

ORIGINAL



**Great Basin
Water Co.TM**

Special Use Permit

Prepared by:



April 15, 2019

GREAT BASIN WATER COMPANY

Special Use Permit

Prepared for:

Great Basin Water Company
1005 Terminal Way, Suite 294
Reno, Nevada 89502

Prepared by:

Christy Corporation, Ltd.
1000 Kiley Parkway
Sparks, Nevada 89436
(775) 502-8552

April 15, 2020

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Introduction

This application includes the following requests:

- A **Special Use Permit** to allow for the expansion of a utility service within the Low Density Suburban (LDS) zone.

Project Location

The project site is located at the southern portion of a common area parcel within the Bridle Path subdivision in Spanish Springs (APN # 534-010-02). The overall parcel consists of 29.64± acres and is located on the north side of Sunset Springs Drive, east of Pyramid Highway. Figure 1 (below) depicts the project location.



Figure 1 – Vicinity Map

Existing Conditions

The project site is a common area parcel created with the adjoining Bridle Path subdivision and is owned and maintained by the Bridle Path Homeowners Association. The majority of the property is undeveloped with the exception of a small water booster station that is located adjacent to Sunset Springs Drive at the south end of the site. Figure 2 (below) depicts the existing onsite conditions.

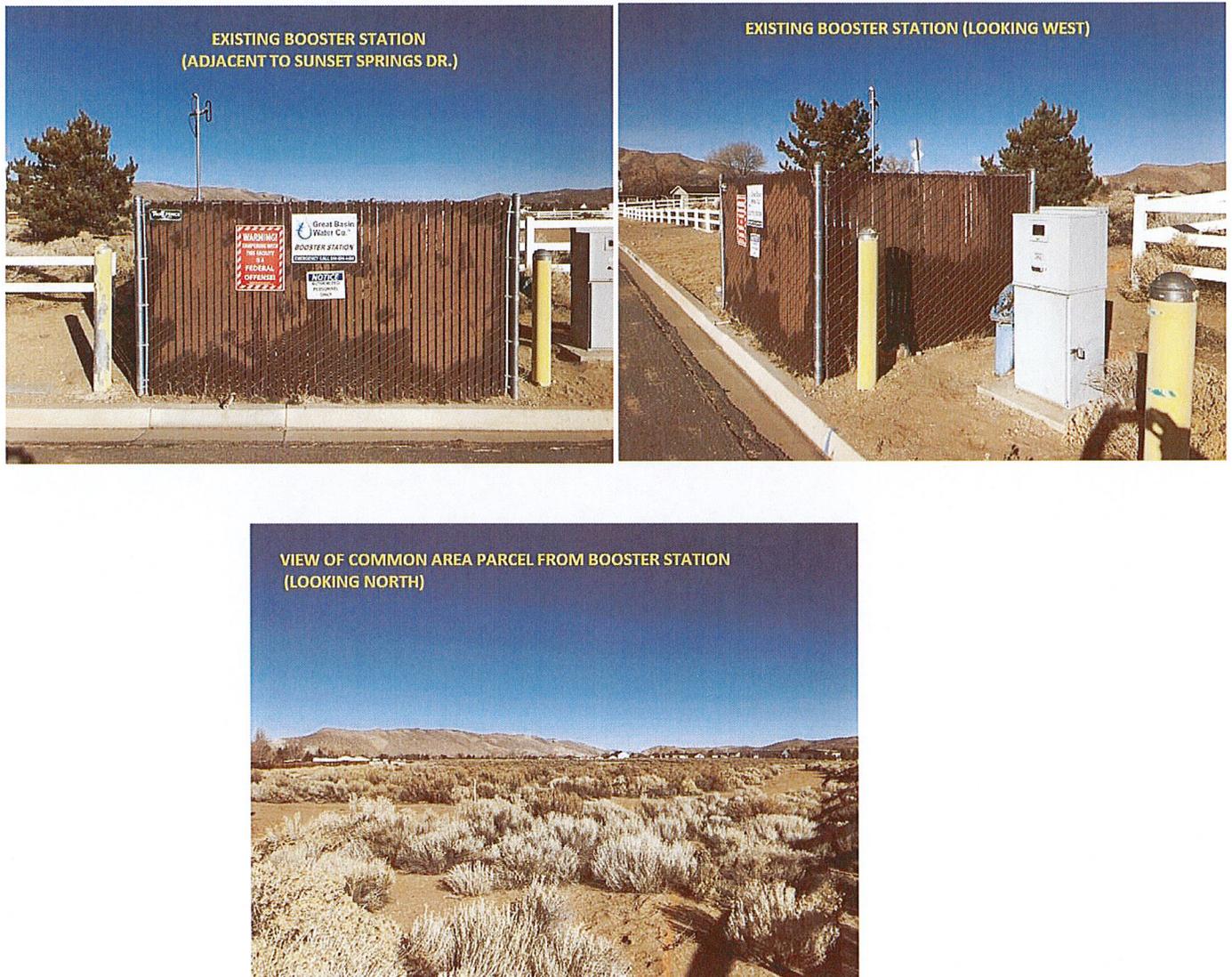


Figure 2 – Existing Conditions

The project site is zoned Low Density Suburban (LDS), as are all surrounding properties. As discussed in the following section, LDS allows for utility service uses with the approval of a Special Use Permit. Figure 3 (below) depicts the existing zoning patterns in the area.



Figure 3 - Zoning

Project Request

This application includes a request for a Special Use Permit (SUP) to allow for a utility service to be located within the Low Density Suburban (LDS) zone. Great Basin Water Company already operates a utility service (booster pump) onsite which is an approved and permitted use by Washoe County. The SUP included with this application is triggered based on planned improvements to the facility which constitute an increase in size by more than 50%.

Approval of this SUP request would allow Great Basin Water Company to install a new 150Kw diesel generator that will be used as a backup for the existing booster station during emergencies and power outages. The SUP would also allow for the construction of a new 384± square foot booster pump building. This building is anticipated for future needs and is expected to be constructed within a 5-year timeframe. These new facilities will occupy a total of 2,274± square feet and will be secured with a 6-foot chain link fence that includes a double-swing gate for staff access and maintenance. This gate will be accessed from Sunset Springs Drive. The chain link fence will be slatted with dark brown slats and will include 3-strand inward facing barbed wire for security purposes, similar to the existing fence, as previously depicted in Figure 2.

The new generator will be located on a concrete pad north of the existing booster station and planned building and will be accessed via a compacted decomposed granite access and approach. Likewise, the new booster pump building will be located just south of the generator pad and will be accessed via the same gate/approach. The booster pump building will be constructed of split face CMU and will include standing seam metal roofing, which is common for most utility buildings/structures throughout Washoe County.

The proposed 2,274± square foot site area is located at the southern portion of the overall 29.64± acre parcel and represents less than 0.18% of the total parcel area. No disturbance to the remaining portion of the common area parcel is proposed. The Bridle Path Homeowners Association will retain ownership of the parcel and has agreed to grant Great Basin Water Company and easement for the purpose of the new utility service facilities.

Backup generators are commonly collocated at booster station sites in order to allow continued operations and service to customers during emergency situations. The generator will not operate on a daily basis ensuring that area residents will not notice any new impacts. Furthermore, when the generator does need to operate, it conforms to the latest noise and emissions standards and is not expected to generate any negative impacts to adjoining homes.

The Washoe County Health District Air Quality Management Division has issued a permit to Great Basin Water Company that allows for the operation of the generator that includes 21 conditions, some of which ensure compliance with noise and emission regulations. Additionally, the Health Department conditions limit operation of the generator to no more than 100 hours per year for engine maintenance and testing purposes. Up to 50 of the 100 hours total may be used for emergency demand response for Energy Emergency Alert Level 2 situations in order to head-off potential voltage collapses or overloads in the system that could result in local or regional power distribution. There is no limit on running hours during emergency situations. A copy of the Health Department approval letter, including the 21 noted conditions, is included in the appendices of this report.

Figure 4 (below) depicts the proposed site plan for the proposed booster station building and backup generator, while Figure 5 (following page) depicts the new booster station building elevations.

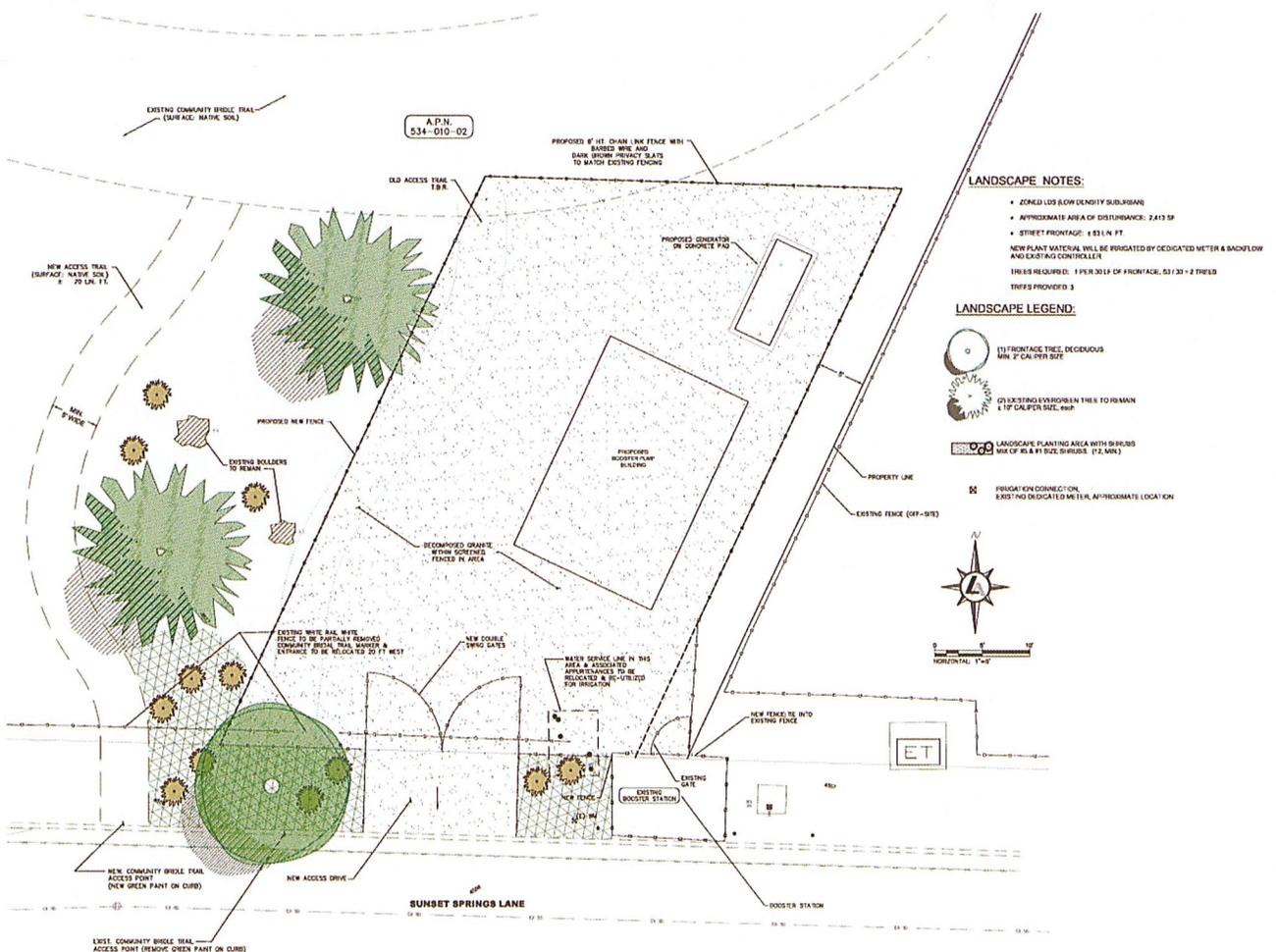


Figure 4 – Preliminary Site Plan

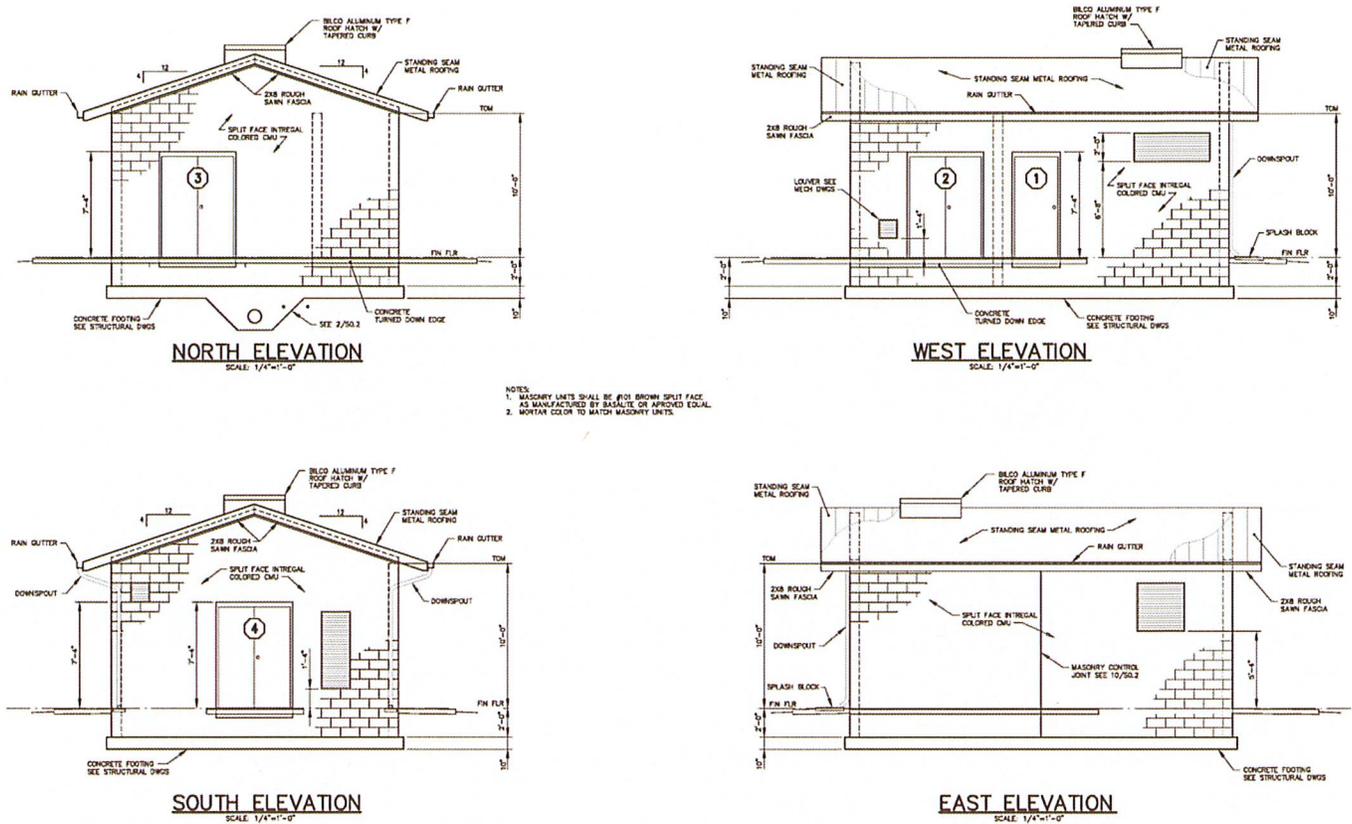


Figure 5 – Preliminary Booster Station Elevations

Overall project impacts will be minimal. As noted, the generator does not run on a daily basis. Testing and maintenance of the facility will occur (when needed) during the day in order to ensure that no noise or activity occurs during evening/nighttime hours. Also, new landscaping will be added around the perimeter of the fence will screen the facility and mitigate visual impacts. In general, it is likely that the majority of Bridle Path residents will not even realize the facility is there and it will benefit all Bridle Path residents by ensuring ongoing water service should an emergency occur. Similarly, the new booster station building is relatively small at 384± square feet and will be screened from view by the planned perimeter fencing and landscaping.

The addition of the generator and booster pump building will not result in any new traffic, etc. and actually enhances the public's health, safety, and welfare by providing an emergency backup to the existing system. As depicted in Figure 4, visual screening will occur to ensure an aesthetically pleasing appearance.

Detailed specifications for the proposed diesel generator are included within the appendices of this report. As noted previously, an approval letter (with conditions) from the Washoe County District Health Department is also included in the appendices. Full-size, to-scale engineering and landscape plans are included as attachments.

Special Use Permit Findings

In order to approve a Special Use Permit, the following findings must be made. Responses are provided in **bold face** type.

1. Consistency. The granting of the special use permit is consistent with the policies and maps of the Comprehensive Plan Elements and the Area Plan in which the property is located.

This application is simply an expansion of an existing facility that has already been deemed consistent with the surrounding area and LDS zoning. This SUP will ensure full compliance with Washoe County Development Code requirements including those pertaining to screening, landscaping, etc.

2. Adequate Public Facilities. Adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities must exist or will be provided.

Approval of this SUP serves to ensure this finding can be made by providing Great Basin Water Company the ability to maintain water service during emergency situations. No impacts to drainage, utilities, etc. will occur as part of this expansion.

3. Site Suitability. The site must be physically suitable for the proposed use and for the intensity of development.

The portion of the site to be utilized is well below 1% of the total area and is located adjacent to existing utility services. It is anticipated that most residents will not even notice that the new facilities have been collocated at the site. New landscaping and screen fencing will further ensure that this finding is met.

4. Issuance Not Detrimental. Issuance of the permit may not be significantly detrimental to the public health, safety or welfare; have a detrimental impact on adjacent properties; or be detrimental to the character of the surrounding area.

No negative impacts are anticipated with the granting of this SUP request. Providing a backup generator system at the site will be of benefit to the public's health, safety, and welfare by allowing the existing booster station to remain functional during emergencies.

APPENDICES

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: Great Basin Water Company - Special Use Permit			
Project Description: A SUP to allow for the expansion of a utility service (booster station backup generator and building) within the LDS zone.			
Project Address: 0 Omni Drive (north side of Sunset Springs Dr., east of Pyramid Highway)			
Project Area (acres or square feet): 2,274 sq.ft. portion of a 29.64 acre common area parcel			
Project Location (with point of reference to major cross streets AND area locator): North side of Sunset Springs Drive between Bridle Path Terrace and Omni Drive			
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
534-010-02	29.64 acres		
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: Bridle Path Homeowners Association		Name: Christy Corporation, Ltd.	
Address: 255 W. Peckham Ln., Suite 2		Address: 1000 Kiley Pkwy.	
Reno, NV	Zip: 89502	Sparks, NV	Zip: 89436
Phone: (775) 284-4434	Fax: 284-4465	Phone: (775) 502-8552	Fax:
Email: claire@westernnv.com		Email: mike@christynv.com	
Cell:	Other:	Cell: (775) 250-3455	Other:
Contact Person: Claire Lesquereux-Parker		Contact Person: Mike Railey	
Applicant/Developer:		Other Persons to be Contacted:	
Name: Great Basin Water Company		Name: Lumos & Associates, Inc.	
Address: 1005 Terminal Way, Suite 294		Address: 308 N. Curry St., Suite 200	
Reno, NV	Zip: 89502	Carson City, NV	Zip: 89703
Phone: (775) 340-1021	Fax:	Phone: (775) 883-7077	Fax:
Email: Tim.Scheidt@greatbasinwaterco.com		Email: jsand@lumosinc.com	
Cell: (775) 340-1021	Other:	Cell:	Other:
Contact Person: Tim C. Scheidt		Contact Person: Justin Sand, P.E.	
For Office Use Only			
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Property Owner Affidavit

Applicant Name: BRIDLE PATH HOA

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

STATE OF NEVADA)
)
COUNTY OF WASHOE)

I, DAVID OTTO LOEHDEN
(please print name)

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

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

Assessor Parcel Number(s): 534-010-02

Printed Name DAVID OTTO LOEHDEN

Signed [Signature]

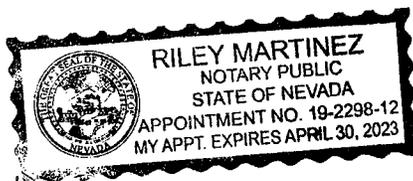
Address 40 MIRANDA CT
SPARKS, NV 89441

Subscribed and sworn to before me this 9th day of April, 2020.

(Notary Stamp)

Riley Martinez
Notary Public in and for said county and state

My commission expires: April 30, 2023



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

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

**Special Use Permit Application
Supplemental Information**
(All required information may be separately attached)

1. What is the project being requested?

This SUP includes a request to expand an existing utility service use located within the LDS zone by more than 50%. Refer to attached report for a detailed description.

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.)

Refer to attached plans.

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

Installation of the backup generator will occur immediately with the booster station building to be constructed within 5 years. Refer to attached report for additional details.

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?

This is an expansion of an existing facility and is not anticipated to generate any negative impacts. Refer to attached report for a specific analysis.

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

The project will benefit the public by providing a backup generator to maintain water service during emergency situations.

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

This project is not anticipated to generate any negative impacts. Refer to attached report for a detailed impact analysis.

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.

Improvements necessary for the project are minimal Refer to attached report and plans for specifics.

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.)

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	----------------------------------------

9. Utilities:

a. Sewer Service	Washoe County
b. Electrical Service	NV Energy
c. Telephone Service	Charter and/or ATT
d. LPG or Natural Gas Service	NV Energy
e. Solid Waste Disposal Service	Waste Management
f. Cable Television Service	Charter and/or ATT
g. Water Service	Great Basin Water Company

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).

Not applicable. Landscape irrigation will connect to existing services.

10. Community Services (provided and nearest facility):

a. Fire Station	TMFPD Spanish Springs
b. Health Care Facility	Renown Regional Medical Center
c. Elementary School	Spanish Springs Elementary
d. Middle School	Shaw Middle School
e. High School	Spanish Springs High School
f. Parks	Lazy 5 Regional Park
g. Library	Washoe County - Spanish Springs
h. Citifare Bus Stop	N/A

Washoe County Treasurer
 Tammi Davis

Account Detail

[Back to Account Detail](#)

[Change of Address](#)

[Print this Page](#)

CollectionCart

Collection Cart	Items	Total	Checkout	View
	0	\$0.00		

Pay Online

No payment due for this account.

Washoe County Parcel Information

Parcel ID	Status	Last Update
53401002	Active	4/14/2020 2:08:35 AM

Current Owner:
 BRIDLE PATH HOA
 C/O WESTERN NEVADA MANAGEMENT
 255 W PECKHAM LN STE 2
 RENO, NV 89509

SITUS:
 0 OMNI DR
 WCTY NV

Taxing District
 4000

Geo CD:

Legal Description

Township 21 Section Lot B Block Range 20 SubdivisionName BRIDLE PATH HOMES 5

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

Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
2019	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2018	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2017	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2016	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2015	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total					\$0.00

Disclaimer

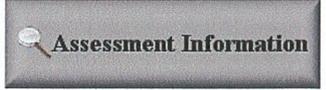
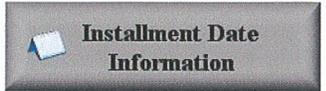
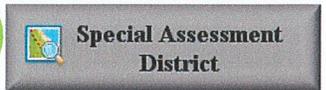
- **ALERTS:** If your real property taxes are delinquent, the search results displayed may not reflect the correct amount owing. Please contact our office for the current amount due.
- For your convenience, online payment is available on this site. E-check payments are accepted without a fee. However,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

Pay By Check

Please make checks payable to:
WASHOE COUNTY TREASURER

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

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



DIESEL GENERATOR SET

MTU 6R0113 DS150

150 kWe / 60 Hz / Standby
208 - 600V

Reference MTU 6R0113 DS150 (135 kWe) for Prime Rating Technical Data



SYSTEM RATINGS

Standby

Voltage (L-L)	240V**	240V**	208V**	240V**	480V**	600V**
Phase	1	1	3	3	3	3
PF	1	1	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60	60
kW	150	150	150	150	150	150
kVA	150	150	187	187	187	187
Amps	625	625	520	451	226	180
skVA@30%						
Voltage Dip	182	195	296	296	394	315
Generator Model	431CSL6208	431PSL6224	431CSL6202	431CSL6202	431CSL6202	431PSL6240
Temp Rise	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C
Connection	12 LEAD DOUBLE DELTA	4 LEAD	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE

**UL2200 Offered

CERTIFICATIONS AND STANDARDS

// Emissions

- EPA Tier 3 Certified
- South Coast Air Quality Management District (SCAQMD)

// Generator set is designed and manufactured in facilities certified to standards ISO 9001:2008 and ISO 14001:2004

// UL 2200 / CSA - Optional

- UL 2200 Listed
- CSA Certified

// Performance Assurance Certification (PAC)

- Generator Set Tested to ISO 8528-5 for Transient Response
- Verified product design, quality and performance integrity
- All engine systems are prototype and factory tested

// Power Rating

- Accepts Rated Load in One Step Per NFPA 110

STANDARD FEATURES*

- // MTU Onsite Energy is a single source supplier
- // Global Product Support
- // 2 Year Standard Warranty
- // 6068HF285 Diesel Engine
 - 6.8 Liter Displacement
 - 4-Cycle
- // Engine-generator resilient mounted
- // Complete Range of Accessories
- // Generator
 - Brushless, Rotating Field Generator
 - 2/3 Pitch Windings
 - 300% Short Circuit Capability with Optional PMG
- // Digital Control Panel(s)
 - UL Recognized, CSA Certified, NFPA 110
 - Complete System Metering
 - LCD Display
- // Cooling System
 - Integral Set-Mounted
 - Engine Driven Fan

STANDARD EQUIPMENT*

// Engine

Air Cleaner
 Oil Pump
 Oil Drain Extension & S/O Valve
 Full Flow Oil Filter
 Fuel Filter with Water Separator
 Jacket Water Pump
 Thermostat
 Blower Fan & Fan Drive
 Radiator - Unit Mounted
 Electric Starting Motor - 12V
 Governor - Electronic Isochronous
 Base - Formed Steel
 SAE Flywheel & Bell Housing
 Charging Alternator - 12V
 Battery Box & Cables
 Flexible Fuel Connectors
 Flexible Exhaust Connection
 EPA Certified Engine

// Generator

NEMA MG1, IEEE and ANSI standards compliance for temperature rise and motor starting
 Self-Ventilated and Drip-Proof
 Superior Voltage Waveform
 Solid State, Volts-per-Hertz Regulator
 $\pm 1\%$ Voltage Regulation No Load to Full Load
 Brushless Alternator with Brushless Pilot Exciter
 4 Pole, Rotating Field

130 °C Maximum Standby Temperature Rise
 1 Bearing, Sealed
 Flexible Coupling
 Full Amortisseur Windings
 125% Rotor Balancing
 3-Phase Voltage Sensing
 100% of Rated Load - One Step
 5% Maximum Total Harmonic Distortion

// Digital Control Panel(s)

Digital Metering
 Engine Parameters
 Generator Protection Functions
 Engine Protection
 SAE J1939 Engine ECU Communications
 Windows®-Based Software
 Multilingual Capability
 Remote Communications to RDP-110 Remote Annunciator
 Programmable Input and Output Contacts
 UL Recognized, CSA Certified, CE Approved
 Event Recording
 IP 54 Front Panel Rating with Integrated Gasket
 NFPA 110 Compatible

* Represents standard product only. Consult Factory/MTU Onsite Energy Distributor for additional configurations.

APPLICATION DATA

// Engine

Manufacturer	John Deere
Model	6068HF285
Type	4-Cycle
Arrangement	6-Inline
Displacement: L (in ³)	6.8 (415)
Bore: cm (in)	10.6 (4.19)
Stroke: cm (in)	12.7 (5)
Compression Ratio	19:1
Rated RPM	1,800
Engine Governor	JDEC
Maximum Power: kWm (bhp)	177 (237)
Speed Regulation	±0.25%
Air Cleaner	Dry

// Liquid Capacity (Lubrication)

Total Oil System: L (gal)	20 (5.28)
Engine Jacket Water Capacity: L (gal)	12.3 (3.25)
System Coolant Capacity: L (gal)	22.7 (6)

// Electrical

Electric Volts DC	12
Cold Cranking Amps Under -17.8 °C (0 °F)	925

// Fuel System

Fuel Supply Connection Size	3/8" NPT
Fuel Return Connection Size	3/8" NPT
Maximum Fuel Lift: m (ft)	2 (6.7)
Recommended Fuel	Diesel #2
Total Fuel Flow: L/hr (gal/hr)	107.2 (28.3)

// Fuel Consumption

At 100% of Power Rating: L/hr (gal/hr)	44.7 (11.8)
At 75% of Power Rating: L/hr (gal/hr)	34.8 (9.2)
At 50% of Power Rating: L/hr (gal/hr)	25.4 (6.7)

// Cooling - Radiator System

Ambient Capacity of Radiator: °C (°F)	50 (122)
Maximum Allowable Static Pressure on Rad. Exhaust: kPa (in. H ₂ O)	0.12 (0.5)
Water Pump Capacity: L/min (gpm)	180 (48)
Heat Rejection to Coolant: kW (BTUM)	93.5 (5,324)
Heat Rejection to Air to Air: kW (BTUM)	32 (1,821)
Heat Radiated to Ambient: kW (BTUM)	25.7 (1,461)
Fan Power: kW (hp)	10.7 (14.3)

// Air Requirements

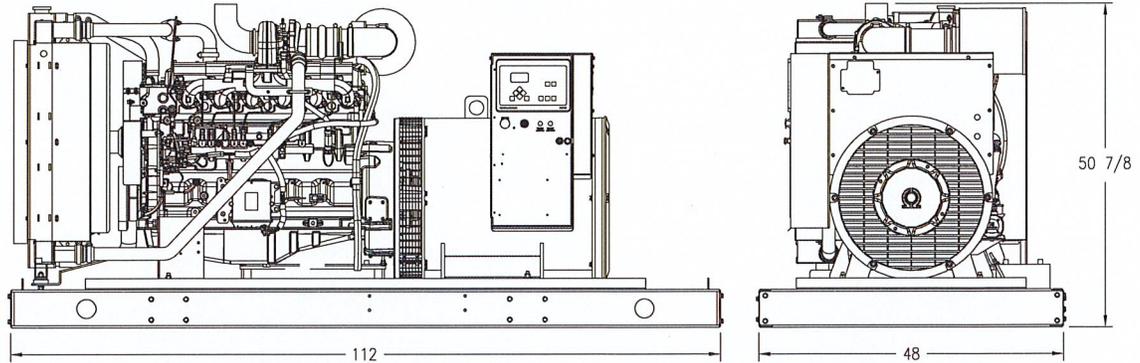
Aspirating: *m ³ /min (SCFM)	13.6 (480)
Air Flow Required for Rad. Cooled Unit: *m ³ /min (SCFM)	304 (10,732)
Remote Cooled Applications; Air Flow Required for Dissipation of Radiated Gen-set Heat for a Max of 25 °F Rise: *m ³ /min (SCFM)	94 (3,295)

* Air density = 1.184 kg/m³ (0.0739 lbm/ft³)

// Exhaust System

Gas Temp. (Stack): °C (°F)	505 (941)
Gas Volume at Stack Temp: m ³ /min (CFM)	34 (1,201)
Maximum Allowable Back Pressure: kPa (in. H ₂ O)	7.5 (30)

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard open power 480 volt generator set. Lengths may vary with other voltages. Do not use for installation design. See website for unit specific template drawings.

System

Open Power Unit (OPU)

Dimensions (LxWxH)

2,845 x 1,219 x 1,283 mm (112 x 48 x 50.5 in)

Weight (less tank)

1,573-2,262 kg (3,469-4,986 lb)

Weights and dimensions are based on open power units and are estimates only. Consult the factory for accurate weights and dimensions for your specific generator set.

SOUND DATA

Unit Type

Level 0: Open Power Unit dB(A)

Standby Full Load

85.1

Sound data is provided at 7 m (23 ft). Generator set tested in accordance with ISO 8528-10 and with infinite exhaust.

EMISSIONS DATA

NO_x + NMHC

3.77

CO

0.4

PM

0.06

All units are in g/hp-hr and shown at 100% load (not comparable to EPA weighted cycle values).

Emission levels of the engine may vary with ambient temperature, barometric pressure, humidity, fuel type and quality, installation parameters, measuring instrumentation, etc. The data was obtained in compliance with US EPA regulations. The weighted cycle value (not shown) from each engine is guaranteed to be within the US EPA Standards. 5-mode emission data per 40 CFR 89 or 40 CFR 1039 (as applicable) is available upon request.

RATING DEFINITIONS AND CONDITIONS

// Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. No overload capability for this rating. Ratings are in accordance with ISO 3046-1, BS 5514, and AS 2789. Average load factor: ≤ 85%.

// Deration Factor:

Altitude: Consult your local MTU Onsite Energy Power Generation Distributor for altitude derations.

Temperature: Consult your local MTU Onsite Energy Power Generation Distributor for temperature derations.

C/F = Consult Factory/MTU Onsite Energy Distributor

N/A = Not Available

MTU Onsite Energy

A Rolls-Royce Power Systems Brand

www.mtuonsiteenergy.com

**WASHOE COUNTY
HEALTH DISTRICT**
ENHANCING QUALITY OF LIFE

10/22/2019

Great Basin Water Co.
Mr. Marc Rohus
1005 Terminal Way Suite 294
Reno, NV 89502

Dear Mr. Rohus,

The Washoe County Air Quality Management Division (AQMD) has reviewed your application for an Authority to Construct/Permit to Operate (1) Diesel Standby Generator to be located 1005 Terminal Way Suite 294 in Washoe County. The operation of this equipment, as proposed in your application received on September 5th, 2019, has been approved with the conditions listed below. Proposed equipment to include:

- (1) 150 kW John Deere Diesel Standby Generator

Upon completion of construction of the new equipment, the District must be contacted to schedule the initial compliance inspection. Once the determination has been made that the equipment is operating in compliance with all District Regulations, an invoice will be mailed to you at that time for the permit fees. Upon receipt of the fees, Permit to Operate #AAIR19-0034 will be issued.

You may consider this letter as your official authority to operate pending receipt of the actual permit.

CONDITIONS OF OPERATION LISTED ON THIS PERMIT

- A. This permit becomes void upon any change of ownership or address or any alteration of permitted equipment.
- B. The permit shall be posted on or near the equipment listed above. The permit shall be readily available at all times while the equipment is operating.
- C. Any modification of the equipment listed above other than normal repair and maintenance will require a new Permit.
- D. Any records of operation which effect the potential of the source to emit air pollutants, such as fuel or products consumed, products produced, hours of operation, chemicals or supplies used in source operation, must be maintained for a period of at least 5 years and made available to the control officer upon request.
- E. All upset or breakdown conditions resulting in increased emissions or air pollutants shall be reported in compliance with District regulations, sections 020.075 and 020.076.

AIR QUALITY MANAGEMENT
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- F. The control officer will be provided access to the facility to inspect operations and equipment covered under this permit whenever necessary to determine compliance with this permit and any other air pollution limitations specified in District regulations.
- G. The operator will not discharge or cause the discharge of odorous emissions which result in confirmed violations of District Regulations Governing Air Quality Management, specifically Section 040.055. Upon confirmation of a violation of the odor regulation, the operator must submit a plan to reduce the odorous emissions within 30 days of Notice by the Control Officer.
- H. The annual throughput/consumption figures must be submitted in writing to the AQMD no later than the 20th of the month, approximately 6 weeks prior to the expiration date of the permit.

Additional Conditions: Emergency Engines Diesel (IIII)

- 1. All operations of the engine must comply with 40 CFR Part 60, Subpart IIII -New Source Performance Standards for Stationary Compression Ignition (CI) Internal Combustion Engines.
- 2. An operation and maintenance manual for the Compression Ignition (CI) internal combustion engine must be kept onsite and made available for review by the AQMD upon request.
- 3. The CI internal combustion engine(s) shall be maintained and operated according to the manufacturer's originally configured specifications. The operator must notify AQMD of any alterations or modifications of the CI internal combustion engine(s) or emission-related equipment.
- 4. The CI internal combustion engine must use Ultra Low Sulfur Diesel (ULSD) with maximum 15 ppm sulfur content per 40 CFR 80.510(b).
- 5. The owner or operator of a CI internal combustion engine(s) equipped with pollution control equipment must install, configure, operate, and maintain the engine and pollution control device(s) according to the manufacturer's emission-related written instructions.
- 6. The owner or operator of a CI internal combustion engine(s) equipped with a diesel particulate filter to comply with the emissions standards must install a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
- 7. The CI internal combustion engine(s) must be equipped with an operational non-resettable hour meter.
- 8. The owner or operator of CI internal combustion engine(s) shall maintain the following monthly records in a log for at least 36 months from the date of entry: a) Hours of operation for maintenance and testing, b) Hours of operation for emission testing (if required), c) Hours of operation for emergency situations, d) For each emergency, the nature of the emergency should be stated, e) Fuel usage for each engine. Log entries shall be retained on site and made available to the AQMD upon request.
- 9. The annual report for the CI internal combustion engine(s) must include the total hours operated for maintenance/testing purposes separate from the actual hours of emergency operations.

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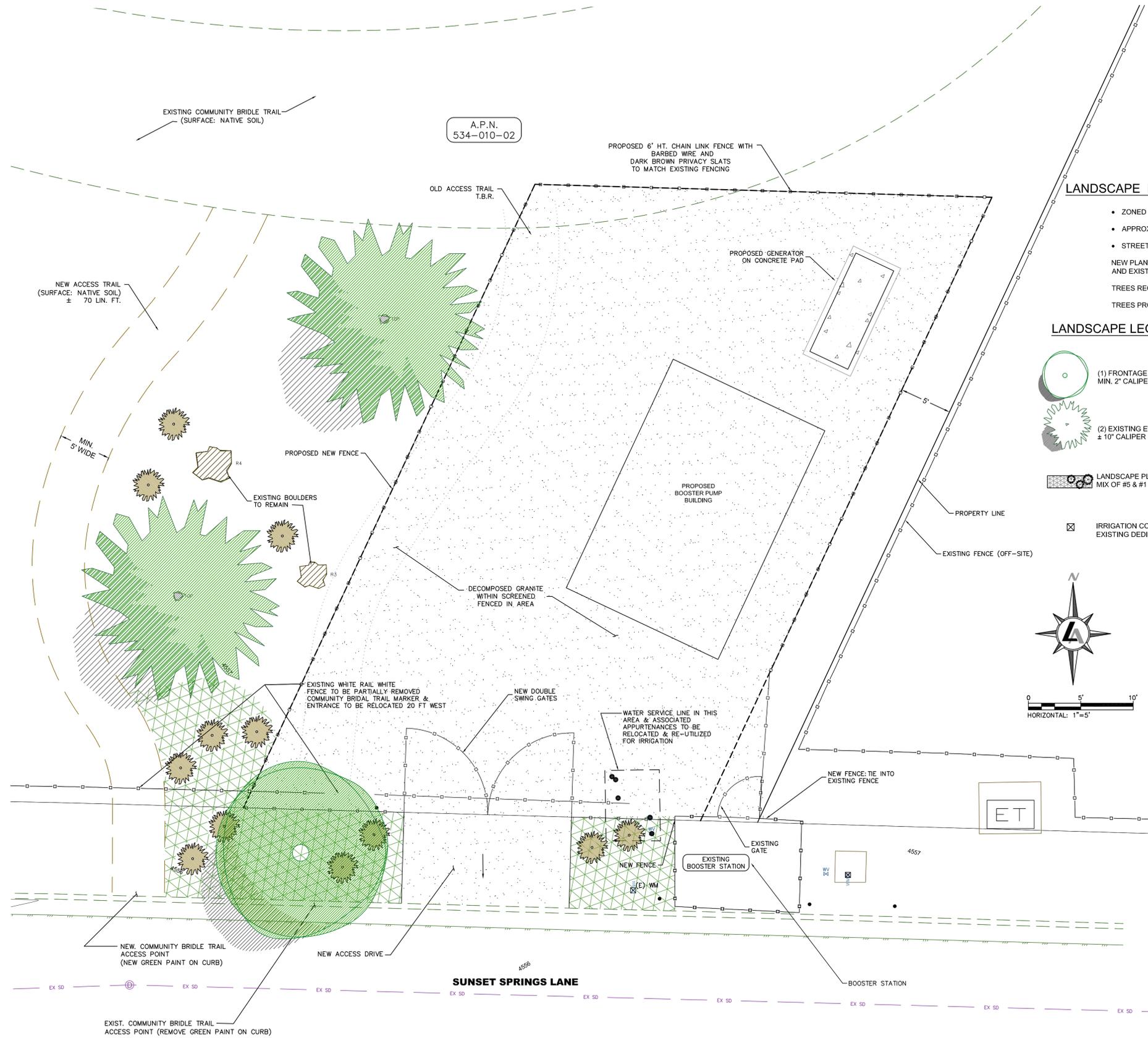
10. The CI internal combustion engine(s) may operate up to 100 hours per year for engine maintenance and testing purposes. Up to 50 hours of the 100 hours total may be used for emergency demand response for Energy Emergency Alert Level 2 situations, responding to situations where there is at least a 5 percent or more change in voltage, and operating to head off potential voltage collapse or line overloads that could result in local or regional power disruption.
11. There is no hourly limit on the use of internal combustion engine(s) during emergency situations.
12. The CI internal combustion engine(s) may not be used for peak shaving or to generate income for a facility by supplying power to an electric grid or otherwise supplying non-emergency power.
13. Visible emissions from the facility must not exceed 20% opacity (Ringelmann #1) for more than three minutes in any one hour – AQMD 040.005.

If you have any questions, please do not hesitate to contact me at (775) 784-7204.

Sincerely,



Genine Rosa, MS
Environmental Engineer II



LANDSCAPE NOTES:

- ZONED LDS (LOW DENSITY SUBURBAN)
 - APPROXIMATE AREA OF DISTURBANCE: 2,413 SF
 - STREET FRONTAGE: ± 53 LIN. FT.
- NEW PLANT MATERIAL WILL BE IRRIGATED BY DEDICATED METER & BACKFLOW AND EXISTING CONTROLLER
- TREES REQUIRED: 1 PER 30 LF OF FRONTAGE, 53 / 30 = 2 TREES
- TREES PROVIDED: 3

LANDSCAPE LEGEND:

- (1) FRONTAGE TREE, DECIDUOUS MIN. 2" CALIPER SIZE
- (2) EXISTING EVERGREEN TREE TO REMAIN ± 10" CALIPER SIZE, each
- LANDSCAPE PLANTING AREA WITH SHRUBS MIX OF #5 & #1 SIZE SHRUBS, (12, MIN.)
- IRRIGATION CONNECTION, EXISTING DEDICATED METER, APPROXIMATE LOCATION



GREAT BASIN WATER COMPANY
 SPANISH SPRINGS BOOSTER STATION
 BACK-UP GENERATOR
 SITE & PRELIMINARY LANDSCAPE PLAN
 NEVADA
 WASHOE COUNTY

REV	DATE	DESCRIPTION	BY

SUP SUBMITTAL

03-23-2020

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NOTES:

GENERAL

- ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.
- DETAILS NOT SHOWN ON THESE DRAWINGS SHALL BE CONTAINED IN THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK).
- CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND CURRENT NDOT or CALTRANS STANDARD PLANS/SPECIFICATIONS (STANDARD SPECIFICATIONS) AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING A PRE-CONSTRUCTION JOB SITE CONFERENCE WITH GOVERNING AGENCIES, ALL UTILITY COMPANIES, OWNER'S REPRESENTATIVES, AND THE PROJECT ENGINEER PRIOR TO COMMENCING WORK. THIS MEETING SHALL BE HELD AT LEAST FORTY-EIGHT (48) HOURS, OR TWO (2) BUSINESS DAYS, PRIOR TO THE START OF CONSTRUCTION AND SHALL COMMUNICATE SCHEDULES, CONTRACTORS MEAN AND METHODS, MATERIALS TO BE USED, AND OTHER RELEVANT MATTERS ASSOCIATED WITH THE CONSTRUCTION OF THE PROJECT.
- ALL WORK EITHER DIRECTLY OR INDIRECTLY RELATED TO THE PROJECT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY SYSTEM MANAGER.
- THE CONTRACTOR SHALL MAINTAIN AN ONSITE RECORD COPY OF ALL DRAWINGS, SPECIFICATIONS, ADDENDA, CHANGE ORDERS, WORK CHANGE DIRECTIVES, FIELD ORDERS, FIELD CHANGES, AND WRITTEN INTERPRETATIONS AND CLARIFICATIONS. RECORDS SHALL BE IN GOOD ORDER AND ANNOTATED TO SHOW CHANGES MADE DURING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE MATERIALS AND EQUIPMENT SUBMITTALS AND/OR SHOP DRAWINGS TO THE PROJECT ENGINEER FOR REVIEW PRIOR TO ORDERING OR INSTALLATION. A SIGNED SET OF REVIEWED SUBMITTALS MUST ALWAYS BE AVAILABLE ONSITE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 1-800-642-2444 TO PROVIDE FIELD LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLAN.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROCURE ALL NECESSARY PERMITS, LICENSES, INSURANCE POLICIES, ETC. AS MAY BE NECESSARY TO COMPLY WITH LOCAL, COUNTY, STATE, AND FEDERAL LAWS ASSOCIATED WITH THE PERFORMANCE OF THE WORK; UNLESS OTHERWISE OBTAINED BY THE OWNER.
- THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN AND PROVIDE, PLACE, AND MAINTAIN ALL LIGHTS, SIGNS, BARRICADES, FLAG PERSONS, PILOT CAR, OR OTHER DEVICES NECESSARY TO CONTROL TRAFFIC THROUGH THE CONSTRUCTION AREA AND FOR PUBLIC SAFETY. ALL TRAFFIC CONTROL OPERATIONS SHALL COMPLY WITH THE LATEST MUTCD. AT NO TIME WILL OBSTRUCTIONS BE LEFT IN THE ROADWAY DURING NIGHT HOURS. ALL TRAFFIC CONTROL PLANS SHALL BE PREPARED BY A REGISTERED CIVIL ENGINEER OR ATSSA CERTIFIED PERSONNEL.
- THE CONTRACTOR AGREES TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS IN ACCORDANCE WITH THE PROVISIONS OUTLINED BY THE PROJECT CONTROL AND THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF OSHA AND NRS CHAPTER 618.
- THE CONTRACTOR SHALL PURSUE THE WORK IN A CONTINUOUS AND DILIGENT MANNER, CONFORMING TO ALL THE PERTINENT SAFETY REGULATIONS TO INSURE A TIMELY COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE, REMOVING CONSTRUCTION DEBRIS AT THE END OF EACH ACTIVITY DAY. THE CONTRACTOR SHALL MAINTAIN DEBRIS FREE CONSTRUCTION ROUTES, ADJACENT STREETS AND STORM DRAIN SYSTEMS.
- TEMPORARY CONSTRUCTION FENCING SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT IN AREAS AS DELINEATED ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER. THE TEMPORARY FENCING SHALL PREVENT CHILDREN AND PETS FROM ENTERING THE CONSTRUCTION AREA, CREATE A VISUAL BARRIER OF THE CONSTRUCTION ACTIVITIES FROM THE ADJACENT RESIDENCE AND YARDS, AND PROTECT VEGETATION FROM CONSTRUCTION EQUIPMENT.
- THE CONTRACTOR SHALL USE ONLY AUTHORIZED SITES FOR STORAGE OF EQUIPMENT AND MATERIALS AND OBTAIN PROPER APPROVALS FROM THE LAND OWNER AND LOCAL GOVERNING AUTHORITY TO DO SO. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. IN THE EVENT A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL HAVE THE MONUMENT REPLACED, AT HIS OWN EXPENSE, BY A LICENSED SURVEYOR IN THE STATE OF THE PROJECT SITE.
- CONSTRUCTION HOURS SHALL BE WEEKDAYS BETWEEN 7:00 AM AND 6:00 PM UNLESS OTHERWISE DICTATED BY LOCAL ORDINANCE. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE PROJECT ENGINEER TO MODIFY WORK HOURS.
- ALL FIELD CHANGES MUST BE PRE-APPROVED BY THE PROJECT ENGINEER.
- SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
- ALL SALVAGED MATERIALS ARE THE PROPERTY OF THE OWNER AND SHALL BE PALLETIZED ONSITE UNLESS OTHERWISE ARRANGED WITH THE OWNER AND/OR PROJECT ENGINEER.
- THE OWNER IS RESPONSIBLE FOR FURNISHING QUALIFIED SITE INSPECTIONS AS REQUIRED TO COMPLY WITH LOCAL ORDINANCES.

UNDERGROUND UTILITIES

- THE CONTRACTOR SHALL FIELD VERIFY UTILITY LOCATIONS NEAR OR WITHIN THE CONSTRUCTION LIMITS WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE FOR THE NECESSARY RELOCATION OF ANY UTILITY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES INVOLVED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING WORK.
- ALL VALVE BOXES, MANHOLE STRUCTURES, AND CLEAN OUTS SHALL BE MARKED AND ACCESSIBLE AT ALL TIMES.
- CONTRACTOR SHALL SUPPORT TRENCH SIDEWALLS IN ACCORDANCE WITH ALL APPLICABLE LAWS AND GOVERNING SAFETY REGULATIONS. SHEETING OR SHORING SHALL CONFORM TO LOCAL REGULATIONS AND OSHA STANDARDS.
- ENDS OF UNFINISHED PIPE SHALL BE SEALED AT THE END OF EACH DAY.

GRADING, EXCAVATION & SURFACE IMPROVEMENTS

- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING THEIR OWN QUANTITY TAKE-OFF AND SHALL BUDGET THE PROJECT ACCORDINGLY. ALL EXCESS GRADING MATERIALS SHALL BE DISPOSED OF OFFSITE.
- THE SOILS ENGINEER SHALL APPROVE ALL EARTHWORK AND GRADING TO CONFIRM COMPACTION REQUIREMENTS ARE MET.
- CONTRACTOR SHALL PROTECT EXISTING PAVING, CONCRETE, LANDSCAPING, FENCING, MAILBOXES, SIGNS AND ANY OTHER IMPROVEMENTS NOT SPECIFICALLY CALLED OUT FOR REPLACEMENT. CONTRACTOR SHALL REPAIR/REPLACE ANYTHING DAMAGED BY FORCES UNDER THEIR EMPLOY OR CONTRACT.
- ALL ASPHALT CONCRETE SURFACES SHALL BE SAWCUT THREE FEET MINIMUM INSIDE THE EDGE OF PAVEMENT TO A NEAT, STRAIGHT LINE AND REMOVED. THE EXPOSED PAVEMENT TIE-IN EDGES SHALL BE METICULOUSLY CLEANED OF ALL LOOSE MATERIAL AND THEN TREATED WITH BITUMINOUS EMULSION PRIOR TO PAVING. THE EXPOSED BASE MATERIALS SHALL BE GRADED AND RECOMPACTED PRIOR TO PAVING.

ENVIRONMENTAL

- ALL CONSTRUCTION SHALL BE PERFORMED IN COMPLIANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). CONTRACTOR IS RESPONSIBLE FOR ACQUIRING AND MAINTAINING A SWPPP.
- INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF EROSION AND SILTATION FROM ENTERING THE STORM DRAIN SYSTEM, NATURAL DRAINAGE COURSES, AND/OR INTRUDING UPON ADJACENT ROADWAYS AND PROPERTIES. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED IN THE FIELD. THIS RESPONSIBILITY SHALL APPLY THROUGHOUT THE COURSE OF CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BECOME STABILIZED AND SHALL NOT BE LIMITED TO WET WEATHER PERIODS. THE CONTRACTOR IS RESPONSIBLE FOR SWPPP UPDATES.
- THE CONTRACTOR SHALL MAINTAIN AN ON-GOING DUST CONTROL PROGRAM INCLUDING WATERING OF OPEN AREAS, TO CONFORM WITH THE LATEST FEDERAL, STATE, AND COUNTY AIR POLLUTION REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND UPDATING DUST CONTROL PERMITS FOR THE PROJECT.
- ALL AREAS DISTURBED AND LEFT UNDEVELOPED FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE STABILIZED BY THE APPLICATION OF AN APPROVED DUST PALLIATIVE OR HYDROMULCH.
- THE CONTRACTOR SHALL IDENTIFY A STANDBY CREW FOR EMERGENCY WORK AND THEY SHALL BE AVAILABLE AT ALL TIMES. MATERIAL NECESSARY TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR DAMAGED EROSION CONTROL MEASURES SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT APPROVED LOCATIONS.
- PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING CONSTRUCTION OF IMPROVEMENTS.
- AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING FACILITIES. GRADED SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING THE RAINSTORM SHALL ALSO BE REPAIRED.
- FILL SLOPES AT THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE TOP OF THE SLOPE AT THE END OF EACH WORKING DAY.
- ALL DISTURBED AREAS ARE REQUIRED TO HAVE A PALLIATIVE APPLIED FOR DUST CONTROL. ALL GRADING SHALL COMPLY WITH STATE AND COUNTY REGULATIONS.
- A SIX-FOOT HIGH PERIMETER FENCE OR A 24-HOUR GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN A FACILITY EXCEEDS 18".
- ALL AREAS DISTURBED BECAUSE OF THE WORK SHALL BE REVEGETATED IN ACCORDANCE WITH INDUSTRY BEST MANAGEMENT PRACTICES.
- ALL STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING OPERATIONS.

ABBREVIATIONS

AC	ASPHALT CONCRETE	N	NORTH
ACP	ASBESTOS CEMENT PIPE	NAP	NOT A PART
AGG	AGGREGATE	NIP	NOT IN PROJECT
BC	BEGIN CURVE (HORIZONTAL)	NTS	NOT TO SCALE
BO	BACK OF WALK	OC	ON CENTER
BF, BOF	BOTTOM OF FOOTING	OD	OUTSIDE DIAMETER
BV	BUTTERFLY VALVE	OH	OVERHEAD
BVC	BEGIN VERTICAL CURVE	PROPOSED	PROPOSED
BW	BACK OF WALK	PCC	PORTLAND CEMENT CONCRETE
CB	CATCH BASIN	PG	PAD GRADE
cfs	CUBIC FEET PER SECOND	PI	POINT OF INTERSECTION
CF	CUBIC FEET	PIVC	POINT OF INTERSECTION VERTICAL CURVE
C&G	CURB AND GUTTER	PL	PROPERTY LINE
CL	CENTER LINE	POCC	POINT OF COMPOUND CURVATURE
CL	CLASS / CENTER LINE	POT	POINT OF TANGENCY
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
COMP	COMPACTION	PRC	POINT OF REVERSE CURVE
CONC	CONCRETE	PRVC	POINT OF REVERSE VERTICAL CURVE
CONTR	CONTRACTOR	PVC	POLYVINYL CHLORIDE
CP	CONCRETE PAD	PVMT	PAVEMENT
CTV	CABLE TELEVISION	Q 5	5 YEAR PEAK FLOW
DI	DROP INLET	Q 100	100 YEAR PEAK FLOW
DIA	DIAMETER	R	RADIUS
DWY	DRIVEWAY	RCP	REINFORCED CONCRETE PIPE
E	EAST	REF	REFERENCE
EA	EACH	RET	CURB RETURN
EC	END CURVE (HORIZONTAL)	RP	RADIUS POINT
ELL	ELBOW	RT	RIGHT
ELEC	ELECTRICAL	R/W, ROW	RIGHT-OF-WAY
ELEV	ELEVATION	S-	SOUTH
EVC	END VERTICAL CURVE	SD	STORM DRAIN
EX, (E)	EXISTING	SDMH	STORM DRAIN MANHOLE
EXT	EXTERIOR	SL	STREET LIGHT
FCA	FLANGE COUPLING ADAPTER	SS	SANITARY SEWER
FE	FINISH ELEVATION	SSCO	SANITARY SEWER CLEAN OUT
FES	FLARED END SECTION	SSMH	SANITARY SEWER MANHOLE
FF	FINISH FLOOR	SSPWC	STANDARD SPEC. FOR PUBLIC WORKS CONSTRUCTION
FFC	FRONT FACE OF CURB	STA	STATION
FG	FINISH GRADE	SW	SIDEWALK
FH	FIRE HYDRANT	TELE	TELEPHONE
FL	FLOW LINE	TBO	TEMPORARY BLOW OFF VALVE
FLG	FLANGE	TC	TOP OF CURB
fps	FEET PER SECOND	TG	TO GRADE
FTG	FOOTING	TOB	TOP OF BERM
G	GAS	TF, TOF	TOP OF FOOTING
GALV	GALVANIZED	TW, TOW	TOP OF WALL
GB	GRADE BREAK	TS	TRAFFIC SIGNAL
GDW	GRAVEL DRIVEWAY	TSCB	TRAFFIC CONTROL SIGNAL BOX
GD	GROUND	TR	TOP OF RAIL
GV	GATE VALVE	TRANS	TRANSITION
H	HANDICAPPED	TYP	TYPICAL
HGL	HYDRAULIC GRADE LINE	UG/P	UNDER GROUND POWER
HORIZ	HORIZONTAL	UNO	UNLESS NOTED OTHERWISE
HP	HIGH POINT	Vs	VELOCITY AT 5 YEAR PEAK
ID	INSIDE DIAMETER	VC	VERTICAL CURVE
IE	INVERT ELEVATION	VEL	VELOCITY
INT	INTERSECTION	VERT	VERTICAL
IRR	IRRIGATION	VG	VALLEY GUTTER
LAT	LATERAL	W	WEST
LF	LINEAR FEET	W/G	WATER AND GAS
LP	LOW POINT	WL	WATER LINE
LT	LEFT	WM	WATER METER
MAX	MAXIMUM	WS	WATER SURFACE
MDD	MAXIMUM DRY DENSITY	WV	WATER VALVE
MH	MANHOLE	WWF	WELDED WIRE FABRIC
MIN	MINIMUM	YR	YEAR
MJ	MECHANICAL JOINT		
MMD	MAXIMUM MARSHALL DENSITY		
MUTCD	MANUAL FOR TRAFFIC CONTROL DEVICES		

LEGEND

EXISTING		PROPOSED
	CONTOUR LINE	
	GROUND ELEVATION	
	TREE	
	ROCK	
	EDGE OF PAVEMENT	
	AC PAVING	
	TO BE REMOVED	
	CURB & GUTTER	
	CONCRETE	
	UTILITY POLE	
	LIGHT	
	GUY WIRE	
	ELECTRIC TRANSFORMER	
	ELECTRIC VAULT	
	ELECTRIC PANEL	
	ELECTRIC CABINET	
	ELECTRIC BOX	
	ELECTRIC METER	
	ELECTRIC GENERATOR	
	ELECTRIC MANHOLE	
	AIR CONDITIONER	
	ELECTRIC OUTLET	
	BOLLARD	
	STORM DRAIN MANHOLE	
	CATCH BASIN	
	WATER VALVE	
	IRRIGATION CONTROL VALVE	
	WATER METER	
	WATER SPIGOT / HOSE BIB	
	WATER MANHOLE	
	WATER VAULT	
	GAS VALVE	
	GAS METER	
	FIRE HYDRANT	
	TELEPHONE MANHOLE	
	TELEPHONE BOX	
	TELEPHONE VAULT	
	SEWER MANHOLE	
	SEWER CLEANOUT	
	SURVEY MONUMENT	
	CONTROL POINT	
	BARRICADE	
	SIGN	
	RETAINING WALL	
	FENCE	
	GRADE BREAK	
	FLOW LINE	
	SOIL TEST PIT	
	DETAIL CALLOUT	

- FOUND SECTION CORNER AS NOTED
-



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GREAT BASIN WATER COMPANY
 SPANISH SPRINGS BOOSTER STATION
 BACK-UP GENERATOR
 NOTES, ABBREVIATIONS, AND LEGEND
 NEVADA
 WASHOE COUNTY

REV	DATE	DESCRIPTION	BY

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MARCH 10, 2020

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