



# Memorandum

**Date:** October 28, 2021

**To:** SOUTHERN NEVADA DISTRICT BOARD OF HEALTH

**From:** Robert Fyda, PE, REHS, *Environmental Health Engineer/Supervisor* RF  
Herbert Luis Sequera, REHS, *Environmental Health Manager* HS  
Chris Saxton, MPH-EH, REHS, *Environmental Health Director* CS for CS  
Fermin Leguen, M.D., MPH, *District Health Officer* FL

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**Subject:** Variance Request for an Application to Construct a Septic System located at 4841 Knotty Pine Way, Mount Charleston, Nevada with the following provisions: 1) allow installation of a septic system on an undersized lot; 2) allow a reduced property line setback; and 3) waive a design standard regarding absorption trench depth.

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## **I. BACKGROUND:**

Janice Phillips, trustee of the JW Revocable Trust, Owner ("Petitioner"), is requesting a variance to permit and install an individual sewage disposal system (ISDS) on an undersized lot ("Subject Property") served by municipal water, located at Assessor's Parcel Number (APN) 129-36-111-041, also known as 4841 Knotty Pine Way, Mt. Charleston, NV 89124.

Petitioner requests a variance from Section 11.20.2 of the *Southern Nevada District Board of Health Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management* ("SNHD ISDS Regulations"), which requires a minimum lot size of 0.25 acre for the installation of an ISDS on a lot served by municipal water. The Subject Property has an area of approximately 0.07 acres.

Petitioner further requests a variance from Section 5.1 of the SNHD ISDS Regulations, which states that "no septic tank or soil absorption system shall be located within ten feet (10') of any property line." Petitioner proposes reducing this setback to five feet (5').

Petitioner further requests a variance from Section 9.7.5 of the SNHD ISDS Regulations, which limits the maximum depth of gravel below the distribution pipe in an absorption trench to 72". Petitioner proposes installing an absorption trench with 96" of gravel below the distribution pipe

to accommodate site constraints such as meeting the required horizontal separation from community and individual water lines.

Petitioner states the following with regards to these requirements:

1. There must be circumstances or conditions which are unique to the petitioner, and do not generally affect other persons subject to the regulation:

*"Square footage of the lot and normal setback requirements greatly hinder the ability to construct a S.F.R. [single family residence] on this property."*

2. There must be circumstances or conditions which make compliance with the regulation unduly burdensome and cause a hardship to and abridge a substantial property right of the applicant, and the variance is necessary to render substantial justice to and preserve the property rights of the applicant. Please indicate in what manner compliance with the regulation would be burdensome or cause a hardship on your business or how the free use of your property may be affected (if economic factors are an issue, please include estimates regarding the costs that would be incurred by compliance):

*"This property was purchased with the sole intent of constructing a S.F.R. upon it. The variance is being requested to allow the construction of a S.F.R. upon what otherwise would be considered an unusable lot."*

3. Granting the variance will not be detrimental or pose a danger to the public health and safety. Please provide evidence that the variance request, if approved, will not adversely affect the safe and sanitary operation of the applicant(s) pool, spa, or food establishment:

*"The variance approval and installation of a new septic system will allow the current property owner to build and use a S.F.R. on this property."*

## **II. RECOMMENDATION:**

The Subject Property is depicted in Attachment C as Lot 9 of Block 4 of the recorded subdivision known as Cathedral Rock View, which was approved in 1956. The existing subdivision was created prior to the adoption of the current SNHD ISDS Regulations in 2009 and no recorded changes to the Subject Property have been recorded. There is one existing well located upgradient and within 1,100' feet of the proposed ISDS. The Subject Property is also located in an area with a high density of existing ISDS; there are 141 lots with an active, traceable ISDS permit within one square mile of the property boundaries (see attached ISDS Density Map).

The Subject Property has an area of approximately 0.07 acres, which is smaller than the minimum lot size of 0.25 acres required by the SNHD ISDS Regulations. Lot size variances have been approved for other properties in the Cathedral Rock View subdivision, many of which are similar in size. The proposed ISDS will be five feet (5') from the closest property line, where ten feet (10') minimum separation is required by the SNHD ISDS Regulations. A five-foot (5') property line setback has been approved for other undersized lots in Mount Charleston.

Petitioner is requesting a waiver from a design standard limiting the effective depth of the absorption trench, where six feet (6') is the maximum depth allowed by the SNHD ISDS Regulations and Petitioner is proposing a trench with an effective depth of eight feet (8') to provide sufficient absorption area and meet the required horizontal separation from existing community and onsite water lines. The effluent treatment capacity of soil is less effective at greater depths because the lack of available oxygen results in an anaerobic zone, where the effluent is treated less efficiently than by aerobic bacteria. However, the soil characteristics of the site and previous experience approving similar absorption trenches on Mount Charleston suggests that clogging of the absorption area should not be a problem.

Staff is of the opinion that granting the variance would not endanger public health or safety. Staff recommends approval of the variance. If the Board of Health approves the variance, staff recommends approval with the following conditions outlined in Section III.

### **III. CONDITIONS:**

1. The applicants and their successor(s) in interest shall abide by all local governmental regulations requiring connection to community sewage systems. Use of the ISDS shall be discontinued and the structure it serves shall be connected to any community sewage system constructed in the future to within four hundred feet (400') of the applicants' property line when connection can be made by gravity flow and the owner(s) are notified and legally required to do so.
2. The applicants and their successor(s) will abide by the operation and maintenance requirements of the most current SNHD regulations governing individual sewage disposal systems.
3. Construction of the ISDS must be commenced within one (1) year of the date hereof. If the construction has not been commenced within that period, this variance shall automatically expire and be of no further force and effect, unless application is made and approved for an extension of time prior to the expiration date by the applicants or the applicants' successor(s) in interest.

#### Attachments:

- A. Variance Candidate Application
- B. Justification Letter
- C. Cathedral Rock View Subdivision Map
- D. Proposed ISDS Plan
- E. Percolation Test
- F. Public Notice



**VARIANCE CANDIDATE WORKSHEET**

**PART I:**

**ESTABLISHMENT INFORMATION**

Name of Facility/Establishment: JANICE K. PHILLIPS  
Health Permit Number: NONE Date of Inquiry: \_\_\_\_\_  
Name of Operator/Agent: HARDIN + SONS INC.  
Address of Operator/Agent: 201 W. CHEYENNE AVE. NLV NV 89030  
Contact Information of Operator/Agent:  
Office Phone: 702-399-3878 Cell Phone: 702-379-9156  
Fax Number: 702-399-2032 Email Address: hardin.sons@gmail.com  
If corporation, the name/title of individual to sign for Variance document:  
Name: DALE MARTIN  
Title: PRESIDENT HARDIN + SONS INC.

**OWNER INFORMATION**

Name of Property Owner: JANICE K. PHILLIPS  
Address of Property Owner: 4755 N. GRAND CANYON DR. LV, NV 89129  
Contact Information of Property Owner:  
Office Phone: \_\_\_\_\_ Cell Phone: 702-210-3351  
Fax Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

**PROPERTY INFORMATION**

Property Address: 4841 KNOTTY PINE WAY  
Assessor's Parcel Number (APN): 129-36-111-041  
Describe location within larger facility (i.e. hotel/casino/resort, etc.):  
SFR ONLY  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Describe Variance Issue (s): (Include sections of the Regulation or Nevada Administrative Code that applies to the request for a variance)

REGULATION 5.1 WE WILL NEED TO USE A 5' SETBACK FOR ISDS TO PROPERTY LINE WHERE A 10' SETBACK IS NORMALLY REQUIRED.  
REGULATION 11.20.2 THIS PROPERTY IS 0.07 ACRES = 3049 Sq. FT. WHERE THE MINIMUM REQUIRED IS 10,900 SF INCL. R.O.W., PROPERTY IS ON MUNICIPAL WATER.  
\_\_\_\_\_  
\_\_\_\_\_

**PART II:**

Nevada Administrative Code 439.240 states in general that certain conditions or circumstances must be shown to exist in order for a Board of Health to approve a request for a Variance from adopted public health regulations. A variance application letter (as noted below in PART III) MUST specifically address each of the following issues:

1. There must be circumstances or conditions which are unique to the applicant, and do not generally affect other persons subject to the regulation. Please indicate how your request is unique to your situation and is, therefore, not likely to affect other persons subject to the regulations:

SQUARE FOOTAGE OF THE LOT AND NORMAL SETBACK REQUIREMENTS GREATLY HINDER THE ABILITY TO CONSTRUCT A S.F.R. ON THIS PROPERTY.

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2. There must be circumstances or conditions which make compliance with the regulation unduly burdensome and cause a hardship to and abridge a substantial property right of the applicant, and the variance is necessary to render substantial justice to and preserve the property rights of the applicant. Please indicate in what manner compliance with the regulation would be burdensome or cause a hardship on your business or how the free use of your property may be affected (if economic factors are an issue, please include estimates regarding the costs that would be incurred by compliance):

THIS PROPERTY WAS PURCHASED WITH THE SOLE INTENT OF CONSTRUCTING A S.F.R. UPON IT. THE VARIANCE IS BEING REQUESTED TO ALLOW THE CONSTRUCTION OF A S.F.R. UPON WHAT OTHERWISE WOULD BE CONSIDERED AN UNUSABLE LOT.

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3. Granting the variance will not be detrimental or pose a danger to the public health and safety. Please provide evidence that the variance request, if approved, will not adversely affect the safe and sanitary operation of the applicant(s) pool, spa, or food establishment:

THE VARIANCE APPROVAL AND INSTALLATION OF A NEW SEPTIC SYSTEM WILL ALLOW THE CURRENT PROPERTY OWNER TO BUILD AND USE A S.F.R. ON THIS PROPERTY.

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Attachment A: Variance Candidate Application (Page 3 of 3)

**NAC 439.240 Approval by State Board of Health. (NRS 439.150, 439.190, 439.200)**

1. The State Board of Health will grant a variance from a regulation only if it finds from the evidence presented at the hearing that:
    - (a) There are circumstances or conditions which:
      - (1) Are unique to the applicant;
      - (2) Do not generally affect other persons subject to the regulation;
      - (3) Make compliance with the regulation unduly burdensome; and
      - (4) Cause a hardship to and abridge a substantial property right of the applicant; and
    - (b) Granting the variance:
      - (1) Is necessary to render substantial justice to the applicant and enable the applicant to preserve and enjoy his or her property right; and
      - (2) Will not be detrimental or pose a danger to public health and safety.
  2. Whenever an applicant for a variance alleges that he or she suffers or will suffer economic hardship by complying with the regulation, the applicant must submit evidence demonstrating the costs of compliance with the regulation. The Board will consider the evidence and determine whether those costs are unreasonable.
- [Bd. of Health, Variances Reg. §§ 2.7-2.8, eff. 10-16-80; A 2-5-82; 1-19-84]

**PART III:**

**A Variance Application Letter**, which includes all information provided by the applicant on his worksheet, must be submitted in writing to the Environmental Health Division (EHD) Director no later than 40 days before the monthly Board of Health Meeting. **The Application letter must be on the owner's letterhead signed by the Owner/Corporate Officer specifically listing which part(s) of the Regulation the proposed Variance covers with this completed Worksheet as an attachment. The written Application Letter must take particular care in providing statements and evidence of circumstances or conditions and reasons why the District Board of Health should grant the Variance as listed in NAC 439.240 as shown at the top of this page. ALL information you have provided in PART I and II of this Worksheet must be included in the body of the letter.** The evidence required may include 8 1/2" x 11" or 11" x 17" detailed drawings and/or photographs.

The Variance process is outlined in Nevada Administrative Code (NAC) 439.200 through 439.260 with the exception that an application fee is payable to SOUTHERN NEVADA HEALTH DISTRICT (SNHD).

**This section to be completed by SNHD staff ONLY**

Next closing date is: \_\_\_\_\_ for the \_\_\_\_\_ BOH Meeting.

Referred by: \_\_\_\_\_  
(Print Name of REHS)

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_  
(Print Name of REHS if not by supervisor)

Received by: \_\_\_\_\_ Date: \_\_\_\_\_  
(Owner/Operator/Agent)

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature of SNHD Manager)

## Attachment B: Justification Letter from Petitioner

### JUSTIFICATION/MARDSHIP LETTER

September 27, 2021

To: Southern Nevada Health District  
280 S. Decatur Blvd.  
Las Vegas, NV 89107

From: JW Revocable Exemption Trust/Janice K Phillips TRS  
RE: Parcel # 129-36-111-041  
4841 Knotty Pine Way  
Mount Charleston, NV

To whom it may concern:

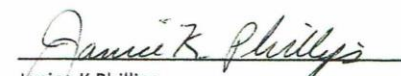
I hereby make application and petition the Southern Nevada District Board of Health for a variance to the Regulations Governing Individual Sewage Disposal and Liquid Waste Management Sections 11.20.2, requiring a minimum of one fourth (1/4) acre (10,900 sq. ft.) for the installation of an individual sewage disposal system (ISDS) on a lot served by an off-site water supply; and Section 5.2, requiring that no septic tank be within 8' of a building or a deep absorption field be located within 20' of a building without a Cone of Influence letter submitted by a State of Nevada registered professional engineer; and Section 5.1, requiring that no septic tank or leach field be within 10' of a property line.

This variance request is made to permit construction of an ISDS on a lot 3,049 sq. ft. The septic tank is to be located 4 ft. from the proposed structure and no closer than 5 ft. from the nearest property line.

The legal description of said property is APN# 129-36-111-041, further described as Cathedral Rock View Plat, Plat book 5, Page 5, Lot 9, Block 4.

I have owned the property since December 23<sup>rd</sup>, 2020 and wish to apply for this variance.

Thank you for your consideration,

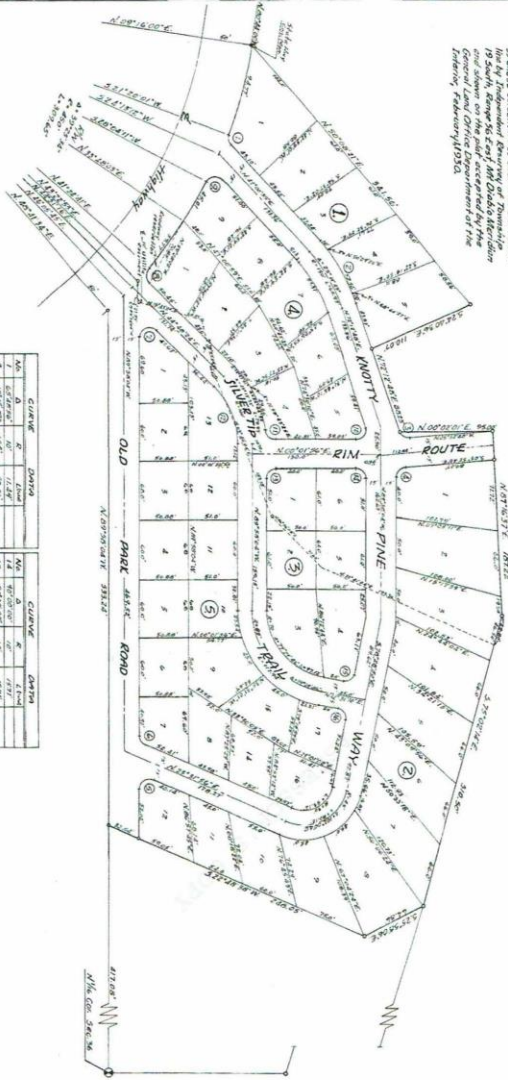
  
Janice K Phillips

# Attachment C: Cathedral Rock View Subdivision Map

Scale: 1"=50'

**CATHEDRAL ROCK VIEW PLAT**

PORTION OF THE N/4, NW/4, SEC. 36, T19S, R26E, MDB, #1M  
CLARK COUNTY, NEVADA



Lot No.	Area	Area	Area
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	1.00	1.00	1.00
4	1.00	1.00	1.00
5	1.00	1.00	1.00
6	1.00	1.00	1.00
7	1.00	1.00	1.00
8	1.00	1.00	1.00
9	1.00	1.00	1.00
10	1.00	1.00	1.00
11	1.00	1.00	1.00
12	1.00	1.00	1.00
13	1.00	1.00	1.00
14	1.00	1.00	1.00
15	1.00	1.00	1.00
16	1.00	1.00	1.00
17	1.00	1.00	1.00
18	1.00	1.00	1.00
19	1.00	1.00	1.00
20	1.00	1.00	1.00
21	1.00	1.00	1.00
22	1.00	1.00	1.00
23	1.00	1.00	1.00

**ENGINEERS' CERTIFICATE**

I, L. W. HARRIS, a duly registered professional engineer and licensed land surveyor in the State of Nevada, do hereby certify that this plat is a true and accurate map of the portion of the N/4, NW/4, Sec. 36, T19S, R26E, MDB, #1M, Clark County, Nevada, as shown on the plat accepted by the General Land Office of the Government of the State of Nevada, February 1956.

Approved and accepted this 15th day of June, 1956, by the Board of County Commissioners of the County of Clark, Nevada.

Approved and accepted this 15th day of June, 1956, by the Board of County Commissioners of the County of Clark, Nevada.

**OWNERS' CERTIFICATE AND DEDICATION**

KNOW ALL MEN BY THESE PRESENTS that Thomas E. Thomas and the undersigned do hereby dedicate to the public use of the State of Nevada the land shown on the plat hereof and hereby dedicate the streets as shown on the plat hereof to the public use of the State of Nevada for the use and maintenance of public utilities only.

IN WITNESS WHEREOF, we have hereunto set our hands this 15th day of June, 1956.

Thomas E. Thomas  
 Thomas E. Thomas

**ACKNOWLEDGEMENT**

STATE OF NEVADA } ss  
 COUNTY OF CLARK }

On this 15th day of June, 1956, personally appeared before me the undersigned, a Notary Public in and for said County and State, Thomas E. Thomas, who being duly sworn, acknowledged to me that he is the owner of the land shown on the plat hereof and that he has executed the same for the uses and purposes herein mentioned.

Subscribed: Th. E. Thomas  
 Notary Public in and for said County and State  
 My commission expires 12-30-58

**COUNTY ENGINEERS' CERTIFICATE**

I, George C. Hamilton, County Engineer of Clark County, Nevada, do hereby certify that this plat is a true and accurate map of the portion of the N/4, NW/4, Sec. 36, T19S, R26E, MDB, #1M, Clark County, Nevada, as shown on the plat accepted by the General Land Office of the Government of the State of Nevada, February 1956, and that I am satisfied that this map is technically correct.

Date: May 22, 1956

George C. Hamilton  
 County Engineer

Approved and accepted this 15th day of June, 1956, by the Board of County Commissioners of the County of Clark, Nevada.

Approved and accepted this 15th day of June, 1956, by the Board of County Commissioners of the County of Clark, Nevada.

Approved this 9th day of June, 1956, by the Planning Commission of Clark County.

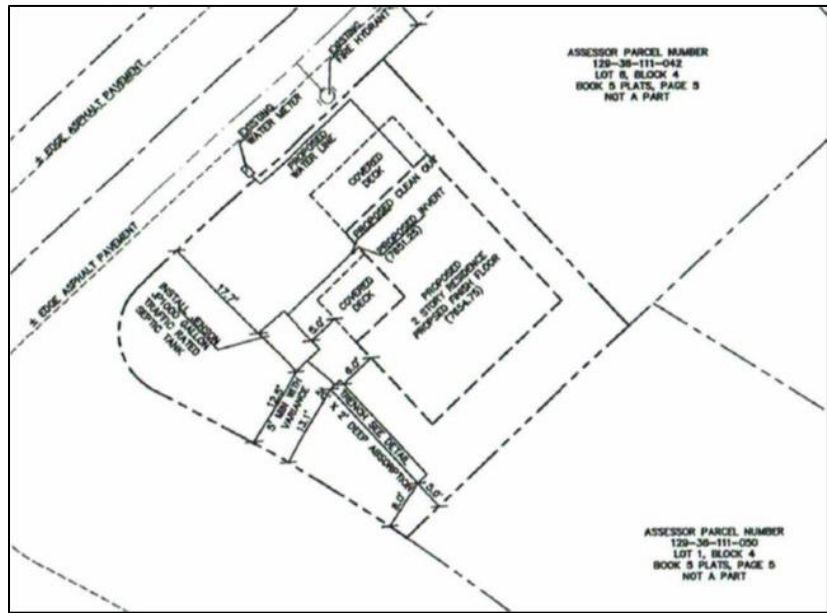
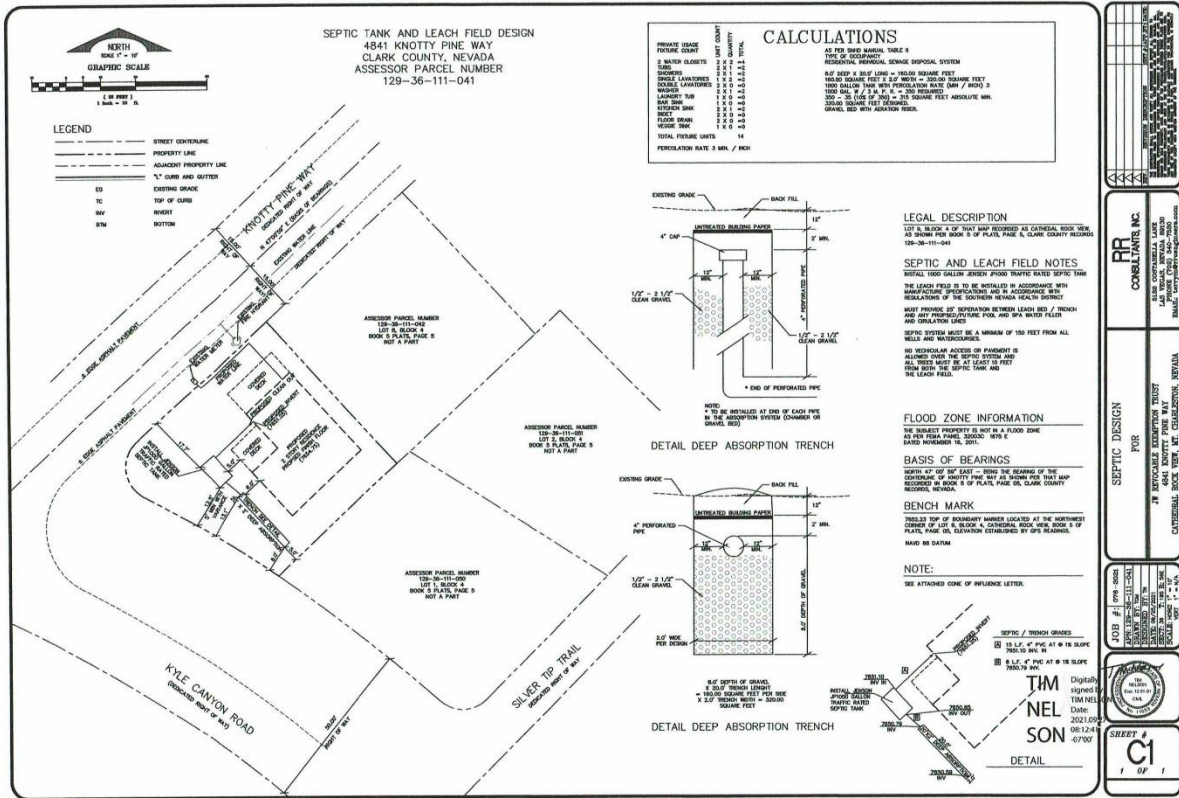
Chairman: [Signature]

Approved and accepted this 15th day of June, 1956, by the Board of County Commissioners of the County of Clark, Nevada.

Approved and accepted this 15th day of June, 1956, by the Board of County Commissioners of the County of Clark, Nevada.



# Attachment D: Proposed ISDS Plan



# DLC Consulting

August 2, 2021

Hardin Excavating  
201 W. Cheyenne Avenue  
Las Vegas, Nevada

Attention: Dale Martin

RE: Percolation Verification Test for The Single-Family Residence Located at 4841  
Knotty Pine Way, Mount Charleston, Nevada: APN 129-36-111-041

Mr. Martin:

Following is the Percolation Verification Test for the referenced location. Field work was conducted by DLC Consulting in accordance with Southern Nevada Health District guidelines.

Based on the field data, percolation rates are approximately 3 minutes/inch. Soil data from the test pits indicates the presence of cobbles and gravel with sands, no cemented horizons were encountered.

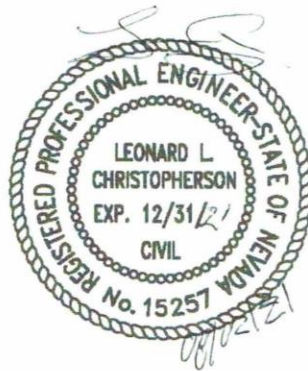
DLC is grateful for the opportunity to provide this report and welcomes any questions or comments regarding this report that may arise.

Sincerely,

DLC Consulting,



Michael W. Payne, C.E.M.  
Principal Scientist



Landon Christopherson, P.E.  
Project Engineer

Attachment E: Percolation Test (Page 2 of 5)

Perc Test  
Hardin

August 2, 2021  
4841 Knotty Pine

Boring B-1

Project Name: 4841 Knotty Pine  
 Project Location: 4841 Knotty Pine  
 Mount Charleston, Nevada  
 Test Location: See Plan Map  
 Test Performed By: Michael Payne C.E.M.  
 Test Reviewed By: Landon Christopherson, P.E.  
 Date of Test: August 2, 2021  
 Borehole Diameter: 6 inches  
 Borehole Depth: 66 inches  
 Time of Presoaking: NA  
 Depth of Water at beginning of test: 60 inches

Time of Reading	Time Difference (1)	Depth to Water	to Depth Difference (2)	Percolation Rate (1)/(2)	Comments
08:02	0	60"	-----	-----	Begin Test
08:12	10 min	64.16"	4.16	2.4	
08:12	0 min	60"	0		Refill
08:22	10 min	64.16"	4.16	2.4	
08:22	0	60"	0		Refill
08:32	10 min	64"	4.0	2.5	
08:32	0	60"	0		Refill
08:42	10 min	64"	4.0	2.5	
08:42	0	60.0	0		Refill
08:52	10 min	63.7"	3.7	2.7	
08:52	0	60.0	0		Refill
09:02	10 min	63.77"	3.7	2.7	
09:02	0 min	60"	0		Refill
09:12	10 min	63.7"	3.7	2.7	

Soil Data:

Gravelly sands to the maximum boring depth of 13 feet below grade. Soils drained freely from surface. Complete soil borings are attached.

Attachment E: Percolation Test (Page 3 of 5)

Perc Test  
Hardin

August 2, 2021  
4841 Knotty Pine

**PERCOLATION TEST RESULTS**

Boring B-2

Project Name: 4841 Knotty Pine  
 Project Location: 4841 Knotty Pine  
 Mount Charleston, Nevada  
 Test Location: See Plan Map  
 Test Performed By: Michael Payne C.E.M.  
 Test Reviewed By: Landon Christopherson, P.E.  
 Date of Test: August 2, 2021  
 Borehole Diameter: 6 inches  
 Borehole Depth: 66 inches  
 Time of Presoaking: NA  
 Depth of Water at beginning of test: 60 inches

Time of Reading	Time Difference (1)	Depth Water to	Depth Difference (2)	Percolation Rate (1)/(2)	Comments
08:00	0	60"	----	-----	Begin Test
08:10	10 min	64"	4.0	2.5	
08:10	0 min	60"	0		Refill
08:20	10 min	64"	4.0	2.5	
08:20	0	60"	0		Refill
08:30	10 min	63.7"	3.7	2.7	
08:30	0	60"	0		Refill
08:40	10 min	63.7"	3.7	2.7	
08:40	0	60.0	0		Refill
08:50	10 min	63.7"	3.7	2.7	
08:50	0	60.0	0		Refill
09:00	10 min	63.7"	3.7	2.7	
09:00	0 min	60"			Refill
09:10	10 min	63.7"	3.7	2.7	

**Soil Data:**

Gravelly sands to the maximum boring depth of 13 feet below grade. Soils drained freely from surface. Complete soil borings are attached.



Attachment E: Percolation Test (Page 4 of 5)

PERCOLATION TEST LOCATION MAP: 08/02/21

HARDIN EXCAVATING 4841 KNOTTY PINE, Mt. Charleston, Nevada

North is top of Page Test Pit Locations: Tp-1



Attachment E: Percolation Test (Page 5 of 5)

Client: Hardin  
 Project: 4841 Knotty Pine Way  
 Test Pit 1

a. Depth/Feet	PN 1255908	Date:	8/2/2021
b. Sample Type	Elevation Existing Grade	Datum:	Existing
c. Moisture	Equipment: 580m	Operator:	Drake
d. Density	Groundwater: None		
e. USCS Class.			

a	b	c	d	e	SOIL DESCRIPTION
1	Bulk	Slight	Loose Med	GP	Gravelly Sands, with cobbles, brown, slightly moist.
2					
3					
4					
5					Sand coarsens with depth, less silt.
7					
9			Med.		
10					
12					
13					
					Total Depth 13' BGS
					No groundwater encountered

Attachment F: Public Notice



PUBLIC NOTICE

The Southern Nevada District Board of Health will conduct a PUBLIC HEARING on Thursday, October 28, 2021 at 9:00 AM during its regular monthly meeting in the Red Rock Conference Room at the Southern Nevada Health District at 280 S. Decatur Blvd., Las Vegas, Nevada, to approve or deny a variance request filed by Janice Phillips (“Petitioner”), to permit and install a new individual sewage disposal system on the property located at 4841 Knotty Pine Way, Mt. Charleston, NV 89124, APN 129-36-111-041.

The variance request is made to allow the Petitioner to permit the installation of a conventional septic system not in accordance with the *Southern Nevada District Board of Health Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management*. The variance will allow the Petitioner to 1) install a septic system on an undersized lot; 2) allow a reduced property line setback; and 3) waive a design standard regarding absorption trench depth.

All interested persons may appear at the hearing and state their positions. All written and oral submissions will be considered by the Southern Nevada District Board of Health. Written comments must be forwarded by October 27, 2021 to:

Robert Fyda, P.E., REHS  
Environmental Health Engineer/Supervisor  
Southern Nevada Health District  
P.O. Box 3902  
Las Vegas, Nevada 89127  
fyda@snhd.org

The variance application is available for review at the Southern Nevada Health District, 280 S Decatur Blvd, Las Vegas, Nevada 89107. Please contact Mallory Jett-Edwards at (702) 759-0660 to schedule an appointment to review the application during the normal business hours of 8:00 AM to 4:30 PM.

- S -  
\_\_\_\_\_  
Chris Saxton, MPH-EH, REHS  
Environmental Health Director

October 12, 2021  
Date