

**GEOTECHNICAL
ENGINEERING STUDY**

**TRES LAURELS SUBDIVISION
WEST MONTGOMERY ROAD EXTENSION
SAN ANTONIO, TEXAS
PAVEMENT DESIGN**

**FROST GEOSCIENCES, INC. PROJECT NO.: FGS-G 20016
(PAVEMENT SUPPLEMENT)
NOVEMBER 2, 2022**

Prepared Exclusively for:

**Mr. Allen Hoover
Mosaic Land Development
6812 West Avenue, Suite 100
San Antonio, Texas 78213**

The logo for Frost GeoSciences features a large, dark blue, stylized 'C' or swoosh shape that frames the text. The company name 'Frost GeoSciences' is written in a bold, italicized, sans-serif font. Below the name, a horizontal line separates it from the list of services: 'Construction Materials • Forensics', 'Environmental • Geotechnical', which are also in a bold, italicized, sans-serif font.

Frost GeoSciences
Construction Materials • Forensics
Environmental • Geotechnical



Frost GeoSciences

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Helotes, Texas 78023
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TBPE Firm Registration # F-9227
TBPG Firm Registration # 50040

July 23, 2020

Mr. Allen Hoover
Mosaic Land Development
6812 West Avenue, Suite # 100
San Antonio, Texas 78213

SUBJECT:

Geotechnical Engineering Services
Tres Laurels Subdivision
San Antonio, Texas
FGS Project No: FGS-G20016, Paving Supplement

Dear Mr. Hoover;

We have addressed the issues and questions that Bexar County submitted in their first review. Attached are paving designs with and without lime stabilization USING A CBR VALUE OF 4.5 multiplied by 1500 as per Bexar County design criteria. The UCS Curves have also been included as per Bexar County request.

FGS appreciates this opportunity to be of service to you in this phase of your project. If you have any questions pertaining to this report, or if we may be of further service, please contact our office.

Respectfully submitted,

Frost GeoSciences, Inc.

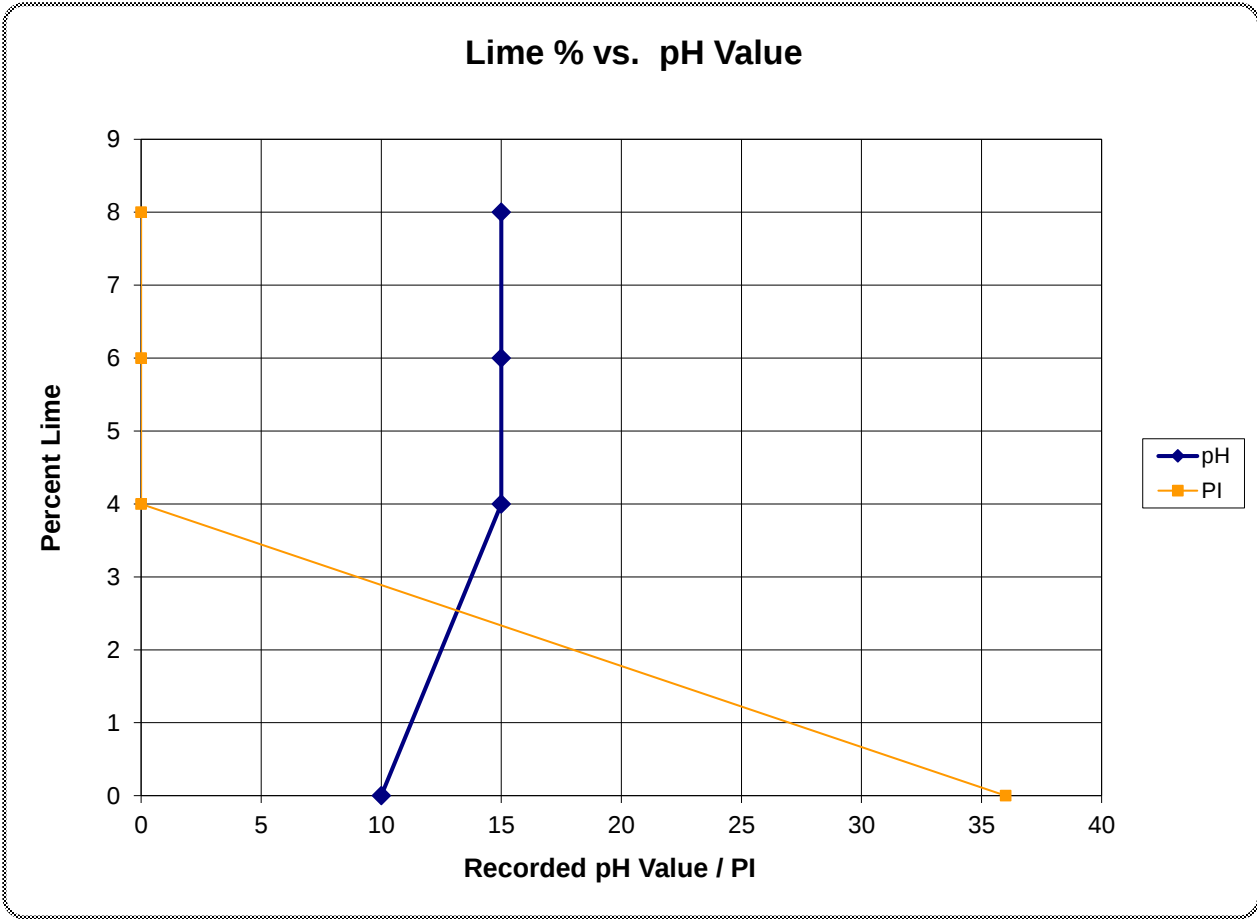


F. J. Caballero, P.E.
Project Engineer

Copies Submitted: I: Mr. Allen Hoover, Mosaic Land Development
II: File

FGS Project No.: FGS-G20016, Bexar County Response to 1st Review

LIME CURVE



Project Name: Tres Laurels
Project Number: FGS-G20016
Soil Description: Light Brown Clay

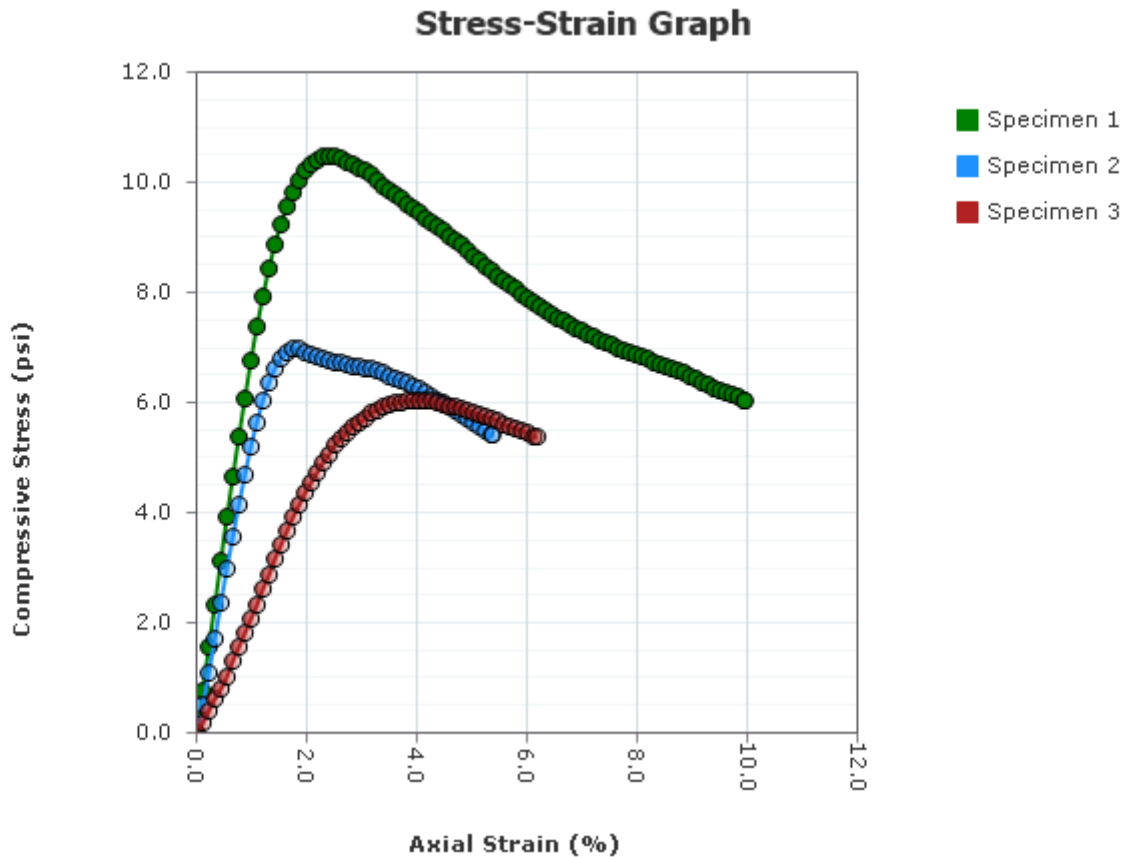
%Lime	pH	PI		6%		8%
0	10	36	Set #1	160	Set #1	175
4	15	0				
6	15	0	Set #2	155	Set #2	180
8	15	0				

UCS CURVES

0 % LIME CURVE

Unconfined Compression Test

D2166



Project: Tres Laurels Subdivision
Project Number: FGS-G-20016
Received Date: 10/19/2022
Sampling Date: 10/27/2022
Sample Number: 1
Sample Depth:
Boring Number:
Location: Tres Laurels Subdivision /Montgomery Rd
Client Name: Mosaic Land Development
Remarks: 0% Lime

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

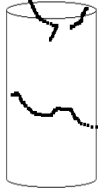
Unconfined Compression Test

D2166

	Specimen Number								
	Before Test	1	2	3	4	5	6	7	8
Moisture Content (%):	0.0	0.0	0.0						
Wet Density (pcf)	0.0	0.0	0.0						
Dry Density (pcf)	0.0	0.0	0.0						
Saturation (%):	0.0	0.0	0.0						
Void Ratio:	0.000	0.000	0.000						
Height (in)	4.5763	4.5763	4.5763						
Diameter (in)	3.8307	3.8307	3.8307						
Strain Limit @ 15% (in)	0.7	0.7	0.7						
Height To Diameter Ratio:	1.19	1.19	1.19						
Test Data	1	2	3	4	5	6	7	8	
Failure Angle (°):	0	0	0						
Strain Rate (in/min)	0.09	0.09	0.09						
Strain Rate (%/min):	1.97	1.97	1.97						
Unconfined Compressive Strength (psi)	10.5	7.0	6.0						
Undrained Shear Strength (psi)	5.2	3.5	3.0						
Strain at Failure (%):	2.5	1.9	4.2						

Specific Gravity:	2.72	Plastic Limit:	26	Liquid Limit:	77
Type:	Grab	Soil Classification:	CH		

Project:	Tres Laurels Subdivision
Project Number:	FGS-G-20016
Sampling Date:	10/27/2022
Sample Number:	1
Sample Depth:	
Boring Number:	
Location:	Tres Laurels Subdivision /Montgomery Rd
Client Name:	Mosiac Land Development
Remarks:	0% Lime

Specimen 1 Failure Sketch	Specimen 2 Failure Sketch	Specimen 3 Failure Sketch	Specimen 4 Failure Sketch	Specimen 5 Failure Sketch	Specimen 6 Failure Sketch	Specimen 7 Failure Sketch	Specimen 8 Failure Sketch
							

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test

D2166

LIMS Code: [TO COME FROM LIMS]

Specimen 1

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:					

Specimen 2

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	0% Lime				

Specimen 3

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	0% Lime				

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 1

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.0036	0.0449	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	34.00588	0.0500	9.0	0.0050	0.1	11.538	0.8	0.8
2	00:00:07	42.90013	0.0550	17.9	0.0100	0.2	11.550	1.6	1.5
3	00:00:10	52.07398	0.0599	27.1	0.0150	0.3	11.563	2.3	2.3
4	00:00:14	61.13785	0.0650	36.1	0.0200	0.4	11.576	3.1	3.1
5	00:00:17	70.3161	0.0700	45.3	0.0250	0.5	11.588	3.9	3.9
6	00:00:21	79.094	0.0750	54.1	0.0300	0.7	11.601	4.7	4.7
7	00:00:24	87.58203	0.0800	62.6	0.0350	0.8	11.614	5.4	5.4
8	00:00:27	95.71223	0.0850	70.7	0.0400	0.9	11.627	6.1	6.1
9	00:00:31	103.579	0.0899	78.6	0.0450	1.0	11.639	6.8	6.8
10	00:00:34	110.8425	0.0949	85.8	0.0500	1.1	11.652	7.4	7.4
11	00:00:38	117.407	0.1000	92.4	0.0550	1.2	11.665	8.0	7.9
12	00:00:41	123.3966	0.1050	98.4	0.0600	1.3	11.678	8.5	8.4
13	00:00:45	128.5415	0.1100	103.5	0.0650	1.4	11.691	9.0	8.9
14	00:00:48	132.9713	0.1149	108.0	0.0700	1.5	11.704	9.4	9.2
15	00:00:51	136.9308	0.1200	111.9	0.0750	1.6	11.717	9.7	9.6
16	00:00:55	140.1634	0.1250	115.2	0.0800	1.7	11.730	10.0	9.8
17	00:00:58	142.8319	0.1300	117.8	0.0850	1.9	11.743	10.2	10.0
18	00:01:02	144.997	0.1350	120.0	0.0900	2.0	11.756	10.4	10.2
19	00:01:05	146.594	0.1400	121.6	0.0950	2.1	11.769	10.6	10.3
20	00:01:08	147.6987	0.1450	122.7	0.1000	2.2	11.782	10.6	10.4
21	00:01:12	148.3782	0.1499	123.4	0.1050	2.3	11.796	10.7	10.5
22	00:01:15	148.6959	0.1550	123.7	0.1100	2.4	11.809	10.7	10.5
23	00:01:18	148.7825	0.1600	123.8	0.1150	2.5	11.822	10.7	10.5
24	00:01:21	148.4515	0.1650	123.4	0.1200	2.6	11.835	10.7	10.4
25	00:01:25	147.9514	0.1700	122.9	0.1250	2.7	11.849	10.7	10.4
26	00:01:28	147.425	0.1750	122.4	0.1300	2.8	11.862	10.6	10.3
27	00:01:31	146.9273	0.1800	121.9	0.1350	3.0	11.875	10.6	10.3
28	00:01:34	146.3021	0.1850	121.3	0.1400	3.1	11.889	10.5	10.2
29	00:01:38	145.5889	0.1899	120.6	0.1450	3.2	11.902	10.5	10.1
30	00:01:41	144.5169	0.1950	119.5	0.1500	3.3	11.916	10.4	10.0
31	00:01:45	143.4782	0.2000	118.5	0.1550	3.4	11.929	10.3	9.9
32	00:01:48	142.7312	0.2050	117.7	0.1600	3.5	11.943	10.2	9.9
33	00:01:51	141.8856	0.2100	116.9	0.1650	3.6	11.956	10.1	9.8

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 1

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:01:54	141.0115	0.2150	116.0	0.1700	3.7	11.970	10.1	9.7
35	00:01:57	140.2089	0.2200	115.2	0.1750	3.8	11.983	10.0	9.6
36	00:02:00	139.2884	0.2250	114.3	0.1800	3.9	11.997	9.9	9.5
37	00:02:03	138.3523	0.2300	113.3	0.1850	4.0	12.011	9.8	9.4
38	00:02:07	137.5008	0.2350	112.5	0.1900	4.2	12.024	9.8	9.4
39	00:02:10	136.7695	0.2399	111.8	0.1950	4.3	12.038	9.7	9.3
40	00:02:13	135.8353	0.2450	110.8	0.2000	4.4	12.052	9.6	9.2
41	00:02:17	134.9955	0.2500	110.0	0.2050	4.5	12.065	9.5	9.1
42	00:02:20	134.0765	0.2550	109.1	0.2100	4.6	12.079	9.5	9.0
43	00:02:23	133.1546	0.2600	108.2	0.2150	4.7	12.093	9.4	8.9
44	00:02:26	132.2722	0.2650	107.3	0.2200	4.8	12.107	9.3	8.9
45	00:02:30	131.209	0.2700	106.2	0.2250	4.9	12.121	9.2	8.8
46	00:02:33	130.1468	0.2750	105.1	0.2300	5.0	12.135	9.1	8.7
47	00:02:37	129.2029	0.2800	104.2	0.2350	5.1	12.149	9.0	8.6
48	00:02:40	128.2272	0.2850	103.2	0.2400	5.2	12.163	9.0	8.5
49	00:02:43	127.2231	0.2900	102.2	0.2450	5.4	12.177	8.9	8.4
50	00:02:47	126.2289	0.2949	101.2	0.2500	5.5	12.191	8.8	8.3
51	00:02:50	125.347	0.3000	100.3	0.2550	5.6	12.205	8.7	8.2
52	00:02:54	124.429	0.3050	99.4	0.2600	5.7	12.219	8.6	8.1
53	00:02:57	123.5662	0.3100	98.6	0.2650	5.8	12.233	8.6	8.1
54	00:03:00	122.634	0.3150	97.6	0.2700	5.9	12.248	8.5	8.0
55	00:03:04	121.8641	0.3199	96.9	0.2750	6.0	12.262	8.4	7.9
56	00:03:07	121.0306	0.3250	96.0	0.2800	6.1	12.276	8.3	7.8
57	00:03:11	120.2896	0.3300	95.3	0.2850	6.2	12.290	8.3	7.8
58	00:03:14	119.5128	0.3350	94.5	0.2900	6.3	12.305	8.2	7.7
59	00:03:17	118.7996	0.3400	93.8	0.2950	6.4	12.319	8.1	7.6
60	00:03:21	117.9901	0.3450	93.0	0.3000	6.6	12.333	8.1	7.5
61	00:03:24	117.3283	0.3500	92.3	0.3050	6.7	12.348	8.0	7.5
62	00:03:27	116.6923	0.3549	91.7	0.3100	6.8	12.362	8.0	7.4
63	00:03:30	116.1306	0.3600	91.1	0.3150	6.9	12.377	7.9	7.4
64	00:03:33	115.5	0.3650	90.5	0.3200	7.0	12.391	7.9	7.3
65	00:03:37	114.8602	0.3700	89.9	0.3250	7.1	12.406	7.8	7.2
66	00:03:40	114.253	0.3750	89.2	0.3300	7.2	12.421	7.7	7.2
67	00:03:44	113.7877	0.3799	88.8	0.3350	7.3	12.435	7.7	7.1

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 1

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
68	00:03:47	113.2759	0.3850	88.3	0.3400	7.4	12.450	7.7	7.1
69	00:03:51	112.8154	0.3900	87.8	0.3450	7.5	12.465	7.6	7.0
70	00:03:54	112.3119	0.3950	87.3	0.3500	7.6	12.479	7.6	7.0
71	00:03:57	111.8764	0.4000	86.9	0.3550	7.8	12.494	7.5	7.0
72	00:04:00	111.4134	0.4050	86.4	0.3600	7.9	12.509	7.5	6.9
73	00:04:04	111.0155	0.4100	86.0	0.3650	8.0	12.524	7.5	6.9
74	00:04:07	110.5286	0.4150	85.5	0.3700	8.1	12.539	7.4	6.8
75	00:04:10	110.1493	0.4200	85.1	0.3750	8.2	12.554	7.4	6.8
76	00:04:14	109.7294	0.4250	84.7	0.3800	8.3	12.569	7.4	6.7
77	00:04:17	109.3046	0.4300	84.3	0.3850	8.4	12.584	7.3	6.7
78	00:04:20	108.8559	0.4350	83.9	0.3900	8.5	12.599	7.3	6.7
79	00:04:23	108.4917	0.4400	83.5	0.3950	8.6	12.614	7.2	6.6
80	00:04:27	108.0009	0.4450	83.0	0.4000	8.7	12.629	7.2	6.6
81	00:04:30	107.5365	0.4500	82.5	0.4050	8.9	12.644	7.2	6.5
82	00:04:33	107.0594	0.4550	82.1	0.4100	9.0	12.659	7.1	6.5
83	00:04:37	106.3902	0.4599	81.4	0.4150	9.1	12.674	7.1	6.4
84	00:04:40	105.8452	0.4650	80.8	0.4200	9.2	12.690	7.0	6.4
85	00:04:44	105.3422	0.4700	80.3	0.4250	9.3	12.705	7.0	6.3
86	00:04:47	104.7883	0.4750	79.8	0.4300	9.4	12.720	6.9	6.3
87	00:04:51	104.2306	0.4799	79.2	0.4350	9.5	12.736	6.9	6.2
88	00:04:54	103.8312	0.4850	78.8	0.4400	9.6	12.751	6.8	6.2
89	00:04:57	103.316	0.4899	78.3	0.4450	9.7	12.766	6.8	6.1
90	00:05:01	102.8975	0.4950	77.9	0.4500	9.8	12.782	6.8	6.1
91	00:05:04	102.4287	0.4999	77.4	0.4550	9.9	12.797	6.7	6.1
92	00:05:04	102.3857	0.5005	77.4	0.4555	10.0	12.799	6.7	6.0

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 2

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.00801	0.0726	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	30.9639	0.0776	6.0	0.0050	0.1	11.538	0.5	0.5
2	00:00:06	37.45799	0.0826	12.4	0.0100	0.2	11.550	1.1	1.1
3	00:00:10	44.59441	0.0876	19.6	0.0150	0.3	11.563	1.7	1.7
4	00:00:13	52.20156	0.0926	27.2	0.0200	0.4	11.576	2.4	2.3
5	00:00:17	59.40055	0.0976	34.4	0.0250	0.5	11.588	3.0	3.0
6	00:00:20	66.48613	0.1026	41.5	0.0300	0.7	11.601	3.6	3.6
7	00:00:24	73.16744	0.1076	48.2	0.0350	0.8	11.614	4.2	4.1
8	00:00:27	79.54275	0.1126	54.5	0.0400	0.9	11.627	4.7	4.7
9	00:00:31	85.56464	0.1176	60.6	0.0450	1.0	11.639	5.3	5.2
10	00:00:34	90.84644	0.1226	65.8	0.0500	1.1	11.652	5.7	5.7
11	00:00:37	95.54799	0.1276	70.5	0.0550	1.2	11.665	6.1	6.0
12	00:00:41	99.39312	0.1326	74.4	0.0600	1.3	11.678	6.5	6.4
13	00:00:44	102.4732	0.1376	77.5	0.0650	1.4	11.691	6.7	6.6
14	00:00:48	104.7448	0.1426	79.7	0.0700	1.5	11.704	6.9	6.8
15	00:00:51	106.1663	0.1476	81.2	0.0750	1.6	11.717	7.0	6.9
16	00:00:55	106.8566	0.1526	81.8	0.0800	1.7	11.730	7.1	7.0
17	00:00:58	106.9245	0.1576	81.9	0.0850	1.9	11.743	7.1	7.0
18	00:01:01	106.4142	0.1626	81.4	0.0900	2.0	11.756	7.1	6.9
19	00:01:05	105.853	0.1676	80.8	0.0950	2.1	11.769	7.0	6.9
20	00:01:08	105.3852	0.1726	80.4	0.1000	2.2	11.782	7.0	6.8
21	00:01:12	105.1442	0.1776	80.1	0.1050	2.3	11.796	7.0	6.8
22	00:01:15	104.913	0.1826	79.9	0.1100	2.4	11.809	6.9	6.8
23	00:01:18	104.67	0.1876	79.7	0.1150	2.5	11.822	6.9	6.7
24	00:01:21	104.4916	0.1926	79.5	0.1200	2.6	11.835	6.9	6.7
25	00:01:24	104.2311	0.1976	79.2	0.1250	2.7	11.849	6.9	6.7
26	00:01:28	104.0605	0.2026	79.1	0.1300	2.8	11.862	6.9	6.7
27	00:01:31	103.9128	0.2076	78.9	0.1350	3.0	11.875	6.8	6.6
28	00:01:34	103.7945	0.2126	78.8	0.1400	3.1	11.889	6.8	6.6
29	00:01:38	103.5873	0.2176	78.6	0.1450	3.2	11.902	6.8	6.6
30	00:01:41	103.3145	0.2226	78.3	0.1500	3.3	11.916	6.8	6.6
31	00:01:44	102.9171	0.2276	77.9	0.1550	3.4	11.929	6.8	6.5
32	00:01:48	102.462	0.2326	77.5	0.1600	3.5	11.943	6.7	6.5
33	00:01:51	102.025	0.2376	77.0	0.1650	3.6	11.956	6.7	6.4

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 2

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:01:54	101.5283	0.2426	76.5	0.1700	3.7	11.970	6.6	6.4
35	00:01:57	101.127	0.2476	76.1	0.1750	3.8	11.983	6.6	6.4
36	00:02:01	100.5648	0.2526	75.6	0.1800	3.9	11.997	6.6	6.3
37	00:02:04	99.967	0.2576	75.0	0.1850	4.0	12.010	6.5	6.2
38	00:02:07	99.35646	0.2626	74.3	0.1900	4.2	12.024	6.5	6.2
39	00:02:10	98.69312	0.2676	73.7	0.1950	4.3	12.038	6.4	6.1
40	00:02:14	97.95499	0.2726	72.9	0.2000	4.4	12.052	6.3	6.1
41	00:02:17	97.30191	0.2776	72.3	0.2050	4.5	12.065	6.3	6.0
42	00:02:20	96.53152	0.2826	71.5	0.2100	4.6	12.079	6.2	5.9
43	00:02:23	95.76797	0.2876	70.8	0.2150	4.7	12.093	6.1	5.9
44	00:02:27	95.01321	0.2926	70.0	0.2200	4.8	12.107	6.1	5.8
45	00:02:30	94.24282	0.2976	69.2	0.2250	4.9	12.121	6.0	5.7
46	00:02:33	93.44847	0.3026	68.4	0.2300	5.0	12.135	5.9	5.6
47	00:02:37	92.69518	0.3076	67.7	0.2350	5.1	12.149	5.9	5.6
48	00:02:41	91.80161	0.3126	66.8	0.2400	5.2	12.163	5.8	5.5
49	00:02:44	90.95642	0.3176	65.9	0.2450	5.4	12.177	5.7	5.4
50	00:02:45	90.84644	0.3184	65.8	0.2458	5.4	12.179	5.7	5.4

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 3

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.00165	0.1121	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	27.36074	0.1171	2.4	0.0050	0.1	11.538	0.2	0.2
2	00:00:06	29.75454	0.1221	4.8	0.0100	0.2	11.550	0.4	0.4
3	00:00:09	32.23534	0.1271	7.2	0.0150	0.3	11.563	0.6	0.6
4	00:00:13	34.30651	0.1321	9.3	0.0200	0.4	11.576	0.8	0.8
5	00:00:16	36.8318	0.1371	11.8	0.0250	0.5	11.588	1.0	1.0
6	00:00:19	39.99453	0.1421	15.0	0.0300	0.7	11.601	1.3	1.3
7	00:00:22	43.03016	0.1471	18.0	0.0350	0.8	11.614	1.6	1.6
8	00:00:26	46.10831	0.1521	21.1	0.0400	0.9	11.627	1.8	1.8
9	00:00:29	49.20798	0.1571	24.2	0.0450	1.0	11.639	2.1	2.1
10	00:00:32	52.30177	0.1621	27.3	0.0500	1.1	11.652	2.4	2.3
11	00:00:36	55.47232	0.1671	30.5	0.0550	1.2	11.665	2.6	2.6
12	00:00:39	58.70935	0.1721	33.7	0.0600	1.3	11.678	2.9	2.9
13	00:00:43	61.80119	0.1771	36.8	0.0650	1.4	11.691	3.2	3.1
14	00:00:46	64.91894	0.1821	39.9	0.0700	1.5	11.704	3.5	3.4
15	00:00:49	67.92867	0.1871	42.9	0.0750	1.6	11.717	3.7	3.7
16	00:00:53	70.93203	0.1921	45.9	0.0800	1.7	11.730	4.0	3.9
17	00:00:56	73.76088	0.1971	48.8	0.0850	1.9	11.743	4.2	4.2
18	00:01:00	76.3287	0.2021	51.3	0.0900	2.0	11.756	4.5	4.4
19	00:01:03	78.68339	0.2071	53.7	0.0950	2.1	11.769	4.7	4.6
20	00:01:06	80.91196	0.2121	55.9	0.1000	2.2	11.782	4.9	4.7
21	00:01:10	82.94451	0.2171	57.9	0.1050	2.3	11.796	5.0	4.9
22	00:01:13	84.87001	0.2221	59.9	0.1100	2.4	11.809	5.2	5.1
23	00:01:17	86.70165	0.2271	61.7	0.1150	2.5	11.822	5.4	5.2
24	00:01:20	88.30843	0.2321	63.3	0.1200	2.6	11.835	5.5	5.3
25	00:01:23	89.7671	0.2371	64.8	0.1250	2.7	11.849	5.6	5.5
26	00:01:27	91.11578	0.2421	66.1	0.1300	2.8	11.862	5.7	5.6
27	00:01:30	92.0778	0.2471	67.1	0.1350	3.0	11.875	5.8	5.6
28	00:01:34	93.04861	0.2521	68.0	0.1400	3.1	11.889	5.9	5.7
29	00:01:37	94.04142	0.2571	69.0	0.1450	3.2	11.902	6.0	5.8
30	00:01:40	94.88954	0.2621	69.9	0.1500	3.3	11.916	6.1	5.9
31	00:01:44	95.55826	0.2671	70.6	0.1550	3.4	11.929	6.1	5.9
32	00:01:47	96.16489	0.2721	71.2	0.1600	3.5	11.943	6.2	6.0
33	00:01:51	96.67377	0.2771	71.7	0.1650	3.6	11.956	6.2	6.0

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 3

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:01:54	97.02523	0.2821	72.0	0.1700	3.7	11.970	6.2	6.0
35	00:01:57	97.36008	0.2871	72.4	0.1750	3.8	11.983	6.3	6.0
36	00:02:01	97.54339	0.2921	72.5	0.1800	3.9	11.997	6.3	6.0
37	00:02:04	97.6133	0.2971	72.6	0.1850	4.0	12.011	6.3	6.0
38	00:02:07	97.68026	0.3021	72.7	0.1900	4.2	12.024	6.3	6.0
39	00:02:10	97.56294	0.3071	72.6	0.1950	4.3	12.038	6.3	6.0
40	00:02:14	97.25547	0.3121	72.3	0.2000	4.4	12.052	6.3	6.0
41	00:02:17	97.04967	0.3171	72.0	0.2050	4.5	12.065	6.3	6.0
42	00:02:20	96.80037	0.3221	71.8	0.2100	4.6	12.079	6.2	5.9
43	00:02:23	96.50903	0.3271	71.5	0.2150	4.7	12.093	6.2	5.9
44	00:02:27	96.27293	0.3321	71.3	0.2200	4.8	12.107	6.2	5.9
45	00:02:30	95.98207	0.3371	71.0	0.2250	4.9	12.121	6.2	5.9
46	00:02:33	95.62767	0.3421	70.6	0.2300	5.0	12.135	6.1	5.8
47	00:02:37	95.18919	0.3471	70.2	0.2350	5.1	12.149	6.1	5.8
48	00:02:40	94.80692	0.3521	69.8	0.2400	5.2	12.163	6.1	5.7
49	00:02:43	94.41146	0.3571	69.4	0.2450	5.4	12.177	6.0	5.7
50	00:02:46	93.98521	0.3621	69.0	0.2500	5.5	12.191	6.0	5.7
51	00:02:50	93.52766	0.3671	68.5	0.2550	5.6	12.205	5.9	5.6
52	00:02:53	93.04176	0.3721	68.0	0.2600	5.7	12.219	5.9	5.6
53	00:02:56	92.62772	0.3771	67.6	0.2650	5.8	12.233	5.9	5.5
54	00:03:00	92.16236	0.3821	67.2	0.2700	5.9	12.248	5.8	5.5
55	00:03:03	91.71215	0.3871	66.7	0.2750	6.0	12.262	5.8	5.4
56	00:03:07	91.23994	0.3921	66.2	0.2800	6.1	12.276	5.7	5.4
57	00:03:09	90.94958	0.3951	65.9	0.2830	6.2	12.285	5.7	5.4

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

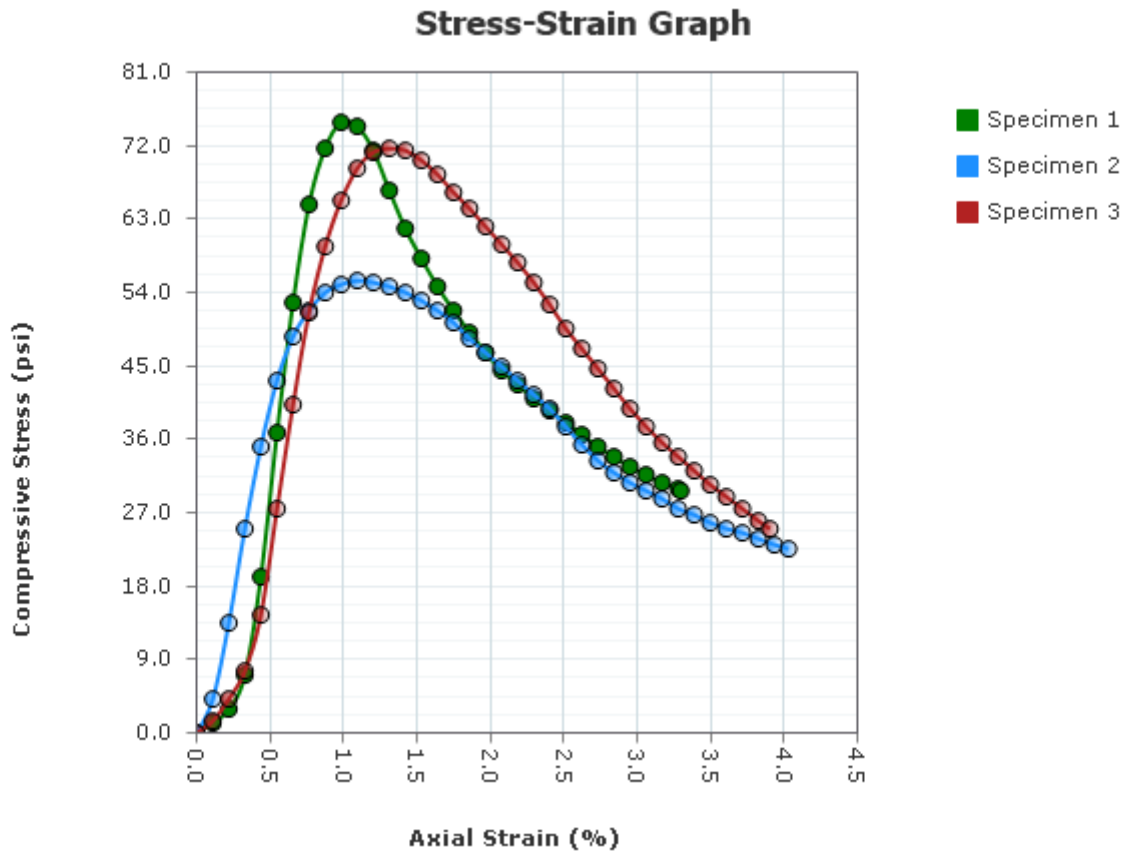
Checked By: _____ Date: _____

Report Created: 10/28/2022

2 % LIME CURVE

Unconfined Compression Test

D2166



Project: Tres Laurels Subdivision
Project Number: FGS-P-20032
Received Date: 10/19/2022
Sampling Date: 10/27/2022
Sample Number: 1
Sample Depth:
Boring Number:
Location: Tres Laurels Subdivision/Montgomery Rd
Client Name: Mosaic Land Development
Remarks: 2% Lime

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test

D2166

	Specimen Number								
	Before Test	1	2	3	4	5	6	7	8
Moisture Content (%):	0.0	0.0	0.0						
Wet Density (pcf)	0.0	0.0	0.0						
Dry Density (pcf)	0.0	0.0	0.0						
Saturation (%):	0.0	0.0	0.0						
Void Ratio:	0.000	0.000	0.000						
Height (in)	4.5763	4.5763	4.5763						
Diameter (in)	3.8307	3.8307	3.8307						
Strain Limit @ 15% (in)	0.7	0.7	0.7						
Height To Diameter Ratio:	1.19	1.19	1.19						
Test Data	1	2	3	4	5	6	7	8	
Failure Angle (°):	0	0	0						
Strain Rate (in/min)	0.09	0.09	0.09						
Strain Rate (%/min):	1.97	1.97	1.97						
Unconfined Compressive Strength (psi)	74.9	55.4	71.8						
Undrained Shear Strength (psi)	37.4	27.7	35.9						
Strain at Failure (%):	1.0	1.1	1.3						

Specific Gravity:	2.72	Plastic Limit:	26	Liquid Limit:	77
Type:	Grab	Soil Classification:	CH		

Project:	Tres Laurels Subdivision
Project Number:	FGS-P-20032
Sampling Date:	10/27/2022
Sample Number:	1
Sample Depth:	
Boring Number:	
Location:	Tres Laurels Subdivision/Montgomery Rd
Client Name:	Mosaic Land Development
Remarks:	2% Lime

Specimen 1 Failure Sketch	Specimen 2 Failure Sketch	Specimen 3 Failure Sketch	Specimen 4 Failure Sketch	Specimen 5 Failure Sketch	Specimen 6 Failure Sketch	Specimen 7 Failure Sketch	Specimen 8 Failure Sketch
							

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test

D2166

LIMS Code: [TO COME FROM LIMS]

Specimen 1

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	2% Lime				

Specimen 2

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	2% Lime				

Specimen 3

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	2% Lime				

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 1

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.00458	0.0008	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	39.6411	0.0059	14.6	0.0050	0.1	11.538	1.3	1.3
2	00:00:06	58.93518	0.0108	33.9	0.0100	0.2	11.550	2.9	2.9
3	00:00:10	106.7417	0.0159	81.7	0.0150	0.3	11.563	7.1	7.1
4	00:00:15	247.6618	0.0208	222.7	0.0200	0.4	11.576	19.3	19.2
5	00:00:19	451.5666	0.0259	426.6	0.0250	0.5	11.588	37.0	36.8
6	00:00:24	637.7181	0.0309	612.7	0.0300	0.7	11.601	53.2	52.8
7	00:00:29	776.8422	0.0359	751.8	0.0350	0.8	11.614	65.2	64.7
8	00:00:32	859.1449	0.0408	834.1	0.0400	0.9	11.627	72.4	71.7
9	00:00:36	896.6542	0.0458	871.6	0.0450	1.0	11.639	75.6	74.9
10	00:00:40	892.6087	0.0509	867.6	0.0500	1.1	11.652	75.3	74.5
11	00:00:43	857.8309	0.0558	832.8	0.0550	1.2	11.665	72.3	71.4
12	00:00:47	801.9348	0.0609	776.9	0.0600	1.3	11.678	67.4	66.5
13	00:00:50	749.2107	0.0658	724.2	0.0650	1.4	11.691	62.8	61.9
14	00:00:53	705.8217	0.0708	680.8	0.0700	1.5	11.704	59.1	58.2
15	00:00:56	666.6709	0.0759	641.7	0.0750	1.6	11.717	55.7	54.8
16	00:00:59	632.1527	0.0809	607.1	0.0800	1.7	11.730	52.7	51.8
17	00:01:03	602.1318	0.0858	577.1	0.0850	1.9	11.743	50.1	49.1
18	00:01:06	574.2436	0.0908	549.2	0.0900	2.0	11.756	47.7	46.7
19	00:01:10	548.062	0.0958	523.1	0.0950	2.1	11.769	45.4	44.4
20	00:01:13	526.9249	0.1009	501.9	0.1000	2.2	11.782	43.6	42.6
21	00:01:17	509.3569	0.1058	484.4	0.1050	2.3	11.796	42.0	41.1
22	00:01:20	491.6315	0.1108	466.6	0.1100	2.4	11.809	40.5	39.5
23	00:01:23	473.9501	0.1159	448.9	0.1150	2.5	11.822	39.0	38.0
24	00:01:26	456.8376	0.1208	431.8	0.1200	2.6	11.835	37.5	36.5
25	00:01:29	441.0001	0.1258	416.0	0.1250	2.7	11.849	36.1	35.1
26	00:01:32	425.7354	0.1308	400.7	0.1300	2.8	11.862	34.8	33.8
27	00:01:35	412.1826	0.1359	387.2	0.1350	3.0	11.875	33.6	32.6
28	00:01:38	400.3828	0.1408	375.4	0.1400	3.1	11.889	32.6	31.6
29	00:01:41	390.2479	0.1459	365.2	0.1450	3.2	11.902	31.7	30.7
30	00:01:45	381.4402	0.1509	356.4	0.1500	3.3	11.916	30.9	29.9
31	00:01:45	379.9331	0.1517	354.9	0.1509	3.3	11.918	30.8	29.8

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 2

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.05493	0.0345	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	73.75746	0.0396	48.7	0.0050	0.1	11.538	4.2	4.2
2	00:00:08	180.8139	0.0445	155.8	0.0100	0.2	11.550	13.5	13.5
3	00:00:13	314.5942	0.0495	289.5	0.0150	0.3	11.563	25.1	25.0
4	00:00:17	432.25	0.0545	407.2	0.0200	0.4	11.576	35.3	35.2
5	00:00:21	524.3337	0.0595	499.3	0.0250	0.5	11.588	43.3	43.1
6	00:00:24	588.6519	0.0645	563.6	0.0300	0.7	11.601	48.9	48.6
7	00:00:28	627.1711	0.0695	602.1	0.0350	0.8	11.614	52.2	51.8
8	00:00:31	651.9929	0.0746	626.9	0.0400	0.9	11.627	54.4	53.9
9	00:00:35	665.5222	0.0795	640.5	0.0450	1.0	11.639	55.6	55.0
10	00:00:38	671.1495	0.0845	646.1	0.0500	1.1	11.652	56.1	55.4
11	00:00:42	669.994	0.0896	644.9	0.0550	1.2	11.665	56.0	55.3
12	00:00:45	665.6292	0.0946	640.6	0.0600	1.3	11.678	55.6	54.9
13	00:00:48	657.106	0.0996	632.1	0.0650	1.4	11.691	54.8	54.1
14	00:00:52	646.3459	0.1045	621.3	0.0700	1.5	11.704	53.9	53.1
15	00:00:55	632.0652	0.1096	607.0	0.0750	1.6	11.717	52.7	51.8
16	00:00:59	614.3872	0.1146	589.3	0.0800	1.7	11.730	51.1	50.2
17	00:01:02	594.2191	0.1196	569.2	0.0850	1.9	11.743	49.4	48.5
18	00:01:05	574.5931	0.1246	549.5	0.0900	2.0	11.756	47.7	46.7
19	00:01:08	554.2344	0.1295	529.2	0.0950	2.1	11.769	45.9	45.0
20	00:01:12	534.2882	0.1345	509.2	0.1000	2.2	11.782	44.2	43.2
21	00:01:15	515.1735	0.1396	490.1	0.1050	2.3	11.796	42.5	41.6
22	00:01:18	495.0733	0.1446	470.0	0.1100	2.4	11.809	40.8	39.8
23	00:01:21	470.4119	0.1496	445.4	0.1150	2.5	11.822	38.6	37.7
24	00:01:24	443.7336	0.1546	418.7	0.1200	2.6	11.835	36.3	35.4
25	00:01:27	421.5911	0.1596	396.5	0.1250	2.7	11.849	34.4	33.5
26	00:01:30	404.4836	0.1646	379.4	0.1300	2.8	11.862	32.9	32.0
27	00:01:33	389.5967	0.1695	364.5	0.1350	3.0	11.875	31.6	30.7
28	00:01:36	377.4626	0.1745	352.4	0.1400	3.1	11.889	30.6	29.6
29	00:01:39	366.0464	0.1795	341.0	0.1450	3.2	11.902	29.6	28.6
30	00:01:42	353.812	0.1845	328.8	0.1500	3.3	11.916	28.5	27.6
31	00:01:46	343.3731	0.1896	318.3	0.1550	3.4	11.929	27.6	26.7
32	00:01:49	334.1323	0.1945	309.1	0.1600	3.5	11.942	26.8	25.9
33	00:01:52	325.6031	0.1995	300.5	0.1650	3.6	11.956	26.1	25.1

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 2

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:01:55	317.5194	0.2046	292.5	0.1700	3.7	11.970	25.4	24.4
35	00:01:59	309.4645	0.2096	284.4	0.1750	3.8	11.983	24.7	23.7
36	00:02:02	302.3471	0.2145	277.3	0.1800	3.9	11.997	24.1	23.1
37	00:02:04	296.2734	0.2190	271.2	0.1844	4.0	12.009	23.5	22.6

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 3

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.04858	0.0239	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	42.46996	0.0289	17.4	0.0050	0.1	11.538	1.5	1.5
2	00:00:07	71.86373	0.0339	46.8	0.0100	0.2	11.550	4.1	4.1
3	00:00:10	111.9458	0.0389	86.9	0.0150	0.3	11.563	7.5	7.5
4	00:00:15	192.8743	0.0439	167.8	0.0200	0.4	11.576	14.6	14.5
5	00:00:21	343.4792	0.0489	318.4	0.0250	0.5	11.588	27.6	27.5
6	00:00:25	491.4203	0.0539	466.4	0.0300	0.7	11.601	40.5	40.2
7	00:00:30	623.9262	0.0590	598.9	0.0350	0.8	11.614	52.0	51.6
8	00:00:33	717.2941	0.0639	692.2	0.0400	0.9	11.627	60.1	59.5
9	00:00:37	785.5977	0.0689	760.5	0.0450	1.0	11.639	66.0	65.3
10	00:00:41	830.7625	0.0739	805.7	0.0500	1.1	11.652	69.9	69.1
11	00:00:44	855.2851	0.0789	830.2	0.0550	1.2	11.665	72.0	71.2
12	00:00:47	863.4021	0.0839	838.4	0.0600	1.3	11.678	72.7	71.8
13	00:00:51	859.5931	0.0889	834.5	0.0650	1.4	11.691	72.4	71.4
14	00:00:54	846.648	0.0939	821.6	0.0700	1.5	11.704	71.3	70.2
15	00:00:58	826.407	0.0989	801.4	0.0750	1.6	11.717	69.5	68.4
16	00:01:01	803.6252	0.1039	778.6	0.0800	1.7	11.730	67.6	66.4
17	00:01:04	779.0161	0.1090	754.0	0.0850	1.9	11.743	65.4	64.2
18	00:01:07	755.083	0.1139	730.0	0.0900	2.0	11.756	63.3	62.1
19	00:01:10	730.0759	0.1190	705.0	0.0950	2.1	11.769	61.2	59.9
20	00:01:13	705.2615	0.1239	680.2	0.1000	2.2	11.782	59.0	57.7
21	00:01:17	676.6186	0.1290	651.6	0.1050	2.3	11.796	56.5	55.2
22	00:01:20	644.7596	0.1339	619.7	0.1100	2.4	11.809	53.8	52.5
23	00:01:23	612.3659	0.1389	587.3	0.1150	2.5	11.822	51.0	49.7
24	00:01:26	582.937	0.1439	557.9	0.1200	2.6	11.835	48.4	47.1
25	00:01:30	553.5031	0.1490	528.5	0.1250	2.7	11.849	45.9	44.6
26	00:01:33	525.6667	0.1539	500.6	0.1300	2.8	11.862	43.4	42.2
27	00:01:36	498.2742	0.1589	473.2	0.1350	3.0	11.875	41.1	39.8
28	00:01:39	472.8346	0.1640	447.8	0.1400	3.1	11.889	38.9	37.7
29	00:01:43	449.446	0.1690	424.4	0.1450	3.2	11.902	36.8	35.7
30	00:01:46	427.8833	0.1739	402.8	0.1500	3.3	11.916	35.0	33.8
31	00:01:49	408.093	0.1789	383.0	0.1550	3.4	11.929	33.2	32.1
32	00:01:52	389.0424	0.1840	364.0	0.1600	3.5	11.943	31.6	30.5
33	00:01:55	370.4107	0.1890	345.4	0.1650	3.6	11.956	30.0	28.9

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 3

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:01:58	352.939	0.1940	327.9	0.1700	3.7	11.970	28.5	27.4
35	00:02:01	337.0075	0.1989	312.0	0.1750	3.8	11.983	27.1	26.0
36	00:02:03	325.6384	0.2025	300.6	0.1786	3.9	11.993	26.1	25.1

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

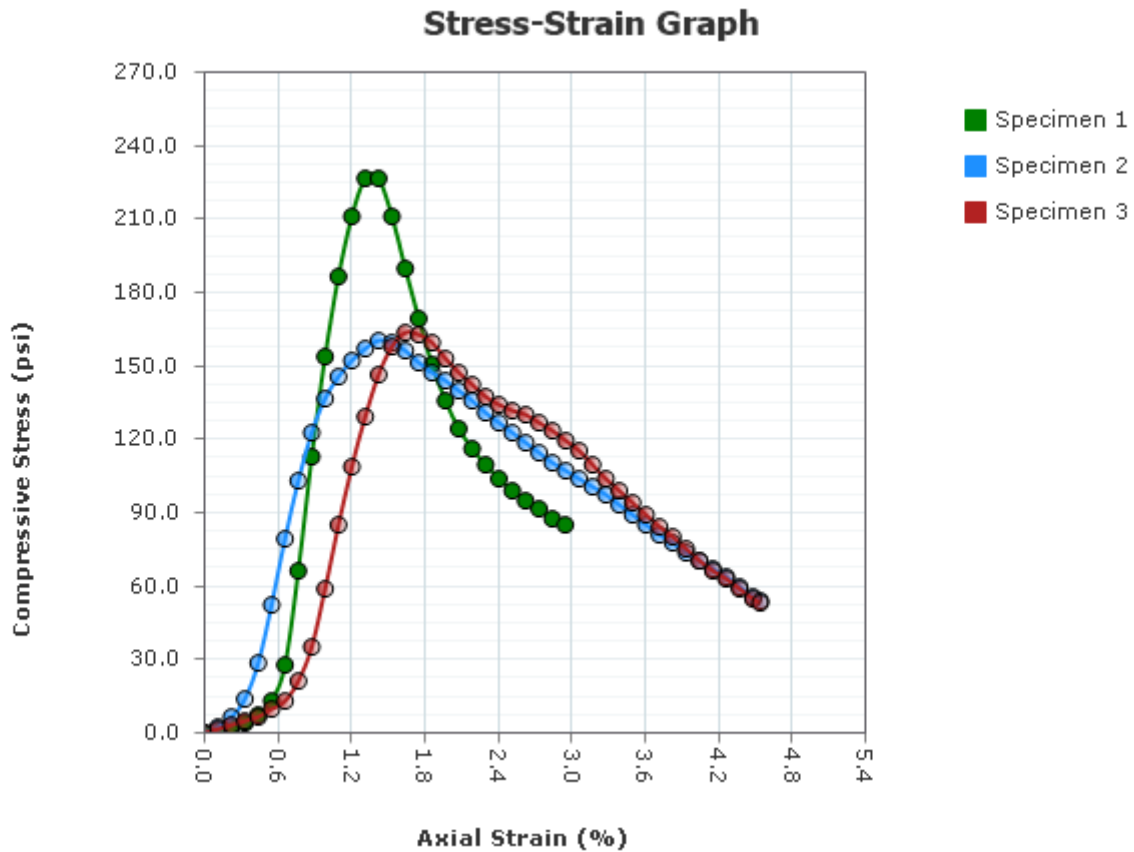
Checked By: _____ Date: _____

Report Created: 10/28/2022

4 % LIME CURVE

Unconfined Compression Test

D2166



Project: Tres Laurels Subdivision
Project Number: FGS-P-20032
Received Date: 10/19/2022
Sampling Date: 10/27/2022
Sample Number: 1
Sample Depth:
Boring Number:
Location: Tres Laurels Subdivision/Montgomery Rd
Client Name: Mosiac Land Development
Remarks: 4% Lime

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

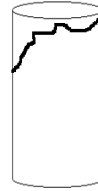
Unconfined Compression Test

D2166

	Specimen Number								
	Before Test	1	2	3	4	5	6	7	8
Moisture Content (%):	0.0	0.0	0.0						
Wet Density (pcf):	0.0	0.0	0.0						
Dry Density (pcf):	0.0	0.0	0.0						
Saturation (%):	0.0	0.0	0.0						
Void Ratio:	0.000	0.000	0.000						
Height (in)	4.5763	4.5763	4.5763						
Diameter (in)	3.8307	3.8307	3.8307						
Strain Limit @ 15% (in)	0.7	0.7	0.7						
Height To Diameter Ratio:	1.19	1.19	1.19						
Test Data	1	2	3	4	5	6	7	8	
Failure Angle (°):	0	0	0						
Strain Rate (in/min)	0.09	0.09	0.09						
Strain Rate (%/min):	1.97	1.97	1.97						
Unconfined Compressive Strength (psi)	226.7	159.9	163.7						
Undrained Shear Strength (psi)	113.3	79.9	81.9						
Strain at Failure (%):	1.4	1.5	1.6						

Specific Gravity:	2.72	Plastic Limit:	26	Liquid Limit:	77
Type:		Soil Classification:	CH		

Project:	Tres Laurels Subdivision
Project Number:	FGS-P-20032
Sampling Date:	10/27/2022
Sample Number:	1
Sample Depth:	
Boring Number:	
Location:	Tres Lurels Subdivision/Montgomery Rd
Client Name:	Mosaic Land Development
Remarks:	4% Lime

Specimen 1 Failure Sketch	Specimen 2 Failure Sketch	Specimen 3 Failure Sketch	Specimen 4 Failure Sketch	Specimen 5 Failure Sketch	Specimen 6 Failure Sketch	Specimen 7 Failure Sketch	Specimen 8 Failure Sketch
							

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test

D2166

LIMS Code: [TO COME FROM LIMS]

Specimen 1

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	4% Lime				

Specimen 2

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	4% Lime				

Specimen 3

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	4% Lime				

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 1

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.0256	0.0277	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	38.54319	0.0327	13.5	0.0050	0.1	11.538	1.2	1.2
2	00:00:06	49.84052	0.0377	24.8	0.0100	0.2	11.550	2.2	2.1
3	00:00:10	73.82883	0.0427	48.8	0.0150	0.3	11.563	4.2	4.2
4	00:00:14	109.9171	0.0477	84.9	0.0200	0.4	11.576	7.4	7.3
5	00:00:18	177.8697	0.0527	152.8	0.0250	0.5	11.588	13.3	13.2
6	00:00:23	349.3822	0.0577	324.4	0.0300	0.7	11.601	28.1	28.0
7	00:00:30	798.8948	0.0627	773.9	0.0350	0.8	11.614	67.1	66.6
8	00:00:37	1338.997	0.0677	1,314.0	0.0400	0.9	11.627	114.0	113.0
9	00:00:42	1818.424	0.0727	1,793.4	0.0450	1.0	11.639	155.6	154.1
10	00:00:47	2201.366	0.0777	2,176.3	0.0500	1.1	11.652	188.8	186.8
11	00:00:52	2491.631	0.0827	2,466.6	0.0550	1.2	11.665	214.0	211.5
12	00:00:56	2670.252	0.0877	2,645.2	0.0600	1.3	11.678	229.5	226.5
13	00:01:00	2675.345	0.0927	2,650.3	0.0650	1.4	11.691	230.0	226.7
14	00:01:03	2492.896	0.0977	2,467.9	0.0700	1.5	11.704	214.1	210.9
15	00:01:06	2250.788	0.1027	2,225.8	0.0750	1.6	11.717	193.1	190.0
16	00:01:09	2008.693	0.1077	1,983.7	0.0800	1.7	11.730	172.1	169.1
17	00:01:12	1788.843	0.1127	1,763.8	0.0850	1.9	11.743	153.0	150.2
18	00:01:15	1621.852	0.1177	1,596.8	0.0900	2.0	11.756	138.6	135.8
19	00:01:18	1492.684	0.1227	1,467.7	0.0950	2.1	11.769	127.3	124.7
20	00:01:21	1395.436	0.1277	1,370.4	0.1000	2.2	11.782	118.9	116.3
21	00:01:24	1316.705	0.1327	1,291.7	0.1050	2.3	11.796	112.1	109.5
22	00:01:27	1250.3	0.1377	1,225.3	0.1100	2.4	11.809	106.3	103.8
23	00:01:30	1196.217	0.1427	1,171.2	0.1150	2.5	11.822	101.6	99.1
24	00:01:33	1152.586	0.1477	1,127.6	0.1200	2.6	11.835	97.8	95.3
25	00:01:36	1110.133	0.1527	1,085.1	0.1250	2.7	11.849	94.2	91.6
26	00:01:40	1067.046	0.1577	1,042.0	0.1300	2.8	11.862	90.4	87.8
27	00:01:42	1030.889	0.1625	1,005.9	0.1348	2.9	11.875	87.3	84.7

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 2

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.10479	0.0255	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	55.00402	0.0305	29.9	0.0050	0.1	11.538	2.6	2.6
2	00:00:08	100.2305	0.0355	75.1	0.0100	0.2	11.550	6.5	6.5
3	00:00:12	187.1062	0.0405	162.0	0.0150	0.3	11.563	14.1	14.0
4	00:00:16	356.2454	0.0455	331.1	0.0200	0.4	11.576	28.7	28.6
5	00:00:22	635.9485	0.0505	610.8	0.0250	0.5	11.588	53.0	52.7
6	00:00:27	949.1804	0.0555	924.1	0.0300	0.7	11.601	80.2	79.7
7	00:00:31	1226.328	0.0605	1,201.2	0.0350	0.8	11.614	104.2	103.4
8	00:00:35	1456.064	0.0655	1,431.0	0.0400	0.9	11.627	124.2	123.1
9	00:00:39	1619.358	0.0705	1,594.3	0.0450	1.0	11.639	138.3	137.0
10	00:00:43	1722.11	0.0755	1,697.0	0.0500	1.1	11.652	147.2	145.6
11	00:00:47	1802.738	0.0805	1,777.6	0.0550	1.2	11.665	154.2	152.4
12	00:00:51	1863.539	0.0855	1,838.4	0.0600	1.3	11.678	159.5	157.4
13	00:00:55	1895.714	0.0905	1,870.6	0.0650	1.4	11.691	162.3	160.0
14	00:00:58	1896.233	0.0955	1,871.1	0.0700	1.5	11.704	162.4	159.9
15	00:01:02	1853.849	0.1006	1,828.7	0.0750	1.6	11.717	158.7	156.1
16	00:01:05	1799.047	0.1055	1,773.9	0.0800	1.7	11.730	153.9	151.2
17	00:01:09	1755.174	0.1105	1,730.1	0.0850	1.9	11.743	150.1	147.3
18	00:01:12	1715.153	0.1156	1,690.0	0.0900	2.0	11.756	146.6	143.8
19	00:01:15	1674.201	0.1205	1,649.1	0.0950	2.1	11.769	143.1	140.1
20	00:01:19	1627.388	0.1255	1,602.3	0.1000	2.2	11.782	139.0	136.0
21	00:01:22	1571.271	0.1305	1,546.2	0.1050	2.3	11.796	134.2	131.1
22	00:01:25	1520.954	0.1356	1,495.8	0.1100	2.4	11.809	129.8	126.7
23	00:01:28	1472.146	0.1405	1,447.0	0.1150	2.5	11.822	125.6	122.4
24	00:01:31	1427.156	0.1456	1,402.1	0.1200	2.6	11.835	121.7	118.5
25	00:01:34	1381.899	0.1506	1,356.8	0.1250	2.7	11.849	117.7	114.5
26	00:01:37	1338.051	0.1555	1,312.9	0.1300	2.8	11.862	113.9	110.7
27	00:01:40	1300.549	0.1605	1,275.4	0.1350	3.0	11.875	110.7	107.4
28	00:01:43	1259.901	0.1655	1,234.8	0.1400	3.1	11.889	107.1	103.9
29	00:01:46	1222.588	0.1705	1,197.5	0.1450	3.2	11.902	103.9	100.6
30	00:01:48	1186.825	0.1755	1,161.7	0.1500	3.3	11.916	100.8	97.5
31	00:01:51	1141.284	0.1805	1,116.2	0.1550	3.4	11.929	96.8	93.6
32	00:01:54	1092.569	0.1855	1,067.5	0.1600	3.5	11.943	92.6	89.4
33	00:01:57	1042.995	0.1905	1,017.9	0.1650	3.6	11.956	88.3	85.1

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 2

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:02:00	996.7518	0.1956	971.6	0.1700	3.7	11.970	84.3	81.2
35	00:02:03	951.9281	0.2005	926.8	0.1750	3.8	11.983	80.4	77.3
36	00:02:06	912.002	0.2055	886.9	0.1800	3.9	11.997	77.0	73.9
37	00:02:09	873.2222	0.2105	848.1	0.1850	4.0	12.010	73.6	70.6
38	00:02:12	833.2047	0.2155	808.1	0.1900	4.2	12.024	70.1	67.2
39	00:02:15	792.8915	0.2206	767.8	0.1950	4.3	12.038	66.6	63.8
40	00:02:18	747.554	0.2255	722.4	0.2000	4.4	12.052	62.7	59.9
41	00:02:21	698.7327	0.2306	673.6	0.2050	4.5	12.065	58.4	55.8
42	00:02:23	672.4899	0.2333	647.4	0.2078	4.5	12.073	56.2	53.6

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 3

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.0041	0.0126	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	41.11297	0.0176	16.1	0.0050	0.1	11.538	1.4	1.4
2	00:00:06	59.85956	0.0226	34.9	0.0100	0.2	11.550	3.0	3.0
3	00:00:10	81.53962	0.0276	56.5	0.0150	0.3	11.563	4.9	4.9
4	00:00:13	105.4375	0.0326	80.4	0.0200	0.4	11.576	7.0	6.9
5	00:00:17	134.5644	0.0376	109.6	0.0250	0.5	11.588	9.5	9.5
6	00:00:20	180.1198	0.0426	155.1	0.0300	0.7	11.601	13.5	13.4
7	00:00:25	274.6305	0.0476	249.6	0.0350	0.8	11.614	21.7	21.5
8	00:00:30	434.0338	0.0526	409.0	0.0400	0.9	11.627	35.5	35.2
9	00:00:35	706.5276	0.0576	681.5	0.0450	1.0	11.639	59.1	58.6
10	00:00:40	1014.202	0.0626	989.2	0.0500	1.1	11.652	85.8	84.9
11	00:00:44	1295.406	0.0676	1,270.4	0.0550	1.2	11.665	110.2	108.9
12	00:00:48	1535.376	0.0726	1,510.4	0.0600	1.3	11.678	131.1	129.3
13	00:00:52	1733.77	0.0776	1,708.8	0.0650	1.4	11.691	148.3	146.2
14	00:00:56	1869.054	0.0826	1,844.1	0.0700	1.5	11.704	160.0	157.6
15	00:01:00	1943.121	0.0876	1,918.1	0.0750	1.6	11.717	166.4	163.7
16	00:01:03	1936.54	0.0926	1,911.5	0.0800	1.7	11.730	165.9	163.0
17	00:01:06	1894.707	0.0976	1,869.7	0.0850	1.9	11.743	162.2	159.2
18	00:01:09	1822.571	0.1026	1,797.6	0.0900	2.0	11.756	156.0	152.9
19	00:01:12	1755.602	0.1076	1,730.6	0.0950	2.1	11.769	150.2	147.0
20	00:01:15	1697.741	0.1126	1,672.7	0.1000	2.2	11.782	145.1	142.0
21	00:01:18	1646.116	0.1176	1,621.1	0.1050	2.3	11.796	140.7	137.4
22	00:01:22	1608.535	0.1226	1,583.5	0.1100	2.4	11.809	137.4	134.1
23	00:01:25	1582.829	0.1276	1,557.8	0.1150	2.5	11.822	135.2	131.8
24	00:01:28	1560.355	0.1326	1,535.4	0.1200	2.6	11.835	133.2	129.7
25	00:01:32	1529.134	0.1376	1,504.1	0.1250	2.7	11.849	130.5	126.9
26	00:01:35	1488.317	0.1426	1,463.3	0.1300	2.8	11.862	127.0	123.4
27	00:01:38	1445.673	0.1476	1,420.7	0.1350	3.0	11.875	123.3	119.6
28	00:01:41	1395.171	0.1526	1,370.2	0.1400	3.1	11.889	118.9	115.2
29	00:01:45	1333.89	0.1576	1,308.9	0.1450	3.2	11.902	113.6	110.0
30	00:01:48	1267.339	0.1626	1,242.3	0.1500	3.3	11.916	107.8	104.3
31	00:01:51	1205.803	0.1676	1,180.8	0.1550	3.4	11.929	102.5	99.0
32	00:01:54	1147.806	0.1726	1,122.8	0.1600	3.5	11.943	97.4	94.0
33	00:01:58	1089.872	0.1776	1,064.9	0.1650	3.6	11.956	92.4	89.1

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 3

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:02:01	1035.248	0.1826	1,010.2	0.1700	3.7	11.970	87.7	84.4
35	00:02:04	981.2324	0.1876	956.2	0.1750	3.8	11.983	83.0	79.8
36	00:02:07	927.1176	0.1926	902.1	0.1800	3.9	11.997	78.3	75.2
37	00:02:10	874.8759	0.1976	849.9	0.1850	4.0	12.011	73.7	70.8
38	00:02:13	825.4622	0.2026	800.5	0.1900	4.2	12.024	69.5	66.6
39	00:02:16	779.8153	0.2076	754.8	0.1950	4.3	12.038	65.5	62.7
40	00:02:19	734.9026	0.2126	709.9	0.2000	4.4	12.052	61.6	58.9
41	00:02:22	689.224	0.2176	664.2	0.2050	4.5	12.065	57.6	55.1
42	00:02:24	666.4597	0.2203	641.5	0.2077	4.5	12.073	55.7	53.1

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

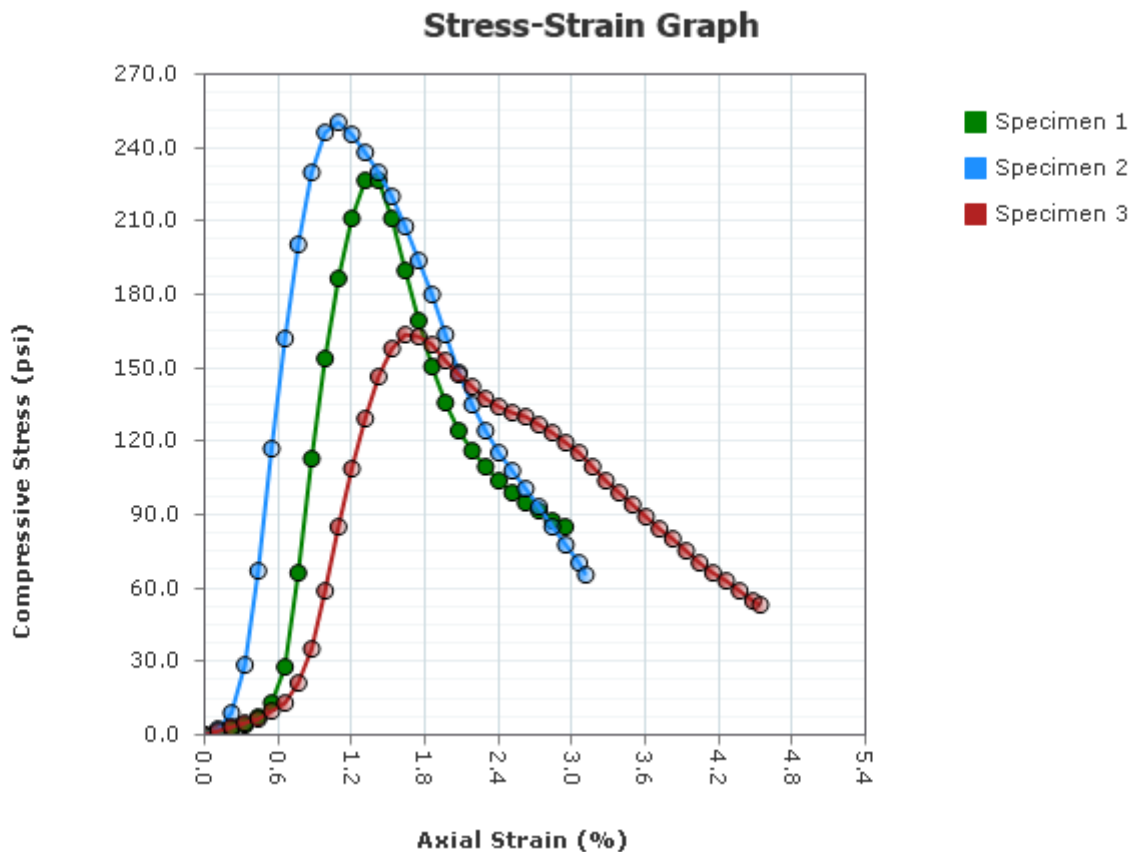
Checked By: _____ Date: _____

Report Created: 10/28/2022

6 % LIME CURVE

Unconfined Compression Test

D2166



Project: Tres Laurels Subdivision
Project Number: FGS-P-20032
Received Date: 10/19/2022
Sampling Date: 10/27/2022
Sample Number: 1
Sample Depth:
Boring Number:
Location: Tres Laurels Subdivision/Montgomery Rd
Client Name: Mosaic Land Development
Remarks: 6% Lime

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test

D2166

	Specimen Number								
	Before Test	1	2	3	4	5	6	7	8
Moisture Content (%):	0.0	0.0	0.0						
Wet Density (pcf)	0.0	0.0	0.0						
Dry Density (pcf)	0.0	0.0	0.0						
Saturation (%):	0.0	0.0	0.0						
Void Ratio:	0.000	0.000	0.000						
Height (in)	4.5763	4.5763	4.5763						
Diameter (in)	3.8307	3.8307	3.8307						
Strain Limit @ 15% (in)	0.7	0.7	0.7						
Height To Diameter Ratio:	1.19	1.19	1.19						
Test Data	1	2	3	4	5	6	7	8	
Failure Angle (°):	0	0	0						
Strain Rate (in/min)	0.09	0.09	0.09						
Strain Rate (%/min):	1.97	1.97	1.97						
Unconfined Compressive Strength (psi)	226.7	250.0	163.7						
Undrained Shear Strength (psi)	113.3	125.0	81.9						
Strain at Failure (%):	1.4	1.1	1.6						

Specific Gravity:	2.72	Plastic Limit:	26	Liquid Limit:	77
Type:	Grab	Soil Classification:	CH		

Project:	Tres Laurels Subdivision
Project Number:	FGS-P-20032
Sampling Date:	10/27/2022
Sample Number:	1
Sample Depth:	
Boring Number:	
Location:	Tres Laurels Subdivision/Montgomery Rd
Client Name:	Mosaic Land Development
Remarks:	6% Lime

Specimen 1 Failure Sketch	Specimen 2 Failure Sketch	Specimen 3 Failure Sketch	Specimen 4 Failure Sketch	Specimen 5 Failure Sketch	Specimen 6 Failure Sketch	Specimen 7 Failure Sketch	Specimen 8 Failure Sketch
							

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test

D2166

LIMS Code: [TO COME FROM LIMS]

Specimen 1

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	6% Lime				

Specimen 2

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	6% Lime				

Specimen 3

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	6% Lime				

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 1

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.0256	0.0277	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	38.54319	0.0327	13.5	0.0050	0.1	11.538	1.2	1.2
2	00:00:06	49.84052	0.0377	24.8	0.0100	0.2	11.550	2.2	2.1
3	00:00:10	73.82883	0.0427	48.8	0.0150	0.3	11.563	4.2	4.2
4	00:00:14	109.9171	0.0477	84.9	0.0200	0.4	11.576	7.4	7.3
5	00:00:18	177.8697	0.0527	152.8	0.0250	0.5	11.588	13.3	13.2
6	00:00:23	349.3822	0.0577	324.4	0.0300	0.7	11.601	28.1	28.0
7	00:00:30	798.8948	0.0627	773.9	0.0350	0.8	11.614	67.1	66.6
8	00:00:37	1338.997	0.0677	1,314.0	0.0400	0.9	11.627	114.0	113.0
9	00:00:42	1818.424	0.0727	1,793.4	0.0450	1.0	11.639	155.6	154.1
10	00:00:47	2201.366	0.0777	2,176.3	0.0500	1.1	11.652	188.8	186.8
11	00:00:52	2491.631	0.0827	2,466.6	0.0550	1.2	11.665	214.0	211.5
12	00:00:56	2670.252	0.0877	2,645.2	0.0600	1.3	11.678	229.5	226.5
13	00:01:00	2675.345	0.0927	2,650.3	0.0650	1.4	11.691	230.0	226.7
14	00:01:03	2492.896	0.0977	2,467.9	0.0700	1.5	11.704	214.1	210.9
15	00:01:06	2250.788	0.1027	2,225.8	0.0750	1.6	11.717	193.1	190.0
16	00:01:09	2008.693	0.1077	1,983.7	0.0800	1.7	11.730	172.1	169.1
17	00:01:12	1788.843	0.1127	1,763.8	0.0850	1.9	11.743	153.0	150.2
18	00:01:15	1621.852	0.1177	1,596.8	0.0900	2.0	11.756	138.6	135.8
19	00:01:18	1492.684	0.1227	1,467.7	0.0950	2.1	11.769	127.3	124.7
20	00:01:21	1395.436	0.1277	1,370.4	0.1000	2.2	11.782	118.9	116.3
21	00:01:24	1316.705	0.1327	1,291.7	0.1050	2.3	11.796	112.1	109.5
22	00:01:27	1250.3	0.1377	1,225.3	0.1100	2.4	11.809	106.3	103.8
23	00:01:30	1196.217	0.1427	1,171.2	0.1150	2.5	11.822	101.6	99.1
24	00:01:33	1152.586	0.1477	1,127.6	0.1200	2.6	11.835	97.8	95.3
25	00:01:36	1110.133	0.1527	1,085.1	0.1250	2.7	11.849	94.2	91.6
26	00:01:40	1067.046	0.1577	1,042.0	0.1300	2.8	11.862	90.4	87.8
27	00:01:42	1030.889	0.1625	1,005.9	0.1348	2.9	11.875	87.3	84.7

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 2

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.03685	0.0283	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	54.54061	0.0333	29.5	0.0050	0.1	11.538	2.6	2.6
2	00:00:07	132.4267	0.0383	107.4	0.0100	0.2	11.550	9.3	9.3
3	00:00:13	357.5061	0.0433	332.5	0.0150	0.3	11.563	28.8	28.8
4	00:00:19	797.4752	0.0483	772.4	0.0200	0.4	11.576	67.0	66.7
5	00:00:25	1381.984	0.0533	1,356.9	0.0250	0.5	11.588	117.7	117.1
6	00:00:30	1899.881	0.0583	1,874.8	0.0300	0.7	11.601	162.7	161.6
7	00:00:35	2348.93	0.0633	2,323.9	0.0350	0.8	11.614	201.6	200.1
8	00:00:39	2694.961	0.0683	2,669.9	0.0400	0.9	11.627	231.7	229.6
9	00:00:44	2893.245	0.0733	2,868.2	0.0450	1.0	11.639	248.9	246.4
10	00:00:47	2938.298	0.0783	2,913.3	0.0500	1.1	11.652	252.8	250.0
11	00:00:51	2890.936	0.0833	2,865.9	0.0550	1.2	11.665	248.7	245.7
12	00:00:54	2808.938	0.0883	2,783.9	0.0600	1.3	11.678	241.6	238.4
13	00:00:57	2713.959	0.0933	2,688.9	0.0650	1.4	11.691	233.3	230.0
14	00:01:01	2596.605	0.0983	2,571.6	0.0700	1.5	11.704	223.1	219.7
15	00:01:04	2457.561	0.1033	2,432.5	0.0750	1.6	11.717	211.1	207.6
16	00:01:07	2302.312	0.1083	2,277.3	0.0800	1.7	11.730	197.6	194.1
17	00:01:10	2138.877	0.1133	2,113.8	0.0850	1.9	11.743	183.4	180.0
18	00:01:14	1952.672	0.1183	1,927.6	0.0900	2.0	11.756	167.3	164.0
19	00:01:17	1771.303	0.1233	1,746.3	0.0950	2.1	11.769	151.5	148.4
20	00:01:19	1619.142	0.1283	1,594.1	0.1000	2.2	11.782	138.3	135.3
21	00:01:22	1491.734	0.1333	1,466.7	0.1050	2.3	11.796	127.3	124.3
22	00:01:26	1389.346	0.1383	1,364.3	0.1100	2.4	11.809	118.4	115.5
23	00:01:28	1304.44	0.1433	1,279.4	0.1150	2.5	11.822	111.0	108.2
24	00:01:31	1217.885	0.1483	1,192.8	0.1200	2.6	11.835	103.5	100.8
25	00:01:33	1130.508	0.1533	1,105.5	0.1250	2.7	11.849	95.9	93.3
26	00:01:36	1035.937	0.1583	1,010.9	0.1300	2.8	11.862	87.7	85.2
27	00:01:39	949.9493	0.1633	924.9	0.1350	3.0	11.875	80.3	77.9
28	00:01:42	861.962	0.1683	836.9	0.1400	3.1	11.889	72.6	70.4
29	00:01:43	806.0429	0.1707	781.0	0.1425	3.1	11.895	67.8	65.7

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 3

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.0041	0.0126	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	41.11297	0.0176	16.1	0.0050	0.1	11.538	1.4	1.4
2	00:00:06	59.85956	0.0226	34.9	0.0100	0.2	11.550	3.0	3.0
3	00:00:10	81.53962	0.0276	56.5	0.0150	0.3	11.563	4.9	4.9
4	00:00:13	105.4375	0.0326	80.4	0.0200	0.4	11.576	7.0	6.9
5	00:00:17	134.5644	0.0376	109.6	0.0250	0.5	11.588	9.5	9.5
6	00:00:20	180.1198	0.0426	155.1	0.0300	0.7	11.601	13.5	13.4
7	00:00:25	274.6305	0.0476	249.6	0.0350	0.8	11.614	21.7	21.5
8	00:00:30	434.0338	0.0526	409.0	0.0400	0.9	11.627	35.5	35.2
9	00:00:35	706.5276	0.0576	681.5	0.0450	1.0	11.639	59.1	58.6
10	00:00:40	1014.202	0.0626	989.2	0.0500	1.1	11.652	85.8	84.9
11	00:00:44	1295.406	0.0676	1,270.4	0.0550	1.2	11.665	110.2	108.9
12	00:00:48	1535.376	0.0726	1,510.4	0.0600	1.3	11.678	131.1	129.3
13	00:00:52	1733.77	0.0776	1,708.8	0.0650	1.4	11.691	148.3	146.2
14	00:00:56	1869.054	0.0826	1,844.1	0.0700	1.5	11.704	160.0	157.6
15	00:01:00	1943.121	0.0876	1,918.1	0.0750	1.6	11.717	166.4	163.7
16	00:01:03	1936.54	0.0926	1,911.5	0.0800	1.7	11.730	165.9	163.0
17	00:01:06	1894.707	0.0976	1,869.7	0.0850	1.9	11.743	162.2	159.2
18	00:01:09	1822.571	0.1026	1,797.6	0.0900	2.0	11.756	156.0	152.9
19	00:01:12	1755.602	0.1076	1,730.6	0.0950	2.1	11.769	150.2	147.0
20	00:01:15	1697.741	0.1126	1,672.7	0.1000	2.2	11.782	145.1	142.0
21	00:01:18	1646.116	0.1176	1,621.1	0.1050	2.3	11.796	140.7	137.4
22	00:01:22	1608.535	0.1226	1,583.5	0.1100	2.4	11.809	137.4	134.1
23	00:01:25	1582.829	0.1276	1,557.8	0.1150	2.5	11.822	135.2	131.8
24	00:01:28	1560.355	0.1326	1,535.4	0.1200	2.6	11.835	133.2	129.7
25	00:01:32	1529.134	0.1376	1,504.1	0.1250	2.7	11.849	130.5	126.9
26	00:01:35	1488.317	0.1426	1,463.3	0.1300	2.8	11.862	127.0	123.4
27	00:01:38	1445.673	0.1476	1,420.7	0.1350	3.0	11.875	123.3	119.6
28	00:01:41	1395.171	0.1526	1,370.2	0.1400	3.1	11.889	118.9	115.2
29	00:01:45	1333.89	0.1576	1,308.9	0.1450	3.2	11.902	113.6	110.0
30	00:01:48	1267.339	0.1626	1,242.3	0.1500	3.3	11.916	107.8	104.3
31	00:01:51	1205.803	0.1676	1,180.8	0.1550	3.4	11.929	102.5	99.0
32	00:01:54	1147.806	0.1726	1,122.8	0.1600	3.5	11.943	97.4	94.0
33	00:01:58	1089.872	0.1776	1,064.9	0.1650	3.6	11.956	92.4	89.1

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 3

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:02:01	1035.248	0.1826	1,010.2	0.1700	3.7	11.970	87.7	84.4
35	00:02:04	981.2324	0.1876	956.2	0.1750	3.8	11.983	83.0	79.8
36	00:02:07	927.1176	0.1926	902.1	0.1800	3.9	11.997	78.3	75.2
37	00:02:10	874.8759	0.1976	849.9	0.1850	4.0	12.011	73.7	70.8
38	00:02:13	825.4622	0.2026	800.5	0.1900	4.2	12.024	69.5	66.6
39	00:02:16	779.8153	0.2076	754.8	0.1950	4.3	12.038	65.5	62.7
40	00:02:19	734.9026	0.2126	709.9	0.2000	4.4	12.052	61.6	58.9
41	00:02:22	689.224	0.2176	664.2	0.2050	4.5	12.065	57.6	55.1
42	00:02:24	666.4597	0.2203	641.5	0.2077	4.5	12.073	55.7	53.1

Project Name: Tres Laurels Subdivision Project Number: FGS-P-20032

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

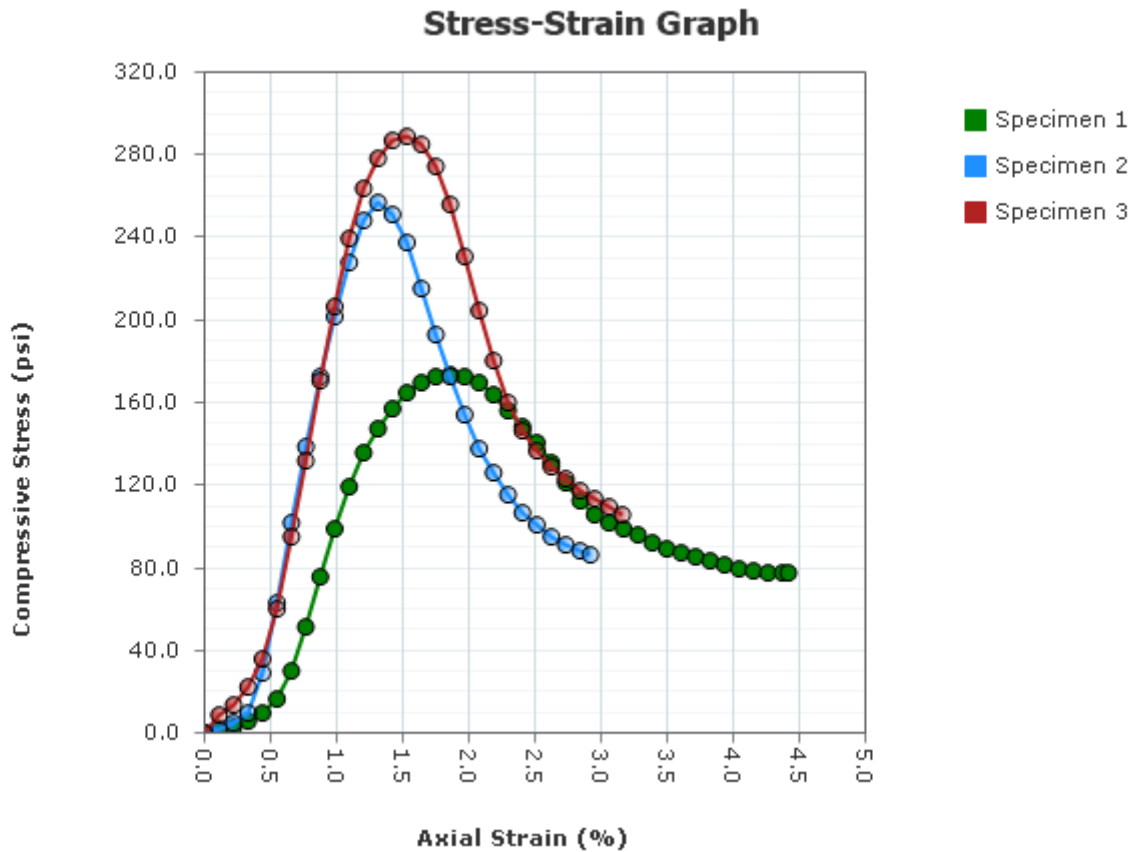
Checked By: _____ Date: _____

Report Created: 10/28/2022

8 % LIME CURVE

Unconfined Compression Test

D2166



Project: Tres Laurels Subdivision
Project Number: FGS-G-20016
Received Date: 10/19/2022
Sampling Date: 10/27/2022
Sample Number: 1
Sample Depth:
Boring Number:
Location: Tres Laurels Subdivision/Montgomery Rd
Client Name: Mosaic Land Development
Remarks: 8% Lime

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test

D2166

	Specimen Number							
Before Test	1	2	3	4	5	6	7	8
Moisture Content (%):	0.0	0.0	0.0					
Wet Density (pcf)	0.0	0.0	0.0					
Dry Density (pcf)	0.0	0.0	0.0					
Saturation (%):	0.0	0.0	0.0					
Void Ratio:	0.000	0.000	0.000					
Height (in)	4.5763	4.5763	4.5763					
Diameter (in)	3.8307	3.8307	3.8307					
Strain Limit @ 15% (in)	0.7	0.7	0.7					
Height To Diameter Ratio:	1.19	1.19	1.19					
Test Data	1	2	3	4	5	6	7	8
Failure Angle (°):	0	0	0					
Strain Rate (in/min)	0.09	0.09	0.09					
Strain Rate (%/min):	1.97	1.97	1.97					
Unconfined Compressive Strength (psi)	173.3	257.0	288.6					
Undrained Shear Strength (psi)	86.6	128.5	144.3					
Strain at Failure (%):	1.9	1.3	1.5					

Specific Gravity:	2.72	Plastic Limit:	26	Liquid Limit:	77
Type:	Grab	Soil Classification:	CH		

Project:	Tres Laurels Subdivision
Project Number:	FGS-G-20016
Sampling Date:	10/27/2022
Sample Number:	1
Sample Depth:	
Boring Number:	
Location:	Tres Laurels Subdivision/Montgomery Rd
Client Name:	Mosaic Land Development
Remarks:	8% Lime

Specimen 1 Failure Sketch	Specimen 2 Failure Sketch	Specimen 3 Failure Sketch	Specimen 4 Failure Sketch	Specimen 5 Failure Sketch	Specimen 6 Failure Sketch	Specimen 7 Failure Sketch	Specimen 8 Failure Sketch
							

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test

D2166

LIMS Code: [TO COME FROM LIMS]

Specimen 1

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	8% Lime				

Specimen 2

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	8% Lime				

Specimen 3

Other Associated Tests:

Sampling Method:	Reconstituted	Material Moisture:	Trimmings	Source Moisture:	Before Shear
Molding Date:	10/19/2022	Test Date:	10/27/2022		
Large Particle:	NO	Sensitivity:	0		
Technician:	Miguel Gonzalez Jr	Test Time:	10/27/2022		
Specimen Description:	Dark Brown Clay				
Test Remarks:	8% Lime				

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 1

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.06422	0.0300	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	40.56255	0.0350	15.5	0.0050	0.1	11.538	1.3	1.3
2	00:00:07	62.46257	0.0401	37.4	0.0100	0.2	11.550	3.2	3.2
3	00:00:10	93.99889	0.0451	68.9	0.0150	0.3	11.563	6.0	6.0
4	00:00:14	137.9583	0.0500	112.9	0.0200	0.4	11.576	9.8	9.8
5	00:00:18	221.6634	0.0551	196.6	0.0250	0.5	11.588	17.1	17.0
6	00:00:22	370.5036	0.0600	345.4	0.0300	0.7	11.601	30.0	29.8
7	00:00:27	620.1104	0.0650	595.0	0.0350	0.8	11.614	51.6	51.2
8	00:00:32	905.4693	0.0700	880.4	0.0400	0.9	11.627	76.4	75.7
9	00:00:36	1173.885	0.0750	1,148.8	0.0450	1.0	11.639	99.7	98.7
10	00:00:41	1409.586	0.0801	1,384.5	0.0500	1.1	11.652	120.1	118.8
11	00:00:45	1605.634	0.0850	1,580.6	0.0550	1.2	11.665	137.1	135.5
12	00:00:49	1745.402	0.0900	1,720.3	0.0600	1.3	11.678	149.3	147.3
13	00:00:52	1857.92	0.0950	1,832.9	0.0650	1.4	11.691	159.0	156.8
14	00:00:56	1950.82	0.1001	1,925.8	0.0700	1.5	11.704	167.1	164.5
15	00:01:00	2017.291	0.1051	1,992.2	0.0750	1.6	11.717	172.9	170.0
16	00:01:04	2044.463	0.1100	2,019.4	0.0800	1.7	11.730	175.2	172.2
17	00:01:07	2059.873	0.1150	2,034.8	0.0850	1.9	11.743	176.6	173.3
18	00:01:11	2055.117	0.1200	2,030.1	0.0900	2.0	11.756	176.1	172.7
19	00:01:14	2022.57	0.1250	1,997.5	0.0950	2.1	11.769	173.3	169.7
20	00:01:18	1955.55	0.1300	1,930.5	0.1000	2.2	11.782	167.5	163.8
21	00:01:20	1866.974	0.1350	1,841.9	0.1050	2.3	11.796	159.8	156.2
22	00:01:23	1771.952	0.1401	1,746.9	0.1100	2.4	11.809	151.6	147.9
23	00:01:26	1685.856	0.1450	1,660.8	0.1150	2.5	11.822	144.1	140.5
24	00:01:29	1571.022	0.1501	1,546.0	0.1200	2.6	11.835	134.1	130.6
25	00:01:32	1463.488	0.1550	1,438.4	0.1250	2.7	11.849	124.8	121.4
26	00:01:35	1358.138	0.1601	1,333.1	0.1300	2.8	11.862	115.7	112.4
27	00:01:38	1283.64	0.1650	1,258.6	0.1350	3.0	11.875	109.2	106.0
28	00:01:41	1238.14	0.1700	1,213.1	0.1400	3.1	11.889	105.3	102.0
29	00:01:45	1199.202	0.1751	1,174.1	0.1450	3.2	11.902	101.9	98.6
30	00:01:48	1164.608	0.1800	1,139.5	0.1500	3.3	11.916	98.9	95.6
31	00:01:51	1128.162	0.1850	1,103.1	0.1550	3.4	11.929	95.7	92.5
32	00:01:54	1092.618	0.1900	1,067.6	0.1600	3.5	11.943	92.6	89.4
33	00:01:57	1064.78	0.1950	1,039.7	0.1650	3.6	11.956	90.2	87.0

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 1

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
34	00:02:00	1044.067	0.2000	1,019.0	0.1700	3.7	11.970	88.4	85.1
35	00:02:03	1023.407	0.2051	998.3	0.1750	3.8	11.983	86.6	83.3
36	00:02:06	998.4113	0.2100	973.3	0.1800	3.9	11.997	84.5	81.1
37	00:02:09	981.36	0.2151	956.3	0.1850	4.0	12.011	83.0	79.6
38	00:02:13	968.5033	0.2200	943.4	0.1900	4.2	12.024	81.9	78.5
39	00:02:16	964.3214	0.2250	939.3	0.1950	4.3	12.038	81.5	78.0
40	00:02:19	961.6132	0.2300	936.5	0.2000	4.4	12.052	81.3	77.7
41	00:02:21	958.1871	0.2321	933.1	0.2021	4.4	12.057	81.0	77.4

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 2

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	25.01387	0.0244	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:03	48.64533	0.0294	23.6	0.0050	0.1	11.538	2.1	2.0
2	00:00:07	80.04527	0.0344	55.0	0.0100	0.2	11.550	4.8	4.8
3	00:00:10	137.6391	0.0394	112.6	0.0150	0.3	11.563	9.8	9.7
4	00:00:17	361.8757	0.0444	336.9	0.0200	0.4	11.576	29.2	29.1
5	00:00:23	760.5417	0.0494	735.5	0.0250	0.5	11.588	63.8	63.5
6	00:00:28	1209.663	0.0544	1,184.7	0.0300	0.7	11.601	102.8	102.1
7	00:00:34	1640.936	0.0594	1,615.9	0.0350	0.8	11.614	140.2	139.1
8	00:00:39	2034.487	0.0644	2,009.5	0.0400	0.9	11.627	174.4	172.8
9	00:00:43	2378.043	0.0694	2,353.0	0.0450	1.0	11.639	204.2	202.2
10	00:00:48	2678.458	0.0744	2,653.4	0.0500	1.1	11.652	230.2	227.7
11	00:00:52	2920.91	0.0794	2,895.9	0.0550	1.2	11.665	251.3	248.3
12	00:00:56	3026.497	0.0844	3,001.5	0.0600	1.3	11.678	260.4	257.0
13	00:01:00	2963.875	0.0894	2,938.9	0.0650	1.4	11.691	255.0	251.4
14	00:01:03	2801.422	0.0944	2,776.4	0.0700	1.5	11.704	240.9	237.2
15	00:01:06	2552.681	0.0994	2,527.7	0.0750	1.6	11.717	219.3	215.7
16	00:01:10	2293.859	0.1044	2,268.8	0.0800	1.7	11.730	196.9	193.4
17	00:01:13	2055.416	0.1094	2,030.4	0.0850	1.9	11.743	176.2	172.9
18	00:01:16	1836.606	0.1144	1,811.6	0.0900	2.0	11.756	157.2	154.1
19	00:01:18	1649.137	0.1194	1,624.1	0.0950	2.1	11.769	140.9	138.0
20	00:01:21	1506.727	0.1244	1,481.7	0.1000	2.2	11.782	128.6	125.8
21	00:01:24	1384.857	0.1294	1,359.8	0.1050	2.3	11.796	118.0	115.3
22	00:01:27	1285.574	0.1344	1,260.6	0.1100	2.4	11.809	109.4	106.7
23	00:01:30	1212.324	0.1394	1,187.3	0.1150	2.5	11.822	103.0	100.4
24	00:01:33	1147.753	0.1444	1,122.7	0.1200	2.6	11.835	97.4	94.9
25	00:01:36	1103.827	0.1494	1,078.8	0.1250	2.7	11.849	93.6	91.0
26	00:01:39	1069.495	0.1544	1,044.5	0.1300	2.8	11.862	90.6	88.1
27	00:01:41	1051.124	0.1579	1,026.1	0.1335	2.9	11.871	89.0	86.4

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

Unconfined Compression Test - Specimen 3

D2166

LIMS Specimen Code: [TO COME FROM LIMS]

Index	Elapsed Time (hh:mm:ss)	Load (Lbf)	Displacement (in)	Corrected Load (Lbf)	Corrected Displacement (in)	Axial Strain (%)	Cross Sectional Area (in ²)	Stress (psi)	Compressive Stress (psi)
0	00:00:00	61.06453	0.0002	0.0	0.0000	0.0	0.000	0.0	0.0
1	00:00:04	156.6717	0.0052	95.6	0.0050	0.1	11.538	8.3	8.3
2	00:00:07	221.0221	0.0102	160.0	0.0100	0.2	11.550	13.9	13.8
3	00:00:11	316.5413	0.0152	255.5	0.0150	0.3	11.563	22.2	22.1
4	00:00:15	476.12	0.0202	415.1	0.0200	0.4	11.576	36.0	35.9
5	00:00:20	763.0944	0.0252	702.0	0.0250	0.5	11.588	60.9	60.6
6	00:00:25	1160.553	0.0302	1,099.5	0.0300	0.7	11.601	95.4	94.8
7	00:00:30	1598.029	0.0352	1,537.0	0.0350	0.8	11.614	133.4	132.3
8	00:00:35	2049.299	0.0402	1,988.2	0.0400	0.9	11.627	172.5	171.0
9	00:00:40	2469.513	0.0452	2,408.4	0.0450	1.0	11.639	209.0	206.9
10	00:00:44	2847.203	0.0502	2,786.1	0.0500	1.1	11.652	241.7	239.1
11	00:00:49	3133.305	0.0552	3,072.2	0.0550	1.2	11.665	266.6	263.4
12	00:00:53	3314.68	0.0602	3,253.6	0.0600	1.3	11.678	282.3	278.6
13	00:00:56	3412.614	0.0652	3,351.6	0.0650	1.4	11.691	290.8	286.7
14	00:01:00	3439.125	0.0702	3,378.1	0.0700	1.5	11.704	293.1	288.6
15	00:01:03	3400.601	0.0752	3,339.5	0.0750	1.6	11.717	289.8	285.0
16	00:01:07	3276.53	0.0802	3,215.5	0.0800	1.7	11.730	279.0	274.1
17	00:01:10	3069.709	0.0852	3,008.6	0.0850	1.9	11.743	261.1	256.2
18	00:01:13	2772.362	0.0902	2,711.3	0.0900	2.0	11.756	235.3	230.6
19	00:01:16	2473.708	0.0952	2,412.6	0.0950	2.1	11.769	209.3	205.0
20	00:01:19	2182.839	0.1002	2,121.8	0.1000	2.2	11.782	184.1	180.1
21	00:01:21	1951.769	0.1052	1,890.7	0.1050	2.3	11.796	164.1	160.3
22	00:01:24	1792.906	0.1102	1,731.8	0.1100	2.4	11.809	150.3	146.7
23	00:01:27	1677.509	0.1152	1,616.4	0.1150	2.5	11.822	140.3	136.7
24	00:01:31	1591.911	0.1202	1,530.8	0.1200	2.6	11.835	132.8	129.3
25	00:01:34	1518.083	0.1252	1,457.0	0.1250	2.7	11.849	126.4	123.0
26	00:01:37	1455.403	0.1302	1,394.3	0.1300	2.8	11.862	121.0	117.5
27	00:01:40	1407.156	0.1352	1,346.1	0.1350	3.0	11.875	116.8	113.4
28	00:01:43	1362.136	0.1402	1,301.1	0.1400	3.1	11.889	112.9	109.4
29	00:01:46	1320.765	0.1448	1,259.7	0.1446	3.2	11.901	109.3	105.8

Project Name: Tres Laurels Subdivision Project Number: FGS-G-20016

Test Date: 10/27/2022

Technician: Miguel Gonzalez Jr

Checked By: _____ Date: _____

Report Created: 10/28/2022

**NO STABILIZATION
PAVEMENT DESIGNS**



Pavement Optimization Design Analysis

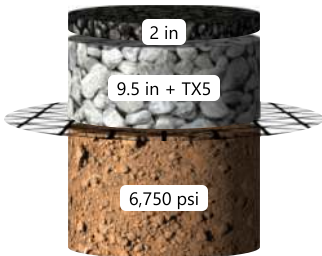


Design	LOCAL - A	Reference	
Project	TRES LAURELS, SUB'D.	Location	San Antonio, TX, USA
Customer		Designer	FLORENTINO CABALLERO, P. E.
Company	FROST GEOSCIENCES, Inc.	Date	October 19, 2022

Results

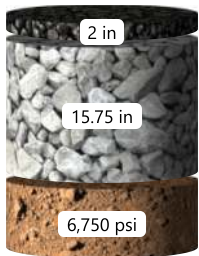
TriAx Stabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	2 in	0.440	0.880
Mechanically stabilized layer	9.5 in	0.232	2.204
Structural number (SN)			3.084
Calculated traffic (ESALs)			1,046,000



Unstabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	2 in	0.440	0.880
Aggregate base	15.75 in	0.140	2.205
Structural number (SN)			3.085
Calculated traffic (ESALs)			1,048,200



Parameters

Project Information

Subgrade resilient modulus	Target ESALs	Reliability	Standard deviation	Serviceability	
				Initial	Terminal
6,750 psi	1,000,000	70%	0.45	4.2	2

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Limitations of this Report

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Pavement Optimization
Design Analysis

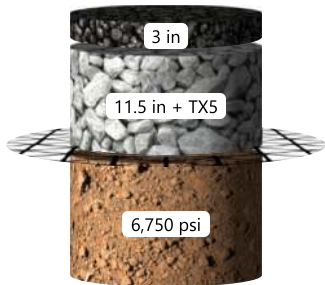


Design	LOCAL - B	Reference	
Project	TRES LAURELS, SUB'D.	Location	San Antonio, TX, USA
Customer		Designer	FLORENTINO CABALLERO, P. E.
Company	FROST GEOSCIENCES, Inc.	Date	October 19, 2022

Results

TriAx Stabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
Mechanically stabilized layer	11.5 in	0.217	2.495
Structural number (SN)			3.815
Calculated traffic (ESALs)			2,005,100



Unstabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
Aggregate base	18 in	0.140	2.520
Structural number (SN)			3.840
Calculated traffic (ESALs)			2,095,600



Parameters

Project Information

Subgrade resilient modulus	Target ESALs	Reliability	Standard deviation	Serviceability	
				Initial	Terminal
6,750 psi	2,000,000	90%	0.45	4.2	2

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Pavement Optimization
Design Analysis

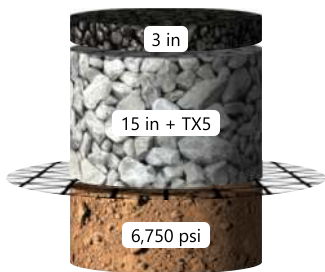


Design	ARTERIAL	Reference	
Project	TRES LAURELS, SUB'D.	Location	San Antonio, TX, USA
Customer		Designer	FLORENTINO CABALLERO, P. E.
Company	FROST GEOSCIENCES, Inc.	Date	October 19, 2022

Results

TriAx Stabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
Mechanically stabilized layer	15 in	0.199	2.985
Structural number (SN)			4.305
Calculated traffic (ESALs)			2,070,600



Unstabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
HMA layer 2	3 in	0.380	1.140
Aggregate base	13.25 in	0.140	1.855
Structural number (SN)			4.315
Calculated traffic (ESALs)			2,102,200



Parameters

Project Information

Subgrade resilient modulus	Target ESALs	Reliability	Standard deviation	Serviceability	
				Initial	Terminal
6,750 psi	2,000,000	95%	0.45	4.2	2.5

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LIME STABILIZATION PAVEMENT DESIGN



Pavement Optimization
Design Analysis



Design	LOCAL - A, LIME STABILIZATION	Reference	
Project	TRES LAURELS, SUB'D.	Location	San Antonio, TX, USA
Customer		Designer	FLORENTINO CABALLERO, P. E.
Company	FROST GEOSCIENCES, Inc.	Date	November 2, 2022

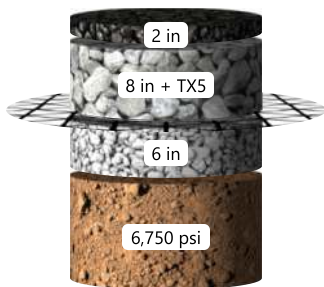
Results

TriAx Stabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	2 in	0.440	0.880
Mechanically stabilized layer	8 in	0.238	1.904
Subbase	6 in	0.080	0.480
Structural number (SN)			3.264
Calculated traffic (ESALs)			1,524,600

Unstabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	2 in	0.440	0.880
Aggregate base	12.25 in	0.140	1.715
Subbase	6 in	0.080	0.480
Structural number (SN)			3.075
Calculated traffic (ESALs)			1,026,000



Parameters

Project Information

Subgrade resilient modulus	Target ESALs	Reliability	Standard deviation	Serviceability	
				Initial	Terminal
6,750 psi	1,000,000	70%	0.45	4.2	2

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Pavement Optimization
Design Analysis



Design	LOCAL - B, LIME STABILIZATION	Reference	
Project	TRES LAURELS, SUB'D.	Location	San Antonio, TX, USA
Customer		Designer	FLORENTINO CABALLERO, P. E.
Company	FROST GEOSCIENCES, Inc.	Date	November 2, 2022

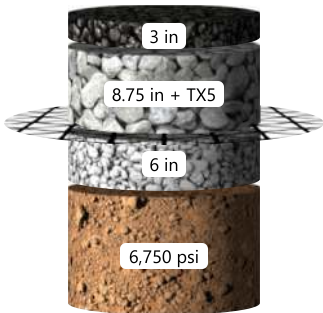
Results

TriAx Stabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
Mechanically stabilized layer	8.75 in	0.232	2.030
Subbase	6 in	0.080	0.480
Structural number (SN)			3.830
Calculated traffic (ESALs)			2,058,200

Unstabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
Aggregate base	14.5 in	0.140	2.030
Subbase	6 in	0.080	0.480
Structural number (SN)			3.830
Calculated traffic (ESALs)			2,058,200



Parameters

Project Information

Subgrade resilient modulus	Target ESALs	Reliability	Standard deviation	Serviceability	
				Initial	Terminal
6,750 psi	2,000,000	90%	0.45	4.2	2

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Pavement Optimization Design Analysis

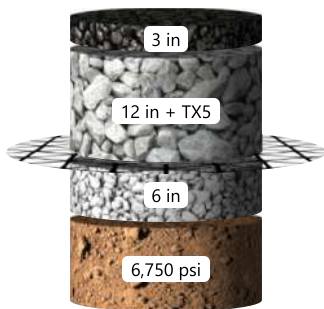


Design	ATERIAL, LIME STABILIZATION	Reference	
Project	TRES LAURELS, SUB'D.	Location	San Antonio, TX, USA
Customer		Designer	FLORENTINO CABALLERO, P. E.
Company	FROST GEOSCIENCES, Inc.	Date	November 2, 2022

Results

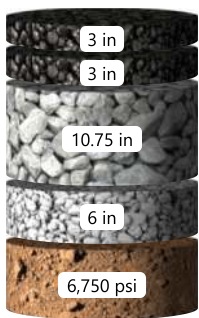
TriAx Stabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
Mechanically stabilized layer	12 in	0.209	2.508
Subbase	6 in	0.080	0.480
Structural number (SN)			4.308
Calculated traffic (ESALs)			2,080,000



Unstabilized Pavement Section

	Thickness	Coeff.	SN
HMA layer 1	3 in	0.440	1.320
HMA layer 2	3 in	0.330	0.990
Aggregate base	10.75 in	0.140	1.505
Subbase	6 in	0.080	0.480
Structural number (SN)			4.295
Calculated traffic (ESALs)			2,039,400



Parameters

Project Information

Subgrade resilient modulus	Target ESALs	Reliability	Standard deviation	Serviceability	
				Initial	Terminal
6,750 psi	2,000,000	95%	0.45	4.2	2.5

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