A.E. ENGINEERING, CORP.

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July 30, 2025
ENG-25-048

Buildrite Construction, Inc
Manuel Gomez
Yucca Trail
Yucca Valley, Ca 92284

Subject: Infiltration Test for the Proposed Club House and Ninety-Six Mobile Home Pads;
APN: 0586-081-13, Yucca Trails, Yucca Valley, CA

Proposed Development

The proposed improvements include a proposed club house and ninety-six mobile home pads (Plate 1).

Purpose & Scope

This report presents the results from a percolation test conducted to establish the infiltration rates, for the feasibility to design a detention basin at proposed development site.

Tests and results will determine soils availability and percolation rates to support the sizing of the systems on this particular project. The system size and details should be calculate and design by the Hydrology Engineer.

Methodology of Testing

On May 29, 2025, two 4-inch diameter exploratory borings were dug with a hand-held auger to a maximum depth of 10 feet. A 3-inch perforated pipe with a cap at the end was placed in the hole. Followed by a 2-inch layer of ¾-inch gravel was placed inside the pipe to serve as the filter material. The test areas were saturated for an hour prior to starting the test. Water levels were recorded in 10-minute increments. The hole was filled with 12 inches of water above the gravel prior to every reading. The results indicate that the slowest infiltration rate 2.00, observed in Test Boring No. 2. The test data for each test is located on pages 3 and shown on Plate 1.

PERCOLATION TEST DATA

Test Boring No. 1 Date Tested: 05/29/25
Test Depth: 8 Feet Soil Classification: Silty Sand
Tested by: Alejandro

TEST #1

Time	Time Interval (min.)	Total Elapsed Time (min.)	Initial Water Level (in.)	Final Water Level (in.)	Δ in Water Level (in.)	Infiltration Rate (min/inch)
9:30	10	10	12.0	5.25	6.75	1.48
9:40	10	20	12.0	5.25	6.75	1.48
9:50	10	30	12.0	5.50	6.50	1.53
10:00	10	40	12.0	5.75	6.25	1.60
10:10	10	50	12.0	6.00	6.00	1.67
10:20	10	60	12.0	6.25	5.75	1.74
10:30	10	70	12.0	6.50	5.50	1.82

PERCOLATION TEST DATA

Test Boring No. 2 Date Tested: 05/29/25
Test Depth: 10 Feet Soil Classification: Silty Sand
Tested by: Alejandro

TEST #2

Time	Time Interval (min.)	Total Elapsed Time (min.)	Initial Water Level (in.)	Final Water Level (in.)	Δ in Water Level (in.)	Infiltration Rate (min/inch)
11:10	10	10	12.0	6.00	6.00	1.67
11:20	10	20	12.0	6.25	5.75	1.74
11:30	10	30	12.0	6.50	5.50	1.82
11:40	10	40	12.0	6.50	5.50	1.82
11:50	10	50	12.0	6.75	5.25	1.90
12:00	10	60	12.0	7.00	5.00	2.00
12:10	10	70	12.0	7.00	5.00	2.00

Conclusions and Recommendations

Based on the data presented in this report and using the recommendations set forth herein, it is the judgment of this engineer that the soil is capable to handle an infiltration system, however is the design of the Hydrology Engineer for the proposed BMP, the size and feasibility to accommodate the system on site, the Storm Drain calculations, the relevant analysis for the agency approval.

The conclusions and recommendations provided in this report were derived from data gathered from our field investigations and engineering analysis, using methods meeting the standard practices at this time. This report is based on conditions existing at the time of the investigation. Any environmental changes, whether natural or caused by man, may alter or negate the conclusions and recommendations herein. No warranty is made or implied by the submittal of this report nor any oral or written agreement. Any liability in connection herewith is limited to the fee charged for this report.

The opportunity to be of professional service is sincerely appreciated. Please call if you have any questions concerning this report.

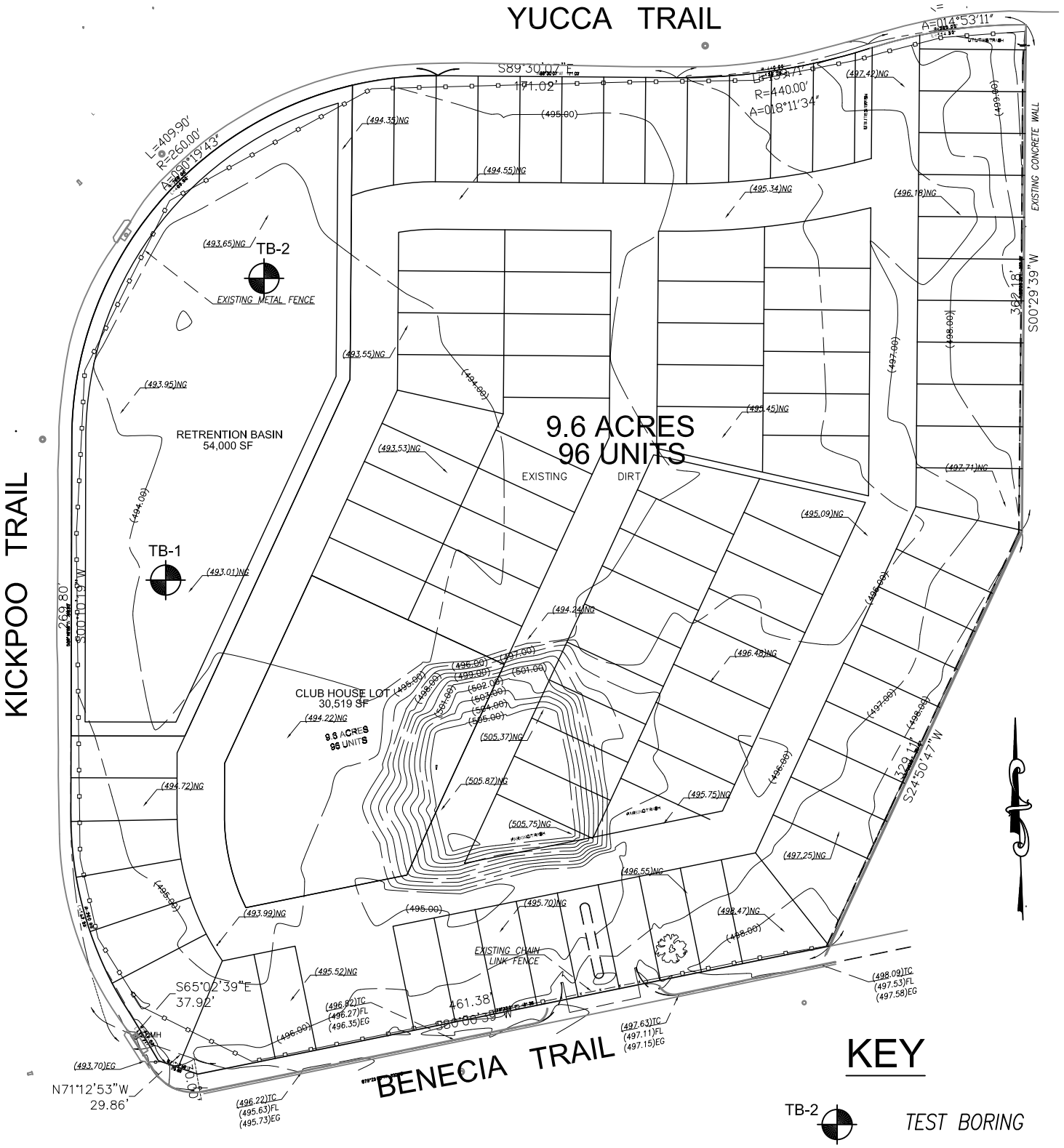
Respectfully submitted,
A.E. Engineering

Ed Eckert
Chief Engineer
R.C.E. # 34587
Exp. 09-30-25

REGISTERED PROFESSIONAL ENGINEER
ED ECKERT
No. 34587
Exp. 9/30/25
CIVIL
STATE OF CALIFORNIA

Alejandro Encizo
Project Engineer

Attachments: 3 Plates



A.E. ENGINEERING, CORP. CIVIL SOILS SURVEY 17579 EL CAJON DRIVE HESPERIA, CA 92345 (562) 397-5229 aesoiltest@gmail.com	PLOT PLAN APN: 0586-081-13 YUCCA TRAIL YUCCA VALLEY, CA	BY: A. ENCIZO DATE: 7-29-25 SCALE: 1'=100' PLATE: 1

LOG OF BORING

PROJECT YUCCA TRAIL PROJECT No. ENG-25-047 BORING No. 1

LOCATION SEE PLOT PLAN LOGGED BY AE DATE 5-29-25

SAMPLE No.	SAMPLE DEPTH (FT.)	TUBE	DRY DENSITY (PCF)	FIELD MOISTURE (%)			DEPTH (FT.)	GRAPHIC LOG	CLASSIFICATION, MOISTURE, TIGHTNESS
							1 2 3		(0-3') SILTY SAND (FILL); DRY TO SLIGHTLY MOIST, FIRM, LIGHT BROWN.
							4 5 6 7 8		(3'-6') SILTY SAND (SC); SLIGHTLY MOIST TO MOIST, FIRM TO VERY FIRM, LIGHT BROWN. NO GROUNDWATER, NO CAVING STOPPED @ 8'
							9 10		

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PLATE 2

LOG OF BORING

PROJECT YUCCA TRAIL PROJECT No. ENG-25-047 BORING No. 2

LOCATION SEE PLOT PLAN LOGGED BY AE DATE 5-29-25

SAMPLE No.	SAMPLE DEPTH (FT.)	TUBE	DRY DENSITY (PCF)	FIELD MOISTURE (%)			DEPTH (FT.)	GRAPHIC LOG	CLASSIFICATION, MOISTURE, TIGHTNESS
							1		(0-3') SILTY SAND (FILL); DRY TO SLIGHTLY MOIST, FIRM, LIGHT BROWN.
							2		
							3		(3'-10') SILTY SAND (SC); SLIGHTLY MOIST TO MOIST, FIRM TO VERY FIRM, LIGHT BROWN.
							4		
							5		
							6		
							7		
							8		
							9		
							10		NO GROUNDWATER, NO CAVING
									STOPPED @ 10'

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PLATE 3