

PROJECT DESCRIPTION

IMPROVEMENT OF 1.10 MILES OF S.R. 315 BY SLOPE STABILIZATION AT TWO (2) LOCATIONS. WORK INCLUDES RETAINING WALLS, CULVERT REPLACEMENTS, RESURFACING, AND THE INSTALLATION OF ROADSIDE DITCHES ON THE WEST SIDE OF S.R. 315.

HISTORIC RECORDS

NO HISTORICAL GEOTECHNICAL RECORDS WERE FOUND WITHIN EACH SEGMENT OF THE PROJECT. HOWEVER, SEVERAL BORINGS HAVE BEEN COMPLETED WITHIN THE CORRIDOR INDICATING THE PRESENCE OF GENERALLY COHESIVE SOILS UNDERLAIN BY SHALLOW LIMESTONE BEDROCK.

GEOLOGY

THE PROJECT IS LOCATED WITHIN THE CENTRAL OHIO CLAYEY TILL PLAIN PHYSIOGRAPHIC REGION WHICH IS CHARACTERIZED BY MODERATE RELIEF WITH WELL-DEFINED MORAINES AND RELATIVELY FLAT GROUND MORAINES BETWEEN. THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) INTERACTIVE GEOLOGIC MAP INDICATES THAT THE MAJORITY OF THE PROJECT AREA IS COMPRISED OF ALLUVIAL SOILS AT THE GROUND SURFACE ALONG THE BASE OF THE HILLSIDES WHICH ARE COMPRISED OF GLACIALLY DEPOSITED GROUND MORAINES. THE THIN OVERBURDEN SOILS ARE UNDERLAIN BY CARBONATE BEDROCK OF DEVONIAN AGE WITH THE COLUMBUS LIMESTONE PRESENT WITHIN THE OLENTANGY RIVER CHANNEL AND BANKS, AND DELAWARE LIMESTONE FOUND IN THE LOWER HILLSIDES.

RECONNAISSANCE

FIELD RECONNAISSANCE WAS COMPLETED BY PERSONNEL FROM THE OFFICE OF GEOTECHNICAL ENGINEERING (OGE) ON JULY 7, 2017. THE EXISTING ROADWAY WAS NOTED AS BEING PREDOMINATELY IN GOOD CONDITION. THE NORTHBOUND SHOULDER, RUNNING PARALLEL TO THE OLENTANGY RIVER, IS EXHIBITING MINOR DISTRESS DUE TO SLOPE INSTABILITY RESULTING FROM EROSION OF THE TOE OF THE SLOPE. ALONG THE SOUTHBOUND LANE A NARROW, FLAT, GRASS COVERED DITCH IS PRESENT ADJACENT TO EITHER WOODED HILLSIDE OR RURAL RESIDENTIAL LOTS. THE RIPARIAN CORRIDOR IS VEGETATED WITH GRASSES AND TREES, WITH AREA OF BARREN ERODED BANK PRESENT. IN ADDITION TO THE CURRENT PROJECT DEL-315-4.99 AND DEL-315-8.11 ALSO HAD RECONNAISSANCE COMPLETED. DEL-315-4.99 IS PRESENTED UNDER SEPARATE COVER AND DEL-315-8.11 WAS NON-PERFORMED WITH GEOTECHNICAL DATA PRESENTED WITHIN THE TRANSPORTATION INFORMATION MAPPING SYSTEM (TIMS).

SUBSURFACE EXPLORATION

SEVEN (7) BORINGS, B-001-0-17 THROUGH B-007-0-17, WERE COMPLETED AS PART OF THE SUBSURFACE EXPLORATION BETWEEN JULY 12 AND 15, 2017. BORINGS B-001-0-17 THROUGH B-003-0-17 AND B-005-0-17 THROUGH B-007-0-17 WERE DRILLED WITH A TRUCK MOUNTED CME55 ROTARY DRILL RIG. BORING B-004-0-17 WAS COMPLETED WITH A TRACK MOUNTED ACKER XLS ROTARY DRILL. ALL BORINGS WERE COMPLETED USING 3.25-INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THROUGH THE OVERBURDEN SOILS. DISTURBED SAMPLES COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT 2.5-FOOT INTERVALS. THE HAMMER SYSTEMS USED WERE CALIBRATED ON JUNE 1, 2017, WITH AN AVERAGE DRILL ROD ENERGY RATIO (ER) OF 77% FOR THE CME55 AND 89% FOR THE ACKER XLS. ALL BORINGS WERE ADVANCED INTO BEDROCK AND SAMPLED (AASHTO T225) USING AN N SERIES WIRELINE CORE BARREL, WATER METHOD.

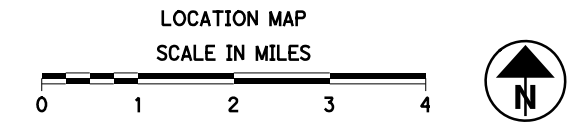
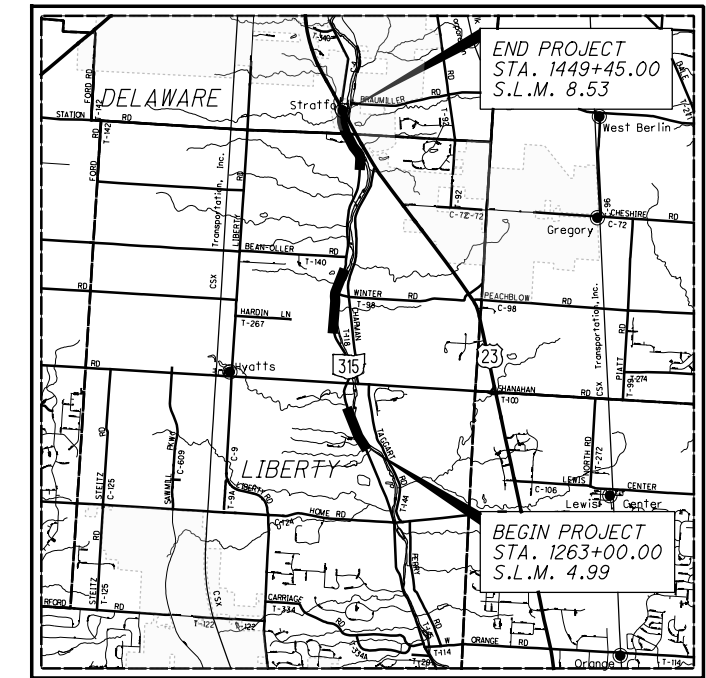
IN SUPPLEMENT TO THE BORINGS, ONE (1) ADDITIONAL BORING, B-006-1-17, AND ONE (1) DYNAMIC CONE PENETRATION (DCP) SOUNDING, D-007-1-17, WERE COMPLETED WITHIN THE VICINITY OF THE PROPOSED CULVERT HEADWALL LOCATIONS ON JULY 10, 2017. BORING B-006-1-17 WAS CORED WITH A MAN PORTABLE CORE MACHINE AND ADVANCED TO A DEPTH OF 2-FEET. SOUNDING D-007-1-17 WAS COMPLETED WITH A TRIGGS WILDCAT DCP UNIT UTILIZING A DISPOSABLE TIP. PRIOR TO INITIATING THE SOUNDING LIMESTONE COBBLES AND BOULDERS WERE CORED WITH A MAN PORTABLE CORE MACHINE AND A HOLE ADVANCED WITH HAND AUGER TO A DEPTH OF 1-METER.

ADDITIONALLY, ONE (1) ELECTRIC RESISTIVITY IMAGING (ERI) SURVEY WAS COMPLETED IN VICINITY OF THE EXISTING GUARDRAIL LOCATED ALONG THE NORTHBOUND LANE. THE ERI DATA WAS COLLECTED WITH AN ADVANCED GEOSCIENCES INC. (AGI) SUPERSTING R8 CONTROL UNIT. FOR THE ERI SURVEY, FIFTY-SIX (56) ELECTRODES WERE SPACED APPROXIMATELY 5-FEET APART. THE ERI SURVEY LINE STARTED SOUTH OF B-003-0-17 AND EXTENDED NORTH OF B-004-0-17. THE DATA WAS PROCESSED, AND SURFACE ELEVATION CORRECTED USING AGI'S EARTHIMAGER 2D SOFTWARE.

DURING JANUARY OF 2020 AN ADDITIONAL FOUR (4) DCP SOUNDINGS, D-001-1-19, D-001-2-19, D-004-1-19, AND D-004-2-19, WERE COMPLETED WITHIN THE GRASSY AREA ADJACENT TO THE PAVEMENT ALONG THE SOUTHBOUND LANE. THE DCP SOUNDINGS WERE PERFORMED TO EVALUATE IF SHALLOW BEDROCK WAS PRESENT WHICH MAY INTERFERE WITH PROPOSED STORMWATER BEST MANAGEMENT PRACTICES (BMP). THE DCP SOUNDINGS WERE COMPLETED WITH A TRIGGS WILDCAT DCP UNIT UTILIZING A DISPOSABLE TIP.

EXPLORATION NOTES CONTINUED, SEE SHEET 2.

LEGEND		ODOT CLASS	CLASSIFIED MECH./VISUAL	
DESCRIPTION				
	GRAVEL AND STONE FRAGMENTS WITH SAND	A-1-b	2	-
	GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT	A-2-4	4	4
	STONE FRAGMENTS WITH SAND, SILT AND CLAY	A-2-6	1	1
	SANDY SILT	A-4a	2	3
	SILT AND CLAY	A-6a	2	5
	SILTY CLAY	A-6b	3	1
	TOTAL		14	14
	BOULDERY ZONE	VISUAL		
	LIMESTONE	VISUAL		
	PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL		
	SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL		
	BORING OR DCP LOCATION - PLAN VIEW.			
	DRIVE SAMPLE AND ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.			
WC	INDICATES WATER CONTENT IN PERCENT.			
N ₆₀	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.			
X/D"	NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X/D" = NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.			
X/Y/D"	NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X = NUMBER OF BLOWS FOR 6 INCHES (UNCORRECTED). Y/D" = NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.			
X/Y/Z/D"	NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X = NUMBER OF BLOWS FOR FIRST 6 INCHES (UNCORRECTED). Y = NUMBER OF BLOWS FOR SECOND 6 INCHES (UNCORRECTED). Z/D" = NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.			
W—	INDICATES FREE WATER ELEVATION.			
∇—	INDICATES WATER AT COMPLETION.			
⊖	INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25 % OR GREATER THAN 19 % WITH A WET APPEARANCE.			
γ	INDICATES UNIT WEIGHT OF ROCK.			
LOI	INDICATES ORGANIC CONTENT BY LOSS ON IGNITION, AASHTO T267.			
NP	INDICATES A NON-PLASTIC SAMPLE.			
NQ	"N" SERIES ROCK CORE BARREL OF "Q" WIRELINE BIT SIZE.			
Qu	INDICATES UNCONFINED COMPRESSION TEST, ASTM D7012.			
SS	INDICATES A SPLIT SPOON SAMPLE.			
TR	INDICATES TOP OF ROCK ELEVATION.			



RECON. -	PPP	07/07/17
DRILLING -	AMJ,KAM	07/10-15/17
DCP -	AMJ,PPP	07/10/17, 01/07/20
GEOPHYSICS -	AMJ,JMB	08/11/17
DRAWN -	ARR	11/08/24
REVIEWED -	SAT	11/15/24

I:\ProjectData\02124\Design\Geotechnical\Sheets\02124_YC201.dgn DEL-315-6.34 Cover 11/18/2024 12:48:36 PM arcss3

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING
1980 W. BROAD ST. COLUMBUS, OH 43223

PID NO.
102124

GEOTECHNICAL PROFILE - LANDSLIDE

DEL - 315 - 6.34



I:\ProjectData\02124\Design\Geotechnical\Sheets\02124_YC202.dgn DEL - 315-6-34 Exploration Notes Cont. 11/18/2024 12:48:41PM ar_oss3

EXPLORATION FINDINGS

AFTER THE ORIGINAL PLANNED BORING LAYOUT THE LIMITS OF PROPOSED PLUG PILE WALL NO. 2 WERE REDUCED WITHOUT REQUIRING ANY ADDITIONAL EXPLORATION. BORINGS B-001-0-17 THROUGH B-003-0-17 AND B-005-0-17 THROUGH B-007-0-17 WERE COMPLETED WITHIN THE EXISTING ROADWAY ENCOUNTERING 11 TO 18-INCHES OF ASPHALT, WITH B-006-0-17 ALSO ENCOUNTERING 2-INCHES OF AGGREGATE BASE. BENEATH THE SURFACE MATERIALS THE BORINGS, EXCEPT B-006-0-17, ENCOUNTERED COHESIVE SOILS CONSISTING OF SANDY SILT (A-4a), SILT AND CLAY (A-6a), AND SILTY CLAY (A-6b) IN STIFF TO VERY STIFF CONSISTENCY AND DAMP TO MOIST CONDITION. BENEATH THE COHESIVE SOILS, AND BENEATH THE PAVEMENT AND BASE LAYER IN B-006-0-17, THE BORINGS, EXCEPT B-007-0-17, ENCOUNTERED NON-COHESIVE SOILS BETWEEN ELEVATION 795.9 AND 808.7 FEET, GENERALLY RISING TO THE NORTH. NON-COHESIVE SOILS CONSISTED OF GRAVEL AND STONE FRAGMENTS WITH SAND (A-1-b), STONE FRAGMENTS WITH SAND AND SILT (A-2-4), STONE FRAGMENTS WITH SAND, SILT, AND CLAY (A-2-6), AND SANDY SILT (A-4a) RANGING FROM MEDIUM DENSE TO VERY DENSE IN COMPACTNESS AND DAMP TO WET CONDITION TO TOP OF BEDROCK.

BORING B-004-0-17 WAS COMPLETED ALONG THE EDGE OF THE STREAM BANK ENCOUNTERING 6-INCHES OF TOPSOIL UNDERLAIN BY VERY STIFF SILTY CLAY (A-6b) IN DAMP CONDITION. BENEATH THE COHESIVE SOIL LAYER B-004-0-17 ENCOUNTERED DENSE TO VERY DENSE SANDY SILT (A-4a) IN DAMP TO MOIST CONDITION TO TOP OF BEDROCK.

BEDROCK WAS ENCOUNTERED WITHIN ALL BORINGS BETWEEN ELEVATION 790.8 AND 803.7 FEET GENERALLY RISING TO THE NORTH. ALL BORINGS WERE EXTENDED INTO LIMESTONE WHICH RANGED FROM STRONG TO VERY STRONG AND WAS JOINTED WITH CORE RUN RQD VALUES RANGING FROM 0% TO 88% AND UNIT RQD VALUES RANGING FROM 8% TO 72%. ALL BORINGS WERE TERMINATED WITHIN BEDROCK.

REPRESENTATIVE BEDROCK SAMPLES WERE TESTED FOR STRENGTH WITH UNCONFINED COMPRESSIVE TEST RESULTS RANGING FROM 10,563 TO 21,096 PSI. THESE RESULTS ARE PRESENTED IN TABULAR FORMAT, SEE BEDROCK TEST SUMMARY TABLE.

BOULDERS OR COBBLES WERE NOTED IN B-001-0-17 AT DEPTHS BETWEEN 8.5 AND 10- FEET.

BENEATH THE TOPSOIL IN B-004-0-17 MODERATELY ORGANIC SOIL WAS ENCOUNTERED WITH AN LOI RESULT OF 4.9% ORGANIC CONTENT. THIS RESULT IS PRESENTED IN THE ORGANIC CONTENT BY LOSS ON IGNITION TEST TABLE.

FREE WATER WAS NOTED WITHIN B-001-0-17 AND B-002-0-17 AT ELEVATION 796.9 AND 796.0 FEET, RESPECTIVELY WITH WATER NOTED AT COMPLETION IN B-001-0-017 AT ELEVATION 794.9 FEET. ALL OTHER BORINGS WERE REPORTED DRY PRIOR TO CORING OPERATIONS.

DCP SOUNDING D-007-1-17 WAS COMPLETED ALONG THE BASE OF THE STREAM BANK TO DETERMINE OVERBURDEN THICKNESS FOR THE PROPOSED HEADWALL. LIMESTONE BOULDERS WERE ENCOUNTERED AT THE GROUND SURFACE WHICH WAS CORED TO DETERMINE THE CONDITIONS. SOIL CONSISTING OF STONE FRAGMENTS WITH SAND AND SILT ENCOUNTERED AT 1.8 FEET AND CORED TO A DEPTH OF 3 FEET WHERE THE SOUNDING BEGAN. STIFF TO VERY STIFF CONDITIONS WERE ENCOUNTERED PRIOR TO REFUSAL CONDITIONS.

BMP DCP SOUNDINGS, D-001-1-19 AND D-001-2-19, WERE COMPLETED BETWEEN DEPTHS OF 8.2 AND 9.8 FEET, RESPECTIVELY, BELOW GROUND SURFACE ELEVATIONS 806.6 AND 806.3 FEET, RESPECTIVELY, WITHOUT ENCOUNTERING REFUSAL. BMP DCP SOUNDINGS, D-004-1-19 AND D-004-2-19, WERE COMPLETED BETWEEN DEPTHS OF 4.3 AND 6.7 FEET, RESPECTIVELY, BELOW GROUND SURFACE ELEVATIONS 808.9 AND 808.2 FEET, RESPECTIVELY, BEFORE ENCOUNTERING REFUSAL.

WATER WAS NOT NOTED IN ANY OF THE DCP SOUNDING LOCATIONS.

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 2017.

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. THE RAW CPT DATA IS AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE.

ORGANIC CONTENT BY LOSS ON IGNITION TEST				
BORING ID	SAMPLE ID	SAMPLE ELEVATION	SAMPLE DEPTH	LOI (%)
B-001-0-17	SS-1	806.6' - 805.1'	1.5' - 3.0'	4.9

BEDROCK TEST SUMMARY				
BORING ID	SAMPLE ELEVATION	SAMPLE DEPTH	Qu (PSI)	LITHOLOGY
B-001-0-17	788.2' - 787.9'	18.7' - 19.0'	13,563	LIMESTONE
	783.7' - 783.4'	23.2' - 23.5'	14,189	LIMESTONE
B-002-0-17	794.7' - 794.4'	13.3' - 13.6'	14,672	LIMESTONE
	791.6' - 791.2'	16.4' - 16.8'	10,563	LIMESTONE
B-003-0-17	794.0' - 793.7'	14.6' - 14.9'	16,880	LIMESTONE
	790.5' - 790.1'	18.1' - 18.5'	15,331	LIMESTONE
B-004-0-17	793.7' - 793.3'	14.4' - 14.8'	11,969	LIMESTONE
	787.7' - 787.3'	20.4' - 20.8'	14,374	LIMESTONE
B-005-0-17	793.3' - 793.0'	16.8' - 17.1'	15,896	LIMESTONE
B-006-0-17	801.3' - 800.9'	8.5' - 8.9'	17,676	LIMESTONE
B-006-1-17	799.1' - 798.7'	1.4' - 1.8'	17,037	LIMESTONE
B-007-0-17	802.5' - 802.2'	8.7' - 9.0'	21,096	LIMESTONE

DRAWN
ARR
CHECKED
SAT

GEOTECHNICAL PROFILE - LANDSLIDE
EXPLORATION NOTES, CONT.

DEL - 315 - 6 .34





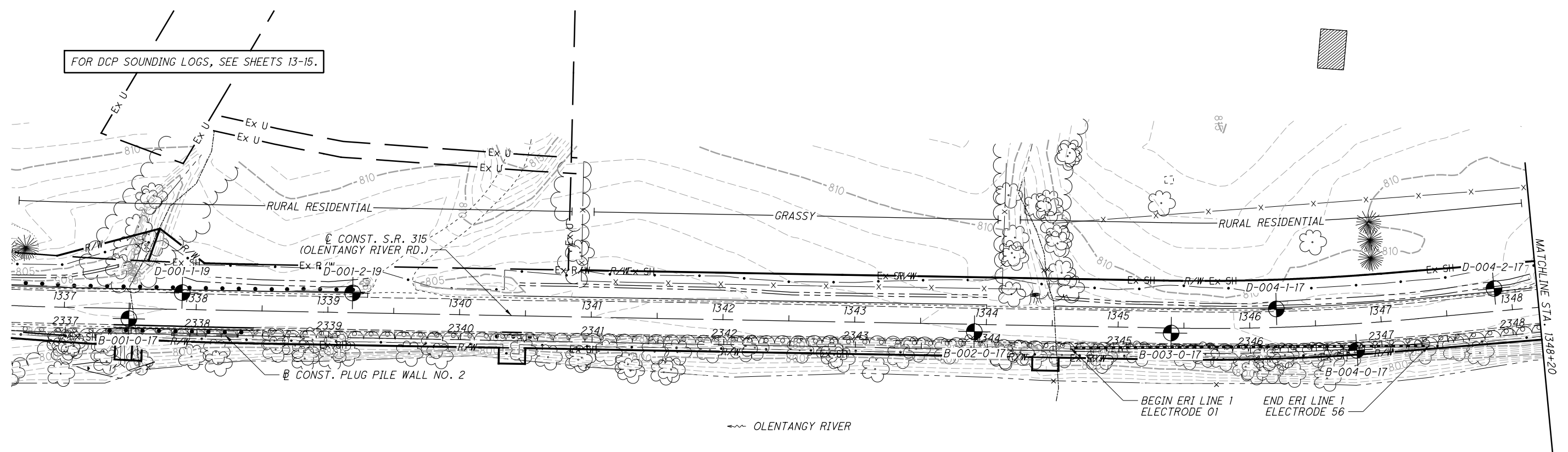
DRAWN
ARR
CHECKED
SAT

GEOTECHNICAL PROFILE - LANDSLIDE
STA. 1337+00 TO STA. 1348+20 S.R. 315

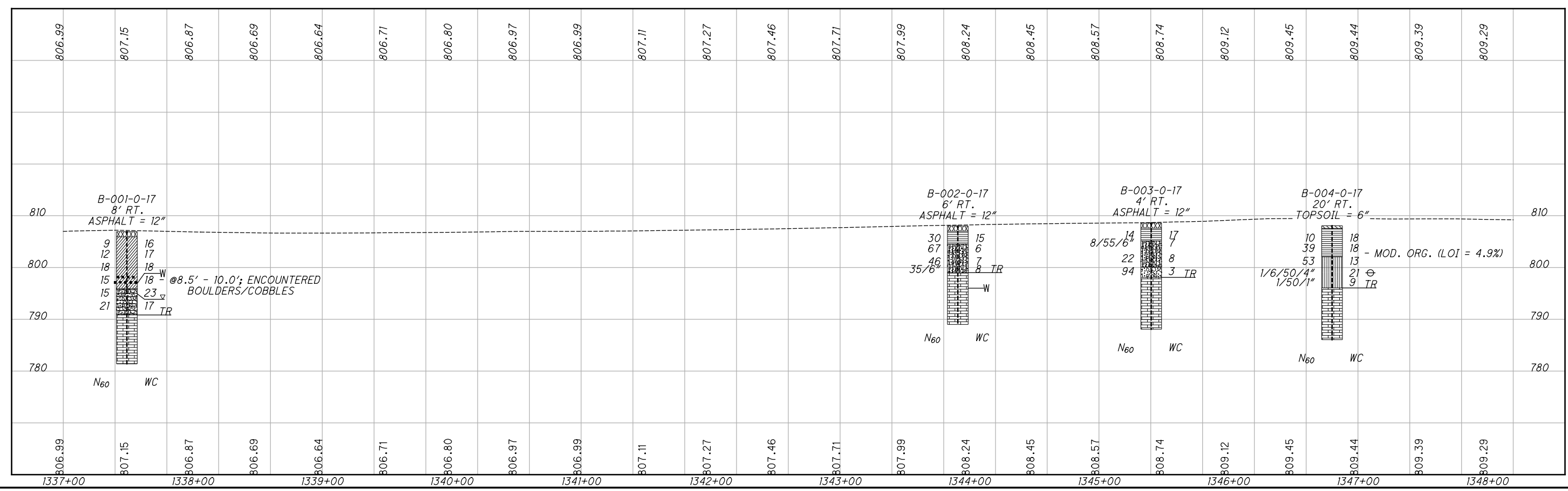
DEL - 315 - 6.34



FOR DCP SOUNDING LOGS, SEE SHEETS 13-15.

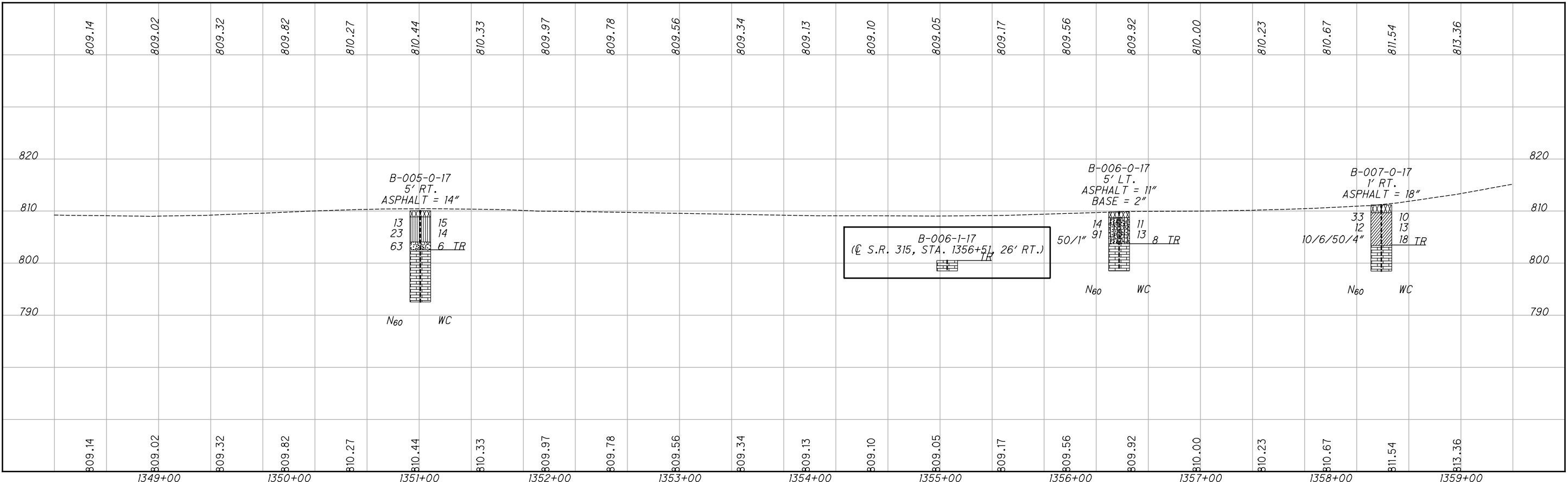
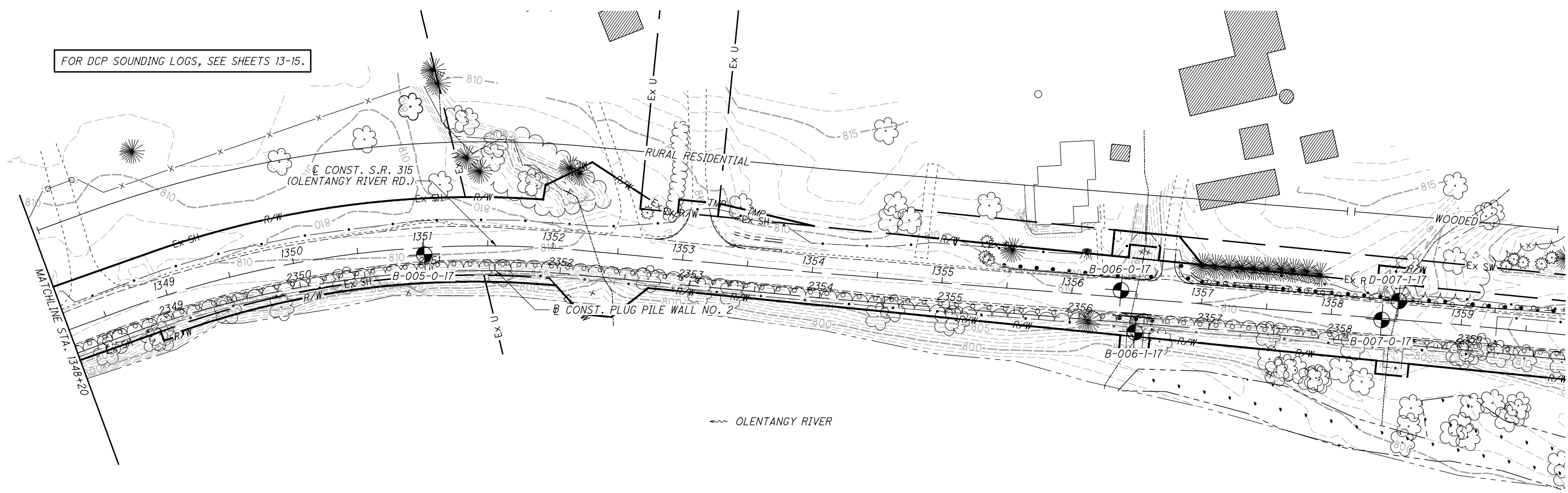


ELECTRICAL RESISTIVITY IMAGING (ERI) SURVEY LINE
LINE 1 APPROX. STA. 1344+64, 17' RT. TO 1347+34, 21' RT. (ELECTRODES 01-56)



I:\ProjectData\02124\Design\Geotechnical\Sheets\02124_YP201.dgn DEL-315-6.34_Stat137+00 to Sta 1348+20 11/18/2024 12:48:46 PM gross3

FOR DCP SOUNDING LOGS, SEE SHEETS 13-15.



GEOTECHNICAL PROFILE - LANDSLIDE
 STA. 1348+20 TO STA. 1359+40 S.R. 315

DEL - 315 - 6.34

4 / 16



I:\ProjectData\02124\Design\Geotechnical\Sheets\02124_YP202.dgn DEL-315-6.34 Sta 1348+20 to Sta 1359+40 11/18/2024 12:48:49 PM gross

PROJECT: DEL-315-6.34 TYPE: LANDSLIDE		DRILLING FIRM / OPERATOR: ODOT / CAREY		STATION / OFFSET: 1337+49, 8' RT.		EXPLORATION ID: B-001-0-17	
PID: 102124 SFN: N/A		SAMPLING FIRM / LOGGER: ODOT / MCLEISH		ALIGNMENT: CL SR 315		PAGE: 1 OF 1	
START: 7/12/17 END: 7/12/17		DRILLING METHOD: 3.25" HSA / NQ2		ELEVATION: 806.9 (ft) EOB: 25.5 ft.			
		SAMPLING METHOD: SPT / NQ2		LAT / LONG: 40.225064, -83.064749			
MATERIAL DESCRIPTION AND NOTES				GRADATION (%)			
ASPHALT (12")				GR CS FS SI CL LL PL PI WC			
STIFF, BROWN AND REDDISH BROWN MOTTLED, SILT AND CLAY, SOME STONE FRAGMENTS, LITTLE SAND, (NOT ENOUGH MATERIAL TO TEST), DAMP TO MOIST				GRADATION (%)			
@3.5' - NO RECOVERY, AUGER SAMPLE TAKEN				GR CS FS SI CL LL PL PI WC			
@8.5' - 10.0': ENCOUNTERED BOULDERS/COBBLES				GR CS FS SI CL LL PL PI WC			
MEDIUM DENSE, BROWN AND REDDISH BROWN MOTTLED, STONE FRAGMENTS WITH SAND, SILT, AND CLAY, MOIST TO WET				GR CS FS SI CL LL PL PI WC			
LIMESTONE, LIGHT GRAY, MODERATELY WEATHERED, STRONG, THIN BEDDED, CRYSTALLINE, FOSSILIFEROUS, BEDDING, MODERATELY FRACTURED, OPEN, VERY ROUGH; BLOCKY; GOOD; RQD 63%, REC 96%.				GR CS FS SI CL LL PL PI WC			
@ 18.7' - 19.0': $\gamma = 164$ pcf; $Q_u = 13,563$ psi				GR CS FS SI CL LL PL PI WC			
@ 23.2' - 23.5': $\gamma = 163$ pcf; $Q_u = 14,189$ psi				GR CS FS SI CL LL PL PI WC			

NOTES: LAT/LONG FROM OGE HANDHELD GPS UNIT. ELEV FROM CONSULTANT SURVEY TIN. ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS MIXED WITH 100 LB. BENTONITE CHIPS



Office of Geotechnical Engineering

B-001-0-17



Run #:	Depth	Recovery	RQD
NQ2-1	15.5'	57/60	22/60
NQ2-2	20.5'	58/60	53/60
		95%	37%
		97%	88%

DEL-315-6.34 PID 102124

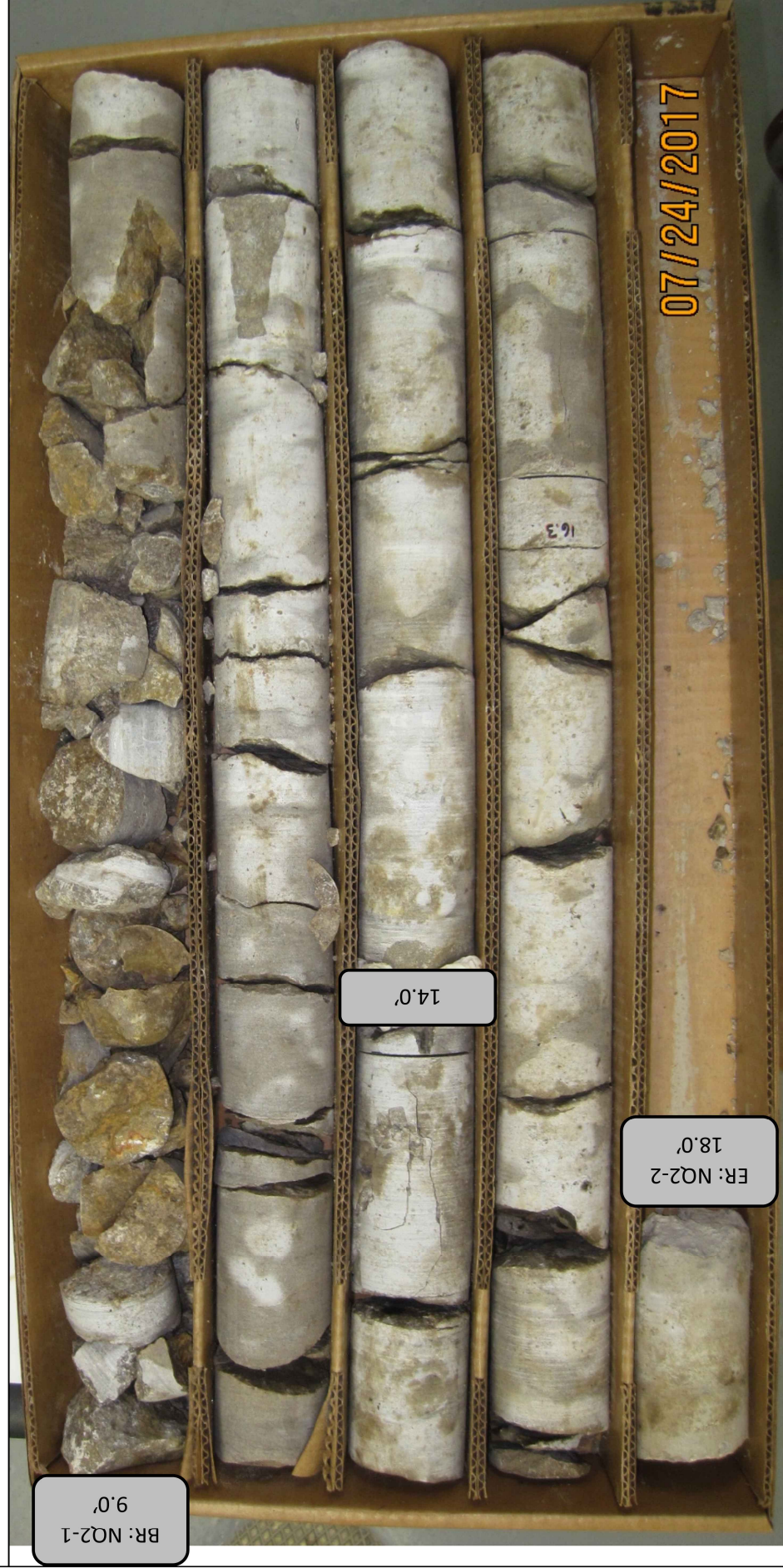
PROJECT: DEL-315-6.34 LANDSLIDE	DRILLING FIRM / OPERATOR: ODOT / CAREY	STATION / OFFSET: 1343+91, 6' RT.	EXPLORATION ID: B-002-0-17
PID: 102124 SFN: N/A	SAMPLING FIRM / LOGGER: ODOT / MCLEISH	ALIGNMENT: CL SR 315	
START: 7/15/17 END: 7/15/17	DRILLING METHOD: 3.25" HSA / NQ2	ELEVATION: 808.0 (ft) EOB: 19.0 ft.	PAGE: 1 OF 1
	SAMPLING METHOD: SPT / NQ2	LAT / LONG: 40.226824, -83.064635	
MATERIAL DESCRIPTION AND NOTES		GRADATION (%)	ODOT CLASS (GI)
ASPHALT (12")	ELEV. 808.0	GR CS FS SI CL	WC
VERY STIFF, BROWN, SILTY CLAY, SOME SAND, LITTLE STONE FRAGMENTS, DAMP	807.0	17 13 16 24 30 37 17 20 15	A-6b (8)
VERY DENSE, GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT, TRACE CLAY, DAMP	804.5	51 11 12 20 6 NP NP NP 6	A-2-4 (0)
@6.0'; DENSE, BROWN		41 13 13 25 8 NP NP NP 7	A-2-4 (0)
LIMESTONE, LIGHT GRAY, MODERATELY WEATHERED, STRONG, THIN BEDDED, CRYSTALLINE, SLIGHTLY STYLOLITIC, BEDDING, MODERATELY FRACTURED, OPEN, VERY ROUGH; BLOCKY, GOOD; RQD 25%, REC 83%	799.0		A-2-4 (V)
@ 13.3' - 13.6'; $\gamma = 165$ pcf; $Q_u = 14,672$ psi			CORE
@ 16.4' - 16.8'; $\gamma = 163$ pcf; $Q_u = 10,563$ psi			CORE
	789.0		

NOTES: LAT/LONG FROM OGE HANDHELD GPS UNIT. ELEV FROM CONSULTANT SURVEY TIN. HOLE DRY BEFORE CORING. ABANDONMENT METHODS. MATERIALS. QUANTITIES: AUGER CUTTINGS MIXED WITH 70 LB. BENTONITE CHIPS



Office of Geotechnical Engineering

B-002-0-17



Run #:	Depth	Recovery	RQD
NQ2-1	9.0'	56/60	5/60
NQ2-2	14.0'	44/48	26/48
	18.0'	92%	8%
		93%	54%

DEL-315-6.34 PID 102124



DEL - 315 - 6 . 34

DRAWN
ARR
CHECKED
SAT

GEOTECHNICAL PROFILE - LANDSLIDE
BORING LOG AND ROCK CORE PHOTO FOR B-002-0-17

PROJECT: DEL-315-6.34 TYPE: LANDSLIDE	DRILLING FIRM / OPERATOR: ODOT / BINKLEY SAMPLING FIRM / LOGGER: ODOT / AJ	DRILL RIG: ACKER XLS TRACK HAMMER: ACKER AUTOMATIC	STATION / OFFSET: 1346+80, 20' RT. ALIGNMENT: CL SR 315	EXPLORATION ID B-004-0-17
PID: 102124 SFN: N/A	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 6/1/17	ELEVATION: 808.1 (ft) EOB: 22.0 ft.	PAGE
START: 7/15/17 END: 7/15/17	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 89	LAT / LONG: 40,227619, -83,064549	1 OF 1
MATERIAL DESCRIPTION AND NOTES				
TOPSOIL (6") VERY STIFF, DARK BROWN, SILTY CLAY, MODERATELY ORGANIC (LOI = 4.9%), DAMP	ELEV. 808.1 807.6	DEPTH 1 2 3 4 5 6 7 8 9 10 11 12	GR CS FS SI CL LL PL PI WC	ODOT CLASS (GI)
DENSE TO VERY DENSE, BROWN AND REDDISH BROWN, SANDY SILT, SOME STONE FRAGMENTS, SOME CLAY, DAMP TO MOIST	802.1	6 7 8 9 10 11 12		
LIMESTONE, LIGHT GRAY, MODERATELY WEATHERED, STRONG, THIN BEDDED, FOSSILIFEROUS, STYLOLITIC, PETROLIFEROUS, BEDDING, MODERATELY FRACTURED, OPEN, VERY ROUGH; BLOCKY, GOOD; RQD 45%, REC 96%. @ 14.4' - 14.8'; γ = 162 pcf; Q_u = 11,969 psi	796.1	12 13 14 15 16 17 18 19 20 21 22		CORE
@ 17.8' - 18.0'; HIGH ANGLE FRACTURE				CORE
@ 20.4' - 20.8'; γ = 163 pcf; Q_u = 14,374 psi	786.1			CORE

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 11/8/24 10:18 - X:\GINT\PROJECTS\2017 COMPLETE\6020386.GPJ

NOTES: LAT/LONG FROM OGE HANDHELD GPS UNIT. ELEV FROM CONSULTANT SURVEY TIN. HOLE DRY BEFORE CORING. ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS MIXED WITH 75 LB. BENTONITE CHIPS



Office of Geotechnical Engineering

B-004-0-17



Run #:	Depth	Recovery	RQD
NQ2-1	12.0'	42/42	100%
NQ2-2	15.5'	45/48	94%
NQ2-2	19.5'	28/30	93%
		0/42	0%
		30/48	63%
		24/30	80%

DEL-315-6.34 PID 102124

DEL - 315 - 6 . 34

GEOTECHNICAL PROFILE - LANDSLIDE
BORING LOG AND ROCK CORE PHOTO FOR B-004-0-17

DRAWN
ARR
CHECKED
SAT

PROJECT: DEL-315-6.34 LANDSLIDE	DRILLING FIRM / OPERATOR: ODOT / CAREY	STATION / OFFSET: 1351+01, 5' RT.	EXPLOSION ID: B-005-0-17
PID: 102124 SFN: N/A	SAMPLING FIRM / LOGGER: ODOT / MCLEISH	ALIGNMENT: CL SR 315	
START: 7/15/17 END: 7/15/17	DRILLING METHOD: 3.25" HSA / NQ2	ELEVATION: 810.1 (ft) EOB: 17.5 ft.	PAGE 1 OF 1
	SAMPLING METHOD: SPT / NQ2	LAT / LONG: 40.228764, -83.064566	
MATERIAL DESCRIPTION AND NOTES			
ASPHALT (14")	ELEV. 810.1	GRADATION (%)	BACK FILL
VERY STIFF BROWN SANDY SILT, SOME CLAY, LITTLE STONE FRAGMENTS, DAMP	808.9	GR CS FS SI CL LL PL PI WC	
@3.5'; SOME STONE FRAGMENTS			
VERY DENSE, BROWN AND GRAY GRAVEL AND STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, DAMP	804.1		
LIMESTONE, BROWNISH GRAY, MODERATELY WEATHERED, VERY STRONG, THIN BEDDED, CRYSTALLINE, CONTAINS CLAY INFILLING, JOINTED, FRACTURED, OPEN, VERY ROUGH; VERY BLOCKY, POOR; RQD 8%, REC 100%, @8.1' - 16.8'; HIGH ANGLE FRACTURE WITH CLAY INFILLING AND RUST STAINING	802.6		
	TR		
	792.6		
	EOB		

@16.8'; MODERATELY FRACTURED
@ 16.8' - 17.1'; $\gamma = 167$ pcf; $Q_u = 15,896$ psi

NOTES: LAT/LONG FROM OGE HANDHELD GPS UNIT. ELEV FROM CONSULTANT SURVEY TIN. HOLE DRY BEFORE CORING. ABANDONMENT METHODS. MATERIALS. QUANTITIES: AUGER CUTTINGS MIXED WITH 50 LB. BENTONITE CHIPS



Office of Geotechnical Engineering

B-005-0-17



Run #:	Depth	Recovery	RQD
NQ2-1	7.5'	60/60	0/60
NQ2-2	12.5'	60/60	9/60
		100%	15%
DEL-315-6.34 PID 102124			

PROJECT: DEL-315-6.34 TYPE: LANDSLIDE	DRILLING FIRM / OPERATOR: ODOT / MCLEISH SAMPLING FIRM / LOGGER: ODOT / AJ	DRILL RIG: CME 55 TRUCK HAMMER: CME AUTOMATIC	STATION / OFFSET: 1356+38, 5' LT. ALIGNMENT: CL SR 315	EXPLORATION ID B-006-0-17
PID: 102124 SFN: N/A	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 6/1/17	ELEVATION: 809.8 (ft) EOB: 11.3 ft.	PAGE 1 OF 1
START: 7/15/17 END: 7/15/17	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 77	LAT / LONG: 40.230148, -83.063919	
MATERIAL DESCRIPTION AND NOTES				
ASPHALT (11") & BASE (2")	ELEV. 809.8	SPT / RQD	GRADATION (%)	BACK FILL
MEDIUM DENSE, BROWN, STONE FRAGMENTS WITH SAND AND SILT, LITTLE CLAY, DAMP	808.7	17 7 4	GR CS FS SI CL LL PL PI WC	DOT CLASS (GI)
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, VERY STRONG, THIN BEDDED, CRYSTALLINE, BEDDING, MODERATELY FRACTURED, OPEN, VERY ROUGH; BLOCKY, GOOD; RQD 40%, REC 100%.	803.7	17 21 50	44 13 15 17 11 22 17 5 13	A-2-4 (V)
@ 7.9' - 8.0'; CLAY SEAM				A-2-4 (O)
@ 8.5' - 8.9'; $\gamma = 167$ pcf; $Q_u = 17,676$ psi	TR	83		A-2-4 (V)
	EOB	40		CORE

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 11/8/24 12:18 - X:\GINT\PROJECTS\2017\COMPLET\600286.GPJ

NOTES: LAT/LONG FROM OGE HANDHELD GPS UNIT. ELEV FROM CONSULTANT SURVEY TIN. HOLE DRY BEFORE CORING. ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS MIXED WITH 25 LB. BENTONITE CHIPS



Office of Geotechnical Engineering

B-006-0-17



Run #:	Depth	Recovery	RQD
NQ2-1	6.1'	62.4/62.4	25/62.4
	11.3'	100%	40%

DEL-315-6.34 PID 102124



DEL - 315 - 6 . 34

GEOTECHNICAL PROFILE - LANDSLIDE
BORING LOG AND ROCK CORE PHOTO FOR B-006 - 0-17

DRAWN
ARR
CHECKED
SAT

PROJECT: DEL-315-6.34 LANDSLIDE STATION / OFFSET: 1356+51, 26' RT. EXPLORATION ID B-006-1-17
 TYPE: LANDSLIDE ALIGNMENT: CL SR 315
 PID: 102124 SFN: N/A ELEVATION: 800.5 (ft) EOB: 2.0 ft. PAGE 1 OF 1
 START: 7/10/17 END: 7/10/17 LAT / LONG: 40.230151, -83.063798

DRILL RIG: CME 55 TRUCK	REC (%)	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	WC	ODOT CLASS (GI)
HAMMER: CME AUTOMATIC	N ₆₀	ID									ABANDONED
CALIBRATION DATE: 6/1/17	21	100									CORE
ENERGY RATIO (%): 77											

DRILLING FIRM / OPERATOR: ODOT / BINKLEY	DEPTH	TR	EOB
SAMPLING FIRM / LOGGER: ODOT / AJ	800.5	1	2
DRILLING METHOD: HAND AUGER / NX			
SAMPLING METHOD: HAND AUGER	798.5		

MATERIAL DESCRIPTION AND NOTES
 LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, VERY STRONG, THIN BEDDED, CRYSTALLINE, BEDDING, MODERATELY FRACTURED, OPEN, VERY ROUGH; BLOCKY, GOOD; RQD 20%, REC 100%.
 @ 1.4' - 1.8'; γ = 166 pcf; Q_u = 17,037 psi

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 10/24/24 14:44 - X:\GINT\PROJECTS\2017 COMPLETE\6003986.GPJ

NOTES: LAT/LONG FROM OGE HANDHELD GPS UNIT. ELEV FROM CONSULTANT SURVEY TIN. HOLE DRY BEFORE CORING.
 ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED



DEL - 315 - 6 . 34

GEOTECHNICAL PROFILE - LANDSLIDE
 BORING LOG FOR B-006-1-17

DRAWN
ARR
CHECKED
SAT



PROJECT: DEL-315-6.34		DRILLING FIRM / OPERATOR: ODOT / MCLEISH		STATION / OFFSET: 1358+39, 1' RT.		EXPLORATION ID: B-007-0-17												
TYPE: LANDSLIDE		SAMPLING FIRM / LOGGER: ODOT / AJ		ALIGNMENT: CL SR 315		PAGE: 1 OF 1												
PID: 102124 SFN: N/A		DRILLING METHOD: 3.25" HSA / NQ2		ELEVATION: 811.2 (ft) EOB: 12.7 ft.		1 OF 1												
START: 7/15/17 END: 7/15/17		SAMPLING METHOD: SPT / NQ2		LAT / LONG: 40.230656, -83.063635														
MATERIAL DESCRIPTION AND NOTES				GRADATION (%)														
ASPHALT (18")	ELEV.	DEPTH	SPT / RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
	811.2																	
STIFF TO VERY STIFF, REDDISH BROWN, SILT AND CLAY, "AND" STONE FRAGMENTS, SOME SAND, DAMP	809.7		8	16	33	28	SS-1	41	12	11	19	17	27	16	11	10	A-6a (0)	
			10	4	4	12	44	SS-2	-	-	-	-	-	-	-	13	A-6a (V)	
@6.0"; WITH WOOD FRAGMENTS, MOIST			10	6	-	58	SS-3	1.00	-	-	-	-	-	-	-	18	A-6a (V)	
LIMESTONE, GRAY, SLIGHTLY WEATHERED, VERY STRONG, THIN BEDDED, CRYSTALLINE, SLIGHTLY STYOLITIC, BEDDING AND JOINTED, MODERATELY FRACTURED, OPEN, VERY ROUGH; BLOCKY, GOOD; RQD 72%, REC 88%.	803.4	TR	72	72	88	NQ2-1											CORE	
@8.7" - 9.0"; γ = 168 pcf; Qu = 21,096 psi																		
@9.4" - 10.1"; CLAY SEAM																		
@11.3" - 11.7"; HIGH ANGLE PARTIALLY HEALED FRACTURE	798.5																	
EOB																		

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 11/8/24 12:18 - X:\GINT\PROJECTS\2017\COMPLETES\602086.GPJ

NOTES: LAT/LONG FROM OGE HANDHELD GPS UNIT. ELEV FROM CONSULTANT SURVEY TIN. HOLE DRY BEFORE CORING.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS MIXED WITH 75 LB. BENTONITE CHIPS



Office of Geotechnical Engineering

B-007-0-17



Run #:	Depth	Recovery	RQD
NQ2-1	7.7'	53/60	72%
	12.7'	88%	43/60
DEL-315-6.34 PID 102124			



DEL - 315 - 6 . 34

GEO TECHNICAL PROFILE - LANDSLIDE
BORING LOG AND ROCK CORE PHOTO FOR B-007-0-17

WILDCAT DYNAMIC CONE LOG

The Ohio Department of Transportation
Office of Geotechnical Engineering
1600 West Broad Street, Columbus, Ohio 43223

PROJECT NUMBER: 102124
DATE STARTED: 01-07-2020
DATE COMPLETED: 01-07-2020

HOLE #: D-001-1-19
CREW: Jalbrzikowski, Hesler, Bloor & Painter
PROJECT: DEL-315-6.34
LAT/LONG: 40.225176, -83.064828
LOCATION: DEL-315-6.44 Southern BMP location Southbound

SURFACE ELEVATION: 806.6
WATER ON COMPLETION: None observed.
HAMMER WEIGHT: 35 lbs.
CONE AREA: 10 sq. cm

WILDCAT DYNAMIC CONE LOG

The Ohio Department of Transportation
Office of Geotechnical Engineering
1600 West Broad Street, Columbus, Ohio 43223

PROJECT NUMBER: 102124
DATE STARTED: 01-07-2020
DATE COMPLETED: 01-07-2020

HOLE #: D-001-2-19
CREW: Jalbrzikowski, Hesler, Bloor & Painter
PROJECT: DEL-315-6.34
LAT/LONG: 40.225531, -83.064811
LOCATION: DEL-315-6.44 Southern BMP location Southbound

SURFACE ELEVATION: 806.3
WATER ON COMPLETION: None observed.
HAMMER WEIGHT: 35 lbs.
CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	3	13.3	•••				3	VERY LOOSE	SOFT
-	7	31.1	••••••••				8	LOOSE	MEDIUM STIFF
1 ft	7	31.1	••••••••				8	LOOSE	MEDIUM STIFF
-	6	26.6	••••••				7	LOOSE	MEDIUM STIFF
-	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
2 ft	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
-	6	26.6	••••••				7	LOOSE	MEDIUM STIFF
-	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
3 ft	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
1 m	6	26.6	••••••				7	LOOSE	MEDIUM STIFF
-	7	27.0	••••••				7	LOOSE	MEDIUM STIFF
4 ft	5	19.3	•••••				5	LOOSE	MEDIUM STIFF
-	5	19.3	•••••				5	LOOSE	MEDIUM STIFF
-	6	23.2	•••••				6	LOOSE	MEDIUM STIFF
5 ft	14	54.0	••••••••••				15	MEDIUM DENSE	STIFF
-	12	46.3	••••••••				13	MEDIUM DENSE	STIFF
-	10	38.6	••••••••				11	MEDIUM DENSE	STIFF
6 ft	6	23.2	•••••				6	LOOSE	MEDIUM STIFF
-	9	34.7	••••••••				9	LOOSE	STIFF
2 m	17	65.6	••••••••••••				18	MEDIUM DENSE	VERY STIFF
7 ft	11	37.6	••••••••				10	LOOSE	STIFF
-	9	30.8	••••••••				8	LOOSE	MEDIUM STIFF
-	11	37.6	••••••••				10	LOOSE	STIFF
8 ft	9	30.8	••••••••				8	LOOSE	MEDIUM STIFF
-	25	85.5	••••••••••••••				24	MEDIUM DENSE	VERY STIFF
9 ft									
3 m	10 ft								
11 ft									
12 ft									
4 m	13 ft								

Soil Profile Based on B-001-0-17:
0.0' - 0.5': Topsoil (noted at DCP location)
0.5' - 11.0': Brown and reddish brown SILTY AND CLAY, some stone fragment, some sand, damp to moist.
11.0' - 16.1': Brown and reddish brown mottled STONE FRAGMENTS WITH SAND, SILT AND CLAY, moist to wet.
16.1': Limestone

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	2	8.9	••				2	VERY LOOSE	SOFT
-	4	17.8	••••				5	LOOSE	MEDIUM STIFF
1 ft	5	22.2	•••••				6	LOOSE	MEDIUM STIFF
-	5	22.2	•••••				6	LOOSE	MEDIUM STIFF
-	5	22.2	•••••				6	LOOSE	MEDIUM STIFF
2 ft	6	26.6	•••••				7	LOOSE	MEDIUM STIFF
-	6	26.6	•••••				7	LOOSE	MEDIUM STIFF
-	10	44.4	••••••••••				12	MEDIUM DENSE	STIFF
3 ft	11	48.8	••••••••••				13	MEDIUM DENSE	STIFF
1 m	9	40.0	••••••••				11	MEDIUM DENSE	STIFF
-	9	34.7	••••••••				9	LOOSE	STIFF
4 ft	7	27.0	•••••				7	LOOSE	MEDIUM STIFF
-	9	34.7	••••••••				9	LOOSE	STIFF
-	8	30.9	••••••				8	LOOSE	MEDIUM STIFF
5 ft	9	34.7	••••••••				9	LOOSE	STIFF
-	7	27.0	•••••				7	LOOSE	MEDIUM STIFF
-	8	30.9	•••••				8	LOOSE	MEDIUM STIFF
6 ft	4	15.4	••••				4	VERY LOOSE	SOFT
-	3	11.6	•••				3	VERY LOOSE	SOFT
2 m	6	23.2	•••••				6	LOOSE	MEDIUM STIFF
7 ft	5	17.1	••••				4	VERY LOOSE	SOFT
-	6	20.5	••••				5	LOOSE	MEDIUM STIFF
-	6	20.5	••••				5	LOOSE	MEDIUM STIFF
8 ft	6	20.5	••••				5	LOOSE	MEDIUM STIFF
-	13	44.5	••••••••••				12	MEDIUM DENSE	STIFF
-	19	65.0	••••••••••••				18	MEDIUM DENSE	VERY STIFF
9 ft	13	44.5	••••••••				12	MEDIUM DENSE	STIFF
-	11	37.6	••••••••				10	LOOSE	STIFF
3 m	7	23.9	•••••				6	LOOSE	MEDIUM STIFF
10 ft	10	34.2	••••••				9	LOOSE	STIFF
11 ft									
12 ft									
4 m	13 ft								

Latitude & Longitude from OGE handheld GPS unit. Elevation from Consultant Survey terrain file.

Latitude & Longitude from OGE handheld GPS unit. Elevation from Consultant Survey terrain file.

I:\ProjectData\02124\Design\Geotechnical\Sheets\02124_YL209.dgn DEL-315-6.34 D-001-1-19 and D-001-2-19 Sounding Log 11/18/2024 12:49:48 PM gross3

DRAWN
ARR
CHECKED
SAT

GEO TECHNICAL PROFILE - LANDSLIDE
DCP SOUNDING LOGS FOR D-001-1-19 & D-001-2-19

DEL-315-6.34



WILDCAT DYNAMIC CONE LOG

The Ohio Department of Transportation
Office of Geotechnical Engineering
1600 West Broad Street, Columbus, Ohio 43223

PROJECT NUMBER: 102124
DATE STARTED: 01-07-2020
DATE COMPLETED: 01-07-2020

HOLE #: D-004-1-19
CREW: Jalbrzikowski, Hesler, Bloor & Painter
PROJECT: DEL-315-6.34
LAT/LONG: 40.227453, -83.064682
LOCATION: DEL-315-6.44 Northern BMP location Southbound

SURFACE ELEVATION: 808.9
WATER ON COMPLETION: None observed.
HAMMER WEIGHT: 35 lbs.
CONE AREA: 10 sq. cm

WILDCAT DYNAMIC CONE LOG

The Ohio Department of Transportation
Office of Geotechnical Engineering
1600 West Broad Street, Columbus, Ohio 43223

PROJECT NUMBER: 102124
DATE STARTED: 01-07-2020
DATE COMPLETED: 01-07-2020

HOLE #: D-004-2-19
CREW: Jalbrzikowski, Hesler, Bloor & Painter
PROJECT: DEL-315-6.34
LAT/LONG: 40.227908, -83.064717
LOCATION: DEL-315-6.44 Northern BMP location Southbound

SURFACE ELEVATION: 808.2
WATER ON COMPLETION: None observed.
HAMMER WEIGHT: 35 lbs.
CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY		
			0	50	100	150		NON-COHESIVE	COHESIVE	
	2	8.9	••				2	VERY LOOSE	SOFT	
	5	22.2	•••••				6	LOOSE	MEDIUM STIFF	
1 ft	5	22.2	•••••				6	LOOSE	MEDIUM STIFF	
	5	22.2	•••••				6	LOOSE	MEDIUM STIFF	
	6	26.6	•••••				7	LOOSE	MEDIUM STIFF	
2 ft	9	40.0	••••••••				11	MEDIUM DENSE	STIFF	
	9	40.0	••••••••				11	MEDIUM DENSE	STIFF	
	8	35.5	••••••••				10	LOOSE	STIFF	
3 ft	10	44.4	••••••••				12	MEDIUM DENSE	STIFF	
1 m	11	48.8	•••••••••				13	MEDIUM DENSE	STIFF	
	27	104.2	••••••••••••••••••••				25+	MEDIUM DENSE	VERY STIFF	
4 ft	11	42.5	••••••••				12	MEDIUM DENSE	STIFF	
	7	27.0	••••••				7	LOOSE	MEDIUM STIFF	
	25	96.5	••••••••••••••••••••				25+	MEDIUM DENSE	VERY STIFF	
5 ft	Refusal at 132cm (25+ blows/2cm) ~EL. 804.6 ft.									
6 ft										
2 m										
7 ft										
8 ft										
9 ft										
3 m	10 ft	Soil Profile Based on B-004-0-17: 0.0' - 0.5': Topsoil 0.5' - 6.0': Dark brown SILTY CLAY, "and" sand, little gravel and stone fragement, moderately organic moist. 6.0' - 12.0': Brown and reddish brown SANDY SILT, some stone fragments, some clay, damp 12.0': Limestone								
11 ft										
12 ft										
4 m	13 ft									

Latitude & Longitude from OGE handheld GPS unit. Elevation from Consultant Survey terrain file.

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY		
			0	50	100	150		NON-COHESIVE	COHESIVE	
	2	8.9	••				2	VERY LOOSE	SOFT	
	3	13.3	•••				3	VERY LOOSE	SOFT	
1 ft	3	13.3	•••				3	VERY LOOSE	SOFT	
	4	17.8	•••••				5	LOOSE	MEDIUM STIFF	
	4	17.8	•••••				5	LOOSE	MEDIUM STIFF	
2 ft	6	26.6	••••••••				7	LOOSE	MEDIUM STIFF	
	5	22.2	••••••••				6	LOOSE	MEDIUM STIFF	
	5	22.2	••••••••				6	LOOSE	MEDIUM STIFF	
3 ft	6	26.6	••••••••				7	LOOSE	MEDIUM STIFF	
1 m	13	57.7	••••••••••••••				16	MEDIUM DENSE	VERY STIFF	
	12	46.3	••••••••••				13	MEDIUM DENSE	STIFF	
4 ft	8	30.9	••••••••				8	LOOSE	MEDIUM STIFF	
	12	46.3	••••••••••				13	MEDIUM DENSE	STIFF	
	10	38.6	••••••••••				11	MEDIUM DENSE	STIFF	
5 ft	9	34.7	••••••••••				9	LOOSE	STIFF	
	11	42.5	••••••••••				12	MEDIUM DENSE	STIFF	
	17	65.6	••••••••••••••				18	MEDIUM DENSE	VERY STIFF	
6 ft	19	73.3	••••••••••••••				20	MEDIUM DENSE	VERY STIFF	
	25	96.5	••••••~••••••••••••••				25+	MEDIUM DENSE	VERY STIFF	
2 m	7 ft	Refusal at 188 cm (25+ blows/8 cm) ~EL. 802.0 ft.								
8 ft										
9 ft										
3 m	10 ft									
11 ft										
12 ft										
4 m	13 ft									

Latitude & Longitude from OGE handheld GPS unit. Elevation from Consultant Survey terrain file.

I:\ProjectData\02124\Design\Geotechnical\Sheets\02124_YL210.dgn DEL-315-6.34 D-004-1-19 and D-004-2-19 Sounding Log 11/18/2024 12:49:57 PM gross3

DRAWN: ARR CHECKED: SAT
GEO TECHNICAL PROFILE - LANDSLIDE
DCP SOUNDING LOGS FOR D-004-1-19 & D-004-2-19
DEL-315-6.34
14/16

WILDCAT DYNAMIC CONE LOG

The Ohio Department of Transportation
 Office of Geotechnical Engineering
 1600 West Broad Street, Columbus, Ohio 43223

PROJECT NUMBER: 102124
 DATE STARTED: 07-10-2017
 DATE COMPLETED: 07-10-2017

HOLE #: D-007-1-17
 CREW: K. Mcleish, J. Binkley, & A. Jalbrzikowski
 PROJECT: DEL-315-6.34
 LAT/LONG: 40.230701, -83.063684
 LOCATION: Delaware County, Ohio

SURFACE ELEVATION: 811.0
 WATER ON COMPLETION: none observed
 HAMMER WEIGHT: 35 lbs.
 CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
	0	0.0	0'-0.7'; LIMESTONE FRAGMENTS				0	VERY LOOSE	VERY SOFT
	0	0.0					0	VERY LOOSE	VERY SOFT
1 ft	0	0.0	0.7'-1.8'; LIMESTONE BOULDERS				0	VERY LOOSE	VERY SOFT
	0	0.0					0	VERY LOOSE	VERY SOFT
	0	0.0					0	VERY LOOSE	VERY SOFT
2 ft	0	0.0	1.8'-3.5'; BROWN STONE FRAGS. WITH SAND, SILT, & CLAY, DAMP				0	VERY LOOSE	VERY SOFT
	0	0.0					0	VERY LOOSE	VERY SOFT
	0	0.0					0	VERY LOOSE	VERY SOFT
3 ft	0	0.0					0	VERY LOOSE	VERY SOFT
1 m	0	0.0	WILDCAT DCP STARTED @3.5'				0	VERY LOOSE	VERY SOFT
	12	46.3	.....				13	MEDIUM DENSE	STIFF
4 ft	24	92.6	.....				25+	MEDIUM DENSE	VERY STIFF
	15	57.9	.....				16	MEDIUM DENSE	VERY STIFF
	25	96.5	.....				25+	MEDIUM DENSE	VERY STIFF
5 ft									
6 ft									
2 m									
7 ft									
8 ft									
9 ft									
3 m	10 ft								
11 ft									
12 ft									
4 m	13 ft								

Latitude & Longitude from OGE handheld GPS unit. Elevation from Consultant Survey terrain file. Hole dry before coring. Hole advanced with handheld NX Core Drill.

I:\ProjectData\02124\Design\Geotechnical\Sheets\02124_YL21.dgn DEL-315-6.34 D-007-1-17 Sounding Log 11/18/2024 12:50:07 PM aross3

**GEOTECHNICAL PROFILE - LANDSLIDE
DCP SOUNDING LOG FOR D-007-1-17**

DEL-315-6.34

