

Sewage, Wastewater and Sanitation Hearing Advisory Board Meeting Notice and Agenda

Members

Matthew Buehler

Frank Kurnik

Chad Carnes, P.E.

Kenneth Lund, Attorney

John Adams

Matt Smith – Alt.

Ronald J. Anderson, P.E., Alt.

July 6, 2023

5:30 p.m.

**Washoe County Administration Complex, Building B
Health District South Conference Room**

**1001 East Ninth Street
Reno, NV**

**An item listed with asterisk (*) next to it is an item for which no action will be taken.
5:30 p.m.**

1. *Roll Call and Determination of Quorum

2. *Pledge of Allegiance

3. *Public Comment

Any person is invited to speak on any item on or off the agenda during this period. Action may not be taken on any matter raised during this public comment period until the matter is specifically listed on an agenda as an action item.

4. Approval of Agenda – (For possible action)

July 6, 2023

5. Approval of Draft Minutes – (For possible action)

May 4, 2023

6. Public Hearing to determine whether to recommend approval to the District Board of Health for a variance for APN 047-032-34 section 040.015. – **(For possible action)**

Staff Representative: David Kelly

Eric Sheetz

16780 Dry Creek Road

Reno, NV 89511

7. *Public Comment

Any person is invited to speak on any item on or off the agenda during this period. Action may not be taken on any matter raised during this public comment period until the matter is specifically listed on an agenda as an action item.

8. Adjournment – (For possible action)

Possible Changes to Agenda Order and Timing: Items on the agenda may be taken out of order, combined with other items, withdrawn from the agenda, moved to the agenda of another later meeting, moved to or from the Consent section, or they may be voted on in a block. Items with a specific time designation will not be heard prior to the stated time but may be heard later. Items listed in the Consent section of the agenda are voted on as a block and will not be read or considered separately unless withdrawn from the Consent agenda.

Special Accommodations: The Sewage, Wastewater and Sanitation Board Meetings are accessible to the disabled. Disabled members of the public who require special accommodations or assistance at the meeting are requested to notify Administrative Health Services in writing at the Washoe County Health District, 1001 East Ninth Street, Building B, Reno, NV 89512, or by calling 775.328.2415, 24 hours prior to the meeting.

Public Comment: During the “Public Comment” items, anyone may speak pertaining to any matter either on or off the agenda, to include items to be heard on consent. For the remainder of the agenda, public comment will only be heard during items that are not marked with an asterisk (*). Any public comment for hearing items will be heard before action is taken on the item and must be about the specific item being considered by the Board. In order to speak during any public comment, each speaker must fill out a “Request to Speak” form and/or submit comments for the record to the Recording Secretary. Public comment presentations for individual agenda items are limited as follows: fifteen minutes each for staff and appellant presentations, five minutes for a speaker representing a group, and three minutes for individual speakers unless extended by questions from the Board or by action of the Chair.

Response to Public Comment: The Sewage, Wastewater, and Sanitation Hearing Advisory Board can deliberate or take action only if a matter has been listed on an agenda properly posted prior to the meeting. During the public comment period, speakers may address matters listed or not listed on the published agenda. The *Open Meeting Law* does not expressly prohibit responses to public comments by the Sewage, Wastewater, and Sanitation Hearing Advisory Board. However, responses from the Board members to unlisted public comment topics could become deliberation on a matter without notice to the public. On the advice of legal counsel and to ensure the public has notice of all matters the Sewage, Wastewater, and Sanitation Hearing advisory Board will consider, Board members may choose not to respond to public comments, except to correct factual inaccuracies, ask for Health District Staff action or to ask that a matter be listed on a future agenda. The Sewage, Wastewater, and Sanitation Hearing Advisory Board may do this either during the public comment item or during the following item: “Board Comments – Limited to Announcement or Issues for future Agendas.”

Posting of Agenda; Location of Website:

Pursuant to NRS 241.020, Notice of this meeting was posted at the following locations:

Washoe County Health District, 1001 E. 9th St., Reno, NV
Downtown Reno Library, 301 S. Center St., Reno, NV
Reno City Hall, 1 E. 1st St., Reno, NV
Sparks City Hall, 431 Prater Way, Sparks, NV
Washoe County Administration Building, 1001 E. 9th St, Reno, NV
Washoe County Health District Website: www.washoecounty.gov/health
State of Nevada Website: <https://notice.nv.gov>

How to Get Copies of Agenda and Support Materials: Supporting materials are available to the public at the Washoe County Health District located at 1001 E. 9th Street, in Reno, Nevada. Ms. Susy Valdespin, Administrative Assistant to the District Board of Health is the person designated by the Washoe County District Board of Health to respond to requests for supporting materials. Ms. Valdespin is located at the Washoe County Health District and may be reached by telephone at (775) 328-2415 or by email at svaldespin@washoecounty.gov. Supporting materials are also available at the Washoe County Health District Website www.washoecounty.gov/health pursuant to the requirements of NRS 241.020.

**SEWAGE, WASTEWATER, AND SANITATION HEARING BOARD
MEETING MINUTES**

Members

Matthew Buehler, Chair
Kenneth Lund, Atty
John Adams
Frank Kurnick, Jr.
Chad Carnes, P.E.
Kenneth Lund, Atty
Matt Smith – Alternate
Ronald J. Anderson, P.E.– Alternate

**Thursday, May 4, 2023
5:30 p.m.**

Washoe County Administration Complex

**Washoe County Caucus
1001 East Ninth Street
Reno, NV**

5:30 p.m.

1. *Roll Call and Determination of Quorum

The following members and staff were present:

Members present: Kenneth Lund, Atty
John Adams
Chad Carnes, P.E.

Staff present: Dania Reid, DDA
Dave Kelly
Latricia Lord
Josh Philpott
Erick Lamun
Matt Simpson

Members absent: Matthew Buehler, Chair
Frank Kurnick, Jr.
Matt Smith – Alternate
Ronald J. Anderson, P.E.– Alternate

2. *Pledge of Allegiance

Those present pledged allegiance to the flag.

3. *Public Comment

Robert Sweeney with National Onsite Wastewater Recycling Association. He is new to Reno and has been an Environmental Health Specialist Sanitarian for 45 years. Previously President of the Washington Onsite Sewage Association, member of Oregon Onsite Sewage Association. Currently a member of the National Onsite Wastewater Recycling Association. He wanted to introduce these organizations and is interested in starting a Nevada Onsite Wastewater Association. He is determining a need and asked for any comments or recommendations for a holistic approach to wastewater recycling and re-use.

4. Approval of Agenda – May 4, 2023

Mr. Lund moved to approve the agenda of the May 4, 2023, Sewage, Wastewater, and Sanitation Board (SWS Board) regular meeting. Second by Mr. Adams, motion approved.

6. Approval of Draft Minutes – May 5, 2022

Mr. Lund moved to approve the minutes of the May 5, 2022, Sewage, Wastewater & Sanitation Board (SWS Board) regular meeting. Second by Mr. Carnes, motion approved.

7. Public Hearing - Variance APN 552-084-06 Section 020.080 to determine whether to recommend approval to the District Board of Health.

Staff Representative: Latricia Lord

Ms. Lord provided an overview and stated that the Health District recommends the Sewage, Wastewater and Sanitation (SWS) Hearing Board support the presented Variance Case H23-0001VARI (Sergio Quezada & Maria Reyes) to allow the approval of a variance for the requirement for connection to municipal sewer off Golden Valley/Spearhead Way and to install a septic system on the parcel due to financial hardship.

EHS reached out to Washoe County CSD to confirm they are able to connect to sewer and would be granted a will-serve from Reno as it leads to Reno Stead Water Reclamation Facility, both are available for the parcel. Other information and narrative have been provided to members for review.

Mr. Lund asked if there is any reason to believe the estimates for sewer line connection provided by West Coast or Cruz are not reasonable estimates. Ms. Lord responded that she does not have any reason to believe that considering the depth at which the sewer pipe is set in that area, but she is not in the excavation or construction industry to know if it is in line with current industry costs. Mr. Lund asked for affirmation that the quote provided by West Coast Dirt Works for connection only, not including installation, is \$375,000.00 and the estimate by Cruz is \$288,000.00. Ms. Lord verified the quote is correct and that it only includes the sewer main extension. She stated that there are estimates included for septic system installation as well. There is an error on the septic system installation quote on page 2/2 that states sewer main extension but it is for the septic system installation quote.

Mr. Adams confirmed that the overall price is within reason and the spread between the two bids is typical. A current project he is soliciting for that is longer but similar in depth and rock is being bid at almost \$500,000.00 and the other is \$600,000.00 so he believes them to be accurate.

Mr. Carnes worked on the NVHS project when it was built and states that the materials in the area are variable and can be difficult to excavate. Tapping into the intersection with a new manhole and resulting traffic control will be complex due to volume of traffic which will add to cost and may add more costs than anticipated. Does not find the quotes to be unreasonable.

Ms. Lord states the applicants are available to answer questions. Mr. Carnes said he would like to hear from the applicants.

Sergio Quezada introduced himself. He and Maria have been watching the lot and waited for it to become available with the intention of building their home. He believed he had done his due diligence but was told of the requirements that would cost a lot of money. He is asking for the variance so they can build their dream home.

Mr. Lund asked for estimates for the home without the sewer connection costs. Mr. Quezada responded that estimates are at \$400,000.00. He has money set aside, the proceeds of the sale

of another home, and he can get a loan for the remainder. Mr. Lund re-stated it would be \$400,000.00 to build the home which was verified by Mr. Quezada. Mr. Lund asked what the sale price of the lot was. Mr. Quezada stated it was \$100,000.00. The house will be 2400 sq. ft. Mr. Adams asked if it was a one-acre lot and Mr. Quezada stated it is 0.9 acre. Mr. Adams asked if TMWA had committed to providing water. Mr. Quezada verified that he has applied with TMWA, and they have been approved and fees have been paid. Additionally, he surrendered his well rights. Mr. Carnes asked if they had provided him a will-serve and Mr. Quezada responded yes. He has also spoken to NV Energy; he will need to add a post and has been provided the costs.

Mr. Carnes refers to sheet C1 from Robison Engineering showing the layout and asked if he has had subsurface investigation or percolation tests conducted because he made a site visit and saw fill placed on the property. He stated the owners need provability that a standard or engineered system can be built on the site. Owners will need a report with plan preparation showing that with grading there will be a dedicated area that is provable to work. Asked if that has been done.

Mr. Quezada met with Westex on site, and they informed him it will need to be virgin dirt. They discussed scheduling a percolation test, but Westex recommended waiting until the variance is approved. Mr. Carnes responded that it's understandable, but systems built in fill are not accepted, especially deleterious fill. Standard systems have a maximum backfill depth of 4 feet. If a standard system is installed in native soil they need to know that there won't be 6-8 ft of fill on top of the system.

Ms. Lord stated that they have met with the owners and explained the process at length and that WCHD recommended they wait to perform a test trench until the variance is approved. They have no reason to believe he wouldn't follow the correct procedures and that the owner is willing to put in an engineered sand filter if there are any groundwater or space issues. However, based on the size of the lot and that it will be on municipal water WCHD believes there will be enough room for a standard system.

Mr. Carnes doesn't believe groundwater will be an issue based on experience, but if there are slow percolating materials a sand filter may be looked into. Mr. Carnes would set an engineered analysis design plan as a condition of approval. Mr. Quezada responded that he can talk to Westex. He spoke to the engineer he may hire to design his home and they discussed an engineered system but he is waiting.

Mr. Adams has done work in the neighborhood and suggested that the owner find a workable area for the septic system before finalizing placement of his home. Mr. Adams suggests getting a percolation test and design approved before configuring an exact location for the home. Both a field and repair area are required and the topography and material varies quite a bit.

Mr. Lund asked Ms. Lord if based on the investigation that EHS has done if they feel that granting the variance would pose a hazard for groundwater or public health and safety as a result of a septic system being installed on the parcel. Ms. Lord responded no, they believe Mr. Quezada would go through all the proper steps. The test trench portion of the process would establish that and the vertical setback would be based on the results. All of the surrounding properties are on septic. They are seeing higher groundwater levels and she believes it would be better to wait until after winter to perform the test to obtain the best representation.

Mr. Lund restated that if there are complications discovered such as high groundwater or soils issues there are processes and designs able to be implemented. Ms. Lord confirmed that would be the purpose of a sand filter which would allow for better treatment of the effluent prior to

entering the ground or groundwater. Clarified that EHS does not feel in their role they should be deciding whether financial hardship is appropriate as they are not in the industry and cannot confirm the quotes provided are standard.

Mr. Lund asked if Mr. Quezada had conversations with Cruz regarding the estimates. Mr. Quezada responded that his coworker Chelsea Chicvara can speak to it better but they have used them on other properties and they think they have reasonable quotes in their experience. Ms. Chicvara confirmed that they work with both contractors regularly and their quotes are typically on the medium to low side for construction. Stated that another factor driving up the cost in addition to going into the main road is that the current code states that if he puts in a sewer line he has to extend it the length of his property and 10 feet beyond with the intention that the neighbors would hook up as well. Mr. Quezada has spoken to the neighbors, and they have been unwilling to contribute to the cost. Mr. Carnes restated that they would have to extend 10 feet with an additional manhole and a 5-foot stub out of that. Stated that it would be an additional \$3,000.00. -\$3,500.00 manhole plus the stub out of it past the property line. Ms. Chicvara stated that they are in development and understand the intent; however, at this point the neighborhood beyond has been developed and it's not extending for the future. No one is willing to tap in to share the cost and with the depth of the sewer line as it stands it requires special engineering as far as OSHA standards for the trenching.

Mr. Carnes stated there will be additional costs that are not included in the packet such as engineering, plan preparation and permitting for the sewer main extension. This will be a public Washoe County sewer main which means they will need a plan profile sheet, permitting, encroachment, excavation permit. Asked if there are any costing on that from engineers because it will be an additional \$25,000.00 which they don't have included. Mr. Quezada says he wasn't aware. Ms. Chicvara said definitely, and an additional six months. Mr. Carnes stated it will need to go through Washoe County Public Works which will be an additional fee.

Mr. Adams asked if there are any properties in the neighborhood, especially North, that are smaller than one acre. Mr. Carnes stated no, he doesn't believe so. Mr. Adams stated the future of running public sewer up there is slim. If there are failures on the smaller lots they would like the owners to have given them the first couple hundred feet. Ms. Lord stated that for the most part they are at least one acre and a few that are closer to two acres. Mr. Adams stated but nothing less than one acre is what he believed the zoning to be in that area.

Mr. Lund asked for the record how would the cost of connection for these estimates, plus additional engineering costs and other costs in addition, be a hardship to the owners. Mr. Quezada responded that they don't have the money to do it. They had money saved for the home and they didn't plan on these costs so it would hurt them a lot. Ms. Chicvara added that if someone else purchased the property they would be tasked with installing the sewer as well and given the current comps she doesn't believe with the additional costs the property would ever be developed. You'd have to have a contractor or someone with the means to do it but with the additional \$250,000.00 on the low end to the \$100,000.00 the owner paid. There's no way to encourage anyone to purchase the lot if the current owner doesn't build or any future development on the property.

Mr. Lund stated while he is an attorney his primary practice is residential real estate and Golden Valley is an up-and-coming area and the large lots are desirable, but they aren't comping for the same price as the Holcomb Ranch or Arrowcreek area for one acre lots. \$300,000.00 would be a disproportionate, impactful fee on being able to recover what you've invested in the property. He had a recent listing near this property and another similar priced property in a

different area, both beautiful homes, but there was a significant difference in traffic on the Golden Valley property than other areas of town.

Mr. Carnes stated that this is becoming an issue on a variety of properties. His company has clients that are looking at the same encumbrance. While they have to be considerate of Washoe County code standards, they have to be realistic. He asked Ms. Lord and Mr. Kelly if there is or will be a vehicle in place to provide a credit for providing a public utility to Washoe County. Ms. Lord responded that they asked that question when they reached out to CSD and Utilities. Their emailed response was that CSD provides no financial support for main extensions making this connection, in their opinion, not feasible for a single homeowner. However, if the owner would like to pursue it knowing this, they would allow it. She understands there may be some sort of a loan program, but she has never dealt with anyone that has gone through the entire process. Mr. Adams stated that you would still owe the money.

Conditions of Approval

None.

Motion

Motion made by Mr. Lund “I move to present to the District Board of Health a recommendation for approval of Variance Case H23-0001VARI (Sergio Quezada and Maria Reyes) to allow the permitting and construction of a septic system as requested” Second by Mr. Adams, motion approved.

Mr. Kelly closed the public hearing.

9. *Public Comment

As there were no public comment requests, closed the public comment period.

10. Adjournment –

At 6:01 p.m., Mr. Kelly moved to adjourn the meeting.

STAFF REPORT

BOARD MEETING DATE: July 6, 2023

TO: Sewage, Wastewater, and Sanitation Hearing Advisory Board
FROM: David Kelly, Environmental Health Specialist Supervisor
775-846-6623, dakelly@washoecounty.gov
SUBJECT: Variance Case #H23-0002VARI; Variance to Section 040.015, Parcel 047-032-34, 16780 Dry Creek Rd, Washoe County, NV

SUMMARY

This staff report summarizes the Environmental Health Services Division's (EHS) review of the submitted variance application for your decision to recommend or deny approval to the District Board of Health (DBOH) a variance for APN 047-032-34, owned by Eric Scheetz. The variance requests permission to install a second septic system on a 1-acre parcel that was created after March 21, 1991.

Previous Action

There has been no previous action with this variance request. The parcel in question will be served by community water.

Background

The variance correctly identifies the Washoe County Health District (WCHD) Regulations Governing Sewage, Wastewater, and Sanitation (regulations) required minimum acreage on the property as 1.0 acres per septic system on lots created after March 21, 1991, and before October 23, 2001. Section 120.075 requires each dwelling have its own septic tank and disposal field area.

The lot in question is 1.032 acres, was created October 8, 1997, by parcel map 3255 and by regulation would require two acres for two dwellings.

The property owner wishes to construct a new 3221 square foot, 5-bedroom primary residence with an appropriately sized new septic system and convert the existing 1448 square foot 3-bedroom residence to an in-law quarters/ accessory dwelling and continue to utilize the existing septic system. A test trench inspection and percolation test has been performed on the parcel and the results indicate that a standard septic system is appropriate for the lot.

Unless the Board places conditions on the variance, the Health District would allow the accessory dwelling to remain at three bedrooms. Staff has been on site to validate the location of the existing septic system, as located by a third party, and the layout of the proposed new system. Based on field observations it is believed that the proposed design layout matches the property and that two systems can be placed on site meeting all setbacks, including designated repair areas.

Findings of Fact

The Board must consider the following when making a recommendation on this variance to the DBOH:

1. Will the proposed variance result in contamination of water to the extent it cannot be used for its existing or expected use?

Reply: The proposed systems would be able to meet all relevant setbacks and should not pose any additional threat to groundwater. There is no expectation of groundwater contact expected based on the test trench inspection completed in May 2022. However, if groundwater were encountered at depths, WCHD would require an appropriate re-design and believes space is available for any necessary modifications to protect groundwater should it be encountered.

2. Will the proposed variance pose a threat to public health?

Reply: There are two primary ways that sewage can pose a threat to public health, direct exposure via surface and groundwater contamination in areas with domestic wells. All sewage would be discharged underground preventing direct exposure and as all setbacks and design requirements are met, no increased risk of groundwater contamination is expected.

3. Are there other reasonable alternatives?

Reply: WCHD regulations would require a minimum of two acres on this property in order to allow for two dwellings. There is no alternative to placing the second dwelling other than a variance.

An alternative to a second dwelling would be for the property owner to demolish the existing dwelling and build a new dwelling that, theoretically, could contain more bedrooms and a larger septic system than the two dwellings would.

Conditions of Approval

1. WCHD is not recommending any conditions of approval as the two proposed systems appear to be able to meet all applicable setbacks. WCHD would follow its normal permitting and inspection procedures and if groundwater or other limiting layers were encountered would require the appropriate redesign. If the Board does determine that there are appropriate conditions of approval, any conditions they set should be required to be recorded to the title, not to be removed without Health District approval.

Recommendation

Staff is neutral as to whether the Sewage, Wastewater and Sanitation (SWS) Hearing Board should support the presented Variance Case # H23-0002VARI (Eric Scheetz) to allow for the construction of a second septic system to support a new primary dwelling. Our reason for remaining neutral is the fact that the overall sewage disposal of two dwellings with septic systems may be less than expected from that of a larger home if the property owner were to demolish the existing home and build one large home with an unknown number of bedrooms.

Possible Motion

Should the SWS Hearing Board wish to approve the variance application, the three possible motions would be:

1. “Move to present to the District Board of Health a recommendation for approval of Variance Case # H23-0002VARI (Eric Scheetz) to allow the permitting and construction of a second septic system as proposed, without conditions”; OR
2. “Move to present to the District Board of Health a recommendation for approval of Variance Case # H23-0002VARI (Eric Scheetz) to allow the permitting and construction of a second septic system as proposed, with the following conditions (list conditions)”; OR
3. “Move to present to the District Board of Health a denial of Variance care # H23-0002VARI (Eric Scheetz)”.

The SWS Board may also formulate their own motion or request additional information from the applicant if desired.

Fee Paid _____
Date Paid _____
Cash/CC/Check _____
Receipt No. _____
Date Appl. Received _____
Considered Comp. _____

**APPLICATION FOR VARIANCE
TO THE REGULATIONS GOVERNING SEWAGE,
SANITATION AND WASTEWATER**

DATE 06/05/2023 PROJECT NAME 16780 Dry Creek Septic System Designs for Residence & Guest House

OWNER

Name Eric Scheetz
Address 16780 Dry Creek Rd
Reno, NV 89511
Phone 775-220-6436
Email Address ericscheetzpe@hotmail.com

ENGINEER

Name Eric Scheetz, PE (Owner)- Same
Address _____
Phone _____
Email Address _____

The following items must be submitted with this application:

JOB ADDRESS 16780 Dry Creek Rd, Reno, NV 89511
SIZE OF PARCEL 1.032 /Acre

COPY OF LEGAL DESCRIPTION AND VERIFICATION OF CURRENT VESTING ON TITLE

EXISTING PARCEL(S) APN(S) 047-032-34 LOT 1 BLOCK PM 3255
REASON FOR VARIANCE REQUEST See attached- Summary: Owner willing to do work to make lot
conforming and match neighborhood.

SECTION(S) OF REGULATIONS TO BE VARIED 040.015- lots created after 1991 (re-subdivided in 1997) ... be a minimum of 1 acre and shall
comply with ... 040.020... (slope to area). (Of which slope to area does comply as with community water at 8%-10% requires 0.42 acres/ each septic area.)

IF A PARCEL MAP: PROJECT NAME _____
APN(S) _____ LOT _____ BLOCK _____

IF TENTATIVE MAP: PROJECT NAME _____
NUMBER OF PROPOSED LOTS _____ LOTS REQUIRING VARIANCES _____
LOT DESCRIPTION(S) _____

Prepare and submit this original application with 9 copies and 10 copies of a construction plot plan with specifications drawn to scale (minimum 1 inch = 30 feet) and include the required following requirements:

- Vicinity map.
- The direction of North.
- A diagram of the location of roadways, easements or areas subject to vehicular traffic, material storage or large animal habitation.

... continued from previous page

- ❑ A diagram of the location and distance to any well and on-site sewage disposal system within 150 feet of the subject property (if none, so indicate).
- ❑ A diagram of the distances from the proposed on-site disposal system to any proposed or existing on-site well.
- ❑ A diagram of the location of any percolation hole or test trench(es) on the property.
- ❑ A diagram to scale of the location of all proposed on-site sewage disposal system components, including a delineated area for future replacement of disposal trench(es).
- ❑ A diagram of the distance to any available sewer system (if none, so indicate).
- ❑ The number of bedrooms in the proposed building.
- ❑ The maximum slope across the disposal area.
- ❑ A diagram of the lot dimensions and total lot area.
- ❑ The location of water supply lines.
- ❑ A diagram of all structures on site.
- ❑ A diagram of all existing and proposed drainage improvements.
- ❑ A diagram of the location of any watercourse and/or natural drainage channel within 150 feet of the property (if none, so indicate).
- ❑ Soil logs and percolation test results, including calculations and actual field data (if required).
- ❑ Sewage loading calculations and application rates.
- ❑ System sizing calculations.
- ❑ Pertinent geological and hydrogeological information.
- ❑ Construction drawings, cross-sections and specifications of the proposed system.
- ❑ Certification by an engineer that the proposed system is properly designed to function for at least ten (10) years (engineer's seal).
- ❑ Submit a completed Notice of Special On-Site Requirements. We will give you the form after variance is approved by the District Board of Health.

BE PREPARED TO SUBMIT:

- ❑ Other information may be required to enable the Board to adequately consider the application.

THE SUBMITTED DATA, DOCUMENTS AND DESIGNS MUST DEMONSTRATE WHETHER:

1. The proposed system will significantly and/or adversely impact any water so that the water may no longer be used for its existing or expected beneficial use.
2. The proposed system will be detrimental or pose a danger to the public health, safety or create or contribute to a public health hazard.
3. Other reasonable alternatives for compliance with these regulations are available to the applicant. State the alternatives considered, including reasons for rejection.

172400ALL INFORMATION MUST BE PROVIDED AND THIS APPLICATION MUST BE PROPERLY COMPLETED PRIOR TO SUBMITTAL. FAILURE TO DO SO MAY RESULT IN SIGNIFICANT DELAYS TO THE PROCESSING OF THIS VARIANCE REQUEST.

Additional Write up for Application for Variance to the regulations governing sewage, sanitation and wastewater for: 16780 Dry Creek Septic System Designs for Residence & Guest House

Reason for Variance request:

Upon owner's purchase (in 2008), the existing 3 bedroom, 1448 square foot (SF) A-frame house which was built in 1963 had an un recorded/ un permitted 350 sf apartment above garage. Through other permitted work the owner has applied for and worked on to fix snowload issues on a "lean to" portion of the A-frame, the Health Department notified the owner that to make the property conforming the apartment would need a separate septic system (which the owner believes because of minimum available sizes would likely 1000 gal). As this is substantial work for a 350 SF non conforming apartment, and as the property is outdated and adjacent properties are much larger (there is a 9,532 SF house (excluding 2,408 finished basement) four parcels over), the owner is willing to build a new primary residence that is much more average to the neighborhood at 3,221 SF (5 bedroom) and convert the existing apartment to garage storage. The existing A-frame cabin, though small, will remain as an in-law quarters/ accessory dwelling of which the owner has already received a permit from planning to do with the condition that the new primary house be at least twice the SF of the A-frame cabin and that the non-conforming 350 SF apartment above the garage be turned to storage and the kitchen be removed.

The parcel has more than adequate space for 2- independent standard septic systems each with repair areas and can meet all setback requirements. Since the parcel is supplied with community water, section 040.020 (slope to area) requires each lot/ septic area have at least 0.42 acres on average and this lot meets that by having at least 0.516 acres *2= 1.032 ac. Also all but one neighbor have abandoned their wells in favor of community water and the neighbor that does have their well is over 350 ft away (East) from the proposed leach field. The neighbors all were previously notified of this project by County Planning through the accessory dwelling permit and no objections were delivered. In fact, the owner commonly helps (snow)/ talks with the neighbors most affected above and below the parcel (East and West) and can easily communicate if needed and improving property values is seen as favorable.

Assessor's Map Number

047-03

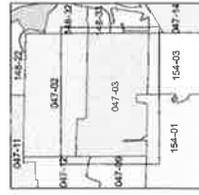
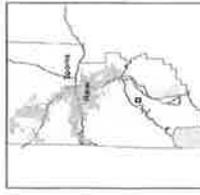
STATE OF NEVADA

WASHOE COUNTY
ASSESSOR'S OFFICE

1001 East Ninth Street, Building D
Reno, Nevada 89512
(775) 398-2331



1 inch = 200 feet



created by TWT/9/25/2009

updated CFB/11/21/11 CFB/6/14/12

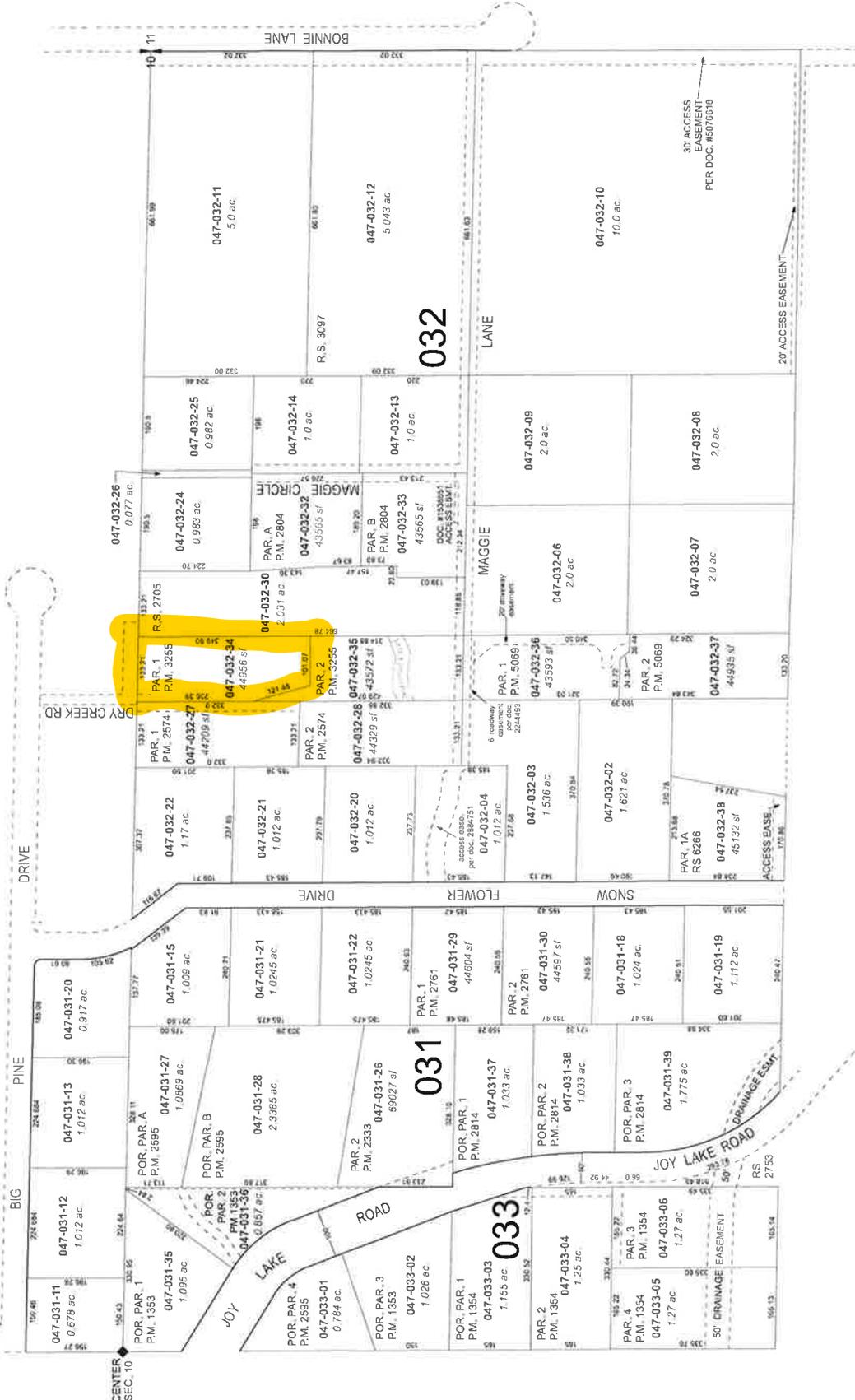
JNO. 1/22/20 JRA 6/15/21 JRA 10/27/21

scale primarily shown in meters

045-24

NOTE: This map was prepared for the use of the Assessor's Office and is for informational purposes only. It does not represent a survey of the premises. No liability is assumed as to the accuracy or accuracy of the data presented herein.

N 1/2 OF SE 1/4 OF SECTION 10, T17N - R19E
PORTION S 1/2 OF NE 1/4 OF SECTION 10, T17N - R19E



031

033

032

9976

101A1 AREA = 2.03 AC. +/- 88,528 SF +/-

TITLE COMPANY CERTIFICATE
 THE UNDERSIGNED HEREBY CERTIFIES THAT THIS PLAN HAS BEEN DRAWN AND THE SURVEYOR'S OFFERING THEREON IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC LANDS ACT AND THE LANDS ACT, AND THAT THE SURVEYOR'S OFFERING IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC LANDS ACT AND THE LANDS ACT.

SURVEYOR'S CERTIFICATE
 I, John C. Brown, a professional land surveyor, do hereby certify that the above described lands are the lands of the public domain, and that the same have been surveyed and located in accordance with the provisions of the Public Land Laws, and that the same are now in the possession of the United States Government.

OWNER'S CERTIFICATE
 I, John C. Brown, do hereby certify that the above described lands are the lands of the public domain, and that the same have been surveyed and located in accordance with the provisions of the Public Land Laws, and that the same are now in the possession of the United States Government.

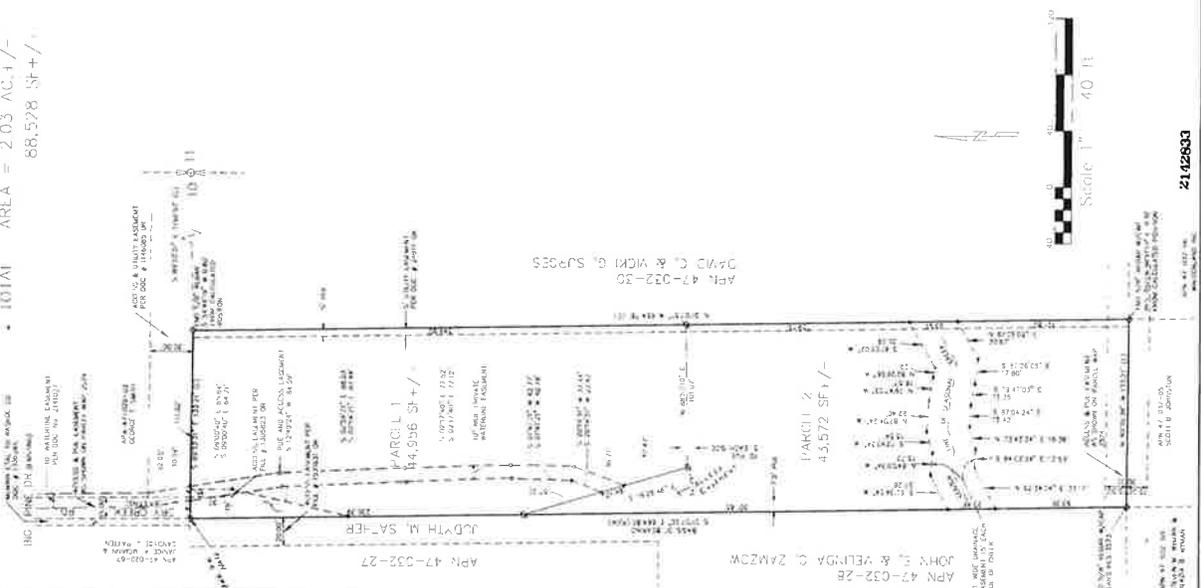
NOTARY PUBLIC CERTIFICATE
 I, John C. Brown, a Notary Public in and for the State of Colorado, do hereby certify that the above described lands are the lands of the public domain, and that the same have been surveyed and located in accordance with the provisions of the Public Land Laws, and that the same are now in the possession of the United States Government.

DEPARTMENT OF COMMUNITY DEVELOPMENT CERTIFICATE
 I, John C. Brown, Director of Community Development, do hereby certify that the above described lands are the lands of the public domain, and that the same have been surveyed and located in accordance with the provisions of the Public Land Laws, and that the same are now in the possession of the United States Government.

UTILITY COMPANIES CERTIFICATE II
 I, John C. Brown, do hereby certify that the above described lands are the lands of the public domain, and that the same have been surveyed and located in accordance with the provisions of the Public Land Laws, and that the same are now in the possession of the United States Government.

TAX CERTIFICATE
 I, John C. Brown, do hereby certify that the above described lands are the lands of the public domain, and that the same have been surveyed and located in accordance with the provisions of the Public Land Laws, and that the same are now in the possession of the United States Government.

NOTES
 1. THIS PLAN IS SUBJECT TO THE PROVISIONS OF THE PUBLIC LANDS ACT AND THE LANDS ACT, AND TO THE PROVISIONS OF THE PUBLIC LANDS ACT AND THE LANDS ACT.
 2. THE SURVEYOR'S OFFERING IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC LANDS ACT AND THE LANDS ACT.
 3. THE SURVEYOR'S OFFERING IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUBLIC LANDS ACT AND THE LANDS ACT.



WASHOE COUNTY
HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

WASHOE COUNTY HEALTH DISTRICT
ENVIRONMENTAL HEALTH SERVICES DIVISION
1001 East Ninth Street • PO Box 11130 • Reno, NV 89520
Telephone (775) 328-2434 • Fax (775) 328-6176
www.washoecounty.us/health

SWS TEST TRENCH INSPECTION

Office Use Only

Fee Paid 460
Date Paid 4-6-22
Cash/CC/Check 2053
Receipt No. 720850

The section below must be filled out in order to receive inspection results:

APN: 047-032-34 Permit #: 5264 Date of Inspection: 5/18/2020 Time of Inspection: 1130a
Site Address: 16780 Dry Creek
Inspection Requestor: Eric Scheetz Phone #: 775-200-6436
Email/Mail to: ericshheetzpe@hotmail.com

Attach map or plot plan showing property, vicinity map and location of proposed test trench location.

Trench GPS Coordinates: 39.35323, -119.83085

Soil Log: Trench #: 1 Depth: 13' Engineered / Estimated Perc. Rate (mpi): Estimated - 20 mpi

Log Comments: 0-13' - Sandy loam/DG mix, loose to medium compaction, roots to bottom, 15% cobbles up to 2'

Ground Water: Yes No Depth: _____ Bedrock: Yes No Depth: _____

Fractured Rock: Yes No Depth/Range: _____

Standard Septic System Allowed

Soil not Suitable for Standard System

A 1-3 bedroom house requires a 1,000 gal. tank with:

- _____ leach line(s), _____ feet wide, by _____ feet deep, by _____ feet long or

A 4 bedroom house requires a 1,200 gal. tank with:

- _____ leach line(s), _____ feet wide, by _____ feet deep, by _____ feet long or

A 5-6 bedroom house requires a 1,500 gal. tank with:

- _____ leach line(s), _____ feet wide, by _____ feet deep, by _____ feet long or

Other: Call for sizing if percolation test is not completed. Test trench was for variance, so percolation test is recommended for hearing board. Maximum trench depth allowed to 13' based on all sizings for surround properties. No original records exist.

Perforated pipe is to be set at _____ feet below grade.

Comments: Property is on municipal water, minimum 100' from any surround wells that may exist, minimum 20' to daylight from distribution pipe to slope face

Inspected by: David Kelly Date: 5/25/2022

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

Bedrooms Tank Size, gal Perc Rate p, mpi Total Max Trench Depth, ft Perf Pipe BGS, ft Percent of non-percable material, % Application Rate⁽¹²⁾, gpd/ft² Absorption Area, ft² Trench Length, ft

Bedrooms	Tank Size, gal	Perc Rate p, mpi	Total Max Trench Depth, ft	Perf Pipe BGS, ft	Percent of non-percable material, %	Application Rate ⁽¹²⁾ , gpd/ft ²	Base ⁽⁵⁾	Design ⁽⁶⁾	1 Trench	2 Trenches	3 Trenches	4 Trenches
Up to 3	1000	20	11.5	3.5	0%	1.118	894	894	56	N/A	N/A	N/A
4	1200	20	11.5	3.5	0%	1.118	1073	1073	68	N/A	N/A	N/A
5 to 6	1500	20	11.5	3.5	0%	1.118	1342	1342	84	42	N/A	N/A
7 to 8	2000	20	11.5	3.5	0%	1.118	1789	1789	112	56	N/A	N/A

Input Data Cells
Calculation Cell

- (1) Input estimated or design perc rate, mpi
- (2) Max trench depth per trench inspection estimated as total test trench depth/groundwater/impermeable layer minus 4 feet.
- (3) Health mandated perforation pipe depth below existing/natural ground surface (bgs).
- (4) Percent of non-percable sidewall material such as percent of gravel, rock, boulder or other material.
- (5) Absorption area=Tank Size vp/5
- (6) Absorption area*(1+percent of non-percable material); accounts for non-permeable material in sidewall.
- (7) ROUNDUP(Absorption Area/((Max Trench Depth-Perf Pipe BGS)*2)
- (8) IF 1 Trench<2 > 40 ft, Then Trench Length=2, Else"N/A". If cell turns red, then trench length > 100 ft.
- (9) IF 1 Trench<3 > 40 ft, Then Trench Length=3, Else"N/A". If cell turns red, then trench length > 100 ft.
- (10) IF 1 Trench<4 > 40 ft, Then Trench Length=4, Else"N/A". If cell turns red, then trench length > 100 ft.
- (11) IF 1 Trench<5 > 40 ft, Then Trench Length=5, Else"N/A". If cell turns red, then trench length > 100 ft.
- (12) Application Rate=5/vp



June 9, 2022
Project No. 2892215

Mr. Eric Sheetz
16780 Dry Creek Road
Washoe County, NV 89511

RE: Percolation Testing Investigation
16780 Dry Creek Road
Washoe County, Nevada

REF: Washoe County Health District
Sewage, Wastewater, and Sanitation
May 23, 2013

Dear Mr. Scheetz:

Wood Rodgers is pleased to present this summary letter transmitting percolation testing results for the subject property located at 16780 Dry Creek Road in Washoe County, Nevada. The percolation testing results will be used for septic system design and the Owner scheduled an inspection of the percolation hole with Washoe County Health District (WCHD) prior to our site visits.

Soils & Percolation Rates

The project was explored May 25 & 26, 2022 by examining two test pits advanced on the property to 11 and 10-feet below the existing ground surface. The location of the test trenches had previously been determined by the Owner and were dug prior to our initial site visit. Wood Rodgers' personnel examined and classified soils in the field in general accordance with ASTM D 2488 (Description and Identification of Soils). Soils consisted of silty sand with gravel and cobbles (SM) and few boulders up to 2-feet in diameter to the depths explored.

Percolation testing was performed in accordance with WCHD standards. Testing was performed at depths determined by WCHD to assess soil conditions. No mottling or any indication of high groundwater was observed to the depths explored. Nevada Division of Water Resources Well Logs indicate that groundwater is approximately 320-feet below the ground surface northwest of the property along Big Pine Drive. The percolation testing location is presented on the attached Plate A-1 – Site Map. Logs of the test pits with calculated percolation rates are presented on Plate A-2. Table 1 summarizes the percolation testing results.

Table 1: Percolation Testing Results

Location	Percolation Rate (min/in)
TP-A @ 4'	60
TP-A @ 6'	20

Mr. Eric Scheetz

May 31, 2022

Page 2 of 2

Summary

We appreciate the opportunity to provide our services for the benefit of Mr. Eric Scheetz. Please contact our office should you have any related questions or comments.

Sincerely,

WOOD RODGERS, INCORPORATED

Digitally signed by
Justin McDougal
Date: 2022.06.09
06:52:30-07'00'

Justin M. McDougal, PE
Associate
PE Number: 24474
Expires: 12/31/2023



Hunter Beadell
Technical Professional

Enclosures

Appendix A - Geotechnical Plates
Plate A-1 - Site Map
Plate A-2 - Log of Test Pits

GEO TECH BH COLUMNS PLATE - GINT STD US LAB GDT - 6/8/22 12:48 - \\WOODRODGERS.LOC\PRODUCTION\DATA\JOBS-RENO\JOBS\2892_SERVICES AS ORDERED CLIENTS\215_SCHEETZ_SA\GEO\TECH\GEO\TECH\04 GINTS\SCHEETZ_RESIDENCE_TEST



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

TEST PIT NUMBER TP-A

PAGE 1 OF 1

CLIENT Eric Scheetz **PROJECT NAME** Scheetz Residence

PROJECT NUMBER 2892215 **PROJECT LOCATION** Reno, Nevada

DATE STARTED 5/25/22 **COMPLETED** 5/25/22 **GROUND ELEVATION** 5732 ft **TEST PIT SIZE** 24 inches

EXCAVATION CONTRACTOR Owner **GROUND WATER LEVELS:**

EXCAVATION METHOD Kubota Mini Excavator **AT TIME OF EXCAVATION** --- No Free Water Encountered

LOGGED BY Hunter Beadell **CHECKED BY** Justin McDougal **AT END OF EXCAVATION** --- No Free Water Encountered

NOTES: Elevations: Washoe County Regional Mapping System **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			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0		SILTY SAND WITH GRAVEL AND COBBLES, (SM) dense to very dense, dry, brown, non-plastic										
5		Moderately cemented @ 3' - 5'										
10		Visually Estimated ~10% cobbles and boulders 3" - 24" diameter										

Bottom of Test Pit at 11.0 Feet.

Soil Percolation Recorded Measurements

1. Depth to test : 4 ft

2. Time of 1st saturation to 12" : 10:52 AM Date : 5/25/2022
If 12" of water drains from hole in 10 mins or less, refill to 12".

3. Time of 2nd saturation : N/A

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 : 5/26/2022

Hole # : 1 Diameter : 8" Depth : 12" Soil Type : SM

Reading	Time		Water Level		Elapsed Time min	Water Fall (in)
	Start	Finish	Start	Finish		
1	9:24 AM	9:54 AM	6	6 12/16	30	12/16
2	9:56 AM	10:26 AM	6	6 10/16	30	10/16
3	10:28 AM	10:58 AM	6	6 8/16	30	8/16
4	11:00 AM	11:30 AM	6	6 8/16	30	8/16
5						
6						
7						

Stabilized Rate : 60.0 Min/inch **Tested by:** H. Beadell
Checked by: J. McDougal

Soil Percolation Recorded Measurements

1. Depth to test : 6 ft

2. Time of 1st saturation to 12" : 11:04 AM Date : 5/25/2022
If 12" of water drains from hole in 10 mins or less, refill to 12".

3. Time of 2nd saturation : N/A

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 : 5/26/2022

Hole # : 2 Diameter : 8" Depth : 12" Soil Type : SM

Reading	Time		Water Level		Elapsed Time min	Water Fall (in)
	Start	Finish	Start	Finish		
1	9:36 AM	10:06 AM	6	7 12/16	30	12/16
2	10:08 AM	10:38 AM	6	7 8/16	30	1 8/16
3	10:40 AM	11:10 AM	6	7 8/16	30	1 8/16
4	11:12 AM	11:42 AM	6	7 8/16	30	1 8/16
5						
6						
7						

Stabilized Rate : 20.0 Min/inch **Tested by:** H. Beadell
Checked by: J. McDougal

GEOTECH BH COLUMNS PLATE - GINT STD US LAB_GDT - 6/8/22 12:49 - \\WOODRODGERS.LOC\PRODUCTION\DATA\JOBS-RENO\JOBS2892_SERVICES AS ORDERED CLIENTS\215_SCHEETZ_SA0\GEO\TECH\GEO\TECH\04 GINT\SCH\TEST



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

TEST PIT NUMBER TP-B

PAGE 1 OF 1

CLIENT Eric Scheetz **PROJECT NAME** Scheetz Residence
PROJECT NUMBER 2892215 **PROJECT LOCATION** Reno, Nevada
DATE STARTED 5/25/22 **COMPLETED** 5/25/22 **GROUND ELEVATION** 5738 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Owner **GROUND WATER LEVELS:**
EXCAVATION METHOD Kubota Mini Excavator **AT TIME OF EXCAVATION** --- No Free Water Encountered
LOGGED BY Hunter Beadell **CHECKED BY** Justin McDougal **AT END OF EXCAVATION** --- No Free Water Encountered
NOTES: Elevations: Washoe County Regional Mapping System **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			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0		SILTY SAND WITH GRAVEL AND COBBLES, (SM) loose, dry, brown, non-plastic, approximately 15 - 20% cobbles Medium dense, moderately cemented Visually Estimated ~10% cobbles and boulders 3" - 24" diameter Very dense										
5												
10												

Bottom of Test Pit at 10.0 Feet.

16780 DRY CREEK
DESIGN CALC'

6/3/23

DESIGN PERC' RATE = 20 MIN/INCH

DESIGN LOADING RATE = $5/\sqrt{20} = 1.118 \text{ GAL/DAY/}\phi$

MIN SIDEWALL AREA = $\frac{1500 \text{ GAL/DAY}}{1.118 \text{ GPD/FT}^2} = 1341.64 \phi$

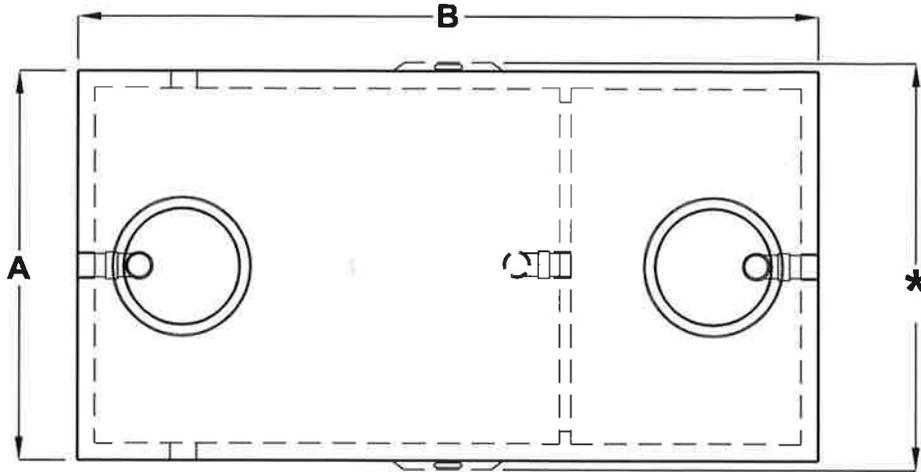
IF TRENCH GRAVEL IS (PIPE) @ 3.5' TO 11.5' DEEP
OR $\Delta = 8'$, THEN $2 \times 8' = 16 \phi/\text{FT}$

SO $1341.64 \phi / 16 \phi/\text{FT} = 83.85'$ (1 TRENCH)

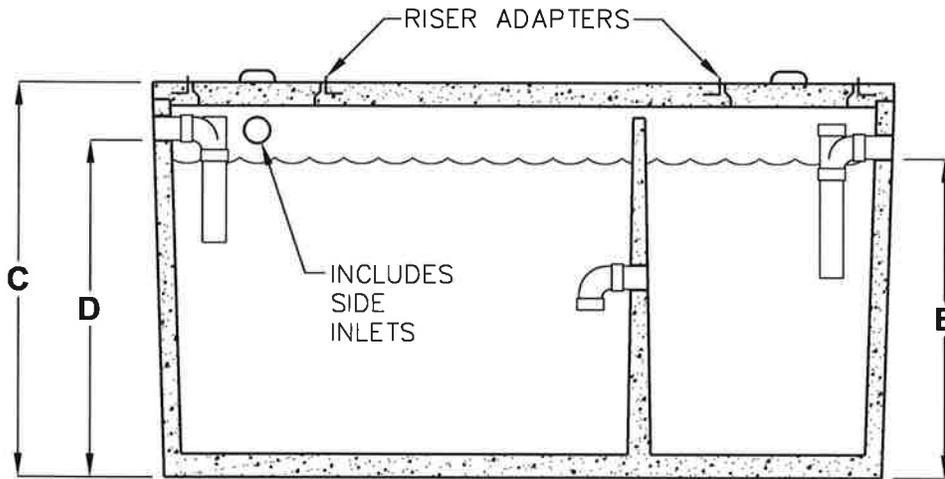
OR $\frac{83.85'}{2 \text{ EA}} = 41.93' \approx 42'$ (2 TRENCHES)

RESIDENTIAL SEPTIC TANKS

LISTED BY UPC®



TOP VIEW



SIDE VIEW

MODEL NUMBER	LIQUID CAPACITY (GALLONS)	DIM A	DIM B	DIM C	DIM D	DIM E	MINIMUM EXCAVATION WIDTH*	MINIMUM EXCAVATION LENGTH
JS-1000	1000	5'-1"	8'-2"	5'-8"	4'-10"	4'-7"	6'-10"	9'-2"
JS-1200	1200	5'-9"	8'-6"	5'-8"	4'-10"	4'-7"	7'-6"	9'-6"
JS-1500	1500	5'-7"	10'-8"	5'-8"	4'-10"	4'-7"	7'-4"	11'-8"
JS-2000	2000	4'-11"	15'-11"	5'-8"	4'-10"	4'-7"	6'-8"	16'-11"
JS-2500	2500	5'-9"	16'-10"	5'-8"	4'-10"	4'-7"	7'-6"	17'-10"
JS-3000	3000	5'-9"	16'-10"	6'-5"	5'-7"	5'-4"	7'-6"	17'-10"

*OVERALL WIDTH CAN VARY WITH TANK MODEL. USE EXCAVATION WIDTH FOR SITE PLANNING.

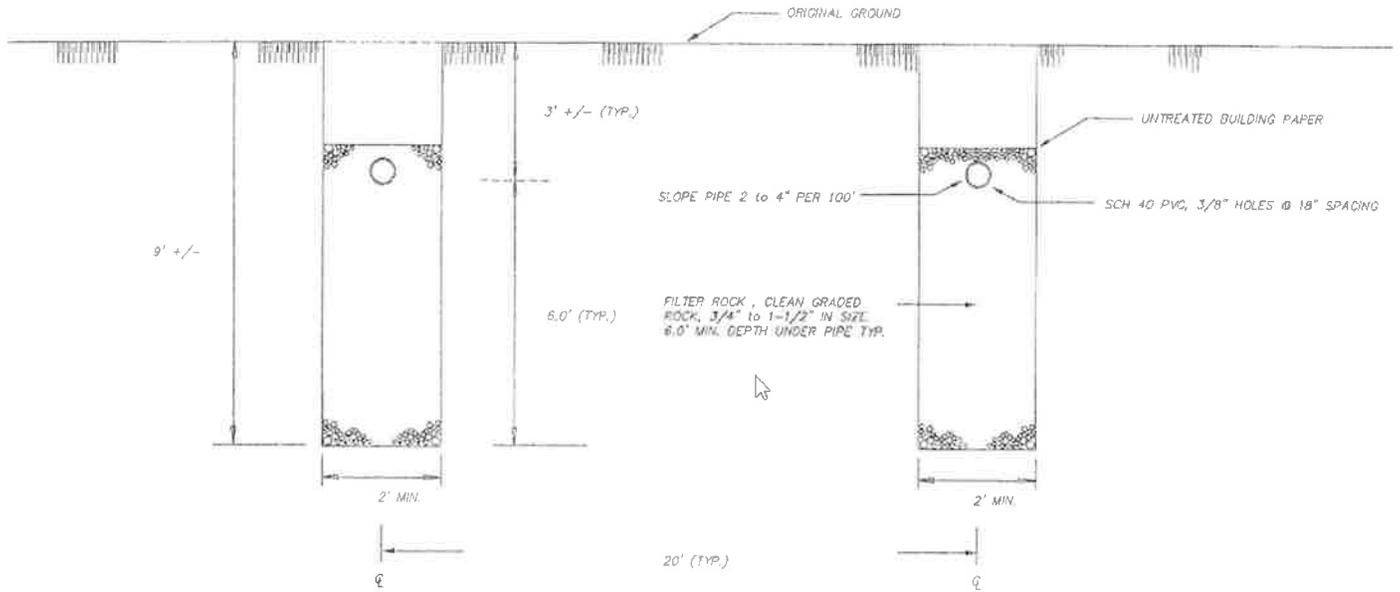
DESIGN LOAD: NON-TRAFFIC WITH 3' EARTH COVER MAXIMUM AT 500 PSF.

FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

Jensen Precast reserves the right to make changes to product design and/or dimensions without notice. Please contact Jensen Precast whenever necessary for confirmation or advice on product design.



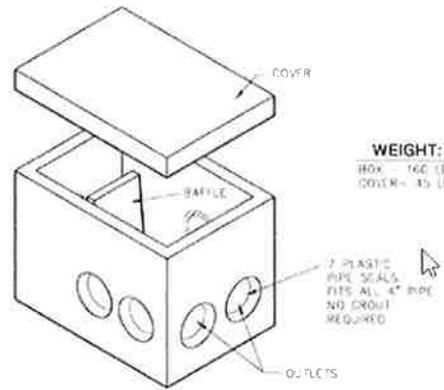
Standard Details



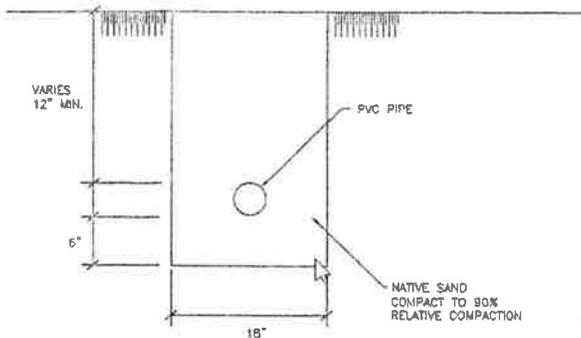
INFILTRATION TRENCH DETAIL

NOT TO SCALE

RESIDENTIAL DISTRIBUTION BOX MODEL D6B

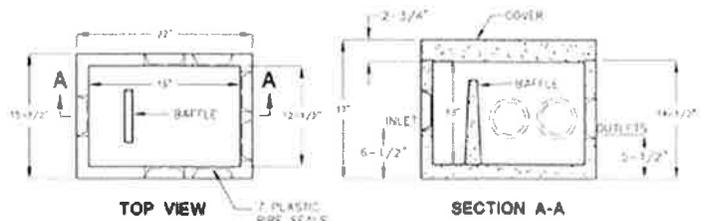


WEIGHT:
BOX - 100 LBS
COVER - 45 LBS



SOLID PIPE TRENCH DETAIL

NOT TO SCALE



FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST

3/2/97
06A1009
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