



Construction Materials Testing
Sewerline Installation—Backfill Compaction
Rancho Carlota Unit 4
San Antonio, Texas

InTEC Project No. S232048-1

January 15, 2024

V. K. Knowlton Construction & Utilities, Ltd.
18225 FM 2252
San Antonio, Texas 78266



Integrated Testing and Engineering Company of San Antonio, L.P.
Geotechnical & Environmental Engineering • Construction Services • Geologic Assessment

January 15, 2024

V. K. Knowlton Construction & Utilities, Ltd.
18225 FM 2252
San Antonio, Texas 78266

Attention: Mr. Matt Anderson

Re: Construction Materials Testing
Sewerline Installation – Backfill Compaction
Rancho Carlota Unit 4
San Antonio, Texas

InTEC Project #: S232048-1

Gentlemen:

Integrated Testing and Engineering Company of San Antonio, L.P. (InTEC) performed compaction evaluation at the above referenced project site between May 24, 2023 and June 30, 2023.

Field density tests were performed on an “on call” basis by the contractor. Full time observation of fill placement was not performed. The Laboratory Compaction and Field Density Tests results at the above referenced project site are presented for your review.

We appreciate and wish to thank you for the opportunity to be of service to you on this project. If we can be of additional assistance, or if you have any questions, please call us.

Sincerely,

InTEC of San Antonio
Murali Subramaniam, Ph. D., P.E.
Vice President



01/16/2024



Moisture Density Relationship

04/11/2023

InTEC of San Antonio
12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:
Habitat for Humanity of San Antonio
311 Probandt
San Antonio, TX 78204

Project:
S232015
Rancho Carlota Unit 5
29.282096881646286, -98.59626795506253
San Antonio, TX

SAMPLE DATA

Sample Number: 22250

Sample Date: 04/05/2023

Technician: Johnson, Thomas

Material Use: Utility Backfill

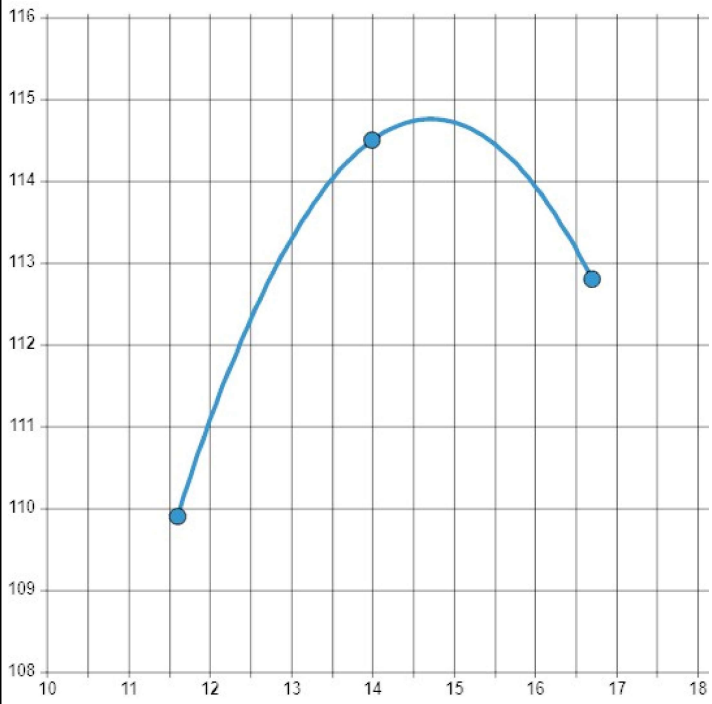
Sample Location: Stockpile

Material Description: Tan to Brown Clay with Gravel

LAB DATA

Test Method: Tex 113E

Proctor Curve:



Maximum Dry Density (pcf): 114.8

Optimum Moisture (%): 14.7

Soil Classification: CH Clay with gravel

Test Completed Date: 04/10/2023

Test Completed By: Agare, Ovie



Moisture Density Relationship

04/11/2023

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12028 Radium
San Antonio, TX 78216
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311 Probandt
San Antonio, TX 78204

Project:
S232015
Rancho Carlota Unit 5
29.282096881646286, -98.59626795506253
San Antonio, TX

SAMPLE DATA

Sample Number: 22248

Sample Date: 04/05/2023

Technician: Johnson, Thomas

Material Use: Utility Backfill

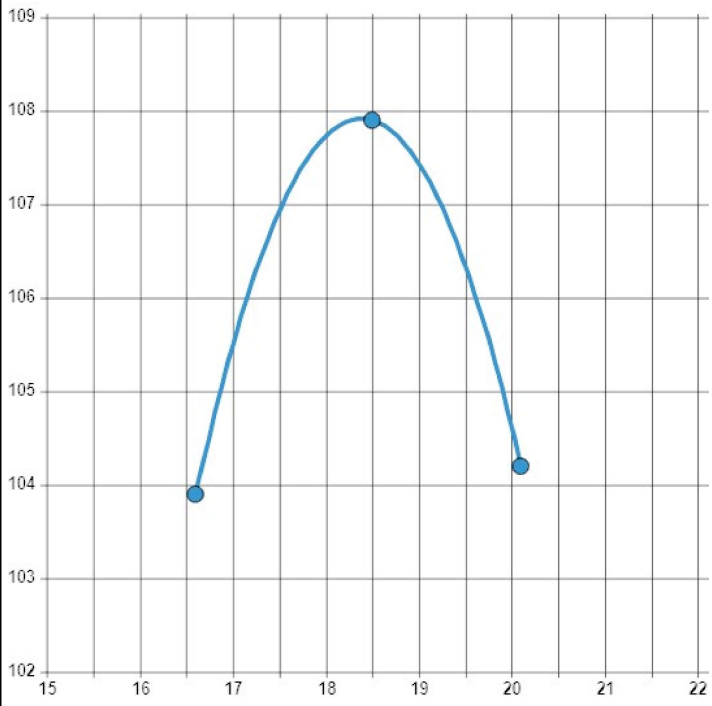
Sample Location: Stockpile

Material Description: Dark Brown Clay with Gravel

LAB DATA

Test Method: Tex 113E

Proctor Curve:



Maximum Dry Density (pcf): 107.9

Optimum Moisture (%): 18.4

Soil Classification: CH Clay with gravel

Test Completed Date: 04/10/2023

Test Completed By: Agare, Ovie



InTEC of San Antonio
12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Compaction Evaluation

Report Date: 01/16/2024
Test Method: ASTM D6938, Tex 115E

Client:

Habitat for Humanity of San Antonio
311 Probandt
San Antonio, TX 78204

Project:

S232048
Rancho Carlota Unit 4
29.282096881646286, -98.59626795506253
San Antonio, TX

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
1		05/24/23	U22250		CH	14.7	114.8	13.9	113.4	129.2	6	98.8	98	-2 / 2	C
6		05/24/23	U22250		CH	14.7	114.8	15.1	113.7	130.9	6	99.0	98	-2 / 2	C
11		05/24/23	U22250		CH	14.7	114.8	13.8	116.1	132.1	6	101.1	98	-2 / 2	C
16		05/25/23	U22250		CH	14.7	114.8	14.7	114.1	130.9	6	99.4	98	-2 / 2	C
22		05/25/23	U22250		CH	14.7	114.8	14.7	115.7	132.7	6	100.8	98	-2 / 2	C
27		06/16/23	U22250		CH	14.7	114.8	14.4	115.3	131.9	6	100.4	98	-2 / 2	C
28		06/16/23	U22250		CH	14.7	114.8	14.7	114.6	131.4	6	99.8	98	-2 / 2	C
36		06/16/23	U22250		CH	14.7	114.8	14.0	114.7	130.8	6	99.9	98	-2 / 2	C

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1	Sewer Main: Line C STA 2+00		1st Lift	Troxler / 3430 / 35355 / 06/14/2022	Foley, Ryan
6	Sewer Main: Line C STA 2+00		2nd Lift	Troxler / 3430 / 35355 / 06/14/2022	Foley, Ryan
11	Sewer Main: Line C STA 2+00		3rd Lift	Troxler / 3430 / 35355 / 06/14/2022	Foley, Ryan
16	Sewer Main: Line C STA 2+00		4th Lift	Troxler / 3430 / 35355 / 06/14/2022	Foley, Ryan
22	Sewer Main: Line C STA 2+00		5th Lift	Troxler / 3430 / 35355 / 06/14/2022	Foley, Ryan
27	Sewer Main: Line B STA 2+00		1st Lift	Troxler / 3430P / 80148 / 11/02/2022	Kirkwood, Nick
28	Sewer Main: Line B STA 4+00		1st Lift	Troxler / 3430P / 80148 / 11/02/2022	Kirkwood, Nick
36	Sewer Main: Line B STA 3+00		2nd Lift	Troxler / 3430P / 80148 / 11/02/2022	Kirkwood, Nick

Remarks	Comments
C: Compliant	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

Testing performed when called in.
InTEC did not observe the installation of the material.
Testing directed by the City Inspector when present.
Test results apply only to the specific locations and materials noted and may not represent any other locations or elevations.



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Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
44		06/19/23	U22250		CH	14.7	114.8	13.2	113.3	128.3	6	98.7	98	-2 / 2	C
51		06/19/23	U22250		CH	14.7	114.8	14.1	113.3	129.3	6	98.7	98	-2 / 2	C
59		06/19/23	U22250		CH	14.7	114.8	13.8	115.2	131.1	6	100.3	98	-2 / 2	C
63		06/19/23	U22250		CH	14.7	114.8	13.9	113.8	129.6	6	99.1	98	-2 / 2	C
64		06/19/23	U22250		CH	14.7	114.8	14.1	115.1	131.3	6	100.3	98	-2 / 2	C
68		06/20/23	U22250		CH	14.7	114.8	13.6	115.2	130.9	6	100.3	98	-2 / 2	C
72		06/20/23	U22250		CH	14.7	114.8	12.9	116.3	131.3	6	101.3	98	-2 / 2	C
76		06/20/23	U22250		CH	14.7	114.8	15.2	115.3	132.8	6	100.4	98	-2 / 2	C
Test Information															
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician		
44	Sewer Main: Line B STA 2+50							3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
51	Sewer Main: Line B STA 3+00							4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
59	Sewer Main: Line B STA 6+00							1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
63	Sewer Main: Line B STA 2+50							5th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
64	Sewer Main: Line B STA 6+00							2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
68	Sewer Main: Line B STA 6+00							3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
72	Sewer Main: Line B STA 6+00							4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
76	Sewer Main: Line B STA 6+00							5th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

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Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
77		06/20/23	U22250		CH	14.7	114.8	13.9	113.9	129.7	6	99.2	98	-2 / 2	C
78		06/20/23	U22250		CH	14.7	114.8	14.1	115.3	131.6	6	100.4	98	-2 / 2	C
82		06/21/23	U22250		CH	14.7	114.8	13.9	115.7	131.8	6	100.8	98	-2 / 2	C
83		06/21/23	U22250		CH	14.7	114.8	13.7	116.1	132.0	6	101.1	98	-2 / 2	C
87		06/21/23	U22250		CH	14.7	114.8	15.1	113.9	131.1	6	99.2	98	-2 / 2	C
88		06/21/23	U22250		CH	14.7	114.8	14.6	115.1	131.9	6	100.3	98	-2 / 2	C
92		06/21/23	U22250		CH	14.7	114.8	13.8	113.9	129.6	6	99.2	98	-2 / 2	C
93		06/21/23	U22250		CH	14.7	114.8	14.2	115.2	131.6	6	100.3	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
77	Sewer Main: Line B STA 8+50								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
78	Sewer Main: Line B STA 9+50								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
82	Sewer Main: Line B STA 8+00								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
83	Sewer Main: Line B STA 9+50								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
87	Sewer Main: Line B STA 8+00								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
88	Sewer Main: Line B STA 9+50								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
92	Sewer Main: Line B STA 8+00								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
93	Sewer Main: Line B STA 10+00								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

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Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
97		06/22/23	U22250		CH	14.7	114.8	15.2	115.3	132.8	6	100.4	98	-2 / 2	C
98		06/22/23	U22250		CH	14.7	114.8	15.7	114.3	132.2	6	99.6	98	-2 / 2	C
106		06/28/23	U22250		CH	14.7	114.8	15.3	115.6	133.3	6	100.7	98	-2 / 2	C
107		06/28/23	U22250		CH	14.7	114.8	14.5	116.2	133.0	6	101.2	98	-2 / 2	C
115		06/28/23	U22250		CH	14.7	114.8	14.1	115.2	131.4	6	100.3	98	-2 / 2	C
116		06/28/23	U22250		CH	14.7	114.8	13.9	113.7	129.5	6	99.0	98	-2 / 2	C
124		06/29/23	U22250		CH	14.7	114.8	13.9	115.2	131.2	6	100.3	98	-2 / 2	C
125		06/29/23	U22250		CH	14.7	114.8	14.1	113.9	130.0	6	99.2	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
97	Sewer Main: Line B STA 8+00								5th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
98	Sewer Main: Line B STA 9+50								5th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
106	Sewer Main: Line D STA 2+00								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
107	Sewer Main: Line D STA 4+00								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
115	Sewer Main: Line D STA 2+00								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
116	Sewer Main: Line D STA 4+00								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
124	Sewer Main: Line D STA 2+00								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
125	Sewer Main: Line D STA 4+00								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

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133		06/29/23	U22250		CH	14.7	114.8	13.7	116.1	132.0	6	101.1	98	-2 / 2	C
134		06/29/23	U22250		CH	14.7	114.8	14.1	115.2	131.4	6	100.3	98	-2 / 2	C
135		06/29/23	U22250		CH	14.7	114.8	13.8	116.2	132.2	6	101.2	98	-2 / 2	C
136		06/29/23	U22250		CH	14.7	114.8	15.1	114.7	132.0	6	99.9	98	-2 / 2	C
137		06/30/23	U22248		CH	18.4	107.9	18.5	105.8	125.4	4	98.1	98	-2 / 2	C
138		06/30/23	U22248		CH	18.4	107.9	17.8	108.6	127.9	4	100.6	98	-2 / 2	C
139		06/30/23	U22248		CH	18.4	107.9	17.9	109.0	128.5	4	101.0	98	-2 / 2	C
140		06/30/23	U22248		CH	18.4	107.9	17.3	108.7	127.5	4	100.7	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
133	Sewer Main: Line D STA 1+50								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
134	Sewer Main: Line D STA 4+00								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
135	Sewer Main: Line D STA 2+00								5th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
136	Sewer Main: Line D STA 4+00								5th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
137	Sewer Main: Line D STA 2+00								6th Lift		Troxler / 3430P / 76814 / 08/18/2022			Martinez, Juan	
138	Sewer Main: Line D STA 4+00								6th Lift		Troxler / 3430P / 76814 / 08/18/2022			Martinez, Juan	
139	Sewer Main: Line D STA 2+00								7th Lift		Troxler / 3430P / 76814 / 08/18/2022			Martinez, Juan	
140	Sewer Main: Line D STA 4+00								7th Lift		Troxler / 3430P / 76814 / 08/18/2022			Martinez, Juan	
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

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2		05/24/23	U22250		CH	14.7	114.8	14.2	112.7	128.7	6	98.2	98	-2 / 2	C
3		05/24/23	U22250		CH	14.7	114.8	14.6	114.0	130.6	6	99.3	98	-2 / 2	C
4		05/24/23	U22250		CH	14.7	114.8	16.1	113.1	131.3	6	98.5	98	-2 / 2	C
5		05/24/23	U22250		CH	14.7	114.8	15.7	115.8	134.0	6	100.9	98	-2 / 2	C
7		05/24/23	U22250		CH	14.7	114.8	14.6	114.3	131.0	6	99.6	98	-2 / 2	C
8		05/24/23	U22250		CH	14.7	114.8	13.8	115.5	131.4	6	100.6	98	-2 / 2	C
9		05/24/23	U22250		CH	14.7	114.8	14.9	113.4	130.3	6	98.8	98	-2 / 2	C
10		05/24/23	U22250		CH	14.7	114.8	14.1	115.1	131.3	6	100.3	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
2	Sewer Laterals: Line C STA 1+71								1st Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
3	Sewer Laterals: Line C STA 2+67								1st Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
4	Sewer Laterals: Line C STA 3+21								1st Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
5	Sewer Laterals: Line C STA 3+67								1st Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
7	Sewer Laterals: Line C STA 1+17								2nd Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
8	Sewer Laterals: Line C STA 2+67								2nd Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
9	Sewer Laterals: Line C STA 3+21								2nd Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
10	Sewer Laterals: Line C STA 3+67								2nd Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
Remarks						Comments									
C: Compliant						Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.									

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InTEC of San Antonio
12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Compaction Evaluation

Report Date: 01/16/2024
Test Method: ASTM D6938, Tex 115E

Client:

Habitat for Humanity of San Antonio
311 Probandt
San Antonio, TX 78204

Project:

S232048
Rancho Carlota Unit 4
29.282096881646286, -98.59626795506253
San Antonio, TX

Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
12		05/24/23	U22250		CH	14.7	114.8	14.8	113.7	130.5	6	99.0	98	-2 / 2	C
13		05/24/23	U22250		CH	14.7	114.8	15.1	113.0	130.1	6	98.4	98	-2 / 2	C
14		05/24/23	U22250		CH	14.7	114.8	14.5	114.9	131.6	6	100.1	98	-2 / 2	C
15		05/24/23	U22250		CH	14.7	114.8	16.2	112.8	131.1	6	98.3	98	-2 / 2	C
17		05/25/23	U22250		CH	14.7	114.8	13.9	116.8	133.0	6	101.7	98	-2 / 2	C
18		05/25/23	U22250		CH	14.7	114.8	15.2	113.6	130.9	6	99.0	98	-2 / 2	C
19		05/25/23	U22250		CH	14.7	114.8	15.7	112.7	130.4	6	98.2	98	-2 / 2	C
20		05/25/23	U22250		CH	14.7	114.8	16.1	114.9	133.4	6	100.1	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
12	Sewer Laterals: Line C STA 1+71								3rd Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
13	Sewer Laterals: Line C STA 2+67								3rd Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
14	Sewer Laterals: Line C STA 3+21								3rd Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
15	Sewer Laterals: Line C STA 3+67								3rd Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
17	Sewer Laterals: Line C STA 1+17								4th Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
18	Sewer Laterals: Line C STA 1+71								4th Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
19	Sewer Laterals: Line C STA 2+67								4th Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
20	Sewer Laterals: Line C STA 3+21								4th Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

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Compaction Evaluation

Report Date: 01/16/2024
Test Method: ASTM D6938, Tex 115E

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Habitat for Humanity of San Antonio
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San Antonio, TX 78204

Project:

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San Antonio, TX

Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
21		05/25/23	U22250		CH	14.7	114.8	15.2	114.5	131.9	6	99.7	98	-2 / 2	C
23		05/25/23	U22250		CH	14.7	114.8	15.6	114.2	132.0	6	99.5	98	-2 / 2	C
24		05/25/23	U22250		CH	14.7	114.8	15.8	113.0	130.9	6	98.4	98	-2 / 2	C
25		05/25/23	U22250		CH	14.7	114.8	14.1	115.0	131.2	6	100.2	98	-2 / 2	C
26		05/25/23	U22250		CH	14.7	114.8	13.9	114.9	130.9	6	100.1	98	-2 / 2	C
29		06/16/23	U22250		CH	14.7	114.8	15.4	113.9	131.4	6	99.2	98	-2 / 2	C
30		06/16/23	U22250		CH	14.7	114.8	15.0	114.3	131.4	6	99.6	98	-2 / 2	C
31		06/16/23	U22250		CH	14.7	114.8	15.6	113.6	131.3	6	99.0	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
21	Sewer Laterals: Line C STA 3+67								4th Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
23	Sewer Laterals: Line C STA 1+17								5th Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
24	Sewer Laterals: Line C STA 2+67								5th Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
25	Sewer Laterals: Line C STA 3+21								5th Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
26	Sewer Laterals: Line C STA 3+67								5th Lift		Troxler / 3430 / 35355 / 06/14/2022			Foley, Ryan	
29	Sewer Laterals: Line B STA 1+17								1st Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
30	Sewer Laterals: Line B STA 1+71								1st Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
31	Sewer Laterals: Line B STA 2+17								1st Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
Remarks						Comments									
C: Compliant						Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.									

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Report Date: 01/16/2024
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San Antonio, TX

Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
32		06/16/23	U22250		CH	14.7	114.8	15.1	114.2	131.4	6	99.5	98	-2 / 2	C
33		06/16/23	U22250		CH	14.7	114.8	14.9	114.7	131.8	6	99.9	98	-2 / 2	C
34		06/16/23	U22250		CH	14.7	114.8	14.7	114.1	130.9	6	99.4	98	-2 / 2	C
35		06/16/23	U22250		CH	14.7	114.8	15.5	113.3	130.9	6	98.7	98	-2 / 2	C
37		06/16/23	U22250		CH	14.7	114.8	13.9	113.5	129.3	6	98.9	98	-2 / 2	C
38		06/16/23	U22250		CH	14.7	114.8	13.5	113.4	128.7	6	98.8	98	-2 / 2	C
39		06/16/23	U22250		CH	14.7	114.8	14.1	114.2	130.3	6	99.5	98	-2 / 2	C
40		06/16/23	U22250		CH	14.7	114.8	13.9	114.6	130.5	6	99.8	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
32	Sewer Laterals: Line B STA 2+71								1st Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
33	Sewer Laterals: Line B STA 3+17								1st Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
34	Sewer Laterals: Line B STA 3+71								1st Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
35	Sewer Laterals: Line B STA 4+16								1st Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
37	Sewer Laterals: Line B STA 1+17								2nd Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
38	Sewer Laterals: Line B STA 1+67								2nd Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
39	Sewer Laterals: Line B STA 2+21								2nd Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
40	Sewer Laterals: Line B STA 2+67								2nd Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
Remarks						Comments									
C: Compliant						Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.									

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Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
41		06/16/23	U22250		CH	14.7	114.8	14.3	114.0	130.3	6	99.3	98	-2 / 2	C
42		06/16/23	U22250		CH	14.7	114.8	14.4	113.8	130.2	6	99.1	98	-2 / 2	C
43		06/16/23	U22250		CH	14.7	114.8	13.8	114.1	129.8	6	99.4	98	-2 / 2	C
45		06/19/23	U22250		CH	14.7	114.8	12.9	115.3	130.2	6	100.4	98	-2 / 2	C
46		06/19/23	U22250		CH	14.7	114.8	13.1	113.8	128.7	6	99.1	98	-2 / 2	C
47		06/19/23	U22250		CH	14.7	114.8	13.6	115.4	131.1	6	100.5	98	-2 / 2	C
48		06/19/23	U22250		CH	14.7	114.8	14.4	114.4	130.9	6	99.7	98	-2 / 2	C
49		06/19/23	U22250		CH	14.7	114.8	13.6	116.1	131.9	6	101.1	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
41	Sewer Laterals: Line B STA 3+21								2nd Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
42	Sewer Laterals: Line B STA 3+70								2nd Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
43	Sewer Laterals: Line B STA 4+26								2nd Lift		Troxler / 3430P / 80148 / 11/02/2022			Kirkwood, Nick	
45	Sewer Laterals: Line B STA 1+17								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
46	Sewer Laterals: Line B STA 1+67								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
47	Sewer Laterals: Line B STA 2+21								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
48	Sewer Laterals: Line B STA 2+67								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
49	Sewer Laterals: Line B STA 3+21								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

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Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
50		06/19/23	U22250		CH	14.7	114.8	14.2	113.7	129.8	6	99.0	98	-2 / 2	C
52		06/19/23	U22250		CH	14.7	114.8	13.7	115.2	131.0	6	100.3	98	-2 / 2	C
53		06/19/23	U22250		CH	14.7	114.8	15.6	114.3	132.1	6	99.6	98	-2 / 2	C
54		06/19/23	U22250		CH	14.7	114.8	14.4	113.9	130.3	6	99.2	98	-2 / 2	C
55		06/19/23	U22250		CH	14.7	114.8	13.7	115.5	131.3	6	100.6	98	-2 / 2	C
56		06/19/23	U22250		CH	14.7	114.8	15.2	114.3	131.7	6	99.6	98	-2 / 2	C
57		06/19/23	U22250		CH	14.7	114.8	14.2	115.6	132.0	6	100.7	98	-2 / 2	C
58		06/19/23	U22250		CH	14.7	114.8	15.2	113.8	131.1	6	99.1	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
50	Sewer Laterals: Line B STA 3+70								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
52	Sewer Laterals: Line B STA 1+17								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
53	Sewer Laterals: Line B STA 1+71								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
54	Sewer Laterals: Line B STA 2+17								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
55	Sewer Laterals: Line B STA 2+71								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
56	Sewer Laterals: Line B STA 3+17								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
57	Sewer Laterals: Line B STA 3+71								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
58	Sewer Laterals: Line B STA 4+16								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks						Comments									
C: Compliant						Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.									

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Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
60		06/19/23	U22250		CH	14.7	114.8	14.3	113.7	130.0	6	99.0	98	-2 / 2	C
61		06/19/23	U22250		CH	14.7	114.8	15.3	114.4	131.9	6	99.7	98	-2 / 2	C
62		06/19/23	U22250		CH	14.7	114.8	14.2	115.1	131.4	6	100.3	98	-2 / 2	C
65		06/19/23	U22250		CH	14.7	114.8	13.9	114.6	130.5	6	99.8	98	-2 / 2	C
66		06/19/23	U22250		CH	14.7	114.8	13.6	115.1	130.8	6	100.3	98	-2 / 2	C
67		06/19/23	U22250		CH	14.7	114.8	14.2	114.8	131.1	6	100.0	98	-2 / 2	C
69		06/20/23	U22250		CH	14.7	114.8	14.1	114.2	130.3	6	99.5	98	-2 / 2	C
70		06/20/23	U22250		CH	14.7	114.8	14.8	113.9	130.8	6	99.2	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
60	Sewer Laterals: Line B STA 4+26								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
61	Sewer Laterals: Line B STA 5+24								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
62	Sewer Laterals: Line B STA 6+24								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
65	Sewer Laterals: Line B STA 4+74								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
66	Sewer Laterals: Line B STA 5+74								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
67	Sewer Laterals: Line B STA 6+74								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
69	Sewer Laterals: Line B STA 4+26								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
70	Sewer Laterals: Line B STA 5+24								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

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71		06/20/23	U22250		CH	14.7	114.8	14.1	115.7	132.0	6	100.8	98	-2 / 2	C
73		06/20/23	U22250		CH	14.7	114.8	15.2	113.9	131.2	6	99.2	98	-2 / 2	C
74		06/20/23	U22250		CH	14.7	114.8	13.3	114.1	129.3	6	99.4	98	-2 / 2	C
75		06/20/23	U22250		CH	14.7	114.8	13.8	113.9	129.6	6	99.2	98	-2 / 2	C
79		06/20/23	U22250		CH	14.7	114.8	14.2	113.7	129.8	6	99.0	98	-2 / 2	C
80		06/20/23	U22250		CH	14.7	114.8	14.5	113.9	130.4	6	99.2	98	-2 / 2	C
81		06/20/23	U22250		CH	14.7	114.8	13.8	115.1	131.0	6	100.3	98	-2 / 2	C
84		06/21/23	U22250		CH	14.7	114.8	14.2	113.9	130.1	6	99.2	98	-2 / 2	C
Test Information															
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician		
71	Sewer Laterals: Line B STA 6+24							3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
73	Sewer Laterals: Line B STA 4+74							4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
74	Sewer Laterals: Line B STA 5+74							4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
75	Sewer Laterals: Line B STA 6+74							4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
79	Sewer Laterals: Line B STA 8+09							1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
80	Sewer Laterals: Line B STA 9+08							1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
81	Sewer Laterals: Line B STA 9+86							1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
84	Sewer Laterals: Line B STA 8+33							2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro		
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

Testing performed when called in.
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InTEC of San Antonio
12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Compaction Evaluation

Report Date: 01/16/2024
Test Method: ASTM D6938, Tex 115E

Client:

Habitat for Humanity of San Antonio
311 Probandt
San Antonio, TX 78204

Project:

S232048
Rancho Carlota Unit 4
29.282096881646286, -98.59626795506253
San Antonio, TX

Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
85		06/21/23	U22250		CH	14.7	114.8	14.8	114.1	131.0	6	99.4	98	-2 / 2	C
86		06/21/23	U22250		CH	14.7	114.8	14.6	115.2	132.0	6	100.3	98	-2 / 2	C
89		06/21/23	U22250		CH	14.7	114.8	13.7	114.4	130.1	6	99.7	98	-2 / 2	C
90		06/21/23	U22250		CH	14.7	114.8	14.1	114.9	131.1	6	100.1	98	-2 / 2	C
91		06/21/23	U22250		CH	14.7	114.8	13.9	115.3	131.3	6	100.4	98	-2 / 2	C
94		06/21/23	U22250		CH	14.7	114.8	15.1	114.2	131.4	6	99.5	98	-2 / 2	C
95		06/21/23	U22250		CH	14.7	114.8	13.6	114.5	130.1	6	99.7	98	-2 / 2	C
96		06/21/23	U22250		CH	14.7	114.8	14.2	113.7	129.8	6	99.0	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
85	Sewer Laterals: Line B STA 9+19								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
86	Sewer Laterals: Line B STA 10+03								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
89	Sewer Laterals: Line B STA 8+09								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
90	Sewer Laterals: Line B STA 9+08								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
91	Sewer Laterals: Line B STA 9+86								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
94	Sewer Laterals: Line B STA 8+33								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
95	Sewer Laterals: Line B STA 9+19								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
96	Sewer Laterals: Line B STA 10+03								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

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InTEC of San Antonio
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San Antonio, TX 78216
Phone: 210-525-9033

Compaction Evaluation

Report Date: 01/16/2024
Test Method: ASTM D6938, Tex 115E

Client:

Habitat for Humanity of San Antonio
311 Probandt
San Antonio, TX 78204

Project:

S232048
Rancho Carlota Unit 4
29.282096881646286, -98.59626795506253
San Antonio, TX

Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
99		06/28/23	U22250		CH	14.7	114.8	13.8	113.2	128.8	6	98.6	98	-2 / 2	C
100		06/28/23	U22250		CH	14.7	114.8	12.8	114.5	129.2	6	99.7	98	-2 / 2	C
101		06/28/23	U22250		CH	14.7	114.8	13.1	113.9	128.8	6	99.2	98	-2 / 2	C
102		06/28/23	U22250		CH	14.7	114.8	13.3	114.4	129.6	6	99.7	98	-2 / 2	C
103		06/28/23	U22250		CH	14.7	114.8	12.9	115.1	129.9	6	100.3	98	-2 / 2	C
104		06/28/23	U22250		CH	14.7	114.8	13.7	114.8	130.5	6	100.0	98	-2 / 2	C
105		06/28/23	U22250		CH	14.7	114.8	13.5	113.9	129.3	6	99.2	98	-2 / 2	C
108		06/28/23	U22250		CH	14.7	114.8	14.4	113.9	130.3	6	99.2	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
99	Sewer Laterals: Line B STA 1+17								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
100	Sewer Laterals: Line B STA 1+48								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
101	Sewer Laterals: Line B STA 2+23								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
102	Sewer Laterals: Line D STA 2+49								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
103	Sewer Laterals: Line D STA 3+23								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
104	Sewer Laterals: Line D STA 3+56								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
105	Sewer Laterals: Line D STA 4+18								1st Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
108	Sewer Laterals: Line D STA 1+73								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										
					103: Previous entries for Sewer laterals are all Line D and not Line B										

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San Antonio, TX 78216
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Compaction Evaluation

Report Date: 01/16/2024
Test Method: ASTM D6938, Tex 115E

Client:

Habitat for Humanity of San Antonio
311 Probandt
San Antonio, TX 78204

Project:

S232048
Rancho Carlota Unit 4
29.282096881646286, -98.59626795506253
San Antonio, TX

Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
109		06/28/23	U22250		CH	14.7	114.8	15.2	114.5	131.9	6	99.7	98	-2 / 2	C
110		06/28/23	U22250		CH	14.7	114.8	14.9	113.8	130.8	6	99.1	98	-2 / 2	C
111		06/28/23	U22250		CH	14.7	114.8	13.8	116.3	132.3	6	101.3	98	-2 / 2	C
112		06/28/23	U22250		CH	14.7	114.8	15.7	113.4	131.2	6	98.8	98	-2 / 2	C
113		06/28/23	U22250		CH	14.7	114.8	14.9	114.1	131.1	6	99.4	98	-2 / 2	C
114		06/28/23	U22250		CH	14.7	114.8	15.2	113.8	131.1	6	99.1	98	-2 / 2	C
117		06/28/23	U22250		CH	14.7	114.8	13.4	113.2	128.4	6	98.6	98	-2 / 2	C
118		06/28/23	U22250		CH	14.7	114.8	15.2	114.7	132.1	6	99.9	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
109	Sewer Laterals: Line D STA 1+98								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
110	Sewer Laterals: Line D STA 2+73								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
111	Sewer Laterals: Line D STA 2+99								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
112	Sewer Laterals: Line D STA 3+68								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
113	Sewer Laterals: Line D STA 4+06								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
114	Sewer Laterals: Line D STA 4+55								2nd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
117	Sewer Laterals: Line D STA 1+17								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
118	Sewer Laterals: Line D STA 1+48								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks						Comments									
C: Compliant						Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.									

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Compaction Evaluation

Report Date: 01/16/2024
Test Method: ASTM D6938, Tex 115E

Client:

Habitat for Humanity of San Antonio
311 Probandt
San Antonio, TX 78204

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Rancho Carlota Unit 4
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San Antonio, TX

Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
119		06/28/23	U22250		CH	14.7	114.8	14.2	113.9	130.1	6	99.2	98	-2 / 2	C
120		06/28/23	U22250		CH	14.7	114.8	15.2	115.2	132.7	6	100.3	98	-2 / 2	C
121		06/28/23	U22250		CH	14.7	114.8	14.2	114.2	130.4	6	99.5	98	-2 / 2	C
122		06/28/23	U22250		CH	14.7	114.8	13.6	115.3	131.0	6	100.4	98	-2 / 2	C
123		06/28/23	U22250		CH	14.7	114.8	13.2	115.5	130.7	6	100.6	98	-2 / 2	C
126		06/29/23	U22250		CH	14.7	114.8	13.8	113.5	129.2	6	98.9	98	-2 / 2	C
127		06/29/23	U22250		CH	14.7	114.8	13.8	112.7	128.3	6	98.2	98	-2 / 2	C
128		06/29/23	U22250		CH	14.7	114.8	12.8	114.1	128.7	6	99.4	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
119	Sewer Laterals: Line D STA 2+23								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
120	Sewer Laterals: Line D STA 2+49								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
121	Sewer Laterals: Line D STA 3+23								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
122	Sewer Laterals: Line D STA 3+56								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
123	Sewer Laterals: Line D STA 4+18								3rd Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
126	Sewer Laterals: Line D STA 1+73								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
127	Sewer Laterals: Line D STA 1+98								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
128	Sewer Laterals: Line D STA 2+73								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks					Comments										
C: Compliant					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

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29.282096881646286, -98.59626795506253
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Test Results															
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
129		06/29/23	U22250		CH	14.7	114.8	14.2	113.6	129.7	6	99.0	98	-2 / 2	C
130		06/29/23	U22250		CH	14.7	114.8	13.3	114.3	129.5	6	99.6	98	-2 / 2	C
131		06/29/23	U22250		CH	14.7	114.8	13.7	115.2	131.0	6	100.3	98	-2 / 2	C
132		06/29/23	U22250		CH	14.7	114.8	13.9	114.1	130.0	6	99.4	98	-2 / 2	C
Test Information															
Test #	Test Location							Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
129	Sewer Laterals: Line D STA 2+99								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
130	Sewer Laterals: Line D STA 3+68								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
131	Sewer Laterals: Line D STA 4+06								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
132	Sewer Laterals: Line D STA 4+55								4th Lift		Troxler / 3430 / 62183 / 08/29/2022			Cisneros, Ramiro	
Remarks						Comments									
C: Compliant						Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.									