

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF PERFORMING A ROCKFALL REMEDIATION ON LAW-775-8.77.

HISTORIC RECORDS

HISTORICAL GEOTECHNICAL RECORDS WERE OBTAINED FROM ODOT'S TRANSPORTATION INFORMATION MAPPING SYSTEM (TIMS) FOR LAW-775-0.00, PID 24818 (SUB-BATCH 19078) COMPLETED IN 2001 AS A LANDSLIDE EXPLORATION OF TWO DISTURBED SLOPE SECTIONS WITHIN THE PROPOSED PROJECT LIMITS. ONLY BORINGS B-5 AND B-8 (RENAMED B-005-0-01 AND B-008-0-01) WERE CONSIDERED RELEVANT TO THE CURRENT PROJECT AND ARE PRESENTED WITHIN THIS GEOTECHNICAL PROFILE. NO ADDITIONAL HISTORICAL GEOTECHNICAL RECORDS WERE FOUND FOR THIS PROJECT.

GEOLOGY

THE PROJECT AREA IS LCOATED WITHIN THE NON-GLACIATED MARIETTA PLATEAU PHYSIOGRAPHIC REGION, WHICH IS CHARACTERIZED BY A HIGH RELIEF, DISSECTED PLATEAU. THIN RESIDUAL SOILS ARE LOCATED ALONG THE RIDGE TOPS AND HILLSIDES AND THIN TO THICK COLLUVIAL SOILS ARE LOCATED AT THE BASE OF THE HILLS. THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) OHIO GEOLOGY INTERACTIVE MAP INDICATES THAT THE COLLUVIAL OVERBURDEN SOILS ARE UNDERLAIN BY PENNSYLVANNIAN-AGED SHALE, SILTSTONE, SANDSTONE AND COAL OF THE CONEMAUGH GROUP.

RECONNAISSANCE

FIELD RECONNAISSANCE WAS COMPLETED BY PERSONNEL FROM THE OFFICE OF GEOTECHNICAL ENGINEERING (OGE) ON JULY 23, 2024. THE PROJECT AREA CONSISTS PRIMARILY OF A WOODED HILLSIDE. ACCESS TO THE SITE WAS ACHIEVED THROUGH GRASSY TRAILS RUNNING ALONG THE OUTSIDE OF THE HILLSIDE. AT THE BASE OF THE HILLSIDE IS A WOODEN BARN. BEDROCK IS EXPOSED ABOVE MOST OF THE SOUTHBOUND LANES CONSISTING PREDOMINANTLY OF SANDSTONE WITH SEVERAL AREAS COVERED BY TALUS AND VEGETATION. A PAVED GUTTER IS PRESENT BETWEEN THE EXPOSED BEDROCK AND THE SHOULDER OF THE SOUTHBOUND LANE. BELOW THE NORTHBOUND LANE IS A STEEP VEGETATED SLOPE LEADING TO INDIAN GUYAN CREEK. A POST AND PANEL RETAINING WALL IS PRESENT BELOW THE ROADWAY WITHIN A PORTION OF THE PROJECT AREA. THE PAVEMENT WAS NOTED AS BEING IN GOOD CONDITION. ADDITIONAL RECONNAISSANCE WAS COMPLETED ON OCTOBER 31, 2024 TO COMPLETE DETAILED DESCRIPTIONS OF THE EXPOSED BEDROCK AND COLLECT SAMPLES FOR TESTING WHICH IS PRESENTED IN THE EXPLORATION FINDINGS.

SUBSURFACE EXPLORATION

HISTORICAL BORINGS B-005-0-01 AND B-008-0-01 WERE COMPLETED BETWEEN OCTOBER 16 AND 17, 2001 UTILIZING A TRUCK MOUNTED ROTARY DRILL RIG USING 2-INCH HOLLOW STEM AUGERS. THE ELEVATIONS SHOWN IN THE HISTORIC BORING LOGS WERE BASED OFF INTERPOLATED TOPOGRAPHIC INFORMATION FROM THE ORIGINAL 2002 SITE PLAN AND NOT SURVEY DATA, SO THE ELEVATIONS PRESENTED WITHIN THE EXPLORATION FINDINGS SECTION SHOULD BE TAKEN AS APPROXIMATE VALUES.









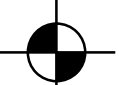


ONE (1) BORING, B-009-0-24, WAS COMPLETED AS PART OF THE SUBSURFACE EXPLORATION BETWEEN AUGUST 12 AND 15, 2024. THE BORING WAS DRILLED BY AN ACKER MOUNTED REBEL XL ROTARY DRILL RIG USING 3 1/4-INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE BORING THROUGH THE FIRST 5 FT OF OVERBURDEN MATERIALS. NO SAMPLES WERE TAKEN WITHIN THE OVERBURDEN LAYER. THE BORING WAS ADVANCED INTO BEDROCK AND SAMPLED (AASHTO T225) USING AN N-SERIES WIRELINE CORE BARREL, WATER METHOD UNTIL ITS TERMINATION.

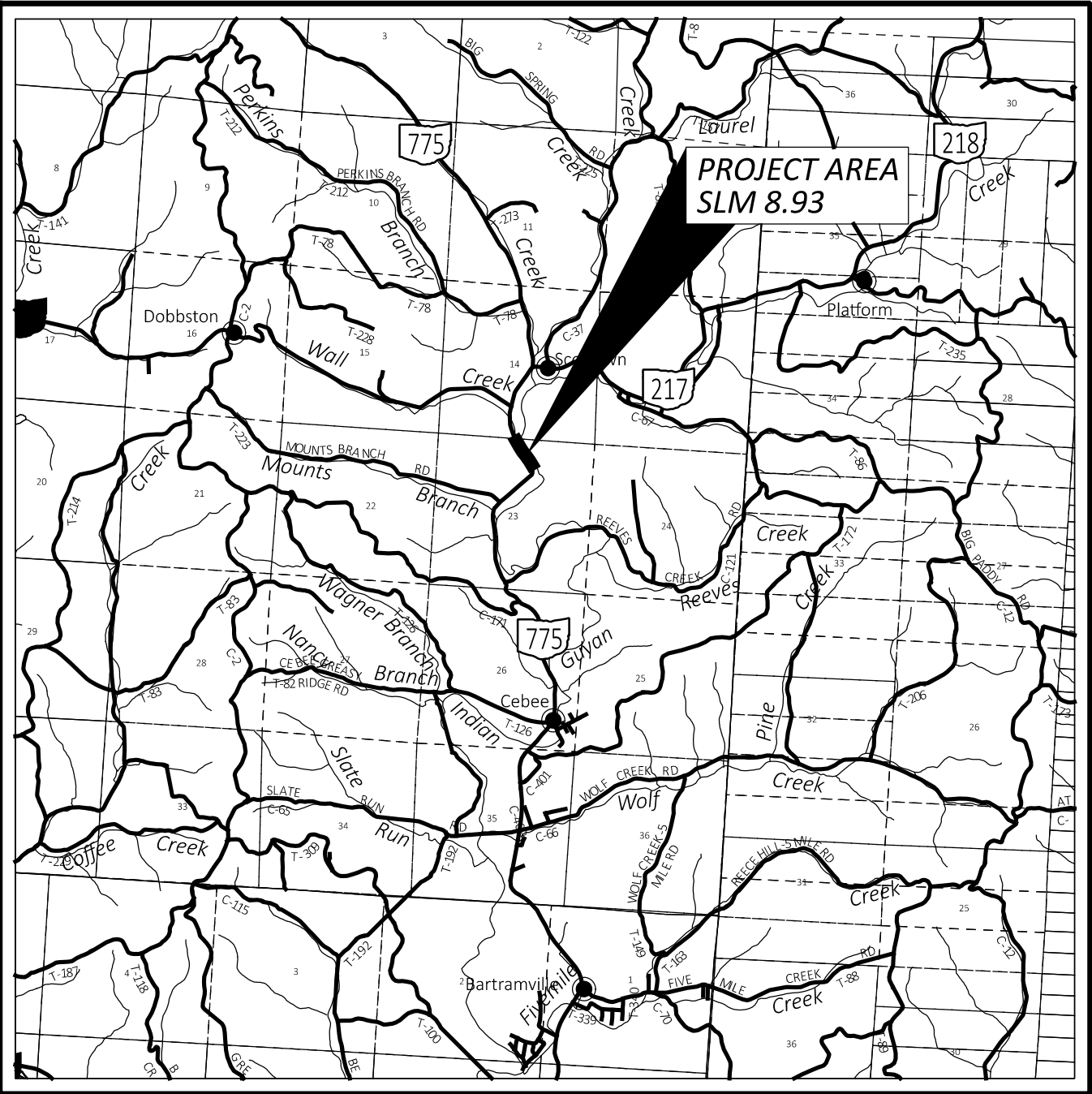
EXPLORATION FINDINGS

BORINGS B-005-0-01 AND B-008-0-01 WERE COMPLETED ALONG THE TOP OF THE EXISTING ROCK SLOPE WHERE THE BORINGS WERE ADVANCED THROUGH 2 FT OF COHESIVE OVERBURDEN SOILS. BENEATH THE OVERBURDEN SOILS THE BORINGS ENCOUNTERED ROCK CONSISTING OF SHALE. BOTH BORINGS AUGERED 3 FT THROUGH THE ENCOUNTERED SHALE BEFORE STARTING CORING OPERATIONS AT ROUGHLY ELEVATIONS 664 FT AND 657.5 FT RESPECTIVELY. BENEATH THE SHALE BOTH BORINGS ENCOUNTERED SANDSTONE BETWEEN APPROXIMATE ELEVATIONS 657.2 FT AND 650.0 FT. THE SANDSTONE EXTENDED TO APPROXIMATE ELEVATIONS 622.2 FT AND 616.7 FT WHERE IT TRANSITIONED INTO SHALE. B-008-0-01 WAS TERMINATED IN THIS SHALE LAYE WHILE B-005-0-01 WAS ADVNACED THROUGH ITHE LAYER AND ENCOUNTERED SANDSTONE BENEATH IT AT APPROXIMATE ELEVATION 613.8 FT. THE SANDSTONE EXTENDED TO APPROXIMATE ELEVATION 610.0 FT WHERE IT TRANSITIONED TO SHALE IN WHICH B-005-0-01 WAS TERMINATED. SLAKE DURABILITY TESTS WERE RUN ON REPRESENTATIVE ROCK SAMPLES TAKEN FROM THE SHALE LAYERS AND RANGED FROM 14% TO 96%. THESE RESULTS ARE SUMMARIZED IN THE BEDROCK TEST SUMMARY TABLE ON SHEET 2.

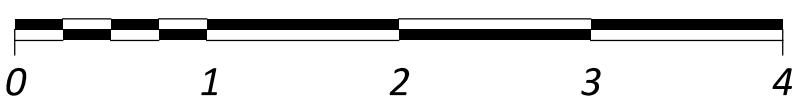
EXPLORATION FINDINGS CONTINUED ON SHEET 2.

LEGEND

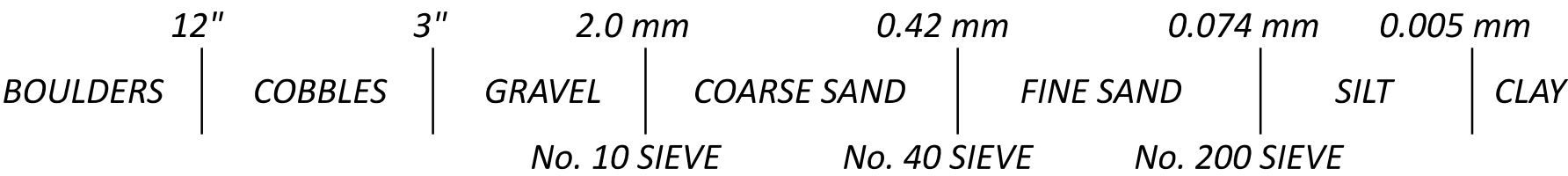
DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL
 SANDSTONE	VISUAL	
 SHALE	VISUAL	
 SILTSTONE	VISUAL	
HISTORICAL SOIL DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL
 SILT AND CLAY	A-6a	- 2
	TOTAL	- 2
 SANDSTONE	VISUAL	
 SHALE	VISUAL	
 PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL	
 SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL	
 BORING LOCATION - PLAN VIEW.		
 HISTORIC BORING LOCATION - PLAN VIEW.		
 DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.		
WC	INDICATES WATER CONTENT IN PERCENT.	
N <sub>60</sub>	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.	
N	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.	
Y/Z	NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): Y= NUMBER OF BLOWS FOR FIRST 6 INCHES. Z= NUMBER OF BLOWS FOR SECOND AND THIRD 6 INCHES (UNCORRECTED).	
γ	INDICATES UNIT WEIGHT OF ROCK.	
Qu	INDICATES UNCONFINED COMPRESSION TEST, ASTM D7012. (ROCK)	
S <sub>c</sub>	INDICATES POINT LOAD STRENGTH VALUE, ASTM D5731.	
Id <sub>2</sub>	INDICATES SLAKE DURABILITY TEST, ASTM D4644.	
SDI	INDICATES SLAKE DURABILITY INDEX.	
NQ	"N" SERIES ROCK CORE BARREL OF "Q" WIRELINE BIT SIZE.	
NR	INDICATES WHERE DATA WAS NOT RECORDED.	
TR	INDICATES TOP OF ROCK ELEVATION.	



LOCATION MAP  
SCALE IN MILES



PARTICLE SIZE DEFINITIONS



INDEX OF SHEETS			
EXPLORATION NOTES CONT., SHEET 2.			
LOCATION FROM STA.	TO STA.	PLAN VIEW SHEET	CROSS SECTION SHEET
SR 775			
467+50	473+50	3	-
467+75 & 468+00		-	4
469+25		-	5
469+50		-	6
473+00		-	7
BORING LOGS & ROCK CORE PHOTOS, SHEETS 8 - 10.			
HISTORIC BORING LOGS, SHEETS 11 - 12.			

RECON. - AMJ 07/23/24, 10/31/24  
DRILLING - DML 8/12/24 - 8/15/24  
DRAWN - AJC 12/12/24  
REVIEWED - SAT 12/13/24



EXPLORATION FINDINGS (CONT.)

BORING B-009-0-24 WAS COMPLETED AT THE TOP OF THE ROCK SLOPE WHERE IT ENCOUNTERED 6 INCHES OF COHESIVE SOIL. BENEATH THE SURFACE MATERIALS, THE BORING ENCOUNTERED SEVERLY WEATHERED SANDSTONE WHICH WAS AUGERED THROUGH WITHOUT SAMPLING TO ELEVATION 683.9 FT. SANDSTONE IN HIGHLY TO MODERATELY WEATHERED CONDITION AND MODERATELY STRONG TO STRONG WAS ENCOUNTERED BENEATH THE INITIAL SEVERLY WEATHERED LAYER TO AN ELEVATION OF 672.1 FT. BENEATH THE SANDSTONE THE BORING ENCOUNTERED HIGHLY TO MODERATELY WEATHERED AND SLIGHTLY STRONG SILTSTONE TO ELEVATION 665.6 FT WHICH WAS UNDERLAIN BY A THIN LAYER OF HIGHLY WEATHERED AND VERY WEAK SHALE TO AN ELEVATION OF 663.9 FT. MORE SILTSTONE WAS ENCOUNTERED BENEATH THE SHALE AND WAS HIGHLY TO MODERATELY WEATHERED IN CONDITION AND WEAK TO SLIGHTLY STRONG. THE SILTSTONE TRANSITIONED INTO MODERATELY WEATHERED, SLIGHTLY STRONG SANDSTONE AROUND ELEVATION 653.0 FT. THE SANDSTONE TRANSITIONED INTO A MODERATELY STRONG LAYER AROUND ELEVATION 647.3 FT IN WHICH THE BORING WAS TERMINATED IN. WATER LOSS WAS NOTED WITHIN SANDSTONE AND SILTSTONE LAYERS AT ELEVATIONS 675.6 FT AND 670.1 FT, RESPECTIVELY.

ALL BORINGS WERE REPORTED AS DRY PRIOR TO CORING.

FIVE (5) REPRESENTATIVE BEDROCK SAMPLES WERE TAKEN FROM THE FACE OF THE ROCK SLOPE BETWEEN ELEVATIONS 621.5 FT AND 632.7 FT. THESE SAMPLES WERE USED TO GENERATE ROCK FACE CALLOUTS AT STATIONS 467+75 AND 469+25.

REPRESENTATIVE BEDROCK SAMPLES FROM B-009-0-24 AND FROM THE FACE OF THE ROCK SLOPE WERE TESTED FOR STRENGTH USING UNCONFINED COMPRESSIVE TESTING WHICH HAD RESULTS RANGING BETWEEN 13 AND 9,375 PSI AND POINT LOAD INDEX TESTING WITH RESULTS RANGING FROM 292 TO 4,190 PSI. SLAKE DURABILITY TESTS WERE ALSO RUN ON THE BEDROCK SAMPLES TO TEST HOW WELL THE MATERIAL COULD WITHSTAND WEATHERING WITH RESULTS RANGING FROM 2.4% TO 97.5%. THESE RESULTS ARE SUMMARIZED IN THE BEDROCK TEST SUMMARY TABLE ON THIS SHEET.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JULY 2024.

AVAILABLE INFORMATION

THE SOIL, BEDROCK, AND GROUNDWATER INFORMATION COLLECTED FOR THIS SUBSURFACE EXPLORATION THAT CAN BE CONVENIENTLY DISPLAYED ON THE GEOTECHNICAL PROFILE SHEETS HAS BEEN PRESENTED. GEOTECHNICAL REPORTS, IF PREPARED, ARE AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE.

BEDROCK BLOCK TEST SUMMARY								
STATION	SAMPLE	SAMPLE ELEVATION	LITHOLOGY	γ (pcf)	Sc (psi)	QU (psi)	Id2 (%)	RETAINED TYPE
467+82.25	S-1	623.0'	SANDSTONE	136.2	-	1,114	82.5	I
467+82.25	S-2	621.5'	SANDSTONE	141.4	-	1,309	50.8	I
467+82.25	S-2	621.5'	SANDSTONE	140.4	-	1,387	-	-
467+82.25	S-3	626.5'	SANDSTONE	133.0	292	-	42.3	I
469+31.83	S-4	632.7'	SANDSTONE	144.3	-	2,440	85.3	I
469+31.83	S-5	621.7'	SANDSTONE	135.1	-	2,031	85.8	I

BEDROCK TEST SUMMARY							
EXPLOR. ID	SAMPLE DEPTH	SAMPLE ELEVATION	LITHOLOGY	Sc (psi)	QU (psi)	Id2/SDI (%)	RETAINED TYPE
B-009-0-24	5.5' - 7.0'	683.4' - 681.9'	SANDSTONE	-	-	96.3	I
B-009-0-24	6.6' - 6.9'	682.3' - 682.0'	SANDSTONE	-	4,160	-	-
B-009-0-24	11.0' - 13.0'	677.9' - 675.9'	SANDSTONE	-	-	97.5	I
B-009-0-24	11.3' - 11.6'	677.6' - 677.3'	SANDSTONE	-	9,375	-	-
B-009-0-24	15.2' - 16.8'	673.7' - 672.1'	SANDSTONE	4,190	-	-	-
B-009-0-24	17.0' - 20.0'	671.9' - 668.9'	SILTSTONE	2,233	-	-	-
B-009-0-24	17.0' - 20.0'	671.9' - 668.9'	SILTSTONE	-	-	93.9	II
B-009-0-24	23.3' - 25.0'	665.6' - 663.9'	SHALE	-	-	2.4	III
B-009-0-24	23.9' - 24.1'	665.0' - 664.8'	SHALE	-	13	-	-
B-009-0-24	27.0' - 29.0'	661.9' - 659.9'	SILTSTONE	-	-	85.8	II
B-009-0-24	29.6' - 30.0'	659.3' - 658.9'	SILTSTONE	-	1,855	-	-
B-009-0-24	30.0' - 35.0'	658.9' - 653.9'	SILTSTONE	-	-	93.4	II
B-009-0-24	30.1' - 30.5'	658.8' - 658.4'	SILTSTONE	-	1,171	-	-
B-009-0-24	36.0' - 37.7'	652.9' - 651.2'	SANDSTONE	-	-	92.7	I
B-009-0-24	37.1' - 37.4'	651.8' - 651.5'	SANDSTONE	-	2,953	-	-
B-009-0-24	43.8' - 44.3'	645.1' - 644.6'	SANDSTONE	-	-	93.9	I
B-009-0-24	44.3' - 44.6'	644.6' - 644.3'	SANDSTONE	-	4,401	-	-
B-005-0-01	7.3'	661.7'	SHALE	-	-	96.0	-
B-005-0-01	11.7'	657.3'	SHALE	-	-	91.0	-
B-005-0-01	47.5'	621.5'	SHALE	-	-	87.0	-
B-005-0-01	49.8'	619.2'	SHALE	-	-	39.0	-
B-008-0-01	6.5'	656.0'	SHALE	-	-	83.0	-
B-008-0-01	47.5'	615.0'	SHALE	-	-	86.0	-
B-008-0-01	50.0'	612.5'	SHALE	-	-	14.0	-

DESIGN AGENCY



DESIGNER

AIC

REVIEWER

SAT 12/13/24

PROJECT ID

118778

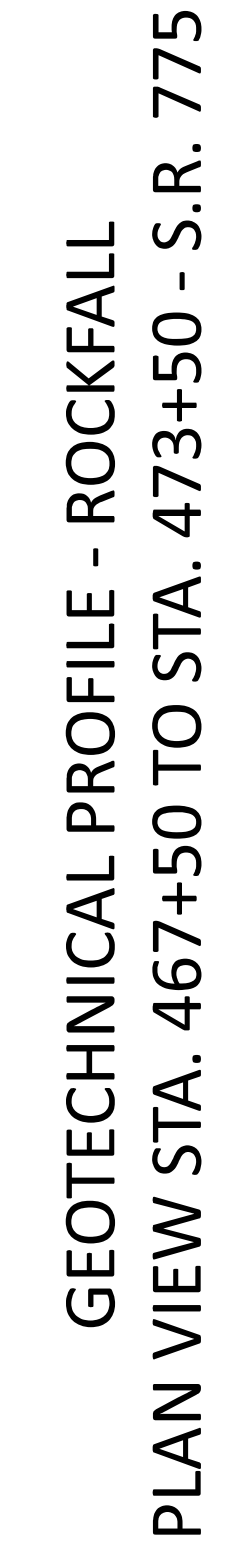
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SHEET	TOTAL
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HORIZONTAL  
SCALE IN FEET



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DESIGNER

AJC

REVIEWER

SAT 12/13/24

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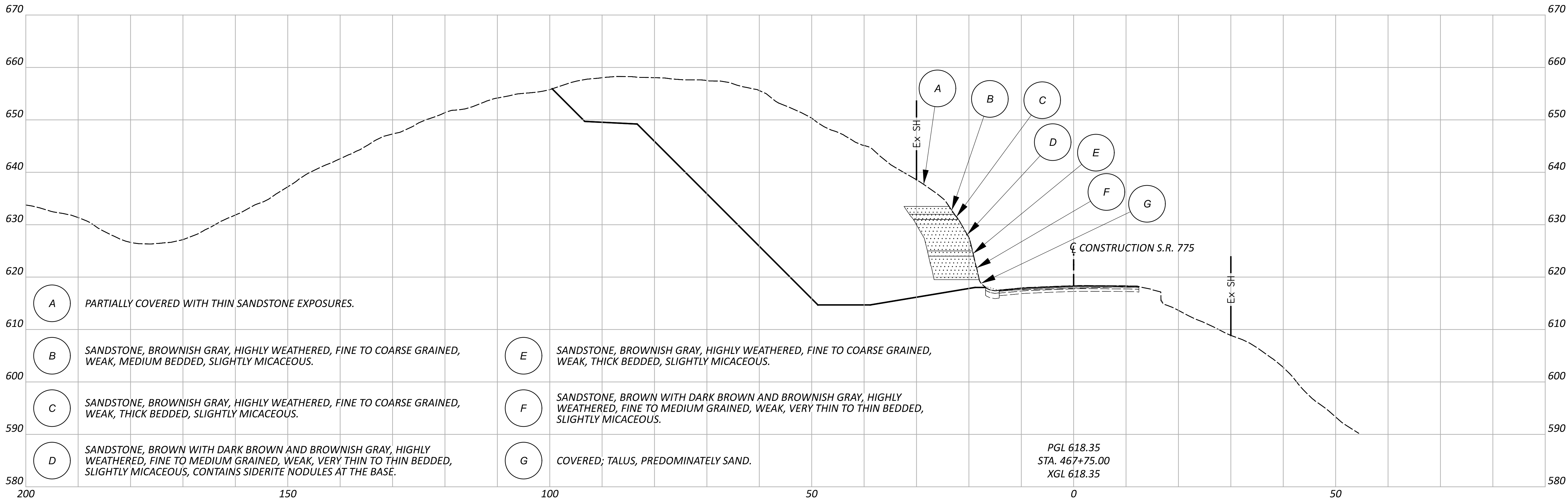
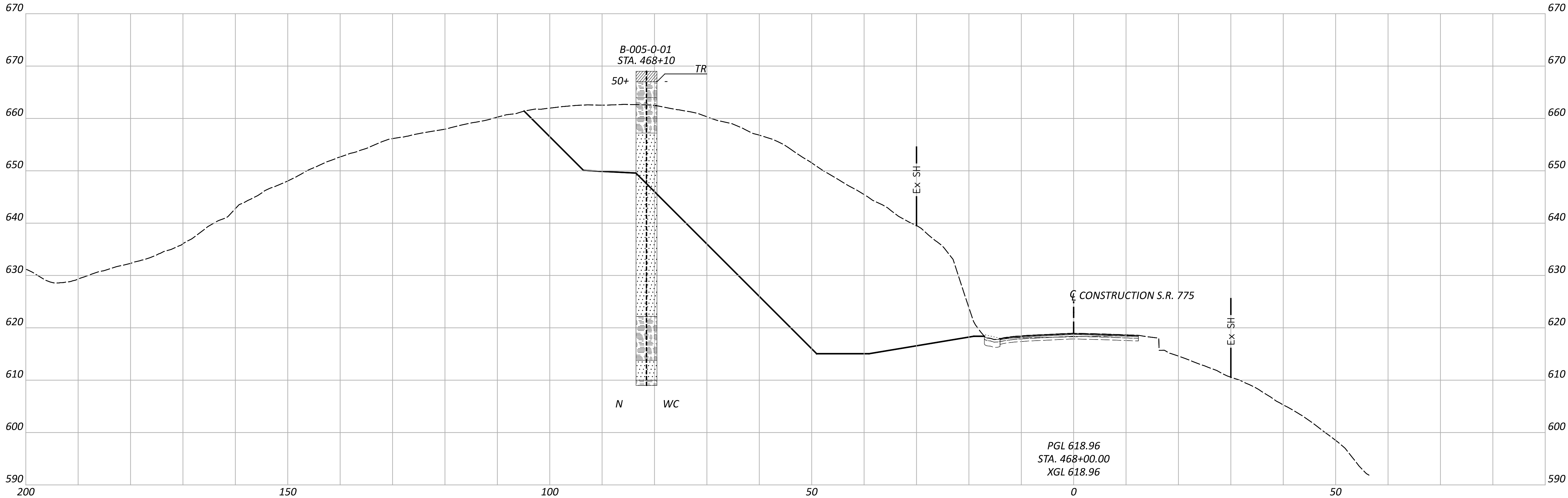
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HORIZONTAL  
SCALE IN FEET

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GEOTECHNICAL PROFILE - ROCKFALL

CROSS SECTION STA. 467+75 & STA. 468+00 - S.R. 775

DESIGN AGENCY

DESIGNER

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REVIEWER

SAT 12/13/24

PROJECT ID

118778

SUBSET

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TOTAL

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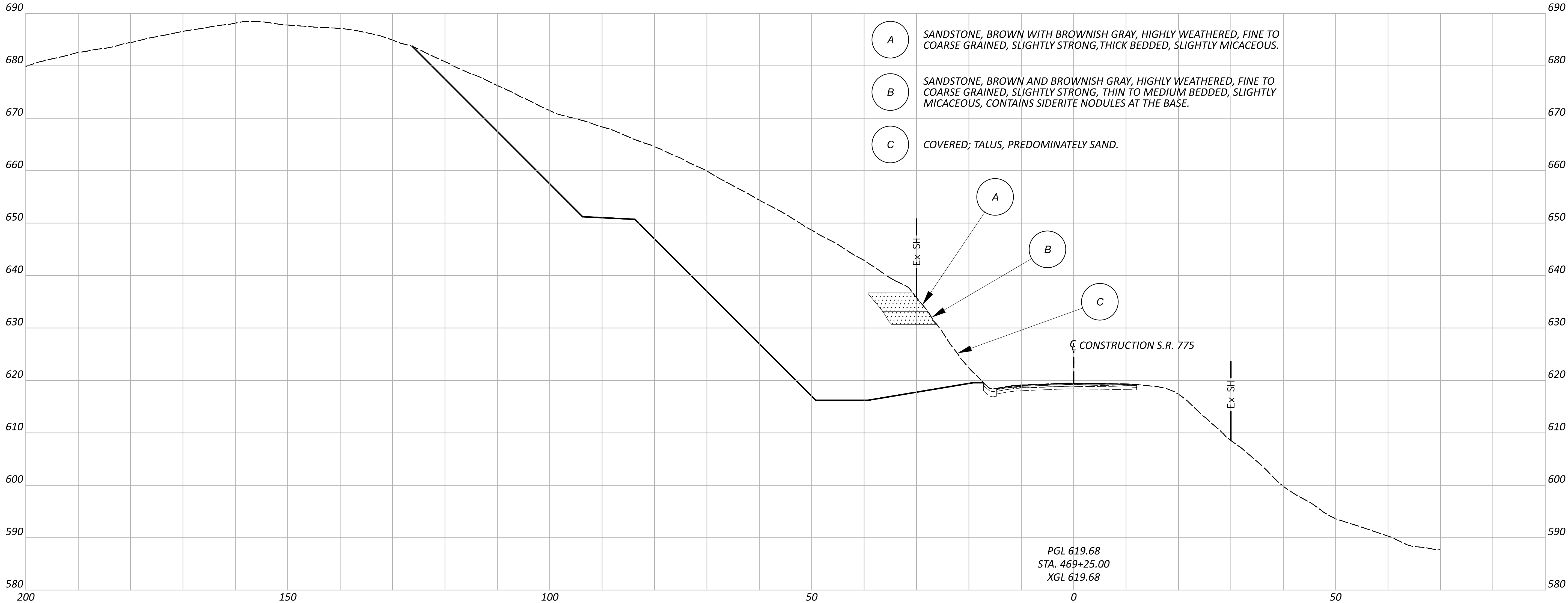
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GEOTECHNICAL PROFILE - ROCKFALL  
CROSS SECTION STA. 469+25 - S.R. 775

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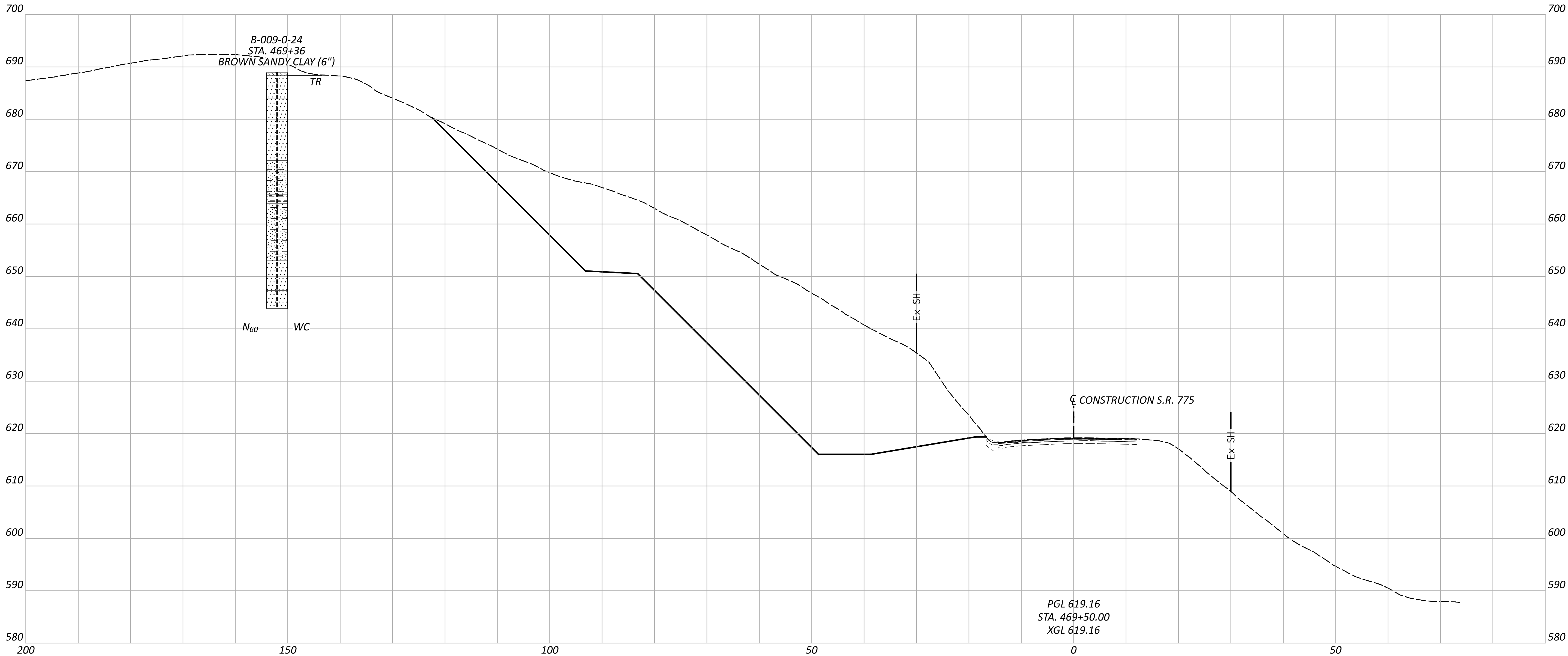
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GEOTECHNICAL PROFILE - ROCKFALL  
CROSS SECTION STA. 469+50 - S.R. 775

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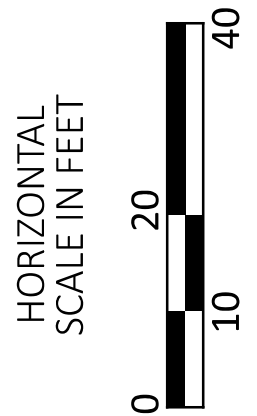
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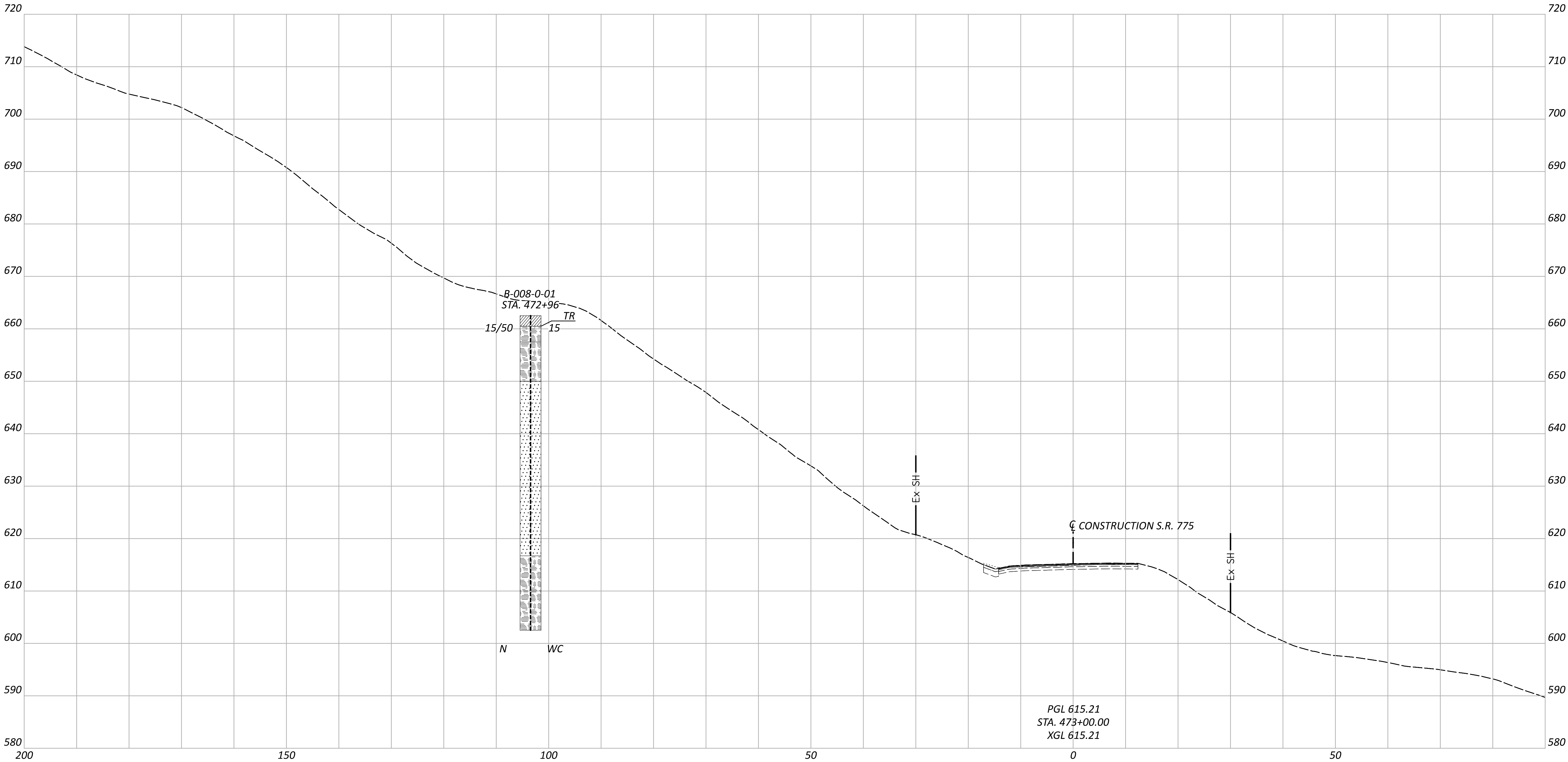
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GEOTECHNICAL PROFILE - ROCKFALL  
CROSS SECTION STA. 473+00 - S.R. 775

DESIGN AGENCY



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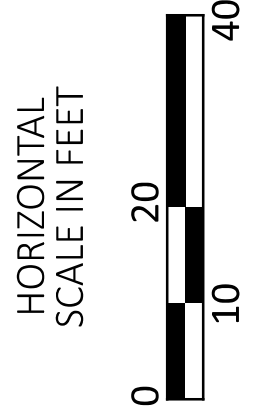
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**LAW-775-8.77**


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PROJECT: LAW-775-8.77				DRILLING FIRM / OPERATOR: ODOT / KINNEY				DRILL RIG: ACKER REBEL XL				STATION / OFFSET: 469+36.152' L.T.				EXPLORATION IN B-009-0-24			
TYPE: ROADWAY				SAMPLING FIRM / LOGGER: ODOT / LEWIS				HAMMER: ACKER AUTOMATIC				ALIGNMENT: CL SR 775				PAGE			
PID: 118778 SFN:				DRILLING METHOD: 3.25" HSA				CALIBRATION DATE: 11/7/23				ELEVATION: 688.9 (MSL) EOB: 45.0 ft.				1 OF 1			
START: 8/12/24 END: 8/15/24				SAMPLING METHOD: NQ2				ENERGY RATIO (%): 90*				LAT / LONG: 38.541662, -82.391818							
MATERIAL DESCRIPTION AND NOTES				ELEV. 688.9 688.4 683.9				DEPTHS TR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45				GRADATION (%)				ODOT CLASS (gi)			
												GR CS FS SI CL LL PL PI				WC			
BROWN SANDY CLAY (6") SANDSTONE, BROWN, SEVERELY WEATHERED, FINE TO MEDIUM GRAINED, AUGERED WITHOUT SAMPLING.				683.9				52				98				CORE			
												N60				ID (tsf)			
@ 11.0' - 13.0'; Id2 = 97.5%; TYPE I @ 11.3' - 11.6'; γ = 161 pcf; Qu = 9,375 psi				672.1				17				97				CORE			
												N60				ID (tsf)			
@ 13.3'; LOST WATER RETURN  @ 15.2' - 16.8"; S <sub>c</sub> = 4,190 psi				665.6				20				50				CORE			
												N60				ID (tsf)			
SILTSTONE, OLIVE BROWN, HIGHLY TO MODERATELY WEATHERED, SLIGHTLY STRONG, LAMINATED TO VERY THIN BEDDED, MICACEOUS, JOINT, HIGHLY FRACTURED TO FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, FAIR; RQD 13%; REC 59%. @ 17.0' - 20.0'; S <sub>c</sub> = 2,233 psi @ 17.0' - 20.0'; Id2 = 93.9%; TYPE II @ 18.8'; LOST WATER RETURN				663.9				0				54				CORE			
												N60				ID (tsf)			
SHALE, DARK GRAY, HIGHLY WEATHERED, VERY WEAK, LAMINATED, JOINT, HIGHLY FRACTURED TO FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, FAIR; RQD 57%, REC 100%. @ 23.3' - 25.0'; Id2 = 2.4%; TYPE III @ 23.9' - 24.1'; γ = 141 pcf; Qu = 13 psi				653.0				21				100				CORE			
												N60				ID (tsf)			
SILTSTONE, OLIVE BROWN, HIGHLY TO MODERATELY WEATHERED, WEAK TO SLIGHTLY STRONG, VERY THIN BEDDED, MICACEOUS, IRON STAINED, JOINT, HIGHLY FRACTURED TO FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, FAIR; RQD 30%; REC 85%. @ 27.0' - 29.0'; Id2 = 85.8%; TYPE II @ 29.6' - 30.0'; γ = 158 pcf; Qu = 1,855 psi @ 30.0' - 35.0'; Id2 = 93.4%; TYPE II @ 30.1' - 30.5'; γ = 158 pcf; Qu = 1,171 psi				647.3				33				50				CORE			
												N60				ID (tsf)			
SANDSTONE, OLIVE BROWN, MODERATELY WEATHERED, SLIGHTLY STRONG, FINE TO COARSE GRAINED, VERY THIN TO THIN BEDDED, MICACEOUS, JOINT, MODERATELY TO SLIGHTLY FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, GOOD; RQD 88%, REC 100%. @ 36.0' - 37.7'; Id2 = 92.7%; TYPE I @ 37.1' - 37.4'; γ = 150 pcf; Qu = 2,953 psi				643.9				73				97				CORE			
												N60				ID (tsf)			
SANDSTONE, OLIVE BROWN AND DARK GRAY, MODERATELY WEATHERED, MODERATELY STRONG, FINE TO MEDIUM GRAINED, VERY THIN TO THIN BEDDED, MICACEOUS, JOINT, MODERATELY TO SLIGHTLY FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, GOOD; RQD 93%, REC 100%. @ 42.7' - 45.0'; CONTAINS SHALE STRINGERS @ 43.8' - 44.3'; Id2 = 93.9%; TYPE I @ 44.3' - 44.6'; γ = 152 pcf; Qu = 4,401 psi				643.9				92				100				CORE			
												N60				ID (tsf)			

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 6/2/25 10:09 - X:\GINT\PROJECTS\2024 COMPLETE\601152.GPJ

NOTES: LAT/LONG/ELEV FROM DISTRICT SURVEY GRADE INSTRUMENTS. S<sub>c</sub> = POINT LOAD STRENGTH VALUES AS PER ASTM D 5731.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 75 GAL. BENTONITE GROUT

DESIGN AGENCY	
	
DESIGNER	
AJC	
REVIEWER	
SAT 12/13/24	
PROJECT ID	
118778	
SUBSET	TOTAL
8	12
SHEET	TOTAL
P.46	50

GEOTECHNICAL PROFILE - ROCKFALL  
BORING LOG B-009-0-24





Office of Geotechnical Engineering

B-009-0-24



Run #:	Depth	Recovery	RQD
NQ2-1	5.0'	59/60	31/60
NQ2-2	10.0'	57/60	38/60
LAW-775-8.77 PID 118778			



Office of Geotechnical Engineering

B-009-0-24



Run #:	Depth	Recovery	RQD
NQ2-3	15.0'	58/60	10/60
NQ2-4	20.0'	30/60	12/60
LAW-775-8.77 PID 118778			





Office of Geotechnical Engineering

B-009-0-24



Run #:	Depth		Recovery		RQD	
NQ2-5	25.0'	27.0'	13/24	54%	0/24	0%
NQ2-6	27.0'	29.0'	24/24	100%	5/24	21%
NQ2-7	29.0'	30.0'	6/12	50%	4/12	33%
NQ2-8	30.0'	35.0'	60/60	100%	30/60	50%



Office of Geotechnical Engineering

B-009-0-24



Run #:	Depth		Recovery		RQD	
NQ2-9	35.0'	40.0'	58/60	97%	44/60	73%
NQ2-10	40.0'	45.0'	60/60	100%	55/60	92%
LAW-775-8.77 PID 118778						



LOG OF BORING														B-005-0-01	
Date Started 10/17/01		Sampler Type SS Dia. 2"		Water Elev. -											
Date Completed 10/17/01		Coring Length: 55.0 ft. Dia. 2"		468+10,											
Boring No. 5		Station & Offset 457+85.5, 99.0' Lt.		81.5' Lt.		Surface Elev. 669.0									
Elev. (ft)	Depth (ft)	Std. Pen. /R.Q.D.	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics								
							% Agg.	% C.S.	% F.S.	% Silt	% Clay	LL	PI	WC	ODOT Class
669.0	0														
	1				Silt With Clay, brown, moist, stiff, (Visual)										
667.0	2				Top of Rock										
	3	50+			Shale, brown (Augered)	1							NR		
	4														
664.0	5				Begin Core										
	6				Shale, brown to gray, silty, laminated, soft, to moderately hard										
	7														
	8	76	2.5	0.0										SDI=96	
	9														
	10														
	11														
657.2	12														
	13	0	5.0	0.0	Sandstone, brown, medium grained, partially friable, moderately hard to hard									SDI=91	
	14														
	15														
	16														
	17														
	18	100	5.0	0.0											
	19														
	20														
	21														
	22														
	23														
	24														
	25														
	26														
	27														
	28	98	10.0	0.0											
	29														
	30														

LOG OF BORING (CONTINUED)														
Boring No. 5 (Cont.)		Station & Offset 457+85.5, 99.0' Lt.		468+10, 81.5' Lt.		Surface Elev. 669.0								
Elev. (ft)	Depth (ft)	Std. Pen. /R.Q.D.	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics							
							% Agg.	% C.S.	% F.S.	% Silt	% Clay	LL	PI	WC
	30													
	31				Sandstone, brown, medium grained, partially friable, moderately hard to hard									
	32													
	33													
	34													
	35													
	36													
	37													
	38	96	10.0	0.0										
	39													
	40													
	41													
	42													
	43													
	44													
	45													
	46													
622.2	47	98	10.0	0.0	Shale, gray, silty, laminated, moderately hard									
	48													
	49													
	50													
	51													
	52													
	53													
	54													
613.8	55					Sandstone, gray, medium grained, partially friable, hard								
	56													
	57													
	58	85	10.0	0.0										
610.0	59				Shale, gray, silty, laminated, moderately hard									
609.0	60	76	2.5	0.0										
Bottom of Boring														

ELEVATION INFORMATION BASED ON INTERPOLATED TOPOGRAPHIC INFORMATION FROM THE ORIGINAL 2002 SITE PLAN AND NOT FROM SURVEY DATA.

GEOTECHNICAL PROFILE - ROCKFALL  
HISTORIC BORING LOG B-005-0-01

DESIGN AGENCY

DESIGNER  
AIC

REVIEWER  
SAT 12/13/24

PROJECT ID  
118778

SUBSET TOTAL  
11 12

SHEET TOTAL  
P.49 50



LOG OF BORING

Date Started10/16/01

Date Completed10/16/01

Boring No.8

Sampler TypeSSDia.2"

Coring Length: 55.0 ftDia.2"472+96,

Station & Offset462+90, 109.3' Lt.103.5' Lt.

Water Elev.

Surface Elev.662.5

Elev. (ft)	Depth (ft)	Std. Pen. /R.Q.D.	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics												
							% Agg.	% C.S.	% F.S.	% Silt	% Clay	LL	PI	WC	ODOT Class				
662.5	0																		
	1				Silt With Clay, brown, moist, stiff, (Visual)														
660.5	2				Top of Rock														
	3	15/50			Shale, gray to reddish gray (Augered)	1									15				
	4																		
657.5	5				Begin Core														
	6				Shale, brown to reddish gray, silty, laminated, soft to moderately hard														SDI=83
	7																		
	8	0	2.5	0.0															
	9																		
	10																		
	11																		
650.0	12	50	5.0	0.0															
	13				Sandstone, brown, gray and red medium to fine grained, partially friable, hard														
	14																		
	15																		
	16																		
	17																		
	18	86	4.9	0.1															
	19																		
	20																		SDI=14
	21																		
	22																		
	23																		
	24																		
	25																		
	26																		
	27																		
	28	100	10.0	0.0															
	29																		
	30																		

ELEVATION INFORMATION BASED ON INTERPOLATED TOPOGRAPHIC INFORMATION FROM THE ORIGINAL 2002 SITE PLAN AND NOT FROM SURVEY DATA.

LOG OF BORING (CONTINUED)

Boring No.8 (Cont.)

Station & Offset462+90, 109.3' Lt.472+96,  
103.5' Lt.

Surface Elev.662.5

Elev. (ft)	Depth (ft)	Std. Pen. /R.Q.D.	Rec. (ft)	Loss (ft)	Description	Sample No.	Physical Characteristics												
							% Agg.	% C.S.	% F.S.	% Silt	% Clay	LL	PI	WC	ODOT Class				
	30																		
	31				Sandstone, brown, gray and red, medium to fine grained, partially friable, hard														
	32																		
	33																		
	34																		
	35																		
	36																		
	37	100	10.0	0.0															
	38																		
	39																		
	40																		
	41																		
	42																		
	43																		
	44																		
	45																		
516.7	46																		
	47	95	10.0	0.0	Shale, gray, silty, laminated, soft to moderately hard														SDI=86
	48																		
	49																		
	50																		SDI=14
	51																		
	52																		
	53																		
	54																		
	55																		
	56																		
	57	75	10.0	0.0															
	58																		
	59																		
602.5	60	75	2.5	0.0															

Bottom of Boring