



# Compaction Test Report

Report #: SNG-000004  
 Test Method: D6938 / T310

Client:  
 Hunt Midwest  
 8300 NE Underground Dr STE 100  
 Kansas City, MO 64161-9736

Project:  
 020-3102  
 Hunt Midwest Hook Farms First Plat  
 Lee's Summit, MO

Olathe  
 1700 East 123rd Street  
 Olathe,  
 Phone: 913-829-0078 | Fax: 913-829-0258

## 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/Max Comp. (%)	Optimum Moisture Tolerance (%)	Remark
1		12/9/20	81841	B	CH	23.3	93.2	24.7	96.3	120.1	8	103	95 / 103	-2 / 2	A
2		12/9/20	81841	B	CH	23.3	93.2	22.5	93.8	114.9	8	101	95 / 103	-2 / 2	A
3		12/9/20	81841	B	CH	23.3	93.2	21.7	93.8	114.2	8	101	95 / 103	-2 / 2	A
4		12/9/20	81841	B	CH	23.3	93.2	23.6	95.3	117.8	8	102	95 / 103	-2 / 2	A
5		12/9/20	81841	B	CH	23.3	93.2	21.8	94.7	115.3	8	102	95 / 103	-2 / 2	A
6		12/9/20	81841	B	CH	23.3	93.2	23.5	92.8	114.6	8	100	95 / 103	-2 / 2	A
7		12/9/20	81841	B	CH	23.3	93.2	22.0	94.7	115.5	8	102	95 / 103	-2 / 2	A
8		12/9/20	81841	B	CH	23.3	93.2	25.1	92.9	116.2	8	100	95 / 103	-2 / 2	A

## Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 16+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
2	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 16+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
3	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 17+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
4	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 17+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
5	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 17+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
6	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 17+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
7	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 18+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
8	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 18+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

Remarks	Comments
A: Tests results comply with specifications	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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9		12/9/20	81841	B	CH	23.3	93.2	22.3	91.2	111.5	8	98	95 / 103	-2 / 2	A
10		12/9/20	81841	B	CH	23.3	93.2	25.2	92.4	115.7	8	99	95 / 103	-2 / 2	A
11		12/9/20	81841	B	CH	23.3	93.2	24.4	92.3	114.8	8	99	95 / 103	-2 / 2	A
12		12/9/20	81841	B	CH	23.3	93.2	22.4	92.6	113.3	8	99	95 / 103	-2 / 2	A
13		12/9/20	81841	B	CH	23.3	93.2	22.4	92.4	113.1	8	99	95 / 103	-2 / 2	A
14		12/9/20	81841	B	CH	23.3	93.2	23.5	93.9	116.0	8	101	95 / 103	-2 / 2	A
15		12/9/20	81841	B	CH	23.3	93.2	23.9	89.9	111.4	8	96	95 / 103	-2 / 2	A
16		12/9/20	81841	B	CH	23.3	93.2	22.6	95.3	116.8	8	102	95 / 103	-2 / 2	A

## Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
9	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 18+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
10	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 18+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
11	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 19+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
12	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 19+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
13	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 19+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
14	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 19+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
15	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 20+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
16	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 20+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

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Olathe  
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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/Max Comp. (%)	Optimum Moisture Tolerance (%)	Remark
17		12/9/20	81841	B	CH	23.3	93.2	22.2	96.0	117.3	8	103	95 / 103	-2 / 2	A
18		12/9/20	81841	B	CH	23.3	93.2	22.7	92.4	113.4	8	99	95 / 103	-2 / 2	A
19		12/9/20	81841	B	CH	23.3	93.2	23.1	92.1	113.4	8	99	95 / 103	-2 / 2	A
20		12/9/20	81841	B	CH	23.3	93.2	25.1	91.8	114.8	8	98	95 / 103	-2 / 2	A
21		12/9/20	81841	B	CH	23.3	93.2	23.8	95.6	118.4	8	103	95 / 103	-2 / 2	A
22		12/9/20	81841	B	CH	23.3	93.2	25.0	91.7	114.6	8	98	95 / 103	-2 / 2	A
23		12/9/20	81841	B	CH	23.3	93.2	22.6	94.0	115.2	8	101	95 / 103	-2 / 2	A
24		12/9/20	81841	B	CH	23.3	93.2	24.0	95.9	118.9	8	103	95 / 103	-2 / 2	A

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Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
17	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 20++50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
18	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 20+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
19	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 21+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
20	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 21+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
21	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 21+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
22	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 21+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
23	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 22+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
24	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 22+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

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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/Max Comp. (%)	Optimum Moisture Tolerance (%)	Remark
25		12/9/20	81841	B	CH	23.3	93.2	21.8	92.2	112.3	8	99	95 / 103	-2 / 2	A
26		12/9/20	81841	B	CH	23.3	93.2	22.3	93.1	113.9	8	100	95 / 103	-2 / 2	A
27		12/9/20	81841	B	CH	23.3	93.2	22.6	96.3	118.1	8	103	95 / 103	-2 / 2	A
28		12/9/20	81841	B	CH	23.3	93.2	24.2	88.9	110.4	8	95	95 / 103	-2 / 2	A
29		12/9/20	81841	B	CH	23.3	93.2	24.9	90.2	112.7	8	97	95 / 103	-2 / 2	A
30		12/9/20	81841	B	CH	23.3	93.2	22.3	95.8	117.2	8	103	95 / 103	-2 / 2	A
31		12/9/20	81841	B	CH	23.3	93.2	23.7	93.1	115.2	8	100	95 / 103	-2 / 2	A
32		12/9/20	81841	B	CH	23.3	93.2	23.4	92.4	114.0	8	99	95 / 103	-2 / 2	A

Test Information					
Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
25	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 22+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
26	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 22+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
27	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 23+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
28	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 23+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
29	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 23+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
30	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 23+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
31	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 24+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
32	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 24+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

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Olathe  
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33		12/9/20	81841	B	CH	23.3	93.2	24.9	94.7	118.3	8	102	95 / 103	-2 / 2	A
34		12/9/20	81841	B	CH	23.3	93.2	23.2	95.5	117.7	8	102	95 / 103	-2 / 2	A
35		12/9/20	81841	B	CH	23.3	93.2	24.4	95.0	118.2	8	102	95 / 103	-2 / 2	A
36		12/9/20	81841	B	CH	23.3	93.2	24.7	94.1	117.3	8	101	95 / 103	-2 / 2	A
37		12/9/20	81841	B	CH	23.3	93.2	23.9	95.1	117.8	8	102	95 / 103	-2 / 2	A
38		12/9/20	81841	B	CH	23.3	93.2	25.1	93.4	116.8	8	100	95 / 103	-2 / 2	A
39		12/9/20	81841	B	CH	23.3	93.2	21.8	92.3	112.4	8	99	95 / 103	-2 / 2	A
40		12/9/20	81841	B	CH	23.3	93.2	25.2	95.4	119.4	8	102	95 / 103	-2 / 2	A

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Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
33	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 24+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
34	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 24+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
35	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 25+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
36	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 25+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
37	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 25+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
38	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 25+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
39	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 26+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
40	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 26+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

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150		12/15/20	81840	B	CL-CH	20.8	99.9	22.1	98.3	120.0	8	98	95 / 103	-2 / 2	A
151		12/15/20	81840	B	CL-CH	20.8	99.9	21.8	98.6	120.1	8	99	95 / 103	-2 / 2	A
152		12/15/20	81840	B	CL-CH	20.8	99.9	22.0	97.4	118.8	8	97	95 / 103	-2 / 2	A
153		12/15/20	81840	B	CL-CH	20.8	99.9	22.7	96.9	118.9	8	97	95 / 103	-2 / 2	A
154		12/15/20	81840	B	CL-CH	20.8	99.9	21.8	94.8	115.5	8	95	95 / 103	-2 / 2	A
155		12/15/20	81840	B	CL-CH	20.8	99.9	19.9	95.4	114.4	8	95	95 / 103	-2 / 2	A
156		12/15/20	81840	B	CL-CH	20.8	99.9	22.3	95.0	116.2	8	95	95 / 103	-2 / 2	A
157		12/15/20	81840	B	CL-CH	20.8	99.9	22.3	98.0	119.9	8	98	95 / 103	-2 / 2	A

## Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
150	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 26+50	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
151	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 26+50	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
152	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 27+00	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
153	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 27+00	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
154	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 27+50	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
155	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 27+50	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
156	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 28+00	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
157	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 28+00	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb

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158		12/15/20	81840	B	CL-CH	20.8	99.9	22.2	97.3	118.9	8	97	95 / 103	-2 / 2	A
159		12/15/20	81840	B	CL-CH	20.8	99.9	21.8	100.4	122.3	8	101	95 / 103	-2 / 2	A
160		12/15/20	81840	B	CL-CH	20.8	99.9	21.4	96.8	117.5	8	97	95 / 103	-2 / 2	A
161		12/15/20	81840	B	CL-CH	20.8	99.9	22.2	97.2	118.8	8	97	95 / 103	-2 / 2	A
162		12/15/20	81841	B	CH	23.3	93.2	25.0	96.1	120.1	8	103	95 / 103	-2 / 2	A
163		12/15/20	81841	B	CH	23.3	93.2	24.0	95.0	117.8	8	102	95 / 103	-2 / 2	A
164		12/15/20	81841	B	CH	23.3	93.2	24.1	95.6	118.6	8	103	95 / 103	-2 / 2	A
165		12/15/20	81841	B	CH	23.3	93.2	24.7	94.5	117.8	8	101	95 / 103	-2 / 2	A

## Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
158	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 28+50	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
159	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 28+50	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
160	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 29+00	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
161	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 29+00	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
162	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 29+50	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
163	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 29+50	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
164	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 30+00	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
165	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 30+00	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb

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



# Compaction Test Report

Report #: SNG-000004  
 Test Method: D6938 / T310

Client:  
 Hunt Midwest  
 8300 NE Underground Dr STE 100  
 Kansas City, MO 64161-9736

Project:  
 020-3102  
 Hunt Midwest Hook Farms First Plat  
 Lee's Summit, MO

Olathe  
 1700 East 123rd Street  
 Olathe,  
 Phone: 913-829-0078 | Fax: 913-829-0258

## 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/Max Comp. (%)	Optimum Moisture Tolerance (%)	Remark
166		12/15/20	81841	B	CH	23.3	93.2	25.2	91.8	114.9	8	98	95 / 103	-2 / 2	A
167		12/15/20	81841	B	CH	23.3	93.2	25.0	95.7	119.6	8	103	95 / 103	-2 / 2	A
168		12/15/20	81841	B	CH	23.3	93.2	24.5	95.9	119.4	8	103	95 / 103	-2 / 2	A
169		12/15/20	81841	B	CH	23.3	93.2	22.6	94.8	116.2	8	102	95 / 103	-2 / 2	A
170		12/15/20	81841	B	CH	23.3	93.2	24.1	94.2	116.9	8	101	95 / 103	-2 / 2	A
171		12/15/20	81841	B	CH	23.3	93.2	23.7	95.4	118.0	8	102	95 / 103	-2 / 2	A
185		12/16/20	81840	B	CL-CH	20.8	99.9	22.8	97.4	119.6	8	97	95 / 103	-2 / 2	A
186		12/16/20	81840	B	CL-CH	20.8	99.9	20.8	98.4	118.9	8	98	95 / 103	-2 / 2	A

## Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
166	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 30+50	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
167	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 30+50	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
168	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 31+00	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
169	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 31+00	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
170	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 31+50	-1.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
171	Utility Trench Backfill - Sanitary Sewer: Sanitary sewer line 1 STA 31+50	0.0	Grade	Instrotek / Explorer 3500 / 3282 / 9/13/2017	Armstrong, Caleb
185	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 32+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
186	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 32+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

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





# Compaction Test Report

Report #: SNG-000004  
 Test Method: D6938 / T310

Client:  
 Hunt Midwest  
 8300 NE Underground Dr STE 100  
 Kansas City, MO 64161-9736

Project:  
 020-3102  
 Hunt Midwest Hook Farms First Plat  
 Lee's Summit, MO

Olathe  
 1700 East 123rd Street  
 Olathe,  
 Phone: 913-829-0078 | Fax: 913-829-0258

## 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/Max Comp. (%)	Optimum Moisture Tolerance (%)	Remark
187		12/16/20	81840	B	CL-CH	20.8	99.9	22.0	97.8	119.3	8	98	95 / 103	-2 / 2	A
188		12/16/20	81840	B	CL-CH	20.8	99.9	21.8	99.5	121.2	8	100	95 / 103	-2 / 2	A
189		12/16/20	81840	B	CL-CH	20.8	99.9	22.2	95.6	116.8	8	96	95 / 103	-2 / 2	A
190		12/16/20	81840	B	CL-CH	20.8	99.9	19.5	98.1	117.2	8	98	95 / 103	-2 / 2	A
191		12/16/20	81840	B	CL-CH	20.8	99.9	22.5	97.1	118.9	8	97	95 / 103	-2 / 2	A
192		12/16/20	81840	B	CL-CH	20.8	99.9	22.2	98.4	120.2	8	98	95 / 103	-2 / 2	A
193		12/16/20	81840	B	CL-CH	20.8	99.9	20.8	99.7	120.4	8	100	95 / 103	-2 / 2	A
194		12/16/20	81840	B	CL-CH	20.8	99.9	21.8	97.2	118.4	8	97	95 / 103	-2 / 2	A

## Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
187	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 32+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
188	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 32+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
189	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 33+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
190	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 33+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
191	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 33+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
192	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 33+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
193	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 34+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
194	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 34+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

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



# Compaction Test Report

Report #: SNG-000004  
 Test Method: D6938 / T310

Client:  
 Hunt Midwest  
 8300 NE Underground Dr STE 100  
 Kansas City, MO 64161-9736

Project:  
 020-3102  
 Hunt Midwest Hook Farms First Plat  
 Lee's Summit, MO

Olathe  
 1700 East 123rd Street  
 Olathe,  
 Phone: 913-829-0078 | Fax: 913-829-0258

## 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/Max Comp. (%)	Optimum Moisture Tolerance (%)	Remark
195		12/16/20	81840	B	CL-CH	20.8	99.9	22.4	97.2	119.0	8	97	95 / 103	-2 / 2	A
196		12/16/20	81840	B	CL-CH	20.8	99.9	20.5	97.7	117.7	8	98	95 / 103	-2 / 2	A
197		12/16/20	81840	B	CL-CH	20.8	99.9	22.2	97.2	118.8	8	97	95 / 103	-2 / 2	A
198		12/16/20	81840	B	CL-CH	20.8	99.9	21.7	96.1	117.0	8	96	95 / 103	-2 / 2	A
216		12/17/20	81841	B	CH	23.3	93.2	21.9	93.9	114.5	8	101	95 / 103	-2 / 2	A
217		12/17/20	81841	B	CH	23.3	93.2	22.5	94.3	115.5	8	101	95 / 103	-2 / 2	A
218		12/17/20	81841	B	CH	23.3	93.2	24.8	96.3	120.2	8	103	95 / 103	-2 / 2	A
219		12/17/20	81841	B	CH	23.3	93.2	21.7	95.3	116.0	8	102	95 / 103	-2 / 2	A

## Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
195	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 34+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
196	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 34+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
197	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 35+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
198	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 35+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
216	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 35+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
217	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 35+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
218	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 36+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
219	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 36+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

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



# Compaction Test Report

Client:

Report #: SNG-000004  
 Test Method: D6938 / T310

Hunt Midwest  
 8300 NE Underground Dr STE 100  
 Kansas City, MO 64161-9736

Project:

020-3102  
 Hunt Midwest Hook Farms First Plat  
 Lee's Summit, MO

Olathe  
 1700 East 123rd Street  
 Olathe,  
 Phone: 913-829-0078 | Fax: 913-829-0258

## 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/Max Comp. (%)	Optimum Moisture Tolerance (%)	Remark
220		12/17/20	81841	B	CH	23.3	93.2	21.8	93.1	113.4	8	100	95 / 103	-2 / 2	A
221		12/17/20	81841	B	CH	23.3	93.2	22.4	96.1	117.6	8	103	95 / 103	-2 / 2	A
222		12/17/20	81841	B	CH	23.3	93.2	23.7	90.6	112.1	8	97	95 / 103	-2 / 2	A
223		12/17/20	81841	B	CH	23.3	93.2	23.7	95.6	118.3	8	103	95 / 103	-2 / 2	A
224		12/17/20	81841	B	CH	23.3	93.2	22.9	95.6	117.5	8	103	95 / 103	-2 / 2	A
225		12/17/20	81841	B	CH	23.3	93.2	23.6	95.6	118.2	8	103	95 / 103	-2 / 2	A
226		12/17/20	81841	B	CH	23.3	93.2	22.6	95.9	117.6	8	103	95 / 103	-2 / 2	A
227		12/17/20	81841	B	CH	23.3	93.2	22.9	94.4	116.0	8	101	95 / 103	-2 / 2	A

## Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
220	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 36+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
221	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 36+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
222	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 37+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
223	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 37+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
224	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 37+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
225	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 37+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
226	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 38+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
227	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 38+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

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



# Compaction Test Report

Report #: SNG-000004  
 Test Method: D6938 / T310

Client:  
 Hunt Midwest  
 8300 NE Underground Dr STE 100  
 Kansas City, MO 64161-9736

Project:  
 020-3102  
 Hunt Midwest Hook Farms First Plat  
 Lee's Summit, MO

Olathe  
 1700 East 123rd Street  
 Olathe,  
 Phone: 913-829-0078 | Fax: 913-829-0258

## 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/Max Comp. (%)	Optimum Moisture Tolerance (%)	Remark
318		12/22/20	81841	B	CH	23.3	93.2	25.0	95.7	119.6	8	103	95 / 103	-2 / 2	A
319		12/22/20	81841	B	CH	23.3	93.2	23.7	93.2	115.3	8	100	95 / 103	-2 / 2	A
320		12/22/20	81841	B	CH	23.3	93.2	24.6	95.7	119.2	8	103	95 / 103	-2 / 2	A
321		12/22/20	81841	B	CH	23.3	93.2	22.0	95.6	116.6	8	103	95 / 103	-2 / 2	A
322		12/22/20	81841	B	CH	23.3	93.2	23.7	95.6	118.3	8	103	95 / 103	-2 / 2	A
323		12/28/20	81841	B	CH	23.3	93.2	23.2	94.7	116.7	8	102	95 / 103	-2 / 2	A
324		12/28/20	81841	B	CH	23.3	93.2	22.6	94.1	115.4	8	101	95 / 103	-2 / 2	A
325		12/28/20	81841	B	CH	23.3	93.2	24.0	93.6	116.1	8	100	95 / 103	-2 / 2	A

## Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
318	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 38+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
319	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 39+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
320	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 39+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
321	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 39+50	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
322	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 39+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
323	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 38+50	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
324	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 40+00	-1.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb
325	Utility Trench Backfill - Sanitary Sewer: Sanitary Sewer Line 1 STA 40+00	0.0	Grade	InstroTek, Inc. / 3500 / 3008 / 9/9/2016	Armstrong, Caleb

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

Stewart Legg  
 Project Manager