber conduits

Proposed Frequency Bands

Select any combination of the applicable frequencies/powers identified in the Colo Void Clause Coalition, Antenna System Co-Location, Voluntary Best Practices, effective 21 Nov 2007, to be evaluated by the FAA with your filing. If not within one of the frequency bands listed below, manually input your proposed frequency(ies) and power using the Add Specific Frequency link.

Add Specific Frequency

Low Freq	High Freq	Freq Unit	ERP	ERP Unit
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W

← Previous Back to Search Result Next

WSUP18-0007
EXHIBIT D

Federal Aviation Administration

« OE/AAA

Notice of Proposed Construction or Alteration - Off Airport

Add a new Case Off Airport - Desk Reference Guide V_2017.4.0

Add a New Case Off Airport for Wind Turbines - Met Towers - Desk Reference Guide V_2017.4.0

Project Name: T-MOB-000481973-18 **Sponsor:** T-Mobile West, LLC. - SC

Details for Case : SC14011B

Show Project Summary

Case Status

ASN: 2018-AWP-12892-OE
Status: Accepted
Public Comments: None

Date Accepted: 08/06/2018
Date Determined:
Letters: None
Documents: 08/06/2018 SC14011B Lighthou...
08/06/2018 SC14011B_Complian...

Project Documents:
None

Construction / Alteration Information

Notice Of: Construction
Duration: Permanent
if Temporary : Months: Days:
Work Schedule - Start:
Work Schedule - End:

For temporary cranes-Does the permanent structure require separate notice to the FAA? To find out, use the Notice Criteria Tool. If separate notice is required, please ensure it is filed. If it is not filed, please state the reason in the Description of Proposal.

State Filing: Not filed with State

Structure Summary

Structure Type: Monopole
Structure Name: SC14011B
FDC NOTAM:
NOTAM Number:
FCC Number:
Prior ASN:

Structure Details

Latitude: 39° 29' 43.29" N
Longitude: 119° 44' 28.91" W
Horizontal Datum: NAD83
Site Elevation (SE): 4394 (nearest foot) PASSED
Structure Height (AGL): 55 (nearest foot)
Current Height (AGL): (nearest foot)
**** For notice of alteration or existing provide the current AGL height of the existing structure. Include details in the Description of Proposal***

Minimum Operating Height (AGL): (nearest foot)
**** For aeronautical study of a crane or construction equipment the maximum height should be listed above as the Structure Height (AGL). Additionally, provide the minimum operating height to avoid delays if impacts are identified that require negotiation to a reduced height. If the Structure Height and minimum operating height are the same enter the same value in both fields.***

Requested Marking/Lighting: None
Other :
Recommended Marking/Lighting:
Current Marking/Lighting: N/A Proposed Structure
Other :
Nearest City: Reno
Nearest State: Nevada
Description of Location: New wireless telecommunications facility located at 5350 Pembroke Drive, Reno, Nevada
On the Project Summary page upload any certified survey.
Description of Proposal: install new CMU wall enclosure, new 55' monopine, 6 new antennas, 3 new RRUs, 1 new equipment cabinet, 2 new 6x12 hybrid cables, 1 new concrete pad, new landscaping, and new power/fiber conduits

Proposed Frequency Bands

Select any combination of the applicable frequencies/powers identified in the Colo Void Clause Coalition, Antenna System Co-Location, Voluntary Best Practices, effective 21 Nov 2007, to be evaluated by the FAA with your filing. If not within one of the frequency bands listed below, manually input your proposed frequency(ies) and power using the Add Specific Frequency link.

Add Specific Frequency

Low Freq	High Freq	Freq Unit	ERP	ERP Unit
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W

Previous Back to Search Result Next

WSUP18-0007
EXHIBIT D

Environmental Assessment Specialists, Inc.

Airspace / TERPS Report & AM Station Screening

Client: T-Mobile West, LLC

Site ID: SC14011B

Site Name: Lighthouse Baptist Church

Structure Type: New Monopine

Coordinates:

Latitude: 39° 29' 43.29" N

Longitude: 119° 44' 28.91" W

Address:

5350 Pembroke Drive

Reno, NV 89502

REPORT FINDINGS:

Structure Height:

Notice Required: Exceeds Notice Slope Criteria.

Antenna Height:

Notice Required.

Crane Height:

Notice Required.

AM STATION SCREENING:

One AM Station within 3.2 km search radius; No Action Required.

****
* Federal Airways & Airspace *
* Summary Report: New Construction *
* Antenna Structure *
****

Airspace User: Remington E Leaver

File: SC14011B

Location: Sparks, NV

Latitude: 39°-29'-43.29" Longitude: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT.....55 ft.
OVERALL HEIGHT AMSL.....4449 ft.
SURVEY HEIGHT AMSL.....4449 ft.

NOTICE CRITERIA
FAR 77.9(a): NNR (DNE 200 ft AGL)
FAR 77.9(b): NR (Exceeds Notice Slope, Maximum: 4444 ft.)
FAR 77.9(c): NNR (Not a Traverse Way)
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for RNO
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for N86
FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required
NNR = Notice Not Required
PNR = Possible Notice Required (depends upon actual IFR procedure)
For new construction review Air Navigation Facilities at bottom of this report.

Notice to the FAA is required because height exceeds Notice Slope criteria.
The maximum height to avoid notice is 4444 ft AMSL.

OBSTRUCTION STANDARDS
FAR 77.17(a)(1): DNE 499 ft AGL
FAR 77.17(a)(2): DNE - Airport Surface
FAR 77.19(a): DNE - Horizontal Surface
FAR 77.19(b): DNE - Conical Surface
FAR 77.19(c): DNE - Primary Surface
FAR 77.19(d): DNE - Approach Surface
FAR 77.19(e): DNE - Approach Transitional Surface
FAR 77.19(e): DNE - Abeam Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: RNO: RENO/TAHOE INTL
Type: A RD: 4485.748 RE: 4399.7
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Height No Greater Than 200 feet AGL.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Primary Surface: DNE
VFR Approach Surface: DNE
VFR Transitional Surface: DNE

The structure is within VFR - Traffic Pattern Airspace Runway Side Area. Structures that exceed horizontal, conical, and/or 500' AGL will receive a hazard determination from the FAA.

The structure is within VFR - Traffic Pattern Airspace Climb/Descent Area.
Structures exceeding the greater of 350' AAE, 77.17(a)(2), or VFR horizontal
and conical surfaces will receive a hazard determination from the FAA.
Maximum AMSL of Climb/Descent Area is 4764 feet.

VFR TRAFFIC PATTERN AIRSPACE FOR: N86: SPANISH SPRINGS
Type: A RD: 62497.32 RE: 4600
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Primary Surface: DNE
VFR Approach Surface: DNE
VFR Transitional Surface: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
FAR 77.17(a)(3) Departure Surface Criteria (40:1)
DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
The Maximum Height Permitted is 9000 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
NV78	HEL	REMSA/CARE FLIGHT	310.98	.86	+49	

No Impact to Private Landing Facility
Structure is beyond notice limit by 225 feet.

NV57	HEL	RENOWN RGNL MEDICAL CENTER	305.24	3.08	-55	

No Impact to Private Landing Facility
Structure 55 ft below heliport.

NV69	HEL	NORTHERN NEVADA MEDICAL CENT	36.56	3.35	-11	

No Impact to Private Landing Facility
Structure 11 ft below heliport.

NV58	HEL	ST MARY'S RGNL MEDICAL CENTE	302.33	4.23	-151	

No Impact to Private Landing Facility
Structure 151 ft below heliport.

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND ANGLE	APCH BEAR

RNO CO ON A/G 281.55 6376 -11 NV RNO RTR 1 -
.1
Notice Required. Exceeds Communication Facility EMI Notice Criteria.

RNO ATCT ON A/G 275.97 9260 -63 NV RENO/TAHOE INTERN -
.39
Notice Not Required for Stations operating with an ERP no greater than 3500 watts and frequencies are within the FAA/FCC co-location policy frequency bands. If ERP of 3500 watts is exceeded notice to the FAA is required.

RNO LOCALIZER I 110.9 235.38 9582 +29 NV RWY 16R RENO/TAHO
.17 164
AGY LOCALIZER I 109.9 314.67 11041 +16 NV RWY 34L RENO/TAHO
.08 344
RNO RADAR ON 279.25 11419 -34 NV RENO/TAHOE INTERN -
.17
No Impact. EMI Notice is not required for this structure.
The studied location is within 5 NM of a Radar facility.
The calculated Radar Line-Of-Sight (LOS) distance is: 164 NM.
This location and height is within the Radar Line-Of-Sight.

FMG VORTAC R 117.9 61.46 27390 -1501 NV MUSTANG -
3.14
Alert! IFR Notice is not required for this structure.
Predict within Final Segment of Approach plus Fix Error Area.
Within FAR 77.9 IFR Notice Requirement Area for RNO: VOR-D
The maximum IFR No Notice Height for new construction is: 5700' AMSL.

RNO CO ON A/G 62.58 27515 -1532 NV RNO RTR 2 -
3.19
KRGX RADAR WXL Y 39.76 122784 -3940 NV RENO WXL -
1.84
SWR VOR/DME R 113.2 232.31 188399 -4401 CA SQUAW VALLEY -
1.34
HZN VORTAC R 114.1 87.67 209994 +364 NV HAZEN
.10

CFR Title 47, §1.30000-§1.30004
AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station. Movement Method Proof as specified in §73.151(c) is not required.
Please review 'AM Station Report' for details.

Nearest AM Station: KXEQ @ 2522 meters.

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08-06-2018
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AIRSPACE/ TERPS REPORT

› AM STATION STUDY ‹

WSUP18-0007
EXHIBIT D

Welcome, Remington (rleaver). Contacts & Escalation (PDF) | Logout

AM Search | My Searches | My Account

Results for search: SC14011B

Search Date: 8/6/2018 2:51:19 PM

Client: T-Mobile **Tower Height:** 55.0 ft **Location:** N39-29-43.29 W119-44-28.91 NAD-83

*** CR - FCC Current Rules Search**

Callsign	Distance (km)	Status	Bearing (to)	Bearing (from)	Latitude	Longitude	Electrical Height (deg) @ AM Frequency	Ant. Mode	Freq (kHz)	Hours	Power (kW)	City	State	Distance (in wavelength)	* CR Distance	* CR Electrical Height	*CR FCC Action Criteria Results
KIHM	3.02	L	47.4	227.4	N39-30-50	W119-42-52	18.5	DAN	920	N	0.85	RENO	NV	9.27	Negative	Negative	**Negative**

New AM Detuning Work Request Form

There are directional antenna AM station(s) within 3.2 km or for non-directional antenna AM station(s) within 1.2 km distances from the coordinates you have entered for your site in our initial "default" search and summarized by AM station and pattern above on the left side tables.

Under the current FCC rules adopted in February of 2014 the submitted coordinates MAY be AM negative based on distance or the tower structure height MAY be below the threshold requiring FCC rules mandated coordination. The results of the search using the current rules FCC criteria which is both distance and structure height based is summarized above on the right side tables by AM station and pattern.

IMPORTANT We will review all existing tower sites which MAY be equipped with legacy AM detuning apparatus installed on them which lie within the former FCC rules distances and now lie outside of the current FCC rules distances. Each site will be reviewed individually in the area between current and former FCC rules to protect you from FCC rules violations.

Current FCC rules do require the maintenance of existing AM detuning systems regardless of distance.

Based on our research if there is no AM detuning installed on an existing tower and there is no overall structure height change taking place we will be sending you a manually generated "AM Negative Certificate" letter or a "No AM Action Required" letter where applicable within a few hours. There is NO CHARGE to you for this review or documents. Existing sites which are found to have AM detuning installed or sites which screen positive for distance and structure height under the current FCC rules and are undergoing a height change of 5 electrical degrees at the affected AM station's operating frequency will receive a proposal (POR) within 48 hours for necessary AM work to assure full compliance. Please continue to Step 2 of the screening process.

Sitesafe allows you to download AM Regulatory Certificates automatically if applicable. We offer downloadable AM compliance certificates for: 1) All building and roof top installations. 2) All new or existing structure types under 58 feet tall. 3) New build (raw land) antenna support structures and towers screening FCC negative under the current rules criteria.

Please click the link if offered to obtain your 58 foot and under structure certificate.

Your submitted overall antenna support structure height is 58 feet or less above ground level (AGL) and qualifies for an automatic AM negative finding regardless of distance and structure type. Click here to download an AM Compliance Certificate under the current FCC rules. No further AM Actions are required at this time.

For New Build sites and Building Roof Tops sites: Please indicate in "Site Type" pull down menu for Roof Tops/Building Mounted or New Build Structure. A new web page will appear offering the downloadable AM Regulatory Certificate when applicable. New build sites showing any FCC positive returns at the upper right and all existing structure sites not meeting any of the above require completing all of Step 1 and 2. If you have any questions, please send email to AMdetune@sitesafe.com.

Step 1 of 2:

1) Site Type:

You are requesting the work at site type [ ]

Clicking on "Roof Top or Building Mounted Antennas" will offer a free pdf download for an AM compliance certificate under current FCC rules.

2) User Type:

You are requesting the work as the [Contractor Representing Structure Owner]

3) Type of Action:

This request pertains to a/an [New Build (No Current Structure)]

A new structure (monopole, self-support, guyed, etc.) is being built and construction has not started

[Step 2]

8618 Westwood Center Dr, Suite 315
Vienna , VA 22182
703-276-1100
www.sitesafe.com

****
* AM RADIO STATIONS *
* Disturbance of AM Broadcast Station Antenna Pattern *
* CFR Title 47, Part 1, Subpart BB *
****

File: SC14011B

LATITUDE: 39°-29'-43.29" (NAD83) LONGITUDE: 119°-44'-28.91" (NAD83)

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST
KXEQ	1340	977	N	T	2522	357.78	39°-31'-05	119°-44'-33	RENO	NV

This station has a current license.
The authorized directional antenna pattern is theoretical.
This station is operating a non-directional type antenna system.
The electrical height of the studied antenna is: 27°.

Your structure is not within 1 wavelength of this station. The wavelength
for this AM station is 224 meters. The ciritcal tower height is 37 meters.

CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST
KBZZ	1230	1,000	N	T	2992	46.55	39°-30'-50	119°-42'-58	RENO	NV

This station has a current license.
The authorized directional antenna pattern is theoretical.
This station is operating a non-directional type antenna system.
The electrical height of the studied antenna is: 25°.

Your structure is not within 1 wavelength of this station. The wavelength
for this AM station is 244 meters. The ciritcal tower height is 41 meters.

CALL	FREQ	POWER	ANT	P	DIST	BEARING	NAD83	NAD83

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CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST
KIHM	920	4,000	D	T	3027	47.17	39°-30'-50	119°-42'-56	RENO	NV

This station has a current license.
The authorized directional antenna pattern is theoretical.
This station is operating a directional type antenna system.
The electrical height of the studied antenna is: 19°.

The studied structure is not within 3000 meters of this AM station.
10 Wavelengths = 3259 meters.

CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST
KZTQ	1270	13,000	D	T	7861	57.27	39°-32'-01	119°-39'-52	SPARKS	NV

This station has a current license.
The authorized directional antenna pattern is theoretical.
This station is operating a directional type antenna system.
The electrical height of the studied antenna is: 26°.

The studied structure is not within 2361 meters of this AM station.
10 Wavelengths = 2361 meters.

CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST
KNNR	1400	1,000	N	T	8275	353.69	39°-34'-10	119°-45'-07	SPARKS	NV

This station has a current license.
The authorized directional antenna pattern is theoretical.
This station is operating a non-directional type antenna system.
The electrical height of the studied antenna is: 28°.

Your structure is not within 1 wavelength of this station. The wavelength
for this AM station is 214 meters. The ciritcal tower height is 36 meters.

CALL SIGN	FREQ KHz	POWER Watts	ANT MOD	P T	DIST Meters	BEARING Degrees	NAD83 LATITUDE	NAD83 LONGITUDE	CITY	ST

---- ---- ------- --- - ------ ------- ---------- ----------
-- --------------- --
KCKQ 1180 4,000 D T 12617 313.55 39°-34'-25 119°-50'-
52 SPARKS NV
KFOY 1060 5,000 D T 12617 313.55 39°-34'-25 119°-50'-
52 SPARKS NV
KPLY 630 1,000 D S 12617 313.55 39°-34'-25 119°-50'-
52 RENO NV
KHIT 1450 1,000 N T 12659 313.76 39°-34'-27 119°-50'-
52 RENO NV
KXTO 1550 94 N T 12985 314.65 39°-34'-39 119°-50'-
56 RENO NV

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DEFINITIONS:

SIGNIFICANT MODIFICATION: A significant modification of a tower in the immediate
vicinity of an AM station is defined in CFR Title 47, Part 1.30002, as follows;
(1) any change that would alter the tower's physical height by 5 electrical
degrees or more at the AM frequency; or
(2) in addition or replacement of one or more antennas or trnasmission lines on
a tower that has been detuned or base-insulated.

The addition or modification of an antenna or antenna-supporting structure on a
building shall be considered a construction modification subject to the analysis
and notice requirements of this subpart if and only if the height of the antenna
supporting structure alone exceeds the thresholds in paragraphs (a) and (b) of
this section.

CALL SIGN: The Call Sign of the station or application. For applications and
construction permits which do not have Call Signs a value of 'NEW' is used.

FREQUENCY: in Kilohertz

POWER: The nominal power of the station, as defined in Section CFR 73.14. This is
not necessarily the effective radiated power, the transmitter power, the antenna
input power, etc.

ANT MOD: Antenna Mode, The mode of the complete antenna system. Indicates
directional or non-directional. (D = Directional and N = Non-Directional)
If a station is directional at one time during a day and non-directional
at another time it is considered to be directional for the purpose of
Movement Method Proof. If the same station has multiple locations these
are listed as separate AM stations with the same Call Sign.

PT: The type of antenna pattern which has been notified to (or by) foreign
countries.

DIST Meters: This is the calculated distance (in meters) between your proposed
site and the latitude/longitude coordinates specified by the FCC data.

Bearing Degrees: This is the true bearing from your proposed site to the station.

LATITUDE: This is the latitude of the AM Station in NAD 1983 coordinates.

LONGITUDE: This is the longitude of the AM Station in NAD 1983 coordinates.

ST: This is the state where the AM Station is located.

The material in this report on AM radio stations was obtained from the FCC who
provided the data on an 'as-is' basis. Therefore, Federal Airways & Airspace®
disclaims all warranties with regard to the contents of these files, including
their fitness for your use. In no event shall Federal Airways & Airspace® be
liable for any special, indirect, or consequential damages whatsoever resulting
from loss or use, data or profits, whether in connection with the use or
performance of the contents of these files, action of contract, negligence, or
other action arising out of, or in connection with the use of the contents of
these files. Data conversion of the FCC data from NAD27 to NAD83 was accomplished
using the USGS NADCON210 software program.

AIRSPACE/ TERPS REPORT

› ADDITIONAL ‹

WSUP18-0007
EXHIBIT D

****
* PUBLIC AIRPORTS IN PROXIMITY OF CASE *
****

Airspace User: Remington E Leaver

File: SC14011B

LATITUDE: 39°-29'-43.29" LONGITUDE: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
RNO	AIR	RENO/TAHOE INTL	280.44	1.261	+35	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) but EXCEEDS FAR 77.9(b) Notice Criteria for this airport. You must notify the Federal Aviation Administration using a FAA Form 7460-1 a minimum of 30 days prior to your construction start date. As a minimum, please review reports for FAR Part Obstruction Surfaces, Air Navigation and Communication facilities.

EXCEEDS FAR 77.9(b)(1) Notice Criteria by: 5 feet.

You are 4485 feet from the nearest runway threshold and the threshold elevation is 4400 feet. Please review runway analysis for remaining airport surfaces.

This airport has both Circling and Straight-In Instrument Procedures. Please review published US Terminal (TERPS®) Approach Procedures for this landing facility.

DNE FAR 77.9 IFR Straight-In Notice Criteria for RNO

Category 'D' Circling Approach Area extends 3.78 NM from each runway.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
N86	AIR	SPANISH SPRINGS	4.05	10.562	-171	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 62497 feet from the nearest runway threshold and the threshold elevation is 4600 feet. Please review runway analysis for remaining airport surfaces.

This facility has a circling approach procedure. Circling procedures have a Straight-In segment. The site can be out of the circling approach area and still be in the straight in approach segment. Please review published US Terminal Procedures for this landing facility to determine what impact (if any) this site has on the procedure(s) and/or airport.

DNE 77.9 IFR Straight-In Notice Criteria N86

Category 'A' Circling Area extends 1.30 NM from all runways.
Category 'B' Circling Area extends 1.84 NM from all runways.
Category 'C' Circling Area extends 2.89 NM from all runways.
Category 'D' Circling Area extends 3.78 NM from all runways.
Category 'E' Circling Area extends 4.73 NM from all runways.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
RTS	AIR	RENO/STEAD	328.87	12.1	-601	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 70098 feet from the nearest runway threshold and the threshold elevation is 5044 feet. Please review runway analysis for remaining airport surfaces.

This facility has a circling approach procedure. Circling procedures have a Straight-In segment. The site can be out of the circling approach area and still be in the straight in approach segment. Please review published US Terminal Procedures for this landing facility to determine what impact (if any) this site has on the procedure(s) and/or airport.

DNE 77.9 IFR Straight-In Notice Criteria RTS

Category 'B' Circling Approach Area extends 1.84 NM from each runway.

FACIL IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
A34	AIR	DAYTON VALLEY AIRPARK	150.76	17.668	+35	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 107172 feet from the nearest runway threshold and the threshold elevation is 4414 feet. Please review runway analysis for remaining airport surfaces.

No Circling or Straight-In Instrument Approach Procedures were found

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EXHIBIT D

for this landing facility or your proposed location is greater than
10 nautical miles from the airport. No Expected TERPS® impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
CXP	AIR	CARSON	178.7	18.176	-255	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this
airport. However, you may EXCEED other Notice Standards. As a minimum,
please review reports for FAR Part 77 Obstruction Surfaces, Air
Navigation and Communication facilities.

You are 109684 feet from the nearest runway threshold and the threshold
elevation is 4705 feet. Please review runway analysis for remaining
airport surfaces.

This airport has Instrument Procedures. Please review published US
Terminal (TERPS®) Approach Procedures for this landing facility to
determine impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
TRK	AIR	TRUCKEE-TAHOE	240.29	21.289	-1452	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this
airport. However, you may EXCEED other Notice Standards. As a minimum,
please review reports for FAR Part 77 Obstruction Surfaces, Air
Navigation and Communication facilities.

You are 126464 feet from the nearest runway threshold and the threshold elevation is 5887 feet. Please review runway analysis for remaining airport surfaces.

This airport has Instrument Procedures. Please review published US Terminal (TERPS®) Approach Procedures for this landing facility to determine impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
SPZ	AIR	SILVER SPRINGS	103.8	23.448	+184	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 139997 feet from the nearest runway threshold and the threshold elevation is 4265 feet. Please review runway analysis for remaining airport surfaces.

This airport has Instrument Procedures. Please review published US Terminal (TERPS®) Approach Procedures for this landing facility to determine impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
N58	AIR	TIGER FLD	80.38	23.467	+103	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 140280 feet from the nearest runway threshold and the threshold elevation is 4326 feet. Please review runway analysis for remaining airport surfaces.

No Circling or Straight-In Instrument Approach Procedures were found for this landing facility or your proposed location is greater than 10 nautical miles from the airport. No Expected TERPS® impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
O79	AIR	SIERRAVILLE DEARWATER	280.51	28.9	-535	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 174623 feet from the nearest runway threshold and the threshold elevation is 4951 feet. Please review runway analysis for remaining airport surfaces.

No Circling or Straight-In Instrument Approach Procedures were found for this landing facility or your proposed location is greater than 10 nautical miles from the airport. No Expected TERPS® impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77

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EXHIBIT D

MEV	AIR	MINDEN-TAHOE	180.87	29.664	-274 YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 176270 feet from the nearest runway threshold and the threshold elevation is 4708 feet. Please review runway analysis for remaining airport surfaces.

This airport has Instrument Procedures. Please review published US Terminal (TERPS®) Approach Procedures for this landing facility to determine impact.

FACIL IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
O02	AIR	NERVINO	304.57	34.326	-450	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 206635 feet from the nearest runway threshold and the threshold elevation is 4891 feet. Please review runway analysis for remaining airport surfaces.

This airport has Instrument Procedures. Please review published US

Terminal (TERPS®) Approach Procedures for this landing facility to
determine impact.

FACIL IDENT	FAR TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
TVL	AIR	LAKE TAHOE	198.11	37.95	-1819	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this
airport. However, you may EXCEED other Notice Standards. As a minimum,
please review reports for FAR Part 77 Obstruction Surfaces, Air
Navigation and Communication facilities.

You are 226344 feet from the nearest runway threshold and the threshold
elevation is 6251 feet. Please review runway analysis for remaining
airport surfaces.

This airport has Instrument Procedures. Please review published US
Terminal (TERPS®) Approach Procedures for this landing facility to
determine impact.

THE NEAREST AIRPORT TO CASE COORDINATES IS: RNO

RENO/TAHOE INTL is an Airport type landing facility and is associated
with the city of RENO, NV. The facility is eligible for Study
under FAR Part 77 sub-Part C.

Its Reference Point (ARP) elevation is: 4414 feet AMSL and you are
locating 7659 feet from this landing facility.

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The mathematical algorithms used by this program are derived directly from
Federal Aviation Regulations Part 77, sub-part C.

****
* INSTRUMENT PROCEDURES *
****

IDENT	TYPE	DESCRIPTION
RNO	APD	AIRPORT DIAGRAM
RNO	DP	HUNGRY THREE
RNO	DP	WAGGE SIX
RNO	DP	VISTA TWO
RNO	DP	SPLTM FOUR (RNAV)
RNO	DP	RENO NINE
RNO	DP	PVINE THREE (RNAV)
RNO	DP	MUSTANG EIGHT
RNO	DP	ZEFFR SIX (RNAV)
RNO	HOT	HOT SPOT
RNO	IAP	ILS OR LOC/DME RWY 34L
RNO	IAP	RNAV (RNP) Z RWY 16L
RNO	IAP	RNAV (RNP) Y RWY 16R
RNO	IAP	RNAV (GPS) X RWY 16L
RNO	IAP	ILS Y RWY 16R
RNO	IAP	ILS Z OR LOC Z RWY 16R
RNO	IAP	RNAV (GPS) X RWY 16R
RNO	IAP	ILS X OR LOC X RWY 16R
RNO	IAP	RNAV (RNP) Y RWY 16L
RNO	IAP	HI-TACAN E
RNO	IAP	RNAV (GPS) X RWY 34L
RNO	IAP	RNAV (GPS) Y RWY 34L
RNO	IAP	RNAV (RNP) Z RWY 34L
RNO	IAP	RNAV (RNP) Z RWY 34R
RNO	IAP	RNAV (GPS) X RWY 34R
RNO	IAP	RNAV (RNP) Z RWY 16R
RNO	IAP	VOR-D
RNO	IAP	LOC Y RWY 16R
RNO	IAP	RNAV (GPS) Y RWY 34R
RNO	MIN	TAKEOFF MINIMUMS
RNO	MIN	DIVERSE VECTOR AREA
RNO	MIN	ALTERNATE MINIMUMS
RNO	STAR	ANAHO TWO
RNO	STAR	SIERRA THREE
RNO	STAR	EELZA TWO (RNAV)
RNO	STAR	KENNO TWO (RNAV)
RNO	STAR	MYBAD TWO (RNAV)
RNO	STAR	RYANN ONE
RNO	STAR	TARVR ONE
RNO	STAR	WADOL TWO (RNAV)
RNO	STAR	RUSME TWO (RNAV)
RNO	STAR	HARTT ONE (RNAV)
RTS	APD	AIRPORT DIAGRAM
RTS	IAP	ILS OR LOC RWY 32

RTS	IAP	RNAV (GPS) RWY 32
RTS	MIN	TAKEOFF MINIMUMS
CXP	APD	AIRPORT DIAGRAM
CXP	IAP	RNAV (GPS) RWY 27
CXP	IAP	RNAV (GPS)-A
CXP	MIN	TAKEOFF MINIMUMS
CXP	ODP	JIMPA TWO (OBSTACLE) (RNAV)
TRK	APD	AIRPORT DIAGRAM
TRK	DP	TAHOE ONE (RNAV)
TRK	HOT	HOT SPOT
TRK	IAP	RNAV (GPS) RWY 11
TRK	IAP	RNAV (GPS) Y RWY 20
TRK	IAP	RNAV (GPS) Z RWY 20
TRK	MIN	TAKEOFF MINIMUMS
TRK	ODP	TRUCK FOUR (OBSTACLE)
SPZ	IAP	RNAV (GPS) RWY 24
SPZ	MIN	TAKEOFF MINIMUMS
MEV	APD	AIRPORT DIAGRAM
MEV	HOT	HOT SPOT
MEV	IAP	GPS-B
MEV	IAP	GPS-A
MEV	MIN	TAKEOFF MINIMUMS
MEV	ODP	MINDEN TWO (OBSTACLE) (RNAV)
O02	IAP	RNAV (GPS) Z RWY 26
O02	IAP	RNAV (GPS) Y RWY 26
O02	MIN	TAKEOFF MINIMUMS
TVL	APD	AIRPORT DIAGRAM
TVL	DP	SHOLE TWO
TVL	DP	RICHY SIX
TVL	IAP	LDA/DME-1 RWY 18
TVL	IAP	GPS RWY 18

****
* VFR - TRAFFIC PATTERN AIRSPACE ANALYSIS
*

****

Airspace User: Remington E Leaver

FILE: SC14011B

LATITUDE: 39°-29'-43.29" LONGITUDE: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

Traffic Pattern Airspace, a structure that exceed any of the following maximum
allowable heights is considered to constitute a hazard to air navigation:

(1) The height of the transition surface (other than abeam the runway), the
approach slope, the horizontal surface, and the conical surface (as applied
to visual approach runways).

(2) Beyond the lateral limits of the conical surface and in the climb/descent
area - 350' above airport elevation or the height of part 77.17(a)(2),
whichever is greater not to exceed 500' above ground level (AGL). The
climb/descent area begins abeam the runway threshold being used and is the
area where the pilot is either descending to land on the runway or climbing
to pattern altitude after departure.

(3) Beyond the lateral limits of the conical surface and NOT in the climb/descent
area of any runway - 500' above Airport Elevation not to exceed 500' AGL.

********** Landing Facility Identifier
****

RNO

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Height Not Greater Than 200 feet AGL.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

The structure is within VFR - Traffic Pattern Airspace Runway Side Area.
Structures that exceed horizontal, conical, and/or 500' AGL will receive
a hazard determination from the FAA.

The structure is within VFR - Traffic Pattern Airspace Climb/Descent Area.
Structures exceeding the greater of 350' AAE, 77.17(a)(2), or VFR horizontal
and conical surfaces will receive a hazard determination from the FAA.
Maximum AMSL of Climb/Descent Area is 4764 feet.

Existing
Runway 07/25 Does Not Exceeds VFR Approach Surface Rwy 25
Max Height: 4614 Ft.
Does Not Exceed Runway VFR Transitional Surface.
Does Not Exceed Runway VFR Primary Surface.

Existing
Runway 16L/34R Does Not Exceed VFR Approach Runway 34R
Existing
Runway 16R/34L Does Not Exceed VFR Approach Runway 34L
********** Landing Facility Identifier
****

N86

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 17/35 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional
Surface.
Does Not Exceed Runway VFR Primary Surface.

********** Landing Facility Identifier
****

RTS

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 08/26 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional
Surface.
Does Not Exceed Runway VFR Primary Surface.

Existing
Runway 14/32 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional
Surface.

Does Not Exceed Runway VFR Primary Surface.

********** Landing Facility Identifier
****

A34

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 05/23 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional Surface.
Does Not Exceed Runway VFR Primary Surface.

********** Landing Facility Identifier
****

CXP

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 09/27 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional Surface.
Does Not Exceed Runway VFR Primary Surface.

********** Landing Facility Identifier
****

TRK

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 02/20 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional Surface.
Does Not Exceed Runway VFR Primary Surface.

Existing
Runway 11/29 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional Surface.
Does Not Exceed Runway VFR Primary Surface.

********** Landing Facility Identifier
****

SPZ

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL

FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 06/24 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional Surface.
Does Not Exceed Runway VFR Primary Surface.

********** Landing Facility Identifier **********

N58

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 05/23 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional Surface.
Does Not Exceed Runway VFR Primary Surface.

Existing
Runway 15/33 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional Surface.
Does Not Exceed Runway VFR Primary Surface.

********** Landing Facility Identifier **********

O79

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 03/21 Does Not Exceed Runway VFR Approach Runway
Does Not Exceed Runway VFR Transitional Surface.
Does Not Exceed Runway VFR Primary Surface.

********** Landing Facility Identifier **********

MEV

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

Existing
Runway 12/30 Does Not Exceed Runway VFR Approach Runway

```
                    Does Not Exceed Runway VFR Transitional
Surface.
                    Does Not Exceed Runway VFR Primary Surface.

    Existing
    Runway 12G/30G   Does Not Exceed Runway VFR Approach Runway
                     Does Not Exceed Runway VFR Transitional
Surface.
                     Does Not Exceed Runway VFR Primary Surface.

    Existing
    Runway 16/34    Does Not Exceed Runway VFR Approach Runway
                    Does Not Exceed Runway VFR Transitional
Surface.
                    Does Not Exceed Runway VFR Primary Surface.

************************  Landing Facility Identifier
************************
                                        O02

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

    Existing
    Runway 08/26    Does Not Exceed Runway VFR Approach Runway
                    Does Not Exceed Runway VFR Transitional
Surface.
                    Does Not Exceed Runway VFR Primary Surface.

************************  Landing Facility Identifier
************************
                                        TVL

FAR 77.17(a)(1): DNE - Maximum Height Less Than 499 feet AGL
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
Does Not Exceed VFR Horizontal Surface.
Does Not Exceed VFR Conical Surface.

    Existing
    Runway 18/36    Does Not Exceed Runway VFR Approach Runway
                    Does Not Exceed Runway VFR Transitional
Surface.
                    Does Not Exceed Runway VFR Primary Surface.

*****************************************************************
**************
*   The above analysis was conducted using default parameters -
Category C     *
*   aircraft and a maximum of 4 like category aircraft in the VFR
-Traffic     *
*   Pattern at one time.
*
*
*
*   To view a graphical image of VFR - Traffic Pattern Airspace
for these      *
```

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*   airports use Terps® Professional Software. Open the airport
and Aispace®   *
*   study. From the Map Menu select 'VFR - Traffic Pattern
Airspace'. The      *
*   proposed structure, airport, and the traffic pattern will now
be shown     *
*   together. Use this information to locate an alternate site if
necessary.   *
**************************************************************
**************

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Date: 08-06-2018
Time: 12:03:59
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****

* PRIVATE LANDING FACILITIES IN PROXIMITY OF CASE *

****

Airspace User: Remington E Leaver

FILE: SC14011B

LATITUDE: 39°-29'-43.29" LONGITUDE: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA	ARP ELEVATION	FAR P77	FAA IFR PROCEDURE	PROTECTED
NV78	HEL	REMSA/CARE FLIGHT	310.98	.86	+49				NO
NV57	HEL	RENOWN RGNL MEDICAL CENTER	305.24	3.08	-55				NO
NV69	HEL	NORTHERN NEVADA MEDICAL CENT	36.56	3.35	-11				NO
NV58	HEL	ST MARY'S RGNL MEDICAL CENTE	302.33	4.23	-151				NO
50NV	HEL	AIRLIFT HELICOPTERS	315.53	10.22	-906				NO
NV17	AIR	YOUNGBERG RANCH	342.71	11.18	-511				NO
NV09	AIR	H BAR H	331.96	15.57	-771				NO
NV15	HEL	CARSON-TAHOE RGNL MEDICAL CE	186.54	17.69	-401				NO
25NV	AIR	PARKER CARSON	171.3	17.81	-489				NO
NV60	HEL	CARSON-TAHOE HOSPITAL	184.14	19.5	-400				NO
NV96	AIR	ROLLING THUNDER	11.48	20.18	+209				NO
2NV2	AIR	GIBB RANCH	8.61	20.58	+207				NO
77NV	AIR	FLYING EAGLE	6.84	21.21	+229				NO
NV23	AIR	AIR SAILING	4.71	22.67	+149				NO
64CA	HEL	TAHOE FOREST HOSPITAL	244.17	23.68	-751				NO
CA38	AIR	TOTEM POLE RANCH	286.35	33.67	-537				NO

NV55	AIR PINENUT	173.19	36.01	-811
NO				
CA43	HEL BARTON MEMORIAL HOSPITAL	198.72	36.98	-1849
NO				
CA11	AIR BODAD	323.96	37.28	-1460
NO				
58CN	HEL JACKSON LAKE	266.77	38.37	-2201
NO				

THE NEAREST PRIVATE USE LANDING FACILITY IS: REMSA/CARE FLIGHT

REMSA/CARE FLIGHT is an Airport type landing facility.
Landing facilities with IFR procedures are protected under FAR 77.17(a)(3).

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08-06-2018
12:04:01

The mathematical algorithms used by this program are derived directly from
Federal Aviation Regulations Part 77, sub-part C.

****
* F.A.R. 77 OBSTRUCTION ANALYSIS *
****

Airspace User: Remington E Leaver

FILE: SC14011B

LATITUDE: 39°-29'-43.29" LONGITUDE: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

77.17(a)(1) A height more than 499 ft. Above Ground Level (AGL).

********** DOES NOT EXCEED **********

THE MAXIMUM ALLOWABLE HEIGHT IS:..... 4893 ft. AMSL

THE GROUND ELEVATION AT THE SITE IS:... 4394 ft. AMSL

THE OVERALL CASE ELEVATION IS:..... 4449 ft. AMSL

THE CASE IS BELOW THE ALLOWABLE BY:.... 444 ft.

****
BEGIN AIRPORT ANALYSIS FOR RNO
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Proposed height DNE 200 feet Above Ground Level.

THE REFERENCE AIRPORT IDENT IS:..... RNO

THE AIRPORT ELEVATION IS:..... 4414 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 1.2606 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 100.443 DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 4614 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> RNO <<.

********** DOES NOT EXCEED **********

MAXIMUM ALLOWABLE HEIGHT IS:..... 4564 ft AMSL.

THE AIRPORT ELEVATION IS:..... 4414 ft. AMSL

THE CASE IS BELOW THE ALLOWABLE BY:... 115 ft.

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 07/25

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 25.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 94.163 degrees

THE ABEAM BEARING TO THE CENTERLINE IS..... 180.25 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS..... 90.25 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS..... 291.8 ft.

THE RUNWAY THRESHOLD ELEVATION IS..... 4399.7 ft. AMSL

THE DISTANCE FROM THRESHOLD + 200' TO THE CASE IS... 4286.191 ft.

THE DISTANCE FROM THRESHOLD + 200' TO NB IS.....
4276.25 ft.

THE CRITICAL WIDTH OF HALF THE APPROACH IS.....
677.62 ft.

IN AREA WHERE THE APPROACH SURFACE IS LIMITED BY THE
HORIZONTAL SURFACE. See FAR 77.19(a), for this runway.

THE SLOPE OF RUNWAY 25 IS: 20 TO 1.

The FAA has defined this runway as a non-utility runway. It has a
visual approach. The obstacle surface extends 5000 feet (20:1 Slope)
symmetrically centered along the runway centerline extended. This
airport may have a circling approach. Please review the US Terminal
Procedures volume associated with this airport. If a procedure for
this airport and/or this runway exist use Terps® Professional
software to determine the height limits (if any) the procedure will
have on the proposed structure. A circling approach to the airport
or any runway can extend out up to 4.5 NM from every runway end.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 16L/34R

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

SITE GREATER THAN 500 FT FROM RUNWAY CENTERLINE.

SITE RUNWAY CENTERLINE ABEAM DISTANCE IS: 7175.06 FT.

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

OUTSIDE TRANSITIONAL SURFACE AREA ABEAM RUNWAY.

77.19(d) A height exceeding an approach surface of RUNWAY 34R.

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 16R/34L

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

SITE GREATER THAN 500 FT FROM RUNWAY CENTERLINE.

SITE RUNWAY CENTERLINE ABEAM DISTANCE IS: 7875.16 FT.

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

OUTSIDE TRANSITIONAL SURFACE AREA ABEAM RUNWAY.

77.19(d) A height exceeding an approach surface of RUNWAY 34L.

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
BEGIN AIRPORT ANALYSIS FOR N86
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... N86

THE AIRPORT ELEVATION IS:..... 4620 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 10.5625 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 184.046 DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 5576 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> N86 <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 17/35

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 35.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
184.077 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
93.94 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
183.94 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
164.7 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED

GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 12297.2 feet

****
BEGIN AIRPORT ANALYSIS FOR RTS
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... RTS

THE AIRPORT ELEVATION IS:..... 5050 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 12.1003 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 148.868 DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 6160 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> RTS <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 08/26

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 26.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
150.276 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 14/32

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 32.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
149.581 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
243.6 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
153.6 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
4992.2 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF

ANY APPROACH TYPE, OUT BY 19727.7 feet

****
BEGIN AIRPORT ANALYSIS FOR A34
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... A34

THE AIRPORT ELEVATION IS:..... 4414 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 17.6678 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 330.759 DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 6080 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> A34 <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 05/23

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 05.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
332.262 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
BEGIN AIRPORT ANALYSIS FOR CXP
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... CXP

THE AIRPORT ELEVATION IS:..... 4704 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 18.1764
NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 358.702
DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 6421 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> CXP <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 09/27

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 09.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
0.349 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
BEGIN AIRPORT ANALYSIS FOR TRK
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... TRK

THE AIRPORT ELEVATION IS:..... 5901 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 21.2894
NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 60.285
DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 7929 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> TRK <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 02/20

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 20.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 60.647 degrees

THE ABEAM BEARING TO THE CENTERLINE IS..... 119.98 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS..... 29.98 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS..... 64406.6 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED

GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 58356.7 feet

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 11/29

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 29.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
59.031 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
BEGIN AIRPORT ANALYSIS FOR SPZ
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... SPZ

THE AIRPORT ELEVATION IS:..... 4265 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 23.4483
NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 283.805
DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 6638 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> SPZ <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft. from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 06/24

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 06.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 284.549 degrees

THE ABEAM BEARING TO THE CENTERLINE IS..... 159.08 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS..... 249.08 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS..... 81134.6 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED GREATER THAN 50,000 ft. FROM THE START OF

ANY APPROACH TYPE, OUT BY 64322 feet

****
BEGIN AIRPORT ANALYSIS FOR N58
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... N58

THE AIRPORT ELEVATION IS:..... 4346 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 23.4668 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 260.378 DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 6640 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> N58 <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 05/23

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 05.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
260.154 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
155.5 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
245.5 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
36186 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 85530.1 feet

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 15/33

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 15.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
259.763 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
BEGIN AIRPORT ANALYSIS FOR O79
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... O79

THE AIRPORT ELEVATION IS:..... 4984 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 28.8997 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 100.508 DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 7773 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> O79 <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 03/21

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 21.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 100.972 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
BEGIN AIRPORT ANALYSIS FOR MEV
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... MEV

THE AIRPORT ELEVATION IS:..... 4723 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 29.6643 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 0.874 DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 7589 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> MEV <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 12/30

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 12.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
1.603 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 12G/30G

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 12G.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
0.768 degrees

********** DOES NOT EXCEED **********

OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 16/34

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 16.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
0.975 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
269.79 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
359.79 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
3642.5 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 126032.6 feet

****
BEGIN AIRPORT ANALYSIS FOR O02
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... O02

THE AIRPORT ELEVATION IS:..... 4899 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 34.3261 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 124.566 DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 8231 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> O02 <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 08/26

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 26.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 124.949 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
180.14 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
90.14 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
116720.1 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 119531.6 feet

****
BEGIN AIRPORT ANALYSIS FOR TVL
****

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

********** DOES NOT EXCEED **********

BECAUSE: Location studied is further than 5.99 NM from ARP.

THE REFERENCE AIRPORT IDENT IS:..... TVL

THE AIRPORT ELEVATION IS:..... 6268 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:.. 37.9503
NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 18.106
DEGREES

THE CASE HEIGHT AGL IS:..... 55 ft.

ALLOWABLE HEIGHT..... 9963 ft. AMSL

77.19 (a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> TVL <<.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

****
* BEGIN RUNWAY ANALYSIS *
****

EXISTING RUNWAY 18/36

77.19(c) A height exceeding runway primary surface.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

********** DOES NOT EXCEED **********

NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 18.

THE BEARING TO THE CASE FROM THE THRESHOLD IS.....
18.214 degrees

THE ABEAM BEARING TO THE CENTERLINE IS.....
102.92 degrees

THE CENTERLINE OUTBOUND TRUE BEARING IS.....
12.92 degrees

THE ABEAM DISTANCE TO CENTERLINE FROM CASE IS.....
20854.3 ft.

********** DOES NOT EXCEED **********

CASE MEETS ANGULAR CRITERIA BUT IS LOCATED
GREATER THAN 50,000 ft. FROM THE START OF
ANY APPROACH TYPE, OUT BY 175124.4 feet

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08-06-2018
12:03:58

****
* AIRWAY ANALYSIS *
* FAR 77.17(a)(4) (EN ROUTE CRITERIA) *
* MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA) *
* MINIMUM ENROUTE ALTITUDE (MEA) *
****

Airspace User: Remington E Leaver

FILE: SC14011B

LATITUDE: 39°-29'-43.29" LONGITUDE: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

FAR 77.17(a)(4) - EN ROUTE CRITERIA
MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
Q120	10	38-26-37.17N	121-33-05.84W	0	143.72
Q120	20	39-53-31.94N	119-05-50.04W	0	

Minimum Obstacle Clearance Altitude (MOCA) is: 0 AMSL.

Proposed structure is between the above points along Airway Q120. The
Abeam distance from tne course centerline is 0.28NM. The course width of
this airway is 12 NM. The FAA has not specified a Minimum Enroute Altitude
for this airway segment.

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
T331	110	39-26-15.67N	120-09-42.48W	0	24.15
T331	120	39-31-52.599N	119-39-21.873W	0	

Minimum Obstacle Clearance Altitude (MOCA) is: 0 AMSL.

Proposed structure is between the above points along Airway T331. The
Abeam distance from tne course centerline is 1.16NM. The course width of
this airway is 12 NM. The FAA has not specified a Minimum Enroute Altitude
for this airway segment.

LOW ALTITUDE AIRWAY

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
V113	130	39-14-56.64N	119-50-56.26W	13000	19.15
V113	140	39-31-52.599N	119-39-21.873W	10300	

Minimum Obstacle Clearance Altitude (MOCA) is: 13000 AMSL.

Proposed structure is between the above points along Airway V113. The Abeam distance from the course centerline is 2.5 NM. The proposed structure is within the width of the primary area of this airway. The width of the primary area of this airway is 8 NM. The minimum en route altitude (MEA) for this airway segment Is 13000 feet AMSL. Any Height above 11000 feet AMSL will not be approved. Your proposed structure must remain below this value.

LOW ALTITUDE AIRWAY

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
V165	350	39-08-22.93N	119-40-49.12W	13000	23.5
V165	360	39-31-52.599N	119-39-21.873W	11000	

Minimum Obstacle Clearance Altitude (MOCA) is: 11000 AMSL.

Proposed structure is between the above points along Airway V165. The Abeam distance from the course centerline is 3.85 NM. The proposed structure is within the width of the primary area of this airway. The width of the primary area of this airway is 8 NM. The minimum en route altitude (MEA) for this airway segment Is 13000 feet AMSL. Any Height above 9000 feet AMSL will not be approved. Your proposed structure must remain below this value.

LOW ALTITUDE AIRWAY

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)

V200	110	39-28-59.85N	119-55-01.1W	11500	12.45
V200	120	39-31-52.599N	119-39-21.873W	11500	

Minimum Obstacle Clearance Altitude (MOCA) is: 11500 AMSL.

Proposed structure is between the above points along Airway V200. The Abeam distance from the course centerline is 1.17 NM. The proposed structure is within the width of the primary area of this airway. The width of the primary area of this airway is 8 NM. The minimum en route altitude (MEA) for this airway segment Is 11500 feet AMSL. Any Height above 9500 feet AMSL will not be approved. Your proposed structure must remain below this value.

LOW ALTITUDE AIRWAY

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
V28	100	39-14-56.64N	119-50-56.26W	13000	19.15
V28	110	39-31-52.599N	119-39-21.873W	13000	

Minimum Obstacle Clearance Altitude (MOCA) is: 13000 AMSL.

Proposed structure is between the above points along Airway V28. The Abeam distance from the course centerline is 2.5 NM. The proposed structure is within the width of the primary area of this airway. The width of the primary area of this airway is 8 NM. The minimum en route altitude (MEA) for this airway segment Is 13000 feet AMSL. Any Height above 11000 feet AMSL will not be approved. Your proposed structure must remain below this value.

LOW ALTITUDE AIRWAY

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
V392	130	39-28-59.85N	119-55-01.1W	11500	12.45
V392	140	39-31-52.599N	119-39-21.873W	11500	

Minimum Obstacle Clearance Altitude (MOCA) is: 11500 AMSL.

Proposed structure is between the above points along Airway V392. The
Abeam distance from the course centerline is 1.17 NM. The proposed
structure is within the width of the primary area of this airway. The
width of the primary area of this airway is 8 NM. The minimum en route
altitude (MEA) for this airway segment Is 11500 feet AMSL. Any Height
above 9500 feet AMSL will not be approved. Your proposed structure
must remain below this value.

LOW ALTITUDE AIRWAY

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
V452	150	39-49-05.23N	119-52-24.62W	11000	19.93
V452	160	39-31-52.599N	119-39-21.873W	11000	

Minimum Obstacle Clearance Altitude (MOCA) is: 9600 AMSL.

Proposed structure is between the above points along Airway V452. The
Abeam distance from the course centerline is 4.51 NM. The proposed
structure is within the width of the secondary area of this airway. The
width of the primary area is 8 NM and the width of the secondary is 2 NM.

The maximum allowable height permitted by the secondary area MOCA of this
airway at this location is 9227 feet AMSL.

LOW ALTITUDE AIRWAY

AIRWAY	SEQUENCE	LATITUDE	LONGITUDE	MEA	LENGTH (NM)
V6	120	39-10-49.162N	120-16-10.604W	13000	35.47
V6	130	39-31-52.599N	119-39-21.873W	10300	

Minimum Obstacle Clearance Altitude (MOCA) is: 13000 AMSL.

Proposed structure is between the above points along Airway V6. The
Abeam distance from the course centerline is 0.63 NM. The proposed
structure is within the width of the primary area of this airway. The

width of the primary area of this airway is 8 NM. The minimum en route
altitude (MEA) for this airway segment Is 13000 feet AMSL. Any Height
above 11000 feet AMSL will not be approved. Your proposed structure
must remain below this value.

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08-06-2018
12:04:01

The mathematical algorithms used by this program are derived directly from
Federal Aviation Regulations Part 77, sub-part C.

****
* IFR RUNWAY DEPARTURE SURFACE ANALYSIS
*

****

FILE: SC14011B

LATITUDE: 39°-29'-43.29" LONGITUDE: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

An airport with at least one instrument approach procedure (IAP) will require all airport runways to be analyzed using 40:1 criteria for Departures. FAA application of the 40:1 screening criteria extendes 22.09 nautical miles and 180° semi-circle area around the Runway centerline extended. Penetration ofthe 40:1 surface will result initially in a determination of presumed hazard(DPH). An extended study is normally required to remove the DPH.

A specified climb gradient (CG) greater than the standard (200 ft/nm) is sometimes necessary to allow acceptable obstacle clearance. Should the proposed location exceed the maximum height you may need to determine if there is a published climb gradient and conduct additional calculations to determine if the climb gradient will provide proper clearance for the proposed structure. Should you require additional assistance please contact Federal Airways & Airspace or another aeronautical consult to perform these calculations.

Ident	Dep Rwy	Elev	Distance	40:1	Max Hgt	CG	Rwy Status
RNO	07	4399.	4486	DNE	Below	DNE	Existing Rwy
RNO	16L/34R			DNE	Between	DNE	
RNO	16R/34L			DNE	Between	DNE	
N86	17	4600.	62497	DNE	Below	DNE	Existing Rwy

WSUP18-0007
EXHIBIT D

RTS	08	5050.	70100	DNE	Below	DNE
Existing Rwy						
RTS	14	5043.	70099	DNE	Below	DNE
Existing Rwy						
A34	23	4414.	107173	DNE	Below	DNE
Existing Rwy						
CXP	27	4704.	109685	DNE	Below	DNE
Existing Rwy						
TRK	02	5886.	126464	DNE	Below	DNE
Existing Rwy						
TRK	11	5892.	128246	DNE	Below	DNE
Existing Rwy						
SPZ	24	4265.	139997	DNE	Beyond	DNE
Existing Rwy						
N58	23	4325.	140281	DNE	Beyond	DNE
Existing Rwy						
N58	33	4278.	143068	DNE	Beyond	DNE
Existing Rwy						
O79	03	4951.	174624	DNE	Beyond	DNE
Existing Rwy						
MEV	30	4700.	178493	DNE	Beyond	DNE
Existing Rwy						
MEV	30G	4711.	180591	DNE	Beyond	DNE
Existing Rwy						
MEV	34	4707.	176271	DNE	Beyond	DNE
Existing Rwy						
O02	08	4891.	206636	DNE	Beyond	DNE
Existing Rwy						
TVL	36	6250.	226345	DNE	Beyond	DNE
Existing Rwy						

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08-06-2018
12:03:59

****
* NAVAIDS IN PROXIMITY OF CASE *
****

FILE: SC14011B

LATITUDE: 39°-29'-43.29" LONGITUDE: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRD ANGLE	APCH BEAR
RNO	CO	ON	A/G	281.55	6376	-11	NV	RNO RTR 1	-.1	
AGY	GLIDE SLOPE	I	333.8	252.39	7927	+46	NV	RWY 34L RNO	.33	344
RNO	GLIDE SLOPE	I	330.8	300.84	8826	+41	NV	RWY 16R RNO	.27	164
RNO	ATCT	ON	A/G	275.97	9260	-63	NV	RENO/TAHOE INTERN	-.39	
RNO	LOCALIZER	I	110.9	235.38	9582	+29	NV	RWY 16R RENO/TAHO	.17	164
AGY	LOCALIZER	I	109.9	314.67	11041	+16	NV	RWY 34L RENO/TAHO	.08	344
RNO	RADAR	ON		279.25	11419	-34	NV	RENO/TAHOE INTERN	-.17	
FMG	VORTAC	R	117.9	61.46	27390	-1501	NV	MUSTANG	-3.14	
RNO	CO	ON	A/G	62.58	27515	-1532	NV	RNO RTR 2	-3.19	
RNO	CO	Y	A/G	301.78	62980	-3712	NV	RENO	-3.37	
RTS	GLIDE SLOPE	I	331.1	330.03	72025	-596	NV	RWY 32 RTS	-.47	318
RTS	LOCALIZER	U	111.9	330.11	80123	-591	NV	RWY 32 RENO/STEAD	-.42	318
KRGX	RADAR WXL	Y		39.76	122784	-3940	NV	RENO WXL	-1.84	
TRK	CO	Y	118.00	223.7	164713	-1504	CA	TRUCKEE RCO	-.52	
MEV	VG	Y		181.02	176709	-261	NV	MINDEN-TOHOE RWY1	-.08	
MEV	VG	Y	N/A	181.01	177407	-256	NV	MINDEN-TOHOE RWY1	-.08	
MEV	VG	Y	N/A	180.98	182708	-266	NV	MINDEN-TOHO RWY34	-.08	
MEV	VG	Y	N/A	180.97	183416	-272	NV	MINDEN-TOHOE RWY3	-.08	
ZOA	CO	Y	A/G	232.34	188368	-4433	CA	SQUAW VALLEY	-1.35	

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SWR VOR/DME R 113.2 232.31 188399 -4401 CA SQUAW VALLEY
-1.34
O02 CO Y 119.35 304.25 209633 -497 CA BECKWOURTH RCO
-.14
HZN VORTAC R 114.1 87.67 209994 +364 NV HAZEN
.10
TVL LOCALIZER I 108.9 198.18 224432 -1851 CA RWY 18 LAKE
TAHOE -.47 171
TVL ATCT Y A/G 198.34 230381 -1928 CA LAKE TAHOE
-.48

THE NEAREST AIR NAVIGATION FACILITY TO CASE COORDINATES IS: RNO

Airspace® Version 18.7.510

08-06-2018
12:04:03

****
* COMMMUNICATION FACILITIES IN PROXIMITY OF CASE *
****

Airspace User: Remington E Leaver

FILE: SC14011B

LATITUDE: 39°-29'-43.29" LONGITUDE: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

IDENT	FACILITY	LOCATION NAME	ST	BEARING (deg) Case to FAC	DISTANCE (ft)
RNO	CO	RNO RTR 1	NV	280.83	6312
RNO	BUEC	RENO	NV	280.77	7428
RNO	EFAS	RENO	NV	276.75	7506
RNO	ASOS	RENO	NV	300.43	8734
RNO	ATCT	RENO/TAHOE INTERNATIO	NV	275.49	9221
RNO	ASR	RENO/TAHOE INTERNATIO	NV	279.09	11359
RNO	ATIS	RENO CANNON INTL	NV	62.41	27487
RNO	CO	RNO RTR 2	NV	62.67	27510
RNO	RCL	RENO RTR 2 LDRCL	NV	62.67	27510
RNO	CO	RENO	NV	301.76	62902
RNO	RCL	PEAVINE	NV	301.85	63328
RTS	AWOS-3	RENO	NV	329.13	72258
CXP	AWOS-3	CARSON CITY	NV	178.59	111155
QY5	RCL	EAGLE RIDGE	NV	91.7	119675
KRGX	NEXRAD	RENO WXL	NV	39.8	122734
TRK	AWOS-3	TRUCKEE	CA	239.47	129608
TRK	CO	TRUCKEE RCO	CA	223.67	164746
MEV	AWOS-3	MINDEN	NV	180.74	181856

LTA	RCL	LAKE TAHOE	CA	232.23
188242				
ZOA	CO	SQUAW VALLEY	CA	232.34
188368				
O02	AWOS-2	BECKWOURTH	CA	304.83
207337				
O02	CO	BECKWOURTH RCO	CA	304.25
209571				
TVL	ASOS	SOUTH LAKE TAHOE	CA	198.29
229126				
TVL	ATCT	LAKE TAHOE	CA	198.32
230452				

THE NEAREST COMMUNICATION FACILITY TO CASE COORDINATES IS: RNO

Airspace® Version 18.7.510

08-06-2018
12:04:03

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*****************************************
                              *        NOS OBSTRUCTIONS NEAR CASE
*

*****************************************
                                    Obstacle Search Range = 40000

          Airspace User: Remington E Leaver

          FILE: SC14011B

          LATITUDE: 39-29-43.29          LONGITUDE: 119-44-28.91

          SITE ELEVATION AMSL.....4394 ft.
          STRUCTURE HEIGHT.........  55 ft.
          OVERALL HEIGHT AMSL.....4449 ft.


  TYPE
A A M FAA            JULIAN
V OBSTACLE    CITY            ST LATITUDE    LONGITUDE     RANGE
DEG QUAN AMSL  AGL  L H V K NUMBER          DATE    A
- ----------- --------------- -- ----------- ------------  ----- -
-- ---- ----- ---- - - - - -------------- ------- -
O TOWER       RENO            NV 39-30-06.10 119-44-10.10   2739
33 1    4565  0171 D 5 E N 2011AWP05683OE 2012191 A
O TOWER       RENO            NV 39-30-06.10 119-44-03.70   3038
41 1    4565  0171 D 5 E N 2011AWP05684OE 2012191 A
O POLE        RENO            NV 39-29-46.35 119-45-09.62   3206
276 1    4425  0031 U 1 A U                2013214 A
O BLDG        RENO            NV 39-29-45.00 119-45-12.32   3408
273 1    4426  0033 N 1 A N                2011217 C
O WINDMILL    RENO            NV 39-29-12.97 119-44-50.20   3492
209 1    4469  0075 N 5 E N 2009WTW09377OE 2010167 A
O BLDG        RENO            NV 39-29-43.09 119-45-14.37   3564
270 1    4420  0026 U 1 A U                2013214 A
O POLE        RENO            NV 39-29-42.26 119-45-16.75   3752
268 1    4429  0035 U 1 A U                2013214 A
O POLE        RENO            NV 39-29-42.38 119-45-17.41   3803
269 1    4422  0028 U 1 A U                2013214 A
O POLE        RENO            NV 39-29-37.83 119-45-19.02   3967
262 1    4456  0062 U 1 A U                2013214 A
O POLE        RENO            NV 39-29-43.97 119-45-38.22   5434
271 1    4405  0010 R 1 A U                2013214 A
O POLE        RENO            NV 39-29-33.76 119-45-50.23   6448
261 1    4434  0031 U 1 A U                2013214 A
O TOWER       RENO            NV 39-30-03.17 119-45-48.27   6538
288 1    4487  0084 U 1 A U                2013214 A
O BLDG        RENO            NV 39-30-00.90 119-45-50.53   6642
286 1    4434  0031 U 1 A U                2013214 A
O BLDG        RENO            NV 39-29-56.12 119-45-52.56   6685
281 1    4412  0011 U 1 A U                2013214 A
O POLE        RENO            NV 39-29-24.44 119-45-51.90   6780
254 1    4429  0025 U 1 A U                2013214 A
O POLE        RENO            NV 39-29-19.01 119-45-51.82   6949
249 1    4430  0026 U 1 A U                2013214 A
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292 1    4438  0035 U 1 A U                 2013214 A
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245 1    4437  0028 U 1 A U                 2013214 A
O BLDG        RENO            NV 39-30-09.62 119-45-54.83   7243
292 1    4412  0009 U 1 A U                 2013214 A
O BLDG        RENO            NV 39-30-14.35 119-45-54.08   7379
295 1    4427  0024 U 1 A U                 2013214 A
O TOWER       RENO            NV 39-30-36.42 119-45-33.49   7384
317 1    4545  0140 R 1 A U                 2013214 A
O BLDG        RENO            NV 39-29-07.49 119-45-51.85   7443
241 1    4444  0032 U 1 A U                 2013214 A
O POLE        RENO            NV 39-29-09.93 119-45-54.31   7498
243 1    4445  0034 U 1 A U                 2013214 A
O BLDG        RENO            NV 39-30-19.23 119-45-52.91   7522
299 1    4432  0028 U 1 A U                 2013214 A
O POLE        RENO            NV 39-29-52.31 119-46-04.87   7578
277 1    4415  0012 R 1 A U                 2013214 A
U BLDG        RENO            NV 39-30-20.96 119-45-52.46   7578
300 1    4452  0035 N 4 D N 2008AWP02531OE 2014124 C
O POLE        RENO            NV 39-29-07.73 119-45-54.68   7626
242 1    4446  0034 U 1 A U                 2013214 A
O TOWER       RENO            NV 39-28-57.26 119-45-48.11   7762
233 1    4469  0055 N 1 A N 2001AWP01357OE 2005107 C
O POLE        RENO            NV 39-29-06.77 119-45-57.61   7875
242 1    4449  0036 U 1 A U                 2013214 A
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240 1    4451  0036 U 1 A U                 2013214 A
O BLDG        RENO            NV 39-29-00.29 119-45-57.65   8206
238 1    4444  0028 U 1 A U                 2013214 A
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358 1    4635  0238 R 5 E M 1994AWP02028OE 2014152 C
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308 1    4454  0046 U 1 A U                 2013214 A
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308 1    4432  0024 U 1 A U                 2013214 A
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247 1    4415  0004 R 1 A U                 2013214 A
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220 1    4468  0046 N 2 C N 2011AWP03604OE 2014317 A
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269 1    4427  0022 U 1 A U                 2013214 A
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310 1    4415  0005 R 1 A U                 2013214 A
O CTRL TWR    RENO            NV 39-29-53.07 119-46-25.43   9188
276 1    4488  0081 R 1 A U                 2013214 A
O POLE        RENO            NV 39-28-44.30 119-46-00.59   9343
230 1    4451  0027 U 1 A U                 2013214 A
O TOWER       RENO            NV 39-30-41.00 119-42-55.00   9396
52 1    4666  0286 R 5 E M 1993AWP00468OE 2014090 D
O POLE        RENO            NV 39-30-30.17 119-46-12.41   9398
300 1    4417  0010 R 1 A U                 2013214 A
O POLE        RENO            NV 39-30-17.86 119-46-21.54   9497
292 1    4474  0065 U 1 A U                 2013214 A
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O NAVAID      RENO            NV 39-28-49.54 119-46-09.48   9579
235 1    4424  0001 R 1 A U                 2013214 A
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232 1    4442  0018 R 1 A U                 2013214 A
O TOWER       RENO            NV 39-28-20.59 119-45-29.42   9619
210 1    5027  0017 R 1 A N 2007AWP05610OE 2007287 C
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273 1    4410  0001 R 1 A U                 2013214 A
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47 1    4640  0253 R 5 E P 2013AWP00320OE 2014066 A
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234 1    4429  0005 R 1 A U                 2013214 A
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296 1    4473  0064 U 1 A U                 2013214 A
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52 1    4575  0187 N 5 E N 2011AWP08079OE 2014090 D
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48 1    4641  0253 R 5 E P 2013AWP00322OE 2014066 A
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29 1    4452  0055 N 2 C N 2011AWP04360OE 2014304 A
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320 1    4458  0040 U 1 A U                 2013214 A
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269 1    4437  0027 U 1 A U                 2013214 A
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319 1    4458  0040 U 1 A U                 2013214 A
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318 1    4454  0036 U 1 A U                 2013214 A
O BLDG        RENO            NV 39-30-21.00 119-46-34.00  10522
291 1    4462  0053 U 1 B N                 2014349 C
O T-L TWR     RENO            NV 39-29-49.31 119-46-46.64  10814
273 1    4415  0003 U 1 A U                 2013214 A
O BLDG        RENO            NV 39-30-54.73 119-46-15.00  11018
311 1    4427  0013 U 1 A U                 2013214 A
O POLE        RENO            NV 39-29-42.04 119-46-50.22  11079
269 1    4452  0039 U 1 A U                 2013214 A
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326 1    4486  0071 U 1 A U                 2013214 A
O T-L TWR     RENO            NV 39-30-14.33 119-42-06.39  11605
74 1    5217  0072 U 2 C U                 2013214 A
O POLE        RENO            NV 39-31-17.64 119-45-53.41  11619
325 1    4497  0082 U 2 C U                 2013214 A
U TOWER       RENO            NV 39-28-58.10 119-46-46.10  11688
247 1    4488  0066 N 4 D N 2016AWP06102OE 2016225 A
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269 1    4458  0039 U 1 A U                 2013214 A
O POLE        RENO            NV 39-29-50.51 119-47-01.27  11966
274 1    4447  0027 U 1 A U                 2013214 A
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266 1    4451  0033 N 4 D N 2012AWP05378OE 2018026 A
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266 1    4451  0033 N 4 D N 2012AWP05384OE 2018026 A
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266 1    4443  0025 N 4 D N 2012AWP05379OE 2018026 A
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265 1    4449  0030 N 5 E N 2012AWP05463OE 2015321 A
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279 1    4450  0030 N 5 E N 2012AWP05465OE 2015321 A
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266 1    4443  0025 N 4 D N 2012AWP05383OE 2018026 A
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268 1    4500  0081 R 5 E N 2012AWP05460OE 2013074 A
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273 1    4448  0030 N 5 E N 2012AWP05464OE 2014023 A
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325 1    4490  0069 R 1 A U                   2013214 A
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338 1    4525  0107 N 1 A N 2011AWP05276OE 2015205 A
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266 1    4455  0033 N 4 D N 2012AWP05385OE 2018026 A
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266 1    4447  0025 N 4 D N 2012AWP05389OE 2018026 A
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266 1    4432  0010 N 4 D N 2012AWP05386OE 2018026 A
U POLE          RENO              NV 39-29-35.16 119-47-07.08  12427
266 1    4447  0025 N 4 D N 2012AWP05390OE 2018026 A
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322 1    4489  0065 R 1 A U                   2013214 A
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266 1    4455  0033 N 4 D N 2012AWP05391OE 2018026 A
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266 1    4447  0025 N 4 D N 2012AWP05387OE 2018026 A
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325 1    4496  0073 R 1 A U                   2013214 A
U TOWER         SPARKS            NV 39-31-26.64 119-45-56.75  12520
327 1    4501  0080 R 4 D P 2006AWP05243OE 2014124 C
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82 1    5521  0085 U 2 C U                  2013214 A
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323 1    4497  0071 U 2 C U                   2013214 A
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289 1    4520  0095 N 1 A N 2015AWP00813OE 2018025 A
O POLE          RENO              NV 39-31-45.75 119-43-43.38  12894
16 1    4482  0080 N 5 E N 2012AWP03923OE 2015289 A
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266 1    4458  0030 N 5 E N 2012AWP05461OE 2015321 A
O TOWER         SPARKS            NV 39-31-45.00 119-45-19.00  12925
342 1    4551  0153 U     U                   1984130 D
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17 1    4424  0026 N 4 D N 2012AWP04394OE 2016194 A
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14 1    4422  0028 N 4 D N 2012AWP04393OE 2016194 A
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84 1    5696  0060 U 2 C U                  2013214 A
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10 1    4431  0032 N 4 D N 2012AWP04997OE 2016203 A
U SIGN          RENO              NV 39-31-51.58 119-43-58.42  13198
10 1    4425  0028 N 4 D N 2012AWP04392OE 2016196 A
U POLE          RENO              NV 39-31-52.75 119-44-04.73  13235
8 1    4430  0032 N 4 D N 2012AWP04996OE 2016201 A
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274 1    4527  0100 U 1 A U                   2011224 C
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U POLE          RENO              NV 39-31-43.00 119-43-17.79  13333
25 1    4428  0032 N 4 D N 2012AWP04998OE 2016203 A
U POLE          RENO              NV 39-31-42.65 119-43-15.61  13374
25 1    4427  0032 N 4 D N 2012AWP04999OE 2016203 A
O TOWER         RENO              NV 39-29-45.43 119-47-21.87  13561
271 1    4473  0046 N 2 C N 2011AWP03605OE 2014190 A
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26 1    4428  0032 N 4 D N 2012AWP05000OE 2016204 A
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87 1    5920  0071 U 2 C U                  2013214 A
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4 1    4494  0080 N 5 E N 2012AWP03922OE 2015289 A
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32 1    4424  0026 N 4 D N 2012AWP04397OE 2016201 A
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U MONUMENT      RENO              NV 39-32-02.32 119-44-36.99  14081
357 1    4425  0020 N 4 D N 2012AWP04336OE 2016239 A
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32 1    4429  0032 N 4 D N 2012AWP05001OE 2016203 A
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358 1    4425  0020 N 4 D N 2012AWP04337OE 2016239 A
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358 1    4433  0028 N 4 D N 2012AWP04389OE 2016196 A
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32 1    4428  0032 N 4 D N 2012AWP05002OE 2016203 A
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357 1    4425  0020 N 4 D N 2012AWP04335OE 2016239 A
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357 1    4425  0020 N 4 D N 2012AWP04334OE 2016239 A
O T-L TWR       RENO              NV 39-29-38.51 119-41-28.03  14188
92 1    5666  0057 U 2 C U                  2013214 A
U MONUMENT      RENO              NV 39-32-03.32 119-44-38.52  14188
357 1    4425  0020 N 4 D N 2012AWP04333OE 2016239 A
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359 1    4436  0026 N 4 D N 2012AWP04391OE 2016196 A
U POLE          RENO              NV 39-31-41.56 119-42-49.88  14263
33 1    4427  0032 N 4 D N 2012AWP05003OE 2016203 A
U SIGN          RENO              NV 39-32-04.08 119-44-41.40  14279
356 1    4434  0028 N 4 D N 2012AWP04390OE 2016196 A
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300 1    4494  0055 N 4 D N 2015AWP07850OE 2018025 A
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352 1    4438  0028 N 4 D N 2012AWP04387OE 2016197 A
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U MONUMENT     RENO            NV 39-32-03.46 119-44-54.73  14326
352 1    4432  0020 N 4 D N 2012AWP04331OE 2016239 A
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EXHIBIT D

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EXHIBIT D

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296 1    4596  0024 N 4 D N 2012AWP04349OE 2016189 A
U SIGN          RENO              NV 39-31-37.58 119-50-10.80  29185
293 1    4631  0025 N 4 D N 2012AWP04348OE 2016189 A
U TOWER         RENO              NV 39-33-28.80 119-48-21.40  29198
321 1    4800  0045 N     N 2011AWP06942OE 2016137 A
O CATENARY      SPARKS            NV 39-25-10.38 119-42-06.59  29784
158 1    5076  0229 N 5 E N 2012AWP04970OE 2012223 A
U POLE          RENO              NV 39-31-36.97 119-50-22.32  29992
293 1    4724  0080 N 4 D N 2012AWP03913OE 2016183 A
U SIGN          RENO              NV 39-31-37.41 119-50-28.95  30490
292 1    4674  0028 N 4 D N 2012AWP04347OE 2016189 A
U POLE          RENO              NV 39-24-13.58 119-45-11.12  33524
186 1    4686  0080 N 1 A N 2015AWP03481OE 2018027 A
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EXHIBIT D

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O TOWER       RENO            NV 39-34-28.24 119-48-15.62  33864
328 1    5226  0198 R 5 E P 2010WTW02284OE 2011206 A
O TOWER       SPARKS          NV 39-35-35.70 119-44-33.20  35659
359 1    4685  0015 N 1 A N 2010AWP03391OE 2010336 A
O TOWER       SUN VALLEY      NV 39-35-02.64 119-47-55.49  36139
333 1    5662  0202 D 1 A N 2016AWP04505OE 2017291 C
U TOWER       RENO            NV 39-35-02.20 119-47-57.00  36152
333 1    5609  0155 N 4 D N 2016AWP12760OE 2017290 A
U TOWER       RENO            NV 39-35-03.81 119-47-54.23  36201
334 1    5525  0065 N 4 D N 2011AWP07233OE 2016154 A
O TOWER       RENO            NV 39-35-03.00 119-47-59.00  36295
333 1    5672  0212 N 1 A N                2014152 C
O TOWER       RENO            NV 39-35-02.70 119-48-07.70  36582
332 1    5546  0100 N 5 E N 2012AWP02640OE 2015231 A
U TOWER       RENO            NV 39-35-03.50 119-48-09.90  36735
332 1    5557  0097 N 4 D N 2012AWP04436OE 2016330 A
O TOWER       SUN VALLEY      NV 39-35-04.00 119-48-10.10  36787
332 1    5550  0096 N 5 E N 2011AWP04047OE 2011258 A
O POLE        RENO            NV 39-23-33.35 119-47-06.21  39412
198 1    5215  0008 U 1 A U                2013214 A
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AIRSPACE® Version 18.7.510

08-06-2018
12:04:04

DEFINITIONS:

The data for each obstacle record is in the following format:

Field	Data Element	Description
1	"O" or "U"	Verification Status "O": verified "U": unverified
2	Obstacle Type	1. Arch 2. Balloon 3. Bridge 4. Bldg 5. Bldg-Twr 6. Catenary 7. Cool TWR 8. Crane 9. Crane T 10. Ctrl Twr 11. Dam 12. Dome 13. Elevator 15. Plant 16. Pole 17. Rig 18. Refinery 19. Sign 20. Spire 21. Stack 22. Stacks 23. Tank 24. T-L Twr 25. Tower 26. Towers 27. Tramway

		14. Monument 28.
Windmill		
3	City Name	City
4	State Identifier	State
5	Latitude	Latitude (NAD 1883)
6	Longitude	Longitude (NAD 1983)
7	Range	Distance from
Aeronautical Study		
		to NOS Obstruction
(feet)		
8	DEG	Bearing from
Aeronautical Study		
		to NOS Obstruction
(feet)		
9	Freq	Charted AM station
Frequency		
10	AMSL	Above Mean Sea Level
Height (Feet)		
11	AGL	Above Ground Level
Height (Feet)		
12	Strobe Indicator	(L)ighting, type of "S": High Intensity
White		Strobe Lighting
White		"M": Medium Intensity Strobe Lighting
		"R": Red Lighting
HIGH Intensit		"H": Dual, Red with White Strobe
MEDIUM		"D": Dual, Red with Intensity White
Strobe		"F": Flood Lights
		"N": No Lights
not listed		"L": Other, Lighting above
13, 14	Accuracy H V	A A
Accuracy		Horizontal, Vertical
VERTICAL		HORIZONTAL

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EXHIBIT D

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Tolerance

+-3'

+-10'

+-20'

+-50'

+-125'

+-250'

+-500'

+-1000'

Unknown

15	Mark Indicator "Y" or "N"	Painted/Marked Yes or No
16	FAA Study Number or NOS Source Code	NOS Source Code (when FAA study number is not available)

Check

Procedures

Reported

Reported

Reported

Reported

Ctrl Data

for Charts

17	Action: A, C, D, Julian Date	Add, Change, Dismantle, Date of Action *

---------- ------

Code Tolerance Code

---- --------- ---- -

1	+-15'	A
2	+-50'	B
3	+-100'	C
4	+-250'	D
5	+-500'	E
6	+-1000'	F
7	+-1/2 NM	G
8	+-1M	H
9	Unknown	I

99CF0000	7610 Form
99AM0000	FCC AM List
99FM0000	FCC FM List
99FC0000	Flight
99SP0000	Stereoplot
99IP0000	IAP
99VR0000	Visual
99LR0000	Letter
99TR0000	Telephone
99MS0000	MSAW
99OC####	OC Charts
99HC0000	Horizontal
99LM0000	Landmark

* A revision has been made to the Julian date field by NOS in order to comp
issues. The numeric, 5-digit field (YYDDD) has changed to an alphanumeric
field. The new format has a distinctive letter to indicate Y2K compliance
character of the Julian date (jdate) field will be a letter. The remainin
will be numeric. The sequence will begin with A0001 = January 1, 2000. It
with:

A1001 = January 1, 2001
A2001 = January 1, 2002
A3001 = January 1, 2003

A9001 = January 1, 2009

B0001 = January 1, 2010

****

* FCC REGISTERED ANTENNA STRUCTURES *

****

ASR Search Range = 40000

FILE: SC14011B

LATITUDE: 39°-29'-43.29" LONGITUDE: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT..... 55 ft.
OVERALL HEIGHT AMSL.....4449 ft.

STRUCTURE	REGISTER	FILE NUM	FAA STUDY NUMBER	LATITUDE	LONGITUDE	GROUND	AGL	AMSL	DIST	DIR
2TA1	1282081	A0904402	2011-AWP-5683-OE	39-30-06.09	119-44-10.09	1339.2	51	1391.3	2739	33
2TA2	1282082	A0904403	2011-AWP-5684-OE	39-30-06.09	119-44-06.90	1339.2	51	1391.3	2881	37
2TA1	1282081	A0904402	2011-AWP-5683-OE	39-30-06.09	119-44-06.90	1339.2	51	1391.3	2881	37
2TA2	1282082	A0904403	2011-AWP-5684-OE	39-30-06.09	119-44-03.69	1339.2	51	1391.3	3038	41
POLE	1250947	A0500950	2005-AWP-4880-OE	39-30-22.00	119-45-04.99	1341.4	15	1357.2	4832	324
POLE	1011157	A1031670	2006-AWP-6409-OE	39-29-29.00	119-45-31.00	1340.2	31	1371.3	5078	253
B	1046161	A0532407		39-28-56.00	119-43-56.99	1424.0	4	1428.0	5399	152
POLE	1260101	A0611356	2007-AWP-5063-OE	39-30-37.79	119-45-10.40	1343.2	11	1354.7	6403	329
GTOWER	1212646	A1093126	2017-AWP-9036-OE	39-30-36.50	119-45-33.59	1342.6	42	1385.3	7396	317
POLE	1286293	A1059150	2012-AWP-3002-OE	39-30-47.90	119-45-13.89	1342.6	19	1362.4	7428	332
BANT	1263260	A0636290	2008-AWP-2531-OE	39-30-20.90	119-45-52.40	1346.3	5	1356.9	7571	300
TOWER	1057057	A0820318	2004-AWP-1723-OE	39-28-57.19	119-45-48.01	1345.7	17	1369.4	7759	233
BTWR	1204161	A0098685	99-AWP-1685-OE	39-30-47.70	119-45-24.69	1341.1	13	1360.9	7849	326
POLE	1018758	A1010500	97-AWP-3066-OE	39-28-53.99	119-45-49.98	1346.0	18	1365.2	8080	232
POLE	1000984	A1031910	2006-AWP-5102-OE	39-31-00.79	119-44-55.98	1342.3	25	1367.6	8124	345
TOWER	1010999	A0013162	94-AWP-2028-OE	39-31-04.99	119-44-33.00	1339.4	70	1411.8	8273	358
7TA1	1281502	A0742553	2011-AWP-6975-OE	39-30-30.99	119-42-55.00	1335.0	60	1395.7	8802	57
7TA4	1281507	A0742559	2011-AWP-6978-OE	39-30-30.99	119-42-52.00	1335.0	60	1395.7	9000	58

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4TA4      1222804  A0169464  99-AWP-2290-OE   39-30-40.49 119-43-
00.41  1337.4   92  1430.7   9035  50
7TA2      1281503  A0742554  2011-AWP-6976-OE 39-30-35.99 119-42-
55.00  1335.0   60  1395.7   9090  54
7TA7      1281510  A0742562  2011-AWP-6981-OE 39-30-35.99 119-42-
52.99  1335.0   60  1395.7   9217  55
7TA4      1281507  A0742559  2011-AWP-6978-OE 39-30-35.99 119-42-
52.99  1335.0   60  1395.7   9217  55
7TA5      1281508  A0742560  2011-AWP-6979-OE 39-30-35.99 119-42-
52.99  1335.0   60  1395.7   9217  55
7TA6      1281509  A0742561  2011-AWP-6980-OE 39-30-35.99 119-42-
52.99  1335.0   60  1395.7   9217  55
4TA3      1222750  A0169229  99-AWP-2289-OE   39-30-40.59 119-42-
56.59  1337.4   92  1430.7   9272  51
7TA5      1281508  A0742560  2011-AWP-6979-OE 39-30-35.99 119-42-
52.00  1335.0   60  1395.7   9281  55
4TA2      1222749  A0169228  99-AWP-2288-OE   39-30-40.70 119-42-
54.70  1337.4   92  1430.7   9396  52
4TA4      1222804  A0169464  99-AWP-2290-OE   39-30-40.70 119-42-
54.70  1337.4   92  1430.7   9396  52
4TA3      1222750  A0169229  99-AWP-2289-OE   39-30-40.70 119-42-
54.70  1337.4   92  1430.7   9396  52
4TA1      1222748  A0169227  99-awp-2287-oe   39-30-40.70 119-42-
54.70  1337.4   92  1430.7   9396  52
7TA3      1281504  A0742555  2011-AWP-6977-OE 39-30-41.99 119-42-
55.00  1335.0   60  1395.7   9459  51
4TA2      1222749  A0169228  99-AWP-2288-OE   39-30-40.70 119-42-
52.80  1337.4   92  1430.7   9513  52
7TA6      1281509  A0742561  2011-AWP-6980-OE 39-30-41.99 119-42-
52.99  1335.0   60  1395.7   9581  52
POLE      1002501  A1059106  2007-AWP-5610-OE 39-28-20.99 119-45-
29.99  1526.1    5  1531.3   9605 210
7TA2      1281503  A0742554  2011-AWP-6976-OE 39-30-41.00 119-42-
50.99  1335.0   60  1395.7   9644  53
7TA1      1281502  A0742553  2011-AWP-6975-OE 39-30-41.00 119-42-
50.99  1335.0   60  1395.7   9644  53
7TA3      1281504  A0742555  2011-AWP-6977-OE 39-30-41.00 119-42-
50.99  1335.0   60  1395.7   9644  53
4TA1      1222748  A0169227  99-awp-2287-oe   39-30-40.80 119-42-
48.98  1337.4   92  1430.7   9757  53
7TA7      1281510  A0742562  2011-AWP-6981-OE 39-30-42.99 119-42-
50.99  1335.0   60  1395.7   9768  52
TOWER     1229775  A0894820  01-AWP-1928-OE   39-30-44.00 119-42-
51.59  1337.4   88  1427.0   9794  51
2LTA2     1288176  A0893439  2013-AWP-320-OE  39-30-49.30 119-42-
57.39  1337.0   77  1414.1   9802  47
POLE      1295426  A0940860  2015-AWP-265-NRA 39-30-01.00 119-46-
32.01  1344.0   17  1361.0   9815 281
2LTA2     1288176  A0893439  2013-AWP-320-OE  39-30-49.41 119-42-
55.90  1337.0   77  1414.1   9894  47
2LTA1     1288175  A1085156  2013-AWP-322-OE  39-30-49.41 119-42-
55.90  1337.4   77  1414.5   9894  47
TOWER     1011094  A0894791  2011-AWP-8079-OE 39-30-44.09 119-42-
48.90  1337.5   57  1394.5   9965  52
2LTA1     1288175  A1085156  2013-AWP-322-OE  39-30-49.41 119-42-
54.31  1337.4   77  1414.5   9987  48
MTOWER    1303634  A1066006  2016-AWP-11457-OE39-30-11.00 119-46-
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MTOWER 1256334 A1065454 2016-AWP-6102-OE 39-28-58.09 119-46-46.10 1347.8 19 1367.9 11688 247
MTOWER 1303638 A1066009 2016-AWP-11620-OE 39-29-36.20 119-47-02.99 1346.6 24 1371.0 12101 267
MAST 1233539 A0821192 2011-AWP-2178-OE 39-31-36.80 119-45-27.49 1346.6 28 1374.6 12369 338
POLE 1202064 A0645616 99-AWP-1015-OE 39-31-36.80 119-45-27.49 1343.9 27 1371.3 12369 338
B 1205335 A0154205 72-WE-799-OE 39-31-29.59 119-45-50.59 1347.3 7 1374.7 12517 329
TOWER 1257564 A1022375 2006-AWP-3525-OE 39-31-26.59 119-45-56.79 1347.5 19 1367.0 12519 327
MTOWER 1254468 A1096659 2017-AWP-12183-OE 39-29-25.50 119-47-08.89 1349.6 25 1376.4 12671 262
POLE 1297327 A1068775 2015-AWP-813-OE 39-30-24.40 119-47-04.31 1348.7 28 1377.6 12872 289
POLE 1011158 A1031669 2006-AWP-6411-OE 39-30-56.40 119-46-45.41 1348.1 28 1376.1 13008 305
1258276 A1047617 2009-AWP-5547-OE 39-30-01.29 119-47-13.81 1347.2 29 1377.4 13055 278
BANT 1236696 A0295672 2002-AWP-2755-OE 39-31-02.70 119-46-42.50 1344.2 5 1351.8 13199 308
TOWER 1203426 A0454722 99-AWP-1472-OE 39-31-55.69 119-45-01.67 1350.3 15 1365.5 13641 349
TOWER 1254993 A0561311 2006-AWP-3452-OE 39-30-57.99 119-46-54.01 1350.6 25 1376.5 13656 304
POLE 1303636 A1066011 2016-AWP-11619-OE 39-28-58.99 119-47-13.59 1357.9 9 1367.0 13667 251
BPIPE 1200788 A0091348 97-AWP-3383-OE 39-31-25.70 119-46-25.69 1349.0 7 1361.2 13826 319
POLE 1008821 A1059109 96-AWP-3113-OE 39-29-23.00 119-47-24.99 1350.6 16 1368.0 13956 262
MTOWER 1303633 A1066005 2016-AWP-11074-OE 39-31-11.30 119-46-58.10 1351.8 24 1376.2 14698 307
BTWR 1200795 A0091357 98-AWP-0332-OE 39-28-02.70 119-46-44.69 1354.8 25 1392.0 14729 226
POLE 1214460 A0268820 99-AWP-0721-OE 39-31-46.00 119-42-33.00 1341.1 25 1367.0 15385 36
TOWER 1227141 A0821055 01-AWP-2836-OE 39-27-11.40 119-44-17.89 1352.7 34 1391.7 15392 177
MTOWER 1305770 A1100639 2017-AWP-12860-OE 39-31-58.29 119-46-00.09 1350.2 18 1368.5 15416 332
TOWER 1233540 A0821193 01-awp-5166-oe 39-29-06.00 119-47-39.90 1360.0 21 1385.9 15442 256
POLE 1065848 A0645610 99-AWP-0798-OE 39-29-06.00 119-47-39.98 1359.7 17 1377.9 15448 256
POLE 1279558 A0780941 2011-AWP-2609-OE 39-31-26.59 119-41-57.81 1338.7 24 1363.4 15796 49
POLE 1252447 A1027963 2007-AWP-3952-OE 39-32-05.40 119-45-52.81 1348.1 31 1382.8 15812 335
POLE 1000983 A1081611 2006-AWP-6412-OE 39-29-46.00 119-47-50.59 1354.2 25 1379.5 15813 271
MTOWER 1303224 A1097645 2017-AWP-4831-OE 39-31-57.80 119-46-13.41 1351.7 27 1379.1 15884 329
MTOWER 1296098 A1059162 2014-AWP-9852-OE 39-30-48.99 119-47-34.30 1353.6 30 1384.0 15981 295
POLE 1286695 A1070446 2017-AWP-3342-OE 39-28-40.00 119-47-38.80 1374.6 17 1392.0 16207 247

TOWER 1266784 A0761649 2008-AWP-7191-OE 39-32-23.00 119-44-
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TOWER 1200325 A0090113 99-AWP-0860-OE 39-28-24.80 119-47-
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TOWER 1229632 A0864684 00-AWP-0546-OE 39-28-24.80 119-47-
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POLE 1024412 A0559771 97-AWP-0487-OE 39-31-41.99 119-46-
54.99 1353.3 18 1371.5 16594 316
POLE 1040328 A0838441 98-AWP-0067-OE 39-29-29.00 119-48-
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POLE 1303635 A1066007 2016-AWP-11458-OE39-27-49.49 119-47-
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TOWER 1256333 A1022357 2006-AWP-6725-OE 39-31-34.90 119-47-
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LTOWER 1293113 A0909627 2014-AWP-2127-OE 39-32-01.00 119-46-
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BANT 1202609 A0705745 99-AWP-0958-OE 39-32-36.99 119-45-
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TOWER 1232567 A1012708 01-AWP-3351-OE 39-30-26.69 119-48-
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TOWER 1222665 A0820934 2005-AWP-2224-OE 39-27-12.70 119-46-
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MTOWER 1299827 A1091360 2015-AWP-5301-OE 39-29-16.49 119-48-
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POLE 1236891 A1022136 2002-AWP-3655-OE 39-29-30.59 119-48-
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POLE 1303632 A1066012 2016-AWP-11461-OE39-26-57.59 119-46-
31.18 1371.0 9 1380.1 19313 210
MTOWER 1297211 A1059170 2015-AWP-1826-OE 39-32-55.58 119-45-
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MTOWER 1303637 A1066010 2016-AWP-11621-OE39-32-13.00 119-47-
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POLE 1241539 A1022193 2003-AWP-3966-OE 39-30-57.80 119-48-
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POLE 1235864 A1029688 2006-AWP-6414-OE 39-30-22.90 119-48-
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1270525 A0935879 2009-AWP-3630-OE 39-29-40.40 119-48-
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POLE 1271728 A1083055 2009-AWP-1062-OE 39-28-13.80 119-48-
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POLE 1255424 A1027755 2006-AWP-3460-OE 39-32-07.79 119-47-
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MTOWER 1294107 A1059158 2014-AWP-3196-OE 39-32-49.69 119-46-
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TOWER 1272174 A0819602 2009-AWP-4838-OE 39-29-38.30 119-49-
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TOWER 1257358 A1022372 2006-AWP-1774-OE 39-33-18.20 119-45-
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BTWR 1211696 A0657312 94-AWP-1497-OE 39-31-22.69 119-48-
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B 1015173 A0532352 39-31-37.99 119-48-
32.00 1359.0 65 1424.0 22310 301
B 1046158 A0054379 39-31-39.00 119-48-
32.00 1359.0 65 1424.0 22363 302

B 1031930 A0037874 94-AWP-1657-OE 39-31-39.00 119-48-
32.00 1359.4 65 1424.6 22363 302
BTWR 1030301 A0035902 97-AWP-2041-OE 39-31-35.00 119-48-
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BTWR 1011432 A1047392 2016-AWP-6999-OE 39-31-35.80 119-48-
39.17 1369.4 29 1412.3 22679 300
B 1018760 A0022468 39-31-36.00 119-48-
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TOWER 1257720 A0692884 2006-AWP-7358-OE 39-30-15.09 119-49-
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MTOWER 1298269 A1042623 2015-AWP-9075-OE 39-33-44.09 119-44-
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TOWER 1267297 A0761736 2008-AWP-7153-OE 39-30-53.09 119-49-
43.09 1382.0 16 1398.8 25619 286
TREE 1286195 A0976484 2013-AWP-3197-OE 39-33-26.70 119-47-
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B 1018759 A0022467 39-31-58.99 119-49-
11.01 1394.0 20 1414.0 26026 302
TOWER 1282875 A0905499 2011-AWP-7879-OE 39-34-00.79 119-45-
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TOWER 1238297 A0370641 2003-AWP-26-OE 39-32-29.79 119-48-
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TOWER 1059086 A0069404 98-AWP-2836-OE 39-33-00.99 119-48-
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POLE 1217836 A0817807 2005-AWP-505-OE 39-30-25.70 119-38-
53.90 1368.5 45 1414.2 26609 81
POLE 1215128 A0927810 99-AWP-2425-OE 39-31-51.70 119-49-
33.69 1386.9 10 1397.0 27192 299
TOWER 1232598 A0864286 01-AWP-4150-OE 39-30-33.49 119-50-
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TOWER 1202610 A0821426 2004-AWP-763-OE 39-33-00.58 119-48-
26.32 1407.3 25 1439.3 27288 317
1221866 A0978426 71-SLC-26-OE 39-33-25.59 119-47-
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LTOWER 1287089 A0831443 2013-AWP-259-OE 39-33-13.90 119-48-
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POLE 1278003 A1027315 2010-AWP-7636-OE 39-35-02.59 119-48-08.90 1660.2 23 1686.7 36617 332
POLE 1018757 A0022463 96-AWP-3346-OE 39-35-03.00 119-48-10.00 1656.0 5 1661.1 36695 332
TOWER 1284527 A0864680 2012-AWP-4436-OE 39-35-03.49 119-48-09.89 1664.0 22 1693.6 36735 332
MTOWER 1298546 A1103991 2016-AWP-162-OE 39-23-25.59 119-46-05.58 1474.9 13 1488.6 38961 191
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2TA2 1012404 A0974951 80-AWE-719-OE 39-34-25.00 119-50-52.00 1597.2 107 1704.2 41393 314
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08-06-2018
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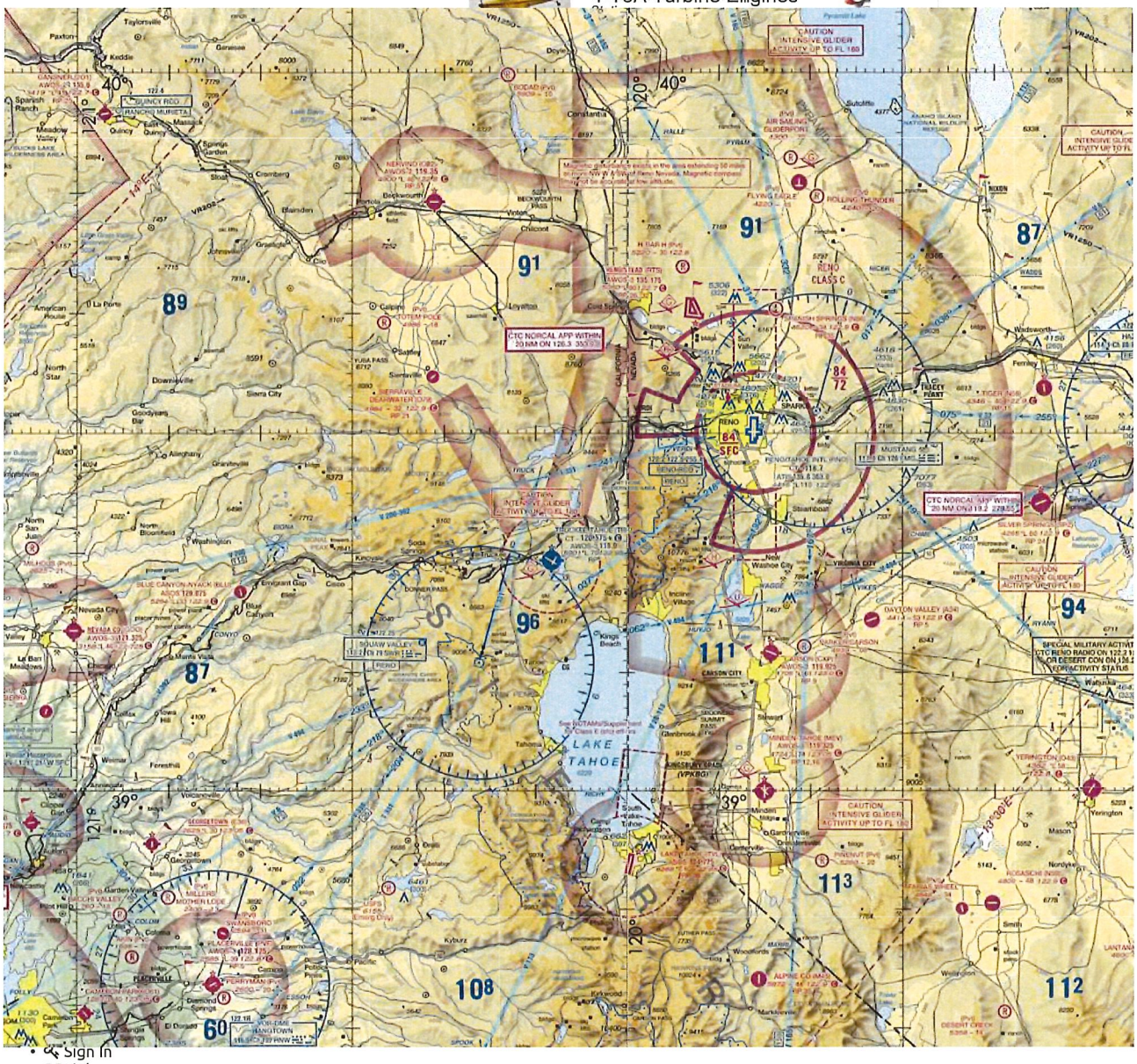
AIRSPACE/ TERPS REPORT

› TERPS ‹



- Sign In
- Link
- Layers
- N39°29.95' W119°46.09'
- 19:06:27 Z

Go Go

Flight Plan

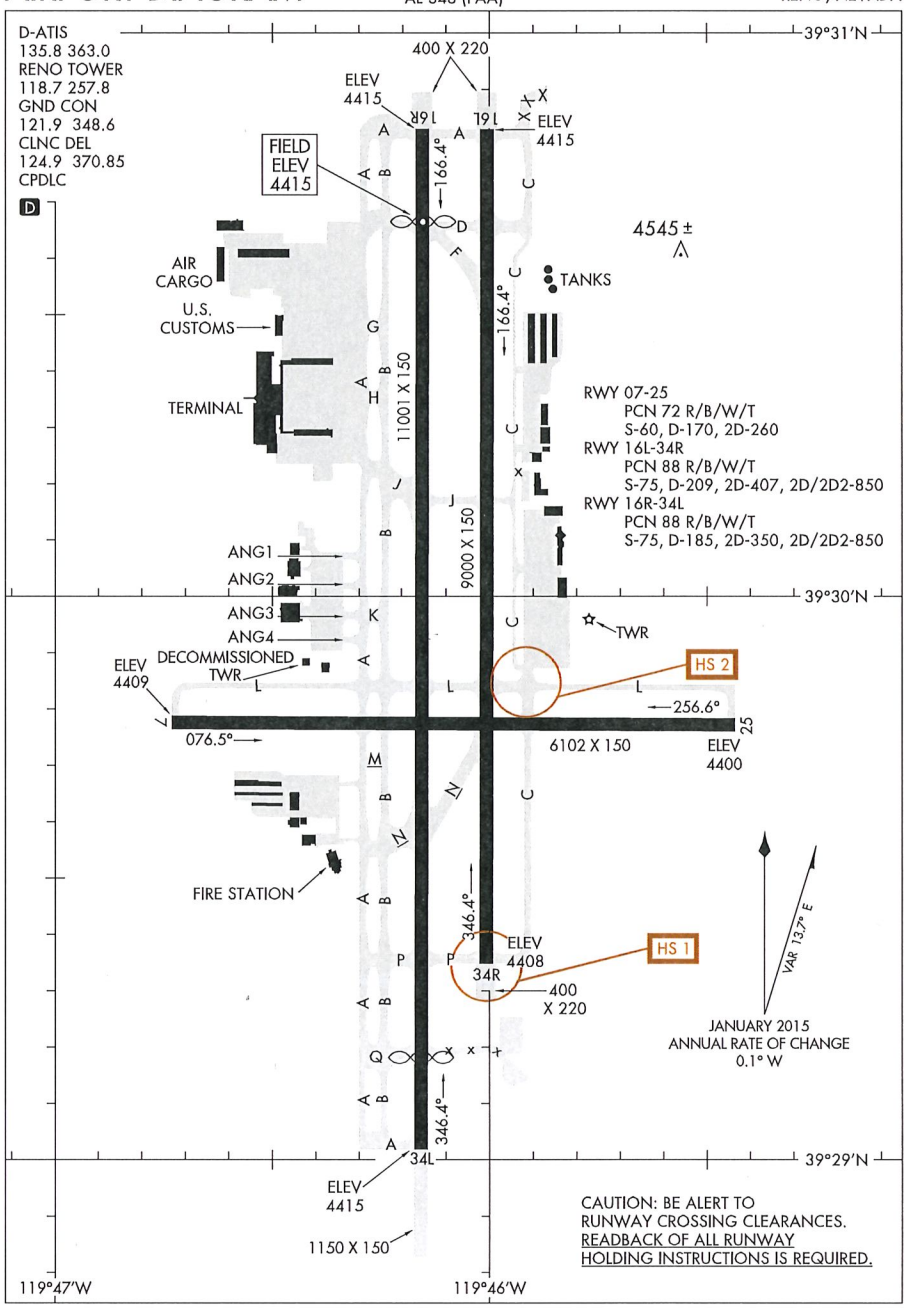
WSUP18-0007
EXHIBIT D

18088

AIRPORT DIAGRAM

RENO/TAHOE INTL (RNO)
RENO, NEVADA

AL-346 (FAA)



SW-4, 19 JUL 2018 to 16 AUG 2018

SW-4, 19 JUL 2018 to 16 AUG 2018

AIRPORT DIAGRAM

18088

RENO, NEVADA
RENO/TAHOE INTL (RNO)

WSUP18-0007
EXHIBIT D

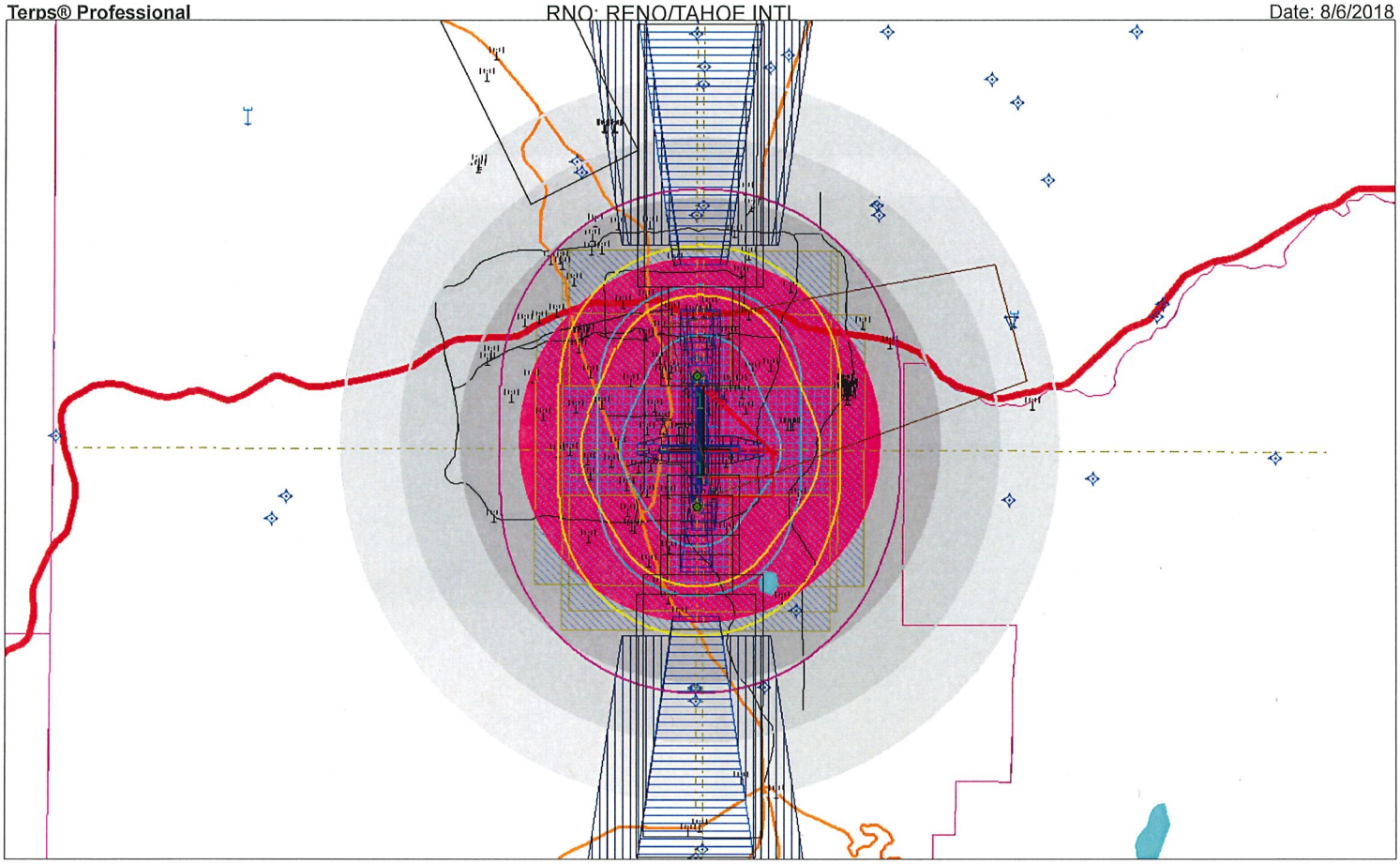


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EXHIBIT D

AIRSPACE/ TERPS REPORT

› TOWAIR ‹

WSUP18-0007
EXHIBIT D

TOWAIR Determination Results

This structure requires FAA notification and FCC registration, based on a check of the coordinates, heights, and structure type you provided. As detailed below, one or more of the determination results produced a "fail slope" result, which means registration is required.

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

FAIL SLOPE (100:1)FAA REQ - 1366.0 Meters(4481.56 Feet) away & exceeds by 1.0 Meters (3.27999 Feet)

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	39-29-46.00N	119-45-26.00W	RENO/TAHOE INTL	WASHOE RENO, NV	1341.0	3353.0999999999999

PASS SLOPE(100:1)NO FAA REQ - 2176.0 Meters (7139.02 Feet)away & below slope by 6.0 Meters (19.68 Feet)

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	39-30-50.00N	119-46-0.00W	RENO/TAHOE INTL	WASHOE RENO, NV	1341.0	3353.0999999999999

PASS SLOPE(100:1)NO FAA REQ - 2391.0 Meters (7844.39 Feet)away & below slope by 8.0 Meters (26.25 Feet)

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	39-30-50.00N	119-46-9.00W	RENO/TAHOE INTL	WASHOE RENO, NV	1341.0	3353.0999999999999

Your Specifications

NAD83 Coordinates

Latitude	39-29-43.3 north
Longitude	119-44-28.9 west

Measurements (Meters)

Overall Structure Height (AGL)	16.8

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EXHIBIT D

Support Structure Height (AGL)	16.8
Site Elevation (AMSL)	1339.2

Structure Type

MTOWER - Monopole

Tower Construction Notifications

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW

AIRSPACE/ TERPS REPORT

› CRANE ‹

WSUP18-0007
EXHIBIT D

****
* Federal Airways & Airspace *
* Summary Report: New Construction *
* Construction Crane *
****

Airspace User: Remington E Leaver

File: SC14011B

Location: Sparks, NV

Latitude: 39°-29'-43.29" Longitude: 119°-44'-28.91"

SITE ELEVATION AMSL.....4394 ft.
STRUCTURE HEIGHT.....75 ft.
OVERALL HEIGHT AMSL.....4469 ft.
SURVEY HEIGHT AMSL.....4469 ft.

NOTICE CRITERIA
FAR 77.9(a): NNR (DNE 200 ft AGL)
FAR 77.9(b): NR (Exceeds Notice Slope, Maximum: 4444 ft.)
FAR 77.9(c): NNR (Not a Traverse Way)
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for RNO
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for N86
FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required
NNR = Notice Not Required
PNR = Possible Notice Required (depends upon actual IFR procedure)
For new construction review Air Navigation Facilities at bottom
of this report.

Notice to the FAA is required because height exceeds Notice Slope criteria.
The maximum height to avoid notice is 4444 ft AMSL.

OBSTRUCTION STANDARDS
FAR 77.17(a)(1): DNE 499 ft AGL
FAR 77.17(a)(2): DNE - Airport Surface
FAR 77.19(a): DNE - Horizontal Surface
FAR 77.19(b): DNE - Conical Surface
FAR 77.19(c): DNE - Primary Surface
FAR 77.19(d): DNE - Approach Surface
FAR 77.19(e): DNE - Approach Transitional Surface
FAR 77.19(e): DNE - Abeam Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: RNO: RENO/TAHOE INTL

Type: A RD: 4485.748 RE: 4399.7
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Height No Greater Than 200 feet AGL.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Primary Surface: DNE
VFR Approach Surface: DNE
VFR Transitional Surface: DNE

The structure is within VFR - Traffic Pattern Airspace Runway Side Area.
Structures that exceed horizontal, conical, and/or 500' AGL will receive
a hazard determination from the FAA.

The structure is within VFR - Traffic Pattern Airspace Climb/Descent Area.
Structures exceeding the greater of 350' AAE, 77.17(a)(2), or VFR horizontal
and conical surfaces will receive a hazard determination from the FAA.
Maximum AMSL of Climb/Descent Area is 4764 feet.

VFR TRAFFIC PATTERN AIRSPACE FOR: N86: SPANISH SPRINGS
Type: A RD: 62497.32 RE: 4600
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Primary Surface: DNE
VFR Approach Surface: DNE
VFR Transitional Surface: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
FAR 77.17(a)(3) Departure Surface Criteria (40:1)
DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
The Maximum Height Permitted is 9000 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
NV78	HEL	REMSA/CARE FLIGHT	310.98	.86	+69	

No Impact to Private Landing Facility

Structure is beyond notice limit by 225 feet.

NV57 HEL RENOWN RGNL MEDICAL CENTER 305.24 3.08 -35

No Impact to Private Landing Facility
Structure 35 ft below heliport.

NV69 HEL NORTHERN NEVADA MEDICAL CENT 36.56 3.35 +9
No Impact to Private Landing Facility
Structure is beyond notice limit by 15355 feet.

NV58 HEL ST MARY'S RGNL MEDICAL CENTE 302.33 4.23 -131

No Impact to Private Landing Facility
Structure 131 ft below heliport.

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND ANGLE	APCH BEAR
RNO	CO	ON	A/G	281.55	6376	+9	NV	RNO RTR 1	.08	
RNO	ATCT	ON	A/G	275.97	9260	-43	NV	RENO/TAHOE INTERN	-.27	
RNO	LOCALIZER	I	110.9	235.38	9582	+49	NV	RWY 16R RENO/TAHO	.29	164
AGY	LOCALIZER	I	109.9	314.67	11041	+36	NV	RWY 34L RENO/TAHO	.19	344
RNO	RADAR	ON		279.25	11419	-14	NV	RENO/TAHOE INTERN	-.07	

No Impact. EMI Notice is not required for this structure.
The studied location is within 5 NM of a Radar facility.
The calculated Radar Line-Of-Sight (LOS) distance is: 164 NM.
This location and height is within the Radar Line-Of-Sight.

FMG VORTAC R 117.9 61.46 27390 -1481 NV MUSTANG -3.1

Alert! IFR Notice is not required for this structure.
Predict within Final Segment of Approach plus Fix Error Area.
Within FAR 77.9 IFR Notice Requirement Area for RNO: VOR-D
The maximum IFR No Notice Height for new construction is: 5700' AMSL.

RNO	CO	ON	A/G	62.58	27515	-1512	NV	RNO RTR 2	-3.15	
KRGX	RADAR WXL	Y		39.76	122784	-3920	NV	RENO WXL	-1.83	
SWR	VOR/DME	R	113.2	232.31	188399	-4381	CA	SQUAW VALLEY	-1.33	

HZN VORTAC R 114.1 87.67 209994 +384 NV HAZEN
.10

CFR Title 47, §1.30000-§1.30004
AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station.
Movement Method Proof as specified in §73.151(c) is not required.
Please review 'AM Station Report' for details.

Nearest AM Station: KXEQ @ 2522 meters.

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08-06-2018
12:20:53

□ertificate of AM □e□ulator□ □o□pliance for New Build Antenna Support Structure Sites

□

Site Name	**SC14011B**
Location	**N39-29-43.29 W119-44-28.91**
Client	**T-Mobile**
Certification Date	**8/6/2018**

□□□ordin□ to t□e □edera□Co□ □ □ni□ations Co□ □ission □□CC□□□□es and □e□□□ations□

□□1 □□□□art □□□ Dist□r□an□e o□□M □road□ast station antenna □atterns
□art □1□3□□□□ □□r□ose□
□□is r□□e □rote□ts t□e o□erations o□□M □road□ast stations □ro□ near□□tower □onstr□□tion t□at □a□distort t□e □M antenna □atterns□ □□□□arties □o□din□ or a□□□□in□ □or Co□ □ission a□t□ori□ations t□at □ro□ose to □onstr□□t or □a□e a si□ni□ant □odi□□ation to an antenna tower or s□□□ort str□□t□re in t□e i□ □ediate vi□nit□o□an □M antenna□or □ro□ose to insta□□an antenna on an □M tower□are res□onsi□□e □or □o□ □□etin□ t□e ana□□sis and noti□e □ro□ess des□ri□ed in t□is s□□□art□and □or ta□in□ an□ □eas□res ne□essar□to □orre□t dist□r□an□es o□t□e □M radiation □attern□i□s□□□ dist□r□an□es o□□□r as a res□□t o□t□e tower □onstr□□tion or □ odi□□ation or as a res□□t o□t□e insta□□ation o□an antenna on an □M tower□n t□e event t□ese □ro□esses are not □o□ □□eted □e□ore an antenna str□□t□re is □onstr□□ted□an□ □older o□or a□□□i□ant □or a Co□ □ission a□t□ori□ation is res□onsi□□e □or □o□ □□etin□t□ese □ro□esses □e□ore □□atin□ or □ro□osin□ to □□ate an antenna on t□e str□□t□re□as des□ri□ed in t□is s□□□art□ □art □1□3□□□2 □ower □onstr□□tion or □ odi□□ation near □M stations□
□a□Constr□□tion near a nondire□tiona□□M station□□ro□onents o□□onstr□□tion or si□ni□ant □ odi□□ation o□a tower w□i□□ is wit□in one wave□en□t□ o□a nondire□tiona□□M station□and is ta□er t□an 6□ e□e□tri□a□de□rees at t□e □M re□□en□□□□ □st noti□□t□e □M station at □east 3□ da□s in advan□e o□t□e □o□ □en□e□ent o□□onstr□□tion□□□e □ro□onent s□a□□e□a□ine t□e □otentia□□ □a□t o□t□e □onstr□□tion or □ odi□□ation as des□ri□ed in □ara□ra□□ □□□□□□t□e □onstr□□tion or □ odi□□ation wo□d distort t□e radiation □attern □□ □ore t□an 2 d□□t□e □ro□onent s□a□□e res□onsi□□e □or t□e insta□□ation and □ aintenan□e o□an□det□nin□ a□□arat□s ne□essar□to restore □ro□er o□eration o□t□e nondire□tiona□antenna□
□□□Constr□□tion near a dire□tiona□□M station□□ro□onents o□□onstr□□tion or si□ni□ant □ odi□□ation o□a tower w□i□□ is wit□in t□e □esser o□1□ wave□en□t□s or 3 □i□□□eters o□a dire□tiona□□M station□and is ta□er t□an 36 e□e□tri□a□de□rees at t□e □M re□□en□□□□ □st noti□□t□e □M station at □east 3□ da□s in advan□e o□t□e □o□ □en□e□ent o□ □onstr□□tion□□□e □ro□onent s□a□□e□a□ine t□e □otentia□□ □a□t o□t□e □onstr□□tion or □ odi□□ation as des□ri□ed in □ara□ra□□ □□□□□□t□e □onstr□□tion or □ odi□□ation wo□d res□□t in radiation in e□□ess o□t□e □M station□s □i□ensed standard □attern or a□□□ented standard □attern va□□es□t□e □ro□onent s□a□□e res□onsi□□e □or t□e insta□□ation and □ aintenan□e o□an□det□nin□ a□□arat□s ne□essar□to restore □ro□er o□eration o□t□e dire□tiona□antenna□□

□□e site at t□e a□ove □oordinates □as □een initia□□□s□reened to 3□2 □□ distan□e □or dire□tiona□antenna □M stations and 1□2 □□ distan□e □or non□dire□tiona□antenna □M stations□□□ere are □M □road□ast stations □□rrent□□□i□ensed to o□erate wit□in t□ose □itesa□e □irst review□sear□□ distan□es□ □□is site □as □een s□□□itted as a new □□id □raw □and□antenna s□□□ort site□ □□on □□rt□er review t□is □ro□osed new □□id antenna s□□□ort str□□t□re site wit□ t□e □oordinates and str□□t□re □ei□□t s□□□itted s□reens □M ne□ative □ased on t□e a□ove □□rrent □CC r□□es in e□□e□t as o□□e□r□ar□2□□2□1□ □er □1□3□□□2 □a□□or non□dire□tiona□antenna □M stations and □□□□or dire□tiona□antenna □M stations□ □□ □ortant□ □□is □M ne□ative □indin□ and □erti□□ate is □ □□□ a□□i□a□e to □□W □□□□D antenna s□□□ort str□□t□res□ □□is □erti□□ate does not a□□□□to e□istin□ antenna s□□□ort str□□t□res□ □□istin□ tower or ot□er antenna s□□□ort str□□t□res sti□□re□□ire an en□ineerin□ review □□ □itesa□e to deter□ine t□e □ossi□i□□t□at t□ere □a□□e □e□a□□ □M det□nin□ a□□arat□s insta□□ed on t□e e□istin□ str□□t□re w□i□□ wo□d re□□ire □□t□e □□rrent □CC r□□es an □M station noti□□ation □etter and □M st□d□to □e □er□or□ed re□ard□ess o□distan□es or str□□t□re □ei□□t□

□□is new □□id antenna s□□□ort str□□t□re at t□e a□ove □oordinates re□□ires no □□rt□er □M a□tion □er t□e □□rrent □CC r□□es□

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