

LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

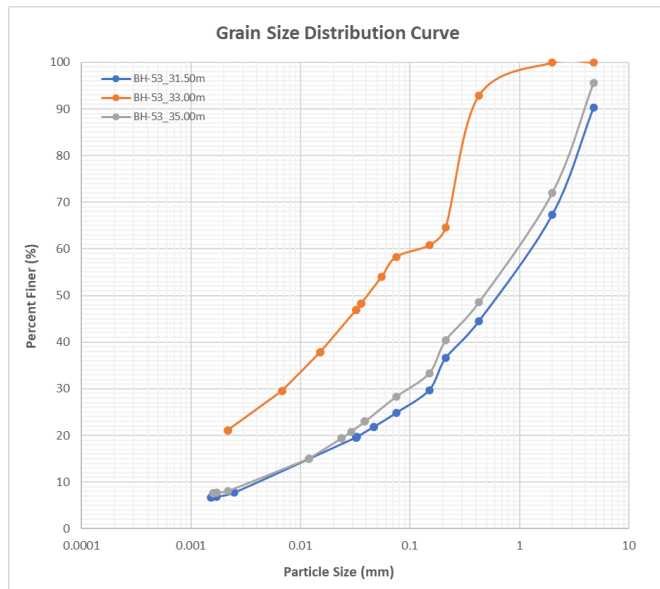
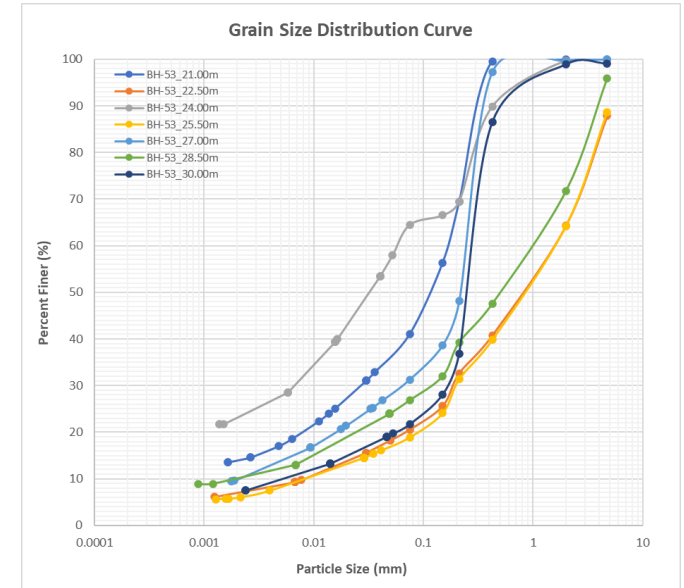
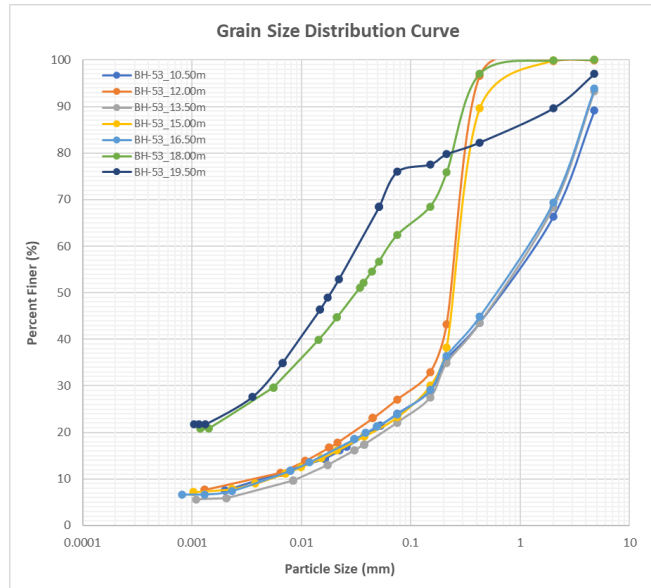
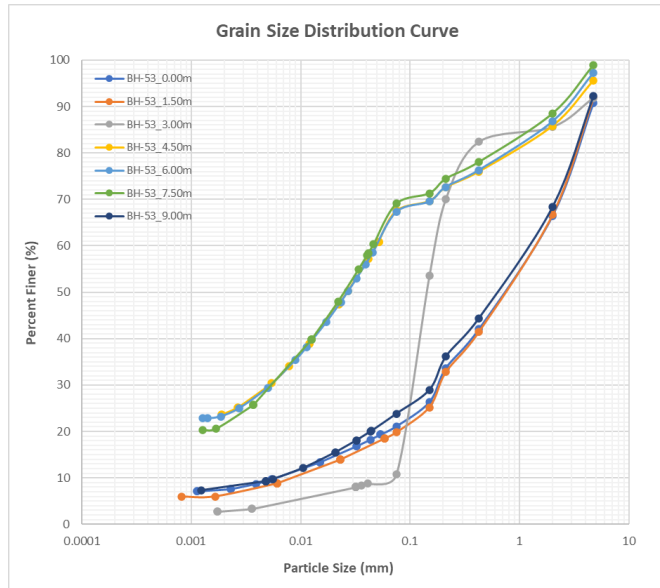
Soil

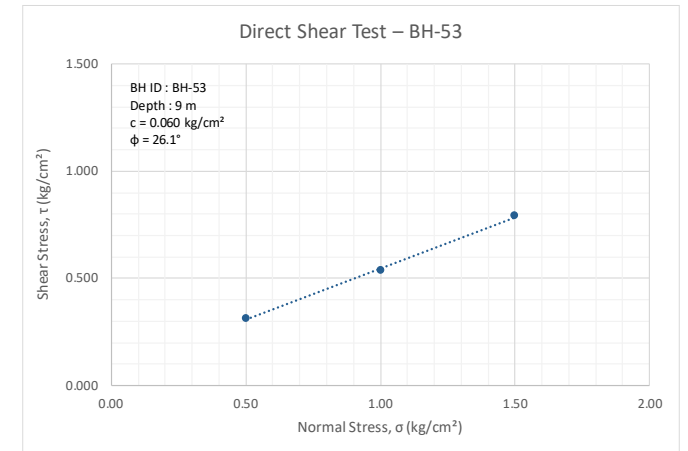
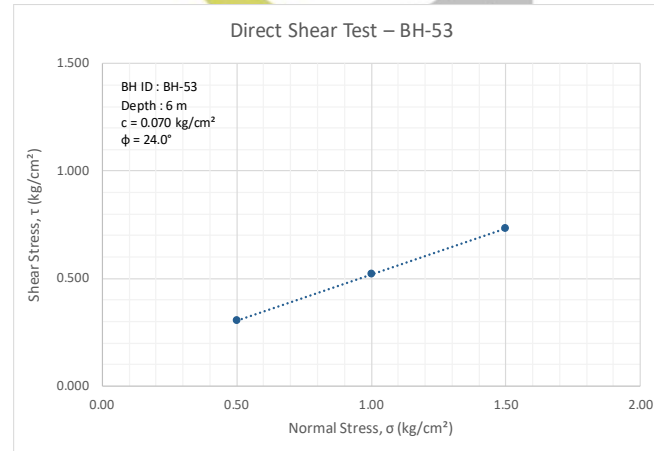
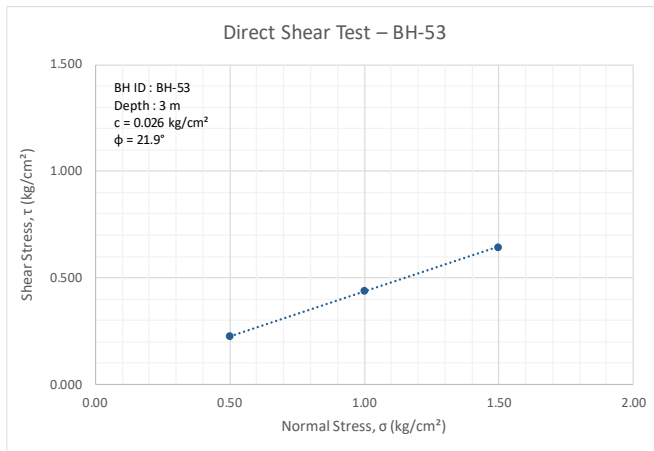
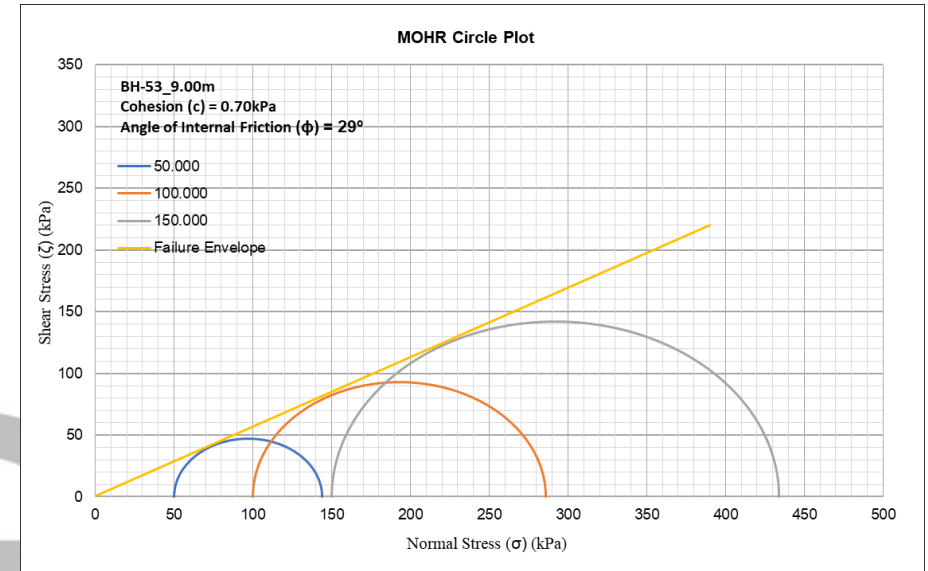
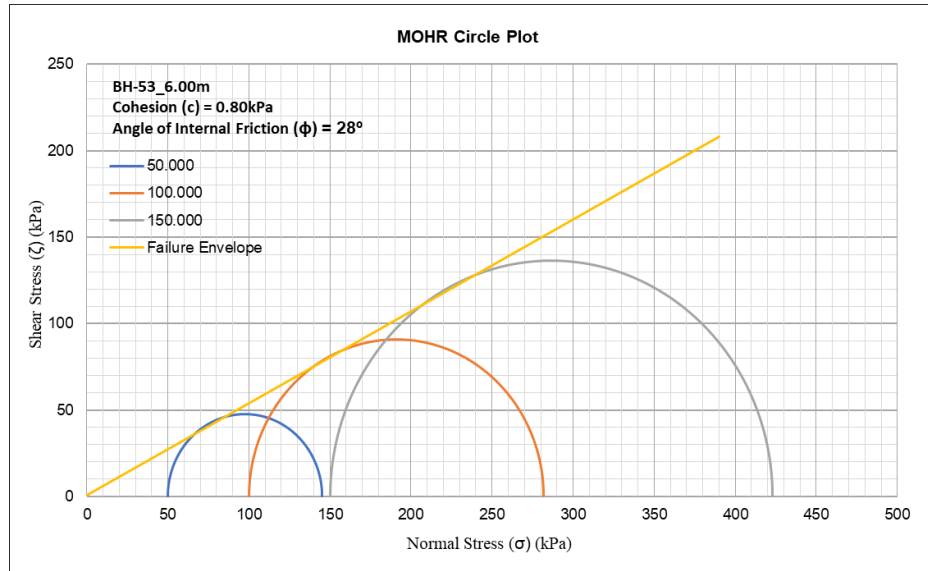
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

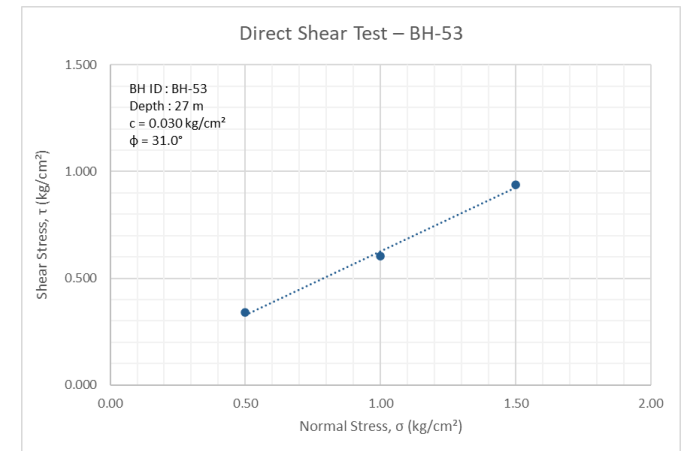
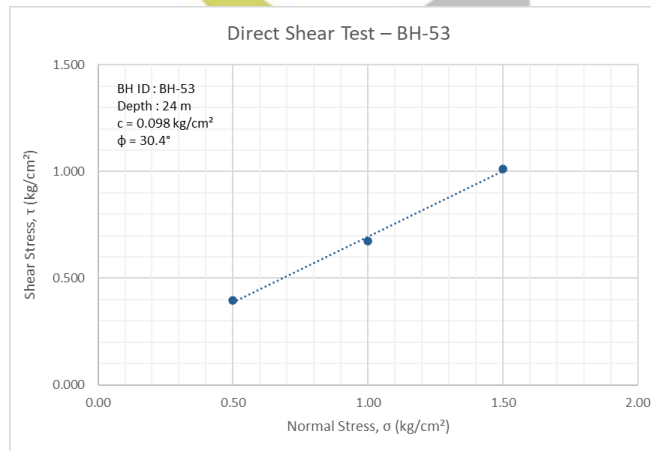
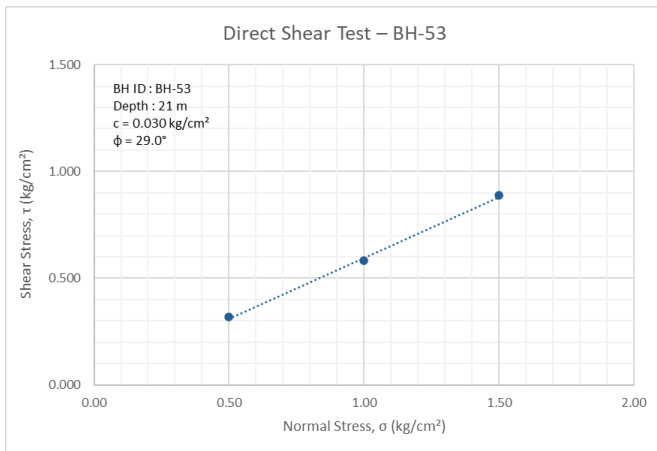
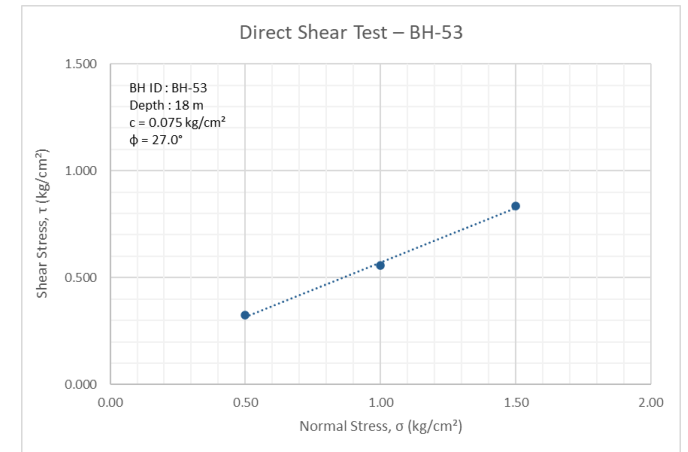
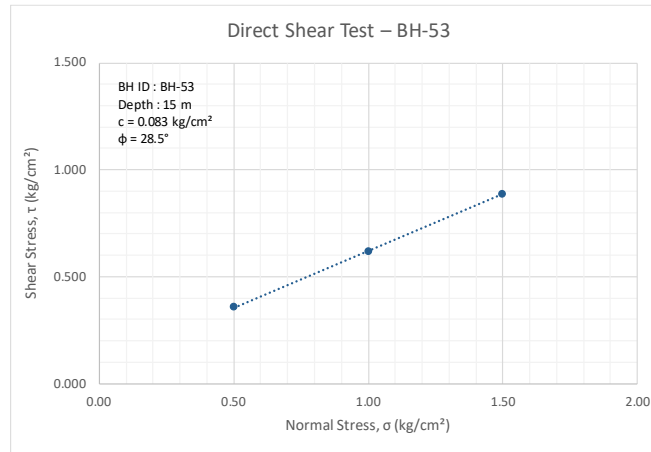
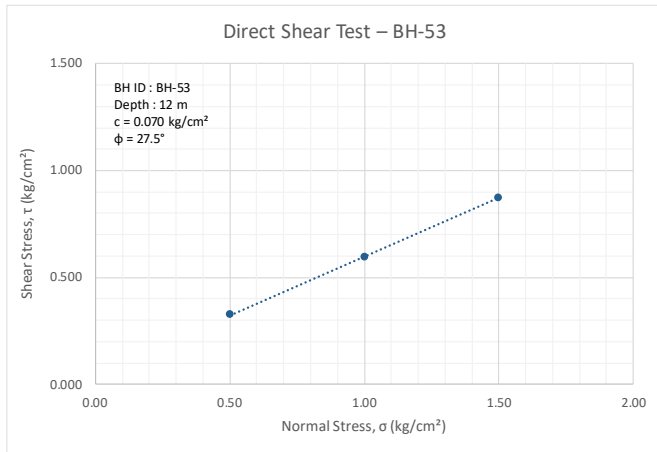


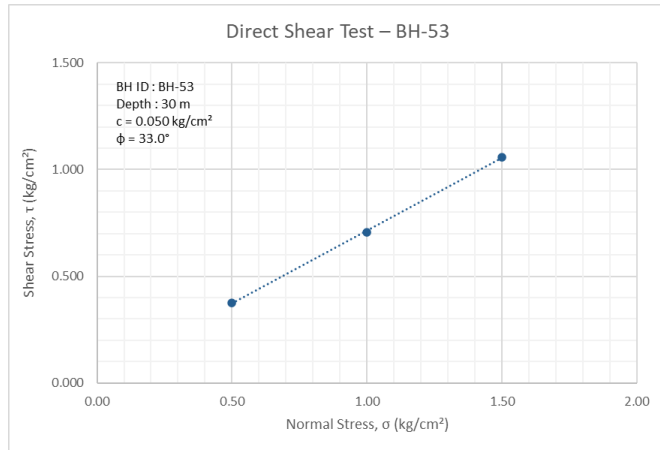
Project						Borehole Details							Drilling Details															
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)					BH ID:	BH-53						Contractor:	Goma Engineering & Consultancy														
						Chainage [km]:	5+830						Method of Drilling:	Rotary Drilling														
Client:	Noida Metro Rail Corporation (NMRC) Limited					Depth [m]:	35.00						Start Date:	01-01-2026														
Stretch:	Noida Sector-142 to Botanical Garden					Elevation [m]:	198.8						End Date:	02-01-2026														
Project Code:	158_R07_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km					Water table Level [m]:	14.40						Location:	Lat: 28.531863, Long: 77.360548														
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test			
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]	
0.00	DS	Top Soil						9.2	69.7	13.6	7.5	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.50	SPT/DS	Medium Dense, Brownish, fine-grained inorganic silt of lowPlasticity with sand (SM)	2	4	5	9	13	8.1	72.1	13.4	6.4	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.00	UDS							8.1	81.1	7.9	2.9	28	NP	NP	10.62	1.80	1.63	2.64	F	0.03	22	-	-	-	-	-	-	
3.50	SPT/DS			3	6	7	13	14																				
4.50	SPT/DS	Stiff to Very Stiff, Whitish Brown to Brownish Grey, fine-grained silty sand (ML)	4	7	9	16	16	4.4	28.1	43.7	23.8	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
6.00	UDS							2.7	30.0	43.7	23.6	28	NP	NP	9.68	1.89	1.72	2.66	F	0.07	24	UU	0.8	28	-	-	-	
6.50	SPT/DS			5	8	10	18	17																				
7.50	SPT/DS		7	9	12	21	19	1.0	29.9	47.4	21.7	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
9.00	UDS	Medium Dense, Brownish, fine-grained silty sand with Gravel (SM)						7.7	68.5	15.8	8.0	26	NP	NP	11.67	1.91	1.71	2.65	F	0.06	26	UU	0.7	29	-	-	-	
9.50	SPT/DS			9	11	13	24	20																				
10.50	SPT/DS			10	13	15	28	23	10.9	65.1	16.5	7.5	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	DS							0.1	72.8	18.4	8.7	22	NP	NP	9.94	-	-	2.64	F	0.07	28	-	-	-	-	-	-	
12.50	SPT/DS	Dense, Yellowish to Brownish, fine-grained silty sand with Gravel (SM)	12	14	16	30	23																					
13.50	SPT/DS			15	17	19	36	26	6.7	71.2	16.3	5.8	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	DS								0.0	76.7	15.6	7.7	28	NP	NP	12.26	-	-	2.66	F	0.08	29	-	-	-	-	-	-
15.50	SPT/DS		18	20	22	42	22																					
16.50	SPT/DS		20	22	26	48	23	6.2	69.9	16.7	7.2	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
18.00	DS	Hard, Brownish, fine-grained inorganic silt of lowPlasticity with sand (ML)						0.0	37.6	39.4	23.0	24	NP	NP	15.40	-	-	2.66	F	0.08	27	-	-	-	-	-	-	
18.50	SPT/DS			19	24	26	50	23																				
19.50	SPT/DS			23	25	28	53	24	3.0	21.0	51.8	24.2	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS	Very Dense, Brownish to Brownish Grey, fine-grained silty sand with Gravel (SM)						0.0	59.0	27.1	14.0	28	NP	NP	11.66	-	-	2.67	F	0.03	29	-	-	-	-	-	-	
21.50	SPT/DS			10	21	31	52	23																				
22.50	SPT/DS			25	28	30	58	25	12.2	67.3	13.6	7.0	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS								0.1	35.4	41.3	23.2	24	NP	NP	13.22	-	-	2.62	F	0.10	30	-	-	-	-	-	-
24.50	SPT/DS			10	22	47	69	28																				
25.50	SPT/DS			60	(50/5cm)	-	100	36	11.3	69.8	12.9	6.0	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
27.00	DS								0.1	68.6	21.4	9.9	27	NP	NP	16.26	-	-	2.65	F	0.03	31	-	-	-	-	-	-
27.50	SPT/DS		56	(50/5cm)	-	100	35																					
28.50	SPT/DS		48	(20/5cm)	-	100	35	4.1	69.1	16.7	10.1	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
30.00	DS	Very Dense, Yellowish to Brownish, fine-grained silty sand with Gravel (SM)						0.9	77.4	15.8	5.9	22	NP	NP	14.71	-	-	2.66	F	0.05	33	-	-	-	-	-	-	
30.50	SPT/DS			50	(50/5cm)	-	100	33																				
31.50	SPT/DS			63	(50/5cm)	-	100	33	9.8	65.4	17.6	7.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33.00	DS																											
33.50	SPT/DS			42	50	(30/1cm)	100	31	0.0	41.7	44.9	13.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35.00	SPT/DS		58	(10/1cm)	-	100	29	4.4	67.3	20.4	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

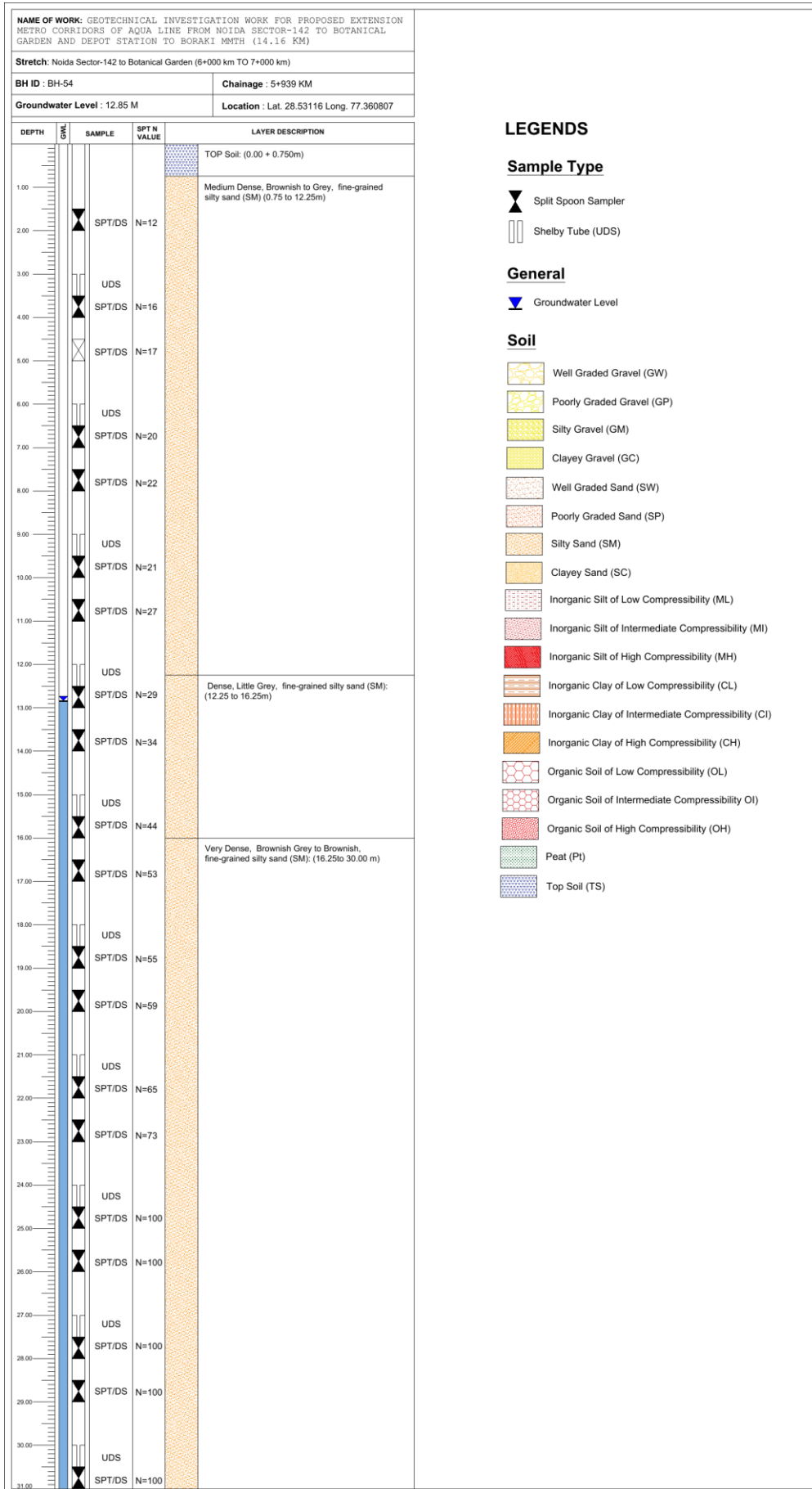
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.











LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

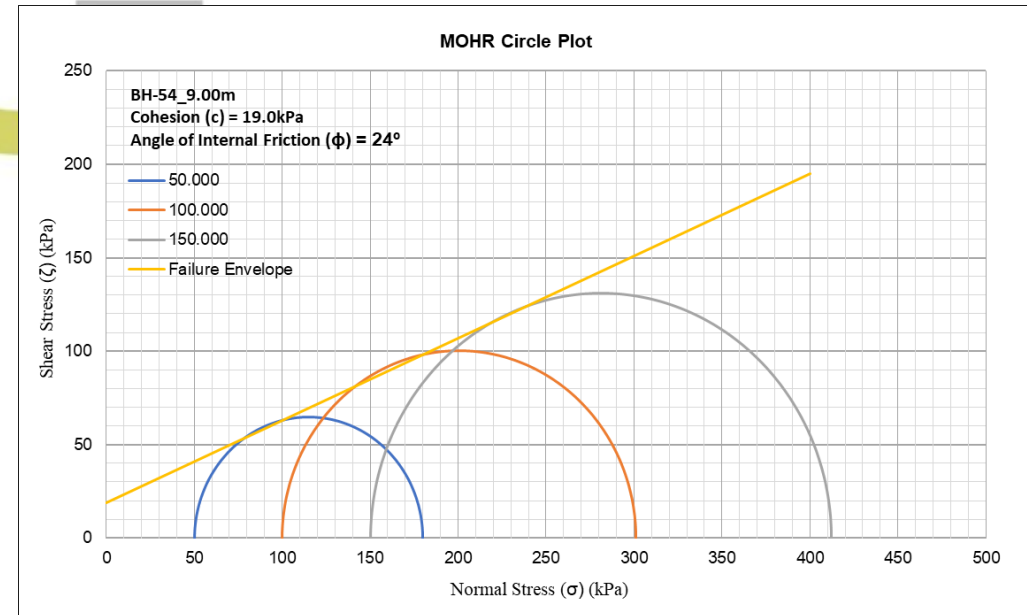
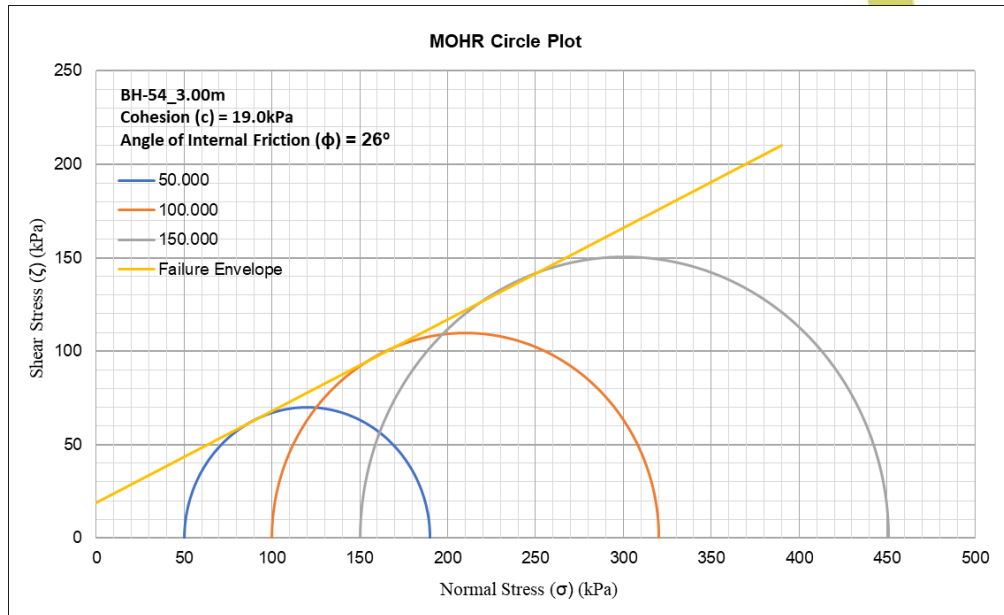
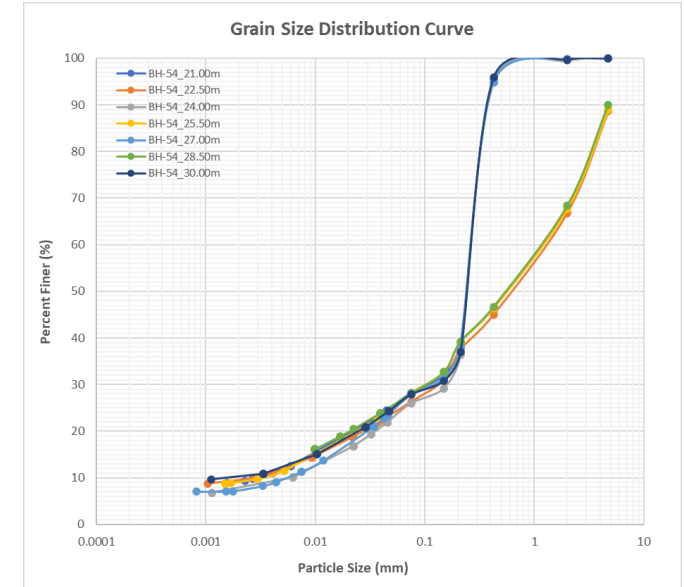
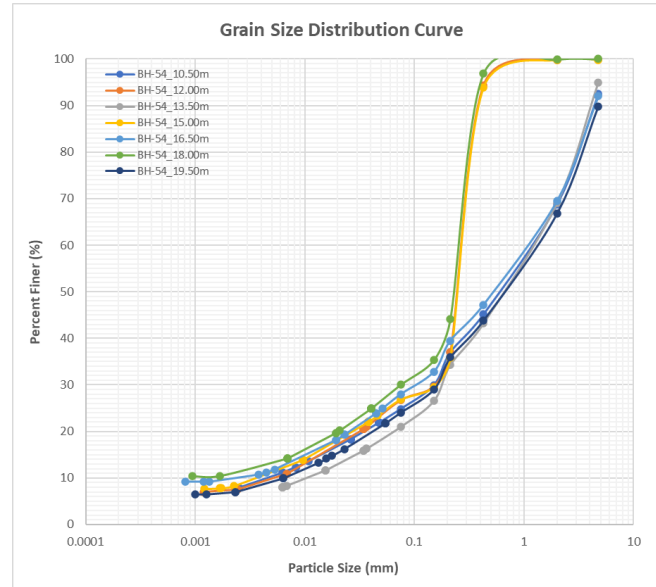
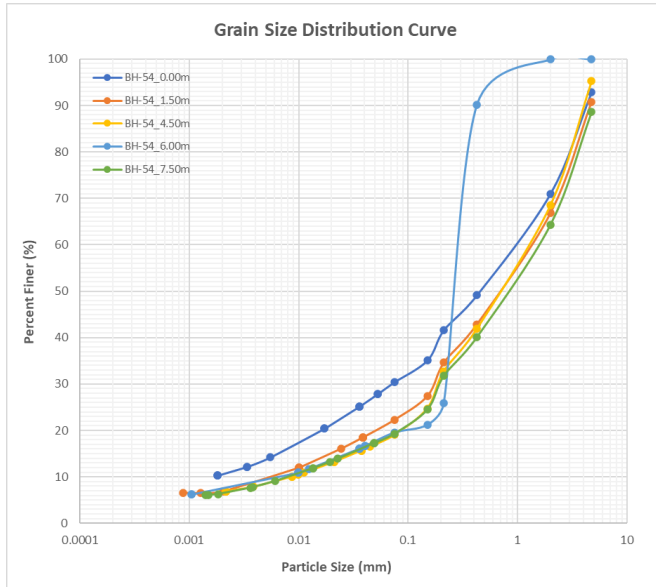
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

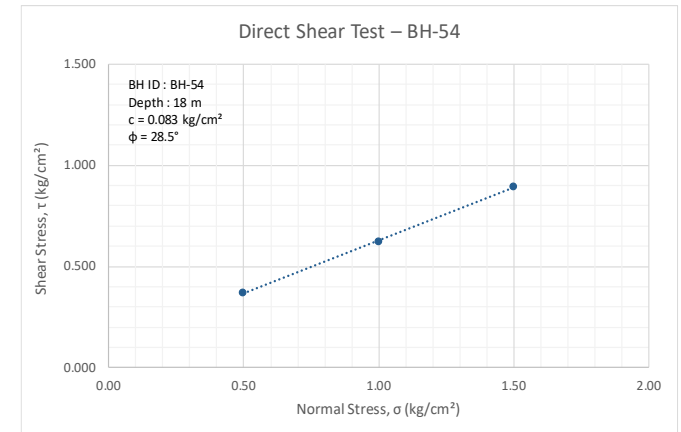
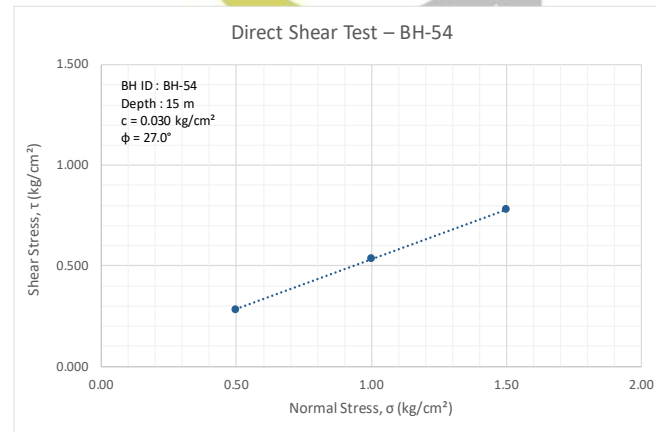
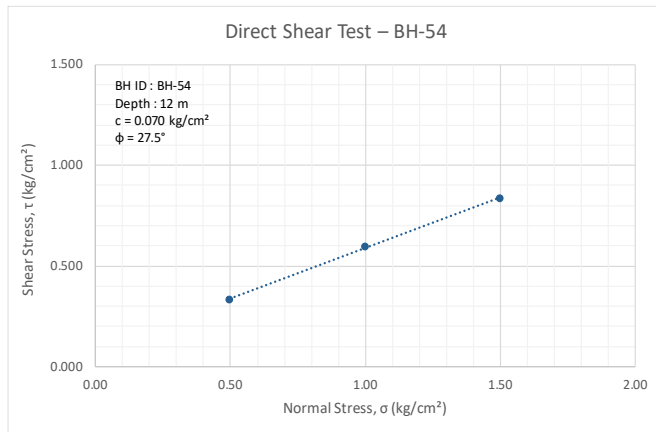
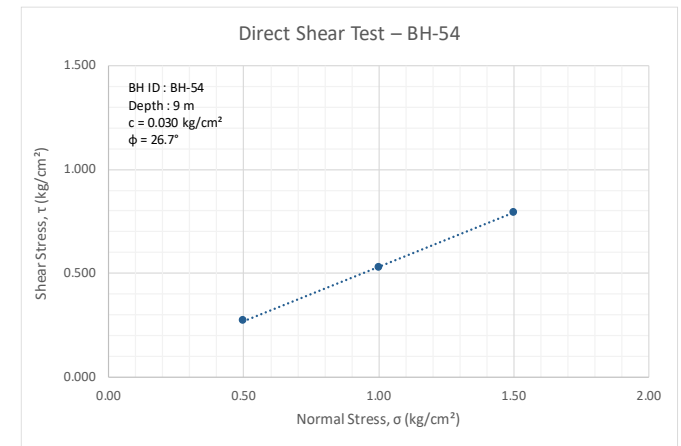
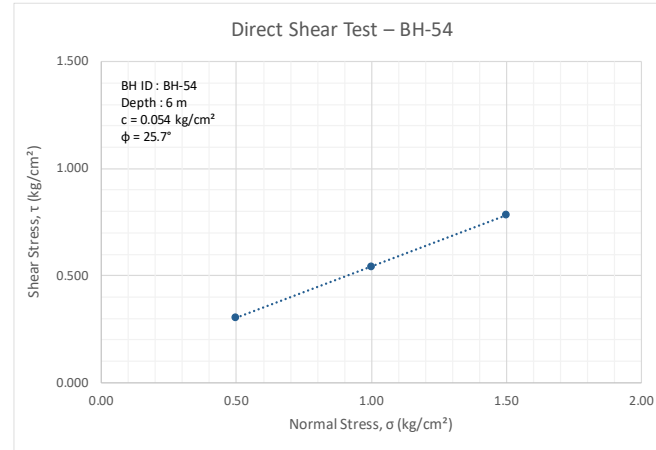
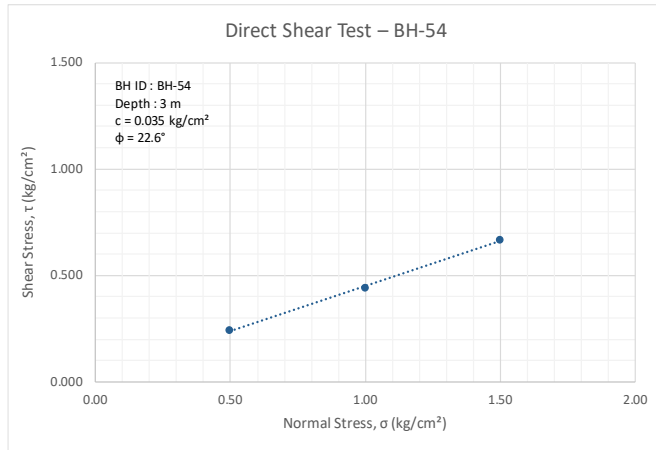


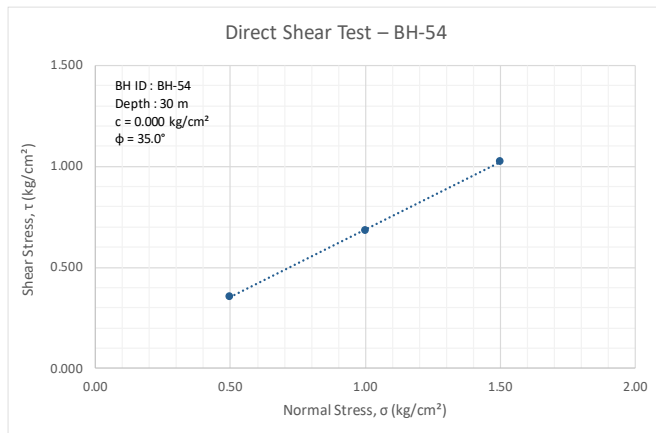
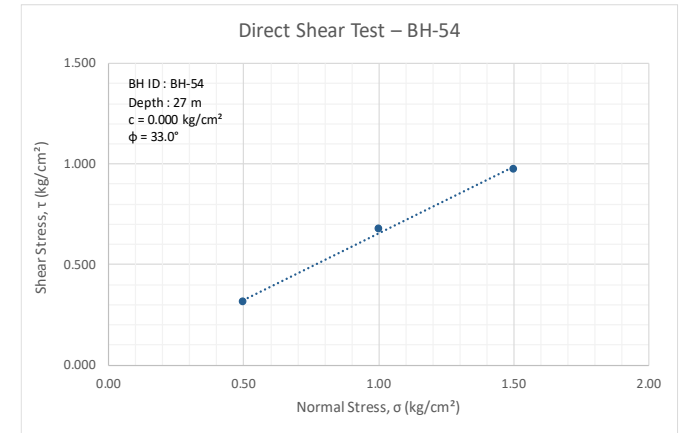
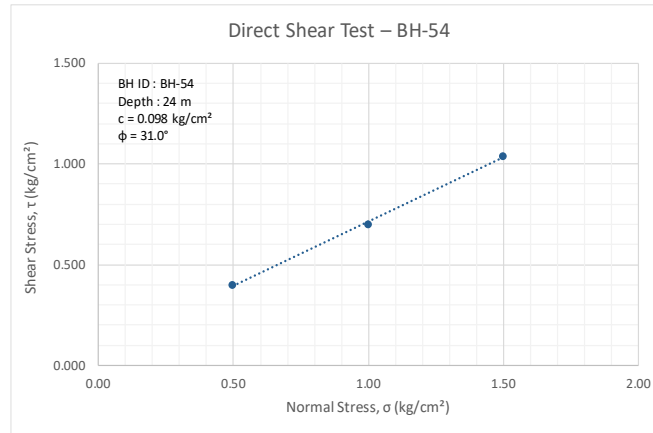
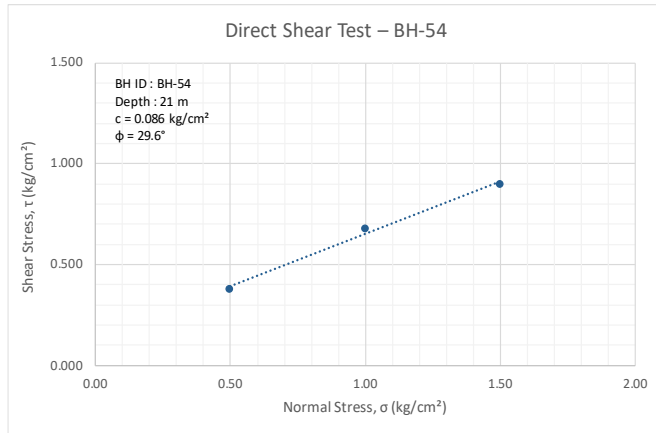
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-54	Contractor:	Goma Engineering & Consultancy
		Chainage [km]:	5+939	Method of Drilling:	Rotary Drilling
Client:	Noida Metro Rail Corporation (NMRC) Limited	Depth [m]:	30.00	Start Date:	18-01-2026
Stretch:	Noida Sector-142 to Botanical Garden	Elevation [m]:	199.1	End Date:	19-01-2026
Project Code:	158_R07_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Water table Level [m]:	12.85	Location:	Lat: 28.53116, Long: 77.360807

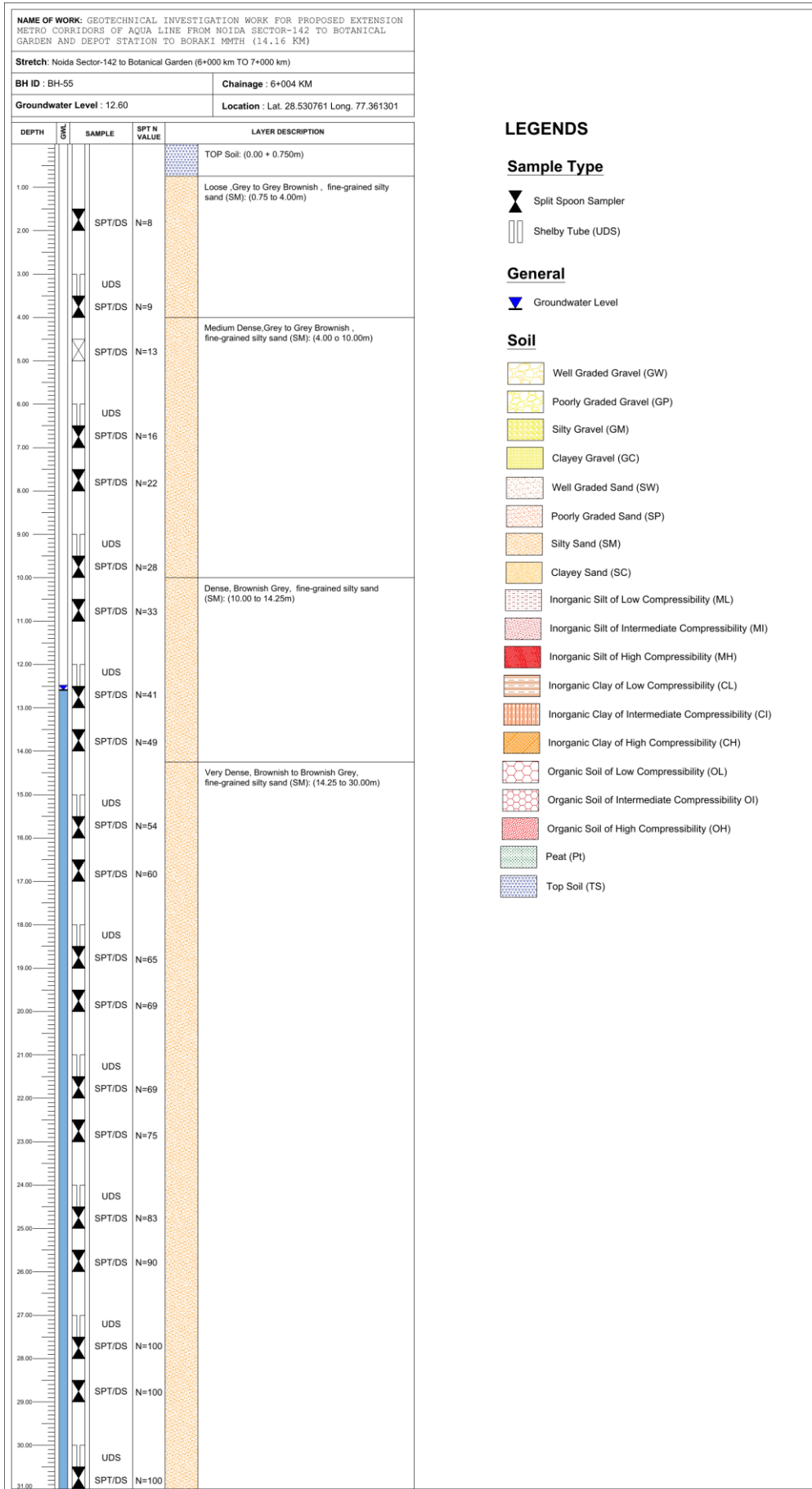
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						7.2	62.4	19.8	10.6	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium Dense, Brownish to Grey, fine-grained silty sand (SM)	4	5	7	12	17	9.2	68.5	15.4	6.9	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							5.1	76.9	12.6	5.3	22	NP	NP	13.69	1.92	1.69	2.66	F	0.04	23	UU	19	26	-	-	-
3.50	SPT/DS		5	7	9	16	18																				
4.50	SPT/DS		5	8	9	17	17	4.8	76.2	11.8	7.2	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							0.0	80.4	12.0	7.5	25	NP	NP	11.78	1.91	1.71	2.62	F	0.05	26	-	-	-	-	-	-
6.50	SPT/DS		7	9	11	20	19																				
7.50	SPT/DS		6	9	13	22	20	11.4	69.3	12.8	6.5	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	UDS							4.6	63.6	21.9	9.9	21	NP	NP	14.57	1.94	1.69	2.64	F	0.03	27	UU	19	24	-	-	-
9.50	SPT/DS		7	9	12	21	18																				
10.50	SPT/DS		9	12	15	27	22	7.5	67.7	17.1	7.7	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	DS						0.1	73.2	19.3	7.4	24	NP	NP	13.64	-	-	2.68	F	0.07	28	-	-	-	-	-	-	
12.50	SPT/DS	10	13	16	29	22																					
13.50	SPT/DS	12	15	19	34	24	5.0	74.0	15.8	5.2	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
15.00	DS						0.2	73.0	18.8	8.1	29	NP	NP	12.2	-	-	2.63	F	0.03	27	-	-	-	-	-	-	
15.50	SPT/DS	15	20	24	44	22																					
16.50	SPT/DS	17	23	30	53	25	8.0	64.0	18.2	9.8	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
18.00	DS						0.0	70.0	19.1	10.9	26	NP	NP	10.58	-	-	2.60	F	0.08	29	-	-	-	-	-	-	
18.50	SPT/DS	20	24	31	55	25																					
19.50	SPT/DS	22	26	33	59	26	10.2	65.7	17.2	6.9	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
21.00	DS						0.0	71.7	19.1	9.2	22	NP	NP	13.25	-	-	2.63	F	0.09	30	-	-	-	-	-	-	
21.50	SPT/DS	24	30	35	65	27																					
22.50	SPT/DS	28	34	39	73	29	11.4	62.3	16.8	9.5	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
24.00	DS						0.1	74.0	18.1	7.9	24	NP	NP	12.72	-	-	2.67	F	0.10	31	-	-	-	-	-	-	
24.50	SPT/DS	40	45	(50/4cm)	100	36																					
25.50	SPT/DS	43	48	(50/5cm)	100	36	11.1	60.7	19.0	9.1	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	DS						0.0	72.2	20.5	7.3	29	NP	NP	15.18	-	-	2.67	F	0.00	33	-	-	-	-	-	-	
27.50	SPT/DS	45	(50/7cm)	-	100	35																					
28.50	SPT/DS	48	(50/6cm)	-	100	35	9.9	62.0	21.3	6.7	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
30.00	DS						0.0	72.1	17.6	10.3	26	NP	NP	13.87	-	-	2.65	F	0.00	35	-	-	-	-	-	-	
30.50	SPT/DS	50	(50/4cm)	-	100	33																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

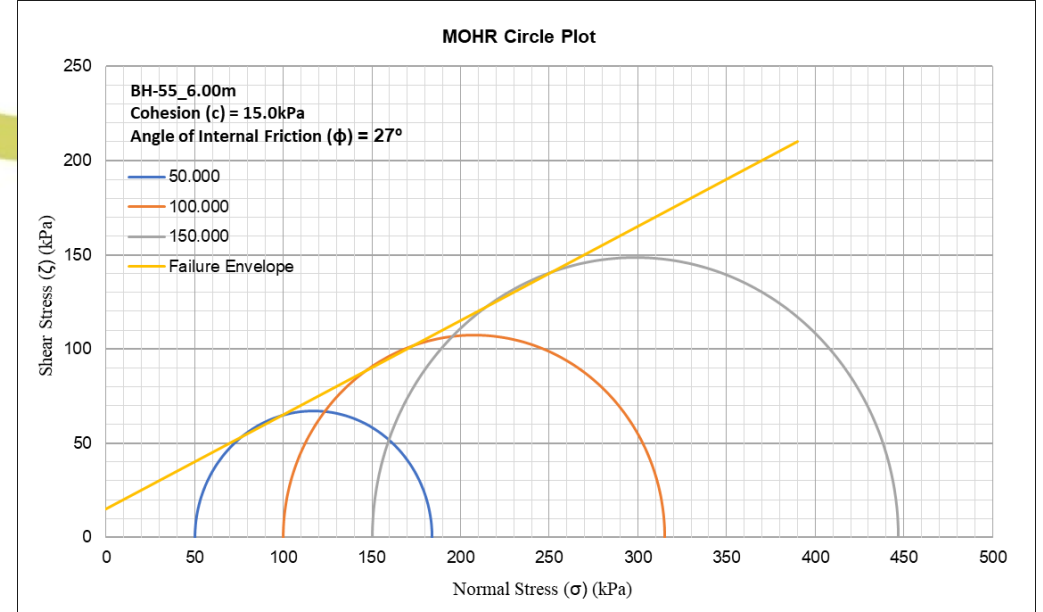
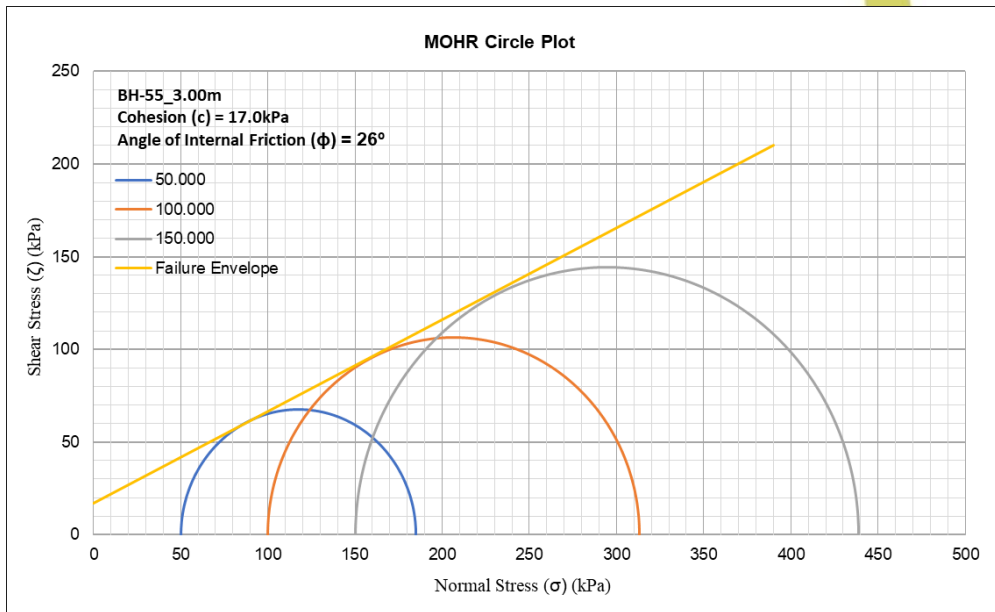
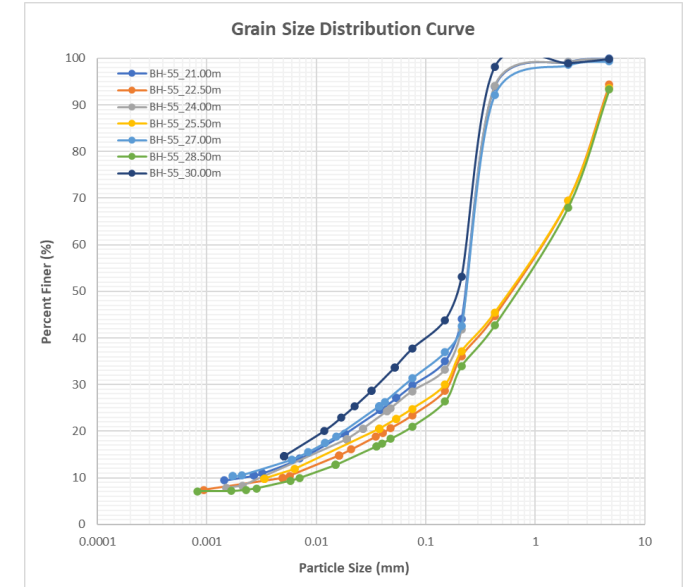
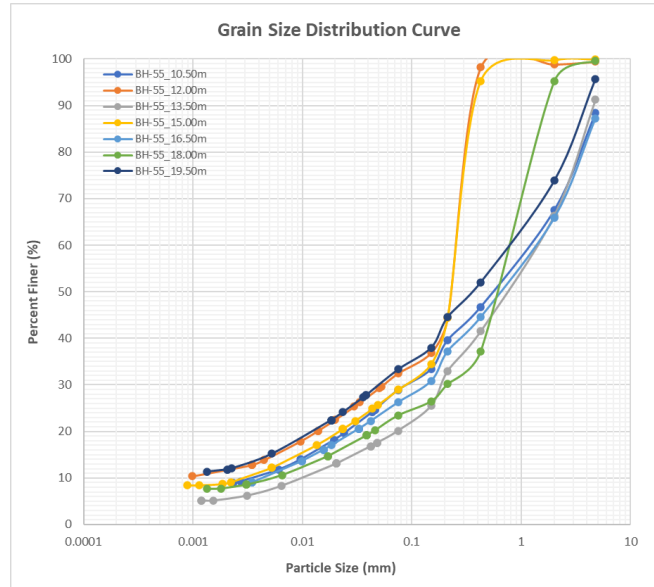
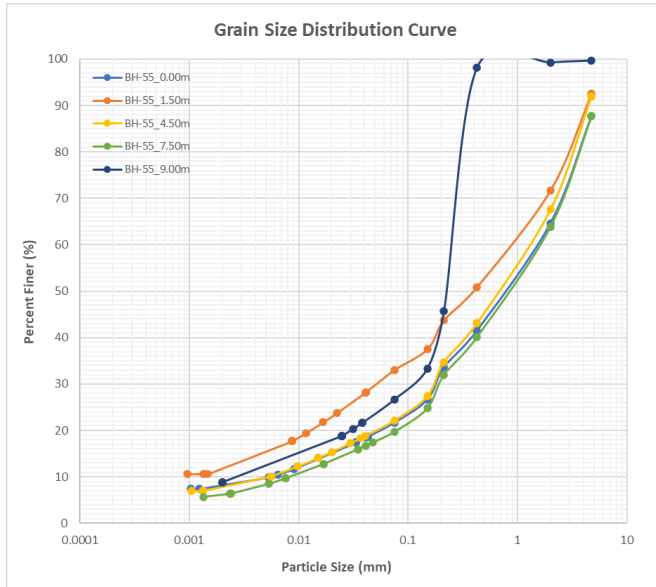
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

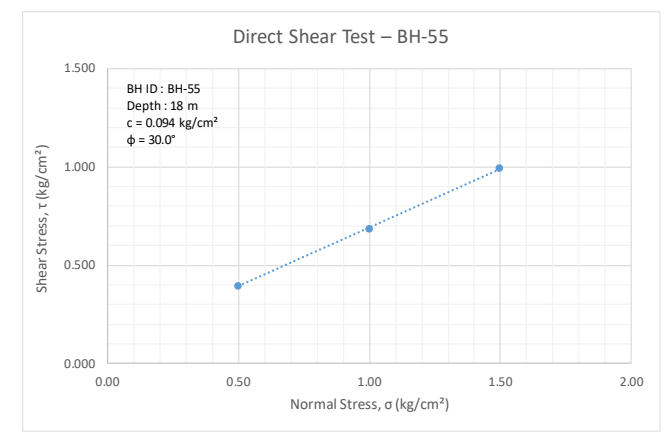
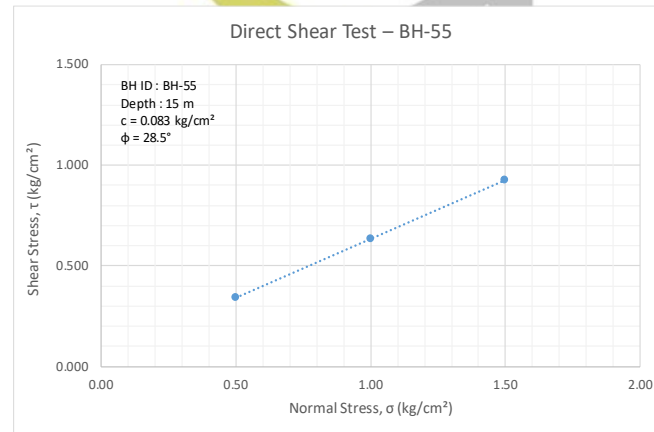
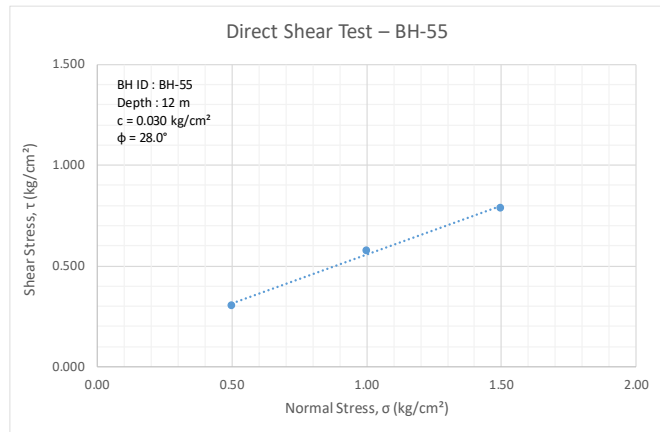
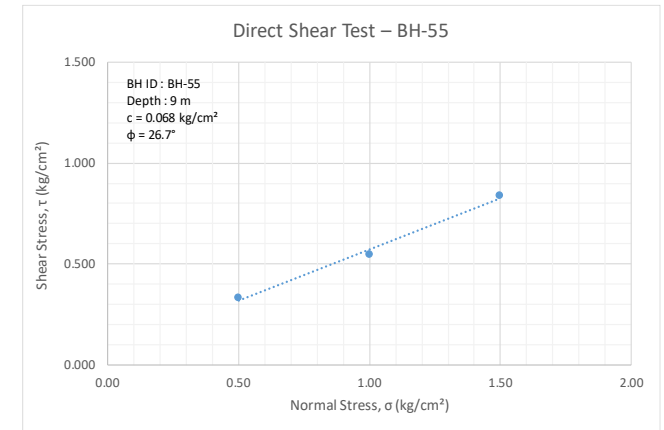
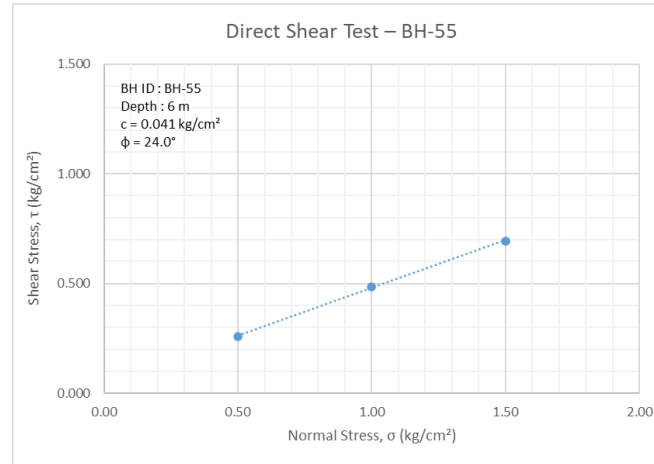
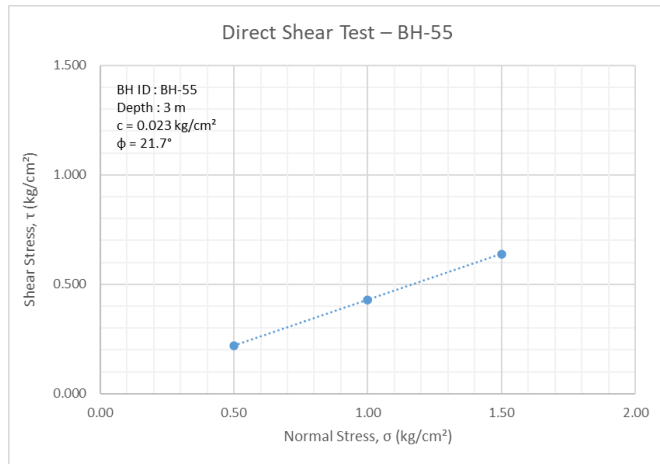


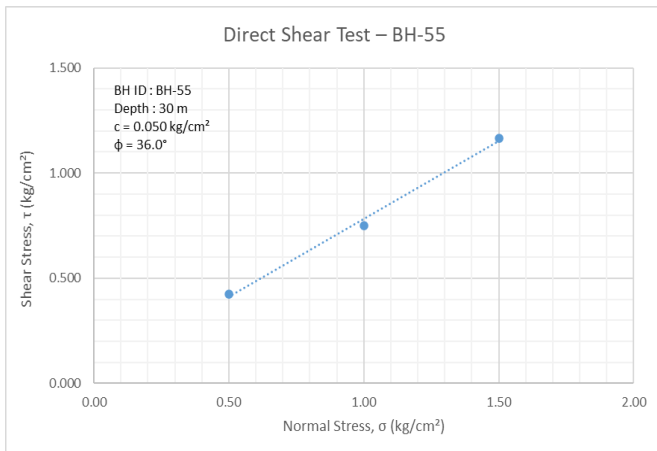
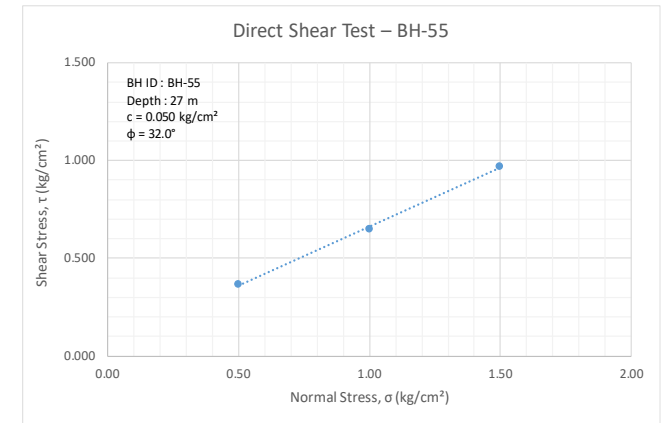
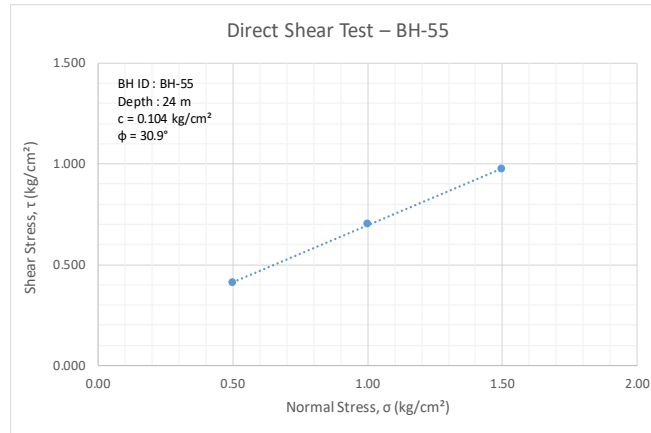
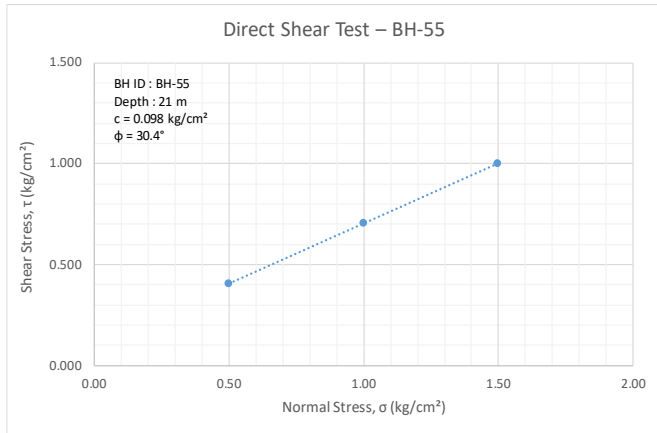
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-55	Contractor:	Goma Engineering & Consultancy
		Chainage [km]:	6+004	Method of Drilling:	Rotary Drilling
Client:	Noida Metro Rail Corporation (NMRC) Limited	Depth [m]:	30.00	Start Date:	17-01-2026
Stretch:	Noida Sector-142 to Botanical Garden	Elevation [m]:	199.9	End Date:	18-01-2026
Project Code:	158_R07_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Water table Level [m]:	12.60	Location:	Lat: 28.530761, Long: 77.361301

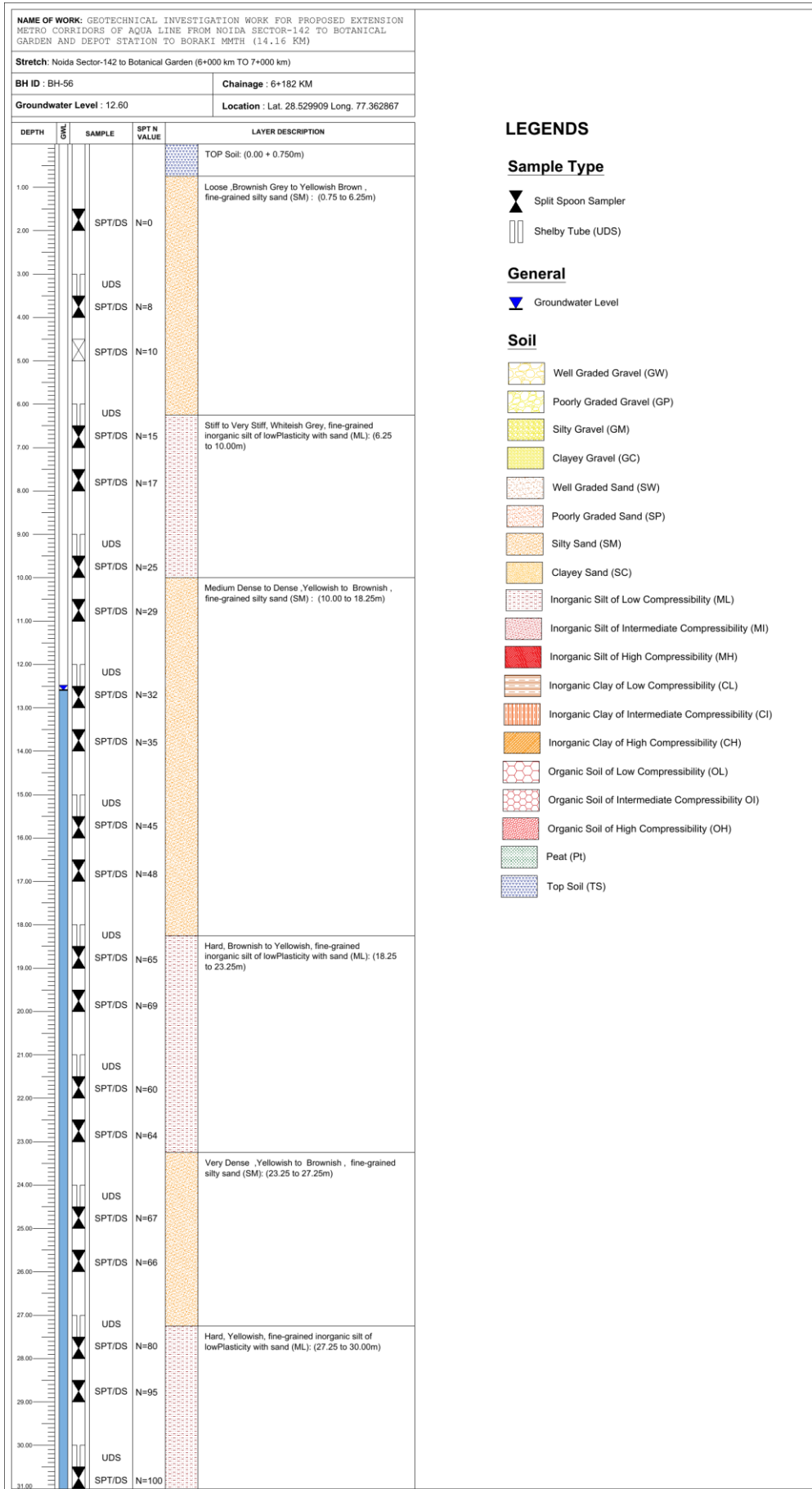
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						12.3	66.0	13.5	8.2	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Loose ,Grey to Grey Brownish , fine-grained silty sand (SM)	2	4	4	8	11	7.4	59.5	21.2	11.8	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							11.5	68.5	20.0	0.0	25	NP	NP	12.21	1.83	1.63	2.64	F	0.02	22	UU	17	26	-	-	-
3.50	SPT/DS		3	4	5	9	10																				
4.50	SPT/DS	Medium Dense,Grey to Grey Brownish , fine-grained silty sand (SM)	4	6	7	13	13	8.0	69.9	14.3	7.8	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							7.8	65.2	18.1	8.9	21	NP	NP	13.61	1.85	1.63	2.61	F	0.04	24	UU	15	27	-	-	-
6.50	SPT/DS		5	7	9	16	15																				
7.50	SPT/DS		7	10	12	22	20	12.3	68.0	13.5	6.1	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	DS							0.3	73.0	15.2	11.5	27	NP	NP	10.60	-	-	2.67	F	0.07	27	-	-	-	-	-	-
9.50	SPT/DS		10	13	15	28	24																				
10.50	SPT/DS	Dense, Brownish Grey, fine-grained silty sand (SM)	12	15	18	33	27	11.6	59.5	20.3	8.6	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	DS							0.6	66.9	20.8	11.7	29	NP	NP	12.24	-	-	2.66	F	0.03	28	-	-	-	-	-	-
12.50	SPT/DS		15	18	23	41	31																				
13.50	SPT/DS	16	21	28	49	35	8.8	71.1	14.6	5.5	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
15.00	DS	Very Dense, Brownish to Brownish Grey, fine-grained silty sand (SM)						0.1	71.0	20.1	8.9	25	NP	NP	13.28	-	-	2.65	F	0.08	29	-	-	-	-	-	-
15.50	SPT/DS		20	24	30	54	26																				
16.50	SPT/DS		22	27	33	60	27	12.7	61.0	17.0	9.3	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS							0.4	76.1	15.6	7.9	21	NP	NP	11.66	-	-	2.64	F	0.09	30	-	-	-	-	-	-
18.50	SPT/DS		24	30	35	65	28																				
19.50	SPT/DS		27	32	37	69	29	4.3	62.4	21.5	11.8	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS							0.0	70.2	19.8	10.0	25	NP	NP	10.98	-	-	2.66	F	0.10	30	-	-	-	-	-	-
21.50	SPT/DS		25	31	38	69	28																				
22.50	SPT/DS		29	34	41	75	30	5.7	71.0	14.8	8.6	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS							0.1	71.3	20.4	8.2	27	NP	NP	12.55	-	-	2.68	F	0.10	31	-	-	-	-	-	-
24.50	SPT/DS		32	38	45	83	32																				
25.50	SPT/DS		36	42	48	90	33	6.4	68.8	21.2	3.6	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
27.00	DS						0.7	68.0	20.8	10.5	29	NP	NP	15.68	-	-	2.63	F	0.05	32	-	-	-	-	-	-	
27.50	SPT/DS	40	45	(50/4cm)	100	35																					
28.50	SPT/DS	45	(50/6cm)	-	100	35	6.7	72.4	13.6	7.3	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
30.00	DS						0.2	62.1	26.8	10.9	24	NP	NP	12.56	-	-	2.69	F	0.05	36	-	-	-	-	-	-	
30.50	SPT/DS	48	(50/4cm)	-	100	33																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

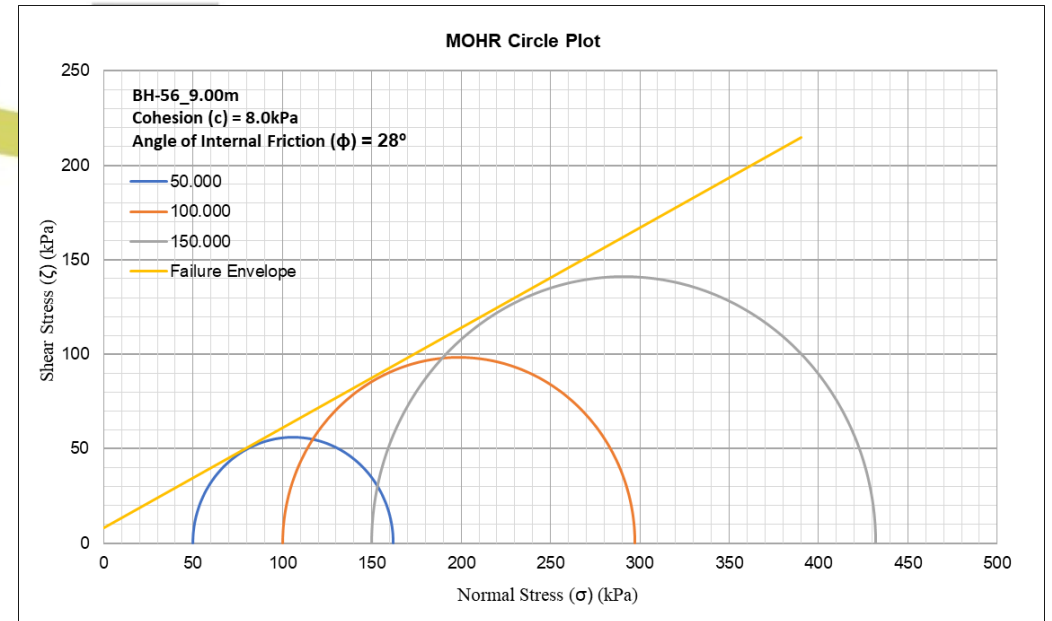
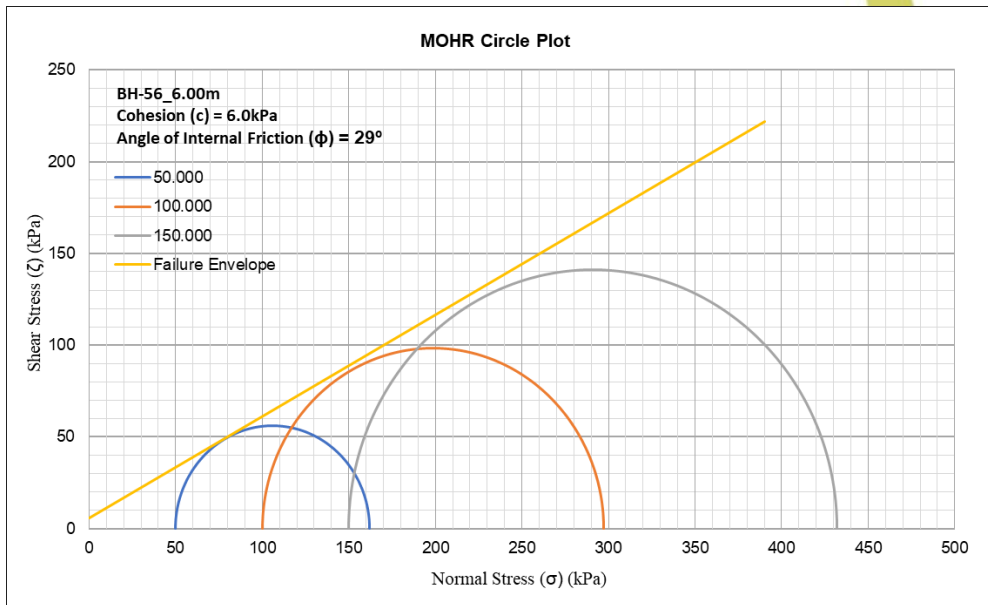
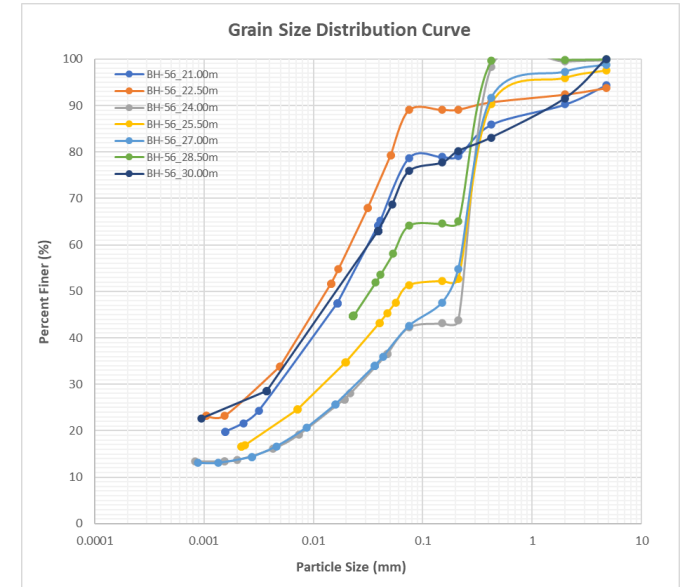
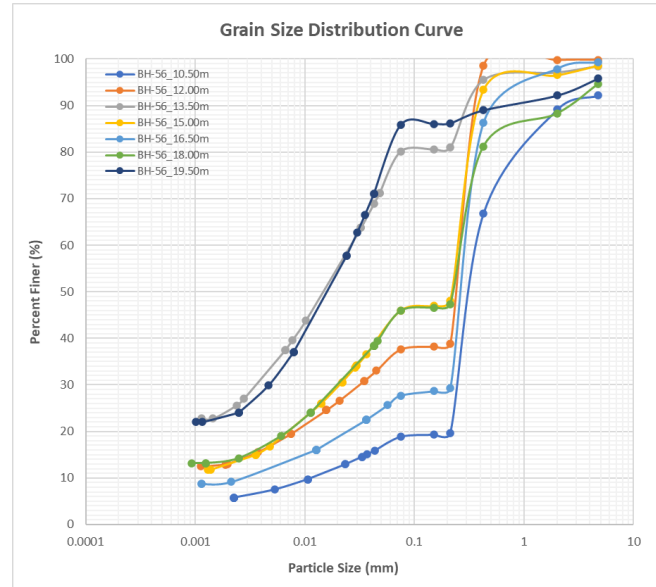
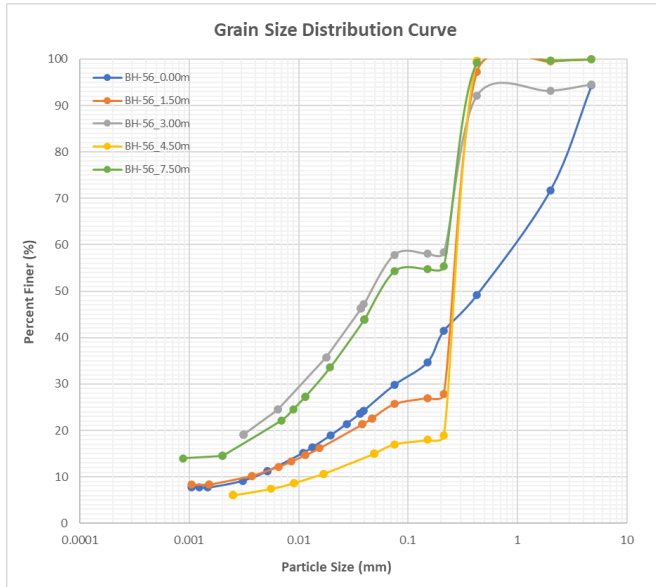
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

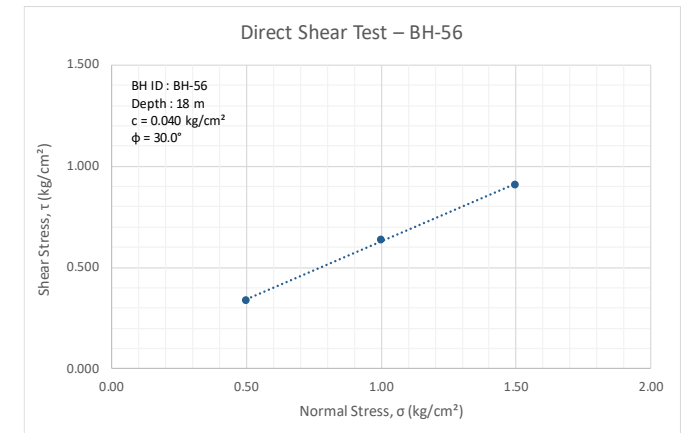
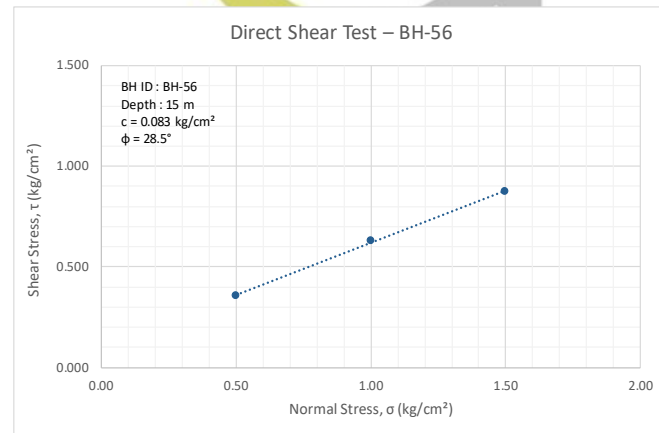
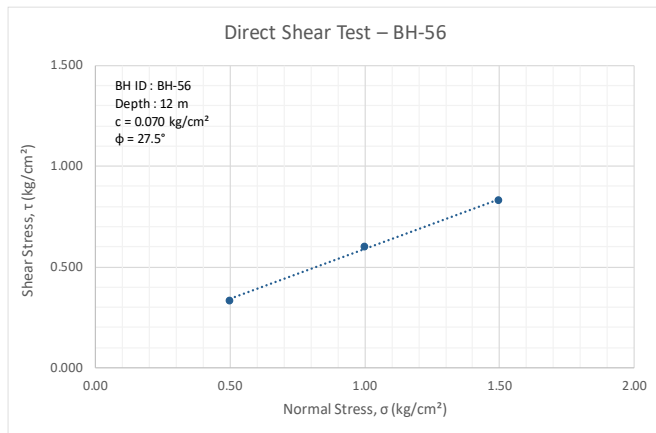
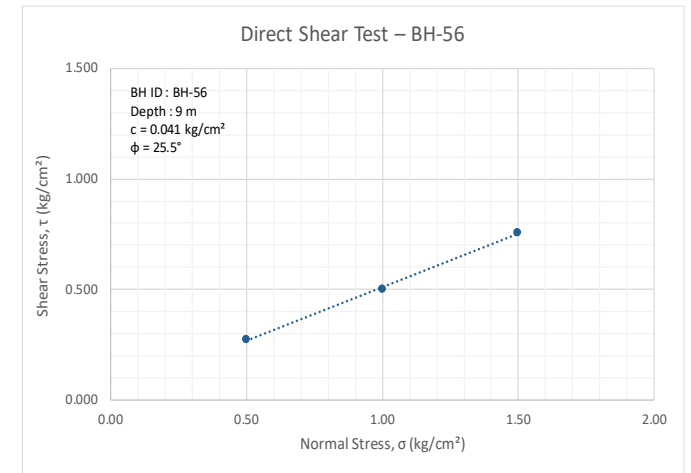
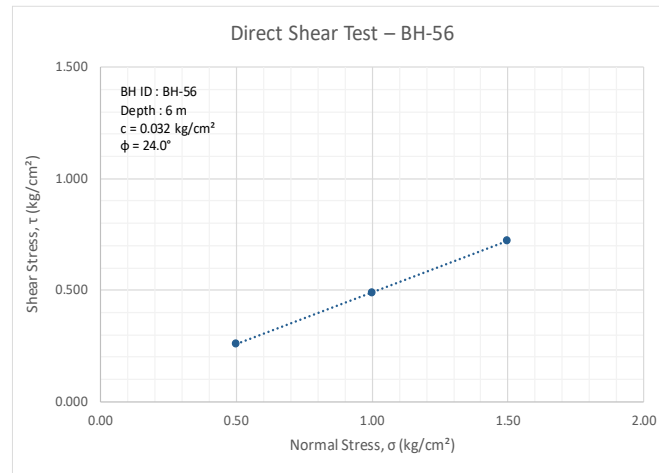
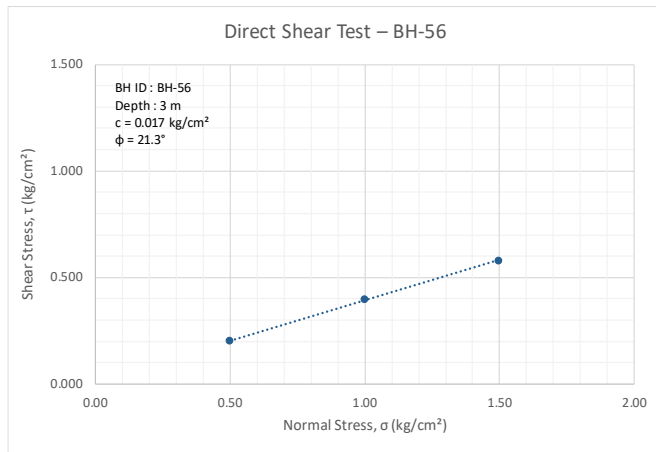


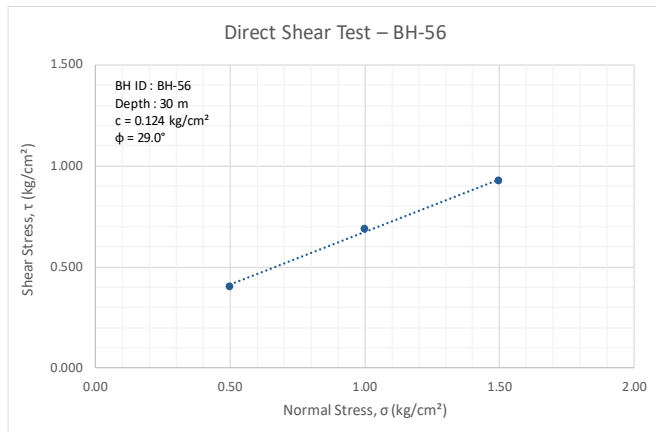
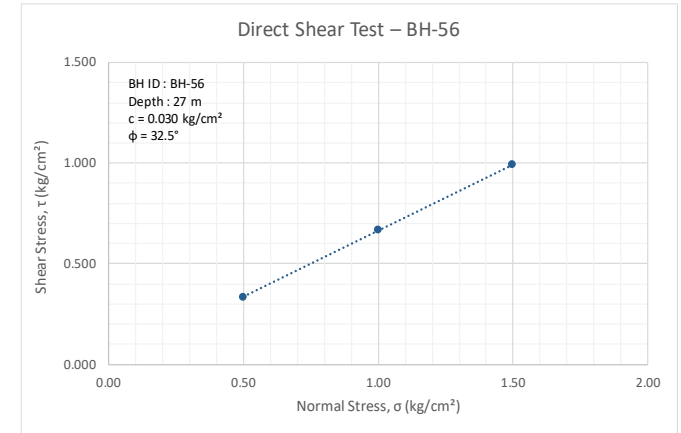
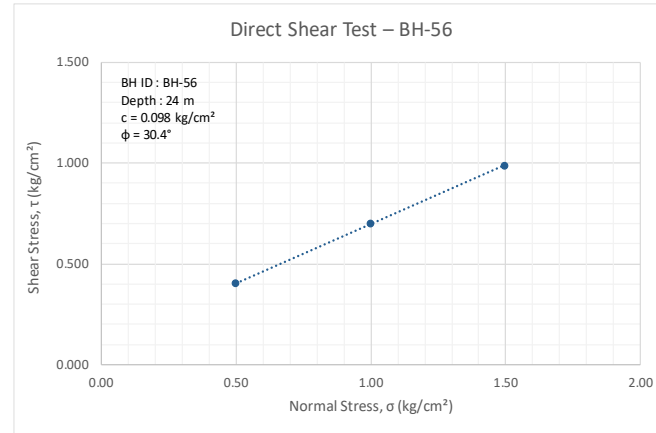
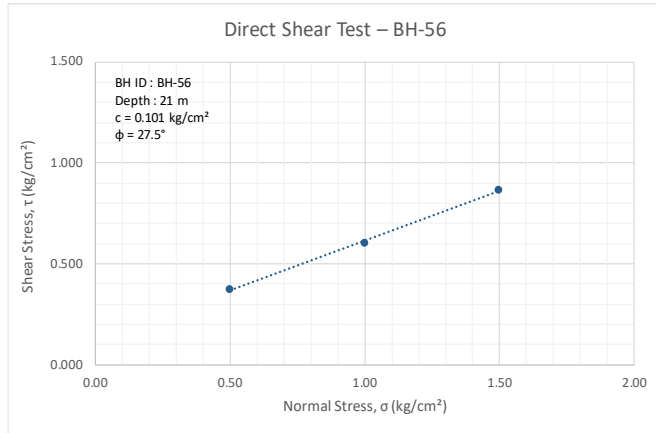
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-56	Contractor:	Goma Engineering & Consultancy
		Chainage [km]:	6+182	Method of Drilling:	Rotary Drilling
Client:	Noida Metro Rail Corporation (NMRC) Limited	Depth [m]:	30.00	Start Date:	01-02-2026
Stretch:	Noida Sector-142 to Botanical Garden	Elevation [m]:	201	End Date:	01-02-2026
Project Code:	158_R07_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Water table Level [m]:	12.60	Location:	Lat: 28.529909, Long: 77.362867

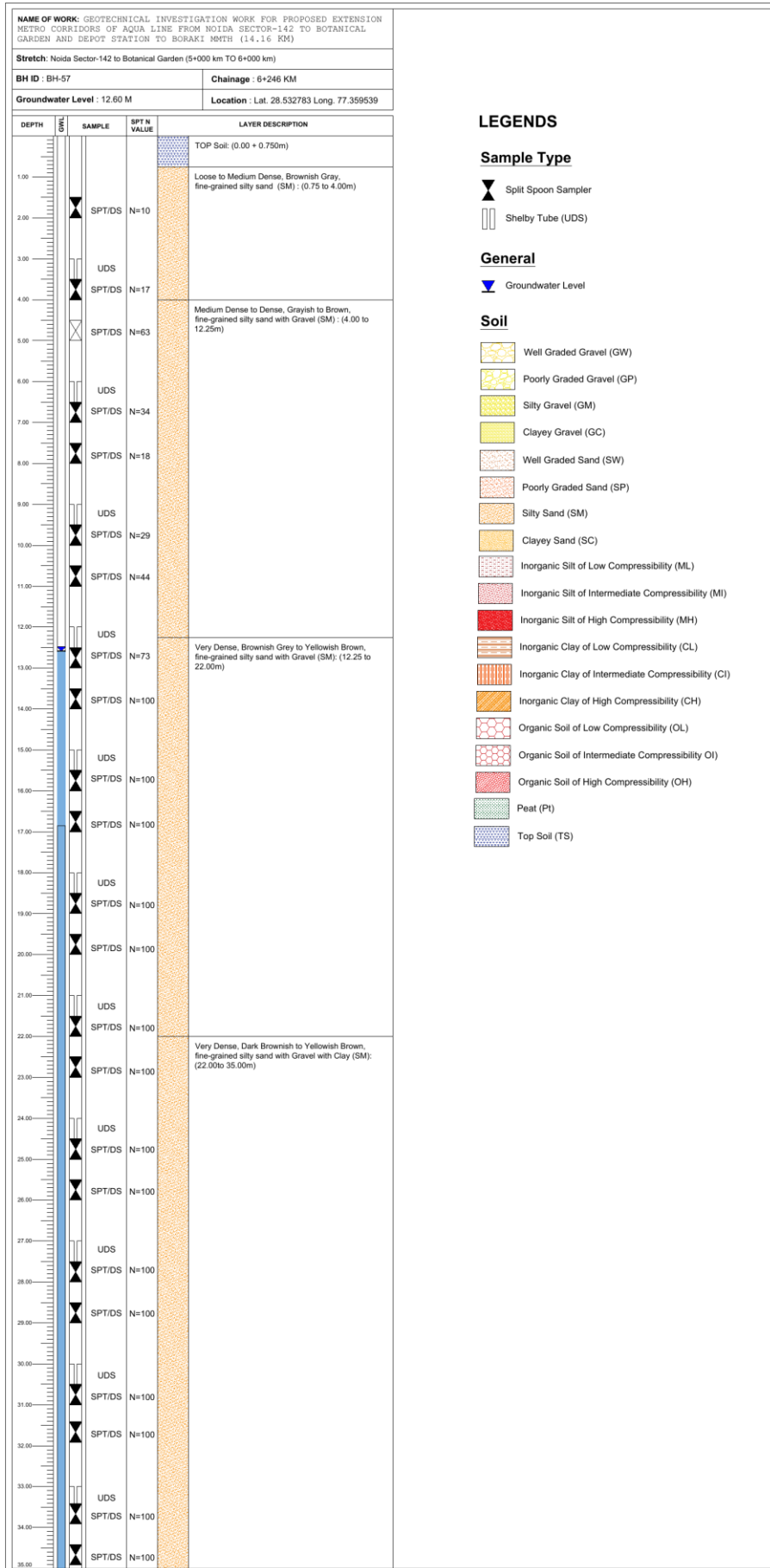
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						0.0	70.2	21.5	8.3	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Loose, Brownish Grey to Yellowish Brown, fine-grained silty sand (SM)						0.0	74.3	16.8	8.9	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							5.5	36.6	57.9	0.0	25	NP	NP	11.42	1.74	1.56	2.73	F	0.02	21	-	-	-	-	-	-
3.50	SPT/DS		2	3	5	8	9																				
4.50	SPT/DS		3	4	6	10	10	0.0	83.0	17.0	0.0	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							11.5	65.6	16.0	7.0	28	NP	NP	8.54	1.85	1.70	2.68	F	0.03	24	UU	6	29	-	-	-
6.50	SPT/DS	Stiff to Very Stiff, Whiteish Grey, fine-grained inorganic silt of low Plasticity with sand (ML)	5	7	8	15	14																				
7.50	SPT/DS		6	8	9	17	15	0.1	45.6	39.8	14.5	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	UDS							1.0	24.0	50.8	24.2	21	NP	NP	13.2	1.83	1.62	2.67	F	0.04	28	UU	8	28	-	-	-
9.50	SPT/DS		9	12	13	25	21																				
10.50	SPT/DS		12	14	15	29	24	7.8	73.3	18.8	0.0	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS						0.2	62.2	24.5	13.1	26	NP	NP	9.14	1.90	1.74	2.68	F	0.07	28	-	-	-	-	-	-	
12.50	SPT/DS	Medium Dense to Dense, Yellowish to Brownish, fine-grained silty sand (SM)	13	14	18	32	24																				
13.50	SPT/DS		13	16	19	35	20	1.5	18.3	55.6	24.6	29	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	DS							1.4	52.7	33.0	13.0	27	NP	NP	20.31	-	-	2.77	F	0.08	29	-	-	-	-	-	-
15.50	SPT/DS		17	21	24	45	23																				
16.50	SPT/DS		18	23	25	48	24	0.8	71.5	18.6	9.1	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS						5.4	48.7	32.0	13.9	23	NP	NP	18.65	-	-	2.63	F	0.04	30	-	-	-	-	-	-	
18.50	SPT/DS	Hard, Brownish to Yellowish, fine-grained inorganic silt of low Plasticity with sand (ML)	21	30	36	65	29																				
19.50	SPT/DS		23	33	36	69	30	4.2	9.9	62.5	23.4	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS							5.6	15.6	57.8	21.0	29	NP	NP	24.37	-	-	2.68	F	0.10	28	-	-	-	-	-	-
21.50	SPT/DS		24	25	35	60	27																				
22.50	SPT/DS		23	27	37	64	27	6.3	4.7	63.5	25.6	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS						0.2	57.5	28.5	13.7	26	NP	NP	9.74	-	-	2.63	F	0.10	30	-	-	-	-	-	-	
24.50	SPT/DS	Very Dense, Yellowish to Brownish, fine-grained silty sand (SM)	24	29	38	67	28																				
25.50	SPT/DS		25	27	39	66	27	2.5	46.2	51.4	0.0	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
27.00	DS							1.2	56.3	28.8	13.8	28	NP	NP	19.65	-	-	2.85	F	0.03	33	-	-	-	-	-	-
27.50	SPT/DS	Hard, Yellowish, fine-grained inorganic silt of low Plasticity with sand (ML)	28	35	45	80	31																				
28.50	SPT/DS		36	45	50	95	35	0.0	35.8	64.2	0.0	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
30.00	DS							0.0	24.1	50.0	28.7	23	NP	NP	14.14	-	-	2.63	F	0.12	29	-	-	-	-	-	-
30.50	SPT/DS		48	(50/9cm)	-	100	35																				

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.







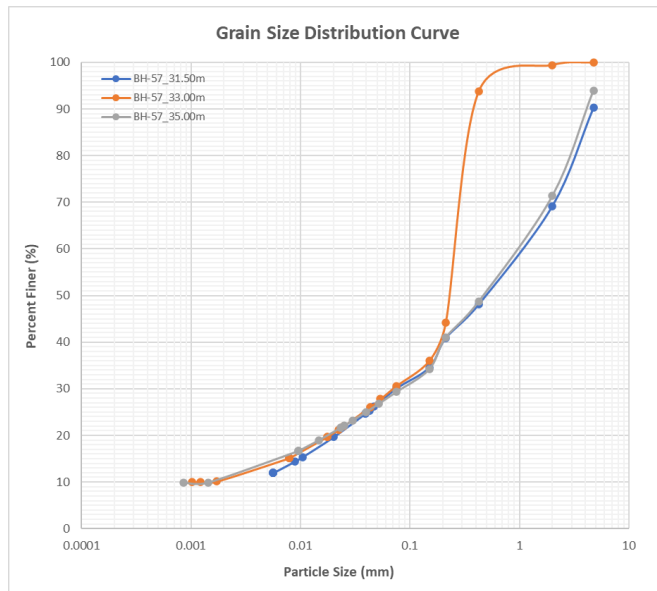
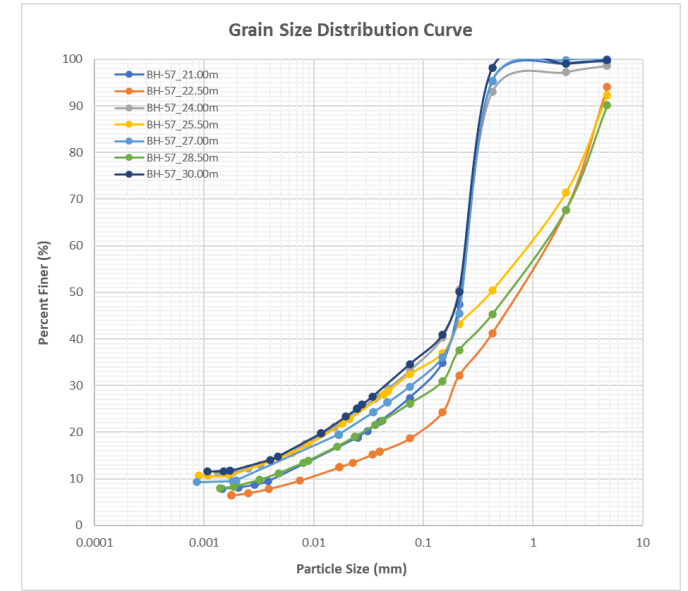
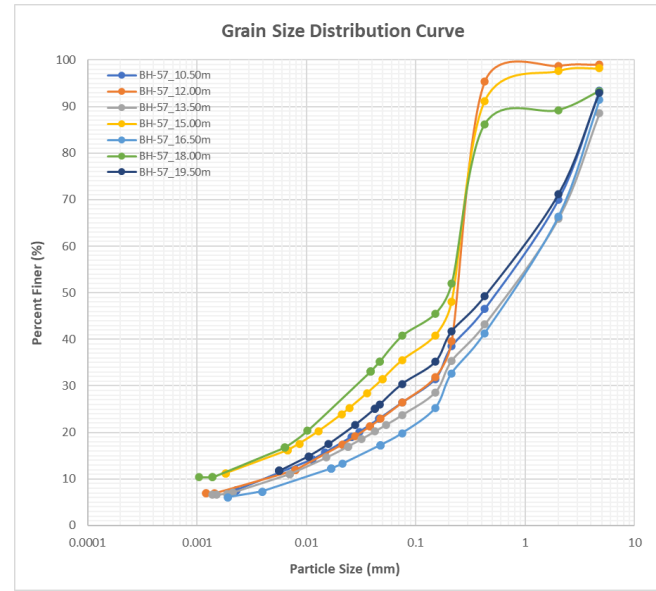
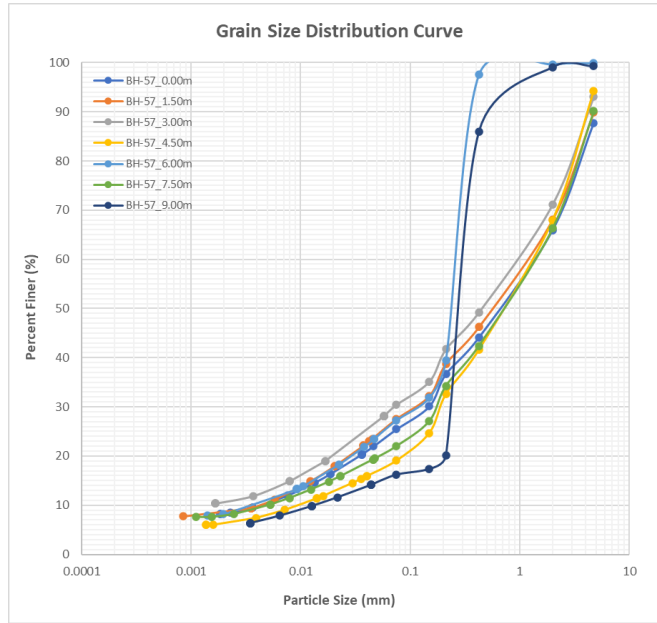


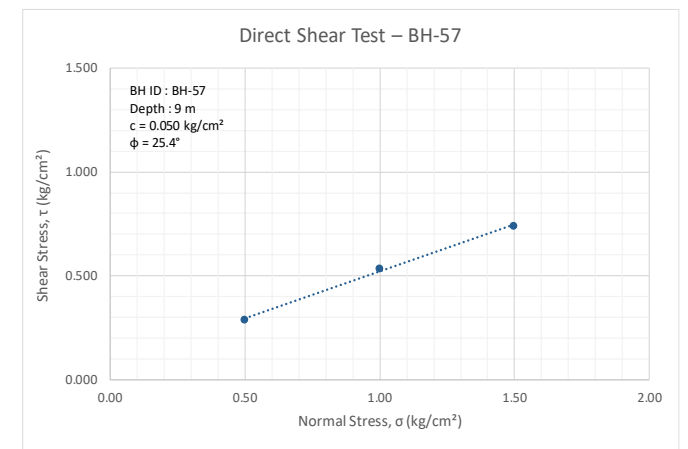
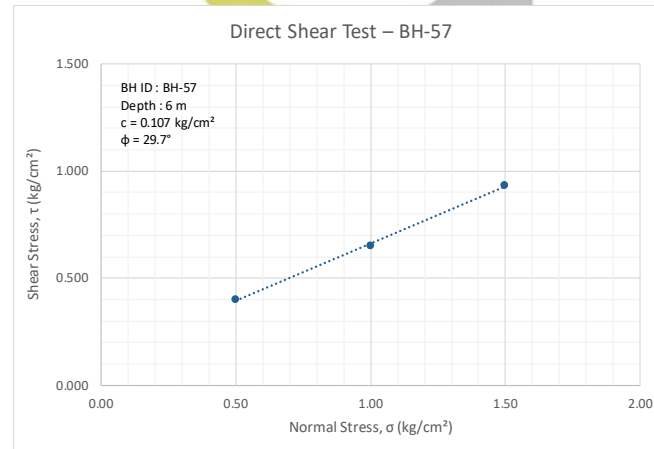
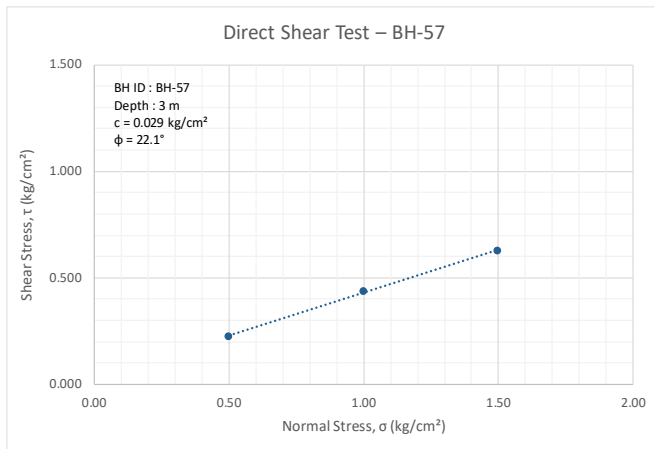
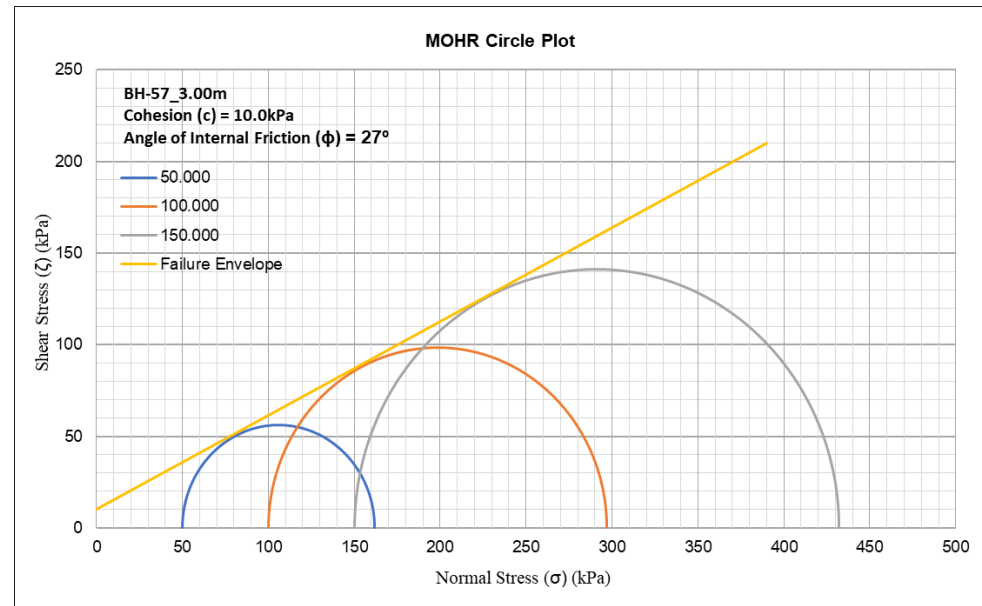


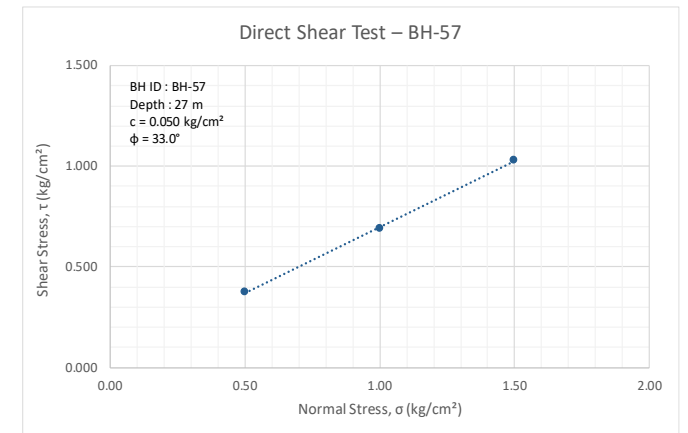
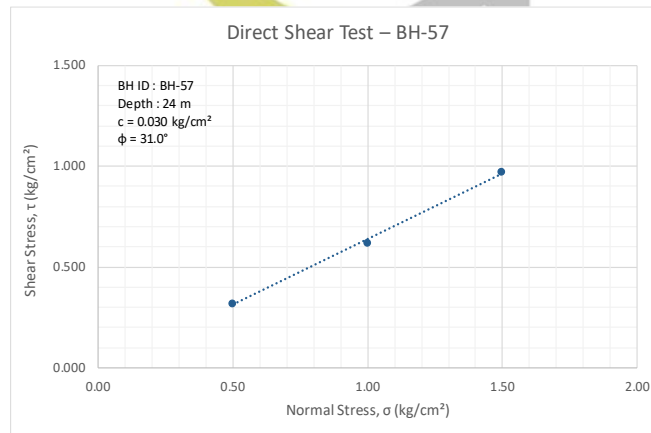
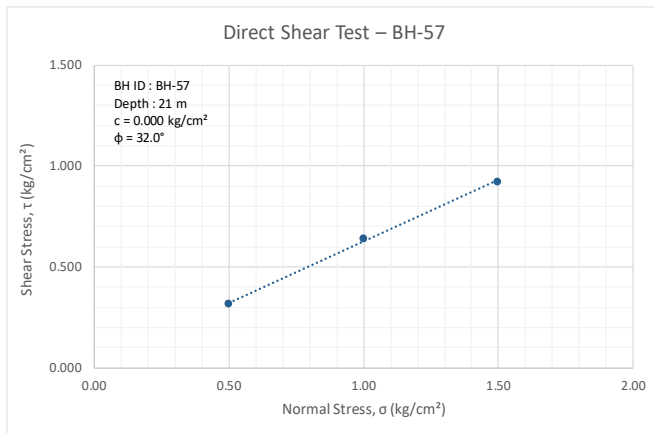
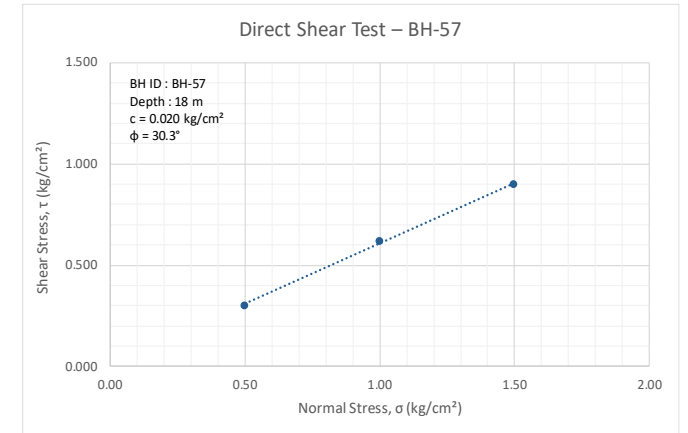
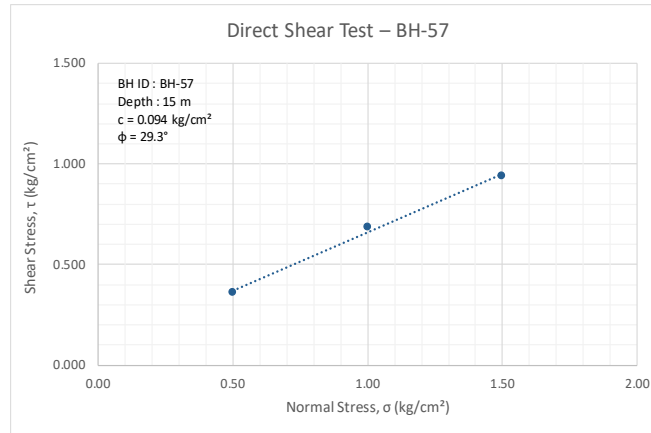
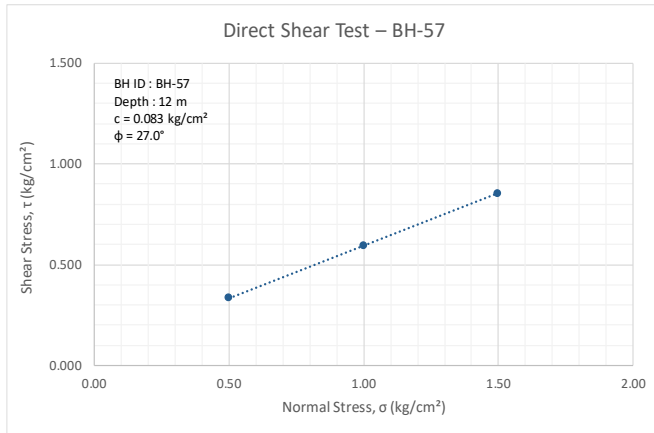
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-57	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	6+246	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	35.00	Start Date:	03-01-2026
Project Code:	158_R07_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	196.2	End Date:	04-01-2026
		Water table Level [m]:	12.60	Location:	Lat: 28.532783, Long: 77.359539

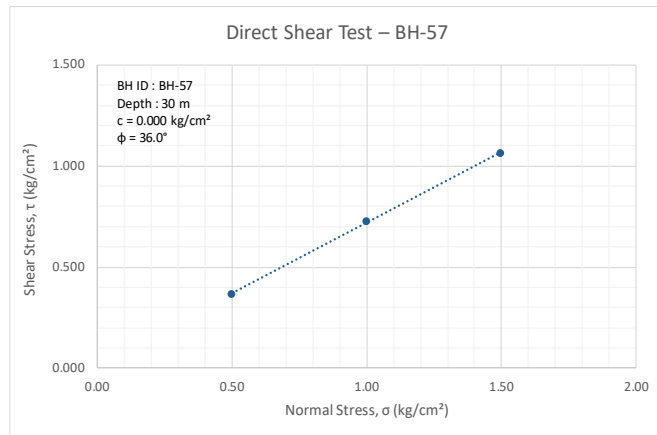
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						12.3	62.3	17.1	8.3	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Loose to Medium Dense, Brownish Gray, fine-grained silty sand (SM)	3	4	6	10	14	10.1	62.3	18.8	8.7	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							7.0	62.6	19.7	10.7	27	NP	NP	11.89	1.83	1.64	2.58	F	0.03	22	UU	10	27	-	-	-
3.50	SPT/DS		7	7	10	17	19																				
4.50	SPT/DS	Medium Dense to Dense, Grayish to Brown, fine-grained silty sand with Gravel (SM)	17	27	36	63	64	5.7	75.2	12.7	6.4	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							0.1	72.6	19.0	8.2	28	NP	NP	12.60	2.08	1.85	2.66	F	0.11	30	-	-	-	-	-	-
6.50	SPT/DS		10	13	21	34	32																				
7.50	SPT/DS		5	9	9	18	16	9.9	68.2	14.0	7.9	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	DS							0.8	83.0	9.4	6.8	22	NP	NP	9.77	-	-	2.67	F	0.05	25	-	-	-	-	-	-
9.50	SPT/DS		10	14	15	29	25																				
10.50	SPT/DS		12	16	28	44	36	6.6	67.0	17.9	8.5	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS							1.0	72.6	18.5	7.9	26	NP	NP	15.71	2.09	1.80	2.67	F	0.08	27	-	-	-	-	-	-
12.50	SPT/DS		15	25	48	73	55																				
13.50	SPT/DS		45	(50/12cm)	-	100	72	11.5	64.8	16.8	7.0	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	UDS						1.8	62.7	24.0	11.5	23	NP	NP	13.44	2.17	1.91	2.67	F	0.09	29	-	-	-	-	-	-	
15.50	SPT/DS	31	(50/12cm)	-	100	41																					
16.50	SPT/DS	42	(50/10cm)	-	100	40	8.6	71.6	13.7	6.1	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
18.00	DS						6.7	52.5	28.9	11.9	26	NP	NP	12.96	-	-	2.62	F	0.02	30	-	-	-	-	-	-	
18.50	SPT/DS	20	(50/12cm)	-	100	39																					
19.50	SPT/DS	33	50	(50/7cm)	100	39	7.0	62.6	18.9	11.5	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
21.00	DS						0.4	72.2	19.3	8.1	24	NP	NP	14.55	-	-	2.65	F	0.00	32	-	-	-	-	-	-	
21.50	SPT/DS	35	(50/14cm)	-	100	38																					
22.50	SPT/DS	33	(50/6cm)	-	100	37	5.9	75.4	12.0	6.6	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
24.00	UDS						1.4	65.4	21.6	11.6	21	NP	NP	11.78	2.07	1.85	2.64	F	0.03	31	-	-	-	-	-	-	
24.50	SPT/DS	45	(50/13cm)	-	100	36																					
25.50	SPT/DS	47	(50/13cm)	-	100	36	7.7	59.8	21.0	11.4	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	DS						0.0	70.2	20.0	9.8	29	NP	NP	13.57	-	-	2.66	F	0.05	33	-	-	-	-	-	-	
27.50	SPT/DS	(50/2cm)	-	-	100	35																					
28.50	SPT/DS	(50/6cm)	-	-	100	35	9.9	64.0	17.6	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30.00	DS						0.2	65.2	22.5	12.1	25	NP	NP	14.24	-	-	2.59	F	0.00	36	-	-	-	-	-	-	
30.50	SPT/DS	(50/3cm)	-	-	100	33																					
31.50	SPT/DS	50	(10/1cm)	-	100	33	9.8	60.2	16.5	13.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33.00	DS						0.0	69.4	19.9	10.6	-	-	-	12.55	-	-	-	-	-	-	-	-	-	-	-	-	
33.50	SPT/DS	40	50	(50/5cm)	100	31																					
35.00	SPT/DS	69	-	-	100	29	6.0	64.7	18.2	11.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

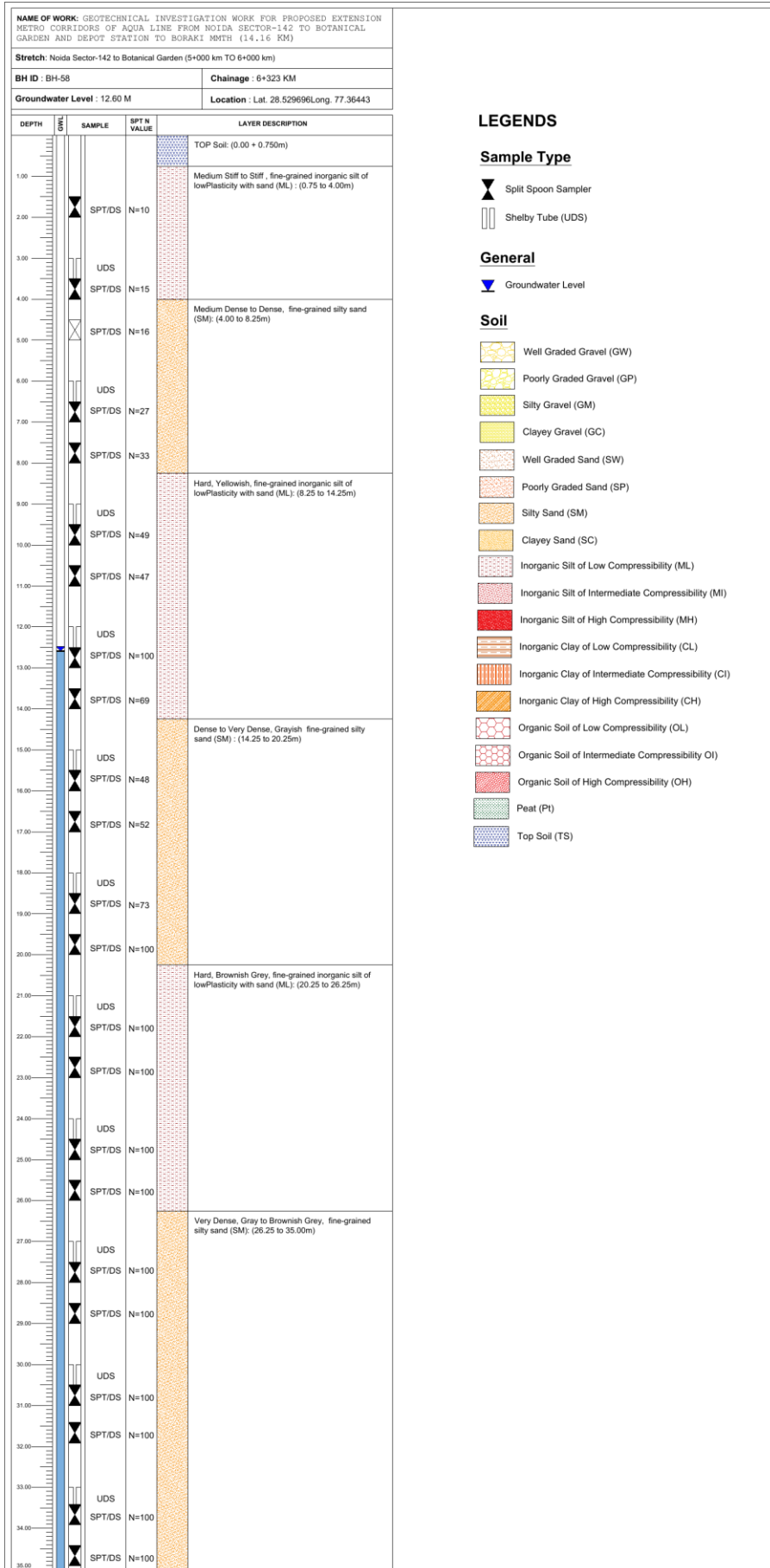
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.











LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

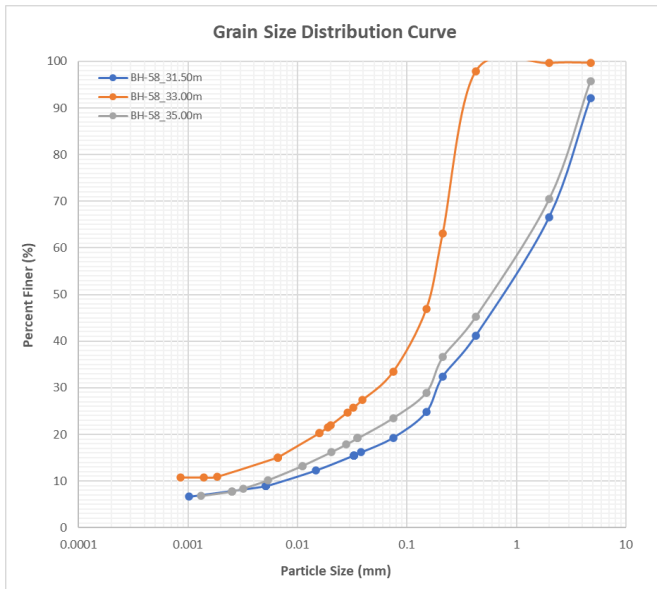
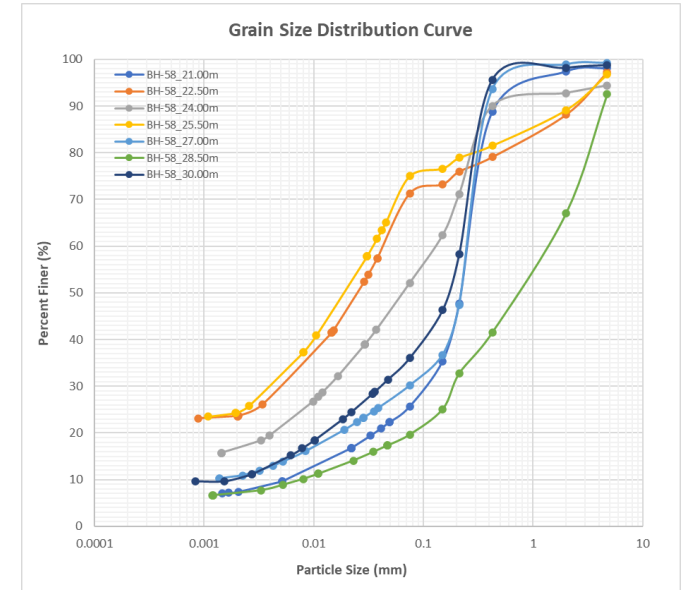
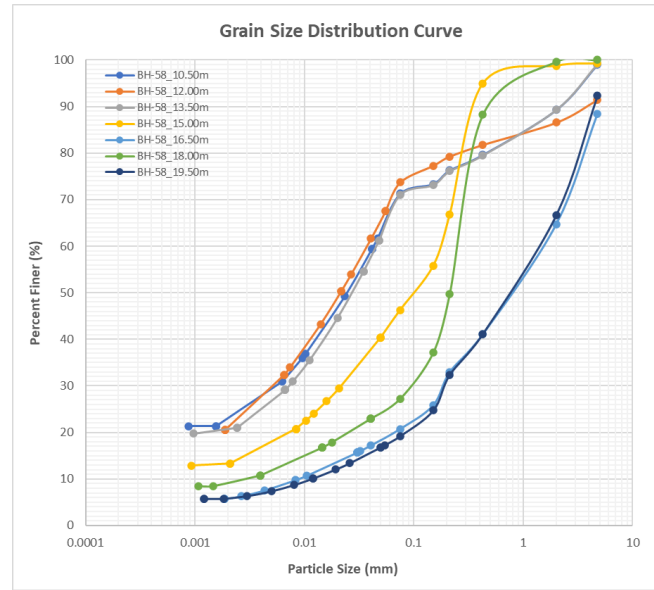
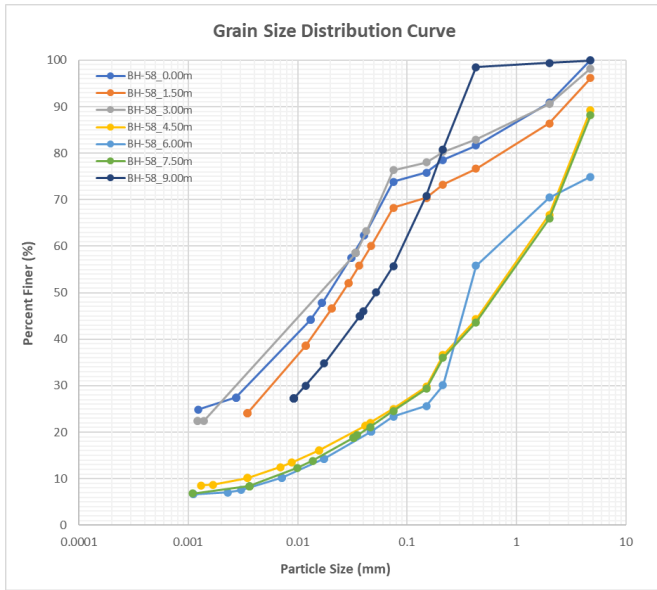
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

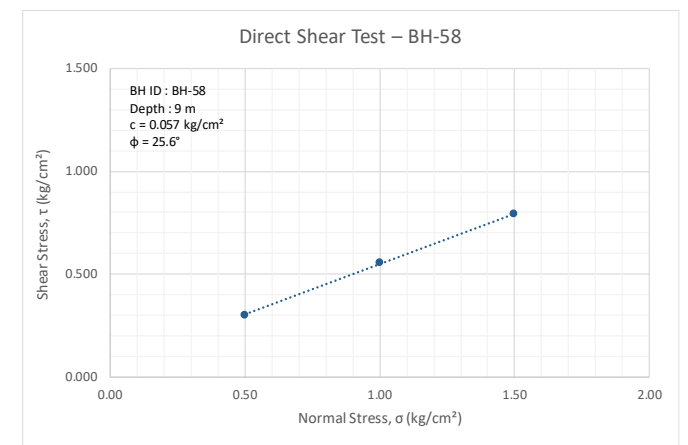
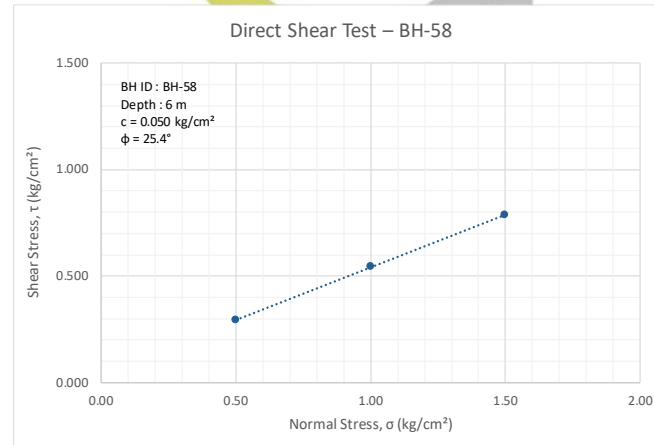
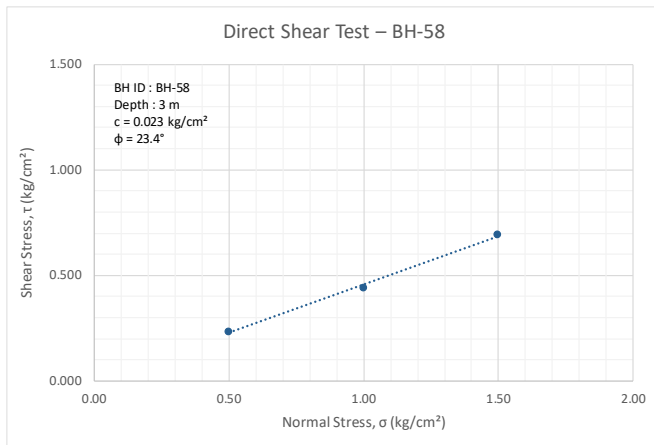
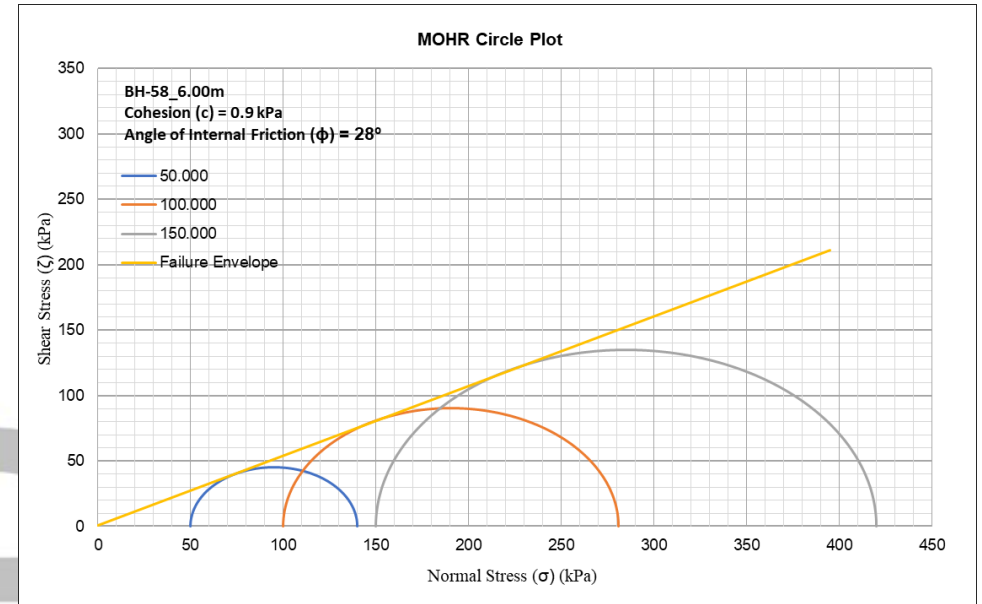
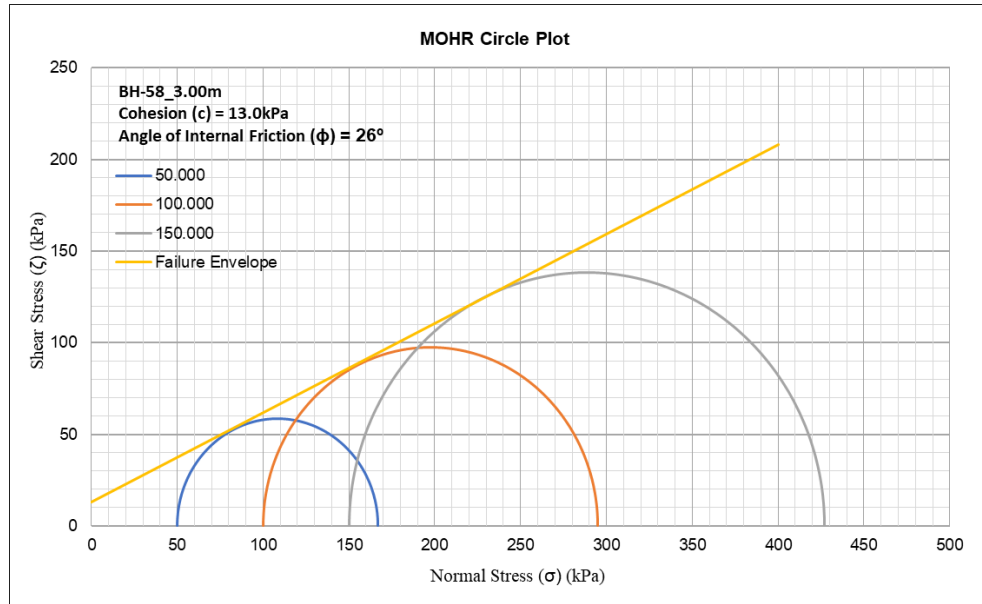


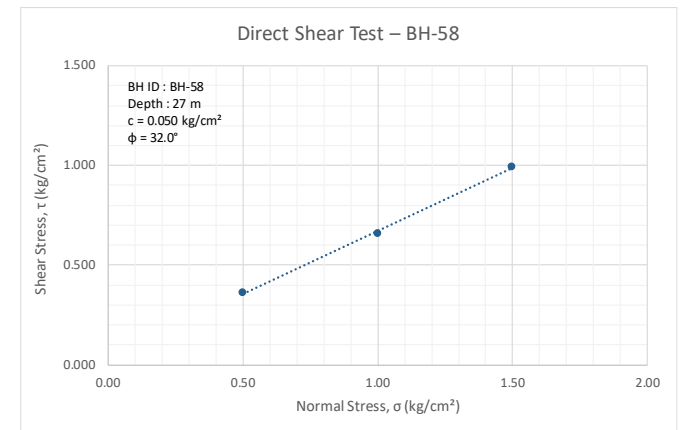
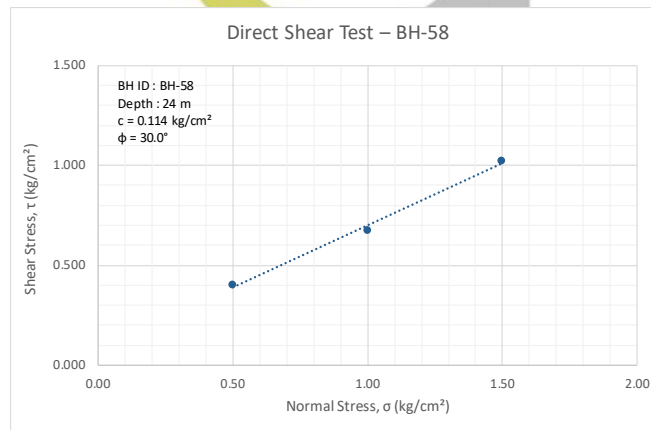
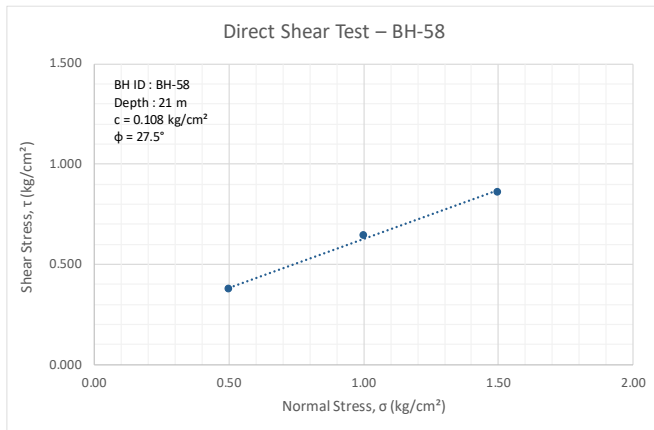
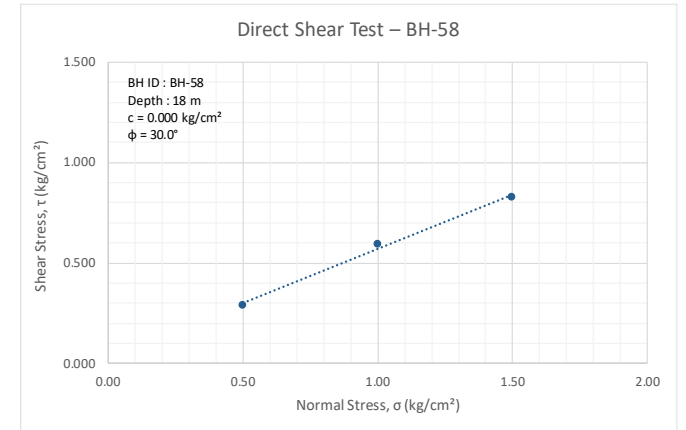
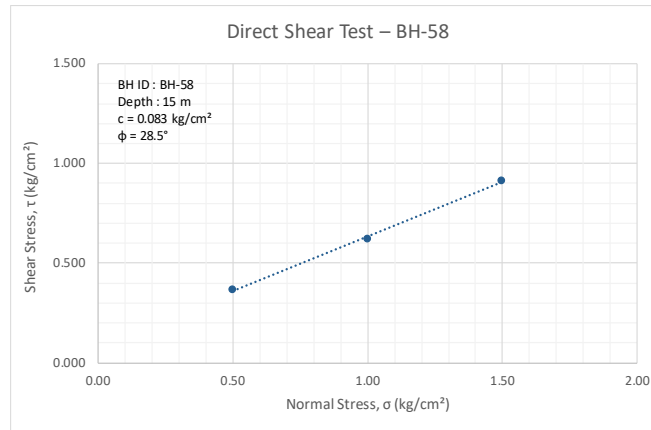
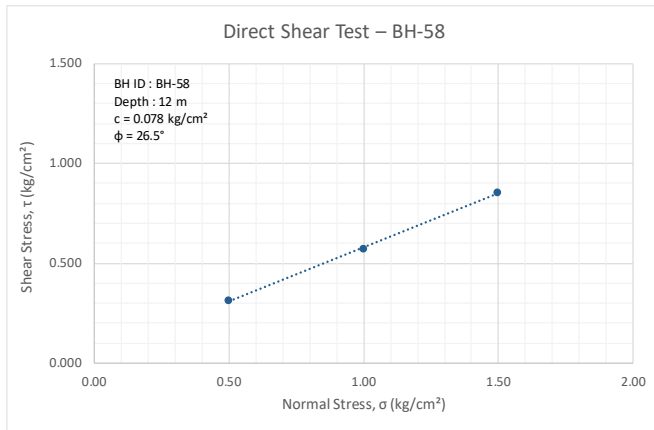
Project		Borehole Details			Drilling Details		
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-58		Contractor:	Goma Engineering & Consultancy	
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	6+323		Method of Drilling:	Rotary Drilling	
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	35.00		Start Date:	01-01-2026	
Project Code:	158_R07_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	200		End Date:	02-01-2026	
		Water table Level [m]:	12.60		Location:	Lat: 28.529696, Long: 77.36443	

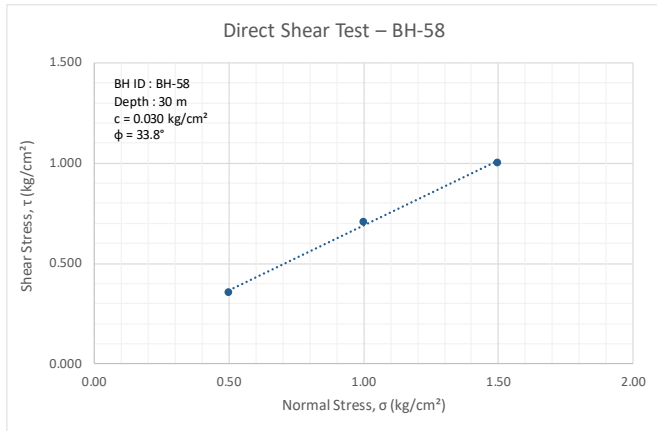
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						0.0	26.2	47.4	26.4	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium Stiff to Stiff, fine-grained inorganic silt of lowPlasticity with sand (ML)	2	4	6	10	14	3.9	27.9	45.2	23.1	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							1.8	86.1	49.8	26.5	26	NP	NP	11.89	1.91	1.71	2.67	F	0.02	23	UU	13	26	-	-	-
3.50	SPT/DS		4	7	8	15	16																				
4.50	SPT/DS	Medium Dense to Dense, fine-grained silty sand (SM)	6	7	9	16	16	10.7	64.3	16.0	9.0	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							25.1	51.5	16.4	7.0	28	NP	NP	12.65	1.94	1.72	2.63	F	0.05	25	UU	0.9	28	-	-	-
6.50	SPT/DS		9	12	15	27	25																				
7.50	SPT/DS		12	14	19	33	30	11.9	63.6	17.0	7.6	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	UDS	Hard, Yellowish, fine-grained inorganic silt of lowPlasticity with sand (ML)						0.1	44.3	33.8	21.9	25	NP	NP	15.52	1.96	1.70	2.66	F	0.06	26	-	-	-	-	-	-
9.50	SPT/DS		11	21	28	49	42																				
10.50	SPT/DS		16	22	25	47	39	1.0	27.7	48.2	23.1	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS		8.6	17.7	52.6	21.1	29	NP	NP	14.98	2.03	1.77	2.70	F	0.08	27	-	-	-	-	-	-	-	-	-	-	
12.50	SPT/DS		26	(52/13cm)	-	100	75																				
13.50	SPT/DS		25	31	38	69	33	0.9	28.1	50.3	20.8	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	UDS	Dense to Very Dense, Grayish fine-grained silty sand (SM)						0.7	52.9	33.0	13.3	25	NP	NP	11.66	2.08	1.87	2.69	F	0.08	29	-	-	-	-	-	-
15.50	SPT/DS		17	22	26	48	24																				
16.50	SPT/DS		14	24	28	52	25	11.5	67.7	14.9	5.8	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	UDS		0.0	72.8	18.1	9.2	29	NP	NP	12.26	2.15	1.91	2.63	F	0.00	30	-	-	-	-	-	-	-	-	-	-	
18.50	SPT/DS		30	35	38	73	32																				
19.50	SPT/DS		32	38	(50/13cm)	100	40	7.7	73.1	13.3	5.9	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	UDS		1.8	72.6	18.3	7.3	23	NP	NP	16.24	2.18	1.88	2.63	F	0.11	28	-	-	-	-	-	-	-	-	-	-	
21.50	SPT/DS	33	35	(50/12cm)	100	39																					
22.50	SPT/DS	32	40	(50/10cm)	100	39	2.8	25.9	47.7	23.6	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
24.00	UDS	5.6	42.3	35.3	16.8	21	NP	NP	14.86	2.11	1.84	2.70	F	0.10	30	-	-	-	-	-	-	-	-	-	-		
24.50	SPT/DS	16	21	(50/14cm)	100	38																					
25.50	SPT/DS	20	31	(50/12cm)	100	37	3.3	21.7	50.6	24.4	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	DS	0.7	69.1	19.4	10.8	25	NP	NP	11.71	-	-	2.63	F	0.05	32	-	-	-	-	-	-	-	-	-	-		
27.50	SPT/DS	(50/12cm)	-	-	100	36																					
28.50	SPT/DS	(50/10cm)	-	-	100	36																					
30.00	DS	1.2	62.7	25.7	10.4	26	NP	NP	10.98	-	-	2.62	F	0.03	34	-	-	-	-	-	-	-	-	-	-		
30.50	SPT/DS	(50/8cm)	-	-	100	35																					
31.50	SPT/DS	(50/8cm)	-	-	100	34																					
33.00	DS	0.3	66.2	22.3	11.2	22	NP	NP	13.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
33.50	SPT/DS	30	(50/7cm)	-	100	33																					
35.00	SPT/DS	41	(50/6cm)	-	100	32																					

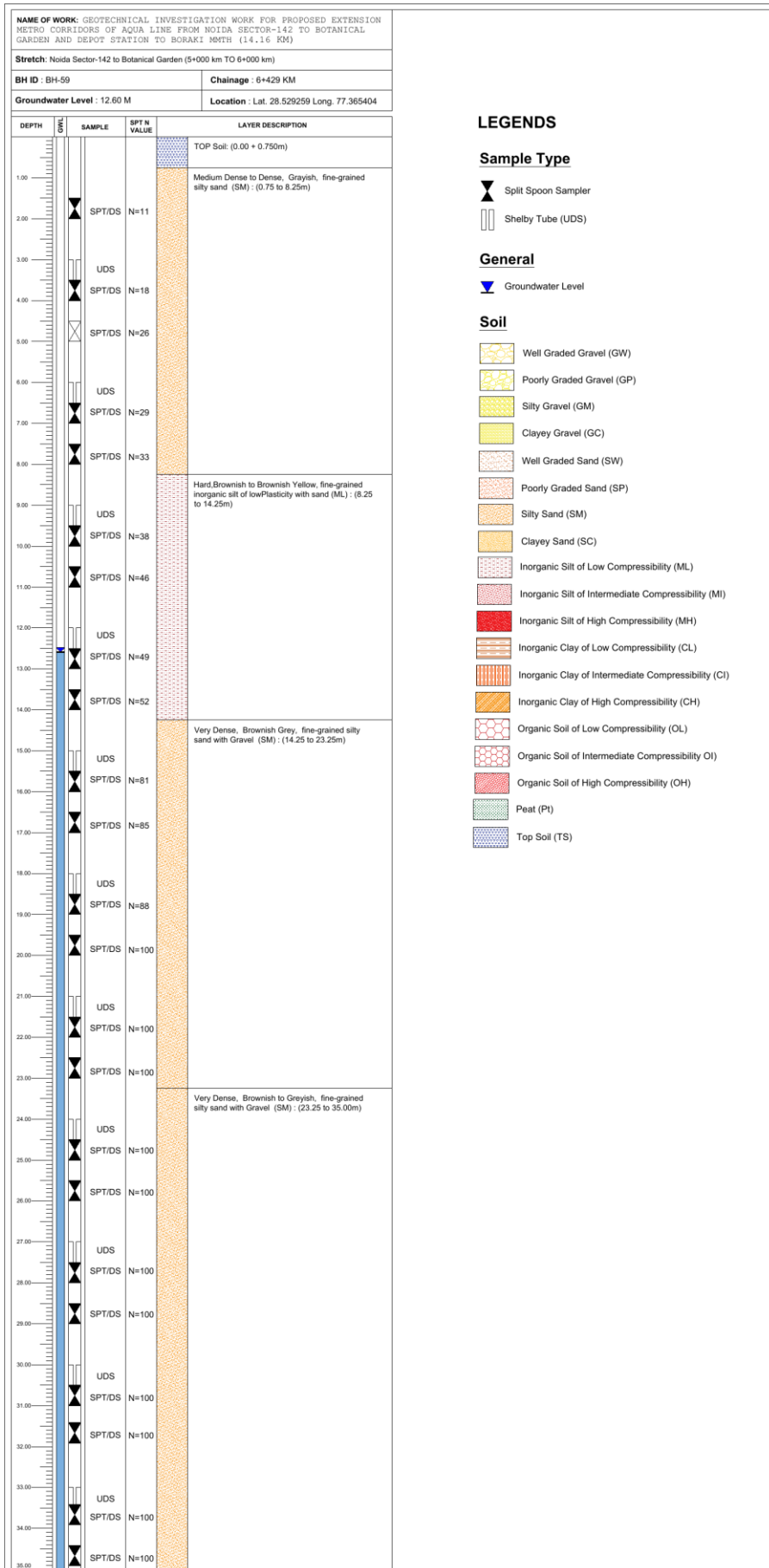
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.











LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

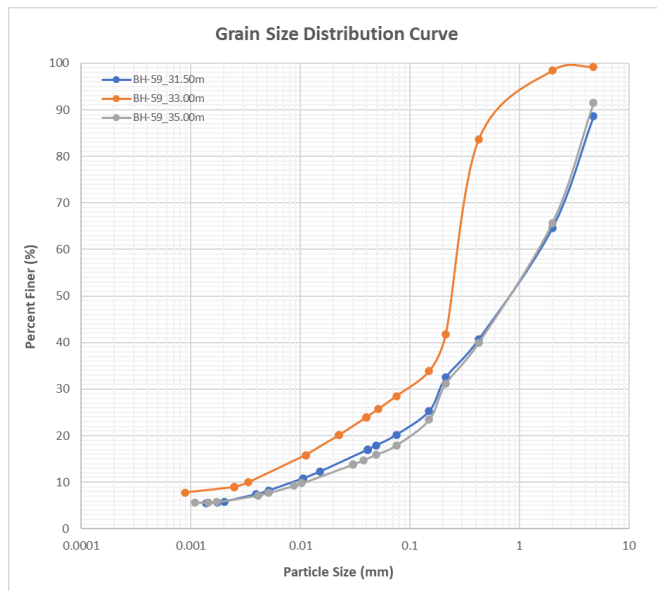
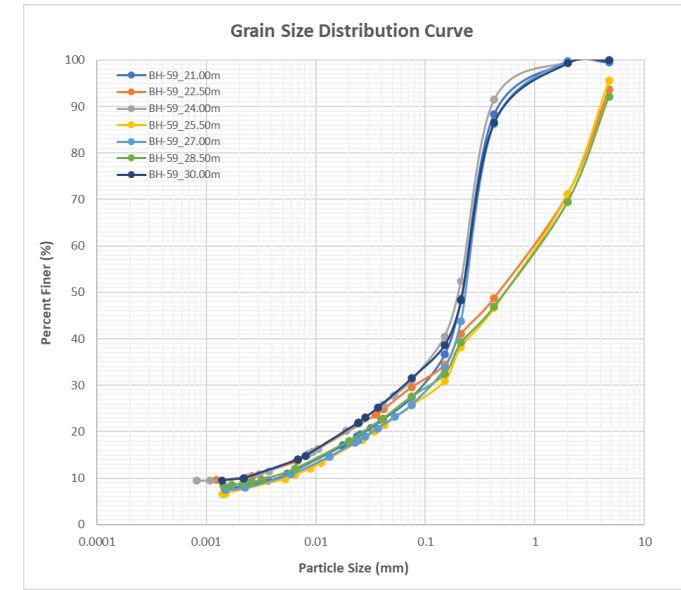
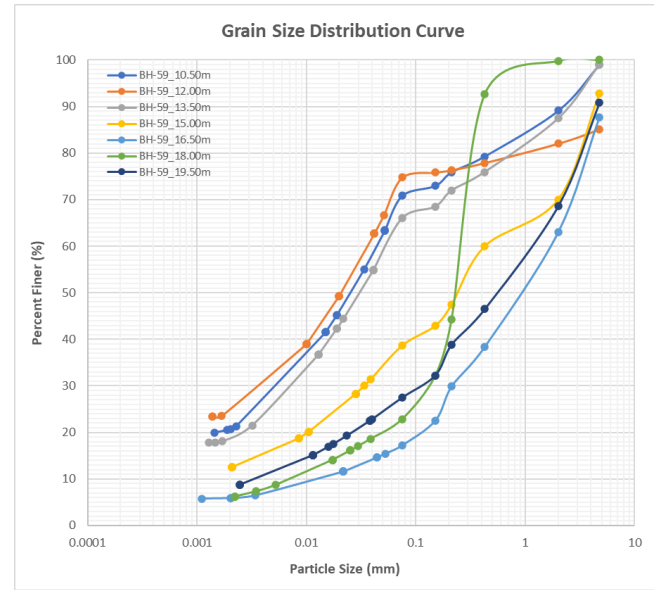
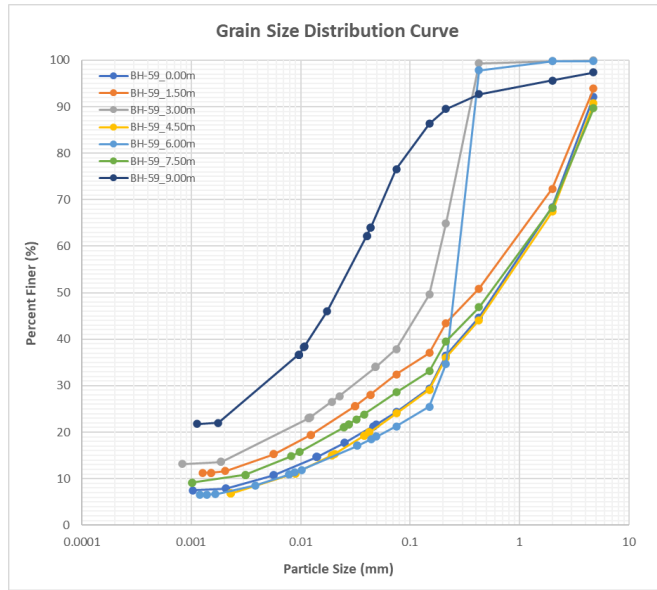
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

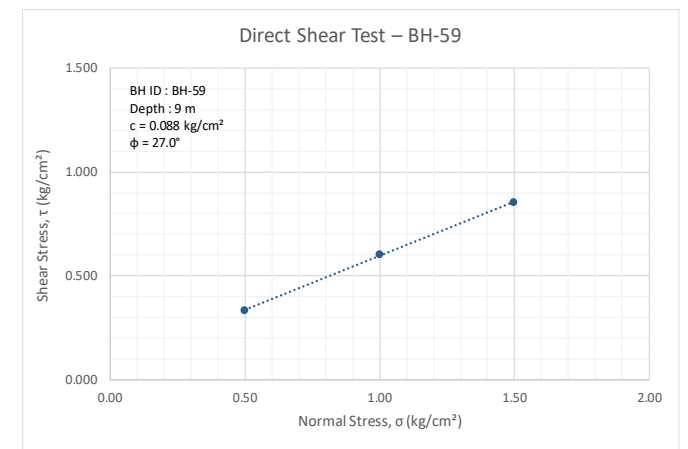
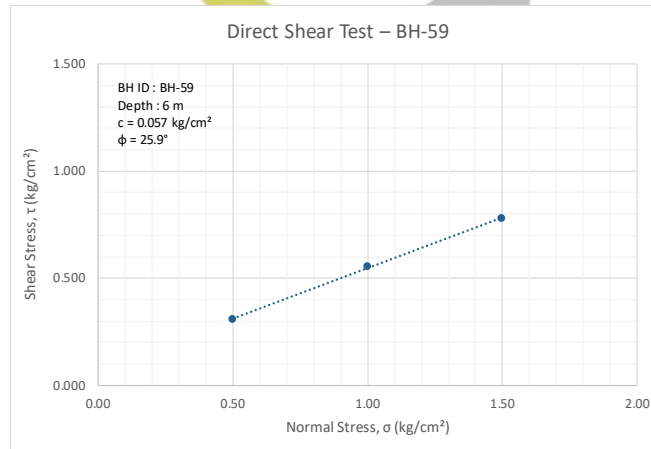
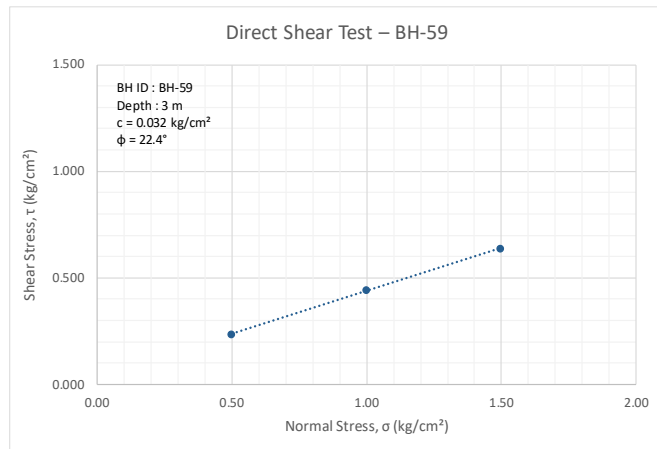
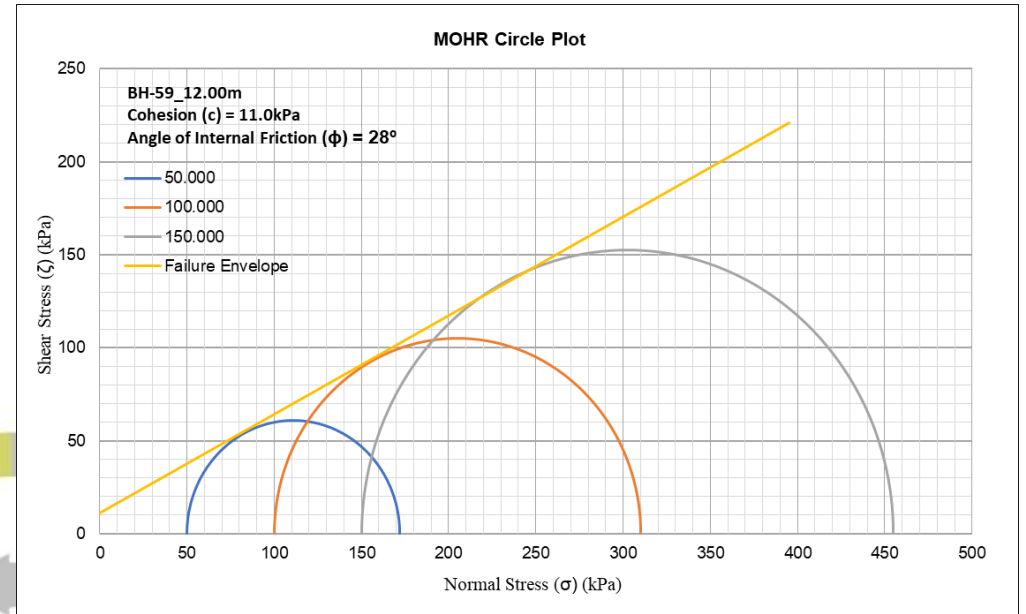
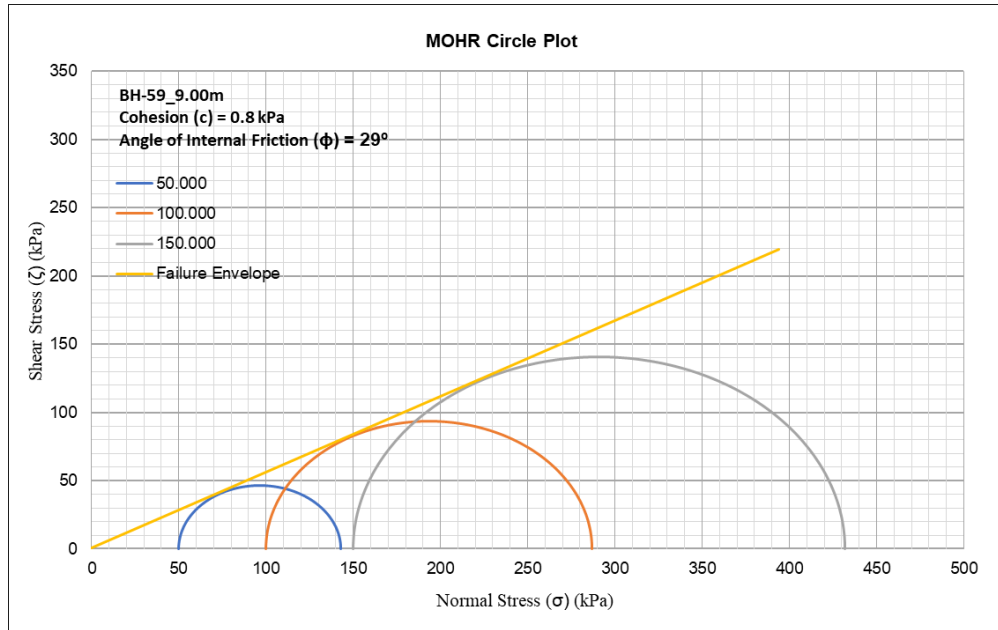


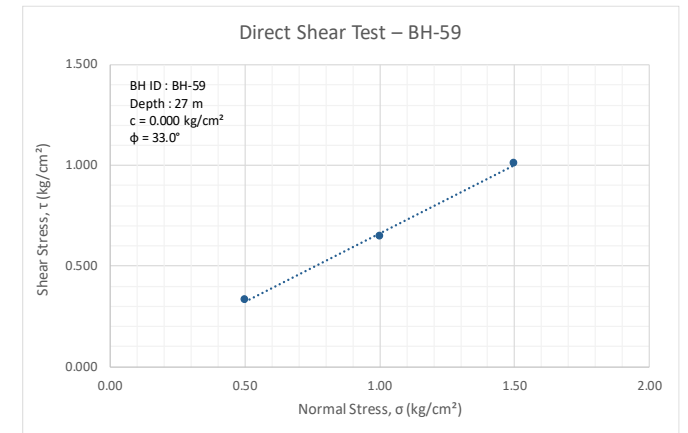
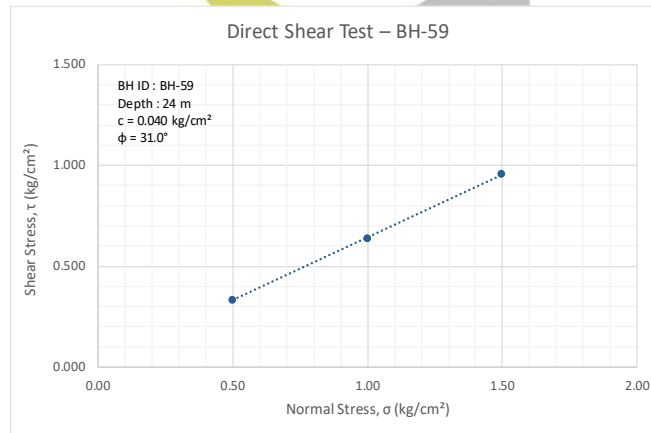
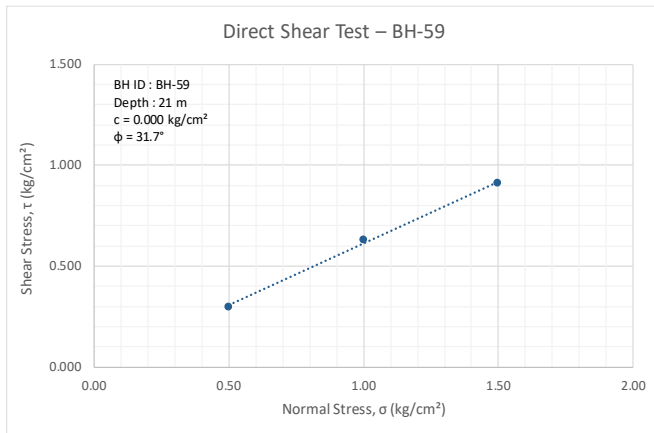
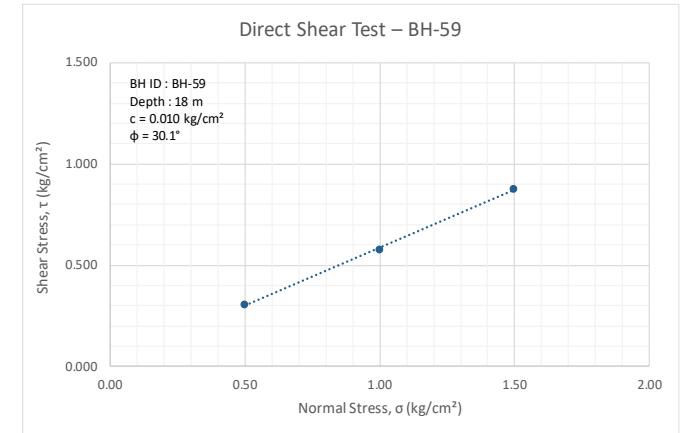
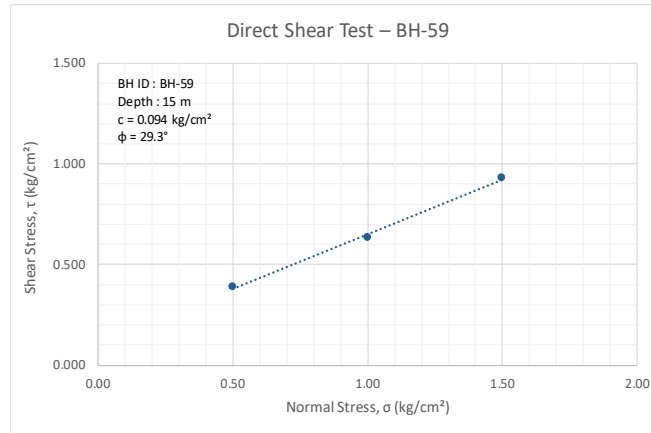
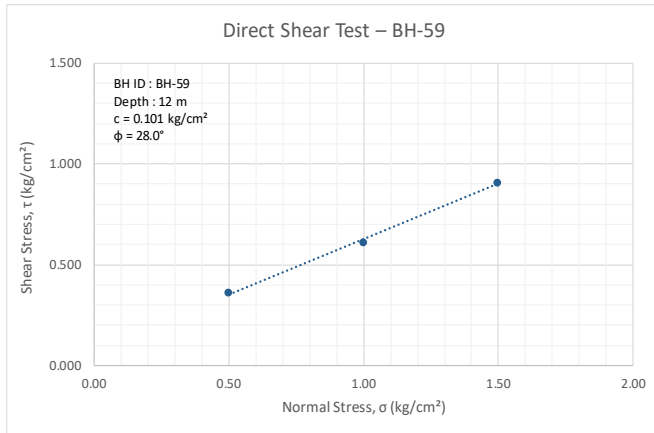
Project		Borehole Details			Drilling Details		
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-59		Contractor:	Goma Engineering & Consultancy	
		Chainage [km]:	6+429		Method of Drilling:	Rotary Drilling	
Client:	Noida Metro Rail Corporation (NMRC) Limited	Depth [m]:	35.00		Start Date:	30-12-2025	
Stretch:	Noida Sector-142 to Botanical Garden	Elevation [m]:	198.5		End Date:	31-12-2025	
Project Code:	158_R07_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Water table Level [m]:	12.60		Location:	Lat: 28.529259, Long: 77.365404	

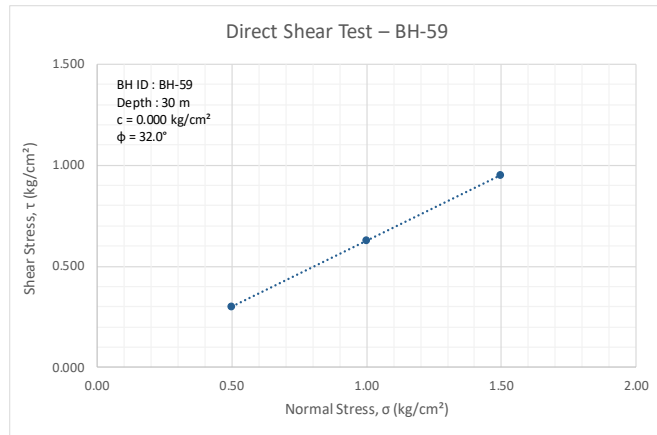
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						7.8	67.8	16.5	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium Dense to Dense, Grayish, fine-grained silty sand (SM)	4	5	6	11	15	6.1	61.4	20.8	11.6	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							0.1	62.0	24.0	13.9	26	NP	NP	12.84	1.75	1.55	2.61	F	0.03	22	-	-	-	-	-	-
3.50	SPT/DS		7	8	10	18	20																				
4.50	SPT/DS		10	12	14	26	27	9.3	66.7	17.6	6.5	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							0.2	78.5	14.2	7.1	27	NP	NP	14.55	1.91	1.67	2.62	F	0.06	26	-	-	-	-	-	-
6.50	SPT/DS		10	13	16	29	27																				
7.50	SPT/DS		13	16	17	33	30	10.3	61.1	18.4	10.1	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	UDS	Hard, Brownish to Brownish Yellow, fine-grained inorganic silt of low Plasticity with sand (ML)						2.7	20.7	53.5	23.1	28	NP	NP	13.20	1.89	1.67	2.67	F	0.09	27	UU	0.8	29	-	-	-
9.50	SPT/DS		15	17	21	38	32																				
10.50	SPT/DS		18	22	24	46	38	1.0	28.1	50.1	20.7	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS							15.0	10.3	49.7	25.1	29	NP	NP	14.15	1.91	1.67	2.65	F	0.1	28	UU	11	28	-	-	-
12.50	SPT/DS		20	23	26	49	37																				
13.50	SPT/DS	20	24	28	52	37	0.9	33.0	47.1	19.0	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
15.00	DS	Very Dense, Brownish Grey, fine-grained silty sand with Gravel (SM)						7.1	54.2	28.9	9.8	26	NP	NP	9.89	-	-	2.69	F	0.09	29	-	-	-	-	-	-
15.50	SPT/DS		18	39	42	81	36																				
16.50	SPT/DS		22	41	44	85	37	12.3	70.5	11.3	5.9	29	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS							0.0	77.2	16.2	6.7	22	NP	NP	12.41	-	-	2.63	F	0.01	30	-	-	-	-	-	-
18.50	SPT/DS		28	40	48	88	37																				
19.50	SPT/DS		30	45	(50/12cm)	100	40	9.2	63.3	17.9	9.6	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS							0.5	72.1	19.2	8.3	24	NP	NP	13.17	-	-	2.63	F	0.00	32	-	-	-	-	-	-
21.50	SPT/DS		33	39	(50/12cm)	100	39																				
22.50	SPT/DS		36	44	(50/11cm)	100	39	6.4	64.0	19.5	10.1	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS							0.0	68.9	21.1	10.0	27	NP	NP	11.26	-	-	2.60	F	0.04	31	-	-	-	-	-	-
24.50	SPT/DS	40	(50/10cm)	-	100	38																					
25.50	SPT/DS	44	(50/8cm)	-	100	37	4.4	69.9	18.3	7.4	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	DS						0.1	74.1	18.0	7.8	21	NP	NP	15.54	-	-	2.68	F	0.00	33	-	-	-	-	-	-	
27.50	SPT/DS	(50/12cm)	-	-	100	36																					
28.50	SPT/DS	(50/11cm)	-	-	100	36	7.9	64.6	18.9	8.7	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
30.00	DS						0.0	68.5	21.6	9.8	29	NP	NP	13.29	-	-	2.67	F	0.00	32	-	-	-	-	-	-	
30.50	SPT/DS	48	(50/7cm)	-	100	35																					
31.50	SPT/DS	44	(50/6cm)	-	100	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33.00	DS						0.8	70.8	19.8	8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33.50	SPT/DS	43	(50/6cm)	-	100	33																					
35.00	SPT/DS	46	(50/5cm)	-	100	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

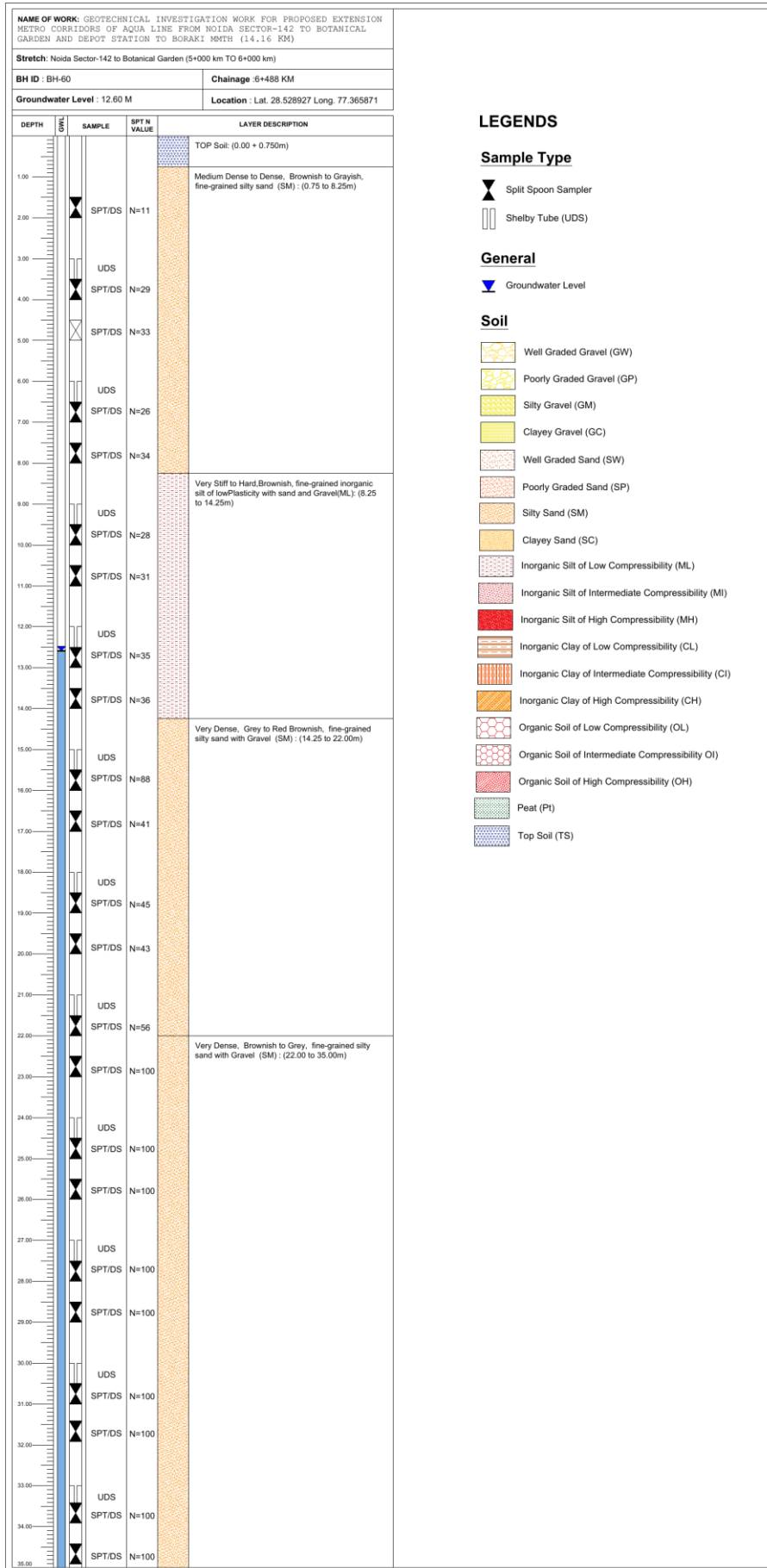
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.











LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

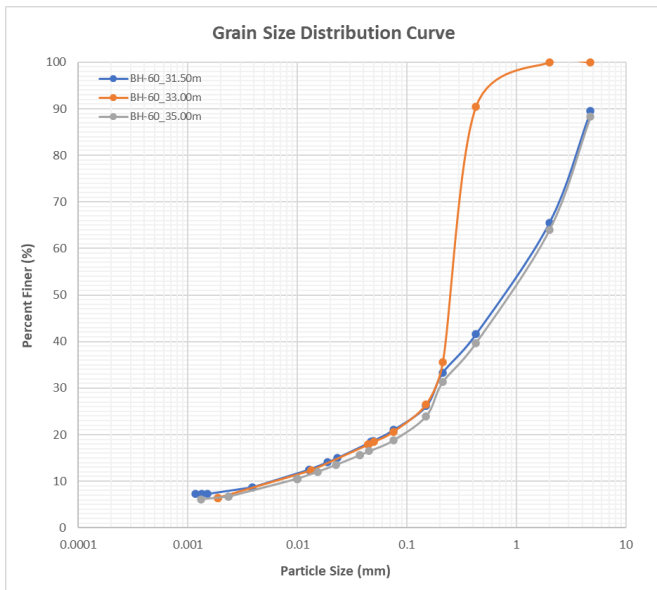
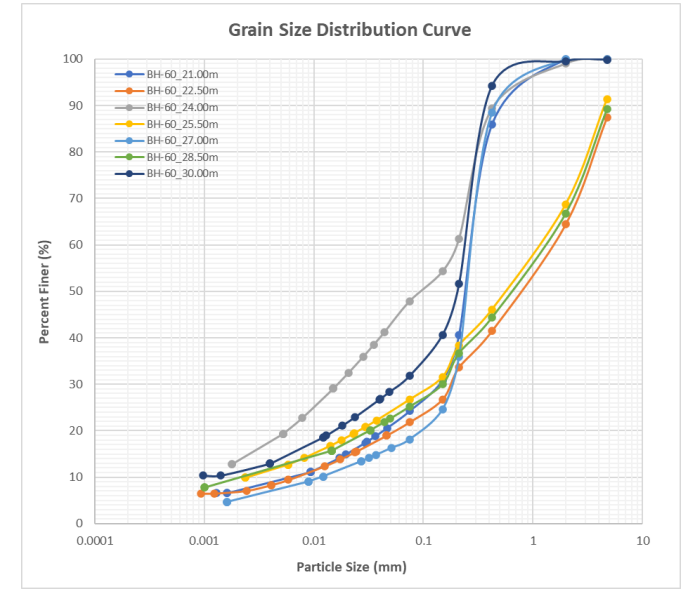
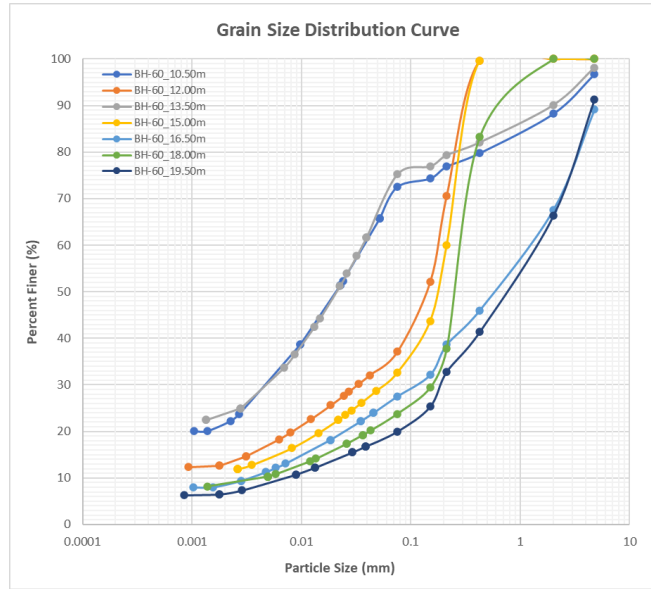
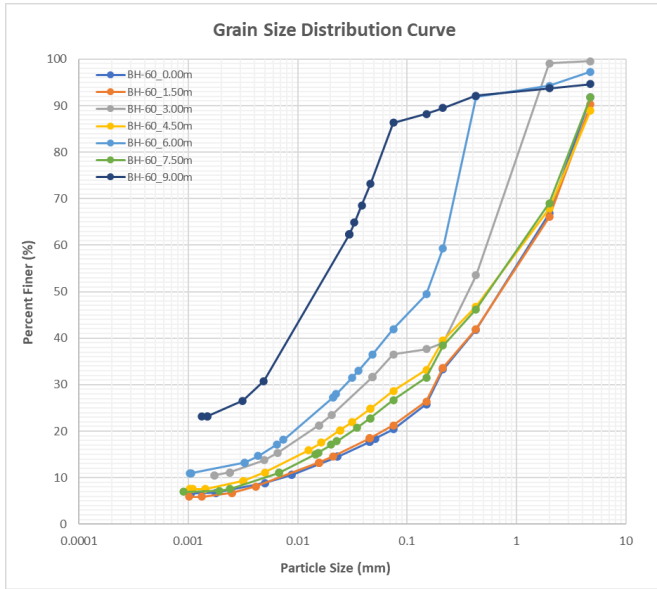
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

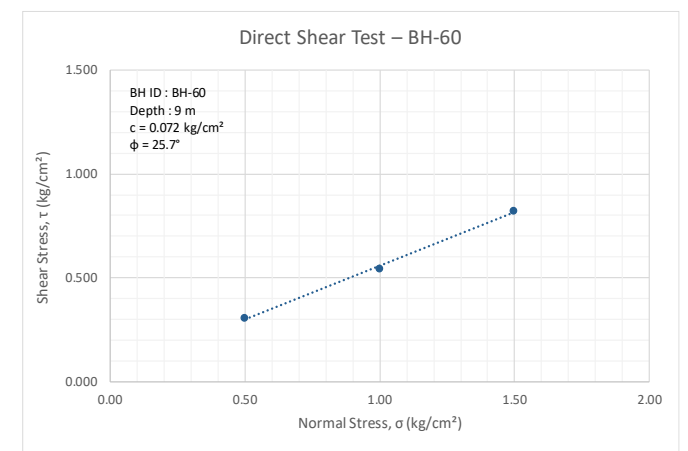
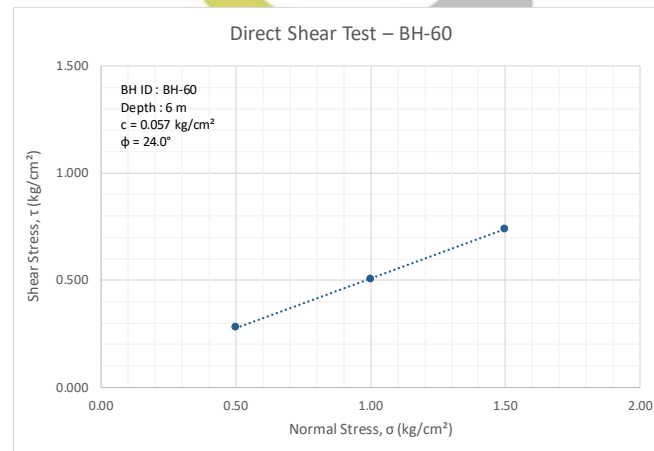
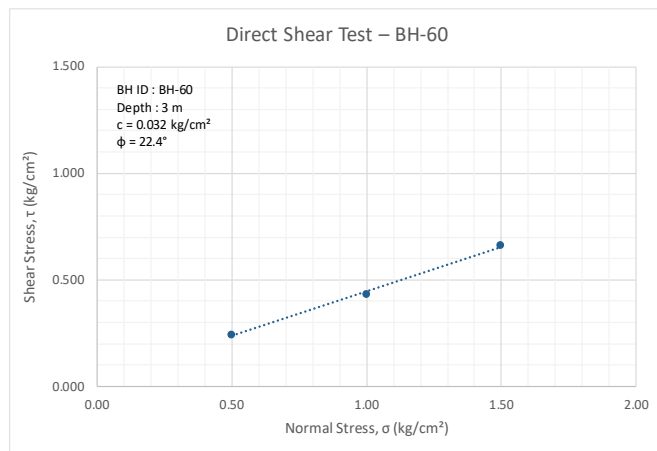
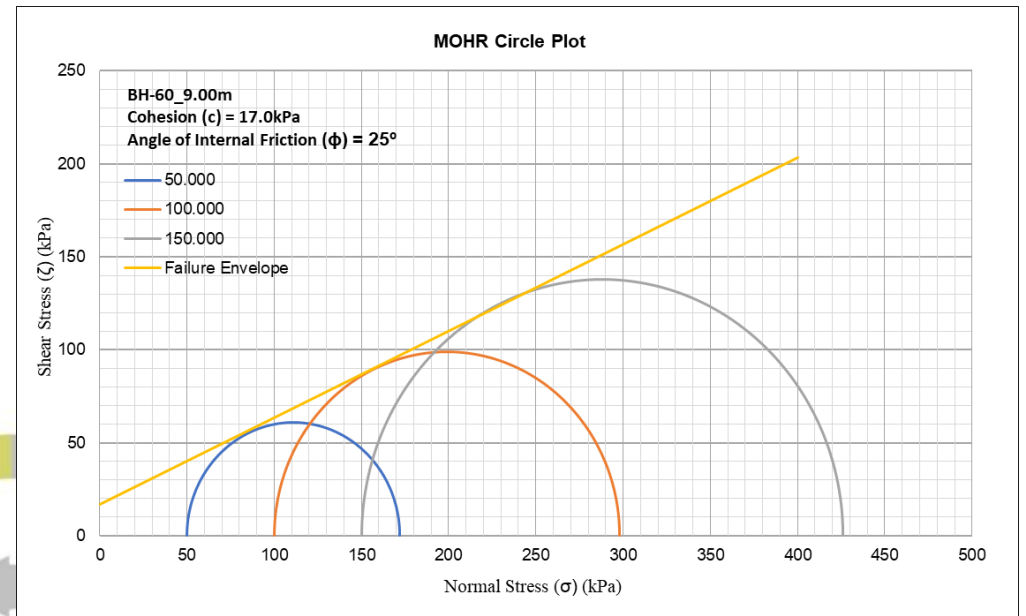
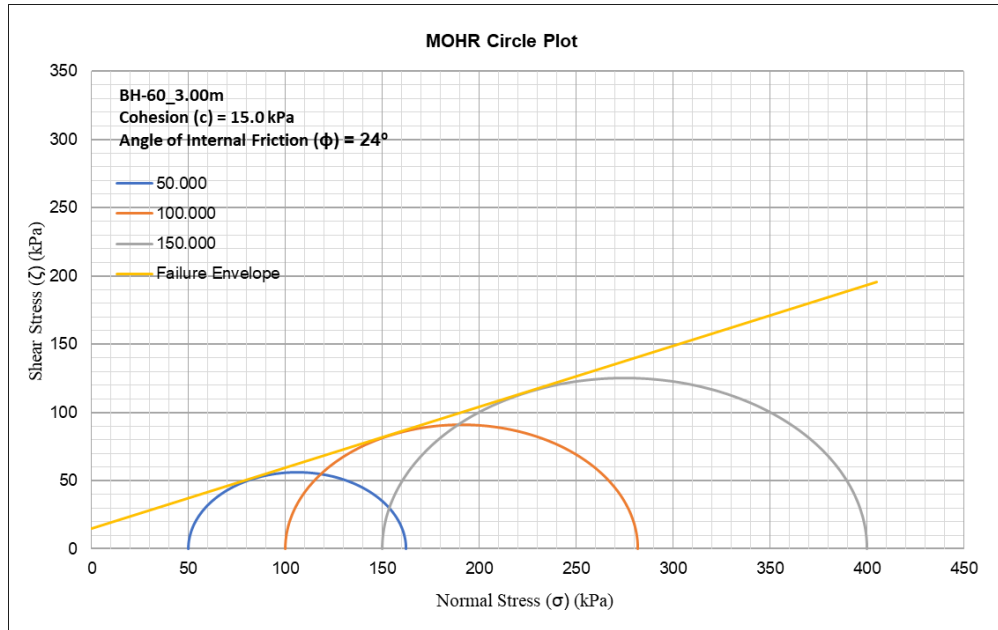


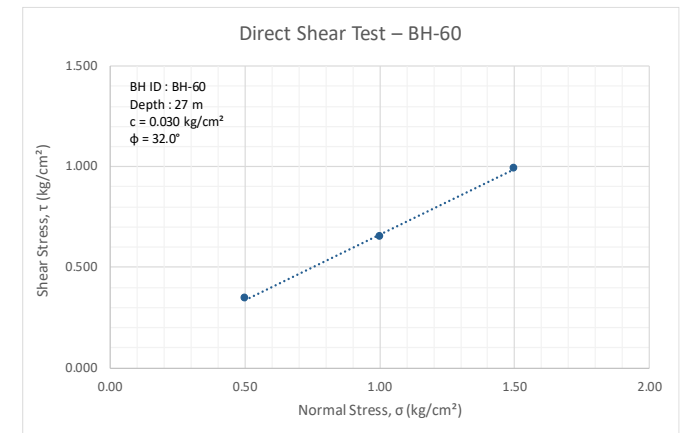
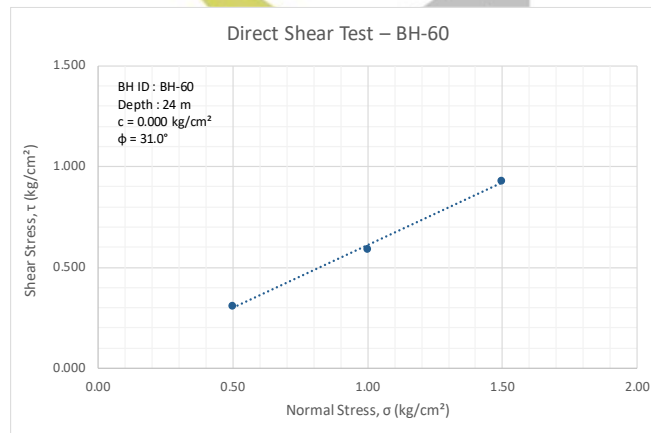
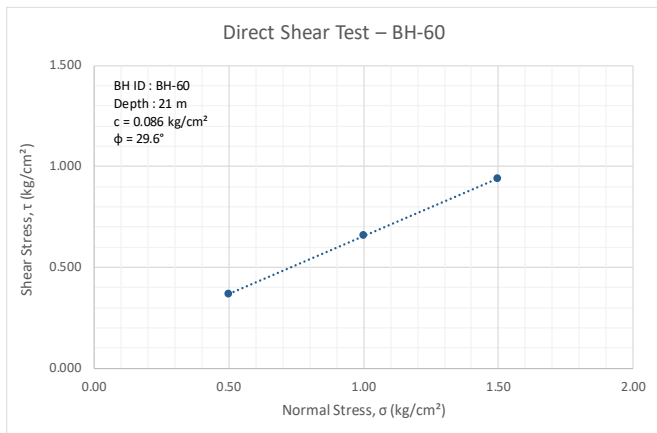
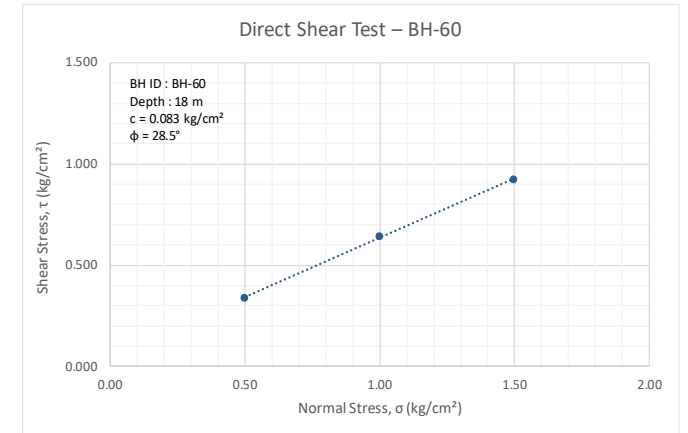
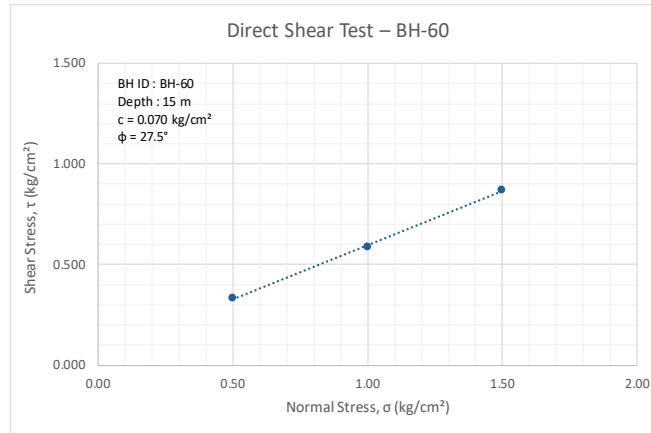
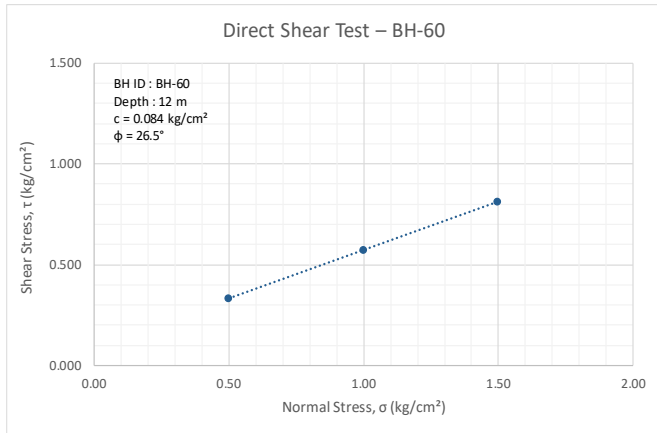
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-60	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	6+488	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	35.00	Start Date:	28-12-2025
Project Code:	158_R07_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	195.3	End Date:	30-12-2025
		Water table Level [m]:	12.60	Location:	Lat: 28.528927, Long: 77.365871

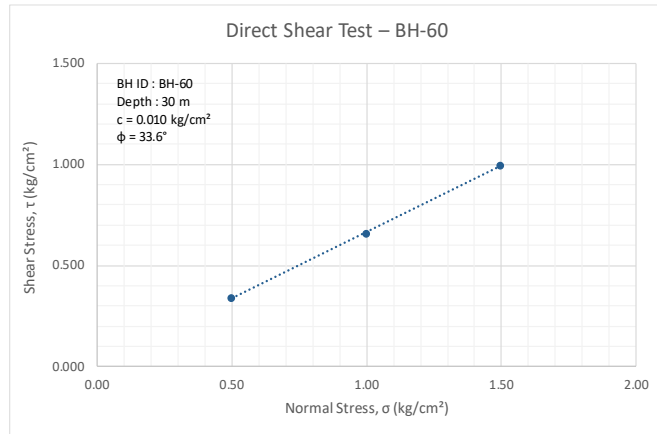
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						8.2	71.4	13.4	7.0	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium Dense to Dense, Brownish to Grayish, fine-grained silty sand (SM)	5	5	6	11	15	9.7	69.0	14.8	6.4	29	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							0.4	63.1	25.7	10.8	27	NP	NP	13.56	1.88	1.66	2.60	F	0.03	22	UU	15	24	-	-	-
3.50	SPT/DS		12	14	15	29	32																				
4.50	SPT/DS		10	15	18	33	34	11.0	60.3	20.4	8.3	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							2.7	55.4	29.7	12.2	24	NP	NP	14.44	1.96	1.71	2.67	F	0.06	24	-	-	-	-	-	-
6.50	SPT/DS		10	12	14	26	24																				
7.50	SPT/DS		12	16	18	34	31	8.2	65.2	19.4	7.2	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	UDS						5.3	8.3	61.9	24.5	29	NP	NP	12.87	1.91	1.69	2.66	F	0.07	26	UU	17	25	-	-	-	
9.50	SPT/DS	10	13	15	28	24																					
10.50	SPT/DS	Very Stiff to Hard, Brownish, fine-grained inorganic silt of low Plasticity with sand and Gravel (ML)	12	14	17	31	25	3.3	24.2	50.8	21.7	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	DS							0.0	62.9	24.1	13.1	25	NP	NP	16.18	-	-	2.63	F	0.08	27	-	-	-	-	-	-
12.50	SPT/DS		10	15	20	35	26																				
13.50	SPT/DS		12	15	21	36	21	1.8	22.9	51.4	23.9	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	UDS						0.0	67.4	25.1	7.6	22	NP	NP	15.77	1.98	1.71	2.64	F	0.07	28	-	-	-	-	-	-	
15.50	SPT/DS	30	40	48	88	39																					
16.50	SPT/DS	33	41	(50/9cm)	41	22	10.9	61.6	18.9	8.6	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
18.00	DS	Very Dense, Grey to Red Brownish, fine-grained silty sand with Gravel (SM)						0.0	76.2	15.0	8.8	25	NP	NP	13.22	-	-	2.66	F	0.08	29	-	-	-	-	-	-
18.50	SPT/DS		30	45	(50/8cm)	45	23																				
19.50	SPT/DS		30	43	(50/10cm)	43	22	8.7	71.3	13.3	6.7	29	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS							0.0	75.8	17.1	7.1	24	NP	NP	11.66	-	-	2.70	F	0.09	30	-	-	-	-	-	-
21.50	SPT/DS		8	23	33	56	25																				
22.50	SPT/DS	26	(38/13cm)	-	100	39	12.6	65.5	14.9	6.9	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
24.00	DS						0.1	52.1	34.4	13.5	28	NP	NP	10.87	-	-	2.67	F	0.00	31	-	-	-	-	-	-	
24.50	SPT/DS	10	40	(30/5cm)	100	38																					
25.50	SPT/DS	22	(50/12cm)	-	100	37	8.6	64.7	22.3	4.4	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	DS						0.0	81.9	12.9	5.2	26	NP	NP	12.64	-	-	2.65	F	0.03	32	-	-	-	-	-	-	
27.50	SPT/DS	28	(50/10cm)	-	100	36																					
28.50	SPT/DS	29	(50/8cm)	-	100	36	10.8	64.0	15.4	9.8	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
30.00	DS						0.1	68.0	20.6	11.2	27	NP	NP	13.89	-	-	2.62	F	0.01	34	-	-	-	-	-	-	
30.50	SPT/DS	31	(50/9cm)	-	100	35																					
31.50	SPT/DS	30	(40/07cm)	-	100	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33.00	DS						0.0	79.4	14.0	6.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33.50	SPT/DS	32	(46/6cm)	-	100	33																					
35.00	SPT/DS	34	(48/7cm)	-	100	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.



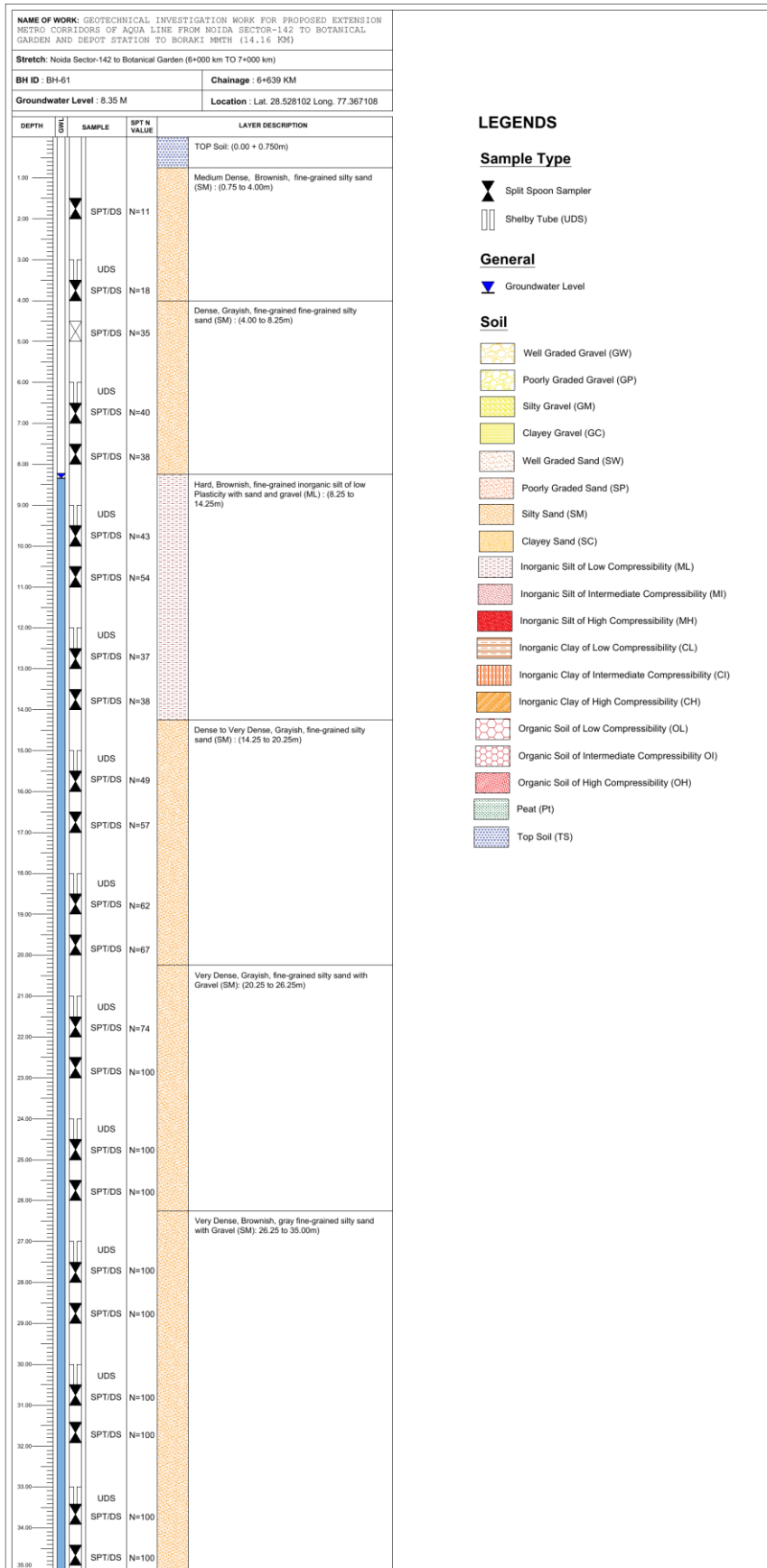








C.8. Zone 8: CH: 6+490 km to 7+490 km (BH-61 to BH-70)

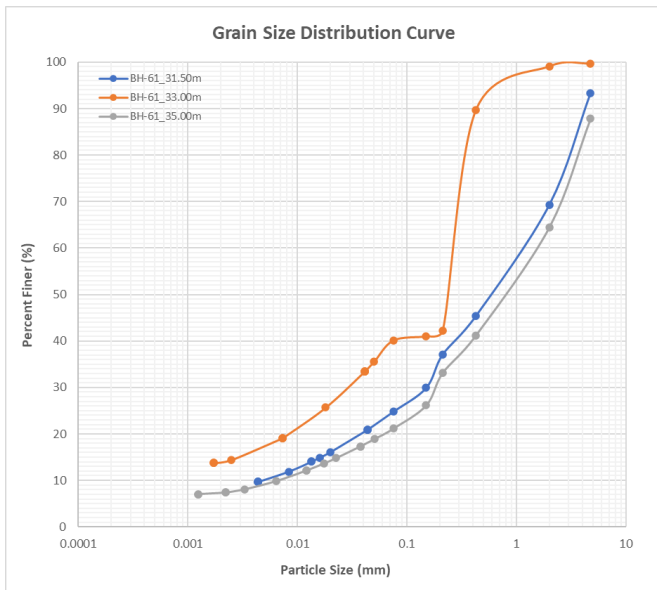
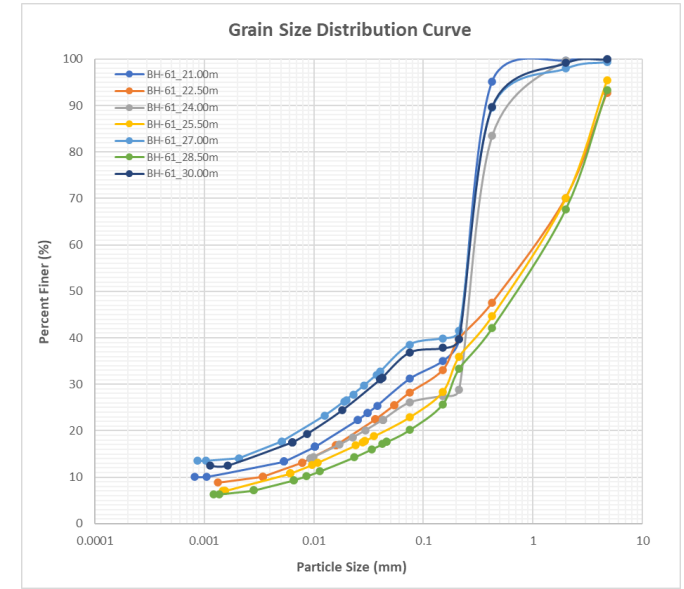
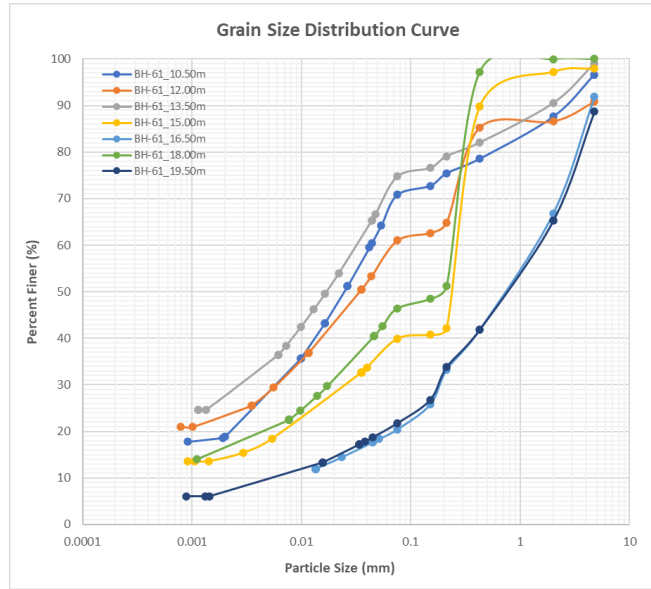
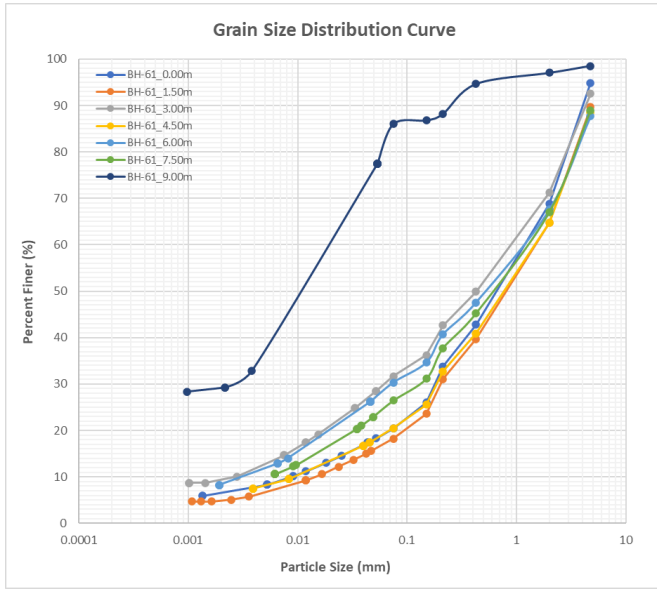


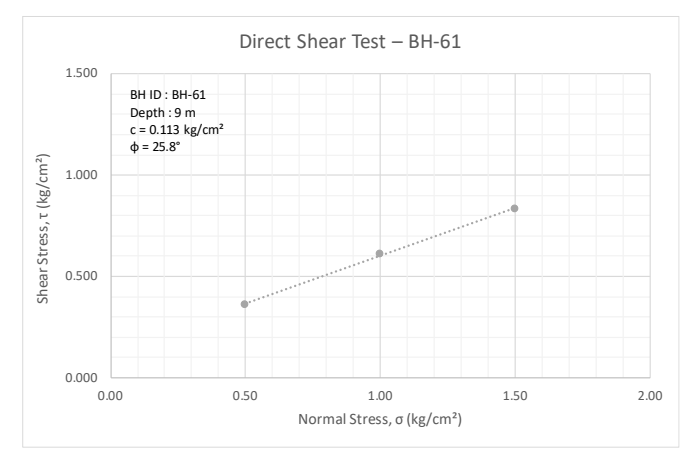
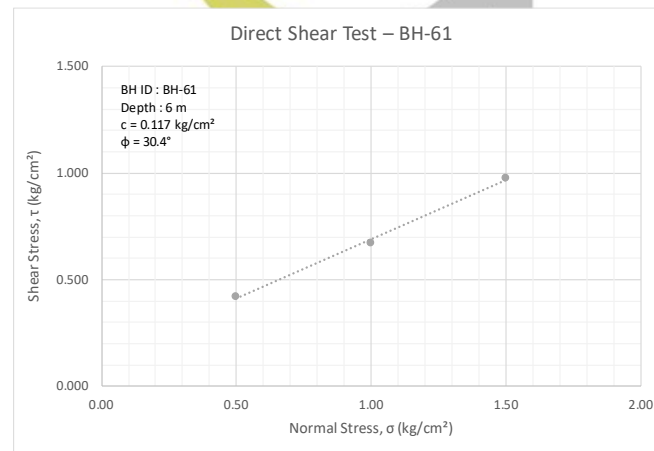
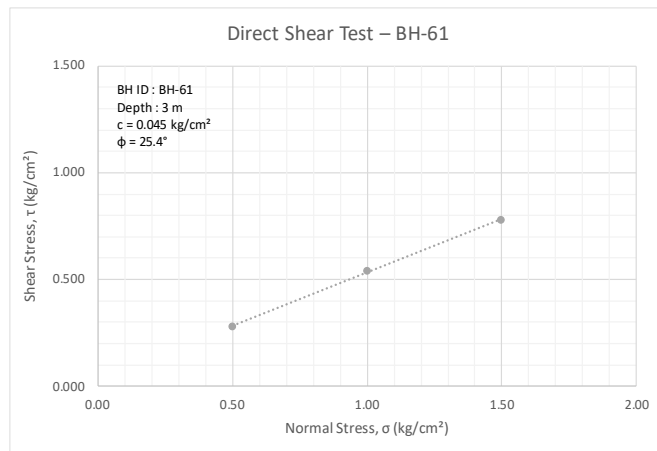
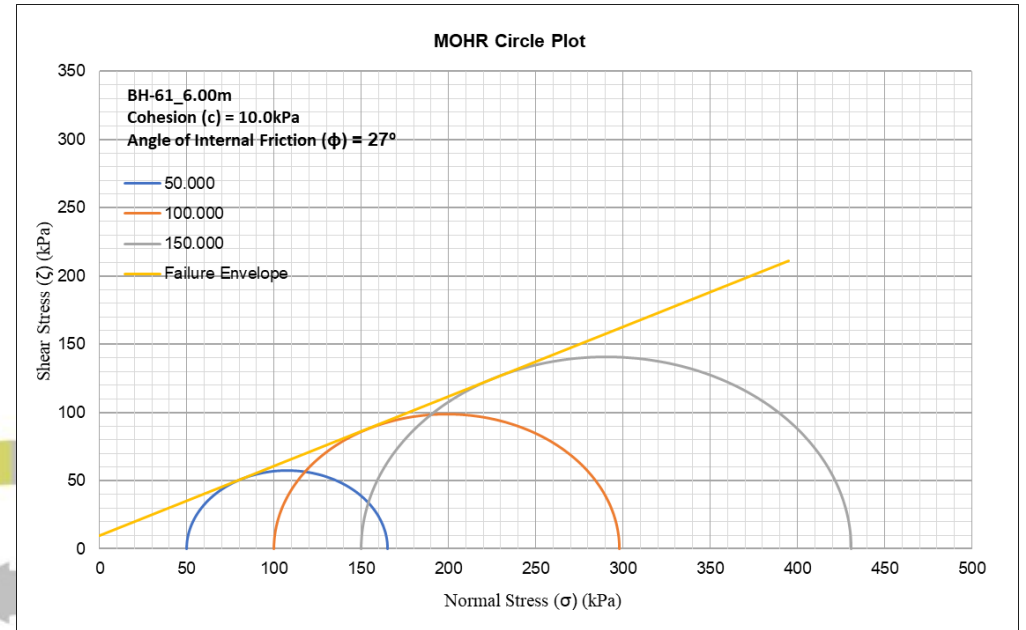
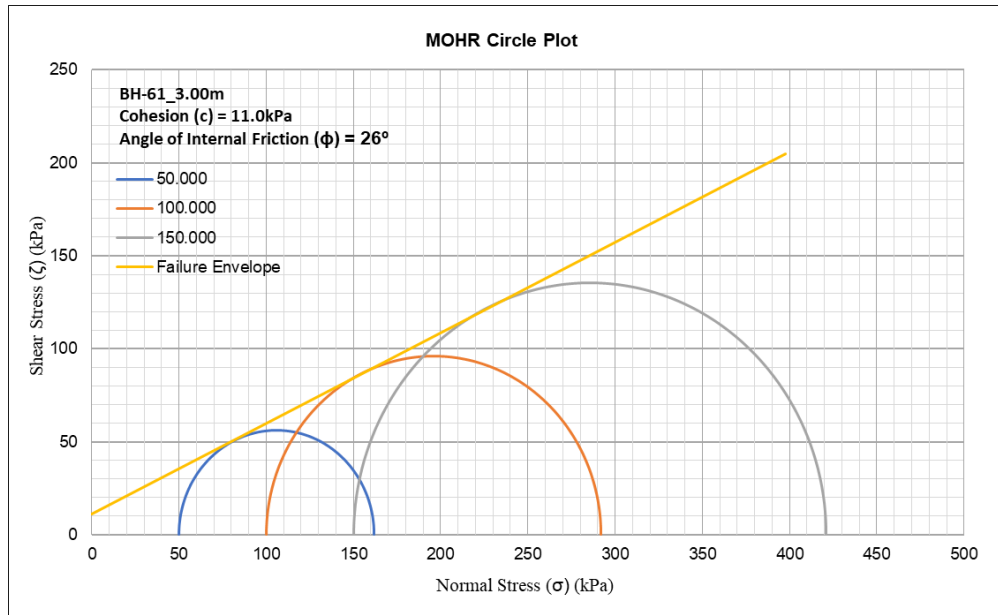


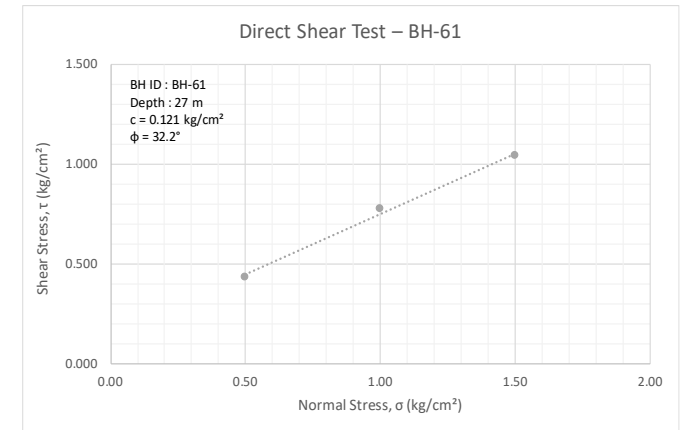
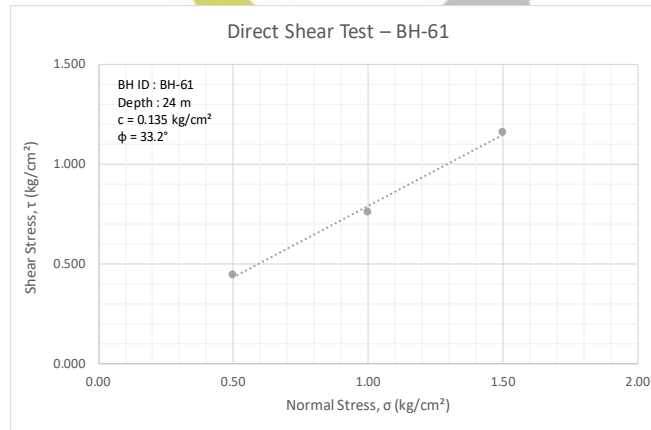
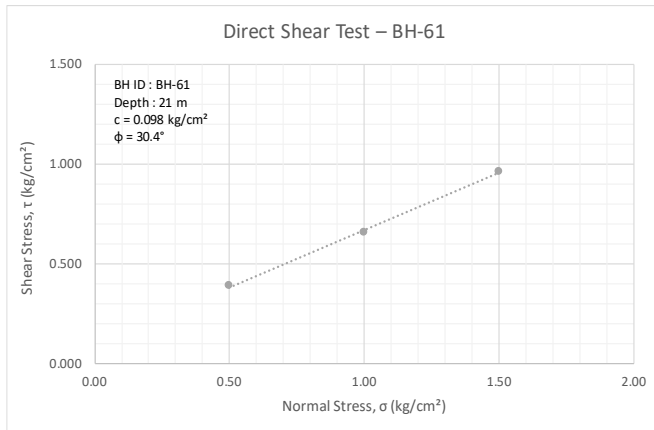
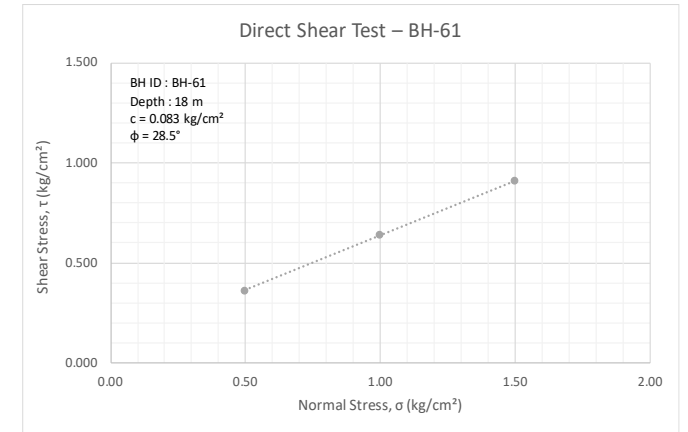
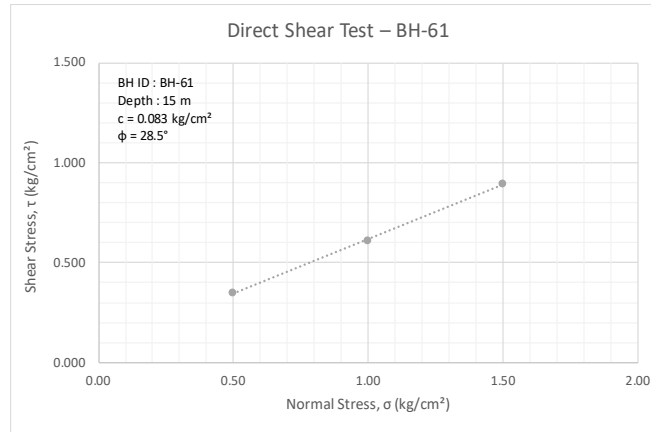
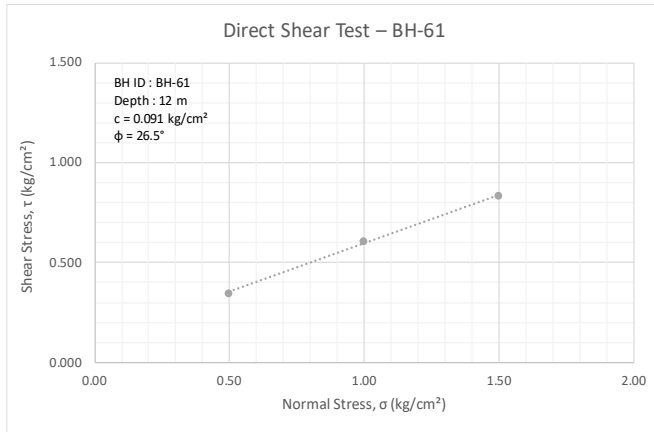
Project		Borehole Details			Drilling Details		
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-61		Contractor:	Goma Engineering & Consultancy	
		Chainage [km]:	6+639		Method of Drilling:	Rotary Drilling	
Client:	Noida Metro Rail Corporation (NMRC) Limited	Depth [m]:	35.00		Start Date:	26-12-2025	
Stretch:	Noida Sector-142 to Botanical Garden	Elevation [m]:	198		End Date:	27-12-2025	
Project Code:	158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Water table Level [m]:	8.35		Location:	Lat: 28.528102, Long: 77.367108	

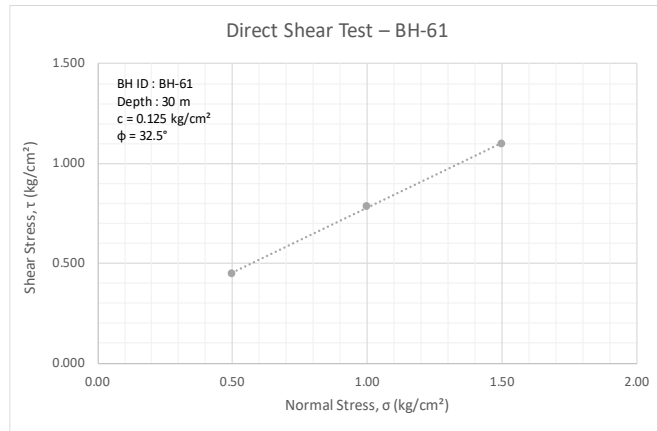
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil	-	-	-	-	-	5.1	74.5	14.6	5.8	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium Dense, Brownish, fine-grained silty sand (SM)	5	5	6	11	15	10.3	71.4	13.3	4.9	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							7.5	60.8	22.3	9.4	27	NP		7.94	1.78	1.65	2.65	F	0.04	23	UU	11.0	26.0	-	-	-
3.50	SPT/DS		6	8	10	18	20																				
4.50	SPT/DS	Dense, Greyish, fine-grained fine-grained silty sand (SM)	10	15	20	35	36	11.5	68.0	13.6	6.9	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							12.3	57.4	22.0	8.4	26	NP	NP	8.72	1.80	1.66	2.66	F	0.11	29	UU	10.0	27.0	-	-	-
6.50	SPT/DS		10	17	23	40	38																				
7.50	SPT/DS	12	16	22	38	35	11.0	62.5	15.8	10.7	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
9.00	UDS	Hard, Brownish, fine-grained inorganic silt of low Plasticity with sand and gravel (ML)						1.5	12.5	57.1	29.0	24	NP	NP	12.80	1.94	1.72	2.64	F	0.11	26	-	-	-	-	-	-
9.50	SPT/DS		14	18	25	43	26																				
10.50	SPT/DS		15	21	33	54	31	3.3	25.8	46.7	24.1	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS						9.2	29.8	39.1	21.9	27	NP	NP	14.60	2.01	1.75	2.63	F	0.09	27	-	-	-	-	-	-	
12.50	SPT/DS	11	17	20	37	23																					
13.50	SPT/DS	10	17	21	38	23	1.0	24.3	51.7	23.1	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
15.00	DS	Dense to Very Dense, Greyish, fine-grained silty sand (SM)						2.1	58.0	25.8	14.1	24	NP	NP	11.80	-	-	2.66	F	0.08	29	-	-	-	-	-	-
15.50	SPT/DS		15	22	27	49	27																				
16.50	SPT/DS		20	25	32	57	30	8.2	71.4	13.4	7.0	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS						0.0	53.5	33.8	12.7	27	NP	NP	12.90	-	-	2.61	F	0.00	29	-	-	-	-	-	-	
18.50	SPT/DS	22	28	34	62	31																					
19.50	SPT/DS	24	30	37	67	32	11.3	67.0	15.6	6.1	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
21.00	DS	Very Dense, Greyish, fine-grained silty sand with Gravel (SM)						0.0	68.8	21.0	10.2	26	NP	NP	10.60	-	-	2.69	F	0.10	30	-	-	-	-	-	-
21.50	SPT/DS		20	33	41	74	34																				
22.50	SPT/DS		37	45	(50/9cm)	100	42	7.3	64.5	19.3	8.8	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS						0.0	73.9	17.0	9.1	29	NP	NP	12.80	-	-	2.62	F	0.14	34	-	-	-	-	-	-	
24.50	SPT/DS	40	(50/11cm)	-	100	41																					
25.50	SPT/DS	45	(50/10cm)	-	100	40	4.6	72.5	16.8	6.1	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	DS	Very Dense, Brownish, gray fine-grained silty sand with Gravel (SM)						0.3	60.9	27.7	11.1	26	NP	NP	13.20	-	-	2.68	F	0.12	32	-	-	-	-	-	-
27.50	SPT/DS		50	(50/4cm)	-	100	39																				
28.50	SPT/DS		50	(50/2cm)	-	100	39	6.7	73.1	13.9	6.3	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
30.00	DS						0.0	63.1	24.5	12.4	26	NP	NP	11.20	-	-	2.67	F	0.13	33	-	-	-	-	-	-	
30.50	SPT/DS	(50/6cm)	-	-	100	38																					
31.50	SPT/DS	42	50	(50/6cm)	100	37	6.7	68.6	15.7	9.1	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
33.00	DS						0.3	59.5	28.0	12.2	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
33.50	SPT/DS	48	(36/3cm)	-	100	36																					
35.00	SPT/DS	(60/7cm)	-	-	100	36	12.2	66.7	14.8	6.3	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	

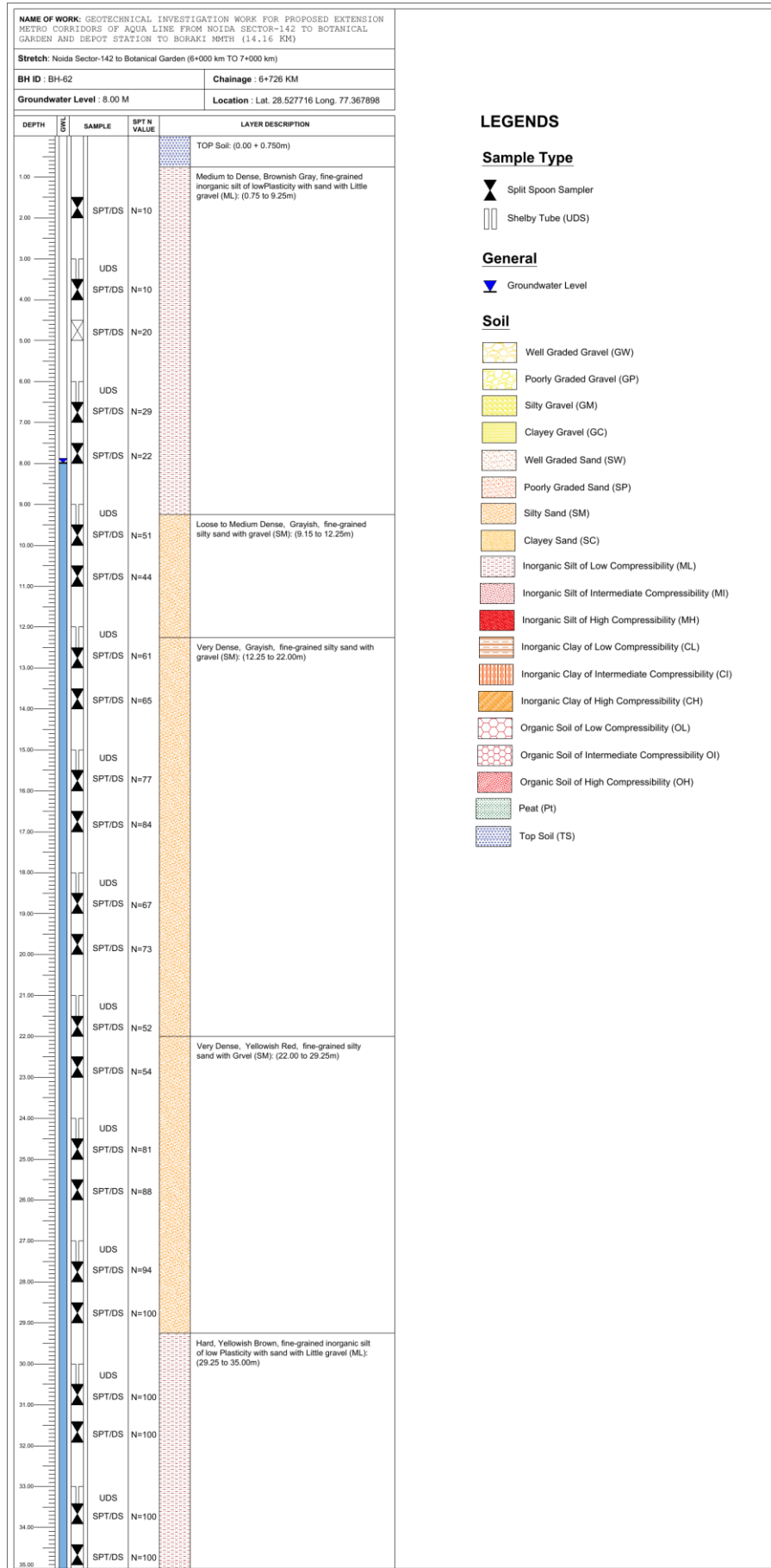
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.











LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

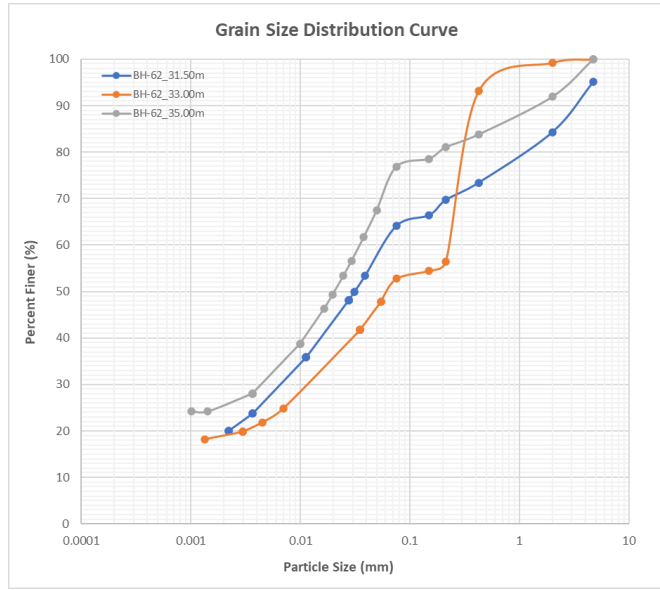
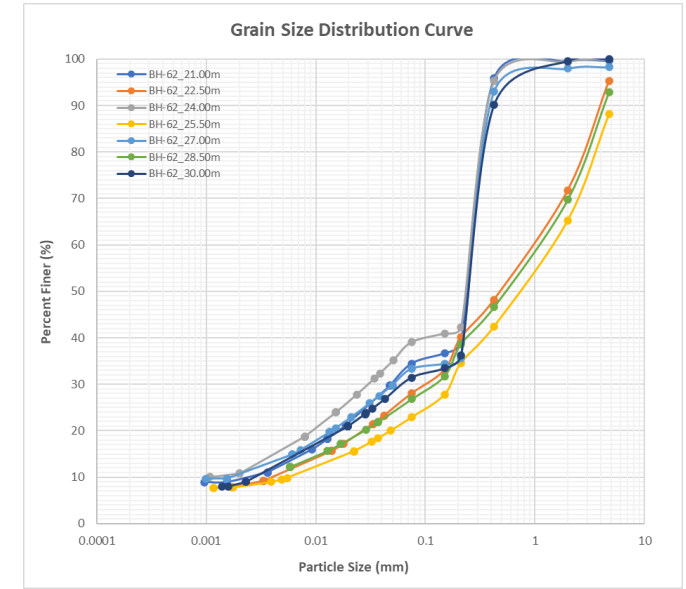
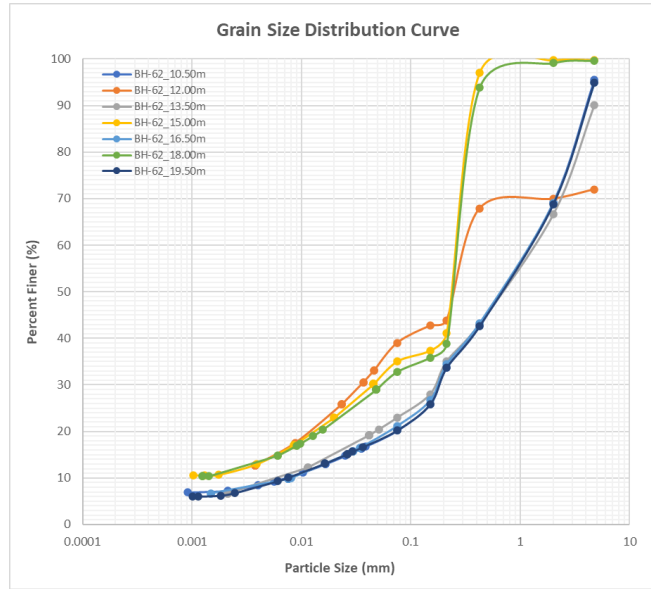
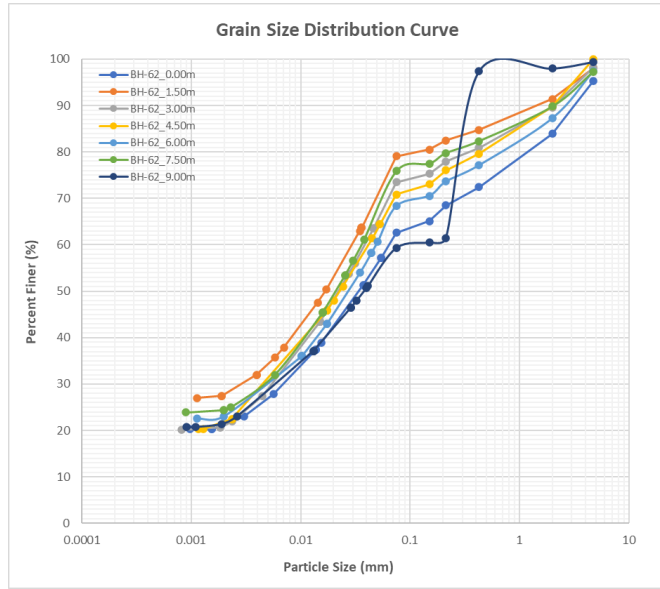
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

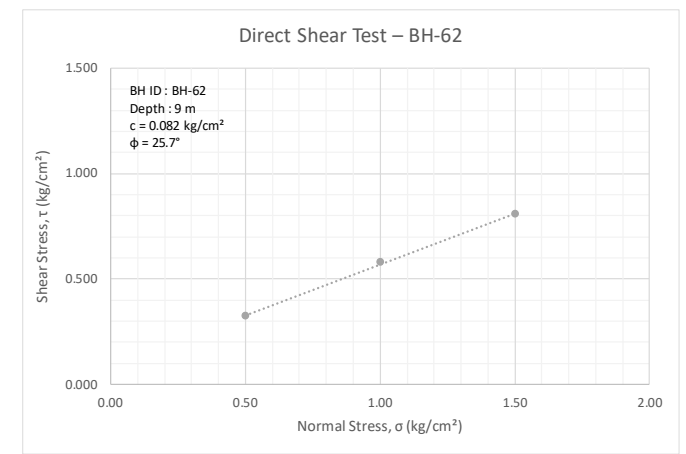
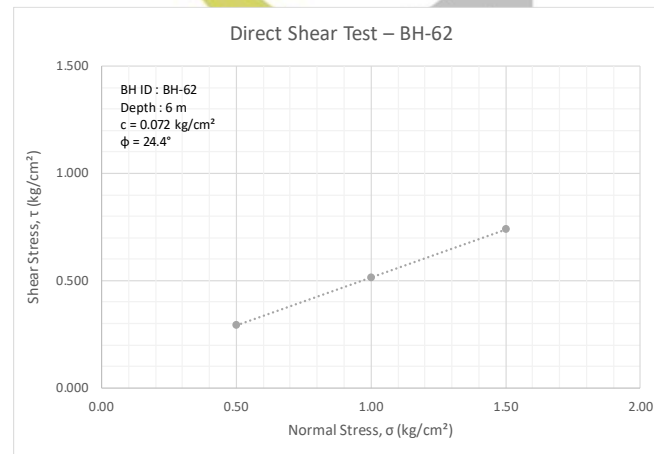
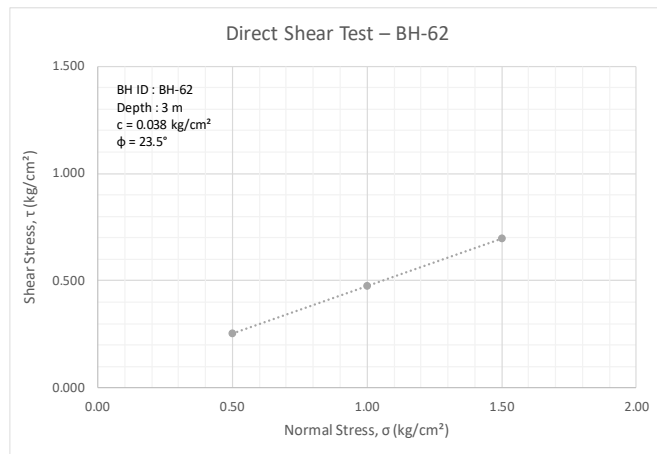
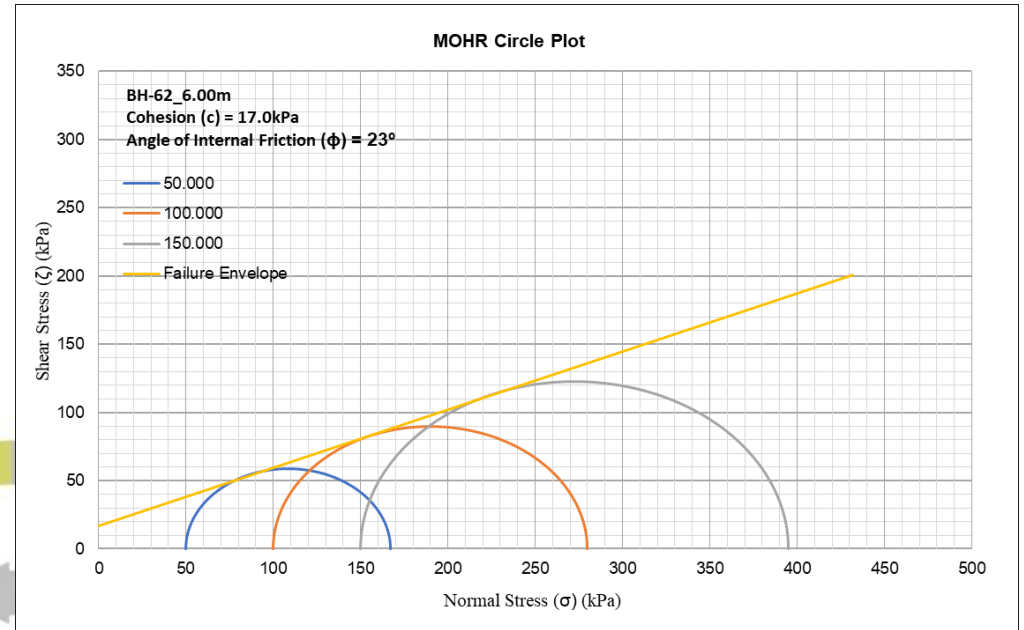
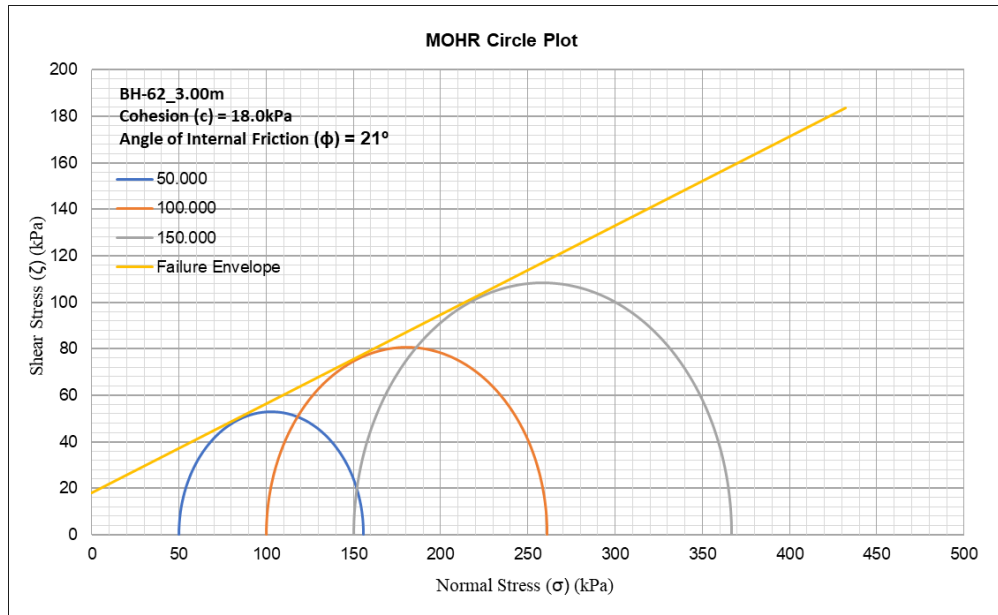


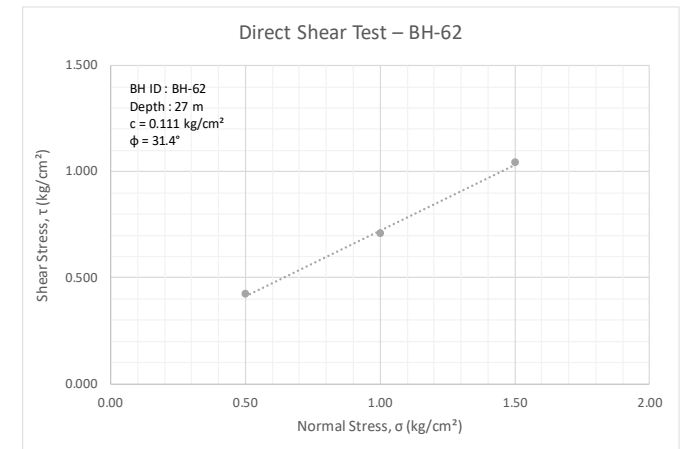
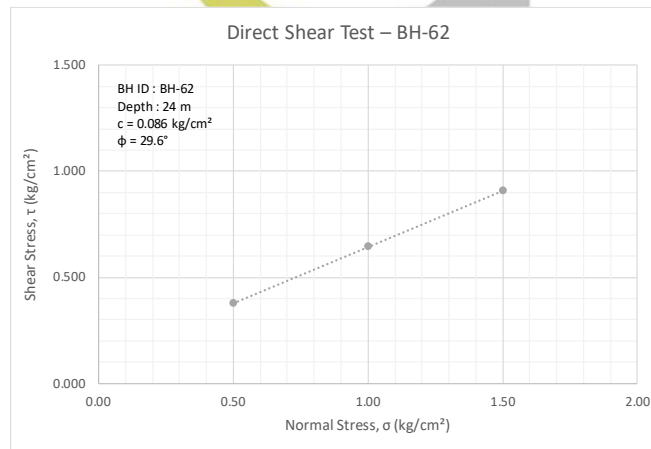
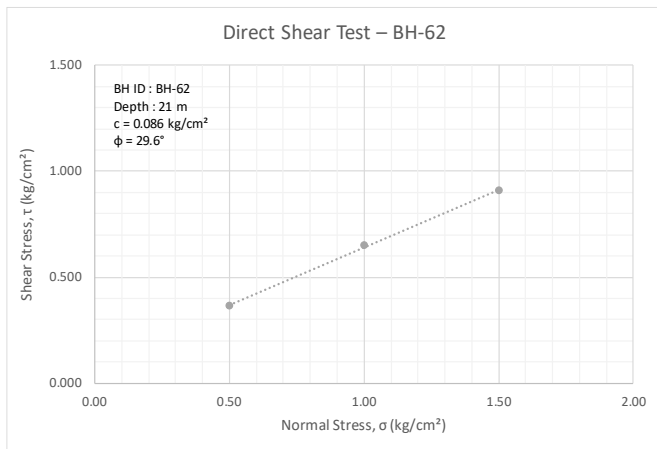
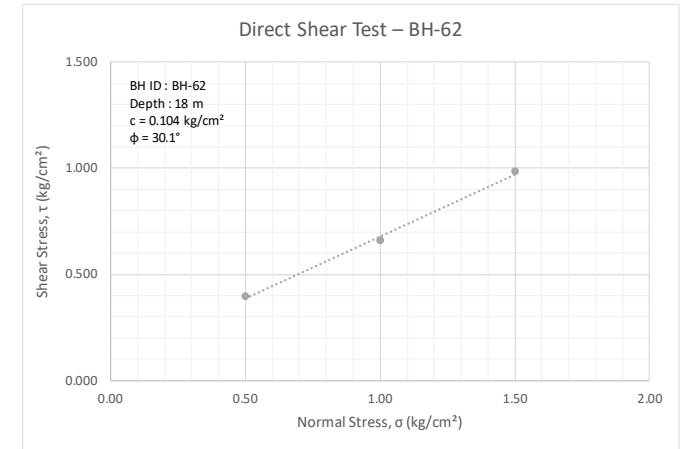
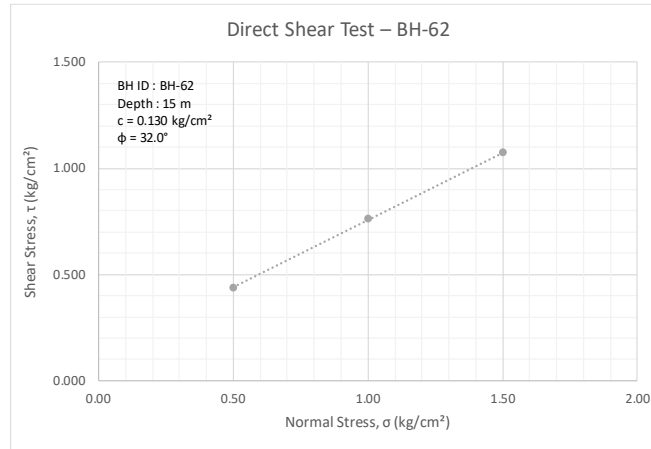
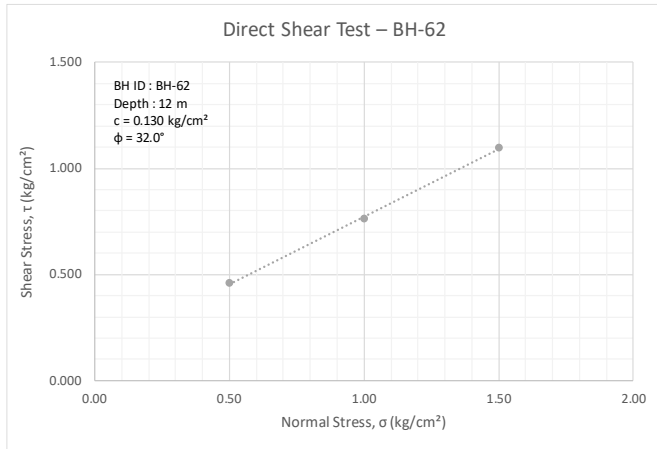
Project		Borehole Details			Drilling Details		
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-62		Contractor:	Goma Engineering & Consultancy	
		Chainage [km]:	6+726		Method of Drilling:	Rotary Drilling	
Client:	Noida Metro Rail Corporation (NMRC) Limited	Depth [m]:	35.00		Start Date:	25-12-2025	
Stretch:	Noida Sector-142 to Botanical Garden	Elevation [m]:	198.4		End Date:	28-12-2025	
Project Code:	158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Water table Level [m]:	8.00		Location:	Lat: 28.527716, Long: 77.367898	

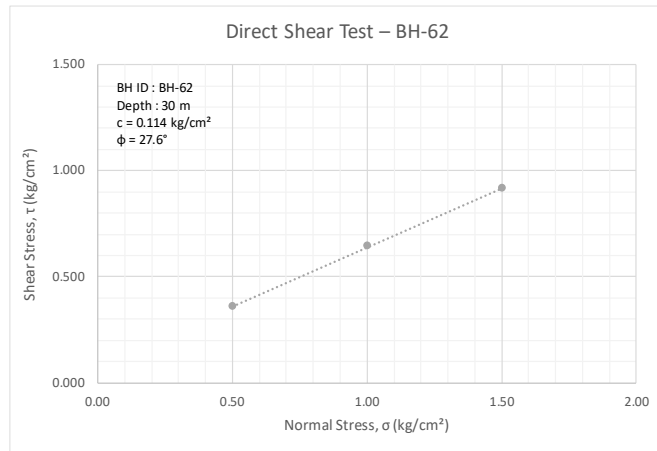
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						4.7	32.7	41.3	21.3	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium to Dense, Brownish Gray, fine-grained inorganic silt of low Plasticity with sand with Little gravel (ML)	3	5	5	10	14	1.9	19.1	51.3	27.8	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							1.8	24.8	52.4	21.1	25	NP	NP	11.60	1.84	1.65	2.64	F	0.04	24	UU	18	21	-	-	-
3.50	SPT/DS		2	4	6	10	11																				
4.50	SPT/DS		5	9	11	20	20	0.0	29.2	48.9	21.9	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							2.6	29.1	45.3	23.1	25	NP	NP	10.67	1.86	1.68	2.66	F	0.07	24	UU	17	23	-	-	-
6.50	SPT/DS		10	12	17	29	27																				
7.50	SPT/DS		8	10	12	22	20	2.7	21.4	51.5	24.4	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	UDS							0.6	40.1	37.7	21.6	26	NP	NP	12.30	1.92	1.71	2.66	F	0.08	26	-	-	-	-	-	-
9.50	SPT/DS	Loose to Medium Dense, Greyish, fine-grained silty sand with gravel (SM)	16	22	29	51	30																				
10.50	SPT/DS		15	20	24	44	27	4.4	75.4	13.0	7.2	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS							28.0	33.0	33.3	5.7	21	NP	NP	9.80	2.06	1.88	2.71	F	0.09	29	-	-	-	-	-	-
12.50	SPT/DS	Very Dense, Greyish, fine-grained silty sand with gravel (SM)	21	27	34	61	33																				
13.50	SPT/DS		22	29	36	65	34	9.8	67.2	15.8	7.2	29	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	UDS							0.2	64.7	24.0	11.1	25	NP	NP	13.40	2.18	1.92	2.78	F	0.12	31	-	-	-	-	-	-
15.50	SPT/DS		28	35	42	77	38																				
16.50	SPT/DS		31	39	45	84	40	5.1	73.7	13.9	7.3	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	UDS							0.4	66.8	21.4	11.4	23	NP	NP	13.40	2.18	1.92	2.69	F	0.12	30	-	-	-	-	-	-
18.50	SPT/DS		25	30	37	67	33																				
19.50	SPT/DS		27	34	39	73	34	5.1	74.7	13.8	6.4	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS						0.3	65.2	24.9	9.6	27	NP	NP	11.80	-	-	2.68	F	0.10	31	-	-	-	-	-	-	
21.50	SPT/DS	18	23	29	52	26																					
22.50	SPT/DS	Very Dense, Yellowish Red, fine-grained silty sand with Gravel (SM)	20	24	30	54	26	4.7	67.3	19.9	8.2	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS							0.0	60.9	28.3	10.8	23	NP	NP	12.60	-	-	2.64	F	0.10	30	-	-	-	-	-	-
24.50	SPT/DS		31	38	43	81	35																				
25.50	SPT/DS		32	42	46	88	36	11.9	65.3	14.9	8.0	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
27.00	DS							1.7	64.9	22.7	10.6	21	NP	NP	15.10	-	-	2.72	F	0.12	32	-	-	-	-	-	-
27.50	SPT/DS		35	45	49	94	37																				
28.50	SPT/DS	40	48	(50/5cm)	100	39	7.1	66.1	22.3	4.5	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
30.00	DS	Hard, Yellowish Brown, fine-grained inorganic silt of low Plasticity with sand with Little gravel (ML)						0.0	68.6	22.8	8.6	26	NP	NP	13.30	-	-	2.66	F	0.13	28	-	-	-	-	-	-
30.50	SPT/DS		30	(50/4cm)	-	100	38																				
31.50	SPT/DS		35	(50/3cm)	-	100	37	4.9	31.1	45.4	18.7	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
33.00	DS							0.0	47.3	33.7	19.0	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
33.50	SPT/DS		42	(50/4cm)	-	100	37																				
35.00	SPT/DS		(50/5cm)	-	-	100	36	0.0	23.2	51.3	25.6	25.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-

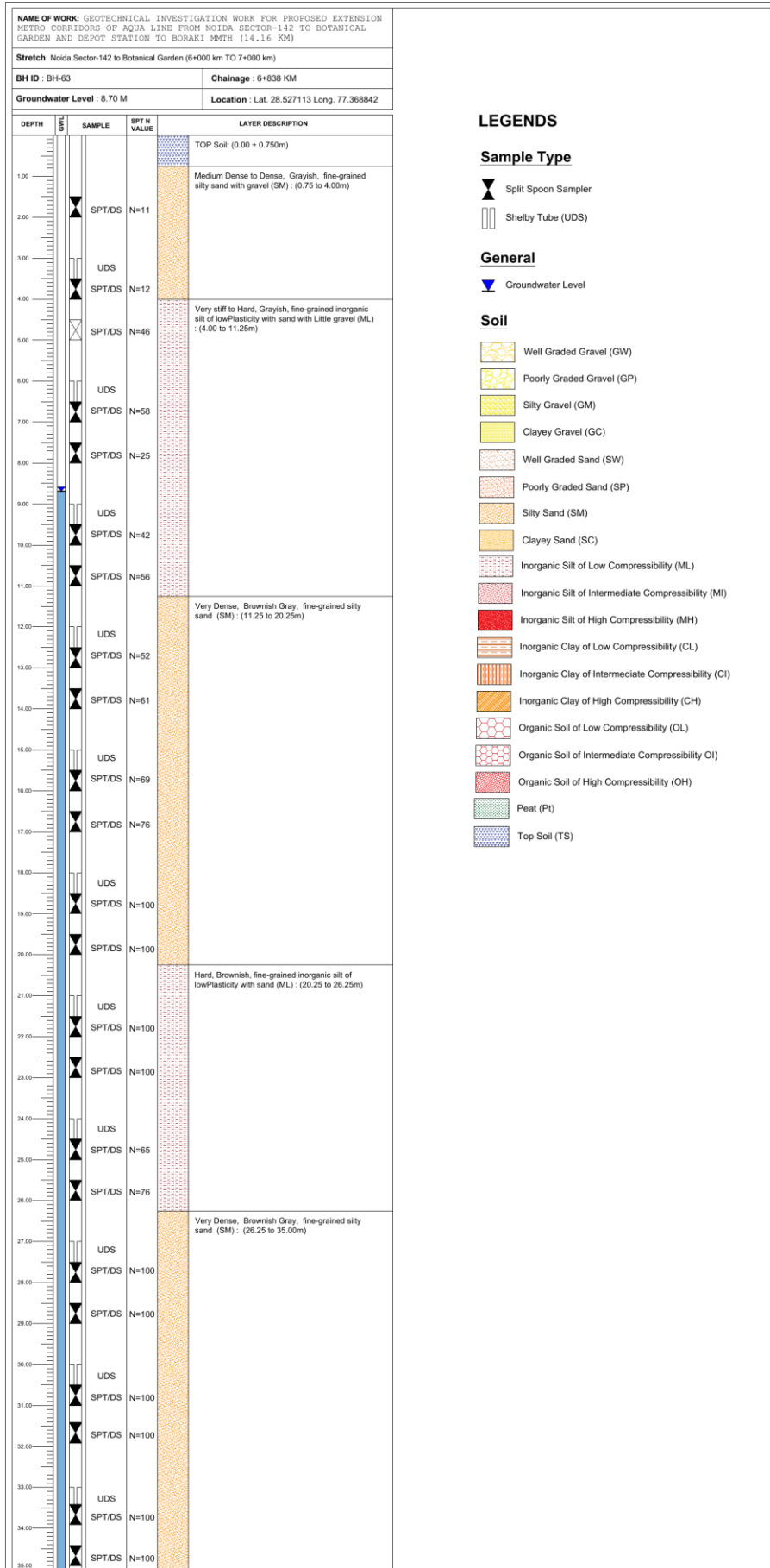
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.











LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

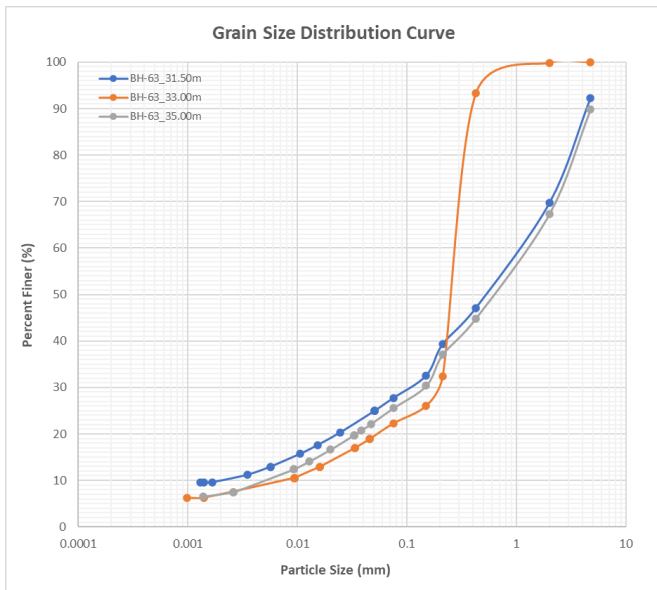
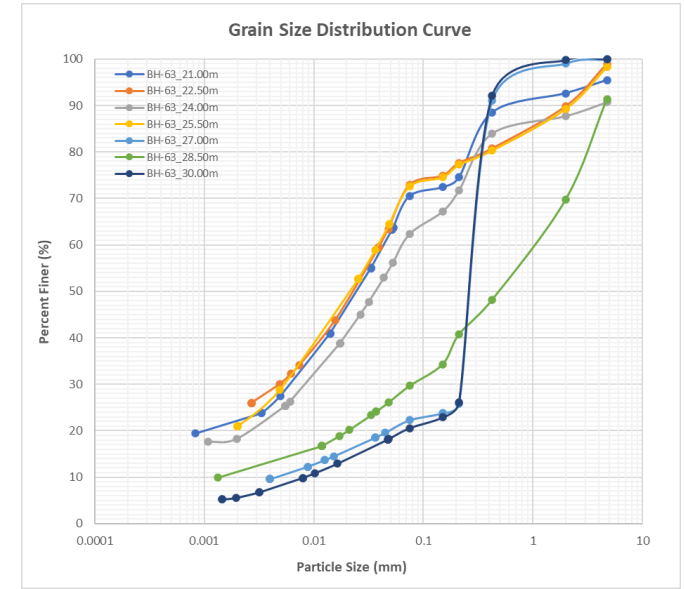
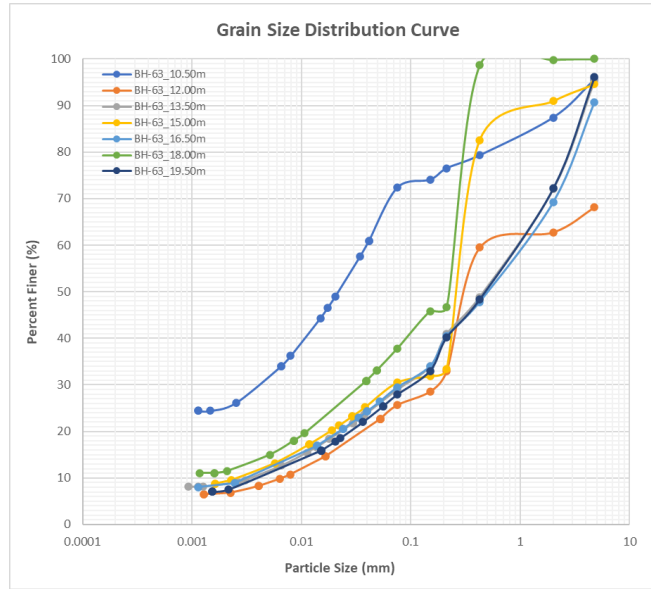
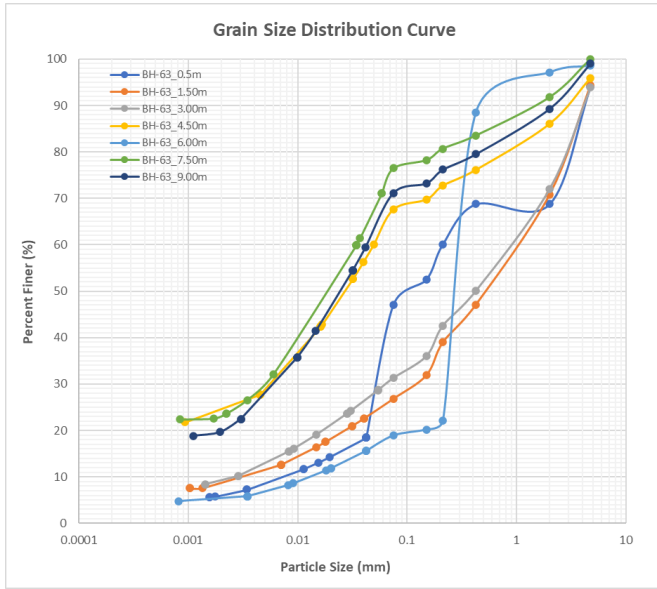
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

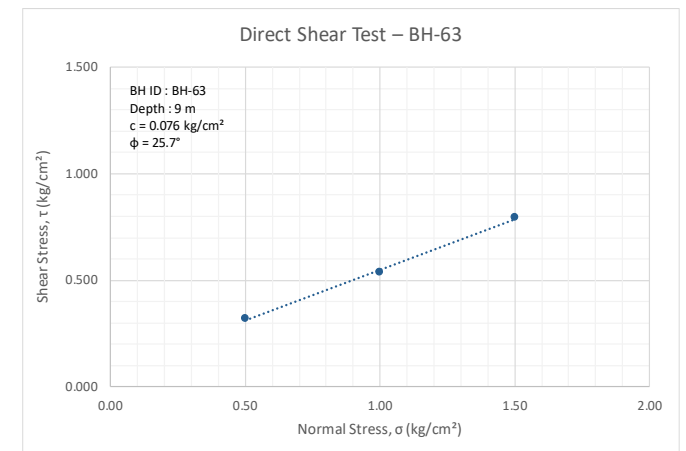
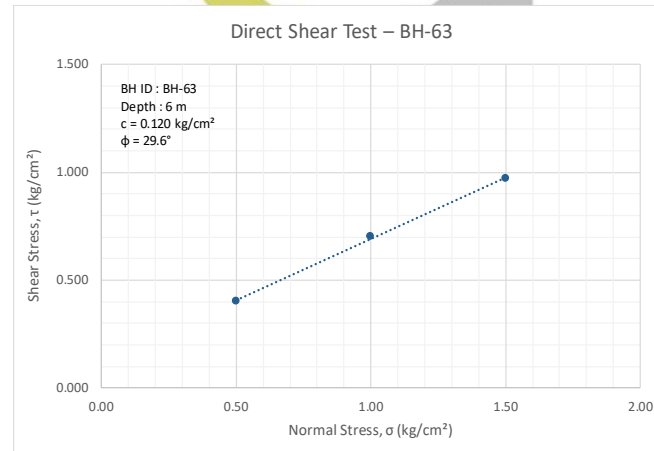
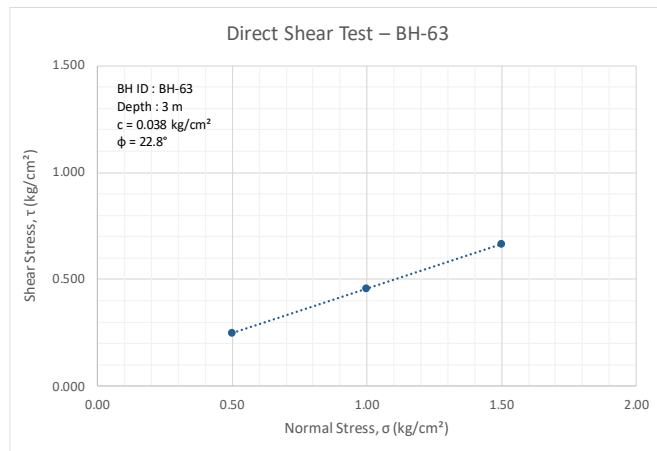
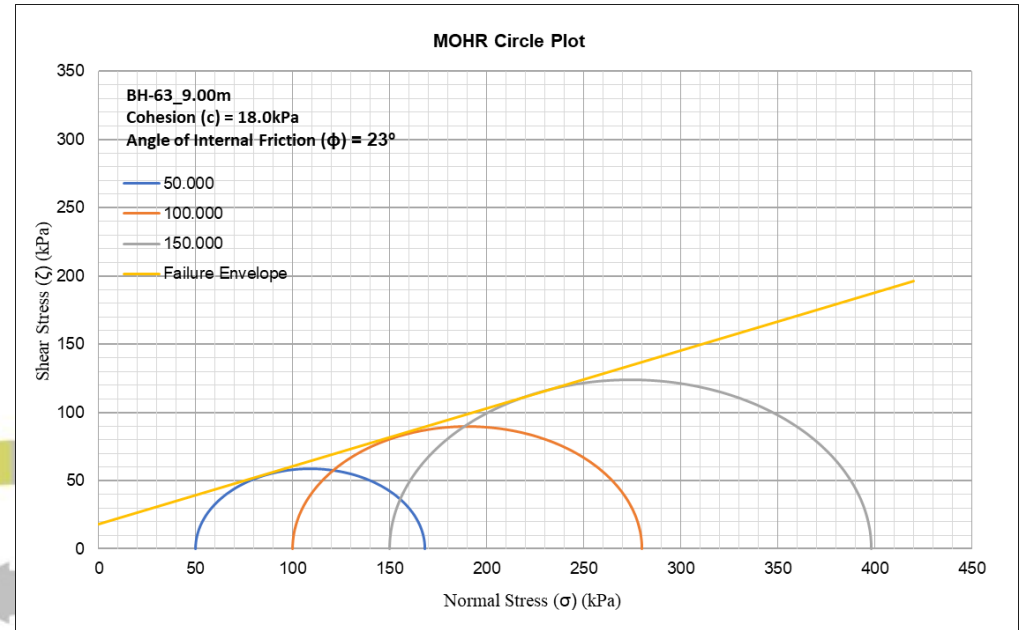
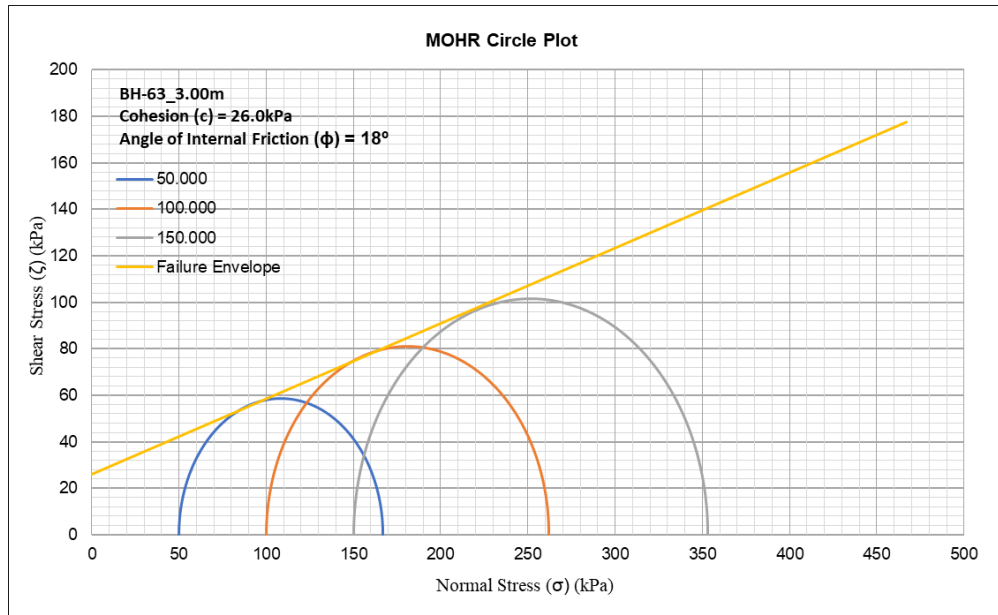


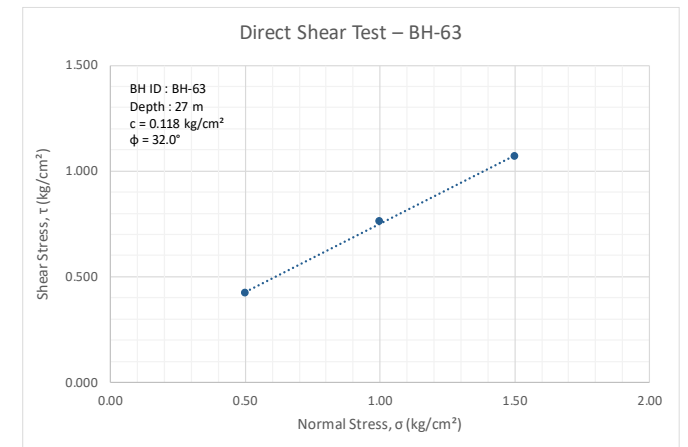
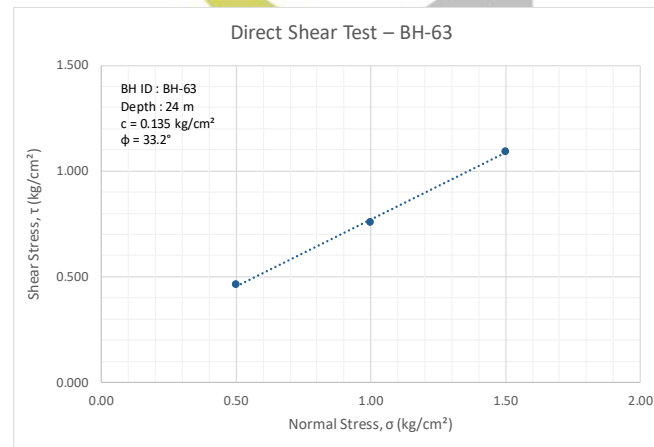
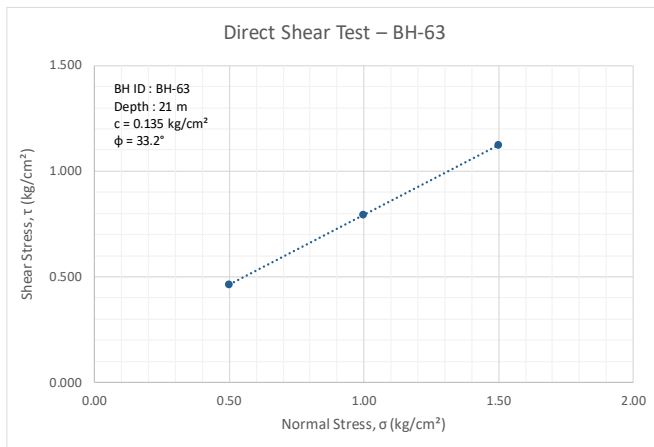
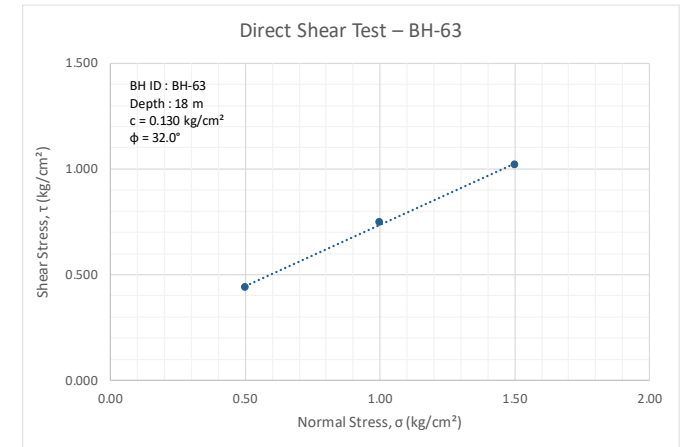
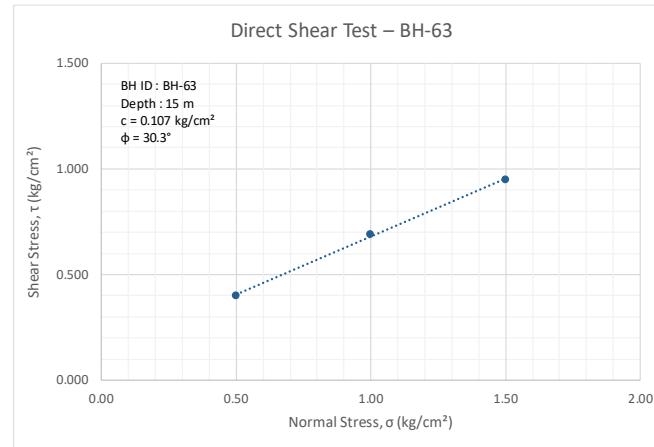
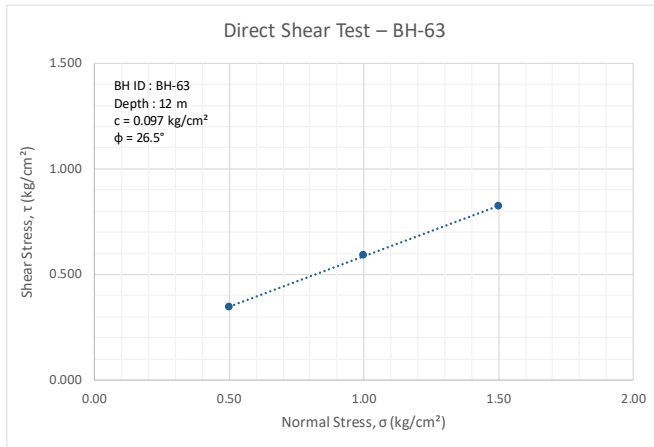
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-63	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	6+838	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	35.00	Start Date:	22-12-2025
Project Code:	158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	200.1	End Date:	25-12-2025
		Water table Level [m]:	8.70	Location:	Lat: 28.527113, Long: 77.368842

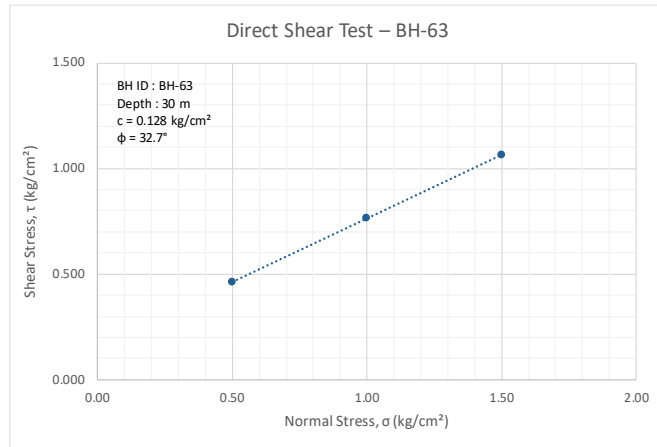
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test		Triaxial Comp Test			Consolidation Test			
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						5.9	72.3	15.7	6.0	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium Dense to Dense, Greyish, fine-grained silty sand with gravel (SM)	4	5	6	11	15	5.6	67.6	18.1	8.8	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							6.1	62.6	22.0	9.3	26	NP	NP	12.27	1.93	1.72	2.65	F	0.04	23	UU	26	18	-	-	-
3.50	SPT/DS		5	5	7	12	13																				
4.50	SPT/DS	Very stiff to Hard, Greyish, fine-grained inorganic silt of low Plasticity with sand with Little gravel (ML)	17	22	24	46	47	4.0	28.3	43.0	24.7	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							1.4	79.7	13.5	5.4	21	NP	NP	14.10	2.12	1.86	2.68	F	0.12	30	-	-	-	-	-	-
6.50	SPT/DS		12	23	35	58	54																				
7.50	SPT/DS		10	11	14	25	23	0.0	23.5	53.3	23.2	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	UDS							1.0	27.9	51.4	19.8	27	NP	NP	13.43	1.96	1.73	2.66	F	0.08	26	UU	18	23	-	-	-
9.50	SPT/DS		16	19	23	42	26																				
10.50	SPT/DS		15	25	31	56	31	4.5	23.2	46.9	25.4	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS	Very Dense, Brownish Gray, fine-grained silty sand (SM)						31.9	42.5	18.9	6.8	29	NP	NP	14.60	2.11	1.84	2.63	F	0.1	27	-	-	-	-	-	-
12.50	SPT/DS		18	24	28	52	29																				
13.50	SPT/DS		21	27	34	61	32	4.7	66.4	20.3	8.7	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	UDS							5.4	64.1	21.2	9.2	23	NP	NP	13.72	2.15	1.89	2.63	F	0.11	30	-	-	-	-	-	-
15.50	SPT/DS		24	31	38	69	35																				
16.50	SPT/DS		25	34	42	76	37	9.2	61.3	20.8	8.6	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS							0.0	62.2	26.4	11.4	24	NP	NP	11.62	-	-	2.68	F	0.13	32	-	-	-	-	-	-
18.50	SPT/DS		40	(40/7cm)	(50/5cm)	100	44																				
19.50	SPT/DS		38	52	(50/5cm)	100	44	3.9	68.2	20.5	7.4	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	UDS							4.5	24.9	48.4	22.2	29	NP	NP	14.22	2.20	1.93	2.69	F	0.14	33	-	-	-	-	-	-
21.50	SPT/DS	41	(56/8cm)	-	100	42																					
22.50	SPT/DS	Hard, Brownish, fine-grained inorganic silt of low Plasticity with sand (ML)	24	32	39	100	42	1.0	26.0	55.7	17.2	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS							9.3	28.3	44.0	18.4	26	NP	NP	15.66	-	-	2.69	F	0.14	31	-	-	-	-	-	-
24.50	SPT/DS		25	30	35	65	29																				
25.50	SPT/DS	23	36	40	76	32	1.7	25.6	50.3	22.4	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	DS						0.0	77.7	14.7	7.6	28	NP	NP	14.56	-	-	2.69	F	0.12	32	-	-	-	-	-	-	
27.50	SPT/DS	40	(50/9cm)	-	100	39																					
28.50	SPT/DS	48	(30/2cm)	-	100	38	8.6	61.7	18.5	11.2	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
30.00	DS						0.0	79.4	14.9	5.6	23	NP	NP	12.20	-	-	2.66	F	0.13	33	-	-	-	-	-	-	
30.50	SPT/DS	Very Dense, Brownish Gray, fine-grained silty sand (SM)	56	(20/1cm)	-	100	37																				
31.50	SPT/DS		50	(35/2cm)	-	100	37	7.7	64.6	17.7	10.0	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
33.00	DS							0.0	77.8	15.2	7.1	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
33.50	SPT/DS		49	(40/4cm)	-	100	36																				
35.00	SPT/DS		55	-	-	100	35	10.2	64.2	18.5	7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

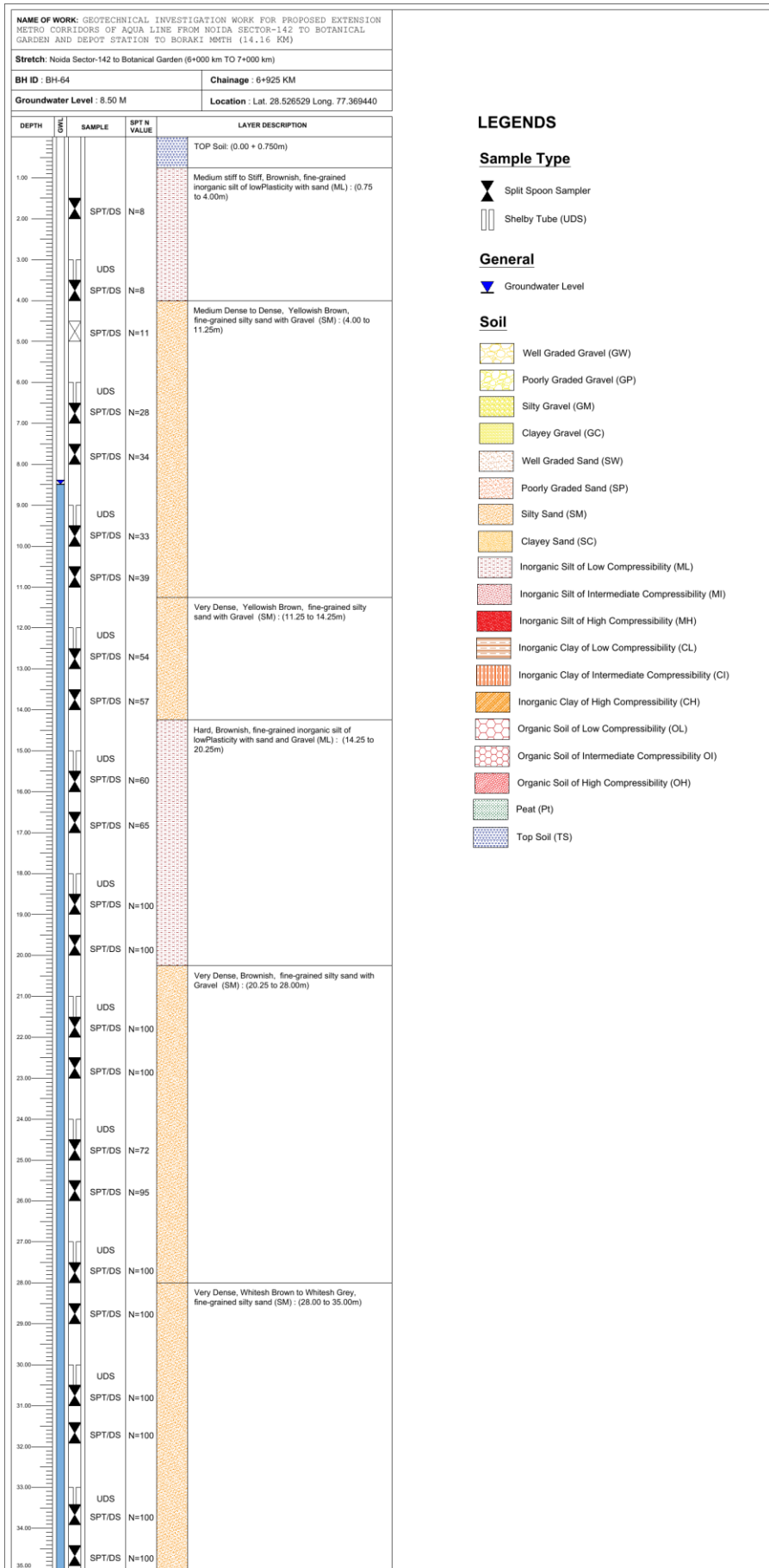
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.











LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

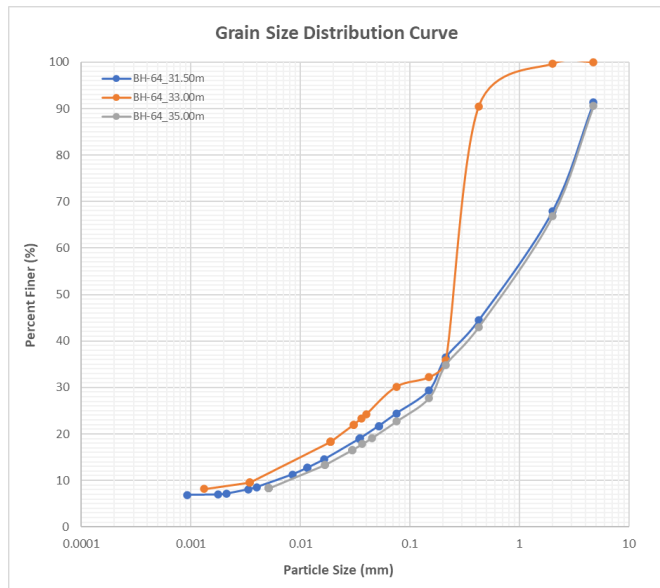
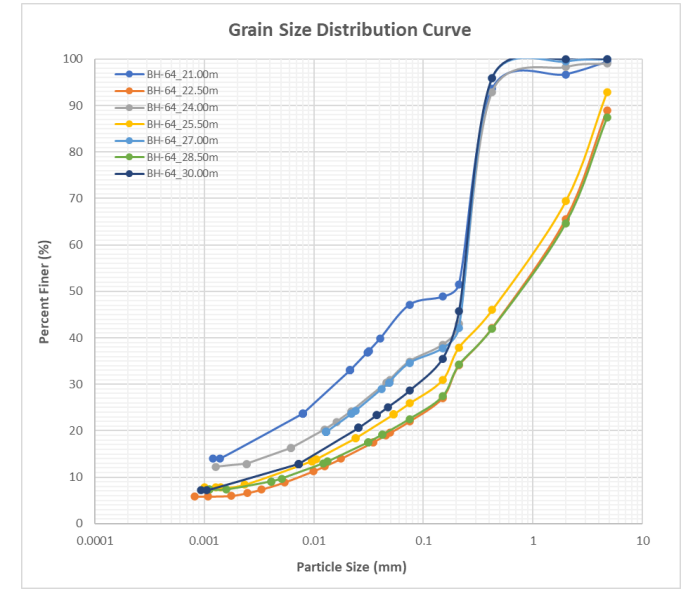
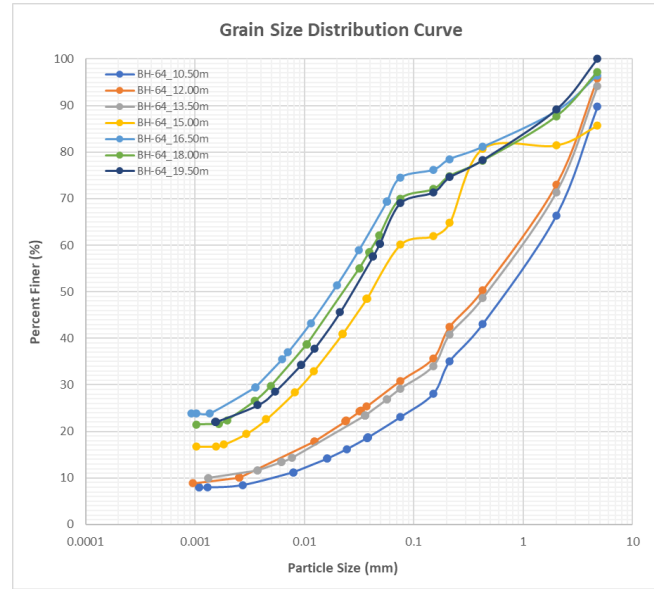
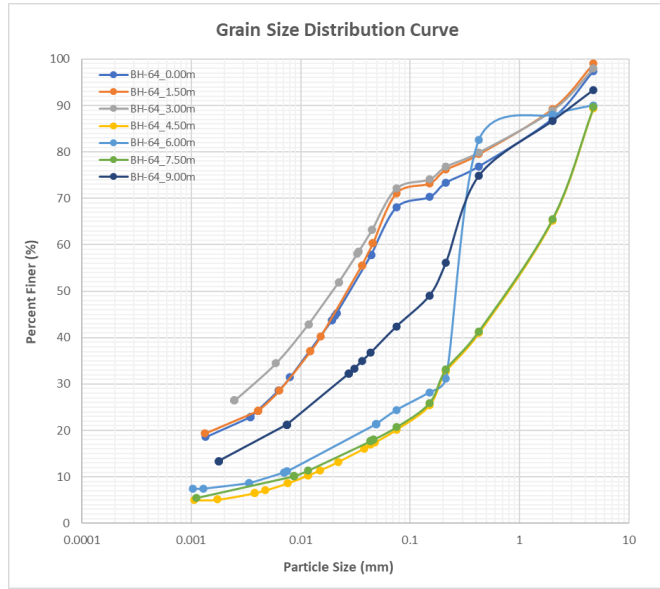
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

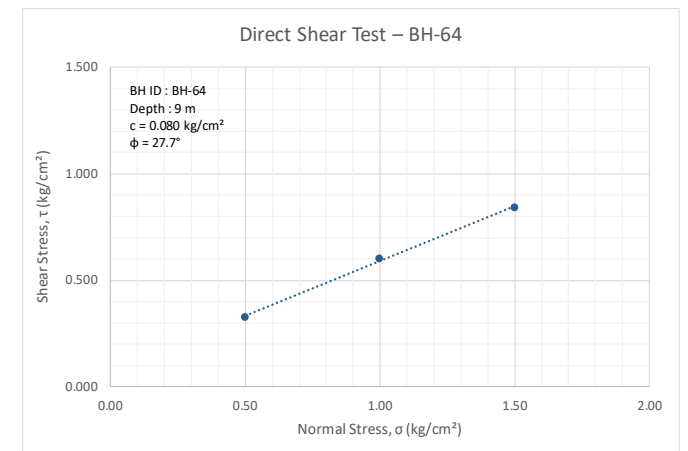
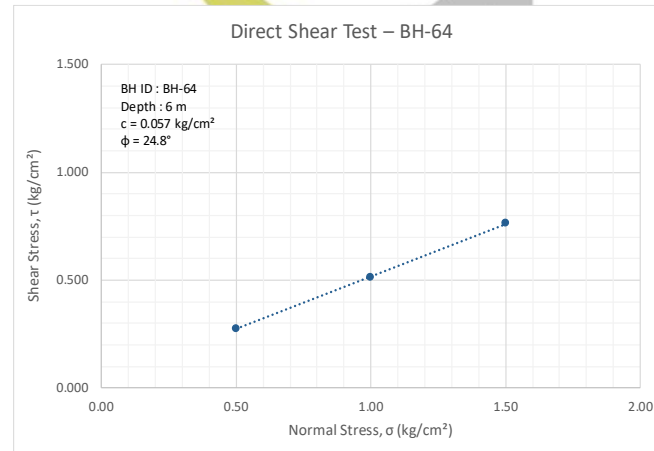
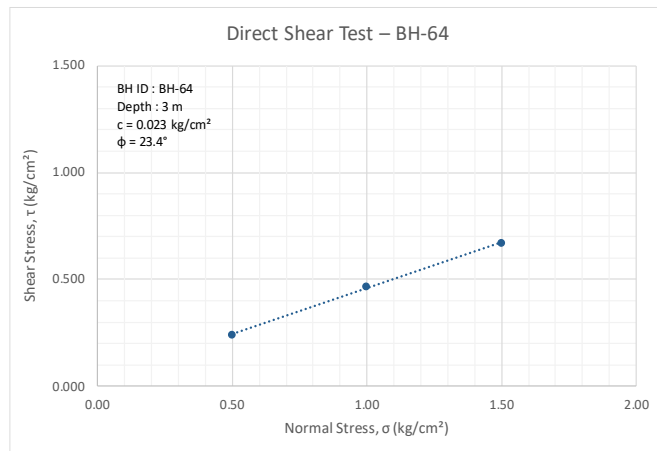
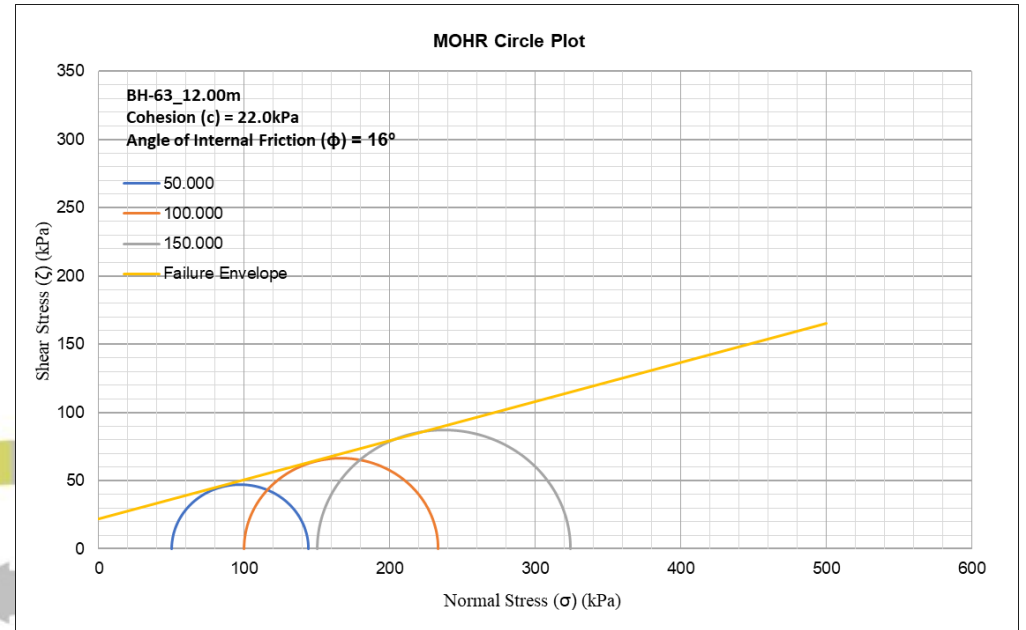
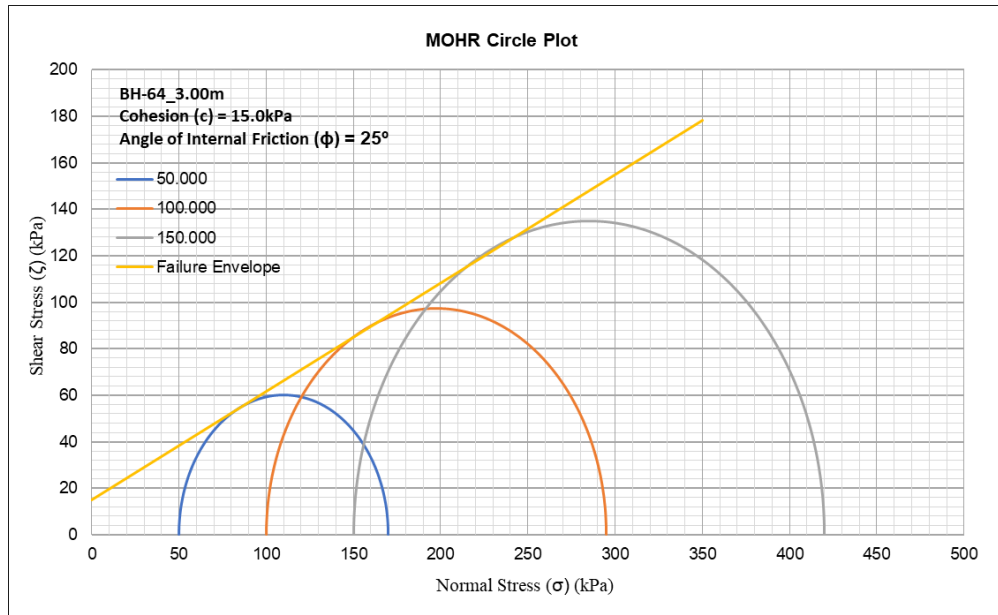


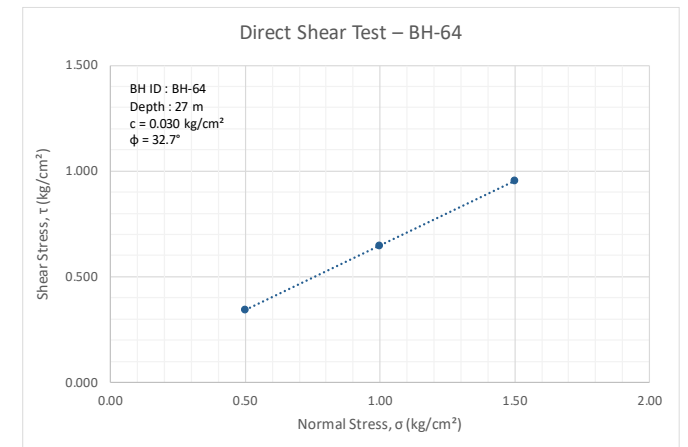
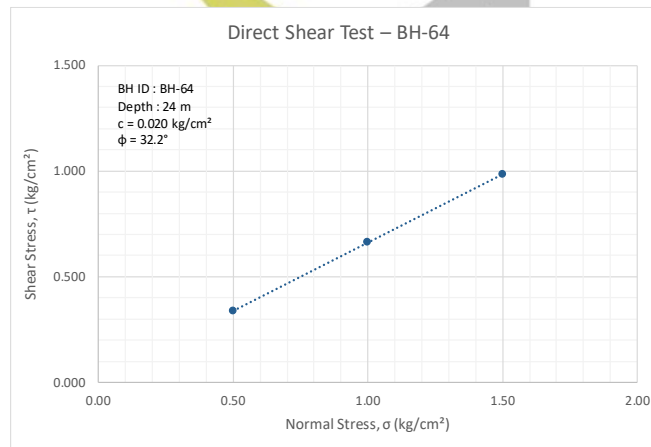
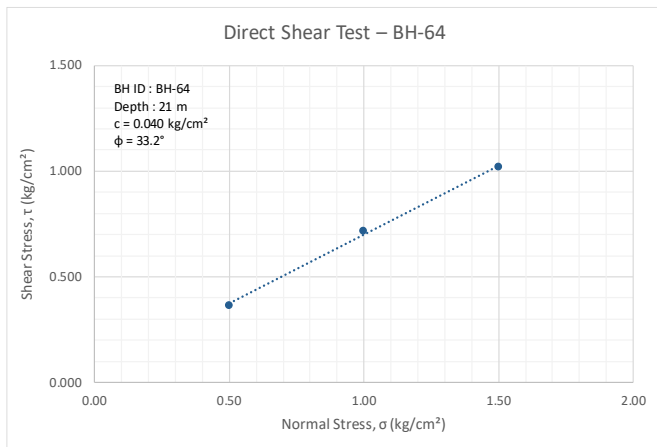
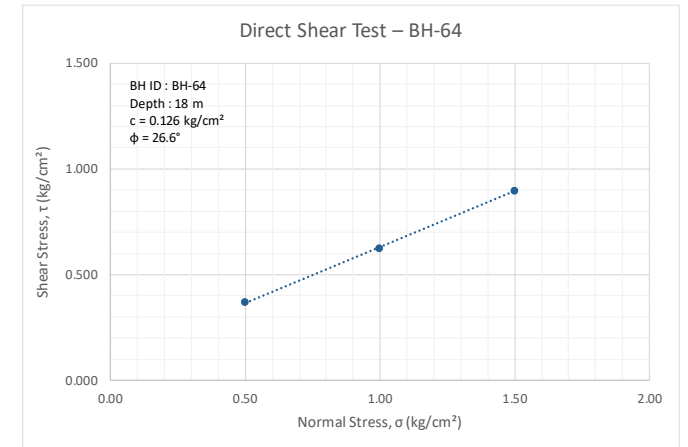
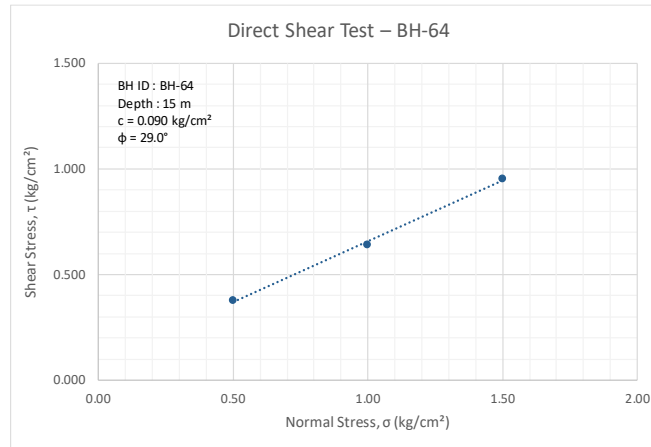
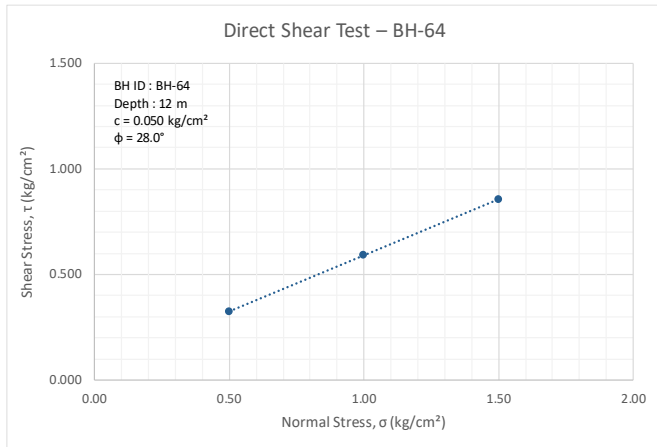
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-64	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	6+925	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	35.00	Start Date:	20-12-2025
Project Code:	158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	199	End Date:	21-12-2025
		Water table Level [m]:	8.50	Location:	Lat: 28.526529, Long: 77.369440

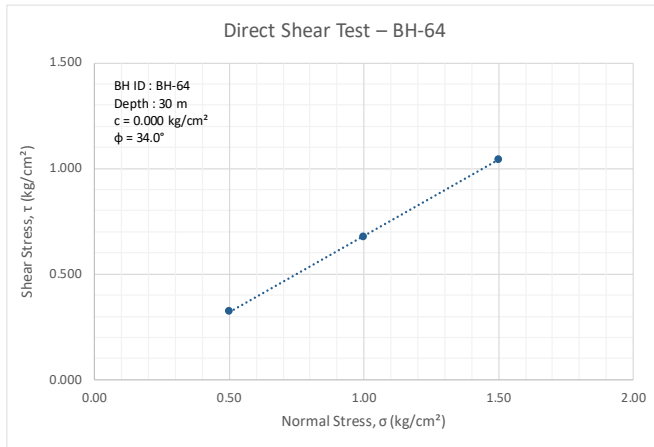
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						2.5	29.4	47.7	20.3	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium stiff to Stiff, Brownish, fine-grained inorganic silt of low Plasticity with sand (ML)	2	3	5	8	11	1.0	27.9	50.0	21.1	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							2.1	25.8	62.2	10.0	28	NP	NP	11.23	1.78	1.61	2.64	F	0.02	23	UU	15	25	-	-	-
3.50	SPT/DS		2	4	4	8	9																				
4.50	SPT/DS	Medium Dense to Dense, Yellowish Brown, fine-grained silty sand with Gravel (SM)	3	5	6	11	11	10.6	69.2	14.8	5.4	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							9.9	65.7	16.4	8.0	24	NP	NP	12.80	1.80	1.60	2.62	F	0.06	25	-	-	-	-	-	-
6.50	SPT/DS		7	12	16	28	26																				
7.50	SPT/DS		10	14	20	34	31	10.3	69.0	13.9	6.8	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	DS		6.6	51.0	30.9	11.5	26	NP	NP	13.70	-	-	2.65	F	0.08	28	-	-	-	-	-	-	-	-	-	-	
9.50	SPT/DS		12	14	19	33	22																				
10.50	SPT/DS	14	18	21	39	24	10.3	66.7	14.8	8.3	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
12.00	UDS						4.2	65.0	21.1	9.8	-	-	-	9.14	1.83	1.68	2.66	F	0.05	28	UU	22	16	-	-	-	
12.50	SPT/DS	Very Dense, Yellowish Brown, fine-grained silty sand with Gravel (SM)	18	24	30	54	30																				
13.50	SPT/DS		20	25	32	57	30	5.8	65.0	18.5	10.7	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	UDS						14.3	25.6	42.5	17.6	27	NP	NP	13.30	2.13	1.88	2.70	F	0.09	29	-	-	-	-	-	-	
15.50	SPT/DS		22	27	33	60	31																				
16.50	SPT/DS	Hard, Brownish, fine-grained inorganic silt of low Plasticity with sand and Gravel (ML)	25	30	35	65	32	3.5	21.9	48.5	26.1	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	UDS							2.7	27.3	47.5	22.5	28	NP	NP	11.60	2.05	1.83	2.62	F	0.13	27	-	-	-	-	-	-
18.50	SPT/DS		30	40	-	100	44																				
19.50	SPT/DS		32	42	-	100	43	0.0	31.0	45.9	23.1	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS						0.6	52.2	31.1	16.0	22	NP	NP	12.70	-	-	2.60	F	0.04	33	-	-	-	-	-	-	
21.50	SPT/DS		35	41	-	100	42																				
22.50	SPT/DS		40	(50/6cm)	-	100	41	11.0	67.0	15.8	6.2	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS	Very Dense, Brownish, fine-grained silty sand with Gravel (SM)						0.9	64.2	22.3	12.7	26	NP	NP	13.20	-	-	2.67	F	0.02	32	-	-	-	-	-	-
24.50	SPT/DS		26	33	39	72	31																				
25.50	SPT/DS		30	34	61	95	38	7.1	67.0	17.7	8.2	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
27.00	DS						0.0	65.4	34.6	0.0	29	NP	NP	14.50	-	-	2.61	F	0.03	33	-	-	-	-	-	-	
27.50	SPT/DS		37	45	-	100	39																				
28.50	SPT/DS		42	(50/7cm)	-	100	38	12.6	64.9	14.8	7.8	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
30.00	DS						0.0	71.4	19.6	9.1	26	NP	NP	13.26	-	-	2.66	F	0.00	34	-	-	-	-	-	-	
30.5	SPT/DS		50	(15/1cm)	-	100	37																				
31.5	SPT/DS	Very Dense, Whitish Brown to Whitish Grey, fine-grained silty sand (SM)	49	(20/3cm)	-	100	37	8.7	66.9	17.3	7.1	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
33	DS							0.0	69.8	21.4	8.8	27	NP	NP	11.60	-	-	2.68	-	-	-	-	-	-	-	-	-
33.5	SPT/DS		40	50	-	100	36																				
35	SPT/DS		48	(40/10cm)	-	100	35	9.4	67.9	22.7	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

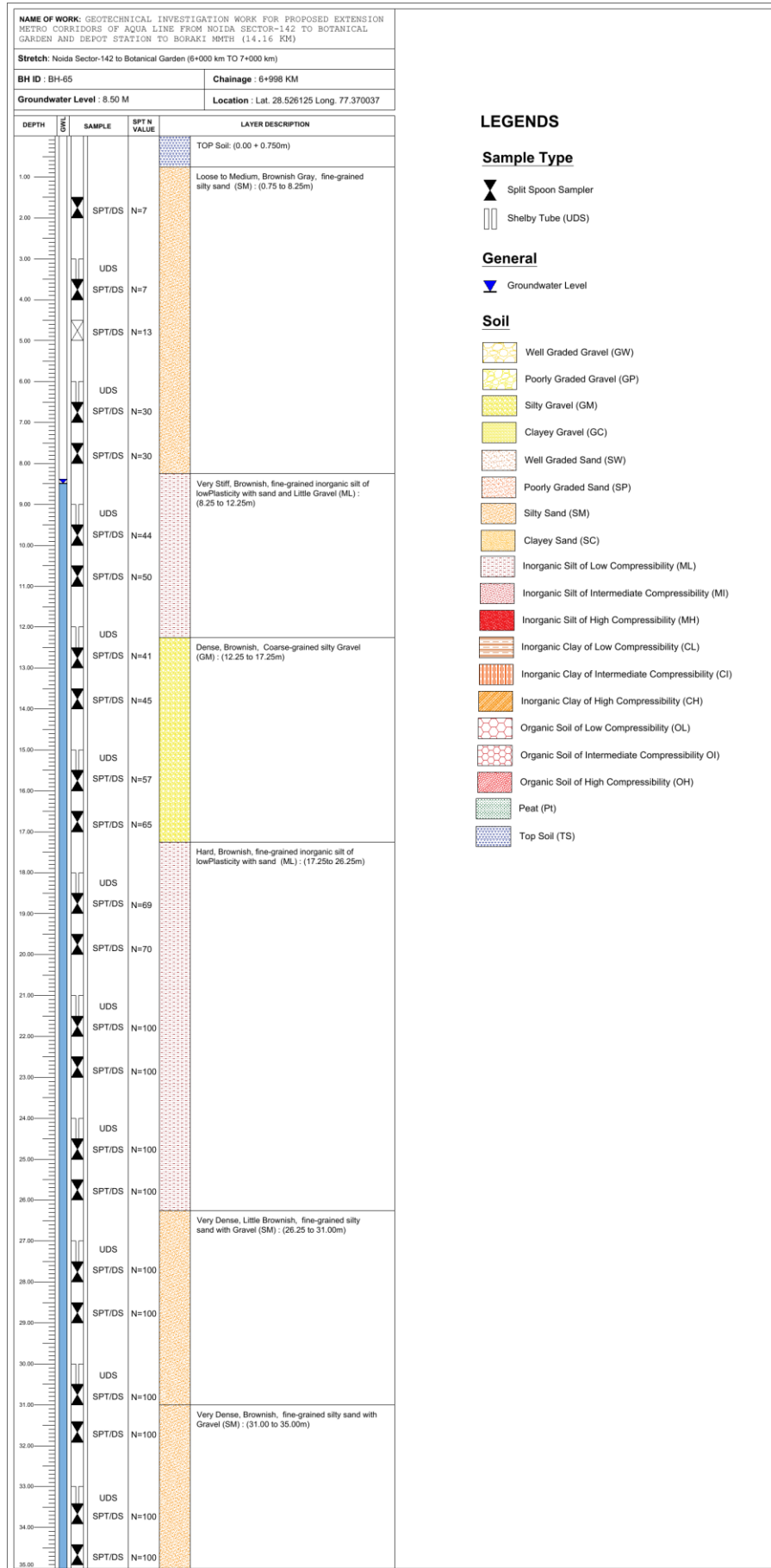
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.







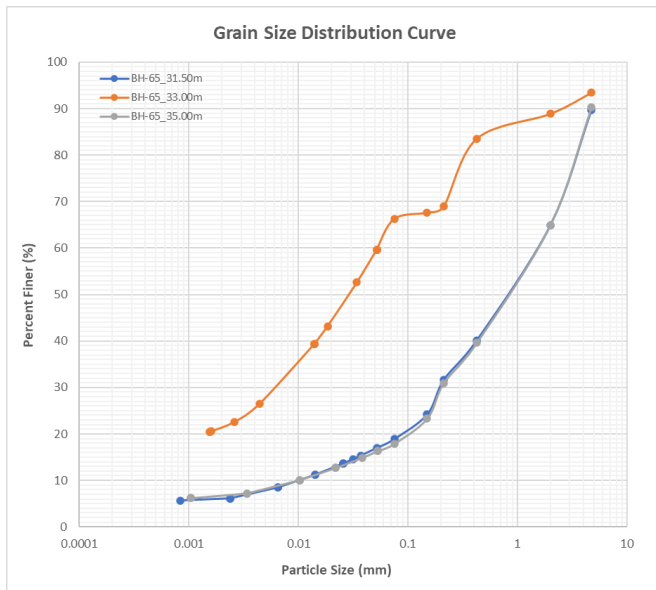
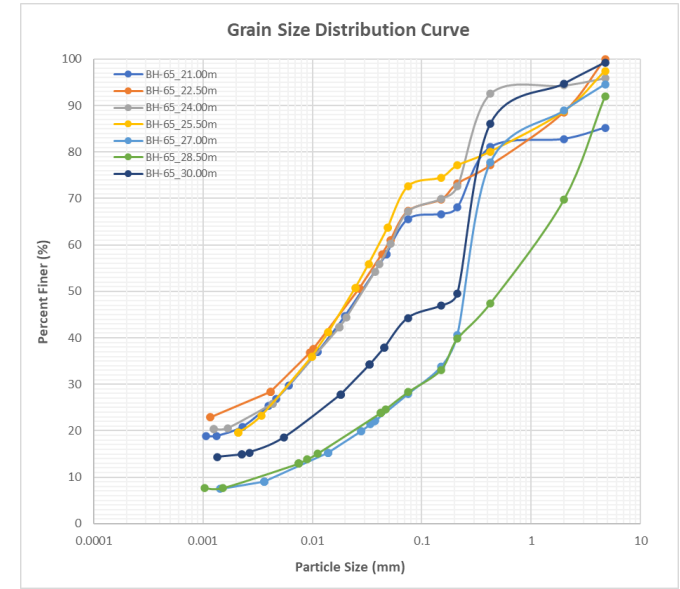
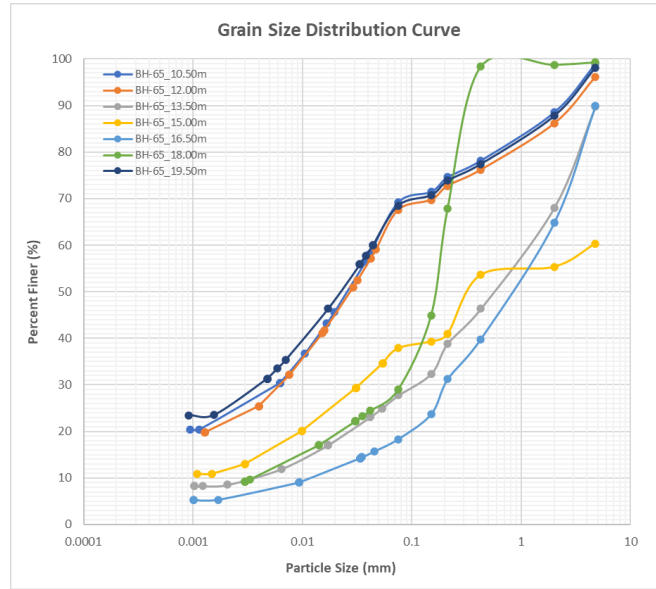
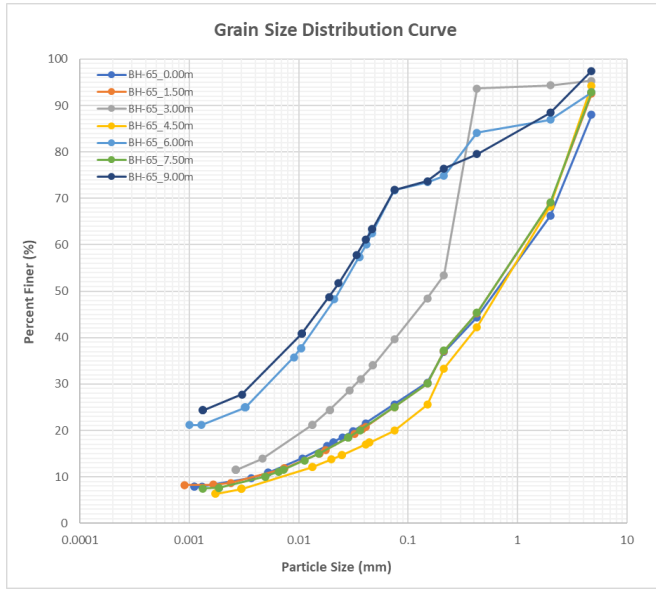


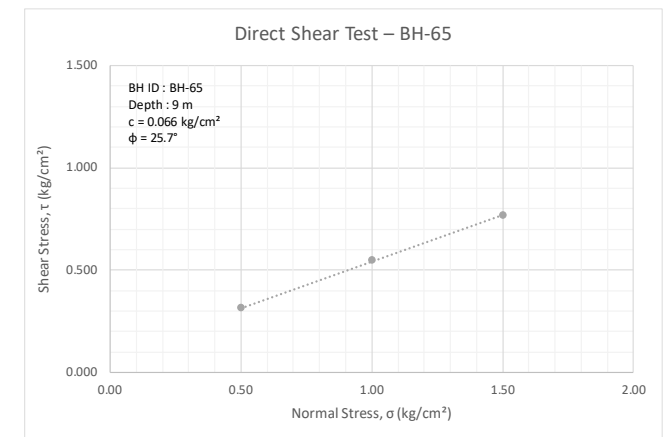
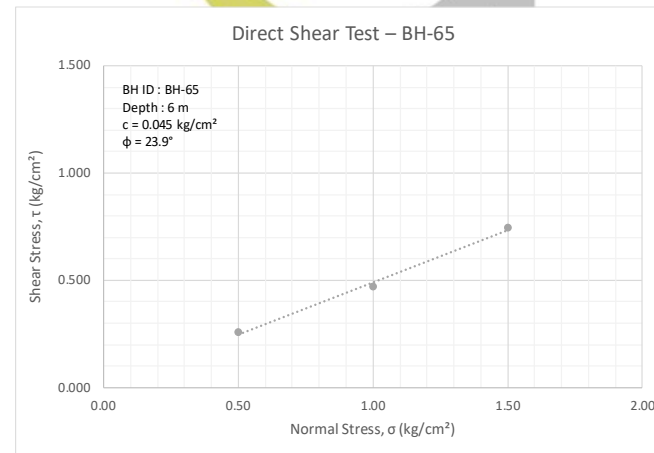
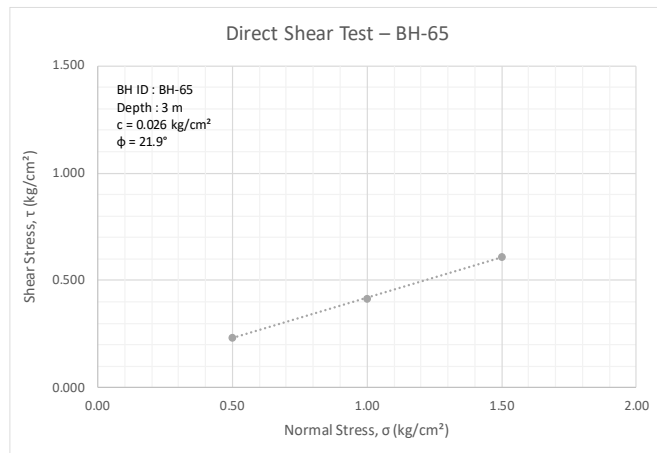
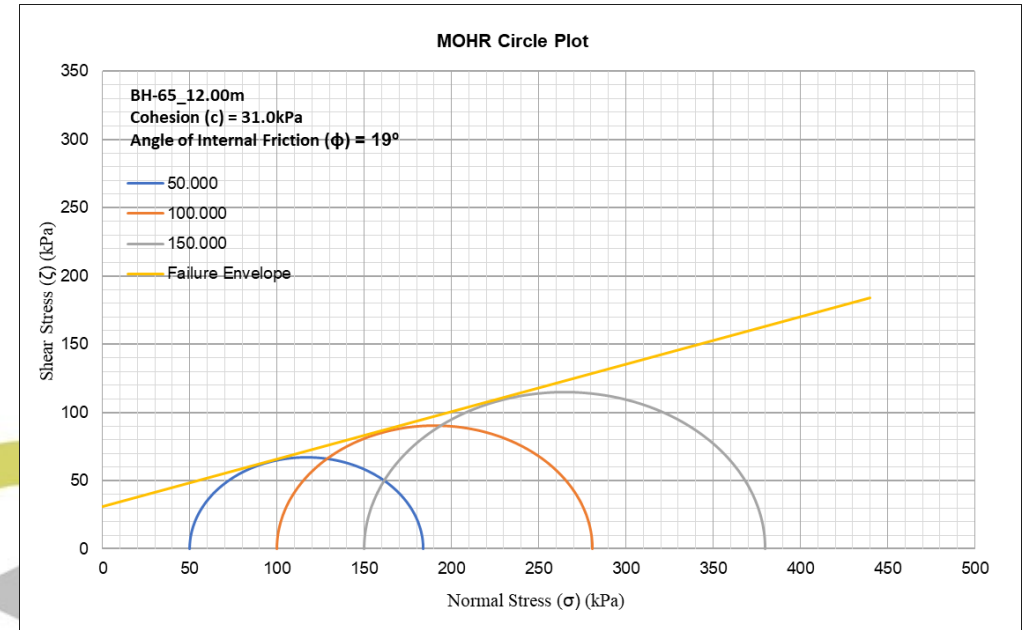
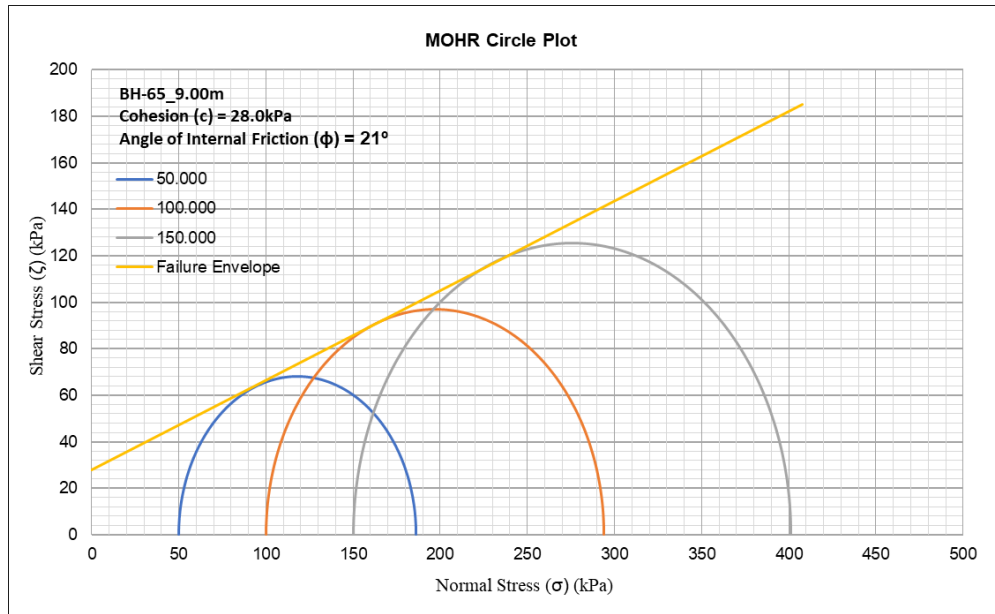


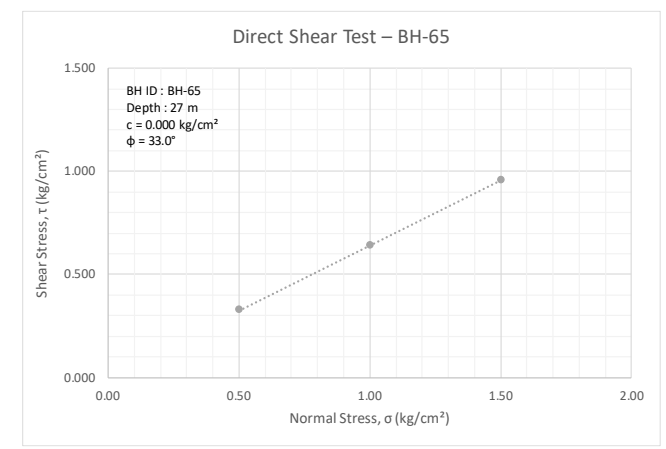
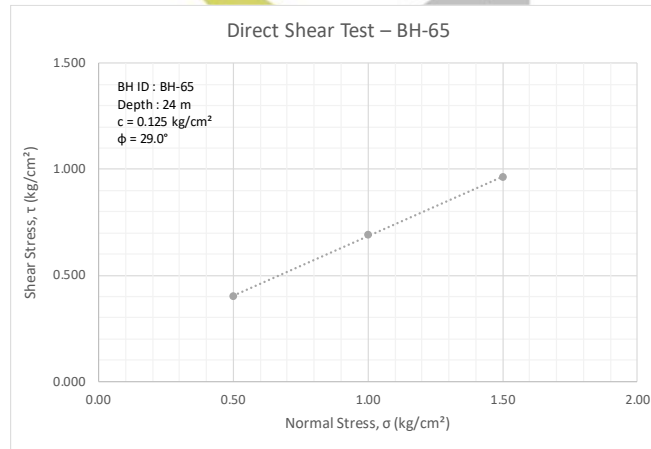
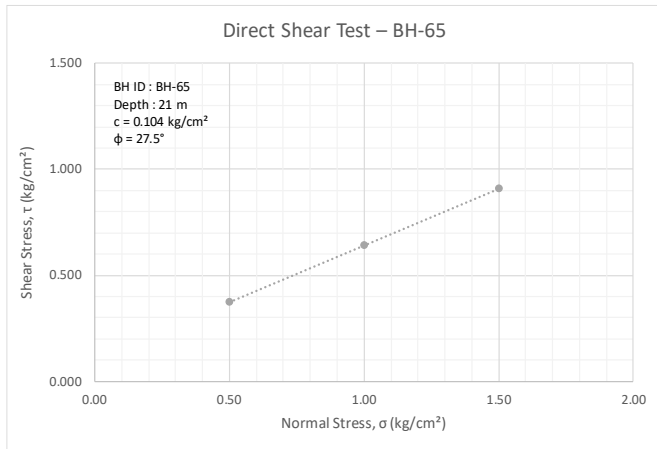
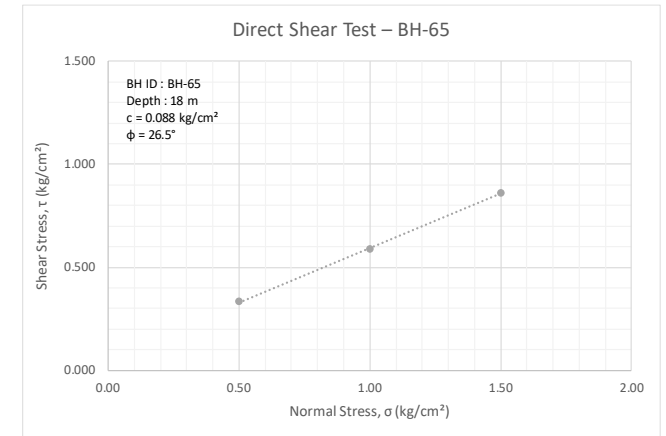
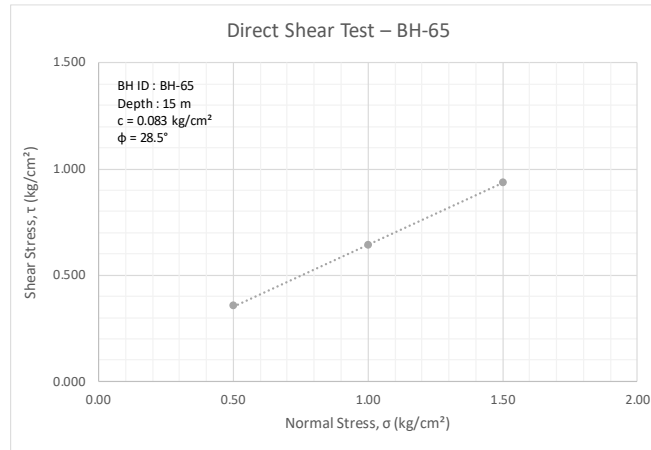
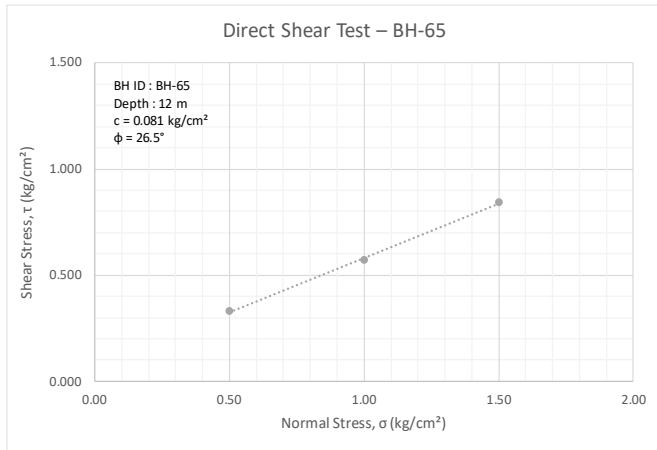


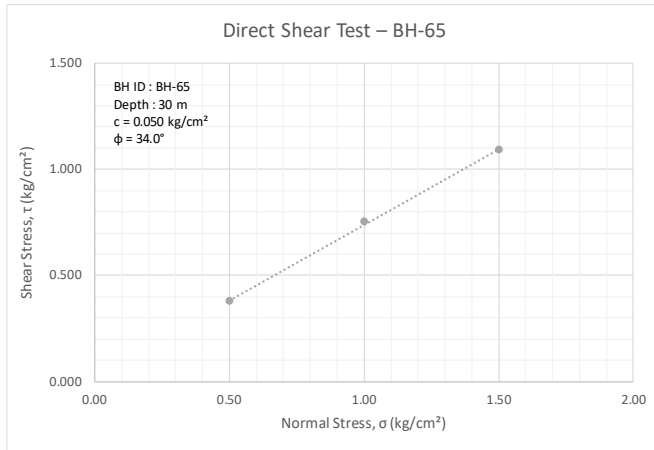
Project										Borehole Details						Drilling Details											
Name of Work:		Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)								BH ID:		BH-65				Contractor:		Goma Engineering & Consultancy									
Client:		Noida Metro Rail Corporation (NMRC) Limited								Chainage [km]:		6+998				Method of Drilling:		Rotary Drilling									
Stretch:		Noida Sector-142 to Botanical Garden								Depth [m]:		35.00				Start Date:		18-12-2025									
Project Code:		158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km								Elevation [m]:		202				End Date:		20-12-2025									
										Water table Level [m]:		8.50				Location:		Lat: 28.526125, Long: 77.370037									
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						12.0	62.4	16.9	8.7	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Loose to Medium, Brownish Gray, fine-grained silty sand (SM)	2	3	4	7	10	7.5	67.5	16.5	8.5	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							4.6	55.8	30.8	0.0	23	NP	NP	8.60	1.72	1.58	2.62	F	0.03	22	-	-	-	-	-	-
3.50	SPT/DS		3	3	4	7	8																				
4.50	SPT/DS		6	6	7	13	13	5.7	74.3	13.4	6.6	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							7.2	21.1	48.8	23.0	27	NP	NP	10.82	1.86	1.68	2.61	F	0.05	24	-	-	-	-	-	-
6.50	SPT/DS		7	9	10	19	18																				
7.50	SPT/DS		9	12	15	27	25	7.1	67.9	17.2	7.8	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	UDS						2.6	25.6	45.8	26.0	28	NP	NP	10.54	1.89	1.71	2.64	F	0.07	26	UU	28	21	-	-	-	
9.50	SPT/DS	Very Stiff, Brownish, fine-grained inorganic silt of low Plasticity with sand and Little Gravel (ML)	10	13	17	30	20																				
10.50	SPT/DS		12	14	16	30	20	1.0	29.7	45.6	23.7	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS							3.8	28.6	45.6	22.0	27	NP	NP	12.10	1.93	1.72	2.65	F	0.08	27	UU	31	19	-	-	-
12.50	SPT/DS	Dense, Brownish, Coarse-grained silty Gravel (GM)	15	20	24	44	26																				
13.50	SPT/DS		17	22	28	50	28	10.2	62.1	19.2	8.5	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	UDS							39.6	22.5	26.1	11.8	29	NP	NP	9.71	1.83	1.67	2.63	F	0.08	29	-	-	-	-	-	-
15.50	SPT/DS		14	18	23	41	23																				
16.50	SPT/DS		16	20	25	45	25	10.1	71.5	12.7	5.7	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	UDS							0.7	70.3	16.8	12.2	25	NP	NP	11.70	2.06	1.84	2.69	F	0.09	27	-	-	-	-	-	-
18.50	SPT/DS		21	26	31	57	28																				
19.50	SPT/DS	24	30	35	65	31	1.9	29.6	43.3	25.3	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
21.00	UDS						14.8	19.6	45.2	20.4	24	NP	NP	14.45	2.08	1.82	2.60	F	0.10	28	-	-	-	-	-	-	
21.50	SPT/DS	Hard, Brownish, fine-grained inorganic silt of low Plasticity with sand (ML)	15	33	36	69	31																				
22.50	SPT/DS		18	32	38	70	31	0.0	32.7	42.1	25.2	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS							4.1	28.7	45.7	21.5	27	NP	NP	13.22	-	-	2.69	F	0.13	29	-	-	-	-	-	-
24.50	SPT/DS	27	45	(50/10cm)	100	40																					
25.50	SPT/DS	32	42	(50/08cm)	100	40	2.6	24.8	51.5	21.1	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	DS						5.5	66.6	19.9	8.1	23	NP	NP	11.62	-	-	2.64	F	0.00	33	-	-	-	-	-	-	
27.50	SPT/DS	Very Dense, Little Brownish, fine-grained silty sand with Gravel (SM)	30	(50/2cm)	-	100	39																				
28.50	SPT/DS		42	(49/3cm)	-	100	38	8.0	63.7	19.7	8.6	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
30.00	DS							0.8	54.9	29.6	14.7	23	NP	NP	12.35	-	-	2.66	F	0.05	34	-	-	-	-	-	-
30.50	SPT/DS	50	(30/1cm)	-	100	37																					
31.50	SPT/DS	49	(50/3cm)	-	100	37	10.2	70.9	12.8	6.1	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
33.00	DS	Very Dense, Brownish, fine-grained silty sand with Gravel (SM)						6.6	27.1	44.8	21.5	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
33.50	SPT/DS		50	(20/1cm)	-	100	36																				
35.00	SPT/DS		48	(25/2cm)	-	100	35	9.8	72.4	11.1	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

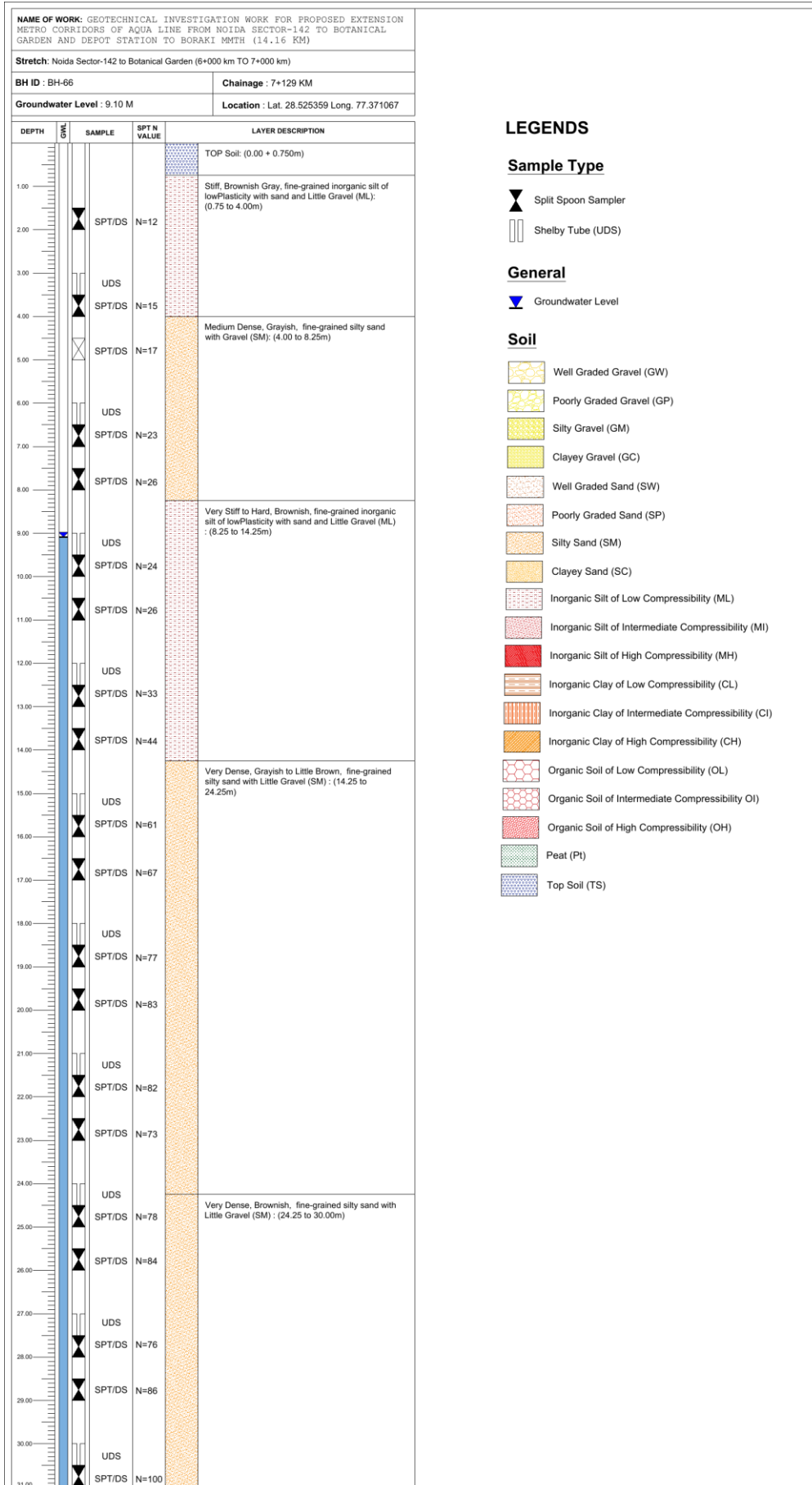
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.











LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

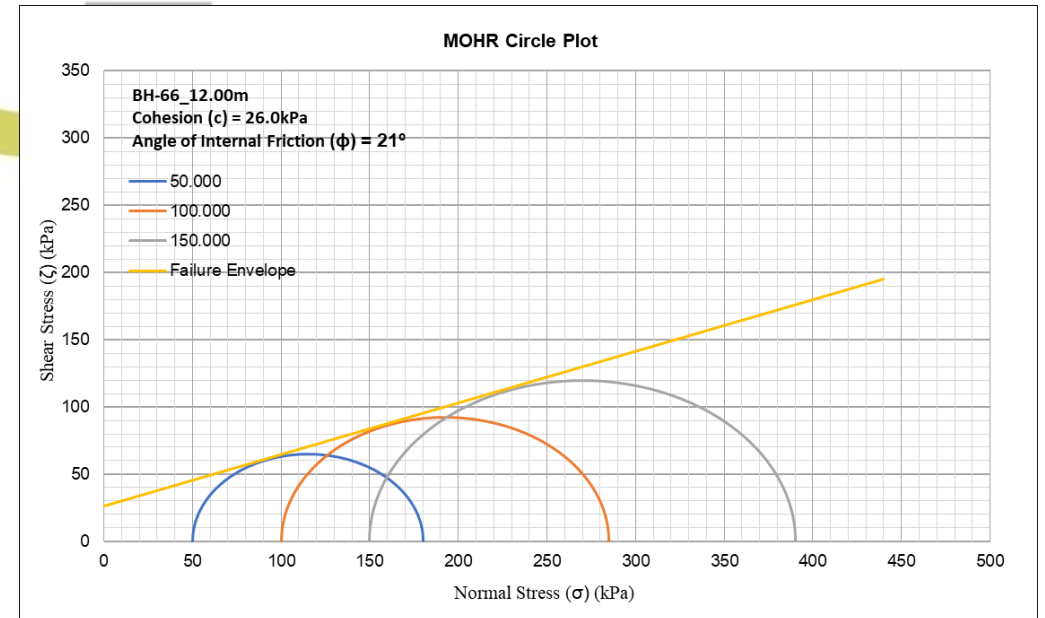
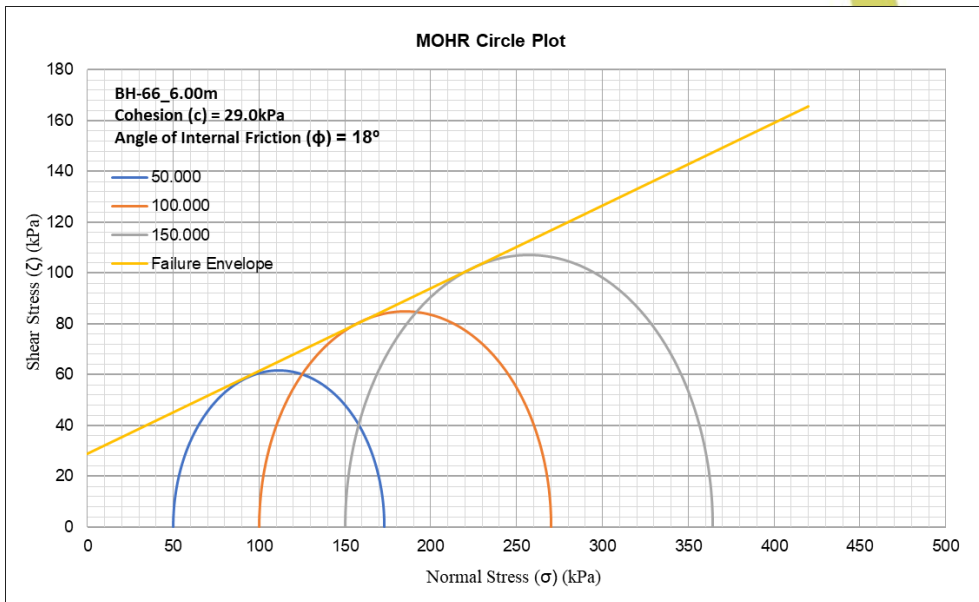
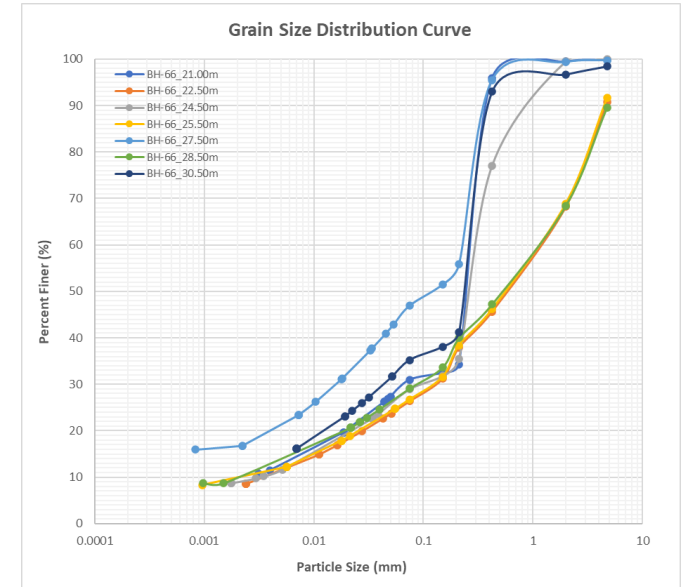
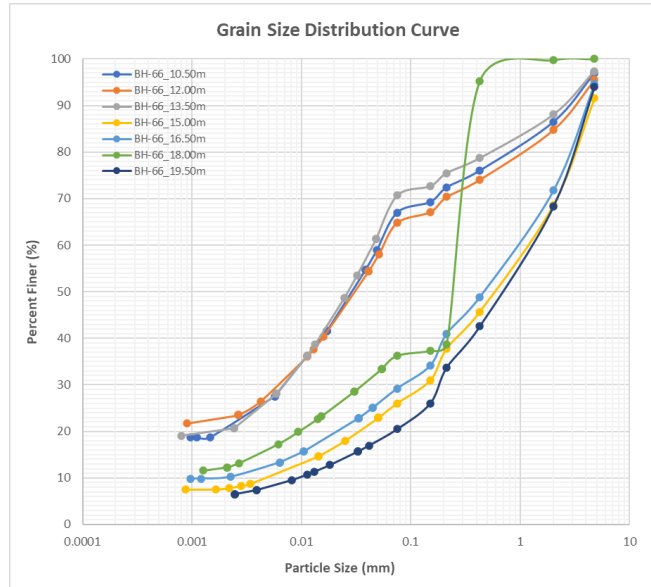
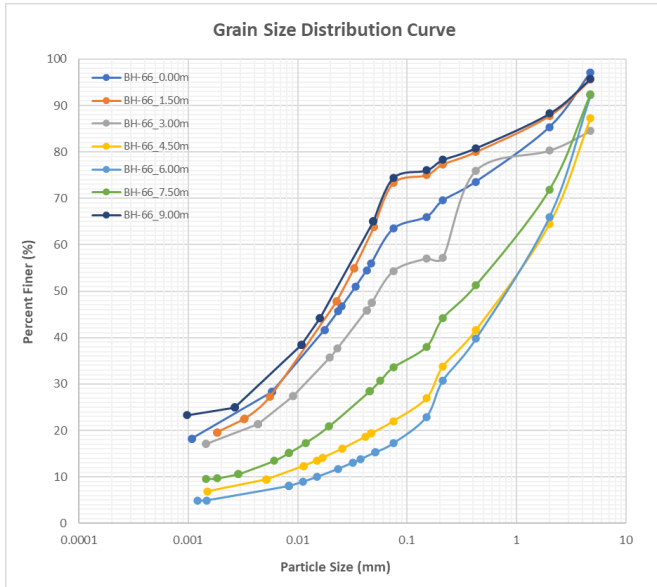
Soil

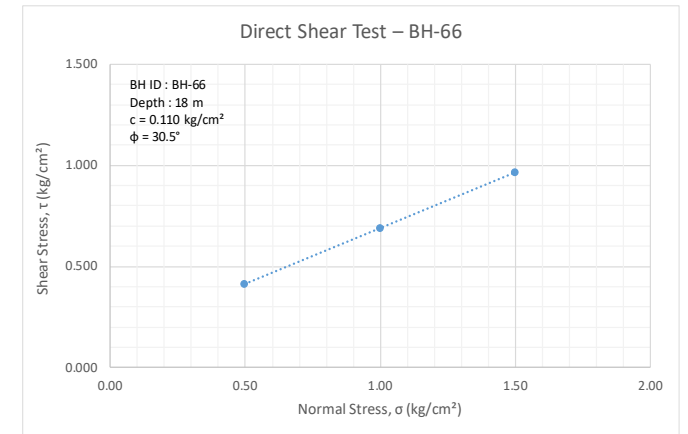
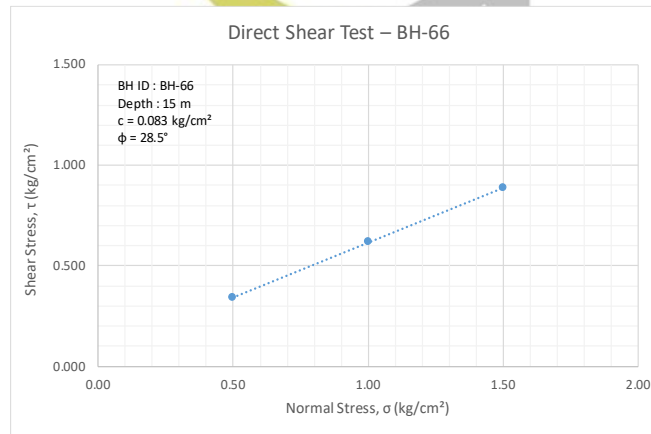
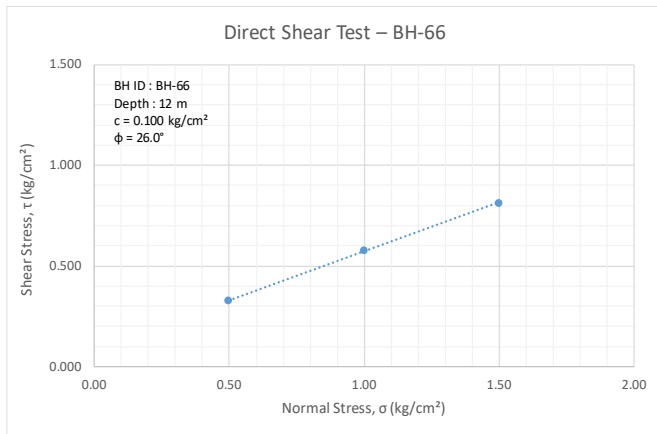
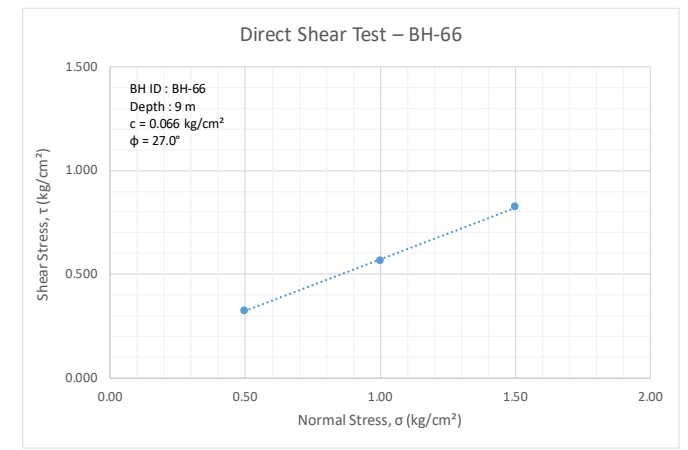
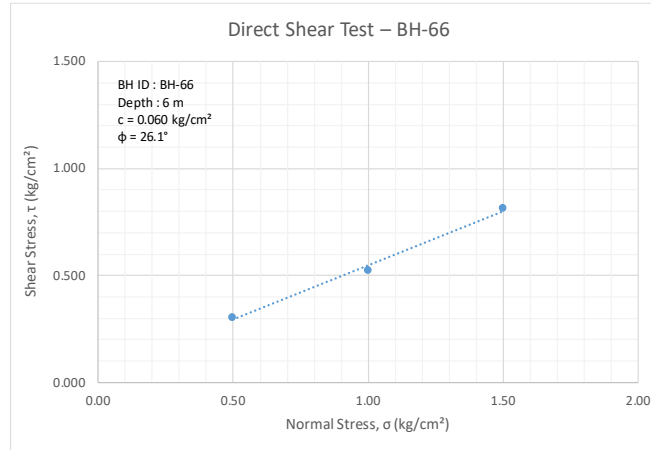
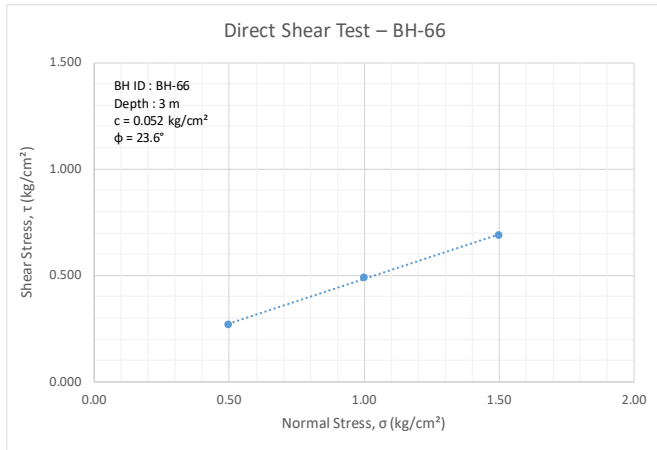
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

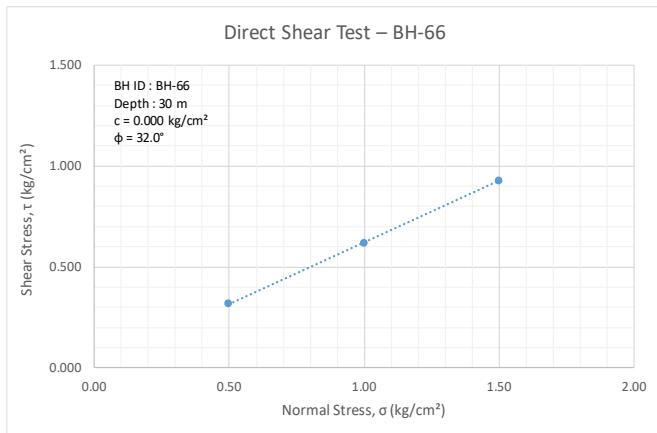
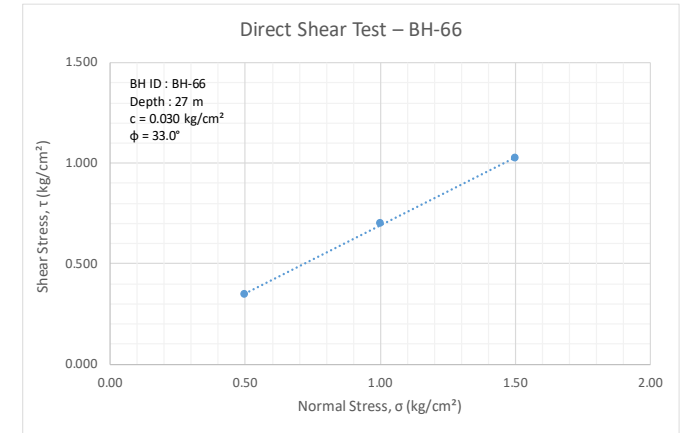
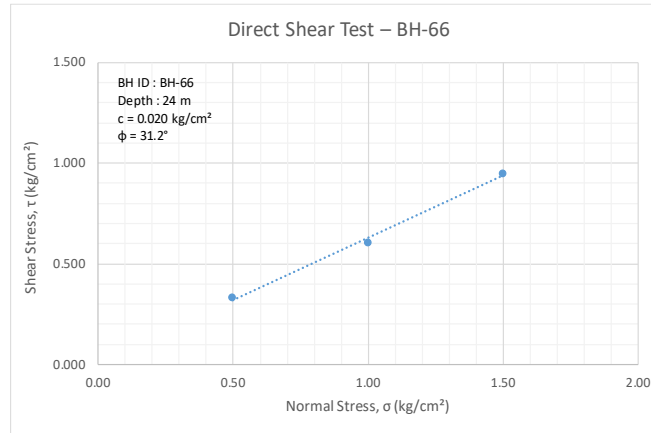
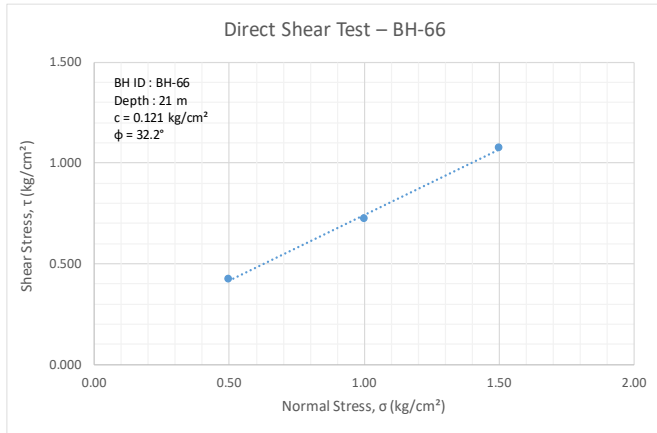


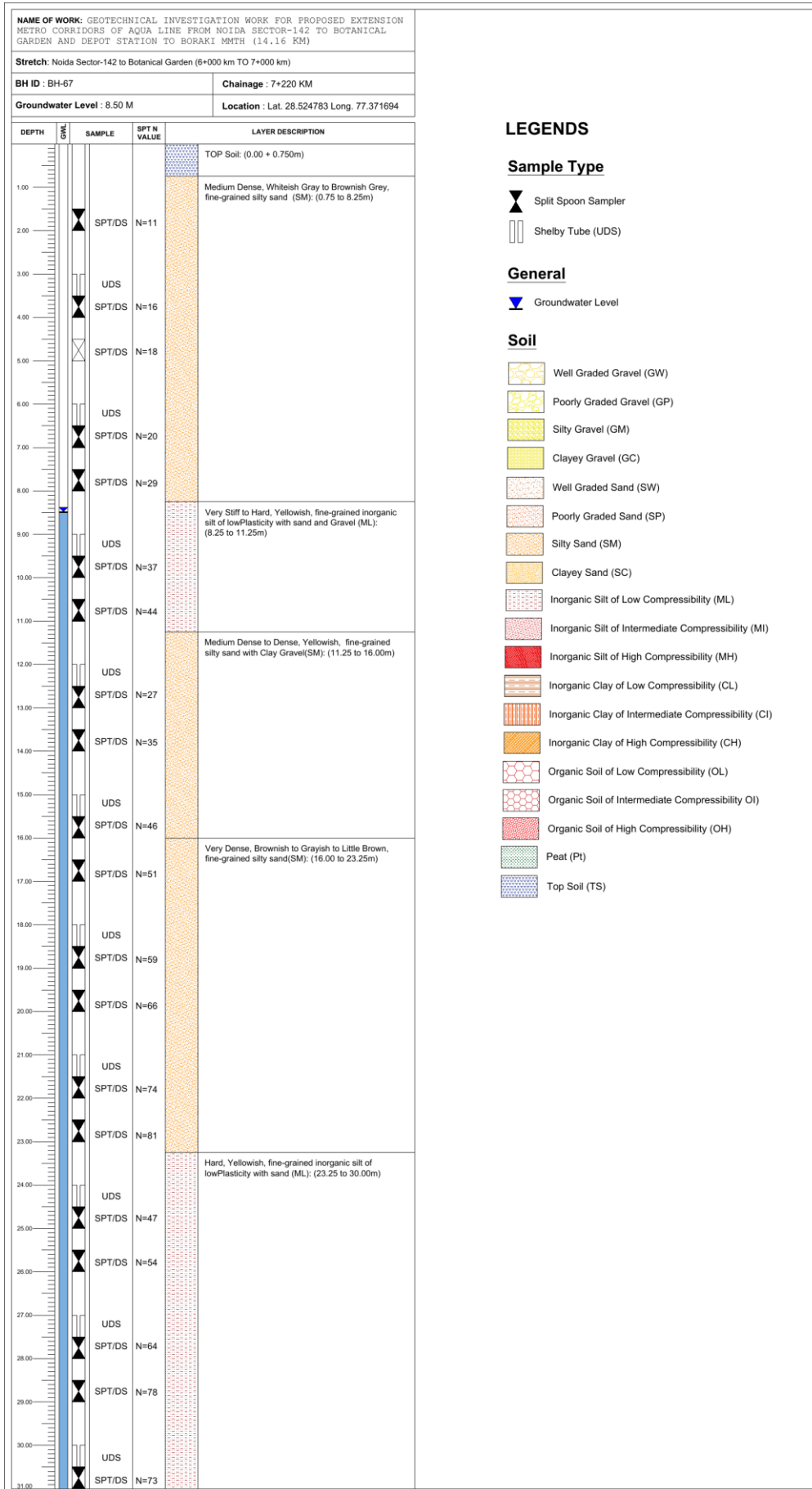
Project							Borehole Details							Drilling Details														
Name of Work: Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)							BH ID: BH-66							Contractor: Goma Engineering & Consultancy														
Client: Noida Metro Rail Corporation (NMRC) Limited							Chainage [km]: 7+129							Method of Drilling: Rotary Drilling														
Stretch: Noida Sector-142 to Botanical Garden							Depth [m]: 30.00							Start Date: 17-12-2025														
Project Code: 158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km							Elevation [m]: 194.5							End Date: 18-12-2025														
							Water table Level [m]: 9.10							Location: Lat: 28.525359, Long: 77.371067														
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test			
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]	
0.00	DS	Top Soil						2.9	33.7	41.6	21.9	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.50	SPT/DS	Stiff, Brownish Gray, fine-grained inorganic silt of low Plasticity with sand and Little Gravel (ML)	3	5	7	12	17	4.4	22.2	53.3	20.0	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.00	UDS							15.5	30.1	36.0	18.3	25	NP	NP	12.40	1.75	1.55	2.63	F	0.05	24	-	-	-	-	-	-	
3.50	SPT/DS			4	6	9	15	16																				
4.50	SPT/DS	Medium Dense, Greyish, fine-grained silty sand with Gravel (SM)	4	7	10	17	17	12.7	65.3	14.5	7.5	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
6.00	UDS							7.8	75.0	11.8	5.5	24	NP	NP	15.28	1.90	1.65	2.66	F	0.06	26	UU	29	18	-	-	-	
6.50	SPT/DS			7	10	13	23	22																				
7.50	SPT/DS			8	11	15	26	24	7.6	58.8	23.7	9.9	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	DS	Very Stiff to Hard, Brownish, fine-grained inorganic silt of low Plasticity with sand and Little Gravel (ML)						4.3	21.3	49.9	24.5	23	NP	NP	15.95	1.94	1.67	2.69	F	0.07	27	UU	26	21	-	-	-	
9.50	SPT/DS			7	10	14	24	18																				
10.50	SPT/DS			9	12	14	26	19	3.1	29.9	46.3	20.8	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	DS							4.5	30.6	41.8	23.0	28	NP	NP	13.82	-	-	2.65	F	0.10	26	-	-	-	-	-	-	
12.50	SPT/DS			12	15	18	33	21																				
13.50	SPT/DS			14	20	24	44	25	2.6	26.7	50.3	20.4	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	DS	Very Dense, Greyish to Little Brown, fine-grained silty sand with Little Gravel (SM)						8.4	65.5	18.3	7.7	27	NP	NP	11.60	-	-	2.62	F	0.08	29	-	-	-	-	-	-	
15.50	SPT/DS			21	27	34	61	31																				
16.50	SPT/DS			24	30	37	67	33	5.4	65.4	19.0	10.2	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS							0.0	63.7	24.1	12.2	25	NP	NP	14.40	-	-	2.66	F	0.11	31	-	-	-	-	-	-	
18.50	SPT/DS			30	36	41	77	36																				
19.50	SPT/DS			34	38	45	83	37	6.0	73.5	14.9	5.6	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS							0.1	68.9	23.3	7.7	23	NP	NP	15.68	-	-	2.69	F	0.12	32	-	-	-	-	-	-	
21.50	SPT/DS			21	36	46	82	36																				
22.50	SPT/DS			27	34	39	73	32	9.3	64.3	14.2	12.2	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS							0.0	71.0	20.0	9.0	24	NP	NP	13.22	-	-	2.62	F	0.02	31	-	-	-	-	-	-	
24.50	SPT/DS	Very Dense, Brownish, fine-grained silty sand with Little Gravel (SM)	31	36	42	78	33																					
25.50	SPT/DS			34	40	44	84	35	8.4	64.9	16.8	9.9	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
27.00	DS							0.3	52.8	16.8	9.9	21	NP	NP	12.26	-	-	2.61	F	0.03	33	-	-	-	-	-	-	
27.50	SPT/DS			30	36	42	78	32																				
28.50	SPT/DS			33	40	46	86	34	10.5	60.5	19.1	10.0	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
30.00	DS							1.6	63.2	35.2	0.0	25.0	NP	NP	11.51	-	-	2.66	F	0.00	32	-	-	-	-	-	-	
30.50	SPT/DS			40	(50/3cm)	-	100	37																				

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

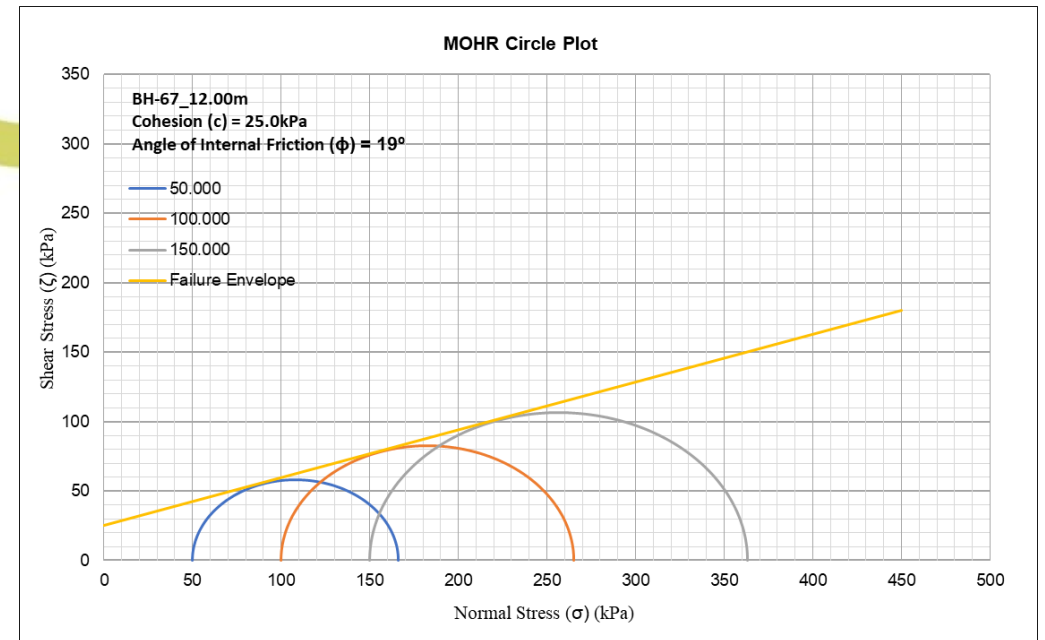
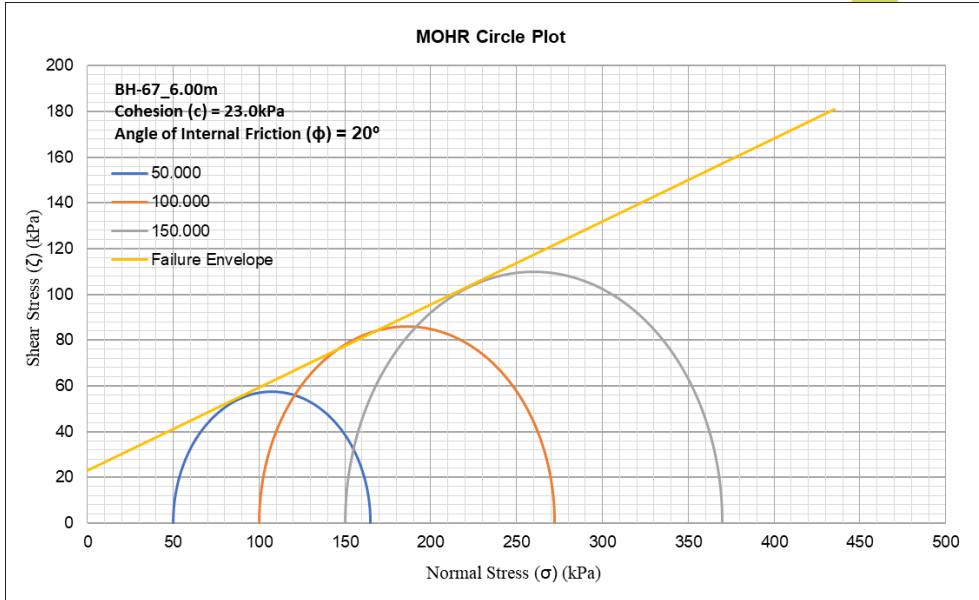
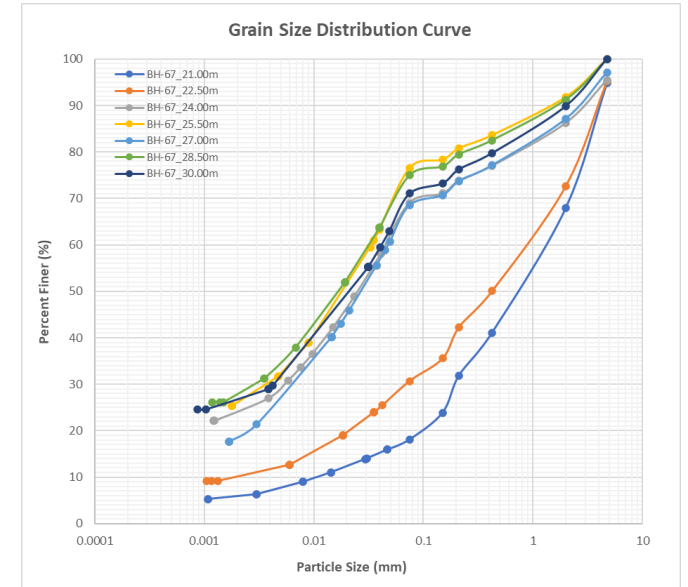
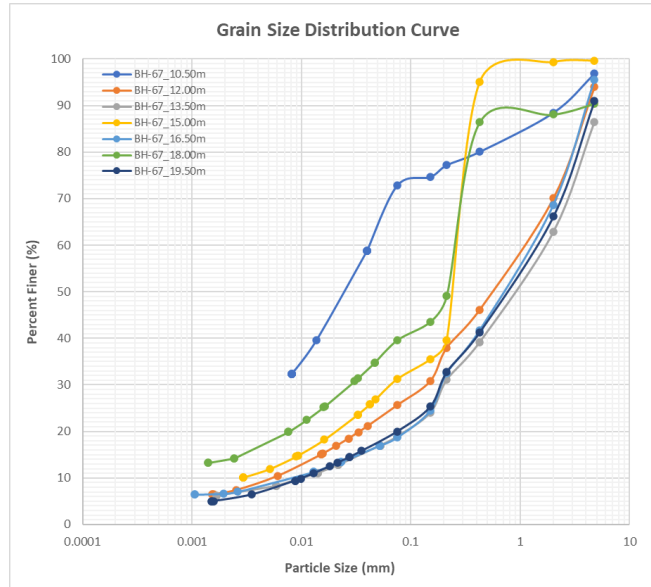
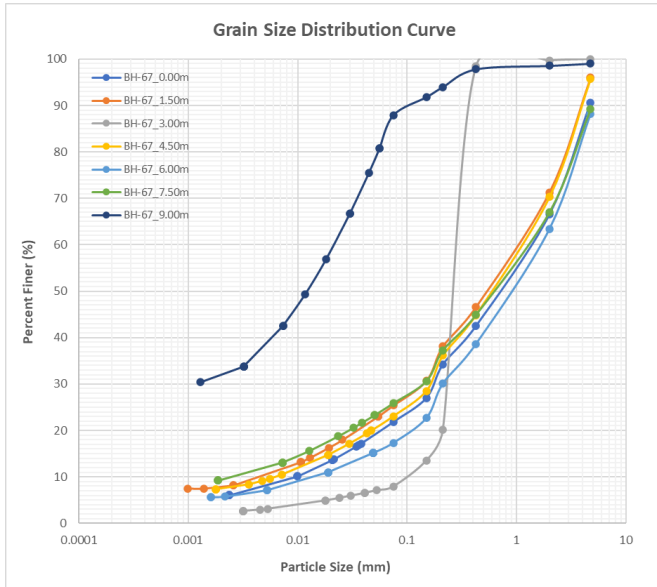
Soil

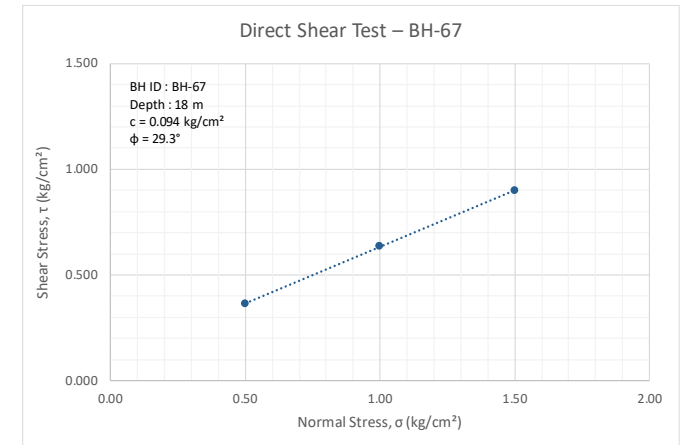
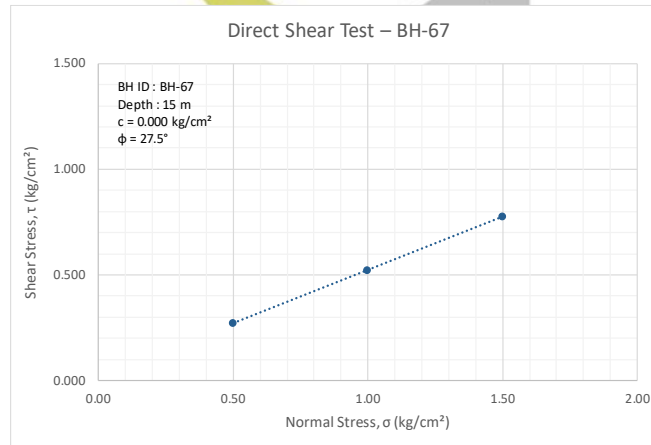
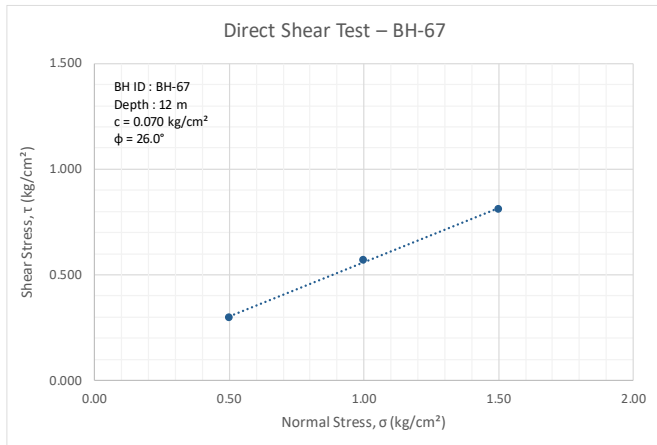
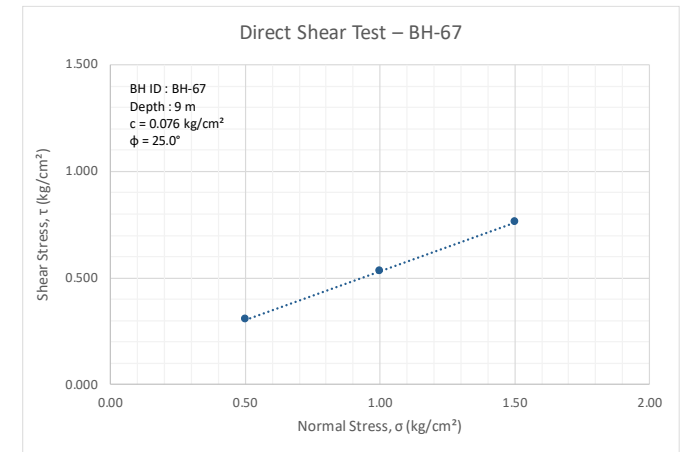
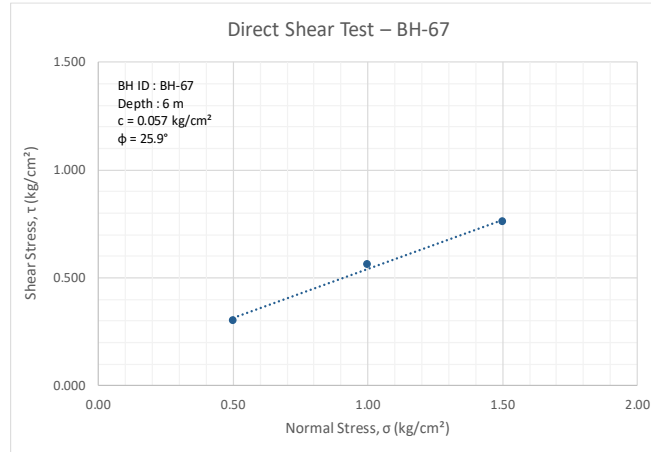
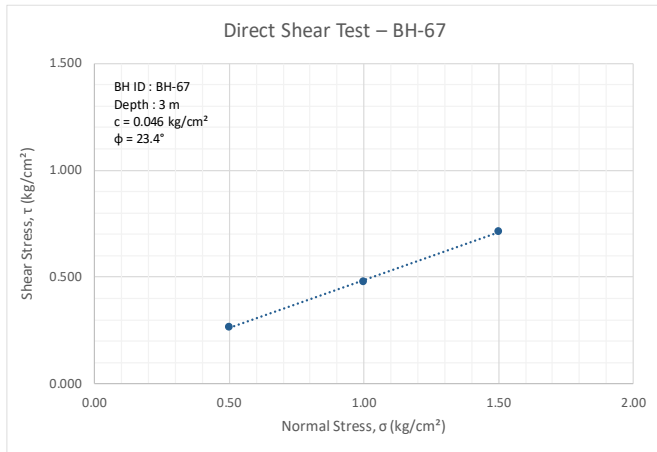
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

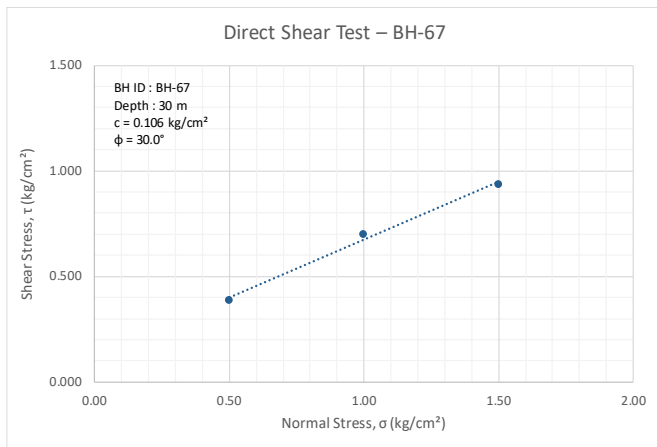
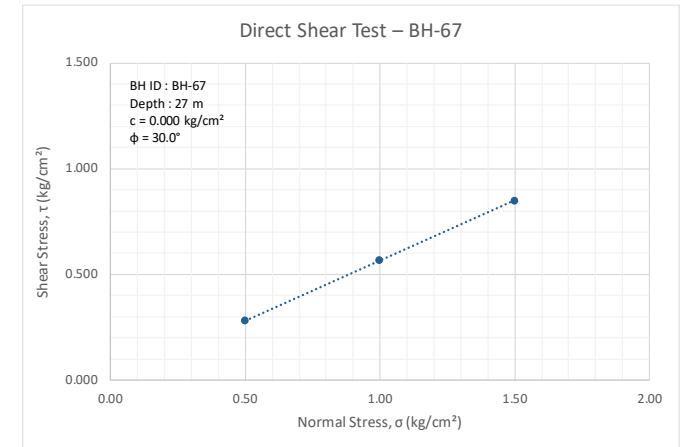
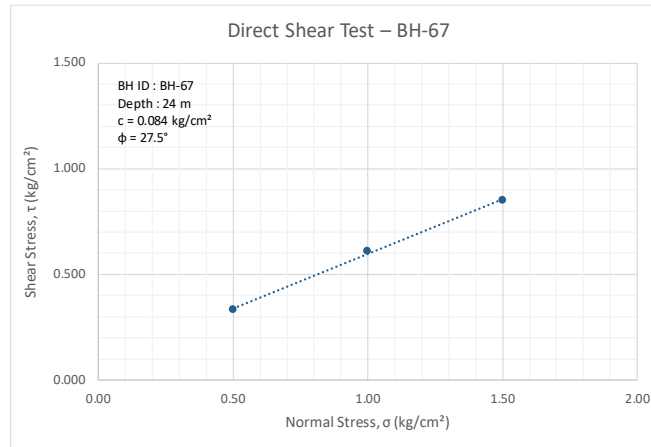
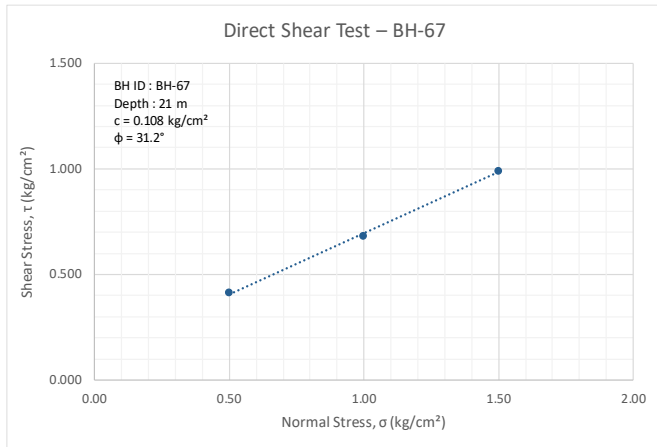


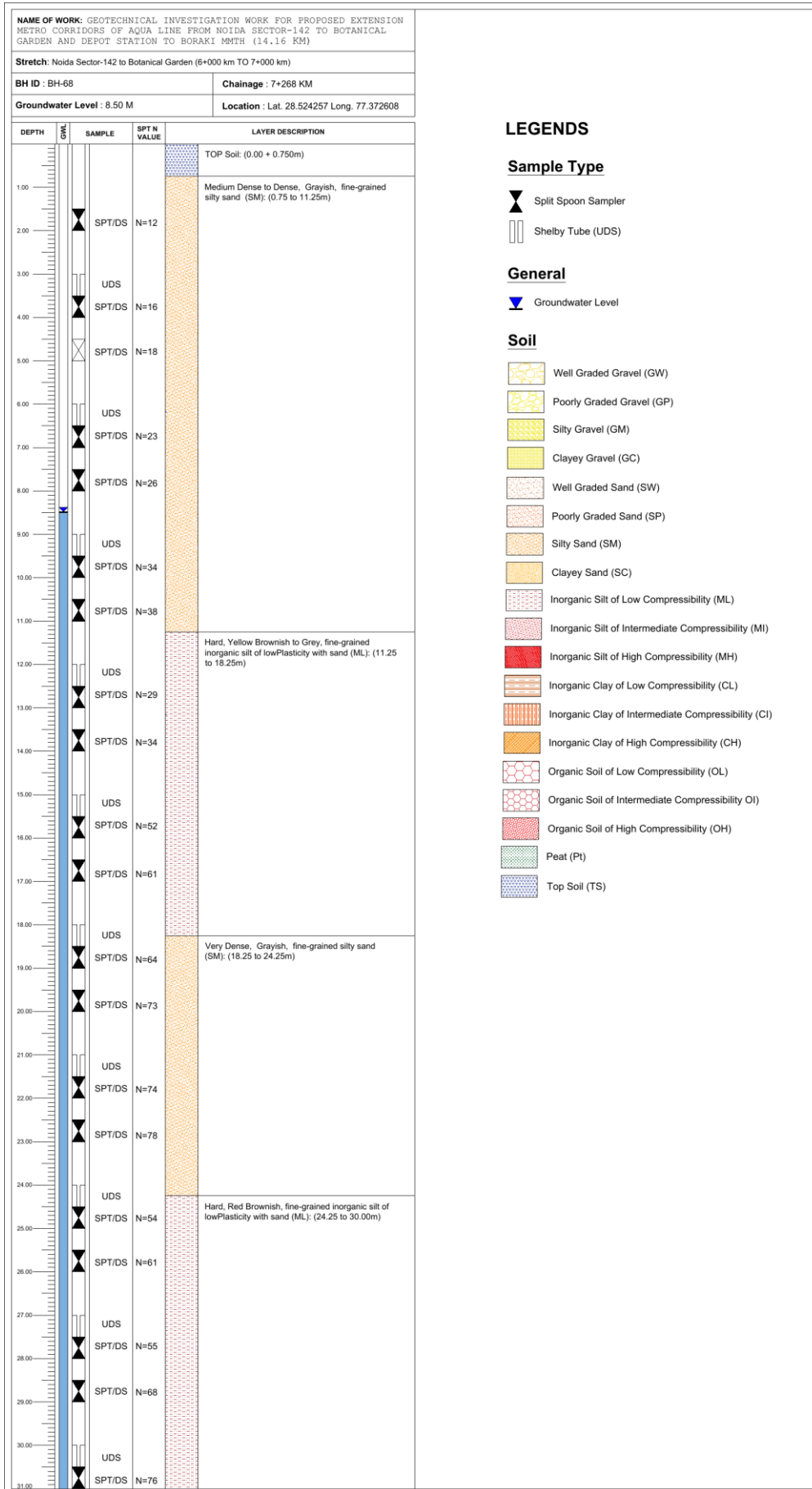
Project						Borehole Details						Drilling Details																	
Name of Work:		Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)						BH ID:		BH-67				Contractor:		Goma Engineering & Consultancy													
Client:		Noida Metro Rail Corporation (NMRC) Limited						Chainage [km]:		7+220				Method of Drilling:		Rotary Drilling													
Stretch:		Noida Sector-142 to Botanical Garden						Depth [m]:		30.00				Start Date:		16-12-2025													
Project Code:		158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km						Elevation [m]:		196.8				End Date:		16-12-2025													
								Water table Level [m]:		8.50				Location:		Lat: 28.524783, Long: 77.371694													
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test				
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]		
0.00	DS	Top Soil						9.4	68.7	21.9	0.0	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-		
1.50	SPT/DS	Medium Dense, Whiteish Gray to Brownish Grey, fine-grained silty sand (SM)	3	5	6	11	15	4.0	70.6	17.5	7.9	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-		
3.00	UDS							0.0	92.1	8.0	0.0	26	NP	NP	13.80	1.72	1.51	2.63	F	0.05	23	-	-	-	-	-	-		
3.50	SPT/DS																												
4.50	SPT/DS							4.3	72.7	15.6	7.5	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-		
6.00	UDS							11.8	70.9	11.6	5.7	22	NP	NP	12.87	1.85	1.64	2.66	F	0.06	26	UU	23	20	-	-	-		
6.50	SPT/DS																												
7.50	SPT/DS							10.8	63.3	16.5	9.4	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-		
9.00	DS	Very Stiff to Hard, Yellowish, fine-grained inorganic silt of low Plasticity with sand and Gravel (ML)						1.0	11.1	55.9	32.1	27	NP	NP	14.48	-	-	2.64	F	0.08	25	-	-	-	-	-	-		
9.50	SPT/DS																												
10.50	SPT/DS							3.1	24.0	61.7	11.2	29	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-		
12.00	UDS	Medium Dense to Dense, Yellowish, fine-grained silty sand with Clay Gravel(SM)						6.0	68.4	18.7	7.0	24	NP	NP	10.78	1.87	1.69	2.65	F	0.07	26	UU	25	19	-	-	-		
12.50	SPT/DS																												
13.50	SPT/DS							13.5	67.6	12.4	6.5	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-		
15.00	UDS							0.3	68.4	25.7	5.4	23	NP	NP	11.65	-	-	2.66	F	0.00	28	-	-	-	-	-	-		
15.50	SPT/DS																												
16.50	SPT/DS							18	22	29	51	27	4.5	76.8	12.1	6.7	27	NP	NP	-	-	-	-	-	-	-	-	-	-
18.00	UDS							9.6	50.7	25.8	13.9	24	NP	NP	10.52	-	-	2.69	F	0.09	29	-	-	-	-	-	-		
18.50	SPT/DS	Very Dense, Brownish to Greyish to Little Brown, fine-grained silty sand(SM)	22	28	31	59	29																						
19.50	SPT/DS							9.0	71.0	14.6	5.4	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-		
21.00	UDS							5.2	76.7	12.2	5.9	24	NP	NP	12.63	-	-	2.63	F	0.11	31	-	-	-	-	-	-		
21.50	SPT/DS																												
22.50	SPT/DS							32	37	44	81	35	4.7	64.6	20.6	10.1	25	NP	NP	-	-	-	-	-	-	-	-	-	-
24.00	UDS							4.6	26.4	44.8	24.2	23	NP	NP	15.66	-	-	2.70	F	0.08	28	-	-	-	-	-	-		
24.50	SPT/DS																												
25.50	SPT/DS						17	21	26	47	23																		
27.00	UDS	Hard, Yellowish, fine-grained inorganic silt of low Plasticity with sand (ML)	20	24	30	54	25	0.0	23.4	50.5	26.1	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-		
27.50	SPT/DS							2.9	28.6	49.8	18.8	24	NP	NP	17.22	-	-	2.62	F	0.00	30	-	-	-	-	-	-		
28.50	SPT/DS							24	30	34	64	27																	
30.00	UDS							30	36	42	78	31	0.0	25.0	47.2	27.8	21	NP	NP	-	-	-	-	-	-	-	-	-	-
30.50	SPT/DS																												
								0.0	28.9	44.3	26.8	23	NP	NP	16.34	-	-	2.64	F	0.11	30	-	-	-	-	-	-		

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

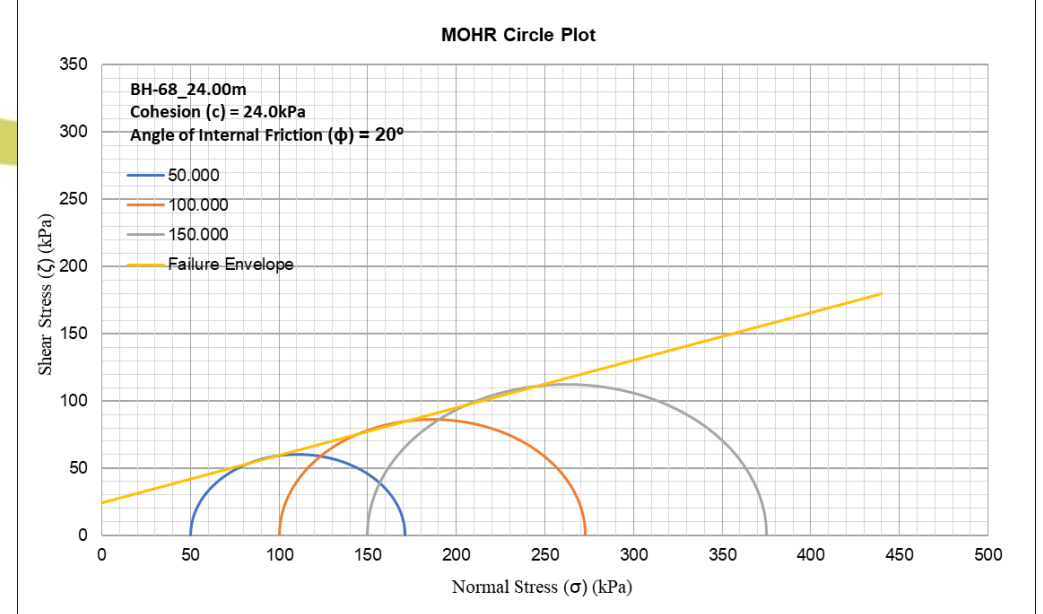
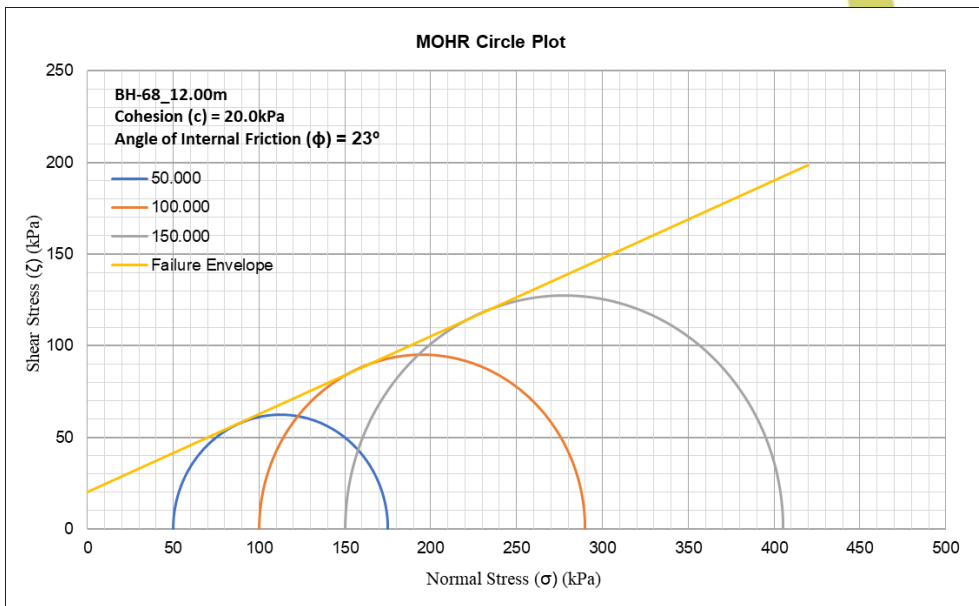
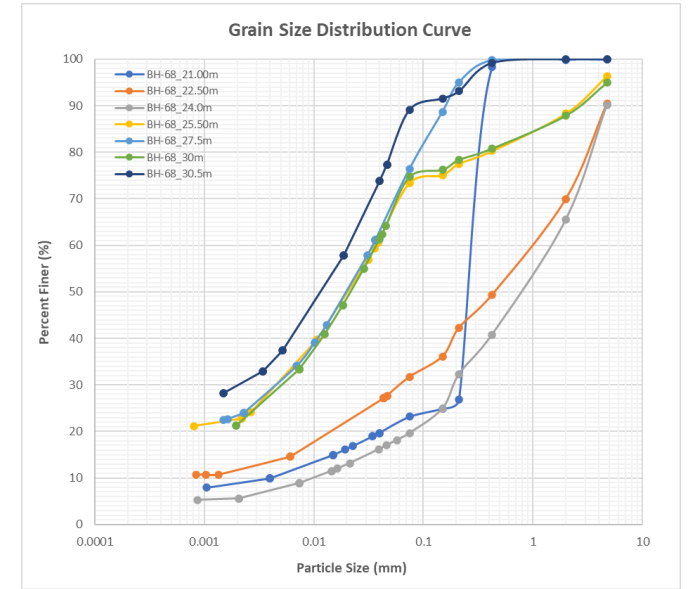
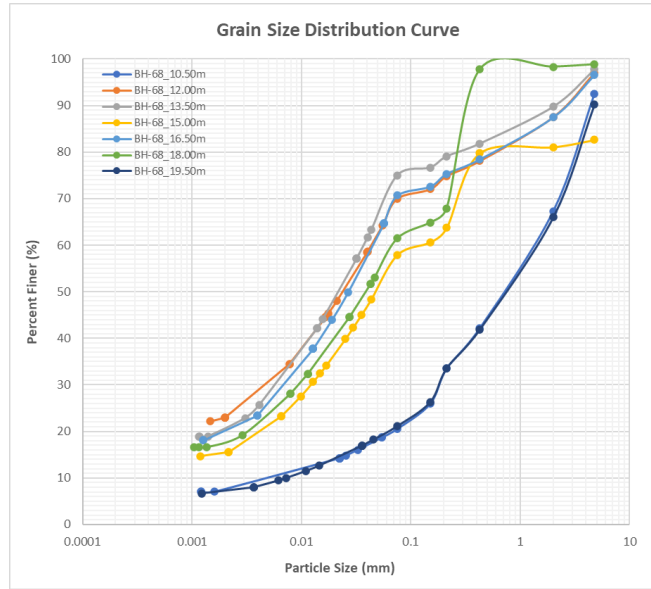
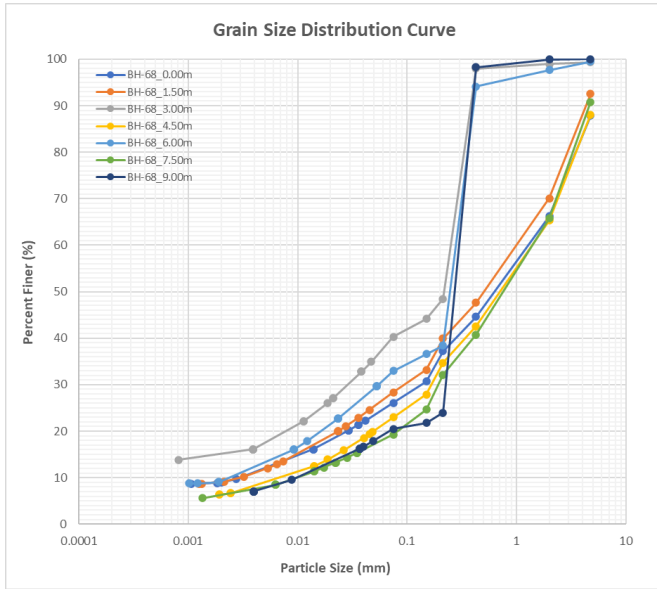
Soil

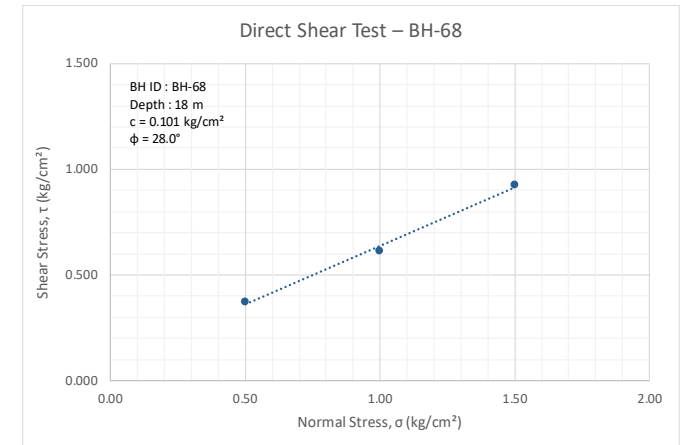
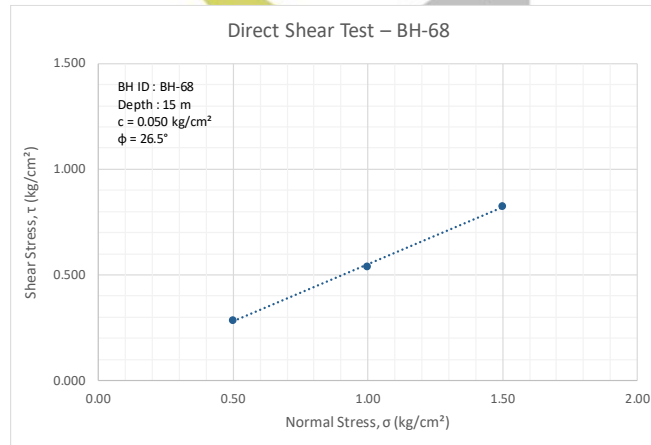
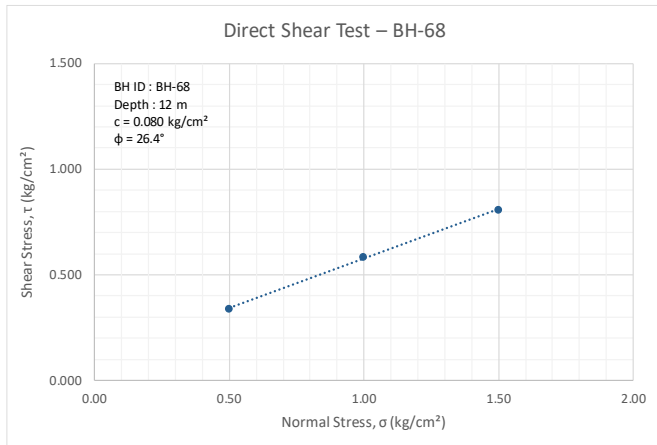
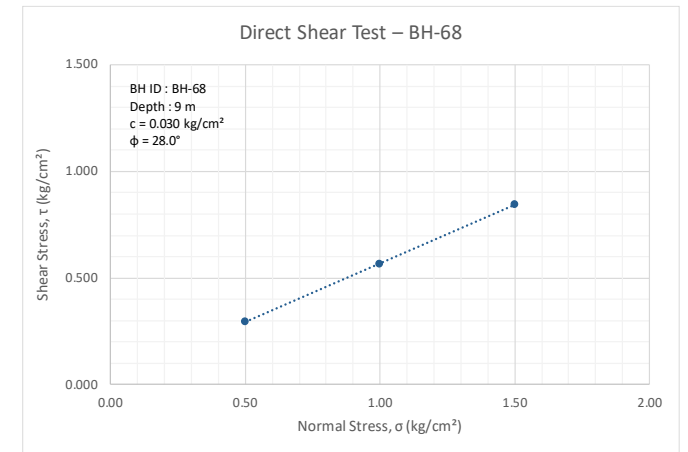
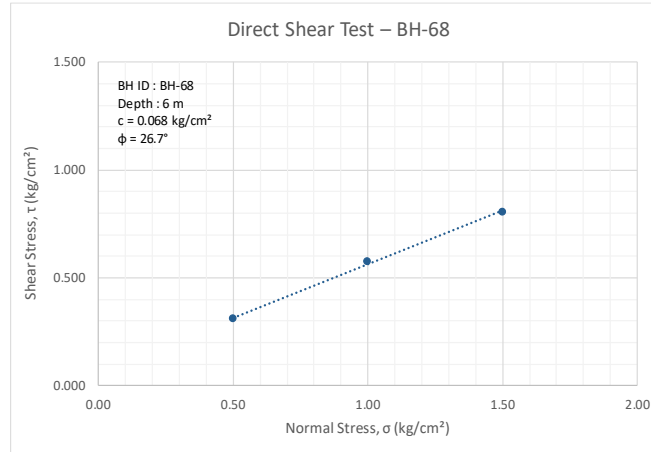
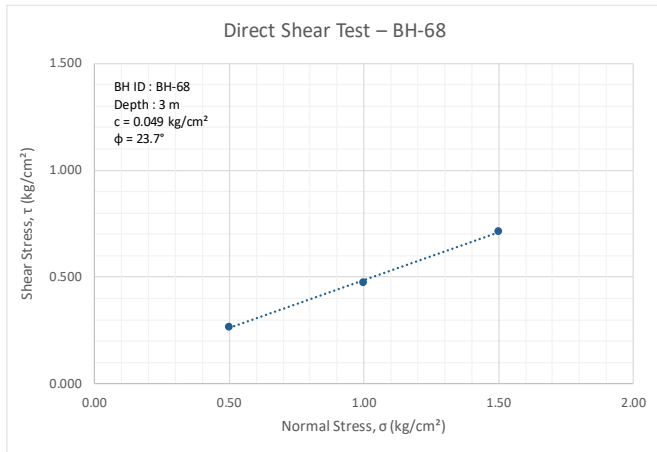
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

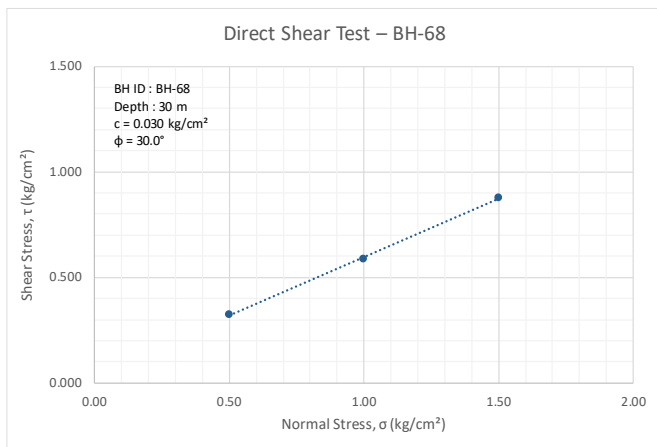
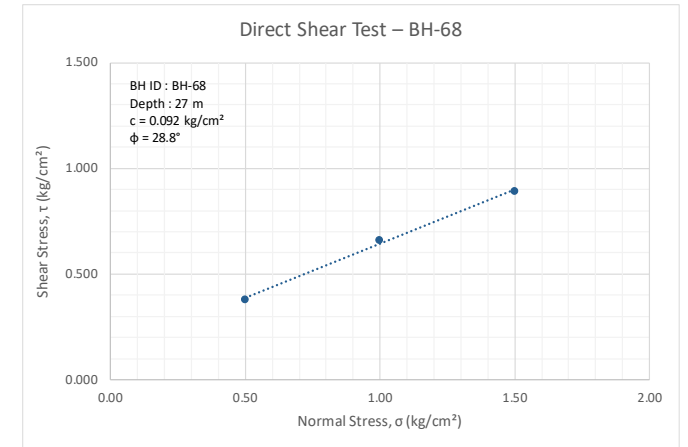
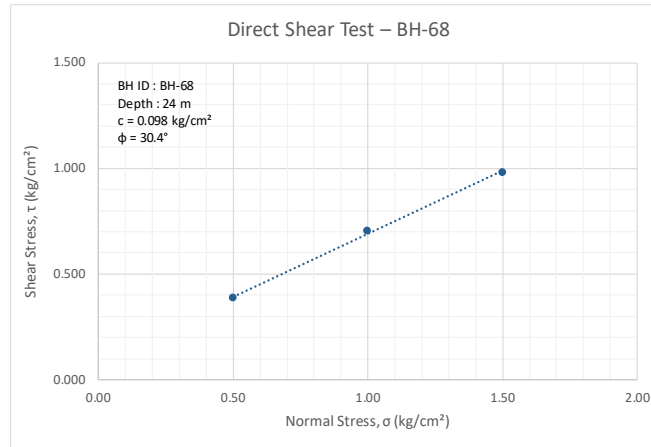
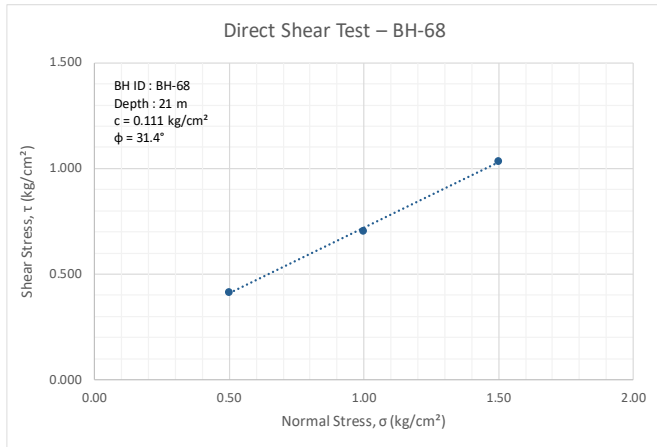


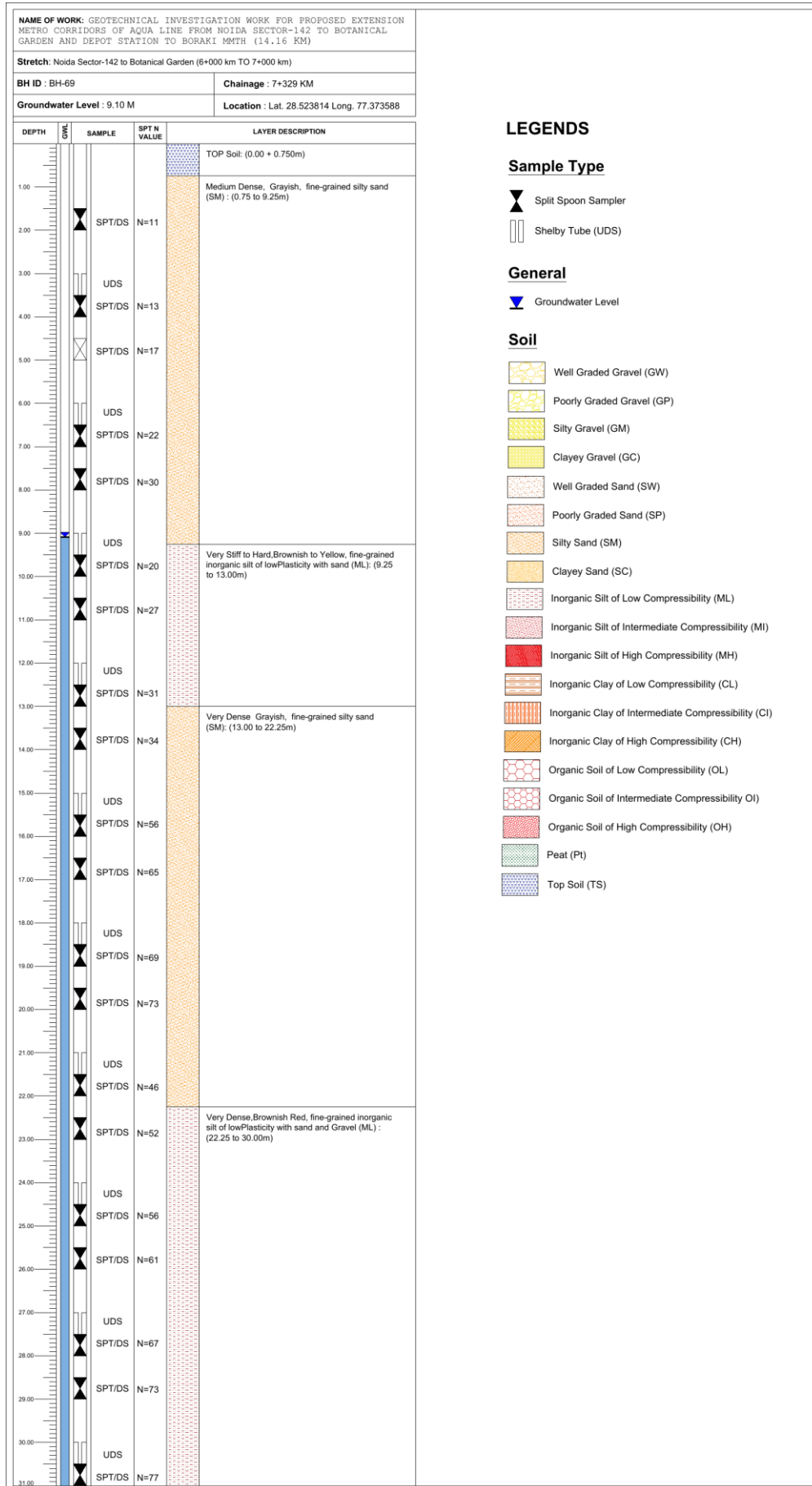
Project										Borehole Details								Drilling Details									
Name of Work:		Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)								BH ID:		BH-68						Contractor:		Goma Engineering & Consultancy							
Client:		Noida Metro Rail Corporation (NMRC) Limited								Chainage [km]:		7+268						Method of Drilling:		Rotary Drilling							
Stretch:		Noida Sector-142 to Botanical Garden								Depth [m]:		30.00						Start Date:		15-12-2025							
Project Code:		158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km								Elevation [m]:		197.6						End Date:		15-12-2025							
										Water table Level [m]:		8.50						Location:		Lat: 28.524257, Long: 77.372608							
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						12.2	61.7	17.1	9.0	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium Dense to Dense, Greyish, fine-grained silty sand (SM)	3	5	7	12	17	7.5	64.2	19.3	9.1	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							0.7	59.0	25.2	15.1	26	NP	NP	11.80	1.72	1.54	2.65	F	0.05	24	-	-	-	-	-	-
3.50	SPT/DS		4	7	9	16	18																				
4.50	SPT/DS		4	8	10	18	18	11.9	65.1	16.6	6.4	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							0.5	66.5	23.7	9.3	23	NP	NP	12.64	1.80	1.60	2.61	F	0.07	27	-	-	-	-	-	-
6.50	SPT/DS		7	10	13	23	22																				
7.50	SPT/DS		8	11	15	26	24	9.2	71.6	13.0	6.3	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	DS							0.0	79.5	17.3	3.2	26	NP	NP	10.81	-	-	2.66	F	0.03	28	-	-	-	-	-	-
9.50	SPT/DS		10	15	19	34	22																				
10.50	SPT/DS		12	17	21	38	24	7.5	72.0	12.9	7.7	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS						3.0	27.0	47.0	23.0	27	NP	NP	9.42	1.92	1.75	2.67	F	0.08	26	UU	20	23	-	-	-	
12.50	SPT/DS	10	13	16	29	19																					
13.50	SPT/DS	12	15	19	34	21	2.3	22.7	54.3	20.7	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
15.00	UDS	Hard, Yellow Brownish to Grey, fine-grained inorganic silt of low Plasticity with sand (ML)						17.4	24.7	42.5	15.5	24	NP	NP	11.65	1.96	1.76	2.65	F	0.05	27	-	-	-	-	-	-
15.50	SPT/DS		18	23	29	52	28																				
16.50	SPT/DS		22	27	34	61	31	3.5	25.9	50.4	20.2	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS							1.2	37.4	43.5	18.0	22	NP	NP	13.22	-	-	2.66	F	0.10	28	-	-	-	-	-	-
18.50	SPT/DS	24	30	34	64	31																					
19.50	SPT/DS	27	34	39	73	34	9.8	69.1	13.9	7.3	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
21.00	DS	Very Dense, Greyish, fine-grained silty sand (SM)						0.0	76.8	14.3	8.9	29	NP	NP	12.64	-	-	2.67	F	0.11	31	-	-	-	-	-	-
21.50	SPT/DS		30	35	39	74	33																				
22.50	SPT/DS		31	37	41	78	34	9.5	58.7	20.0	11.7	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	UDS							9.8	70.5	14.1	5.6	26	NP	NP	10.02	1.96	1.78	2.64	F	0.10	30	UU	20	24	-	-	-
24.50	SPT/DS	20	24	30	54	25																					
25.50	SPT/DS	22	27	34	61	27	3.7	22.9	50.8	22.6	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	DS	Hard, Red Brownish, fine-grained inorganic silt of low Plasticity with sand (ML)						0.0	23.5	53.1	23.4	-	-	-	17.51	-	-	2.60	F	0.09	29	-	-	-	-	-	-
27.50	SPT/DS		20	25	30	55	25																				
28.50	SPT/DS		22	29	39	68	28	5.1	20.2	53.3	21.5	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
30.00	DS							0.0	10.8	59.3	29.9	-	-	-	16.64	-	-	2.67	F	0.03	30	-	-	-	-	-	-
30.5	SPT/DS		28	35	41	76	30																				

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

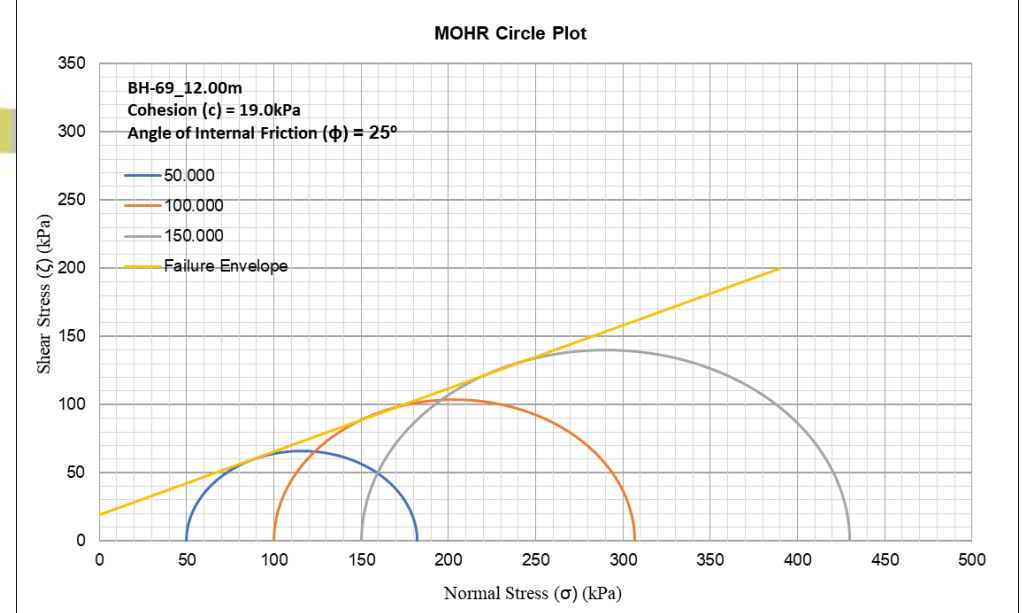
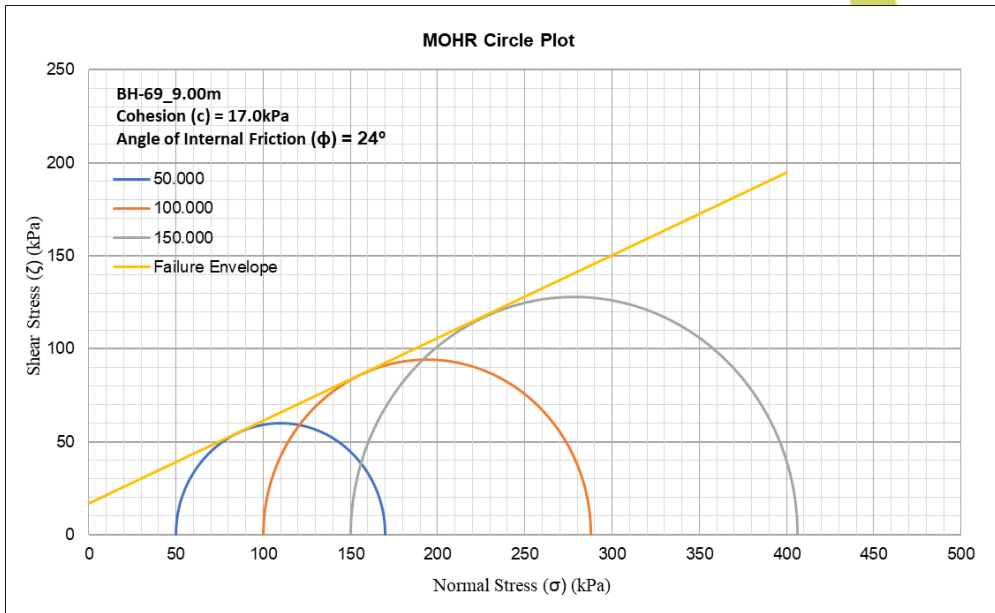
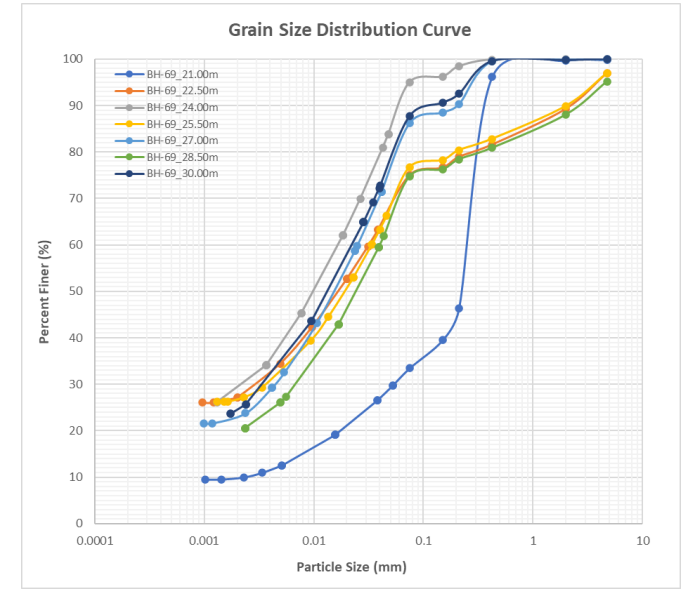
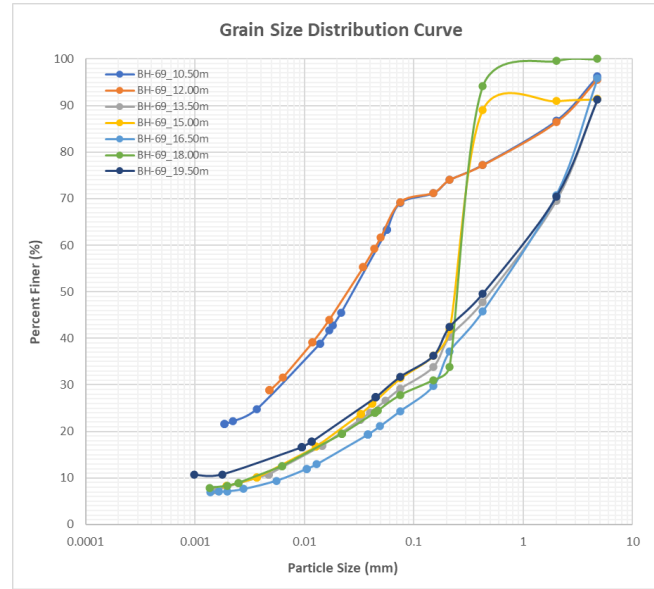
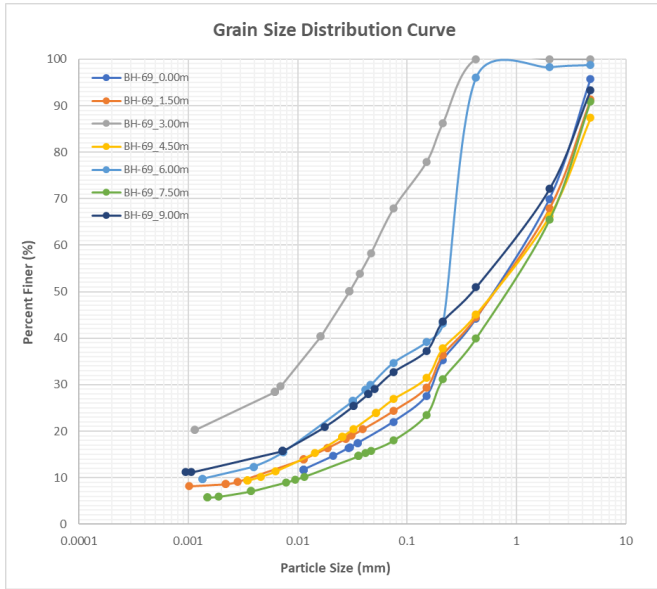
Soil

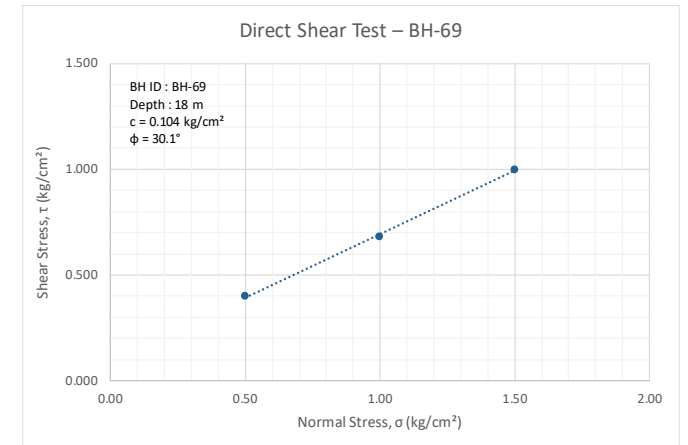
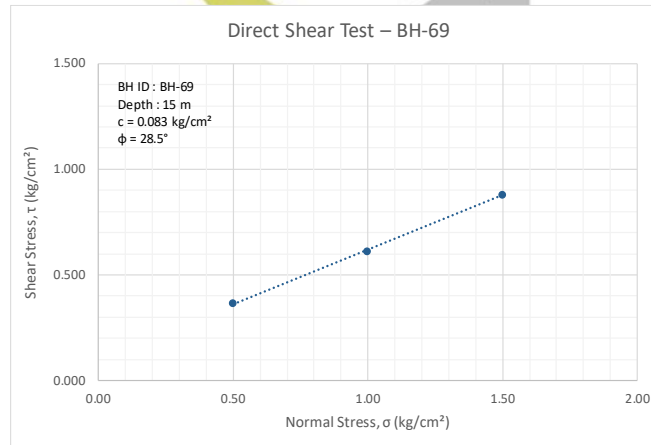
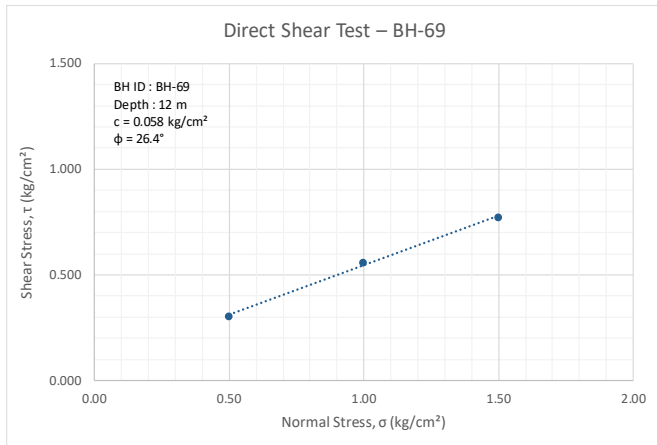
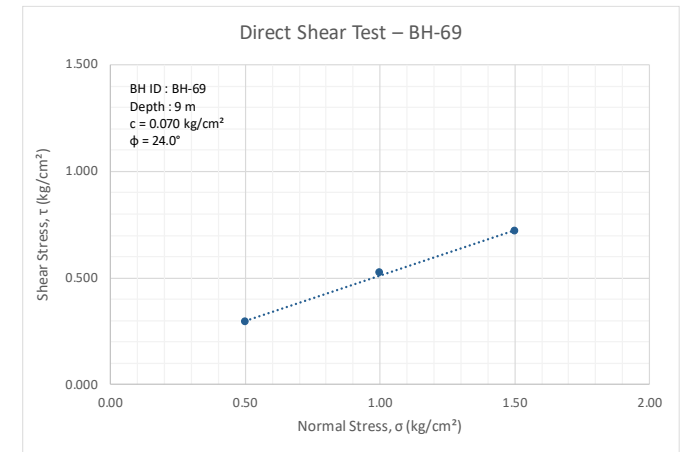
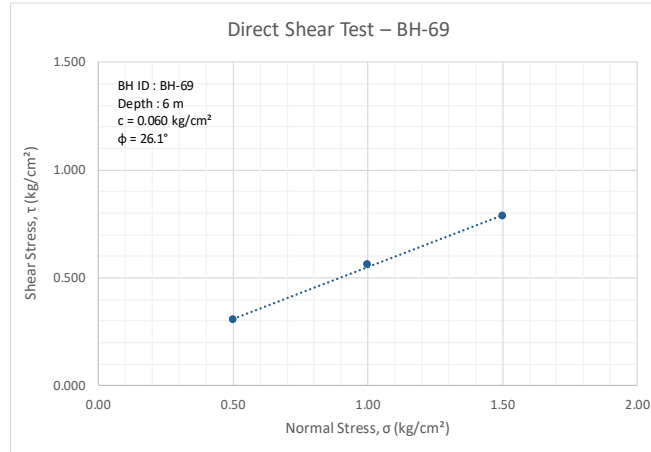
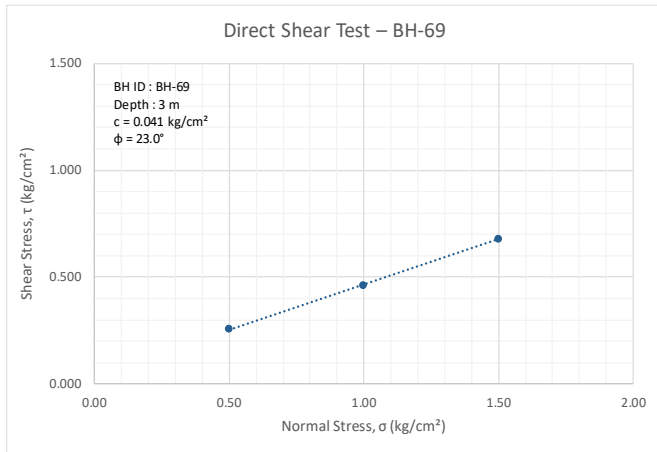
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

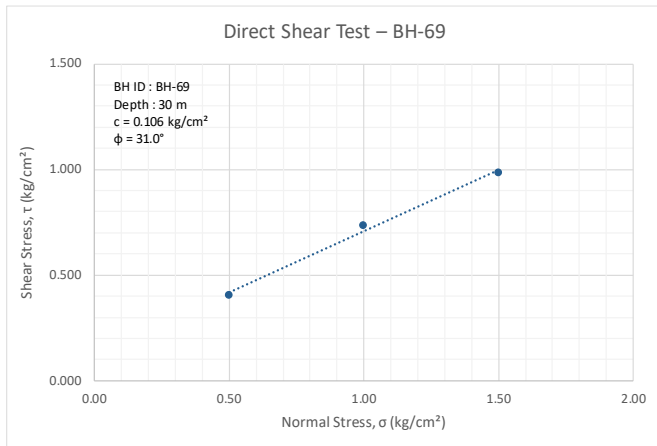
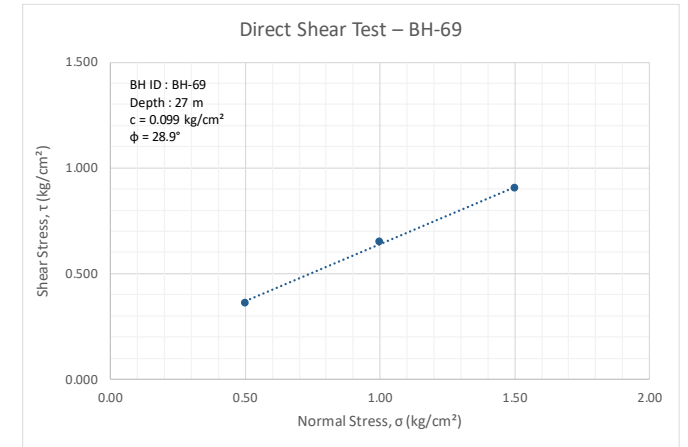
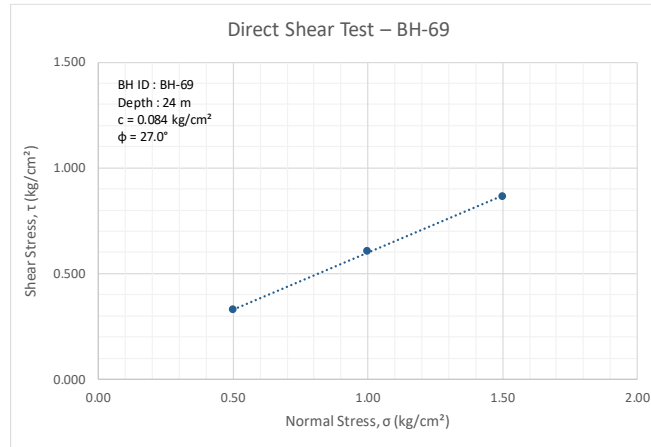
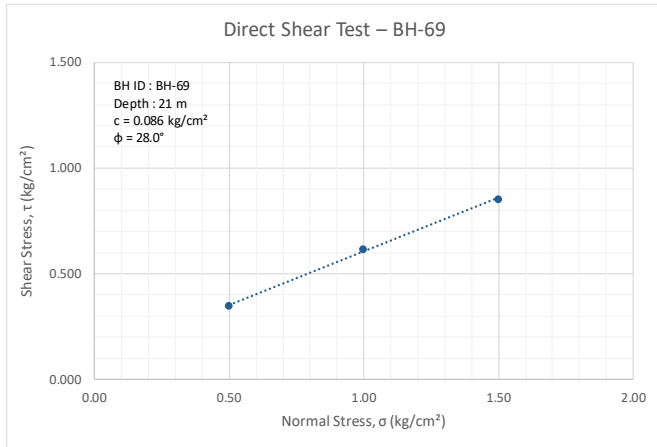


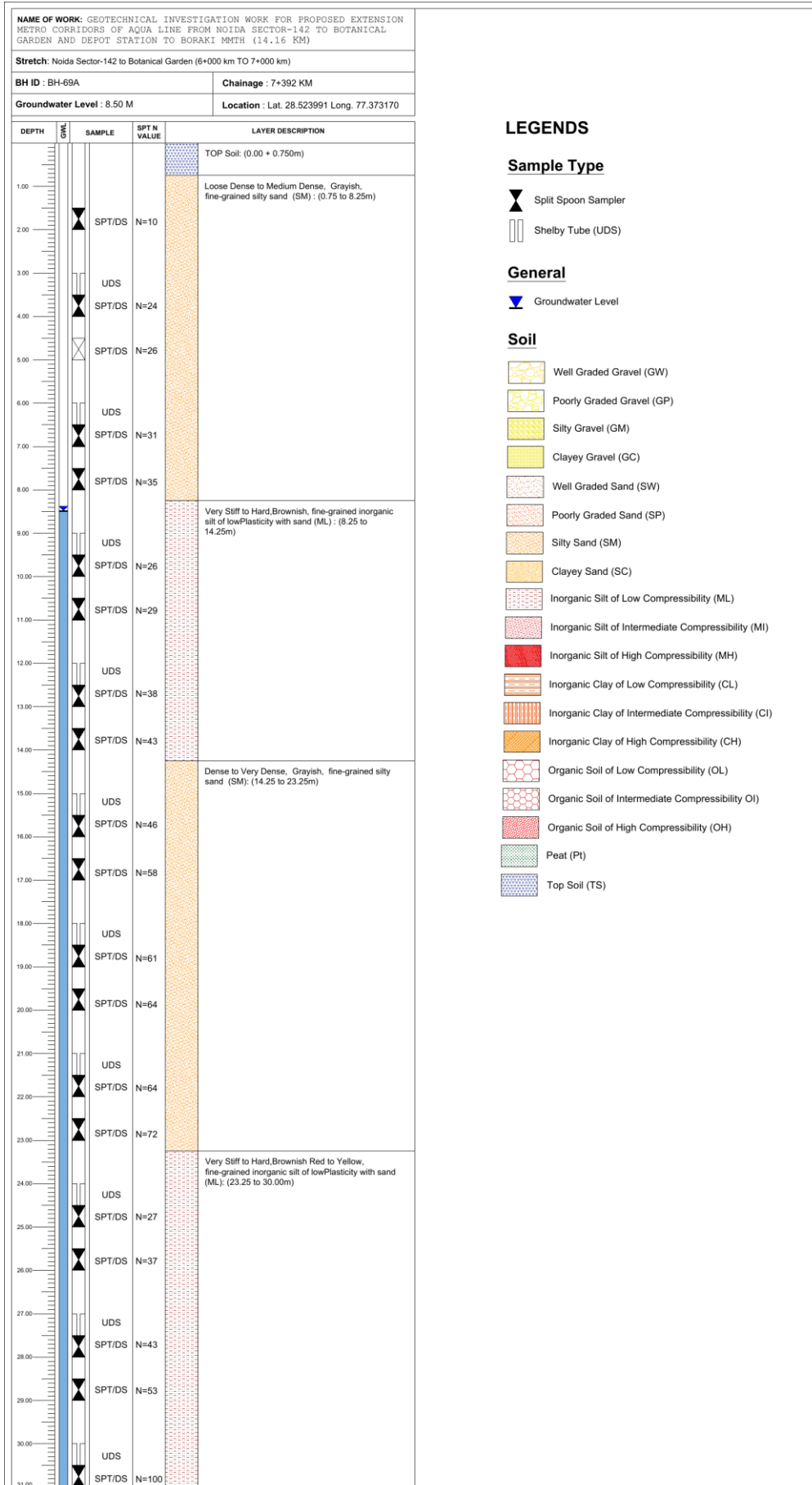
Project										Borehole Details							Drilling Details										
Name of Work:		Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)								BH ID:		BH-69					Contractor:		Goma Engineering & Consultancy								
Client:		Noida Metro Rail Corporation (NMRC) Limited								Chainage [km]:		7+329					Method of Drilling:		Rotary Drilling								
Stretch:		Noida Sector-142 to Botanical Garden								Depth [m]:		30.00					Start Date:		14-12-2025								
Project Code:		158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km								Elevation [m]:		195.7					End Date:		14-12-2025								
										Water table Level [m]:		9.10					Location:		Lat: 28.523814, Long: 77.373588								
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						4.2	73.7	22.0	0.0	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Medium Dense, Greyish, fine-grained silty sand (SM)	2	4	7	11	15	8.7	67.0	15.8	8.5	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							0.0	32.1	44.9	23.0	24	NP	NP	14.40	1.75	1.53	2.70	F	0.04	23	-	-	-	-	-	-
3.50	SPT/DS																										
4.50	SPT/DS							12.6	60.5	26.9	0.0	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							1.2	64.1	24.0	10.7	24	NP	NP	13.27	1.85	13.27	2.61	F	0.06	26	-	-	-	-	-	-
6.50	SPT/DS																										
7.50	SPT/DS							9.0	73.0	12.0	6.0	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	UDS							6.7	60.5	20.1	12.7	23	NP	NP	9.47	1.92	1.75	2.59	F	0.07	24	UU	17	24	-	-	-
9.50	SPT/DS	Very Stiff to Hard, Brownish to Yellow, fine-grained inorganic silt of low Plasticity with sand (ML)	7	9	11	20	16																				
10.50	SPT/DS							3.7	27.1	47.3	21.9	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS							4.4	26.3	56.7	12.6	25	NP	NP	8.33	1.94	1.79	2.63	F	0.06	26	UU	19	25	-	-	-
12.50	SPT/DS																										
13.50	SPT/DS	Very Dense Greyish, fine-grained silty sand (SM)	12	15	19	34	21	8.7	62.2	21.0	8.2	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	DS							8.6	60.0	23.0	8.4	29	NP	NP	12.26	-	-	2.64	F	0.08	29	-	-	-	-	-	-
15.50	SPT/DS																										
16.50	SPT/DS							4.2	71.4	17.2	7.2	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS							0.0	72.2	19.5	8.4	23	NP	NP	11.40	-	-	2.64	F	0.10	30	-	-	-	-	-	-
18.50	SPT/DS																										
19.50	SPT/DS							8.7	59.5	20.5	11.2	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS							0.1	66.4	23.6	9.9	25	NP	NP	13.22	-	-	2.69	F	0.09	28	-	-	-	-	-	-
21.50	SPT/DS																										
22.50	SPT/DS							3.0	22.0	47.9	27.1	29	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS	Very Dense, Brownish Red, fine-grained inorganic silt of low Plasticity with sand and Gravel (ML)						0.0	5.0	65.7	29.3	24	NP	NP	14.65	-	-	2.61	F	0.08	27	-	-	-	-	-	-
24.50	SPT/DS																										
25.50	SPT/DS							3.0	20.2	49.9	26.8	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
27.00	DS							0.0	13.7	63.1	23.2	23	NP	NP	13.58	-	-	2.68	F	0.10	29	-	-	-	-	-	-
27.50	SPT/DS																										
28.50	SPT/DS							4.9	20.4	57.2	17.6	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
30.00	DS							0.0	12.3	63.2	24.6	26	NP	NP	15.66	-	-	2.69	F	0.11	31	-	-	-	-	-	-
30.50	SPT/DS																										

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

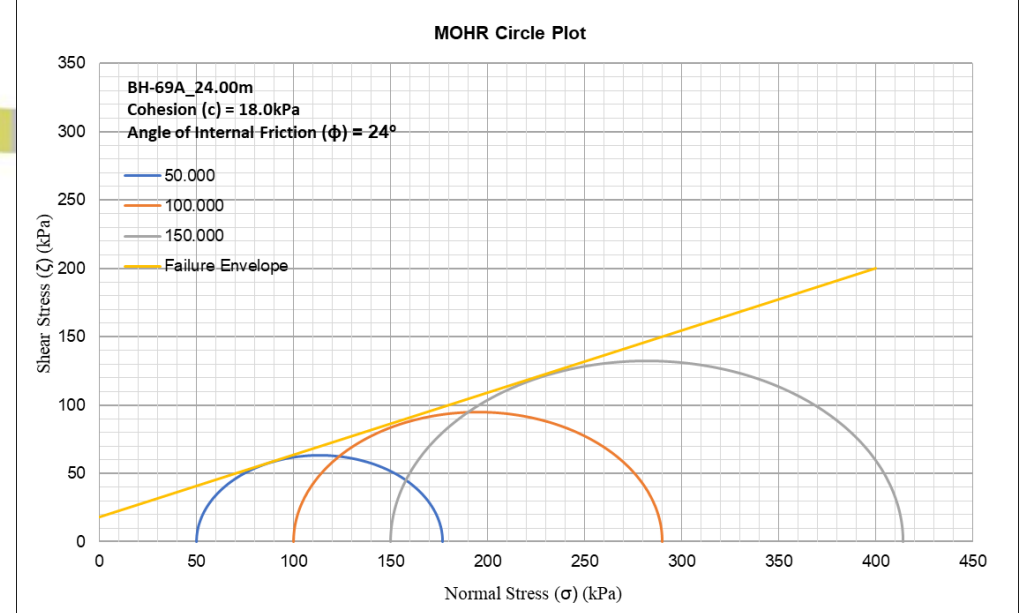
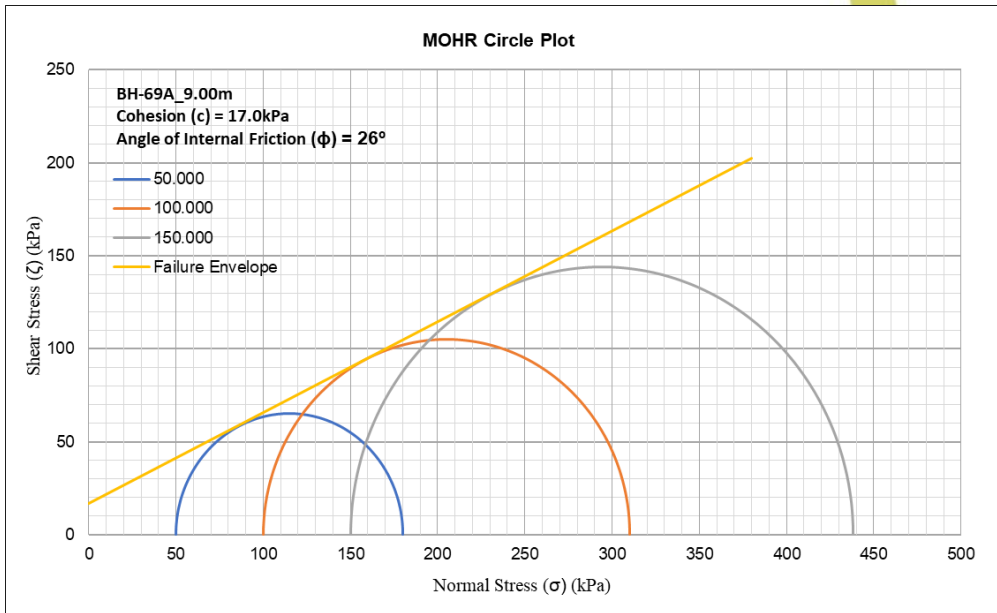
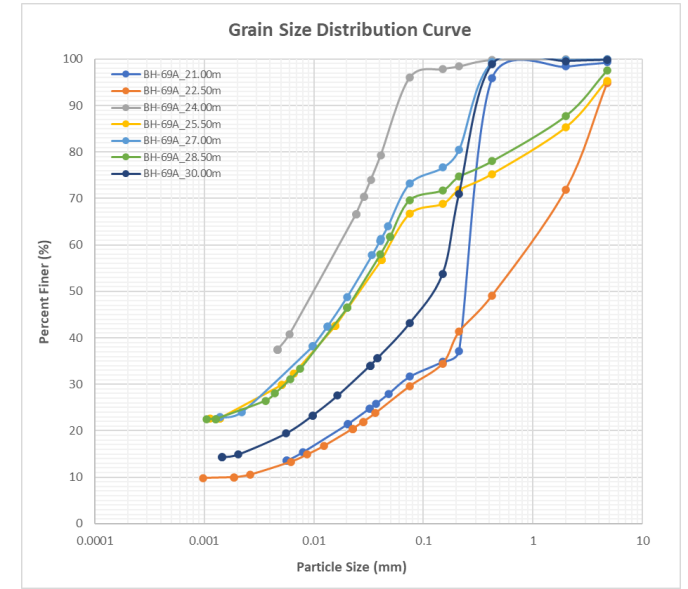
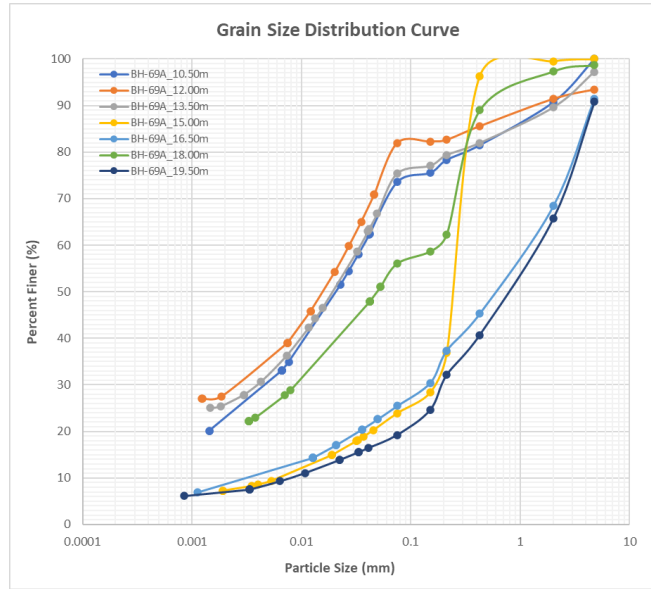
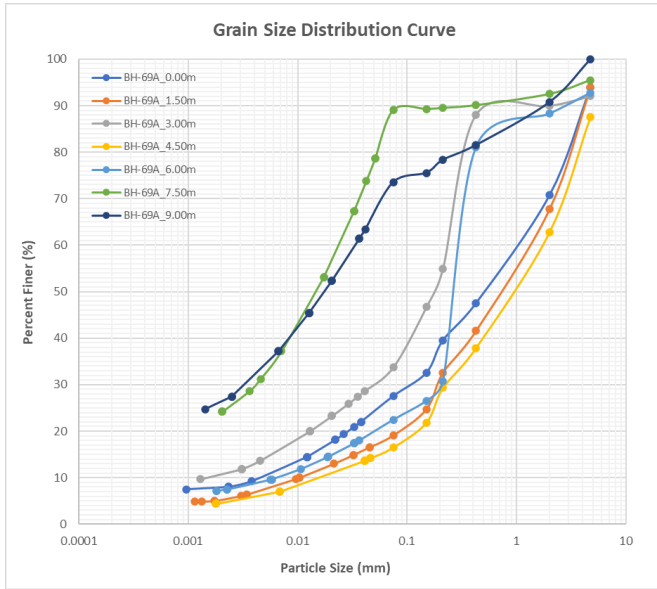
Soil

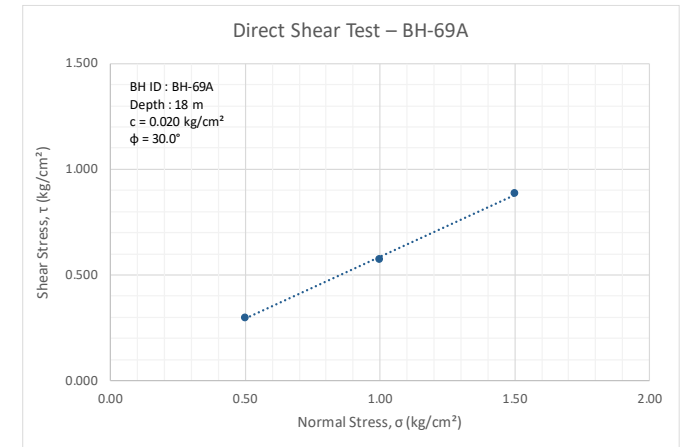
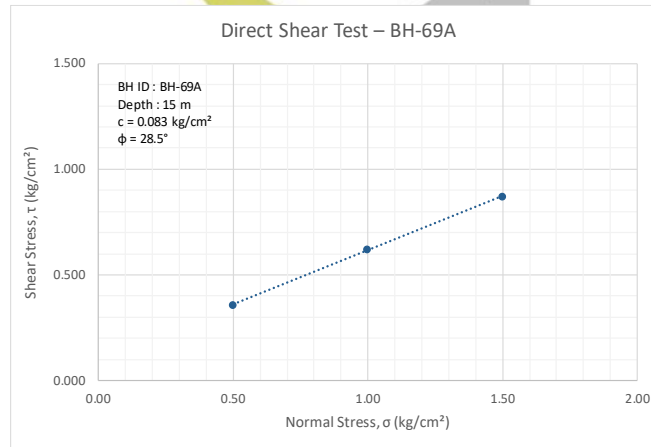
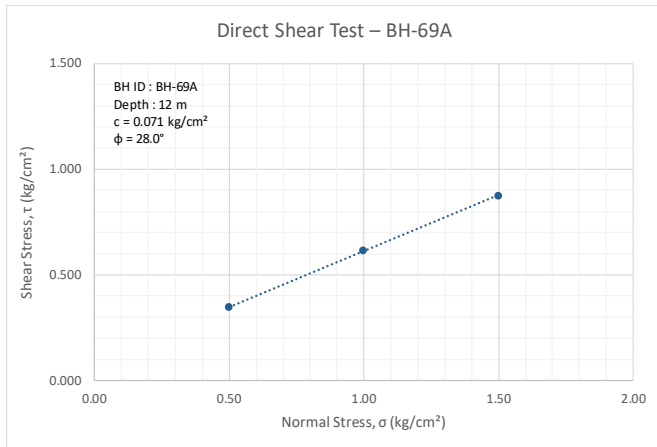
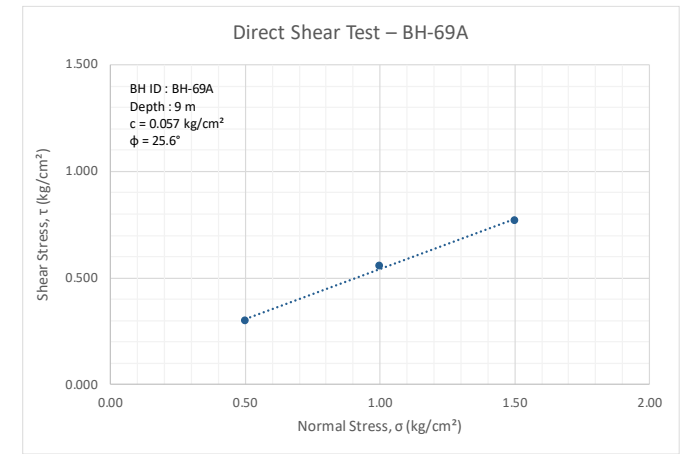
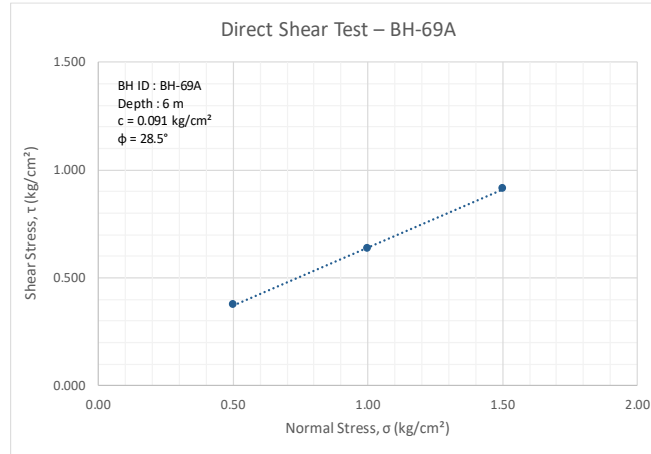
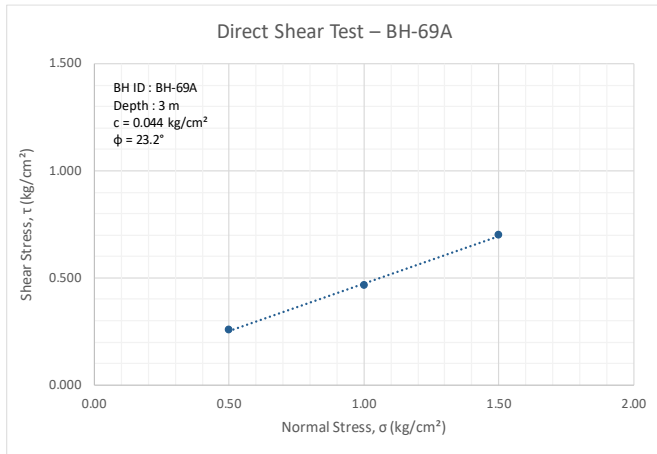
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

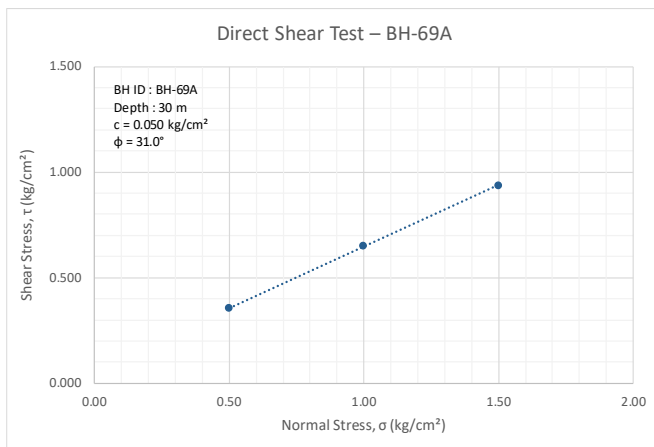
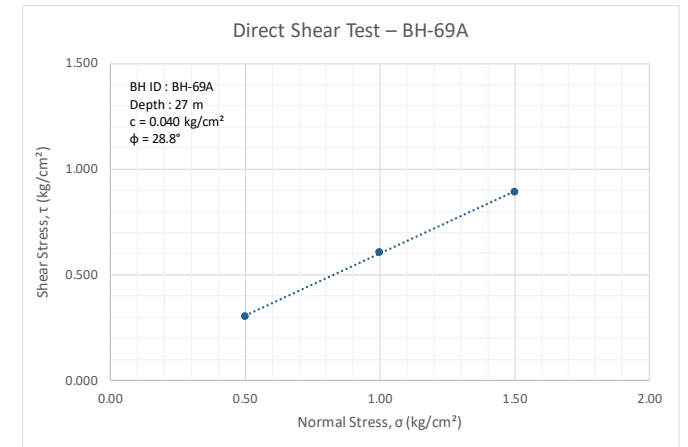
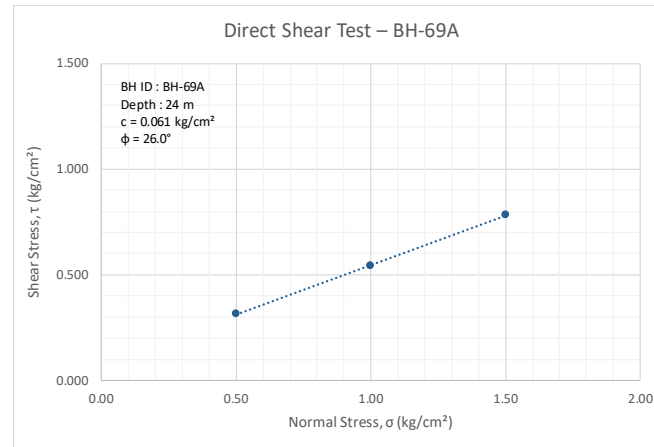
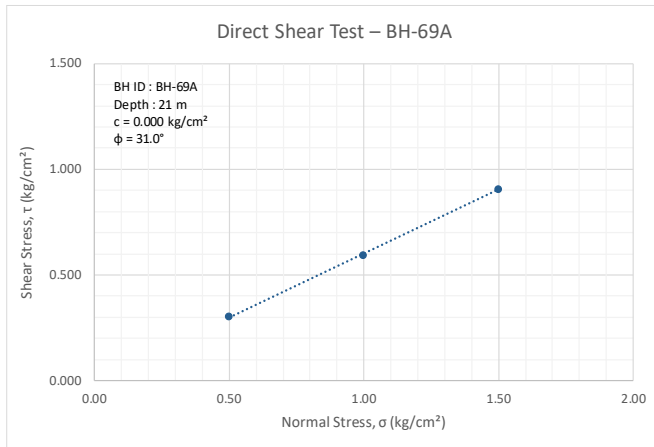


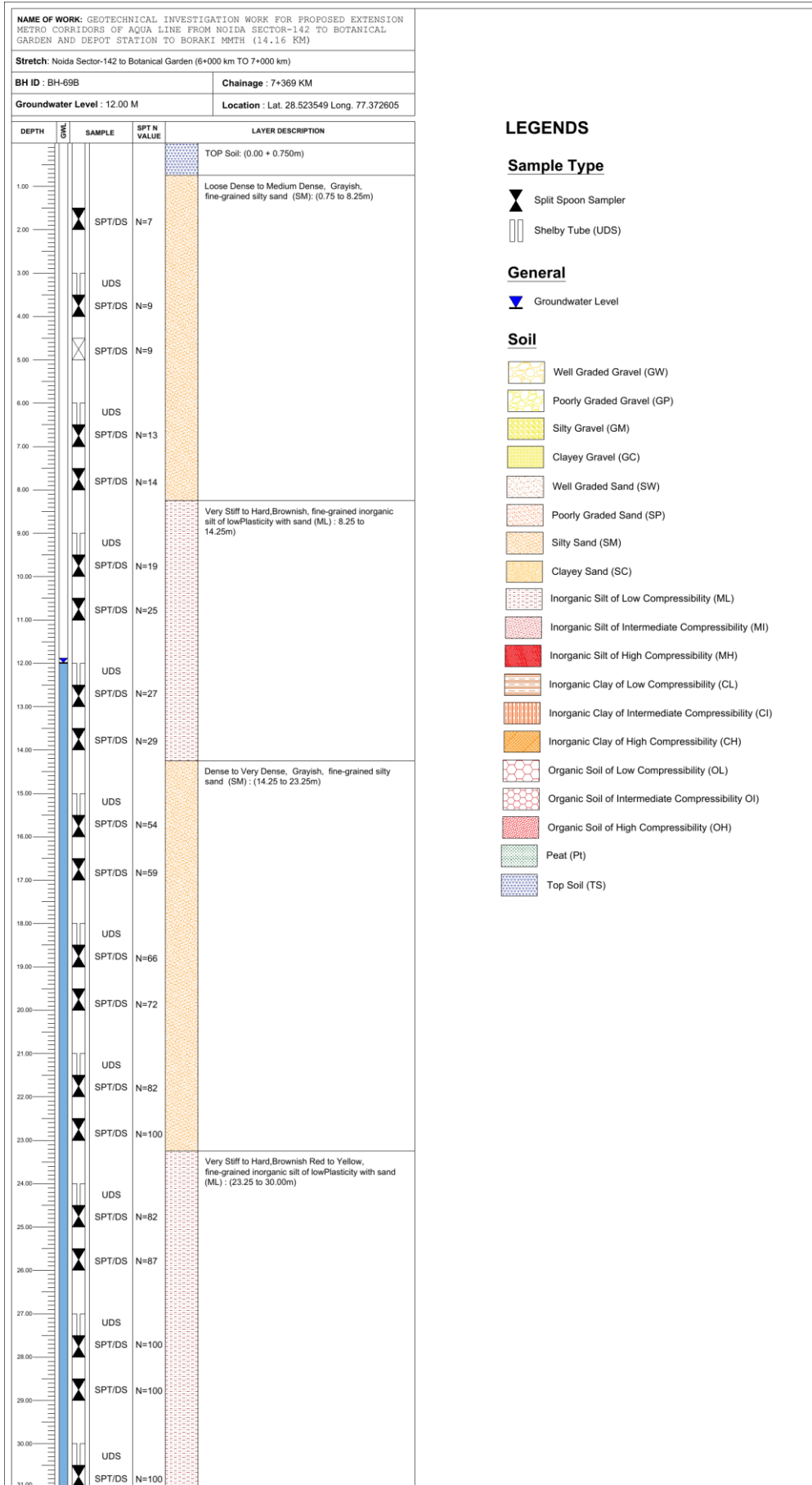
Project						Borehole Details										Drilling Details											
Name of Work:		Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)				BH ID:		BH-69A								Contractor:		Goma Engineering & Consultancy									
Client:		Noida Metro Rail Corporation (NMRC) Limited				Chainage [km]:		7+392								Method of Drilling:		Rotary Drilling									
Stretch:		Noida Sector-142 to Botanical Garden				Depth [m]:		30.00								Start Date:		12-12-2025									
Project Code:		158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km				Elevation [m]:		195.1								End Date:		13-12-2025									
Water table Level [m]:						8.50										Location:						Lat: 28.523991, Long: 77.373170					
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						6.0	66.4	19.7	7.9	25.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Loose Dense to Medium Dense, Greyish, fine-grained silty sand (SM)	2	4	6	10	14	6.1	74.8	13.9	5.3	28.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							7.9	58.3	23.0	10.8	26.0	NP	NP	7.68	1.75	1.63	2.66	F	0.04	23	-	-	-	-	-	-
3.50	SPT/DS		8	10	14	24	26																				
4.50	SPT/DS		9	11	15	26	27	12.4	71.1	11.9	4.6	24.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							7.2	70.3	15.2	7.3	23.0	NP	NP	11.62	1.83	1.64	2.67	F	0.09	29	-	-	-	-	-	-
6.50	SPT/DS		4	13	18	31	29																				
7.50	SPT/DS	12	15	20	35	32	6.5	72.9	76.5	12.6	27.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
9.00	UDS						4.5	6.4	47.3	26.3	26.0	NP	NP	13.70	1.90	1.67	2.65	F	0.06	26	UU	17	26	-	-	-	
9.50	SPT/DS	8	11	15	26	19																					
10.50	SPT/DS	10	13	16	29	20	0.0	26.4	50.6	23.0	23.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
12.00	UDS						6.5	11.5	53.9	28.0	25.0	NP	NP	11.62	1.95	1.74	2.61	F	0.07	28	-	-	-	-	-	-	
12.50	SPT/DS	13	17	21	38	23																					
13.50	SPT/DS	15	19	24	43	25	2.7	21.8	49.6	25.8	24.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
15.00	DS						0.0	76.1	16.6	7.4	23.0	NP	NP	13.22	-	-	2.66	F	0.08	29	-	-	-	-	-	-	
15.50	SPT/DS	15	22	24	46	26																					
16.50	SPT/DS	21	27	31	58	30	8.5	66.0	16.8	8.7	23.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
18.00	DS						1.3	42.6	43.9	12.2	22.0	NP	NP	12.67	-	-	2.69	F	0.02	30	-	-	-	-	-	-	
18.50	SPT/DS	19	27	34	61	30																					
19.50	SPT/DS	22	29	35	64	31	9.2	71.6	12.3	7.0	21.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
21.00	DS						0.7	67.7	22.8	8.8	29.0	NP	NP	10.43	-	-	2.65	F	0.00	31	-	-	-	-	-	-	
21.50	SPT/DS	24	30	34	64	30																					
22.50	SPT/DS	27	33	39	72	32	5.2	65.2	19.5	10.1	28.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
24.00	UDS						0.0	4.0	74.6	21.4	27.0	NP	NP	14.22	1.98	1.73	2.63	F	0.06	26	UU	18	24	-	-	-	
24.50	SPT/DS	10	12	15	27	16																					
25.50	SPT/DS	13	17	20	37	20	4.6	28.7	42.0	24.7	26.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
27.00	UDS						0.0	26.8	49.4	23.8	23.0	NP	NP	16.24	-	-	2.67	F	0.04	29	-	-	-	-	-	-	
27.50	SPT/DS	14	19	24	43	21																					
28.50	SPT/DS	19	23	30	53	24	2.5	27.9	45.5	24.2	25.0	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
30.00	UDS						0.1	56.7	28.3	14.9	24.0	NP	NP	15.63	-	-	2.64	F	0.05	31	-	-	-	-	-	-	
30.5	SPT/DS	30	(50/12cm)	-	100	38																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

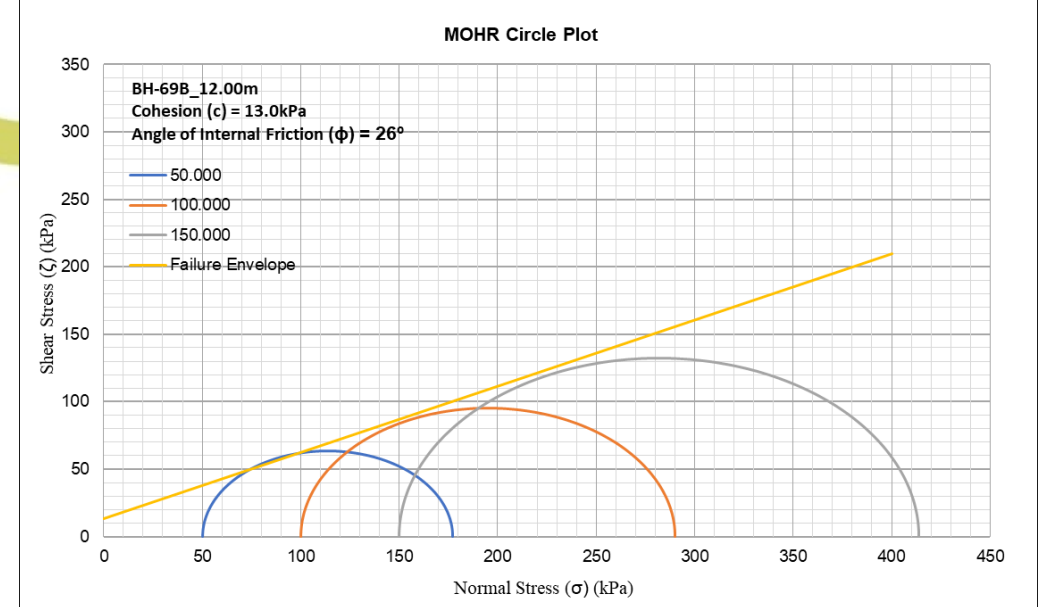
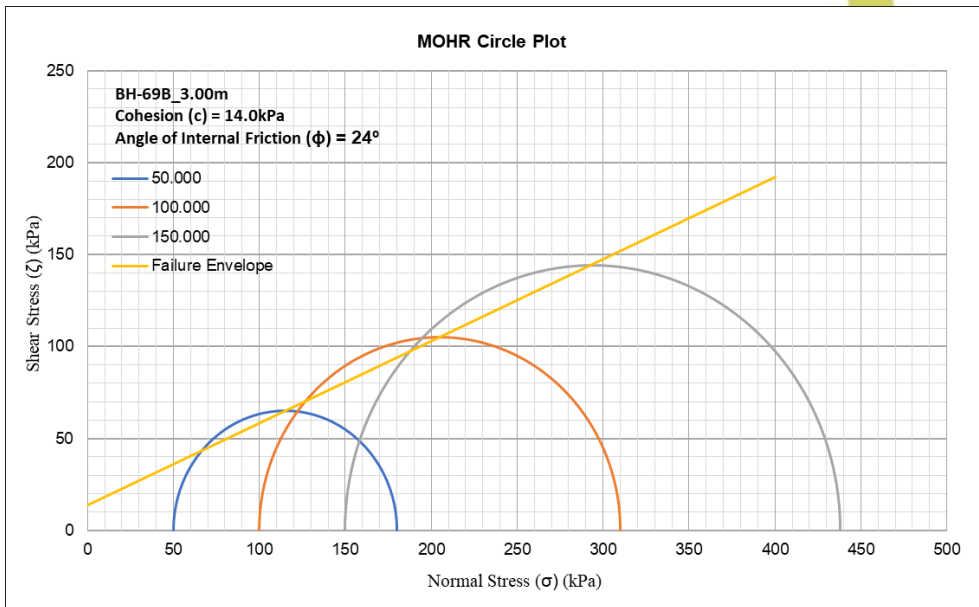
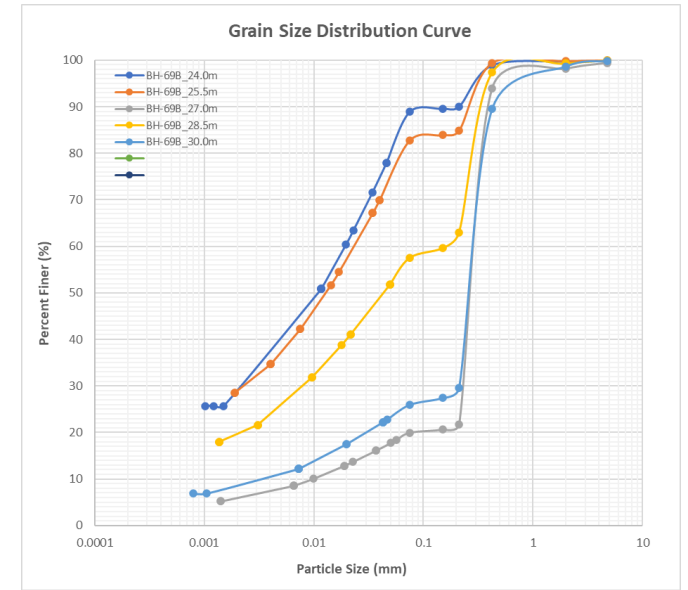
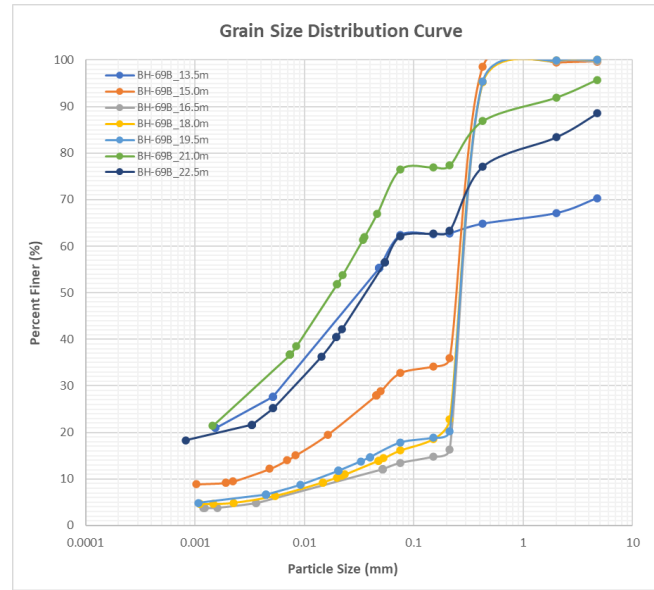
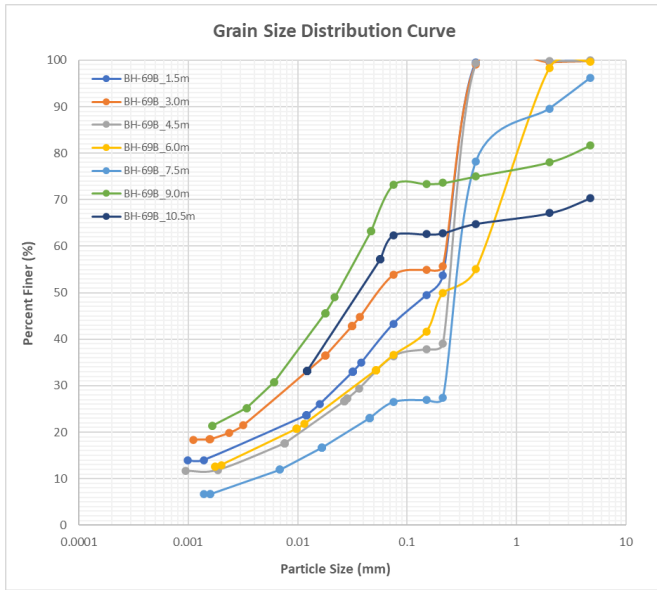
Soil

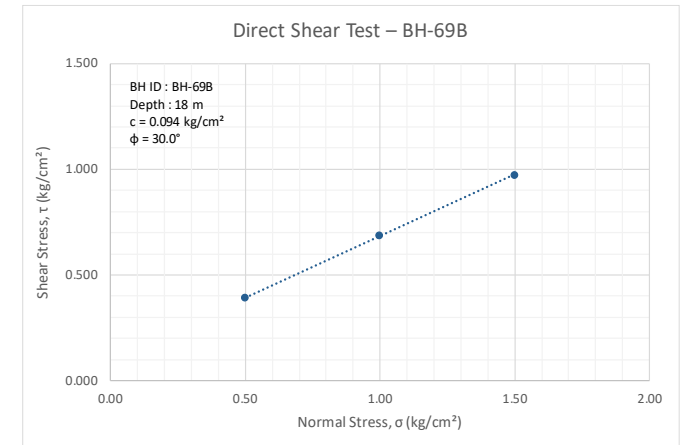
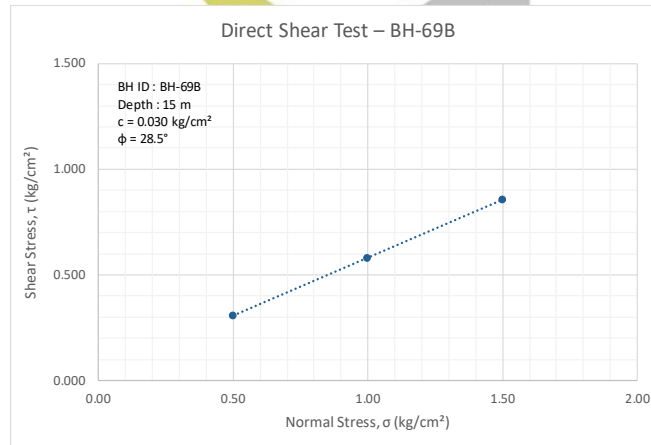
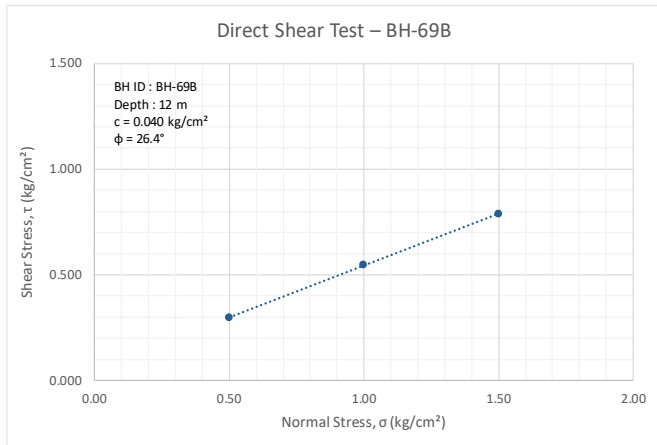
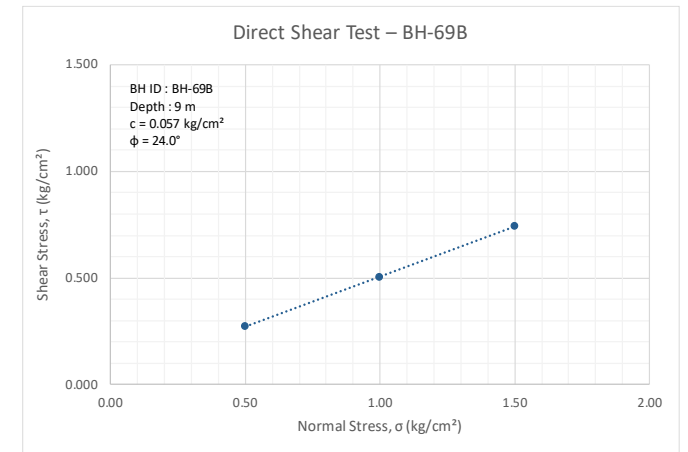
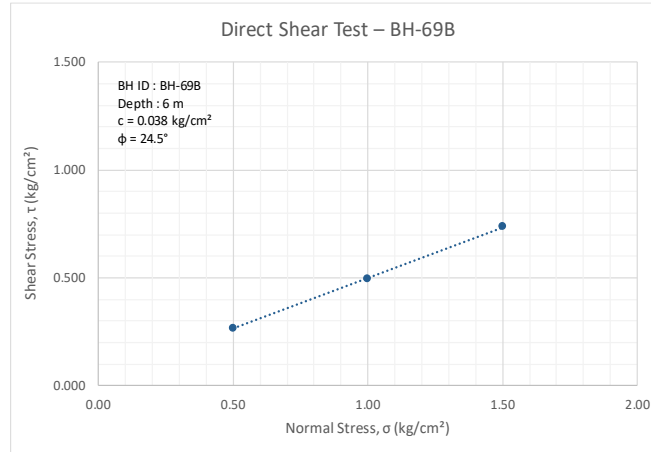
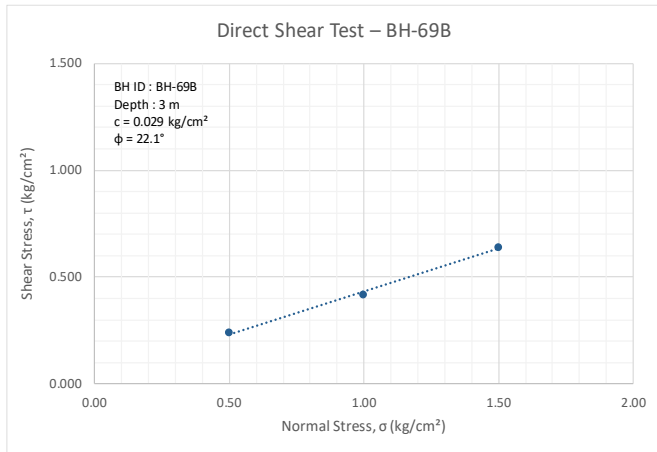
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

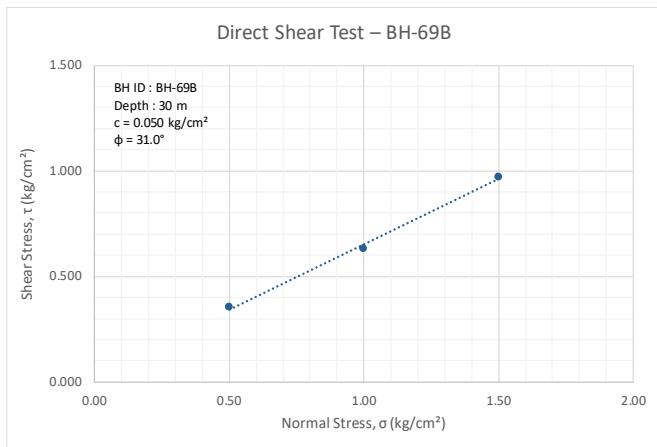
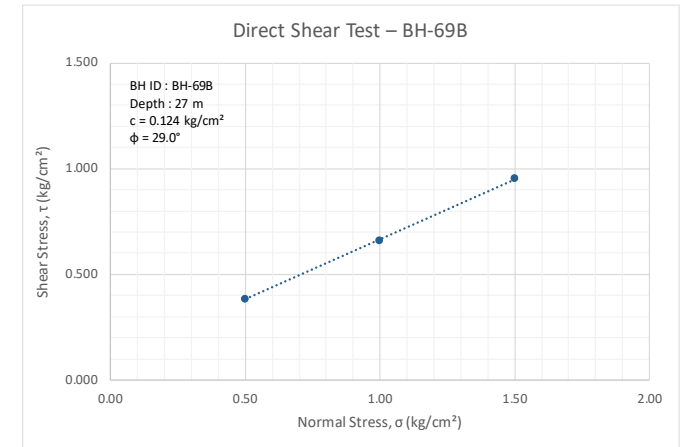
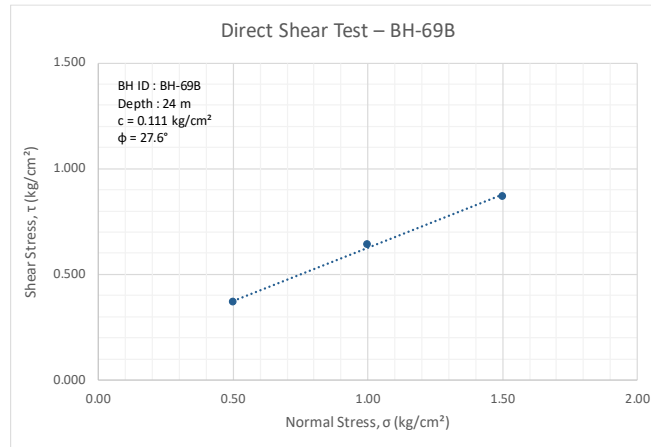
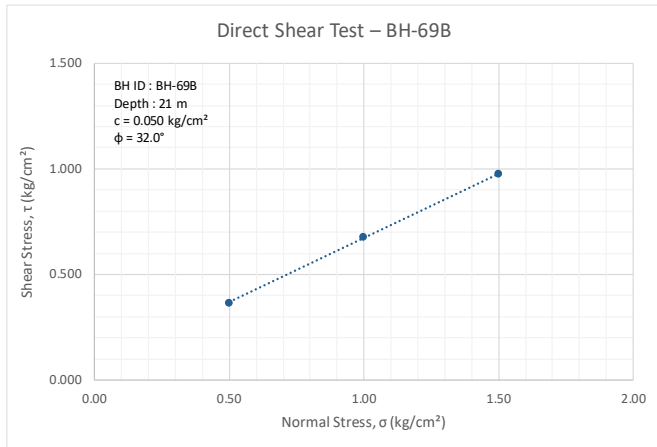


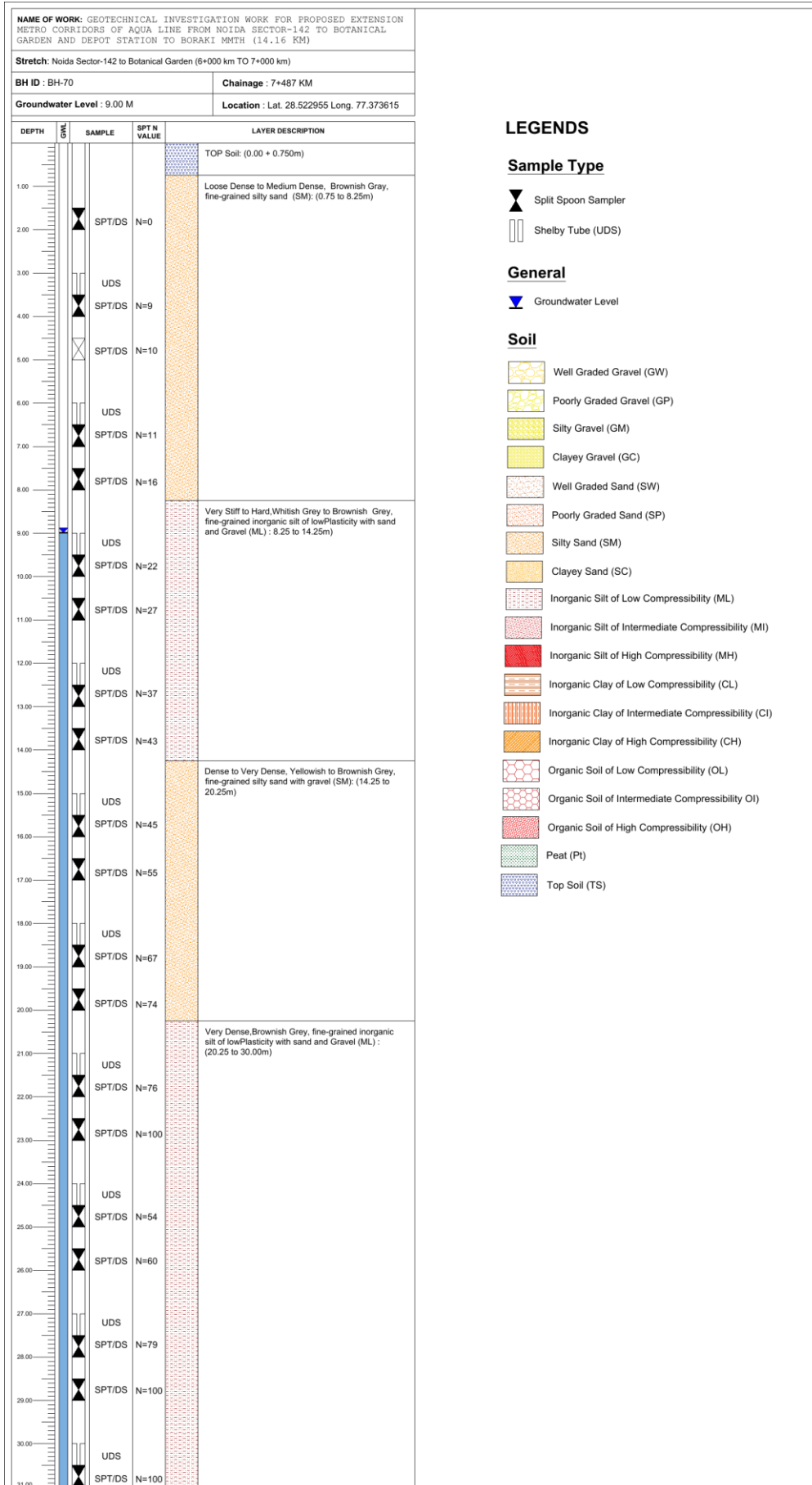
Project										Borehole Details								Drilling Details										
Name of Work: Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)										BH ID: BH-69B				Contractor: Goma Engineering & Consultancy														
Client: Noida Metro Rail Corporation (NMRC) Limited										Chainage [km]: 7+369				Method of Drilling: Rotary Drilling														
Stretch: Noida Sector-142 to Botanical Garden										Depth [m]: 30.00				Start Date: 31-01-2026														
Project Code: 158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km										Elevation [m]: 198.9				End Date: 31-01-2026														
										Water table Level [m]: 12.00				Location: Lat: 28.523549, Long: 77.372605														
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test			
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]	
0.00	DS	Top Soil	TS							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.50	SPT/DS	Loose Dense to Medium Dense, Greyish, fine-grained silty sand (SM)	SM	3	3	4	7	10	0.1	56.6	27.7	15.7	22	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	
3.00	UDS		SM						8.3	67.5	16.6	7.5	25	NP	NP	5.86	1.83	1.73	2.62	F	0.03	22	UU	14	24	-	-	-
3.50	SPT/DS		SM	3	4	5	9	10																				
4.50	SPT/DS		SM	4	4	5	9	9	0.1	63.5	24.2	12.1	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	DS		SM						0.3	63.1	23.6	13.0	27	NP	NP	7.85	-	-	2.82	F	0.04	25	-	-	-	-	-	-
6.50	SPT/DS		SM	5	6	7	13	12																				
7.50	SPT/DS		SM	6	6	8	14	13	3.8	69.7	19.0	7.6	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	DS	Very Stiff to Hard, Brownish, fine-grained inorganic silt of low Plasticity with sand (ML)	ML					21.3	18.2	50.9	22.3	26	NP	NP	12.72	-	-	2.59	F	0.06	24	-	-	-	-	-	-	
9.50	SPT/DS		ML	7	9	10	19	16																				
10.50	SPT/DS		ML	9	11	14	25	18	18.3	8.5	54.5	7.9	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	UDS		ML						0.0	27.4	49.9	22.8	24	NP	NP	10.08	1.82	1.65	2.82	F	0.04	26	UU	13	26	-	-	-
12.50	SPT/DS		ML	10	12	15	27	19																				
13.50	SPT/DS		ML	12	13	16	29	19	29.7	7.9	40.0	22.4	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	DS		Dense to Very Dense, Greyish, fine-grained silty sand (SM)	SM1					0.3	66.9	23.5	9.3	22	NP	NP	9.85	-	-	2.70	F	0.03	29	-	-	-	-	-	-
15.50	SPT/DS	SM1		16	24	30	54	28																				
16.50	SPT/DS	SM1		21	26	33	59	30	0.3	86.3	9.4	4.1	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS	SM1							0.0	83.9	11.3	4.8	25	NP	NP	13.61	-	-	2.84	F	0.09	30	-	-	-	-	-	-
18.50	SPT/DS	SM1		24	31	35	66	32																				
19.50	SPT/DS	SM1		27	34	38	72	33	0.0	82.2	12.2	5.6	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS	SM1							4.2	19.3	52.0	24.4	27	NP	NP	11.60	-	-	2.86	F	0.05	32	-	-	-	-	-	-
21.50	SPT/DS	SM1		30	37	45	82	36																				
22.50	SPT/DS	SM1	40	45	50/10cm	100	41	11.5	26.4	41.7	20.4	29	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-	
24.00	DS	Very Stiff to Hard, Brownish Red to Yellow, fine-grained inorganic silt of low Plasticity with sand (ML)	ML1					0.2	11.0	59.7	29.2	28	NP	NP	12.55	-	-	2.57	F	0.11	28	-	-	-	-	-	-	
24.50	SPT/DS		ML1	30	37	45	82	34																				
25.50	SPT/DS		ML1	34	40	47	87	35	0.0	17.2	53.8	29.0	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
27.00	DS		ML1						0.6	79.4	14.0	6.0	24	NP	NP	14.21	-	-	2.79	F	0.12	29	-	-	-	-	-	-
27.50	SPT/DS		ML1	35	50/12cm	-	100	39																				
28.50	SPT/DS		ML1	42	50/11cm	-	100	38	0.0	42.5	37.9	19.6	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
30.00	DS		ML1						0.1	74.0	17.3	8.6	27	NP	NP	12.26	-	-	2.74	F	0.05	31	-	-	-	-	-	-
30.5	SPT/DS		ML1	50/12cm	-	-	100	37																				

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

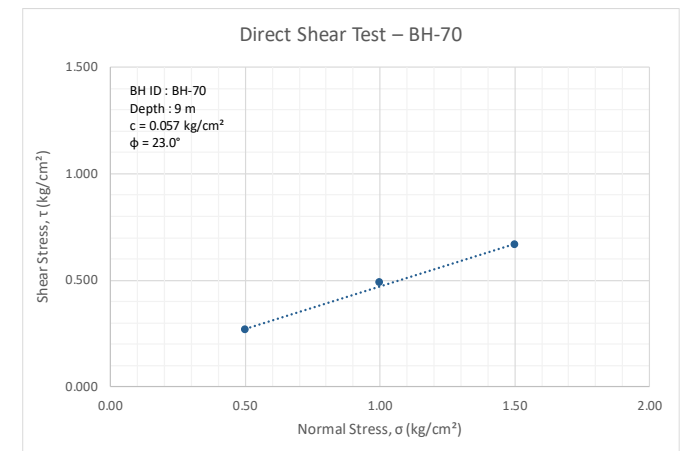
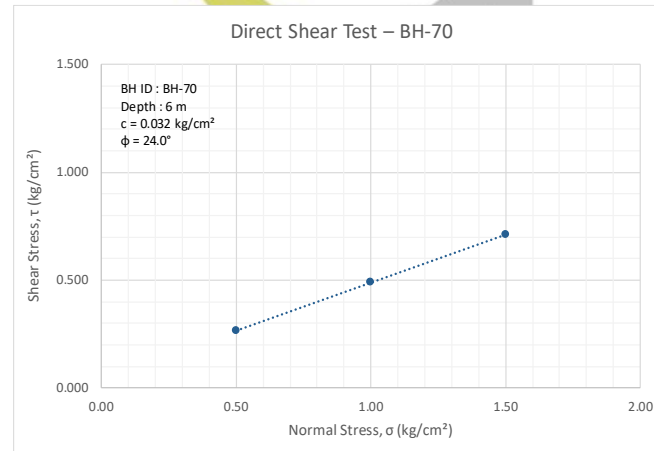
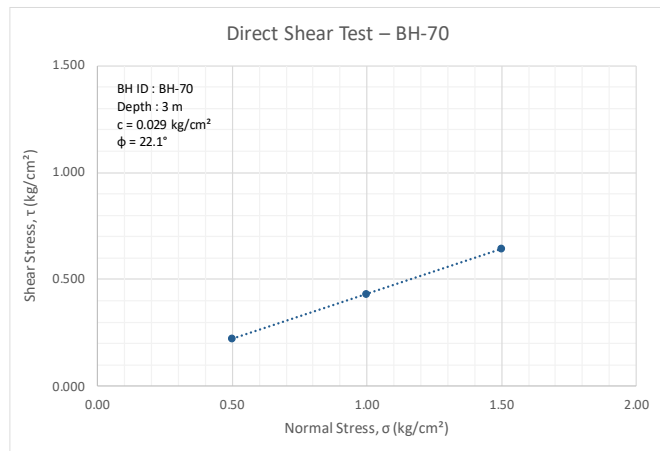
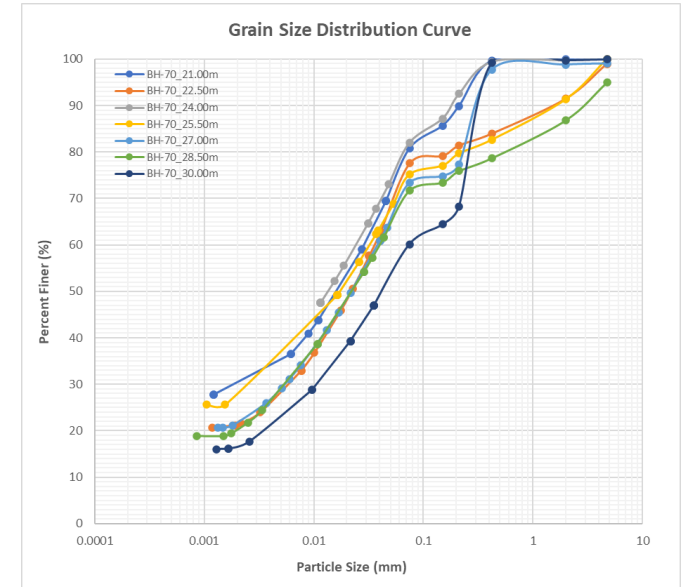
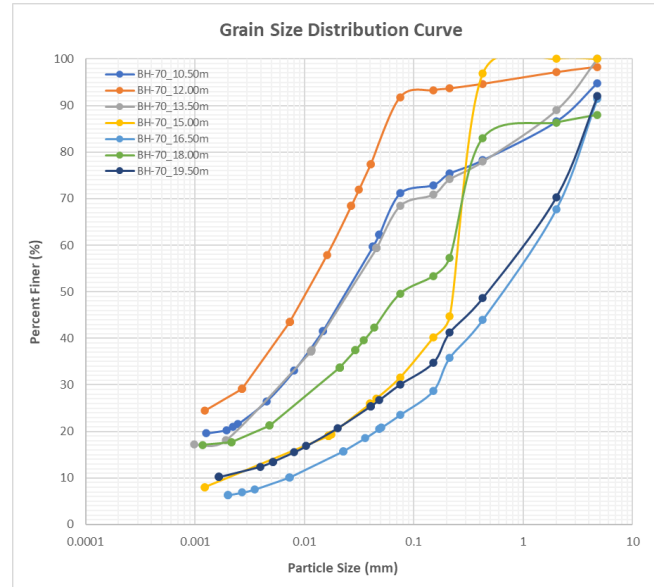
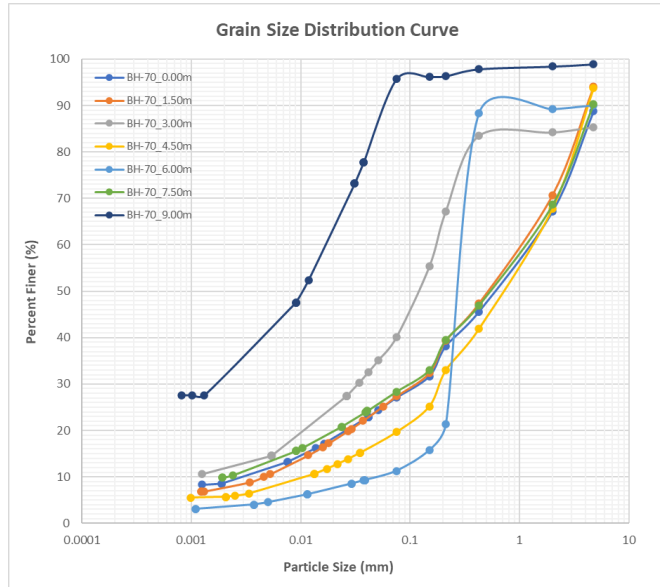
Soil

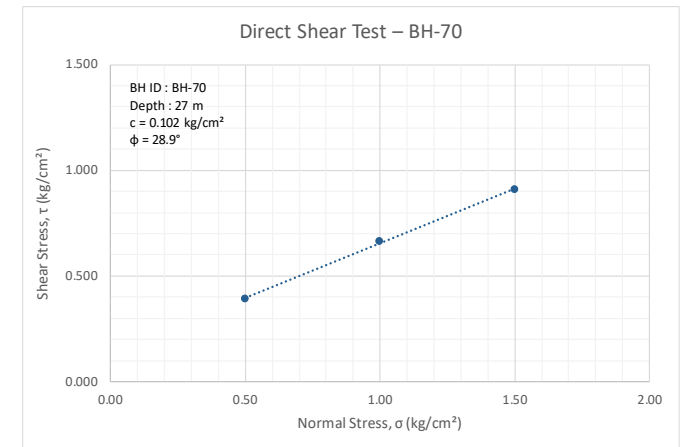
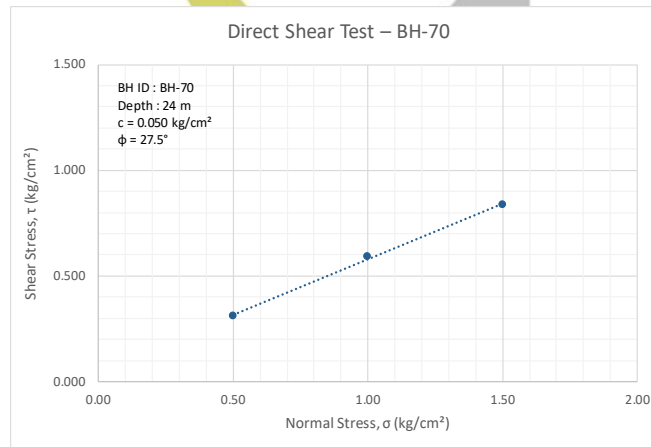
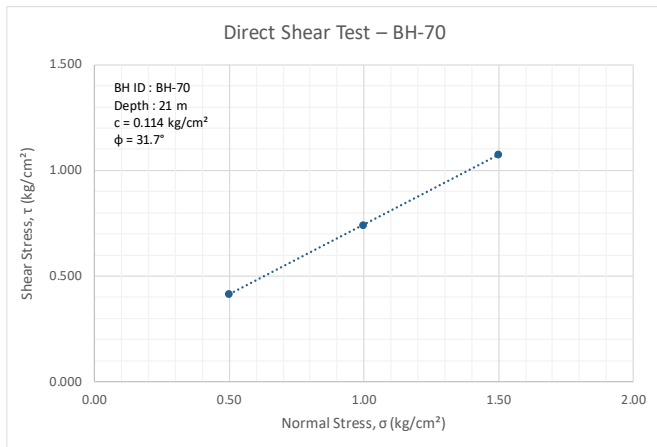
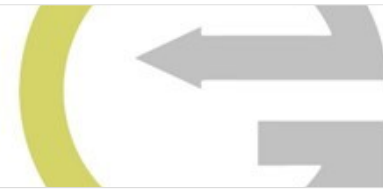
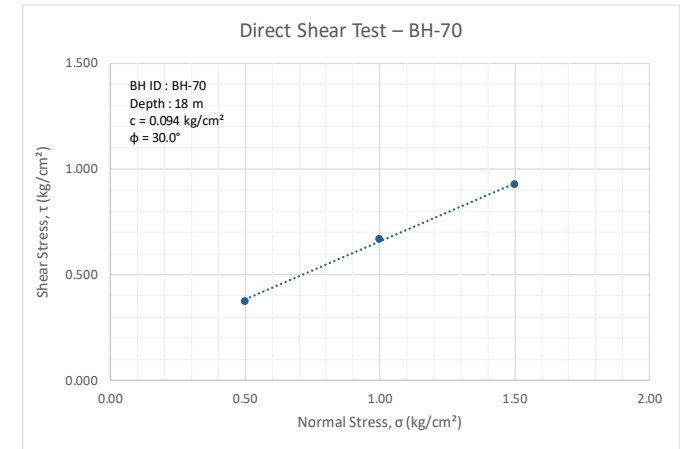
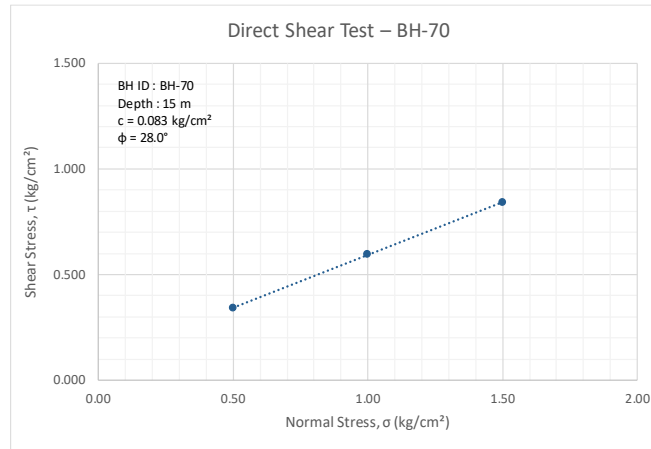
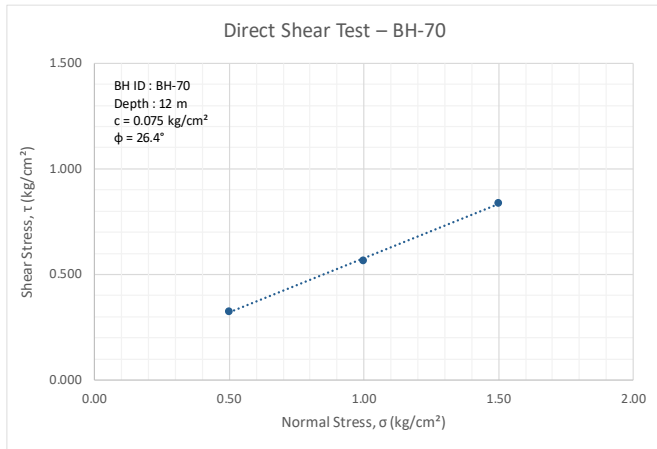
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

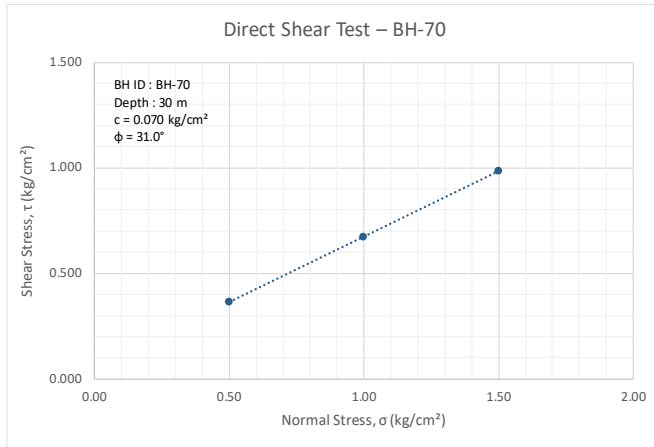


Project					Borehole Details								Drilling Details														
Name of Work: Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)					BH ID: BH-70								Contractor: Goma Engineering & Consultancy														
Client: Noida Metro Rail Corporation (NMRC) Limited					Chainage [km]: 7+487								Method of Drilling: Rotary Drilling														
Stretch: Noida Sector-142 to Botanical Garden					Depth [m]: 30.00								Start Date: 01-01-2026														
Project Code: 158_R08_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km					Elevation [m]: 192.7								End Date: 01-01-2026														
					Water table Level [m]: 9.00								Location: Lat: 28.522955, Long: 77.373615														
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						11.3	61.7	18.3	8.7	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	SPT/DS	Loose Dense to Medium Dense, Brownish Grey, fine-grained silty sand (SM)						6.0	66.7	19.6	7.8	26	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
3.00	UDS							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.50	SPT/DS		3	4	5	9	10																				
4.50	SPT/DS		3	4	6	10	10	6.3	74.1	13.9	5.7	21	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
6.00	UDS							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.50	SPT/DS		4	5	6	11	10																				
7.50	SPT/DS		5	7	9	16	15	9.7	61.9	18.4	10.0	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
9.00	DS	Very Stiff to Hard, Whitish Grey to Brownish Grey, fine-grained inorganic silt of low Plasticity with sand and Gravel (ML)						1.1	3.2	63.7	31.9	24	NP	NP	15.22	-	-	2.63	F	0.06	23	-	-	-	-	-	-
9.50	SPT/DS		7	10	12	22	17																				
10.50	SPT/DS		9	12	15	27	19	5.2	23.7	50.7	20.4	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
12.00	DS							1.7	6.5	64.5	27.3	28	NP	NP	17.18	-	-	2.62	F	0.08	26	-	-	-	-	-	-
12.50	SPT/DS		13	17	20	37	23																				
13.50	SPT/DS		15	19	24	43	25	0.0	31.5	49.9	18.6	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
15.00	DS	Dense to Very Dense, Yellowish to Brownish Grey, fine-grained silty sand with gravel (SM)						0.0	68.4	21.6	10.1	23	NP	NP	11.25	-	-	2.65	F	0.08	28	-	-	-	-	-	-
15.50	SPT/DS		17	20	25	45	25																				
16.50	SPT/DS		20	24	31	55	28	8.5	67.9	17.2	6.3	24	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
18.00	DS							12.0	38.4	32.0	17.6	25	NP	NP	13.13	-	-	2.68	F	0.09	30	-	-	-	-	-	-
18.50	SPT/DS		25	30	37	67	32																				
19.50	SPT/DS		27	34	40	74	34	8.0	61.9	19.4	10.7	27	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
21.00	DS	Very Dense, Brownish Grey, fine-grained inorganic silt of low Plasticity with sand and Gravel (ML)						0.0	19.2	50.4	30.4	23	NP	NP	14.26	-	-	2.64	F	0.11	32	-	-	-	-	-	-
21.50	SPT/DS		30	35	41	76	34																				
22.50	SPT/DS		33	(49/7 cm)		100	41	1.0	21.4	56.3	21.3	28	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
24.00	DS							0.0	17.9	68.9	13.2	29	NP	NP	16.18	-	-	2.68	F	0.05	28	-	-	-	-	-	-
24.50	SPT/DS		19	24	30	54	25																				
25.50	SPT/DS		21	27	33	60	27	0.0	24.8	47.1	28.2	25	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
27.00	DS							1.0	25.7	51.6	21.7	26	NP	NP	14.56	-	-	2.65	F	0.10	29	-	-	-	-	-	-
27.50	SPT/DS		28	36	43	79	32																				
28.50	SPT/DS		30	(50/9 cm)		100	38	5.1	23.2	51.4	20.3	23	NP	NP	-	-	-	-	-	-	-	-	-	-	-	-	-
30.00	DS							0.1	39.8	43.4	16.8	24	NP	NP	15.23	-	-	2.61	F	0.07	31	-	-	-	-	-	-
30.5	SPT/DS	45	(50/11 cm)		100	37																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.

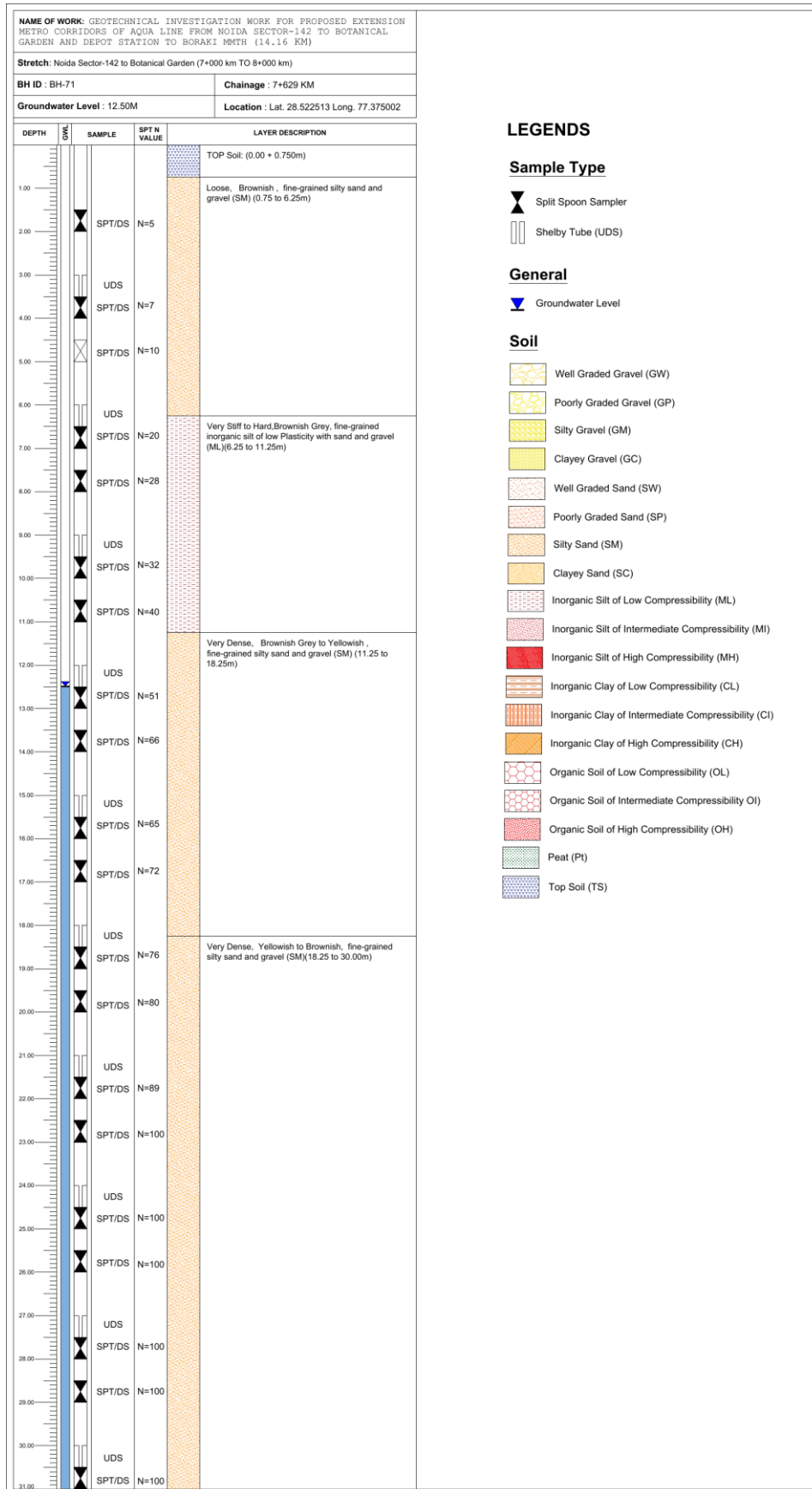








C.9. Zone 9: CH: 7+490 km to 8+550 km (BH-71 to BH-80)

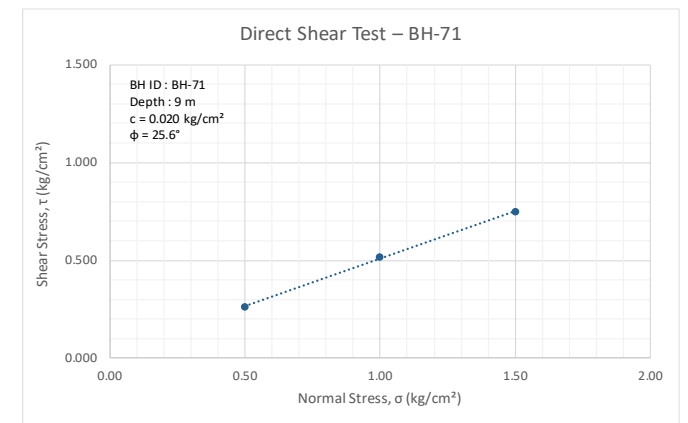
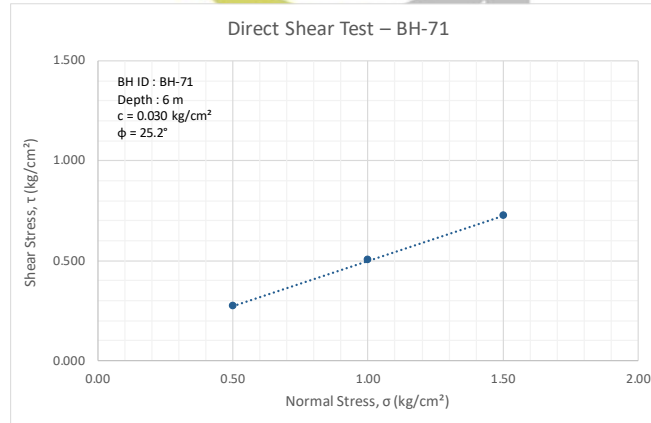
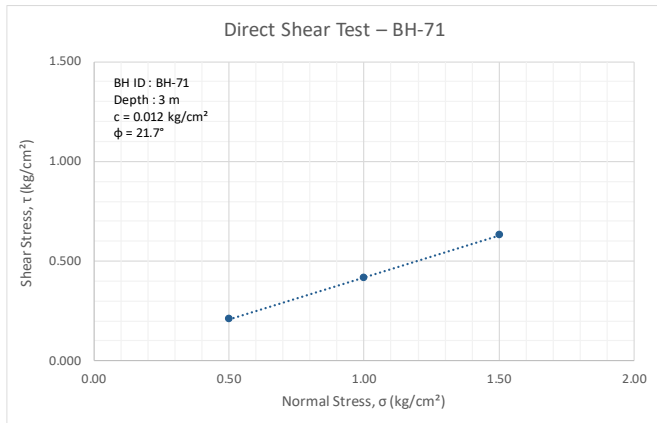
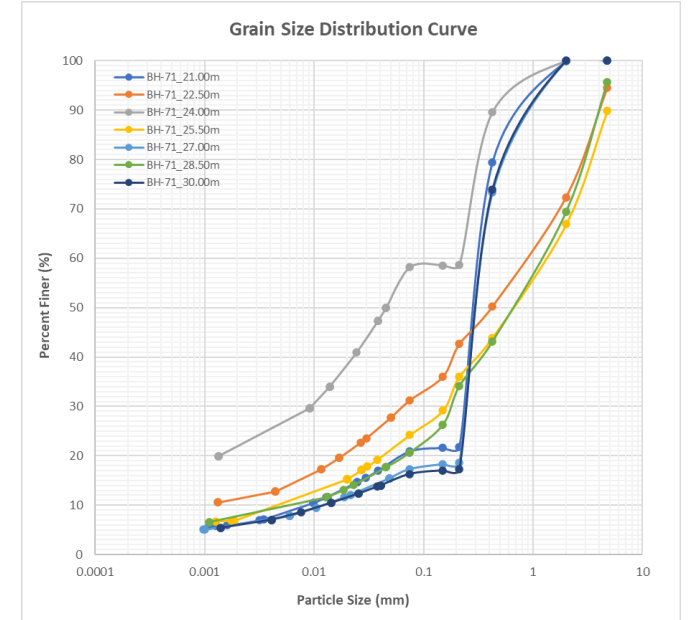
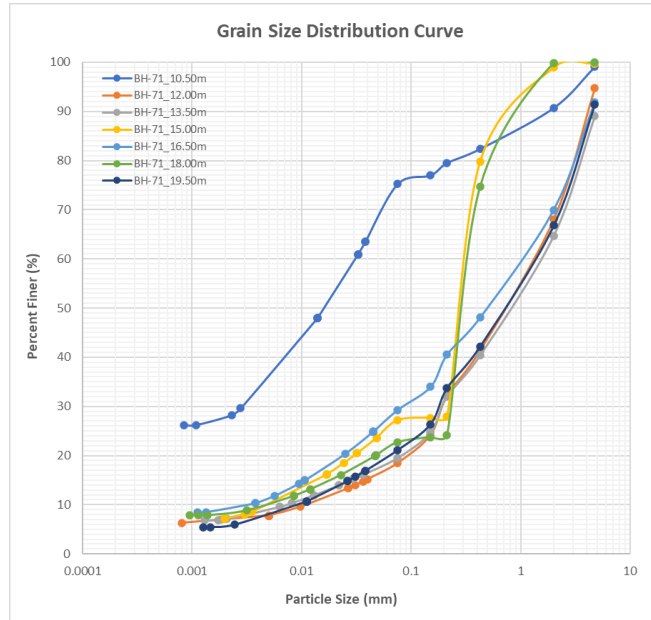
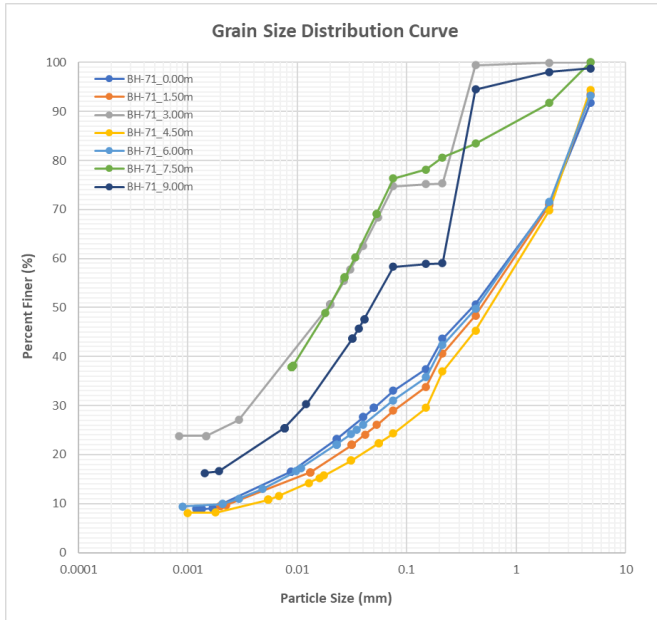


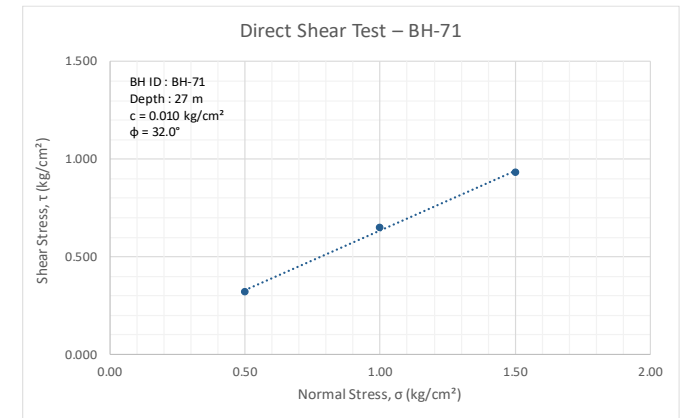
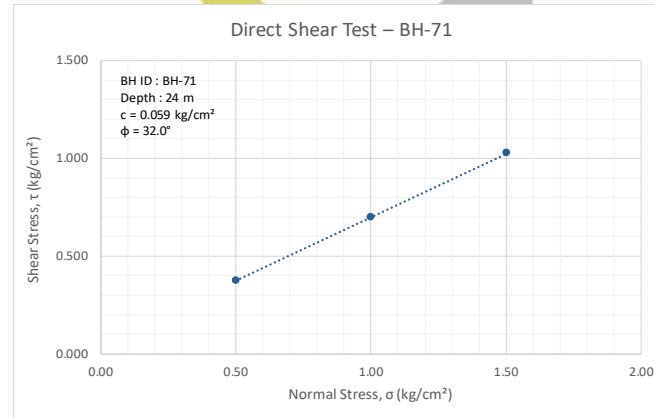
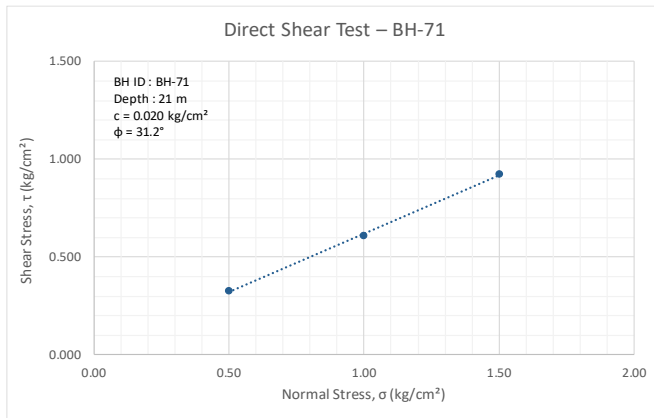
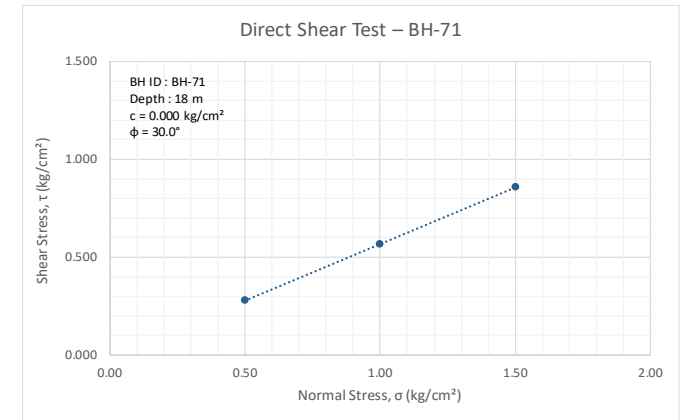
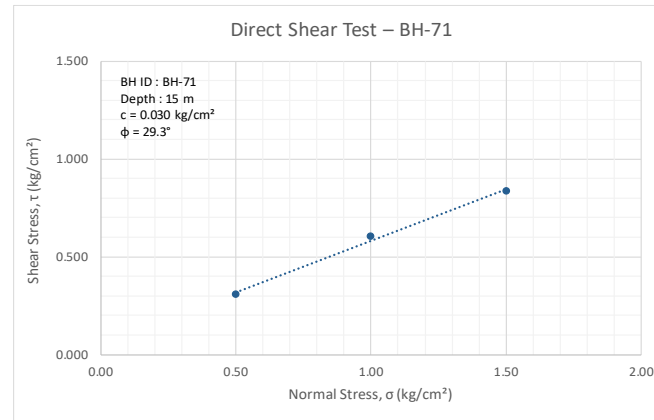
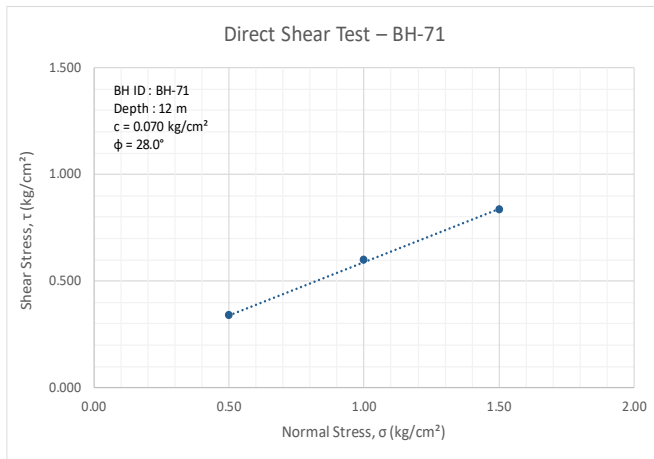


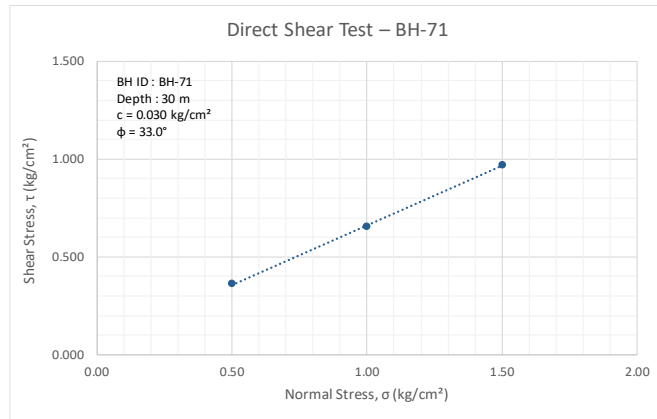
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-71	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	7+629	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	30.00	Start Date:	05-02-2026
Project Code:	158_R09_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	195	End Date:	05-02-2026
		Water table Level [m]:	12.50	Location:	Lat:28.522513 , Long: 77.375002

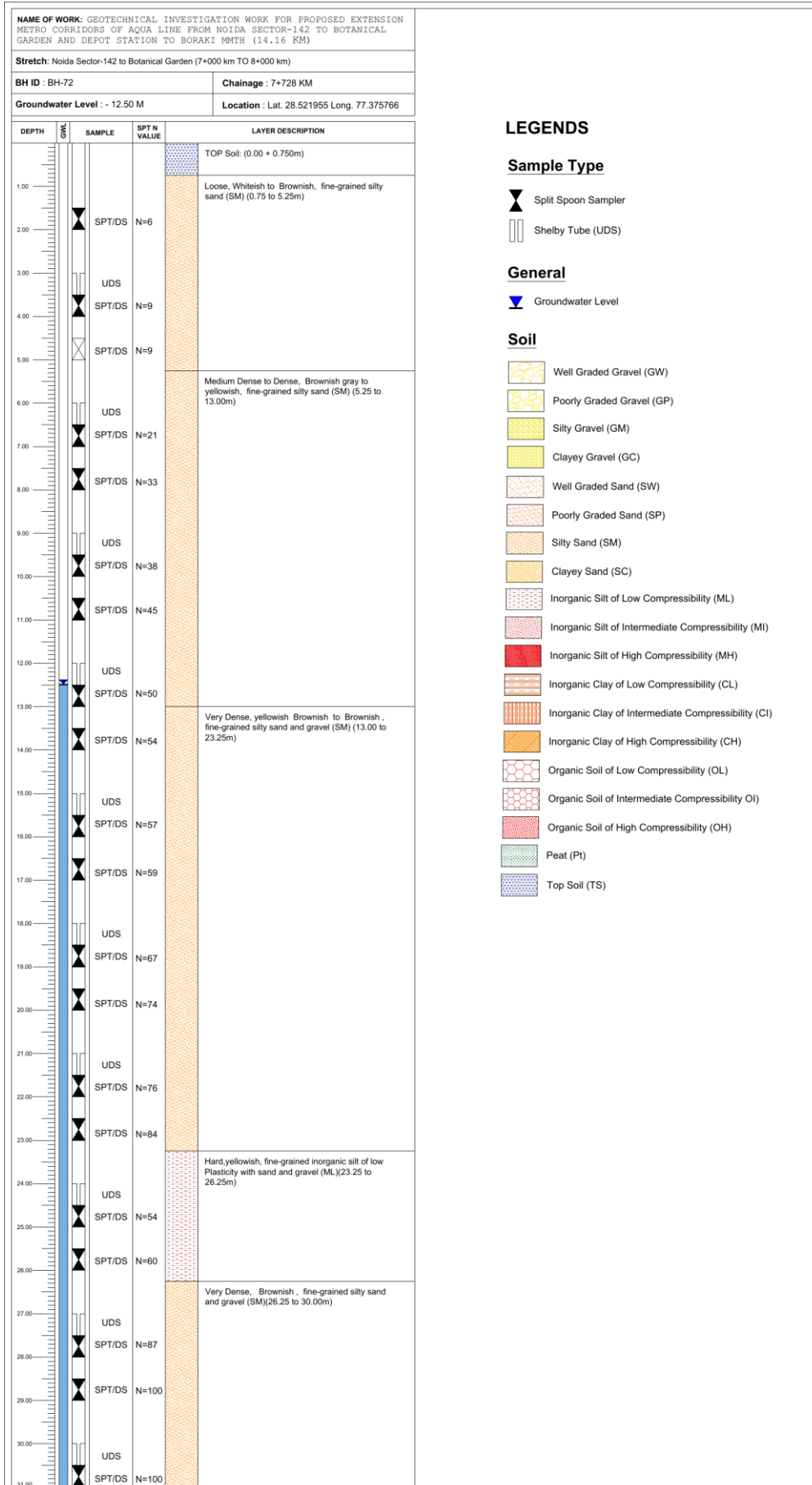
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						8.3	58.7	23.2	9.9	23	NP	NP													
1.50	SPT/DS	Loose, Brownish, fine-grained silty sand and gravel (SM)	2	2	3	5	7	6.5	64.5	19.4	9.6	24	NP	NP													
3.00	UDS							0.0	25.3	49.5	25.2	26	NP	NP	20.31	1.73	1.44	2.67	F	0.01	22						
3.50	SPT/DS		2	3	4	7	8																				
4.50	SPT/DS		3	4	6	10	8	5.6	70.1	15.9	8.4	21	NP	NP													
6.00	UDS							6.7	62.2	21.2	9.9	28	NP	NP	18.53			2.63	F	0.03	25						
6.50	SPT/DS	Very Stiff to Hard, Brownish Grey, fine-grained inorganic silt of low Plasticity with sand and gravel (ML)	6	8	12	20	19																				
7.50	SPT/DS		9	13	15	28	26	0.0	23.7	53.1	23.2	29	NP	NP													
9.00	DS							1.3	40.4	41.5	16.9	27	NP	NP	31.39			2.62	F	0.02	26						
9.50	SPT/DS		12	14	18	32	27																				
10.50	SPT/DS		15	19	21	40	33	0.9	23.9	47.4	27.8	23	NP	NP													
12.00	UDS	Very Dense, Brownish Grey to Yellowish, fine-grained silty sand and gravel (SM)						5.3	76.3	11.4	7.0	24	NP	NP	14.23			2.63	F	0.07	28						
12.50	SPT/DS		21	24	27	51	27																				
13.50	SPT/DS		22	29	37	66	32	10.9	69.5	12.5	7.0	26	NP	NP													
15.00	DS							0.3	72.5	20.0	7.2	25	NP	NP	16.39			2.65	F	0.03	29						
15.50	SPT/DS		25	32	33	65	30																				
16.50	SPT/DS		24	35	37	72	32	8.1	62.6	20.1	9.2	24	NP	NP													
18.00	DS							0.1	77.2	14.4	8.3	26	NP	NP	17.89			2.62	F	0.00	30						
18.50	SPT/DS		27	37	39	76	33																				
19.50	SPT/DS	27	38	42	80	34	8.6	70.3	15.4	5.7	28	NP	NP														
21.00	DS						0.0	79.1	14.7	6.2	29	NP	NP	18.52			2.64	F	0.02	31							
21.50	SPT/DS	30	41	48	89	36																					
22.50	SPT/DS	30	46	(50/12 cm)	100	39	5.5	63.3	19.9	11.3	24	NP	NP														
24.00	DS						0.0	41.9	36.3	21.9	23	NP	NP	13.82			2.72	F	0.06	32							
24.50	SPT/DS	38	(50/11 cm)		100	38																					
25.50	SPT/DS	42	(50/13 cm)		100	37	10.2	65.6	17.1	7.1	28	NP	NP														
27.00	DS						0.0	82.7	11.2	6.1	29	NP	NP	13.74			2.61	F	0.01	32							
27.50	SPT/DS	44	(50/10 cm)	-	100	36																					
28.50	SPT/DS	48	(50/8 cm)	-	100	36	4.3	75.0	12.9	7.8	27	NP	NP														
30.00	DS						0.0	83.7	10.4	5.9	29	NP	NP	14.11			2.69	F	0.03	33							
30.50	SPT/DS	(50/12 cm)	-	-	100	35																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

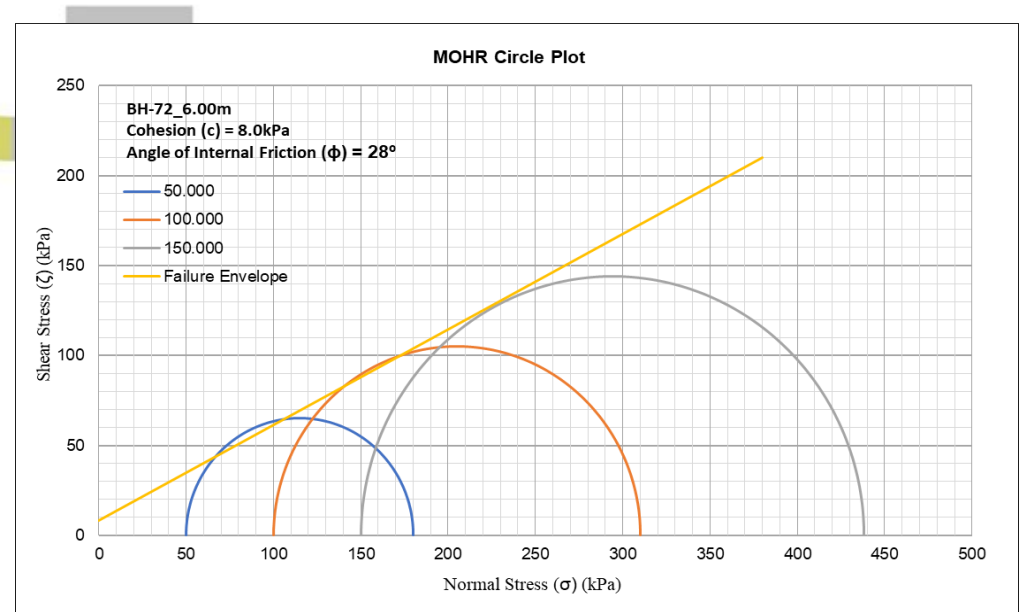
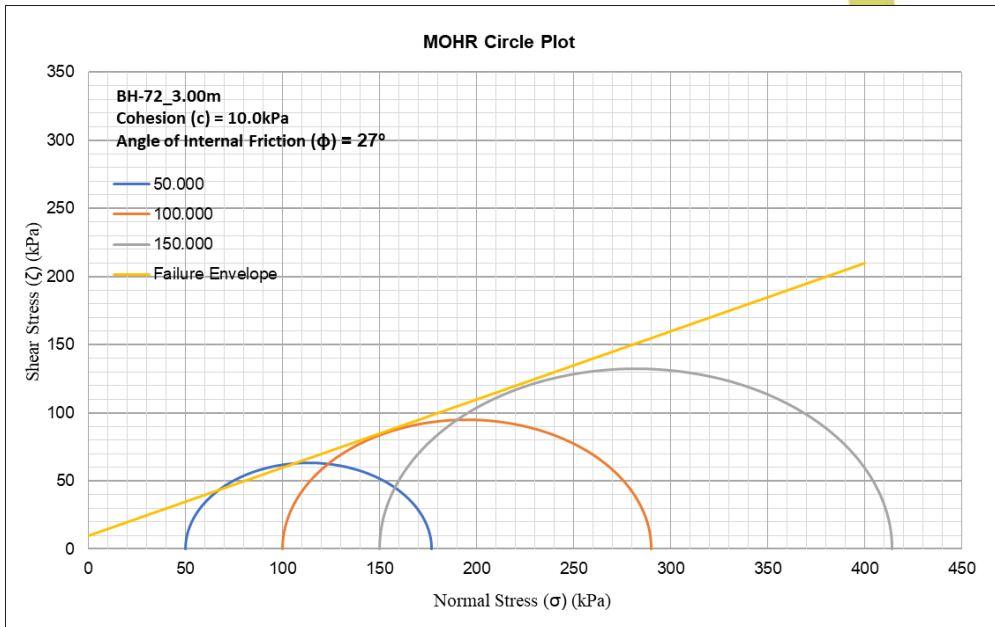
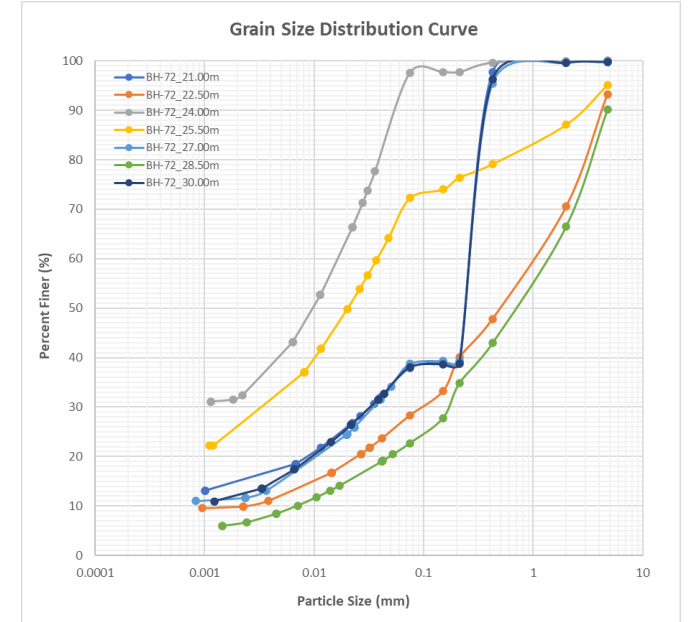
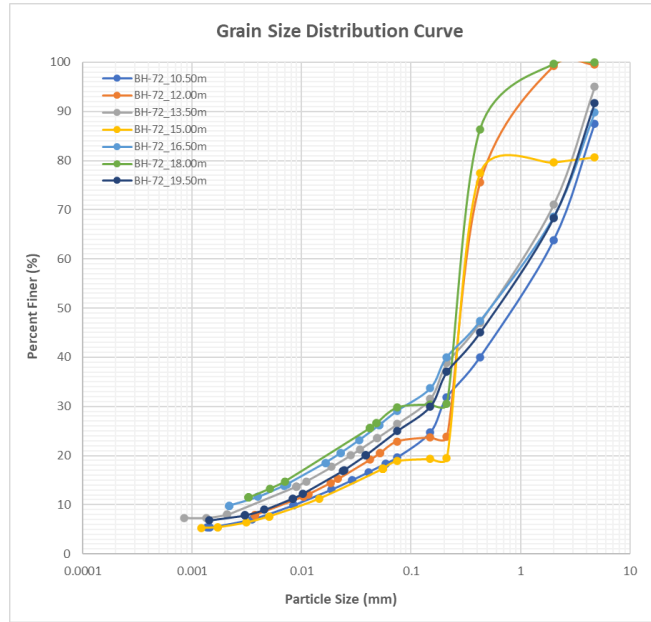
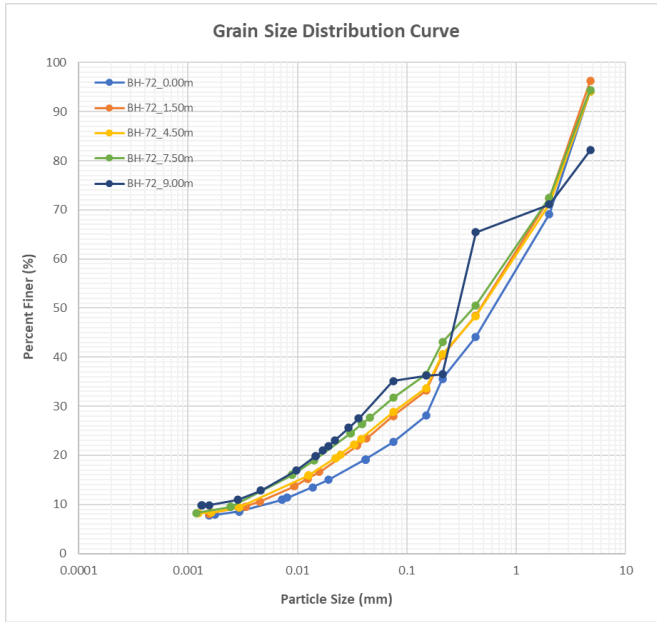
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

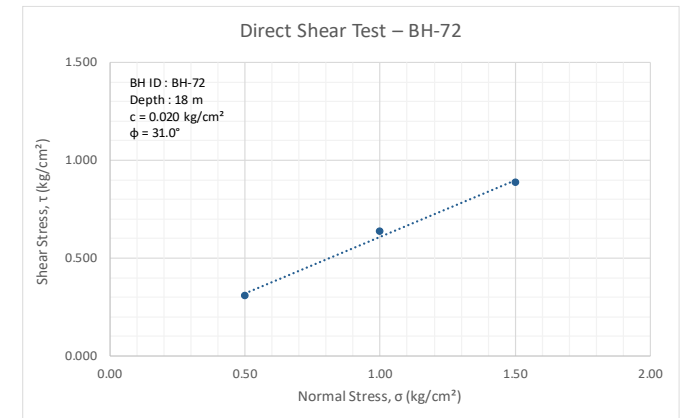
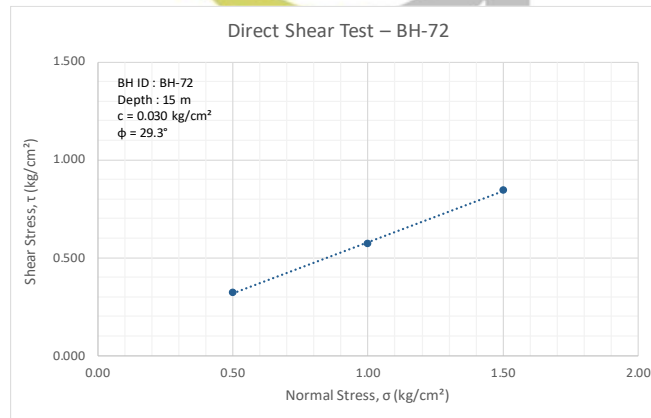
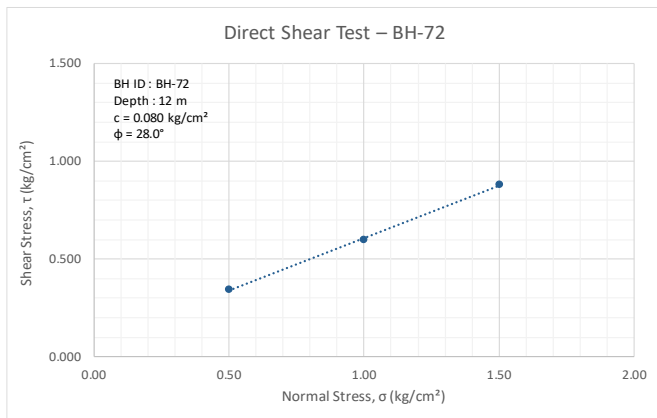
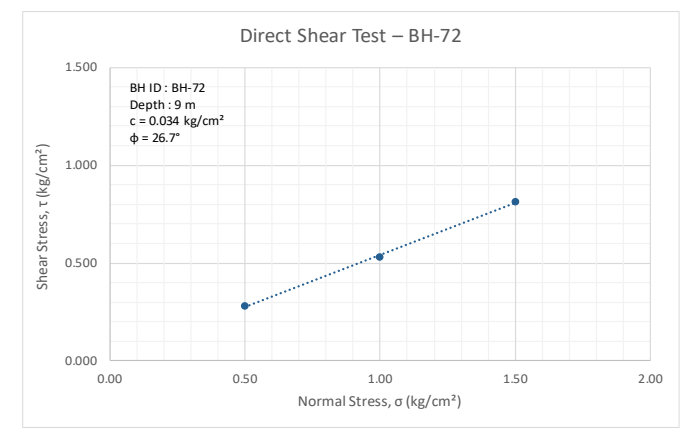
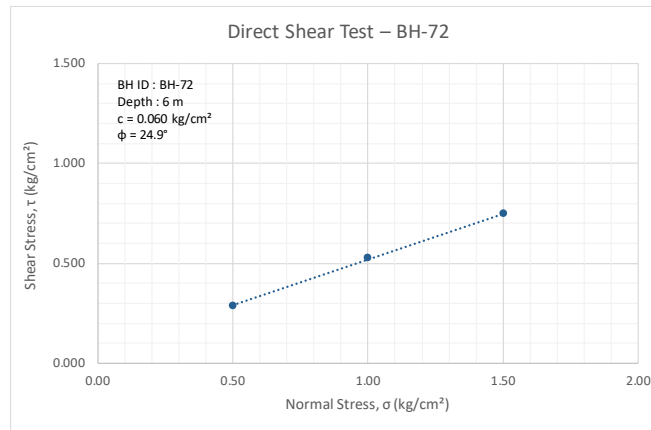
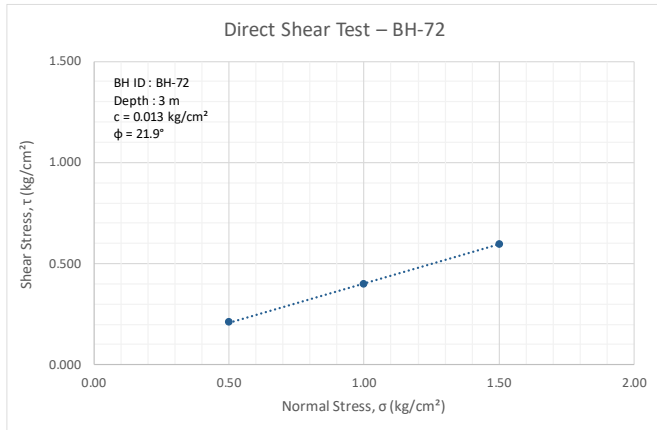


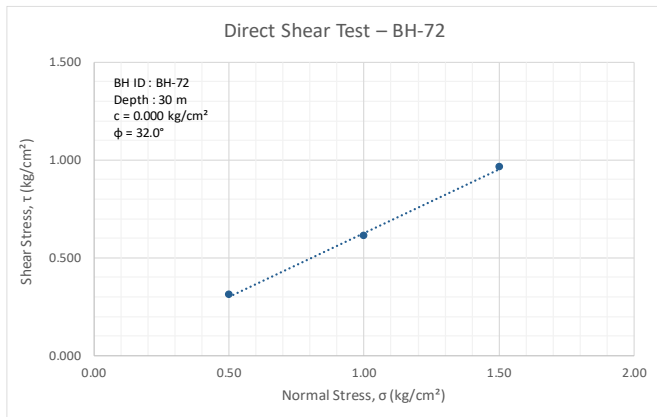
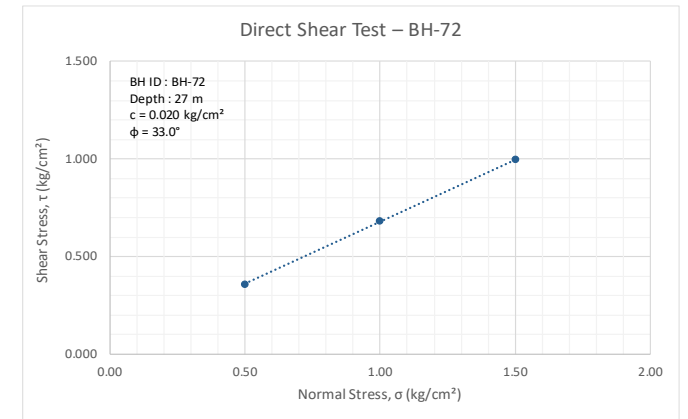
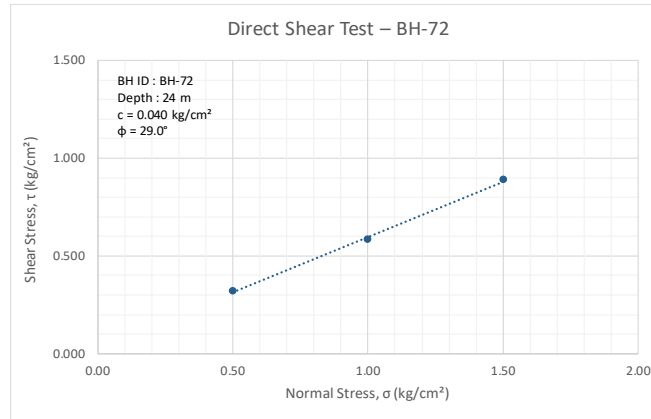
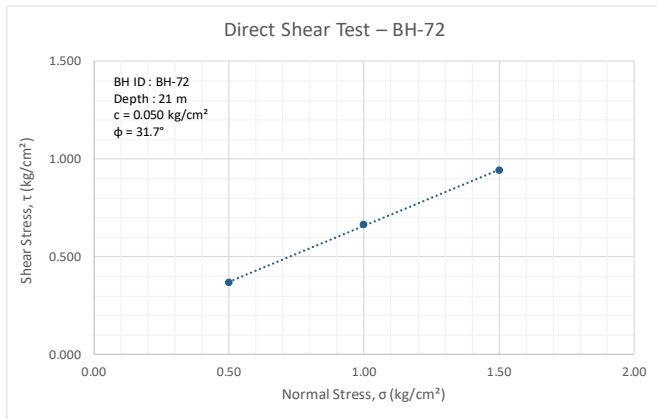
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-72	Contractor:	Goma Engineering & Consultancy
		Chainage [km]:	7+728	Method of Drilling:	Rotary Drilling
Client:	Noida Metro Rail Corporation (NMRC) Limited	Depth [m]:	30.00	Start Date:	02-02-2026
Stretch:	Noida Sector-142 to Botanical Garden	Elevation [m]:	197.2	End Date:	02-02-2026
Project Code:	158_R09_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Water table Level [m]:	12.50	Location:	Lat:28.521955 , Long: 77.375766

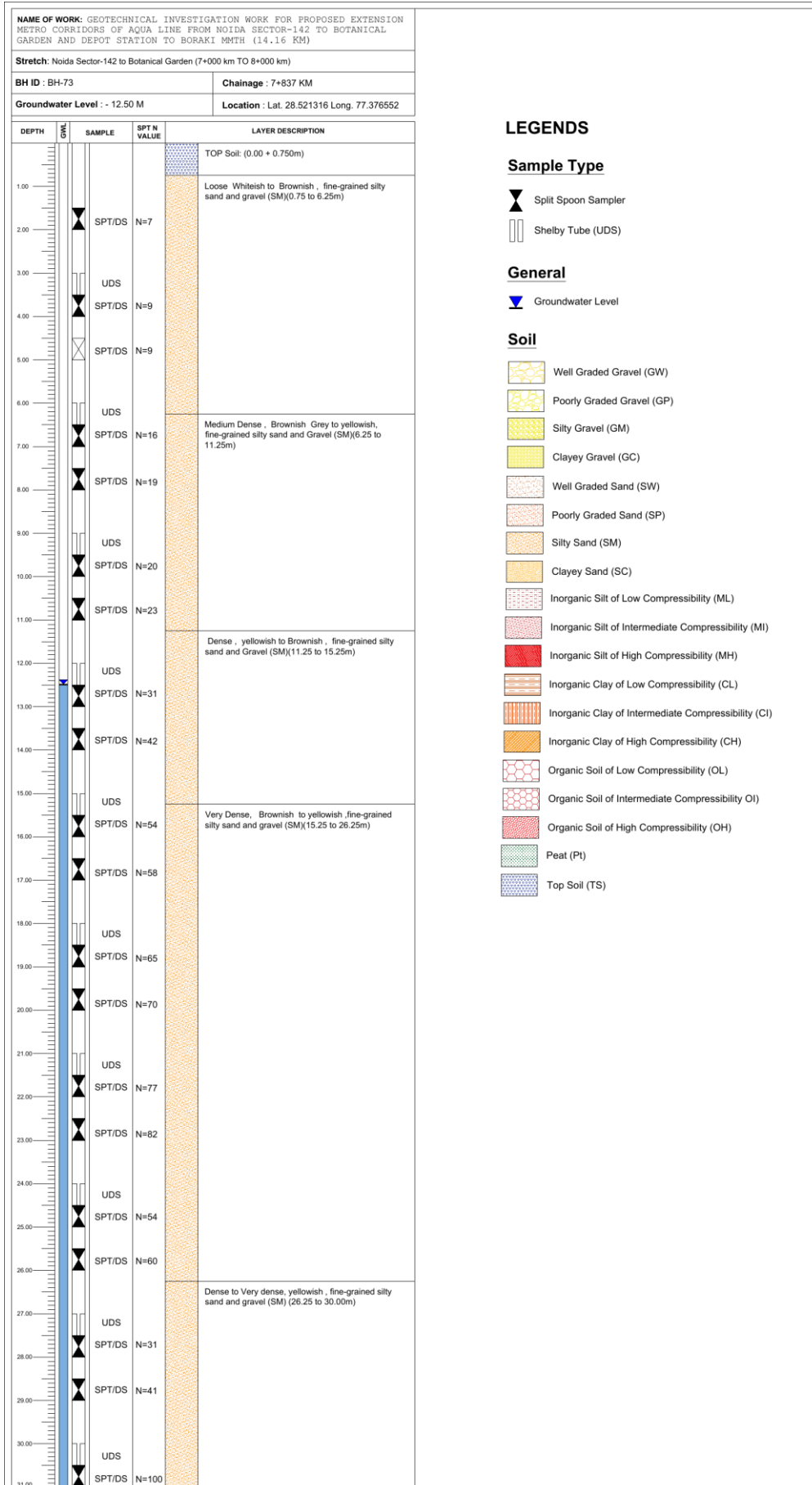
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						5.9	71.4	14.7	8.0	25	NP	NP													
1.50	SPT/DS	Loose, Whiteish to Brownish, fine-grained silty sand (SM)	2	3	3	6	6	3.8	68.2	19.4	8.6	26	NP	NP													
3.00	UDS							7.7	66.9	18.2	7.2	22	NP	NP	12.70	1.86	1.65	2.69	F	0.01	22	UU	10	27			
3.50	SPT/DS		3	4	5	9	10																				
4.50	SPT/DS		4	4	5	9	9	5.9	65.3	20.1	8.7	29	NP	NP													
6.00	UDS	Medium Dense to Dense, Brownish gray to yellowish, fine-grained silty sand (SM)						9.9	70.3	13.9	6.0	24	NP	NP	11.92	1.84	1.64	2.70	F	0.06	25	UU	8	28			
6.50	SPT/DS		7	9	12	21	20																				
7.50	SPT/DS		10	15	18	33	30	5.6	62.7	22.6	9.2	27	NP	NP													
9.00	DS							17.8	47.0	24.8	10.3	22	NP	NP	14.86			2.68	F	0.03	27						
9.50	SPT/DS		14	17	21	38	32																				
10.50	SPT/DS		16	20	25	45	37	12.5	67.9	13.7	6.0	24	NP	NP													
12.00	DS							0.5	76.6	22.9	0.0	26	NP	NP	20.88			2.60	F	0.08	28						
12.50	SPT/DS		19	23	27	50	27																				
13.50	SPT/DS	Very Dense, yellowish Brownish to Brownish, fine-grained silty sand and gravel (SM)	21	25	29	54	28	5.0	68.6	18.5	7.9	21	NP	NP													
15.00	UDS							19.3	61.8	13.2	5.6	23	NP	NP	9.80	2.04	1.86	2.67	F	0.03	29						
15.50	SPT/DS		22	15	31	57	28																				
16.50	SPT/DS		24	26	33	59	28	10.2	60.6	21.4	7.7	27	NP	NP													
18.00	DS							0.0	70.2	21.5	8.3	23	NP	NP	20.05			2.60	F	0.02	31						
18.50	SPT/DS		25	30	37	67	30																				
19.50	SPT/DS		27	34	40	74	32	8.3	66.7	17.7	7.3	24	NP	NP													
21.00	DS							0.0	62.1	22.9	15.0	29	NP	NP	22.78			2.69	F	0.05	32						
21.50	SPT/DS		30	35	41	76	32																				
22.50	SPT/DS		33	39	45	84	34	6.7	64.9	18.5	9.9	23	NP	NP													
24.00	DS	Hard, yellowish, fine-grained inorganic silt of low Plasticity with sand and gravel (ML)						0.0	2.4	65.7	31.9	27	NP	NP	25.80			2.63	F	0.04	29						
24.50	SPT/DS		19	24	30	54	24																				
25.50	SPT/DS		21	27	33	60	26	5.0	22.8	46.1	26.2	28	NP	NP													
27.00	DS	Very Dense, Brownish, fine-grained silty sand and gravel (SM)						0.1	61.2	27.2	11.5	26	NP	NP	21.80			2.63	F	0.02	33						
27.50	SPT/DS		29	40	47	87	33																				
28.50	SPT/DS		40	50/8 cm	-	100	36	9.9	67.4	16.3	6.4	24	NP	NP													
30.00	DS							0.2	61.7	25.9	12.2	22	NP	NP	22.38			2.78	F	0.00	32						
30.50	SPT/DS		50/9 cm	-	-	100	36																				

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

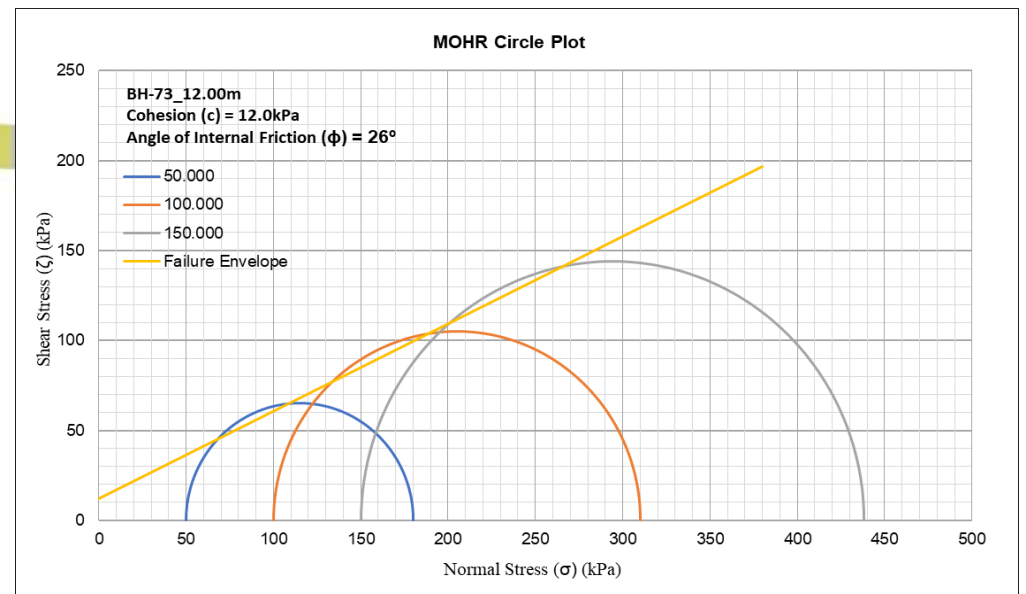
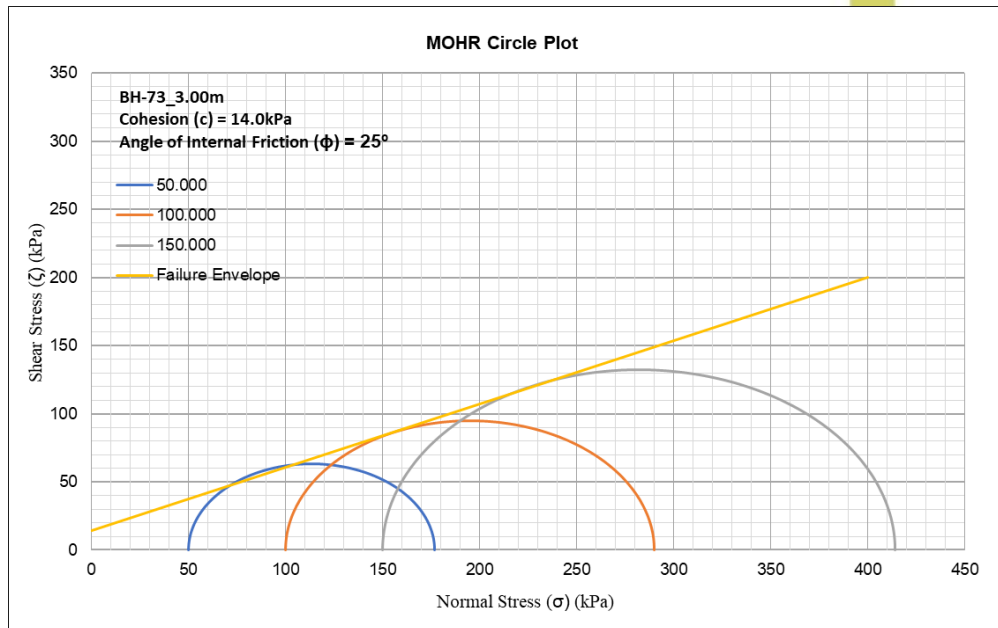
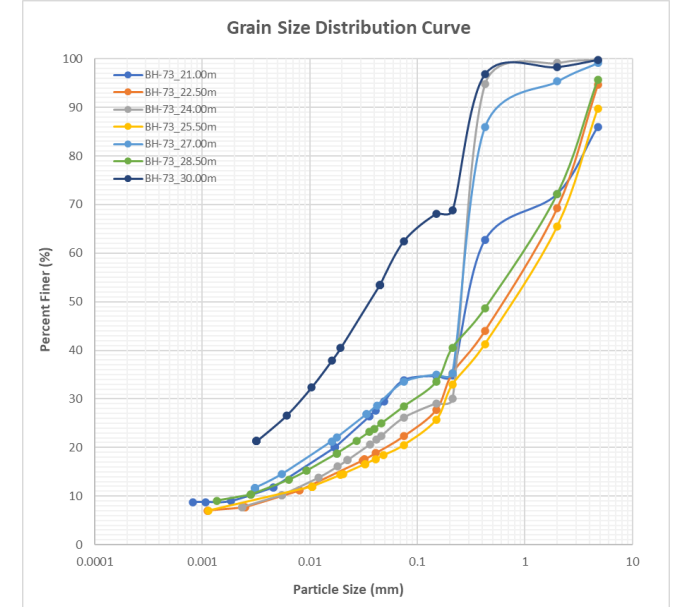
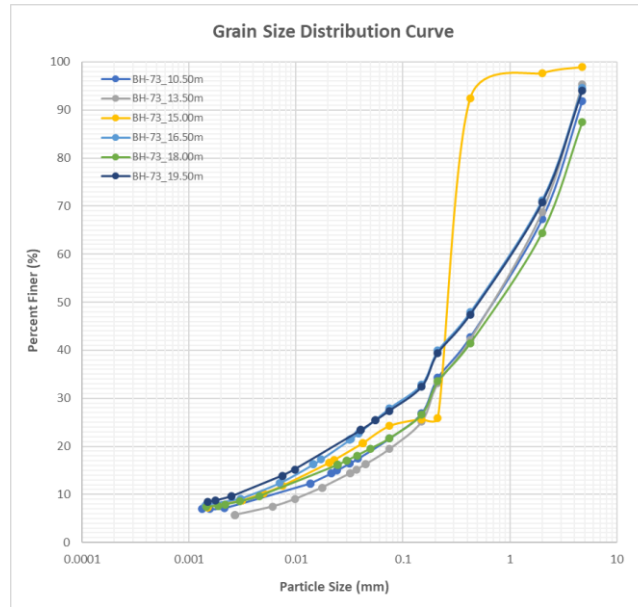
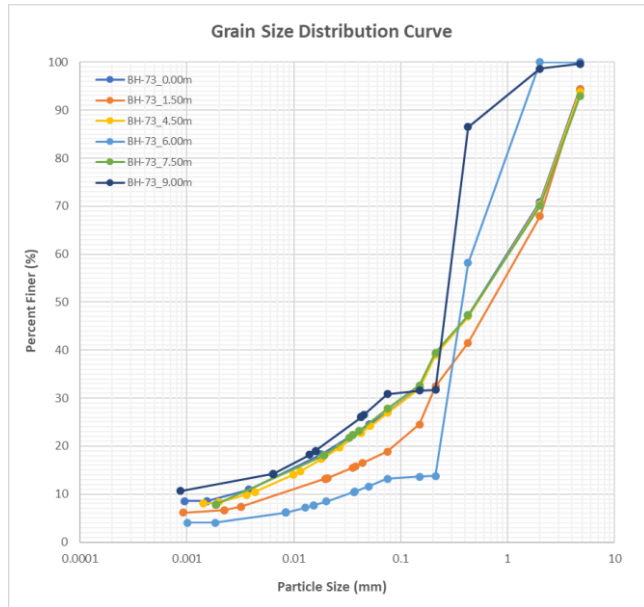
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

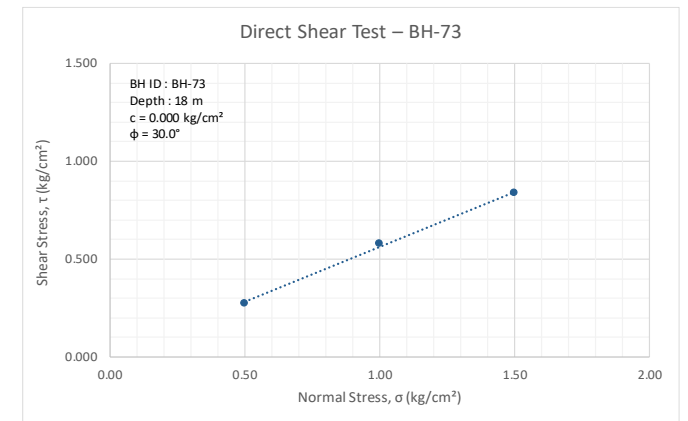
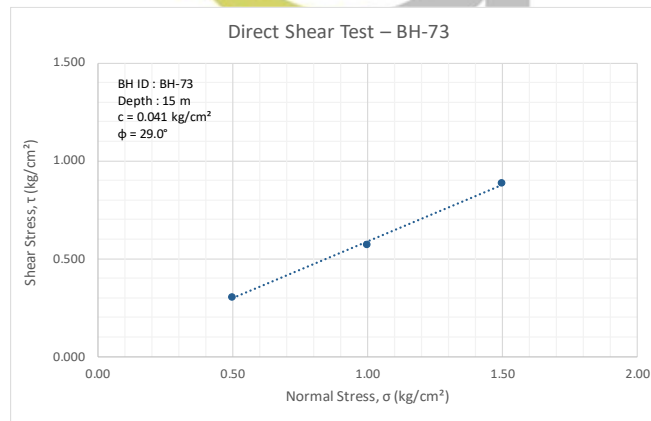
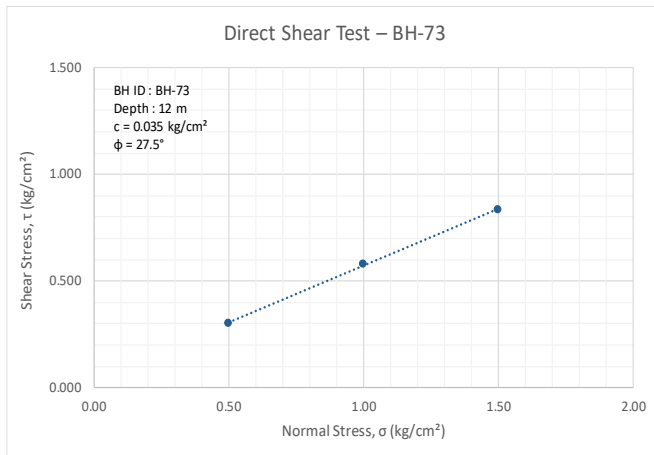
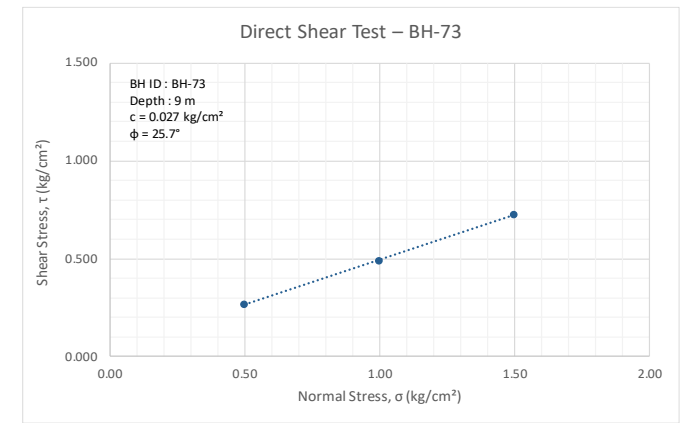
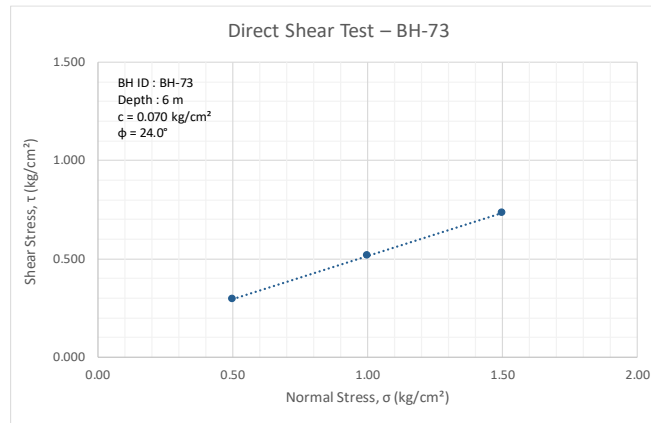
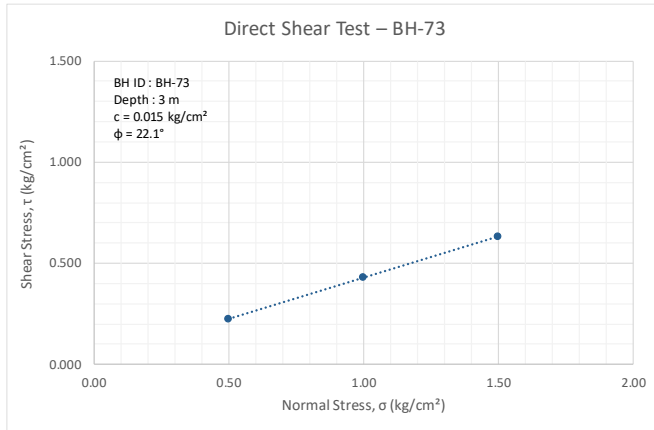


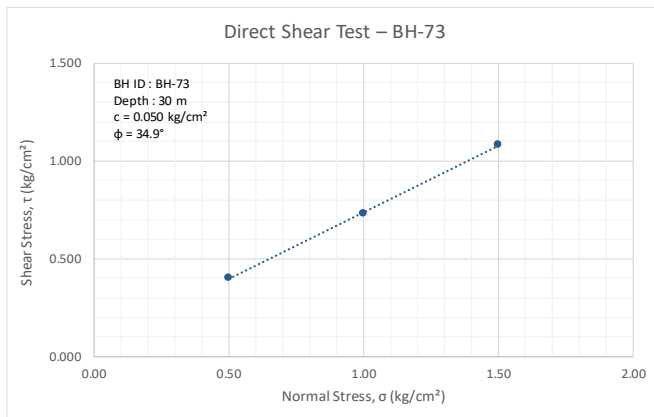
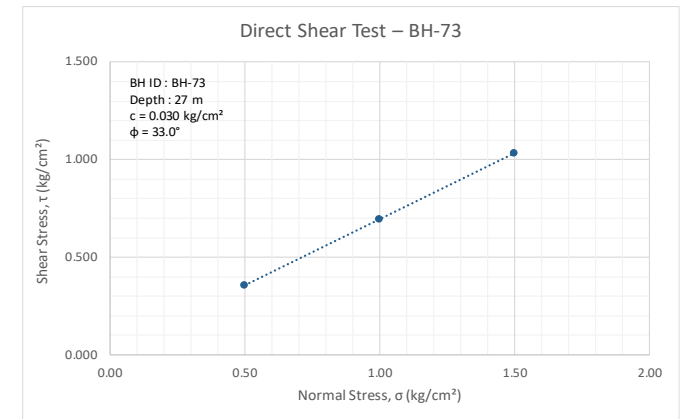
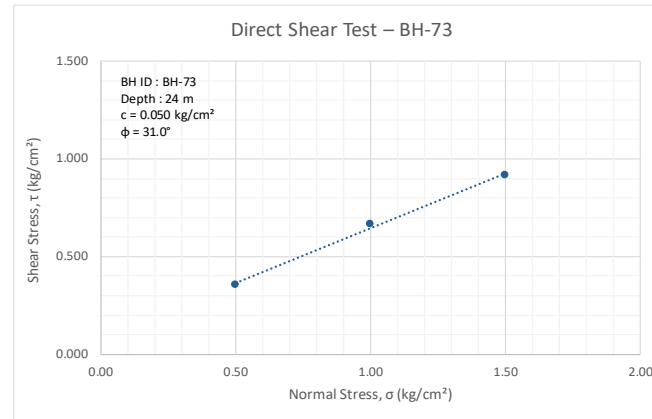
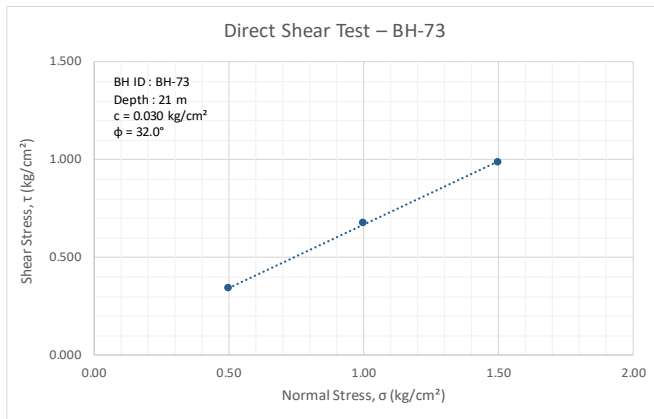
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	73	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	7+837	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	30.00	Start Date:	03-01-2026
Project Code:	158_R09_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	202.4	End Date:	03-01-2026
		Water table Level [m]:	12.50	Location:	Lat:28.521316 , Long: 77.376552

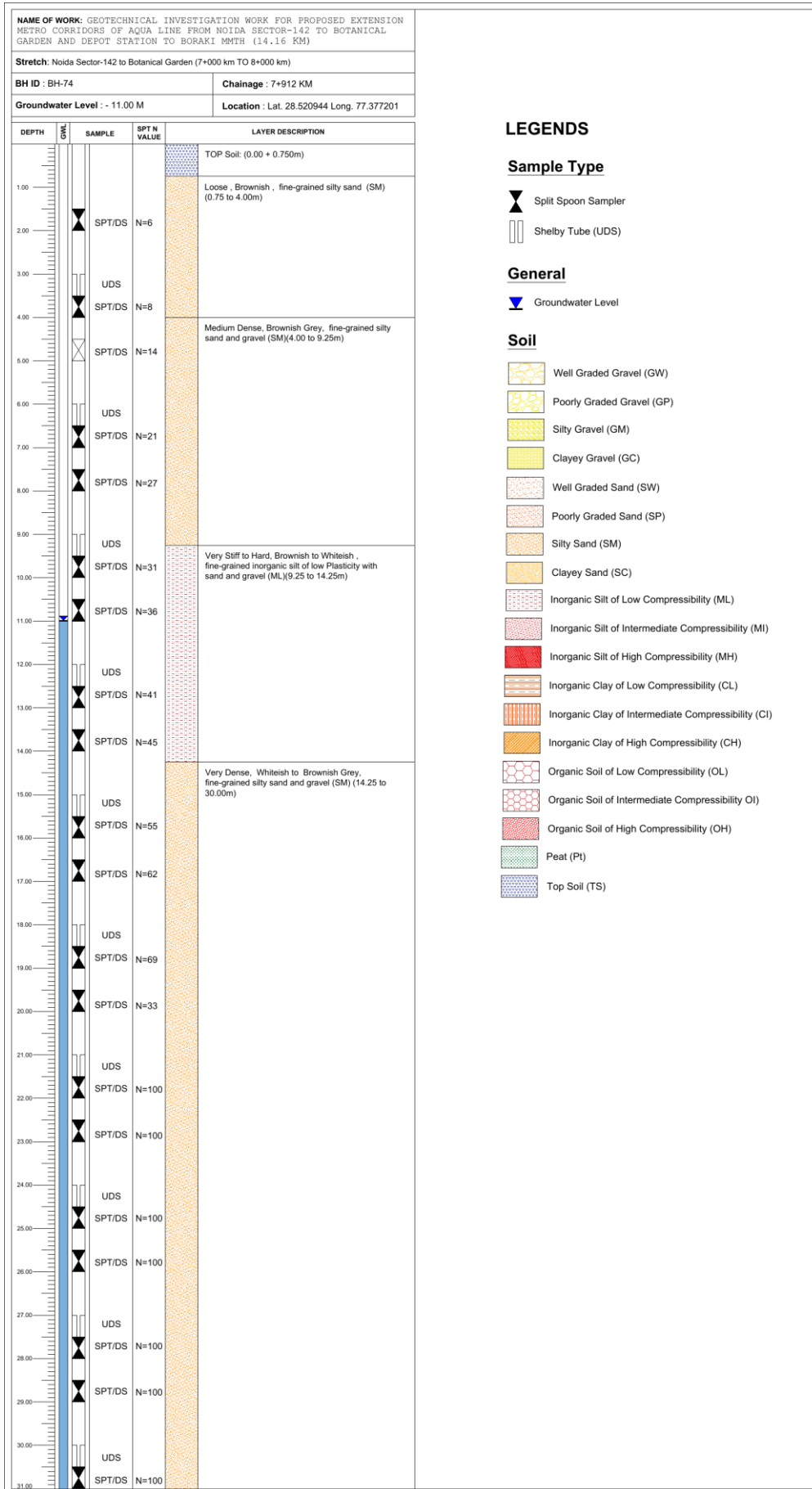
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						5.6	67.3	17.8	9.3	24	NP	NP													
1.50	SPT/DS	Loose Whiteish to Brownish, fine-grained silty sand and gravel (SM)	3	3	4	7	10	5.7	75.5	12.3	6.6	28	NP	NP													
3.00	UDS							7.9	63.0	18.8	10.3	22	NP	NP	8.11	1.82	1.68	2.66	F	0.02	22	UU	14	25			
3.50	SPT/DS		3	4	5	9	10																				
4.50	SPT/DS		4	4	5	9	9	6.2	66.9	18.6	8.4	26	NP	NP													
6.00	UDS							0.0	86.8	9.0	4.2	24	NP	NP	6.78	1.75	1.64	2.68	F	0.07	24						
6.50	SPT/DS	Medium Dense, Brownish Grey to yellowish, fine-grained silty sand and Gravel (SM)	5	7	9	16	15																				
7.50	SPT/DS		5	8	11	19	17	7.1	65.1	19.6	8.2	21	NP	NP													
9.00	DS							0.3	68.8	18.7	12.2	26	NP	NP	18.95			2.60	F	0.03	26						
9.50	SPT/DS		7	9	11	20	17																				
10.50	SPT/DS		8	10	13	23	19	8.1	70.3	14.5	7.1	27	NP	NP													
12.00	UDS	Dense, yellowish to Brownish, fine-grained silty sand and Gravel (SM)						4.5	76.6	12.5	6.4	27	NP	NP	15.35	1.86	1.61	2.68	F	0.04	29	UU	12	26			
12.50	SPT/DS		10	13	18	31	19																				
13.50	SPT/DS		12	19	23	42	23	4.6	75.9	13.9	5.6	23	NP	NP													
15.00	DS						1.1	74.7	16.3	7.9	27	NP	NP	17.48			2.65	F	0.04	29							
15.50	SPT/DS	Very Dense, Brownish to yellowish, fine-grained silty sand and gravel (SM)	18	24	30	54	27																				
16.50	SPT/DS		20	25	33	58	28	5.4	66.7	19.5	8.4	26	NP	NP													
18.00	DS							12.5	65.8	13.9	7.8	24	NP	NP	15.96			2.60	F	0.00	30						
18.50	SPT/DS		25	30	35	65	30																				
19.50	SPT/DS		27	33	37	70	31	5.9	66.7	18.4	9.0	23	NP	NP													
21.00	DS							14.0	52.1	24.7	9.2	27	NP	NP	15.46			2.82	F	0.03	32						
21.50	SPT/DS		30	35	42	77	32																				
22.50	SPT/DS		33	38	44	82	33	5.4	72.3	14.8	7.5	21	NP	NP													
24.00	DS							0.2	73.6	19.6	6.6	26	NP	NP	16.85			2.70	F	0.05	31						
24.50	SPT/DS		20	24	30	54	24																				
25.50	SPT/DS	22	27	33	60	26	10.3	69.2	12.3	8.2	27	NP	NP														
27.00	DS						0.9	65.7	27.4	6.1	29	NP	NP	16.11			2.62	F	0.03	33							
27.50	SPT/DS	7	13	18	31	17																					
28.50	SPT/DS	9	20	21	41	19	4.3	67.2	18.7	9.7	26	NP	NP														
30.00	DS						0.3	37.3	53.7	8.8	24	NP	NP	21.74			2.63	F	0.05	35							
30.50	SPT/DS	50	-	-	100	35																					

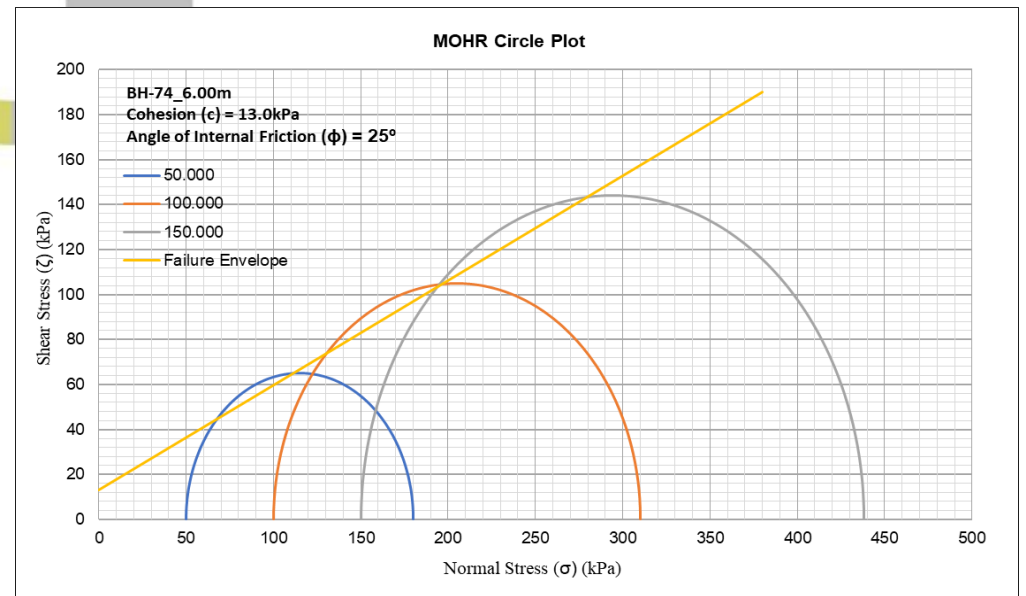
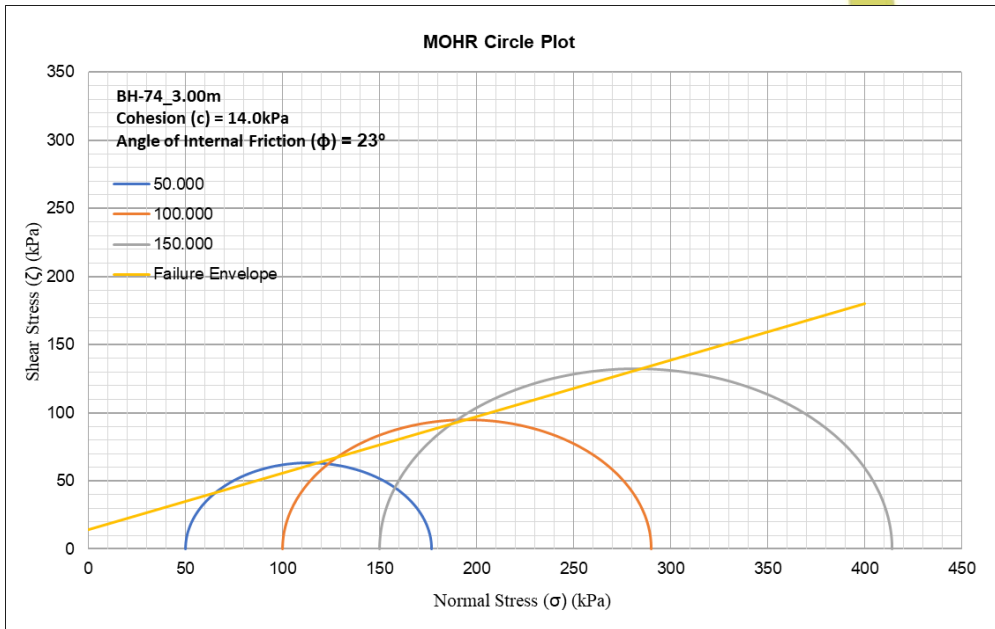
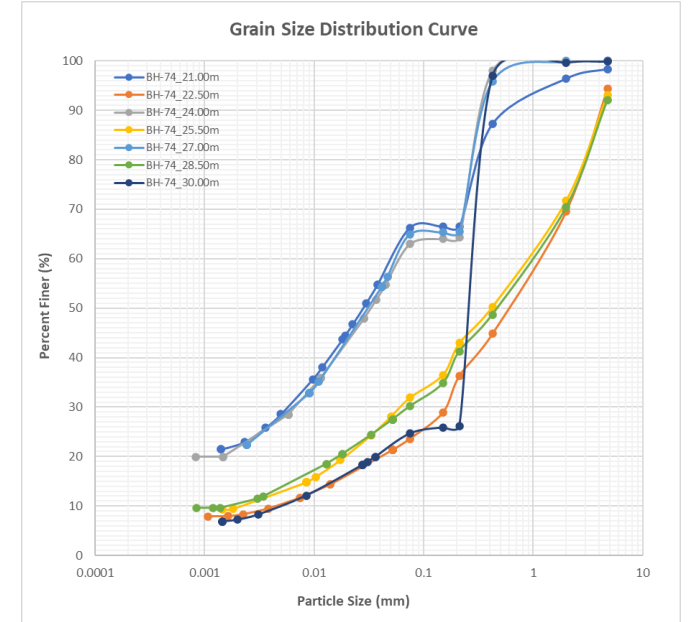
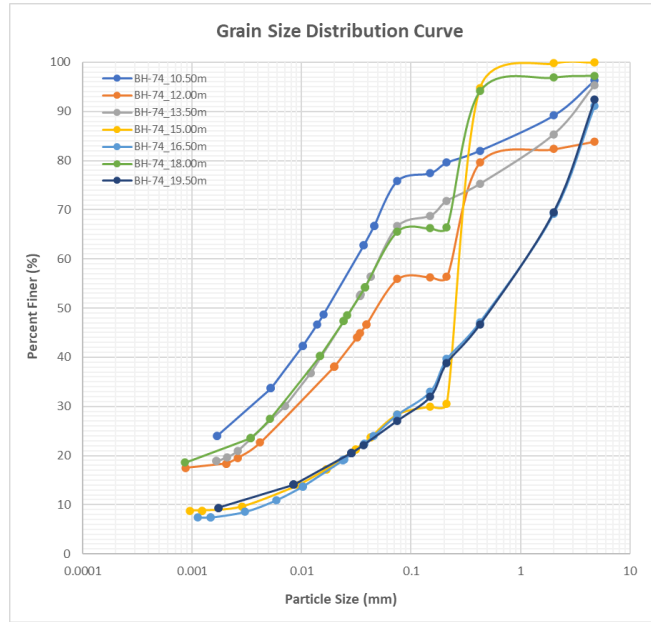
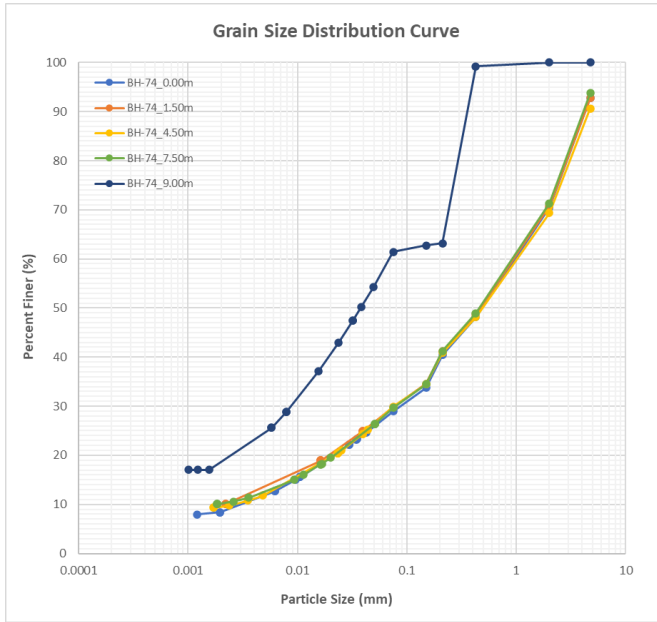
Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.

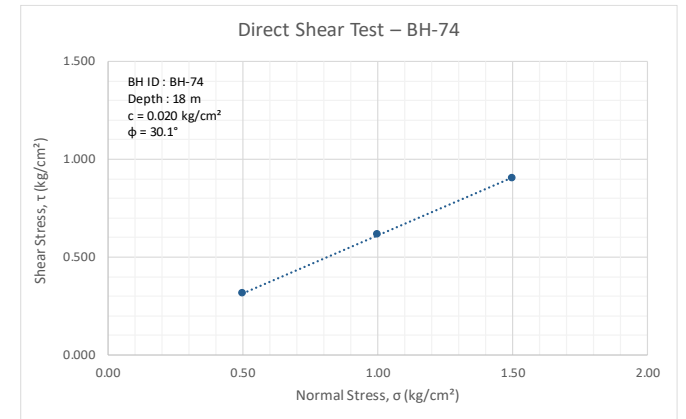
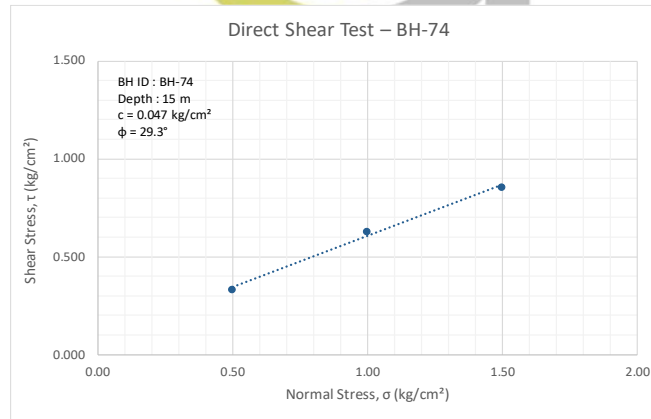
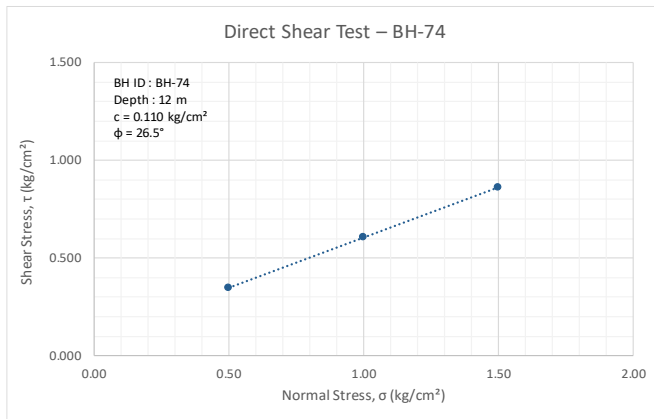
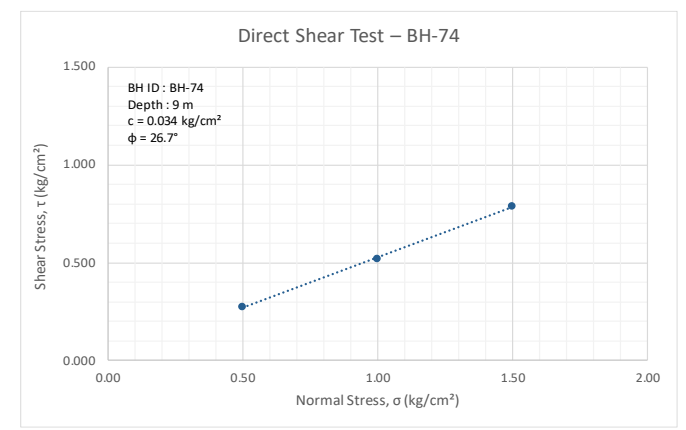
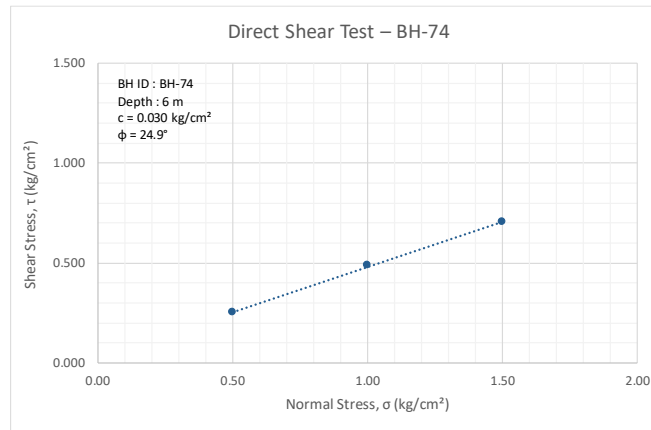
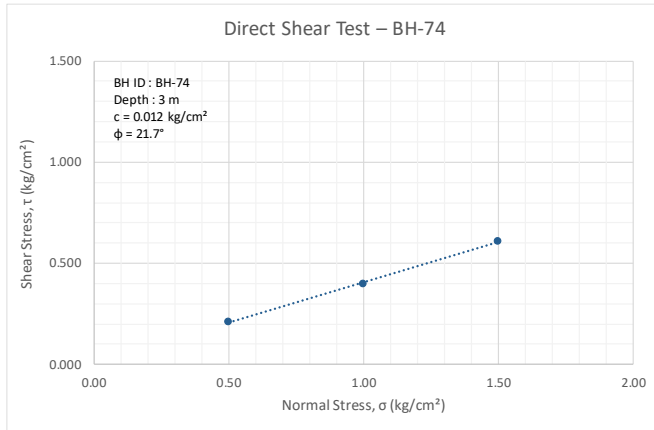


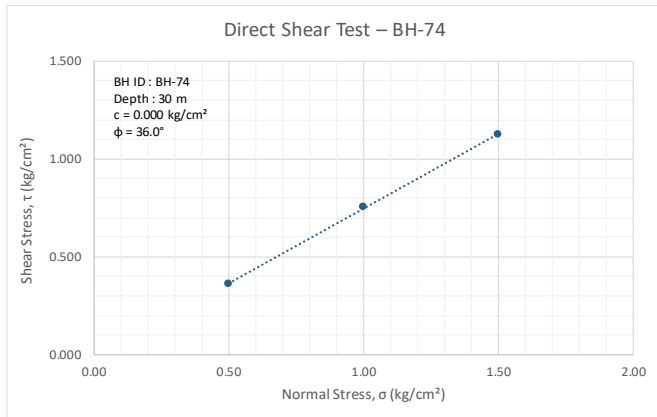
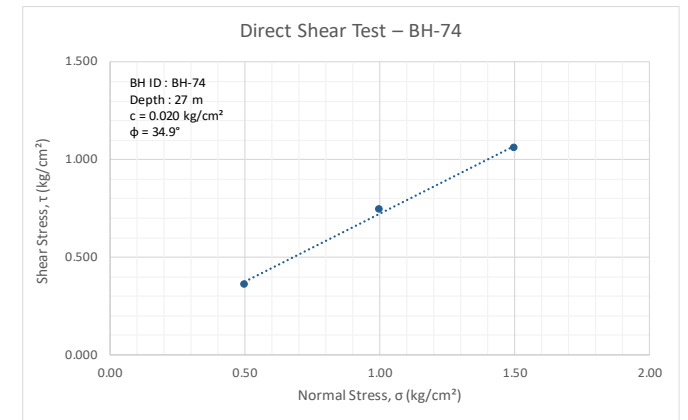
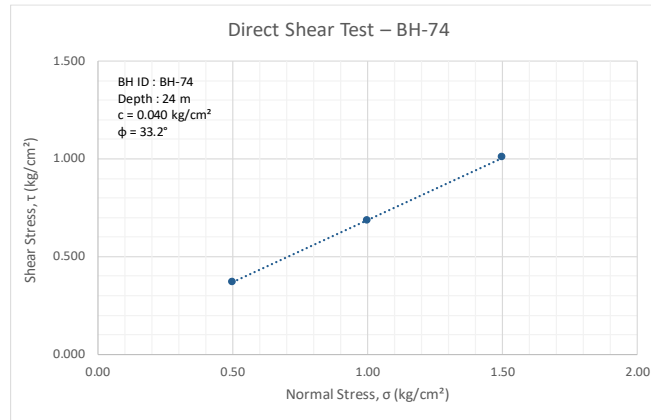
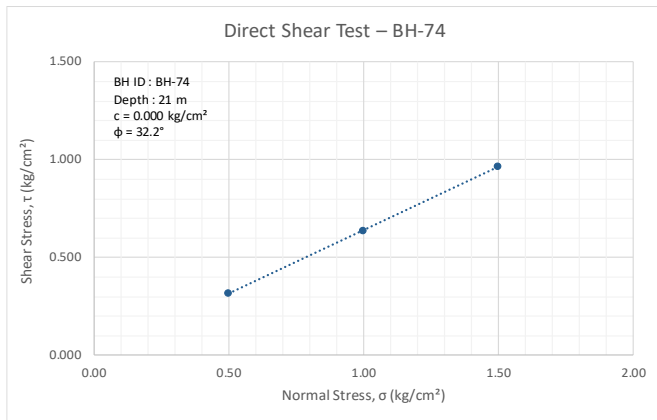


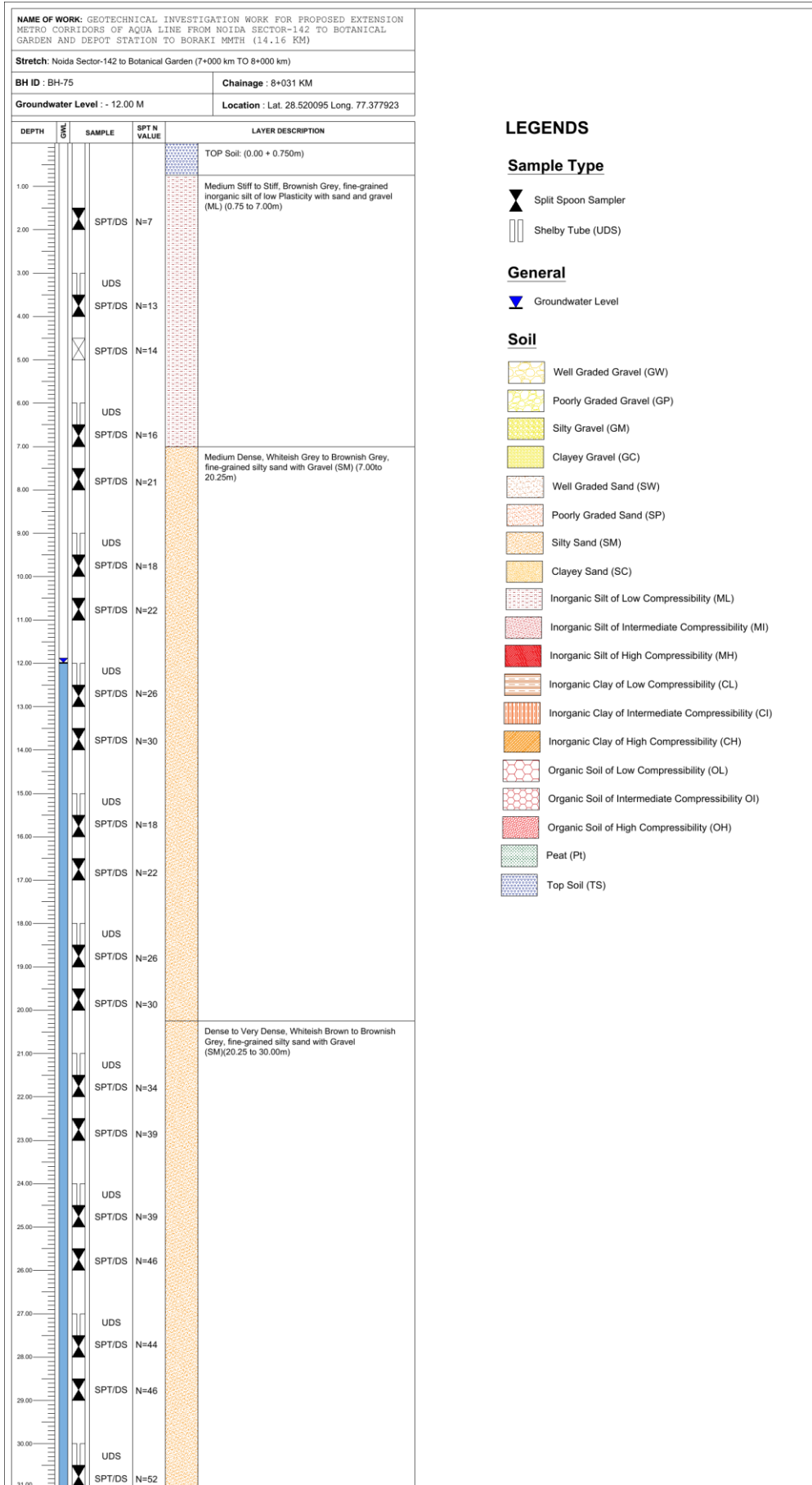












LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

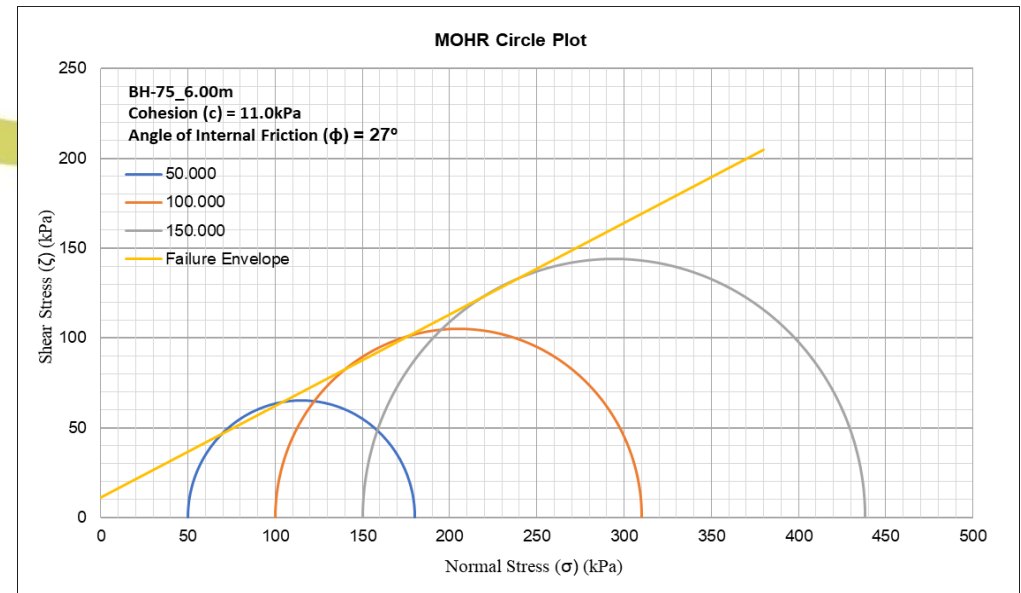
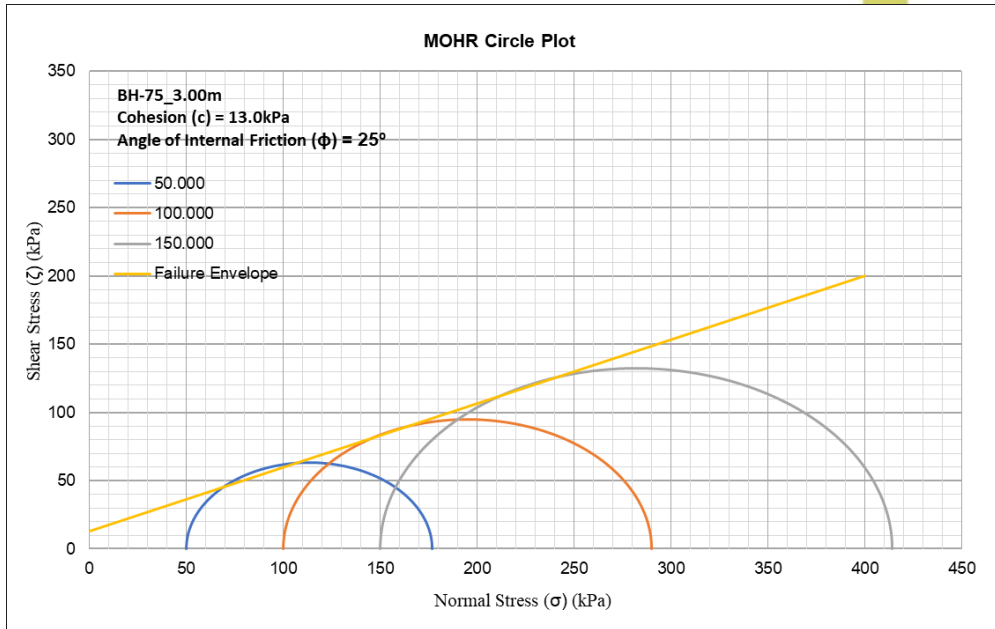
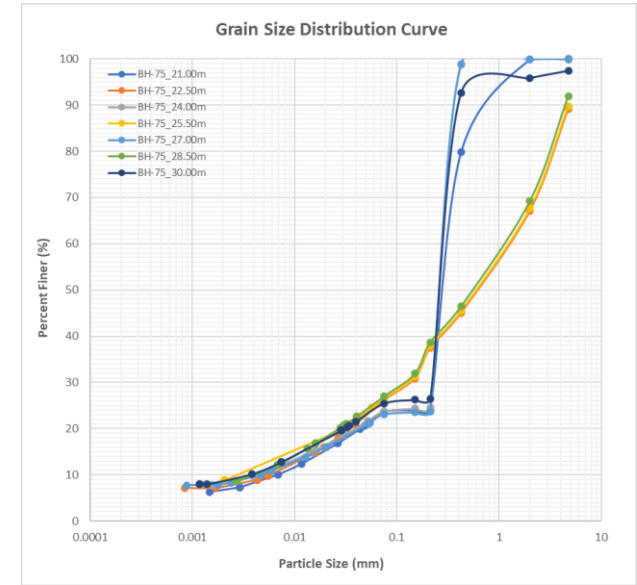
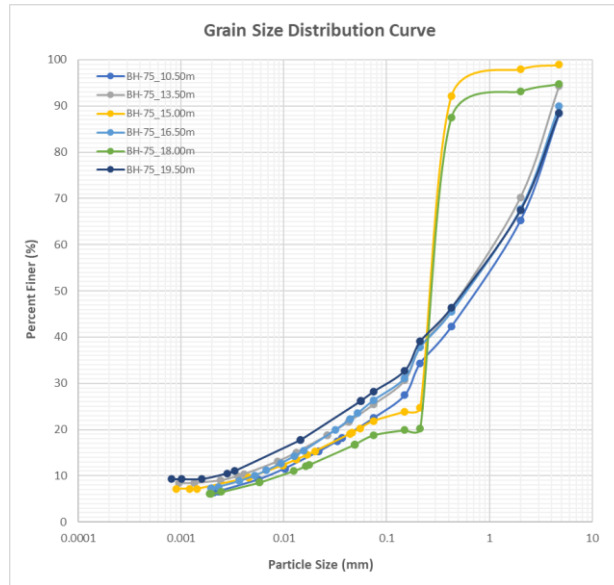
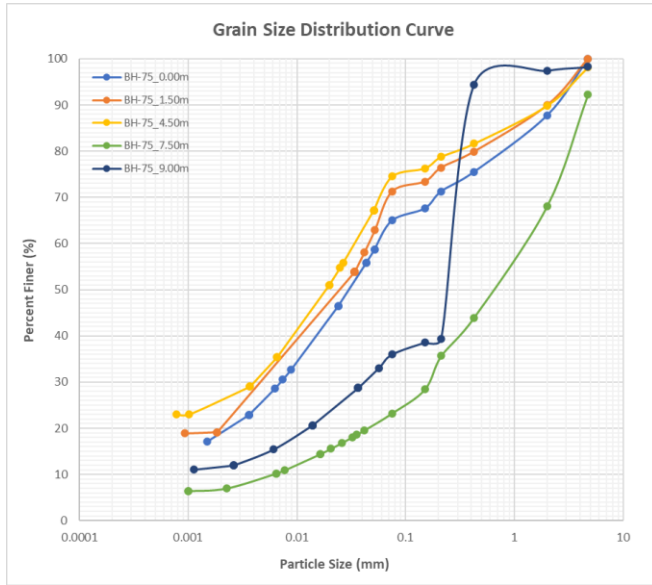
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

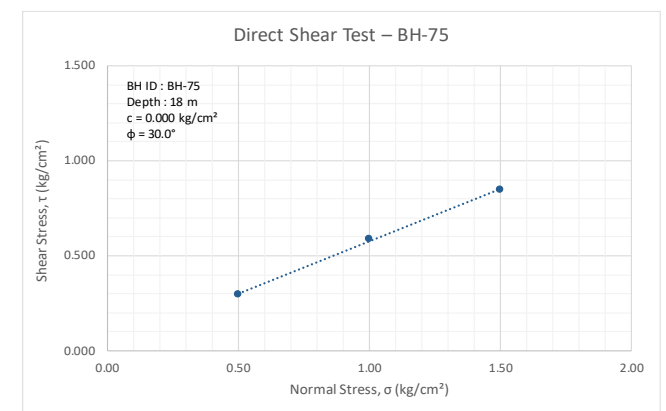
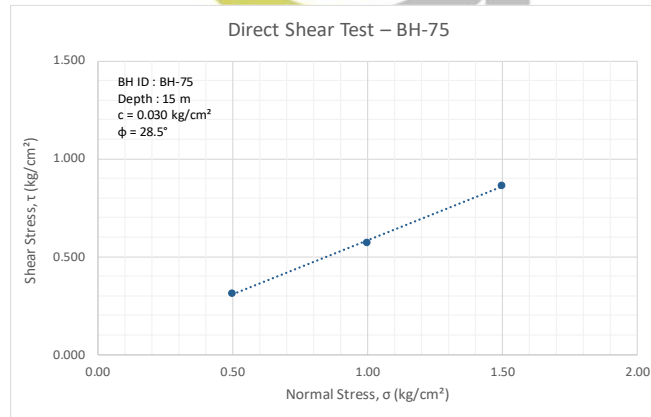
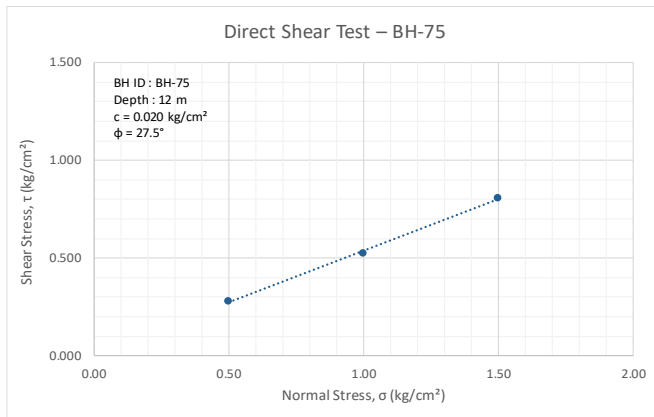
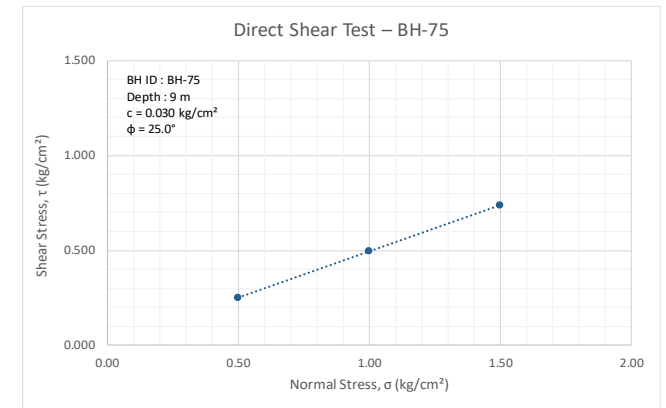
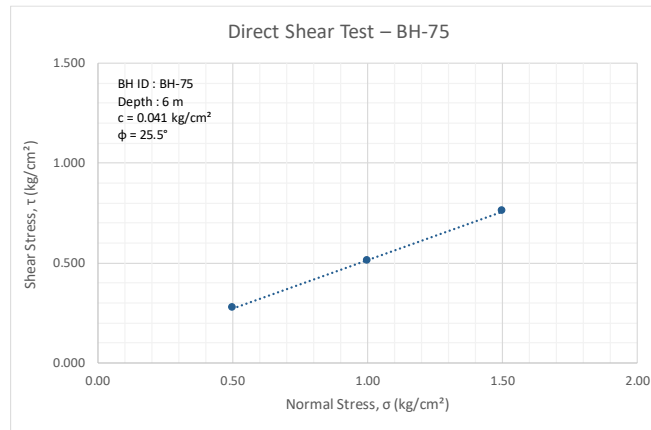
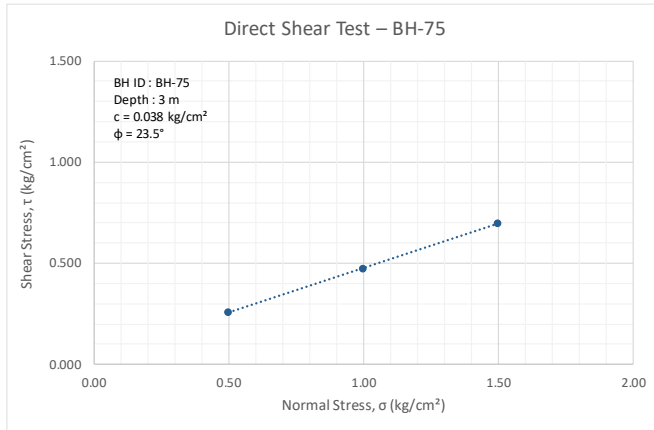


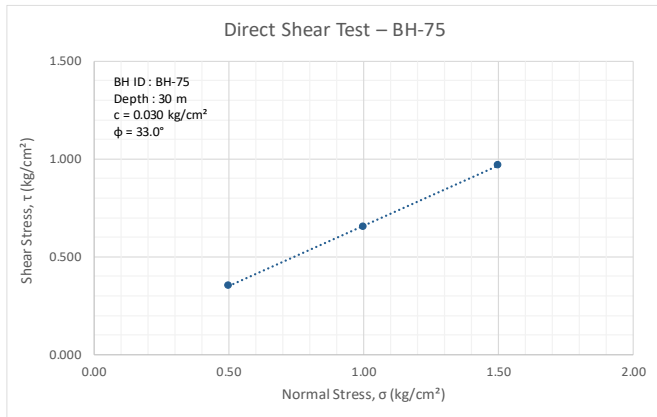
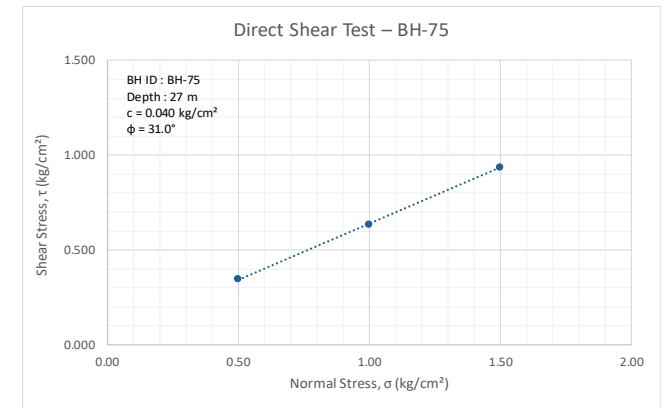
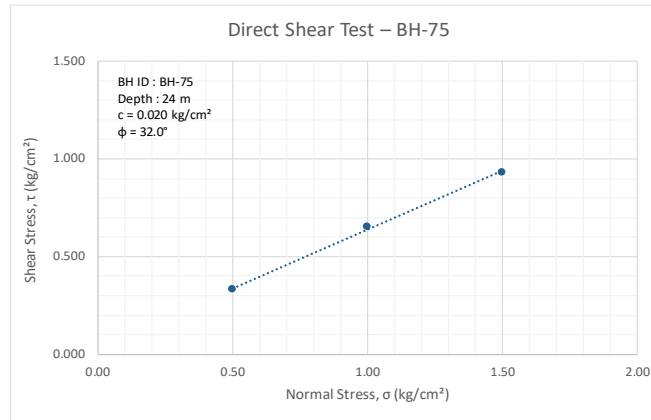
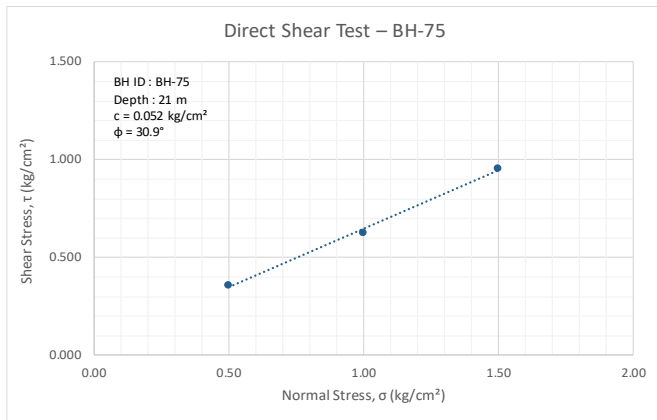
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	75	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	8+031	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	30.00	Start Date:	04-02-2026
Project Code:	158_R09_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	197.8	End Date:	06-02-2026
		Water table Level [m]:	12.00	Location:	Lat:28.520095 , Long: 77.377923

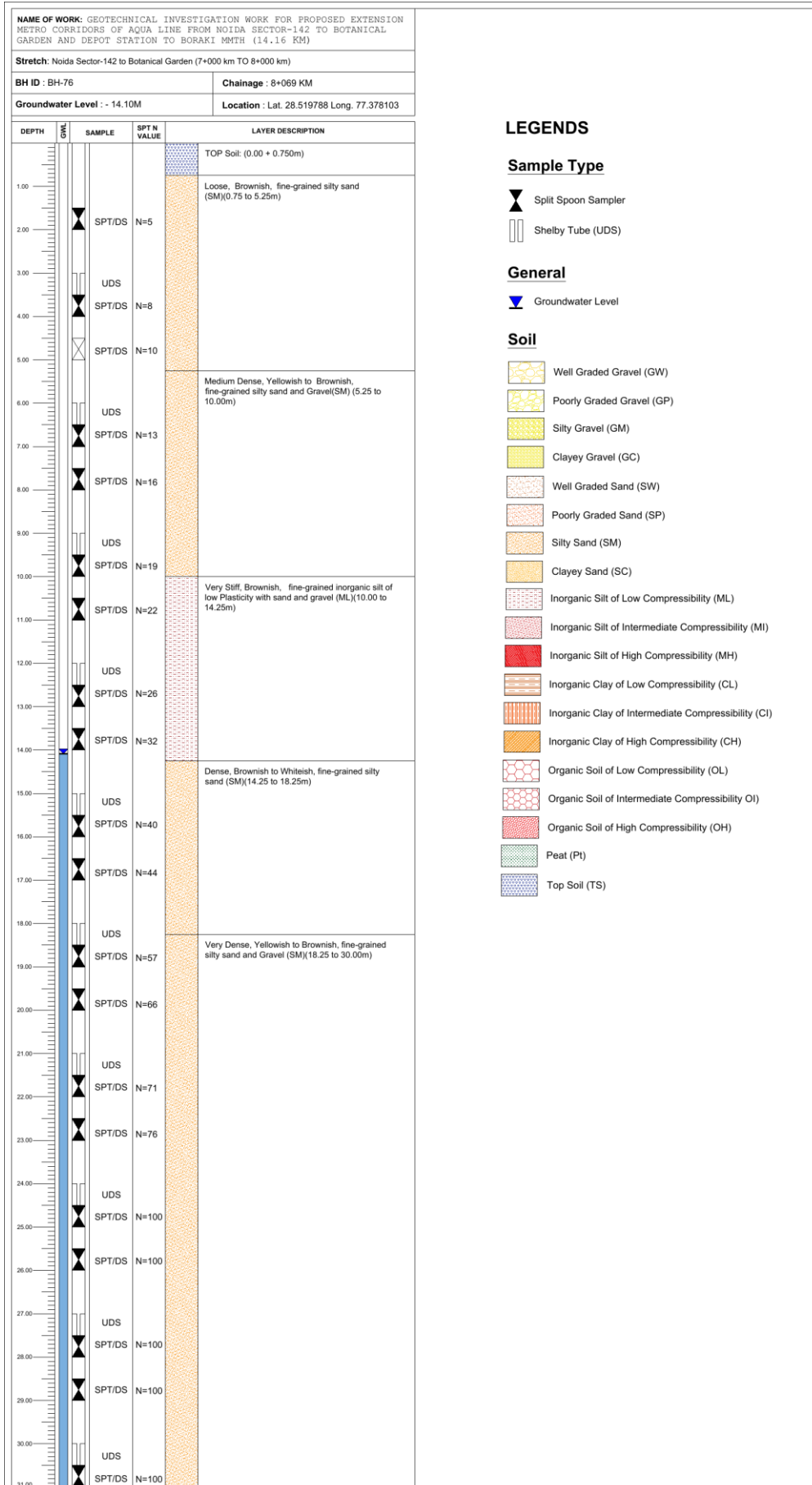
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						0.0	35.0	46.0	19.0	22	NP	NP													
1.50	SPT/DS	Medium Stiff to Stiff, Brownish Grey, fine-grained inorganic silt of low Plasticity with sand and gravel (ML)	3	3	4	7	10	0.0	28.7	51.2	20.1	24	NP	NP													
3.00	UDS							9.9	27.0	41.5	21.6	25	NP	NP	14.40	1.88	1.64	2.63	F	0.04	24	UU	13	25			
3.50	SPT/DS		4	6	7	13	14																				
4.50	SPT/DS		3	6	8	14	14	1.9	23.6	48.4	26.1	26	NP	NP													
6.00	UDS							1.7	28.6	45.0	24.8	23	NP	NP	18.31	1.9	1.61	2.65	F	0.04	26	UU	11	27			
6.50	SPT/DS		6	6	10	16	15																				
7.50	SPT/DS	Medium Dense, Whiteish Grey to Brownish Grey, fine-grained silty sand with Gravel (SM)	5	9	12	21	19	7.8	69.0	16.3	6.9	21	NP	NP													
9.00	DS							1.7	62.3	24.3	11.6	26	NP	NP	17.14			2.62	F	0.03	25						
9.50	SPT/DS		6	8	10	18	15																				
10.50	SPT/DS		8	10	12	22	18	11.7	65.8	15.8	6.7	27	NP	NP													
12.00	DS							5.7	19.4	19.4	13.1	29	NP	NP	15.26			2.64	F	0.02	28						
12.50	SPT/DS		10	12	14	26	17																				
13.50	SPT/DS		12	13	17	30	19	5.7	68.9	16.6	8.9	23	NP	NP													
15.00	DS							1.1	77.0	14.0	7.8	24	NP	NP	22.38			2.65	F	0.03	29						
15.50	SPT/DS		6	8	10	18	13																				
16.50	SPT/DS		8	10	12	22	15	10.0	63.6	19.0	7.4	25	NP	NP													
18.00	DS							5.2	75.9	12.6	6.2	29	NP	NP	21.44			2.69	F	0.00	30						
18.50	SPT/DS		10	12	14	26	16																				
19.50	SPT/DS	12	14	16	30	17	11.5	60.3	18.5	9.8	27	NP	NP														
21.00	DS						0.1	76.3	16.9	6.7	23	NP	NP	26.17			2.69	F	0.05	31							
21.50	SPT/DS	14	16	18	34	18																					
22.50	SPT/DS	16	18	21	39	20	10.8	63.1	18.7	7.5	21	NP	NP														
24.00	DS						0.0	76.3	15.4	8.4	26	NP	NP	25.29			2.77	F	0.02	32							
24.50	SPT/DS	8	16	23	39	19																					
25.50	SPT/DS	12	19	27	46	21	10.3	63.3	19.3	7.2	23	NP	NP														
27.00	DS						0.0	77.0	15.0	8.0	24	NP	NP	24.07			2.77	F	0.04	31							
27.50	SPT/DS	14	16	28	44	20																					
28.50	SPT/DS	15	17	29	46	21	8.0	65.0	19.6	7.4	28	NP	NP														
30.00	DS						2.6	72.0	16.7	8.8	26	NP	NP	26.64			2.65	F	0.03	33							
30.50	SPT/DS	12	21	31	52	22																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

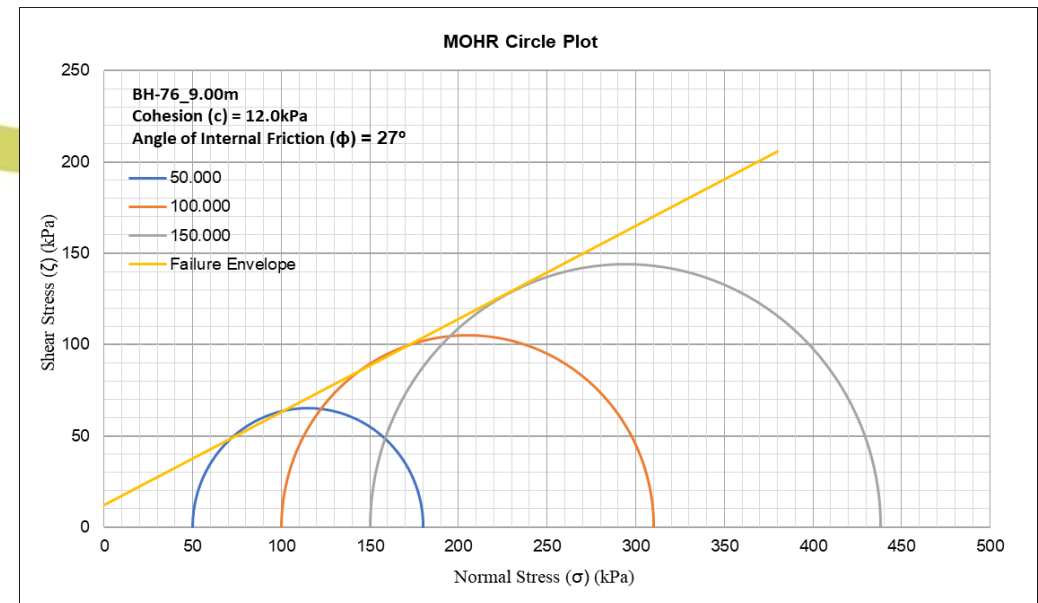
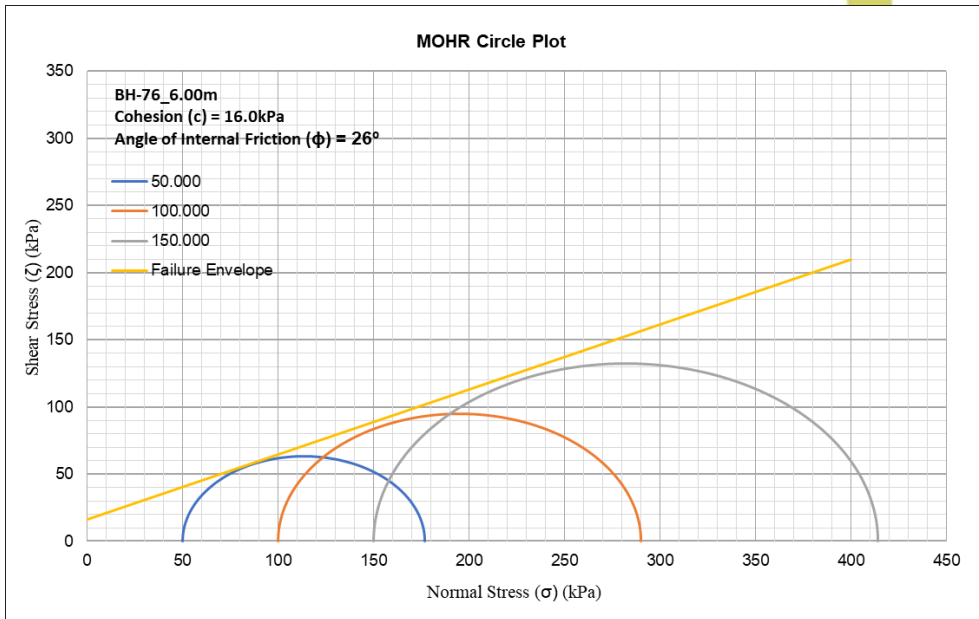
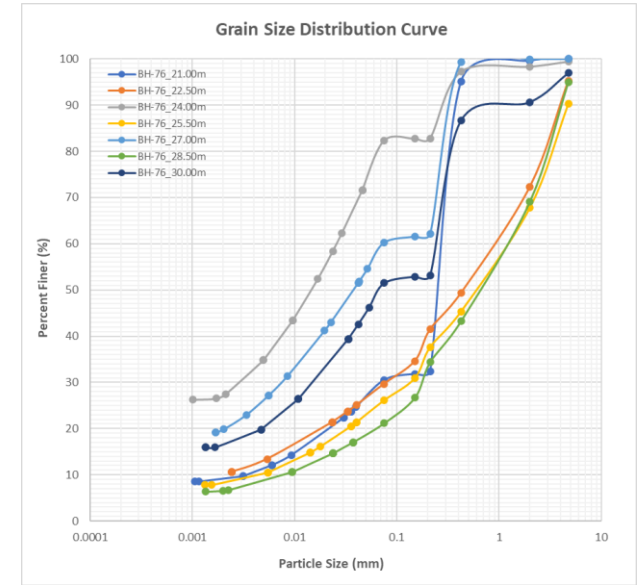
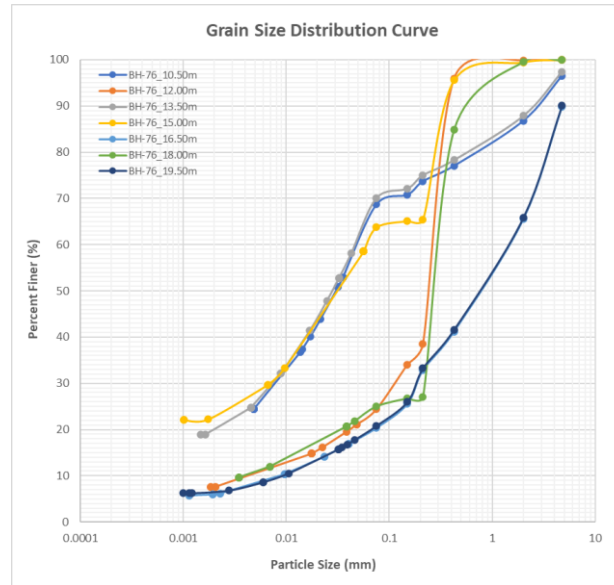
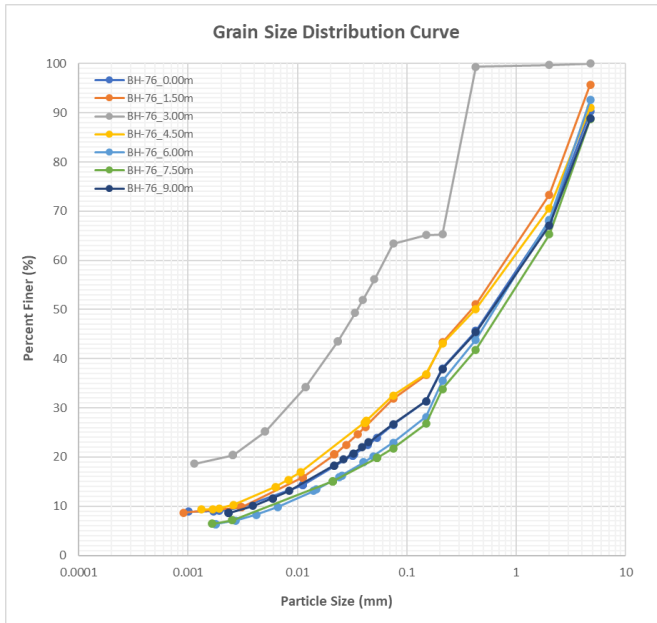
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

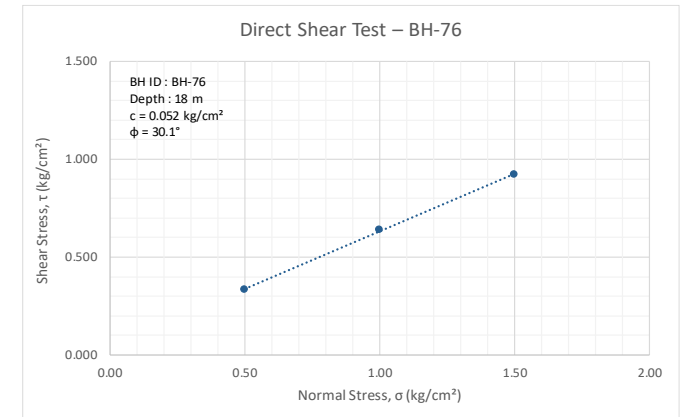
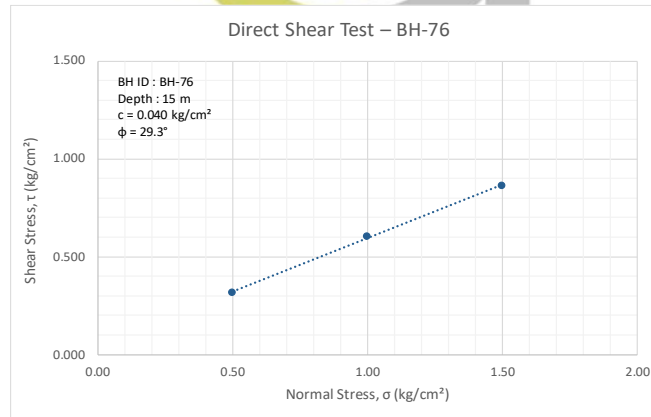
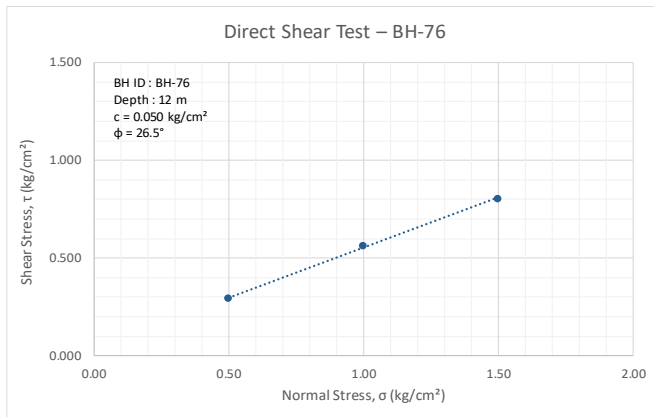
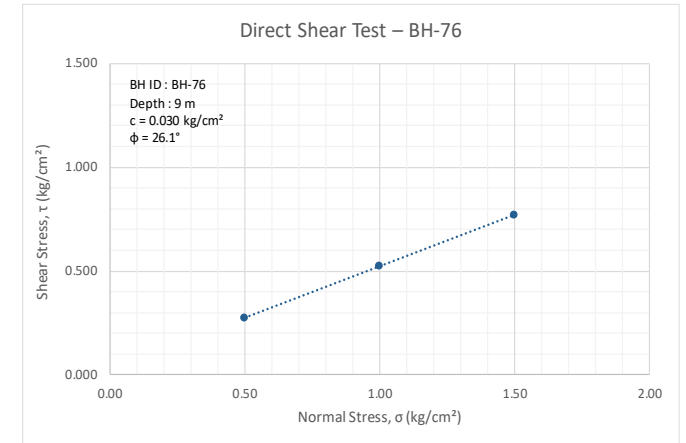
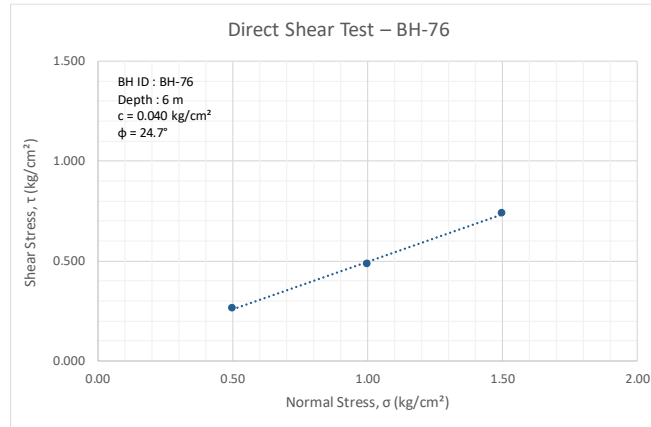
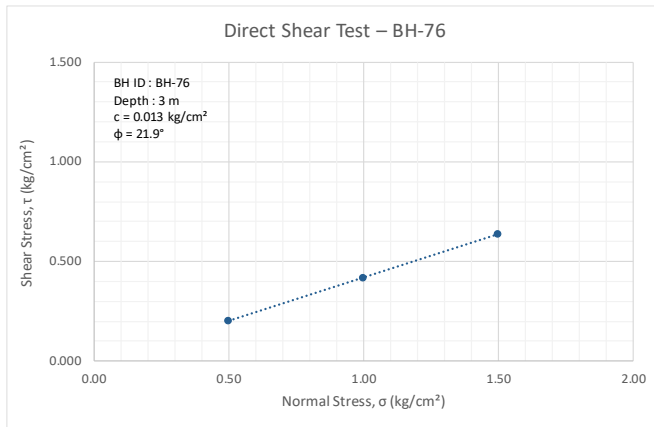


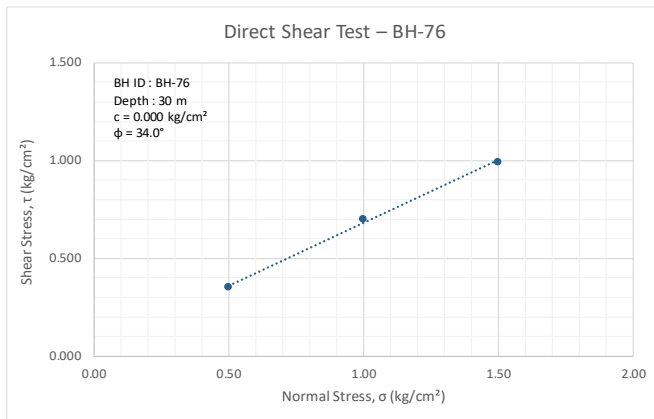
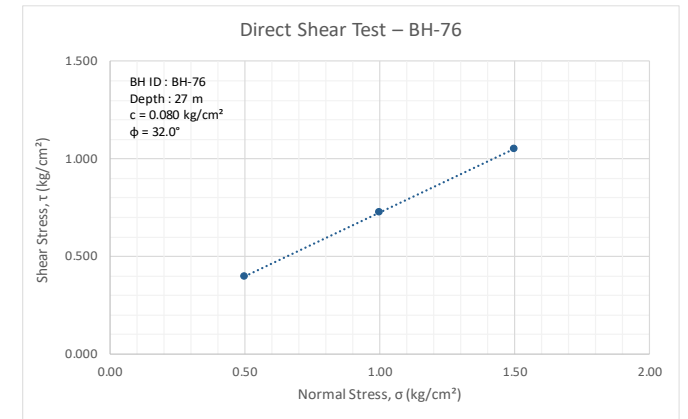
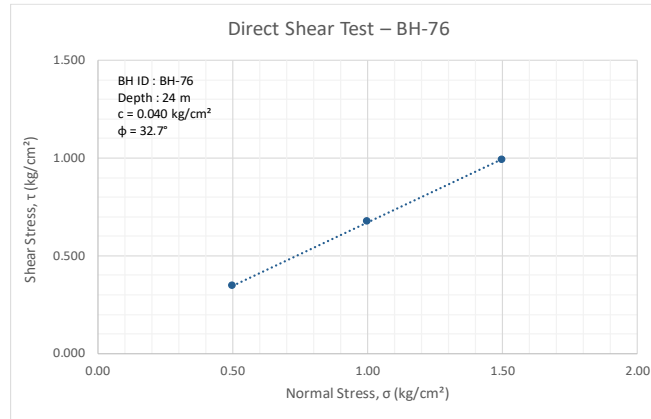
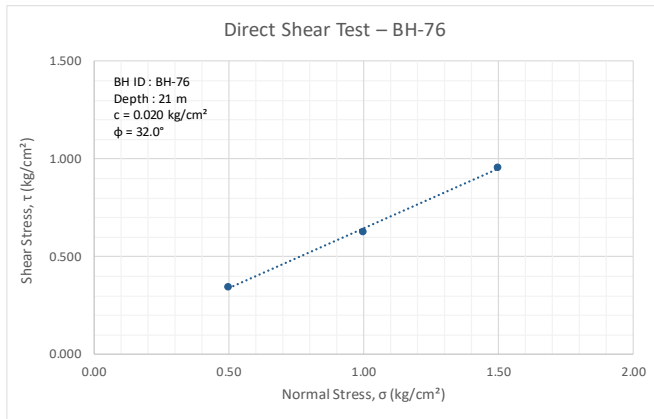
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	76	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	8+069	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	30.00	Start Date:	20-02-2026
Project Code:	158_R09_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	195.6	End Date:	20-02-2026
		Water table Level [m]:	14.00	Location:	Lat:28.519788 , Long: 77.378103

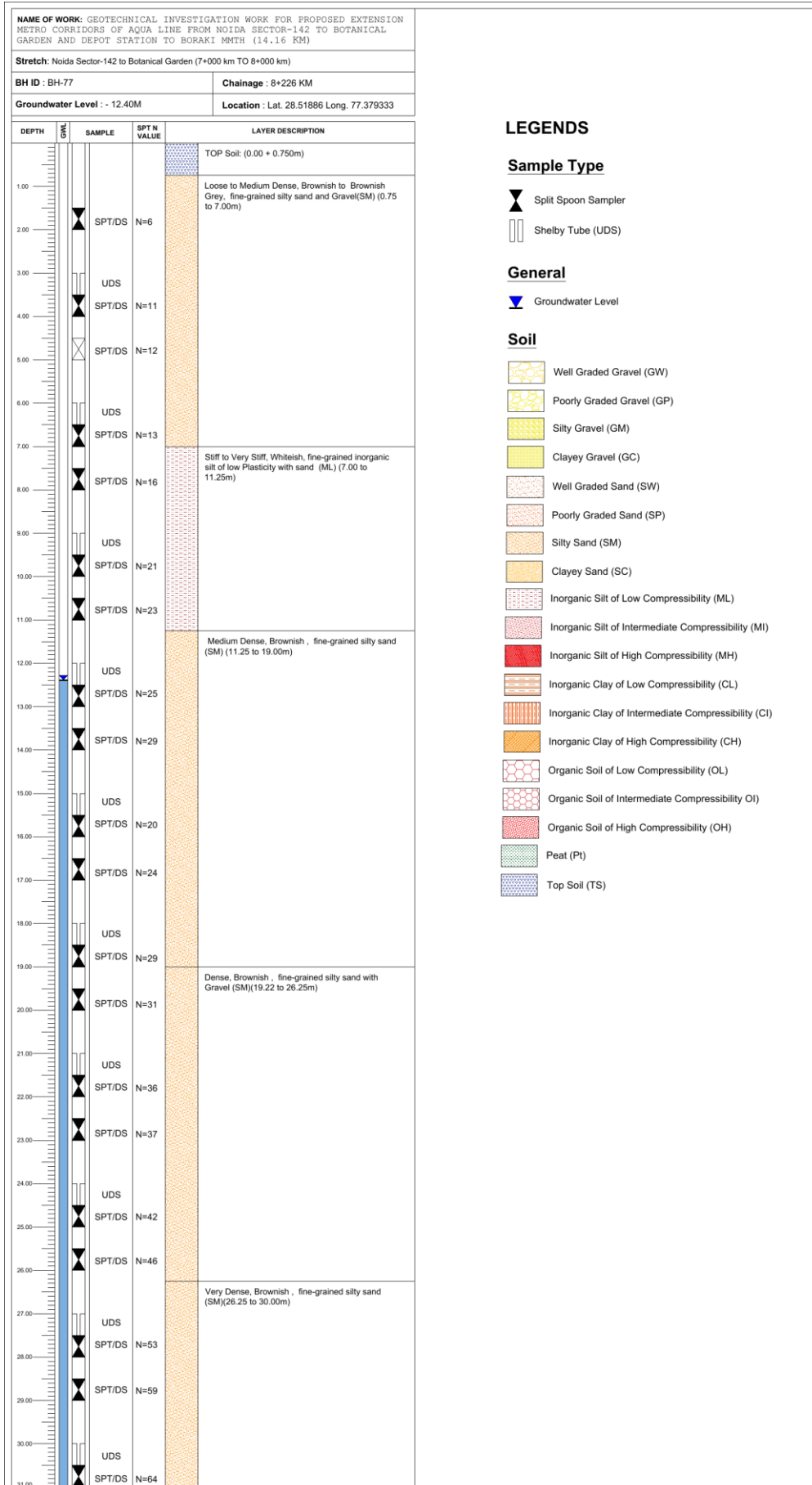
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						9.7	63.7	17.4	9.1	22	NP	NP													
1.50	SPT/DS	Loose, Brownish, fine-grained silty sand (SM)	2	2	3	5	7	4.3	63.8	22.5	9.4	27	NP	NP													
3.00	UDS							0.0	36.6	43.6	19.8	26	NP	NP	19.21	1.73	1.45	2.66	F	0.01	22						
3.50	SPT/DS		2	4	4	8	9																				
4.50	SPT/DS		2	5	5	10	10	8.9	58.5	22.8	9.7	21	NP	NP													
6.00	UDS	Medium Dense, Yellowish to Brownish, fine-grained silty sand and Gravel(SM)						7.4	69.7	16.4	6.6	25	NP	NP	17.51	1.88	1.60	2.67	F	0.04	25	UU	16	26			
6.50	SPT/DS		3	6	7	13	12																				
7.50	SPT/DS		5	8	8	16	15	11.3	66.9	15.0	6.8	26	NP	NP													
9.00	UDS							11.2	62.1	25.7	1.0	29	NP	NP	16.98	1.9	1.62	2.64	F	0.03	26	UU	12	27			
9.50	SPT/DS		5	9	10	19	16																				
10.50	SPT/DS	Very Stiff, Brownish, fine-grained inorganic silt of low Plasticity with sand and gravel (ML)	7	10	12	22	18	3.5	27.8	46.2	22.5	22	NP	NP													
12.00	DS							0.0	75.6	16.8	7.6	24	NP	NP	18.54			2.69	F	0.05	27						
12.50	SPT/DS		9	12	14	26	20																				
13.50	SPT/DS		10	13	19	32	23	2.6	27.4	49.9	20.1	26	NP	NP													
15.00	DS	Dense, Brownish to Whiteish, fine-grained silty sand (SM)						0.0	36.2	40.8	23.0	27	NP	NP	16.61			2.68	F	0.04	29						
15.50	SPT/DS		14	18	22	40	21																				
16.50	SPT/DS		16	20	24	44	22	10.2	69.5	14.3	6.0	29	NP	NP													
18.00	DS							0.1	74.9	19.5	5.5	26	NP	NP	17.18			2.65	F	0.05	30						
18.50	SPT/DS	Very Dense, Yellowish to Brownish, fine-grained silty sand and Gravel (SM)	20	26	31	57	26																				
19.50	SPT/DS		24	31	35	66	28	9.9	69.3	14.2	6.6	23	NP	NP													
21.00	DS							0.0	69.5	21.4	9.1	27	NP	NP	17.03			2.62	F	0.02	32						
21.50	SPT/DS		22	33	38	71	29																				
22.50	SPT/DS		25	36	40	76	30	4.7	65.6	20.3	9.4	21	NP	NP													
24.00	DS							0.6	17.1	55.1	27.2	26	NP	NP	18.60			2.73	F	0.04	33						
24.50	SPT/DS		32	42	(50/12CM)	100	37																				
25.50	SPT/DS		39	(50/10CM)	-	100	36	9.7	64.2	17.8	8.4	28	NP	NP													
27.00	DS							0.0	39.8	40.5	19.8	26	NP	NP	18.61			2.68	F	0.08	32						
27.50	SPT/DS		40	(50/7CM)	-	100	35																				
28.50	SPT/DS	46	(50/4CM)	-	100	35	5.1	73.7	14.6	6.6	24	NP	NP														
30.00	DS						3.1	45.4	34.8	16.6	26	NP	NP	14.61			2.70	F	0.00	34							
30.50	SPT/DS	48	(50/2CM)	-	100	34																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

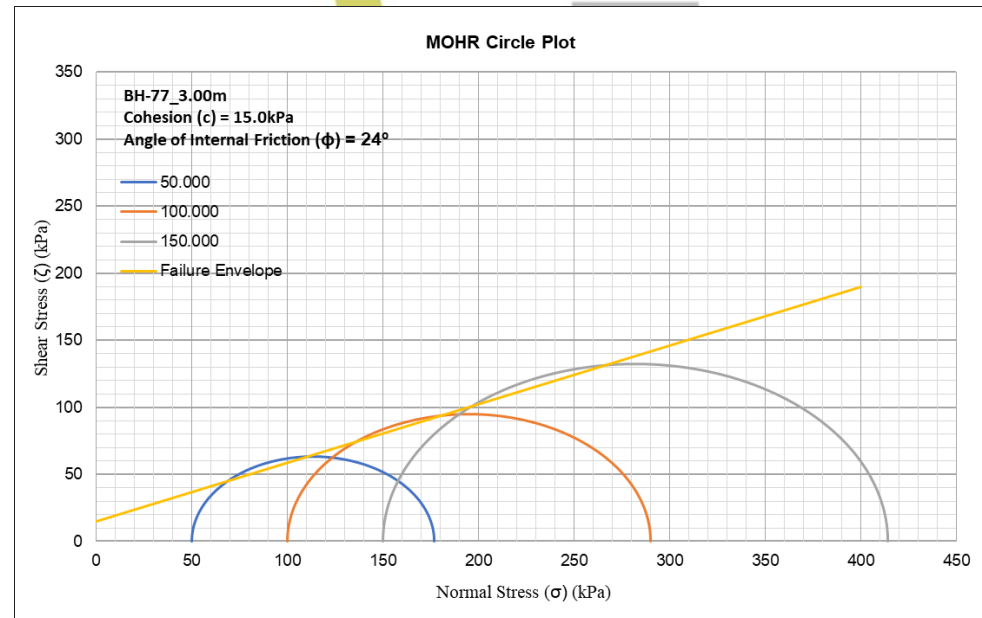
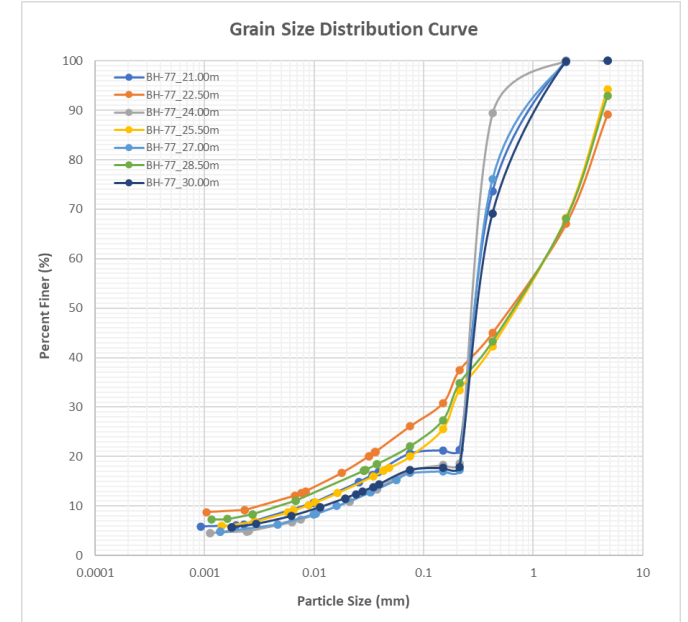
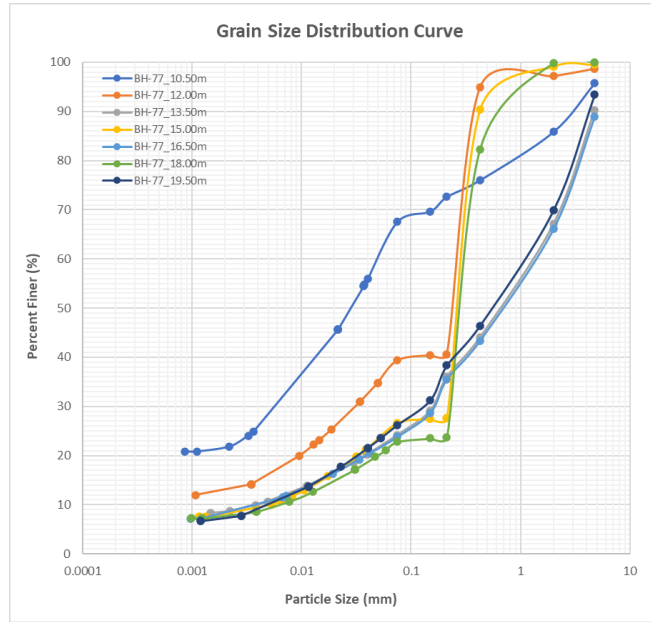
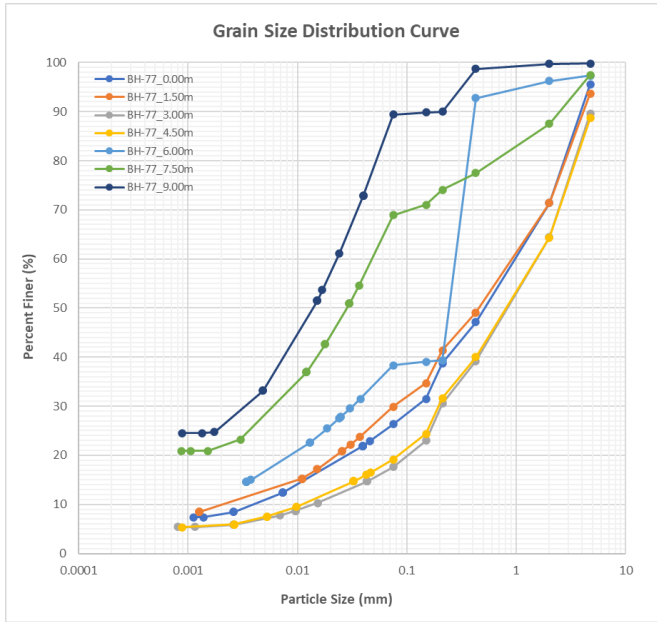
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

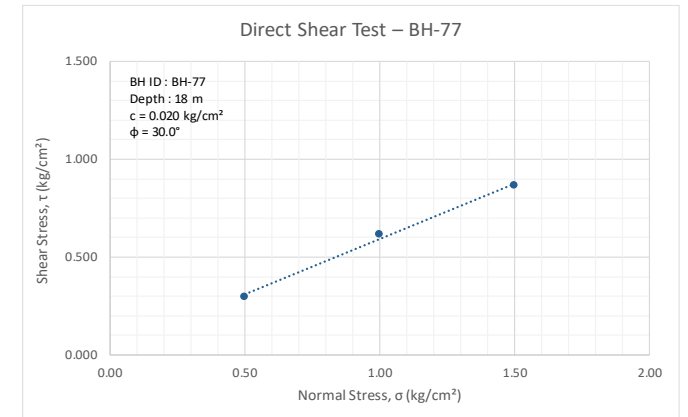
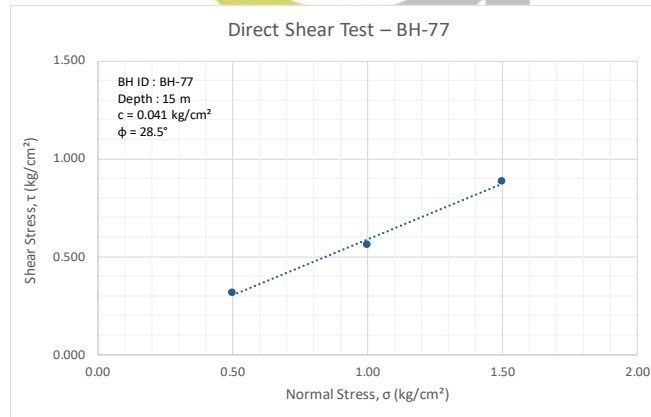
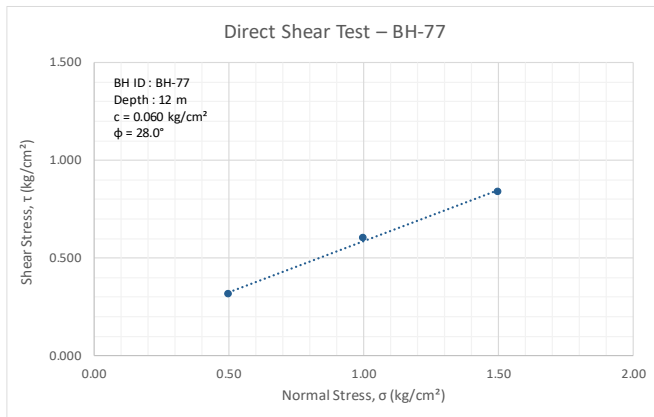
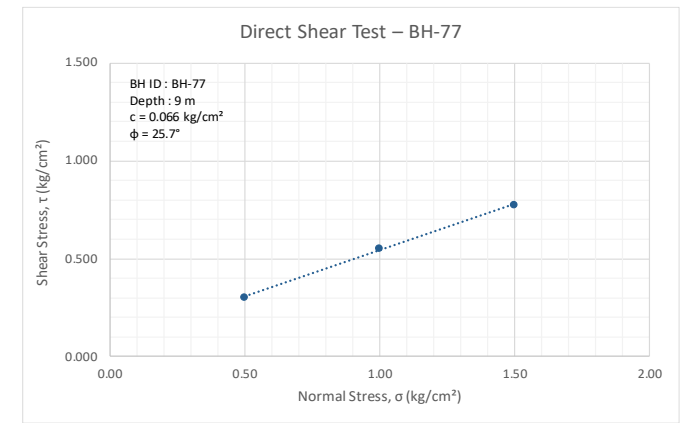
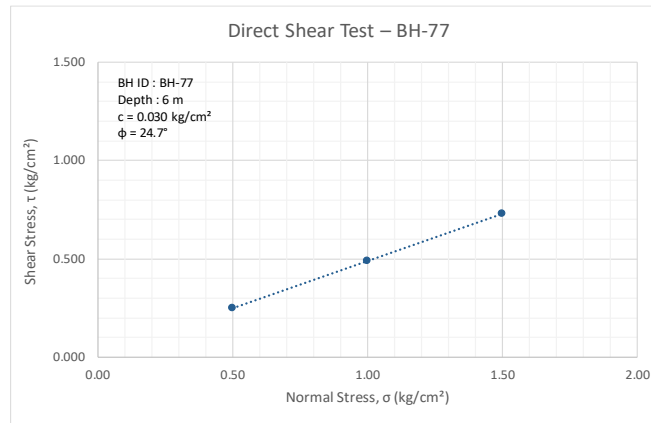
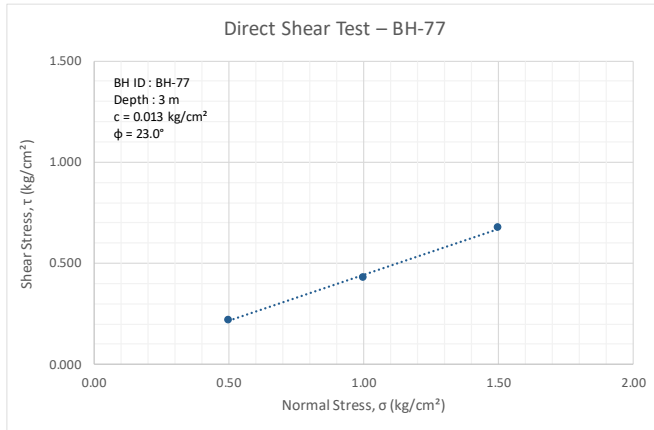


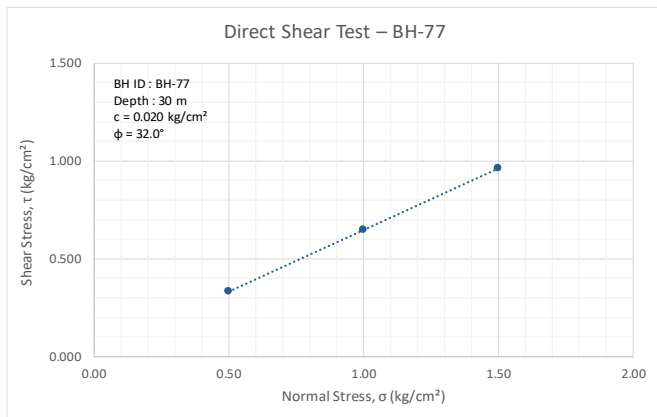
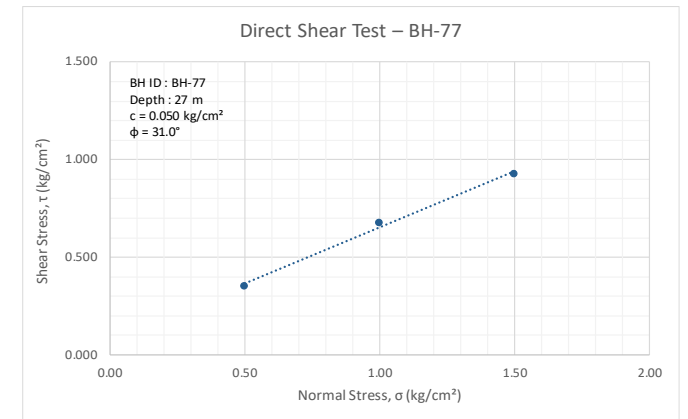
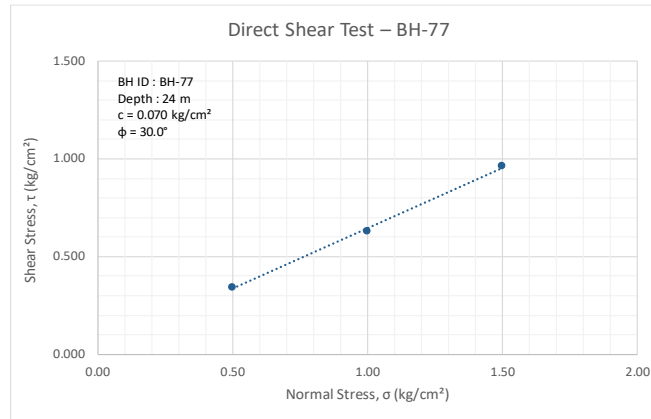
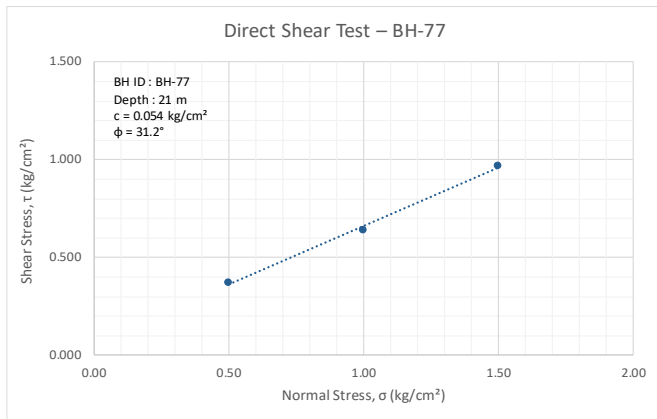
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	77	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	8+226	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	30.00	Start Date:	04-02-2026
Project Code:	158_R09_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	196.9	End Date:	05-02-2026
		Water table Level [m]:	12.40	Location:	Lat:28.51886 , Long: 77.379333

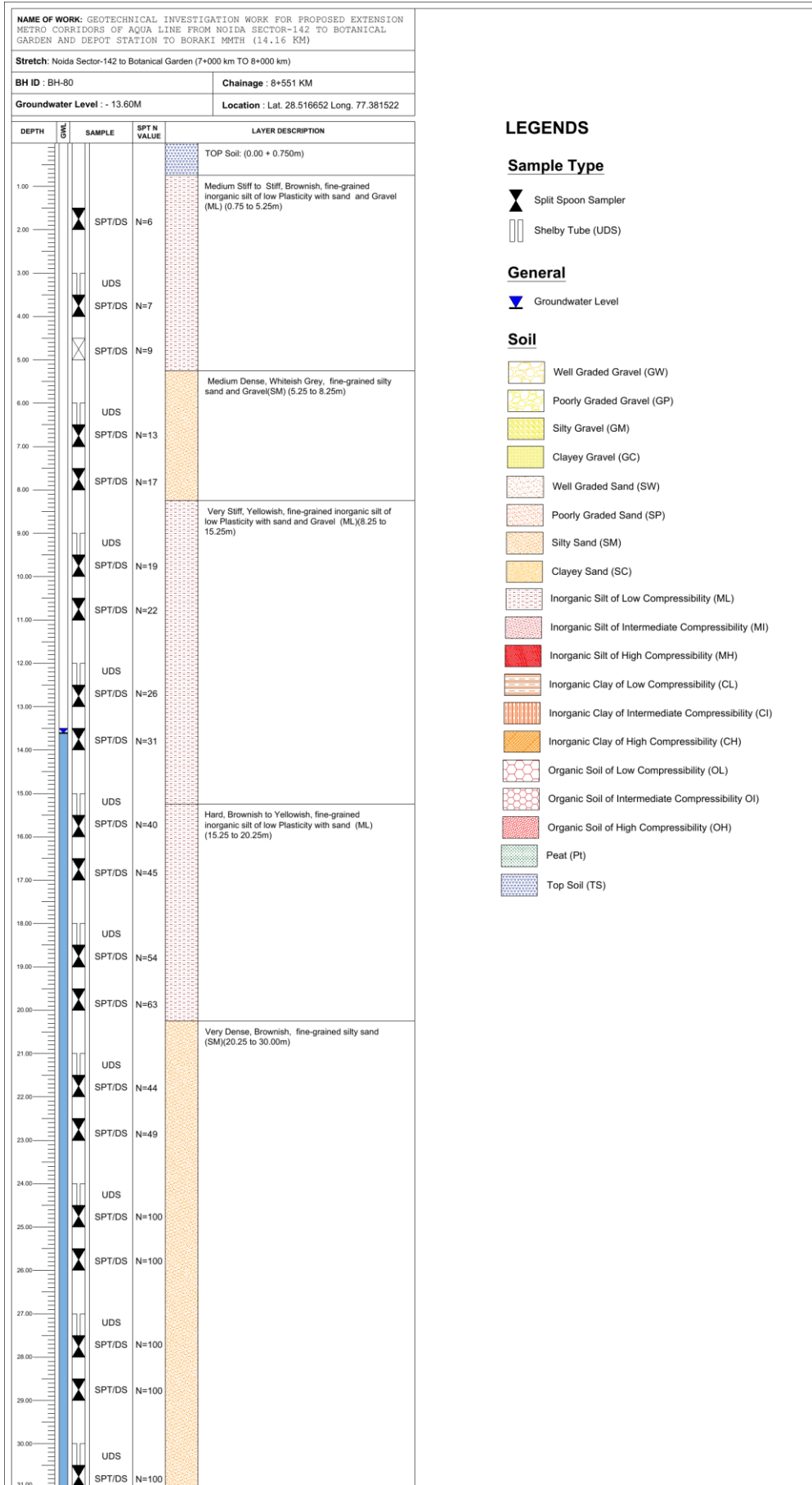
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						4.4	69.3	18.3	8.0	22	NP	NP													
1.50	SPT/DS	Loose to Medium Dense, Brownish to Brownish Grey, fine-grained silty sand and Gravel(SM)	2	3	3	6	8	6.3	63.8	20.0	9.9	24	NP	NP													
3.00	UDS							10.4	72.0	11.9	5.7	26	NP	NP	19.38	1.92	1.61	2.63	F	0.01	23	UU	15	24			
3.50	SPT/DS		4	5	6	11	12																				
4.50	SPT/DS		4	5	7	12	12	11.3	69.6	13.3	5.8	29	NP	NP													
6.00	DS							2.7	59.0	24.9	13.5	25	NP	NP	25.12			2.76	F	0.03	25						
6.50	SPT/DS		5	6	7	13	12																				
7.50	SPT/DS	Stiff to Very Stiff, Whiteish, fine-grained inorganic silt of low Plasticity with sand (ML)	6	7	9	16	15	2.5	28.6	47.1	21.8	23	NP	NP													
9.00	DS							0.2	10.4	63.5	25.9	27	NP	NP	23.76			2.70	F	0.07	26						
9.50	SPT/DS		7	9	12	21	18																				
10.50	SPT/DS		7	10	13	23	19	4.3	28.2	45.8	21.7	26	NP	NP													
12.00	DS	Medium Dense, Brownish, fine-grained silty sand (SM)						1.3	59.3	26.2	13.1	23	NP	NP	12.46			2.83	F	0.06	28						
12.50	SPT/DS		8	12	13	25	17																				
13.50	SPT/DS		10	13	16	29	18	9.7	66.1	15.6	8.6	25	NP	NP													
15.00	DS							0.4	72.9	18.4	8.3	23	NP	NP	21.36			2.67	F	0.04	29						
15.50	SPT/DS		7	9	11	20	14																				
16.50	SPT/DS		8	10	14	24	16	11.1	65.1	15.3	8.5	26	NP	NP													
18.00	DS							0.0	77.2	15.0	7.8	21	NP	NP	18.20			2.69	F	0.02	30						
18.50	SPT/DS		10	13	16	29	17																				
19.50	SPT/DS	Dense, Brownish, fine-grained silty sand with Gravel (SM)	12	14	17	31	18	6.6	67.2	18.9	7.4	27	NP	NP													
21.00	DS							0.0	79.4	14.5	6.1	28	NP	NP	17.22			2.75	F	0.05	31						
21.50	SPT/DS		13	17	19	36	19																				
22.50	SPT/DS		15	17	20	37	19	10.9	63.1	17.0	9.1	29	NP	NP													
24.00	DS							0.0	82.9	12.3	4.8	25	NP	NP	14.53			2.61	F	0.07	30						
24.50	SPT/DS	10	18	24	42	20																					
25.50	SPT/DS	12	20	26	46	21	5.7	74.3	13.7	6.3	23	NP	NP														
27.00	DS	Very Dense, Brownish, fine-grained silty sand (SM)						0.0	83.4	11.4	5.2	21	NP	NP	13.05			2.70	F	0.05	31						
27.50	SPT/DS		14	22	31	53	23																				
28.50	SPT/DS		17	24	35	59	24	7.1	70.9	14.3	7.8	24	NP	NP													
30.00	DS							0.0	82.8	11.4	5.8	29	NP	NP	13.58			2.73	F	0.02	32						
30.50	SPT/DS		17	26	38	64	25																				

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

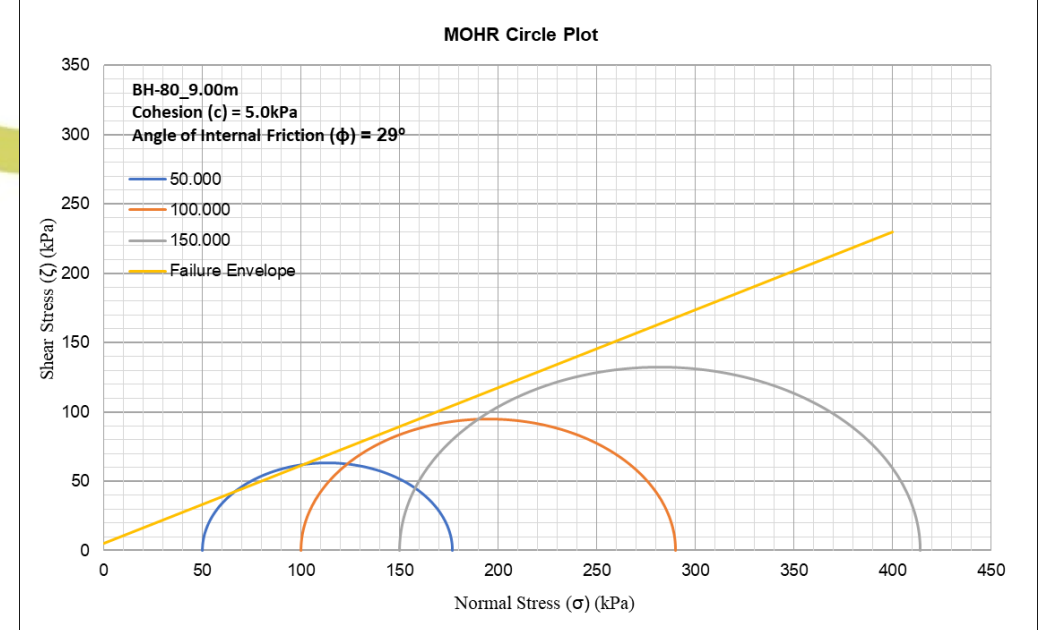
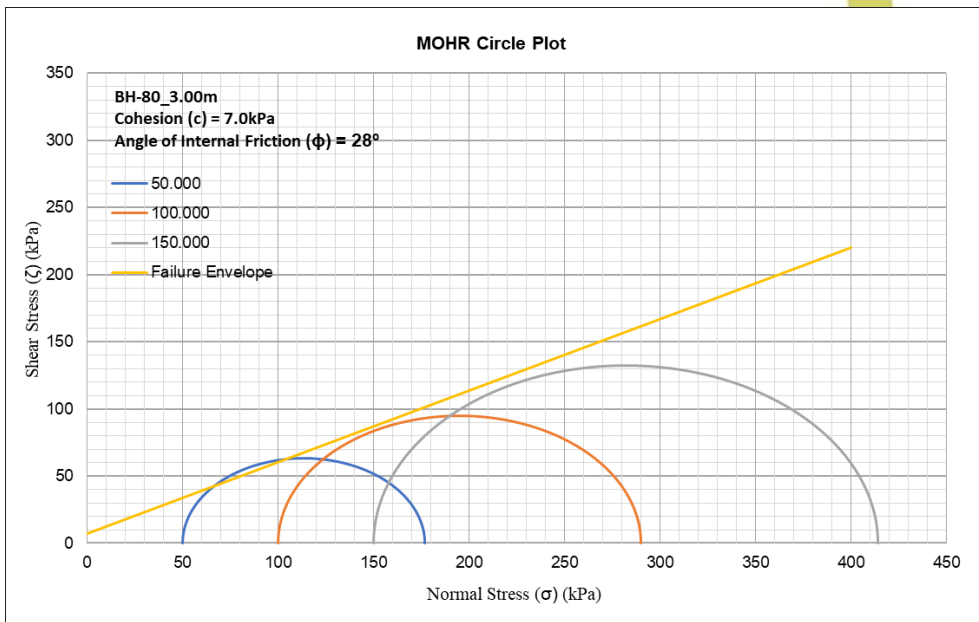
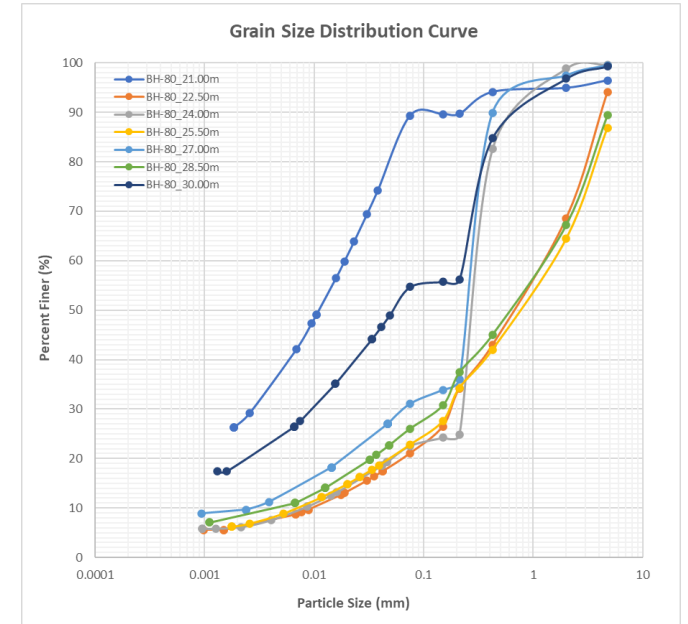
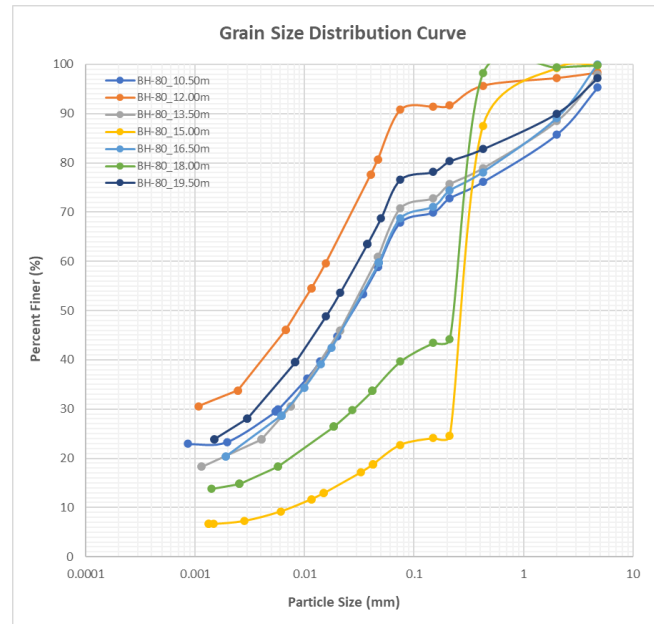
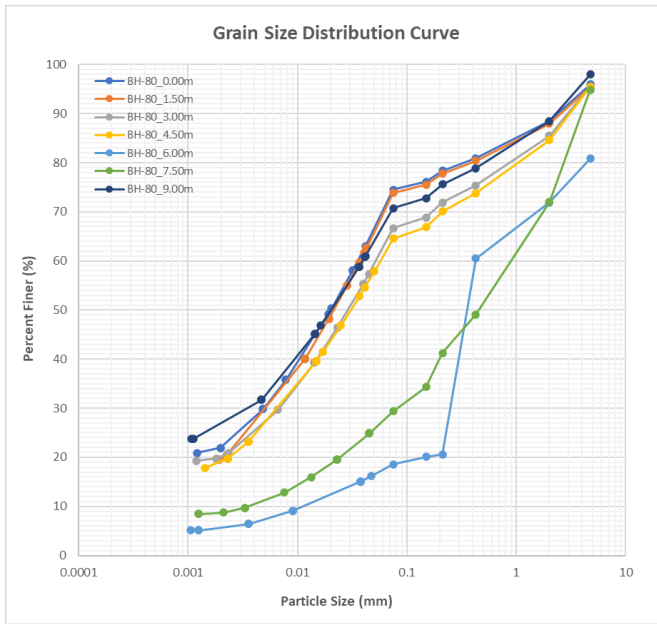
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

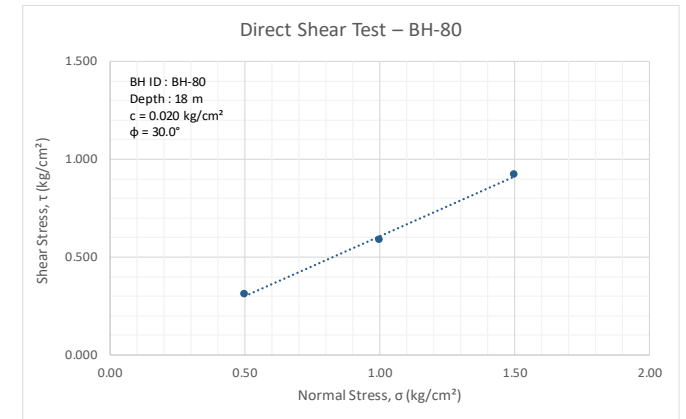
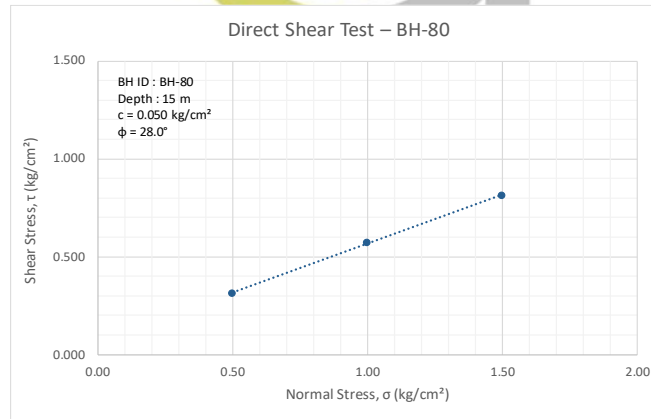
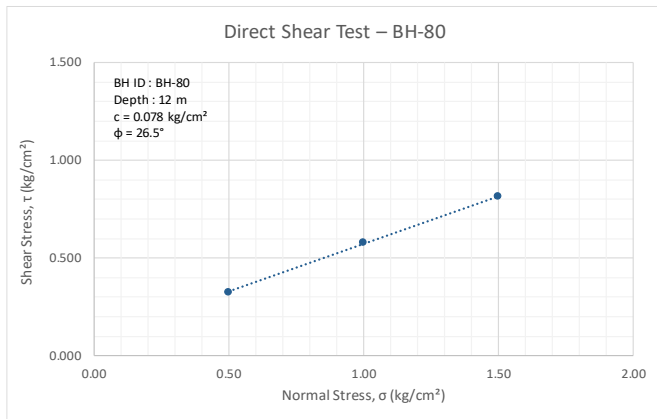
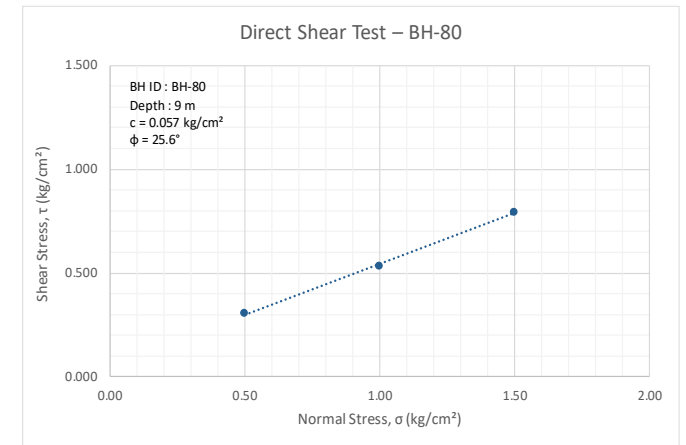
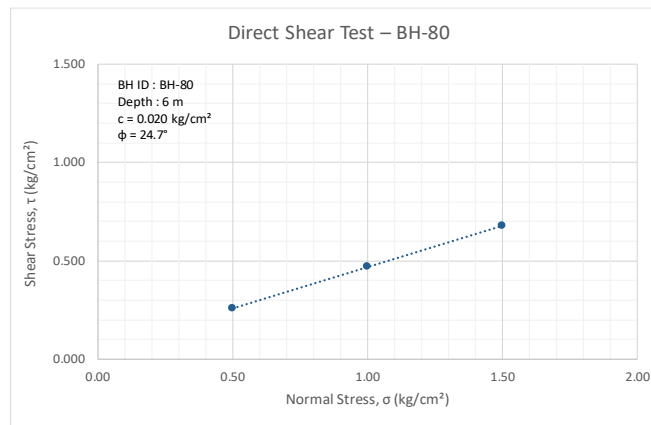
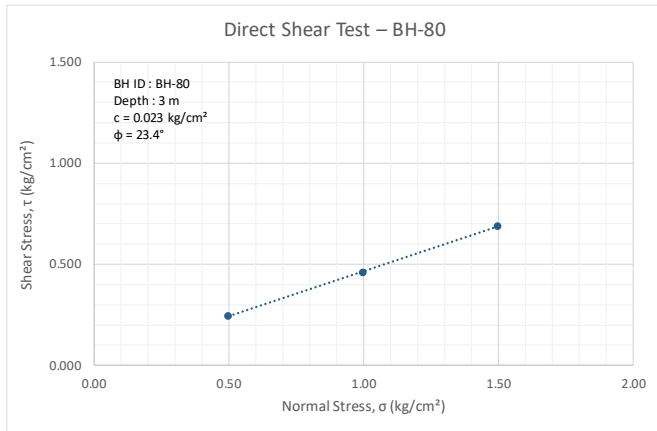


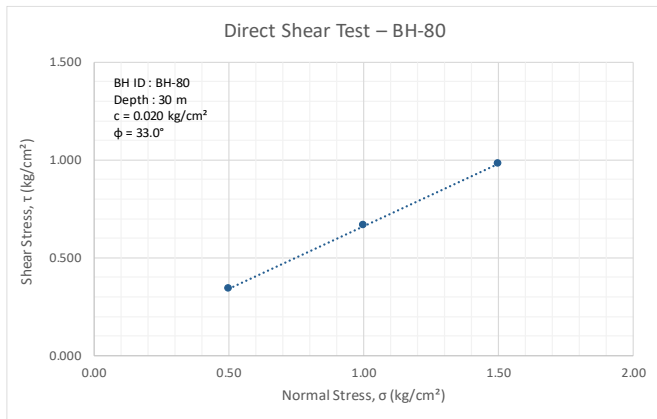
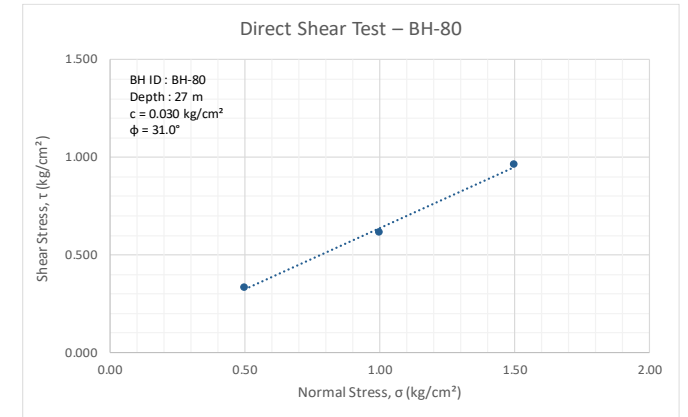
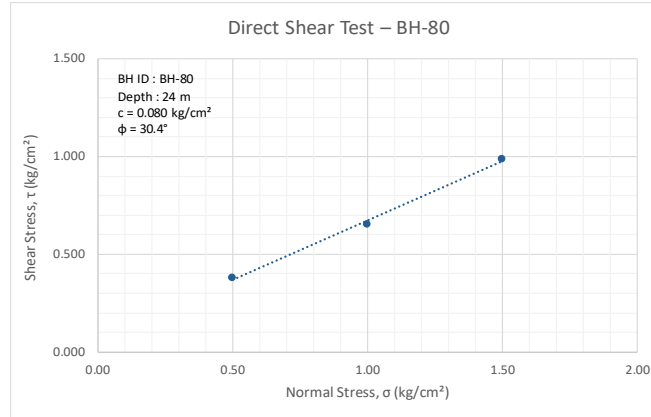
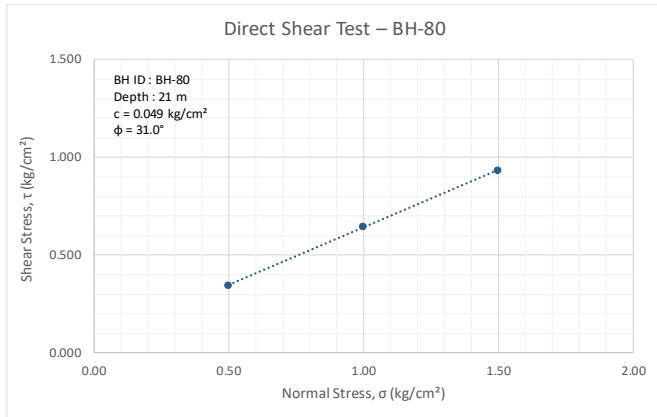
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	80	Contractor:	Goma Engineering & Consultancy
		Chainage [km]:	8+551	Method of Drilling:	Rotary Drilling
Client:	Noida Metro Rail Corporation (NMRC) Limited	Depth [m]:	30.00	Start Date:	19-02-2026
Stretch:	Noida Sector-142 to Botanical Garden	Elevation [m]:	200.2	End Date:	20-02-2026
Project Code:	158_R09_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Water table Level [m]:	13.60	Location:	Lat:28.516652 , Long: 77.381522

Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						4.1	21.4	52.5	22.0	22	NP	NP													
1.50	SPT/DS	Medium Stiff to Stiff, Brownish, fine-grained inorganic silt of low Plasticity with sand and Gravel (ML)	2	3	3	6	8	4.5	21.6	54.1	19.7	27	NP	NP													
3.00	UDS							4.4	28.9	46.5	20.2	24	NP	NP	10.82	1.86	1.68	2.62	F	0.02	23	UU	7	28			
3.50	SPT/DS		2	3	4	7	8																				
4.50	SPT/DS		2	4	5	9	9	4.6	30.9	45.3	19.2	23	NP	NP													
6.00	UDS	Medium Dense, Whiteish Grey, fine-grained silty sand and Gravel(SM)						19.2	62.2	12.9	5.7	27	NP	NP	15.81	1.78	1.54	2.60	F	0.02	25						
6.50	SPT/DS		4	6	7	13	12																				
7.50	SPT/DS		5	8	9	17	15	5.2	65.4	20.7	8.7	24	NP	NP													
9.00	UDS	Very Stiff, Yellowish, fine-grained inorganic silt of low Plasticity with sand and Gravel (ML)						2.0	27.3	43.7	27.0	23	NP	NP	21.68	1.89	1.55	2.63	F	0.06	26	UU	5	29			
9.50	SPT/DS		6	9	10	19	16																				
10.50	SPT/DS		7	10	12	22	18	4.7	27.4	44.4	23.5	27	NP	NP													
12.00	UDS							1.7	7.5	57.8	33.0	26	NP	NP	31.32			2.68	F	0.08	27						
12.50	SPT/DS		9	11	15	26	20																				
13.50	SPT/DS		10	14	17	31	22	2.1	27.1	50.1	20.8	26	NP	NP													
15.00	DS							0.2	77.1	15.8	7.0	28	NP	NP	22.45			2.67	F	0.05	28						
15.50	SPT/DS	Hard, Brownish to Yellowish, fine-grained inorganic silt of low Plasticity with sand (ML)	13	18	22	40	21																				
16.50	SPT/DS		15	20	25	45	23	0.0	31.3	48.0	20.8	29	NP	NP													
18.00	DS							0.2	60.2	25.3	14.4	26	NP	NP	19.33			2.72	F	0.02	30						
18.50	SPT/DS		18	24	30	54	25																				
19.50	SPT/DS	21	28	35	63	28	2.8	20.6	51.0	25.7	23	NP	NP														
21.00	DS	Very Dense, Brownish, fine-grained silty sand (SM)						3.6	7.1	62.4	27.0	25	NP	NP	28.98			2.66	F	0.05	31						
21.50	SPT/DS		15	20	24	44	21																				
22.50	SPT/DS		18	22	27	49	22	5.9	73.1	14.9	6.1	26	NP	NP													
24.00	DS							0.4	77.0	16.5	6.1	23	NP	NP	18.68			2.69	F	0.08	30						
24.50	SPT/DS		40 (50/3 cm)	-	-	100	37																				
25.50	SPT/DS		44 (50/5 cm)	-	-	100	37	13.2	64.0	16.4	6.4	28	NP	NP													
27.00	DS							0.5	68.4	21.5	9.5	22	NP	NP	17.60			2.79	F	0.03	31						
27.50	SPT/DS		48 (50/7 cm)	-	-	100	36																				
28.50	SPT/DS		45 (50/7 cm)	-	-	100	35	10.6	63.4	17.7	8.3	25	NP	NP													
30.00	DS							0.7	44.6	35.8	18.9	26	NP	NP	15.76			2.64	F	0.02	33						
30.50	SPT/DS	(50/6 cm)	-	-	100	34																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.

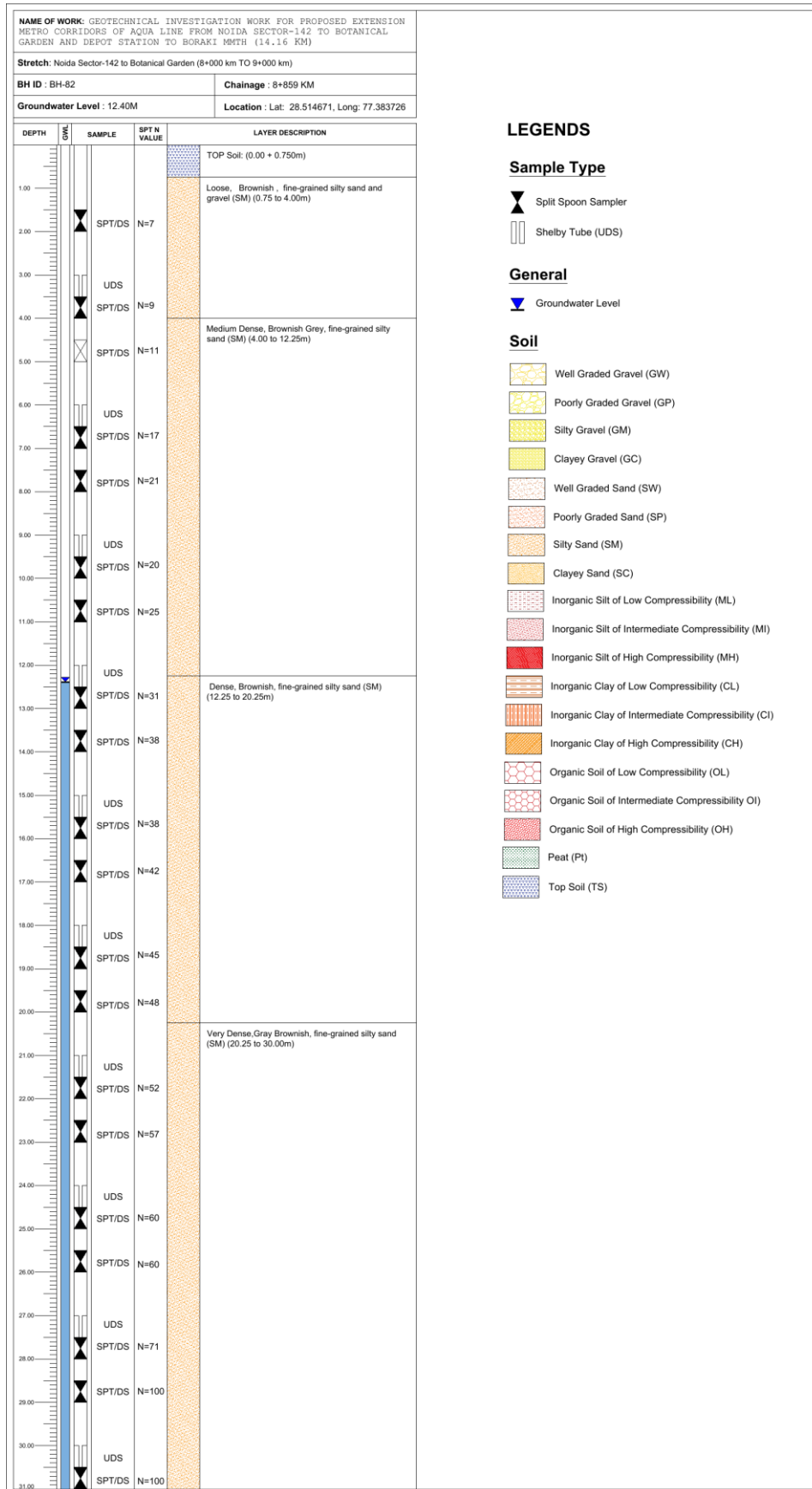








C.10. Zone 10: CH: 8+550 km to 9+430 km (BH-82 to BH-89)

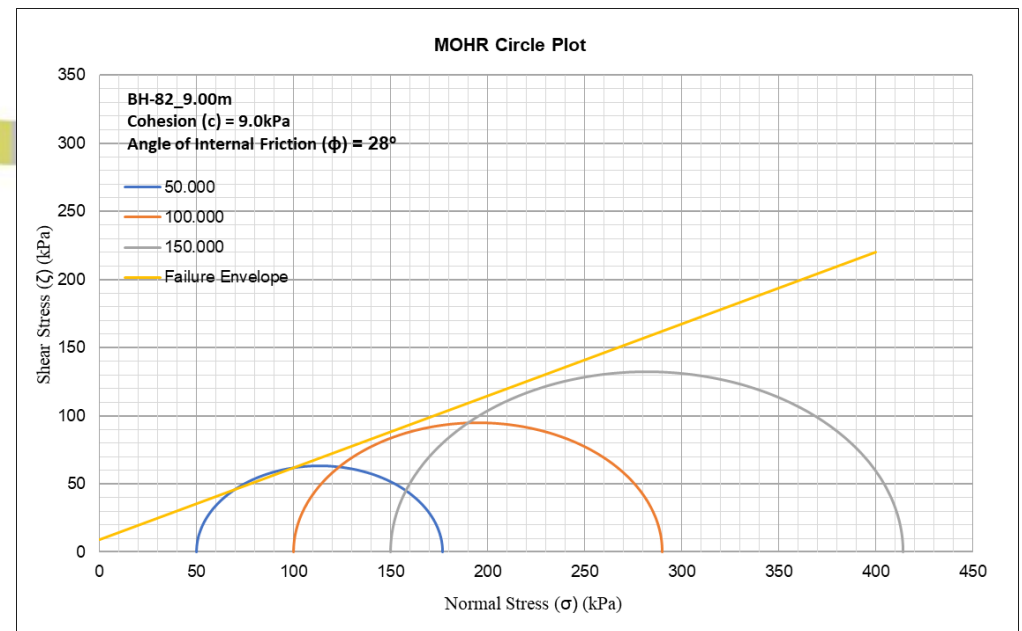
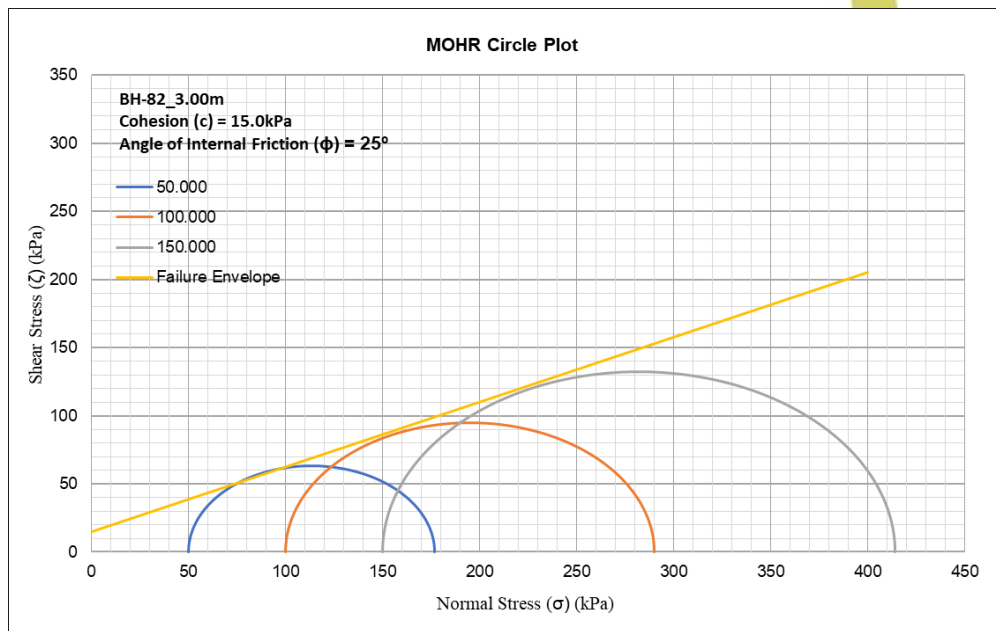
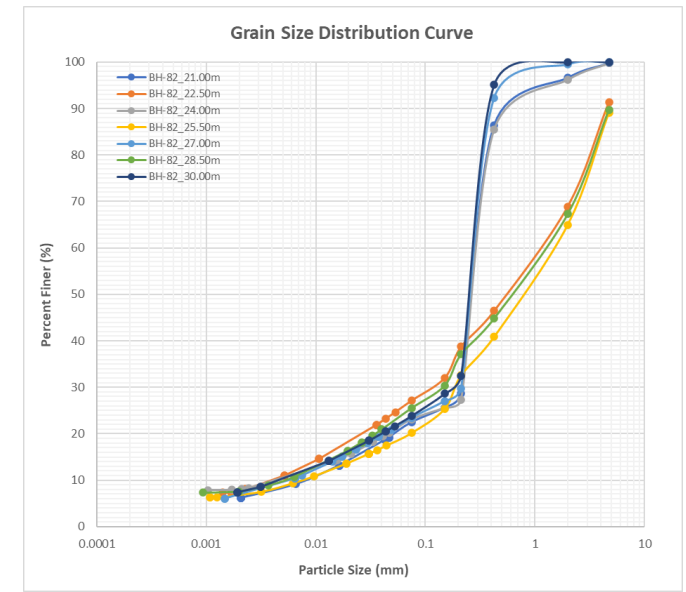
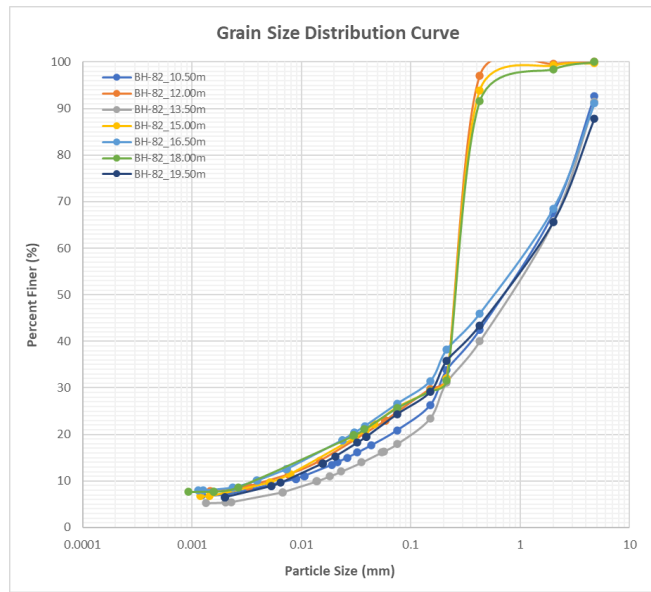
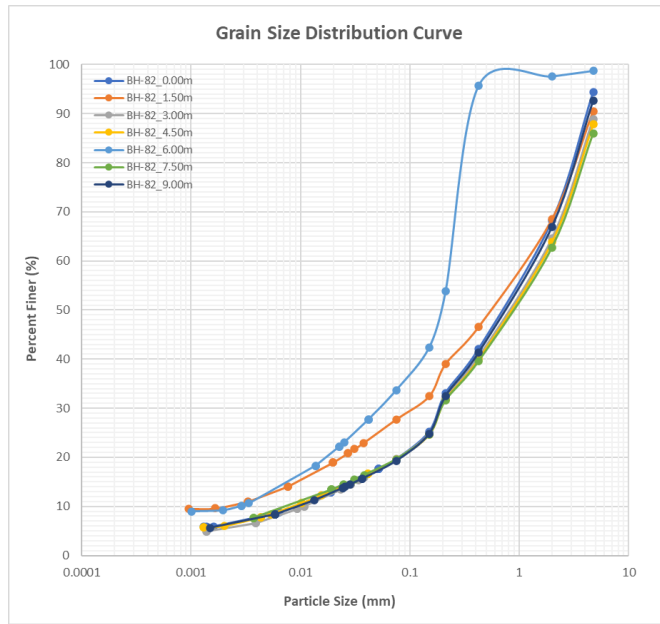


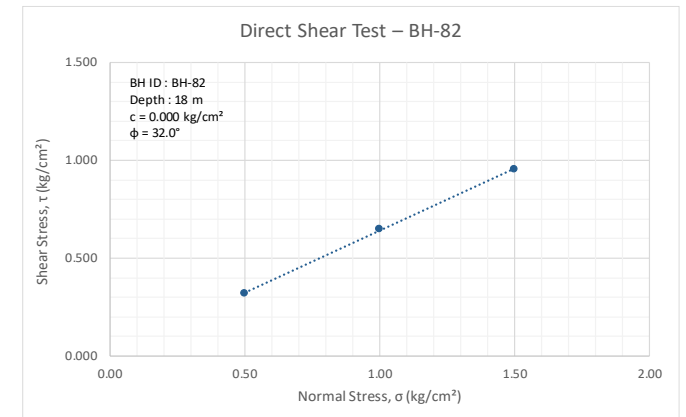
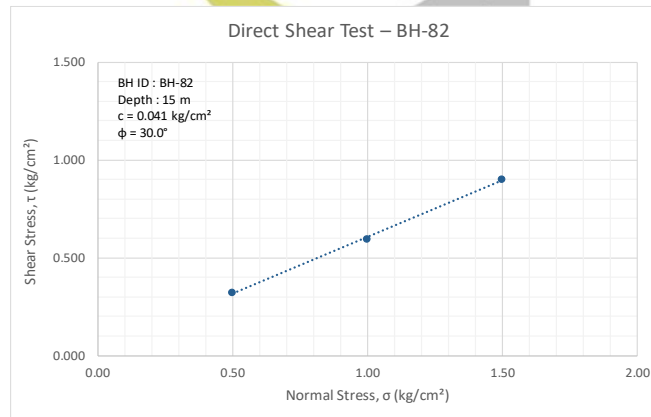
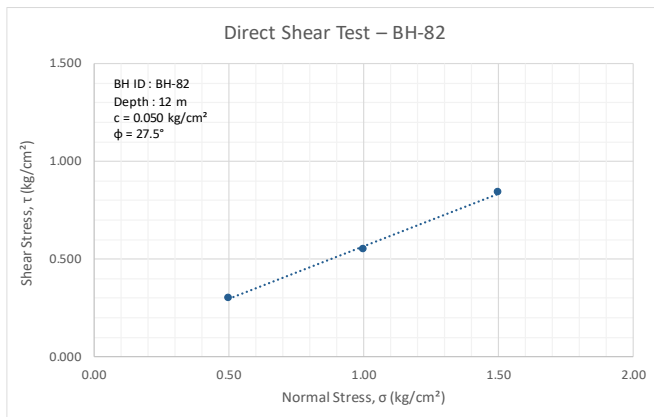
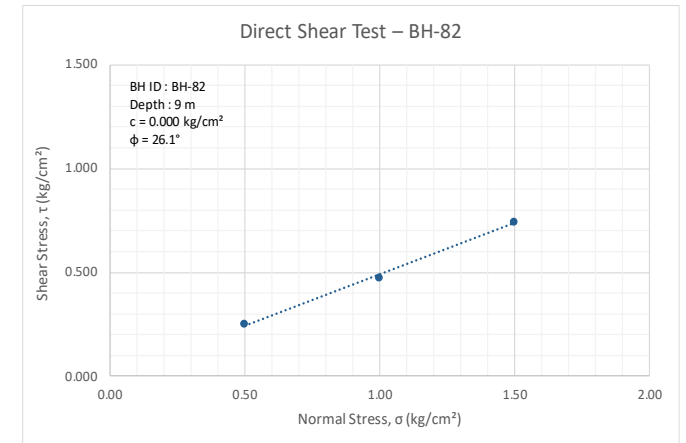
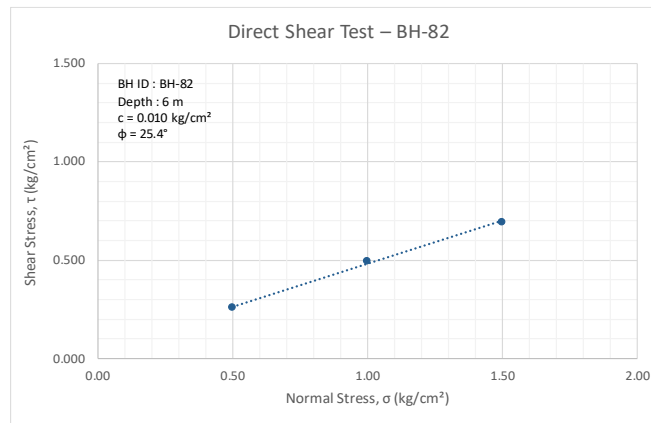
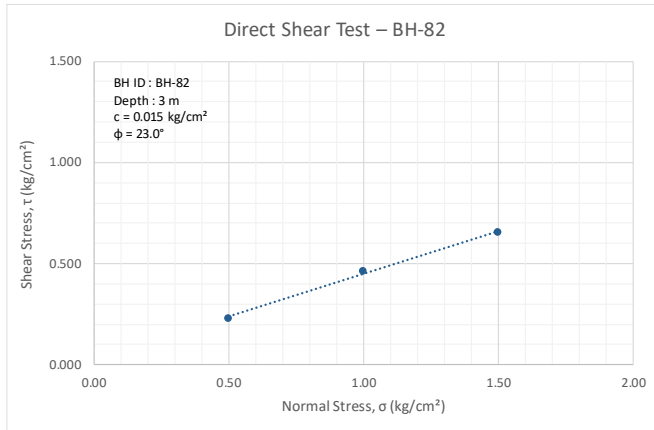


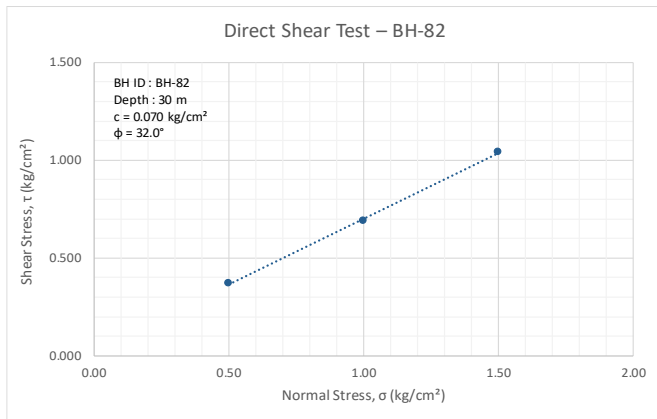
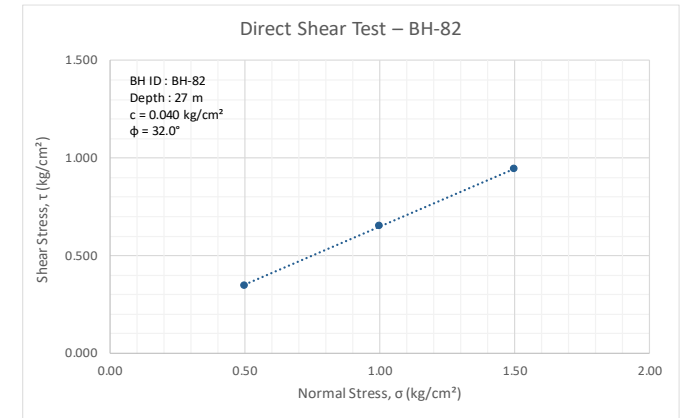
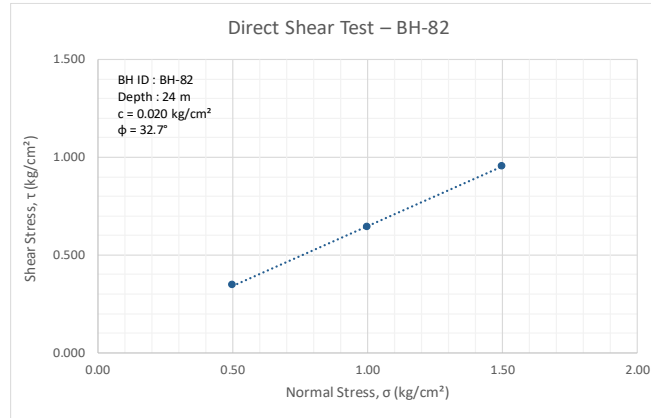
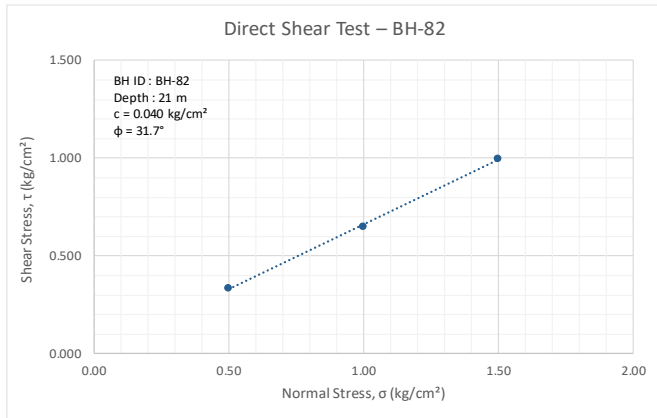
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-82	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	8+859	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	30.00	Start Date:	08-02-2026
Project Code:	158_R10_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	196.8	End Date:	08-02-2026
		Water table Level [m]:	12.40	Location:	Lat: 28.514671, Long: 77.383726

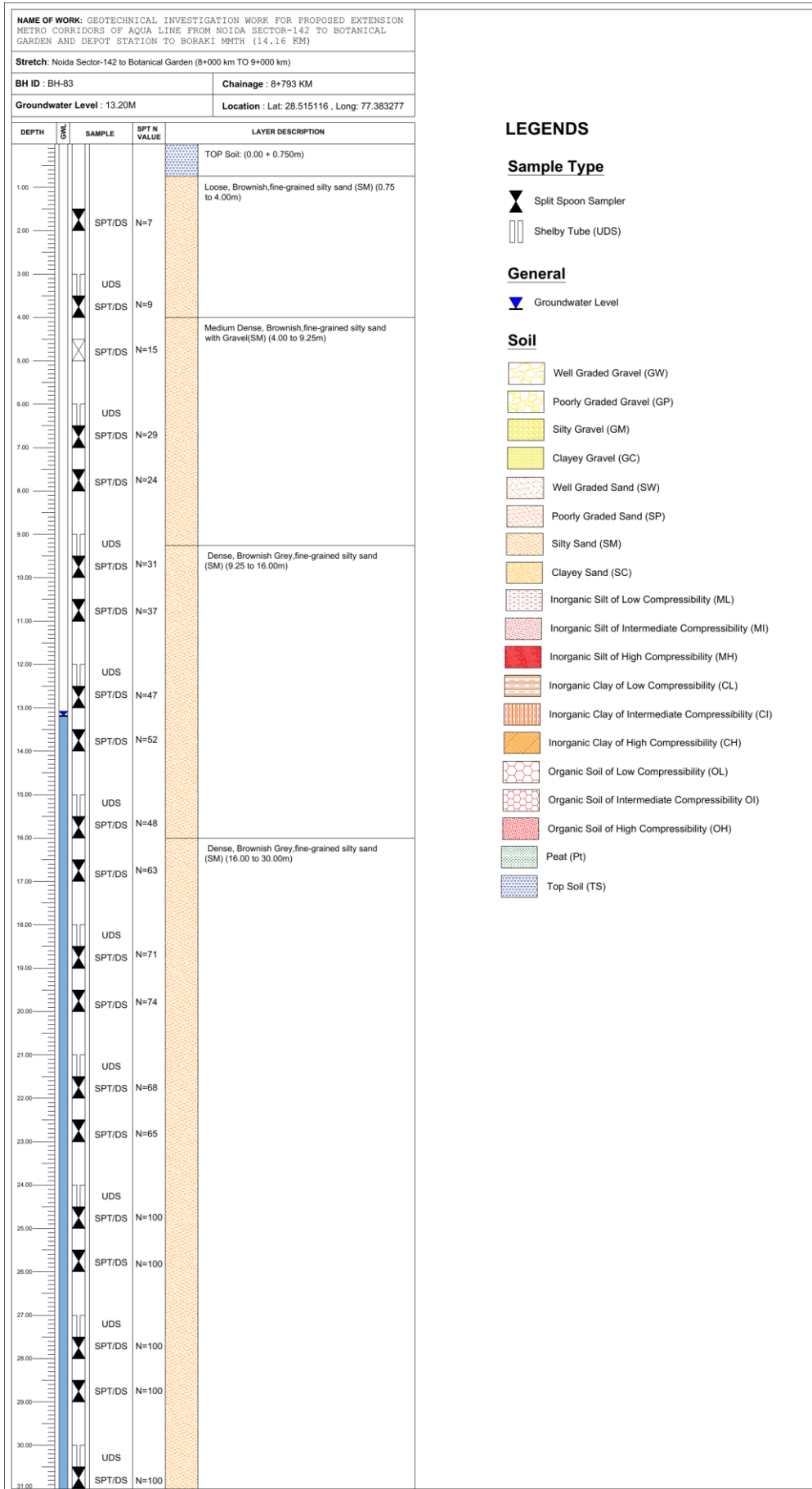
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						5.6	74.8	13.2	6.4	25	NP	NP													
1.50	SPT/DS	Loose, Brownish, fine-grained silty sand (SM)	2	3	4	7	10	9.5	62.8	17.8	10.0	26	NP	NP													
3.00	UDS							11.1	69.2	14.2	5.5	23	NP	NP	18.23	1.88	1.59	2.67	F	0.02	23	UU	15	25			
3.50	SPT/DS		3	4	5	9	10																				
4.50	SPT/DS	Medium Dense, Brownish Grey, fine-grained silty sand (SM)	3	5	6	11	11	12.2	68.3	13.5	6.0	21	NP	NP													
6.00	UDS							1.3	65.0	24.4	9.3	29	NP	NP	19.95	1.80	1.50	2.73	F	0.01	25						
6.50	SPT/DS		5	7	10	17	16																				
7.50	SPT/DS		8	9	12	21	19	14.0	66.4	14.1	5.5	23	NP	NP													
9.00	UDS							7.3	73.4	13.0	6.2	29	NP	NP	17.62	1.86	1.58	2.66	F	0	26	UU	9	28			
9.50	SPT/DS		8	9	11	20	17																				
10.50	SPT/DS		10	12	13	25	21	7.3	71.8	13.8	7.1	28	NP	NP													
12.00	DS						0.0	75.2	16.6	8.2	24	NP	NP	19.05			2.68	F	0.05	28							
12.50	SPT/DS	Dense, Brownish, fine-grained silty sand (SM)	13	15	16	31	19																				
13.50	SPT/DS		14	17	21	38	21	8.6	73.5	12.6	5.4	26	NP	NP													
15.00	DS							0.3	73.9	18.4	7.5	22	NP	NP	22.00			2.69	F	0.04	30						
15.50	SPT/DS		14	17	21	38	21																				
16.50	SPT/DS		15	20	22	42	22	8.9	64.5	18.2	8.4	23	NP	NP													
18.00	DS							0.0	74.3	17.6	8.2	27	NP	NP	18.23			2.61	F	0.00	32						
18.50	SPT/DS		15	21	24	45	23																				
19.50	SPT/DS	18	22	26	48	23	12.2	63.5	17.3	7.1	27	NP	NP														
21.00	DS	Very Dense, Gray Brownish, fine-grained silty sand (SM)						0.2	77.3	15.6	6.9	26	NP	NP	20.33			2.68	F	0.04	32						
21.50	SPT/DS		18	24	28	52	24																				
22.50	SPT/DS		19	26	31	57	25	8.6	64.3	19.4	7.8	24	NP	NP													
24.00	DS							0.2	76.6	15.1	8.1	26	NP	NP	16.02			2.67	F	0.02	33						
24.50	SPT/DS		21	27	33	60	26																				
25.50	SPT/DS		22	24	36	60	25	10.9	69.0	13.3	6.9	29	NP	NP													
27.00	DS							0.0	76.6	16.5	6.9	27	NP	NP	18.24			2.63	F	0.04	32						
27.50	SPT/DS		23	29	42	71	28																				
28.50	SPT/DS		27	35	(50/12 cm)	100	36	10.2	64.2	18.0	7.6	24	NP	NP													
30.00	DS							0.0	76.2	16.3	7.5	21	NP	NP	19.45			2.70	F	0.07	32						
30.50	SPT/DS	38	(50/10 cm)	-	100	36																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

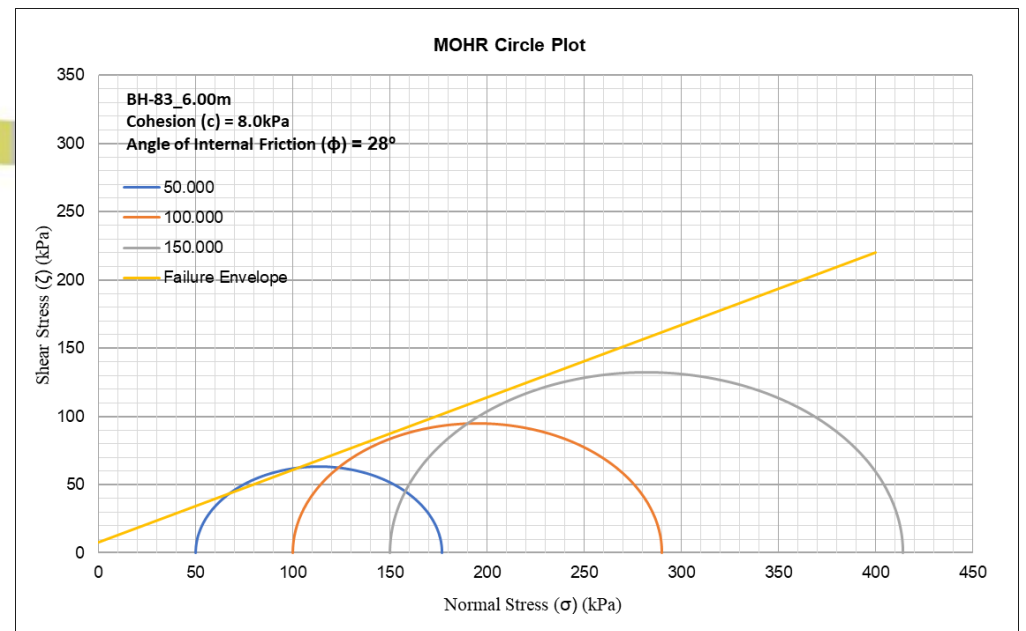
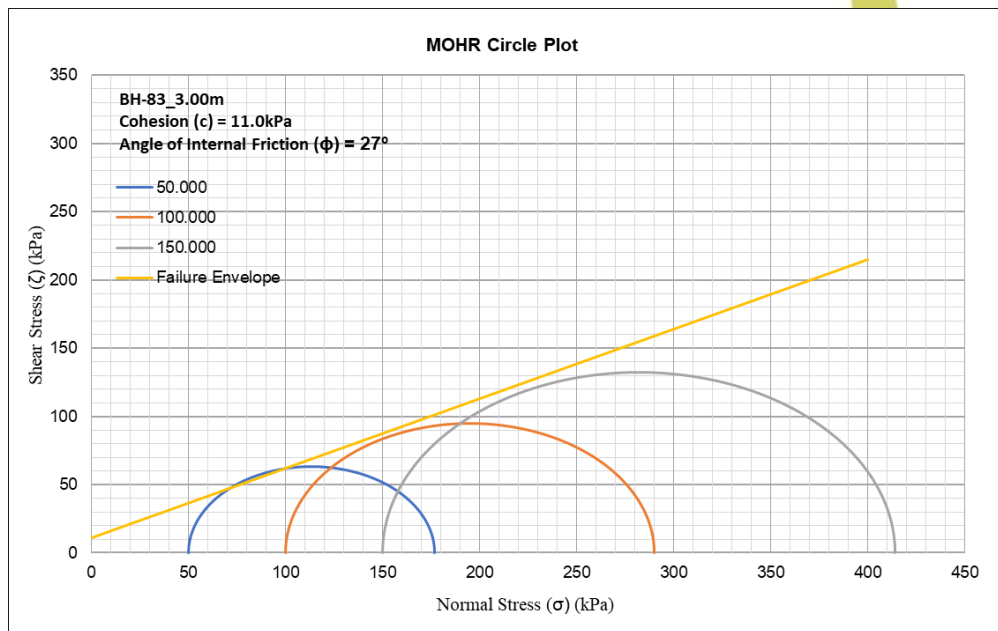
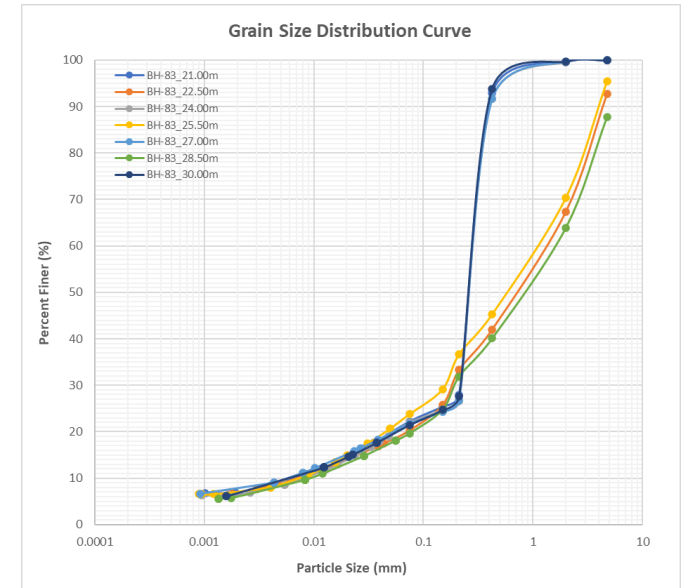
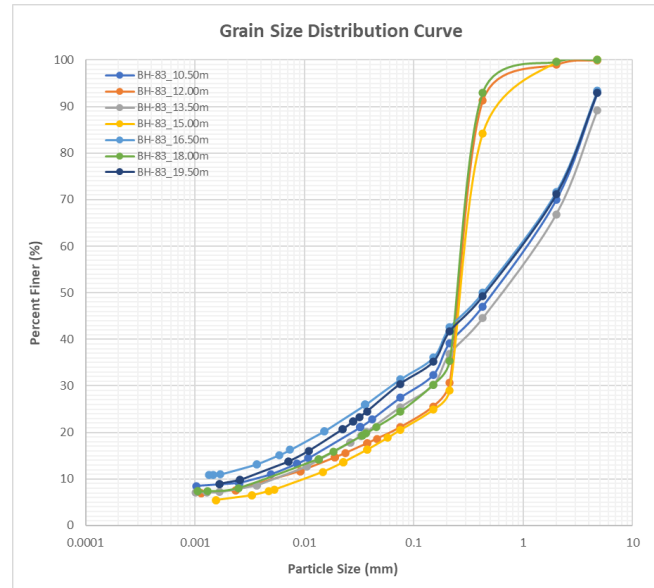
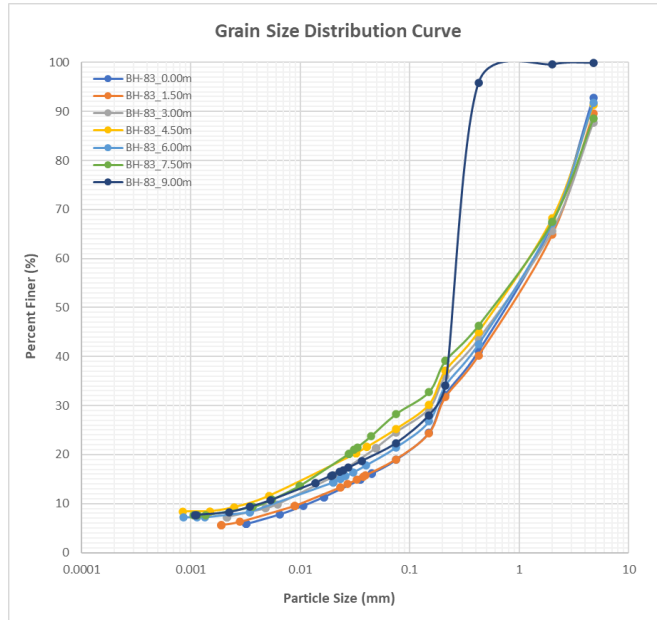
- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)

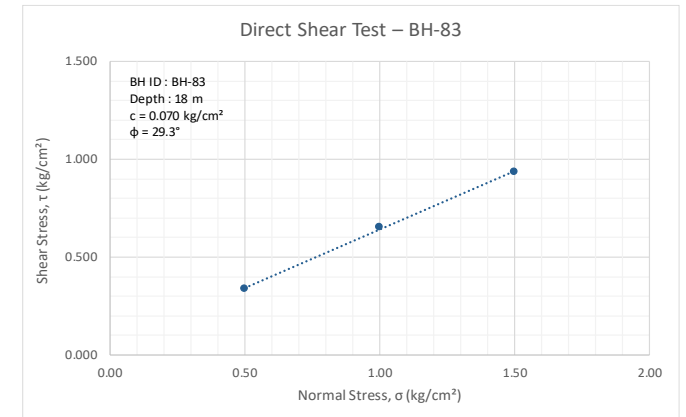
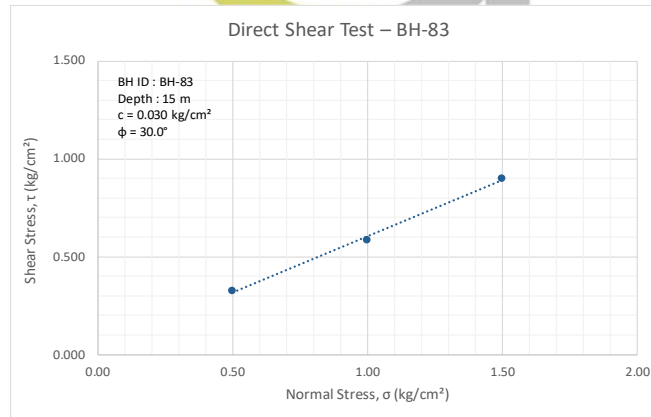
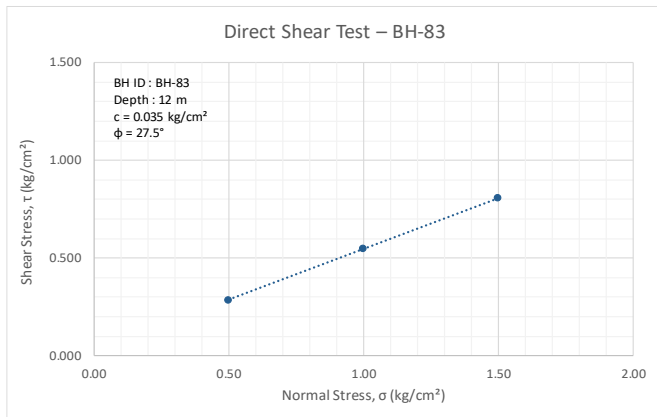
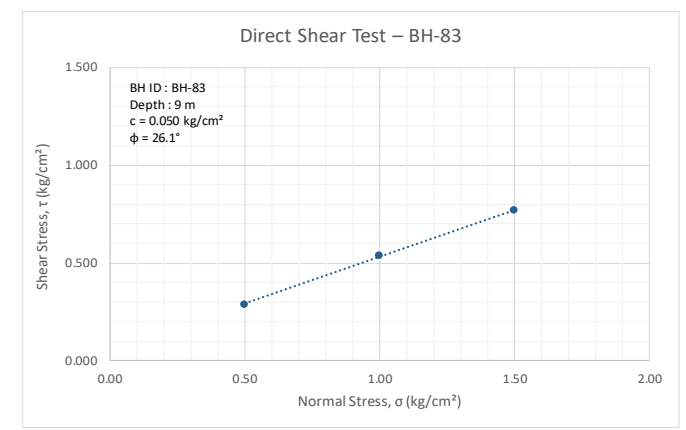
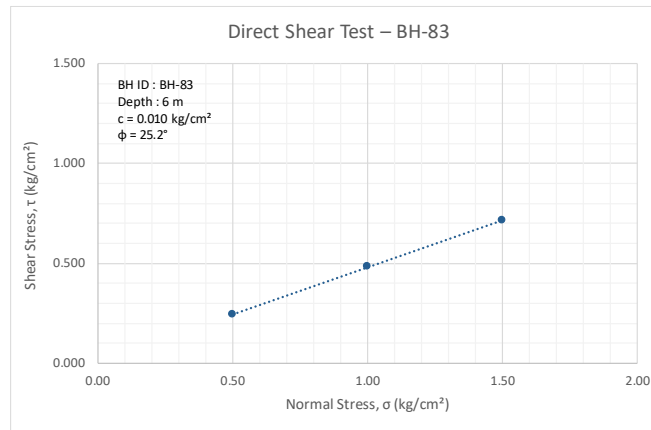
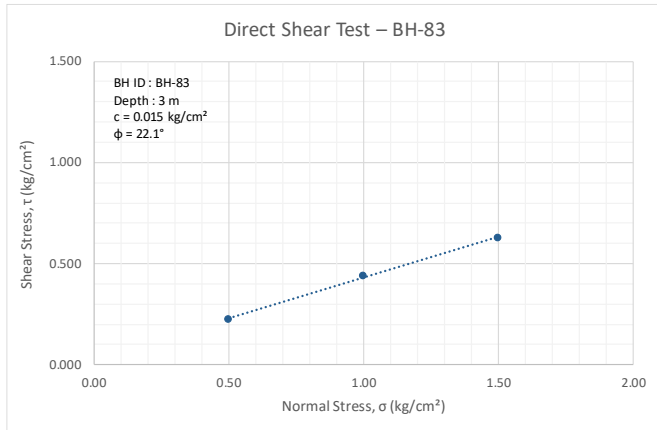


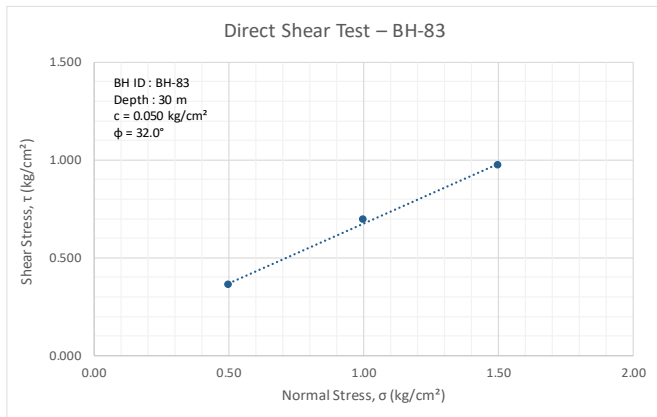
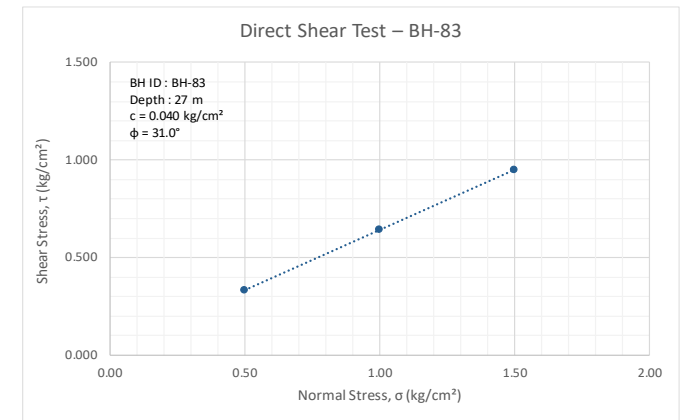
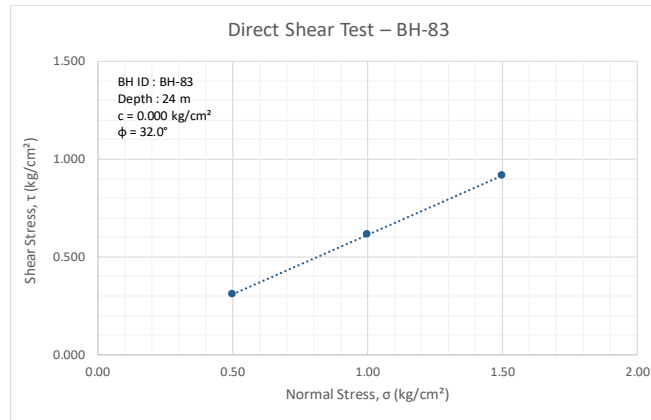
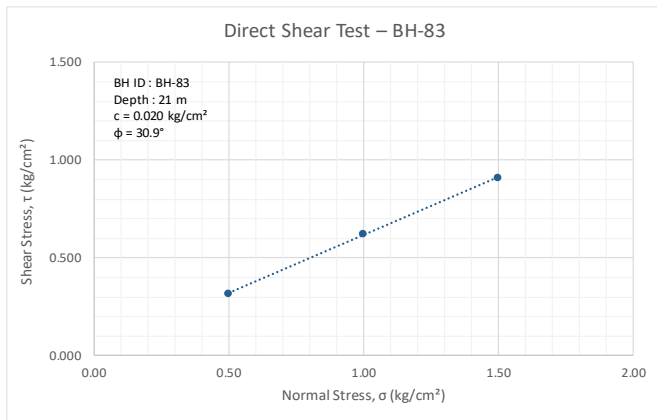
Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-83	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	8+793	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	30.00	Start Date:	07-02-2026
Project Code:	158_R10_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	192.7	End Date:	07-02-2026
		Water table Level [m]:	13.20	Location:	Lat: 28.515116 , Long: 77.383277

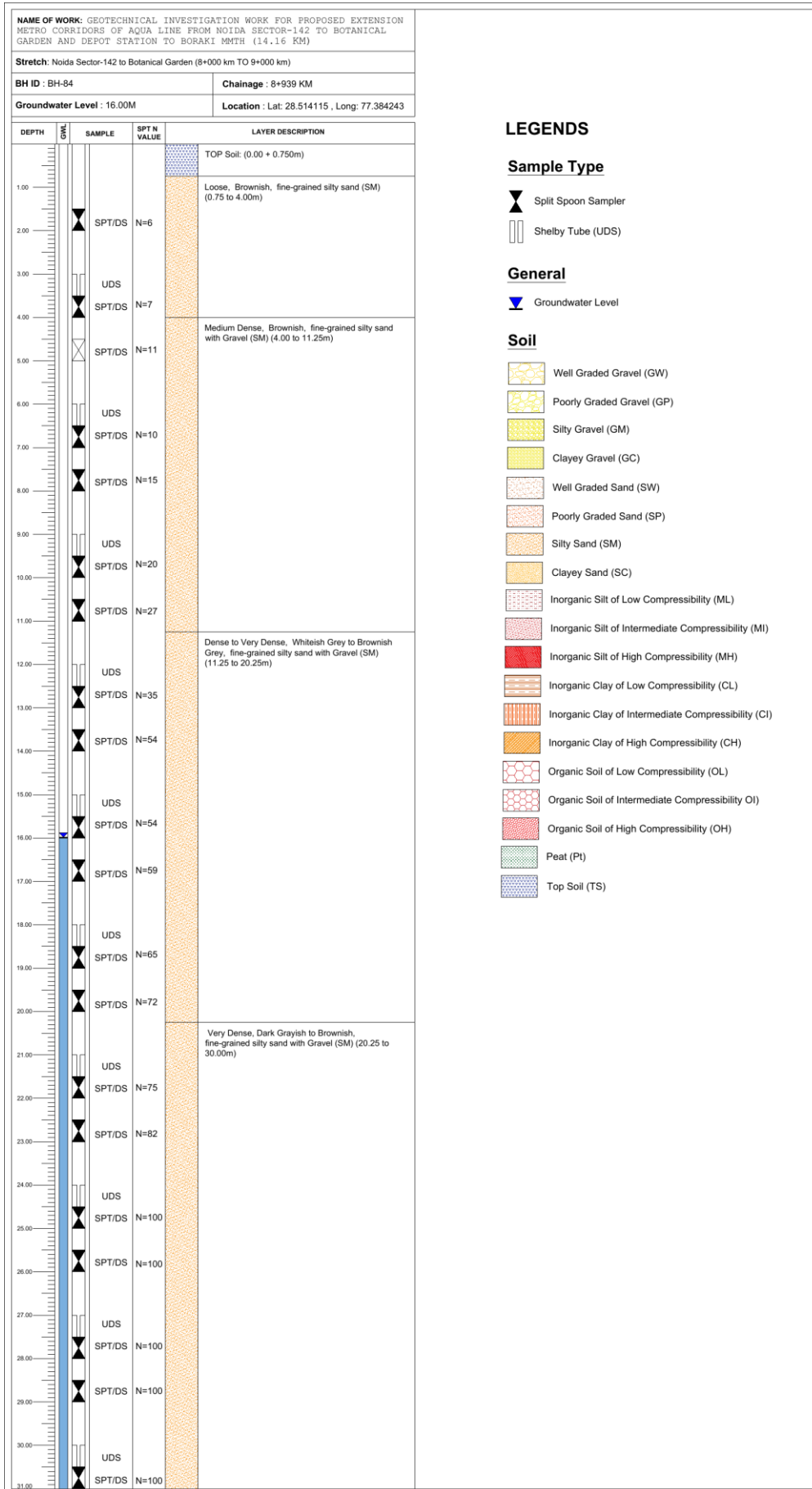
Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						7.2	73.9	12.8	6.1	22	NP	NP													
1.50	SPT/DS	Loose, Brownish, fine-grained silty sand (SM)	2	3	4	7	10	10.5	70.5	13.3	5.7	29	NP	NP													
3.00	UDS							12.3	63.2	24.6	0.0	28	NP	NP	18.24	1.83	1.55	2.70	F	0.02	22	UU	11	27			
3.50	SPT/DS		3	4	5	9	10																				
4.50	SPT/DS	Medium Dense, Brownish, fine-grained silty sand with Gravel(SM)	3	7	8	15	25	8.7	66.1	16.3	8.9	21	NP	NP													
6.00	UDS							8.3	70.3	13.8	7.7	26	NP	NP	14.38	1.85	1.62	2.66	F	0.01	25	UU	8	28			
6.50	SPT/DS		5	9	11	20	19																				
7.50	SPT/DS		7	10	14	24	22	11.5	60.3	19.9	8.3	26	NP	NP													
9.00	DS	Dense, Brownish Grey, fine-grained silty sand (SM)						0.1	77.6	14.2	8.2	24	NP	NP	17.49			2.74	F	0.05	26						
9.50	SPT/DS		8	15	16	31	26																				
10.50	SPT/DS		10	17	20	37	30	7.1	65.5	18.5	9.0	25	NP	NP													
12.00	DS							0.1	78.8	13.6	7.5	27	NP	NP	19.12			2.69	F	0.04	28						
12.50	SPT/DS		13	20	27	47	35																				
13.50	SPT/DS		14	22	30	52	26	10.8	63.9	17.9	7.5	21	NP	NP													
15.00	DS							0.0	79.5	14.7	5.8	28	NP	NP	16.45			2.62	F	0.03	30						
15.50	SPT/DS		18	22	26	48	24																				
16.50	SPT/DS	19	30	33	63	29	6.6	62.0	19.9	11.5	26	NP	NP														
18.00	DS	Very Dense, Yellowish Brown to Brownish , fine-grained silty sand (SM)						0.0	75.6	16.6	7.8	24	NP	NP	19.00			2.76	F	0.07	29						
18.50	SPT/DS		20	32	39	71	31																				
19.50	SPT/DS		22	34	40	74	31	7.0	62.6	21.1	9.3	26	NP	NP													
21.00	DS							0.0	77.8	15.2	7.0	28	NP	NP	17.59			2.70	F	0.02	31						
21.50	SPT/DS		25	30	38	68	29																				
22.50	SPT/DS		23	29	36	65	28	7.3	72.4	13.3	7.1	27	NP	NP													
24.00	DS							0.0	78.0	15.5	6.6	24	NP	NP	16.88			2.72	F	0.00	32						
24.50	SPT/DS		40	(50/2 CM)	-	100	37																				
25.50	SPT/DS		46	(50/7 CM)	-	100	37	4.6	71.6	16.7	7.2	25	NP	NP													
27.00	DS							0.0	78.2	13.9	7.9	21	NP	NP	18.80			2.67	F	0.04	31						
27.50	SPT/DS	41	(50/7 CM)	-	100	36																					
28.50	SPT/DS	49	(50/7 CM)	-	100	36	12.3	68.0	13.6	6.0	23	NP	NP														
30.00	DS						0.0	78.5	14.7	6.8	28	NP	NP	19.58			2.68	F	0.05	32							
30.50	SPT/DS	48	(50/7 CM)	-	100	35																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.









LEGENDS

Sample Type

- Split Spoon Sampler
- Shelby Tube (UDS)

General

- Groundwater Level

Soil

- Well Graded Gravel (GW)
- Poorly Graded Gravel (GP)
- Silty Gravel (GM)
- Clayey Gravel (GC)
- Well Graded Sand (SW)
- Poorly Graded Sand (SP)
- Silty Sand (SM)
- Clayey Sand (SC)
- Inorganic Silt of Low Compressibility (ML)
- Inorganic Silt of Intermediate Compressibility (MI)
- Inorganic Silt of High Compressibility (MH)
- Inorganic Clay of Low Compressibility (CL)
- Inorganic Clay of Intermediate Compressibility (CI)
- Inorganic Clay of High Compressibility (CH)
- Organic Soil of Low Compressibility (OL)
- Organic Soil of Intermediate Compressibility (OI)
- Organic Soil of High Compressibility (OH)
- Peat (Pt)
- Top Soil (TS)



Project		Borehole Details		Drilling Details	
Name of Work:	Geotechnical Investigation work for Proposed Extension Metro Corridors of Aqua Line from Noida Sector-142 to Botanical Garden and Depot Station to Boraki MMTH (14.16 km) (E Tender No. NMRC/Civil/Geo. Inv./366/2025)	BH ID:	BH-84	Contractor:	Goma Engineering & Consultancy
Client:	Noida Metro Rail Corporation (NMRC) Limited	Chainage [km]:	8+939	Method of Drilling:	Rotary Drilling
Stretch:	Noida Sector-142 to Botanical Garden	Depth [m]:	30.00	Start Date:	08-02-2026
Project Code:	158_R10_Noida Sector-142 to Botanical Garden_0-372 km TO 12+130 km	Elevation [m]:	195.8	End Date:	08-02-2026
		Water table Level [m]:	16.00	Location:	Lat: 28.514115 , Long: 77.384243

Depth [m]	Sample Type	Descriptions	SPT Test Results					Soil Particles				Atterberg Limits			Physical Characteristics				Direct Shear Test			Triaxial Comp Test			Consolidation Test		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT	N (Correct N)	Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Moisture Content [%]	Bulk Density [gm/cm ³]	Dry Density [gm/cm ³]	Specific Gravity	Type	Cohesion [kg/cm ²]	Angle of Friction [°]	Type	Cohesion [kPa]	Angle of Friction [°]	Swelling Index	Consolidation Index	Preconsolidation Pressure [kg/cm ²]
0.00	DS	Top Soil						8.4	68.1	15.6	8.0	22	NP	NP													
1.50	SPT/DS	Loose, Brownish, fine-grained silty sand (SM)	2	3	3	6	8	11.3	68.5	14.3	5.9	24	NP	NP													
3.00	UDS							0.2	80.7	14.0	5.1	21	NP	NP	20.02	1.65	1.38	2.75	F	0.01	23						
3.50	SPT/DS		3	3	4	7	8																				
4.50	SPT/DS	Medium Dense, Brownish, fine-grained silty sand with Gravel (SM)	4	5	6	11	11	5.4	68.2	17.6	8.8	26	NP	NP													
6.00	UDS							11.2	65.7	15.7	7.5	24	NP	NP	18.67	1.86	1.57	2.61	F	0	25	UU	13	25			
6.50	SPT/DS		4	5	5	10	9																				
7.50	SPT/DS		5	7	8	15	14	8.3	63.6	20.9	7.2	29	NP	NP													
9.00	UDS							7.5	65.4	18.8	8.3	25	NP	NP	20.40	1.88	1.56	2.65	F	0.02	26	UU	12	27			
9.50	SPT/DS		7	9	11	20	17																				
10.50	SPT/DS		9	12	15	27	22	4.4	75.7	14.4	5.6	24	NP	NP													
12.00	DS	Dense to Very Dense, Whiteish Grey to Brownish Grey, fine-grained silty sand with Gravel (SM)						0.0	76.8	16.1	7.0	26	NP	NP	19.25			2.72	F	0.04	29						
12.50	SPT/DS		11	15	20	35	26																				
13.50	SPT/DS		18	24	30	54	35	5.4	66.9	18.3	9.4	24	NP	NP													
15.00	DS							0.0	75.4	17.6	7.0	27	NP	NP	20.23			2.62	F	0.07	29						
15.50	SPT/DS		18	24	30	54	35																				
16.50	SPT/DS		21	26	33	59	26	11.5	61.8	18.0	8.7	28	NP	NP													
18.00	DS							0.0	72.6	19.6	7.8	25	NP	NP	21.27			2.62	F	0.02	30						
18.50	SPT/DS		24	30	35	65	28																				
19.50	SPT/DS		27	34	38	72	29	11.9	57.1	21.8	9.1	23	NP	NP													
21.00	DS							0.0	75.6	15.8	8.6	24	NP	NP	21.09			2.75	F	0.06	30						
21.50	SPT/DS	30	35	40	75	30																					
22.50	SPT/DS	33	38	44	82	31	8.8	72.0	13.5	5.7	26	NP	NP														
24.00	DS						0.0	75.4	17.3	7.4	21	NP	NP	20.67			2.61	F	0.00	31							
24.50	SPT/DS	37	45	(50/2 CM)	100	36																					
25.50	SPT/DS	40	(50/9 CM)	-	100	35	4.4	71.9	16.5	7.2	27	NP	NP														
27.00	DS						0.0	70.9	18.8	10.3	29	NP	NP	20.56			2.68	F	0.05	31							
27.50	SPT/DS	46	(50/10 CM)	-	100	34																					
28.50	SPT/DS	48	(50/7 CM)	-	100	33	9.5	65.5	16.0	9.0	22	NP	NP														
30.00	DS						0.0	73.4	18.3	8.3	24	NP	NP	19.76			2.69	F	0.03	32							
30.50	SPT/DS	48	(50/8 CM)	-	100	32																					

Notations: UDS = Undisturbed Sample, DS = Disturbed Sample, RC = Rock Core, F = Fast, S = Slow, UU = Unconsolidated Undrained Tri-axial compression Test, NP = Non Plastic.

