Sladden Engineering

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February 14, 2022

Project No. 644-22003
22-02-023

Tulloch Holdings, LLC
32823 Temecula Parkway
Temecula, California 92592

Project: Proposed Residential Development
393 South Kirby Street
APN 436-490-011
San Jacinto, California

Subject: Infiltration Testing for On-Site Storm Water Management

In accordance with your request, we have performed infiltration testing on the subject site to evaluate the infiltration potential of the near surface soil to assist in storm water management system design. The infiltration rates determined by testing should be useful in the assessment of on-site storm water management needs. The approximate locations of the tests are indicated on the attached Test Location Plan (Figure 2).

Infiltration testing was performed on February 10, 2022 utilizing double ring infiltrometers. The tests were performed at depths of approximately 5.0 feet below the existing ground surface (bgs) for DR-1 & DR-2. The soil conditions encountered within the test hole locations consisted of silty sand (SM) and sandy silt (ML). Testing was performed in general accordance with the *Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer* (ASTM D-3385).

INFILTRATION TEST RESULTS

Test Location No.	Depth Below Existing Ground Surface (ft)	Infiltration Rate (in/hr)
DR-1	5.0	3.4
DR-2	5.0	1.7

The rates determined represent ultimate rates and an appropriate safety factor should be incorporated into the design to account for long-term saturation and potential "silting" of the surface soil. The safety factor should be determined with consideration to other factors considered in the storm water retention system design (specifically storm water volume estimates) and the safety factors associated with the related design components.

If you have any questions regarding this memo or the testing summarized herein, please contact the undersigned.

Respectfully submitted,
SLADDEN ENGINEERING

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Senior Geologist

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Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
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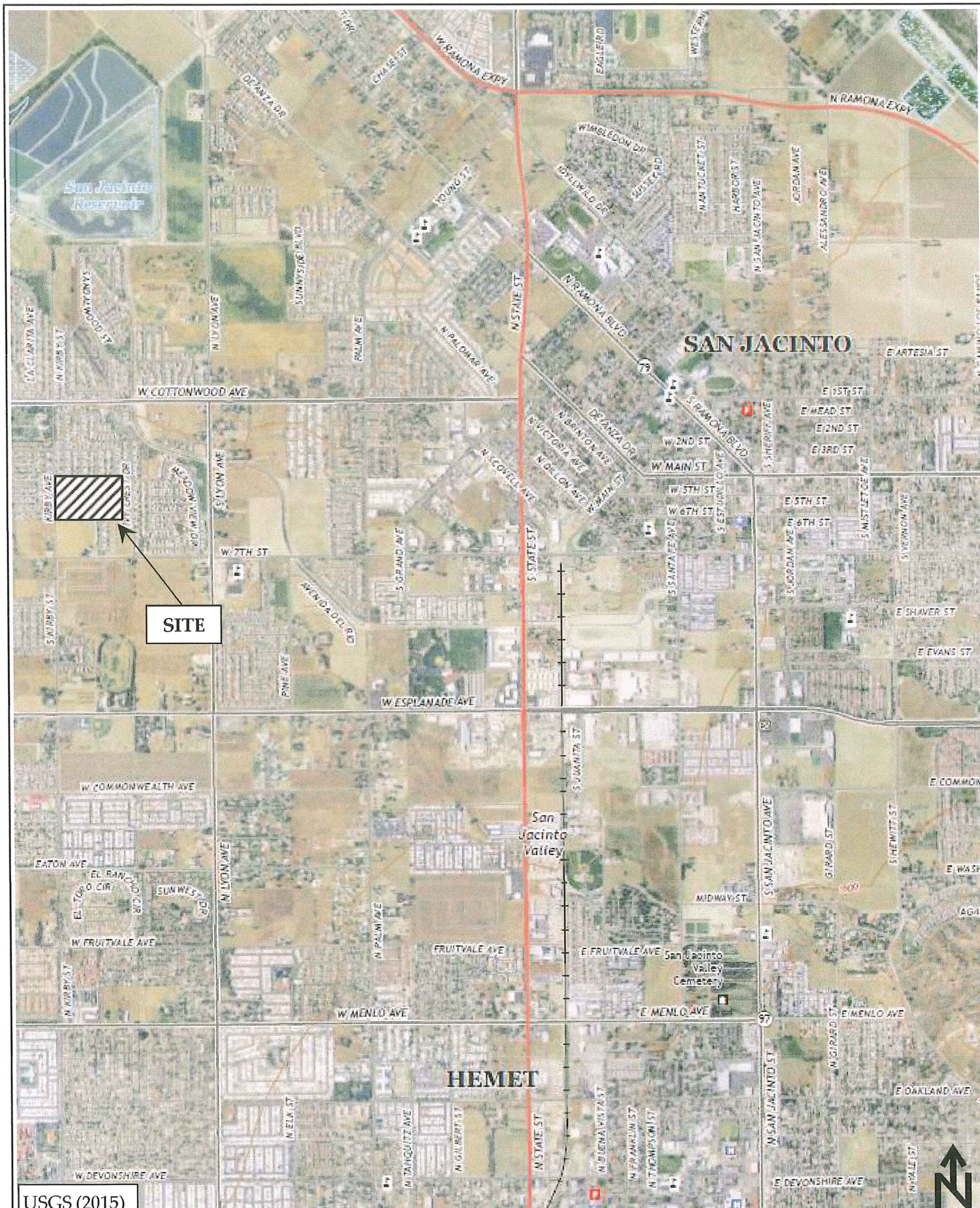
CIVIL ENGINEERING
STATE OF CALIFORNIA

Copies: 4 / Addressee

FIGURES

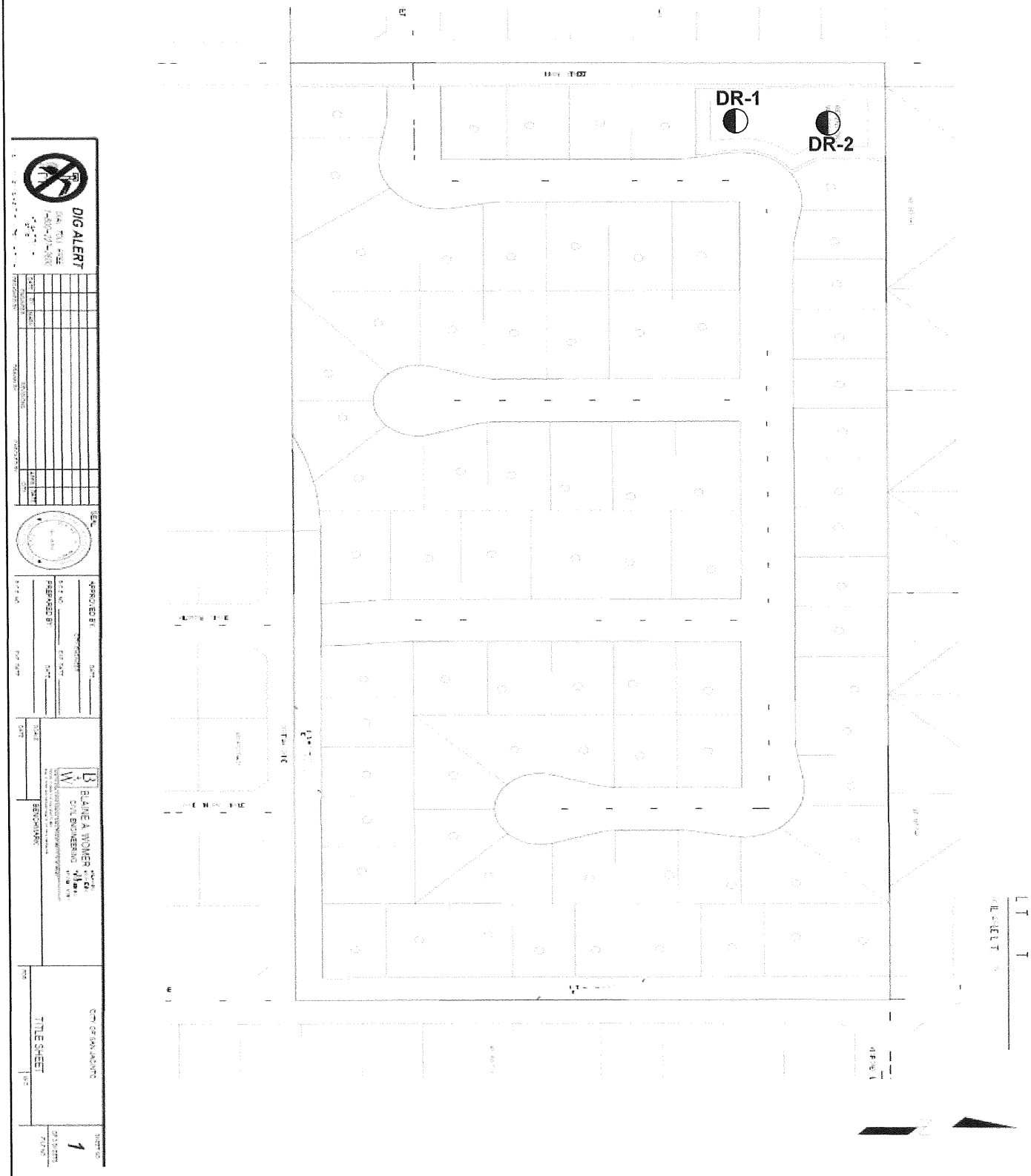
SITE LOCATION MAP
TEST LOCATION PLAN



Sladden Engineering	SITE LOCATION MAP		FIGURE
	Project Number:	644-22003	1
	Report Number:	22-02-022	
	Date:	February 14, 2022	

EXPLANATION OF MAP SYMBOLS

◐ **DR-2** Approximate Infiltration Test Location



TEST LOCATION PLAN

FIGURE

2

Project Number:	644-22003
Report Number:	22-02-022
Date:	February 14, 2022

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APPENDIX A

DOUBLE-RING TESTING DATA SHEETS

DOUBLE RING PERCOLATION RATE CALCULATIONS

INNER RING

Interval Number	Initial Water(cm)	Final Water(cm)	Con. Factor (cm to in)	Water (in)	Area Mar. (in2)	Volume (in3)	Area IR (in2)	Time (min)	Time (hr)	Vir (in/hr)
1	46.9	6.6	0.39	15.9	8.9	141.9	113.1	15	0.25	5.0
2	46.8	22.1	0.39	9.7	8.9	87.0	113.1	15	0.25	3.1
3	46.1	25.6	0.39	8.1	8.9	72.2	113.1	15	0.25	2.6
4	45.9	27.3	0.39	7.3	8.9	65.5	113.1	15	0.25	2.3
5	46.2	17.6	0.39	11.3	8.9	100.7	113.1	30	0.50	1.8
6	46.8	19.3	0.39	10.8	8.9	96.8	113.1	30	0.50	1.7
7	46.6	19.6	0.39	10.6	8.9	95.1	113.1	30	0.50	1.7
8	44.2	18.2	0.39	10.2	8.9	91.5	113.1	30	0.50	1.6
9	46.3	17.7	0.39	11.3	8.9	100.7	113.1	30	0.50	1.8
10	46.4	19.4	0.39	10.6	8.9	95.1	113.1	30	0.50	1.7
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Job No. 644-22003

Test Hole DR-1

AVERAGE RATE* = 3.4 (in/hr)

DOUBLE RING PERCOLATION RATE CALCULATIONS

INNER RING

Interval Number	Initial Water(cm)	Final Water(cm)	Con. Factor (cm to in)	Water (in)	Area Mar. (in2)	Volume (in3)	Area IR (in2)	Time (min)	Time (hr)	Vir (in/hr)
1	46.7	4.3	0.39	16.7	8.9	149.3	113.1	15	0.25	5.3
2	46.4	21.9	0.39	9.6	8.9	86.3	113.1	15	0.25	3.1
3	46.3	25.7	0.39	8.1	8.9	72.5	113.1	15	0.25	2.6
4	45.8	26.9	0.39	7.4	8.9	66.5	113.1	15	0.25	2.4
5	46.7	17.8	0.39	11.4	8.9	101.7	113.1	15	0.25	3.6
6	45.4	18.9	0.39	10.4	8.9	93.3	113.1	30	0.50	1.6
7	46.2	19.1	0.39	10.7	8.9	95.4	113.1	30	0.50	1.7
8	45.5	19.9	0.39	10.1	8.9	90.1	113.1	30	0.50	1.6
9	46.1	19.3	0.39	10.6	8.9	94.4	113.1	30	0.50	1.7
10	46.3	18.9	0.39	10.8	8.9	96.5	113.1	30	0.50	1.7
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Job No. 644-22003

Test Hole DR-2

AVERAGE RATE* = 1.7 (in/hr)