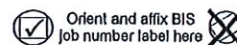




TR5: Technical Report Pile Driving

Must be typewritten.



Sheet number 1 of 5 sheets

1 Location Information Required for all applications.

House No(s) 219-10

Street Name NORTHERN BOULEVARD

Borough Queens

Block 7570

Lot 1

BIN 4618448

CB No. 411

2 Applicant Information Required for all applications.

Last Name Lievano

First Name Eduardo

Middle Initial A

Business Name Tectonic Engineering Consultants, Geologists & Land S Business Telephone 718 391 9200

Business Address 24-37 46th Street, 10th Floor, Ste 1000

Business Fax 718 391 0607

City Astoria

State NY

Zip 11103

Mobile Telephone

E-Mail elievano@tectonicengineering.com

License Number 090876

☒ P.E. ☐ R.A.

3 Pile Driving Contractor Required for all applications.

Last Name Dejana

First Name Vincent

Middle Initial

Business Name Soil Solutions, Inc.

Business Telephone (516)292-6000

Business Address 110 Cherry Valley Avenue

Business Fax (516)292-6090

City W. Hempstea

State NY

Zip 11552

Mobile Telephone

4 Pile Information Required for all applications.

Type 12.75" x .375

Material Steel Pipe

Load Capacity 45

tons

5 Hammer Information Required for all applications.

Make HHK

Model Number 7 A

Energy 18,400 ft/lb

6 Statements and Signatures Required for all applications.

I hereby state that the above information is correct and complete to the best of my knowledge and that the above tests were performed in accordance with all Administrative Code Provisions and Departmental Rules, Regulations and Directives.

Falsification of any statement is a misdemeanor and is punishable by a fine or imprisonment, or both.

It is unlawful to give to a city employee, or for a city employee to accept, any benefit, monetary or otherwise, either as a gratuity for properly performing the job or in exchange for special consideration. Violation is punishable by imprisonment or fine or both.

Name (please print)

Eduardo A. Lievano

Signature

Date

04-01-2022



P.E. / R.A. Seal (apply seal, then sign and date over seal)

Approvals - Internal Use Only

Examined and Recommended for Approval		Approved	
Examiner Name		Borough Commissioner Signature	Date
Signature	Date		

7 Test Report

Column Number	Pile Number	Diameters:		Inches		Elevations:		Pile Length from Tip to Cutoff	Assumed Elevation Good Bearing Material	Average Net Penetration for Last Five Blows (Inches/Blow)	Calculated Bearing Capacity (Tons)	Deviated from Designed Location (N or S, E or W)	Variation from Plumb
		Tip	Cutoff	2/3 up from Tip	Tip	Feet	Cutoff						
N/A	100	12.75"	12.75"	12.75"	12.75"	-75.5	6.73	82.23	-70	0.667	41.1	0.14°N-0.10°W	Within tolerance
N/A	101	12.75"	12.75"	12.75"	12.75"	-79.5	6.73	86.23	-70	1.000	39.0	0.07°N-0.12°W	Within tolerance
N/A	102	12.75"	12.75"	12.75"	12.75"	-79.5	6.73	86.23	-70	1.000	39.0	0.07°S-0.06°E	Within tolerance
N/A	103	12.75"	12.75"	12.75"	12.75"	-85.5	6.73	92.23	-70	1.000	39.0	0.52°S-0.07°W	Within tolerance
N/A	104	12.75"	12.75"	12.75"	12.75"	-81.5	6.73	88.23	-70	0.857	39.6	0.05°N-0.02°W	Within tolerance
N/A	105	12.75"	12.75"	12.75"	12.75"	-78.5	6.73	85.23	-70	1.000	39.0	0.10°N-0.03°E	Within tolerance
N/A	106	12.75"	12.75"	12.75"	12.75"	-78.5	6.73	85.23	-70	1.000	39.0	0.07°S-0.02°E	Within tolerance
N/A	107	12.75"	12.75"	12.75"	12.75"	-78.5	6.73	85.23	-70	0.857	39.6	0.33°S-0.25°E	Within tolerance
A-14	108	12.75"	12.75"	12.75"	12.75"	-82.5	4.23	86.73	-70	1.000	39.0	0.07°N-0.25°W	Within tolerance
A-14	109	12.75"	12.75"	12.75"	12.75"	-78.5	4.23	82.73	-70	0.750	40.4	0.23°S-0.21°W	Within tolerance
A-13	110	12.75"	12.75"	12.75"	12.75"	-81.5	5.50	87.00	-70	1.000	39.0	0.08°N-0.25°W	Within tolerance
A-13	111	12.75"	12.75"	12.75"	12.75"	-81.5	5.50	87.00	-70	0.857	39.6	0.05°N-0.08°E	Within tolerance
A-12	112	12.75"	12.75"	12.75"	12.75"	-78.5	5.50	84.00	-70	0.600	41.9	0.05°N-0.01°W	Within tolerance
A-12	113	12.75"	12.75"	12.75"	12.75"	-80.5	5.50	86.00	-70	0.923	39.3	0.08°N-0.26°W	Within tolerance
A-11	114	12.75"	12.75"	12.75"	12.75"	-79.5	5.50	85.00	-70	1.000	39.0	0.18°S-0.11°W	Within tolerance
A-11	115	12.75"	12.75"	12.75"	12.75"	-78.5	5.50	84.00	-70	1.000	39.0	0.09°N-0.13°E	Within tolerance
A-10	116	12.75"	12.75"	12.75"	12.75"	-78.5	5.50	84.00	-70	0.750	40.4	0.14°N-0.17°W	Within tolerance
A-10	117	12.75"	12.75"	12.75"	12.75"	-78.5	5.50	84.00	-70	1.000	39.0	0.20°N-0.08°W	Within tolerance
A-9	118	12.75"	12.75"	12.75"	12.75"	-78.5	5.50	84.00	-70	0.750	40.4	0.10°S-0.31°W	Within tolerance
A-9	119	12.75"	12.75"	12.75"	12.75"	-78.5	5.50	84.00	-70	0.667	41.1	0.09°N-0.04°W	Within tolerance
A-8	120	12.75"	12.75"	12.75"	12.75"	-83.5	5.50	89.00	-70	1.000	39.0	0.04°S-0.18°W	Within tolerance
A-8	121	12.75"	12.75"	12.75"	12.75"	-84.5	5.50	90.00	-70	1.000	39.0	0.39°N-0.21°W	Within tolerance
A-7	122	12.75"	12.75"	12.75"	12.75"	-77.7	5.50	83.20	-70	1.000	39.0	0.36°S-0.02°E	Within tolerance
A-7	123	12.75"	12.75"	12.75"	12.75"	-75.5	5.50	81.00	-70	0.667	41.1	0.17°S-0.02°E	Within tolerance
A-6	124	12.75"	12.75"	12.75"	12.75"	-75.5	8.00	83.50	-70	1.000	39.0	0.21°S-0.22°W	Within tolerance
A-5	125	12.75"	12.75"	12.75"	12.75"	-77.5	8.00	85.50	-70	1.000	39.0	0.34°S-0.07°E	Within tolerance
A-4	126	12.75"	12.75"	12.75"	12.75"	-80.5	8.00	88.50	-70	0.857	39.6	0.18°N-0.06°W	Within tolerance
A-3	127	12.75"	12.75"	12.75"	12.75"	-80.5	8.00	88.50	-70	1.000	39.0	0.15°N-0.20°E	Within tolerance
A-2	128	12.75"	12.75"	12.75"	12.75"	-87.5	8.00	95.50	-70	0.923	39.3	0.41°N-0.12°E	Within tolerance
A-1	129	12.75"	12.75"	12.75"	12.75"	-78.5	8.00	86.50	-70	0.667	41.1	0.04°N-0.08°W	Within tolerance

8 Remarks

Deviated from designated location piles data was provided by the approved as noted by Silman on 06-15-2020 pile deviation report of Soil Solutions, Inc. (remediation for piles 101 and 118 required as per field reports on 06-23-2020 and 08-21-2020)
Cutoff elevation data was provided by Soil Solutions, Inc. drawing Pile Location Plan reviewed by Silman on 10-22-2019. Variation from plumb inspected on 04-08-2020



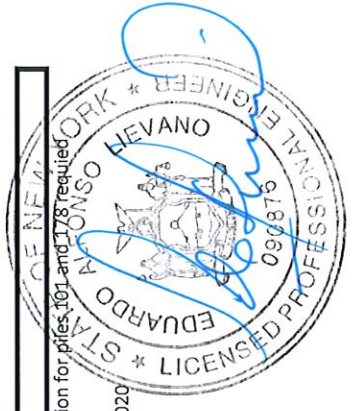
7 Test Report

Column Number	Pile Number	Diameters:		Inches		Elevations:		Pile Length from Tip to Cutoff	Assumed Elevation Good Bearing Material	Average Net Penetration for Last Five Blows (Inches/Blow)	Calculated Bearing Capacity (Tons)	Deviated from Designed Location (N or S, E or W)	Variation from Plumb
		Tip	Cutoff	Tip	Cutoff	Tip	Cutoff						
N/A	130	12.75"	12.75"	12.75"	12.75"	-74.5	4.50	79.00	-70	0.632	41.5	0.29°N-0.06°E	Within tolerance
N/A	131	12.75"	12.75"	12.75"	12.75"	-78.5	4.50	83.00	-70	0.667	41.1	0.08°N-0.08°W	Within tolerance
N/A	132	12.75"	12.75"	12.75"	12.75"	-76.5	4.50	81.00	-70	0.600	41.9	0.13°S-0.15°W	Within tolerance
B-1	133	12.75"	12.75"	12.75"	12.75"	-74.5	5.00	79.50	-70	0.667	41.1	0.03°N-0.13°W	Within tolerance
B-1	134	12.75"	12.75"	12.75"	12.75"	-74.5	5.00	79.50	-70	0.667	41.1	0.23°N-0.16°W	Within tolerance
B-2	135	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	0.923	39.3	0.24°N-0.06°E	Within tolerance
B-2	136	12.75"	12.75"	12.75"	12.75"	-74.5	5.00	79.50	-70	0.857	39.6	0.22°N-0.03°W	Within tolerance
B-2	137	12.75"	12.75"	12.75"	12.75"	-74.5	5.00	79.50	-70	0.750	40.4	0.03°S-0.17°E	Within tolerance
B-3	138	12.75"	12.75"	12.75"	12.75"	-75.5	5.00	80.50	-70	0.923	39.3	0.03°S-0.04°E	Within tolerance
B-3	139	12.75"	12.75"	12.75"	12.75"	-76.5	5.00	81.5	-70	1.000	39.0	0.07°N-0.41°W	Within tolerance
B-3	140	12.75"	12.75"	12.75"	12.75"	-75.5	5.00	80.50	-70	0.857	39.6	0.17°S-0.04°E	Within tolerance
B-4	141	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	1.000	39.0	0.09°N-0.11°W	Within tolerance
B-4	142	12.75"	12.75"	12.75"	12.75"	-88.5	5.00	93.50	-70	1.000	39.0	0.15°S-0.26°W	Within tolerance
B-4	143	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	1.000	39.0	0.32°S-0.09°W	Within tolerance
B-5	144	12.75"	12.75"	12.75"	12.75"	-81.5	5.00	86.50	-70	1.000	39.0	0.29°N-0.03°E	Within tolerance
B-5	145	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	1.000	39.0	0.08°S-0.28°E	Within tolerance
B-5	146	12.75"	12.75"	12.75"	12.75"	-76.5	5.00	81.50	-70	1.000	39.0	0.02°N-0.01°E	Within tolerance
B-6	147	12.75"	12.75"	12.75"	12.75"	-94.5	5.00	99.50	-70	0.600	41.9	0.26°N-0.11°E	Within tolerance
B-6	148	12.75"	12.75"	12.75"	12.75"	-76.5	5.00	81.50	-70	0.632	41.5	0.13°S-0.04°E	Within tolerance
B-6	149	12.75"	12.75"	12.75"	12.75"	-76.5	5.00	81.50	-70	0.545	42.6	0.33°S-00	Within tolerance
B-7	150	12.75"	12.75"	12.75"	12.75"	-75.5	5.00	80.50	-70	1.000	39.0	0.15°N-0.61°W	Within tolerance
B-7	151	12.75"	12.75"	12.75"	12.75"	-74.5	5.00	79.50	-70	1.000	39.0	0.01°N-0.13°W	Within tolerance
B-7	152	12.75"	12.75"	12.75"	12.75"	-74.5	5.00	79.50	-70	0.857	39.6	0.35°N-0.21°E	Within tolerance
B-8	153	12.75"	12.75"	12.75"	12.75"	-87.5	5.00	92.50	-70	1.000	39.0	0.14°N-0.17°W	Within tolerance
B-8	154	12.75"	12.75"	12.75"	12.75"	-76.5	5.00	81.50	-70	0.857	39.6	0.08°S-0.02°E	Within tolerance
B-8	155	12.75"	12.75"	12.75"	12.75"	-86.5	5.00	91.50	-70	1.000	39.0	0.05°S-0.20°W	Within tolerance
B-9	156	12.75"	12.75"	12.75"	12.75"	-74.5	5.00	79.50	-70	0.571	42.2	0.02°N-0.02°E	Within tolerance
B-9	157	12.75"	12.75"	12.75"	12.75"	-75.5	5.00	80.50	-70	0.632	41.5	0.02°S-0.02°E	Within tolerance
B-9	158	12.75"	12.75"	12.75"	12.75"	-78.5	5.00	83.50	-70	0.800	40.0	0.06°S-0.17°E	Within tolerance
B-10	159	12.75"	12.75"	12.75"	12.75"	-78.5	5.00	83.50	-70	0.857	39.6	0.02°S-0.25°E	Within tolerance

8 Remarks

Deviated from designated location piles data was provided by the approved as noted by Silman on 06-15-2020 pile deviation report of Soil Solutions, Inc. (remediation for piles 101 and 178 required has been corrected as per field reports on 06-23-2020 and 08-21-2020)

Cutoff elevation data was provide by Soil Solutions, Inc. drawing Pile Location Plan reviewed by Silman on 10-22-2019. Variation from plumb inspected on 04-08-2020



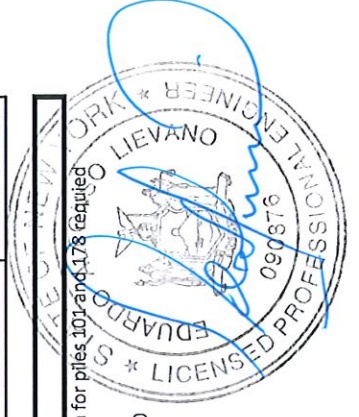
7 Test Report

Column Number	Pile Number	Diameters:		Inches		Elevations:		Pile Length from Tip to Cutoff	Assumed Elevation Good Bearing Material	Average Net Penetration for Last Five Blows (Inches/Blow)	Calculated Bearing Capacity (Tons)	Deviated from Designed Location (N or S, E or W)	Variation from Plumb
		Tip	Cutoff	2/3 up from Tip	Tip	Tip	Cutoff						
B-10	160	12.75"	12.75"	12.75"	12.75"	-76.5	5.00	81.50	-70	0.667	41.1	0.26°N-0.11°W	Within tolerance
B-10	161	12.75"	12.75"	12.75"	12.75"	-78.5	5.00	83.50	-70	1.000	39.0	0.04°S-0.34°E	Within tolerance
B-11	162	12.75"	12.75"	12.75"	12.75"	-77.5	5.00	82.50	-70	0.600	41.9	0.39°S-0.10°E	Within tolerance
B-11	163	12.75"	12.75"	12.75"	12.75"	-78.5	5.00	83.50	-70	0.667	41.1	0.18°N-0.15°E	Within tolerance
B-11	164	12.75"	12.75"	12.75"	12.75"	-82.5	5.00	87.50	-70	1.000	39.0	0.11°N-0.15°E	Within tolerance
B-12	165	12.75"	12.75"	12.75"	12.75"	-77.5	5.00	82.50	-70	0.667	41.1	0.08°S-0.05°W	Within tolerance
B-12	166	12.75"	12.75"	12.75"	12.75"	-78.5	5.00	83.50	-70	0.667	41.1	0.06°N-0.18°W	Within tolerance
B-12	167	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	0.857	39.6	0.07°S-0.10°E	Within tolerance
C-13	168	12.75"	12.75"	12.75"	12.75"	-80.5	5.00	85.50	-70	0.667	41.1	0.26°N-0.03°E	Within tolerance
C-13	169	12.75"	12.75"	12.75"	12.75"	-80.5	5.00	85.50	-70	0.750	40.4	0.09°S-0.12°E	Within tolerance
C-14	170	12.75"	12.75"	12.75"	12.75"	-77.5	5.00	82.50	-70	0.632	41.5	0.06°S-0.23°W	Within tolerance
C-14	171	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	0.632	41.5	0.13°S-0.12°W	Within tolerance
C-15	172	12.75"	12.75"	12.75"	12.75"	-81.5	5.00	86.50	-70	0.857	39.6	0.06°S-0.24°W	Within tolerance
C-15	173	12.75"	12.75"	12.75"	12.75"	-78.5	5.00	83.50	-70	0.857	39.6	0.04°S-0.20°E	Within tolerance
D-15	174	12.75"	12.75"	12.75"	12.75"	-77.5	5.00	82.50	-70	0.667	41.1	0.33°S-0.25°E	Within tolerance
D-15	175	12.75"	12.75"	12.75"	12.75"	-77.5	5.00	82.50	-70	0.667	41.1	0.17°S-0.05°E	Within tolerance
D-14	176	12.75"	12.75"	12.75"	12.75"	-76.5	5.00	81.50	-70	0.632	41.5	0.19°S-0.30°W	Within tolerance
D-14	177	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	0.750	40.4	0.20°S-0.18°W	Within tolerance
D-13	178	12.75"	12.75"	12.75"	12.75"	-80.5	5.00	85.50	-70	1.000	39.0	0.17°S-0.56°E	Within tolerance
D-13	179	12.75"	12.75"	12.75"	12.75"	-87.5	5.00	92.50	-70	1.000	39.0	0.15°N-0.14°W	Within tolerance
D-12	180	12.75"	12.75"	12.75"	12.75"	-75.5	5.00	80.50	-70	0.923	39.3	0.17°S-0.13°E	Within tolerance
D-12	181	12.75"	12.75"	12.75"	12.75"	-75.5	5.00	80.50	-70	0.857	39.6	0.08°S-0.25°W	Within tolerance
D-11	182	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	0.857	39.6	0.08°S-0.08°E	Within tolerance
D-11	183	12.75"	12.75"	12.75"	12.75"	-75.5	5.00	80.50	-70	0.667	41.1	0.22°S-0.09°E	Within tolerance
D-10	184	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	0.800	40.0	0.03°N-0.10°W	Within tolerance
D-10	185	12.75"	12.75"	12.75"	12.75"	-80.5	5.00	85.50	-70	1.000	39.0	0.25°S-0.38°E	Within tolerance
D-9	186	12.75"	12.75"	12.75"	12.75"	-79.5	5.00	84.50	-70	0.857	39.6	0.18°S-0.30°E	Within tolerance
D-9	187	12.75"	12.75"	12.75"	12.75"	-76.5	5.00	81.50	-70	0.667	41.1	0.06°S-0.01°E	Within tolerance
D-8	188	12.75"	12.75"	12.75"	12.75"	-81.5	5.00	86.50	-70	1.000	39.0	0.18°S-0.15°W	Within tolerance
D-8	189	12.75"	12.75"	12.75"	12.75"	-85.5	5.00	90.50	-70	0.923	39.3	0.51°S-0.41°E	Within tolerance

8 Remarks

Deviated from designated location piles data was provided by the approved as noted by Silman on 06-15-2020 pile deviation report of Soil Solutions, Inc. (remediation for piles 101 and 178 required has been corrected as per field reports on 06-23-2020 and 08-21-2020)

Cutoff elevation data was provide by Soil Solutions, Inc. drawing Pile Location Plan reviewed by Silman on 10-22-2019. Variation from plumb inspected on 04-08-2020



7 Test Report

[illegible]

8	Remarks
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Deviated from designated location piles data was provided by the approach has been corrected as per field reports on 06-23-2020 and 08-21-2020)

Cutoff elevation data was provide by Soil Solutions, Inc. drawing Pile Location Plan reviewed by Silman on 10-22-2019. Variation from plumb inspected on 04-08-2020

