P201900287

## AM/PAC

1-800-564-7372 (951) 354-6500 FAX 354-8600

PROJECT NUMBER: 17-13319

DATE: JANUARY 9, 2018

JOB SITE LOCATION:

PARCEL 1 OF PARCEL MAP # 18954
THE VICINITY OF HAVEN AVENUE AND SNOWDROP ROAD RANCHO CUCAMONGA
PARENT APN: 0201-043-56-0000

#### PREPARED FOR:

MR. KIRK WALLACE (626) 225-6275 & MR. JEFF SPANGLER ALLERA PROPERTIES, LLC. 2403 CLIFF ROAD UPLAND, CA. 91784 VIA E-MAİL: Wallacekirk@yahoo.com

ORIGINAL

# Percolation Investigation AM/PAC AND ASSOCIATES, INC.

2900 Adams St., Suite C-35 • Riverside, CA 92504

PROJECT NUMBER: 17-13319 DATE: JANUARY 9, 2018

#### **CLIENT REQUESTING REPORT:**

MR. KIRK WALLACE (626) 225-6275 & MR. JEFF SPANGLER ALLERA PROPERTIES, LLC. 2403 CLIFF ROAD UPLAND, CA. 91784 VIA E-MAIL: Wallacekirk@yahoo.com

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PARENT APN: 0201-043-56-0000

#### **PROPOSED DEVELOPMENT:**

SITE PLAN AND FLOOR PLANS HAVE NOT BEEN PROVIDED FOR A FUTURE RESIDENTIAL STRUCTURE. IT IS ASSUMED THAT A CUSTOM HOME UTILIZING A 1500 GALLON SEPTIC TANK AND SEEPAGE PIT O.W.T.S. WILL BE PROPOSED. THE DESIGN INFORMATION IS PREPARED FOR THAT 1500 GALLON TANK SYSTEM.

#### PURPOSE AND SCOPE OF THIS REPORT:

THIS TEST WAS PERFORMED TO DETERMINE THE FEASIBILITY OF USING AN ON SITE, SUBSURFACE SEWAGE DISPOSAL SYSTEM ON THIS PARCEL. THIS TEST WAS PERFORMED FOR A SEEPAGE PIT APPLICATION. THIS TEST AND REPORT WILL DETERMINE WHETHER OR NOT THERE IS SUFFICIENT AREA AND PROPER USABLE SOIL AVAILABLE FOR A SUBSURFACE SEWAGE DISPOSAL SYSTEM TO SUPPORT PROPOSED OR FUTURE BUILDING PROJECTS ON THE PARCELS TESTED.

#### PROPERTY DESCRIPTION:

THE PARCEL IS A 1.0-ACRE LOT. THE OWNERS FUTURE PLANS PROPOSE TO CONSTRUCT A SITE-BUILT SINGLE FAMILY RESIDENCE. THE GROUND COVER CONSISTS OF SPARSE NATIVE GRASSES AND BARE ROCKY SOIL. THE PROPERTY FRONTS SNOWDROP ROAD ALONG THE NORTHERLY LOT LINE OF THE PARCEL. SEVERAL BURIED FLOAT BOULDERS ARE NOTED ON THE PARCEL. NO BEDROCK ROCK OUTCROPPINGS, OUT BUILDINGS, TREES OR WELLS WERE NOTED ON THE PROPERTY DURING OUR FIELD INSPECTION. NO NEIGHBOR WELLS WERE NOTED WITHIN 200' OF THE PARCEL. A LARGE SEASONAL DRAINAGE COURSE WAS NOTED ON THE PARCEL ALONG THE WESTERLY LOT LINE RUNNING FROM NORTH DOWN TO THE SOUTH. WATER IS SUPPLIED BY THE CUCAMONGA VALLEY WATER DISTRICT. THE PROPERTY'S TOPOGRAPHY IS NOTED ON THE GRADING PLAN ATTACHED. THE PARCEL IS EASILY FOUND USING THE ASSESSOR AND VICINITY MAPS ATTACHED.

#### **METHODOLOGY OF TESTING:**

PER THE COUNTY OF SAN BERNARDINO, DEPARTMENT OF ENVIRONMENTAL HEALTH'S REQUIREMENTS: ALL EXCAVATIONS WERE MADE USING AM/PAC'S MOBILE DRILL B-34, TRUCK MOUNTED CONTINUOUS FLIGHT AUGER, DRILL RIG. A 6" DIAMETER AUGER WAS USED TO EXCAVATE THE PERCOLATION TEST HOLES AND THE EXPLORATORY BORE HOLE. PERFORATED PIPE LINERS WERE USED TO MAINTAIN THE HOLE DEPTH AND DIAMETER DURING TESTING.

A SOLINST WATER LEVEL METER WAS USED TO MEASURE THE WATER LEVEL AT FILLS AND DROPS. A 100 AND/OR 300 GALLON TRUCK MOUNTED WATER TANK WAS USED TO PROVIDE WATER FOR THE TESTING PROCESS. PERCOLATION TESTING WAS PERFORMED AFTER A 24 HOUR PRESOAKING. TESTING WAS PERFORMED IN THIRTY-MINUTE INTERVALS OVER A SIXHOUR PERIOD.

AT THE END OF EACH THIRTY-MINUTE PERIOD THE WATER LEVEL WAS MEASURED, THE RESULT NOTED, AND THE HOLES REFILLED TO THE "ZERO" LEVEL WITH WATER. THE "ZERO" LEVEL OR POSITION IS THE DEPTH AT THE PROPOSED INLET OF THE SEEPAGE PIT.

#### **TEST DATA:**

A SEEPAGE PIT PERCOLATION TEST HAS BEEN PERFORMED ON THIS PARCEL WITH THE FOLLOWING RESULTS:

PIT A: 1.31 GALLONS PER SQUARE FOOT OF SIDEWALL PER DAY

PIT B: 2.21

THE SEPTIC SYSTEM DESIGN IS BASED ON (Q = 1.1)

1500 GALLON SEPTIC TANK

1.1 X 18.8 = 20.68. 1500 / 20.68 = 72.53 VERTICAL FEET OF PIT SIDEWALL

INSTALL THREE PITS, EACH BEING 6' DIAMETER BY 25' IN DEPTH AS MEASURED BELOW THE INLET. SET INLET DEPTH AT 4' BELOW GRADE (TYPICAL).

7' DIAMETER PITS ARE OFTEN RECOMMENDED IN THIS AREA AS THE LARGE VOLUME OF BIG BOULDERS AND COBBLES MAKES IT VERY DIFFICULT TO DIG USING A BUCKET RIG OR AUGER RIG. A LONG REACH TRACK EXCAVATOR MAY BE BEST SUITED FOR THE EXCAVATION.

USING A 7' DIAMETER PIT, 1.1 X 21.98 = 24.17, 1500 / 24.17 = 62.06 VERTICAL FEET. INSTALL THREE PITS, EACH BEING 7' DIAMETER BY 21' IN DEPTH, BELOW INLET.

EXPLORATORY BORING, PERCOLATION TEST HOLE BORING AND PERCOLATION PRESOAKING WERE PERFORMED ON 12-5-17. PERCOLATION TESTING WAS PERFORMED ON 12-6-17. ALL TEST SITES ARE MARKED WITH LATH AND FLAGGING.

#### **CONSTRUCTION REQUIREMENTS AND RECOMMENDATIONS:**

ANY SITE PLAN AND BUILDING PLANS FOR A FUTURE PROJECT MUST BE REVIEWED BY AM/PAC PRIOR TO THE ISSUANCE OF A HEALTH PERMIT AND APPROVAL. THIS REVIEW WILL INCLUDE A SIGN-OFF ON THE GRADING PLAN BY AM/PAC AND ASSOCIATES, INC. PERSONNEL.

THE REGULATORY AGENCIES REQUIRE THAT THE LOT CORNERS BE MARKED AND THAT THE ADDRESS AND ASSESSOR'S PARCEL NUMBER BE POSTED IN PLAIN SIGHT ON THE PARCEL.

ANY SYSTEM DESIGN PLOT PLAN NOT PREPARED BY AM/PAC AND ASSOCIATES MUST BE APPROVED BY AM/PAC AND ASSOCIATES PRIOR TO PERMIT APPROVAL OF THE PROJECT BY THE REGULATORY AGENCIES.

ALL WATER WELLS MUST BE AT LEAST 100' AWAY FROM ANY SEPTIC TANK OR LEACH LINE AND 150' AWAY FROM ANY SEPAGE PIT.

AM/PAC RECOMMENDS THE USE OF PRE-CAST SEEPAGE PIT LINERS RATHER THAN LOOSE BLOCKS TO CONSTRUCT THE SIDEWALL OF THE PITS.

APPROVED RISERS TO GRADE AND LIDS ARE REQUIRED TO BE INSTALLED ON THE SEPTIC TANK. AN APPROVED EFFLUENT FILTER IS TO BE INSTALLED IN THE OUTLET TEE OF THE SEPTIC TANK.

#### CONCLUSIONS AND RECOMMENDATIONS

BASED ON THE DATA PRESENTED IN THIS REPORT AND USING THE RECOMMENDATIONS SET FORTH HEREIN, IT IS THE OPINION OF THE UNDERSIGNED THAT THERE IS SUFFICIENT AREA ON EACH LOT IN QUESTION TO SUPPORT AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM. THAT WILL MEET THE CURRENT CODES AND STANDARDS OF THE ENVIRONMENTAL HEALTH DEPARTMENT.

BASED ON THE DATA PRESENTED IN THE REPORT AND THE TESTING INFORMATION ACCUMULATED, IT IS THE OPINION OF THE UNDERSIGNED THAT THE GROUNDWATER TABLE WILL NOT ENCROACH WITHIN THE CURRENT ALLOWABLE LIMITS SET FORTH BY COUNTY AND STATE REQUIREMENTS.

HORSE CORRALS, ANIMAL PENS OR DRIVEWAYS, PAVED OR UNPAVED, MUST NOT BE PLACED OVER LEACH LINES. THE PROPOSED PROJECT SHALL BE LOCATED SO THAT THE SEWAGE DISPOSAL SYSTEM AND THE REQUIRED 100% EXPANSION SYSTEM SHALL OPERATE BY GRAVITY FLOW. THE ORIGINAL LEACH FIELD AND EXPANSION SYSTEMS LEACHING SIDEWALL AND BOTTOM AREA MUST BE IN NATURAL, UNDISTURBED SOIL AND AT THE DEPTH OF THE TESTS PERFORMED.

THE NATURAL OCCURRING BODY OF MINERALS AND ORGANIC MATTER AT THE PROPOSED WASTEWATER DISPOSAL AREA CONTAINS EARTHEN MATERIALS HAVING MORE THAN 50% OF ITS VOLUME COMPOSED OF PARTICLES SMALLER THAN 0.08 INCHES IN SIZE.

THE CONCLUSIONS AND RECOMMENDATIONS PROVIDED IN THIS REPORT WERE DERIVED FROM DATA GATHERED FROM OUR FIELD INVESTIGATIONS AND ENGINEERING ANALYSIS, USING METHODS MEETING THE STANDARD PRACTICES AT THIS TIME. THIS REPORT IS BASED ON CONDITIONS EXISTING AT THE TIME OF THE INVESTIGATION. ANY ENVIRONMENTAL CHANGES, WHETHER NATURAL OR CAUSED BY MAN, MAY ALTER OR NEGATE THE CONCLUSIONS AND RECOMMENDATIONS HEREIN. NO WARRANTY IS MADE OR IMPLIED BY THE SUBMITTAL OF THIS REPORT OR BY ANY ORAL OR WRITTEN AGREEMENT, ANY LIABILITY IN CONNECTION HEREWITH IS LIMITED TO THE FEE CHARGED FOR THIS REPORT.

THE REPORT STAMPED "ORIGINAL" MUST BE SUBMITTED TO THE ENVIRONMENTAL HEALTH DEPARTMENT WHEN APPLICATION FOR A PERMIT IS MADE. THE HEALTH DEPARTMENT WILL NOT ACCEPT A COPY OF THIS REPORT.

IF NO PROPOSED PLANS ARE AVAILABLE TO AM/PAC, INC. DURING THE TIME THE REPORT IS PREPARED, ADDITIONAL FEES MAY BE CHARGED IF AM/PAC INC. IS REQUESTED TO FURNISH A PLOT PLAN SYSTEM DESIGN AT A LATER DATE, THUS REQUIRING ADDITIONAL WORK. THIS REPORT IS NOT TRANSFERABLE WITHOUT THE WRITTEN AUTHORIZATION FROM AM/PAC AND ASSOCIATES, INC.

REGIS?

SHOE E. HAY

No.C034779

GEORGE E HAWES, VICE PRESIDENT RCE C-034779 STATE OF CALIFORNIA

LIC. EXR: 9/30/19

DAVID E BALLINGER, PRESIDENT AM/PAC AND ASSOCIATES, INC.

DATE OFESSIONA,

this official stamp is in blue ink; F CALIFORN Herwise a copy

## **SOIL PROFILE DATA**

| BORE   | LOG A |  |
|--------|-------|--|
| 0-5'   | S/W   | TANNISH BROWN TO TAN SANDS, FINE TO COARSE GRAINED, ABUNDANT ANGULAR GRAVELS AND COBBLES, 3" TO THE LARGEST DIMENSION, FIRM TO DENSE AND DRY $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ |
| 5-18'  | S/W   | TAN SANDS, FINE TO COARSE GRAINED, ABUNDANT GRAVELS, DENSE AND DRY   |
| 18-40' | S/W   | MEDIUM BROWN SANDS, FINE TO COARSE GAINED, MODERATE COBBLES AND GRAVELS, DENSE AND DRY   |
|        |       |  |
| BORE   | LOG B |  |
| 0-5'   | S/W   | TANNISH BROWN TO TAN SANDS, FINE TO COARSE GRAINED, ABUNDANT ANGULAR GRAVELS AND COBBLES, 2" TO THE LARGEST DIMENSION, FIRM TO DENSE AND DRY   |
| 5-15'  | S/W   | TAN SANDS, FINE TO COARSE GRAINED, ABUNDANT GRAVELS AND COBBLES, 2" TO THE LARGEST DIMENSION, DENSE AND DRY.   |
| 15-25' | S/W   | MEDIUM BROWN SANDS, FINE TO COARSE GAINED, MODERATE COBBLES AND GRAVELS, VERY DENSE AND DRY.   |

#### **GROUNDWATER INFORMATION**

GROUNDWATER AT THE TIME OF BORING: NONE GROUNDWATER AT THE 24 HR. RECHECK: NONE MONITORING WELL INSTALLED?

## **APPENDIX**

| A-1 | FIELD TEST DATA SHEETS             |
|-----|------------------------------------|
| A-2 | UNIFIED SOIL CLASSIFICATION SYSTEM |
| A-3 | SETBACK REQUIREMENTS               |
| A-4 | ASSESSOR'S MAP                     |
| A-5 | VICINITY MAPS                      |
|     |                                    |

A-6 SITE PHOTOGRAPHS

DEDO MAMURL S.S.C., MEMUREMONDO 111-1-

AM/PAC \$ ASSOCIATES, INC

CALGULATIONS

\$ (D·8) E (ave)

Septic Tank Copacity

O M 15.7

PROJECT # 17-13319 AMERICAN/PACIFIC SOILS
DATE 1-9-18

DIAMETER OF BORE \_6" (D)

BORING NO. 7 NAME OF TESTER: DB, BB DEPTH BELOW GRADE

| 3, | i need in | H- | (I+ <u>I-I</u> ) |
|----|-----------|----|------------------|
|    |           |    |                  |

WATE IN GALLONE/EQ. FT. OF SIDEWALL PER DAY.

H .. DEPTH: TO DOTTOM OF TEST BORG.

.. INSTIAL DEPTH OF WATER AT START OF TIME PERIOD.

E .. MEPTH OF WATER AT TIME OF MEASURING.

F .. DECOR OR DIFFERDICE BURING TIME INTERVAL

D .. DEALETEN OF BORE.

T -- TEST TIME INTERVAL IN FT. (10 MIN. 17)(30 MIN. 1)
L (AVE) -- AVERAGE NETTED DEPTH DURING TIME INTERVAL.

| сонненть | FILL TIME | READ TIME | 10 HINUTES | to imaga<br>Zños<br>H  | FILLED TO<br>DEPTH  | DEPTH AT<br>READ TIME<br>E   | E-t  |
|----------|-----------|-----------|------------|--|---|--|--|
|          |           |           | 30         | 40   | SURFACE   | 6.3  | 6.3  |
|          |           |           | 30         | 40   |   | 6.0  | 6.0  |
|          |           |           | 30         | 40   |   | 6.0  | 6.0  |
|          |           |           | 30         | 399  |   | 5.8  | 5.8  |
|          |           |           | 30         | 398  |   | 5.6  | 5.6  |
|          |           |           | 30         | 398  |   | 5.4  | 5.4  |
|          |           |           | 40         | 394  | SURFACE   | 5.3  | 5.3  |
|          |           |           | 30         | 395  | (.  | 5.2  | 5.2  |
|          |           |           | <i>3</i> c | 395  |   | 5.0  | 5.0  |
|          |           |           | 30         | 394  | SURPACE   | 5.0  | 5.0  |
|          |           |           | 30         | 393  | 40  | 8.9  | 49   |
|          |           |           | 30         | 393  | 4FT   | 88   | 48   |
|          |           |           |            | 30<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30<br>30 | 30 40<br>30 40<br>30 40<br>30 399<br>30 398<br>30 398<br>30 398<br>30 395<br>30 395<br>30 395<br>30 395<br>30 395 | 30 40 SUEFACE  30 40  30 40  30 40  30 399  30 398  30 398  30 398  30 395  30 395  30 395  30 395  30 395  30 395  30 395  30 395  30 395  30 395 | 30 40 SUEFFICE 6.3  30 40 6.0  30 40 6.0  30 399 5.8  30 398 5.4  30 398 500 5.4  30 395 5.2  30 395 5.2  30 395 5.0  30 394 SUEFFICE 5.3  30 394 SUEFFICE 5.0  30 394 SUEFFICE 5.0  30 394 SUEFFICE 5.0 |

| _ (AUZ) =               | 2.4     |
|-------------------------|---------|
| _ (AUZ) =<br>39.3-4.0+( | 8.8-4.0 |
| 39.3-64=                | 32.9    |

|  | 4.8 (·s) 9 = (31 |  |
|--|------------------|--|
|  | 32.9             |  |

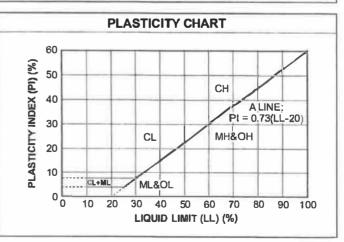
HANE OF TESTER: DB BB (E) 2,0 12 0,0 200 63 do 7 o, 10 2 :-0 :-DEPTH BELOW GRADE BORING NO. 40 1 m w D DEPTH AT 4 *π* 3 17 500 20 7 8 4 הורנבס לים DEPTH 246 SURPACE 1742 Suennace ○ Suppace 0 4:0 0 250 248 SHE 245 248 240 DIPTH OF BORL 12 542 25. 249 249 PROJECT # 17-133/2 AMERICAN/PACIFIC SOILS FILL TIME READ TIME 30 MINUTES () 9 ιή 30 4 13 90 30 M S 30 3 9 DIAMETER OF BORE 6" DATE. 1-9-18 SUL MANCHE S.S.C., MERNINGE AW/PAC \$ MODE OCIOTES, 13C COMMENTS 52.31 24.5-40 \$8.5-4.0 Sepelé Tark Capacity (Availie He 12th 12-1) = 5207-572 52,81 SHOTENTANICO (p. c)

## CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

## UNIFIED SOIL CLASSIFICATION SYSTEM

|   | COAR                                   | SE-GRAINED SOILS   |  |  |  |  |
|---|--|--|--|--|--|--|
| (more than 5                              | 0% of mate                             | erial is larger than No. 200 sieve size.)  |  |  |  |  |
| _   | Clean (                                | Gravels (Less than 5% fines)   |  |  |  |  |
| GRAVELS                                   | GW                                     | Well-graded gravels, gravel-sand mixtures, little or no fines  |  |  |  |  |
| More than 50% of coarse                   | O GP                                   | Poorly-graded gravels, gravel-sand mixtures, little or no fines  |  |  |  |  |
| fraction larger                           | Gravels                                | s with fines (More than 12% fines)   |  |  |  |  |
| than No. 4<br>sieve size                  | GM                                     | Silty gravels, gravel-sand-silt mixtures   |  |  |  |  |
|   | GC                                     | Clayey gravels, gravel-sand-clay mixtures  |  |  |  |  |
|   | Clean                                  | Sands (Less than 5% fines)   |  |  |  |  |
| SANDS                                     | sw                                     | Well-graded sands, gravelly sands, little or no fines  |  |  |  |  |
| 50% or more of coarse                     | SP                                     | Poorly graded sands, gravelly sands, little or no fines  |  |  |  |  |
| fraction smaller                          | Sands with fines (More than 12% fines) |  |  |  |  |  |
| than No. 4<br>sieve size                  | SM                                     | Silty sands, sand-silt mixtures  |  |  |  |  |
|   | sc                                     | Clayey sands, sand-clay mixtures   |  |  |  |  |
| (50% or mo                                |  | GRAINED SOILS<br>ial is smaller than No. 200 sieve size.)  |  |  |  |  |
| SILTS                                     | ML                                     | Inorganic silts and very fine sands, rock<br>flour, silty of clayey fine sands or clayey<br>silts with slight plasticity |  |  |  |  |
| AND<br>CLAYS<br>Liquid limit<br>less than | CL                                     | Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays                        |  |  |  |  |
| 50%                                       | OL                                     | Organic silts and organic silty clays of low plasticity  |  |  |  |  |
| SILTS<br>AND                              | мн                                     | Inorganic silts, micaceous or<br>diatomaceous fine sandy or silty soils,<br>elastic silts                                |  |  |  |  |
| CLAYS                                     | СН                                     | Inorganic clays of high plasticity, fal clays  |  |  |  |  |
| Liquid limit<br>50%                       | 30                                     | Organic clays of medium to high  |  |  |  |  |
| 50%<br>or greater                         | ОН                                     | plasticity, organic silts  |  |  |  |  |

|    | LABORATORY CLASS   | SIFICATION CRITERIA  |  |  |  |
|----|--|--|--|--|--|
|    |  |  |  |  |  |
| GW | $C_u = \frac{D_{60}}{D_{10}}$ greater than 4             | 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3 |  |  |  |
| GP | Not meeting all gradation re                             | quirements for GW  |  |  |  |
| GM | Atterberg limits below "A" line or P.I. less than 4      | Above "A" line with P.I. between 4 and 7 are borderline cases  |  |  |  |
| GC | Atterberg limits above "A" line with P.I. greater than 7 | requiring use of dual symbols                                  |  |  |  |
| sw | $C_{IJ} = \frac{D_{60}}{D_{10}}$ greater than            | 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3 |  |  |  |
| SP | Not meeting all gradation re                             | quirements for GW  |  |  |  |
| SM | Atterberg limits below "A" line or P.I. less than 4      | Limits plotting in shaded zone with P.I. between 4 and 7 are   |  |  |  |
| SC | Atterberg limits above "A" line with P.I. greater than 7 | borderline cases requiring use                                 |  |  |  |



To ensure that OWTS do not adversely affect water quality, the government agencies tasked with protecting the public's health, ground water and safety have developed siting standards for OWTS. This chapter provides information regarding siting standards such as, minimum lot size, setback requirements (including increased setback and notification requirements for OWTS located near public water systems), natural ground slope and density.

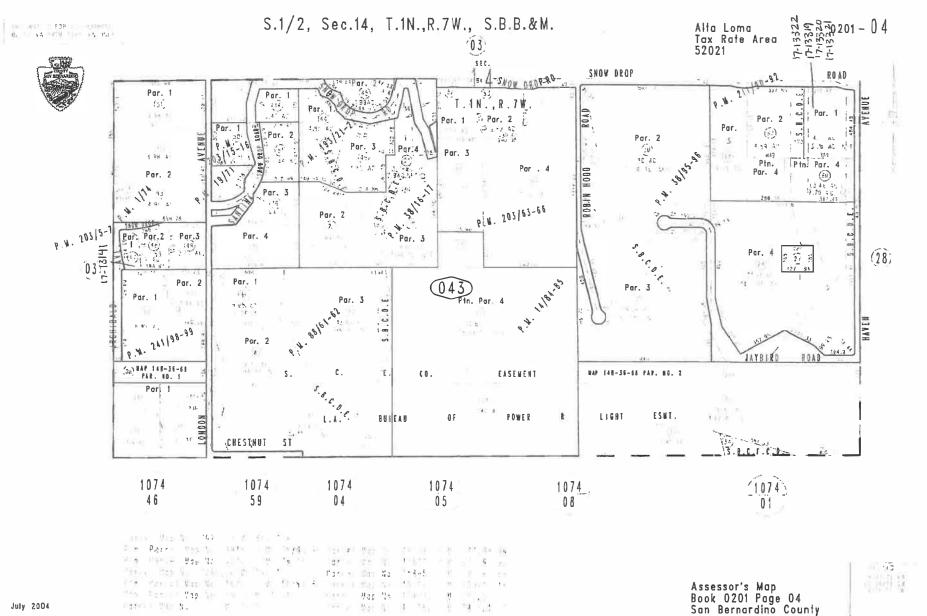
### **Setback Requirements**

The minimum separations listed herein are largely derived from the California Plumbing Code, Appendix H and are measured in feet. In some cases, additions or changes have been made in order to adequately protect public health. Where differences exist, the greater separation prevails, unless waived for cause by the County (as described in Chapter 7 of the LAMP). The following table provides the minimum requirements for installation of OWTS for either new or existing structures.

Table 3.1

| Minimum Setback Required From                             | Septic Tank | Disposal Field   | Seepage Pit      |
|---|-------------|------------------|------------------|
| Non-Public Water Supply Well <sup>1,8</sup>               | 100         | 100 <sup>2</sup> | 150 <sup>2</sup> |
| Public Water Supply Well <sup>1</sup>                     | 100         | 150²             | 20012            |
| Buildings or Structures <sup>3</sup>                      | 5           | 8                | 8                |
| Property line adjoining private property                  | 5           | 5                | 8                |
| Streams and other flowing bodies of water <sup>9,11</sup> | 100         | 100              | 150              |
| Drainage Course   | 50          | 50               | 50               |
| Lakes, ponds, and other surface water bodies 10,11        | 200         | 200              | 200              |
| Colorado River/ Mojave River                              | 50          | 200              | 200              |
| Large Trees⁴  | 10          |                  | 10               |
| Seepage pits  | 5           | 5                | 12               |
| Disposal field  | 5           | 46               | 5                |
| Private domestic water lines (building service line)      | 5           | 5                | 5                |
| Public Domestic Water Lines                               | 25          | 25               | 25               |
| Distribution Box  | n/a         | 5                | 5                |
| Ground surface on sloping ground                          | n/a         | 15               | 15               |
| Groundwater <sup>5</sup>                                  | 5           | 57               | 10               |

- Drainage piping will clear domestic water supply wells by not less than 50 feet. This distance will be permitted to be reduced to not less than 25 feet where the drainage piping Is constructed of materials approved for use within a building
- For any system discharging 5,000 GPD, or more, the required setback will be increased to 200 feet
- includes porches and steps whether covered or uncovered, breezeways, roofed porte cocheres, roofed patios, carports, covered walls, covered driveway, and similar structures or appurtenances.
- Any tree with a trunk diameter of one foot or more within 5 feet of the system that will not be removed during construction.
- The highest known level to which groundwater is known to have occurred rather than the level at the time when testing occurred.
- Plus 2 feet for each additional foot or depth in excess of 1 foot below the bottom of the drain line.
- For any system utilizing advanced treatment, this minimum separation may be reduced to 2 feet with approval under the APMP (refer to Chapter 6 for more Information regarding the APMP) and the RWB.
- Unless regulatory or legitimate data requirements necessitate that monitoring wells be located closer.
- 9 Where the edge of the water body is the natural or levied bank for creeks and rivers, or may be less where site conditions prevent mitigation of wastewater to the water body.
- Where the edge of the water body is the high water mark for lakes and reservoirs and the mean high tide line for tidally influenced water bodies.
- 11 Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point (such as upstream of the intake point for flowing water bodies), the dispersal system will be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body. Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, the dispersal system will be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.
- <sup>12</sup> Dispersal systems which exceed 20 feet in depth and are located within 600 feet of a municipal well will be required to have the consultant evaluate the two year travel time for microbial contaminants to determine required setback. In no case will the setback be less than 200 feet.



July 2004



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## SEEPAGE PIT SYSTEM

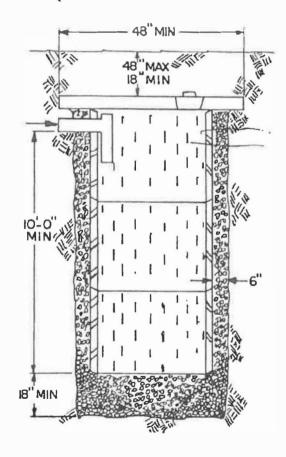
ADVANTAGES OF THE SEEPAGE PIT DISPOSAL SYSTEM INCLUDE THE FOLLOWING:

- A. MINIMUM AMOUNT OF AREA IS REQUIRED.
- B. LARGE CONTACT AREA WITH SOIL.
- C. AGGREGATE PROVIDES ADDED TREATMENT SURFACE AND PROTECTION OF SOIL.

THE MAJOR LIMITATION OF THIS TYPE OF DISPOSAL SYSTEM IS

ITS INABILITY TO BE USED IN HIGH GROUND WATER AREAS.

RIVERSIDE COUNTY REQUIRES 100% EXPANSION AREA..



AM/PAC AND ASSOCIATES, INC.

2900 Adams St., Suite C-35 • Riverside, CA 92504

### Snowdrop Road & Haven Ave



Map data @2018 Google 100 ft