Southern Nevada Health District

Memorandum

Date: October 26, 2017

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

From: **Daniel LaRubio, Jr., P.E.,** *Environmental Health Engineer/Supervisor*
Paul L. Klouse, REHS, *Environmental Health Manager*
Jacqueline L. Reszetar, M.S., REHS, *Director of Environmental Health*
Joseph P. Iser, M.D., DrPH, MSc, *Chief Health Officer*

Petitioner: Ralph T. III & Ann Cordell, Joint Owners

Subject: Variance Request to Permit and Install a New Individual Sewage Disposal System (ISDS) on an Undersized Lot Served by an Off-Site Public Water Supply with a Shallow Absorption Field within Eight (8) Feet of a Structure and Ten (10) Feet of the Property Lines (APN 129-36-101-014)

BACKGROUND

Ralph T. III & Ann Cordell, Joint owners, are requesting a variance to permit and install an individual sewage disposal system (ISDS) on an undersized lot served by municipal water. The lot is approximately 0.07 acres gross located in Mt. Charleston, Nevada where one quarter (1/4) or 0.25 acres gross is required for installation of an ISDS on a lot served by municipal water supply. The lot is located at 4731 Aspen Ave., legal description is a portion of the N½ of Section 36, Township 19 South, Range 56 East, Parcel 2 as shown by map on file in Book 120 of Parcel Maps Page 99, in the office of the County Recorder in Clark County, Nevada, also known as APN 129-36-101-014. (see attached SNHD Public Notice signed by Jacqueline Reszetar on and Assessor's Map).

The owners of the property, Ralph T. III & Ann Cordell, obtained the property in May 2016 (see attached Clark County Assessor's Ownership History) and now wish to have a septic system permitted to be installed on their lot (see attached justification letter dated August 24, 2017). Mr. & Mrs. Cordell will be permitting an ISDS (See attached Utility Plan). His letter further states that the new ISDS will be five feet from any structure or property line.

DISCUSSION

Section 5.1 of the *District Board of Health Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management* requires that a septic tank or soil absorption system not be located within ten (10) feet of any property line. The applicant is requesting the setback be reduced to five (5) feet in order to install an adequately sized absorption field.

Section 11.20.2 of the *District Board of Health Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management* requires a minimum of one quarter (1/4) acre (including public streets or easements) for the installation of an ISDS on a lot served by municipal water supply. This lot is originally part of the Charleston Park Resort, an unrecorded subdivision.

Section 11.15 of the *District Board of Health Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management* states that an ISDS is prohibited in an area subject to vehicular access or traffic, or any area to be paved. The proposed traffic rated septic tank from Jensen Precast carries a H-20 load rating and should be able to accommodate any potential loading that it will experience in the driveway.

Section 5.2 of the *District Board of Health Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management* requires that a septic tank or soil absorption system not be located within eight (8) feet of any structure unless a Cone of Influence letter is supplied. The proposed residence is 6 feet from the ISDS. However, an analysis by a civil engineer deemed it there would be no risk to the structure or ISDS (see attached Cone of Influence Letter dated August 24, 2017 by David Dwyer, Civil PE).

Section 19.5 of the *District Board of Health Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management* requires the Board to consider the relative interests of first, the public; second, other property owners likely to be affected; third, the applicant; in that order. No variance shall be granted in the absence of showing that:

(1) The variance would not endanger or tend to endanger human health or safety.

(2) Compliance with regulations from which the variance is sought would produce serious hardship without equal or greater benefit to the public.

Staff is of the opinion that the granting of this variance will not endanger or tend to endanger human health provided the applicant agrees to and complies with the five (5) conditions recommended by staff and subject to Board of Health approval.

There are two existing wells located upgradient and the closest well is within seven hundred (700) feet of the proposed shallow absorption system. The ISDS density map also shows "189 Lots with a traceable permit for a septic system within a square mile of APN 129-36-101-014." The offsite water quality will most likely not be affected by the proposed septic system. The closest neighboring building to the proposed ISDS is a distance of forty five (45) feet, where eight (8) feet minimum is required.

RECOMMENDATIONS

Therefore, staff recommends approval with the following conditions:

1. The ISDS will be limited to the proposed 1,000 gallon traffic rated septic tank with the proposed chamber leach field as shown in the attached Utility Plan.

2. The proposed absorption field may not be located in an area that is: subject to vehicular traffic, to be paved, or within ten (10) feet of any tree.

3. The applicant will install traffic rated risers on the septic tank and no trees are to be within ten (10) feet of the septic tank.

4. 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 of time, 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 applicant or the applicant's successor(s) in interest.

5. The applicant and his 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 structures it serves shall be connected to any community sewage system constructed in the future to within four hundred (400) feet of the applicant's property line when connection can be made by gravity flow and the owner(s) are notified and legally required to do so by the public entity owning and operating the community sewage system.

Attachments:

A. SNHD Public Notice
B. Assessor's Map
C. Clark County Assessor's Ownership History
D. Hardship Letter dated August 24, 2017.
E. Cone of Influence Letter dated August 24, 2017
F. ISDS Density Map
G. Utility Plan
H. Utility Plan (Enlarged) with Details

Attachment A: SNHD Public Notice

PUBLIC NOTICE

The Southern Nevada District Board of Health will conduct a PUBLIC HEARING on Thursday, October 26, 2017 at 8:30 a.m. during its regular monthly meeting in the Red Rock Conference Room at the Southern Nevada Health District; 280 S. Decatur Blvd., Las Vegas, Nevada, to approve or deny a Variance Request filed by Ralph T. Cordell, III and Ann Cordell, owner, to permit a new individual sewage disposal system on the property being a portion of the legal description: the N½ of Section 36, Township 19 South, Range 56 East, Parcel 2 as shown by map on file in Book 120 of Parcel Maps Page 99, in the office of the County Recorder in Clark County, Nevada, also known as APN 129-36-101-014.

The District Board of Health Regulations Governing Individual Sewage Disposal Systems and Liquid Waste Management Section 19.2.1 requiring that no septic tank or deep absorption field be located within eight (8) feet of any building and that no septic tank or shallow absorption field shall be located within ten (10) feet of any property line; AND Section 11.20.2 requires a minimum of one quarter (1/4) acre (10,900 sq ft. including public streets or easements) for the installation of an ISDS on a lot served by municipal water supply. Section 19.5 requires the Board to consider the relative interest of first, the public; second, other property owners likely to be affected; third, the applicant; in that order. No variance shall be granted in the absence of showing that: (1) The variance would not endanger or tend to endanger human health or safety. (2) Compliance with regulations from which the variance is sought would produce serious hardship without equal or greater benefit to the public.

The variance application request is available for review at the Southern Nevada Health District, 280 S Decatur Blvd, Las Vegas, Nevada, 89107. Please contact Bonnie Archie at (702) 759-0572 to schedule an appointment to review the application request during normal business hours of 8:00 a.m. to 4:30 p.m. All interested persons may appear at the hearing and state their positions. Written comments will be considered by the District Board of Health and must be forwarded by October 15, 2017 to:

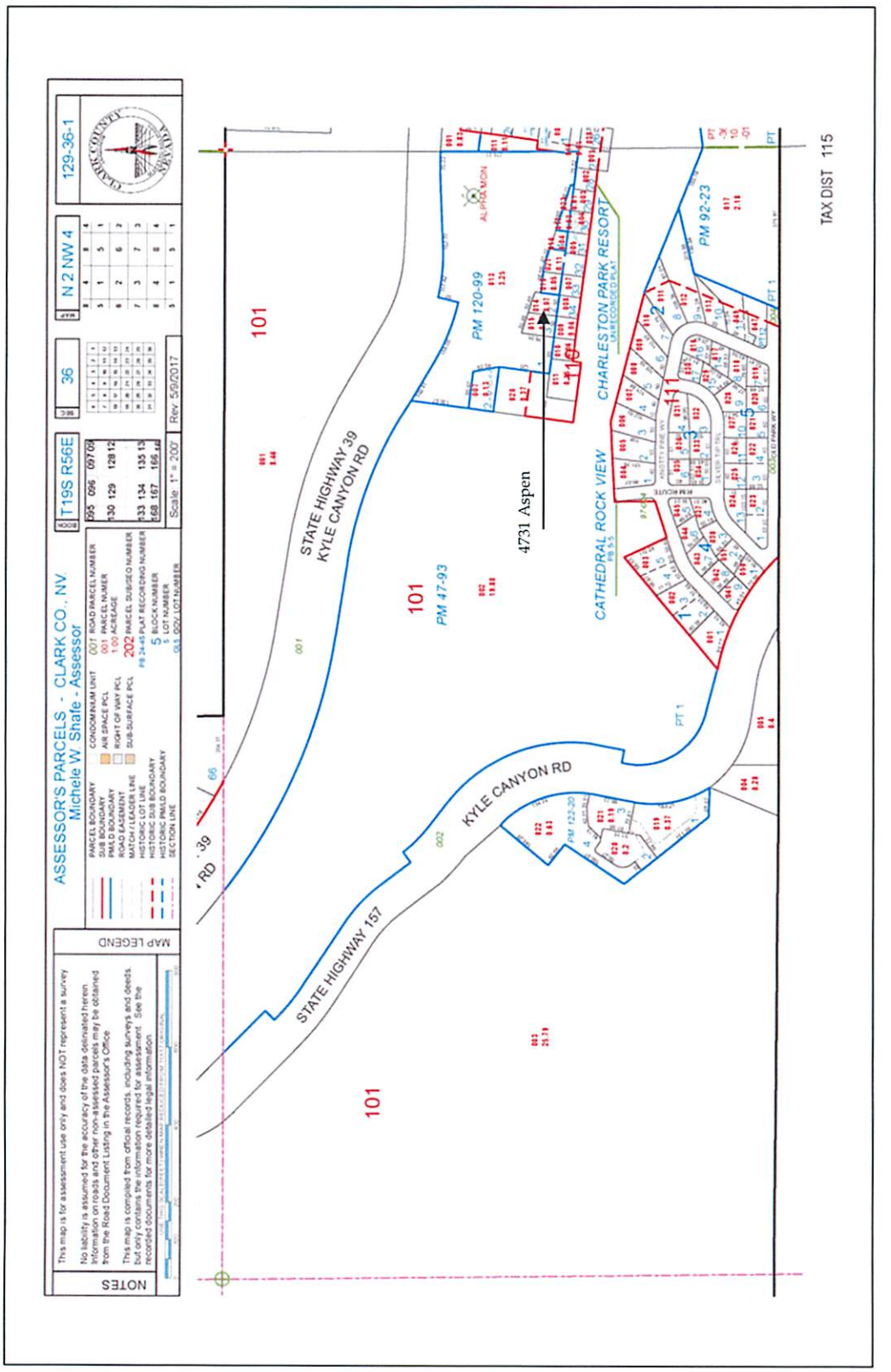
Daniel LaRubio, Jr., Environmental Health Engineer/Supervisor
Southern Nevada Health District
P.O. Box 3902
Las Vegas, Nevada 89127

All written and oral submissions will be considered by the District Board of Health of Clark County.

SIGNED: -S-
Jacqueline L. Reszetar, MS, REHS
Environmental Health Director

DATED: October 2, 2017

Attachment B: Assessor's Map



Attachment C: Clark County Assessor's Ownership History

PARCEL OWNERSHIP HISTORY

Assessor Map | Aerial View | Comment Codes | Current Ownership | New Search

ASSESSOR DESCRIPTION
PARCEL MAP FILE 120 PAGE 99 LOT 2

CURRENT PARCEL NO.	CURRENT OWNER	%	RECORDED DOCUMENT NO.	RECORDED DATE	VESTING	TAX DIST	EST SIZE	COMMENTS
129-36-101-014	CORDELL RALPH T III & ANN		20160518:01771	5/18/2016	JT	115	.07 AC	

PARCEL NO.	PRIOR OWNER(S)	%	RECORDED DOCUMENT NO.	RECORDED DATE	VESTING	TAX DIST	EST SIZE	COMMENTS
129-36-101-014	COUNTY OF CLARK(LIBRARY)		00002232:2191213	02/09/2016	NS	115	.0700 AC	

Click the following link to view the parcel geneology
Parcel Tree

Note: Only documents from September 15, 1999 through present are available for viewing.

NOTE: THIS RECORD IS FOR ASSESSMENT USE ONLY. NO LIABILITY IS ASSUMED AS TO THE ACCURACY OF THE DATA DELINEATED HEREON.

Attachment D: Justification Letter from Owner

JUSTIFICATION/HARDSHIP LETTER

Date: August 24, 2017

To: Southern Nevada Health District
330 S. Valley View Blvd.
Las Vegas, NV 89107

From: Mr. Ralph T. Cordell
4731 Aspen Avenue
Mt. Charleston, NV 89124

RE: Parcel #129-36-110-014

To Whom This 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 3049 sq. ft. The septic tank is to be located 6.3 ft. from the proposed structure and no closer than 5 from the nearest property line.

The legal description of said property is AN: #129-36-110-014 further described as Lot 2, Book 120, Page 099.

I have owned the property since May 16, 2016 and I wish to install a septic system.

Thank you for your consideration,

Chris Bush for Ralph T. Cordell

Attachment E: Cone of Influence Letter

CONE OF INFLUENCE LETTER

August 24, 2017

Mr. Ralph T. Cordell
4731 Aspen Avenue
Mt. Charleston, NV 89124

Subject: Evaluation of the impact of the Location and Depth Of the Leach Field on the Foundation of the Structure at 4731 Aspen Avenue, Mt. Charleston, NV

Sir:

This letter is written at your request to address the impact of the leach field location and depth on the subject residence. A site plan showing the location of the leach field and the structure was provided to us by you. Field measurements show this minimum horizontal distance from the leach field to the house is 6.3 feet and a depth of 5 feet below top of subgrade. The exposed soil profile is GP-GM (silty gravel and sand) in at least a medium dense consistency.

Based on the location of the leach field relative to the structure and considering the conditions of the in-place granular soils between the structure and leach field, it is our opinion that the location of the leach field is outside the foundation stress influence and will not adversely impact the structure, nor will the structure adversely impact the leach field. In addition, no adverse impact will occur if the soils adjacent to the structure become saturated by the leach field.

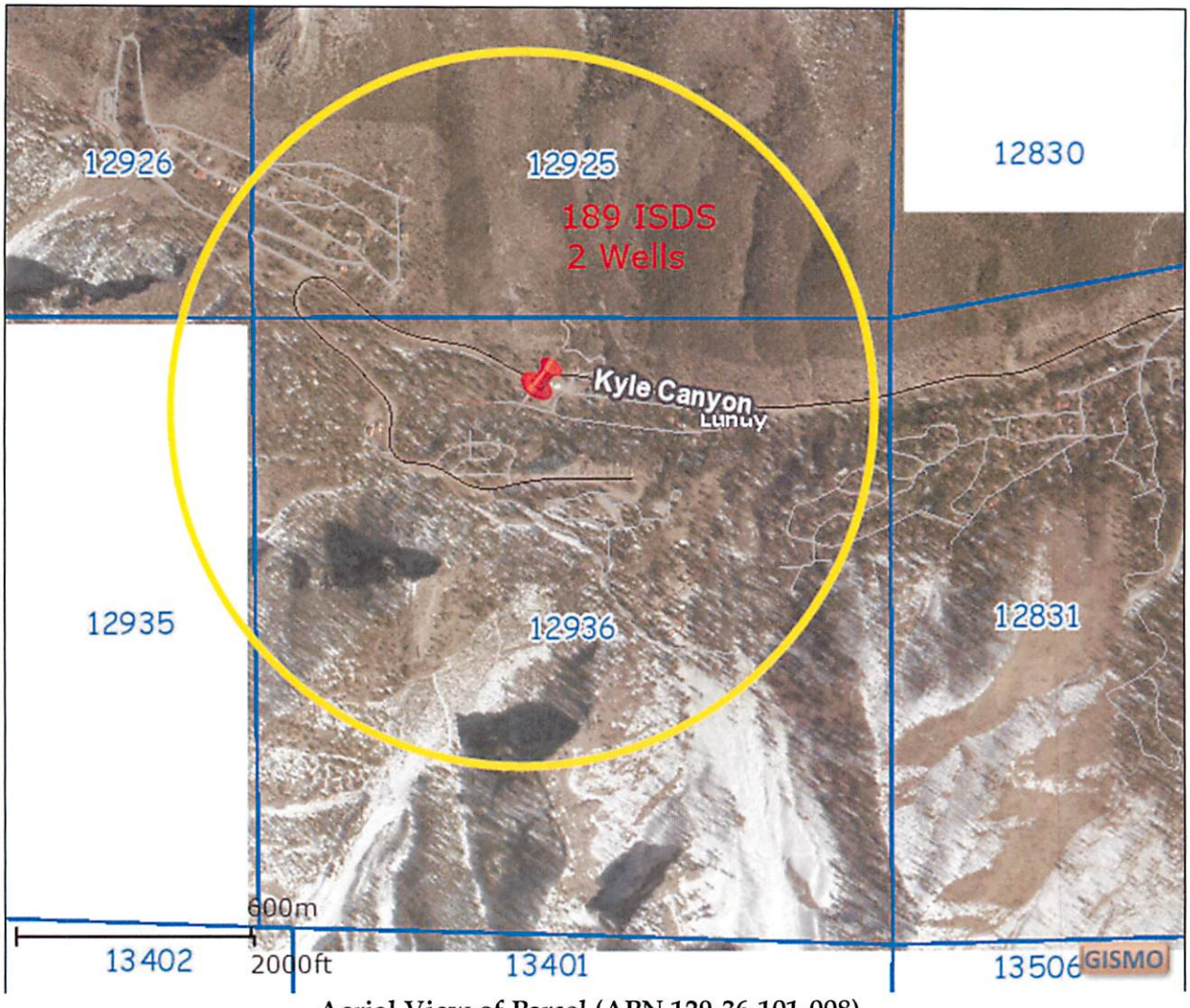
Respectfully submitted,
Dwyer Engineering Inc.

PROFESSIONAL ENGINEER-STATE OF NEVADA
DAVID A. DWYER
Exp: 12/18
CIVIL
No. 7785

8/24/17

David A. Dwyer, P.E.

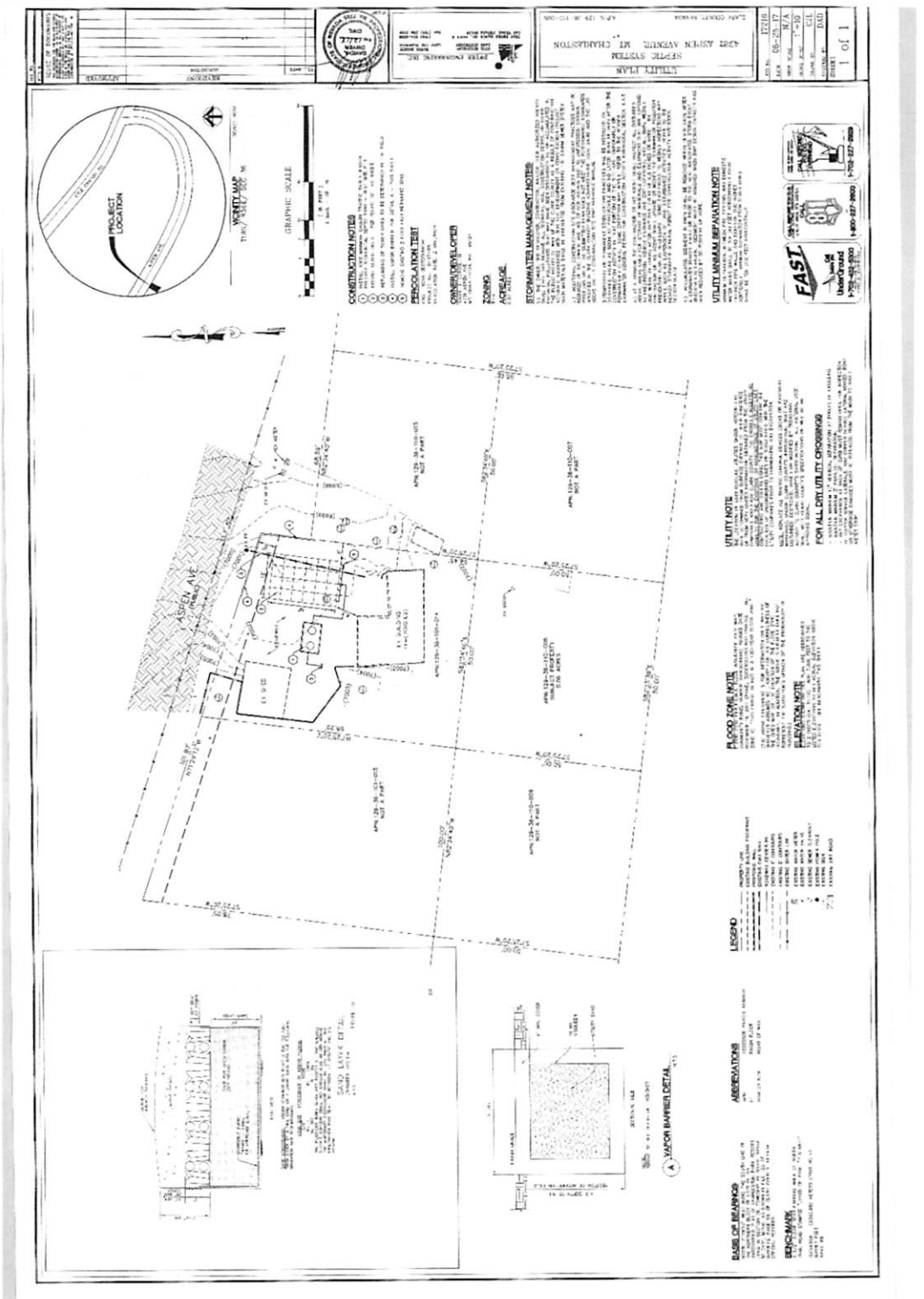
Attachment F: ISDS Density Map



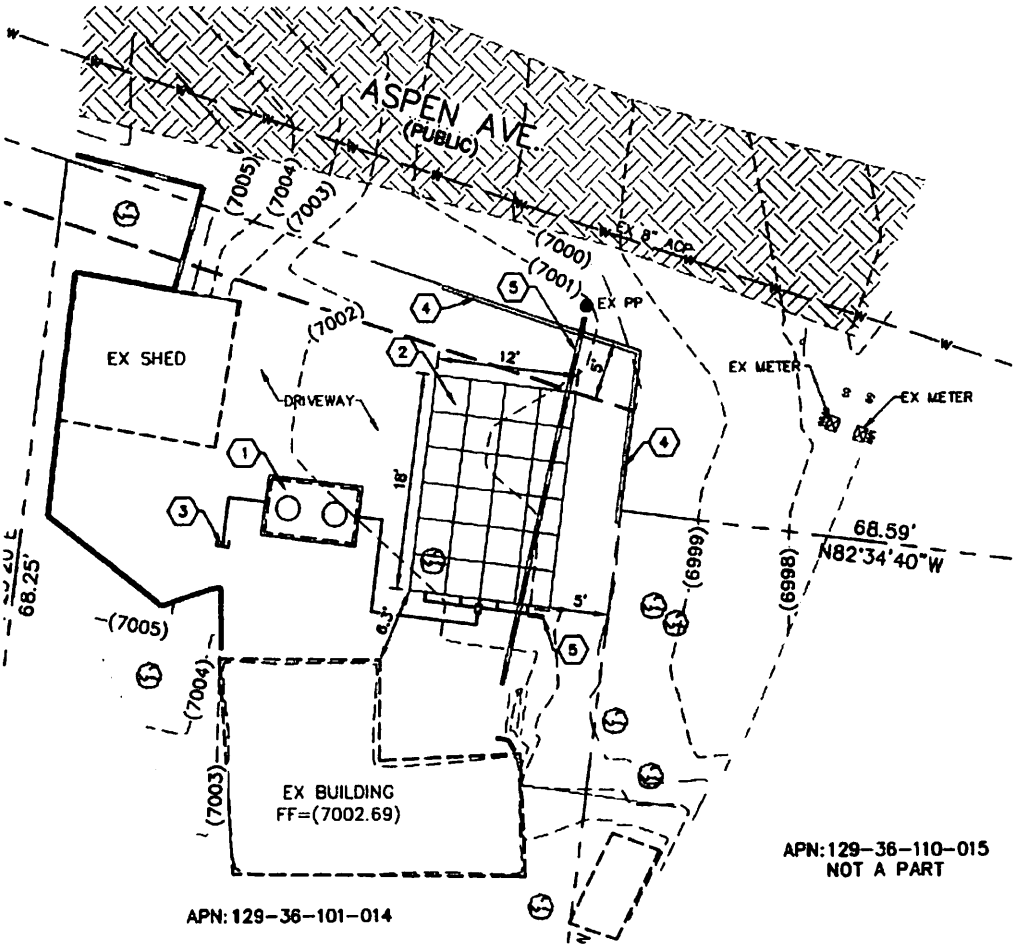
Aerial View of Parcel (APN 129-36-101-008)

189 parcels permitted septic systems within 1 circular square mile of the parcel.
2 wells within 700′ of the parcel 129-36-101-014

Attachment G: Utility Plan

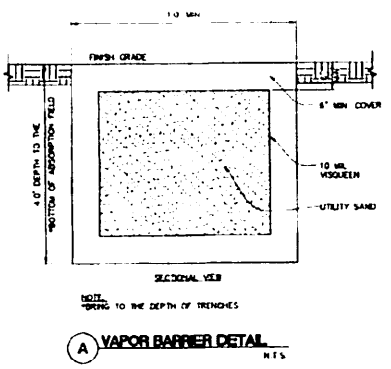


Attachment H: Utility Plan (Enlarged) with Details



CONSTRUCTION NOTES

1. INSTALL 1000 MINIMUM GALLON TRAFFIC RATED JENSEN PRECAST RESIDENTIAL SEPTIC TANK – TEST SITE P-1
2. INSTALL LEACH FIELD – PER FIGURE 10 THIS SHEET.
3. REPLUMBING OF SEWER LINES TO BE DETERMINED IN THE FIELD.
4. INSTALL VAPOR BARRIER PER DETAIL A – THIS SHEET.
5. REMOVE EXISTING 2 FOOT HIGH RETAINING WALL.



(A) VAPOR BARRIER DETAIL
NTS