Special Use Permit Application
Reno Technology Park Fire Station

Submitted to Washoe County

September 8, 2023

ORIGINAL

Prepared for

Truckee Meadows Fire District

3663 Barron Way

Reno, NV 89511

Prepared by

WOOD RODGERS

BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

1361 Corporate Blvd • Reno, NV 89502 • Tel: 775.823.4068 • www.woodrodgers.com

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Washoe County Development Application

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

Project Information	**Staff Assigned Case No.:** _____
Project Name:	Reno Technology Park TMFPD Fire Station
Project Description:	Request for a Special Use Permit to allow a safety service use (ie - Fire Station) to be developed in the GC zoning District.
Project Address: 0 Interstate 80 East, Washoe County, NV	
Project Area (acres or square feet): ~3.24 acres	
Project Location (with point of reference to major cross streets **AND** area locator): The project site fronts Reno Technology Parkway approximately 1 mile from the Exit 28 off ramp.	

Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
084-191-09	180.92		

Indicate any previous Washoe County approvals associated with this application:
Case No.(s).

Applicant Information (attach additional sheets if necessary)

Property Owner:		**Professional Consultant:**	
Name: Apple Inc.		Name: Wood Rodgers, Inc	
Address: 1 Infinite Loop MS 47-3REF		Address: 1361 Corporate Blvd	
Cupertino, CA	Zip: 95014	Reno, NV	Zip: 89502
Phone:	Fax:	Phone:	Fax:
Email: l_york@apple.com		Email: shuggins@woodrodgers.com	
Cell: 775-360-0006	Other:	Cell: 775-250-8213	Other:
Contact Person: Lindsey York		Contact Person: Stacie Huggins	
Applicant/Developer:		**Other Persons to be Contacted:**	
Name: Truckee Meadows Fire Protection District		Name:	
Address: 3663 Barron Way		Address:	
Reno, NV	Zip: 89511		Zip:
Phone: 775-328-6123	Fax:	Phone:	Fax:
Email:		Email:	
Cell:	Other:	Cell:	Other:
Contact Person: Chief Moore		Contact Person:	

For Office Use Only

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

Project Name: Reno Technology Park Fire Station

Meeting Location: held virtually via Zoom

Meeting Date: August 7, 2023

Neighborhood Meeting
SUMMARY

Virtual Meeting Option Provided: (●) YES ( ) NO

Hosted By (Name): Stacie Huggins **(Company):** Wood Rodgers, Inc

Contact (Email): shuggins@woodrodgers.com **(Phone):** 775-823-5258

Public Concerns:

1. None at the time of meeting
2.
3.
4.
5.

Changes Made to Proposal (if applicable):

1. None at this time
2.
3.
4.
5.

Any Additional Comments:

The Project Team joined the meeting at 5:30 to provide a presentation. As of 6:15 no attendees had joined the meeting so the Project Team ended the on-line meeting.

Special Use Permit Application
Supplemental Information

(All required information may be separately attached)

1. What is the project being requested?

   This is a request for a special use permit to allow development of a safety service facility (ie - fire station) in the GC zoning district.

2. Provide a site plan with all existing and proposed structures (e.g. new structures, roadway improvements, utilities, sanitation, water supply, drainage, parking, signs, etc.)

   The subject site is currently undeveloped. As depicted on the attached site plan, the proposed project includes a new fire station with apparatus bay, crew quarters, and administration offices. As designed the project meets all requirements noted in WC Code.

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

   Construction is anticipated to begin in Spring 2025 and be substantially completed by November 2025.

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

   The subject site is located adjacent to Interstate 80 approximately 1 mile from Exit 28 on/off ramp, and approximately 8 miles from the Greg Street/Interstate 80 intersection. TMFD selected this site to due to its central location and ability to respond to calls in East Truckee Canyon. Physically, the site is relatively flat consisting primarily of native vegetation. In addition, the site has access to Interstate 80 and is not adjacent to any residential.

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

   This new station will benefit the greater East Truckee Canyon area, including Lockwood, by being centrally located in the Canyon where they can better respond to the volume and type of calls typically needed. This area is currently being served by Station 37 located in Hidden Valley.

6. What are the anticipated negative impacts or affect your project will have on adjacent properties? How will you mitigate these impacts?

   Given the location of the proposed project, we do not anticipate any negative impacts on adjacent properties. It is worth noting that the Reno Technology Park Development Agreement has always contemplated a fire station as part of the Technology Park.

7. Provide specific information on landscaping, parking, type of signs and lighting, and all other code requirements pertinent to the type of use being purposed. Show and indicate these requirements on submitted drawings with the application.

   Refer to Special Use Permit plans included with this application.

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

❑ Yes	■ No

9. Utilities:

a. Sewer Service	Septic
b. Electrical Service	NV Energy
c. Telephone Service	AT&T
d. LPG or Natural Gas Service	
e. Solid Waste Disposal Service	Waste Managment
f. Cable Television Service	Spectrum
g. Water Service	Well

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

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

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

10. Community Services (provided and nearest facility):

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

Special Use Permit Application
for Grading
Supplemental Information

(All required information may be separately attached)

1. What is the purpose of the grading?

Grading is necessary to support development of the Fire Station.

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

Approximately 2,000 cubic yards of material will be excavated and used for fill. A majority of that material will be generated from the drainage channels around the project site.

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

Approximately 145,000 SF of surface will be disturbed, however, most areas will consist of buildings or pavement when the project is complete.

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

The project requires import of approximately 9000 cubic yards of material. The majority of the fill (approximately 8,500 cy) will be placed under the building and/or paving areas.

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

Although grading is necessary, the project does not meet the threshold for a grading special use permit since areas disturbed requiring import materials will either consist of building or pavement on natural slopes less than 30%. Approximately 8,500 cy of fill materials needed for the project will placed under the buildings and/or paved areas. The remaining 500 cy of fill will be used for the channel areas around the perimeter of the project.

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

No grading has occurred on the project site as of the date of the SUP submittal.

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

Yes, all areas proposed for grading are identified on the site plan.

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

The project site will be visible from Interstate 80.

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

No, all grading and access for the project are limited to the site.

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

Slopes on the site range from 0% to 5%, with a 3:1 max slope on the daylight areas along the perimeter of the developed area. Standard BMPs will be utilized to prevent erosion until landscaping is established.

11. Are you planning any berms?

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

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

The project does NOT require retaining walls.

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

Landscaping will be utilized for visual mitigation of the project/grading.

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

There are no existing trees on, or in the vicinity, of the project site.

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

Where revegetation is necessary, it will be treated with a native revegetation seed mix.

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

No temporary irrigation is planned. All landscaping will be irrigated with a permanent drip system.

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

No.

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

Yes	No X	If yes, please attach a copy.

Executive Summary

Applicant:	Truckee Meadows Fire Protection District
APN:	084-191-09
Request:	A request to allow a Safety Service use in the General Commercial (GC) zoning district per Table 110.302.52 of the Washoe County Development Code.
Location	The project site is located adjacent to Reno Technology Parkway, approximately 1 mile from the Interstate 80, Exit 28 off-ramp in East Truckee Canyon, Washoe County.

Project Request

This application package contains the required Washoe County application and supporting information for the following request:

- A Special Use Permit (SUP) to allow a new safety service use (i.e. – Fire Station) to be constructed on a parcel zoned General Commercial (GC) located in the East Truckee Canyon.

Background

In January 2012, the Washoe County Board of County Commissioners (BCC) approved a Development Agreement (DA11-001; ordinance #1476) with Unique Infrastructure Group (UGI) related to development of a technology park located near Patrick in the East Truckee Canyon Corridor. In November 2017, the BCC adopted ordinance #1605 amending and restating the Development Agreement (DA) with Apple, Inc (*refer to Section 4 for a copy of adopted Amended and Restated Development Agreement*).

Section 2.06 of the *Amended and Restated DA* specifically discusses development of a future fire station within the Technology Park boundary. This section of the DA includes general site location, configuration, and style criteria for the future fire station. This Special Use Permit for a safety service use (i.e. - fire station) is designed in accordance with the requirements of the *Amended and Restated DA*.

It is worth noting that Truckee Meadows Fire Protection District (TMFPD) currently provides fire protection in the East Truckee Canyon area with a volunteer fire station located in Wadsworth. When necessary, units from the Hidden Valley station are available to respond to calls in the I-80 East corridor. In addition, assistance agreements exist with Lyon County, Storey County, and the Pyramid Lake Reservation. The proposed site allows TMFPD to better respond to volume and type of calls typically needed in eastern Washoe County, and specifically in the East Truckee Canyon/I-80 corridor.

Project Description

The new fire station is planned on approximately 3.2 acres near the southern edge of the Reno Technology Park in a location that provides convenient access to US Interstate 80. The site is currently zoned General Commercial with a land use designation of Commercial. As noted in the Washoe County Development Code, safety service uses are permitted with approval of a Special Use Permit in the GC zoning district.

It should be noted that upon approval of the SUP, the Applicant plans to submit a Parcel Map to establish a new parcel that coincides with the site plan included with this SUP. For the purpose of this SUP narrative, the "Project Site" is assumed to be 3.24 acres, which is adequate to accommodate the fire station and all accessory needs.

The proposed building has been designed as a site-adaptable facility. The site adaptation concept will facilitate facility standardization in future stations throughout Washoe County. This standardization will provide similar building organization, building systems, and finishes across future projects throughout the Fire Protection District.

In terms of the building area, the new fire station has been designed with full vehicle circulation around the building with parking areas strategically located around the project perimeter. Specifically, the building includes an apparatus bay on the north side of the building that will house three large fire fighting vehicles with direct access to Interstate 80 via Reno Technology Parkway. The remaining portion of the building will include living quarters for a 6 man fire crew. In addition to the fire station building, the project includes ancillary buildings that will be used primarily for storage of fire equipment.

Building Architecture and Floor Plan

The new Apple Fire Station is a modern public safety resource for the Interstate 80 corridor in eastern Washoe County area. The station is a single-story building that has apparatus bays, residential & living spaces for fire department crews, and support rooms.

The 13,600 SF building is constructed of materials that will provide a durable structure and minimize future maintenance. The exterior materials are a simple palette of concrete masonry units (CMU) and metal panels. The CMU walls will be integral color with complementary color accents, representing colors of vegetation and landforms in the immediate area. The CMU walls are anticipated to be a combination of textured face types. The upper portions of the exterior walls will be clad with metal panels. The metal panels will be factory-finished with colors to complement the CMU. The exterior walls will have a parapet building form. The parapet wall system reduces building volume and helps manage impacts of water runoff caused by a sloped roof. This leads to a more energy efficient station with flexibility to grow economically if needed.

The building floor plan provides various functional components of the station. Public access, administration, apparatus room, living/fitness, operational support, and residential zones are clearly defined in the plan.

Visitors will enter the building through a dedicated public entrance. This entrance is adjacent to public parking. The public entrance has access to a lobby and restroom.

The apparatus room accommodates 6 response vehicles in 3 bays. The high-bay room has large overhead doors for vehicle ingress and egress. Future design will also investigate the possibility of four-fold bay doors to improve opening speed and durability. The overhead doors will be glazed for daylighting and to maximize sightlines. The room will have trench drains, vehicle exhaust systems and overhead utilities.

The living area is at the core of the building. Kitchen, Dayroom, and Fitness areas allow for meal preparation, relaxation, and physical training in spaces that support camaraderie. The Kitchen is used by the crews for food storage and meal preparation. An adjacent dining area is open to the kitchen space. The crew Dayroom is open to the kitchen. The Dayroom allows for relaxation and can double as a meeting space. The Fitness Room supports physical training with a combination of fitness machines and free weights.

Support shops are adjacent to the apparatus room and provide direct access from the shops to the apparatus room. Shops include turnout gear storage, hazardous materials decontamination, tool room, and equipment storage. The turnout storage room has wire lockers to store firefighting clothing and gear for all shift personnel. The redzone vestibule is used for proper processing of clothing and equipment after possible exposure to contaminants. The materials are kept isolated from the rest of the building and are either sanitized on site or

cleaned at the main headquarters. Laundry facilities are in the support area to minimize sound disturbances of laundry functions while crew members may be sleeping.

The station has six bedrooms for the on-duty crew, along with a Captain's bedroom. The bedrooms are separated from the rest of the station to provide a quiet environment. The residential section includes restrooms and showers. One restroom/shower that will be fully accessible. Each bedroom has a window for daylighting and views.

Traffic, Site Circulation and Parking

Headway Transportation prepared a Trip Generation Estimate for the proposed project. According to the memo, the proposed project is anticipated to generate 70 average daily trips (ADT), with 7 AM peak and 7 PM peak trips, which is well below Washoe County's requirement of 80 peak hour trips for a formal Traffic Study.

In terms of on-site circulation, the site has been designed with ingress/egress via a driveway connecting to Reno Technology Parkway, where is ultimately connects to Interstate 80 at Exit 28. Once on site, the project includes a drive aisle that accommodates two way access for vehicles. Guests visiting the station will utilize one of the two parking areas provided while emergency vehicles will continue to the apparatus bay where they will enter the bay from the west and be parked facing east toward Interstate 80.

The project includes a total of 27 parking stalls, including three van accessible ADA stalls. Specifically, twelve parking stalls are provided on the east side of the building for guests with an additional fifteen parking stalls for employees on the south and west sides of the building. Two of the ADA spaces have been located in the visitor parking area along the front of the building and are both van accessible with access to an ADA route to/from the main building. A third van accessible ADA space is provided in the employee parking lot on the south side of the building and will also have access to an ADA route to/from the main building.

Landscaping

The Applicant is requesting to waive the requirement for 20% landscaping as required by Washoe County Code. Providing formal landscaping at this site, including trees and shrubs in accordance with Article 412, would be out of place and take away from the character of the area since the native vegetation does not include plant types typically found in more formal landscaping.

In lieu of providing formal landscaping, the Applicant is proposing to provide landscaping and hardscape treatments that complement the area. As shown on the Preliminary Landscaping Plan, the project includes 10,980 sqft (16.2%) of landscape treatments including strategically planted trees complemented by drought tolerant plantings and a mix of inorganic groundcover and/or bark mulch for ground cover. All landscaping will be maintained by fire personnel on-duty (*refer to Landscaping Plan in Section 3 and Map pocket*).

It is worth noting that under Section 2.03(f) of the adopted Development Agreement, "*any landscaping requirements included in the Washoe County Code…shall not apply to the Project*". Per the DA, "Project" is further defined as, "*Project means any development undertaken by Developer at the Property more particularly defined in Exhibit A*". Given that the proposed fire station is part of the Development Agreement and within the Technology Park boundary, we believe the fire station should not be required to provide landscaping in accordance with WC Development Code, Article 412.

Lighting

The project is anticipated to include minimal lighting primarily focused on building and parking lot lighting. Where pole lighting is provided in the parking areas, they will be limited to 12-feet tall and shielded to direct the light down to the ground, conforming with "dark sky lighting" standards.

Signage

Signage for the project will comply with Washoe County standards. Signage will be complimentary to the architectural style and character of the building and will be oriented toward Interstate 80.

Utilities

Utilities that will serve the project site are summarized as follows:

- Water – The proposed project will utilize a well system. The well, pump station, and fire water tank have been preliminarily designed by Shaw Engineering.
- Sewer – The project will utilize a septic system. The septic tank and disposal trench components of the septic system have been preliminarily designed for the project. A preliminary sewer report is provided in Section 4 of this application.
- Electricity – Electric will be provided by NV Energy.
- Gas – A propane tank will be utilized to serve the project.
- Telephone, Cable, and Fiber Optic – Telephone, cable, and fiber optic services will be provided by AT&T and Spectrum.

Grading and Drainage

In order to support development of the fire station, approximately 145,000 square feet will be disturbed. As designed, approximately 2,000 cubic yards will be excavated and used as fill on-site. The majority of this material will be generated from the drainage channels around the perimeter of the project site. The project requires approximately 9,000 cubic yards of fill material. Although grading is necessary, the project does not meet the threshold for a special use permit since areas requiring import material will either consist of building or pavement on natural slopes less than 30%. Approximately 8,500 cubic yards of fill material needed for the project will be placed under the buildings and paved areas. Only about 500 cubic yards of fill will be needed for the channel areas around the perimeter of the project.

In terms of drainage, the project site currently slopes from northwest to southeast. Stormwater falling upstream of the project site sheet flows for a short time and then concentrates into existing natural drainage swales. As stormwater run-on reports to the project site, it will be diverted in drainage channels around the east and west sides of the proposed developed area. Stormwater will then discharge south of the project site and cross Reno Technology Parkway through the existing box culvert in the same manner as the existing condition. All flow from the area will eventually report to the Truckee River.

Soils

The project consists of a fire station building with apparatus bays, metal storage building, septic system, water system, and perimeter drainage channel, with associated parking and drive areas. The structures are anticipated be one story in height, metal-framed, with conventional spread foundations with slab on grade flooring. Grading plans and structural information were not available at the writing of this summary.

Per Google Earth imagery, a portion of the site was cleared prior to July 2010. The site is bordered by an access road and drainage feature to the southeast, and undeveloped land elsewhere. Overall, the site is relatively flat, gently sloping towards the southeast drainage feature. The hill slope to the northwest presents slopes 17 to 50-percent. Vegetation is light to moderate and typically consists of grasses, weeds, and brush across the site. Wood Rodgers conducted field exploration and found the soils typically consisted of a 1-foot-thick medium to high plasticity lean clay cap over silt, sandy silt, and silty sand. Groundwater was not encountered in any of our explorations and well logs indicate it at least 45-feet below the existing ground surface depending on surface elevation. A copy of the *Preliminary Geotechnical Due Diligence Letter* is included in **Section 4** of this application packet for reference.

Development Statistics Summary

Total Site Area:	180.92± acres
Project Site:	3.24± acres
Developed Area:	
Building Area:	20,460± sqft.
Parking/Paved Area:	47,290± sqft.
Undeveloped/pervious Area:	62,400± sqft.
Landscape Area:	10,980± sqft. (16.2%)
Trees Required:	3 trees
Trees Provided:	8 trees
Parking Required:	12 stalls
Parking Provided:	27 stalls
Accessible Parking Required:	2 stalls
Accessible Parking Provided:	3 stalls

Special Use Permit Findings

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

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

Response: The proposed use is consistent with the Master Plan, which identifies the project site as Commercial (C). The conforming General Commercial (GC) zoning as defined within the Washoe County Master Plan and Development Code allows Safety Services with approval of this Special Use Permit.

The proposed new fire station allows TMFPD to construct a new fire station that can better respond to volume and type of calls typically needed in eastern Washoe County, and specifically in the East Truckee Canyon/I-80 corridor.

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

Response: All necessary facilities (water/septic/etc.) are either available nearby or can be provided to serve the project. All improvements will be designed in accordance with applicable codes and regulations.

Specifically, the proposed project will be served by a new water tank constructed on-site.

In terms of sewer, the project is designed to utilize a septic system. The septic tank and leach field components of the septic system have been preliminarily designed for the project. A preliminary sewer report is provided in Section 4 of this application.

In addition to utilities, the project includes a new driveway that connects to Interstate 80 via Reno Technology Parkway. Given the type of project proposed, no additional roadways or improvements are required to serve the project.

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

Response: Physically, the site is relatively flat with a gentle slope towards the southeast where it naturally drains into an existing engineered box culvert. The undeveloped site consists primarily of native vegetation with low-lying grasses, weeds, and brush across the site.

The new fire station has been located on the project site to better respond to the volume and type of calls that are typical in this area of eastern Washoe County. As noted previously, the site has direct access to Interstate 80 via Reno Technology Parkway which will enable fire or emergency response throughout the area within approved response times as outlined in the Regional Fire Services Standards of Cover.

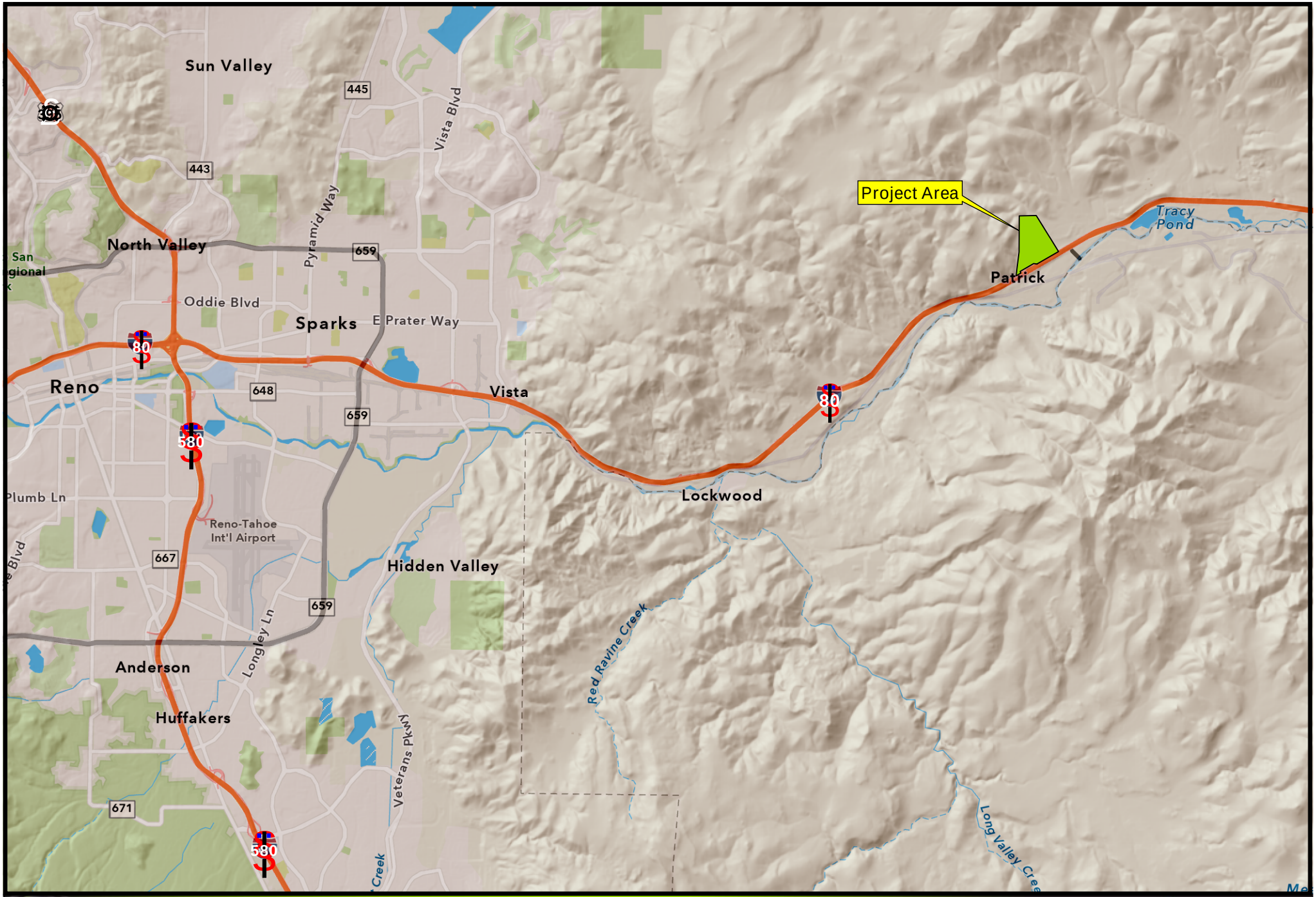
(d) Issuance Not Detrimental. Issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area; and

Response: The proposed use as a fire station will not be significantly detrimental to the public health, safety or welfare. The proposed project is provided as outlined in the adopted Development Agreement and will serve as an asset for the overall area providing fire protection and emergency response to the East Truckee Canyon/I-80 corridor.

In terms of impacts to the surrounding area, the new building has been cited on the southern portion of the site separated from any existing development within the Technology Park. The project has been designed so that fire trucks enter and exit the apparatus bay directly from Reno Technology Park, which provides direct access to Interstate 80 via the Patrick on/off ramp. No additional improvements to the on/off ramp or Interstate 80 are needed to accommodate the project.

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

Response: N/A.



Vicinity Map

TMFPD - Apple Fire Station

July 2023

0 1 2
Miles

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel: 775.823.4068
Fax: 775.823.4066

Aerial Map

TMFPD - Apple Fire Station

July 2023

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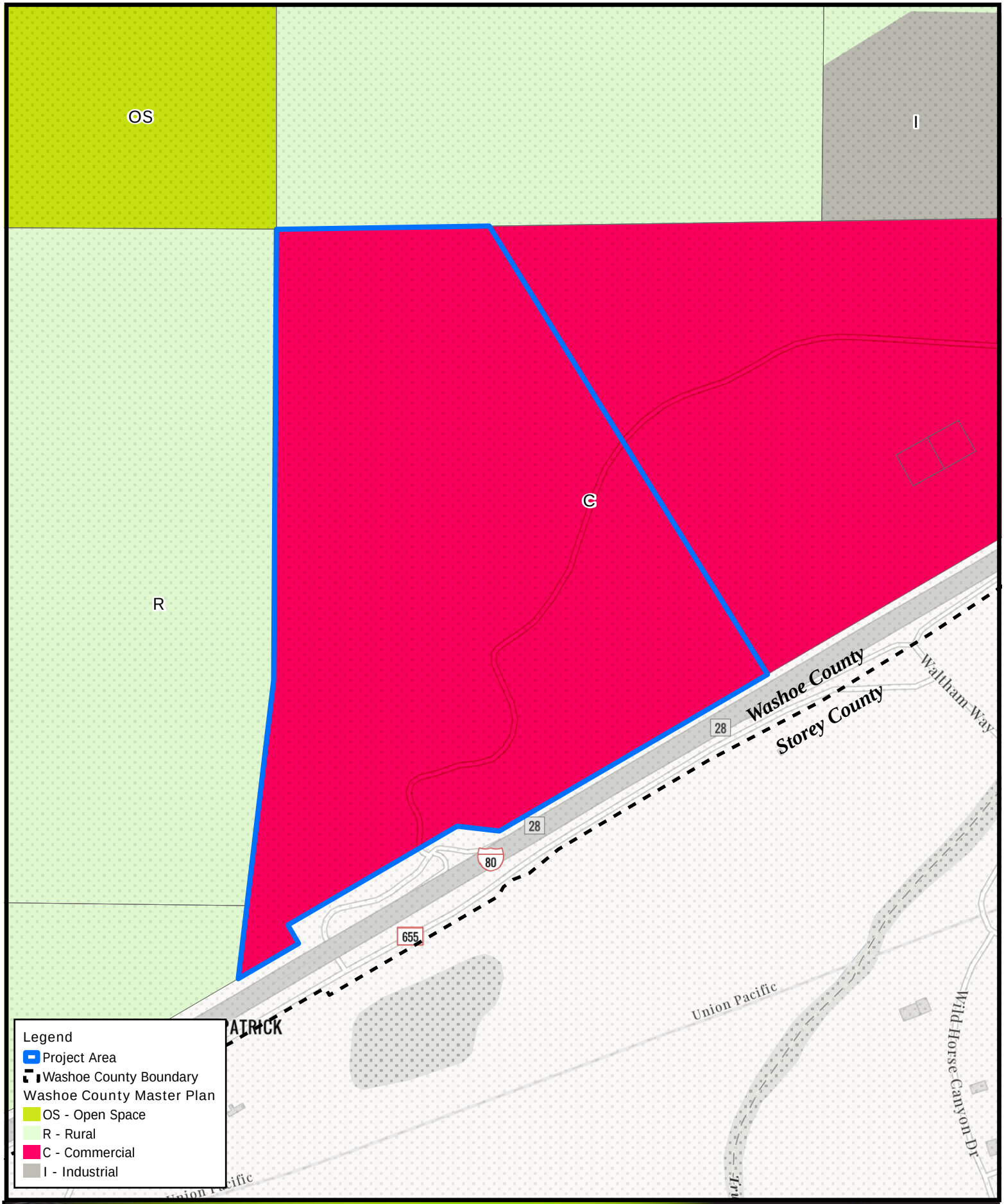

Master Plan

TMFPD - Apple Fire Station

July 2023

0 485 970

Feet

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
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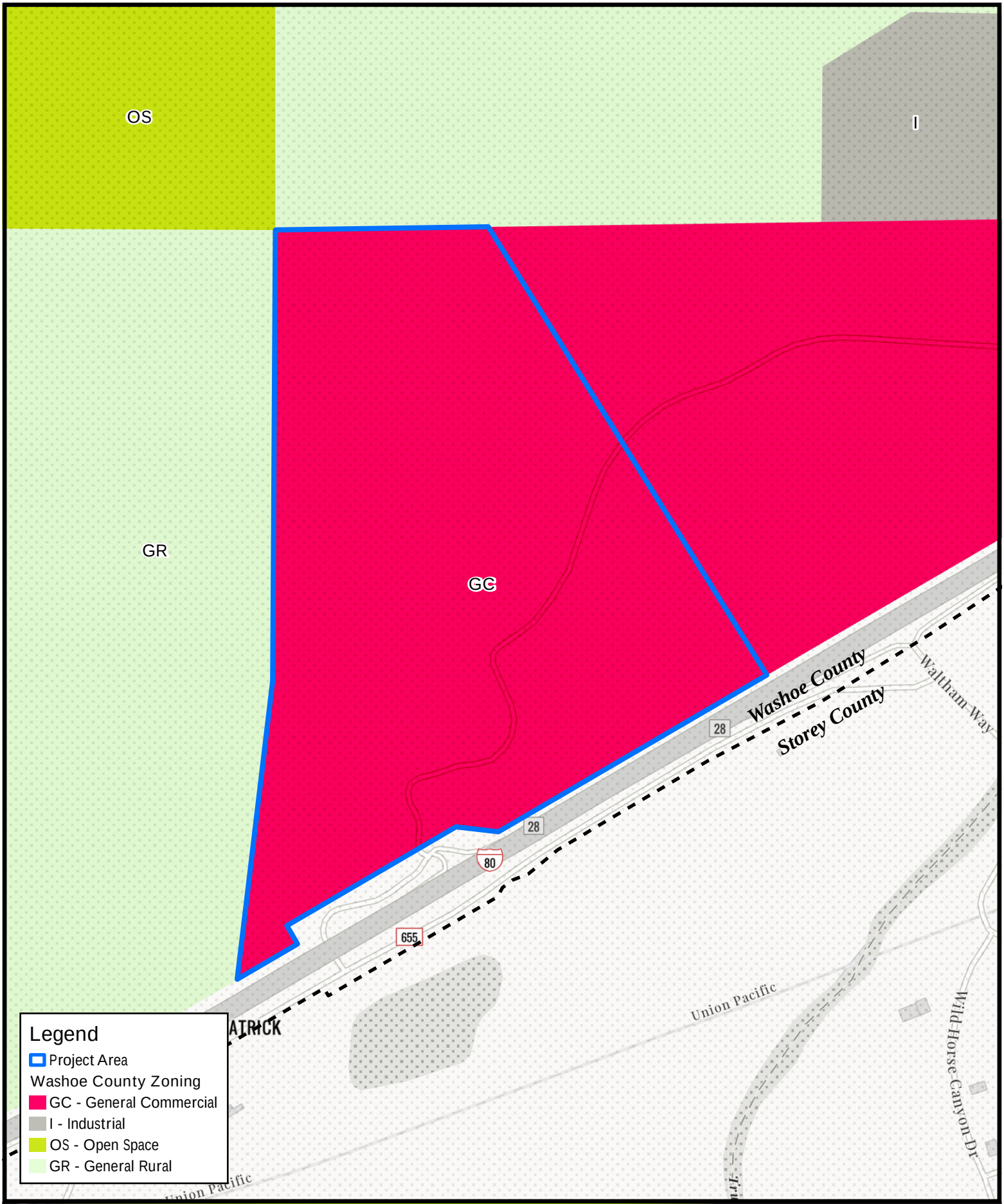

Zoning

TMFPD - Apple Fire Station

July 2023

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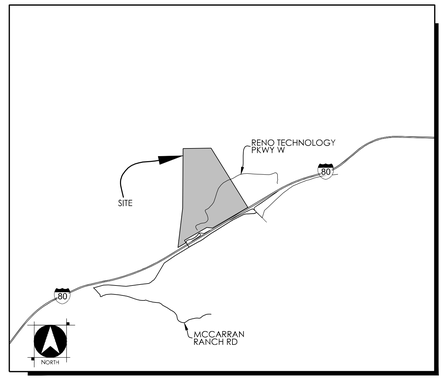
APPLE FIRE STATION
SPECIAL USE PERMIT
TITLE SHEET



VICINITY MAP
NOT TO SCALE

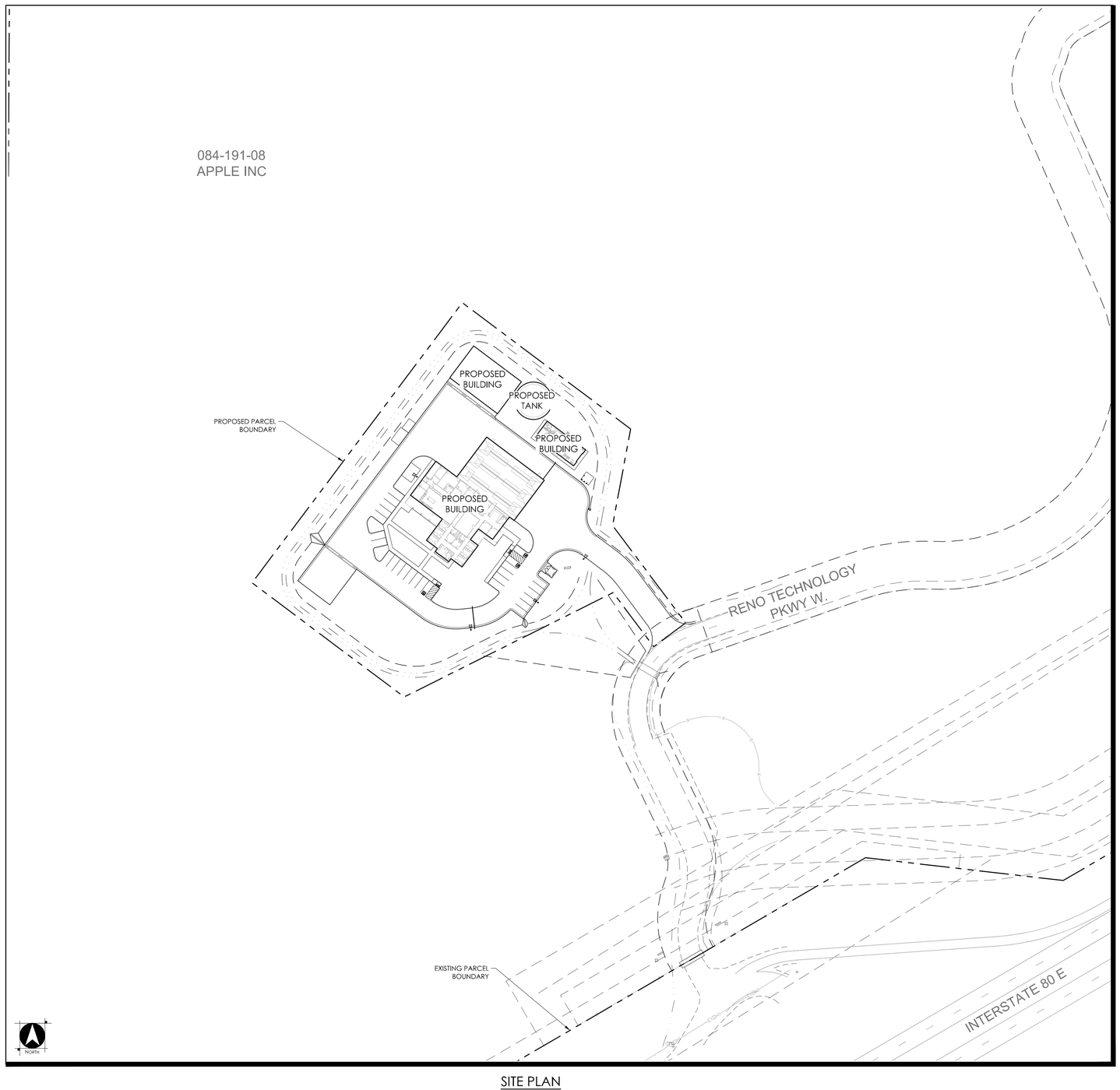
OWNER/DEVELOPER:
TRUCKEE MEADOWS
FIRE PROTECTION DISTRICT
3663 BARRON WAY
RENO, NV 89511

BASIS OF BEARINGS

NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983/1994, HIGH ACCURACY REFERENCE NETWORK (NAD 83/94-HARN), AS DETERMINED USING REAL TIME KINEMATIC (RTK) GPS OBERVATIONS WITH CORRECTIONS TRANSMITTED BY THE NEVADA GPS NETWORK (NGN GPS). THE BEARING BETWEEN NGS REFERENCE MONUMENT "E 147" AND "C 147" - IS TAKEN AS NORTH 61°18'46" EAST. ALL DIMENSIONS SHOWN ARE GROUND DISTANCES. THE COMBINED GRID-TO-GROUND FACTOR IS TAKEN FROM NEVADA DEPARTMENT OF TRANSPORTATION LPN 1516=1.00022500001.

BASIS OF ELEVATION

BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS TAKEN FROM USC&GS BENCHMARK E-147. WITH A PUBLISHED ELEVATION OF 4420.01 FT. BENCHMARK E 147 IS DESCRIBED AS BEING A 3.5" USC&GS BRASS DISK SET IN CONC. STAMPED "E147 1958." THE MONUMENT IS LOCATED AT MILEPOST WASHOE 27.7. THE MONUMENT IS 80' NORTH OF THE NORTH EDGE OF OIL OF IR 80 AND ON THE NORTH EDGE OF A WASH 2.5' NORTH OF RIGHT-OF-WAY FENCE. A FOUND WITNESS T-POST IS 5.5' WEST OF THE MONUMENT.



SITE PLAN
NOT TO SCALE

SITE INFORMATION:

EXISTING ASSESSOR PARCEL NUMBER:
084-191-08

SITE INFORMATION:
EXISTING PARCEL AREA: 180.92± AC
PROPOSED PARCEL AREA: 3.24± AC
UNDEVELOPED AREA: 62,400 SF
DEVELOPED AREA:
BUILDING/STRUCTURES AREA: 20,460 SF
PARKING/PAVED AREA: 47,290 SF
LANDSCAPE AREA: 10,980 SF

PARKING STATISTICS:
TOTAL PARKING PROVIDED: 27 STALLS
TOTAL ACCESSIBLE PARKING REQUIRED: 1 STALLS
TOTAL ACCESSIBLE PARKING PROVIDED: 3 STALLS

ENGINEERS STATEMENT:

I, JILLIAN G. WILBRECHT, DO HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND WAS COMPLETED ON THE 8th DAY OF SEPTEMBER, 2023.

JILLIAN G. WILBRECHT P.E. #22522

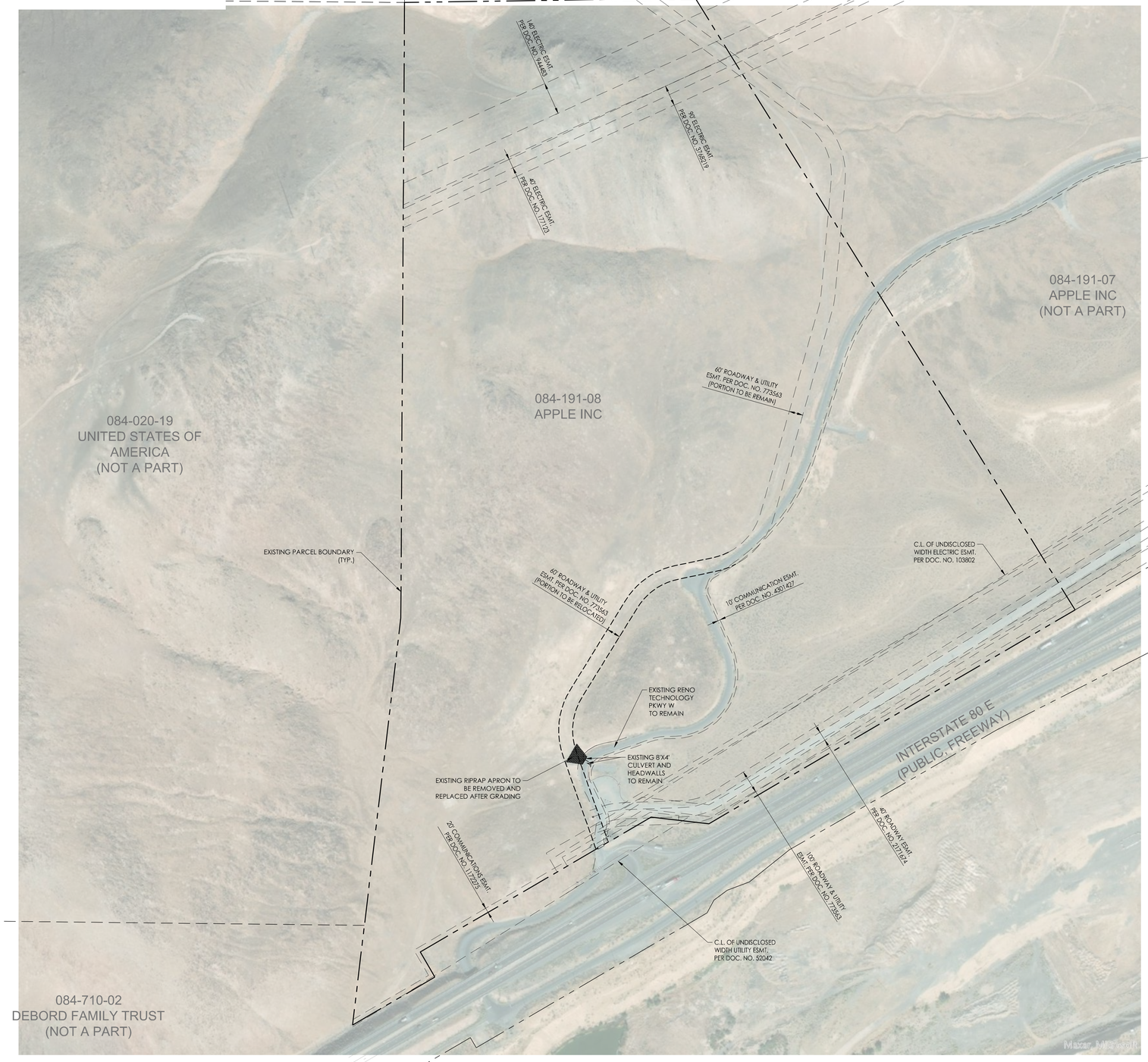
SHEET INDEX

APPLE FIRE STATION
TITLE SHEET

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

JOB NO. 8754.006 SEPTEMBER, 2023

APPLE FIRE STATION
SPECIAL USE PERMIT
EXISTING CONDITIONS



LEGEND:

EXISTING RIP RAP APRON TO BE REMOVED AND REPLACED

NORTH

0 400

200 800

APPLE FIRE STATION
EXISTING CONDITIONS

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
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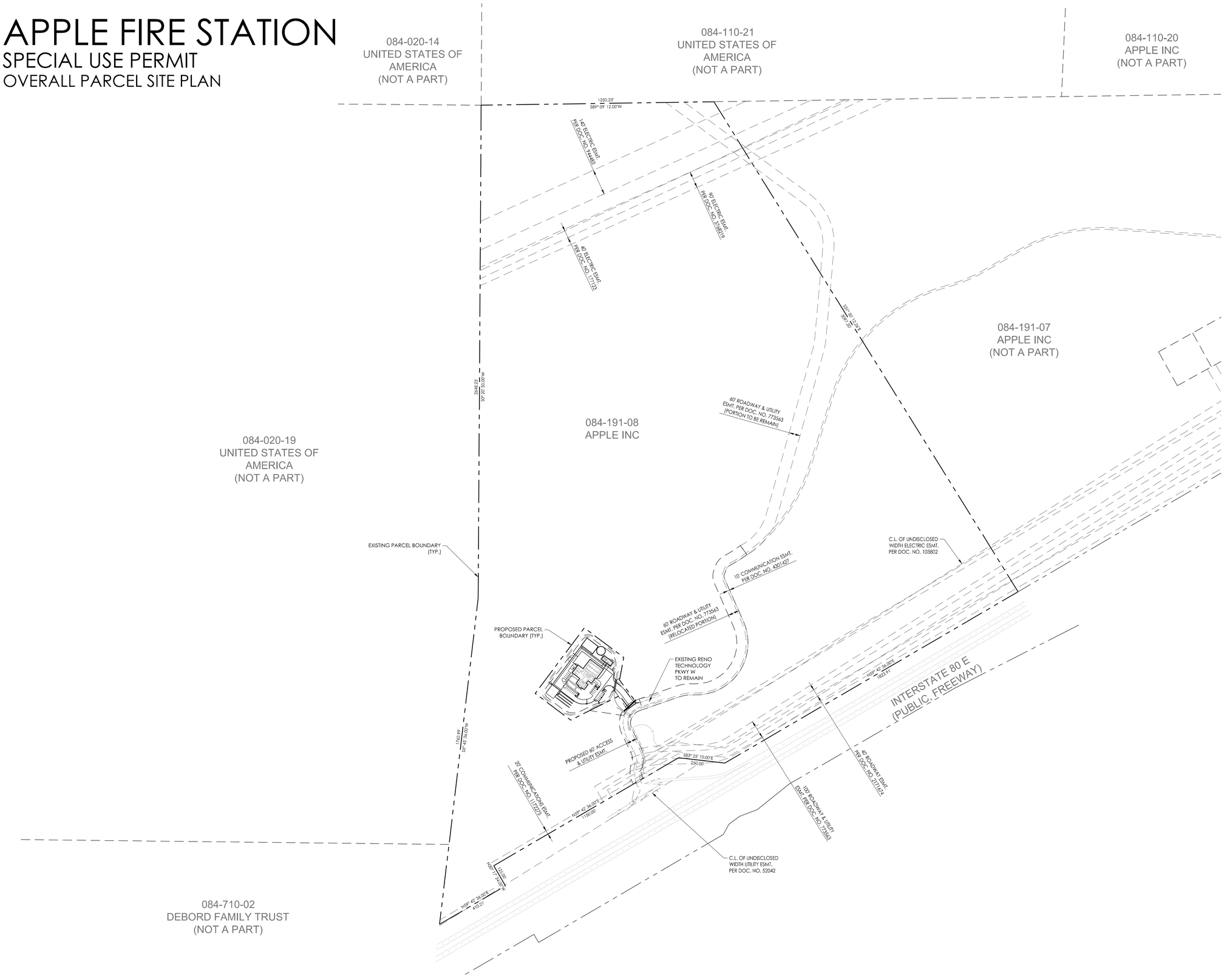
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

JOB NO. 8754.006 SEPTEMBER, 2023

APPLE FIRE STATION
SPECIAL USE PERMIT
OVERALL PARCEL SITE PLAN



NORTH

0 200 400 800

APPLE FIRE STATION
OVERALL PARCEL SITE PLAN

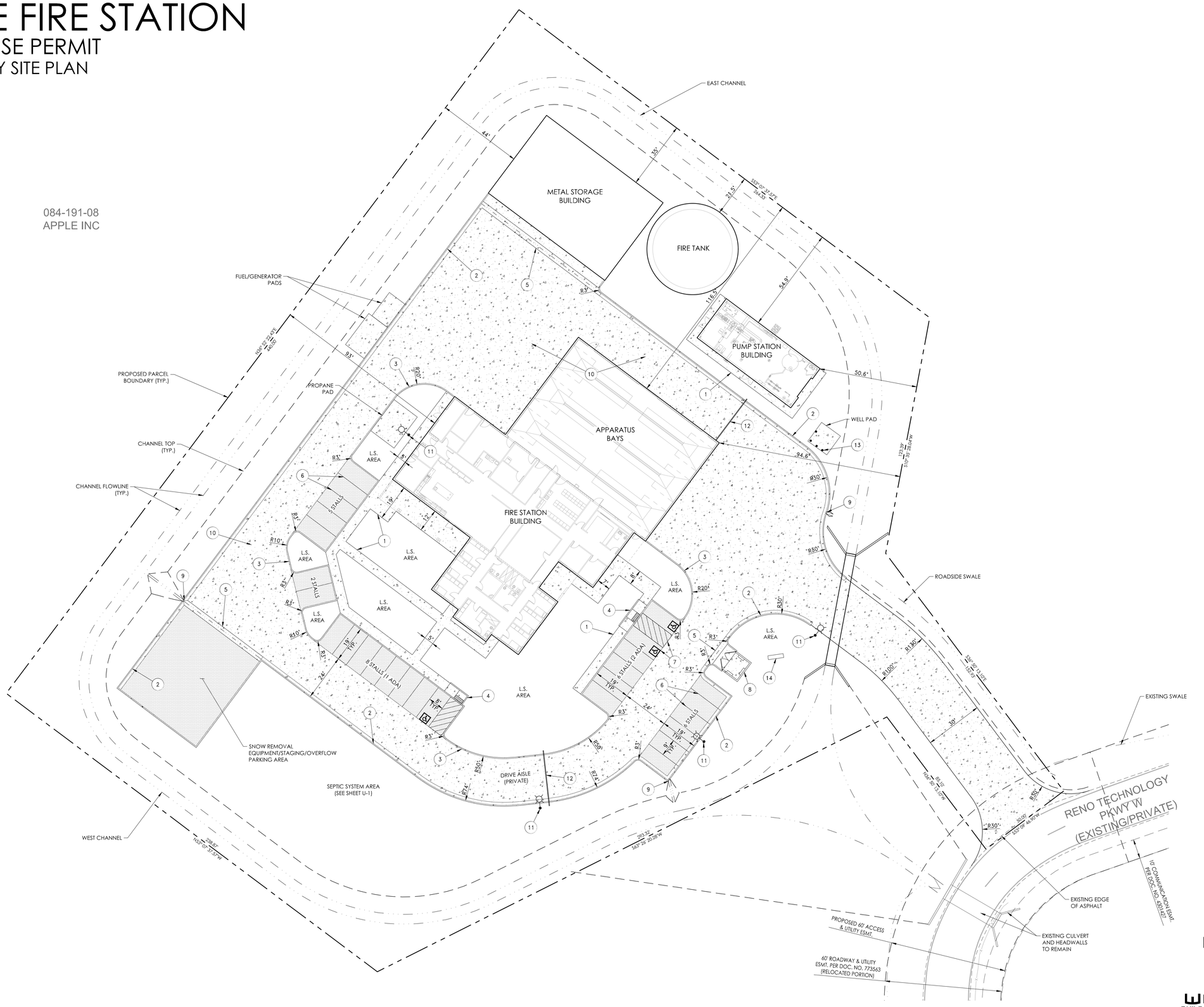
WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

JOB NO. 8754.006 SEPTEMBER, 2023

SHEET S-1 OF 8

APPLE FIRE STATION
SPECIAL USE PERMIT
PRELIMINARY SITE PLAN

084-191-08
APPLE INC



LEGEND:

- A.C PAVING (PARKING)
- P.C.C. CONCRETE

SITE KEY NOTES:

1. PROPOSED SIDEWALK/FLATWORK (TYP.)
2. PROPOSED CURB AND GUTTER (TYP.)
3. PROPOSED POST CURB (TYP.)
4. PROPOSED PEDESTRIAN RAMP (TYP.)
5. PROPOSED PCC VALLEY GUTTER (TYP.)
6. PROPOSED PAVEMENT MARKINGS (TYP.)
7. PROPOSED ACCESSIBLE MARKINGS (TYP.)
8. TRASH ENCLOSURE
9. CURB OPENING
10. PROPOSED PCC DRIVE AISLE
11. SITE LIGHT
12. AUTOMATIC ENTRANCE GATE/ARM
13. BOLLARDS (TYP.)
14. MONUMENT SIGN

NORTH
0 20 40 80

APPLE FIRE STATION
PRELIMINARY SITE PLAN

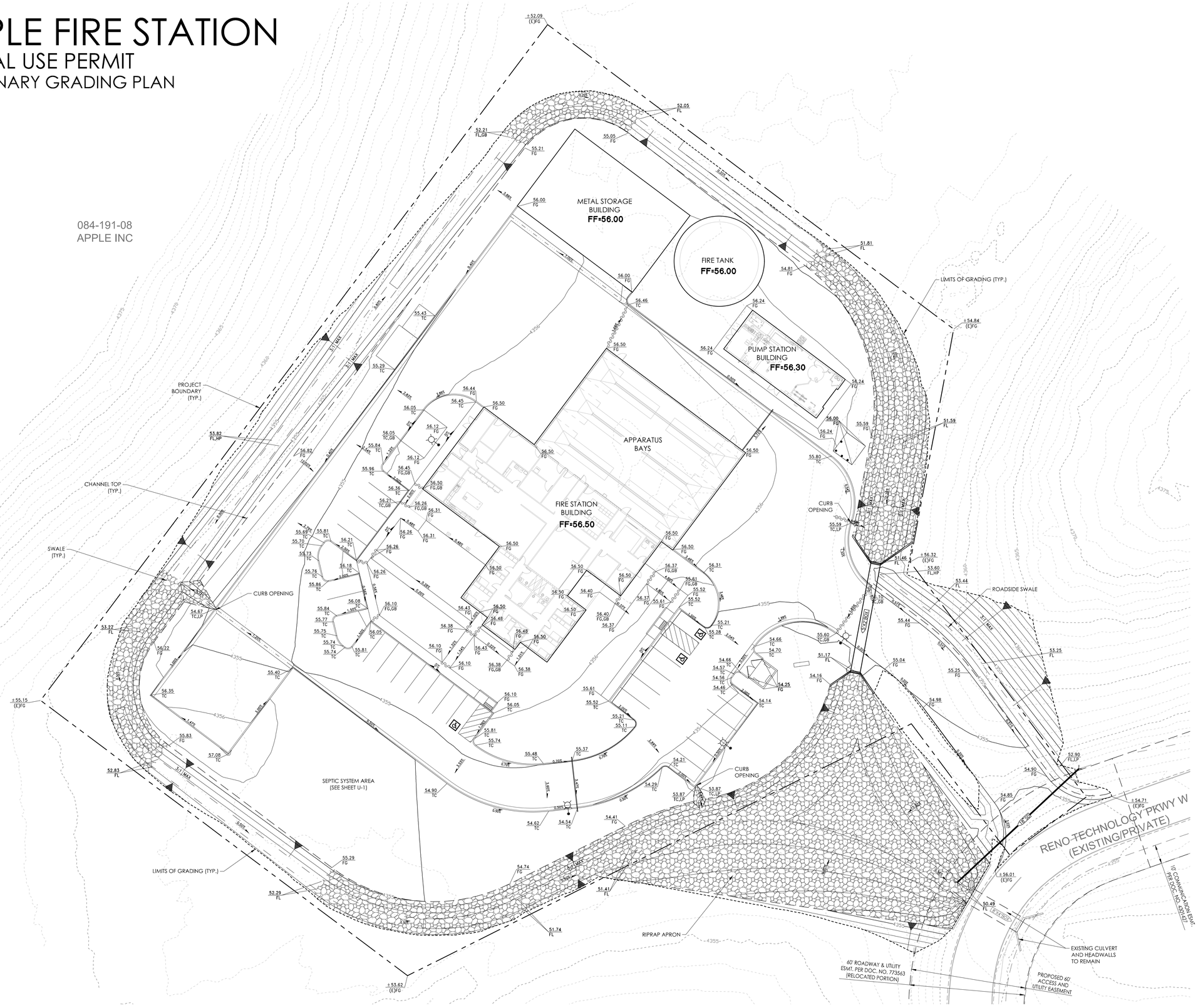
WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

JOB NO. 8754.006 SEPTEMBER, 2023

APPLE FIRE STATION

SPECIAL USE PERMIT

PRELIMINARY GRADING PLAN

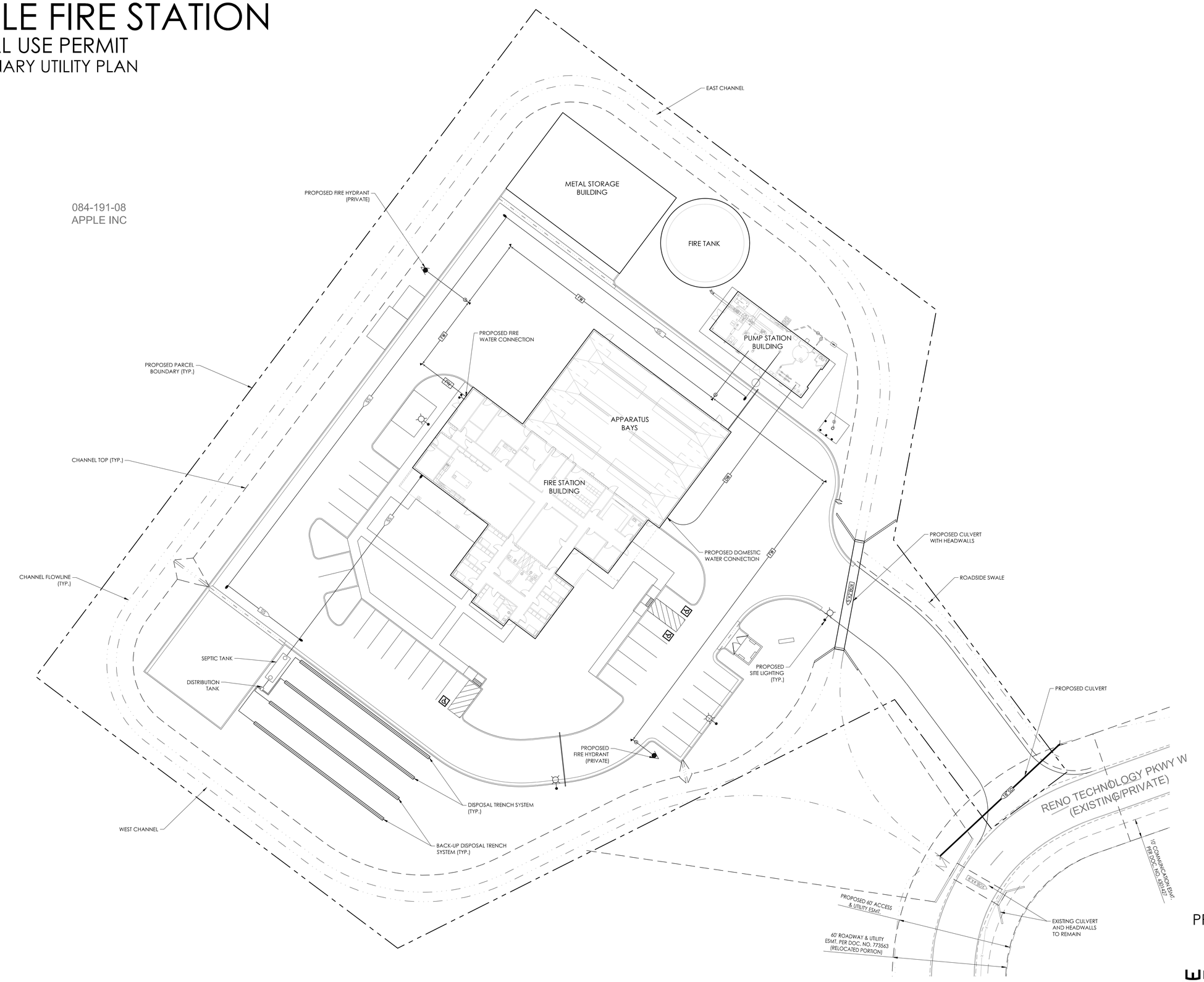


APPLE FIRE STATION
PRELIMINARY GRADING PLAN

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

JOB NO. 8754.006 SEPTEMBER, 2023

APPLE FIRE STATION
SPECIAL USE PERMIT
PRELIMINARY UTILITY PLAN



APPLE FIRE STATION
PRELIMINARY UTILITY PLAN

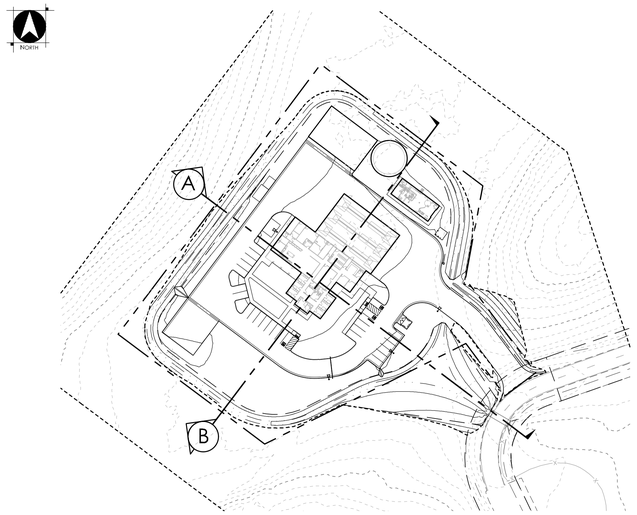
WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

JOB NO. 8754.006 SEPTEMBER, 2023

APPLE FIRE STATION

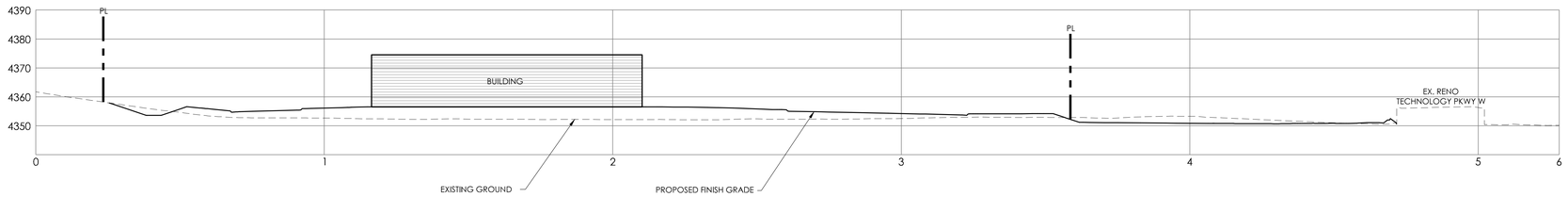
SPECIAL USE PERMIT

PRELIMINARY CROSS SECTIONS



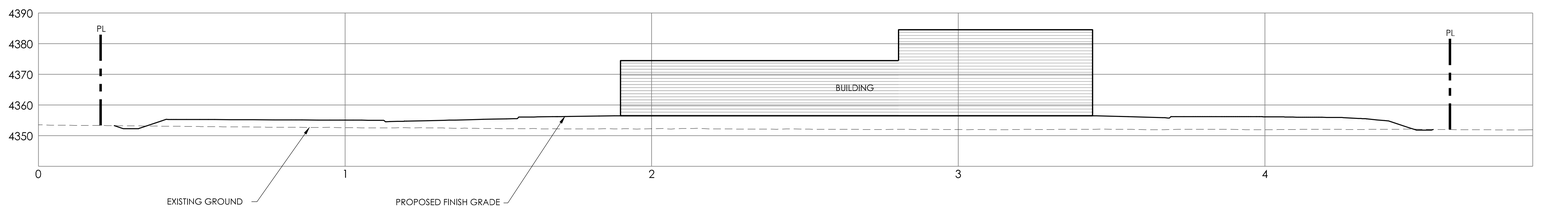
KEY MAP

NOT TO SCALE



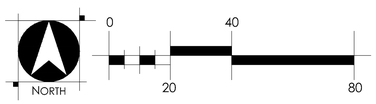
A CROSS SECTION A

SCALE:
HORIZ=1"=20'
VERT=1"=20'



B CROSS SECTION B

SCALE:
HORIZ=1"=20'
VERT=1"=20'



APPLE FIRE STATION
PRELIMINARY CROSS SECTIONS

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

JOB NO. 8754.006 SEPTEMBER, 2023

PLANT LEGEND

- DECIDUOUS SHADE TREE
- ORNAMENTAL TREE
- SHRUBS
- 1 GAL PERENNIALS
- TURF
- INORGANIC GROUNDCOVER

LANDSCAPE REQUIREMENTS

REQUIRED: 1 TREE / 10 PARKING SPACES
27 SPACES = 3 TREES
PROPOSED: **8 TREES, 49 SHRUBS**

SITE INFORMATION

EXISTING PARCEL AREA	=	180.92 +/- AC
PROPOSED PARCEL AREA	=	3.24 +/- AC
UNDEVELOPED AREA	=	62,400 SF
DEVELOPED AREA		
BUILDINGS/STRUCTURES AREA	=	20,460 SF
PARKING / PAVED AREA	=	47,209 SF
TOTAL:	=	67,669 SF
LANDSCAPE AREA (16% OF DEVELOPED AREA)	=	10,980 SF

NOTES

1. LANDSCAPE TO COMPLY W/ WILDLAND FIRE SAFETY REQUIREMENTS AND ALL LOCAL GOVERNMENT REQUIREMENTS
2. PROPOSED LANDSCAPE EMPHASIZES NATIVE PLANT MATERIAL (WC-SV.2.11)
3. ALL NEW PLANT MATERIAL TO BE WATERED BY AN AUTOMATIC DRIP IRRIGATION SYSTEM.

0 20 40 60
1"=20'-0"

REVISIONS	BY

LANDSCAPE ARCHITECTURE AND PLANNING
L J M DESIGN GROUP
Post Office Box 427
Truckee, CA 96160
Tel. 530.587.6003
Email: info@ljmdesigngroup.com
CA. Lic. #3628 NV. Lic. #423

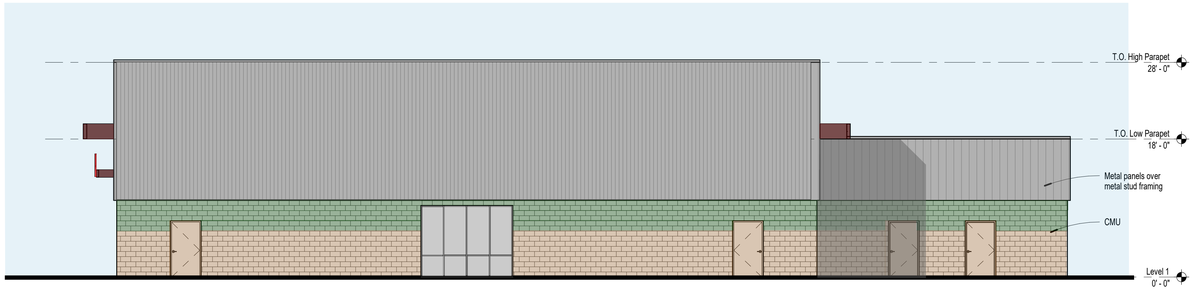
APPLE FIRE STATION

WASHOE COUNTY, NEVADA
APN: 084-191-08

SPECIAL USE PERMIT
PRELIMINARY LANDSCAPE PLAN

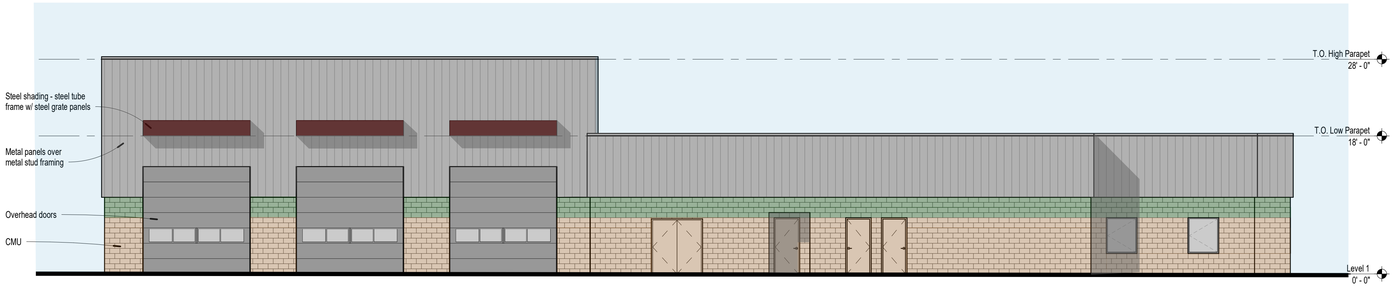
REGISTERED LANDSCAPE ARCHITECT
LAURA J. MIELD
423
STATE OF NEVADA

DATE	08/24/23
SCALE	AS SHOWN
DRAWN BY	KHB/LJM
JOB #	--
SHEET NAME	
SHEET NUMBER	L1
OF	-- SHEETS



6 North Elevation

1/8" = 1'-0"



5 West Elevation

1/8" = 1'-0"

3 South Elevation

1/8" = 1'-0"

1 East Elevation

1/8" = 1'-0"

Professional Seal

PRELIMINARY
Not For Construction

	Date	Revision

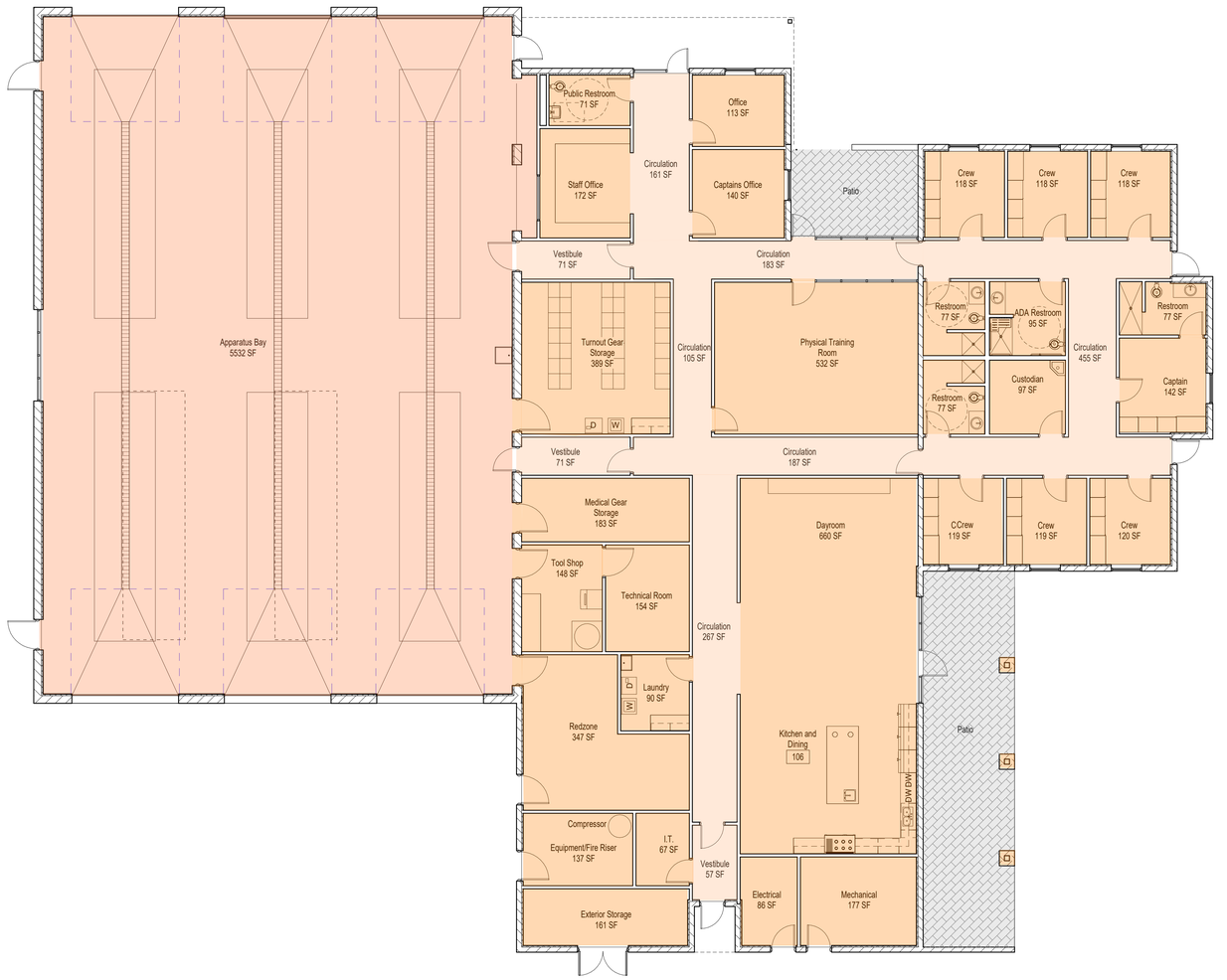
Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

Truckee Meadows Fire and Rescue
Apple Fire Station

Exterior Elevations

August 24, 2023
H+K Project No: 2309



1 Floor Plan

1/8" = 1'-0"

North

C:\Users\dan\Documents\2309 TMFR Apple Fire Station_dan.hkarchitects.rvt

8/21/2023 10:49:19 AM

Professional Seal

PRELIMINARY
Not For Construction

	Date	Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

Truckee Meadows Fire and Rescue
Apple Fire Station

Floor Plan, Finish Schedule and Occupant Calculations

August 21, 2023
H+K Project No: 2309

1

Notice: Per NRS 239B.030, this document does not contain personal information as defined in NRS 603A.040

ORDINANCE APPROVING AMENDED AND RESTATED DEVELOPMENT AGREEMENT (RENO TECHNOLOGY PARK; SPARKS ENERGY PARK)

SUMMARY: An ordinance approving an Amended and Restated Development Agreement (Reno Technology Park; Sparks Energy Park) originally approved in January 2012 (Development Agreement Case Number DA11-001, ordinance number 1476), and first amended in July 2012 (First Amendment to Development Agreement, ordinance number 1495), which amendment permits the construction and operation of a certain Technology Park.

BILL NO. 1791

ORDINANCE NO. 1605

TITLE:

AN ORDINANCE PURSUANT TO NEVADA REVISED STATUTES 278.0201 THROUGH 278.0207 APPROVING AN AMENDED AND RESTATED DEVELOPMENT AGREEMENT WITH APPLE, INC. (RENO TECHNOLOGY PARK; SPARKS ENERGY PARK) ORIGINALLY APPROVED IN JANUARY 2012 WITH UNIQUE INFRASTRUCTURE GROUP (UGI) (DEVELOPMENT AGREEMENT CASE NUMBER DA11-001, ORDINANCE NUMBER 1476), AND FIRST AMENDED IN JULY 2012 WITH UGI (FIRST AMENDMENT TO DEVELOPMENT AGREEMENT, ORDINANCE NUMBER 1495), WHICH AMENDMENT PERMITS THE CONSTRUCTION AND OPERATION OF A CERTAIN TECHNOLOGY PARK; AND OTHER MATTERS PROPERLY RELATED THERETO.

WHEREAS:

SECTION 1. Recitals

A. Developer purchased the Property (other than the Existing Apple Development Area) from UIG. UIG assigned Special Use Permits SW11-001, SW11-002 and SW11-003 to Apple;

B. The Parties desire to amend and restate the Existing Development Agreement. Upon approval and recordation of

this Amended and Restated Development Agreement by the County, the Existing Development Agreement shall be deemed to be completely amended, restated and superseded by this Agreement;

C. The Parties desire to enter into this Agreement in order to assure that the Project, as constructed, is consistent with the regulatory zone designations (General Commercial, Industrial and General Rural) and the goals and policies of the Truckee Canyon Area Plan of the Washoe County Master Plan, any relevant findings and conditions of the Washoe County Planning Commission in approving the Special Use Permits, and that adequate infrastructure is built as the Project is built. In the Table of Uses for Commercial Use Types in Section 110.302.05 of the Washoe County Development Code, Data Center (as defined in Section 110.304.25(m)) is an allowed use by right in Industrial Regulatory Zone and by special use permit in General Commercial, Neighborhood Commercial, Tourist Commercial, Public/Semi-Public, and the General Rural Regulatory Zones. The Parties further desire to memorialize the ability of Developer to establish a data center in any size, height and configuration at any location on the Property according to the needs and priorities of Developer;

D. Condition 3(f) of the Special Use Permit SW11-002 requires Developer to offer to dedicate the Water Storage Tanks and Water Distribution System to the County. The County no longer desires dedication because: (i) the County cannot provide water service there because the Project is outside the Truckee Meadows Service Area designated in the Regional Master Plan; (ii) the purpose and use of the system is outside the scope of water distribution projects that the County undertakes because the vast majority of the proposed use of water is for non-potable commercial uses; and (iii) the County cannot undertake the risk of liability if the system fails to deliver sufficient cooling water for the Sparks Energy Park or the Reno Technology Park. The Parties acknowledge that the County cannot and will not accept dedication of and cannot and will not provide any assistance to, or to provide financial assistance to Developer, or operate the Water Storage Tanks and Distribution System should the Developer propose to abandon

it or suggest or advocate for alternative uses that are not compatible with the Truckee Meadows Regional Plan;

E. Assessor's Parcel Numbers ("APNs") are created by the Washoe County Assessor for the purposes of property tax assessment and billing. APNs are sometimes changed for the convenience of the administration of property tax assessment when parcel lines are reconfigured or ownership of diverse parcels is consolidated. For the purposes of administering this Agreement, the Property shall be officially defined by the legal description included in Exhibit A and not the APNs associated with any particular parcel;

F. A duly noticed public hearing was held on the date that the amendment was approved and the adoption of this ordinance in accordance with WCC 110.814.25 and 110.814.30;

G. Following the public hearing, based on the staff reports and information brought forward at the public hearings this Board adopted the findings contained in the staff report recommending approval of the amendment as required by WCC 110.814.30(d); and

H. This ordinance does not impose a direct and significant economic burden upon a business, nor does it directly restrict the formation, operation or expansion of a business.

NOW THEREFORE, THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF WASHOE DOES HEREBY ORDAIN:

SECTION 2. Approval of Amended and Restated Development Agreement

The amendments described in and attached hereto as Attachment A are hereby APPROVED by this ordinance. The Chairman is authorized to execute and deliver it for recording in the official records of Washoe County.

SECTION 3. General Terms.

1. This Ordinance and the Amended and Restated Development Agreement shall be recorded in the Official Records of Washoe County.

2. All actions, proceedings, matters and things heretofore taken, had and done by the County and its officers not inconsistent with the provisions of this Ordinance are ratified and approved.

3. The Chairman of the Board and the officers of the County are authorized and directed to take all action necessary or appropriate to effectuate the provisions of this ordinance. The District Attorney is authorized to make non-substantive edits and corrections to this Ordinance and the attached agreement.

4. All ordinances, resolutions, bylaws and orders, or parts thereof, in conflict with the provisions of this ordinance are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed to revive any ordinance, resolution, bylaw or order, or part thereof, heretofore repealed.

5. Each term and provision of this ordinance shall be valid and shall be enforced to the extent permitted by law. If any term or provision of this ordinance or the application thereof shall be deemed by a court of competent jurisdiction to be in violation of law or public policy, then it shall be deemed modified, ipso facto, to bring it within the limits of validity or enforceability, but if it cannot be so modified, then it shall be excised from this ordinance. In any event, the remainder of this ordinance, or the application of such term or provision to circumstances other than those to which it is invalid or unenforceable, shall not be affected.

Passage and Effective Date (Reno Technology Park; Sparks Energy Park)

Proposed on November (month) 28 (day), 2017 (year).

Proposed by Commissioner Hartung.

1605

Passed December (month) 19 (day), 2017 (year).

Vote:

Ayes: Commissioners Bob Lucey, Marsha Berkbigler, Vaughn Hartung, and Jeanne Herman

Nays: Commissioners none.

Absent: Commissioners Kitty Jung.

Attest: Nancy L. Parent

County Clerk

Chair of the Board

This ordinance shall be in force and effect from and after the 29th day of the month of December of the year 2017.

Attachment A to Ordinance

Amended and Restated Development Agreement
(Reno Technology Park; Sparks Energy Park)
(NRS 278.0201; WCC 100.814)

Article I. PARTIES; DEFINITIONS; RECITALS

Section 1.01 **Parties**

(a) County

Washoe County, a political subdivision of the State of Nevada
1001 East Ninth Street
Reno, Nevada 89512
Attn: Community Services Department

(b) Developer

Apple Inc.
1 Infinite Loop, MS 119RE
Cupertino, CA 95014
Attn: Real Estate Department

With a copy to:

Apple Inc.
1 Infinite Loop, MS 4-DLAW
Cupertino, CA 95014
Attn: Real Estate Counsel

Section 1.02 Definitions

Agreement means this Amended and Restated Development Agreement between the County and Developer.

Applicable Law is defined in Section 2.01

Data Center is defined in Section 110.304.25(m) of the Washoe County Development Code.

Director means the Director of the Washoe County Community Services Department ("CSD") or his designee.

Effective Date is defined in Section 3.01.

Existing Apple Development Area means a 345.23 acre portion of the Property that Developer previously acquired which is legally described as Parcel 1C of Record of Survey in connection

1605

with a Boundary Line Adjustment Document No. 4121670, recorded on June 13, 2012 as Map No. 5434 in the Official Records of Washoe County (the "Official Records").

Existing Development Agreement means that certain Development Agreement between Unique Infrastructure Group, LLC ("UIG") and the County which was approved by Ordinance No. 1476 and was recorded in the Official Records as Document No. 4072595 on January 4, 2012, as amended by the First Amendment to Existing Development Agreement.

Existing Technology Park means a technology campus developed by Developer in the Existing Apple Development Area that that includes, among other things, three (3) operational data center buildings, one (1) data center building under construction and a variety of supporting infrastructure.

First Amendment to Existing Development Agreement means that certain First Amendment to Development Agreement between UIG and the County which was approved by Ordinance No. 1495 and was recorded in the Official Records as Document No. 4137316 on July 31, 2012.

Master Plan means the Washoe County Master Plan in effect at the time of the making of this Agreement and which is a series of documents, charts, drawings, diagrams, schedules and reports for the physical development of Washoe County which is prepared and adopted pursuant to NRS 278.150 et. seq.

Orange Book means the Standard Specifications for Public Works Construction Sponsored and Distributed by the Regional Transportation Commission of Washoe County, Cason City, Churchill County, City of Reno, City of Sparks, City of Yerington, and Washoe County as revised and amended from time to time.

Project means any development undertaken by Developer at the Property more particularly described in **Exhibit A**. Certain component parts of the Project are allowed by right under Applicable Law; at its sole discretion, Developer may also complete elements of the Project authorized by special use permits SW11-001 SW11-002, and SW11-003.

Property means approximately 1,671acres of land more particularly described in **Exhibit A** hereto and includes Existing Apple Development Area. The Property excludes the Turquoise Solar Project, and the Parties agree that no public roads or other prescriptive access rights exist over or against the Property. The Property may be expanded or contracted from time to time as required by the needs of Developer. Any such adjustment may be incorporated into this Agreement as a minor modification that may be approved by the Director.

Reno Technology Park means a secured technology campus that includes multiple buildings, private roads and other infrastructure, energy substations and renewable energy generation facilities.

Sparks Energy Park means three (3) 120 megawatt combined cycle natural gas power plants that Developer may elect to construct (utilizing natural gas turbine generators operating in a combined cycle mode where exhaust heat is recovered, converted into steam and used to generate additional electricity) each including two (2) gas turbines, two (2) heat recovery

systems, three additional cooling towers, and one (1) steam turbine together with deaerators, boiler feed pumps, aqueous ammonia storage tanks and associated concrete containment berms, monitoring equipment, an evaporation pond, a maintenance building, two (2) story electrical switchgear building, and substations, transmission line and associated grading to support the construction and operation of the technology park. The Sparks Energy Park is authorized for development by special use permit SW11-001.

Special Use Permit(s) means special use permits SW11-001, SW11-002, and SW11-003. Other than locating Project elements on the Property, which shall be at the sole discretion of Developer, the scope of SW11-001 or SW11-002 may not be expanded in favor of Developer outside of Washoe County's ordinary planning and public hearing processes included in the Washoe County Development Code. Subsequent to the approval of SW11-003, Washoe County adopted amendments to its Master Plan and Development Code specifically allowing Data Center uses to be established as a matter of right on any parcel bearing an Industrial zoning designation. On that basis, any restriction in size, density, number, or location of structures or associated facilities attendant to any Data Center use, whether actual or implied by SW11-003, shall not be applicable to the Project.

SW11-001 means a special use permit for the Sparks Energy Park, granted by the Washoe County Planning Commission on July 5, 2011.

SW11-002 means a special use permit for Water Storage Tanks for the Project, granted by the Washoe County Planning Commission on July 5, 2011. As of the Effective Date (as defined below), two (2) of the Water Storage Tanks have been constructed and two (2) remain authorized in future development phases, subject to the needs of Developer.

SW11-003 means a special use permit authorizing establishment of a Data Center use on the Property granted by the Washoe County Planning Commission on July 5, 2011.

Turquoise Solar Project means that certain solar generating power plant to be developed by Turquoise Solar LLC or an affiliated company adjacent to the Property. The Turquoise Solar Project exists independently of the Project and is not subject to this Agreement.

Water Storage Tanks and Water Distribution System means two (2) one-million gallon water tanks to be served by potable water production wells, water pump stations, the construction of approximately 14,000 linear feet water distribution system which were previously installed by UIG, and two (2) one-million gallon water tanks to serve the Project.

Section 1.03 Recitals

A. Developer purchased the Property (other than the Existing Apple Development Area) from UIG. UIG assigned Special Use Permits SW11-001, SW11-002 and SW11-003 to Apple.

B. The Parties desire to amend and restate the Existing Development Agreement. Upon approval and recordation of this Amended and Restated Development Agreement by the County, the Existing Development Agreement shall be deemed to be completely amended, restated and superseded by this Agreement.

C. The Parties desire to enter into this Agreement in order to assure that the Project, as constructed, is consistent with the regulatory zone designations (General Commercial, Industrial and General Rural) and the goals and policies of the Truckee Canyon Area Plan of the Washoe County Master Plan, any relevant findings and conditions of the Washoe County Planning Commission in approving the Special Use Permits, and that adequate infrastructure is built as the Project is built. In the Table of Uses for Commercial Use Types in Section 110.302.05 of the Washoe County Development Code, Data Center (as defined in Section 110.304.25(m)) is an allowed use by right in Industrial Regulatory Zone and by special use permit in General Commercial, Neighborhood Commercial, Tourist Commercial, Public/Semi-Public, and the General Rural Regulatory Zones. The Parties further desire to memorialize the ability of Developer to establish a data center in any size, height and configuration at any location on the Property according to the needs and priorities of Developer.

D. Condition 3(f) of the Special Use Permit SW11-002 requires Developer to offer to dedicate the Water Storage Tanks and Water Distribution System to the County. The County no longer desires dedication because: (i) the County cannot provide water service there because the Project is outside the Truckee Meadows Service Area designated in the Regional Master Plan; (ii) the purpose and use of the system is outside the scope of water distribution projects that the County undertakes because the vast majority of the proposed use of water is for non-potable commercial uses; and (iii) the County cannot undertake the risk of liability if the system fails to deliver sufficient cooling water for the Sparks Energy Park or the Reno Technology Park. The Parties acknowledge that the County cannot and will not accept dedication of and cannot and will not provide any assistance to, or to provide financial assistance to Developer, or operate the Water Storage Tanks and Distribution System should the Developer propose to abandon it or suggest or advocate for alternative uses that are not compatible with the Truckee Meadows Regional Plan.

E. Assessor's Parcel Numbers ("APNs") are created by the Washoe County Assessor for the purposes of property tax assessment and billing. APNs are sometimes changed for the convenience of the administration of property tax assessment when parcel lines are reconfigured or ownership of diverse parcels is consolidated. For the purposes of administering this Agreement, the Property shall be officially defined by the legal description included in **Exhibit A** and not the APNs associated with any particular parcel.

NOW THEREFORE in exchange for the mutual covenants and conditions stated herein, which the Parties acknowledge are adequate consideration, the Parties agree as follows.

Article II. DEVELOPMENT STANDARDS; DEVELOPER OBLIGATIONS

Section 2.01 Applicable Law

(a) The following laws and other codes, permits, conditions and provisions ("Applicable Law") shall apply to and Developer agrees to build the Project in accordance with:

i. This Agreement;

ii. As provided in NRS 278.0201 (5) and WCC 110.814.05, all ordinances, resolutions or regulations applicable to the Property that govern the permitted uses of the land, density and standards for design, improvements and construction as they exist on the date of this Agreement provided that all such uses, densities and standards are consistent with the Master Plan, any applicable area plan, and any applicable specific plan. As provided in NRS 278.0201 (6), the County may adopt new ordinances, resolutions or regulations applicable to the Property which do not conflict with those ordinances, resolutions and regulations in effect at the time this Agreement is made; any subsequent action by Washoe County must not prevent the development of the Project as set forth in this Agreement. As provided in NRS 278.0201 (7), if extensions of deadlines in this Agreement are granted, laws applicable at the time of the extension may apply to the Project; and

iii. To the extent permitted by NRS 278.0201(5) and Section 2.01(a)(iii) above, all other ordinances, statutes, regulations adopted by Washoe County, State of Nevada, and the United States of America as amended from time to time and as they apply at the time of enforcement to construction or operation of the Project. Without limiting the generality of the foregoing, the County may apply current codes relating to building and safety such as building codes, fire codes, plumbing codes, mechanical codes, electrical codes, housing codes, sign codes, energy conservation standards for new building construction, existing building codes, Engineering Design Standards, codes for the abatement of nuisances, and similar codes as they exist at the time of construction.

Section 2.02 Construction Schedule

Developer expects to continue developing the Project in phases and anticipates nearing completion within approximately fifteen (15) years of the Effective Date. Notwithstanding the forgoing, there is no requirement that Developer initiate or complete development of any phase or portion of the Project within any period of time or in any particular order. It is the intention of this provision that Developer be able to develop in accordance with Developer's own schedule.

Section 2.03 General Development Standards

(a) Uses, Density and Buildings. Applicable Law (to the extent not in conflict with this Agreement) shall govern the permitted uses of the Property, the density and intensity of its use, the maximum height and size of proposed buildings and provisions for the dedication of any portion of the land for public use, as required by NRS 278.0201 (1).

(b) Applicable Law. The Project shall be built in accordance with Applicable Law as modified, clarified, or explained in this Agreement. Where Applicable Law conflicts with this Agreement, the terms and conditions of this Agreement shall control.

(c) Orange Book Standards. Roadways and facilities to be offered for dedication to the County shall be constructed in accordance with County specifications, including the specifications in the Orange Book.

(d) Security. The County will allow fencing up to ten (10) feet in height surrounding the technology and energy park developments. Security is extremely important and access into the Property shall be safely controlled. The fencing may consist of, but not limited to, iron and barbed wire, chain link, and wrought iron. The use of solid block or concrete will be limited to posts, pillars and similar uses and not be used for panel or wall sections.

(e) Lighting. Developer shall minimize the number of street lights, building lighting and lighting surrounding the Project to the extent practical and in accordance with the Site Design Standards of the Washoe County Development Code.

(f) Landscaping. Any landscaping requirements included in the Washoe County Code or the conditions of approval attached to the Special Use Permits shall not apply to the Project.

(g) Noise Standards. All noise generated by the Project must meet the standards of Article 414 of the Washoe County Development Code as those standards exist on the Effective Date.

(h) TMSA. The County will not unilaterally expand the Truckee Meadows Service Area (the "TMSA") to include the Property. The County is limited in its ability to expand the TMSA and extending the TMSA to cover the Property would be at the expense of other projects involving health and public safety and is inconsistent with County priorities, policies and goals regarding application of limited resources. Should Developer desire that the Property be included in the TMSA, it may petition the Washoe County Commission for such inclusion.

Section 2.04 Project Review

(a) Developer shall submit any necessary site plan or building plan to the Washoe County CSD for review and approval, which shall not be unreasonably withheld, delayed or conditioned provided such plans and specifications are complete and generally consistent with this Agreement and Applicable Law. The County shall have forty-five (45) days to review and approve such plans or specifications. Should the County fail to review such plans or specifications within the period provided for by this subsection, the plans or specifications shall be deemed approved as submitted. Any proposed plan and/or building

with plumbing will require a plan approval and verification from the State of Nevada, Division of Environmental Protection (NDEP) for the commercial on-site sewage disposal system. Approved plans must be submitted for compliance and verification to the Washoe County Health District for compliance with Applicable Laws.

(b) The Parties agree that certain conditions of approval associated with the Special Use Permits are no longer appropriate, whether because of changes in Applicable Law or due to consolidation of Project ownership. Those conditions which reference conformance to prior plans, timing of construction, or otherwise require the Project to develop specifically as contemplated by the Special Use Permits are of no force or effect and are hereby declared null and void. Those conditions which have been superseded by this Agreement or any of its prior iterations are of no force or effect and are hereby declared null and void. Conditions related to financial assurances for, or dedication of, the Water Storage Tanks and Water Distribution System are of no force or effect and are hereby declared null and void.

(c) In no case shall the conditions of approval associated with the Special Use Permits be construed as applying to those portions of the Project that are developed as a matter of right.

Section 2.05 Water

(a) Developer shall comply with Applicable Laws related to: (i) all the water rights and water resources acquired or otherwise available to the Developer, (ii) current commitments against said water rights and water resources, and (iii) future anticipated projects and their estimated water demands.

(b) With each building permit for each facility, the duty of water rights to be committed to the Project for use by that facility will be determined by a professional engineer licensed in the State of Nevada who is experienced in estimating water demands and water rights needed to serve such a facility. Duty calculations are subject to the approval of the Washoe County CSD and Washoe County Health District, which approval shall not be unreasonably withheld, delayed or conditioned.

(c) All water rights associated with the Project shall have appropriate Points of Diversion, Place and Manner of Use. All water rights must have all necessary approvals from the State Engineer.

Section 2.06 Construction/Dedication of Fire Station

(a) General. Subject to Section 2.06(d), below, Developer shall build and dedicate to the County, or its designee, a fire station as contemplated in Sections 2.06(a)-(c).

(b) Specifications and Location. The fire station shall be built on two (2) acres of land located on the Property at a location west of the Patrick Interchange, with convenient access to US Interstate 80, as determined by mutual agreement between Developer and the County. The fire station shall include the following general configuration: (i) single-story, (ii) brick-façade, (iii) standing seam metal roof, (iv) warm shell condition, (v) two

(2) drive through bays, and (vi) designed and built to accommodate a four (4) person fire crew. The final design of the fire station shall be determined by mutual agreement of the Parties, but in no event shall Developer be required to furnish or otherwise equip the fire station in any manner. Developer agrees to deliver the fire station in habitable condition, including but not limited to, operational electrical, plumbing, and HVAC systems, and finished interior walls and floors. Developer shall dedicate or otherwise convey the fire station to the County or the Truckee Meadows Fire Protection District, at the sole election of the County, within six (6) months after the issuance of a certificate of occupancy. Developer shall also offer to the County or the Truckee Meadows Fire Protection District, any access or use easements reasonably required for the operation of the fire station.

(c) Timing. Conceptual planning of the fire station shall commence within one (1) year of the Effective Date. Construction shall begin within three (3) years of the Effective Date. Completion shall occur not more than five (5) years from the Effective Date with a certificate of occupancy furnished to the County or its designee. Developer shall prepare and present plans and specifications for the fire station for approval to the County or its designee prior to commencing construction. Unresolved disagreements between Developer and the Director may be appealed to the Board of County Commissioners.

(d) Nonappropriation. In the event that funds sufficient to staff and equip the fire station (i) are not appropriated by the Truckee Meadows Fire Protection District Board of Fire Commissioners prior to the commencement of construction as required in Section 2.06(c), or are (ii) otherwise not legally available for such purpose, then an event of nonappropriation shall be deemed to have occurred. If an event of nonappropriation shall occur, Developer shall not be obligated to comply with the requirements of Section 2.06(c) and the obligation to construct a fire station shall be held in abeyance until such time as the requisite appropriation is made by the Board of Fire Commissioners. Should this Agreement expire prior to any such appropriation being made, Developer's obligations set forth herein regarding the fire station shall also be deemed expired and of no force or effect.

Section 2.07 Construction and Operation of Technology Park

Pursuant to the First Amendment to the Existing Development Agreement, the Board of County Commissioners modified certain Special Use Permit conditions prohibiting structures to be constructed in Tourist Commercial and Open Space zoning districts to allow the Existing Technology Park to be built in the Existing Apple Development Area. The Parties agree that under the definition of Data Center, the construction and operation of the Reno Technology Park is permitted in all portions of the Property (including that portion of the Property previously located within the Tourist Commercial regulatory zone). The Parties further agree that construction and operation of Data Center uses on the Property is allowed by right in Industrial Regulatory Zones, and on that basis, is not restricted to any designs, descriptions, proposals, or other plans associated with special use permit SW11-003, which now serves only to authorize Data Center uses in all other Regulatory Zones existing on the Property.

Article III. GENERAL TERMS AND CONDITIONS

Section 3.01 Duration of Agreement; Extensions; Effect of Expiration

(a) Term of Agreement. This Agreement commences when it has been approved, executed by all the Parties and recorded in the Official Records (the "Effective Date"). Unless sooner terminated under NRS 278.0205, it expires on the first (1st) business day following the fifteenth (15th) anniversary (5,475 days) of the Effective Date.

(b) Reports by Developer. Upon request by the County, Developer shall prepare a report and provide information regarding Developer's compliance with this Agreement and the Special Use Permits, and shall agree to appear before the Board of County Commissioners for a review of the agreement as required by NRS 278.0205 (1).

(c) Review by Department; Report to Board. As required, the Director shall file reports with the Board of County Commissioners and the Board may cancel or amend this Agreement under NRS 278.0205.

(d) Minor Modifications. The Director of the Washoe County CSD is authorized to negotiate and implement minor modifications to this Agreement in order to accommodate the construction and operation of the Reno Technology Park.

Section 3.02 Default and Remedies

(a) Default. An event of default occurs under this Agreement in any of the following events: (i) any representation of a material fact expressed herein or to the County was materially untrue at the time it was made; (ii) any ("material") warranty made herein is breached at the time made or, if a continuing warranty is breached as a result of a subsequent event or occurrence; (iii) a Party breaches any ("material") covenant or fails to perform any material provision of this Agreement; (iv) any event expressly described as a ("material") breach or default hereunder occurs; or (v) Developer liquidates all of Developer's assets and Developer ceases to do business except in connection with the assignment by Developer pursuant to Section 3.04.

(b) Notice and Right to Cure Default. Upon an event of default, the non-defaulting Party shall give notice and an opportunity to cure the default within sixty (60) days of the delivery of the notice, provided that if the default cannot reasonably be cured within sixty (60) days, then the default shall be deemed cured if the defaulting Party commences and diligently pursues and completes action that remedies the default.

The County, upon providing Developer any notice of an event of default under this Agreement, shall at the same time provide a copy of such written notice each lender which is a beneficiary pursuant to a deed of trust which encumbers all of the Property or any portion thereof. From and after such notice has been given, such lender(s) shall have the same period of time as Developer to cure, after the receipt of notice from the County any event of default or acts or omissions which are the subject matter of a notice of an event of default to causing the same to be remedied, plus in each instance, an additional

period reasonably necessary to either (i) diligently remedy the event of default or acts or omissions which are the subject matter of such notice, or (ii) such time as is reasonable to foreclose upon the deed of trust encumbering the Property and obtain title to the Property and cure the event of default. The County shall accept performance by such lender as if the same had been performed by Developer.

(c) Remedies by County. In the event of default by Developer, the County may (i) subject to the notification requirements under NRS 278.0205 and in Section 3.02(b) above, cancel or seek to amend this Agreement, or (ii) file an action to seek injunctive relief. Any remedies of the County shall not impact or affect vested rights of Developer in the Property to proceed with the development.

(d) Remedies by Developer. In the event of default by the County, Developer may appeal any actions by the Director to the Board of County Commissioners or file an action to seek damages or injunctive relief.

(e) Litigation. Litigation to enforce this Agreement shall be brought in the District Court for the State of Nevada, County of Washoe, or the United States District Court for the District of Nevada.

(f) Attorney's Fees and Costs. In any litigation or proceedings to enforce this agreement, the prevailing Party may be awarded reasonable attorney's fees and costs as determined just by the court.

(g) Remedies Cumulative; Waivers. All remedies provided herein are cumulative with each other and with any other remedy afforded under Nevada law, and the election of one remedy does not preclude the election or pursuit of any other remedy.

Section 3.03 Effect of Expiration or Cancellation of Agreement

If this Agreement expires or is cancelled, Applicable Law will continue to govern any facilities or buildings for which a building permit has been issued, and Applicable Law becomes the current statutes, ordinances, resolutions and regulations of Washoe County, the State of Nevada, and the United States of America. Construction warranties survive the cancellation of this Agreement.

Section 3.04 Assignment; Binding Effect

(a) Assignment. Subject to the provisions relating to lenders in Section 3.04(b), Developer may assign all or any portion of its rights and delegate any obligations under this Agreement to third parties who acquire fee title to any portion of the Property, provided, however, that (i) the County consents to the assignment/delegation, which consent shall not be unreasonably withheld, (ii) a written agreement is entered into between the County and the assignee which is approved by ordinance and recorded, and (iii) partial assignments and delegations shall be related only to the portion of the Property acquired.

(b) Developer's Right to Encumber its Interest. Notwithstanding any other provision contained in this Agreement, for the purpose of financing construction, or reconstruction, operation, and maintenance or refinancing of any such financing, Developer shall have the right to encumber or assign its interest in this Agreement, by deed of trust, financing statement, or collateral assignment to any institutional lender, publicly-traded company, or other entity with the financial; capability to assume Developer's obligations under this Agreement. If such encumbrance by lender is a deed of trust, foreclosure by a lender may occur by the exercise of a power of sale in accordance with the provisions of NRS Chapter 107 and conveyance to lenders as a result of a foreclosure sale is permitted without consent of the County, including lender's right to operate the Property or delegate or assign its interest to third parties, provided, however that such lender or its assigns take subject to Applicable Law. Upon execution of a deed of trust, financing statement or collateral assignment, notice of such encumbrance or assignment shall be delivered to the County together with written notice of the name and mailing address of the lender, which shall be deemed such Party's address pursuant to this Agreement.

(c) Binding on Assigns. This Agreement shall be binding upon and inure to the benefit of the heirs, executors, administrators and permitted successors and assigns of the Parties hereto.

(d) No Agency or Partnership. The Project is a private development and the County has no interest in any improvements until the County accepts dedication of such improvements in accordance with Nevada law. The County and Developer hereby renounce the existence of any form of agency relationship, joint venture, partnership or other co-relationship and agree that nothing contained herein or in any document executed in connection herewith shall be construed as creating any such relationship between the County and Developer.

(e) No Third-Party Beneficiaries Intended. Unless otherwise specifically identified in this Agreement, there are no third-party beneficiaries intended by this agreement and no third parties have any standing to enforce any of the provisions of this Agreement.

Section 3.05 Further Assurances

Each Party agrees to honor any reasonable requests by the other Party to complete, execute and deliver any document necessary to accomplish the purposes hereof. The approval of this Agreement at a public meeting is not a breach of any provision of a non-disclosure agreement.

Section 3.06 Severability; Changes in Law

(a) Time of the Essence. Time is of the essence in the performance of this Agreement.

(b) Governing Law. The laws of the State of Nevada, without regard to conflicts of law principles, shall govern the interpretation and enforcement of this Agreement.

(c) Severability. Each term and provision of this Agreement shall be valid and shall be enforced to the extent permitted by law. If any term or provision of this Agreement or the application thereof is held to be invalid or unenforceable by a court of competent jurisdiction, it shall be deemed to be modified to bring it within the limits of validity or enforceability, but if it cannot be so modified, then it shall be severed from this Agreement, but in either event the remainder of this Agreement, or the application of such term or provision to circumstances other than those to which it is invalid or unenforceable, shall not be affected.

(d) Changes in Law. Unless this Agreement is amended, terminated or canceled pursuant to the provisions herein, or by applicable law or regulation, this Agreement shall be enforceable notwithstanding any change hereafter in any applicable general plan, specific plan, zoning ordinance, subdivision ordinance, building regulation or development moratorium, or similar County action, adopted by the County which changes, alters or amends the rules, regulations and policies applicable to the development of the Project at the time of approval of this Agreement, as provided by Nevada law.

Section 3.07 Amendments and Modifications

This Agreement may be amended, extended, or otherwise modified from time to time, in whole or in part, by mutual written consent of the Parties or their successors in interest, in accordance with this agreement and NRS 278.0205. Only those parties who will be materially affected by the amendment (i.e. owners of the properties that will be affected by the amendment) need be parties to the amendment.

Section 3.08 Authority to Implement

Unless otherwise expressly provided in this Agreement or Applicable Law, the Director of the Washoe County CSD has the authority to conduct all reviews, make all approvals, and take all actions on behalf of the County. All decisions and actions of the Director may be appealed to the Board of County Commissioners by notifying the County Clerk within sixty (60) days of the action or decision and asking to be put on the agenda for a future meeting.

Section 3.09 Entire Agreement; Severability; Recording

This Agreement (including recitals) integrates all of the terms and conditions mentioned herein or incidental hereto, and supersedes all negotiations or previous agreements between the Parties with respect to all or any part of the subject matter hereof. When executed, this Agreement, together with its approving ordinance, shall be recorded in the

Official Records. Upon the Effective Date, the Existing Development Agreement will be deemed to be completely amended, restated and superseded by this Agreement.

[Remainder of Page Intentionally Blank. Signatures on Following Pages.]

1605

DEVELOPER

Apple Inc., a California corporation

By _____
Name Kristina Raspe
Its Vice President - WW R&D

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Santa Clara }

On March 13, 2018 before me, Sue Bowerman, Notary Public, personally appeared Kristina Raspe, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public Signature

Notary Public Seal

SUE BOWERMAN
Notary Public – California
Santa Clara County
Commission # 2229792
My Comm. Expires Feb 25. 2022

COUNTY

Washoe County, a political subdivision of the State of Nevada

By _____ Date 12-19-17
Bob Lucey, Chair
Board of County Commissioners

Attest

By _____ Date 12-19-17
County Clerk

STATE OF NEVADA)
) Acknowledgment in Representative Capacity
COUNTY OF WASHOE) NRS 240.1665

This instrument was acknowledged before me on December 19, 2017
By BOB LUCEY as Chair of the Board of County Commissioners of Washoe County, a political subdivision of the State of Nevada.

NANCY L. PARENT
Notary Public - State of Nevada
Appointment Recorded in Washoe County
No: 93-0825-2 - Expires October 24, 2021

_____
Notary Public

EXHIBIT A
LEGAL DESCRIPTION

EXHIBIT "A"
Legal Description

PARCEL 1:

BEING Parcel D of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4546881 and shown on Map No. 5693, File No. 4546882, both recorded on December 31, 2015 in the official records of Washoe County, Nevada.

Containing 294.35 acres feet of land, more or less.

Basis of Bearings:

Identical to that of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4546881 and shown on Map No. 5693, File No. 4546882, both recorded on December 31, 2015 in the official records of Washoe County, Nevada.

PARCEL 1A:

An Easement for Access as set forth in a Document entitled United States Department of the Interior Bureau of Land Management, Exclusive Road Easement, together with the terms and conditions set forth therein, recorded June 4, 1991, in Book 3270, Page 69, as Document No. 1484367, Official Records of Washoe County, Nevada.

Description provided by others, Surveyor of record takes no responsibility for the correctness.

PARCEL 1B:

An Easement for access, ingress, egress and Public Utility Purposes, as set forth in an Easement Agreement and Deed, dated July 11, 2003, by and between the Rockland Group, LLC, a Nevada Limited Liability Company, as Grantee, recorded July 15, 2003, as Document No. 2887441, Official Records of Washoe County, Nevada.

Description provided by others, Surveyor of record takes no responsibility for the correctness.

PARCEL 1C:

A 60-foot wide private Access Easement, as created by Map of Division into Large Parcels for STONEFIELD, INC., according to the map thereof, filed in the office of the County Recorder of Washoe County, State of Nevada on March 27, 2012, as Document No. 4097007, Official Records.

Description provided by others, Surveyor of record takes no responsibility for the correctness.

PARCEL 1D:

A Non-Exclusive Easement for the purpose of construction an access road sufficient to serve the needs of the property described in Parcel 1 above, together with the terms and conditions set

forth therein, as set forth in an Easement Agreement and Deed, recorded July 15, 2003, as Document No. 2887441, Official Records.

Description provided by others, Surveyor of record takes no responsibility for the correctness.

APN: 084-110-34

PARCEL 2:

BEING Parcel C of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4546881 and shown on Map No. 5693, File No. 4546882, both recorded on December 31, 2015 in the official records of Washoe County, Nevada.

Containing 115.20 acres feet of land, more or less.

Basis of Bearings:

Identical to that of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4546881 and shown on Map No. 5693, File No. 4546882, both recorded on December 31, 2015 in the official records of Washoe County, Nevada.

PARCEL 2A:

A Non-Exclusive Easement for the purpose of construction an access road sufficient to serve the needs of the property described in Parcel 2 above, together with the terms and conditions set forth therein, as set forth in an Easement Agreement and Deed, recorded July 15, 2003, as Document No. 2887441, Official Records.

Description provided by others, Surveyor of record takes no responsibility for the correctness.

APN: 084-110-33

PARCEL 3:

BEING Parcel 1-D of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4121669 and shown on Map No. 5434, File No. 4121670, both recorded on June 13, 2012 in the official records of Washoe County, Nevada.

Containing 470.11 acres feet of land, more or less.

Basis of Bearings:

Identical to that of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4121669 and shown on Map No. 5434, File No. 4121670, both recorded on June 13, 2012 in the official records of Washoe County, Nevada.

PARCEL 3A:

A 40-foot wide, re-locatable, non-exclusive private access easement, as set forth in a Boundary Line Adjustment Quitclaim Deed & Grant of easement Recorded February 10, 2012, as Document No. 4083644, Official Records, Washoe County, Nevada.

Description provided by others, Surveyor of record takes no responsibility for the correctness.

APN: 084-110-30

PARCEL 4:

BEING the East One-Half (E 1/2) of the Southeast One-Quarter (SE 1/4) and the East One-Half (E 1/2) of the Southeast One-Quarter (SE 1/4) of Section Thirty (Sec. 30), Township Twenty North (T.20N)., Range Twenty-Two East (R.22E.), Mount Diablo Meridian (MDM), Washoe County, State of Nevada.

E 1/2 of the SE 1/4 and the E 1/2 of the SE 1/4 of Sec. 30, T.20N., R.22E., MDM.

APN: 084-110-20

PARCEL 5:

BEING Parcel A of Parcel Map for FORREST J. HESS, JR., as shown on Parcel Map No. 129 recorded on January 28, 1975 in the official records of Washoe County, Nevada.

Containing 43,560 square feet of land, more or less.

Basis of Bearings:

Identical to that of Parcel Map for FORREST J. HESS, JR., as shown on Parcel Map No. 129 recorded on January 28, 1975 in the official records of Washoe County, Nevada.

PARCEL 5A:

BEING a Fifty-foot (50') wide non-exclusive access easement and right-of-way for a roadway to provide ingress to and egress from the above-mentioned Parcel, over the fifty-foot (50') strip of real property as shown on Parcel Map for FORREST J. HESS, JR., Parcel Map No. 129 recorded on January 28, 1975 in the official records of Washoe County, Nevada, of which the center line is described as follows:

BEGINNING at the Southeast Corner (SE Cor) of Parcel A, coincident with the Southwest Corner (SW Cor) of Parcel B of said Parcel Map No. 129, of which the Northeast Corner of Section 31 (NW Cor Sec. 31), Township Twenty North (T.20N.), Range Twenty-Two East (R.22E.), Mount Diablo Meridian (MDM), County of Washoe, State of Nevada, bears North 35°15'06" East, 1,810.28 feet;

THENCE South 30°56'16" East, 498.71 feet;

THENCE South 59°03'44" West, 3,264.32 feet;

THENCE North 84°04'05" West, 290.00 feet;

THENCE South 59°03'44" West, 443.75 feet;

THENCE South 30°56'16" East, 63.99 feet to the northerly right-of-way of Interstate 80 and the **POINT OF TERMINUS.**

The side lines of said 50' wide easement is to begin at the southerly line of said Parcel A and Parcel B and end at said northerly right-of-way.

Basis of Bearings:

Identical to that of Parcel Map for FORREST J. HESS, JR., as shown on Parcel Map No. 129 recorded on January 28, 1975 in the official records of Washoe County, Nevada.

APN: 084-191-05

PARCEL 6:

BEING Parcel B of Parcel Map for FORREST J. HESS, JR., as shown on Parcel Map No. 129 recorded on January 28, 1975 in the official records of Washoe County, Nevada.

Containing 43,560 square feet of land, more or less.

Basis of Bearings:

Identical to that of Parcel Map for FORREST J. HESS, JR., as shown on Parcel Map No. 129 recorded on January 28, 1975 in the official records of Washoe County, Nevada.

PARCEL 6A:

BEING a Fifty-foot (50') wide non-exclusive access easement and right-of-way for a roadway to provide ingress to and egress from the above-mentioned Parcel, over the fifty-foot (50') strip of real property as shown on Parcel Map for FORREST J. HESS, JR., Parcel Map No. 129 recorded on January 28, 1975 in the official records of Washoe County, Nevada, of which the center line is described as follows:

BEGINNING at the Southeast Corner (SE Cor) of Parcel A, coincident with the Southwest Corner (SW Cor) of Parcel B of said Parcel Map No. 129, of which the Northeast Corner of Section 31 (NW Cor Sec. 31), Township Twenty North (T.20N.), Range Twenty-Two East (R.22E.), Mount Diablo Meridian (MDM), County of Washoe, State of Nevada, bears North 35°15'06" East, 1,810.28 feet;

THENCE South 30°56'16" East, 498.71 feet;

THENCE South 59°03'44" West, 3,264.32 feet;

THENCE North 84°04'05" West, 290.00 feet;

THENCE South 59°03'44" West, 443.75 feet;

THENCE South 30°56'16" East, 63.99 feet to the northerly right-of-way of Interstate 80 and the **POINT OF TERMINUS.**

The side lines of said 50' wide easement is to begin at the southerly line of said Parcel A and Parcel B and end at said northerly right-of-way.

Basis of Bearings: Identical to that of Parcel Map for FORREST J. HESS, JR., as shown on Parcel Map No. 129 recorded on January 28, 1975 in the official records of Washoe County, Nevada.

APN: 084-191-06

PARCEL 7

BEING Parcel 1-B of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4121669 and shown on Map No. 5434, File No. 4121670, both recorded on June 13, 2012 in the official records of Washoe County, Nevada.

Containing 147.28 acres of land, more or less.

Basis of Bearings: Identical to that of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4121669 and shown on Map No. 5434, File No. 4121670, both recorded on June 13, 2012 in the official records of Washoe County, Nevada.

APN: 084-191-07

PARCEL 8

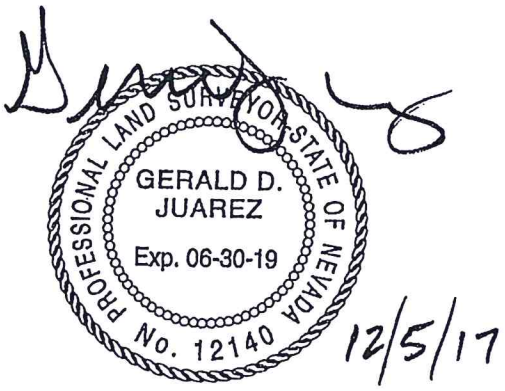
BEING Parcel 1-A of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4121669 and shown on Map No. 5434, File No. 4121670, both recorded on June 13, 2012 in the official records of Washoe County, Nevada.

Containing 180.92 acres of land, more or less.

Basis of Bearings: Identical to that of Record of Survey, Boundary Line Adjustment for STONEFIELD INC., as described in Quit-Claim Deed Document No. 4121669 and shown on Map No. 5434, File No. 4121670, both recorded on June 13, 2012 in the official records of Washoe County, Nevada.

APN: 084-191-08

Gerald D. Juarez
Nevada PLS 12140
For and on behalf of
Manhard CONSULTING
9850 Double R Blvd, Suite 101
Reno, Nevada 89521
(775) 746-3500



12/5/17

1605

DOC #4164979
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Electronic Recording Requested By
FIRST CENTENNIAL - RENO
Washoe County Recorder
Kathryn L. Burke - Recorder
Fee: $21.00 RPTT: $35387.10
Page 1 of 5

Assessor's Parcel No.: 084-110-29

RECORDING REQUESTED BY, MAIL
TAX STATEMENT TO, AND WHEN
RECORDED MAIL TO:

Apple Inc.
Attn: Dan Whisenhunt
Sr. Director, Real Estate & Development
1 Infinite Loop, MS: 47-2REF
Cupertino, CA 95014

The undersigned hereby affirms that this document submitted for recording does not contain the personal information of any person or persons per N.R.S. 239B.030.

Signature of Declarant or Agent

GRANT, BARGAIN AND SALE DEED

For value received, **UNIQUE INFRASTRUCTURE GROUP, LLC**, a Nevada limited liability company, hereinafter referred to as "Grantor," hereby grants, bargains and sells to **APPLE INC.**, a California corporation, hereinafter referred to as "Grantee," all of Grantor's right, title, and interest in the real property located in the County of Washoe State of Nevada, more particularly described on Exhibit "A" attached hereto and incorporated herein by reference (the "Real Property").

THE REAL PROPERTY is conveyed subject to the following liens and encumbrances:

1. The lien or liens for non-delinquent general and special state, county, and municipal taxes and assessments for the fiscal year July 1, 2012, through June 30, 2013, including the lien of non-delinquent supplemental property taxes;

2. The terms, covenants, conditions and provisions as contained in an instrument, entitled "Ordinance & Development Agreement - Reno Tech Park," approving a Development Agreement for Case No. DA11-001 for Reno Technology Park and Sparks Energy Park, Special Use Permit Case Numbers SW11-001, SW11-002 and SW11-003, recorded January 4, 2012, as Document No. 4072595, of Official Records, Washoe County, Nevada, as amended by the First Amendment to Development Agreement recorded July 31, 2012, as Document No. 4137317, Official Records, Washoe County, Nevada;

1605

3. The Declaration of Covenants, Conditions and Restrictions of Reno Technology Park recorded this same date with the Office of the County Recorder of Washoe County, Nevada; and

4. Reservations, easements, and rights-of-way of record described and set forth as items 5 through 22 on Schedule B of the Proforma Policy of Title Insurance issued by First Centennial Title Company of Nevada, as Policy No. PROFORMA-12, under Order No. 00191801, and the effect, if any, of construction activities on the Real Property being performed pursuant to construction contracts to which Grantee is a party, including subcontracts thereunder, and any liens which may arise therefrom.

THE REAL PROPERTY IS CONVEYED together with all improvements located on the Real Property, the rents, issues and profits thereof, the tenements, hereditaments, and appurtenances of the Real Property, excepting and reserving all water rights as may appurtenant to the Real Property, the right to water service for the subject Real Property being transferred and conveyed to Grantee by separate Assignment of this same date.

THE REAL PROPERTY IS ALSO CONVEYED TOGETHER WITH one membership interest in the Reno Technology Park Water Company, a Nevada non-profit corporation, one membership interest in the Reno Technology Park Owners Association, a Nevada non-profit corporation, and the rights, benefits, and obligations incident thereto, including, without limitation, the non-exclusive right to the use of the Common Areas as more particularly provided in the Declaration of Covenants, Conditions and Restrictions of Reno Technology Park referenced above.

Dated this 17th day of October, 2012.

GRANTOR:

UNIQUE INFRASTRUCTURE GROUP, LLC
a Nevada limited liability company

By: _____
Name: Nicholas J. Pavich
Title: Manager

1605

STATE OF NEVADA)
) ss.
COUNTY OF WASHOE)

This instrument was acknowledged before me on 10-17, 2012, by Nicholas J. Pavich, as a Manager of Unique Infrastructure Group, LLC, a Nevada limited liability company.

Lorraine Leach
Notary Public

LORRAINE LEACH
Notary Public - State of Nevada
Appointment Recorded in Washoe County
No: 98-4282-2 - Expires October 11, 2016

1605

EXHIBIT A

LEGAL DESCRIPTION

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

PARCEL 1:

All that certain parcel of land situate within portions of Section Twenty-One (21), Section Twenty-Eight (28), Section Twenty-Nine (29) and Section Thirty-Two (32), Township Twenty (20) North, Range Twenty-Two (22) East, Mount Diablo Meridian (MDM), Washoe County, State of Nevada, being more particularly described as follows:

BEGINNING at the Section Corner common to Sections 29, 30, 31 & 32 (Sec Cor) of said Township 20 North, Range 22 East, M.D.M., marked by a brass cap stamped "PLS 2522" also being the Southwest Corner (SW Cor) of Parcel 1 as shown on Record of Survey in support of a Boundary Line Adjustment Map No. 5384, File No. 4083645 and described in Deed, Document No. 4083644 recorded February 10, 2012, Official Records of Washoe County, Nevada;

THENCE, departing said Sec Cor and SW Cor and along the west line of said Section 29 coincident with the west line of said Parcel 1, North 03°59'37" East 1608.87 feet;

THENCE, departing said west lines and along the following twelve (12) courses;

North 65°35'50" East, 6481.12 feet;
South 27°14'23" East, 1391.32 feet;
South 57°54'00" West, 3043.18 feet to the beginning of a tangent curve to the left;
294.81 feet along the arc of a 530.00 foot radius curve through a central angle of 31°52'12" to the beginning of a reverse curve;
262.18 feet along the arc of a 470.00 foot radius curve to the right through a central angle of 31°57'41";
South 57°59'29" West, 1243.35 feet to the beginning of a tangent curve to the left;
544.37 feet along the arc of a 330.00 foot radius curve through a central angle of 94°30'54" to the beginning of a reverse curve;
510.90 feet along the arc of a 270.00 foot radius curve to the right through a central angle of 108°24'57" to the beginning of a compound curve;

174.35 feet along the arc of a 2813.00 foot radius curve to the right through a central angle of 03°33'04";
South 75°26'36" West, 606.38 feet to the beginning of a tangent curve to the left;
1751.48 feet along the arc of a 7187.00 foot radius curve through a central angle of 13°57'47";
North 02°00'31" West, 1376.48 feet to the POINT OF BEGINNING;

EXCEPTING THEREFROM, a parcel of land 100 feet by 100 feet square conveyed to Bell Telephone Company of Nevada, by Deed recorded in Book 146, Page 113, File No. 101202, Official Records of Washoe County, Nevada.

Said Parcel is also referenced as Parcel 1-C of the 2nd Record of Survey in support of a Boundary Line Adjustment for STONEFIELD, INC., recorded June 13, 2012, as Document No. 4121670, Official Records.

PARCEL 2:

A non-exclusive easement and right-of-way for a roadway, as set forth in a Deed of Right-of-Way recorded January 20, 1998, in Book 5104, Page 914, as Document No. 2171674, Official Records, Washoe County, Nevada.

PARCEL 3:

A Re-locatable Private Access Easement for roadway, access, ingress and egress, and incidental purposes, as set forth in a Boundary Line Adjustment Quitclaim Deed & Grant of Easement, recorded February 10, 2012, as Document No. 4083644, Official Records, Washoe County, Nevada.

RENO NEWSPAPERS INC
Publishers of
Reno Gazette-Journal
955 Kuenzli St - P.O. Box 22,000 - Reno, NV 89520 - 775.788.6200
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RENO, NV 89512
Attn:

Customer Acct# REN-349008
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Legal Ad Cost: $435.00

STATE OF NEVADA
COUNTY OF WASHOE

Being first duly sworn, deposes and says: That as the legal clerk of the Reno Gazette-Journal, a daily newspaper of general circulation published in Reno, Washoe County, State of Nevada, that the notice referenced below has published in each regular and entire issue of said newspaper between the date: 12/22/2017 - 12/29/2017, for exact publication dates please see last line of Proof of Publication below.

Signed: _____

Subscribed and sworn to before me

_____

NOTICE OF ADOPTION WASHOE COUNTY ORDINANCE NO. 1605 BILL NO. 1791 NOTICE IS HEREBY GIVEN that typewritten copies of the above-numbered and entitled ordinance a

Publish Dates:

12/22/17, 12/29/17

NOTICE OF ADOPTION
WASHOE COUNTY ORDINANCE NO. 1605
BILL NO. 1791

NOTICE IS HEREBY GIVEN that typewritten copies of the above-numbered and entitled ordinance are available for inspection by the interested parties at the office of the County Clerk of Washoe County, Nevada, at her office in the Washoe County Complex, 1001 E. Ninth Street, Building A, Reno, Washoe County, Nevada; and that the ordinance was proposed on November 28, 2017 by Commissioner Hartung and was passed and adopted without amendment at a regular meeting held on December 19, 2017 by the following vote of the Board of County Commissioners:

AN ORDINANCE PURSUANT TO NEVADA REVISED STATUTES 278.0201 THROUGH 278.0207 APPROVING AN AMENDED AND RESTATED DEVELOPMENT AGREEMENT WITH APPLE, INC. (RENO TECHNOLOGY PARK; SPARKS ENERGY PARK) ORIGINALLY APPROVED IN JANUARY 2012 WITH UNIQUE INFRASTRUCTURE GROUP (UGI) (DEVELOPMENT AGREEMENT CASE NUMBER DA11-001, ORDINANCE NUMBER 1476), AND FIRST AMENDED IN JULY 2012 WITH UGI (FIRST AMENDMENT TO DEVELOPMENT AGREEMENT, ORDINANCE NUMBER 1495), WHICH AMENDMENT PERMITS THE CONSTRUCTION AND OPERATION OF A CERTAIN TECHNOLOGY PARK; AND OTHER MATTERS PROPERLY RELATED THERETO. (BILL NO.1791)

Those Voting Aye: Bob Lucey, Marsha Berkbigler, Vaughn Hartung and Jeanne Herman.

Those Absent: Kitty Jung

This Ordinance shall be in full force and effect from and after December 29, 2017.
IN WITNESS WHEREOF, the Board of County Commissioners of Washoe County, Nevada, has caused this Ordinance to be published by title only.

DATED: December 20, 2017.

Nancy Parent, Washoe County Clerk and
Clerk of the Board of County Commissioners

No 2616816 Dec. 22 & 29, 2017

VICKIEMARIE SAYLOR
Notary Public - State of Nevada
Appointment Recorded in Washoe County
No: 04-88907-2 - Expires July 23, 2020

1605

PRELIMINARY SEWER REPORT

FOR

APPLE FIRE STATION
WASHOE COUNTY, NEVADA

Prepared for:

Truckee Meadows Fire Protection District
3663 Barron Way
Reno, NV 89511

September, 2023

Prepared by:

Wood Rodgers Inc.
1361 Corporate Boulevard
Reno, Nevada 89502
(775) 823-4068

PROFESSIONAL ENGINEER, STATE OF NEVADA
JILLIAN G. WILBRECHT
Exp: 6/30/24
CIVIL
No. 22522
9/8/23

Jillian Wilbrecht, PE

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

TABLE OF CONTENTS

APPENDIX

INTRODUCTION

This study represents the Preliminary Sewer Report for development of the proposed Apple Fire Station project. The purpose of this study is to address the on-site septic design for the project. The proposed septic system, as described below, is consistent with the *Washoe County District Board of Health - Sewage Wastewater, and Sanitation Regulations.* This report includes the overall design standards used to preliminarily size the septic tank and disposal trench to support the proposed project.

PROJECT LOCATION/DESCRIPTION

The proposed project site (a portion of APN: 084-191-08) is approximately 3.24± acres in size and is located within Sections 31 in T20N, R22E, MDM, Washoe County, Nevada. The proposed project will create a new parcel within the larger parcel. The mapping action will occur after the special use permitting process is complete.

The project site is located on a large parcel of undeveloped land. The project will be accessed from Interstate 80 (located to the south) and Reno Technology Parkway. A Vicinity Map is included in the Appendix of this report for reference.

EXISTING CONDITION

The project site is currently undeveloped. There is no available sanitary sewer infrastructure to connect into within the project area.

A preliminary geotechnical due diligence study was completed by Wood Rodgers in August 2023. The study completed percolation tests in two test pits which resulted in percolation rates of 7.48 and 10.63 minutes per inch. Based on the percolation test results, either location can be utilized for the septic disposal field. In addition, Wood Rodgers also reported finding no groundwater during their exploration.

PROPOSED CONDITION

Development of the Apple Fire Station project will include a 13,900± square foot fire station with apparatus bays, a 3,750± square foot metal storage building, a 1,500± square foot water pump station building, and a fire water storage tank. The fire station will support a crew of seven and include seven crew quarters (similar to a seven-bedroom residential home). The project will

utilize a septic system for sewerage from the site which was sized based on residential design considerations since it more similar to a residential situation than a commercial property. In general, a sewer lateral will extend from the fire station building to a septic system located southwest of the developed area. A sewer lateral will also extend from the water pump station to the septic system. The sewer system will include a septic tank, a distribution tank, septic disposal trenches, and backup septic disposal trenches. See the Septic System Site Layout in the Appendix for reference.

CONTRIBUTIONS/DESIGN COMPONENTS

The septic system that will support the proposed project was based on the design requirements for a seven-bedroom residential house. A disposal trench system will be utilized for the project. The site was preliminarily designed with a 2,000-gallon septic tank, a distribution tank, and a disposal plus reserve trench system.

CONCLUSIONS

The proposed septic sewer system discussed in this report will be designed to sufficiently serve the proposed Apple Fire Station project. All on-site facilities shall be privately owned and maintained.

REFERENCES

Wood Rodgers, Geotechnical Due Diligence Letter Report, Truckee Meadows Fire Protection District (TMFPD), August 25, 2023.

Washoe County District Board of Health – Sewage, Wastewater, and Sanitation Regulations, May 23, 2013.

Appendix

WOOD RODGERS

Fig. 1

Vicinity Map

Apple Fire Station

Reno, Nevada

September 2023

Prepared By: AL

Checked By: JW

\\woodrodgers.loc\productiondata\jobs-reno\Gis\Technology\VicinityMapPDF\Pro2x\VicinityMapPDF\VicinityMapPDF.aprx

SEPTIC SYSTEM SITE LAYOUT

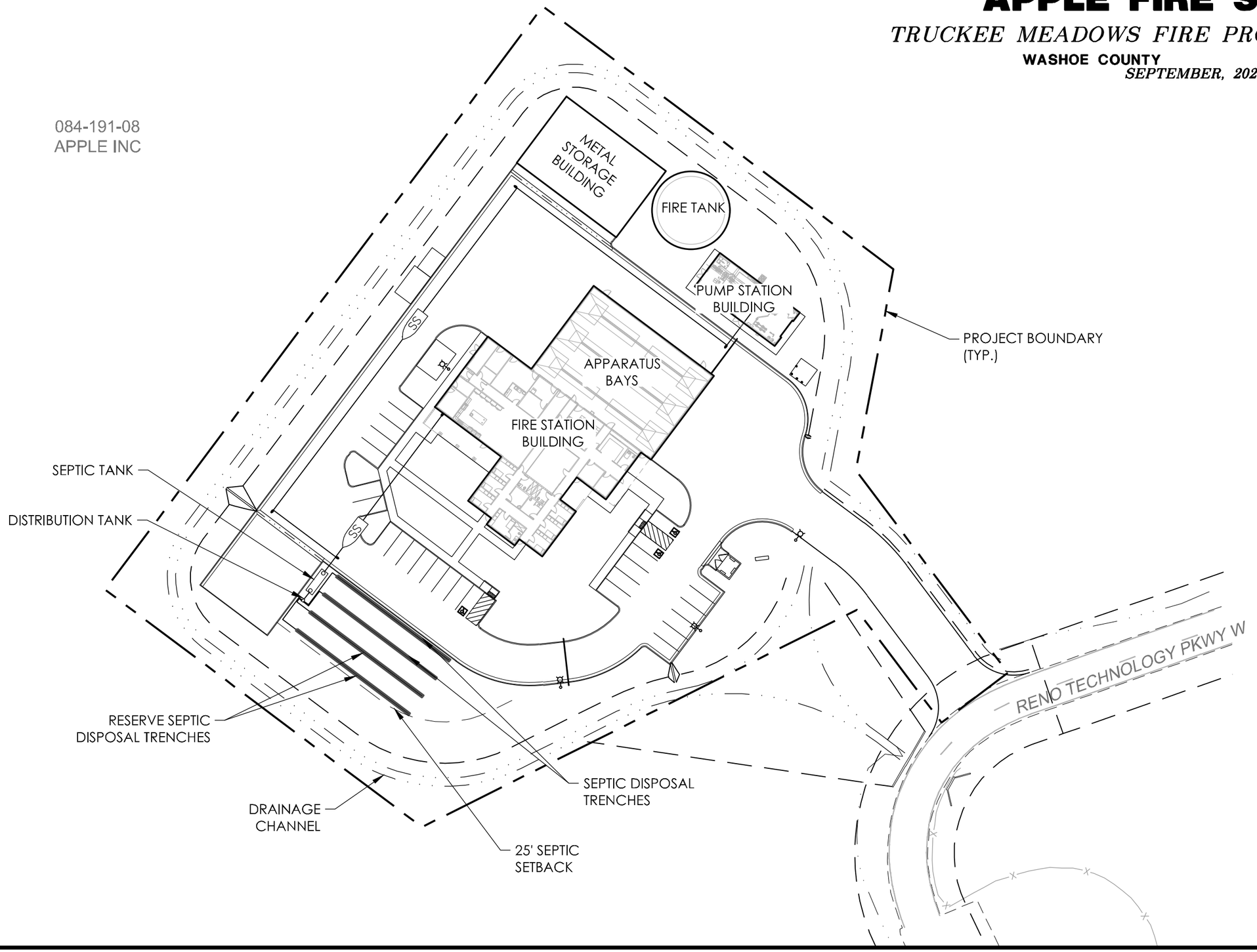
APPLE FIRE STATION

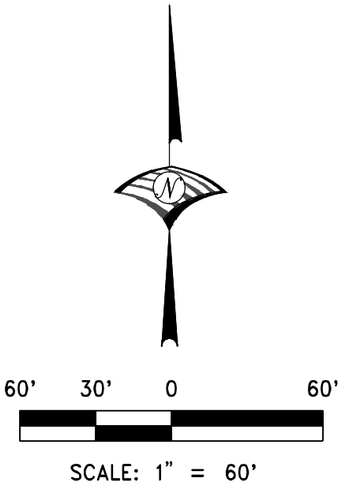
TRUCKEE MEADOWS FIRE PROTECTION DISTRICT

WASHOE COUNTY **NEVADA**

SEPTEMBER, 2023

084-191-08
APPLE INC





SCALE: 1” = 60’

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard Tel 775.823.4068
Reno, NV 89502 Fax 775.823.4066

J:\Jobs\8754_TMFPD_Station_Reloc_006_Apple_Site\Planning\Studies\Sewer\EXH_Septic Layout.dwg 8/25/2023 8:34 AM Austin Lowe

PRELIMINARY DRAINAGE REPORT

FOR

APPLE FIRE STATION
WASHOE COUNTY, NEVADA

Prepared for:

Truckee Meadows Fire Protection District
3663 Barron Way
Reno, NV 89511

September, 2023

Prepared by:

Wood Rodgers Inc.
1361 Corporate Boulevard
Reno, Nevada 89502
(775) 823-4068

PROFESSIONAL ENGINEER STATE OF NEVADA
JILLIAN G. WILBRECHT
Exp: 6/30/24
CIVIL
No. 22522

9/8/23

Jillian Wilbrecht, P.E.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

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APPENDICES

INTRODUCTION

This study represents the Preliminary Drainage Report for development of the proposed Apple Fire Station project. The purpose of this study is to address the drainage issues that result from development of the existing property in accordance with Washoe County development standards, the *Truckee Meadows Regional Design Manual* (TMRDM), and sound design and engineering practices. This report includes the overall hydrologic analysis for existing and proposed conditions and the design parameters for on-site stormwater management facilities.

PROJECT LOCATION/DESCRIPTION

The proposed project site (a portion of APN: 084-191-08) is approximately 3.24± acres in size and is located within Section 31 in T20N, R22E, MDM, Washoe County, Nevada. The proposed project will create a new parcel within the larger parcel. The mapping action will occur after the special use permitting process is complete.

The project site is located on a large parcel of undeveloped land. The project will be accessed from Interstate 80 (located to the south) and Reno Technology Parkway. A Vicinity Map is included in Appendix A of this report for reference.

Development of the site will include a 13,900± square foot fire station with apparatus bays, a 3,750± square foot metal storage building, a 1,500± square foot water pump station building, and a fire water storage tank. Sitework includes drive aisles, paved parking, walkways, and landscaping to support the project.

HYDROLOGIC ANALYSIS

As the area being analyzed is larger than 100 acres, the TMRDM requires the Natural Resources Conservation Service (SCS) unit hydrograph method be used to attain peak flows for the drainage basins. The SCS method requires a curve number (CN), accumulated rainfall depth, and lag time for each basin. The 5-year and 100-year storm events were modeled using the U.S. Army Corp of Engineering HEC-HMS software.

Hydraulic analysis was performed utilizing different methods depending on the complexity and type of the conveyance. Open channel conveyances with consistent cross-sections were analyzed

with the Manning's Equation and the computer program Flowmaster. The effects of hydrograph routing were modeled using the computer program HEC-HMS.

The Runoff Curve Numbers (CN) for each basin is determined by overlaying land use information about the basin with soil data available for the basin. Soil types are rated from A to D with correspondingly higher curve number values. The overall CN for a basin is a weighted average for each area based on the land uses and soil curve numbers. Tables of Runoff Curve Numbers for Commercial Areas (proposed) and Runoff Curve Numbers for Rangelands (existing) are found in the TMRDM, Table 702, and are included in Appendix A for reference. Tables summarizing the weighted average CN for each basin for the existing and proposed site conditions are included in Appendices B and C of this report, respectively.

The time of concentration is defined as the time required for water to flow from the hydraulically most distant part of the drainage area to the point of consideration. Usually, the point of consideration is the discharge point of the basin or sub-basin. Lag time is the time interval between the center of mass of the rainfall and the peak runoff rate and is a function of time of concentration. Lag times are used as inputs into HEC-HMS to find storm runoff. The lag times were computed per the TMRDM and calculations can be found for the existing and proposed conditions in Appendices B and C, respectively. Both existing and proposed conditions consist of basins with slopes larger than 10% and lag times were computed accordingly.

Rainfall depths were required to complete the preliminary hydrologic analysis for the site. Precipitation depth estimates were taken from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 1, Version 5 which provides rainfall information for a given longitude and latitude. It was determined that the site latitude and longitude are 39.5562° and -119.5665°, respectively. Rainfall storm data for the 5-year and 100-year storm was recorded into HEC-HMS and is included in Appendix A of this report.

EXISTING CONDITIONS

In its existing condition, the site consists of one 144-acre drainage basin, E-01. Stormwater falling on the basin generally flows from northwest to southeast. Stormwater sheet flows for a short time and then concentrates into existing natural drainage swales. Stormwater then converges southeast to a single collection point, an existing 8-foot wide by 4-foot tall box culvert under Reno Technology Parkway, and flows offsite. Stormwater continues south where it reports to the Truckee River. The existing land use is mostly range, poor with a soil group D and a small section

of soil group A near the southeast portion of the property. The existing basin area, flowpath, land use, and soil group information can be found in Appendix B.

A 5-year and 100-year, 24-hr storm analysis of Basin E-01 was completed using HEC-HMS and the analysis results are shown in Appendix B. Table 1 summarizes the results of the analysis for the existing condition.

Table 1: Existing Flows - HEC-HMS	
Storm Event	E-01
5-yr, 24-hr	48.5 CFS
100-yr, 24-hour	167.1 CFS

FEMA FLOOD HAZARD INFORMATION

The project site is located on FEMA Flood Insurance Rate Map (FIRM) number 32031C3087G. Per the map, the entire site is located within FEMA Flood Zone 'X', which is defined as areas outside the 0.2% (500-year) annual chance floodplain. As the site is Zone 'X', there are no base flood elevations for the site. The FEMA FIRMette is provided in Appendix A.

PROPOSED CONDITION

Proposed development of the site will create two hydrologic basins, P-01 and P-02. Both basins will discharge to the same existing box culvert as the existing condition but are first divided and diverted around the project site. Both Basins P-01 and P-02 consist mostly of the existing condition, with only about two percent of the overall basin's area located within the developed area. As such, most of the offsite stormwater flows from Basins P-01 and P-02 to the north and northwest area of the proposed project site and will be collected in drainage channels and diverted around the proposed project.

Stormwater that falls onsite for both Basins P-01 and P-02 will generally sheet flow from the center to the edges of the site and be transported via a system of curb and gutter and valley gutters. The flow is then routed to curb openings that will release to the proposed drainage channels surrounding the project site which discharge into the existing box culvert. From the existing box culvert, the flow will report to the Truckee River in the same manner as the existing condition. The proposed land use for the developed site is commercial and business, soil group A, while the undeveloped land use will remain the same as existing. The proposed hydrologic basins, flowpaths, proposed land use, and soil groups can be found in Appendix C.

The proposed basins were analyzed using HEC-HMS software and the results can be found in Appendix C. Table 2 displays the runoff flow results of both Basins P-01 and P-02 separately and the flow at the existing box culvert where flows converge.

Table 2: Proposed Flows - HEC-HMS			
Storm Event	P-01	P-02	Existing Box Culvert
5-yr, 24-hr	30.7 CFS	23.2 CFS	52.5 CFS
100-yr, 24-hour	102.9 CFS	79.7CFS	178.2 CFS

HYDRAULICS / PROPOSED DRAINAGE FACILITIES

The proposed storm drainage system generally consists of sheet flow from the building roofs, site hardscape, and landscape areas into on-site gutters. Stormwater flows from gutters to one of three curb openings located on the south, east, and west portions of the site. Flows from the curb openings discharge into the drainage channels surrounding the proposed project site. The channels discharge into an area south of the project site where it crosses Reno Technology Parkway in the existing box culvert.

All offsite stormwater flows that cross the site in the existing condition will be collected in drainage channels that wrap around the proposed project site. Stormwater will be collected from offsite areas and flow west or east around the site and converge south of the project site before discharging in the existing box culvert. The west and east channel size is based on the proposed basin flows, P-01 and P-02 respectively. Both channels have at least one foot of freeboard in the proposed 100-year storm event. In addition, stormwater flowing in the drainage channel on the east side of the project site (P-2) will enter a new 5-foot wide by 2-foot tall box culvert that will be utilized to cross the proposed driveway that connects the project site to Reno Technology Parkway. Calculations for the channels and culvert sizing using Flowmaster can be found in Appendix C. Additionally, a proposed Drainage Site Plan exhibit can be found in Appendix A.

HEC-HMS was used to analyze pre and post-development flows with the existing box culvert as the analysis point. Table 3 summarizes the existing and proposed peak flow rates.

Table 3: Existing vs. Proposed Flows			
Storm Event	Existing Peak Flow	Proposed Peak Flow	Difference in Peak Flows
5-yr, 24-hr	48.5 CFS	52.5 CFS	4 CFS
100-yr, 24-hour	167.1 CFS	178.2 CFS	11.1 CFS

The proposed project's increase in runoff due to development is minimal relative to the overall flow reporting to the discharge point. There is an estimated 8% increase in the 5-year storm event and an estimated 7% increase in the 100-year storm event. Due to the project's location close to the ultimate discharge point of the Truckee River and the minimal increase related to the overall drainage basin, detention is not proposed.

CONCLUSIONS

The drainage facilities proposed with the Apple Fire Station project site have been preliminarily designed to capture and perpetuate the design storm event flows with the use of channels, gutters, and curb openings to the existing drainage pathways. The conveyance of flows is in conformance with State of Nevada drainage statutes, the *Truckee Meadows Regional Drainage Manual*, and Washoe County Development code. There will not be negative impacts to the adjacent or downstream properties as a result of development due to the implementation of the proposed stormwater management system.

REFERENCES

Washoe County Development Code, July 3, 2015.

Federal Emergency Management Agency, Flood Insurance Rate Map for Washoe County, Nevada, Exported February 3, 2023.

Truckee Meadows Regional Drainage Manual, April 30, 2009.

Appendix A - General Figures

WOOD RODGERS

Fig. 1

Vicinity Map

Apple Fire Station

Reno, Nevada

September 2023

Prepared By: AL

Checked By: JW

\\woodrodgers.loc\productiondata\jobs-reno\Gis\Technology\VicinityMapPDF\Pro2x\VicinityMapPDF\VicinityMapPDF.aprx

National Flood Hazard Layer FIRMette

FEMA

119°34'17"W 39°33'37"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

119°33'40"W 39°33'10"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/8/2023 at 12:55 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

RUNOFF CURVE NUMBERS FOR URBAN AREAS[1]

Cover Type and Hydrologic Condition	Aver. % Impervious Area[2]	Runoff Curve Numbers Soil Comp A	Soil Comp B	Soil Comp C	Soil Comp D
Fully developed urban area (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.)[3]					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50 to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only)[4]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious only, no vegetation)[5]		77	86	91	94
Idle lands (CNs are determined using cover types similar to those Table 702 - 3 of 4)					

[1]Average runoff condition, and $I_a = 0.2S$

[2]The average percent impervious area shown was used to develop the composite CNs. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CNs for other combinations of conditions may be computed using figure 2-3 or 2-4 in TR-55 (SCS, 1986).

[3]CNs shown are equivalent to those of pasture. Composite CNs may be computed for other combinations of open space cover type.

[4]Composite CNs for natural desert landscaping should be computed using figure 2-3 or 2-4 in TR-55 (SCS, 1986) based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CNs are assumed equivalent to desert shrub in poor hydrologic condition.

[5]Composite CNs to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 in TR-55 (SCS, 1986) based on the degree of development (impervious area percentage) and the CNs for the newly graded pervious areas.

RUNOFF CURVE NUMBERS FOR CULTIVATED AGRICULTURAL LANDS[1]

Cover type	Treatment[2]	Hydrologic condition[3]	Runoff Curve Numbers Soil Comp A	Soil Comp B	Soil Comp C	Soil Comp D
Fallow	Bare soil	-	77	86	91	94
	Crop residue cover (CR)	Poor	76	85	90	93
		Good	74	83	88	90
Row crops	Straight row (SR)	Poor	72	81	88	91
		Good	67	78	85	89
	SR + CR	Poor	71	80	87	90
		Good	64	75	82	85
	Contoured (C)	Poor	70	79	84	88
		Good	65	75	82	86
	C + CR	Poor	69	78	83	87
		Good	64	74	81	85
	Contoured & terraced (C&T)	Poor	66	74	80	82
		Good	62	71	78	81
	C&T + CR	Poor	65	73	79	81
		Good	61	70	77	80
Small grain	SR	Poor	65	76	84	88
		Good	63	75	83	87
	SR + CR	Poor	64	75	83	86
		Good	60	72	80	84
	C	Poor	63	74	82	85
		Good	61	73	81	84
	C + CR	Poor	62	73	81	84
		Good	60	72	80	83
	C&T	Poor	61	72	79	82
		Good	59	70	78	81
	C&T + CR	Poor	60	71	78	81
		Good	58	69	77	80
Close-seeded or broadcast legumes or rotation meadow	SR	Poor	66	77	85	89
		Good	58	72	81	85
	C	Poor	64	75	83	85
		Good	55	69	78	83
	C&T	Poor	63	73	80	83
		Good	51	67	76	80

[1]Average runoff condition, and $I_a = 0.2S$

[2]*Crop residue cover* applies only if residue is on at least 5% of the surface throughout the year.

[3]Hydrologic condition is based on combination of factors that affect infiltration and runoff, including: (a) density and canopy of vegetative areas, (b) amount of year-round cover, (c) amount of grass or close-seeded legumes in rotations, (d) percent of residue cover on the land surface (good ≥ 20%), and (e) degree of surface roughness.

Poor: Factors impair infiltration and tend to increase runoff.
Good: Factors encourage average and better than average infiltration and tend to decrease runoff.

RUNOFF CURVE NUMBERS FOR OTHER AGRICULTURAL LANDS[1]

Cover Type	Hydrologic Condition	Runoff Curve Numbers: Soil Comp A	Soil Comp B	Soil Comp C	Soil Comp D
Pasture, grassland, or range – continuous forage for grazing[2]	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow – continuous grass, protected from grazing and generally mowed for hay	-	30	58	71	78
Brush – brush-weed-grass mixture with brush the major element[3]	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30[4]	48	65	73
Woods – grass combination (orchard or tree farm)[5]	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods[6]	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30[4]	55	70	77
Farmsteads – buildings, lanes, driveways, and surrounding lots	-	59	74	82	86

[1]Average runoff condition, and $I_a = 0.2S$

[2]*Poor*: < 50% ground cover or heavily grazed with no mulch
Fair: 50 to 75% ground cover and not heavily grazed
Good: > 75% ground cover and lightly or only occasionally grazed

[3]*Poor*: < 50% ground cover
Fair: 50 to 75% ground cover
Good: >75% ground cover

[4]Actual curve number is less than 30; use CN = 30 for runoff computations.

[5]CNs shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CNs for woods and pasture.

[6]*Poor*: Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.
Fair: Woods are grazed but not burned, and some forest litter covers the soil.
Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

RUNOFF CURVE NUMBERS FOR ARID AND SEMIARID RANGELANDS[1]

Cover Description	Hydrologic Condition[2]	Runoff Curve Numbers Soil Comp A[3]	Soil Comp B	Soil Comp C	Soil Comp D
Herbaceous – mixture of grass, weeds, and low-growing brush, with brush the minor element.	Poor		80	87	93
	Fair		71	81	89
	Good		62	74	85
Oak-aspen – mountain brush mixture of oak brush, aspen, mountain mahogany, bitter brush, maple, and other brush	Poor		66	74	79
	Fair		48	57	63
	Good		30	41	48
Pinyon-juniper – pinyon, juniper, or both; grass understory	Poor		75	85	89
	Fair		58	73	80
	Good		41	61	71
Sagebrush with grass understory	Poor		67	80	85
	Fair		51	63	70
	Good		35	47	55
Desert shrub – major plants include saltbrush, greasewood, creosotebush, blackbrush, bursage, palo verde, mesquite, and cactus	Poor	63	77	85	88
	Fair	55	72	81	86
	Good	49	68	79	84

[1]Average runoff condition, and $I_a = 0.2S$. For range in humid regions, use Table 702 - 3 of 4.

[2]*Poor*: < 30% ground cover (litter, grass, and brush overstory)
Fair: 30 to 70% ground cover
Good: > 70% ground cover

[3]Curve numbers for group A have been developed only for desert shrub.

LAG EQUATION ROUGHNESS FACTORS

LAND USE	RANGE OF AVERAGE IMPERVIOUS AREA	K_n
Developed Areas		
Commercial/Industrial/Office/Business	70-85	.05
High and Medium Density Residential	30-65	.05
Low Density Residential	20-25	.07
Rural Residential	10-15	.08
Irrigated Grass (Golf Course/Parks/Cemeteries)	0-5	.10
Undeveloped Areas		
Rock Outcroppings	-	.04
Irrigated Agriculture	-	.10
Rangelands:		
Herbaceous (grasses)	-	.08
Mixed grass and shrub	-	.09
Heavy shrub/brush	-	.10
Forest (Evergreen)	-	.15

NOAA Atlas 14, Volume 1, Version 5
Location name: Sparks, Nevada, USA*
Latitude: 39.5562°, Longitude: -119.5665°
Elevation: 4352 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.100 (0.084-0.117)	0.125 (0.105-0.148)	0.168 (0.141-0.200)	0.208 (0.174-0.248)	0.275 (0.223-0.330)	0.335 (0.264-0.408)	0.407 (0.312-0.502)	0.494 (0.364-0.622)	0.636 (0.442-0.827)	0.766 (0.507-1.02)
10-min	0.153 (0.128-0.178)	0.190 (0.160-0.225)	0.256 (0.214-0.304)	0.317 (0.265-0.378)	0.418 (0.339-0.503)	0.510 (0.403-0.621)	0.620 (0.475-0.764)	0.752 (0.555-0.947)	0.967 (0.672-1.26)	1.16 (0.772-1.55)
15-min	0.189 (0.159-0.221)	0.236 (0.198-0.279)	0.317 (0.266-0.377)	0.393 (0.328-0.468)	0.517 (0.421-0.623)	0.632 (0.499-0.770)	0.768 (0.588-0.947)	0.933 (0.688-1.17)	1.20 (0.833-1.56)	1.44 (0.957-1.92)
30-min	0.254 (0.213-0.298)	0.318 (0.267-0.375)	0.427 (0.358-0.507)	0.529 (0.441-0.631)	0.697 (0.566-0.839)	0.851 (0.672-1.04)	1.03 (0.792-1.28)	1.26 (0.926-1.58)	1.62 (1.12-2.10)	1.95 (1.29-2.58)
60-min	0.315 (0.264-0.369)	0.393 (0.330-0.465)	0.529 (0.443-0.628)	0.654 (0.546-0.780)	0.863 (0.701-1.04)	1.05 (0.832-1.28)	1.28 (0.981-1.58)	1.55 (1.15-1.96)	2.00 (1.39-2.60)	2.41 (1.60-3.20)
2-hr	0.409 (0.356-0.481)	0.511 (0.446-0.600)	0.660 (0.568-0.776)	0.787 (0.670-0.926)	0.982 (0.814-1.16)	1.15 (0.935-1.38)	1.36 (1.07-1.65)	1.61 (1.23-1.98)	2.06 (1.51-2.61)	2.47 (1.75-3.21)
3-hr	0.488 (0.428-0.564)	0.611 (0.540-0.709)	0.770 (0.673-0.891)	0.899 (0.778-1.04)	1.08 (0.923-1.26)	1.24 (1.04-1.46)	1.44 (1.18-1.72)	1.69 (1.36-2.04)	2.12 (1.66-2.62)	2.52 (1.92-3.24)
6-hr	0.678 (0.597-0.775)	0.849 (0.748-0.976)	1.06 (0.928-1.22)	1.22 (1.06-1.41)	1.44 (1.24-1.66)	1.60 (1.36-1.87)	1.77 (1.48-2.08)	1.99 (1.63-2.37)	2.35 (1.89-2.85)	2.70 (2.13-3.32)
12-hr	0.890 (0.785-1.01)	1.12 (0.989-1.28)	1.42 (1.25-1.62)	1.66 (1.45-1.89)	1.97 (1.70-2.27)	2.22 (1.89-2.57)	2.46 (2.07-2.89)	2.71 (2.24-3.22)	3.05 (2.45-3.68)	3.35 (2.63-4.11)
24-hr	1.10 (0.987-1.24)	1.39 (1.25-1.56)	1.78 (1.59-2.00)	2.10 (1.87-2.36)	2.54 (2.25-2.85)	2.90 (2.54-3.26)	3.27 (2.84-3.70)	3.65 (3.14-4.16)	4.19 (3.54-4.81)	4.62 (3.85-5.35)
2-day	1.31 (1.16-1.48)	1.65 (1.47-1.87)	2.15 (1.90-2.43)	2.54 (2.24-2.88)	3.11 (2.71-3.53)	3.56 (3.08-4.06)	4.04 (3.46-4.63)	4.55 (3.85-5.25)	5.27 (4.37-6.15)	5.85 (4.76-6.90)
3-day	1.43 (1.27-1.62)	1.82 (1.62-2.06)	2.38 (2.10-2.70)	2.83 (2.49-3.21)	3.48 (3.04-3.95)	4.00 (3.46-4.56)	4.57 (3.91-5.23)	5.16 (4.36-5.95)	6.01 (4.98-7.00)	6.70 (5.46-7.89)
4-day	1.55 (1.38-1.76)	1.98 (1.76-2.25)	2.61 (2.31-2.96)	3.12 (2.75-3.54)	3.85 (3.37-4.38)	4.45 (3.85-5.07)	5.09 (4.36-5.82)	5.78 (4.88-6.64)	6.76 (5.59-7.85)	7.56 (6.15-8.87)
7-day	1.83 (1.61-2.10)	2.34 (2.06-2.68)	3.10 (2.71-3.55)	3.71 (3.24-4.25)	4.59 (3.97-5.27)	5.30 (4.55-6.10)	6.07 (5.16-7.02)	6.89 (5.79-8.00)	8.06 (6.64-9.46)	9.01 (7.32-10.7)
10-day	2.06 (1.80-2.36)	2.64 (2.32-3.02)	3.50 (3.07-4.01)	4.18 (3.65-4.80)	5.14 (4.45-5.91)	5.91 (5.07-6.79)	6.72 (5.72-7.76)	7.57 (6.37-8.79)	8.77 (7.25-10.3)	9.73 (7.93-11.5)
20-day	2.57 (2.27-2.94)	3.30 (2.91-3.78)	4.35 (3.82-4.96)	5.16 (4.51-5.89)	6.26 (5.44-7.16)	7.12 (6.15-8.17)	8.02 (6.86-9.24)	8.94 (7.58-10.4)	10.2 (8.52-11.9)	11.2 (9.24-13.2)
30-day	2.97 (2.61-3.40)	3.82 (3.36-4.37)	5.02 (4.40-5.76)	5.95 (5.20-6.82)	7.22 (6.26-8.28)	8.21 (7.08-9.44)	9.24 (7.90-10.7)	10.3 (8.73-12.0)	11.7 (9.81-13.7)	12.9 (10.6-15.2)
45-day	3.55 (3.13-4.03)	4.57 (4.02-5.17)	6.00 (5.26-6.79)	7.09 (6.19-8.03)	8.55 (7.43-9.72)	9.69 (8.37-11.0)	10.9 (9.30-12.4)	12.0 (10.2-13.8)	13.7 (11.5-15.8)	15.0 (12.4-17.4)
60-day	4.09 (3.58-4.64)	5.29 (4.64-6.00)	6.95 (6.07-7.87)	8.15 (7.10-9.23)	9.70 (8.41-11.0)	10.9 (9.37-12.4)	12.0 (10.3-13.7)	13.2 (11.2-15.1)	14.7 (12.4-16.9)	15.8 (13.2-18.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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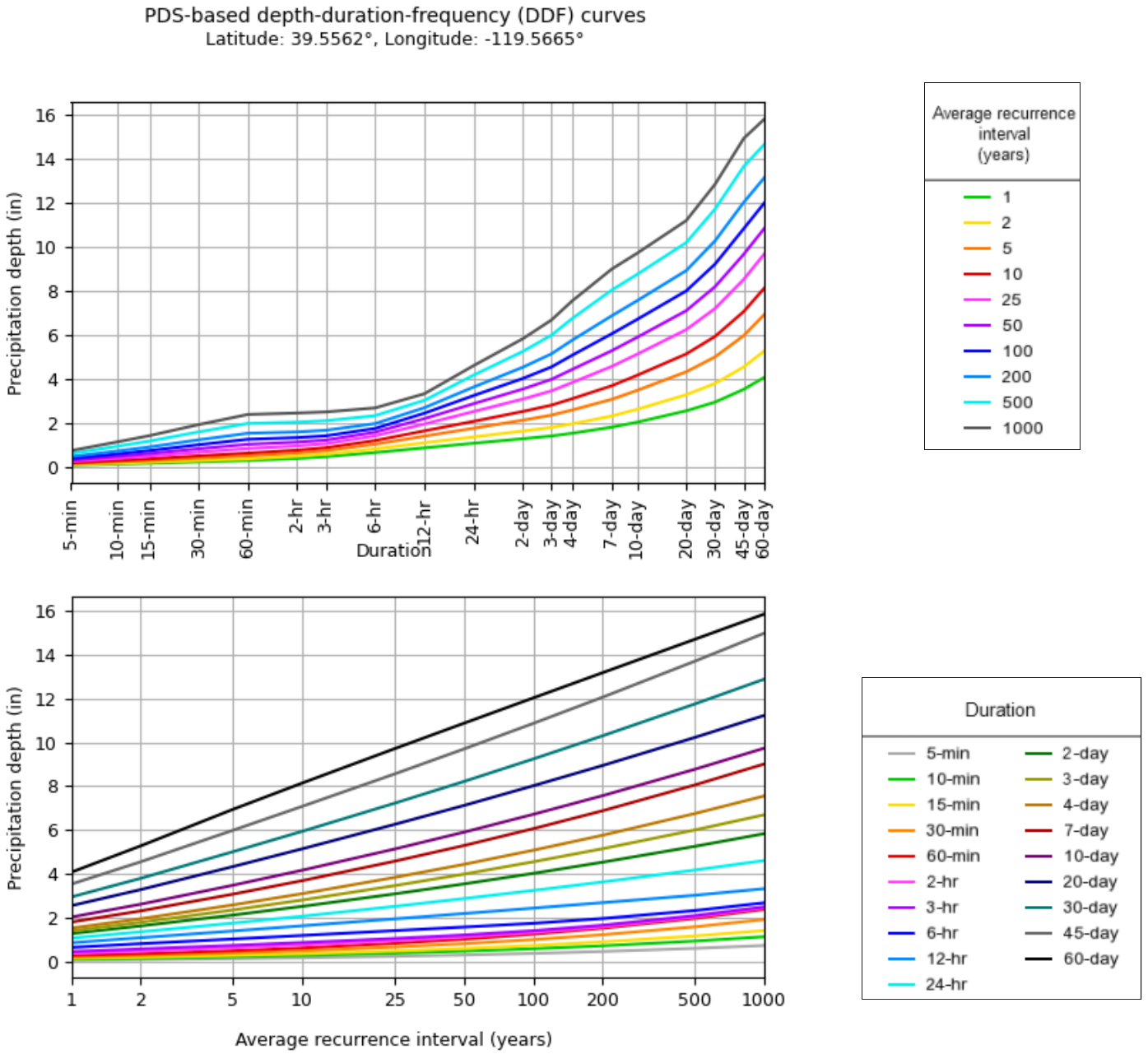
PF graphical



NOAA Atlas 14, Volume 1, Version 5

Created (GMT): Tue Aug 8 20:03:49 2023

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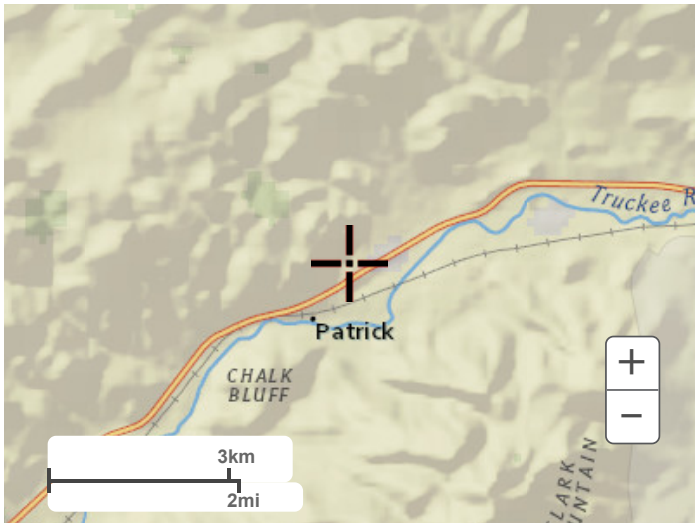
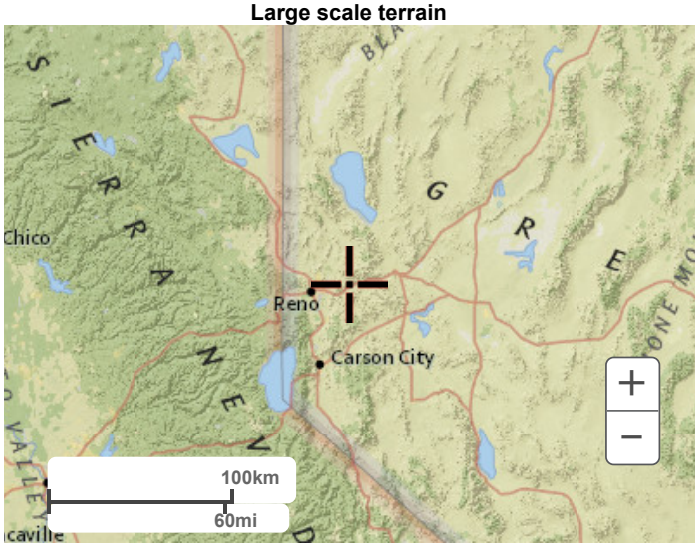
Maps & aerials

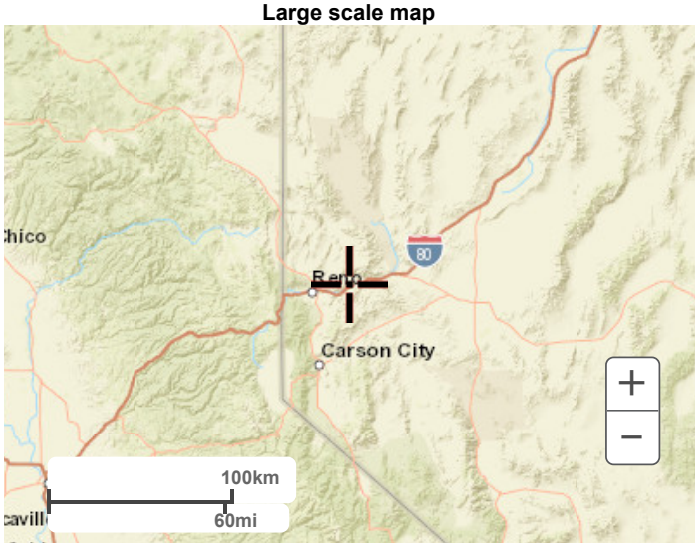
Small scale terrain



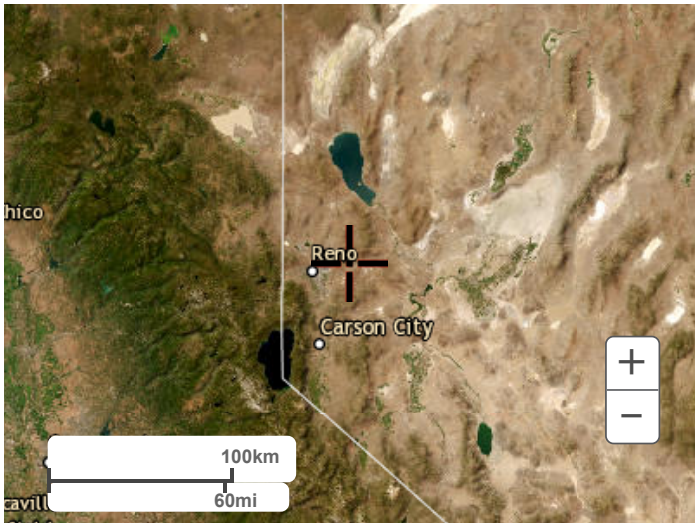
Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

DRAINAGE SITE PLAN

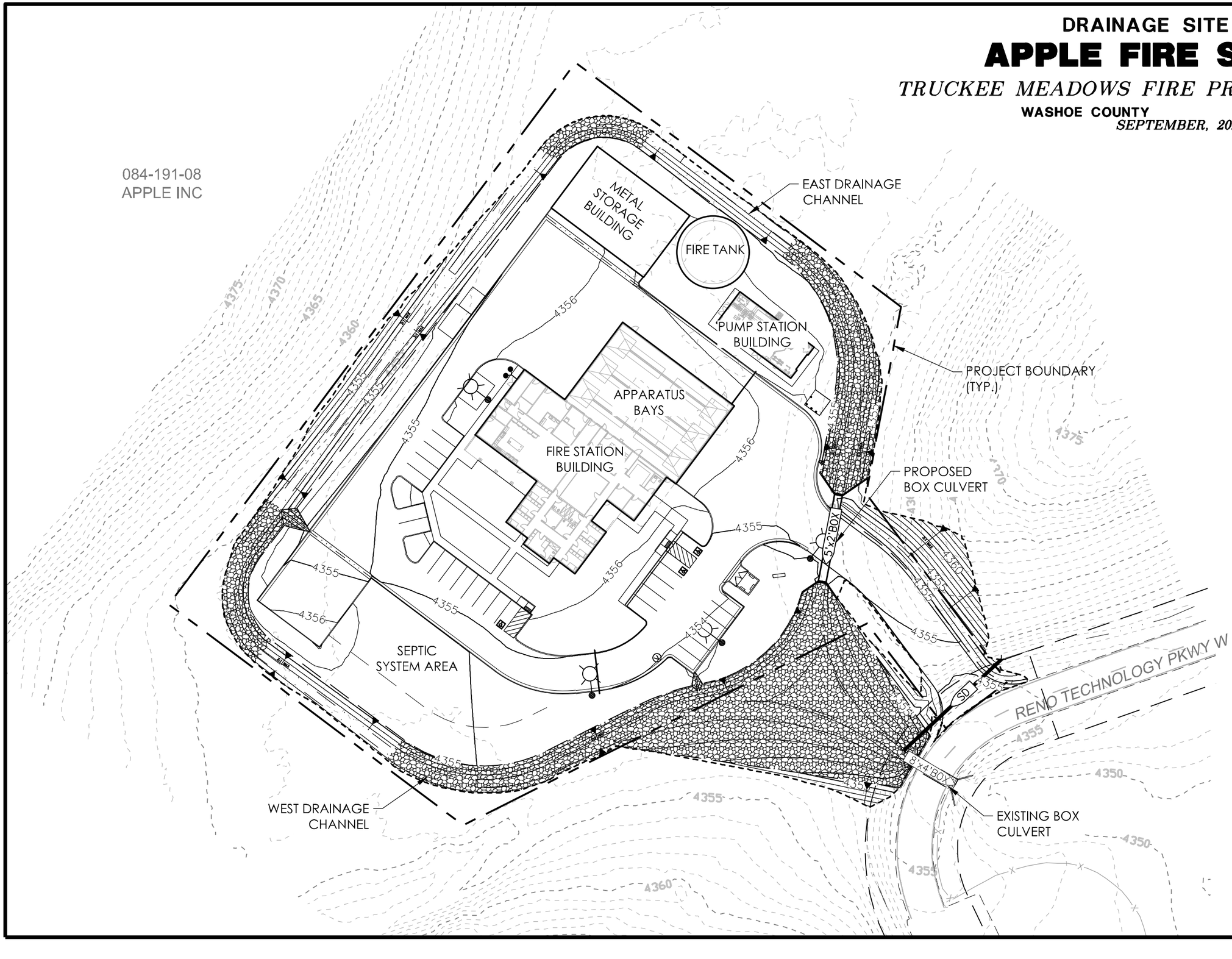
APPLE FIRE STATION

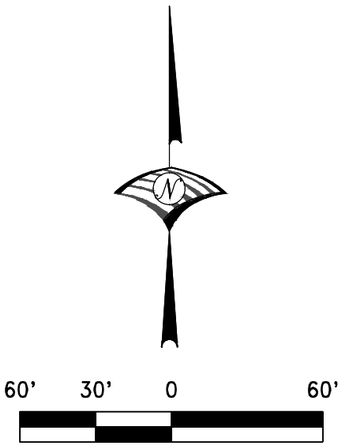
TRUCKEE MEADOWS FIRE PROTECTION DISTRICT

WASHOE COUNTY **NEVADA**

SEPTEMBER, 2023

084-191-08
APPLE INC





SCALE: 1" = 60'

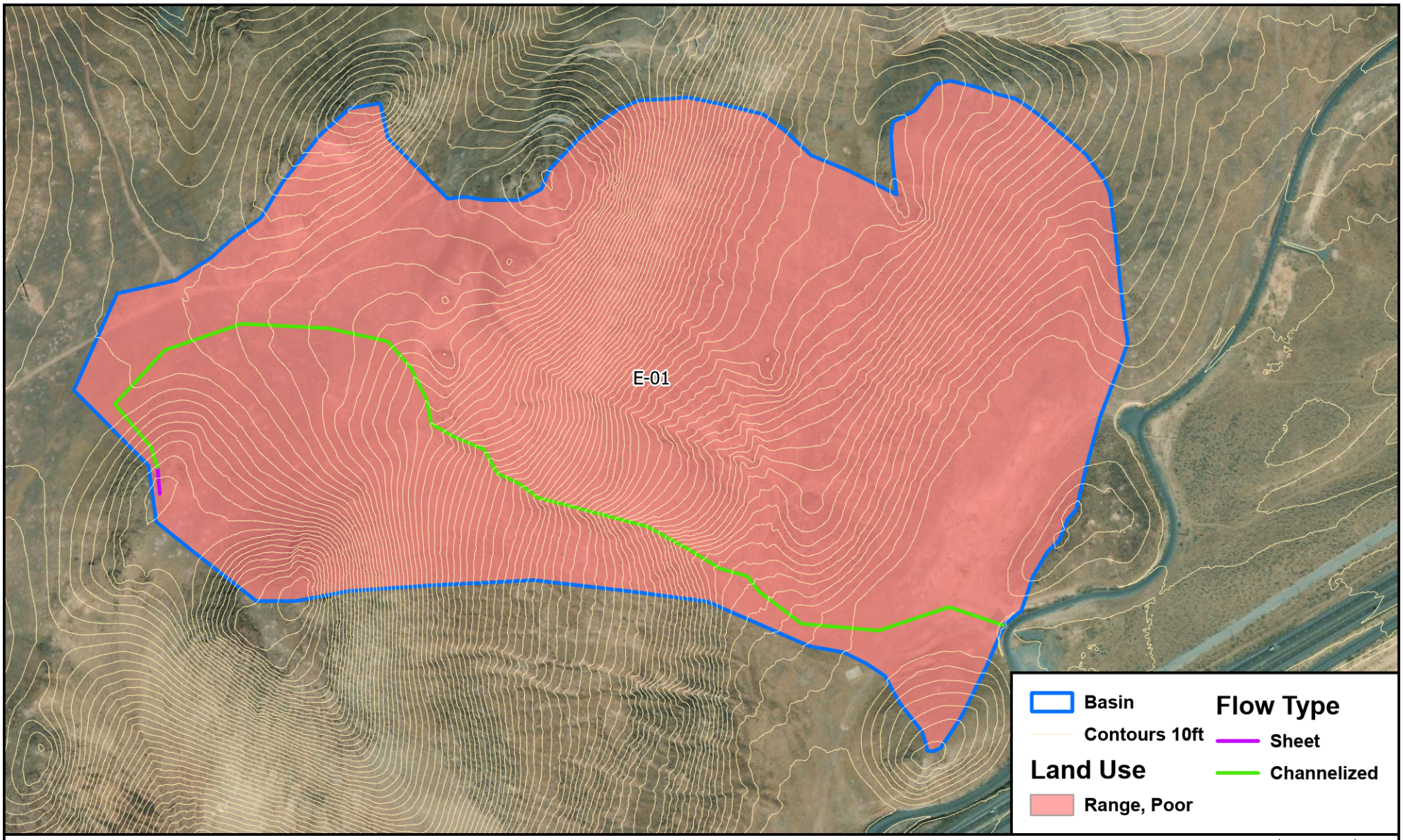
LEGEND:

PROPOSED RIPRAP

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard Tel 775.823.4068
Reno, NV 89502 Fax 775.823.4066

J:\Jobs\8754_TMFPD_Station_Reloc_006_Apple_Site\Planning\Studies\Drainage\EXH_Drainage Layout.dwg 8/24/2023 4:02 PM Jillian Wilbrecht

Appendix B – Existing Conditions



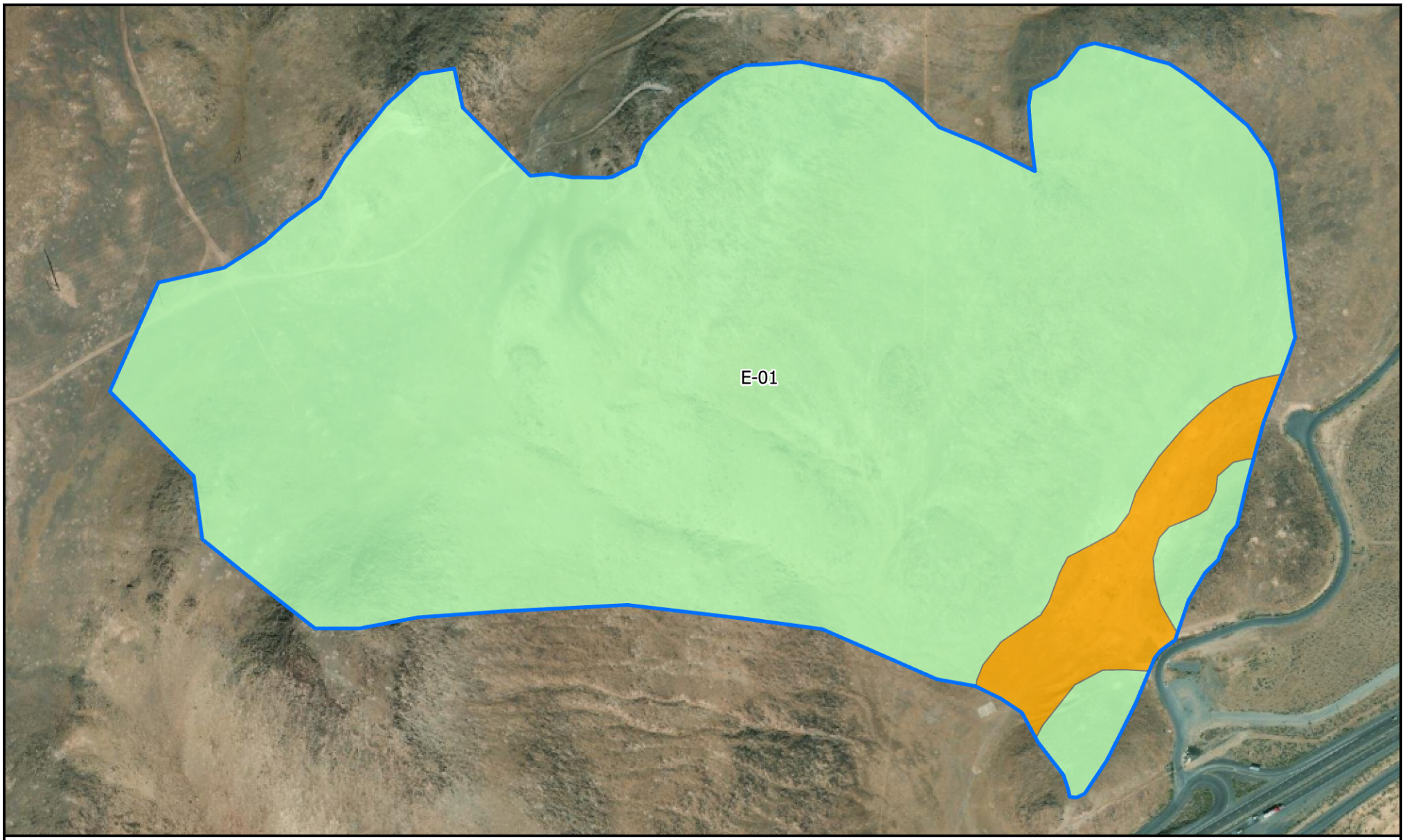
EXISTING HYDROLOGY
APPLE FIRE STATION
WASHOE COUNTY, NV
AUGUST 2023

0 150 300 600
Feet

NORTH

WOOD RODGERS

J:\Jobs\8754_TMFPD_Station_Reloc_006_Apple_Site\GIS\ArcGISPro\Base\Base.aprx 8/21/2023 4:42 PM sbarrow



SOILS
TMFPD STATION RELOCATION
WASHOE COUNTY
AUGUST 2023

Basin
Soil Group
A
D

0 150 300 600
Feet

NORTH

WOOD RODGERS

J:\Jobs\8754_TMFPD_Station_Reloc_006_Apple_Site\GIS\ArcGISPro\Base\Base.aprx 8/15/2023 1:26 PM sbarrow

Curve Number Calculations

Existing Onsite Basins

Watershed	Total Area (ac)	Range - Poor Condition				CN (combined)
		Hydro Soil Group A CN	Hydro Soil Group A Area (ac)	Hydro Soil Group D CN	Hydro Soil Group D Area (ac)	
E-01	144.01	68	8	89	136.01	87.8

Project: Apple Fire Station

Project Location: Reno, NV

Time of Concentration Table

Drainage Basin	Drainage Area (AC)	CN/c	Initial Flow Time, T_i				Travel Time, T_t														Total (T_i+T_t)	Urbanized Basins Check	Final	
			Overland Flow				Gutter Flow				Channelized Flow				Piped Flow									
			L_i (ft)	S (ft/ft)	R	T_i (min)	L_s(ft)	S (ft/ft)	V(ft/s)	T_{t1} (min)	L_t (ft)	S (ft/ft)	V (ft/s)	T_{t2} (min)	L_t (ft)	n	Pipe ø	S (ft/ft)	V (ft/s)	T_{t3} (min)	T_c (min)	T_c*(min)	T_c (min)	TLAG
E-01	144.00	87.8	100	0.105	0.77	2.7	0	0.000	0.0	0.0	2904	0.190	7.0	6.9	0	0.000	0	0.000	0.0	0.0	10.0	26.7	**10.0**	6.0

Basins Over 1 mi2 OR average slope > 10% analyzed using TLAG = 22.1*Kn(L*Lc/S^0.5)^0.33

	Drainage Area (AC)	CN	Kn	L	Lc	S (ft/mi)	TLAG (hours)	TLAG (min)
E-01	144.00	87.8	0.09	0.81	0.40	850.0	0.45	27.03

EX
K:\Data_Sources\US_Federal\NRCS\Soils\NV_Soils.gdb

PROP
J:\Gis\DataSources\US_Federal\NRCS\SoilData\NV\soil_nv628_washoe_south\soil_nv628\spatial\soilmu_a_nv628_name_hydrogrp.shp

*The CN/R should be either the SCS method Curve Number or the 5-Year Rational Coefficient

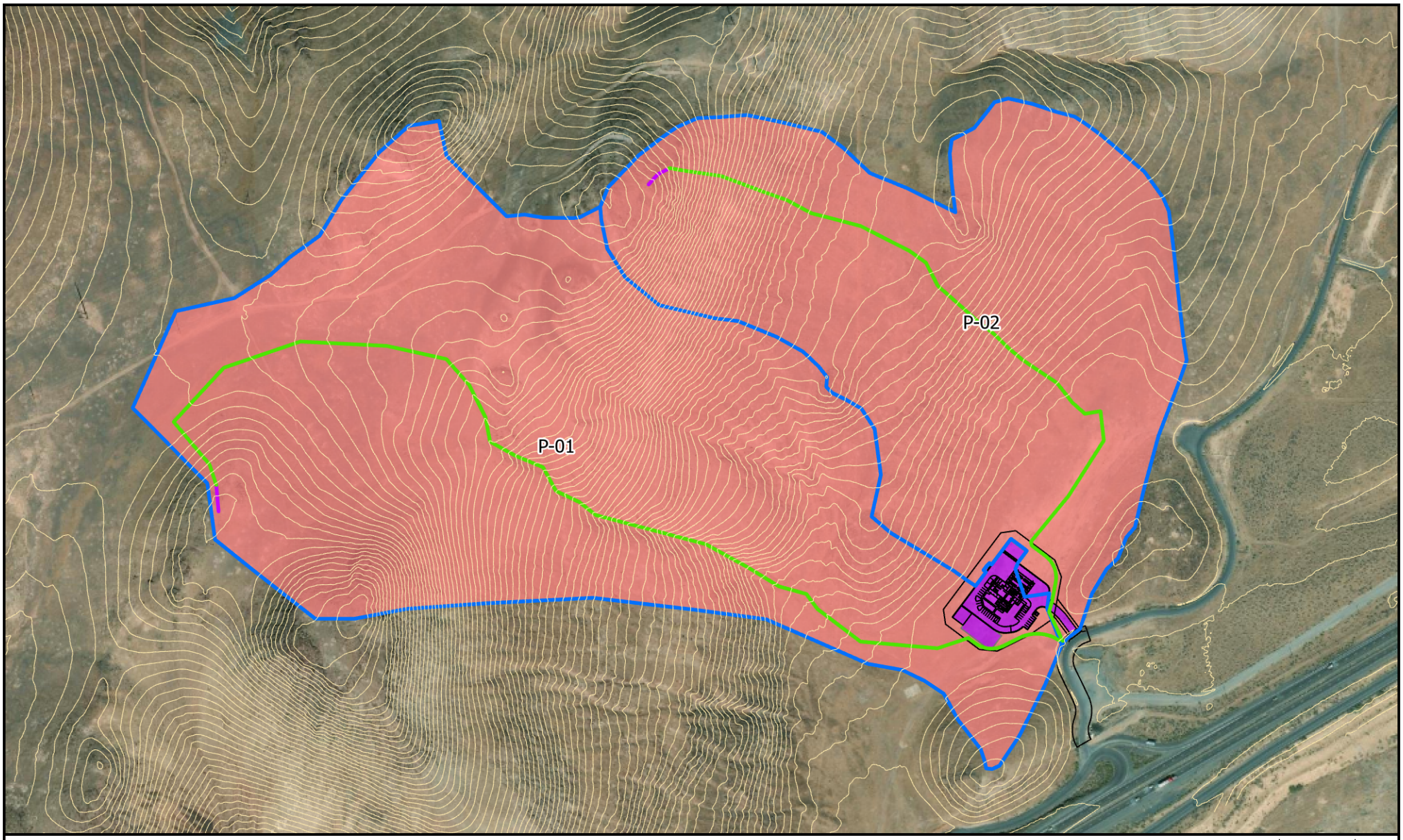
Project:	Apple Fire Station	Simulation Run:	Existing 5-year
Start of Run:	03Aug2023, 1:00	Basin Model:	Existing
End of Run:	04Aug2023, 00:00	Meteorologic Model:	5 Year
Compute Time:	18Aug2023, 08:25:58	Control Specifications:	24-Hour

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
E-01	0.225	48.5	03Aug2023, 13:30	0.75

Project:	Apple Fire Station	Simulation Run:	Existing 100-year
Start of Run:	03Aug2023, 1:00	Basin Model:	Existing
End of Run:	04Aug2023, 00:00	Meteorologic Model:	100 Year
Compute Time:	18Aug2023, 08:25:42	Control Specifications:	24-Hour

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
E-01	0.225	167.1	03Aug2023, 13:30	1.96

Appendix C – Proposed Conditions



PROPOSED HYDROLOGY

APPLE FIRE STATION

WASHOE COUNTY, NV

AUGUST 2023

Basin

Contours 10ft

Flow Type

Sheet

Channelized

Land Use

Range, Poor

Commercial and business

0 150 300 600

Feet

NORTH

WOOD RODGERS

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Curve Number Calculations
Proposed Onsite Basins

Watershed	Total Area (ac)	Range - Poor Condition				Commercial and Business		CN (combined)
		Hydro Soil Group A CN	Hydro Soil Group A Area (ac)	Hydro Soil Group D CN	Hydro Soil Group D Area (ac)	Hydro Soil Group A CN	Hydro Soil Group A Area (ac)	
P-01	86.79	68	2.29	89	82.91	89	1.59	88.4
P-02	57.22	68	3.82	89	53.1	89	0.3	87.6

Project: Apple Fire Station

Project Location: Reno, NV

Time of Concentration Table

Drainage Basin	Drainage Area (AC)	CN/c	Initial Flow Time, T_i				Travel Time, T_t														Total (T_i+T_t)	Urbanized Basins Check	Final	
			Overland Flow				Gutter Flow				Channelized Flow				Piped Flow									
			L_i (ft)	S (ft/ft)	R	T_i (min)	L_s(ft)	S (ft/ft)	V(ft/s)	T_{t1} (min)	L_t (ft)	S (ft/ft)	V (ft/s)	T_{t2} (min)	L_t (ft)	n	Pipe Ø	S (ft/ft)	V (ft/s)	T_{t3} (min)	T_c (min)	T_c*(min)	T_c (min)	TLAG
P-1	85.81	88.5	100	0.105	0.78	2.7	0	0.000	0.0	0.0	2904	0.190	7.0	6.9	0	0.000	0	0.000	0.0	0.0	10.0	26.7	**10.0**	6.0
P-2	58.19	87.7	100	0.380	0.77	1.8	0	0.000	0.0	0.0	475	0.006	1.2	6.3	0	0.000	0	0.000	0.0	0.0	10.0	13.2	**10.0**	6.0

Basins Over 1 mi2 OR average slope > 10% analyzed using TLAG = 22.1*Kn(L*Lc/S^0.5)^0.33

	Drainage Area (AC)	CN	Kn**	L	Lc	S (ft/mi)	TLAG (hours)	TLAG (min)
P-1	85.81	88.5	0.09	0.81	0.40	850.0	0.45	26.73
P-2	58.19	87.7	0.09	0.57	0.28	1047.0	0.34	20.45

Project:	Apple Fire Station	Simulation Run:	Proposed 5-year
Start of Run:	03Aug2023, 1:00	Basin Model:	Proposed
End of Run:	04Aug2023, 00:00	Meteorologic Model:	5 Year
Compute Time:	18Aug2023, 08:26:29	Control Specifications:	24-Hour

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
P-01	0.134	30.7	03Aug2023, 13:30	0.79
P-02	0.091	23.2	03Aug2023, 13:25	0.76
South Existing Culvert	0.225	52.5	03Aug2023, 13:25	0.78

Project:	Apple Fire Station	Simulation Run:	Proposed 100-year
Start of Run:	03Aug2023, 1:00	Basin Model:	Proposed
End of Run:	04Aug2023, 00:00	Meteorologic Model:	100 Year
Compute Time:	18Aug2023, 08:26:14	Control Specifications:	24-Hour

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
P-01	0.134	102.9	03Aug2023, 13:30	2.02
P-02	0.091	79.7	03Aug2023, 13:25	1.97
South Existing Culvert	0.225	178.2	03Aug2023, 13:25	2

West Channel (P-01 Flow)

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.025
Channel Slope	0.500 %
Left Side Slope	3.000 H:V
Right Side Slope	3.000 H:V
Bottom Width	5.00 ft
Discharge	103.30 cfs

Results	
Normal Depth	23.6 in
Flow Area	21.4 ft²
Wetted Perimeter	17.4 ft
Hydraulic Radius	14.7 in
Top Width	16.79 ft
Critical Depth	20.4 in
Critical Slope	0.917 %
Velocity	4.82 ft/s
Velocity Head	0.36 ft
Specific Energy	2.33 ft
Froude Number	0.753
Flow Type	Subcritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	23.6 in
Critical Depth	20.4 in
Channel Slope	0.500 %
Critical Slope	0.917 %

East Channel (P-02 Flow)

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.050
Channel Slope	0.200 %
Left Side Slope	3.000 H:V
Right Side Slope	3.000 H:V
Bottom Width	5.00 ft
Discharge	80.00 cfs

Results	
Normal Depth	35.8 in
Flow Area	41.6 ft²
Wetted Perimeter	23.9 ft
Hydraulic Radius	20.9 in
Top Width	22.89 ft
Critical Depth	17.8 in
Critical Slope	3.801 %
Velocity	1.92 ft/s
Velocity Head	0.06 ft
Specific Energy	3.04 ft
Froude Number	0.252
Flow Type	Subcritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	35.8 in
Critical Depth	17.8 in
Channel Slope	0.200 %
Critical Slope	3.801 %

Proposed 5'x2' Box Culvert

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.500	%
Bottom Width	5.00	ft
Discharge	79.70	cfs

Results		
Normal Depth	22.6	in
Flow Area	9.4	ft^2
Wetted Perimeter	8.8	ft
Hydraulic Radius	12.9	in
Top Width	5.00	ft
Critical Depth	23.9	in
Critical Slope	0.428	%
Velocity	8.47	ft/s
Velocity Head	1.12	ft
Specific Energy	3.00	ft
Froude Number	1.089	
Flow Type	Supercritical	

GVF Input Data		
Downstream Depth	0.0	in
Length	0.0	ft
Number Of Steps	0	

GVF Output Data		
Upstream Depth	0.0	in
Profile Description	N/A	
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	22.6	in
Critical Depth	23.9	in
Channel Slope	0.500	%
Critical Slope	0.428	%

August 2, 2023

Stacie Huggins
Senior Planner
Wood Rodgers, Inc.
1361 Corporate Boulevard
Reno, NV 89502

Trip Generation Letter – TMFPD Apple Fire Station

Dear Ms. Huggins,

This letter provides trip generation estimates for a proposed approximately 13,900 square foot safety service facility and fire station on parcel APN 084-191-08 in Washoe County, Nevada. The site is located north of the I-80 / Waltham Way interchange. The project location is shown in **Exhibit 1** and a preliminary site plan is provided in **Attachment A**.

Exhibit 1. Project Location

Trip Generation

Trip generation estimates were calculated based on standard trip rates presented in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual, 11th Edition.* **Table 1** shows the Daily, AM peak hour, and PM peak hour trip generation estimates for the proposed project.

Table 1: Trip Generation Estimates

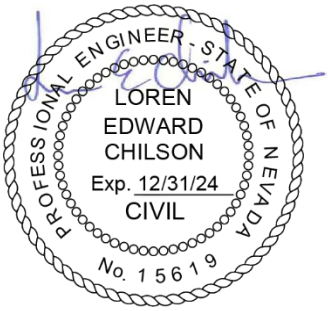
Land Use (ITE Code)	Size (Sq. ft.)	Trips				
		Daily[2]	AM In/Out[3]	Total AM[3]	PM In/Out[1]	Total PM[1]
Fire and Rescue Station (575)	13,900	70	5 / 2	7	2 / 5	7

Notes: 1. PM trips were calculated based on the following rate per 1,000 Sq. ft: 0.48 (29% in / 71% out);
2. Daily trip rates are not provided and were calculated by estimating the PM peak hour trips as 10% of the daily trips.
3. AM peak hour rates are not provided and were estimated utilizing the PM peak hour trip rates assuming a reverse directional distribution.
Source: Headway Transportation, 2023

The proposed safety service facility and fire station project is anticipated to generate approximately 70 Daily, 7 AM peak hour, and 7 PM peak hour trips. The trip generation for this project is well below Washoe County's requirement of 80 peak hour trips for a formal Traffic Study. Therefore, no further traffic analysis is recommended as the low trip generation is not anticipated to create any significant impacts.

Please do not hesitate to contact us at (775) 322-4300 with any questions.

Sincerely,
Headway Transportation, LLC



Loren E. Chilson, PE
Principal

Attachments: Attachment A – Preliminary Site Plan

ATTACHMENT A - PRELIMINARY SITE PLAN

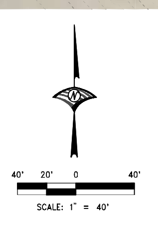
PRELIMINARY SITE LAYOUT

APPLE FIRE STATION

TRUCKEE MEADOWS FIRE PROTECTION DISTRICT

WASHOE COUNTY NEVADA

JULY, 2023



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard Tel 775.823.4068
Reno, NV 89502 Fax 775.823.4066

APPLE FIRE STATION

August 23, 2023
Project No. 8754006

Charles Moore
Fire Chief
TRUCKEE MEADOWS FIRE PROTECTION DISTRICT
3663 Barron Way
Reno, NV 89511

Re: Geotechnical Due Diligence Letter Report
TMFPD Apple Fire Station
Portion of APN 084-191-08
Washoe County, Nevada

Ref: International Building Code 2018, *International Code Council.* (2018 IBC)

Minimum Design Loads for Buildings and Other Structures, ASCE Standard 7-16, *American Society of Civil Engineers.* (ASCE 7-16)

Dear Charles:

Wood Rodgers is pleased to present our geotechnical due diligence letter report for the referenced property located in Washoe County, Nevada. The purpose of our due diligence review is to provide a summary of geotechnical considerations that could potentially influence the development of the property. This summary has been based on review of readily available published documents (as referenced), our knowledge of the area, and the results of our limited field exploration. A design level geotechnical report will be required as the project moves forward.

PROJECT DESCRIPTION

The project consists of constructing a fire station building with apparatus bays, metal storage building, septic system, water system, and perimeter drainage channel, with associated parking and drive areas. The structures are anticipated be one to two stories in height, metal-framed, with conventional spread foundations with slab on grade flooring. Foundation loads are anticipated to be light to moderate. Underground utilities will be provided by a variety of public and private services.

Grading plans and structural information were not available at the writing of this letter.

SITE DESCRIPTION

The project site, located in Washoe County, Nevada, encompasses an area of approximately 3.5 acres and has a central latitude and longitude of 39.5565°N and -119.5663°E, respectively. A Vicinity Map is provided on Figure 1 in Appendix A. Per Google Earth imagery, a portion of the site was cleared prior to

July 2010. The site is bordered by an access road and drainage feature to the southeast, and undeveloped land elsewhere.

Overall, the site is relatively flat, gently sloping towards the southeast drainage feature. The hill slope to the northwest presents slopes 17 to 50-percent. Vegetation is light to moderate and typically consists of grasses, weeds, and brush across the site.

EXPLORATION

The project was explored in July 2022 by excavating a series of five test pits using a Komatsu PC228 excavator and performing a geophysical shear wave velocity survey utilizing the Refraction Micro-tremor (ReMi) method. Approximate locations of the test pits and ReMi geophysical lines are shown on Figure 2 – Improvement Map and Approximate Exploration Locations, in Appendix A.

Percolation testing was performed in the proposed septic and water system areas, yielding rates of 11 and 9 minutes per inch, respectively. Maximum depth of test pit advance extended to 13-feet below the existing ground surface. Bulk samples for index testing were collected from representative depths within the soil/bedrock horizons.

Wood Rodgers' personnel examined and classified soils/bedrock in the field in general accordance with ASTM D2488 (Description and Identification of Soils). During exploration, representative bulk samples were placed in sealed plastic bags and subsequently returned to our Reno, Nevada laboratory for testing. Additional soil classifications, as well as verification of the field classifications, were performed in accordance with ASTM D2487 (Unified Soil Classification System [USCS]) upon completion of laboratory testing as described below in the Laboratory Testing section. Logs of the test pits are presented on B-1a through B-1e in Appendix B. A USCS explanatory chart of soil unit symbols and related descriptions has been included in Appendix B as B-2 - Unified Soil Classification and Key to Soil Descriptions.

Shear wave velocity measurements have been relied upon for the development of geotechnical design characterization of soil stiffness. This information also aids in the determination of an appropriate Site Class (ASCE 7, 2016). The shear wave velocity profile is presented in Appendix B as B-3.

LABORATORY TESTING

Soil testing performed in the Wood Rodgers' laboratory was conducted in general accordance with the standards and methods described in Volume 4.08 (Soil and Rock; Dimension Stone; Geosynthetics) of the ASTM Standards. Samples of significant soil types were tested to determine in-situ moisture content (ASTM D2216), grain size distribution (ASTM D6913), and plasticity index (ASTM D4318). Results of the testing is presented in Appendix C on C-1a through C-1b. Table 1 also presents a summary of the test data.

Table 1 - Summary of Test Data

Test Hole	Depth (Ft.)	Moisture (%)	%Gravel (+ #4)*	% Sand (#4-#200)	%Fines (-#200)	Liquid Limit	Plastic Index	USCS
ASTM Standard		D2216	D6913			D4318		D2487
TP-2	1.5-4	12.7	0.0	59.0	41.0	-	-	SM
TP-3	1.5-3.5	8.1	0.0	21.3	78.7	36	NP	ML
TP-4	1-3.5	8.9	0.0	6.2	93.8	38	3	ML

* Since ASTM D2487 is limited by a maximum particle size of 3", the gradation test data presented is based on a maximum particle size of 3".

GEOLOGIC AND GENERAL SOIL AND GROUNDWATER INFORMATION

Based on the geologic map of the Reno 1 degree by 2 degrees quadrangle, Nevada and California, the site is mapped mostly in an area of quaternary alluvial deposits (Qa). Typically, alluvial fan deposits are granular and fine-grained soils.

The soils encountered in our explorations typically consisted of a 1-foot-thick medium to high plasticity lean clay cap over silt, sandy silt, and silty sand. Total test pit depth reached 13 feet using a Komatsu PC 228 Excavator. The native soil units encountered in our explorations were generally consistent with the units indicated on the geologic map.

Groundwater was not encountered in any of our explorations. Nevada Division of Water Resources (DWR) well logs indicate the static water level in wells proximate to the development area at least 45-feet below the existing ground surface depending on surface elevation.

PRELIMINARY SEISMIC HAZARDS

In 1998, the Nevada Earthquake Safety Council formulated guidelines for evaluating potential surface rupture due to faulting. The intent of the guidelines is to provide *a standardized minimum level of investigation for fault rupture in Nevada*; these guidelines have been adopted with the 2018 Northern Nevada Amendments of the IBC. Specifically, the guidelines state that investigation of sites for potential surface rupture or hazards shall be included in all geotechnical investigations; and further, if any Quaternary age surface rupture is mapped or otherwise interpreted to be present on the site, the feature is to be investigated further.

In addition to establishing the minimum level of investigation for fault rupture, the guidelines also offer recommendations for dealing with or mitigating identified hazards:

- Holocene active faults (evidence of movement within the past 10,000 years) shall be set-back a minimum distance of 50-feet for occupied structures.
- Late Quaternary (evidence of movement within the past 130,000 years) faults shall not be spanned by any critical facilities (hospitals, schools, fire stations, etc.); the facility under investigation does not meet the requisite requirements to be considered critical.

These guidelines allow for set-back distances to be adjusted by the competent professional. No additional constraints with regard to fault-structure location are presented.

Surface Rupture

The USGS Quaternary Faults Map was accessed to review the proximity of any active faults as previously characterized. No faults have been mapped crossing, intersecting, or trending toward the property. Any other mapped faults are sufficiently distant that offsets or additional analysis and exploration related for on-site rupture hazards is not likely to be recommended during the design level geotechnical study.

Liquefaction

A liquefaction screening was performed on the site by performing a geophysical survey and obtaining a shear wave velocity profile. The shear wave velocity profile and potential depth to ground water indicate that native soils/bedrock do not present a significant risk for liquefaction below the depths explored during our investigation. Therefore, the potential for liquefaction is considered low.

Slope Instability

The site is relatively level, however the slope to the northwest presents slopes ranging from 17 to 50-percent. The design level geotechnical report will provide recommendations for slope catchment areas due to related to erosion and/or rockfall potential.

PRELIMINARY SOIL PROFILE TYPE AMPLIFICATION FACTORS

In accordance with ASCE 7-16 and the Northern Nevada Amendments of the 2018 IBC, Site Class C has been assigned to the project. The Risk Category IV design summary has been presented for the Structural Engineer's consideration. Seismic design values were established based on a representative latitude and longitude of 39.5565°N and -119.5663°E, respectively. The ASCE 7 Hazards report is presented in Appendix D.

PRELIMINARY SITE PREPARATION AND GRADING CONSIDERATIONS

The following recommendations, although specific to the site, are relatively generic and intended to provide a general overview of site development while presenting a cursory discussion of noted site conditions.

- All vegetation and organic debris will need to be cleared and grubbed from structural areas and disposed offsite or placed in non-structural fill areas.

- Existing test pit backfill will need to be removed in its entirety and replaced with structural fill.
- Surface clay rich soils (i.e., presenting a plasticity index greater than 15 and more than 30-percent passing the #200-sieve) are not suitable for support where slab on grade flooring and standard spread foundations are implemented.
- Excavatability may be difficult in the planned access road area where the hill slope and or excavations for utilities may present near surface bedrock conditions.
- The fine-grained soils encountered within the project limits may tend to pump and or destabilize when moisture content exceeds optimum. Care should be taken during grading to assure irrigation water, precipitation, or construction activities do not lead to an increase in or ponding of water on exposed grade.
- All subgrade soils shall be scarified for a minimum depth of 12-inches, moisture conditioned to within 3-percent of optimum and compacted to not less than 90-percent of the soil's maximum dry density (ASTM D1557) prior to placing fill or constructing improvements.
- Public improvements shall be consistent with the requirements of the Standard Specifications for Public Works Construction and the requirements of the private utilities.

FOUNDATION ALTERNATIVES

- Standard spread foundations with conventional concrete slab-on-grade flooring will perform sufficiently on native site soils.

CONCRETE CONSIDERATIONS

- The native soils are mapped as having low corrosion potential for concrete and moderate corrosion potential for steel. Sulfate testing should be performed on site soils prior to construction.
- Unless sulfate test results indicate a soil profile presenting severe to very severe sulfate levels, Type II cement, a maximum water : binder ratio of 0.50, and a minimum 28-day compressive strength of 4,000 psi should be observed.

STRUCTURAL PAVEMENT CONSIDERATIONS

- Washoe County minimum asphalt sections for truck zones (4-inches plantmix bituminous pavement capping 8-inches of Type 2, Class B aggregate base for private streets) will be adequate where granular soil is encountered or where structural fill is incorporated beneath the base course section.

- Required concrete pavement sections for fire-truck access zones will likely be on the order of 10-inches of Portland cement concrete pavement capping 8-inches of Aggregate Base. Reinforcement will be at the discretion of the structural engineer.

SUMMARY

We appreciate the opportunity to provide this due diligence geotechnical investigation. Please note that this document has been prepared based on published data, the described limited field exploration, and limited laboratory testing. Varying conditions, and conditions not yet identified, may come to light or may be encountered during development of a design-level geotechnical report. Please contact our office if you have any related questions.

Sincerely,

WOOD RODGERS, INCORPORATED

Seth W. Barton, PE
Engineer
RE No. 029668
Expires 12/31/24

Mischelle J. Smith, PE
Principal Engineer

Attachments:

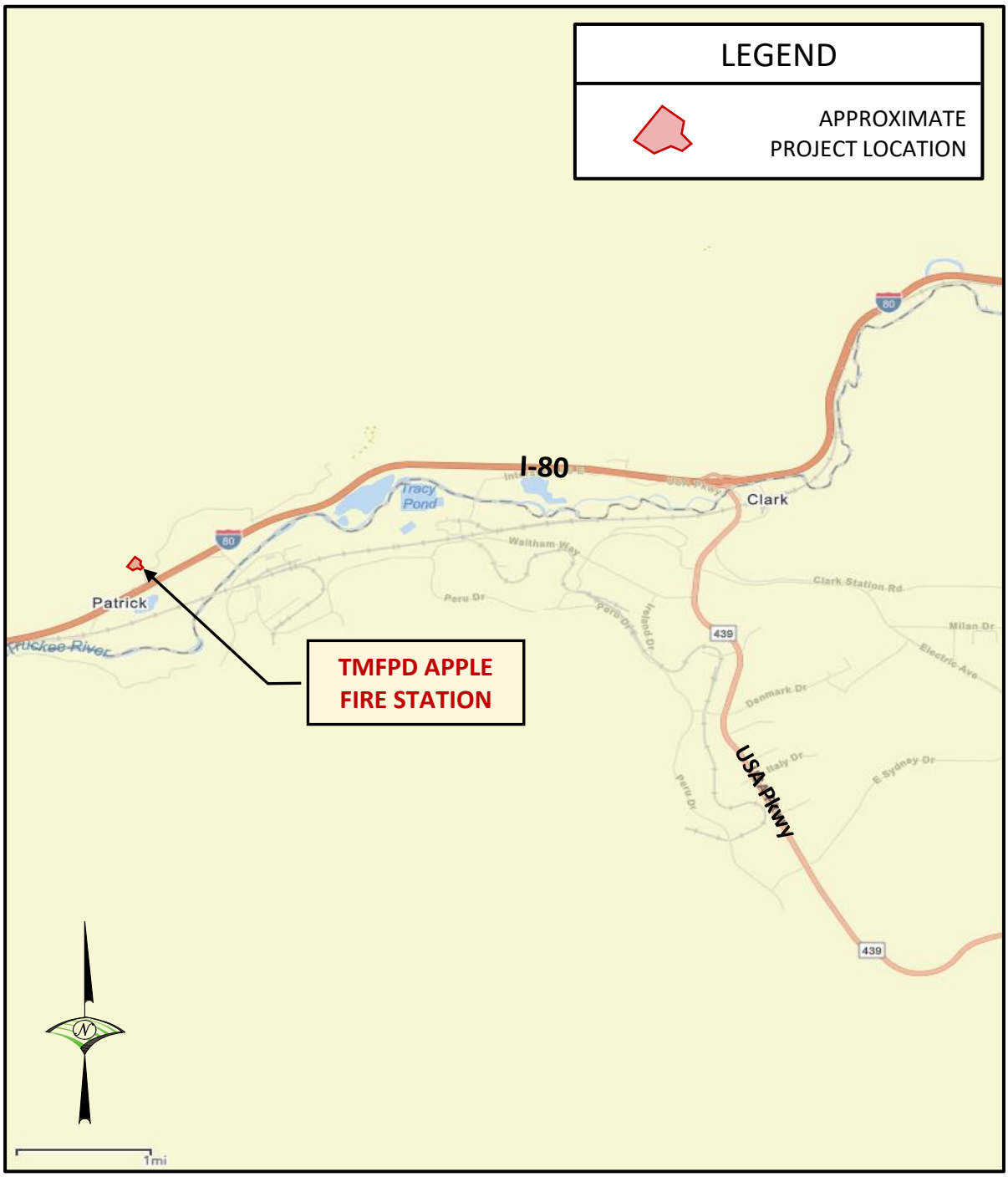
Appendix A – Figures
Figure 1: Vicinity Map
Figure 2: Improvement Map and Approximate Exploration Locations
Figure 3: Site Plan and Approximate Exploration Locations

Appendix B – Field Exploration
B-1a thru B-1e: Logs of Explorations
B-2: Unified Soil Classification and Key to Soil Descriptions
B-3: S-Wave ReMi Results

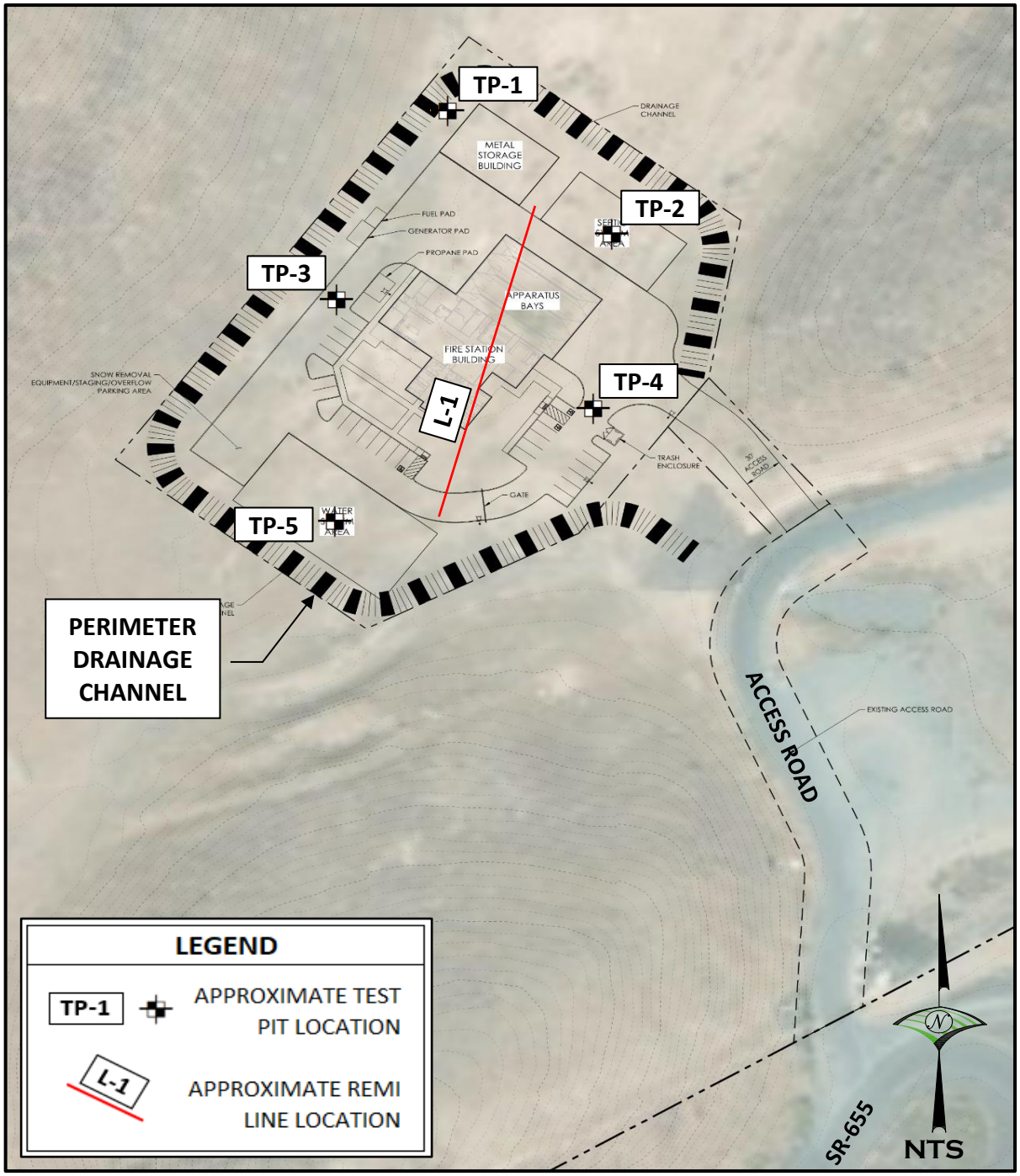
Appendix C – Laboratory Testing Results

Appendix D – ASCE 7 Hazards Report

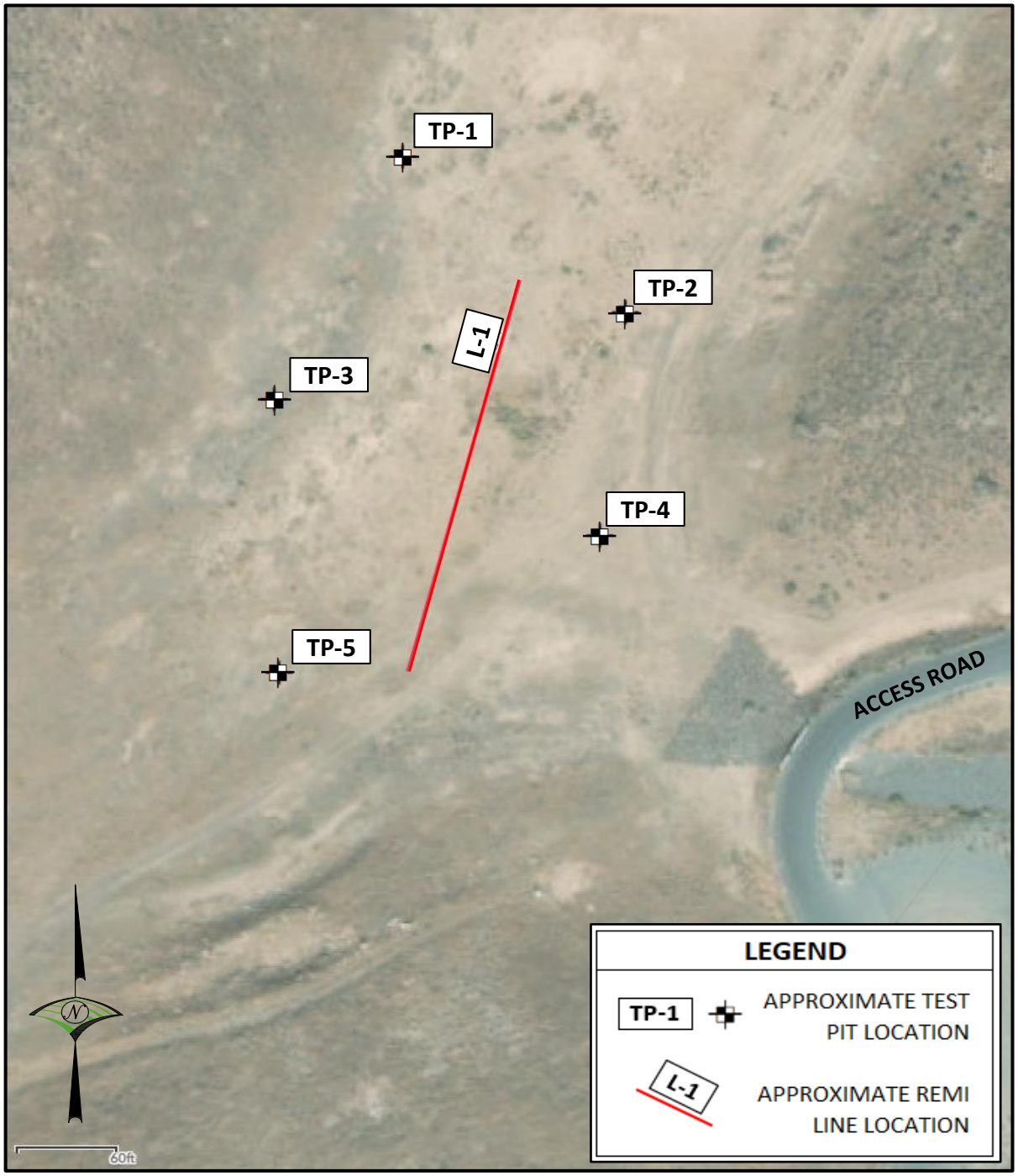
APPENDIX A
FIGURES



TMFPD APPLE FIRE STATION PROJECT NO. 8754006	VICINITY MAP	FIGURE 1



TMFPD APPLE FIRE STATION PROJECT NO. 8754006	IMPROVEMENT MAP AND APPROXIMATE EXPLORATION LOCATIONS	FIGURE 2



TMFPD APPLE FIRE STATION PROJECT NO. 8754006	SITE MAP AND APPROXIMATE EXPLORATION LOCATIONS	FIGURE 3

APPENDIX B
FIELD EXPLORATION

Wood Rodgers Inc.
1361 Corporate Blvd
Reno NV 89521
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-1

CLIENT Truckee Meadows Fire Protection District
PROJECT NAME TMFPD Apple Fire Station
PROJECT NUMBER 8754006
PROJECT LOCATION Washoe County, Nevada
DATE STARTED 7/25/23 **COMPLETED** 7/25/23
GROUND ELEVATION 4352 ft **TEST PIT SIZE** 30 inches
EXCAVATION CONTRACTOR Joy Engineering
GROUND WATER LEVELS:
EXCAVATION METHOD Komatsu PC 228 Excavator
AT TIME OF EXCAVATION --- NO FREE WATER ENCOUNTERED
LOGGED BY Seth Barton **CHECKED BY** Mickey Smith
AT END OF EXCAVATION --- NO FREE WATER ENCOUNTERED
NOTES: Elev: USGS 1 meter NV Reno Carson Urban Lidar 2017 B17
AFTER EXCAVATION --- NO FREE WATER ENCOUNTERED

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	R-VALUE	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		LEAN CLAY, (CL) medium stiff, dry, light brown, medium to high plasticity										
		SILTY SAND, (SM) medium dense, dry, medium brown, nonplastic										
2.5		SILT, (ML) very stiff, dry, light tan, orange mottling, low plasticity	GB 1A									
5.0		SILTY SAND WITH GRAVEL AND COBBLES, (SM) very dense, dry, light brown, nonplastic										
7.5			GB 1B									
		~10% - 15% oversize 6" - 12" diameter Visually estimated from stockpile										
10.0												

Bottom of Test Pit at 12.0 Feet.

Location: 39.55670, -119.56644

Wood Rodgers Inc.
1361 Corporate Blvd
Reno NV 89521
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-2

CLIENT Truckee Meadows Fire Protection District
PROJECT NAME TMFPD Apple Fire Station
PROJECT NUMBER 8754006
PROJECT LOCATION Washoe County, Nevada
DATE STARTED 7/25/23 **COMPLETED** 7/25/23
GROUND ELEVATION 4352 ft **TEST PIT SIZE** 30 inches
EXCAVATION CONTRACTOR Joy Engineering
GROUND WATER LEVELS:
EXCAVATION METHOD Komatsu PC 228 Excavator
AT TIME OF EXCAVATION --- NO FREE WATER ENCOUNTERED
LOGGED BY Seth Barton **CHECKED BY** Mickey Smith
AT END OF EXCAVATION --- NO FREE WATER ENCOUNTERED
NOTES: Elev: USGS 1 meter NV Reno Carson Urban Lidar 2017 B17
AFTER EXCAVATION --- NO FREE WATER ENCOUNTERED

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	R-VALUE	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		LEAN CLAY, (CL) medium stiff, dry, light brown, medium to high plasticity	GB 2A									
		SILTY SAND, (SM) medium dense, slightly moist, medium brown, nonplastic	GB 2B					12.7				41.0
5												
		SANDY SILT, (ML) very stiff, dry, light tan, low plasticity	GB 2C									
10												

Bottom of Test Pit at 13.0 Feet.

Soil Percolation Recorded Measurements

1.Depth to test : ***5'*** *Bench at:* ***4'***
2.Time of 1st saturation to 12" ***9:00 AM*** *Date :* ***7/25/2023***
If 12" of water drains from hole in 10 mins or less, refill to 12".
3.Time of 2nd saturation : ***9:10 AM***
4.If 2nd filling drains in less than 10 mins, begin 1 hour test with 10 mins or less reading intervals.
5.If either filling exceeds 10 mins to drain from hole,begin a 4-hr pre-soak.
Return between 16 - 24 hrs to start test.

Date of percolation test : **7/25/2023**

Hole # : ***TP-2*** *Diameter :* ***7"*** *Depth :* ***12"*** *Soil Type :* ***ML***

Reading	Time Start	Time Finish	Water Level Start	Water Level Finish	Elapsed Time min	Water Fall (in)
1	11:41 AM	12:11 PM	6	10	30	4
2	12:11 PM	12:31 PM	6	9 12/16	20	3 12/16
3	12:34 PM	12:54 PM	6	8 12/16	20	2 12/16
4	12:54 PM	1:14 AM	6	8 12/16	20	2 12/16
5	1:14 AM	1:34 AM	6	8 13/16	20	2 13/16
6						
7						

Stabilized Rate : **7** Min/inch
Gravel Corrected Rate: **11** Min/inch

Tested by: **S. Barton**
Checked by : **M. Smith**

Location: 39.55672, -119.56597

Wood Rodgers Inc.
1361 Corporate Blvd
Reno NV 89521
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-3

CLIENT Truckee Meadows Fire Protection District
PROJECT NAME TMFPD Apple Fire Station
PROJECT NUMBER 8754006
PROJECT LOCATION Washoe County, Nevada
DATE STARTED 7/25/23 **COMPLETED** 7/25/23
GROUND ELEVATION 4353 ft **TEST PIT SIZE** 30 inches
EXCAVATION CONTRACTOR Joy Engineering
GROUND WATER LEVELS:
EXCAVATION METHOD Komatsu PC 228 Excavator
AT TIME OF EXCAVATION --- NO FREE WATER ENCOUNTERED
LOGGED BY Seth Barton **CHECKED BY** Mickey Smith
AT END OF EXCAVATION --- NO FREE WATER ENCOUNTERED
NOTES: Elev: USGS 1 meter NV Reno Carson Urban Lidar 2017 B17
AFTER EXCAVATION --- NO FREE WATER ENCOUNTERED

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	R-VALUE	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		LEAN CLAY, (CL) medium stiff, dry, light brown, medium to high plasticity	GB 3A									
		SILT WITH SAND, (ML) very stiff, dry, light tan, orange mottling, low plasticity										
2.5			GB 3B					8.1	36	36	NP	78.7
5.0												
		SILTY SAND WITH GRAVEL AND COBBLES, (SM) very dense, dry, light brown, nonplastic										
7.5			GB 3C									
		~10% - 15% oversize 6" - 14" diameter Visually estimated from stockpile										
10.0												
12.5												

Bottom of Test Pit at 13.0 Feet.

Location: 39.55656, -119.56671

Wood Rodgers Inc.
1361 Corporate Blvd
Reno NV 89521
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-4

CLIENT Truckee Meadows Fire Protection District
PROJECT NAME TMFPD Apple Fire Station
PROJECT NUMBER 8754006
PROJECT LOCATION Washoe County, Nevada
DATE STARTED 7/25/23 **COMPLETED** 7/25/23
GROUND ELEVATION 4352 ft **TEST PIT SIZE** 30 inches
EXCAVATION CONTRACTOR Joy Engineering
GROUND WATER LEVELS:
EXCAVATION METHOD Komatsu PC 228 Excavator
AT TIME OF EXCAVATION --- NO FREE WATER ENCOUNTERED
LOGGED BY Seth Barton **CHECKED BY** Mickey Smith
AT END OF EXCAVATION --- NO FREE WATER ENCOUNTERED
NOTES: Elev: USGS 1 meter NV Reno Carson Urban Lidar 2017 B17
AFTER EXCAVATION --- NO FREE WATER ENCOUNTERED

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	R-VALUE	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		LEAN CLAY, (CL) medium stiff, dry, light brown, medium to high plasticity	GB 4A									
		SILT, (ML) very stiff, dry, light tan, orange mottling, low plasticity	GB 4B					8.9	38	35	3	93.8
2.5												
5.0		SILTY SAND WITH GRAVEL, (SM) very dense, dry, medium brown, nonplastic	GB 4C									
7.5												
		SILTY SAND WITH GRAVEL AND COBBLES, (SM) very dense, dry, light brown, nonplastic										
10.0		~5% - 10% oversize 6" - 10" diameter Visually estimated from stockpile										

Bottom of Test Pit at 12.0 Feet.

Location: 39.55632, -119.56602

Wood Rodgers Inc.
1361 Corporate Blvd
Reno NV 89521
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-5

CLIENT Truckee Meadows Fire Protection District
PROJECT NAME TMFPD Apple Fire Station
PROJECT NUMBER 8754006
PROJECT LOCATION Washoe County, Nevada
DATE STARTED 7/25/23 **COMPLETED** 7/25/23
GROUND ELEVATION 4353 ft **TEST PIT SIZE** 30 inches
EXCAVATION CONTRACTOR Joy Engineering
GROUND WATER LEVELS:
EXCAVATION METHOD Komatsu PC 228 Excavator
AT TIME OF EXCAVATION --- NO FREE WATER ENCOUNTERED
LOGGED BY Seth Barton **CHECKED BY** Mickey Smith
AT END OF EXCAVATION --- NO FREE WATER ENCOUNTERED
NOTES: Elev: USGS 1 meter NV Reno Carson Urban Lidar 2017 B17
AFTER EXCAVATION --- NO FREE WATER ENCOUNTERED

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	R-VALUE	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		LEAN CLAY, (CL) medium stiff, dry, light brown, medium to high plasticity										
		SILTY SAND, (SM) medium dense, dry, medium brown, nonplastic										
5		SILT, (ML) very stiff, dry, light tan, orange mottling, low plasticity										
		SILTY SAND, (SM) very dense, dry, light brown, nonplastic										
10												

Bottom of Test Pit at 13.0 Feet.

Soil Percolation Recorded Measurements

1.Depth to test : ***5'*** *Bench at:* ***4'***
2.Time of 1st saturation to 12" ***9:45 AM*** *Date :* ***7/25/2023***
If 12" of water drains from hole in 10 mins or less, refill to 12".
3.Time of 2nd saturation : ***9:55 AM***
4.If 2nd filling drains in less than 10 mins, begin 1 hour test with 10 mins or less reading intervals.
5.If either filling exceeds 10 mins to drain from hole,begin a 4-hr pre-soak.
Return between 16 - 24 hrs to start test.

Date of percolation test : **7/25/2023**

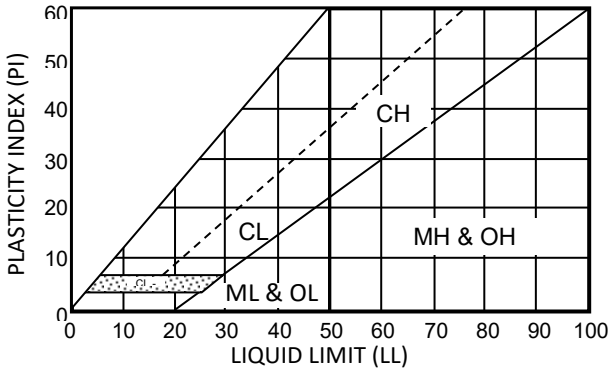
Hole # : ***TP-5*** *Diameter :* ***8"*** *Depth :* ***12"*** *Soil Type :* ***ML***

Reading	Time Start	Time Finish	Water Level Start	Water Level Finish	Elapsed Time min	Water Fall (in)
1	11:34 AM	12:04 PM	6	12	30	6
2	12:04 PM	12:24 PM	6	10 12/16	20	4 12/16
3	12:27 PM	12:47 PM	6	10 2/16	20	4 2/16
4	12:48 PM	1:08 PM	6	10 1/16	20	4 1/16
5	1:08 PM	1:28 PM	6	10	20	4
6						
7						

Stabilized Rate : **5** Min/inch
Tested by: **S. Barton**
Checked by : **M. Smith**
Gravel Corrected Rate: **9** Min/inch

Location: 39.55607, -119.56670

MAJOR DIVISION				TYPICAL NAMES	
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	**GRAVEL** MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE OR NO FINES		GW	WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
				GP	POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
		GRAVELS WITH OVER 12% FINES		GM	SILTY GRAVELS, SILTY GRAVELS WITH SAND
				GC	CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
	SAND MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE OR NO FINES		SW	WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
				SP	POORLY GRADED SAND WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES		SM	SILTY SANDS WITH OR WITHOUT GRAVEL
				SC	CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	**SILT AND CLAY** LIQUID LIMIT 50% OR LESS			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS
				OL	ORGANIC SILTS OR CLAYS OF LOW PLASTICITY
	SILT AND CLAY LIQUID LIMIT GREATER THAN 50%			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOLID, ELASTIC SILTS
				CH	INORGANIC CLAYS OR HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC SILTS OR CLAYS MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT AND OTHER HIGHLY ORGANIC SOILS



CONSISTENCY		RELATIVE DENSITY	
SILTS & CLAYS	SPT BLOW* COUNTS (N)	SANDS & GRAVELS	SPT BLOW* COUNTS (N)
VERY SOFT	0 - 2	VERY LOOSE	0 - 4
SOFT	3 - 4	LOOSE	5 - 10
MEDIUM STIFF	5 - 8	MD DENSE	11 - 30
STIFF	9 - 15	DENSE	31 - 50
VERY STIFF	16 - 30	VERY DENSE	50 +
HARD	30 +		

* The Standard Penetration Resistance (N) In blows per foot is obtained by the ASTM D1586 procedure using 2" O.D., 1 3/8" I.D. samplers.

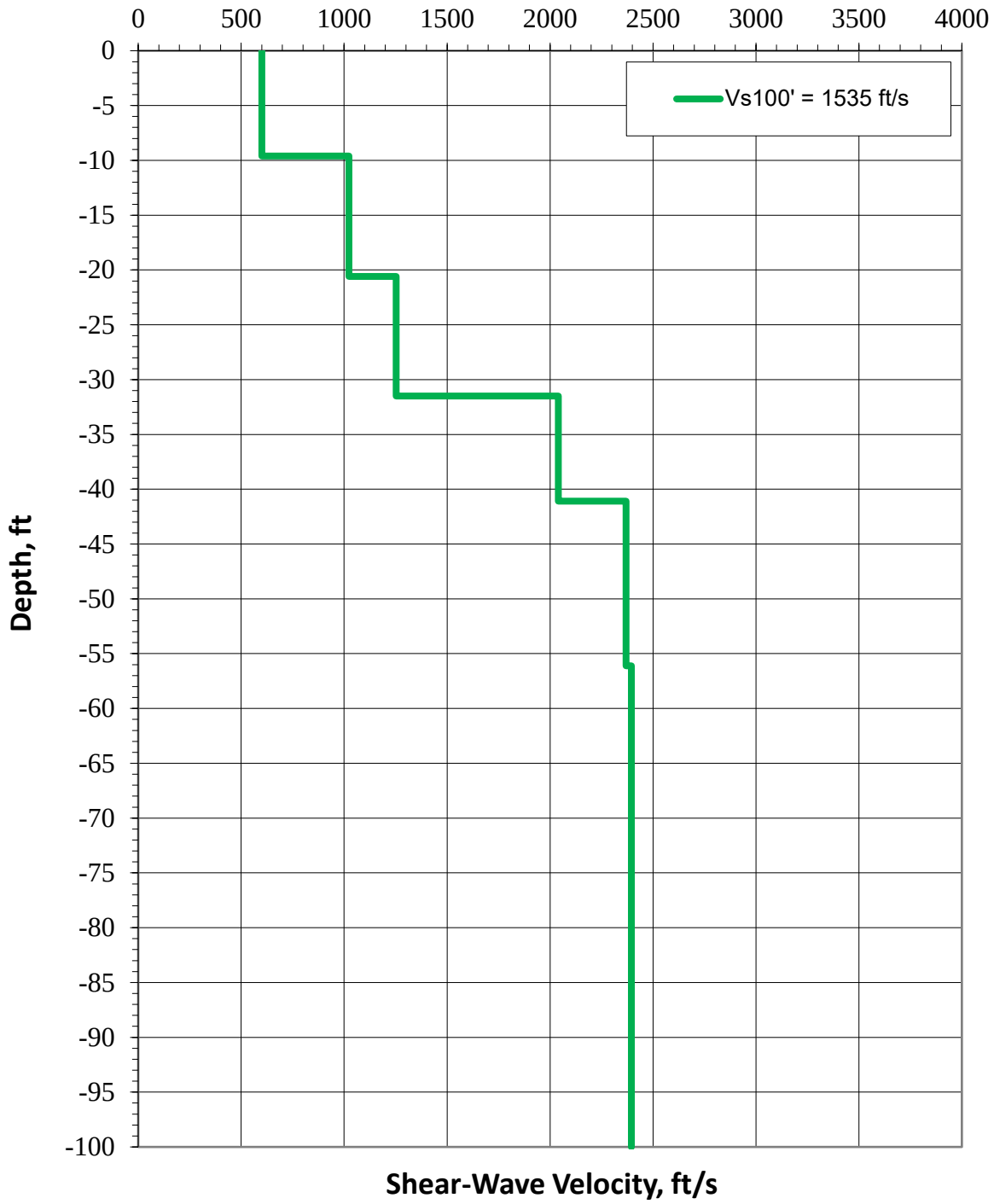
PLASTICITY DESCRIPTIONS			
DESCRIPTION	RANGE	DESCRIPTION	RANGE
NONPLASTIC	<5	MEDIUM	10-20
LOW	< 10	MEDIUM-HIGH	15 - 25
LOW-MEDIUM	5 - 15	HIGH	>25

DESCRIPTION OF ESTIMATED PERCENTAGES OF GRAVEL, SAND, AND FINES	
TRACE	Particles are present but est. < 5%
FEW	5% - 10%
LITTLE	15% - 20%
SOME	30% - 45%
MOSTLY	50% - 100%

DEFINITIONS OF SOIL FRACTIONS	
SOIL COMPONENT	PARTICLE SIZE RANGE
BOULDERS	> 12 INCHES
COBBLES	3 to 12 Inches
GRAVEL	3 IN. TO NO. 4 SIEVE
COARSE GRAVEL	3 IN. TO 3/4 IN.
FINE GRAVEL	3/4 IN. TO NO. 4 SIEVE
SAND	NO. 4 TO NO. 200
COARSE SAND	NO. 4 TO NO. 10
MEDIUM SAND	NO. 10 TO NO. 40
FINE SAND	NO. 40 TO NO. 200
FINES (SILT OR CLAY)	MINUS NO. 200 SIEVE

NOTE: Percentages are presented within soil description for soil horizon with laboratory tested soil samples.

TMFPD Apple Fire Station, L1, 286': Vs Model



TMFPD APPLE FIRE STATION PROJECT NO. 8754006	S-WAVE ReMi RESULTS	B-3

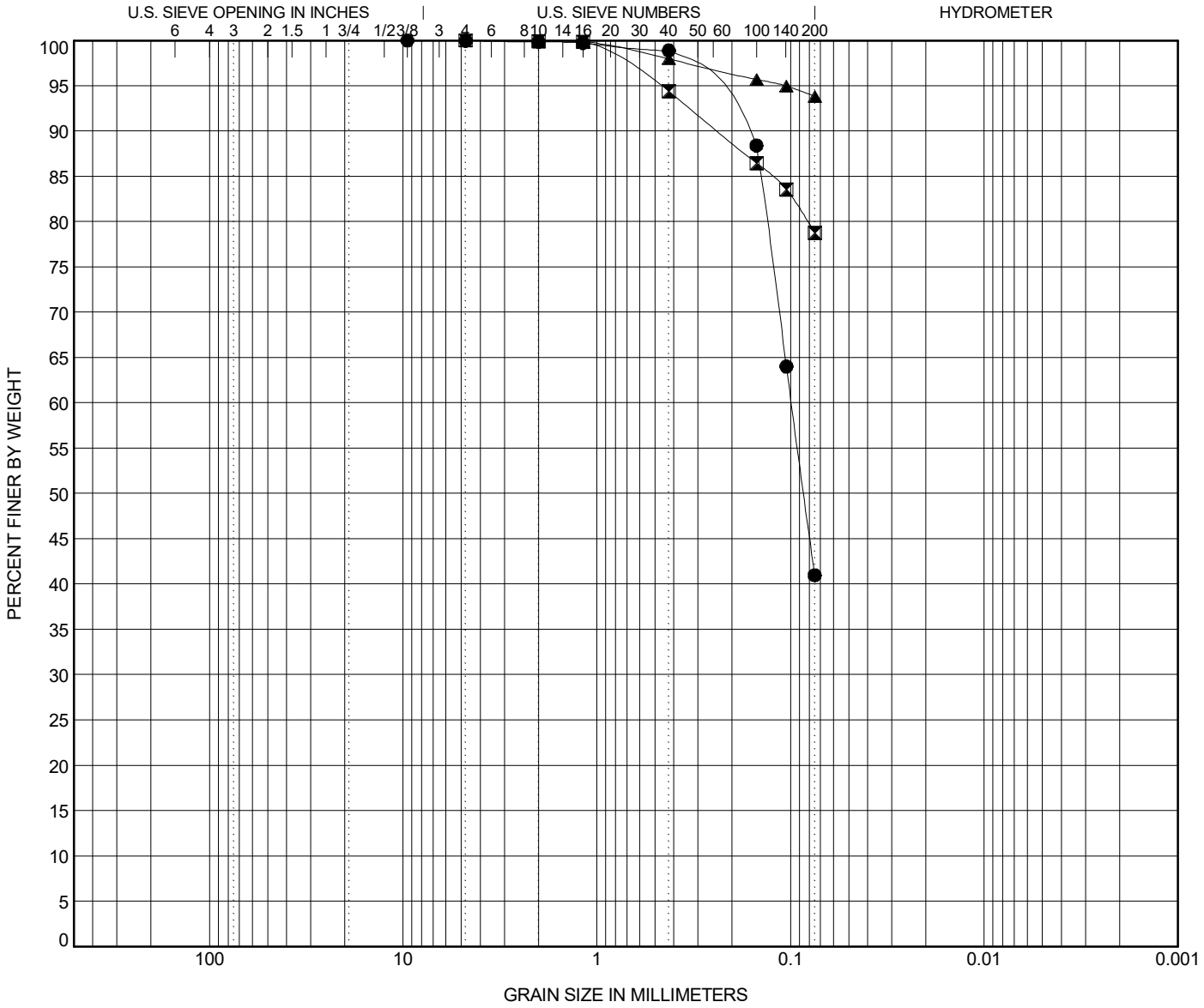
APPENDIX C
LABORATORY TESTING RESULTS

Wood Rodgers Inc.
1361 Corporate Blvd
Reno NV 89521
Telephone: 775-823-4068
Fax: 775-823-4066

GRAIN SIZE DISTRIBUTION

CLIENT Truckee Meadows Fire Protection District **PROJECT NAME** TMFPD Apple Fire Station

PROJECT NUMBER 8754006 **PROJECT LOCATION** Washoe County, Nevada



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

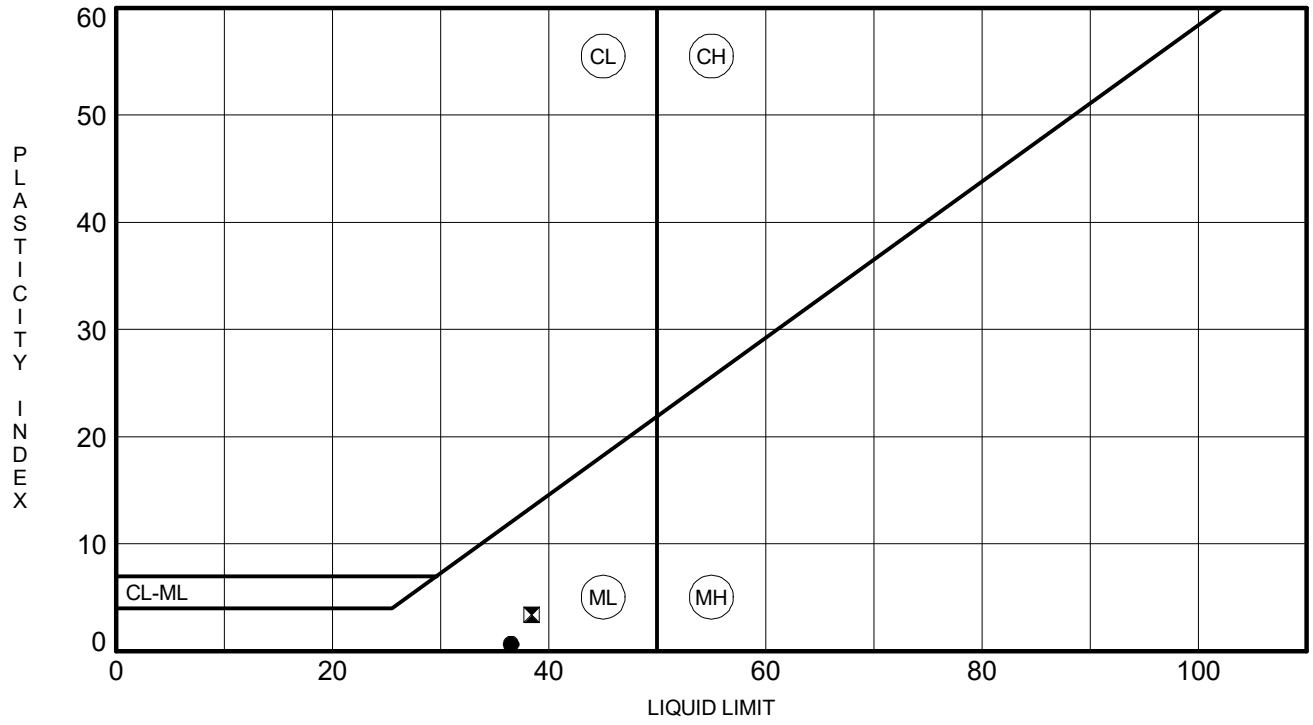
	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	**TP-2**	**1.5**	**SILTY SAND (SM)**					
⊠	**TP-3**	**1.5**	**SILT with SAND(ML)**	**36**	**36**	**NP**		
▲	**TP-4**	**1.0**	**SILT(ML)**	**38**	**35**	**3**		

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**TP-2**	**1.5**	**9.5**	**0.099**			**0.0**	**59.0**	**41.0**	
⊠	**TP-3**	**1.5**	**4.75**				**0.0**	**21.3**	**78.7**	
▲	**TP-4**	**1.0**	**2**				**0.0**	**6.2**	**93.8**	

Wood Rodgers Inc.
1361 Corporate Blvd
Reno NV 89521
Telephone: 775-823-4068
Fax: 775-823-4066

ATTERBERG LIMITS' RESULTS

CLIENT Truckee Meadows Fire Protection District
PROJECT NAME TMFPD Apple Fire Station
PROJECT NUMBER 8754006
PROJECT LOCATION Washoe County, Nevada



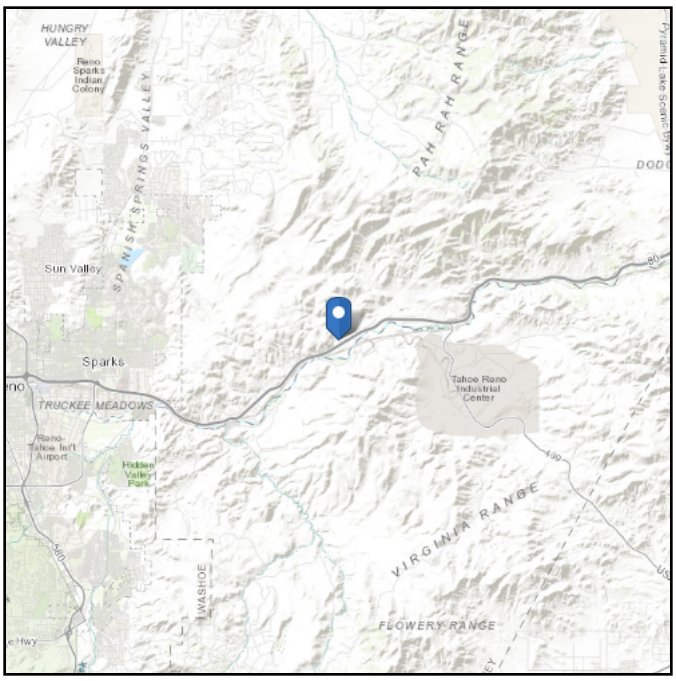
	TEST PIT	DEPTH	LL	PL	PI	Fines	Classification
●	**TP-3**	**1.5**	**36**	**36**	**NP**	**78.7**	**SILT with SAND(ML)**
⧓	**TP-4**	**1.0**	**38**	**35**	**3**	**93.8**	**SILT(ML)**

APPENDIX D
ASCE 7 HAZARDS REPORT

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	39.5565
Risk Category:	IV	**Longitude:**	-119.5663
Soil Class:	C - Very Dense Soil and Soft Rock	**Elevation:**	4351.864851392217 ft (NAVD 88)



Seismic

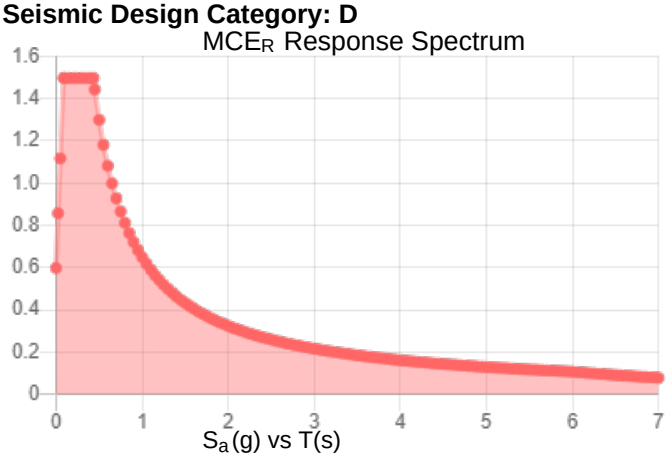
C - Very Dense Soil and Soft Rock

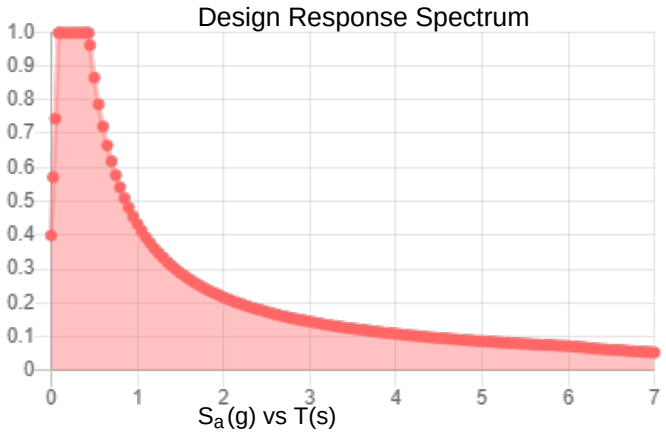
Site Soil Class:

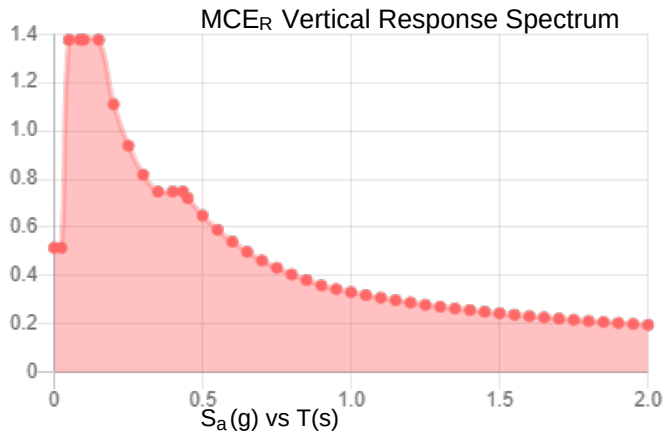
Results:

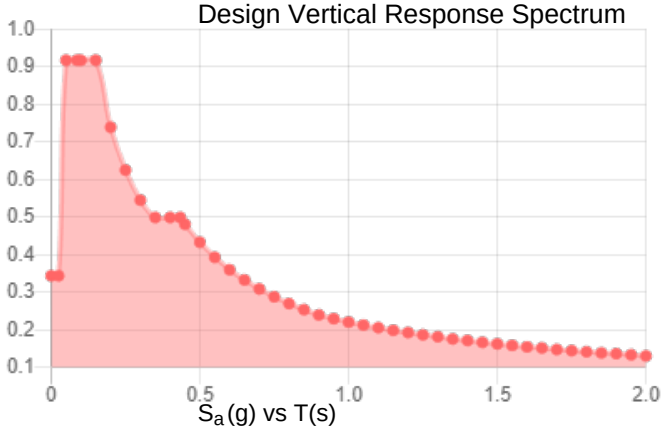
S_S :	1.247	S_{D1} :	0.433
S_1 :	0.433	T_L :	6
F_a :	1.2	PGA :	0.5
F_v :	1.5	PGA_M :	0.6
S_{MS} :	1.496	F_{PGA} :	1.2
S_{M1} :	0.649	I_e :	1.5
S_{DS} :	0.997	C_v :	1.149

Seismic Design Category: D









Data Accessed: **Fri Jul 28 2023**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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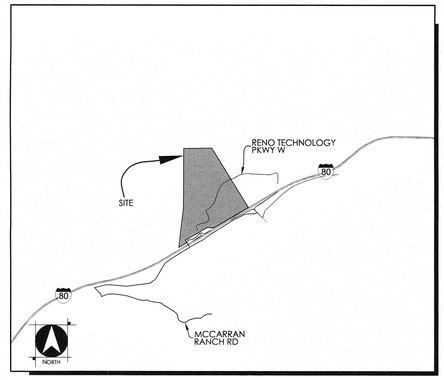
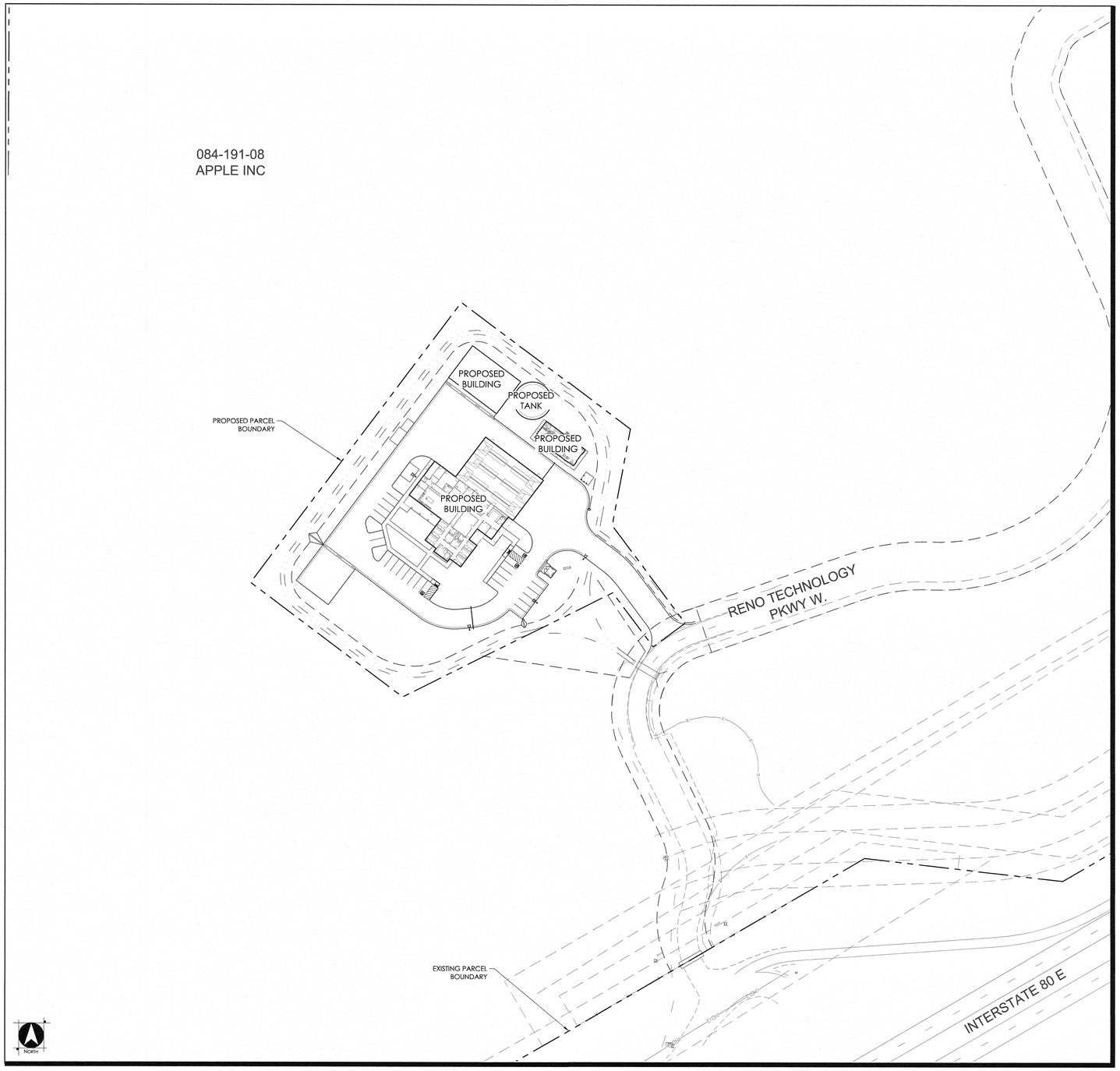
APPLE FIRE STATION
SPECIAL USE PERMIT
TITLE SHEET



VICINITY MAP
NOT TO SCALE

OWNER/DEVELOPER:
TRUCKEE MEADOWS
FIRE PROTECTION DISTRICT
3663 BARRON WAY
RENO, NV 89511

084-191-08
APPLE INC



SITE PLAN
NOT TO SCALE

BASIS OF BEARINGS

NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE. NORTH AMERICAN DATUM OF 1983/1994, HIGH ACCURACY REFERENCE NETWORK (NAD 83/94-HARN), AS DETERMINED USING REAL TIME KINEMATIC (RTK) GPS OBERVATIONS WITH CORRECTIONS TRANSMITTED BY THE NEVADA GPS NETWORK (NGN GPS). THE BEARING BETWEEN NGS REFERENCE MONUMENT "E 147" AND "C 147" - IS TAKEN AS NORTH 61°18'46" EAST. ALL DIMENSIONS SHOWN ARE GROUND DISTANCES. THE COMBINED GRID-TO-GROUND FACTOR IS TAKEN FROM NEVADA DEPARTMENT OF TRANSPORTATION LPN 1516=1.00022500001.

BASIS OF ELEVATION

BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS TAKEN FROM USC&GS BENCHMARK E-147, WITH A PUBLISHED ELEVATION OF 4420.01 FT. BENCHMARK E 147 IS DESCRIBED AS BEING A 3.5" USC&GS BRASS DISK SET IN CONC. STAMPED "E147 1958." THE MONUMENT IS LOCATED AT MILEPOST WASHOE 27.7. THE MONUMENT IS 82' NORTH OF THE NORTH EDGE OF OIL OF IR 80 AND ON THE NORTH EDGE OF A WASH 2.5' NORTH OF RIGHT-OF-WAY FENCE. A FOUND WITNESS T-POST IS 5.5' WEST OF THE MONUMENT.

SITE INFORMATION:

EXISTING ASSESSOR PARCEL NUMBER:
084-191-08

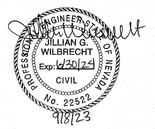
SITE INFORMATION:
EXISTING PARCEL AREA: 180.92± AC
PROPOSED PARCEL AREA: 3.24± AC
UNDEVELOPED AREA: 62,400 SF
DEVELOPED AREA:
BUILDING/STRUCTURES AREA: 20,460 SF
PARKING/PAVED AREA: 47,290 SF
LANDSCAPE AREA: 10,980 SF

PARKING STATISTICS:
TOTAL PARKING PROVIDED: 27 STALLS
TOTAL ACCESSIBLE PARKING REQUIRED: 1 STALLS
TOTAL ACCESSIBLE PARKING PROVIDED: 3 STALLS

ENGINEERS STATEMENT:

I, JILLIAN G. WILBRECHT, DO HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND WAS COMPLETED ON THE 8th DAY OF SEPTEMBER, 2023.

JILLIAN G. WILBRECHT P.E. #22522



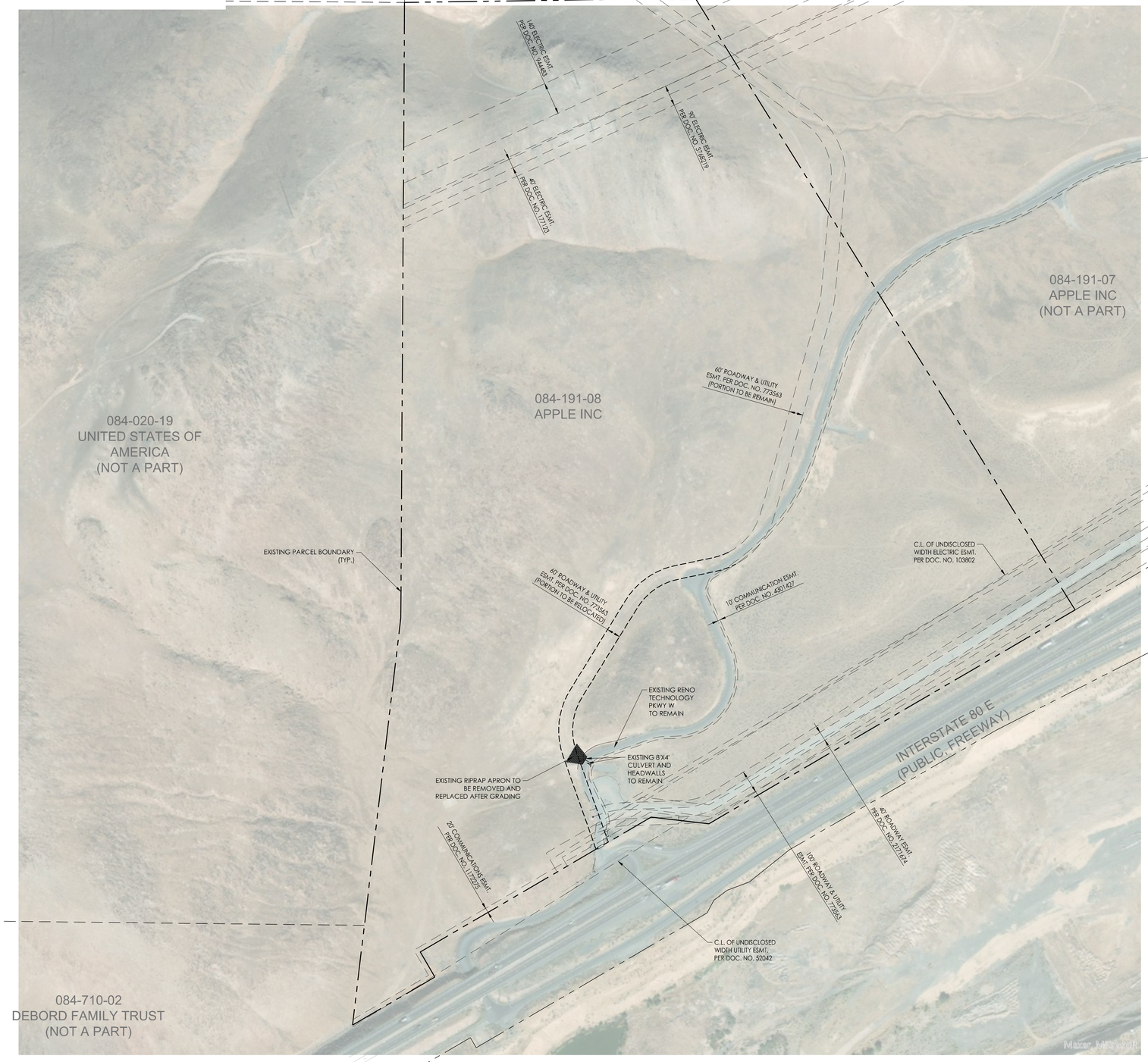
SHEET INDEX

APPLE FIRE STATION
TITLE SHEET

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

JOB NO. 8754.006 SEPTEMBER, 2023

APPLE FIRE STATION
SPECIAL USE PERMIT
EXISTING CONDITIONS



LEGEND:

EXISTING RIP RAP APRON TO BE REMOVED AND REPLACED

NORTH

0 400

200 800

APPLE FIRE STATION
EXISTING CONDITIONS

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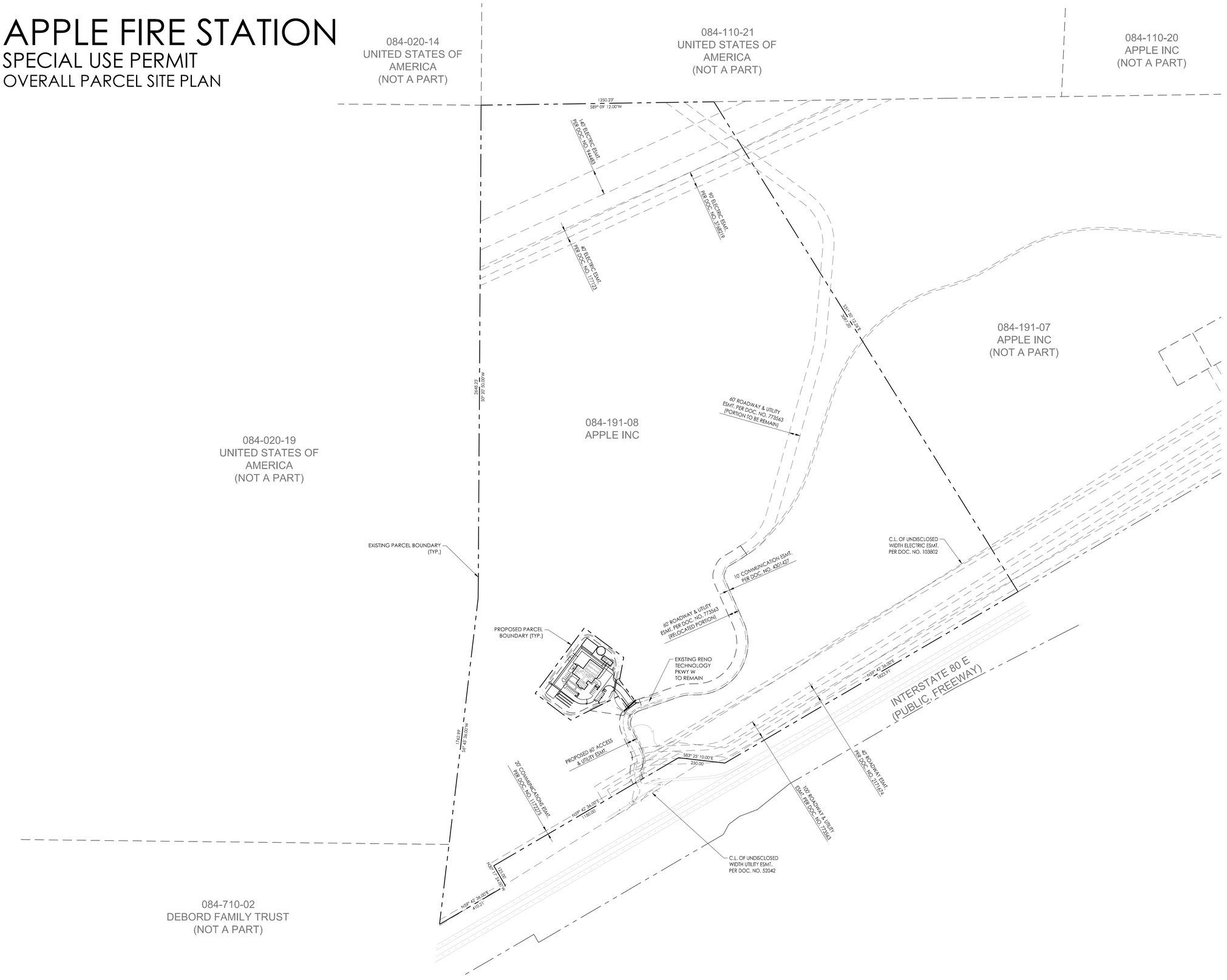
APPLE FIRE STATION
SPECIAL USE PERMIT
OVERALL PARCEL SITE PLAN



NORTH

0 200 400 800

APPLE FIRE STATION
OVERALL PARCEL SITE PLAN

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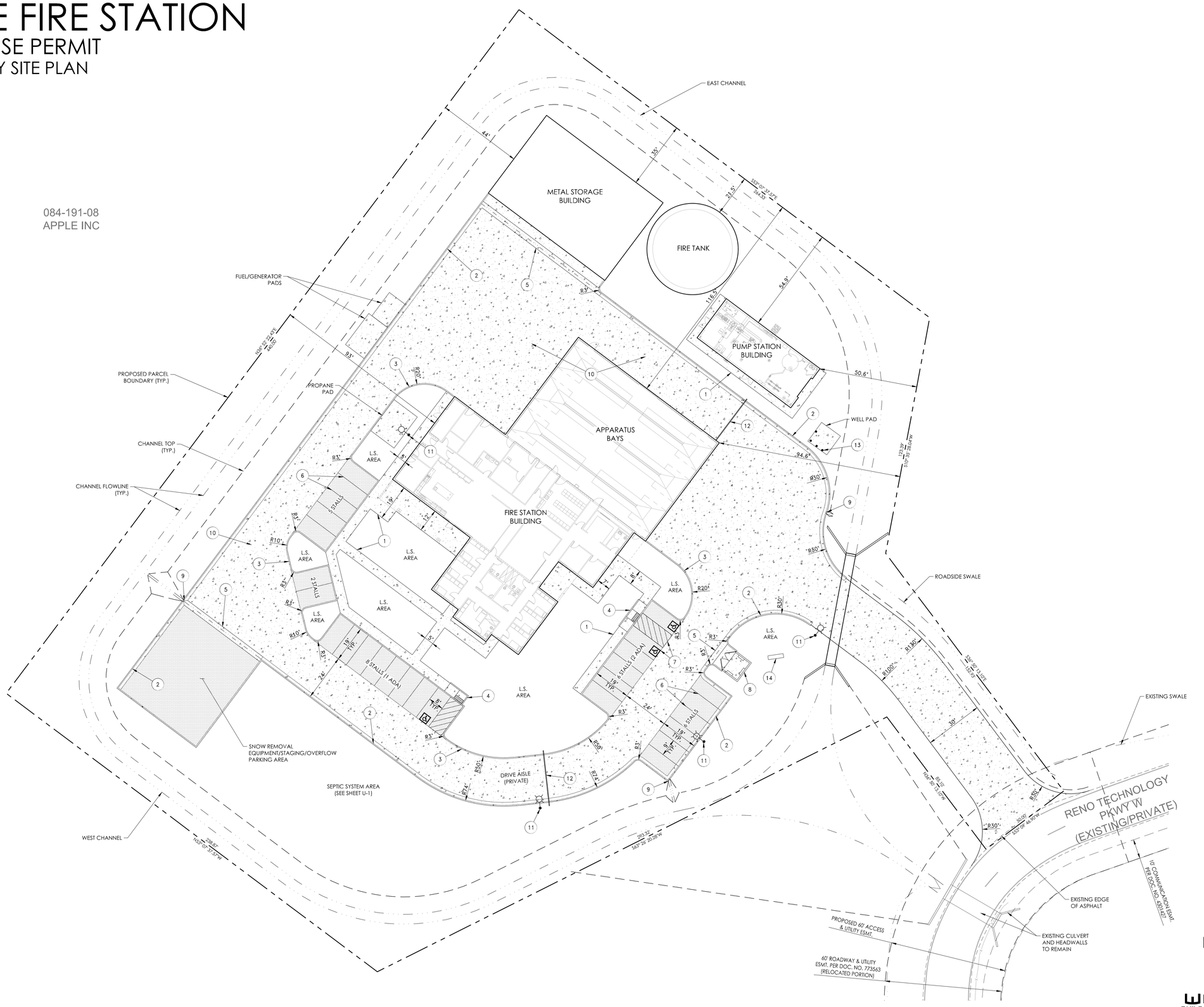
SHEET S-1 OF 8

APPLE FIRE STATION
SPECIAL USE PERMIT
PRELIMINARY SITE PLAN

084-191-08
APPLE INC



LEGEND:

- A.C PAVING (PARKING)
- P.C.C. CONCRETE

SITE KEY NOTES:

1. PROPOSED SIDEWALK/FLATWORK (TYP.)
2. PROPOSED CURB AND GUTTER (TYP.)
3. PROPOSED POST CURB (TYP.)
4. PROPOSED PEDESTRIAN RAMP (TYP.)
5. PROPOSED PCC VALLEY GUTTER (TYP.)
6. PROPOSED PAVEMENT MARKINGS (TYP.)
7. PROPOSED ACCESSIBLE MARKINGS (TYP.)
8. TRASH ENCLOSURE
9. CURB OPENING
10. PROPOSED PCC DRIVE AISLE
11. SITE LIGHT
12. AUTOMATIC ENTRANCE GATE/ARM
13. BOLLARDS (TYP.)
14. MONUMENT SIGN

NORTH
0 20 40 80

APPLE FIRE STATION
PRELIMINARY SITE PLAN

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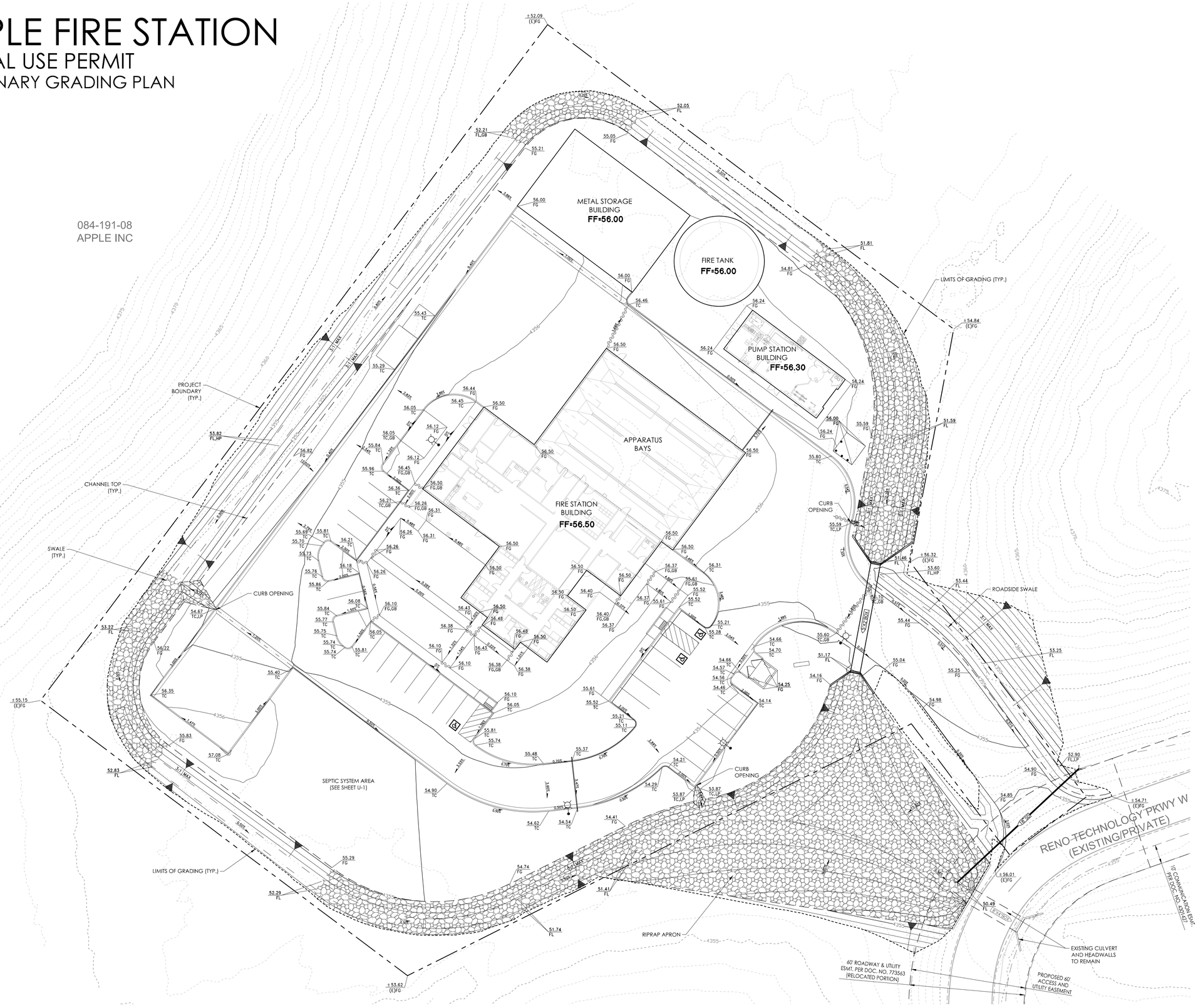
APPLE FIRE STATION

SPECIAL USE PERMIT

PRELIMINARY GRADING PLAN



APPLE FIRE STATION
PRELIMINARY GRADING PLAN

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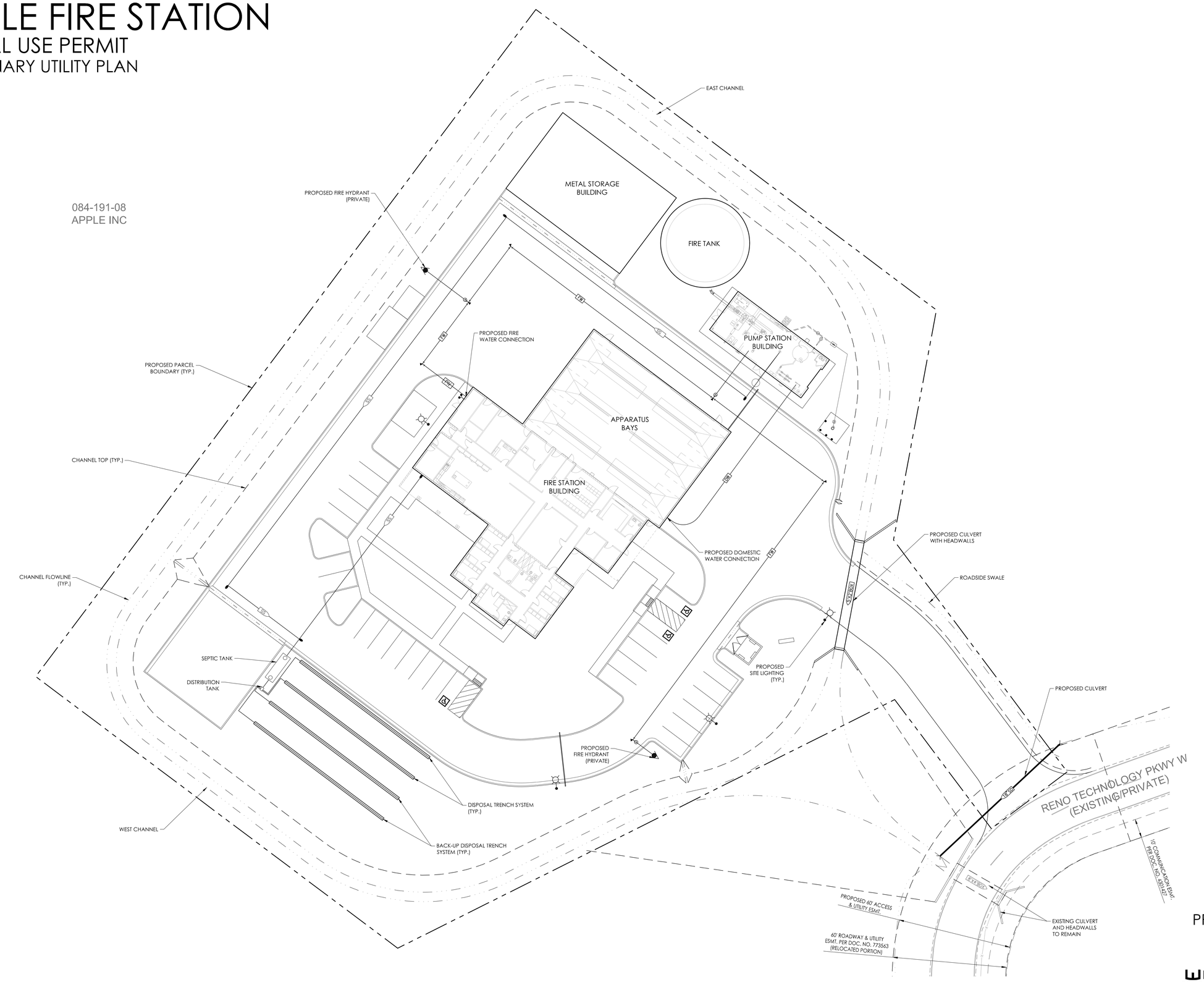
APPLE FIRE STATION
SPECIAL USE PERMIT
PRELIMINARY UTILITY PLAN



APPLE FIRE STATION
PRELIMINARY UTILITY PLAN

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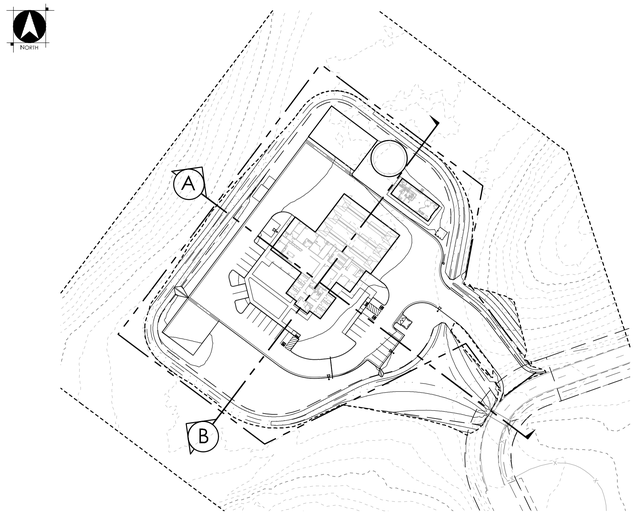
APPLE FIRE STATION

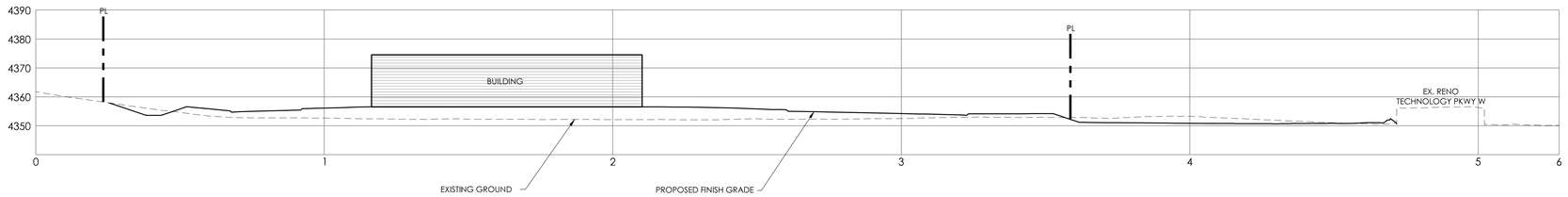
SPECIAL USE PERMIT

PRELIMINARY CROSS SECTIONS



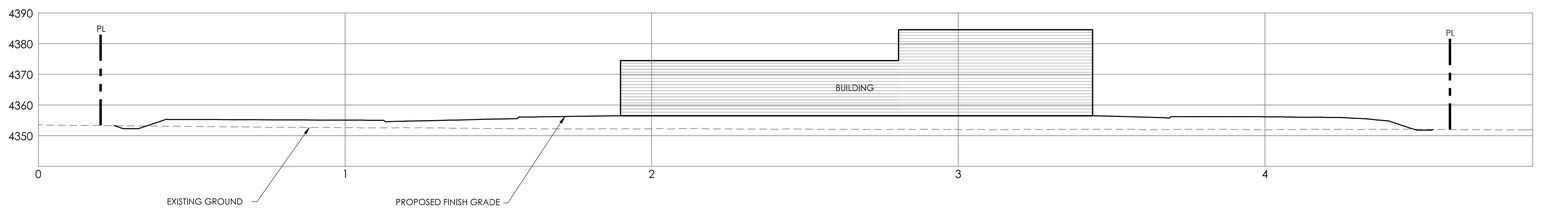
KEY MAP

NOT TO SCALE



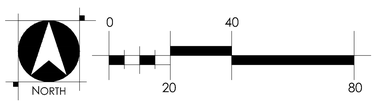
A CROSS SECTION A

SCALE:
HORIZ=1"=20'
VERT=1"=20'



B CROSS SECTION B

SCALE:
HORIZ=1"=20'
VERT=1"=20'



APPLE FIRE STATION
PRELIMINARY CROSS SECTIONS

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JOB NO. 8754.006 SEPTEMBER, 2023

PLANT LEGEND

- DECIDUOUS SHADE TREE
- ORNAMENTAL TREE
- SHRUBS
- 1 GAL PERENNIALS
- TURF
- INORGANIC GROUNDCOVER

LANDSCAPE REQUIREMENTS

REQUIRED: 1 TREE / 10 PARKING SPACES
27 SPACES = 3 TREES
PROPOSED: **8 TREES, 49 SHRUBS**

SITE INFORMATION

EXISTING PARCEL AREA	=	180.92 +/- AC
PROPOSED PARCEL AREA	=	3.24 +/- AC
UNDEVELOPED AREA	=	62,400 SF
DEVELOPED AREA		
BUILDINGS/STRUCTURES AREA	=	20,460 SF
PARKING / PAVED AREA	=	47,209 SF
TOTAL:	=	67,669 SF
LANDSCAPE AREA (16% OF DEVELOPED AREA)	=	10,980 SF

NOTES

1. LANDSCAPE TO COMPLY W/ WILDLAND FIRE SAFETY REQUIREMENTS AND ALL LOCAL GOVERNMENT REQUIREMENTS
2. PROPOSED LANDSCAPE EMPHASIZES NATIVE PLANT MATERIAL (WC-SV.2.11)
3. ALL NEW PLANT MATERIAL TO BE WATERED BY AN AUTOMATIC DRIP IRRIGATION SYSTEM.

0 20 40 60
1"=20'-0"

REVISIONS	BY

LANDSCAPE ARCHITECTURE AND PLANNING
L J M DESIGN GROUP
Post Office Box 427
Truckee, CA 96160
Tel. 530.587.6003
Email: info@ljmdesigngroup.com
CA. Lic. #3628 NV. Lic. #423

APPLE FIRE STATION

WASHOE COUNTY, NEVADA
APN: 084-191-08

SPECIAL USE PERMIT
PRELIMINARY LANDSCAPE PLAN

REGISTERED LANDSCAPE ARCHITECT
LAURA J. MIELD
423
STATE OF NEVADA

DATE	08/24/23
SCALE	AS SHOWN
DRAWN BY	KHB/LJM
JOB #	--
SHEET NAME	
SHEET NUMBER	L1
OF	-- SHEETS