APPENDIX D

Boring Logs

				BORING LOG		
Project:	FY21 Sewer	r PS Rehab (Clapboa	rdtree St)			
Location:	Town of We	estwood, MA			Bori	ng No: B-1
Client:	Town of We				Location: Clapboardtree St PS	J
Driller:	Soil X					93.1
Drilling Metho		uger				85.1
Weather:	50F Cloudy	agoi			Date/Time of Groundwater Elevation: 4/1	
Performed By	•	Date:	4/15/2021		Datum: NAVD88	0/2021
Checked By:	, vol	Date:	4/10/2021	Boring Locus Map	Project No. R309-2008	
Onconca By.		Dutc.		Borning Locus Wasp	1 10jest 148. 11803-2000	
Depth (feet)	Sample No.	Blows per 6-inch	Rec./ Pen.	Soil Description	Stratum Change	Note No.
1 2	1	3-9-6-9	16/24"	0-16" Brown, silty SAND, little gravel		
3						
4					SAND	
5						
6	2	16-17-11-28	7/24"	0-7" Brown, fine SAND and silt, some		
7		10-17-11-20	1124	gravel		
7						
8						1
9						
J						
10						
11	3	81-77 for 1"	16/24"	0-16" Gray, fine sandy SILT and gravel		
12		01-77 101 1	10/24	0-10 Gray, lifte saridy SIL1 and graver		
12						
13						
14					SILT	
15						
16	4	28-88-60-81	8/24"	O O'' Crow fine CII T and cond		
47	4	20-00-00-01	0/24	0-8" Gray, fine SILT and sand		
17						
18						
19						
20						
NOTES:	1		1	LEGEND		
1. Approxima	te water table	<u>.</u>		S - Split Spoon Sample	O/A - Sample Collected Off the Augers	
,	Hatol table	-		UT - Undisturbed Tube Sample	C Garripio Golicolog Ori trie Augers	
				Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%	
				Little - Approximately 10 to 20%	And - Approximately 35 to 50%	
				0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense	
	Concrete	with protective steel o	asing	10-30 Coarse Soil N Value - Medium Dense		
		with protective steer c atural backfill	asing	10-30 Coarse Soil N Value - Medium Dense 0-4 Fine Soil N Value - Soft	>50 Coarse Soil N Value - Very Dense 8-15 Fine Soil N Value - Stiff	>30 Fine Soil N Value - H
	10-slot PV					~30 Fine Soll N Value - H
	10-3101 77	O OCIECII		4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff	

				BORING LOG	<u> </u>	
Project:	FY21 Sew	er PS Rehab (Clapboar	dtree St)			
Location:	Town of W	estwood, MA			Boring	No: B-1
Client:	Town of W	estwood			Location: Clapboardtree St PS	
Driller:	Soil X				Approx. Ground Elevation: 193.	1
Drilling Metho	ds:	Auger			Approx. Groundwater Elevation: N/A	
Weather:	50F Cloud	y			Date/Time of Groundwater Elevation: 4/15/20)21
Performed By	erformed By VSL Date: 4/15/202				Datum: NAVD88	
Checked By:	-			Boring Locus Map	Project No. R309-2008	
Depth (feet)	Sample No.	Blows per 6-inch	Rec./ Pen.	Soil Description	Stratum Change	Note No.
21	5	63-25-26-75 for 4"	24/24"	0-24" Gray, SILT and gravel		
22						
23						
					SILT	
24						
25						
26		400 5 00	0/0.48	0.011.0		
	6	100 for 2"	6/24"	0-6" Gray, SILT and gravel		
27				REFUSAL AT 26 FT BGS		
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
NOTES:				<u>LEGEND</u>		
1. No ground	water encol	ınterea		S - Split Spoon Sample	O/A - Sample Collected Off the Augers	
				UT - Undisturbed Tube Sample	O Ainstable 00 to 25%	
				Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%	
				Little - Approximately 10 to 20%	And - Approximately 35 to 50%	
	Concrete	e with protective steel c	asing	0-10 Coarse Soil N Value - Loose 10-30 Coarse Soil N Value - Medium Dense	30-50 Coarse Soil N Value - Dense >50 Coarse Soil N Value - Very Dense	
		natural backfill	9	0-4 Fine Soil N Value - Soft		Fine Soil N Value - I
	•	VC Screen		4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Stiff	Ooii N Value - I
					· · · · · · · · · · · · · · · · · · ·	

				BORING LOG		
Location: T Client: T Driller: S Drilling Methods Weather: 4	cation: Town of Westwood, MA ent: Town of Westwood Iler: Soil X Iling Methods: Auger eather: 40F Rain rformed By VSL Date: 4/16/2021		Boring Locus Map	Boring No: B-2 Location: Clapboardtree St PS Approx. Ground Elevation: 196.7 Approx. Groundwater Elevation: N/A Date/Time of Groundwater Elevation: N/A Datum: NAVD88 Project No. R309-2008		
Depth (feet)	Sample No.	Blows per 6-inch	Rec./ Pen.	Soil Description	Stratum Change	Note No.
_ 1 _ 2	1	16-13-10-8	10/24"	0-10" Light brown, fine silty SAND, some gravel		
3 - 4 - 5					SAND	
	2	4-8-8-13	12/24"	0-12" Brown, fine silty SAND and gravel		
				REFUSAL AT 9 FT BGS		
11 12						
13 14 15						
16 17						
18 19						
20 <u>NOTES:</u> 1. No groundwa	ater encou	ntered		LEGEND S - Split Spoon Sample	O/A - Sample Collected Off the Augers	
		e with protective steel ca	asing	UT - Undisturbed Tube Sample Trace - Approximately 0 to 10% Little - Approximately 10 to 20% 0-10 Coarse Soil N Value - Loose 10-30 Coarse Soil N Value - Medium Dense 0-4 Fine Soil N Value - Soft	Some - Approximately 20 to 35% And - Approximately 35 to 50% 30-50 Coarse Soil N Value - Dense >50 Coarse Soil N Value - Very Dense 8-15 Fine Soil N Value - Stiff >30 Fine	Soil N Value - Hard
ENVIRONMENTA		VC Screen		4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff	Page 1 of 1

Project:	FY21 Sewe	er PS Rehab (Clapboa	rdtree St)			
Location:	Town of W	estwood, MA			Bori	ng No: B-3
Client:	Town of W	estwood			Location: Clapboardtree St PS	
Oriller:	Soil X					00.7
Orilling Metho	ods:	Auger				93.7
Neather:	40F Rain	Ü			Date/Time of Groundwater Elevation: 4/1	
Performed B		Date:	4/16/2021		Datum: NAVD88	
Checked By:		Date:		Boring Locus Map	Project No. R309-2008	
				Boiling Boods map	1	
Depth (feet)	Sample No.	Blows per 6-inch	Rec./ Pen.	Soil Description	Stratum Change	Note No.
1	1	13-26-26-19	15/24"	0-15" Light brown, fine SAND and gravel,		1
0	'	13-20-20-19	15/24	some silt		
2						
3						
4					SAND	
4						
5						
6		40 60 50 f 0"	0/04"	0.45" Drown eith CAND		
	2	10-62-50 for 3"	9/24"	0-15" Brown, silty SAND, some gravel		
7				REFUSAL AT 7 FT BGS		2
8						
9						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20				LECEND		
VOTES:	at curfoss			LEGEND	O/A Correcto College (10%)	
l. 3" Asphalt	at suriace			S - Split Spoon Sample	O/A - Sample Collected Off the Augers	
2. Wet				UT - Undisturbed Tube Sample	Comp. Approximately 20 to 25%	
				Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%	
				Little - Approximately 10 to 20%	And - Approximately 35 to 50%	
	Concrete	with protective steel s	easing	0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense	
		with protective steel on the steel of the st	asing	10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense	>20 Fine Call N17-1: 1
	1			0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff	>30 Fine Soil N Value - I
	∃ IU-SIOt P	VC Screen		4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff	
	TAL PARTI					

BORING LOG

				ı		
Project:	FY21 Sewe	er PS Rehab (Clapboa	rdtree St)			
Location:	Town of W	estwood, MA			Boring No	: B-4
Client:	Town of W	estwood			Location: Clapboardtree St PS	
Driller:	Soil X				Approx. Ground Elevation: 201.3	
Drilling Metho	ods:	Auger			Approx. Groundwater Elevation: N/A	
Weather:	40F Rain	· ·-·g -·			Date/Time of Groundwater Elevation: N/A	
Performed B		Date:	4/16/2021		Datum: NAVD88	
Checked By:		Date:		Boring Locus Map	Project No. R309-2008	
Checked by.	1 1	Date.	l	Borning Locus Map	Fidjectivo. 1309-2000	
Depth (feet)	Sample No.	Blows per 6-inch	Rec./ Pen.	Soil Description	Stratum Change	Note No.
1	1	2-3-5-12	12/24"	0-12" Brown sandy SILT, some gravel	SILT	
2						
3						
4						
5						+
6	2	13-19-20-27	14/24"	0-14" Brown fine SAND and gravel	SAND	
7				_		
8						
9				AUGER REFUSAL AT 9 FT BGS		
10				AUGENTEI USAE AI 31 1 BUS		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20				LEGEND		
NOTES:	hunter -	untarad		LEGEND		
1. No ground	water encou	ınterea		S - Split Spoon Sample	O/A - Sample Collected Off the Augers	
				UT - Undisturbed Tube Sample		
				Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%	
				Little - Approximately 10 to 20%	And - Approximately 35 to 50%	
				0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense	
	Concrete	with protective steel of	asing	10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense	
	Sand or ı	natural backfill		0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff >30 Fine	e Soil N Value - H
	10-slot P	VC Screen		4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff	
n //D 0 > 12 * E : :	TAL 5:55	IEDO				D ,
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BORING LOG

				BORING LOG		
Project:	FY21 Sewe	er PS Rehab (Clapboa	rdtree St)			
Location:		estwood, MA	,		Boring	No: B-5
Client:	Town of W				Location: Clapboardtree St PS	
Driller:	Soil X	oomood			Approx. Ground Elevation: 204	8
Drilling Metho		Auger			Approx. Groundwater Elevation: 191	
Weather:	40F Rain	lagor			Date/Time of Groundwater Elevation: 4/16/2	
Performed By		Date:	4/16/2021		Datum: NAVD88	.021
Checked By:		Date:	4/10/2021	Boring Locus Map	Project No. R309-2008	
Officered By.		Date.		Doning Locus Map	110,000110. 11000-2000	
Depth (feet)	Sample No.	Blows per 6-inch	Rec./ Pen.	Soil Description	Stratum Change	Note No.
_						1
_ 1	1	4-5-6-8	16/24"	0-16" Brown fine sandy SILT and gravel		
2						
- ,						
_ 3						
4						
<u> </u>						
_						
6	2	19-35-34-37	20/24"	0-20" Brown, SILT and gravel		
7				, 5	SILT	
					<u>5.2</u> .	
_ 8						
9						
10						
11	3	32-49-35-23	12/24"	0-12" Brown, SILT and gravel		
12						
13	4	100 for 4"	6/24"	0-6" Brown, SILT and gravel		2
14				REFUSAL AT 13 FT BGS		
15						
- -						
16						
17						
- 40						
_ 18						
19						
20						
NOTES:	<u> </u>			LEGEND		
1. 3" Asphalt	at surface			S - Split Spoon Sample	O/A - Sample Collected Off the Augers	
2. Wet				UT - Undisturbed Tube Sample	-	
				Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%	
				Little - Approximately 10 to 20%	And - Approximately 35 to 50%	
				0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense	
	Concrete	with protective steel c	asing	10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense	
		natural backfill	5	0-4 Fine Soil N Value - Soft) Fine Soil N Value - Hard
		VC Screen		4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff	Tando Tient
	-!			·	·	
NVIRONMEN	TAL PARTN	IERS				Page 1 of

				BORING LOG		
Project: FY21 Sewer PS Rehab (Clapboardtree St) Location: Town of Westwood, MA Client: Town of Westwood Driller: Soil X Drilling Methods: Auger Weather: 40F Rain Performed By VSL Date: 4/16/2021 Checked By: Date: 4/16/2021				Boring Locus Map	Location: Clapboardtree St PS Approx. Ground Elevation: 2	ng No: B-6 04.6 94.1 6/2021
Depth (feet)	Sample No.	Blows per 6-inch	Rec./ Pen.	Soil Description	Stratum Change	Note No.
_ _ 1 _ 2	1	3-3-3-3	18/24"	0-18" Brown fine SAND and silt		
3 4 5					SAND	
- 6 - 7	2	5-12-18-15	19/24"	0-19" Brown, fine SAND and silt, some gravel		
- 8 - 9 - 10						
11	3	21-28-28-50 for 5"	19/24"	0-19" Brown and gray SILT, some gravel		1
13 14 15					SILT	
16	4	12-23-38-29	15/24"	0-15" Brown fine sandy SILT and gravel, rock fragments		
18 - 19 - 20						
NOTES:	1			LEGEND S - Split Spoon Sample UT - Undisturbed Tube Sample	O/A - Sample Collected Off the Augers	•
				Trace - Approximately 0 to 10% Little - Approximately 10 to 20% 0-10 Coarse Soil N Value - Loose	Some - Approximately 20 to 35% And - Approximately 35 to 50% 30-50 Coarse Soil N Value - Dense	
	Sand or	e with protective steel c natural backfill VVC Screen	asing	10-30 Coarse Soil N Value - Medium Dense 0-4 Fine Soil N Value - Soft 4-8 Fine Soil N Value - Medium Stiff	>50 Coarse Soil N Value - Very Dense 8-15 Fine Soil N Value - Stiff 15-30 Fine Soil N Value - Very Stiff	>30 Fine Soil N Value - Hard
ENVIRONMENT	TAL PARTI	NERS				Page 1 of 1

Loca	ation:	Town of W	estwood, MA			Ro	ring No: B-7
Clier		Town of W				Location: Clapboardtree St PS	
Drille		Soil X					205.4
	er. ing Metho		Auger				189.9
		us. 40F Rain	, wyoi			Date/Time of Groundwater Elevation: 4/	
	ormed By		Date:	4/16/2021		Datum: NAVD88	10/2021
	cked By:	VOL	Date:	4/10/2021	Boring Locus Map	Project No. R309-2008	
CHE	скей бу.		Date.		Boring Locus Map	Fidject No. R309-2006	
	Depth (feet)	Sample No.	Blows per 6-inch	Rec./ Pen.	Soil Description	Stratum Change	Note No.
- -	1 2	1	5-3-6-11	9/24"	0-9" Brown SILT and gravel		1
_							
-	3						
_	4						
_	5						
- -	6	2	20-31-41-54	15/24"	0-15" Gray, fine sandy SILT and gravel		
-	7 8						
-	9					SILT	
-	10						
	11	3	13-25-31-42	17/24"	0-17" Brown, SILT and gravel		
	12	3	10-23-31-42	17/24	0-17 blown, Sier and graver		
-	13						
_	14						
-	15						
	16	4	16-45-44-52	22/24"	0-22" Brown and gray, SILT and gravel		2
	17				3 %		
-	18						
- -	19						
-	20						
<u>NOT</u>					LEGEND		
		at surface			S - Split Spoon Sample	O/A - Sample Collected Off the Augers	
2. W	/et				UT - Undisturbed Tube Sample		
					Trace - Approximately 0 to 10%	Some - Approximately 20 to 35%	
					Little - Approximately 10 to 20%	And - Approximately 35 to 50%	
					0-10 Coarse Soil N Value - Loose	30-50 Coarse Soil N Value - Dense	
		Concrete	e with protective steel c	asing	10-30 Coarse Soil N Value - Medium Dense	>50 Coarse Soil N Value - Very Dense	
		Sand or	natural backfill		0-4 Fine Soil N Value - Soft	8-15 Fine Soil N Value - Stiff	>30 Fine Soil N Value - Ha
		10-slot P	VC Screen		4-8 Fine Soil N Value - Medium Stiff	15-30 Fine Soil N Value - Very Stiff	
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BORING LOG

Project:

FY21 Sewer PS Rehab (Clapboardtree St)