

O.S.T. System Designs Inc.

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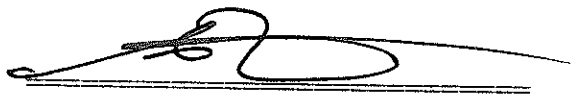
Mr. Seaman,

I have revised Page 1 of the Site Plan previously dated May 30, 2012 to reflect the changes in the use of the existing well located on Lot # 23. The change indicates this well as a Community Well requiring a 150 Ft setback from a Sewage Reserve/Dispersal Area. The previous Sewage Reserve Area was moved just slightly to the Southwest into the fenced area and the Well was labeled as "Community Well". The other two wells located within the subdivision on Lots 5 and 17 have been labeled as Domestic Wells and will not be connected the Community Water System.

The other Wells Mr. Fortner has proposed to include in the Community Water System are located on the Adjacent Ag Land. All of the proposed Community Wells will be noted on a separate Map submitted to the County with the rest of the information they have requested in regards to the proposed Water System. The Soils Report Site Plans can be included as part of the information they have requested.

Please submit when ready and call me if you have any questions.

Respectfully,



Armando G. Flores,
Registered Environmental
Health Specialist

RECEIVED
JUN 29 2012
MARIPOSA COUNTY
HEALTH DEPARTMENT

O.S.T. SYSTEM DESIGNS INC.

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County Copy

December 20, 2011

Mariposa County Health Dept., Env Hlth Services
Dave Conway
PO Box 5
Mariposa CA 95338

**Re: A Soils Report for the Proposed Vallecito Subdivision
Land Division Application # _____
Applicant: Eugene and Dolores Family Trust
Site: Cathey's Valley Dr/Hwy 140, Cathey's Valley, CA.
Tentative Parcel Map by: Freeman and Seaman Land Surveyors**

INTRODUCTION:

The proposed Land Division is located off of Cathey's Valley Drive, adjacent to Highway 140 in Cathey's Valley, Mariposa County. The proposal is to subdivide the existing 98.94 gross ± Acres into 26 new Lots ranging in size from 2.5 to 12.79 gross Acres. Most of the lots are between 2.5 and 3.0 Acres in size. This report addresses the sewage feasibility on each of the proposed 26 Lots.

The purpose of the Sewage Feasibility Investigation and Soils Report is to address the feasibility of sewage dispersal using of individual On-Site Sewage Treatment Systems (OSTS). Sewage Reserve Areas meeting County Guidelines for Waste Disposal from Land Developments have been sized based on the Soils Analysis Data collected and County Policies.

SITE DESCRIPTION:

The proposed Lots have slopes ranging from flat to 20 percent throughout the areas tested for sewage feasibility. Vegetal growth consists of Pine and Oak Trees as well as native brushes and grasses. Site restrictions noted within the subdivision include: an old hand dug well (in use), four existing domestic wells, several small swales, ephemeral drainages, vernal pools, and areas considered wetlands, as indicated on the Tentative Parcel Map by Freeman and Seaman Land Surveyors. The property owners have proposed using a Community Water System, however property line setback requirements used were for a subdivision using individual wells, just in case the County does not allow the creation of a Community Water System.

SOILS ANALYSIS:

The Soils Analysis consisted of using an excavator to excavate and analyze two (2) soil profile test pits and conducting four percolation tests on each of the proposed Lots. **Table A** below summarizes Parcel information and Soils Analysis data as well as the size of Sewage Reserve Areas required on each individual Lot. The soil profile test pits and percolation test sites have been plotted on the attached Soils Report Plot Plans.

Soil Profiles

Soil Profiles conducted throughout the proposed sewage disposal areas indicate that soils vary throughout the site. The Soil Profiles on the majority of the lots found that the top 12 to 18 inches of top soil consists of brownish red fine sandy clay loam followed by 24 to 36 inches of brown/red to tan, semi-fine to medium grained, slightly sticky to very sticky, slightly plastic to plastic sandy clay/DG followed an underlying lower horizon consisting of a light brown/brown-gray medium grained to coarse, very friable to very hard sandy DG to total depths ranging from 7.5 of 9.0 Ft. See **Table A** below for details.

Percolation Tests

Percolation Tests were conducted at depths ranging from 1.0 Ft to 4.5 Ft, depending on soil profile data collected. Six inch diameter Percolation holes were drilled using a Bobcat – Toolcat 5600. All percolation holes were presoaked for a period of at least 24 hours and tested at thirty-minute intervals for 3 hours. Average Percolation Test Rates ranged from 9.38 mpi to 65.0. All of the lots except Lot 15 will be developed using conventional OSTs's. **Lot 15** will require a Special Designed On-Site Sewage Treatment System that provides Advanced Treatment and a Subsurface Drip Field. **Lot 10** requires a Special Designed On-Site Sewage Treatment System that includes a larger than normal Rock Leach Field. See **Table A** below for details.

TABLE A

Lot Information and Soils Analysis Data Summary

Lot #	Lot Size (Gross) Acres	# Perc Tests	Perc Test Depths (Ft)	Avg. Perc Rate (MPI)	Sewage Reserve Area Required	# Soil Profiles	Soil Profile Depth (Ft)
1	2.70	4	4.0 - 4.5	41.1	12,000 Ft ²	2	8.0
2	2.79	4	4.0 - 4.5	52.0	12,000 Ft ²	2	8.0
3	2.93	4	4.0 - 4.5	40	10,000 Ft ²	2	7.5-8.0
4	2.68	4	4.5	53.0	12,000 Ft ²	2	7.5-8.0
5	2.81	4	4.5	57.0	12,000 Ft ²	2	7.5-8.0
6	3.08	4	4.0 - 4.5	43.0	12,000 Ft ²	3	9.0
7	3.02	4	4.0 - 4.5	42.5	12,000 Ft ²	2	7.5
8	2.84	4	4.5	47.0	12,000 Ft ²	2	7.5
9	2.67	4	4.5	20.83	8,000 Ft ²	2	7.5-8.0
10	12.79	4	4.0 - 4.5	65.0	16,000 Ft ²	2	8.0
11	8.33	4	4.0 - 4.5	47.0	12,000 Ft ²	2	8.0
12	2.92	4	4.0 - 4.5	31.25	10,000 Ft ²	2	7.5
13	3.18	4	4.0 - 4.5	37.07	10,000 Ft ²	2	7.5-8.0
14	4.44	4	4.5	40.50	10,000 Ft ²	2	8.0
15	3.17	4	1.0 - 1.5	9.38	6,000 Ft ²	3	3.0-6.0
16	2.56	4	4.0 - 4.5	25.51	10,000 Ft ²	2	8.0
17	2.70	4	4.0 - 4.5	29.23	10,000 Ft ²	2	7.5
18	5.03	4	4.0 - 4.5	19.25	8,000 Ft ²	2	7.5-8.0
19	5.12	4	4.0	28.33	10,000 Ft ²	4	8.0
20	3.20	4	4.0 - 4.5	55.0	12,000 Ft ²	2	7.5-8.0
21	3.24	4	4.0	42.0	12,000 Ft ²	2	7.5-8.0
22	3.55	4	4.0 - 4.5	39.57	10,000 Ft ²	2	8.0
23	3.58	4	3.0 - 4.0	31.91	10,000 Ft ²	2	7.5-8.0
24	3.02	4	4.5	57.0	12,000 Ft ²	2	7.5
25	2.72	4	4.5	50.46	12,000 Ft ²	2	8.0
26	3.76	4	4.5	23.23	10,000 Ft ²	2	8.0

Note: Usable Sewage Reserve Areas were sized per Mariposa County Health Department Policy 03-01.

LOT INFORMATION

Lot 1

The proposed Sewage Reserve Area on this **2.70 Acre Lot** has slopes ranging from 2 - 6 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 41.1 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTTS setback and a Wet Land Area requiring a 25 Ft OSTTS setback.

Lot 2

The proposed Sewage Reserve Area on this **2.79 Acre Lot** has slopes ranging from 2 - 6 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 52.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** There were no restrictions noted within 100 Ft of the area tested.

Lot 3

The proposed Sewage Reserve Area on this **2.93 Acre Lot** has slopes ranging from 2 - 4 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 40.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** A well on Lot 5 requiring a 100 Ft OSTTS Setback.

Lot 4

The proposed Sewage Reserve Area on this **2.68 Acre Lot** has slopes ranging from flat - 4 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 53.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTTS Setback.

Lot 5

The proposed Sewage Reserve Area on this **2.81 Acre Lot** has slopes ranging from 5 - 15 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 57.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** A well on Lot 5 requiring a 100 Ft OSTTS Setback.

Lot 6

The proposed Sewage Reserve Area on this **3.08 Acre Lot** has slopes ranging from Flat - 4% and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 43.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** A well on Lot 5 requiring a 100 Ft OSTTS Setback.

Lot 7

The proposed Sewage Reserve Area on this **3.02 Acre Lot** has slopes ranging from 4 - 8 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 42.5 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTTS setback and a Wet Land Area requiring a 25 Ft OSTTS setback.

Lot 8

The proposed Sewage Reserve Area on this **2.84 Acre Lot** has slopes ranging from 6 - 12 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 47.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTTS setback.

Lot 9

The proposed Sewage Reserve Area on this **2.67 Acre Lot** has slopes ranging from 6 - 9 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 20.83 MPI**
- **Minimum Usable Sewage Reserve Area Required: 8,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTTS setback.

Lot 10

The proposed Sewage Reserve Area on this **12.79 Acre Lot** has slopes ranging from 6 - 12 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a Special Designed On-Site Sewage Treatment System that includes a larger than normal Rock Leach Field is required in order to mitigate an average percolation rate exceeding 60.0 mpi. A conventional septic tank and rock leach field will be used to treat and disperse residential type wastewater on this proposed Lot. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 65.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 16,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** A Wet Land Area requiring a 25 Ft OSTTS setback.

Lot 11

The proposed Sewage Reserve Area on this **8.33 Acre Lot** has slopes ranging from 5 - 8 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 47.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions: A Wet Land Area requiring a 25 Ft OSTTS setback.**

Lot 12

The proposed Sewage Reserve Area on this **2.92 Acre Lot** has slopes ranging from 5 - 10 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average percolation rate: 31.25 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions: An ephemeral drainage requiring a 50 Ft OSTTS setback and a Wet Land Area requiring a 25 Ft OSTTS setback.**

Lot 13

The proposed Sewage Reserve Area on this **3.18 Acre Lot** has slopes ranging from 2 - 4 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 37.07 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 5.0 Ft**
- **Site Restrictions:** There were no restrictions noted within 150 Ft of the area tested.

Lot 14

The proposed Sewage Reserve Area on this **4.44 Acre Lot** has slopes ranging from 3 – 6 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 40.50 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTTS setback and a Wet Land Area requiring a 25 Ft OSTTS setback.

Lot 15

The proposed Sewage Reserve Area on this **3.17 Acre Lot** has slopes ranging from 3 – 6 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a Special Designed On-Site Sewage Treatment System is required in order to mitigate shallow soils due to bedrock and limited area due to a large granite rock outcrop and an ephemeral drainage. O.S.T. System Designs Inc. recommends using an Advanced Treatment System to treat the wastewater and a Subsurface Drip Field for wastewater dispersal. The Special Designed OSTs should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 9.38 MPI**
- **Minimum Usable Sewage Reserve Area Required: 6,000 Ft²**
- **Recommended Total Trench Depth for a Subsurface Drip field: 10 Inches**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTs setback and a Wet Land Area requiring a 25 Ft OSTs setback.

Lot 16

The proposed Sewage Reserve Area on this **2.56 Acre Lot** has slopes ranging from 4 - 8 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTs designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTs should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 25.51 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTs setback and a Wet Land Area requiring a 25 Ft OSTs setback.

Lot 17

The proposed Sewage Reserve Area on this **2.70 Acre Lot** has slopes ranging from 12 - 20 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 29.23 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An existing well on Lot 17 requiring a 100 Ft OSTTS setback and a large rock outcrop located at the center of the Lot.

Lot 18

The proposed Sewage Reserve Area on this **5.03 Acre Lot** has slopes ranging from 4 - 6 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 19.25 MPI**
- **Minimum Usable Sewage Reserve Area Required: 8,000 Ft².**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An existing well on Lot 17 requiring a 100 Ft OSTTS setback, a spring located on the adjacent property requiring a 100 Ft OSTTS setback, and a cattle watering pond requiring a 200 Ft OSTTS setback.

Lot 19

The proposed Sewage Reserve Area on this **5.12 Acre Lot** has slopes ranging from 4 - 8 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 28.33 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** A spring located on the adjacent property requiring a 100 Ft OSTTS setback, a cattle watering pond requiring a 200 Ft OSTTS setback, an ephemeral drainage requiring a 50 Ft OSTTS setback and a Wet Land Area requiring a 25 Ft OSTTS setback..

Lot 20

The proposed Sewage Reserve Area on this **3.20 Acre Lot** has slopes ranging from 4 - 8 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 55.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** There were no restrictions noted within 150 Ft of the area tested.

Lot 21

The proposed Sewage Reserve Area on this **3.24 Acre Lot** has slopes ranging from 3 - 6 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTs designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTs should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 42.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** There were no restrictions noted within 150 Ft of the area tested. There is a Historical Rock Wall that can be worked around with the OSTs.

Lot 22

The proposed Sewage Reserve Area on this **3.55 Acre Lot** has slopes ranging from 4 - 8 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTs designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTs should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 39.57 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** There were no restrictions noted within 150 Ft of the area tested.

Lot 23

The proposed Sewage Reserve Area on this **3.58 Acre Lot** has slopes ranging from 5 - 10 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 31.91 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** There are two wells located on this lot requiring a 100 Ft OSTTS Setback.

Lot 24

The proposed Sewage Reserve Area on this **5.42 Acre Lot** has slopes ranging from 6 - 10 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 57.0 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTTS setback and a Wet Land Area requiring a 25 Ft OSTTS setback.

Lot 25

The proposed Sewage Reserve Area on this **2.72 Acre Lot** has slopes ranging from 4 - 8 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 50.46 MPI**
- **Minimum Usable Sewage Reserve Area Required: 12,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** An ephemeral drainage requiring a 50 Ft OSTTS setback.

Lot 26

The proposed Sewage Reserve Area on this **3.76 Acre Lot** has slopes ranging from Flat - 5 % and natural contours which are ideal for leach line configuration, within the area tested for sewage dispersal. Native grasses, brush, Oak, and Pine trees are scattered throughout. The soils analysis data collected indicates that a conventional OSTTS designed and permitted by the Mariposa County Environmental Health Department will be used to treat and disperse residential type wastewater on this proposed Lot. The OSTTS should be sized based on the soils analysis, number of bedrooms, and County Policy. The attached soils analysis data collected supports this recommendation.

- **Average Percolation Rate: 23.23 MPI**
- **Minimum Usable Sewage Reserve Area Required: 10,000 Ft²**
- **Recommended Total Trench Depth for a Rock Leach Field: 4.5 Ft**
- **Site Restrictions:** A developed Hand Dug Well requiring a 100 Ft OSTTS Setback, an ephemeral drainage requiring a 50 Ft OSTTS setback and a Wet Land Area requiring a 25 Ft OSTTS setback.

CONCLUSION AND RECOMMENDATIONS

The Soils Analysis conducted indicates the soils found on-site are a good medium for Sewage Dispersal from residential type sewage effluent via On-Site Sewage Treatment Systems. O.S.T. System Designs recommends that conventional Septic Tanks and Rock Leach Fields be the means of sewage treatment and dispersal on all of the Lots requiring Standard Count Designed OSTs's. Leach Lines should be sized per standard County Requirements and installed with maximum trench depths as noted above. The attached soil profile and percolation test data collected supports this recommendation.

Septic Tank sizing shall meet current County Requirements. It is also recommended an Effluent Filter providing a minimum 1/8 inch filtration be installed inside the second compartment of each septic tank with access risers. All County drainage, well and boundary setback requirements should be complied with.

Testing was performed per the Mariposa County Rules and Regulations Governing On-Site Sewage Disposal Systems, Land Division Applications.

Limitations:

Recommended Design Criteria is based on field data collected and does not reflect variations, which may occur between weather seasons and areas tested. The extent of variation may not become evident until the property development has begun. The client should recognize that exposure of unexpected adverse conditions would require additional costs at the rate of \$100.00 per hour, portal-to-portal. Services performed by O.S.T. System Designs Inc. have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty, expressed or implied, is made.

Enclosed:

1. Percolation Test Data
2. Soil Profile Data
3. Soils Report Site Plans indicating areas tested, site restrictions, and Sewage Reserve Areas

Please contact me at 559-288-8494 if you have any questions regarding this report.

Respectfully Submitted,



ARMANDO G. FLORES
Registered Environmental
Health Specialist #6579

