***INLAND FOUNDATION ENGINEERING, INC.***
***Consulting Ge***
***ww***

San Bernardino County Department of Public Health
Division of Environmental Health Services

Percolation Report EHS REF#_____

**DESIGN RATE:** 58 **square feet per 100 gallons septic tank capacity**

This rate applies to:
☑ Location(s) where tested ☐ Leach lines/bed ☑ Seepage pits
☐ Replacement only ☐ Entire lot/subdivision ☐ Limited to:

Additional requirements:
☐ Maintain septic tank minimum _____ft setback from _____
☐ Maintain disposal area minimum _____ft setback from _____
☐ New construction requires perc test ☐ Clearance from _____RWQCB
☐ EHS special conditions apply

**CONSTRUCTION DETAILS SUBJECT TO BUILDING AND SAFETY APPROVAL**

Design Rate Issued By: Ivy Saguan Date: 05/13/2021

February 24, 2021
Project No. S168-182

Attention: Mr. Tony Finaldi
**STK ARCHITECTURE, INC.**
42095 Zevo Drive, Suite A15
Temecula, California 92590

Re: Revised Percolation Testing and On-Site Wastewater Treatment System (OWTS) Design
Proposed Rancho Yard Building
San Bernardino County Public Works Department:
12158 Baseline Road, Rancho Cucamonga, California
Assessor Parcel No. 1089-031-39

Dear Mr. Finaldi:

Transmitted herewith are the results of percolation testing performed at the referenced site. The purpose of this study was to evaluate the feasibility of an on-site wastewater treatment system (OWTS) for the proposed Rancho Yard building. The testing was performed in accordance with the current requirements of the County of San Bernardino Department of Public Health, Division of Environmental Health Services (DEHS). We make no other warranty, either express or implied. Our field investigation was performed by a certified engineering geologist. An experienced staff geologist performed the actual percolation testing. The investigation and testing was performed under the supervision of Allen D. Evans, a registered civil and geotechnical engineer.

The following references were provided for use for this project:

- Project plans entitled “San Bernardino County Public Works Department Public Works Department: Rancho Yard New Building, Project No. 1010-0692, 12158 Baseline Road, Rancho Cucamonga, CA 91739”, dated July 2020, prepared by STK Architecture, Inc.

- Revised Plumbing Plan, Sheet PO.1, Plumbing Legend Notes & Schedules, dated September 2020, prepared by Design West Engineering.

- Report entitled “Geotechnical Investigation, Proposed Public Works Yard Improvements (CIP-19-050), 12158 Baseline Road, Rancho Cucamonga, California”, dated March 8, 2019, prepared by Geocon West, Inc.

## 1. DESCRIPTION OF SITE AND OF PROPOSAL:

1.1 *Date/individual that was notified of testing:* Boring excavation for seepage pit testing took place on January 19, 2021. Seepage pit testing was performed on January 20, 2021.

1.2 *Prepared for:*

**Client:** STK Architecture, Inc.
**Address:** 42095 Zevo Drive, Suite A15
**Address:** Temecula, California
**Phone:** 951-377-6009

1.3 *Location of Land:* The existing San Bernardino County Public Works Department Rancho Yard is located at 12158 Baseline Road in the City of Rancho Cucamonga, California. The Assessor Parcel No. for the subject site is 1089-031-39. The site rests in the southwesterly portion of Section 32, Township 1 North, Range 6 West, S.B.B.&M. The site coordinates are ± 34.1236°N / -117.5395°W (WGS 84). The site is bounded to the west by a storage yard, to the east by a shopping center and Day Creek Boulevard, to the north by the Pacific Electric Bike Trail, and to the south by Baseline Road. The location of the proposed building and OWTS are shown on the vicinity map below (Figure 1).

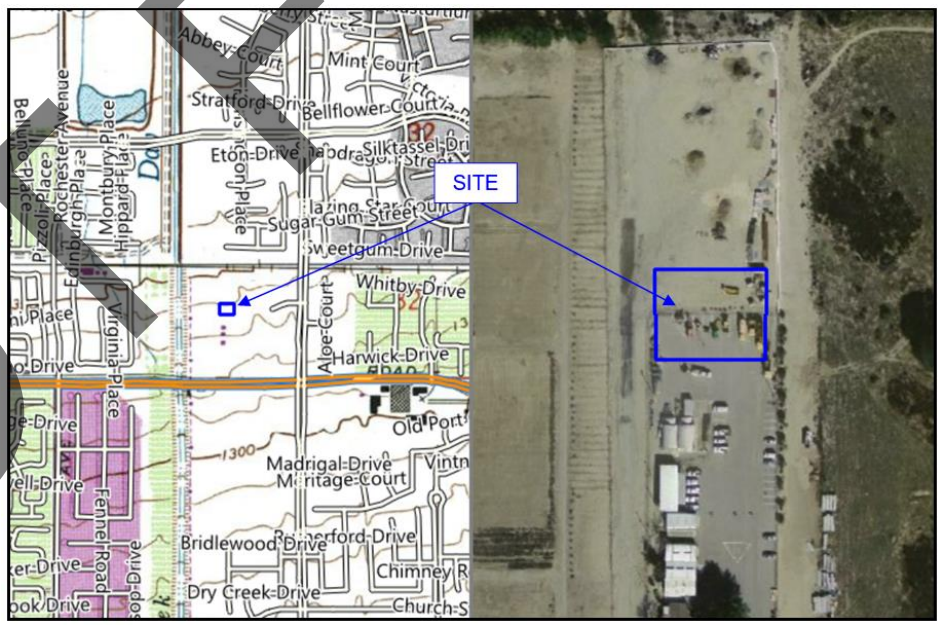



**Figure 1: USGS Topographic Map, Guasti 7.5' Quadrangle, and Aerial Photograph (2018)**

1.4 *Proposed Development:*

We understand the proposed construction will consist of a ±3,300 square foot metal structure to be located near the center portion of the existing San Bernardino County Public Works Department Rancho Yard facility. On-site sewage disposal for this facility will consist of a conventional septic tank and seepage pits, located to the south of the proposed building. At the present time, the proposed OWTS site is in use as a paved parking area.

1.5 *Description of Site and Surroundings:*

a.) *Topography:* The topography of the site is relatively planar with a very slight gradient to the south. Based on the referenced USGS topographic map, the elevation of the site is ±1,338' above mean seal level (msl).

b.) *Water Courses:* There are no perennial or ephemeral stream courses within 200 feet of the proposed disposal system.

c.) *Vegetation Type and Density:* The site is currently in use as a paved parking lot. No vegetation is present in the vicinity of the proposed OWTS.

d.) *Existing Structures:* Currently, the Rancho Yard facility is occupied by single-story maintenance buildings and is in use as a storage yard. There are no existing structures in the near vicinity of the proposed OTWS.

e.) *Existing Wells or Abandoned Wells on or within 600 feet of the proposed disposal area:* Based on our research, no water supply wells are known to exist within 600 feet of the proposed septic system.

f.) *Rock Outcroppings:* No rock outcroppings were observed in the area of the proposed OWTS.

g.) *Probable Depth to Historic Groundwater:* Groundwater was not encountered in either of the borings which extended to a maximum depth of approximately 50 feet. According to the Watermaster Support Service Fall 2019 Cooperative Well Measuring Program, a recently monitored well (State Well 01N06W30F001), located approximately 1.5 miles northwest of the subject site, was monitored on October 24, 2018. At that time, the measured depth to groundwater was 561 feet below the existing ground surface. According to the State of California Department of Water Resources Data Library, State Well No. 01S07W14L001S, located approximately 1.5 miles southwest of the subject site, was monitored on November 25, 2019. At that time, the depth to groundwater was 443 feet.

Based on the groundwater data reviewed, the depth to groundwater below the project site is more than 400 feet.

h.) *Any Other Features That May Affect Sewage Disposal:* None known.

i.) *Grading:* We understand that site grading will be limited to preparation of the new building pad. No grading is planned in the vicinity of the proposed OWTS.

2. **EQUIPMENT:**

2.1 The following equipment was used during our percolation testing study:

a.) Truck mounted drill rig with an 8-inch, hollow stem auger (CME-75)
b.) 600-gallon water trailer
c.) 2.5” diameter hose with nozzle
d.) Tape measure
e.) Water level meter
f.) 3” perforated PVC pipe
g.) Gravel
h.) Watch

3.1 *Locations of Borings and Percolation Tests:* Borings were located in the general area of the proposed subsurface sewage disposal system (south of proposed new building). The locations were selected at the site by representatives of STK Architecture and this firm. The locations of the borings are shown on the Plot Plan (Figure A-4).

3.2 *Soil Characteristics of the Subject Site:* Soil characteristics of the site are favorable for subsurface sewage disposal. There was no visible evidence of shallow groundwater or impervious soil or bedrock. Testing was consistent with observed conditions.

3.3 *Number of Exploratory Borings:* Two exploratory borings were drilled to depths of 40 and 50 feet beneath the existing ground surface.

3.3.1) *Boring Results:* Materials below the anticipated inlet depth of the proposed seepage pits consisted of alluvial deposits generally classified as fine- to coarse poorly graded sand with gravel and cobbles (SP), gravel with sand and cobbles (GW), and silty sand (SM). Although not encountered, boulders are common in these type of alluvial deposits and may be encountered during drilling of the seepage pits. The alluvial materials encountered were slightly moist to moist and medium dense to dense. No groundwater or reduction-oxidation mottling was observed within the exploratory test borings. See attached boring logs (Figure Nos. A-2 and A-3) for more details.

3.4 *Minimum Number of Tests for Seepage Pits:* A minimum of two percolation test holes were required for this investigation. Two percolation test holes were tested on the subject site.

3.4.1) *Percolation Testing Procedure:* Exploratory borings B-01 and B-02 were drilled to depths of 50 feet and 40 feet, respectively, with hole diameters of 8 inches. Boring B-01 was backfilled to a depth of 40 feet prior to testing. Percolation testing for the seepage pits was performed in

general accordance with the guidelines and regulations of the County of San Bernardino Division of Environmental Health Services. The falling head percolation test procedure was used. A 3-inch diameter perforated pipe was installed in each of the borings. Gravel was then placed around the pipes to prohibit caving during testing. Corrections were made for gravel packing the test holes. Each hole was presoaked on the day of drilling (January 19, 2021). Testing commenced the following day. The 3-inch pipes were filled with water to the ground surface and the level was read after 30 minutes with a water level meter and then recorded. The pipes were then refilled to the initial level and the process was repeated for 6 hours. In the final hour, the water level was not refilled but was still read and recorded.

3.4.2) *Percolation Test Results:* Seepage rates were determined in general accordance with San Bernardino County DEHS requirements. Measured field data was used to calculate the seepage rates, including a gravel correction factor, using the following equation:

$$Q = \frac{\Delta d \times D \times 9}{(d_b - L_{ave}) \times \Delta t} \times Gravel\ Correction\ Factor$$

Where,

$\Delta d = d_f - d_i$ (ft)

D = diameter of boring hole (ft)

$d_b$ = depth to water bottom (ft)

$L_{ave}$ = average wetted depth = $d_b - (d_i + d_f)/2$

$\Delta t$ = time increment (hr)

$d_i$ = initial level (ft)

$d_f$ = final level (ft)

Gravel Correction Factor = 0.40

Q = gallons of sewage per square foot per day (gal/ft$^2$/day)

This testing indicated satisfactory percolation rates in all tests. A summary of the testing is shown in Table 1. Detailed percolation test results are appended.

**Table 1: Percolation rates from seepage pit tests**

| Test No. | Depth to bottom of test hole (ft.) | USCS Soil Classification | Percolation Rate (gal/ft$^2$/day) |
|---|---|---|---|
| B-01 | 40 | SP, GW, SM | 1.7 |
| B-02 | 40. | SP, SM | 3.6 |

A design percolation rate of 1.7 gallons per square feet per day is recommended for the project as a conservative measure based on the slower rates encountered in the final 30 minutes of testing. See field test data (Figure Nos. A-6 and A-7) and General Discussion (Section 7) for more details.

## 4. DISCUSSION OF RESULTS:

4.1 *Uniformity of Soil:* Our observation of the subsurface material indicates that the upper ±26 to 32 feet of the soil profile consists of fine to coarse poorly graded sand with gravel (SP) and gravel with sand (GW). Some difficulty in drilling the exploratory borings was encountered due to the density of the soil and presence of gravels and cobbles encountered. Below these deposits, fine to medium silty sand (SM) in a medium dense to dense condition was encountered to the bottoms of the borings. No groundwater or oxidation-reduction mottling was observed within our borings.

4.2 *Sources of Variability or Error:* There were no known sources of error.

4.3 *Interpretation of Results:* Based on the results of percolation testing in the area proposed for the seepage pits, the subject site is believed to be acceptable for installation of an on-site sewage disposal system that conforms to San Bernardino County DEHS requirements.

5. **DESIGN:**

5.1 *General Criteria:* The seepage pit disposal system for the site should be designed and constructed in accordance with San Bernardino County DEHS criteria and applicable portion of the Uniform Plumbing Code.

5.2 *Conversion of Percolation Rates To Design Rates:* Fixture Units provided by the design team were used to evaluate the minimum septic system capacity at this site. Based on the referenced project plans and discussions with STK, the planned fixture units for the new building are shown below:

**Table 2: Fixture Units**

| Fixture | No. of Fixtures | Fixture Units/Fixture | Fixture Units 0 |
|---|---|---|---|
| Water Closets | 2 | 4 | 8 |
| Lavatories | 2 | 1 | 2 |
| Two Compartment Sink | 1 | 2 | 2 |
| Service Sink | 2 | 3 | 6 |
| Floor Drain | 2 | 2 | 4 |
| Floor Sink | 1 | 2 | 2 |
| Safety Shower / Wash Station | 1 | 2 | 2 |
| **Total Fixture Units** | | | **28** |

For 28 fixture units, a minimum septic tank capacity of 1,500 gallons is required per the 2016 California Plumbing Code, Table H 201.1(1). However, based on discussions with STK Architects, Inc., we understand the County plans to install a larger OWTS system with a 2,500 gallon septic tank.

Based on the results of our percolation testing a design percolation rate of 1.7 gallons per square foot of sidewall per day (gal/ft^2/day) should be used for the septic system design. For a 2,500 gallon septic tank, a minimum of 78.2 vertical feet of seepage pit is required for 6-foot diameter seepage pits. This corresponds to a system utilizing three 6-ft. diameter seepage pits with 27 feet below the inlet.

6. **PLOT PER CURRENTLY ADOPTED UNIFORM PLUMBING CODE:**

A conceptual septic system plot plan is presented on Figure A-5.

7. **GENERAL DISCUSSION AND CONCLUSIONS OR RECOMMENDATIONS:**

On the basis of the percolation testing and subsequent analysis, the use of seepage pits as a method of subsurface sewage effluent disposal will be feasible for the subject property. Our test results indicate seepage rates for the final 30 minutes of the testing of 1.7 gal/ft$^2$/day for B-01 and 3.6 gal/ft$^2$/day for B-02. Therefore, we recommend the use of the minimum seepage rate of 1.7 gallons per square foot per day for design as a conservative measure. For this project, we recommend that three (3) six-foot diameter seepage pits be installed to a depth of 27 feet below the inlet. A 100 percent expansion area is also shown on the plot plan.

The findings and recommendations provided in this report are based upon an interpolation of subsurface conditions between test and boring locations. The data obtained from the various points of observation and testing may only be representative of the condition at those specific locations. Therefore, conditions may be encountered during construction that appears to be different than those indicated herein. We cannot assume any responsibility for such unforeseen conditions, but should be notified if they occur in order to determine the necessity of revising our recommendations.

It has been our pleasure to be of service to you on this project. If there are any questions, please contact our office.

Respectfully,
**INLAND FOUNDATION ENGINEERING, INC.**

**Daniel R. Lind, P.G., C.E.G.**
Principal Geologist

**Allen D. Evans, P.E., G.E.**
Principal

DRL:ADE:es
Distribution: Addressee

***APPENDIX A –***
***Field Exploration***

## UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487)

| PRIMARY DIVISIONS | | | GROUP SYMBOLS | | SECONDARY DIVISIONS |
|---|---|---|---|---|---|
| COARSE GRAINED SOILS – MORE THAN HALF OF MATERIALS IS LARGER THAN #200 SIEVE SIZE | GRAVELS – MORE THAN HALF OF COARSE FRACTION IS LARGER THAN #4 SIEVE | CLEAN GRAVELS (LESS THAN) 5% FINES | GW |  | WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES |
| | | | GP |  | POORLY GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES |
| | | GRAVEL WITH FINES | GM |  | SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES |
| | | | GC |  | CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES |
| | SANDS – MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN #4 SIEVE | CLEAN SANDS (LESS THAN) 5% FINES | SW |  | WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES |
| | | | SP |  | POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES |
| | | SANDS WITH FINES | SM |  | SILTY SANDS, SAND-SILT MIXTURES |
| | | | SC |  | CLAYEY SANDS, SAND-CLAY MIXTURES |
| FINE GRAINED SOILS – MORE THAN HALF OF MATERIALS IS SMALLER THAN #200 SIEVE SIZE | SILTS AND CLAYS – LIQUID LIMIT IS LESS THAN 50 | | ML |  | INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS |
| | | | CL |  | INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS |
| | | | OL |  | ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY |
| | SILTS AND CLAYS – LIQUID LIMIT IS GREATER THAN 50 | | MH |  | INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTS, ELASTIC SILTS |
| | | | CH |  | INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS |
| | | | OH |  | ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS |
| | HIGHLY ORGANIC SOILS | | PT |  | PEAT, MUCK AND OTHER HIGHLY ORGANIC SOILS |
| TYPICAL FORMATIONAL MATERIALS | SANDSTONES | | SS |  | |
| | SILTSTONES | | SH |  | |
| | CLAYSTONES | | CS |  | |
| | LIMESTONES | | LS |  | |
| | SHALE | | SL |  | |

## CONSISTENCY CRITERIA BASES ON FIELD TESTS

RELATIVE DENSITY – COARSE – GRAIN SOIL

| RELATIVE DENSITY | SPT * (# BLOWS/FT) | RELATIVE DENSITY (%) |
|---|---|---|
| VERY LOOSE | <4 | 0-15 |
| LOOSE | 4-10 | 15-35 |
| MEDIUM DENSE | 10-30 | 35-65 |
| DENSE | 30-50 | 65-85 |
| VERY DENSE | >50 | 85-100 |

CONSISTENCY – FINE-GRAIN SOIL

| CONSISTENCY | SPT* (# BLOWS/FT) | TORVANE UNDRAINED SHEAR STRENGTH (tsf) | POCKET ** PENETROMETER UNCONFINED COMPRESSIVE STRENGTH (tsf) |
|---|---|---|---|
| Very Soft | <2 | <0.13 | <0.25 |
| Soft | 2-4 | 0.13-0.25 | 0.25-0.5 |
| Medium Stiff | 4-8 | 0.25-0.5 | 0.5-1.0 |
| Stiff | 8-15 | 0.5-1.0 | 1.0-2.0 |
| Very Stiff | 15-30 | 1.0-2.0 | 2.0-4.0 |
| Hard | >30 | >2.0 | >4.0 |

* NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1 3/8 INCH I.D.) SPLIT BARREL SAMPLER (ASTM -1586 STANDARD PENETRATION TEST)

** UNCONFINED COMPRESSIVE STRENGTH IN TONS/SQ.FT. READ FROM POCKET PENETROMETER

### MOISTURE CONTENT

| DESCRIPTION | FIELD TEST |
|---|---|
| DRY | Absence of moisture, dusty, dry to the touch |
| MOIST | Damp but no visible water |
| WET | Visible free water, usually soil is below water table |

### CEMENTATION

| DESCRIPTION | FIELD TEST |
|---|---|
| Weakly | Crumbled or breaks with handling or slight finger pressure |
| Moderately | Crumbles or breaks with considerable finger pressure |
| Strongly | Will not crumble or break with finger pressure |

# LOG OF BORING B-01

| | | | | | |
|---|---|---|---|---|---|
| DRILLING RIG | **CME-75** | DATE DRILLED | **1/19/21** | HAMMER TYPE | **Auto-Trip** |
| DRILLING METHOD | **Rotary Auger** | | | HAMMER WEIGHT | **140-lb.** |
| LOGGED BY | **KC** | | | HAMMER DROP | **30-inches** |
| GROUND ELEVATION | **+/- 1338 ft** | | | BORING DIAMETER | **8-inches** |

| DEPTH (ft) | U.S.C.S. | GRAPHIC LOG | SUMMARY OF SUBSURFACE CONDITIONS | BULK SAMPLE | DRIVE SAMPLE | SAMPLE TYPE | BLOW COUNTS /6" | MOISTURE (%) | DRY UNIT WT. (pcf) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered and is representative of interpretations made during drilling. Contrasting data derived from laboratory analysis may not be reflected in these representations. | | | | | | |
| 1 | | | **ASPHALT CONCRETE,** (3.5 inches) | | | AU | | | |
| 2–15 | SP | | **POORLY GRADED SAND with GRAVEL,** fine- to coarse, with cobbles, olive-brown, slightly moist, dense, difficulty drilling. | | | | | | |
| 16–32 | GW | | **GRAVEL WITH SAND,** fine- to coarse, olive-brown, slightly moist- to moist, dense, diffculty drilling. | | | AU | | | |
| 33–50 | SM | | **SILTY SAND,** fine- to medium, with gravel, yellowish-brown, moist, medium dense to dense. | | | AU | | | |
| | | | End of boring at 50 feet. No groundwater encountered. | | | | | | |





INLAND FOUNDATION ENGINEERING, INC. Est. 1978

**Inland Foundation Engineering, Inc.**

| | |
|---|---|
| CLIENT | **STK Architecture** |
| PROJECT NAME | **SB County Rancho Yard** |
| PROJECT LOCATION | **12158 Baseline Road** |
| | **Rancho Cucamonga, CA** |
| PROJECT NUMBER | **S168-182** |

FIGURE NO. A-2

# LOG OF BORING B-02

| | | | | | |
|---|---|---|---|---|---|
| DRILLING RIG | **CME-75** | DATE DRILLED | **1/19/21** | HAMMER TYPE | **Auto-Trip** |
| DRILLING METHOD | **Rotary Auger** | | | HAMMER WEIGHT | **140-lb.** |
| LOGGED BY | **KC** | | | HAMMER DROP | **30-inches** |
| GROUND ELEVATION | **+/- 1338 ft** | | | BORING DIAMETER | **8-inches** |

| DEPTH (ft) | U.S.C.S. | GRAPHIC LOG | SUMMARY OF SUBSURFACE CONDITIONS | BULK SAMPLE | DRIVE SAMPLE | SAMPLE TYPE | BLOW COUNTS /6" | MOISTURE (%) | DRY UNIT WT. (pcf) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered and is representative of interpretations made during drilling. Contrasting data derived from laboratory analysis may not be reflected in these representations. | | | | | | |
| 1 | | | **ASPHALT CONCRETE,** (3.5 inches) | | | AU | | | |
| 2–25 | SP | | **POORLY GRADED SAND with GRAVEL,** fine- to coarse, with cobbles, olive-brown, slightly moist- to moist, dense, difficulty drilling. | | | | | | |
| 26–40 | SM | | **SILTY SAND,** fine- to medium, yellowish brown, moist, medium dense to dense. | | | AU (26) / AU (35) | | | |
| | | | End of Boring at 40 feet. No groundwater encountered. | | | | | | |





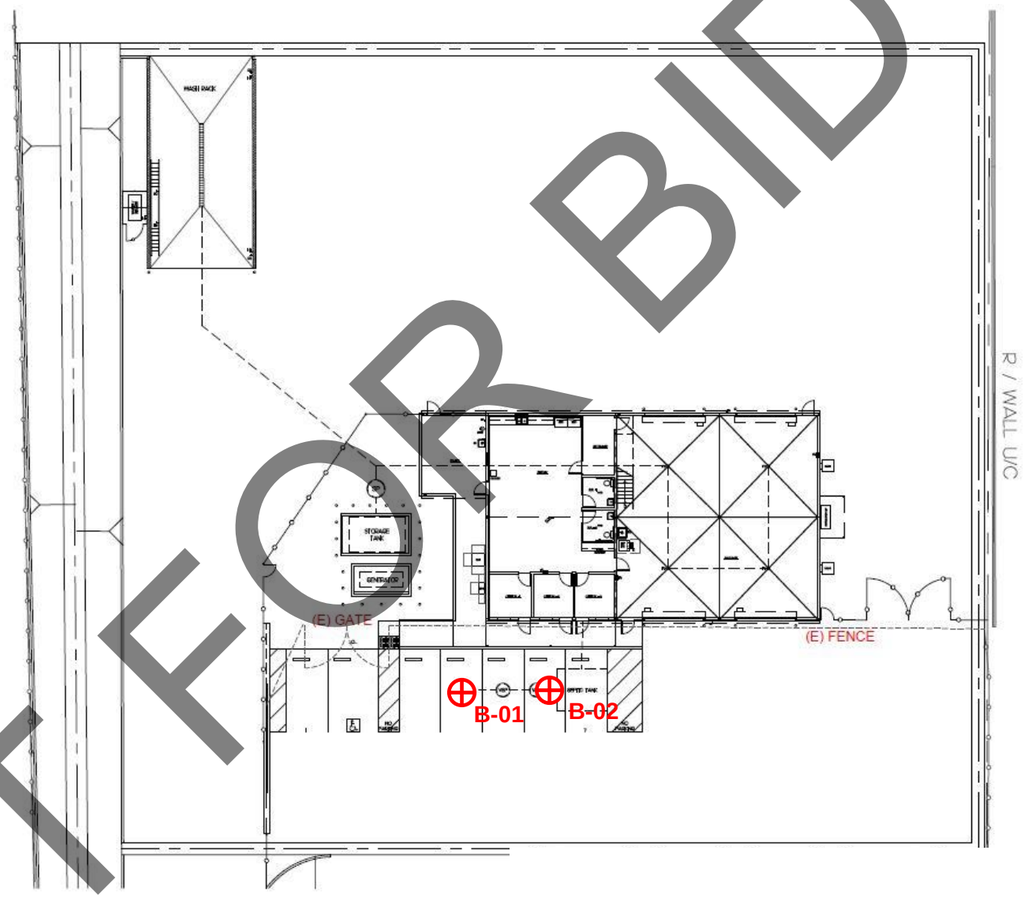
**Inland Foundation Engineering, Inc.**

| | |
|---|---|
| CLIENT | **STK Architecture** |
| PROJECT NAME | **SB County Rancho Yard** |
| PROJECT LOCATION | **12158 Baseline Road, Rancho Cucamonga, CA** |
| PROJECT NUMBER | **S168-182** |

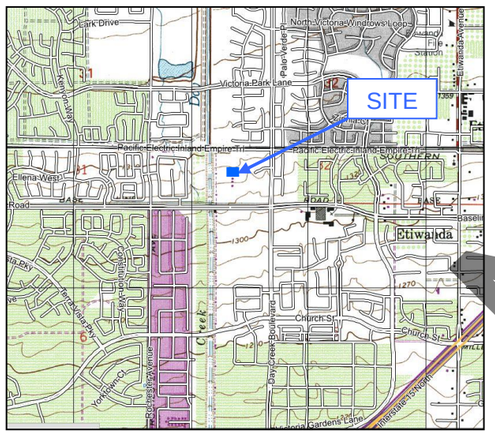
FIGURE NO. A-3

# SITE PLAN

N






Vicinity Map

Base Map: Site Plan, 12158 Baseline Road, Rancho Cucamonga, CA, dated July, 2020, prepared by Engineering Resources of Southern California

⊕ **Approximate Location of Exploratory Boring & Percolation test**

| | | |
|---|---|---|
| ***INLAND FOUNDATION ENGINEERING, INC.***<br>***Consulting Geotechnical Engineers and Geologists***<br>***www.inlandfoundation.com***<br>***(951) 654-1555*** | | |
| A-4 | Percolation Testing<br>SB Public Works Rancho Yard Building<br>Rancho Cucamonga, California | |
| | Drawn By: KC | Project No. S168-182 |
| | Scale: 1”=±40’ | Date: Jan. 2021 |

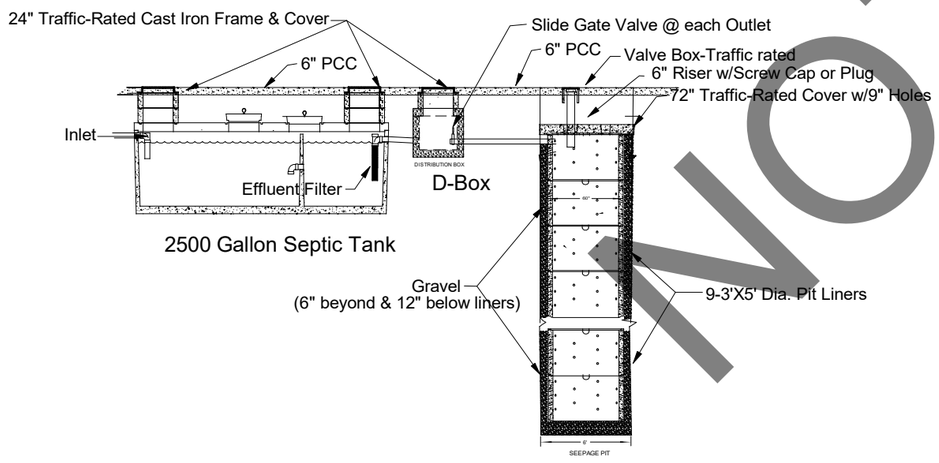
# ONSITE WASTEWATER TREATMENT SYSTEM DESIGN

San Bernardino County Public Works
Rancho Yard - New Building

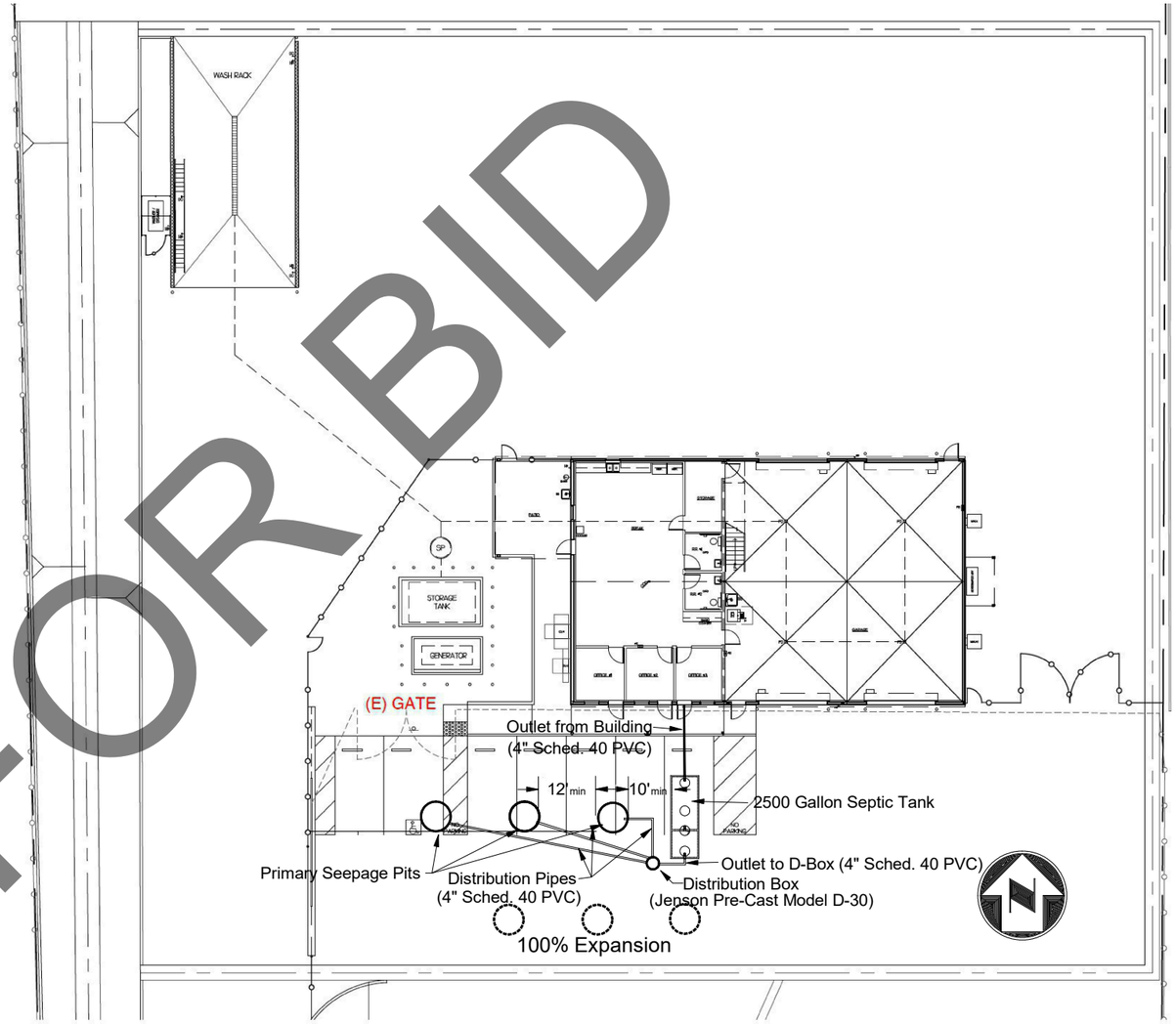
PREPARED FOR: STK ARCHITECTS
42095 Zevo Drive, Suite A15
Temecula, California 92590
(951) 296-9110

PROPERTY DESCRIPTION: 12158 Baseline Road
Rancho Cucamonga, California


**VICINITY MAP**




**SEPTIC TANK, DISTRIBUTION BOX, SEEPAGE PIT - TYPICAL PROFILE**




**SITE PLAN**

0 15 30 60 90 150

1" = 30'

| | |
|---|---|
| PERCOLATION RATE: | 1.7 Gallons/Square Foot/Day |
| FIXTURE UNITS: | 28 |
| SEPTIC TANK CAPACITY: | 2500 Gallons |
| NUMBER OF SEEPAGE PITS: | 3 |
| SEEPAGE PIT DIAMETER: | 6 Feet |
| SEEPAGE PIT DEPTH: | 27 Feet Below Inlet |


**INLAND FOUNDATION ENGINEERING, INC,**
**1310 South Santa Fe Avenue**
**San Jacinto, California**
**(951) 654-1555** **FAX (951) 654-0551**


| | |
|---|---|
| Drawn By: L. Strahm | Project No. S168-182 |
| Scale: As Shown | Date:February 2021 |

# PERCOLATION TEST DATA SHEET – INFILTRATION TESTING

| | | |
|---|---|---|
| **Project:** Rancho Yard | **Project No.:** S168-182 | **Date:** 1-20-21 |
| **Test Hole No.:** B-G1 | **Tested By:** K.C. | |
| **Depth of Test Hole $D_T$:** 40' | **USCS Soil Classification:** | |
| **Test Hole Dimensions (inches)** 8"x46' | **Length** | **Width** |
| **Diameter (if round)=** 8" | **Sides (if rectangular) =** | |

**Sandy Soil Criteria Test***

| 1/19 Trial No. | Start Time | Stop Time | Time Interval, (min.) | Initial Depth to Water ~~(in.)~~ FT | Final Depth to Water ~~(in.)~~ FT | Change in Water Level ~~(in.)~~ FT | Greater than or Equal to 6"? (Y/N) |
|---|---|---|---|---|---|---|---|
| 1 | 11:68:52 | 11:38:52 | 30 | 9.7' | 17.7' | 12.6 | N/A |
| 2 | 11:40:46 | 12:10:46 | 30 | 0 | 22.4 | 17.6 | N/A |
| 3 | | | | | | | |

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

| 1/20 Trial No. | Start Time | Stop Time | $\Delta t$ Time Interval, (min.) | $D_o$ Initial Depth to Water ~~(in.)~~ FT | $D_f$ Final Depth to Water ~~(in.)~~ FT | $\Delta D$ Change in Water Level ~~(in.)~~ FT | Percolation Rate (min./in.) |
|---|---|---|---|---|---|---|---|
| 1 | 8:52:12 | 9:22:12 | 30 | 0.0 | 16.95' | 16.95' | |
| 2 | 9:24:28 | 9:54:28 | 30 | 0.0 | 14.4' | 14.4' | |
| 3 | 9:55:41 | 10:25:41 | 30 | 0.0 | 13.6' | 13.6' | |
| 4 | 10:27:04 | 10:57:04 | 30 | 0.0 | 13.1' | 13.1' | |
| 5 | 11:01:45 | 11:31:45 | 30 | 0.0 | 13' | 13.0' | |
| 6 | 11:32:52 | 12:02:52 | 30 | 0.0 | 11.8 | 11.8' | |
| 7 | 12:04:35 | 12:34:35 | 30 | 0.0 | 10.4 | 10.4' | |
| 8 | 12:35:56 | 1:05:56 | 30 | 0.0 | 10.25 | 10.25' | |
| 9 | 1:07:54 | 1:37:54 | 30 | 0.0 | 10.25 | 10.25' | |
| 10 | 1:38:40 | 2:08:40 | 30 | 0.0 | 10.25 | 10.25' | |
| 11 | 2:12:05 | 2:42:05 | 30 | 4.0 | 14.0 | 10.0' | |
| 12 | 2:42:05 | 3:12:05 | 30 | 14.0 | 20.5 | 6.5' | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |

**COMMENTS:** Gravel Pack settled 2 1/2 ft. 14' caved-in before gravel pack was placed. 35%.



Figure No. A-6

# PERCOLATION TEST DATA SHEET – INFILTRATION TESTING

| | | |
|---|---|---|
| **Project:** Rancho Yard | **Project No.:** 5168-182 | **Date:** 1-21-21 |
| **Test Hole No.:** B-62 | **Tested By:** K.C. | |
| **Depth of Test Hole $D_T$:** 40' | **USCS Soil Classification:** | |
| **Test Hole Dimensions (inches)** 8" | **Length** | **Width** |
| **Diameter (if round)=** | **Sides (if rectangular) =** | |

**Sandy Soil Criteria Test***

| 1/19 Trial No. | Start Time | Stop Time | Time Interval, (min.) | Initial Depth to Water ~~(in.)~~ FT | Final Depth to Water ~~(in.)~~ FT | Change in Water Level ~~(in.)~~ FT | Greater than or Equal to 6"? (Y/N) |
|---|---|---|---|---|---|---|---|
| 1 | 12:40:24 | 1:10:24 | 30 | 0 | 25.6 | 25.6 | N/A |
| 2 | 1:12:13 | 1:42:13 | 30 | 0 | 20.4 | 20.4 | N/A |
| 3 | | | | | | | |

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

| 1/20 Trial No. | Start Time | Stop Time | $\Delta t$ Time Interval, (min.) | $D_o$ Initial Depth to Water ~~(in.)~~ FT | $D_f$ Final Depth to Water ~~(in.)~~ FT | $\Delta D$ Change in Water Level ~~(in.)~~ FT | Percolation Rate (min./in.) |
|---|---|---|---|---|---|---|---|
| 1 | 8:57:15 | 9:27:15 | 30 | 0.0 | 23.7 | 23.7 | |
| 2 | 9:30:04 | 10:00:04 | 30 | 0.0 | 18.65 | 18.65 | |
| 3 | 10:02:11 | 10:32:11 | 30 | 0.0 | 18.6 | 18.6 | |
| 4 | 10:35:28 | 11:05:28 | 30 | 0.0 | 18.85 | 18.85 | |
| 5 | 11:07:24 | 11:37:24 | 30 | 0.0 | 18.6 | 18.6 | |
| 6 | 11:39:07 | 12:09:07 | 30 | 0.0 | 18.6 | 18.6 | |
| 7 | 12:11:12 | 12:41:12 | 30 | 0.0 | 18.7 | 18.7 | |
| 8 | 12:43:35 | 1:13:35 | 30 | 0.0 | 18.6 | 18.6 | |
| 9 | 1:15:21 | 1:45:21 | 30 | 0.0 | 19.05 | 19.05 | |
| 10 | 1:47:21 | 2:17:21 | 30 | 0.0 | 19.05 | 19.05 | |
| 11 | 2:22:53 | 2:52:53 | 30 | 4.0 | 20.1 | 20.1 | |
| 12 | 2:52:53 | 3:22:53 | 30 | 20.1 | 29.6 | 29.6 | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |

**COMMENTS:** Gravel Pack settled 1'2". 11 ft caved in before gravel pack was placed. 27.5%



Figure No. A-7

# SAN BERNARDINO COUNTY
# PUBLIC WORKS DEPARTMENT:
# RANCHO YARD NEW BUILDING

PROJECT □1010-0692
CIP □19-050
CAFM □ETI00X

## 12158 BASELINE ROAD
## RANCHO CUCAMONGA, CA 91739



## SHEET INDEX



## NOTES TO GENERAL CONTRACTOR

THE GENERAL BUILDING CONTRACTOR SHALL SUBMIT TO THE COUNTY OF SAN BERNARDINO DESIGN & CONSTRUCTION DEPARTMENT THE FOLLOWING DOCUMENTS FOR REVIEW AND APPROVAL PRIOR TO OBTAINING BUILDING PERMIT:

1. PROVIDE PROJECT SIGN PER SPECIFICATIONS
2. COMPLY W/ C.B.C. SECTION 3303.7 - "PEDESTRIAN PROTECTION" DURING CONSTRUCTION.
3. GENERAL CONTRACTOR TO PROVIDE ALL BACKING/FRAMING AS NECESSARY FOR LIGHTS, SIGNS, GRAB BAR, ETC.
4. DEFERRED SUBMITTAL / SEPARATE PERMITS
   THE FOLLOWING ARE UNDER DEFERRED SUBMITTAL/SEPARATE PERMITS (TO BE OBTAINED BY THE GENERAL CONTRACTOR):
   - PREFABRICATED METAL SHOP BUILDING & COMPONENTS
   - SITE CMU WALL / RETAINING WALL

   SUBMITTAL DOCUMENTS (PLANS & CALCULATIONS) FOR DEFERRED ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
5. ELECTRICAL CONDUITS IN COMMERCIAL BUILDINGS TO BE BURIED 6" BELOW CONCRETE SLAB. ( TMCC 15.04.050(C)1)
6. VERTICAL GLAZING SHALL HAVE U-FACTORS PER NFRC 100-SB OR DEFAULT VALUES PER APPENDIX 1 OR AOM MANUAL. (CEC EXCEPTION TO 116(A) 2)
7. REQUIRED SPECIAL INSPECTIONS
   THE FOLLOWING SPECIAL INSPECTIONS PER 2016 C.B.C. ARE REQUIRED:
   -- STRUCTURAL CONCRETE OVER 2500 P.S.I.
   -- FIELD WELDING.
   -- HIGH-STRENGTH BOLTS.
   -- EXPANSION EPOXY ANCHORS.
8. NO HAZARDOUS MATERIALS ARE TO BE STORED OR USED WITHIN THE BUILDING WHICH EXCEED THE QUANTITIES IN U.B.C. TABLES 3-D & 3-E.
9. PROVIDE A CONSTRUCTION WASTE MANAGEMENT PLAN AND DOCUMENTATION WHICH COMPLIES WITH CGBC 5.408.2. REDUCE CONSTRUCTION WASTE BY RECYCLING OR SALVAGING FOR RE-USE A MINIMUM OF 50% OF CONSTRUCTION AND DEMOLITION DEBRIS, OR MEET LOCAL CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE, WHICHEVER IS MORE STRINGENT. CGBC 5.408.3
10. THE FACILITY SHALL REMAIN IN OPERATION AT ALL TIMES.
    A. THE IMPROVEMENTS SHALL BE STAGED TO ALLOW INGRESS & EGRESS AT ALL TIMES.
    B. THE WORK ON THE EXTERIOR SHALL BE MADE AS DUST FREE & ODOR FREE AS POSSIBLE AND SHALL NOT PREVENT THE STAFF FROM THEIR REGULAR OPERATIONS.
    C. CONTRACTOR SHALL SUBMIT IN WRITING A WRITTEN METHOD OF PROCEDURE AT THE PRE-CONSTRUCTION MEETING ADDRESSING THE ABOVE CONCERNS.
11. GENERAL CONTRACTOR TO PROVIDE TEMPORARY SAFETY BARRIER OR FENCING FOR THE DURATION OF THE PROJECT AS REQUIRED AT NO ADDED COST TO THE OWNER.
12. GENERAL CONTRACTOR SHALL ENGINEER & CONSTRUCT ALL FOUNDATIONS REQUIRED BY THE PRE-FABRICATED METAL BUILDING COMPANY. CONTRACTOR SHALL PROVIDE ENGINEERED & WET STAMPED SHOP DRAWINGS FOR THE ENTIRE STRUCTURE, INCLUDING THE FOUNDATIONS & MEZZANINE.

## TITLE 24 MANDATORY MEASURES

INSTALLED INSULATING MATERIAL SHALL HAVE BEEN CERTIFIED BY THE MANUFACTURER TO COMPLY WITH THE CALIFORNIA QUALITY STANDARDS FOR INSULATING MATERIAL.

ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF SECTION 2602 AND 707 OF THE CBC.

ALL EXTERIOR JOINTS AND OPENINGS IN THE BUILDING ENVELOPE THAT ARE OBSERVABLE SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, OR WEATHERSTRIPPED.

SITE CONSTRUCTED DOORS, WINDOWS AND SKYLIGHTS SHALL BE CAULKED BETWEEN THE UNIT AND THE BUILDING, AND SHALL BE WEATHER STRIPPED (EXCEPT FOR UNFRAMED GLASS DOORS AND FIRE DOORS)

MANUFACTURED DOORS AND WINDOWS INSTALLED SHALL HAVE AIR INFILTRATION RATES CERTIFIED BY THE MANUFACTURER PER 2-5369(a)ii. AFTER 1-1-11 1993 MANUFACTURED FENESTRATION PRODUCTS MUST BE LABELED FOR U-VALUE ACCORDING TO NFRC PROCEDURES. ALSO ALL OVERHEAD DOORS OF APPARATUS ROOM: PROVIDE CERTIFICATES OF COMPLIANCE FOR DOORS, WINDOWS & INSULATION.

## PARKING TABULATION

TOTAL PARKING PROVIDED: 7 STALLS

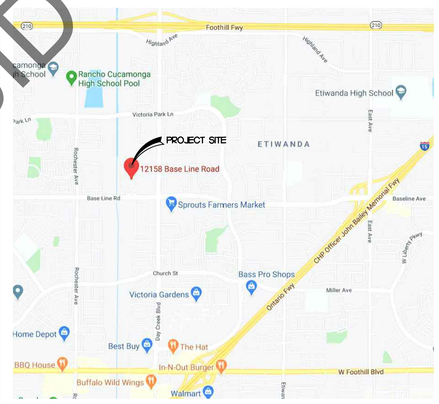
STANDARD: 6 STALLS

ACCESSIBLE REQUIRED: 1 STALL

ACCESSIBLE PROVIDED: 1 STALL

## VICINITY MAP

N.T.S.




## LEGAL DESCRIPTION

ASSESSOR'S PARCEL NUMBERS: 1089-031-39-0000
1089-031-13-0000

**OFFICE**

| | |
|---|---|
| OCCUPANCY GROUP | = B1 |
| TYPE OF CONSTRUCTION | = V-B |
| SPRINKLERED (?) | = NO |
| STORIES | = 1 |
| HEIGHT | = 24'-2" |
| BASIC ALLOWABLE FLOOR AREA | = 7,000 S.F. |
| ACTUAL FLOOR AREA | = 1,550 S.F. < 7,000 S.F. (OK) |

**GARAGE**

| | |
|---|---|
| OCCUPANCY GROUP | = S1 |
| TYPE OF CONSTRUCTION | = V-B |
| SPRINKLERED (?) | = NO |
| STORIES | = 1 |
| HEIGHT | = 24'-2" |
| BASIC ALLOWABLE FLOOR AREA | = 17,500 S.F. |
| FIRST FLOOR AREA | = 2,450 S.F. |
| SECOND FLOOR MEZZANINE AREA | = 1,550 S.F. |
| ACTUAL FLOOR AREA | = 4,000 S.F. < 17,500 F.S. (OK) |
| TOTAL FLOOR AREA : | = 4,000 S.F. |

## PROJECT DESCRIPTION

THE COUNTY PUBLIC WORKS DEPARTMENT WISHES TO EXPAND ITS EXISTING CORPORATE YARD TO INCLUDE THE FOLLOWING:

1. A NEW 3,200 SF TWO-BAY SERVICE BUILDING WITH MEZZANINE LEVEL WITH STAIR ACCESS, COMPLETE WITH HVAC SYTEM THAT SERVES OFFICES & CONFERENCE/BREAK ROOM.
2. INSTALLATION OF EMERGENCY BACKUP GENERATOR.
3. PAVING OF THE DRIVEWAY AND PARKING AREA.
4. PARKING LOT LIGHTING.
5. FINISH MASONRY BLOCK WALL WITH SECURITY FENCING & EXTEND BLOCK WALL AROUND PROPERTY AND INSTALL SECURITY ENHANCEMENTS (BARBED WIRE) TO TOP OF FENCE.
6. INSTALL CLARIFIER FOR FACILITY AND WASH RACK.
7. PROVIDE AUTOMATION TO LIGHTING - FACILITY IS 24-7 RESPONSE LOCATION AND WILL REQUIRE APPROPRIATE AUTOMATION.
8. INSTALL SECURITY CAMERA SYSTEM.
9. PROVIDE OVERHEAD/PATIO ON THE SIDE OF BUILDING FOR BREAKS/CREW EATING SPACE.
10. UPGRADE SEWER SYSTEM: TIE TO SEWER MAIN.
    - DEMO / ABANDON EXISTING SEPTIC SYSTEM.
    - PROVIDE RV CONNECTION FOR SERVING PORTABLE TOILETS.
11. UPGRADE/EXPAND POWER SERVICE TO +400 AMP.
12. UPGRADE WATER LINE INTO THE FACILITY.
13. INSTALL COMMUNICATION FIBER OPTIC SYSTEM.
14. INSTALL CLARIFIER AND WASH RACK.

## CODE ANALYSIS

LIST OF APPLICABLE CODES

ALL WORK SHALL COMPLY WITH CURRENTLY ADOPTED:

2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
(2018 INTERNATIONAL BUILDING CODE)

2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2018 NATIONAL ELECTRICAL CODE)

2019 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 C.C.R.
(2018 UNIFORM MECHANICAL CODE)

2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
(2018 UNIFORM PLUMBING CODE)

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

2019 CALIFORNIA ENERGY CODE

2019 CALIFORNIA FIRE CODE

AMERICANS WITH DISABILITIES ACT 1990 WITH 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND 2010 REVISIONS TO TITLE II

## PROJECT TEAM

**OWNER**
SAN BERNARDINO COUNTY
ARCHITECTURE AND ENGINEERING DEPT.
DANI FOX - PROJECT MANAGER III
385 N. ARROWHEAD AVE., THIRD FLOOR
SAN BERNARDINO, CA 92415
PHONE: (909) 387-5000

**ARCHITECTURAL**
STK ARCHITECTURE, INC.
TONY FINALDI, ARCHITECT
42095 ZEVO DR., SUITE A15
TEMECULA, CA 92590
PHONE: (951) 296-9110
FAX: (951) 296-6079

**CIVIL ENGINEER**
ERSC REDLANDS LOCATION
MATT BRUDIN, P.E. / PRINCIPAL
1861 W REDLANDS BLVD.
REDLANDS, CA 92373
(909) 890-1255
(909) 890-0995 FAX

**LANDSCAPE ARCHITECT**
ALHAMBRA GROUP
VINCE DI DONATO
41635 ENTERPRISE CIRCLE N, STE. C
TEMECULA, CA 92590
(951) 296-6802
(951) 296-6803 FAX

**MPE ENGINEER**
DESIGN WEST ENGINEERING
ADRIAN JACQUEZ
1845 BUSINESS CENTER DR., SUITE 215
SAN BERNARDINO, CA 92408
PHONE: (909) 890-3700
FAX: (909) 890-3770


STK
42095 ZEVO DR., TEMECULA, CALIFORNIA 92590-3780
Phone: 951.296.9110 Fax: 951.296.6079 Email: stk@stkinc.com

CONSULTANT:


PROJECT ADMINISTERED BY:
COUNTY OF
SAN BERNARDINO
REAL ESTATE SERVICES
DEPARTMENT -
PROJECT MANAGEMENT
DIVISION

385 N. ARROWHEAD AVE.
SAN BERNARDINO, CA 92415

PROJECT NAME:
PUBLIC WORKS
DEPARTMENT:
RANCHO YARD NEW
BUILDING

PROJECT # 1010-0692

CIP # 19-050

CAFM # ETI00X

12158 BASE LINE ROAD
RANCHO CUCAMONGA,
CA 91739

ISSUE INFORMATION:

| DATE: | INFORMATION: |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

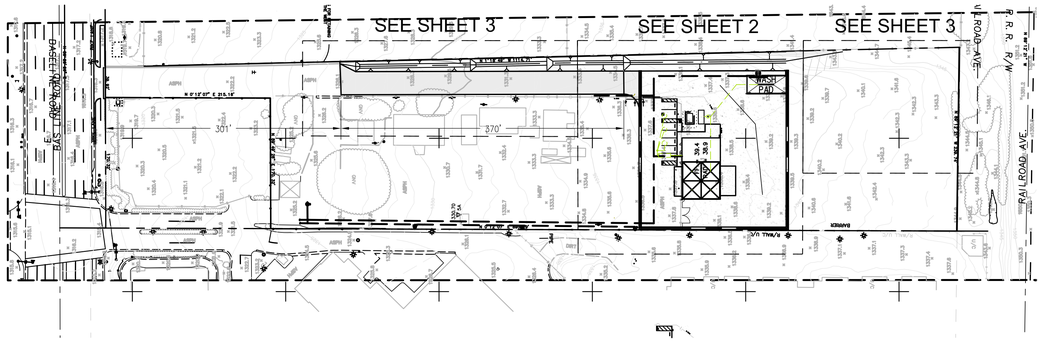
SHEET INFORMATION:
STK PROJECT NO.: 374-134-20
SCALE: AS NOTED
DATE: FEBRUARY 2021
PLOT DATE: –
DRAWING NAME:

SEAL:

SHEET TITLE:
TITLE SHEET

SHEET NO.:
T1.1

# PRECISE GRADING PLAN
# SAN BERNARDINO FLOOD CONTROL
# APN 1089-03-13 & 39




**INDEX MAP**
SCALE: 1" = 80'


**VICINITY MAP**
NOT TO SCALE

## GRADING NOTES

1. A **grading permit shall** be obtained from the City and the grading inspector shall be notified 24 hours prior to the start of any grading.
2. **Clearing and grubbing**, including removal of existing structure, footings, foundations, rubble, trees and root systems, other vegetation, debris, etc., shall be completed to the satisfaction of the Geotechnical Engineer prior to the start of grading operations.
3. **Excavation** shall then be completed as shown on the approved plans.
4. If **exporting 50 cubic yards** or more of soil, the applicant shall provide the location where the soil is to be deposited along with a letter of acceptance form the property owner prior to grading plan approval. If the site is located within the City of Rancho Cucamonga, a stockpile plan and permit are required.
5. The **exposed soils** shall then be inspected by the Geotechnical Engineer. Additional over excavation shall be made in accordance with the Geotechnical Engineer's recommendation and as contained in the Soils Report.
6. The **exposed soils** shall then be scarified to a minimum depth of 6 inches, brought to proper moisture content and compacted to at least 90% of the maximum density, as determined by Appendix Section J107.5 of the latest California Building Code. Equivalent compaction can be obtained by methods specified by the Geotechnical Engineer.
7. Prior to **importing soil**, the grading contractor shall notify the Geotechnical Engineer not less than 72 hours in advance, so that each proposed import source can be sampled, tested, and approved prior to delivery for use on the site.
8. Proper **compaction** for the entire project including the backfill of utility trenches, etc. shall be verified by the Geotechnical Engineer. He shall prepare a compaction report, which shall be submitted to and approved by the City prior to the issuance of a building permit.
9. **Pad certification** for elevation of all pads within the project shall be submitted to the Building Inspector prior to any concrete pouring. Pad certification can be by either one approved black-line-as-built grading and drainage plan or in letter format showing the design and as-built pad elevations shown on the approved grading and drainage plan. Either shall be sealed by a Civil Engineer licensed in the State of California.
10. **Certificates of final lot grading** are to be submitted the Engineering Services Department prior to final building inspection.
11. **Final approval** includes the construction of all improvements shown on the approved plan, including drainage facilities, drainage patterns, walls, curbs, asphalt pavement, buildings, etc. All items shall be constructed to the line and grade shown on the approved plans.
12. An **as-graded grading** plan and certification of compliance shall be submitted to the Engineering Services Department prior to release of grading bond and prior to final grading inspection. The permittee shall provide a copy of as-built plans to the City for a permanent record at the end of the approved grading work.
13. **A Certificate of Occupancy** (C of O) and /or final electrical clearance for any building will not be released until all grading, drainage WQMP (Water Quality Management Plan) Best Management Practices) improvements are completed and approved by the City. In addition, the Engineer's As-Built Certificate must be wet signed and sealed on the WQMP BMP Exhibit. Three sets of exhibits must be submitted to the City Engineer, or designee, for review. The City of Rancho Cucamonga will submit one original to the State Water Board and will submit a second set to the West Valley Mosquito and Vector Control District.

**B. RELATED REQUIREMENTS:**

1. The **City only approves the Engineering Design** in scope and not in detail on these plans. The City does not verify construction quantities on these plans. Approval of the plans are for permit purposes only and shall not prevent the city form requiring correction of errors in the plans where such errors are subsequently found to be in violation of any law, ordinance, health, safety, or other design issues. City acceptance of plans does not relieve the developer from responsibilities from the correction of errors and omissions discovered during construction.
2. All **Concrete (PCC)** water carrying devices with slopes less than 0.5% shall be water tested prior to final inspection and acceptance. Any residual ponding in evidence at time of inspection shall be cause for removal and replacement.
3. **Debris, mud, silt, etc.** shall not be deposited on public or other property at any time during construction. Any such deposition shall be removed immediately by the Contractor.
4. All **drainage protective devices** such as swales, interceptor ditches, pipes, protective berms, barrier walls, concrete channels, or other measures designed to protect adjacent buildings or property form storm runoff must be completed prior to building construction.
5. The **Engineer of Record** assumes responsibility for grading and inspection in accordance with Appendix Section J 105 of the latest California Building Code.
6. **Equestrian Trials** shall be surfaced with a 4-inch thick section composed of 95% decomposed granite (1/8" to 3/8" diameter) and 5% coarse sand compacted to 90%. A compaction report certified by a Soils Engineer shall be submitted to and approved by the City prior to project final approval.
7. **Floodwater conveyance** shall be maintained at all times during construction. The work shall be phased so that newly constructed facilities are fully operational prior to existing facilities being removed.
8. A **Grading Plan** (City approved) shall be on the job site at all times. Deviations form the plan shall be preceded by an approved plan revision. Upon request of the Building Inspector, the required plan and revisions shall be promptly submitted to the City Engineer, or designee, for review.
9. **Protection of Adjacent Property**. During grading operations, the permittee shall be responsible for the prevention of damage to adjacent property and no person shall excavate on land sufficiently close to the property line to endanger any adjoining public street, a sidewalk, alley, or other public or private property without supporting and protecting such property from settling, cracking, or other damage which might result.

## PRIVATE ENGINEER'S NOTE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE DRAWINGS.

CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY OF SAN BERNARDINO, THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

## CERTIFICATES

1. I HEREBY CERTIFY THAT I HAVE REVIEWED THIS PLAN AND THAT IT SUBSTANTIALLY CONFORMS TO THE SOILS REPORT NO. A9816-99-01, DATED: MARCH 8,2019, PREPARED BY: GEOCON WEST, INC.

JOHN STAPLETON
PRINTED NAME
REGISTRATION NUMBER _____ SIGNATURE

2. IN REFERENCE TO NPDES REQUIREMENTS THE UNDERSIGNED CERTIFIES ONE OF THE FOLLOWING:
   - ☐ A NOTICE OF INTENT (NOI) IS NOT REQUIRED OF THIS DEVELOPMENT.
   - ☐ A NOTICE OF INTENT (NOI) HAS BEEN FILED AND THE WDID NUMBER IS: XXXXXX

JOHN SMITH
PRINTED NAME
CIVIL ENGINEER
SIGNATURE

Underground Service Alert
Call: TOLL FREE
1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

## TOPOGRAPHY

JD COLE & ASSOCIATES, INC.
LAND SURVEYING
11056RAMONA ST.
YUCAIPA, CA 92399
PHONE: (909) 797-2074

## OWNER/DEVELOPER

SAN BERNARDINO COUNTY
FLOOD CONTROL DISTRICT
825 E. 3rd SREET
SAN BERNARDINO, CA 92415
CONTACT ERWIN FOGERSON
PHONE: (909) 387-7963

## SITE DATA

GROSS ACREAGE= 250,257 S.F (5.7 ACRES)
AREA OF DISTURBANCE =45,570 S.F (1.05 ACRES)

## ARCHITECT

STK ARCHITECTS, INC.
42095 ZEVO DR., A-15
TEMECULA, CA 92590
CONTACT: J. SAENG NAMVONG
PHONE: (951) 296-9110

## CIVIL ENGINEER

ENGINEERING RESOURCES OF SOUTHERN CALIFORNIA, INC.
1861 W. REDLANDS BLVD.
REDLANDS, CA 92373
CONTACT MATT BRUDIN
PHONE: (909) 890-1255

## SOILS ENGINEER

GEOCON WEST, INC.
2015 W. PARK AVE., SUITE 1
REDLANDS, CA 92373
CONTACT: JOHN STAPLETON
PHONE: (909) 894-2175

REFERENCE REPORT:
No. A9816-99-01
PREPARED MARCH 8, 2019

## GAS

SEMPRA ENERGY
I3525 12TH STREET
CHINO, CA 91719
PHONE: (909) 613-1531

## WATER/ SEWER

CUCAMONGA VALLEY WATER DISTRICT
10440 ASHFORD ST.
RANCHO CUCAMONGA, CA 91730
CONTACT ED HILLS
PHONE: (909) 987-2591

## FIBER OPTICS

SPRINT TRANSMISSION DEPTARTMENT
202 SYCAMORE AVENUE.
RIALTO, CA 92376
CONTACT MATT BRUDIN
PHONE: (909) 873-8022

## TELEPHONE

AT&T
870 MOUNTAIN AVENUE
UPLAND, CA 91786
PHONE: (909) 608-1284

## ELECTRIC

SO. CALIFORNIA EDISON
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770
PHONE: (800) 655-4555

## CABLE

CHARTER CABLEVISION.
6680 VIEW PARK COURT
RIVERSIDE, CA 92503
CONTACT: JOHN SIMPSON
PHONE: (909) 343-5165

## BASIS OF BEARINGS

WEST LINE - SECTION 32
N 0d 12' 05" E

## BENCH MARK

BENCHMARK NUMBER: 10054
ELEV: 1328.075'

## LEGAL DESCRIPTION

APN: 1089-031-13 & 39

## ESTIMATED GRADING CONSTRUCTION DATES

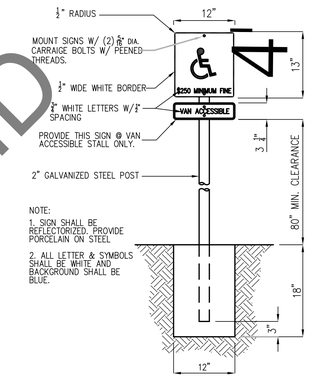
START: OCTOBER, 2020
FINISH: NOVEMBER, 2020

## RAW CUT / FILL QUANTITIES

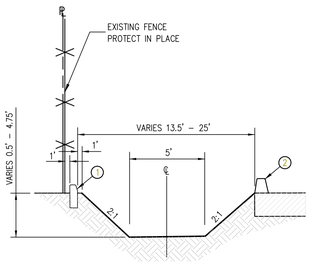
CUT: 1450 CU. YDS.
FILL: 1450 CU. YDS.

## NOTE

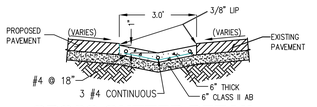
SEE ARCHITECTURAL AND LANDSCAPE ARCHITECTS PLANS FOR FENCE AND GATE DETAILS.



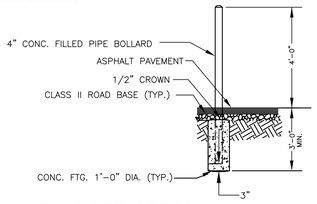

**1 ACCESSIBLE PARKING SIGN**
NOT TO SCALE



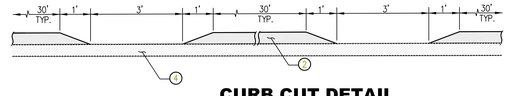

**SECTION B-B**
NOT TO SCALE



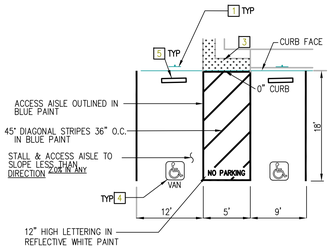

**3 CROSS GUTTER DETAIL**
NOT TO SCALE



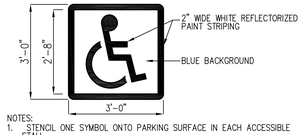

**14 BOLLARD DETAIL**
NOT TO SCALE




**2 CURB CUT DETAIL**
NOT TO SCALE

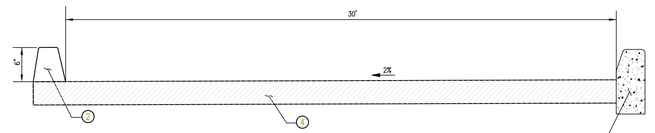



**2 ACCESSIBLE PARKING STALL DETAIL**
NOT TO SCALE




NOTES:
1. STENCIL ONE SYMBOL ONTO PARKING SURFACE IN EACH ACCESSIBLE STALL.
2. LOCATE PER ACCESSIBLE PARKING STALL DETAIL(S)
3. ALL LINES 2" WIDE PAINTED ON WHITE ON BLUE BACKGROUND.

**4 ACCESSIBLE PARKING EMBLEM**
NOT TO SCALE




**SECTION A-A**
NOT TO SCALE

## CONSTRUCTION NOTES — QUANTITIES

| | |
|---|---|
| 1 | CONSTRUCT PCC 6" CURB ONLY PER APWA STD. NO. C–1 OR EQUIV. |
| 2 | CONSTRUCT 6" AC BERM PER APWA STD. DC OR EQUIV. WITH CURB CUTS PER DETAIL THIS SHEET. |
| 3 | CONSTRUCT 3' WIDE CROSS GUTTER PER DETAIL THIS SHEET. |
| 4 | CONSTRUCT 4" THK. MIN. AC OVER 7" AB PER SOILS REPORT |
| 5 | CONSTRUCT 5" THK. CONC. W/ #3'S @ 18" O.C. |
| 6 | CONSTRUCT SIDEWALK PER SBC STD. 109. |
| 7 | INSTALL 6' H. BLOCK WALL PER SAN BERNARDINO COUNTY TRANS. DEPT. STD. 301 ALONG REAR PROPERTY LINE. SEE DETAIL SHT. 2. PER SEPARATE SUBMITTAL AND PERMIT BY CONTRACTOR. |
| 8 | REMOVE EXISTING PAVEMENT, CURB, GUTTER OR FENCING |
| 9 | INSTALL 12" X 20' L. ZURN # Z882 TRENCH DRAIN WITH TRAFFIC RATED GRATE OR EQUAL |
| 10 | SAWCUT & JOIN EXISTING PAVEMENT |
| 11 | 4" DIA. PVC – SDR 35 PIPE – SEWER DESIGN PER SEPARATE PLAN |
| 12 | NOT USED |
| 13 | NOT USED |
| 14 | INSTALL BOLLARD PER DETAIL THIS SHEET. |
| 15 | 2" DIA PVC – WATER DESIGN PER SEPARATE PLAN |
| 16 | 8" DIA FIRE SERVICE LINE PER SEPARATE PLAN. |
| 17 | ¼ TON RIP–RAP 2' THK. |
| 18 | NOT USED |
| 19 | PROPOSED FIRE HYDRANT |
| 20 | 1" DIA PVC – WATER DESIGN PER SEPARATE PLAN |
| 1 | INSTALL ACCESSIBLE PARKING SIGN PER DETAIL THIS SHEET. |
| 2 | PARKING STALLS – SEE DETAIL THIS SHEET. |
| 3 | TRUNCATED DOMES – PER DETAIL –SHEET 2. |
| 4 | ACCESSIBLE PARKING EMBLEM – PER DETAIL THIS SHEET. |
| 5 | CONCRETE WHEEL STOP – PER DETAIL SHEET 2. |

## LEGEND

| | | | |
|---|---|---|---|
| | PROPERTY LINE | FL | FLOW LINE |
| | PROPOSED CURB | FS | FINISH SURFACE |
| | PROPOSED CROSS GUTTER | HP | HIGH POINT |
| | SIDEWALK | LP | LOW POINT |
| | ASPHALT CONCRETE PAVING | TC | TOP OF CURB |
| | CONCRETE PAVING | TS | TOP OF SLOPE |
| | DRAINAGE SLOPE & DIRECTION | X.XX | ELEVATION |
| | ADA PATH OF TRAVEL | (X.XX) | (EXISTING ELEVATION) |

## INDEX OF SHEETS




STK ARCHITECTS, INC.
42095 ZEVO DR., TEMECULA, CALIFORNIA 92590-3780
Phone: 951.296.9110 Fax: 951.296.6079 Email: stk@stkinc.com

CONSULTANT:

ERSG INC.COM
Engineering Resources of Southern California
1861 W. Redlands Blvd, Bldg 7B
Redlands, Ca. 92373
P: (909) 890–1255
F: (909) 890–0995


PROJECT ADMINISTERED BY:
COUNTY OF SAN BERNARDINO
REAL ESTATE SERVICES DEPARTMENT - PROJECT MANAGEMENT DIVISION

**385 N. ARROWHEAD AVE.**
**SAN BERNARDINO, CA 92415**

PROJECT NAME:
PUBLIC WORKS DEPARTMENT:
RANCHO YARD NEW BUILDING

**PROJECT # 1010–0692**
**CIP # 19–050**
**CAFM # ET100X**

**12158 BASELINE ROAD**
**RANCHO CUCAMONGA, CA 91739**

ISSUE INFORMATION:

| DATE: | INFORMATION: |
|---|---|
| | |

SHEET INFORMATION:
STK PROJECT NO.: 374–134–20
SCALE: AS NOTED
DATE: FEBRUARY 2021
PLOT DATE: –
DRAWING NAME:

SEAL:
REGISTERED PROFESSIONAL ENGINEER JOHN M. BRUDIN No. 41836 Exp. 3/31/22 CIVIL STATE OF CALIFORNIA

SHEET TITLE:
PRECISE GRADING PLAN
COUNTY YARD
INDEX SHEET

SHEET NO.:
SHEET 1 OF 3

## CONSTRUCTION NOTES

1. CONSTRUCT PCC 6" CURB ONLY PER APWA STD. NO. C-1 OR EQUIV.
2. CONSTRUCT 6" AC BERM PER APWA STD. DC OR EQUIV. WITH CURB CUTS PER DETAIL SHEET 1.
3. CONSTRUCT 3' WIDE CROSS GUTTER PER DETAIL – SHEET.1.
4. CONSTRUCT 4" THK. MIN. AC OVER 7" AB PER SOILS REPORT
5. CONSTRUCT 5" THK. CONC. W/ #3'S @ 18" O.C.
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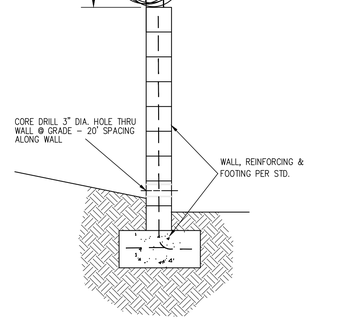
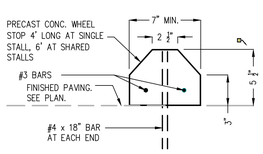
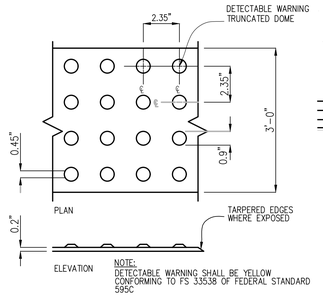
10. SAWCUT & JOIN EXISTING PAVEMENT
11. 4" DIA. PVC – SDR 35 PIPE – SEWER DESIGN PER SEPARATE PLAN
12. NOT USED
13. NOT USED
14. INSTALL BOLLARD PER DETAIL – SHEET 1.
15. 2" DIA PVC – WATER DESIGN PER SEPARATE PLAN
16. 8" DIA FIRE SERVICE LINE PER SEPARATE PLAN.
17. ¼ TON RIP–RAP 2' THK.
18. NOT USED
19. PROPOSED FIRE HYDRANT
20. 1" DIA PVC – WATER DESIGN PER SEPARATE PLAN
- [1] INSTALL ACCESSIBLE PARKING SIGN PER DETAIL – SHEET 1.
- [2] PARKING STALLS – SEE DETAIL – SHEET 1.
- [3] TRUNCATED DOMES – PER DETAIL THIS SHEET.
- [4] ACCESSIBLE PARKING EMBLEM – PER DETAIL – SHEET 1.
- [5] CONCRETE WHEEL STOP – PER DETAIL THIS SHEET.



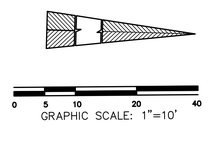

### SECTION C-C
### BLOCK WALL/FOOTING DETAIL
7 MODIFIED S.B. COUNTY TRANS DEPT. STD. 301
NOT TO SCALE




### CONCRETE WHEEL STOP
5 NOT TO SCALE




### TRUNCATED DOMES DETAIL
3 NOT TO SCALE




Underground Service Alert
Call: TOLL FREE
1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

T:\Projects\0000\0041-Rancho Cucamonga Yard\EB\SHOP\CAD\PDP\REVISED.dwg
03/05/2021 9:40 AM


STK
42095 ZEVO DR., TEMECULA, CALIFORNIA 92590-3780
Phone: 951.296.9110 Fax: 951.296.6079 Email: stk@stkinc.com

CONSULTANT:

ERSC INC.COM
Engineering Resources of Southern Ca
1861 W. Redlands Blvd, Bldg 1
Redlands, Ca. 92373
P: (909) 890–1255
F: (909) 890–0995


PROJECT ADMINISTERED BY:
COUNTY OF
SAN BERNARDINO
REAL ESTATE SERVICES
DEPARTMENT -
PROJECT MANAGEMENT
DIVISION

**385 N. ARROWHEAD AVE.**
**SAN BERNARDINO, CA 92415**

PROJECT NAME:
PUBLIC WORKS
DEPARTMENT:
RANCHO YARD NEW
BUILDING

**PROJECT # 1010–0692**
**CIP # 19–050**
**CAFM # ET100X**

**12158 BASELINE ROAD**
**RANCHO CUCAMONGA,**
**CA 91739**

ISSUE INFORMATION:

| DATE: | INFORMATION: |
|---|---|
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SHEET INFORMATION:
STK PROJECT NO.: 374–134–2
SCALE: AS NOTE
DATE: FEBRUARY 202
PLOT DATE:
DRAWING NAME:

SEAL:

REGISTERED PROFESSIONAL ENGINEER
JOHN M. BRUZA
No. 41836
Exp. 3/31/22
CIVIL
STATE OF CALIFORNIA

SHEET TITLE:
PRECISE GRADING
PLAN
COUNTY YARD

SHEET NO.:
SHEET 2 OF 3

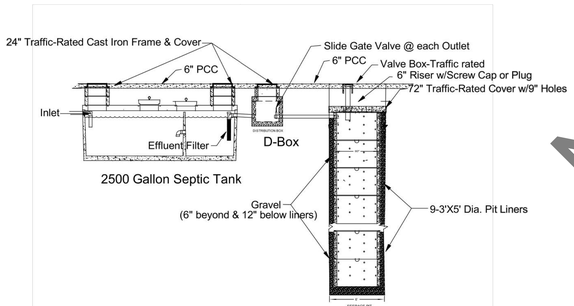
# ONSITE WASTEWATER TREATMENT SYSTEM DESIGN

San Bernardino County Public Works
Rancho Yard - New Building

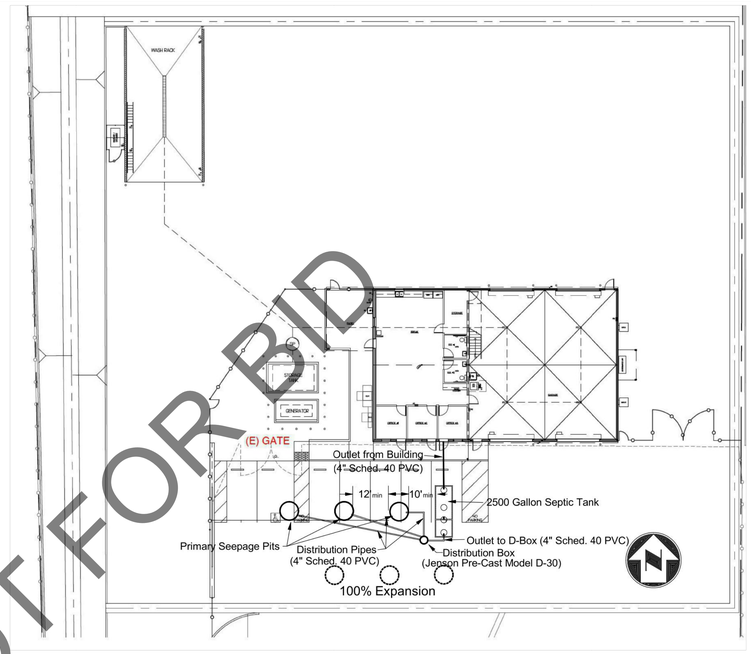
PREPARED FOR: STK ARCHITECTS
42095 Zevo Drive, Suite A15
Temecula, California 92590
(951) 296-9110

PROPERTY DESCRIPTION: 12158 Baseline Road
Rancho Cucamonga, California


**VICINITY MAP**




**SEPTIC TANK, DISTRIBUTION BOX, SEEPAGE PIT - TYPICAL PROFILE**




**SITE PLAN**

0 15 30 60 90 150

1" = 30'

NOT FOR BID

| | |
|---|---|
| PERCOLATION RATE: | 1.7 Gallons/Square Foot/Day |
| FIXTURE UNITS: | 28 |
| SEPTIC TANK CAPACITY: | 2500 Gallons |
| NUMBER OF SEEPAGE PITS: | 3 |
| SEEPAGE PIT DIAMETER: | 6 Feet |
| SEEPAGE PIT DEPTH: | 27 Feet Below Inlet |

**INLAND FOUNDATION ENGINEERING, INC,**
**1310 South Santa Fe Avenue**
**San Jacinto, California**
**(951) 654-1555** **FAX (951) 654-0551**

| | |
|---|---|
| Drawn By: L. Strahm | Project No. S168-182 |
| Scale: As Shown | Date:February 2021 |

NOTE: PLEASE REFER TO THE SEEPAGE PERC REPORT DATED FEBRUARY 24, 2021 FOR A COMPLETE SEPTIC SYSTEM DESIGN REQUIREMENTS


STK
42095 ZEVO DR., TEMECULA, CALIFORNIA 92590-3780
Phone: 951.296.9110 Fax: 951.296.6079 Email: stk@stkinc.com

CONSULTANT:

PROJECT ADMINISTERED BY:
COUNTY OF
SAN BERNARDINO
REAL ESTATE SERVICES
DEPARTMENT -
PROJECT MANAGEMENT
DIVISION

385 N. ARROWHEAD AVE.
SAN BERNARDINO, CA 92415


PROJECT NAME:
PUBLIC WORKS DEPARTMENT:
RANCHO YARD NEW BUILDING

PROJECT # 1010-0692
CIP # 19-050
CAFM # ETI00X

12158 BASE LINE ROAD
RANCHO CUCAMONGA,
CA 91739

ISSUE INFORMATION:

| DATE: | INFORMATION: |
|---|---|
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| | |

SHEET INFORMATION:
STK PROJECT NO.: 374-134-20
SCALE: AS NOTED
DATE: FEBRUARY 2021
PLOT DATE: –
DRAWING NAME:

SEAL:

SHEET TITLE:
SEPTIC SYSTEM

SHEET NO.:
D-1



J:\374-20\ARCH\D1\374-134-20 Rancho Yard New Building Design\Architecture\D-1 - SEPTIC SYSTEM.dwg
03/05/2021 11:09AM

385 N Arrowhead Ave, San Bernardino, CA 92415 | Phone: 800.442.2283 Fax: 909.387.4323
www.SBCounty.gov
www.SBCounty.gov/dph/dehs

SAN BERNARDINO COUNTY

Public Health
Environmental Health Services

# OWTS REVIEW - OFFICIAL INSPECTION REPORT

| FACILITY NAME | | | | REINSPECTION DATE | INSPECTOR | DATE |
|---|---|---|---|---|---|---|
| COUNTY OF SA BERNARDINO-FLOOD CONTROL (PUBLIC WORKS) | | | | Not Specified | Ivy Saguan | 4/7/2021 |
| LOCATION | | | | PERMIT EXPIRATION | IDENTIFIER: None | |
| 12158 BASELINE RD, RANCHO CUCAMONGA, CA 91739 | | | | | SERVICE: 025 - PLAN REVIEW | |
| TIME IN | TIME OUT | FACILITY ID | RELATED ID | PE | RESULT: 03 - CORRECTIVE ACTION / NO FOLLOW UP RE | |
| 12:28 PM | 1:40 PM | Not Specified | SR0100710 | 4108 | ACTION: 61 - PLAN REVIEW WAITING ON CUSTOMER | |

## OWTS REVIEW - Commercial Dvlpmnt Perc Test Review

Based on an inspection this day, the items marked below identify the violation(s) in operation or facilities which must be corrected. Failure to correct listed violation(s) prior to the designated compliance date may necessitate an additional inspection to be billed at the hourly rate as provided in the San Bernardino County Code, Schedule of Fees.

Administrative Order to Show Cause (OSC): The Permittee has the right to a hearing if requested in writing within 15 calendar days of receipt of this notice, to show cause why the permit to operate should not be suspended or revoked; otherwise the right to a hearing shall be deemed waived.

**See the following pages for the code sections and general requirements that correspond to each violation listed below.**

### 41P983 PERC - Rejected - Resubmittal Required ⚠ CRITICAL ⚠

**Compliance Date: Not Specified**
**Not In Compliance**
**Violation Reference - SBCC - SBC Policy**

**Inspector Comments:** Resubmit Percolation Test Report with the following correction indicated in this report review. Initial resubmission requires no fee. However, all subsequent resubmissions will require a resubmission fee according to the current Fee Schedule.

**Violation Description:** The percolation report cannot be approved as submitted. Corrections and resubmittal are required along with the current resubmittal fee. If additional testing is required, DEHS will need to be notified 48 hours in advance.

### 41K001 Plan - Commercial - Fixture Unit Count and Estimated Daily Flow

**Compliance Date: Not Specified**
**Not In Compliance**
**Reference - CCR 24 - Appendix H, Section 2.1**

**Inspector Comments:** Provide occupancy information/calculations in estimated wastewater flow for the project according to the California Plumbing Code Table H 201.1(2)

**Description:** The septic tank size shall be based on the number of fixture units or the estimated daily flow based on the type of business, whichever is greater. Refer to 2013 CPC Table H 2.1 and H 2.1(1). Calculations for the fixture unit count and estimated daily flow shall be provided with the plot plan.

### 41K060 Plan - Sewer Will Not Serve Letter

**Compliance Date: Not Specified**
**Not In Compliance**
**Reference - SBCC - 84.21.030, 83.09**

**Inspector Comments:** Please provide a will not serve sewer from the local sewer purveyor.

**Description:** A sewer will not serve letter shall be provided from the local sewer purveyor. The letter shall mention the parcel for which the private sewage disposal system is being proposed as well as the distance to the nearest sewer connection. Any parcel within 200 feet of sewer service will be required to connect and the plot plan will not be approved. The 200 foot sewer connection requirement will be increased by 100 feet for each additional lot being proposed.

### Overall Inspection Comments

No summary comments have been made for this inspection.

**Total # of Images:** 0

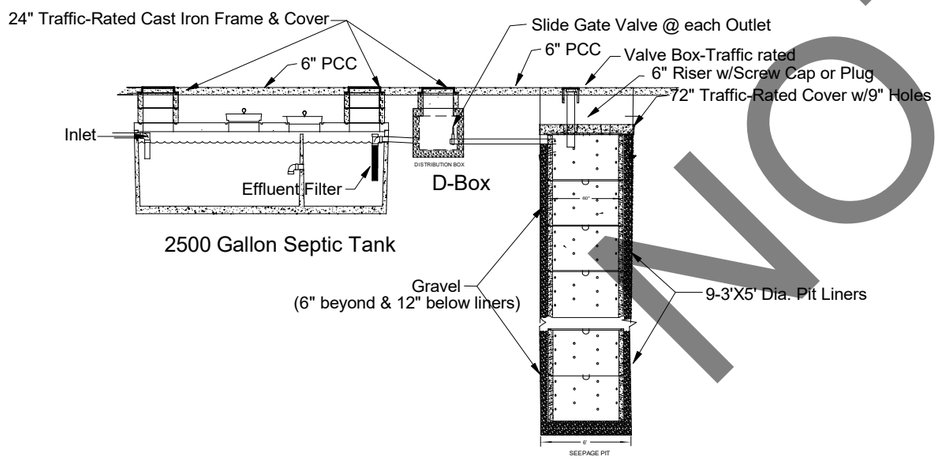
# ONSITE WASTEWATER TREATMENT SYSTEM DESIGN

San Bernardino County Public Works
Rancho Yard - New Building

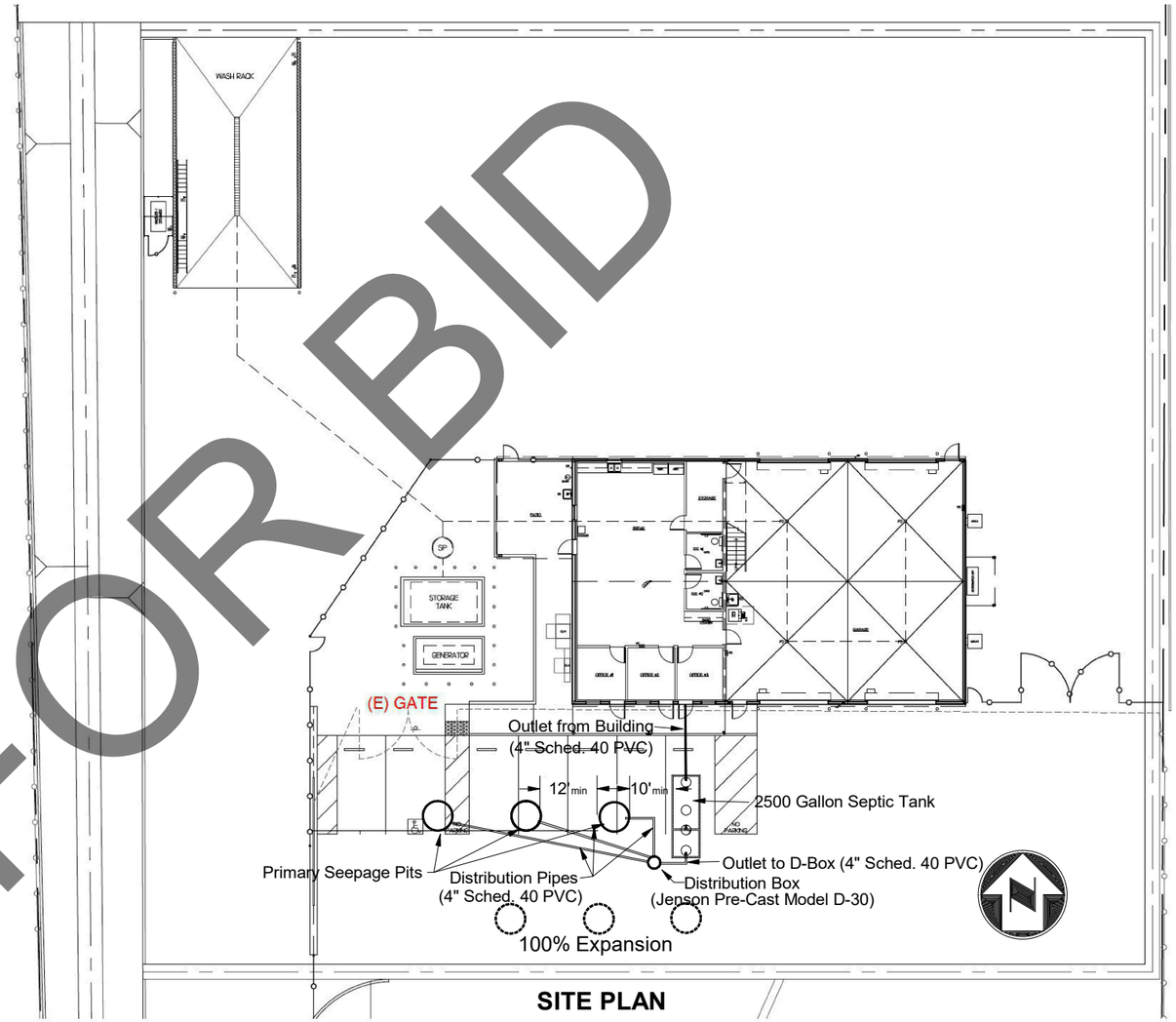
PREPARED FOR: STK ARCHITECTS
42095 Zevo Drive, Suite A15
Temecula, California 92590
(951) 296-9110

PROPERTY DESCRIPTION: 12158 Baseline Road
Rancho Cucamonga, California


**VICINITY MAP**




**SEPTIC TANK, DISTRIBUTION BOX, SEEPAGE PIT - TYPICAL PROFILE**




**SITE PLAN**

0 15 30 60 90 150

1" = 30'

FIXTURE UNITS SEPTIC TANK CAPCITY (per Table H 201.1(1)
Fixture Units (See Report): 28
Minimum Septic Tank Capacity per Table H 201.1(1) = 1500 gallons
FLOW RATE DETERMINATION (Table H 201.1(2)
No. of Employees; 16
Gals/Employee: 25
Daily Flow = 25 gals/person X 16 people = 400 gals/day
Minimum Septic Tank Capacity per Table H 201.1(2) = 400 gals. X 1.5 = 600 gallons

| | |
|---|---|
| DESIGN SEPTIC TANK CAPACITY: | 2500 Gallons |
| PERCOLATION RATE: | 1.7 Gallons/Square Foot/Day |
| NUMBER OF SEEPAGE PITS: | 3 |
| SEEPAGE PIT DIAMETER: | 6 Feet |
| SEEPAGE PIT DEPTH: | 27 Feet Below Inlet |



**INLAND FOUNDATION ENGINEERING, INC,**
1310 South Santa Fe Avenue
San Jacinto, California
(951) 654-1555 FAX (951) 654-0551

| | |
|---|---|
| Drawn By: L. Strahm | Project No. S168-182 |
| Scale: As Shown | Date:February 2021 (Rev. 4/21) |

Cucamonga Valley Water District

10440 Ashford Street, Rancho Cucamonga, CA 91730-2799
P.O. Box 638, Rancho Cucamonga, CA 91729-0638
(909) 987-2591 Fax (909) 476-8032

**John Bosler**
Secretary / General Manager/CEO

November 10, 2020

County of San Bernardino
Environmental Health Department
385 N Arrowhead Avenue #2
San Bernardino, CA 92415

**Re: Availability of Water and Sewer Service**
**12158 Baseline Road**
**Rancho Cucamonga, CA**

To Whom It May Concern:

You are hereby advised that 12158 Baseline Road is located within the service area of the Cucamonga Valley Water District.

We have reviewed the above location and have determined that the District has an adequate supply of water available to meet the needs of this location, including minimum fire flow requirements as established by the Rancho Cucamonga Fire District. However, the District does not currently serve sewer adjacent to this address. The nearest sewer main is over 700' from this location.

Following the receipt of appropriate application, arrangements can be made for the installation of facilities required to meet the needs of the development and furnish public water and sewer utility service to the development in accordance with the District's policies, rules, regulations, and rate ordinances.

If you have any questions or need further information, please contact me.

Sincerely,

**CUCAMONGA VALLEY WATER DISTRICT**

Ted Munson Jr.
Lead Engineering Technician