



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

July 7, 2020

Peter Narsavage, P.E.
E.L. Robinson Engineering (ELR)
1801 Watermark Drive, Suite 310
Columbus, Ohio 43215

RE: Subsurface Exploration Data Report
SUM 76/77 Phase I + II

Dear Mr. Narsavage

DLZ American Drilling has completed the drilling and laboratory testing of soils from subsurface exploration of SUM 76/77. A plan of borings, boring summary sheet, pavement core photos, boring logs, grain size information, sulfate test data and GB-1 are attached. Boring logs are updated with the corrected alignment, and a copy of the gINT file is attached via email.

If you have any questions regarding the information provided, do not hesitate to contact us.

Sincerely,

Barry K. Wong, P.E.
Vice President

ATTACHMENTS

- I. Table of Borings and Pavement Cores
- II. Plan of Borings and Pavement Cores
- III. Pavement Core Data
- IV. Boring Logs
- V. Grain Size Reports
- VI. Sulfate Test Data
- VII. GB-1 Subgrade Analysis Tab

TABLE OF BORINGS AND PAVEMENT CORES

Boring #	Boring Type	Road Name	Direction	Location
B-013-0-18	Roadway	I.R. 76 - MAINLINE	Eastbound	Gore Area of I.R. 76 & Northbound Ramp I-59
B-018-0-20	Roadway	I.R. 76 - MAINLINE	Westbound	Gore Area of I.R. 76 & Northbound Ramp W-10
B-002-0-18	Roadway	I.R. 76 - MAINLINE	Westbound	Gore Area of I.R. 76 & Ramp J
B-004-0-18	Roadway	I.R. 76 - MAINLINE	Eastbound	Inside Shoulder of I.R. 76
P-004-0-18	Pavement Core	I.R. 76 - MAINLINE	Eastbound	Inside Shoulder of I.R. 76
P-008-0-18	Pavement Core	I.R. 76 - MAINLINE	Eastbound	Inside Shoulder of I.R. 76
B-010-0-18	Structure	I.R. 76 - MAINLINE	Westbound	Inside Shoulder of I.R. 76
B-009-1-19	Structure	I.R. 76 - MAINLINE	Eastbound	Outside Shoulder of I.R. 76
B-009-2-19	Structure	I.R. 76 - MAINLINE	Westbound	Outside Shoulder of I.R. 76
B-014-1-19	Structure	I.R. 76 - MAINLINE	Westbound	Outside Shoulder of I.R. 76
B-014-2-19	Structure	W. Bowery St	Northbound	North side of I.R. 76 overpass
B-014-3-19	Structure	I.R. 76 - MAINLINE	Westbound	Outside Shoulder of I.R. 76
B-014-4-19	Structure	I.R. 76 - MAINLINE	Westbound	Outside Shoulder of I.R. 76
B-020-0-20	Roadway	I.R. 76 - MAINLINE	Westbound	Inside Shoulder of I.R. 76
B-003-0-18	Roadway	I.R. 76 - RAMP L	Eastbound	Inside Shoulder of Ramp L
B-005-0-18	Roadway	I.R. 76 - RAMP L	Eastbound	Inside Shoulder of Ramp L
B-007-0-18	Roadway	I.R. 76 - MAINLINE	Eastbound	Lane 1 of I.R. 76
B-011-0-18	Roadway	I.R. 76 - MAINLINE	Eastbound	Lane 1 of I.R. 76
B-019-0-20	Roadway	I.R. 76 - MAINLINE	Eastbound	Lane 1 of I.R. 76
B-006-0-18	Roadway	I.R. 76 - MAINLINE	Westbound	Lane 1 of I.R. 76
B-014-0-20	Structure	I.R. 76 - MAINLINE	Westbound	Lane 1 of I.R. 76
B-012-0-18	Roadway	I.R. 76 - MAINLINE	Westbound	Lane 4 of I.R. 76
B-009-0-18	Structure	I.R. 76 - MAINLINE	Eastbound	Outside Shoulder of I.R. 76
B-017-0-18	Roadway	I.R. 76 - MAINLINE	Eastbound	Outside Shoulder of I.R. 76
P-001-0-18	Pavement Core	I.R. 76 - MAINLINE	Eastbound	Outside Shoulder of I.R. 76
P-005-0-18	Pavement Core	I.R. 76 - MAINLINE	Eastbound	Outside Shoulder of I.R. 76
P-006-0-18	Pavement Core	I.R. 76 - MAINLINE	Eastbound	Outside Shoulder of I.R. 76
P-010-0-18	Pavement Core	I.R. 76 - MAINLINE	Eastbound	Outside Shoulder of I.R. 76
B-008-0-18	Roadway	I.R. 76 - MAINLINE	Westbound	Outside Shoulder of I.R. 76
B-015-0-20	Structure	I.R. 76 - MAINLINE	Westbound	Outside Shoulder of I.R. 76
P-003-0-18	Pavement Core	I.R. 76 - MAINLINE	Westbound	Outside Shoulder of I.R. 76
P-007-0-18	Pavement Core	I.R. 76 - MAINLINE	Westbound	Outside Shoulder of I.R. 76
P-009-0-18	Pavement Core	I.R. 76 - MAINLINE	Westbound	Outside Shoulder of I.R. 76
B-001-0-18	Roadway	I.R. 76 - RAMP J	Westbound	Outside Shoulder of Ramp J
P-002-0-18	Pavement Core	I.R. 76 - Ramp J	Westbound	Outside Shoulder of Ramp J
B-016-0-20	Roadway	I.R. 76 - RAMP W11	Eastbound	Outside Shoulder of W-11

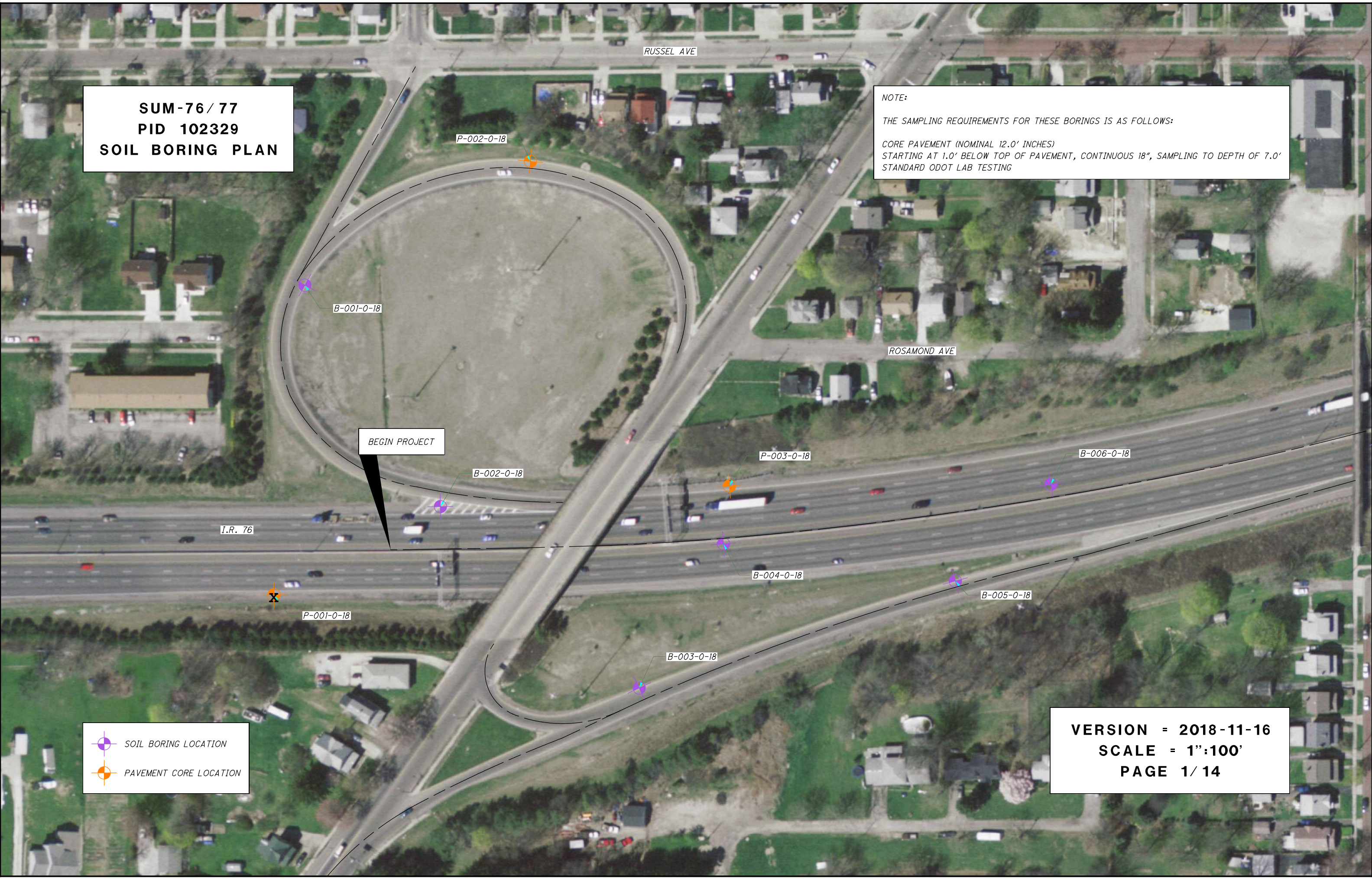
SUSPEND PROJECT

Boring #	Boring Type	Road Name	Direction	Location
P-025-0-18	Pavement Core	I.R. 77 - Gore Area	Northbound	Gore Area of I.R. 77
B-024-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Gore Area of I.R. 77 & Ramp S-11
B-023-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Gore Area of I.R. 77 & Ramp S-12
B-033-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Gore Area of I.R. 77 & Ramp S-7
B-031-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Inside Shoulder of I.R. 77
B-039-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Inside Shoulder of I.R. 77
P-026-0-18	Pavement Core	I.R. 77 - MAINLINE	Northbound	Inside Shoulder of I.R. 77
P-030-0-18	Pavement Core	I.R. 77 - MAINLINE	Northbound	Inside Shoulder of I.R. 77
B-028-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Inside Shoulder of I.R. 77
B-036-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Inside Shoulder of I.R. 77
P-012-0-18	Pavement Core	I.R. 77 - MAINLINE	Southbound	Inside Shoulder of I.R. 77
P-029-0-18	Pavement Core	I.R. 77 - MAINLINE	Southbound	Inside Shoulder of I.R. 77
P-036-0-18	Pavement Core	I.R. 77 - Ramp S-11	Northbound	Inside Shoulder of Ramp S-11
B-027-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Lane 1 of I.R. 77
B-035-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Lane 1 of I.R. 77
B-043-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Lane 1 of I.R. 77
B-032-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Lane 1 of I.R. 77
B-021-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Lane 3 of I.R. 77
B-029-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Lane 3 of I.R. 77
B-037-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Lane 3 of I.R. 77
B-022-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Lane 3 of I.R. 77
B-030-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Lane 3 of I.R. 77
B-042-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Lane 4 of I.R. 77
B-025-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Outside Shoulder of I.R. 77
B-041-0-18	Roadway	I.R. 77 - MAINLINE	Northbound	Outside Shoulder of I.R. 77
P-013-0-18	Pavement Core	I.R. 77 - MAINLINE	Northbound	Outside Shoulder of I.R. 77
P-016-0-18	Pavement Core	I.R. 77 - MAINLINE	Northbound	Outside Shoulder of I.R. 77
P-020-0-18	Pavement Core	I.R. 77 - MAINLINE	Northbound	Outside Shoulder of I.R. 77
P-021-0-18	Pavement Core	I.R. 77 - MAINLINE	Northbound	Outside Shoulder of I.R. 77
P-028-0-18	Pavement Core	I.R. 77 - MAINLINE	Northbound	Outside Shoulder of I.R. 77
P-035-0-18	Pavement Core	I.R. 77 - MAINLINE	Northbound	Outside Shoulder of I.R. 77
B-026-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Outside Shoulder of I.R. 77
B-034-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Outside Shoulder of I.R. 77
B-038-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Outside Shoulder of I.R. 77
B-040-0-18	Roadway	I.R. 77 - MAINLINE	Southbound	Outside Shoulder of I.R. 77
P-011-0-18	Pavement Core	I.R. 77 - MAINLINE	Southbound	Outside Shoulder of I.R. 77
P-019-0-18	Pavement Core	I.R. 77 - MAINLINE	Southbound	Outside Shoulder of I.R. 77
P-024-0-18	Pavement Core	I.R. 77 - MAINLINE	Southbound	Outside Shoulder of I.R. 77
P-027-0-18	Pavement Core	I.R. 77 - MAINLINE	Southbound	Outside Shoulder of I.R. 77
P-034-0-18	Pavement Core	I.R. 77 - MAINLINE	Southbound	Outside Shoulder of I.R. 77
P-022-0-18	Pavement Core	I.R. 77 - Ramp S10	Southbound	Outside Shoulder of Ramp S10
P-032-0-18	Pavement Core	I.R. 77 - Ramp S-11	Northbound	Outside Shoulder of Ramp S-11
P-037-0-18	Pavement Core	I.R. 77 - Ramp S-11	Northbound	Outside Shoulder of Ramp S-11
P-031-0-18	Pavement Core	I.R. 77 - Ramp S-12	Southbound	Outside Shoulder of Ramp S-12
P-033-0-18	Pavement Core	I.R. 77 - Ramp S-12	Southbound	Outside Shoulder of Ramp S-12
P-015-0-18	Pavement Core	I.R. 77 - Ramp S5	Northbound	Outside Shoulder of Ramp S5
P-018-0-18	Pavement Core	I.R. 77 - Ramp S5	Northbound	Outside Shoulder of Ramp S5
P-014-0-18	Pavement Core	I.R. 77 - Ramp S6	Southbound	Outside Shoulder of Ramp S6
P-017-0-18	Pavement Core	I.R. 77 - Ramp S6	Southbound	Outside Shoulder of Ramp S6
P-023-0-18	Pavement Core	I.R. 77 - Ramp S9	Northbound	Outside Shoulder of Ramp S9

PLAN OF BORINGS AND PAVEMENT CORES

**SUM-76 / 77
PID 102329
SOIL BORING PLAN**

NOTE:
THE SAMPLING REQUIREMENTS FOR THESE BORINGS IS AS FOLLOWS:
CORE PAVEMENT (NOMINAL 12.0' INCHES)
STARTING AT 1.0' BELOW TOP OF PAVEMENT, CONTINUOUS 18", SAMPLING TO DEPTH OF 7.0'
STANDARD ODOT LAB TESTING





SOIL BORING LOCATION
PAVEMENT CORE LOCATION

**VERSION = 2018-11-16
SCALE = 1" : 100'
PAGE 1 / 14**

**SUM-76 / 77
PID 102329
SOIL BORING PLAN**

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 PAVEMENT CORE LOCATION

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PAGE 2 / 14**

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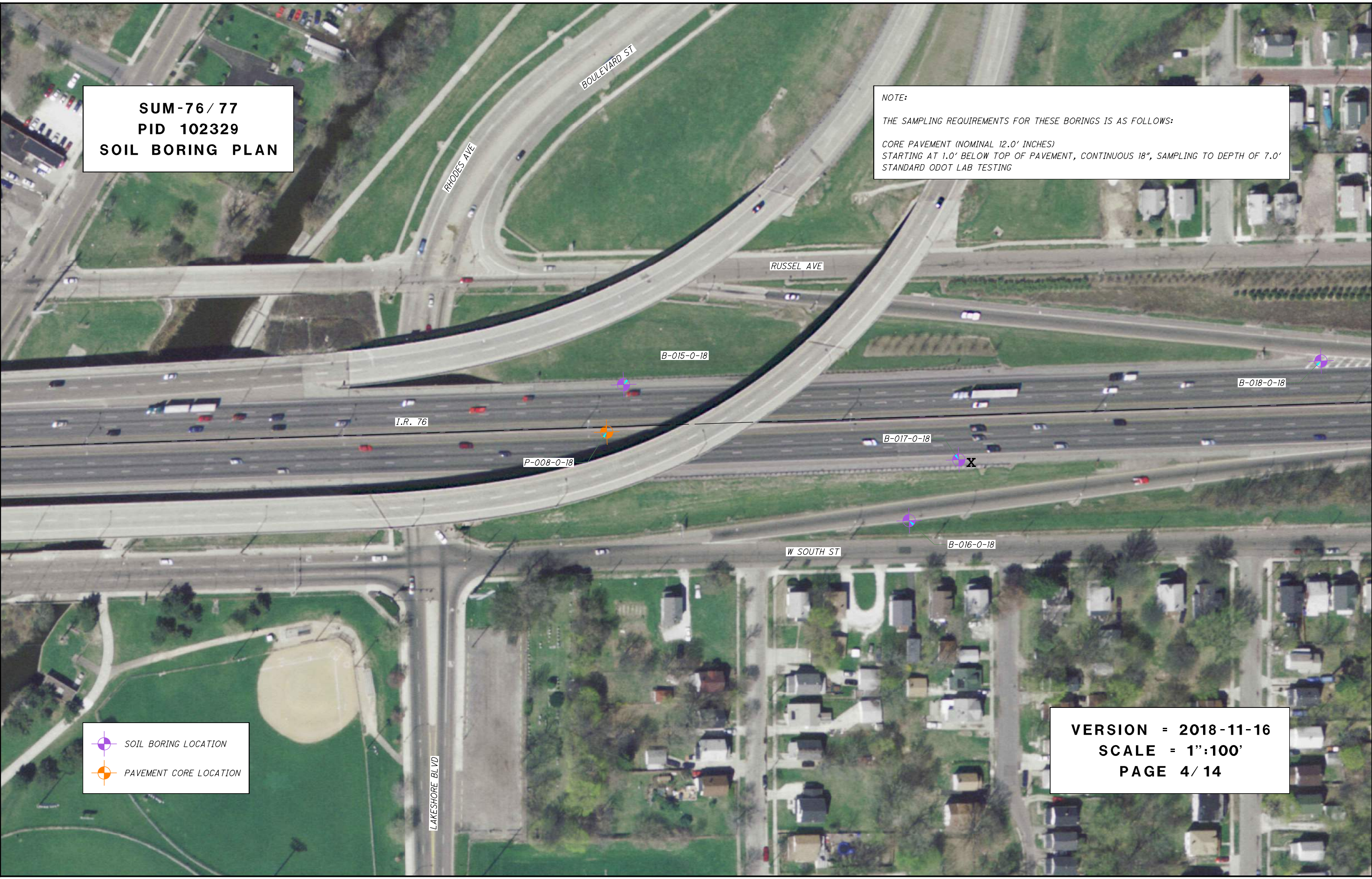


 SOIL BORING LOCATION
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PAGE 3 / 14**

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 SOIL BORING LOCATION
 PAVEMENT CORE LOCATION

**VERSION = 2018-11-16
SCALE = 1":100'
PAGE 5 / 14**

**SUM-76 / 77
PID 102329
SOIL BORING PLAN**

RESUME PROJECT

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SOIL BORING LOCATION
PAVEMENT CORE LOCATION



**VERSION = 2018-11-16
SCALE = 1":100'
PAGE 6 / 14**

**SUM-76 / 77
PID 102329
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STANDARD ODOT LAB TESTING

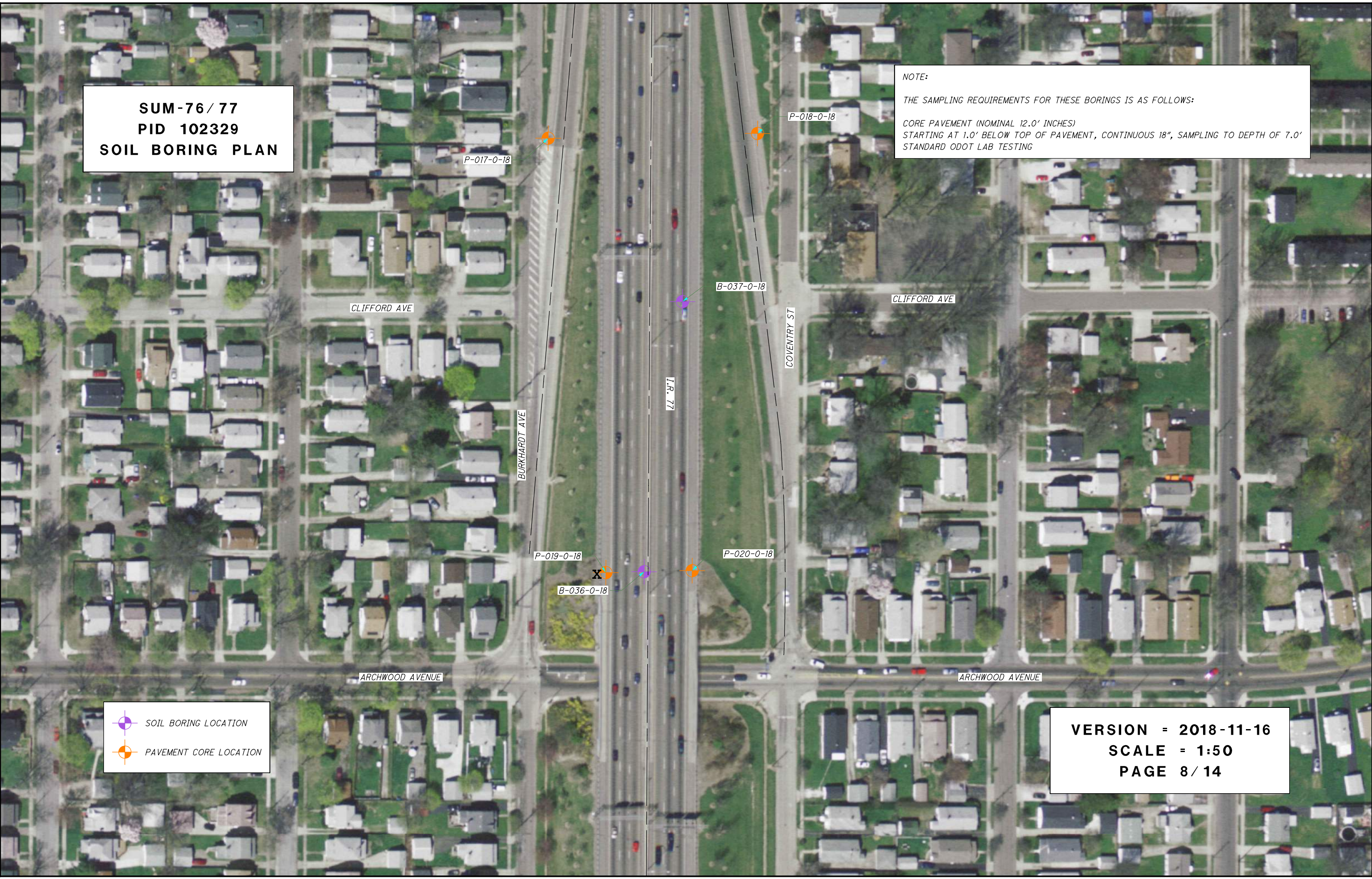
 SOIL BORING LOCATION
 PAVEMENT CORE LOCATION



**VERSION = 2018-11-16
SCALE = 1":100'
PAGE 7 / 14**



**SUM-76 / 77
PID 102329
SOIL BORING PLAN**

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STANDARD ODOT LAB TESTING



 SOIL BORING LOCATION
 PAVEMENT CORE LOCATION

**VERSION = 2018-11-16
SCALE = 1:50
PAGE 8 / 14**

**SUM-76/77
PID 102329
SOIL BORING PLAN**

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STARTING AT 1.0' BELOW TOP OF PAVEMENT, CONTINUOUS 18", SAMPLING TO DEPTH OF 7.0'
STANDARD ODOT LAB TESTING



N FIRESTONE BLVD

BURKHARDT AVE

I.R. 77

COVENTRY ST

N FIRESTONE BLVD

 SOIL BORING LOCATION
 PAVEMENT CORE LOCATION

B-034-0-18



B-035-0-18

P-021-0-18

**VERSION = 2018-11-16
SCALE = 1":100'
PAGE 9 / 14**

**SUM-76/77
PID 102329
SOIL BORING PLAN**

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STANDARD ODOT LAB TESTING



 SOIL BORING LOCATION
 PAVEMENT CORE LOCATION

**VERSION = 2018-11-16
SCALE = 1":100'
PAGE 10/14**

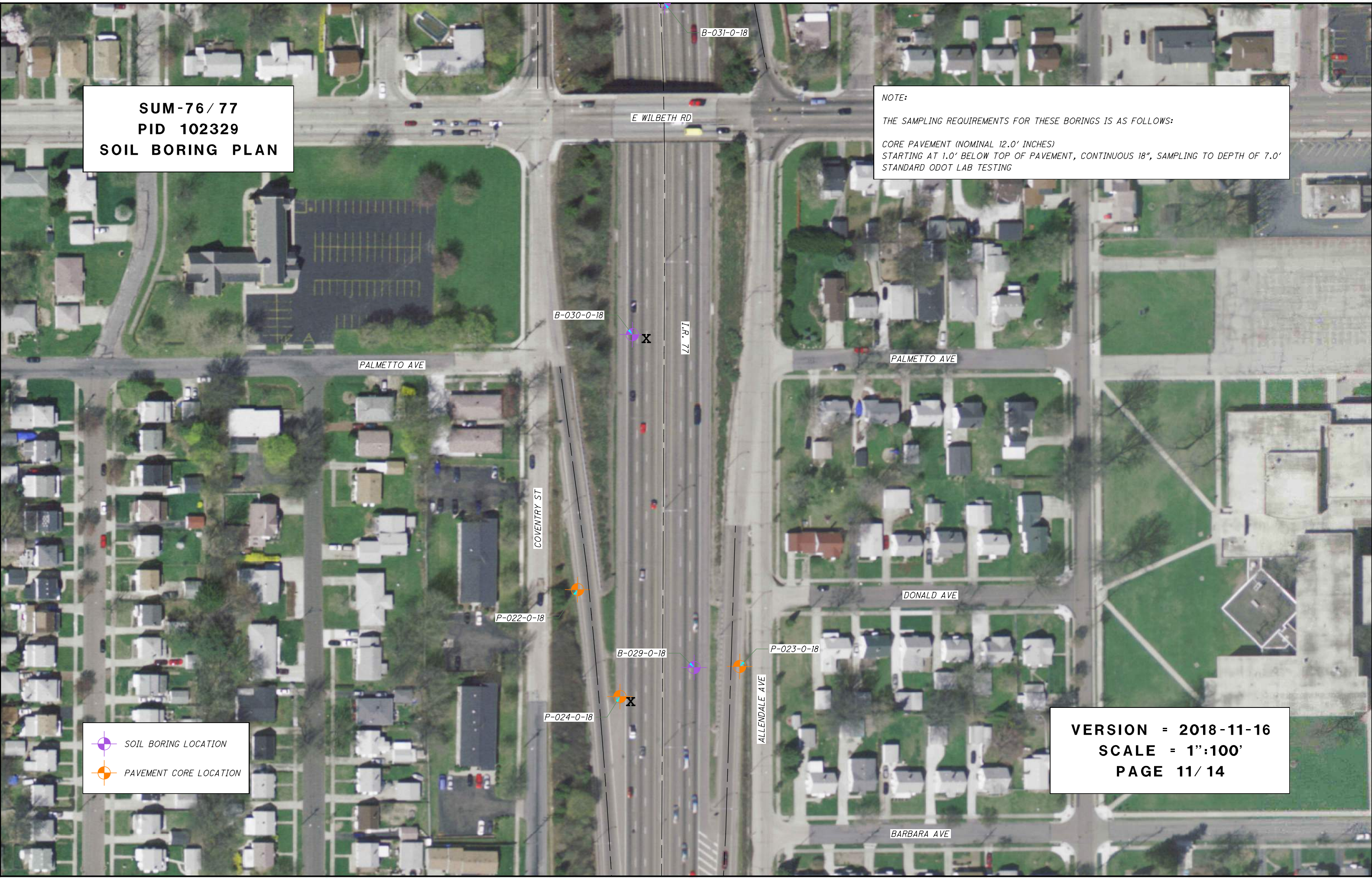


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STANDARD ODOT LAB TESTING

 SOIL BORING LOCATION
 PAVEMENT CORE LOCATION

**VERSION = 2018-11-16
SCALE = 1":100'
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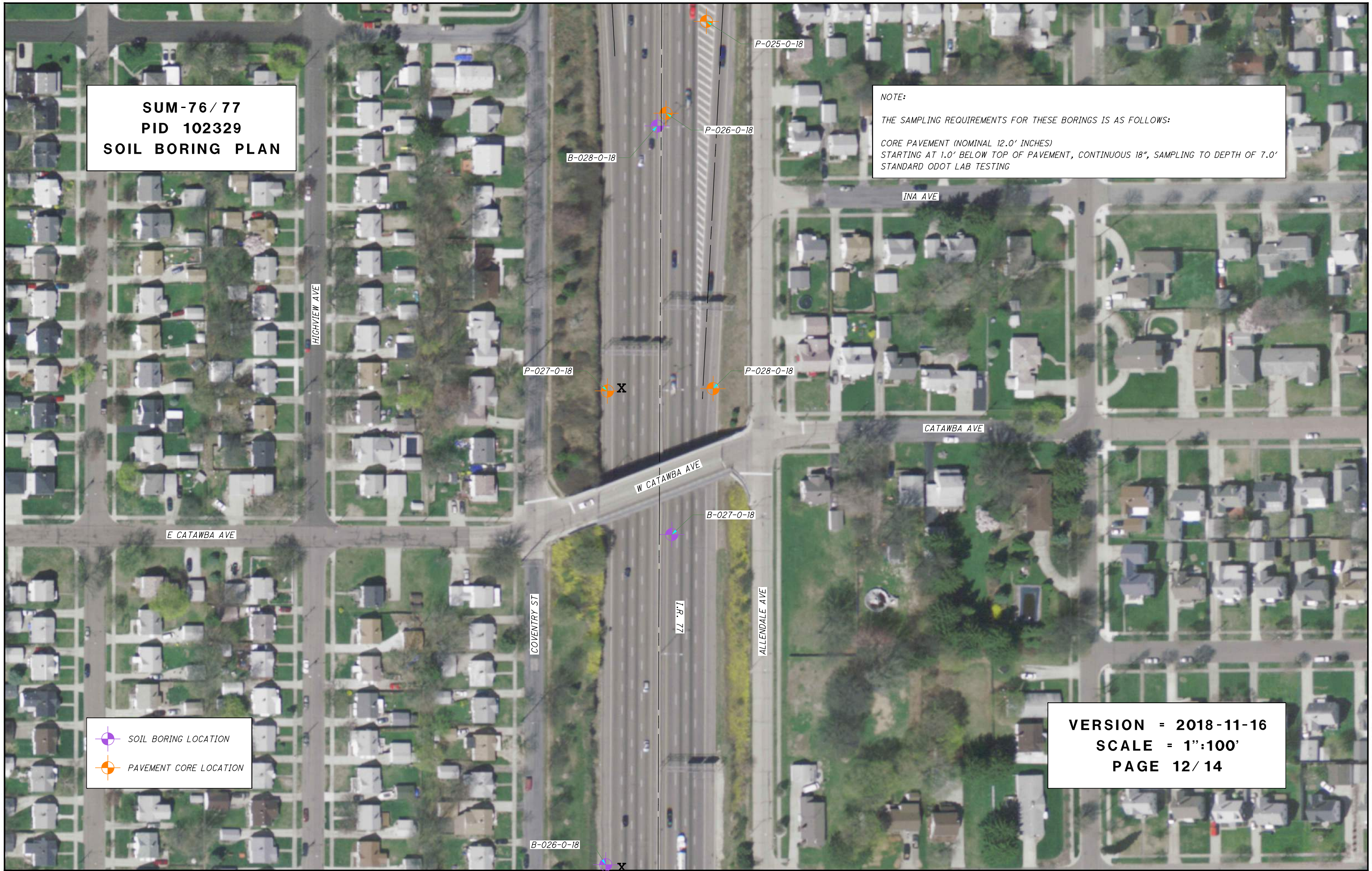


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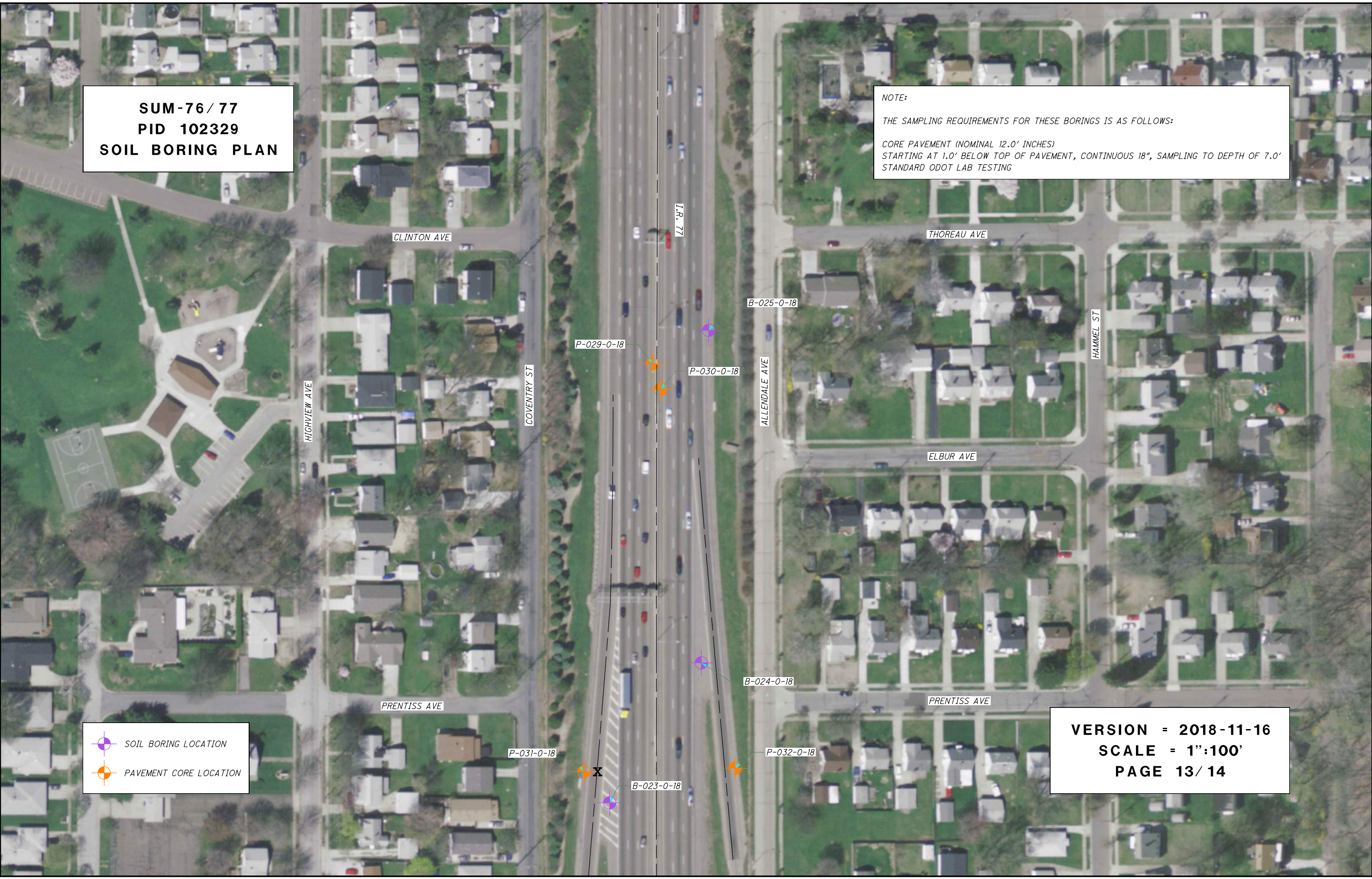
SOIL BORING LOCATION
PAVEMENT CORE LOCATION

**VERSION = 2018-11-16
SCALE = 1":100'
PAGE 12 / 14**



**SUM-76/77
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STANDARD ODOT LAB TESTING





SOIL BORING LOCATION
PAVEMENT CORE LOCATION

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PAGE 13 / 14**

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STANDARD ODOT LAB TESTING

 SOIL BORING LOCATION
 PAVEMENT CORE LOCATION

END PROJECT

B-022-0-18

I.R. 77

COVENTRY ST

ALLEDALE AVE

HIGHVIEW AVE

P-033-0-18

B-021-0-18

P-035-0-18

P-034-0-18

P-036-0-18

P-037-0-18

E WATERLOO RD

E WATERLOO RD

**VERSION = 2018-11-16
SCALE = 1":100'
PAGE 14/ 14**

**SUM-76 / 77
PID 102329
SOIL BORING PLAN**

BORING #	NORTHING	EASTING	LATITUDE	LONGITUDE
B-009-1-18	509372.115	2230252.173	41.060889	-81.550787
B-009-2-18	509561.49	2230416.000	41.061404	-81.550185



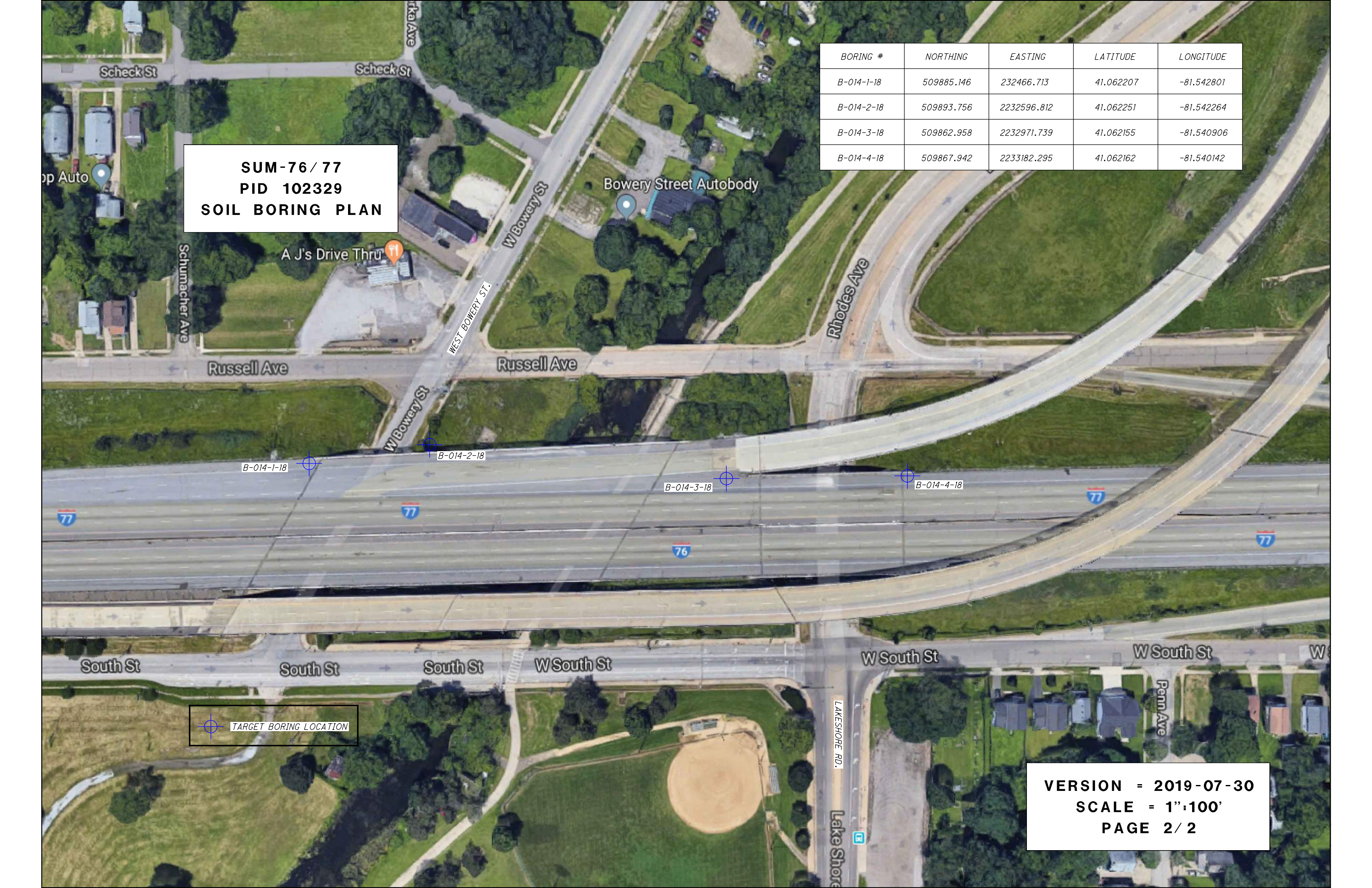
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SCALE = 1"=100'
PAGE 1 / 2**

**SUM-76 / 77
PID 102329
SOIL BORING PLAN**

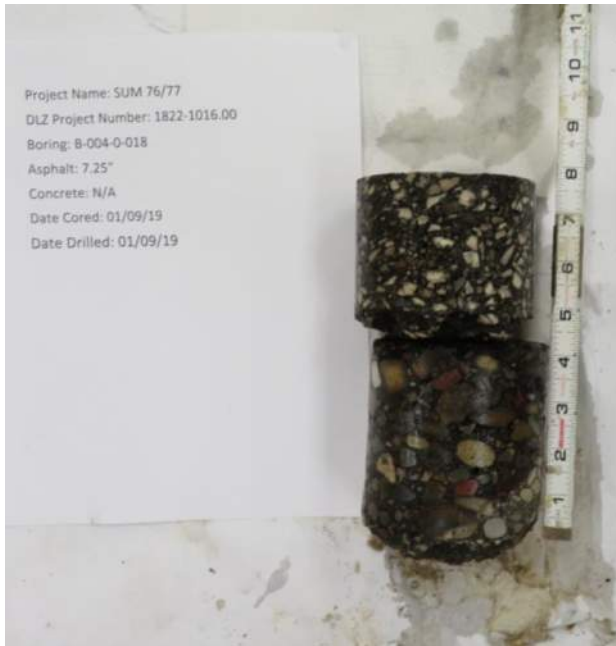
BORING #	NORTHING	EASTING	LATITUDE	LONGITUDE
B-014-1-18	509885.146	232466.713	41.062207	-81.542801
B-014-2-18	509893.756	2232596.812	41.062251	-81.542264
B-014-3-18	509862.958	2232971.739	41.062155	-81.540906
B-014-4-18	509867.942	2233182.295	41.062162	-81.540142

TARGET BORING LOCATION

**VERSION = 2019-07-30
SCALE = 1"=100'
PAGE 2 / 2**



PAVEMENT CORE DATA



B-004-0-18



B-007-0-18



B-010-0-18



B-011-0-18



B-012-0-18



B-013-0-18



B-015-0-18



B-016-0-18



B-017-0-18



B-021-0-18



B-022-0-18



B-023-018



B-024-0-18



B-025-0-18



B-026-0-18



B-027-0-18



B-028-0-18



B-029-0-18



B-030-0-18



B-031-0-18



B-032-0-18



B-033-0-18



B-034-0-18



B-035-0-18



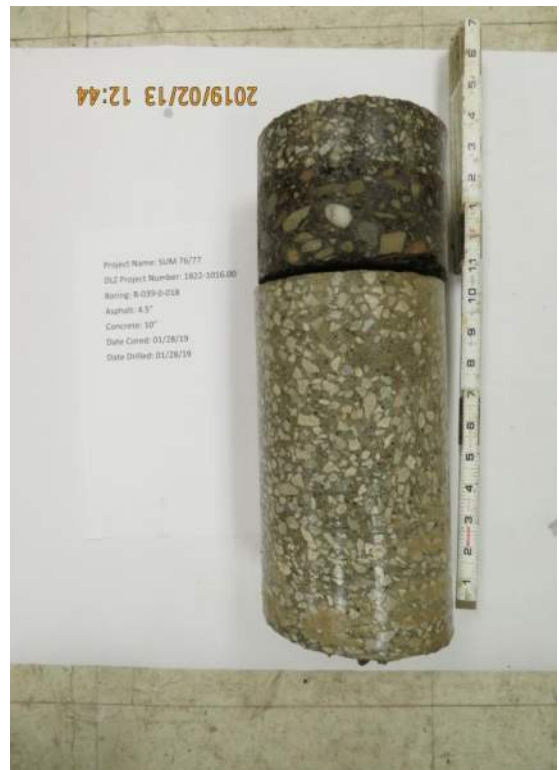
B-036-0-18



B-037-0-18



B-038-0-18



B-039-0-18



B-040-0-18



B-041-0-18



B-042-0-18



B-043-0-18

	Asphalt	Concrete		Asphalt	Concrete
B-04-018	7.25"		P--01-018	7.5"	
B-07-018	6.5"		P-02-018	1.25"	8.5"
B-10-018	13"		P-03-018	6"	
B-11-018	7"	9"	P-04-018	12"	
B-12-018	6.5"		P-05-018	11"	
B-13-018	2.5"	9"	P-06-018	9.5"	
B-15-018	13.5"		P-07-018	8.5"	
B-16-018	4'		P-08-018	13.5"	
B-17-018	8"		P-09-018	4"	9.5"
B-21-018	3"	8"	P-10-018	13.5"	
B-22-018	3.5"	8"	P-11-018	4"	9.5"
B-23-018	5.5"	9.5"	P-12-018	3.5"	9.5"
B-24-018	5.25"	9.5"	P-13-018	6"	9"
B-25-018	3.25"	8"	P-14-018	3"	8"
B-26-018	4"	9.5"	P-15-018	5"	9.5"
B-27-018	2"	10.5"	P-16-018	5.25"	8.5"
B-28-018	5"	9.5'	P-17-018	1.5"	8"
B-29-018	4"	8.5"	P-18-018	2.5"	9"
B-30-018	4.25"	8"	P-19-018	5.5"	8"
B-31-018	3.5"	9.5"	P-20-018	4"	8"
B-32-018	2"	9"	P-21-018	5"	7.5"
B-33-018	4"	9"	P-22-018	2.5"	
B-34-018	3.5"	9"	P-23-018	2"	9"
B-35-018	4.5"	9"	P-24-018	5.25"	9.5"
B-36-018	3.5"	8"	P-25-018	6"	10"
B-37-018	3.5"	9.5"	P-26-018	4.5"	9.5"
B-38-018	4"	11.5"	P-27-018	3.5"	8.25"
B-39-018	4"	9"	P-28-018	3.5"	8.5"
B-40-018	4"	8"	P-29-018	2"	10"
B-41-018	5"	9.5"	P-30-018	4"	10"
B-42-018	4"	8"	P-31-018	1.5"	8.5"
B-43-018	4"	9"	P-32-018	2"	8.5"
			P-33-018	2"	8.5"
			P-34-018	3.5"	10"
			P-35-018	3"	7.5"
			P-36-018	9"	
			P-37-018	9"	

BORING LOGS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEO\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>248+32, 8' RT.</u>	EXPLORATION ID <u>B-004-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1067.5 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/9/19</u> END: <u>1/9/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509049.8400 N, 2228743.2300 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
ASPHALT 7.25" ASPHALT	1067.5																	
LOOSE TO MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND , TRACE SILT, TRACE CLAY, WET	1066.5	1	5															
STIFF TO VERY STIFF, DARK GRAY, SANDY SILT , LITTLE GRAVEL, CONTAINS MICA, DAMP	1065.0	2	6	19	44	SS-1	-	39	36	18	-	7	-	NP	NP	NP	11	A-1-b (0)
		3	5	7	22	SS-2	-	18	6	8	43	25	26	17	9	9	A-4a (7)	
		4	5	8														
	1062.0	5	10	30	83	SS-3	4.5+	-	-	-	-	-	-	-	-	-	7	A-4a (V)
		6	22	160		4A	4.5+	-	-	-	-	-	-	-	-	-	8	A-4a (V)
HARD, DARK GRAY, SANDY SILT , TRACE GRAVEL, CONTAINS MICA, DAMP	1060.5	6	22	160		4A	4.5+	-	-	-	-	-	-	-	-	-	8	A-4a (V)
SHALE , GRAY, DECOMPOSED TO SEVERELY WEATHERED. @6.0'-7.0', CONTAINS GRAY SHALE	1060.5	7	55		100	4B	-	-	-	-	-	-	-	-	-	-	-	Rock (V)
		EOB	55															

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEO\GINT - COLUMBUS\PROJECTS\1822-10\16-00\176 - 77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>256+21, 10' RT.</u>	EXPLORATION ID <u>B-007-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1049.3 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/9/19</u> END: <u>1/9/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509178.8300 N, 2229521.6800 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI	WC		
ASPHALT 6.5" of asphalt	1049.3																	X
STIFF TO VERY STIFF, DARK GRAY, SANDY SILT , SOME GRAVEL, CONTAINS MICA, DAMP	1048.3	1	5															X
		2	6	19	56	SS-1	-	50	5	5	26	14	29	19	10	7	A-4a (1)	
VERY STIFF, BROWN, SANDY SILT , TRACE GRAVEL, CONTAINS MICA, DAMP	1045.3	3	5															X
		4	6	19	44	SS-2	-	9	7	16	42	26	25	16	9	16	A-4a (7)	
VERY STIFF, BROWN, SANDY SILT , TRACE GRAVEL, CONTAINS MICA, DAMP	1043.8	5	4															X
		6	2	7	39	SS-3	2.50	-	-	-	-	-	-	-	-	14	A-4a (V)	
VERY STIFF, BROWN, SILTY CLAY , TRACE GRAVEL, CONTAINS MICA, DAMP	1042.3	7	1															X
		EOB	2	4	22	SS-4	3.75	-	-	-	-	-	-	-	-	10	A-6b (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'19 CME 75-079-797</u>	STATION / OFFSET: <u>266+15, 64' RT.</u>	EXPLORATION ID <u>B-009-1-19</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / MIDDLETON</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 2
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>8/15/19</u>	ELEVATION: <u>1012.8 (MSL)</u> EOB: <u>60.0 ft.</u>	
START: <u>10/30/19</u> END: <u>10/30/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>83.7</u>	COORD: <u>509425.6900 N, 2230486.8800 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1012.8	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
	1011.8	1	6															
LOOSE, BROWN, COARSE AND FINE SAND , AND GRAVEL, TRACE SILT, TRACE CLAY, CONTAINS ASPHALT FRAGMENTS, MOIST	1010.3	2	2	6	89	SS-1	-	42	23	27	-	8	-	-	-	-	13	
LOOSE, GRAY, SANDY SILT , LITTLE GRAVEL, LITTLE CLAY, DAMP	1008.8	3	3	6	67	SS-2	-	12	12	15	43	18	24	18	6	13	A-4a (5)	
LOOSE, GRAY AND BROWN, SANDY SILT , SOME GRAVEL, LITTLE CLAY, DAMP		4	2	6	83	SS-3	-	22	9	14	36	19	22	15	7	12	A-4a (4)	
		5	2	6	83	SS-3	-	22	9	14	36	19	22	15	7	12	A-4a (4)	
		6	3	7	11	SS-4	-	23	8	9	41	19	25	16	9	11	A-4a (5)	
		7	2	7	11	SS-4	-	23	8	9	41	19	25	16	9	11	A-4a (5)	
		8																
VERY LOOSE, GRAY, SANDY SILT , SOME GRAVEL, SOME CLAY, CONTAINS SHALE FRAGMENTS, DAMP	1004.3	9	2	4	89	SS-5	-	21	9	17	33	20	22	15	7	12	A-4a (4)	
		10	1	4	89	SS-5	-	21	9	17	33	20	22	15	7	12	A-4a (4)	
		11																
MEDIUM DENSE, BROWN, SANDY SILT , SOME GRAVEL, LITTLE CLAY, DAMP	1001.8	12	1	14	72	SS-6	-	21	7	10	43	19	26	18	8	12	A-4a (5)	
		13	5	14	72	SS-6	-	21	7	10	43	19	26	18	8	12	A-4a (5)	
		14	3	8	56	SS-7	-	13	9	13	51	14	29	18	11	13	A-6a (6)	
MEDIUM STIFF, GRAY, SILT AND CLAY , LITTLE GRAVEL, SOME SAND, DAMP	999.3	15	3	8	56	SS-7	-	13	9	13	51	14	29	18	11	13	A-6a (6)	
		16	3	8	56	SS-7	-	13	9	13	51	14	29	18	11	13	A-6a (6)	
	996.8	17	1	8	106	SS-8	-	-	-	-	-	-	-	-	-	11	A-4a (V)	
LOOSE, BROWN TO GRAY, SANDY SILT , SOME GRAVEL, LITTLE CLAY, DAMP		18	3	8	106	SS-8	-	-	-	-	-	-	-	-	-	11	A-4a (V)	
		19	2	6	89	SS-9	-	26	12	13	31	18	25	18	7	13	A-4a (3)	
		20	2	6	89	SS-9	-	26	12	13	31	18	25	18	7	13	A-4a (3)	
		21																
		22	4	10	100	SS-10	-	-	-	-	-	-	-	-	-	15	A-4a (V)	
		23	4	10	100	SS-10	-	-	-	-	-	-	-	-	-	15	A-4a (V)	
	989.3	24	8	38	94	SS-11	-	19	18	18	25	20	NP	NP	NP	10	A-4a (2)	
DENSE, BROWN, SANDY SILT , LITTLE GRAVEL, SOME CLAY, CONTAINS SANDSTONE FRAGMENTS, DAMP		25	17	38	94	SS-11	-	19	18	18	25	20	NP	NP	NP	10	A-4a (2)	
		26	10	38	94	SS-11	-	19	18	18	25	20	NP	NP	NP	10	A-4a (2)	
		27																
		28																
	984.3	29	4	20	94	SS-12	-	1	6	83	-	10	-	-	-	4	A-3 (V)	
MEDIUM DENSE, BROWN, FINE SAND , TRACE GRAVEL, TRACE SILT, TRACE CLAY, DAMP		30	7	20	94	SS-12	-	1	6	83	-	10	-	-	-	4	A-3 (V)	

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEO\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PID: 102329		SFN:		PROJECT: INTERSTATE 76/77		STATION / OFFSET: 266+15, 64' RT.		START: 10/30/19		END: 10/30/19		PG 2 OF 2		B-009-1-19						
MATERIAL DESCRIPTION AND NOTES			ELEV.	DEPTHS	SPT/RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
										GR	CS	FS	SI	CL	LL	PL	PI			
MEDIUM DENSE, BROWN, FINE SAND , TRACE GRAVEL, TRACE SILT, TRACE CLAY, DAMP (continued)			982.8	31																
MEDIUM DENSE, BROWN, SANDY SILT , TRACE GRAVEL, LITTLE CLAY, DAMP			979.3	34	6	10	28	100	SS-13	-	8	5	43	30	14	NP	NP	NP	14	A-4a (2)
MEDIUM DENSE, BROWN, SANDY SILT , TRACE GRAVEL, LITTLE CLAY, DAMP			974.3	35	10	10														
LOOSE TO MEDIUM DENSE, BROWN, SANDY SILT , SOME GRAVEL, TRACE CLAY, DAMP			974.3	39	4	11	31	94	SS-14	-	26	16	22	24	12	19	16	3	10	A-4a (0)
LOOSE TO MEDIUM DENSE, BROWN, SANDY SILT , SOME GRAVEL, TRACE CLAY, DAMP			974.3	40	11	11														
LOOSE TO MEDIUM DENSE, BROWN, SANDY SILT , SOME GRAVEL, TRACE CLAY, DAMP			974.3	44	4	2	10	89	SS-15	-	-	-	-	-	-	-	-	-	19	A-4a (V)
LOOSE TO MEDIUM DENSE, BROWN, SANDY SILT , SOME GRAVEL, TRACE CLAY, DAMP			974.3	45	5															
VERY DENSE, GREY, STONE FRAGMENTS SHALE .			964.3	48																
VERY DENSE, GREY, STONE FRAGMENTS SHALE .			962.8	49	50/2"			100	SS-16	-	-	-	-	-	-	-	-	-	14	Rock (V)
SANDSTONE , GREY, SLIGHTLY TO MODERATELY WEATHERED, SLIGHTLY TO MODERATELY STRONG, FINE GRAINED, LAMINATED TO THIN BEDDED, HIGHLY FRACTURED; RQD 25%.			959.8	51	25		92	NQ2-1 NQ2-R-1												CORE
SANDSTONE , GREY, SLIGHTLY TO MODERATELY WEATHERED, SLIGHTLY TO MODERATELY STRONG, FINE GRAINED, LAMINATED TO THIN BEDDED, HIGHLY FRACTURED; RQD 53%.			954.8	53	53		95	NQ2-2 NQ2-R-2												CORE
SANDSTONE , GREY, SLIGHTLY TO MODERATELY WEATHERED, SLIGHTLY TO MODERATELY STRONG, FINE GRAINED, LAMINATED TO THIN BEDDED, HIGHLY FRACTURED; RQD 62%.			952.8	59	63		100	NQ2-3 NQ2-R-3												CORE
			952.8	60																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'19 CME 75-079-797</u>	STATION / OFFSET: <u>268+29, 65' LT.</u>	EXPLORATION ID <u>B-009-2-19</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / MIDDLETON</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 4
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>8/15/19</u>	ELEVATION: <u>1006.3 (MSL)</u> EOB: <u>98.9 ft.</u>	
START: <u>10/28/19</u> END: <u>10/29/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>83.7</u>	COORD: <u>509615.1100 N, 2230650.7300 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
CONCRETE	1006.3																	
LOOSE, BROWN, COARSE AND FINE SAND , TRACE GRAVEL, LITTLE SILT, LITTLE CLAY, DAMP	1005.3	1	10															
DENSE TO VERY DENSE, BROWN, SANDY SILT , LITTLE GRAVEL, SOME CLAY, DAMP	1003.8	2	3	8	89	SS-1	-	7	59	12	-	22	-	-	-	-	10	A-3a (V)
		3	2															
		4	18	95	28	SS-2	-	-	-	-	-	-	-	-	-	-	15	A-4a (V)
		5	10															
		6	6	17	83	SS-3	-	15	8	15	37	25	24	16	8	12	A-4a (5)	
STIFF, BROWN AND GRAY, SILT AND CLAY , TRACE GRAVEL, LITTLE SAND, DAMP	1000.8	7	3															
		8																
		9	2															
		10	4	11	100	SS-5	-	-	-	-	-	-	-	-	-	-	20	A-6a (V)
		11																
MEDIUM DENSE, GRAY, SANDY SILT , LITTLE GRAVEL, SOME CLAY, DAMP	995.3	12	3															
		13	3	11	89	SS-6	-	15	5	15	37	28	28	18	10	17	A-4a (6)	
		14	2															
LOOSE TO MEDIUM DENSE, GRAY, SILT , LITTLE GRAVEL, TRACE SAND, TRACE CLAY, DAMP	992.8	15	3	8	94	SS-7	-	-	-	-	-	-	-	-	-	-	11	A-4b (V)
		16																
		17	3	17	83	SS-8	-	-	-	-	-	-	-	-	-	-	12	A-4b (V)
		18	6															
STIFF TO VERY STIFF, GRAY, SILT AND CLAY , TRACE GRAVEL, LITTLE SAND, DAMP	987.8	19	3	24	89	SS-9	-	5	4	13	50	28	28	16	12	15	A-6a (9)	
		20																
		21																
		22	3	18	100	SS-10	-	-	-	-	-	-	-	-	-	-	15	A-6a (V)
		23	6															
		24	3	14	89	SS-11	-	-	-	-	-	-	-	-	-	-	14	A-6a (V)
		25	4															
		26																
		27																
		28																
	977.8	29	5	17	100	SS-12	-	21	34	30	-	15	-	-	-	-	7	A-3a (V)

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PID: 102329		SFN:		PROJECT: INTERSTATE 76/77		STATION / OFFSET: 268+29, 65' LT.		START: 10/28/19		END: 10/29/19		PG 3 OF 4		B-009-2-19						
MATERIAL DESCRIPTION AND NOTES			ELEV. 944.2	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
										GR	CS	FS	SI	CL	LL	PL	PI			
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	63	8															
				64	12	33	89	SS-19	-	0	0	12	77	11	NP	NP	NP	21	A-4b (8)	
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	65																
				66																
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	67																
				68																
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	69	8															
				70	7	20	100	SS-20	-	-	-	-	-	-	-	-	-	25	A-4b (V)	
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	71																
				72																
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	73																
				74	4															
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	75	3	8	78	SS-21	-	-	-	-	-	-	-	-	-	27	A-4b (V)	
				76																
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	77																
				78																
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	79	1															
				80	1	4	67	SS-22	-	-	-	-	-	-	-	-	-	21	A-4b (V)	
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	81																
				82																
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	83																
				84	4															
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	85	4	11	94	SS-23	-	8	18	5	50	19	23	19	4	22	A-4b (7)	
				86																
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	87																
				88																
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	89	1															
				90	6	24	89	SS-24	-	-	-	-	-	-	-	-	-	19	A-4b (V)	
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	91																
				92																
DENSE, GRAY, SILT, LITTLE SAND, LITTLE CLAY, DAMP (continued)			937.8	93																
				94	50/5"	-	100	SS-25	-	-	-	-	-	-	-	-	-	9	A-4b (V)	

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76_77 EL ROBINSON.GPJ

PID: 102329		SFN: _____		PROJECT: INTERSTATE 76/77		STATION / OFFSET: 268+29, 65' LT.		START: 10/28/19		END: 10/29/19		PG 4 OF 4		B-009-2-19								
MATERIAL DESCRIPTION AND NOTES			ELEV. 912.0	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED		
										GR	CS	FS	SI	CL	LL	PL	PI					
LOOSE TO MEDIUM DENSE, GRAY, SILT, LITTLE TO SOME SAND, TRACE GRAVEL, LITTLE CLAY, WET (continued)			907.4	95																		
				96																		
				97																		
				98																		
EOB					50/5"	-	100	SS-26	-	-	-	-	-	-	-	-	-	9	A-4b (V)			

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>269+83, 6' LT.</u>	EXPLORATION ID <u>B-010-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>999.7 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/9/19</u> END: <u>1/9/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509604.2900 N, 2230816.3300 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI	WC		
ASPHALT 13" of asphalt	999.7																	X
VERY STIFF, BROWN, SANDY SILT, TRACE GRAVEL, SOME CLAY, CONTAINS GRAY SHALE FRAGMENTS, DAMP	998.6	1	13															X
HARD, BROWN, SILT AND CLAY, SOME GRAVEL, SOME SAND, CONTAINS SHALE AND SANDSTONE FRAGMENTS, DAMP	997.2	2	6 5	16	28	SS-1	-	9	7	14	44	26	25	16	9	14		A-4a (7)
		3	6 13 50	91	50	SS-2	-	31	13	13	30	13	32	21	11	12		A-6a (2)
		4	9															A-6a (V)
		5	10 11	30	61	SS-3	4.50	-	-	-	-	-	-	-	-	-		A-6a (V)
		6	7 5	12	39	SS-4	-	-	-	-	-	-	-	-	-	-		A-6a (V)
	992.7	7	3															EOB

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-10\16-00\176-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>275+18, 12' RT.</u>	EXPLORATION ID <u>B-011-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>981.7 (MSL)</u> EOB: <u>8.5 ft.</u>	
START: <u>1/9/19</u> END: <u>1/9/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509714.0900 N, 2231339.5000 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI	WC			
PAVEMENT AND BASE 7" of asphalt and 9" of concrete	981.7																		
VERY STIFF, BROWN, SILT , TRACE GRAVEL, LITTLE SAND, SOME CLAY, CONTAINS MICA, DAMP	980.4	1	3																
VERY STIFF TO HARD, BROWN, SANDY SILT , TRACE GRAVEL, CONTAINS BRICK FRAGMENTS, CONTAINS MICA, DAMP	977.7	2	3	17	50	SS-1	-	7	4	7	56	26	27	19	8	13		A-4b (8)	
		3	3	19	61	SS-2	-	5	7	15	42	31	26	16	10	13		A-4a (8)	
		4	5	26	67	SS-3	3.00	-	-	-	-	-	-	-	-	-	15	A-4a (V)	
		5	6	12															
		6	6	11	30	SS-4	4.50	-	-	-	-	-	-	-	-	-	14	A-4a (V)	
		7	5	10															
@7'-8.5'; DARK GRAYISH BROWN	973.2	8	5	10	28	SS-5	-	-	-	-	-	-	-	-	-	-	13	A-4a (V)	
		EOB	10	9															

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT - COLUMBUS\PROJECTS\1822-1016-001-76 - 77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>279+11, 64' LT.</u>	EXPLORATION ID <u>B-012-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT:	
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>979.3 (MSL)</u> EOB: <u>8.5 ft.</u>	PAGE <u>1 OF 1</u>
START: <u>1/22/19</u> END: <u>1/22/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>509852.1000 N, 2231717.5600 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
ASPHALT 6.5" of asphalt	979.3																	
MEDIUM DENSE, DARK BROWNISH BLACK, GRAVEL AND STONE FRAGMENTS , RACE SILT, TRACE CLAY, DAMP	978.3	1	10															
MEDIUM DENSE, DARK BROWN, SANDY SILT , SOME GRAVEL, LITTLE CLAY, CONTAINS MICA, DAMP	976.8	2	10 7	20	56	SS-1	-	70	17	8	-	5	-	NP	NP	NP	5	A-1-a (0)
VERY STIFF TO HARD, BROWN, SILT AND CLAY , TRACE GRAVEL, CONTAINS STONES, DAMP	975.3	3	9 5	12	39	SS-2	-	24	15	25	22	14	20	16	4	11	A-4a (0)	
@5.5'-8.5' , CONTAINS TRACE SANDSTONE AND BRICK FRAGMENTS		4	3 8	19	67	SS-3	4.50	-	-	-	-	-	-	-	-	-	13	A-6a (V)
		5	4 8	18	56	SS-4	3.75	-	-	-	-	-	-	-	-	-	12	A-6a (V)
		6	7 10	22	72	SS-5	3.00	-	-	-	-	-	-	-	-	-	12	A-6a (V)
	970.8	8	8															

EOB

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:12 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>283+09, 56' RT.</u>	EXPLORATION ID <u>B-013-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>980.5 (MSL)</u> EOB: <u>8.5 ft.</u>	
START: <u>1/10/19</u> END: <u>1/10/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509769.0300 N, 2232124.9100 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI	WC			
PAVEMENT AND BASE 2.5" of asphalt 9" of concrete	980.5																		
LOOSE TO MEDIUM DENSE, REDDISH BROWN, SANDY SILT , LITTLE GRAVEL, LITTLE CLAY, CONTAINS MICA, DAMP (FILL)	979.5	1	5																
VERY STIFF, REDDISH BROWN, SANDY SILT , TRACE GRAVEL, CONTAINS MICA, DAMP (FILL)	978.0	2	7	22	67	SS-1	-	15	16	18	32	19	20	15	5	9	A-4a (3)		
		3	9	32	67	SS-2	4.00	8	6	14	48	24	25	17	8	12	A-4a (7)		
		4	7	28	100	SS-3	-	-	-	-	-	-	-	-	-	-	A-4a (V)		
	975.0	5	8	28	83	SS-4	4.5+	-	-	-	-	-	-	-	-	-	A-4a (V)		
HARD, GRAYISH BROWN, SANDY SILT , TRACE GRAVEL, CONTAINS MICA, DAMP		6	7	28	83	SS-4	4.5+	-	-	-	-	-	-	-	-	-	A-4a (V)		
@7.0'-8.5', REDDISH BROWN, TRACE BRICK FRAGMENTS		7	5	22	67	SS-5	4.5+	-	-	-	-	-	-	-	-	-	A-4a (V)		
	972.0	8	10	22	67	SS-5	4.5+	-	-	-	-	-	-	-	-	-	A-4a (V)		

EOB

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\GINT_COLUMBUS\PROJECTS\1822-10\16-00\176-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>287+09, 15' LT.</u>	EXPLORATION ID <u>B-014-0-20</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / HUZINEC</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>986.3 (MSL)</u> EOB: <u>7.5 ft.</u>	
START: <u>4/1/20</u> END: <u>4/1/20</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509853.6500 N, 2232520.7400 E</u>	

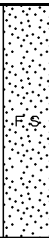
MATERIAL DESCRIPTION AND NOTES	ELEV.	986.3	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
									GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE, 16" OF ASPHALT, 9.5" OF CONCRETE	984.8		1																
LOOSE, BROWN AND GRAY, COARSE AND FINE SAND , LITTLE GRAVEL, TRACE TO LITTLE CLAY, MOIST	983.3		2	4	3	9	56	SS-1	-	13	34	30	13	10	NP	NP	NP	11	A-3a (0)
MEDIUM STIFF, BROWN AND GRAY, SANDY SILT , LITTLE GRAVEL, TRACE TO LITTLE CLAY, MOIST	981.8		3	1	1	4	56	SS-2	-	8	19	32	28	13	NP	NP	NP	14	A-4a (1)
VERY STIFF, BROWN, SANDY SILT , TRACE GRAVEL, LITTLE CLAY, DAMP	980.3		4	1	9	25	72	SS-3	2.25	10	7	27	45	11	18	13	5	11	A-4a (4)
HARD, BROWN, SANDY SILT , SOME GRAVEL, SOME CLAY, CONTAINS WOOD FRAGMENTS, CONTAINS SANDSTONE FRAGMENTS, DAMP	978.8		5	3	5	17	44	SS-4	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)
			6																
			7																

EOB

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS; MIXED WITH BENTONITE CHIPS; PLACED QUICKCRETE

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76_77 EL ROBINSON.GPJ

MATERIAL DESCRIPTION AND NOTES		ELEV.	DEPTHS	SPT/RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED		
		893.2							GR	CS	FS	SI	CL	LL	PL	PI					
DENSE TO VERY DENSE, GRAY, FINE SAND , TRACE GRAVEL, TRACE SILT, TRACE CLAY, WET (continued)				20	52	100	SS-25	-	-	-	-	-	-	-	-	-	20	A-3 (V)			
				17																	
		887.4	EOB	22	82	100	SS-26	-	-	-	-	-	-	-	-	-	17	A-3 (V)			
				25																	
				34																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PID: 102329		SFN: _____		PROJECT: INTERSTATE 76/77		STATION / OFFSET: 290+23, 98' LT.		START: 10/21/19		END: 10/22/19		PG 4 OF 4		B-014-2-19							
MATERIAL DESCRIPTION AND NOTES			ELEV. 873.3	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED	
										GR	CS	FS	SI	CL	LL	PL	PI				
DENSE TO VERY DENSE, GRAY, FINE SAND, TRACE SILT, TRACE CLAY, WET (continued)				95	15	49	56	SS-24	-	-	-	-	-	-	-	-	-	21	A-3 (V)		
					19																
			867.5	99	8	17	58	83	SS-25	-	0	4	89	-	7	-	-	-	19	A-3 (V)	
					23																
				100	EOB																
NOTES: NONE																					
ABANDONMENT METHODS, MATERIALS, QUANTITIES: SHOVELED AUGER CUTTINGS; TREMIED BENTONITE GROUT																					

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76_77 EL ROBINSON.GPJ

PID: 102329		SFN:		PROJECT: INTERSTATE 76/77		STATION / OFFSET: 293+97, 55' LT.		START: 10/21/19		END: 10/22/19		PG 4 OF 4		B-014-3-19									
MATERIAL DESCRIPTION AND NOTES			ELEV. 898.7	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED			
										GR	CS	FS	SI	CL	LL	PL	PI						
LOOSE TO MEDIUM DENSE, GRAY, SILT, TRACE GRAVEL, LITTLE SAND, LITTLE CLAY, MOIST (continued)			++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++ ++++	898.7	95	3	8	100	SS-25	-	-	-	-	-	-	-	-	-	20	A-4b (V)			
					96	3																	
					97																		
					98																		
			893.0	99	3	8	100	SS-26	-	-	-	-	-	-	-	-	-	13	A-4b (V)				
				EOB	100	3																	

NOTES: NONE

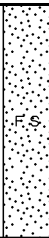
ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / CONRAD</u>	DRILL RIG: <u>'19 CME 75-079-797</u>	STATION / OFFSET: <u>296+07, 49' LT.</u>	EXPLORATION ID <u>B-014-4-19</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / MIDDLETON</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 4
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>8/15/19</u>	ELEVATION: <u>995.2 (MSL)</u> EOB: <u>100.0 ft.</u>	
START: <u>10/15/19</u> END: <u>10/15/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>83.7</u>	COORD: <u>509917.7800 N, 2233417.2700 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI	WC		
CONCRETE	995.2																	
994.2																		
DENSE, DARK BROWN, GRAVEL AND STONE FRAGMENTS , LITTLE SAND, CONTAINS ASPHALT FRAGMENTS, DAMP	992.7	1	22															
		2	10 14	33	50	SS-1	-	83	12	4	-	1	-	-	-	-	4	A-1-a (V)
MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND , TRACE SILT, TRACE CLAY, DAMP	991.2	3	12															
		4	8 4	17	44	SS-2	-	67	11	6	-	16	-	-	-	-	4	A-1-b (V)
MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS , LITTLE SAND, TRACE SILT, TRACE CLAY, DAMP	989.7	5	5															
		5	5 4	13	17	SS-3	-	79	10	7	-	4	-	-	-	-	3	A-1-a (V)
VERY LOOSE, LIGHT BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND , LITTLE SILT, TRACE CLAY, WET	986.7	6	3															
		6	1	4	17	SS-4	-	47	14	20	12	7	20	16	4	53	A-1-b (0)	
VERY LOOSE TO LOOSE, LIGHT BROWN, SANDY SILT , TRACE TO LITTLE GRAVEL, LITTLE TO SOME CLAY, DAMP TO MOIST	986.7	7																
		7																
		8																
		9	2															
		9	1	3	33	SS-5	-	9	13	34	28	16	18	14	4	15	A-4a (2)	
		10																
		10	1															
		11	1															
		12	3 6	13	33	SS-6	-	-	-	-	-	-	-	-	-	-	15	A-4a (V)
		13																
		14	5															
		14	5 6	15	100	SS-7	-	3	6	22	47	22	22	15	7	14	A-4a (7)	
		15																
		16	9															
		17	14 11	35	100	SS-8	-	-	-	-	-	-	-	-	-	-	14	A-4a (V)
		18																
		19	4															
		19	5 6	15	89	SS-9	-	10	10	21	39	20	25	18	7	16	A-4a (5)	
		20																
	974.2	21	5															
MEDIUM DENSE, LIGHT BROWN, COARSE AND FINE SAND , LITTLE SILT, LITTLE GRAVEL, TRACE CLAY, DAMP		22	6 5	15	100	SS-10	-	-	-	-	-	-	-	-	-	-	8	A-3a (V)
		23																
	971.7	24	2															
LOOSE TO MEDIUM DENSE, BROWN, COARSE AND FINE SAND , LITTLE GRAVEL, TRACE SILT, TRACE CLAY, DAMP TO MOIST		24	3 2	7	100	SS-11	-	10	28	43	-	19	-	-	-	-	10	A-3a (V)
		25																
		26																
		27																
		28																
		29	5															
		29	4 4	11	100	SS-12	-	-	-	-	-	-	-	-	-	-	9	A-3a (V)

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76_77 EL ROBINSON.GPJ

MATERIAL DESCRIPTION AND NOTES		ELEV.	DEPTHS	SPT/RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
		901.0							GR	CS	FS	SI	CL	LL	PL	PI			
VERY DENSE, BROWN TO GRAY, FINE SAND , TRACE GRAVEL, TRACE SILT, TRACE CLAY, WET (<i>continued</i>) 			95	36 41	107	83	SS-25	-	-	-	-	-	-	-	-	-	7	A-3 (V)	
			96																
			97																
			98																
		895.2	99	19 35 42	107	100	SS-26	-	-	-	-	-	-	-	-	-	17	A-3 (V)	
			100																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-10\16-00\1-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>297+61, 52' LT.</u>	EXPLORATION ID <u>B-015-0-20</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / HUZINEC</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>996.6 (MSL)</u> EOB: <u>5.67 ft.</u>	
START: <u>4/1/20</u> END: <u>4/1/20</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509925.7600 N, 2233570.3200 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE, 11" OF ASPHALT	996.6																	
MEDIUM DENSE, BROWN, COARSE AND FINE SAND , LITTLE GRAVEL, SOME SILT, TRACE CLAY, MOIST	995.6	1	6															
STIFF, BROWN AND DARK BROWN, SANDY SILT , SOME SAND, TRACE GRAVEL, MOIST	994.1	2	11	29	67		-	17	26	32	15	10	NP	NP	NP	11	A-3a (0)	
VERY DENSE, LIGHT BROWN, COARSE AND FINE SAND , SOME GRAVEL, TRACE SILT, CONTAINS SANDSTONE FRAGMENTS, DAMP	992.6	3	4	20	83		2.00	10	11	34	30	15	19	14	5	14	A-4a (2)	
SANDSTONE , LIGHT BROWN.	991.1	4	18	61	61		-	2	2	77	11	8	NP	NP	NP	9	A-3a (0)	
	990.9	5	17	25														
		EOB	12" / 2"		100													

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS; MIXED WITH BENTONITE CHIPS; PLACED QUICKCRETE

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\GINT_COLUMBUS\PROJECTS\1022-1016-00-176-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>300+99, 122' RT.</u>	EXPLORATION ID <u>B-016-0-20</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / HUZINEC</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>991.6 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>3/30/20</u> END: <u>3/30/20</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509762.3800 N, 2233914.0000 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI	WC			
PAVEMENT AND BASE, 5.5" OF ASPHALT, 6" OF AGGREGATE BASE	991.6																		
SOFT, GRAY, SANDY SILT , TRACE GRAVEL, SOME SAND, CONTAINS ORANGISH BROWN STAINING, MOIST	990.6	1	1	4	50		0.50	13	8	38	27	14	23	16	7	15	A-4a (1)		
MEDIUM DENSE, GRAY AND ORANGISH BROWN, COARSE AND FINE SAND , TRACE GRAVEL, LITTLE CLAY, MOIST	989.1	2	4	15	72		-	12	14	41	22	11	15	14	1	13	A-3a (0)		
MEDIUM DENSE, GRAY AND BROWN, SILT , TRACE SAND, LITTLE CLAY, MOIST	987.6	3	4	15	78		-	-	-	-	-	-	-	-	-	22	A-4b (V)		
LOOSE TO MEDIUM DENSE, GRAY, SANDY SILT , TRACE GRAVEL, LITTLE SAND, LITTLE CLAY, DAMP TO MOIST	986.1	4	3	5	15	78	-	-	-	-	-	-	-	-	-	22	A-4b (V)		
	984.6	5	5	5	15	78	-	-	-	-	-	-	-	-	-	22	A-4b (V)		
		6	4	4	12	67	-	-	-	-	-	-	-	-	-	15	A-4a (V)		
		7	4	4	12	67	-	-	-	-	-	-	-	-	-	15	A-4a (V)		
		EOB																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS; MIXED WITH BENTONITE CHIPS; PLACED QUICKCRETE

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\GINT_COLUMBUS\PROJECTS\1822-10\16-00\176-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>301+61, 51' RT.</u>	EXPLORATION ID <u>B-017-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1001.9 (MSL)</u> EOB: <u>8.5 ft.</u>	
START: <u>1/10/19</u> END: <u>1/10/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509835.5200 N, 2233973.7200 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI	WC		
ASPHALT 8" of asphalt	1000.9																	
DENSE, BROWN, COARSE AND FINE SAND , LITTLE GRAVEL, LITTLE CLAY, TRACE SHALE, DAMP	999.4	1	8	32	56	SS-1	-	17	21	34	17	11	16	13	3	9	A-3a (0)	
HARD, BROWN, SANDY SILT , SOME GRAVEL, LITTLE CLAY, TRACE SHALE, DAMP		2	5	20	83	SS-2	-	23	7	28	23	19	22	14	8	12	A-4a (1)	
		3	6															
		4	7	25	67	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
@5.5'-7.0', CONTAINS WOOD FRAGMENTS		5	7															
		6	10	26	83	SS-4	-	-	-	-	-	-	-	-	-	12	A-4a (V)	
	994.9	7	4															
LOOSE, REDDISH BROWN, SANDY SILT , TRACE GRAVEL, CONTAINS MICA, DAMP	993.4	8	5	12	67	SS-5	-	-	-	-	-	-	-	-	-	15	A-4a (V)	
		EOB	3															

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>306+00, 53' LT.</u>	EXPLORATION ID <u>B-018-0-20</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / HUZINEC</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1007.7 (MSL)</u> EOB: <u>4.08 ft.</u>	
START: <u>4/1/20</u> END: <u>4/1/20</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509954.2000 N, 2234409.2200 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE, 7" ASPHALT, 10" CONCRETE, 6" AGGREGATE BASE	1007.7	1																
VERY DENSE, BROWN, SANDY SILT, TRACE GRAVEL, LITTLE CLAY, CONTAINS IRON OXIDE STAINING, CONTAINS SANDSTONE FRAGMENTS, DAMP	1005.7	2	6	10	58	78	4.50	5	0	50	30	15	NP	NP	NP	18	A-4a (2)	
VERY DENSE, LIGHT BROWN, STONE FRAGMENTS, LITTLE SAND, [WEATHERED SANDSTONE]	1004.7	3	30	-	-	-	-	-	-	-	-	-	-	-	-	-	4	A-1-a (V)
VERY DENSE, LIGHT BROWN, STONE FRAGMENTS, LITTLE SAND, [WEATHERED SANDSTONE]	1003.6	4	100	-	-	-	-	-	-	-	-	-	-	-	-	-	3	A-1-a (V)
		EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS; MIXED WITH BENTONITE CHIPS; PLACED QUICKCRETE

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT. - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-00176-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>309+61, 6' LT.</u>	EXPLORATION ID <u>B-019-0-20</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / HUZINEC</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1011.1 (MSL)</u> EOB: <u>4.08 ft.</u>	
START: <u>3/31/20</u> END: <u>3/31/20</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509919.2200 N, 2234772.2800 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE, 11" OF CONCRETE, 7" OF AGGREGATE BASE	1011.1																	
MEDIUM DENSE, BROWN, COARSE AND FINE SAND , SOME SILT, TRACE CLAY, MOIST	1009.6	1	5															
VERY DENSE, LIGHT BROWN, COARSE AND FINE SAND , SOME GRAVEL, TRACE SILT, CONTAINS SANDSTONE FRAGMENTS, DAMP	1008.6	2	6	20	-		-	7	15	52	17	9	NP	NP	NP	10	A-3a (0)	
VERY DENSE, LIGHT BROWN, COARSE AND FINE SAND , SOME GRAVEL, TRACE SILT, CONTAINS SANDSTONE FRAGMENTS, DAMP	1007.1	3	8				-	-	-	-	-	-	-	-	-	7	A-3a (V)	
VERY DENSE, LIGHT BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND , DAMP	1007.0	4	11				-	-	-	-	-	-	-	-	-	5	A-1-b (V)	
		EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS; MIXED WITH BENTONITE CHIPS; PLACED QUICKCRETE

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>313+61, 7' LT.</u>	EXPLORATION ID <u>B-020-0-20</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / HUZINEC</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1012.9 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>3/31/20</u> END: <u>3/31/20</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>509932.9000 N, 2235171.4300 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE , 13" OF ASPHALT, 7" OF AGGREGATE BASE	1012.9																	
HARD, BROWNISH GRAY, SANDY SILT , TRACE GRAVEL, LITTLE CLAY, DAMP	1011.2	1	7				4.50	4	8	43	30	15	NP	NP	NP	10	A-4a (2)	
MEDIUM DENSE, YELLOWISH BROWN, COARSE AND FINE SAND , SOME GRAVEL, TRACE SILT, DAMP	1010.4	2	12	31	57	89												
MEDIUM DENSE, BROWN, GRAY, AND ORANGISH BROWN, SANDY SILT , LITTLE CLAY, CONTAINS IRON OXIDE STAINING, DAMP	1008.9	3	7	6	19	22	-	28	1	59	7	5	NP	NP	NP	7	A-3a (0)	
MEDIUM DENSE, BROWN, GRAY, AND ORANGISH BROWN, SANDY SILT , LITTLE CLAY, CONTAINS IRON OXIDE STAINING, DAMP	1007.4	4	5	6	20	44	-	5	7	36	35	17	19	15	4	15	A-4a (3)	
MEDIUM DENSE, GRAY, SILT , TRACE SAND, TRACE CLAY, DAMP	1005.9	5	4	5	15	100	3.50	-	-	-	-	-	-	-	-	22	A-4b (V)	
		6																
		7																
		EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: AUGER CUTTINGS; MIXED WITH BENTONITE CHIPS; PLACED QUICKCRETE

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / PAE</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>520+31, 32' RT.</u>	EXPLORATION ID <u>B-021-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1056.6 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/28/19</u> END: <u>1/28/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>498338.2205 N, 2243298.4740 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI	WC		
PAVEMENT AND BASE 3" of asphalt 9.25" concrete	1056.6																	X
VERY STIFF, GRAYISH BROWN, SANDY SILT , TRACE TO LITTLE GRAVEL, SOME CLAY, CONTAINS MICA, DAMP TO MOIST	1055.6	1	2															X
		2	5	18	56	SS-1	-	7	8	27	35	23	23	15	8	16	A-4a (5)	
VERY STIFF TO HARD, BROWN, SILTY CLAY , TRACE GRAVEL, TRACE SANDSTONE FRAGMENTS, DAMP TO MOIST	1052.6	3	3															X
		4	2	14	78	SS-2	-	11	7	28	34	20	23	15	8	13	A-4a (4)	
	1049.6	5	8															X
		6	10	26	67	SS-3	4.5+	-	-	-	-	-	-	-	-	17	A-4a (V)	
	EOB	7	5															X
		7	12															X
		7	12															X

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-10\16-00\176_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>524+33, 28' LT.</u>	EXPLORATION ID <u>B-022-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1070.4 (MSL)</u> EOB: <u>4.0 ft.</u>	
START: <u>1/22/19</u> END: <u>1/22/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>498726.4600 N, 2243150.4800 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	1070.4	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED
									GR	CS	FS	SI	CL	LL	PL	PI	WC		
PAVEMENT AND BASE 3.5" of asphalt 8" concrete	1069.4		1																
DENSE, BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, WET			2	1	-	67	SS-1	-	23	33	22	15	7	25	21	4	20	A-1-b (0)	
			3	50	-	33	SS-2	-	-	-	-	-	-	-	-	-	19	A-1-b (V)	
	1066.4		4																
		EOB																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\GINT - COLUMBUS\PROJECTS\1822-10\16-00\176-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>526+65, 44' LT.</u>	EXPLORATION ID <u>B-023-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1075.5 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/10/19</u> END: <u>1/10/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>498961.7100 N, 2243146.0600 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI	WC		
PAVEMENT AND BASE 5.5" of asphalt 9.5" concrete	1075.5																	X
	1074.2	1																X
MEDIUM STIFF TO STIFF, BROWN, SANDY SILT , LITTLE GRAVEL, LITTLE CLAY, TRACE SANDSTONE FRAGMENTS, MOIST		2	4	15	56	SS-1	-	16	16	23	28	17	28	18	10	12		
		3	5															
		4	4	10	44	SS-2	-	18	17	24	27	14	27	18	9	10		
		5	4															
	1070.0	6	3	7	44	SS-3	-	-	-	-	-	-	-	-	-	11		
SOFT, BROWN, SANDY SILT , TRACE GRAVEL, MOIST TO WET		7	3															
	1068.5	EOB	WOH		-	44	SS-4	0.50	-	-	-	-	-	-	-	16		

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>325+90, 56' RT.</u>	EXPLORATION ID <u>B-024-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1078.5 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/24/19</u> END: <u>1/24/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>499130.1100 N, 2243256.2200 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE 5.25" of asphalt 9.5" of concrete	1078.5																	
LOOSE TO MEDIUM DENSE, DARK BROWN, GRAVEL AND/OR STONE FRAGMENTS , TRACE SAND, CONTAINS PETROLEUM ODOR, DAMP	1077.5	1	5															
MEDIUM DENSE TO DENSE, LIGHT BROWN, SANDY SILT , SOME GRAVEL, LITTLE CLAY, CONTAINS PETROLEUM ODOR, DAMP	1076.0	2	4	11	22	SS-1	-	92	7	1	-	0	-	NP	NP	NP	6	A-1-a (0)
MEDIUM DENSE TO DENSE, LIGHT BROWN, SANDY SILT , SOME GRAVEL, LITTLE CLAY, CONTAINS PETROLEUM ODOR, DAMP	1074.5	3	5	12	36	SS-2	-	20	12	24	29	15	22	15	7	13	A-4a (2)	
MEDIUM STIFF TO STIFF, REDDISH BROWN, SILTY CLAY , TRACE GRAVEL, DAMP	1071.5	4	6	7	17	SS-3	-	-	-	-	-	-	-	-	-	-	15	A-6b (V)
		5	7	7	28	SS-3	-	-	-	-	-	-	-	-	-	-	15	A-6b (V)
		6	2	3	11	SS-4	1.00	-	-	-	-	-	-	-	-	-	13	A-6b (V)
		7	3	6	28	SS-4	1.00	-	-	-	-	-	-	-	-	-	13	A-6b (V)
		EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\GINT_COLUMBUS\PROJECTS\1822-10\16-00\176_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>329+90, 63' RT.</u>	EXPLORATION ID <u>B-025-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1088.1 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/24/19</u> END: <u>1/24/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>499529.9700 N, 2243265.0600 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE 3.25" of asphalt 8" of concrete	1088.1																	
LOOSE TO MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS , AND SAND, TRACE SILT, TRACE CLAY, CONTAINS LARGE STONES, TRACE SANDSTONE FRAGMENTS, MOIST	1087.1	1	9															
MEDIUM STIFF TO STIFF, BROWN, SANDY SILT , SOME GRAVEL, LITTLE CLAY, TRACE BRICK FRAGMENTS, CONTAINS MICA, DAMP TO MOIST	1085.6	2	4	10	22	SS-1	-	59	21	15	-	5	-	NP	NP	NP	11	A-1-a (0)
		3	4	8	28	SS-2	-	23	10	30	21	16	21	13	8	12	A-4a (0)	
		4	4	3														
	1082.6	5	1	4	22	SS-3	-	-	-	-	-	-	-	-	-	-	12	A-4a (V)
STIFF TO VERY STIFF, REDDISH BROWN, SILTY CLAY , TRACE GRAVEL, DAMP	1081.1	6	1	2														
		7	14	18	28	SS-4	-	-	-	-	-	-	-	-	-	-	16	A-6b (V)
		EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / PAE</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>333+90, 63' LT.</u>	EXPLORATION ID <u>B-026-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1097.8 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/28/19</u> END: <u>1/28/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>499930.3900 N, 2243140.7100 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI		
4" of asphalt 9.5" of concrete	1097.8																
@1'-2.5', CONTAINS ASPHALT	1096.7	1	3														
VERY LOOSE, DARK BROWN, GRAVEL AND STONE FRAGMENTS , LITTLE SAND, TRACE SILT, TRACE CLAY, DAMP (FILL)	1095.3	2	1	4	28	SS-1	-	81	9	6	4		NP	NP	NP	9	A-1-a (0)
VERY DENSE, BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND , TRACE SILT, TRACE CLAY, MOIST	1093.8	3	4	47	73	SS-2	-	59	10	20	8	3	NP	NP	NP	12	A-1-b (0)
VERY LOOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS , DAMP	1092.3	4	1	1	2	SS-3	-	-	-	-	-	-	-	-	-	7	A-1-a (V)
VERY LOOSE, BROWN, GRAVEL AND/OR STONE FRAGMENTS , DAMP	1092.3	5	1	1	2	SS-3	-	-	-	-	-	-	-	-	-	7	A-1-a (V)
SHALE , GRAY, DECOMPOSED TO HIGHLY WEATHERED.	1090.8	6	48	50	-	SS-4	2.50	-	-	-	-	-	-	-	-	5	Rock (V)
	1090.8	7	48	50	-												

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\GINT_COLUMBUS\PROJECTS\1822-1016-001-76_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>337+90, 7' RT.</u>	EXPLORATION ID <u>B-027-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1106.9 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/24/19</u> END: <u>1/24/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>500330.7600 N, 2243212.2800 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI			WC
PAVEMENT AND BASE 2" on asphalt 10.5" of concrete	1106.9																	
MEDIUM DENSE, LIGHT BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND, MOIST	1105.9	1	22															
MEDIUM DENSE TO DENSE, REDDISH BROWN, COARSE AND FINE SAND, CONTAINS MICA, MOIST	1104.4	2	17	29	56	SS-1	-	12	43	36	-	9	-	NP	NP	NP	13	A-1-b (0)
		3	6															
		4	8	32	56	SS-2	-	29	16	44	-	11	-	NP	NP	NP	12	A-3a (0)
		5	40															
	1101.4	6	50	-	61	SS-3	-	-	-	-	-	-	-	-	-	-	9	A-3a (V)
DENSE, LIGHT REDDISH BROWN, COARSE AND FINE SAND, TRACE GRAVEL, CONTAINS FLAT STONES, BLACK CLAY SEAM, MOIST	1099.9	7	50	-	22	SS-4	-	-	-	-	-	-	-	-	-	-	10	A-3a (V)
		EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-10\16-00\176_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / PAE</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>342+68, 8' LT.</u>	EXPLORATION ID <u>B-028-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1112.1 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/28/19</u> END: <u>1/28/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>500808.2400 N, 2243199.2300 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI			WC
PAVEMENT AND BASE 5" of asphalt 9.5" of concrete	1112.1																	
HARD, REDDISH BROWN, GRAVEL AND STONE FRAGMENTS , SOME SAND, TRACE SILT, TRACE CLAY, SOME LARGE ROCKS, CONTAINS MICA, MOIST TO WET DENSE, BROWN, COARSE AND FINE SAND , SOME GRAVEL, TRACE SILT, TRACE CLAY, CONTAINS MICA, MOIST TO WET SANDSTONE , GRAYISH BROWN, HIGHLY WEATHERED, TRACE CLAY.	1110.9	1	5															
	1109.6	2	14 45	71	50	SS-1	-	69	6	17	4	4	NP	NP	NP	7	A-1-a (0)	
		3	34 50	-	44	SS-2	-	33	13	39	-	15	-	NP	NP	NP	11	A-3a (0)
		4	50	-	22	SS-3	-	-	-	-	-	-	-	-	-	-	15	A-3a (V)
	1106.6	5																
	1105.1	6	50	-	6	SS-4	-	-	-	-	-	-	-	-	-	14	Rock (V)	
		7																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>346+84, 49' RT.</u>	EXPLORATION ID <u>B-029-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1110.5 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/24/19</u> END: <u>1/24/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>501224.2800 N, 2243258.5000 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI				
PAVEMENT AND BASE 4" of asphalt 8.5" of concrete	1110.5																		
MEDIUM DENSE, GRAYISH BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND , TRACE SILT, TRACE CLAY, WET	1109.5	1	15																
SHALE , GRAY, DECOMPOSED WEATHERED.	1108.0	2	10 13	28	67	SS-1	-	25	44	26	-	5	-	NP	NP	NP	17	A-1-b (0)	
		3	5 19	29	33	SS-2	-	20	9	12	38	21	28	20	8	10	Rock (V)		
		4	27 50	-	39	SS-3	-	-	-	-	-	-	-	-	-	-	6	Rock (V)	
		5	44 50	-	50	SS-4	-	-	-	-	-	-	-	-	-	-	8	Rock (V)	
	1103.5	6																	
		7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>350+86, 52' LT.</u>	EXPLORATION ID <u>B-030-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1104.2 (MSL)</u> EOB: <u>5.5 ft.</u>	
START: <u>1/10/19</u> END: <u>1/10/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>501626.6200 N, 2243159.1000 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI			WC
PAVEMENT AND BASE 4.25" of asphalt 8.5" of concrete	1104.2																	
SHALE, GRAY, DECOMPOSED WEATHERED, SLIGHTLY FRACTURED.	1103.1	TR	4	3	19	50	SS-1	-	25	4	7	36	28	31	21	10	8	Rock (V)
SHALE, GRAY, HIGHLY WEATHERED, HIGHLY FRACTURED.	1101.7		12	42	134	100	SS-2	-	32	3	11	36	18	30	19	11	5	Rock (V)
			28	50	-	83	SS-3	-	-	-	-	-	-	-	-	-	6	Rock (V)
	1098.7	EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT - COLUMBUS\PROJECTS\1822-1016-001-76 - 77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>354+95, 7' RT.</u>	EXPLORATION ID <u>B-031-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT:	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1103.9 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/24/19</u> END: <u>1/24/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>502035.9800 N, 2243212.5500 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1103.9	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI	WC		
	1102.9	1	4															
MEDIUM DENSE, GRAYISH BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT , TRACE CLAY, DAMP	1101.4	2	6	12	22	SS-1	-	27	21	26	17	9	28	23	5	10	A-2-4 (0)	
LOOSE TO MEDIUM DENSE, GRAYISH BROWN, SILT AND CLAY , SOME GRAVEL, SOME SAND, DAMP	1099.9	3	4	10	28	SS-2	-	31	8	14	28	19	28	16	12	11	A-6a (3)	
SHALE , GRAY, HIGHLY WEATHERED, MODERATELY FRACTURED.	1096.9	4	8															
		5	17	80	61	SS-3	-	-	-	-	-	-	-	-	-	8	Rock (V)	
		6	33			SS-4	-	-	-	-	-	-	-	-	-	6	Rock (V)	
	1096.9	7	50	-	28													

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\GINT_COLUMBUS\PROJECTS\1822-1016-00176_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / PAE</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>358+81, 7' LT.</u>	EXPLORATION ID <u>B-032-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1109.6 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/28/19</u> END: <u>1/28/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>502418.5400 N, 2243160.2200 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE 2" of asphalt 9" of concrete	1109.6																	
STIFF, GRAYISH BROWN, SANDY SILT , LITTLE GRAVEL, LITTLE CLAY, CONTAINS SHALE, DAMP	1108.6	1	4															
VERY DENSE, LIGHT GRAY, STONE FRAGMENTS WITH SAND , TRACE SILT, TRACE CLAY, DAMP	1107.1	2	5	14	50	SS-1	-	15	9	18	40	18	27	19	8	11	A-4a (5)	
SHALE , GRAY, DECOMPOSED WEATHERED, HIGHLY FRACTURED.	1105.6	3	13	106	56	SS-2	-	30	28	30	- 12 -	NP	NP	NP	8	A-1-b (0)		
		4	38															
		5	50			SS-3	-	-	-	-	-	-	-	-	-	15	Rock (V)	
		6				SS-4	-	-	-	-	-	-	-	-	-	4	Rock (V)	
	1102.6	7	50		17													

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEO\GINT_COLUMBUS\PROJECTS\1022-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>362+81, 68' RT.</u>	EXPLORATION ID <u>B-033-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1115.8 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/24/19</u> END: <u>1/24/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>502824.9700 N, 2243182.5400 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI	WC			
PAVEMENT AND BASE 4" of asphalt 9" of concrete	1115.8																		
STIFF, BROWN, SANDY SILT , LITTLE CLAY, CONTAINS ASPHALT, DAMP (FILL)	1114.7	1	6																
LOOSE TO MEDIUM DENSE, BROWN, SILT , LITTLE SAND, SOME CLAY, DAMP	1113.3	2	4	4	10	50	SS-1	-	15	13	17	36	19	24	16	8	12	A-4a (4)	
STIFF, BROWN, SILTY CLAY , MOIST	1111.8	3	3	4	12	61	SS-2	-	4	1	17	56	22	25	18	7	6	A-4b (8)	
	1110.3	4	3	4	6		SS-3	-	-	-	-	-	-	-	-	-	-	15	A-6b (V)
	1108.8	5	11	4	5	61	SS-3	-	-	-	-	-	-	-	-	-	-	15	A-6b (V)
		6	15				SS-4	1.75	-	-	-	-	-	-	-	-	-	16	A-6b (V)
		7	31	55	56														

EOB

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:13 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>367+64, 64' LT.</u>	EXPLORATION ID <u>B-034-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1124.8 (MSL)</u> EOB: <u>8.5 ft.</u>	
START: <u>1/10/19</u> END: <u>1/10/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>503289.8800 N, 2242993.5500 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE	1124.8																	
MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND , TRACE SILT, TRACE CLAY, DAMP	1123.3	1	7	22	78	SS-1	-	19	46	29	-	6	-	NP	NP	NP	5	A-1-b (0)
VERY STIFF, BROWN, GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT , LITTLE CLAY, DAMP	1120.8	2	5	19	67	SS-2	-	14	22	32	18	14	17	8	9	11	A-2-4 (0)	
MEDIUM DENSE TO DENSE, GREENISH GRAY, SANDY SILT , CONTAINS SANDSTONE COBBLES, DAMP TO MOIST	1117.8	3	8	17	61	SS-3	2.25	-	-	-	-	-	-	-	-	-	17	A-4a (V)
	1117.8	4	4	3	17	SS-3	2.25	-	-	-	-	-	-	-	-	-	17	A-4a (V)
MEDIUM DENSE, GRAYISH BROWN, SILT , MOIST	1116.3	5	6	11	32	SS-4	-	-	-	-	-	-	-	-	-	-	11	A-4a (V)
	1116.3	6	2	6	16	SS-5	-	-	-	-	-	-	-	-	-	-	17	A-4b (V)
	1116.3	7	6	16	56	SS-5	-	-	-	-	-	-	-	-	-	-	17	A-4b (V)
	1116.3	8	5															

EOB

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:14 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT - COLUMBUS\PROJECTS\1822-10\16-00\176-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>374+73, 6' RT.</u>	EXPLORATION ID <u>B-035-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1131.0 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/24/19</u> END: <u>1/24/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>504003.7400 N, 2243043.3000 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI	WC		
PAVEMENT AND BASE 4.5" of asphalt 9" of concrete	1131.0																	
LOOSE, BROWN, SILT AND CLAY, SOME GRAVEL, SOME SAND, CONTAINS CLAY SEAMS, DAMP	1129.9	1	4															
MEDIUM STIFF TO STIFF, BROWN, SANDY SILT, DAMP	1128.5	2	4	7	56	SS-1	-	28	17	15	22	18	27	15	12	12	A-6a (2)	
HARD, BROWN, SANDY SILT, DAMP	1127.0	3	4	10	56	SS-2	-	4	9	23	37	27	24	14	10	13	A-4a (6)	
		4	4	4														
		5	6	12	22	61	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)
		6	6	11	32	50	SS-4	4.5+	-	-	-	-	-	-	-	-	11	A-4a (V)
	1124.0	7	11	16														

EOB

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:14 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / PAE</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>381+04, 6' LT.</u>	EXPLORATION ID <u>B-036-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1124.1 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/28/19</u> END: <u>1/28/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>504634.2200 N, 2243035.3200 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI				
PAVEMENT AND BASE 3.5" of asphalt 8" concrete	1124.1																		
VERY DENSE, BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND, TRACE SILT, TRACE CLAY, DAMP	1123.1	1				SS-1	-	29	37	26	8	7	NP	NP	NP	9	A-1-b (0)		
LOOSE, DARK GRAY, GRAVEL AND STONE FRAGMENTS, SOME SAND, TRACE SILT, TRACE CLAY, CONTAINS PETROLEUM ODOR, CONTAINS UNKNOWN ORGANIC MATERIAL, DAMP (FILL)	1121.6	2	50	-	11														
HARD, BROWN, SILT AND CLAY, DAMP	1120.1	3	7	4	8	22	SS-2	-	63	19	12	-	6	-	NP	NP	NP	9	UCF (V)
		4	6	12	29	61	SS-3	4.5+	-	-	-	-	-	-	-	-	-	14	A-6a (V)
		5	6	12	29	61	SS-3	4.5+	-	-	-	-	-	-	-	-	-	14	A-6a (V)
		6	6	13	30	50	SS-4	4.5+	-	-	-	-	-	-	-	-	-	12	A-6a (V)
	1117.1	7	6	13	30	50	SS-4	4.5+	-	-	-	-	-	-	-	-	-	12	A-6a (V)
		EOB																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:14 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>382+88, 49' RT.</u>	EXPLORATION ID <u>B-037-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1120.4 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/24/19</u> END: <u>1/24/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>504817.9100 N, 2243091.7000 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI				
3.5" of asphalt 9" of asphalt	1120.4																		
LOOSE TO MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND , TRACE SILT, TRACE CLAY, MOIST	1119.4	1	4	12	22	SS-1	-	20	41	34	-	5	-	NP	NP	NP	10	A-1-b (0)	
		2	4	6															
		3	4	2	5	50	SS-2	-	27	37	27	-	9	-	NP	NP	NP	10	A-1-b (0)
VERY STIFF TO HARD, DARK BROWN, SILT AND CLAY , DAMP	1116.4	4	1	3	7	11	SS-3	4.00	-	-	-	-	-	-	-	-	-	11	A-6a (V)
	1114.9	5	1	3															
VERY LOOSE, BROWN, COARSE AND FINE SAND , WET	1113.4	6	1	1	2	28	SS-4	-	-	-	-	-	-	-	-	-	-	16	A-3a (V)
	1113.4	7	1	1															

EOB

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:14 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1022-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>386+89, 48' LT.</u>	EXPLORATION ID <u>B-038-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1111.6 (MSL)</u> EOB: <u>8.5 ft.</u>	
START: <u>1/10/19</u> END: <u>1/10/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>505219.4100 N, 2242996.9400 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI	WC			
PAVEMENT AND BASE 4" of asphalt 11.5" of concrete	1111.6																		
LOOSE TO MEDIUM DENSE, BROWN, COARSE AND FINE SAND , LITTLE GRAVEL, SOME SILT, LITTLE CLAY, MOIST	1110.3	1	4																
VERY STIFF TO HARD, BROWN, SILT , LITTLE SAND, SOME CLAY, MOIST	1109.1	2	3	13	61	SS-1	-	14	27	28	20	11	18	12	6	12	A-3a (0)		
		3	2	3	10	SS-2	-	0	3	11	56	30	27	18	9	19	A-4b (8)		
		4	2	4	16	SS-3	4.25	-	-	-	-	-	-	-	-	-	14	A-4b (V)	
		5	4	7	25	SS-4	4.25	-	-	-	-	-	-	-	-	-	14	A-4b (V)	
		6	4	7	10														
		7	3	3	13	SS-5	4.00	-	-	-	-	-	-	-	-	-	15	A-4b (V)	
	1103.1	8	3	6															

EOB

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT. - 7/7/20 11:14 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1022-1016-001-76_77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / PAE</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>391+90, 7' RT.</u>	EXPLORATION ID <u>B-039-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1100.4 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/28/19</u> END: <u>1/28/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>505720.9300 N, 2243055.8800 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG				ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI	WC			
PAVEMENT AND BASE 4" of asphalt 9" concrete	1100.4																		
MEDIUM DENSE TO DENSE, GRAYISH BROWN, SANDY SILT , LITTLE GRAVEL, SOME CLAY, MOIST	1099.3	1	13	5	20	56	SS-1	-	14	9	16	37	24	28	20	8	11	A-4a (5)	
DENSE, GRAYISH BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT , LITTLE CLAY, CONTAINS ROCK FRAGMENTS, DAMP	1097.9	2	8	16	46	44	SS-2	-	33	18	20	18	11	25	17	8	8	A-2-4 (0)	
SANDSTONE , TAN, DECOMPOSED TO HIGHLY WEATHERED.	1096.4	3	41	50	-	33	SS-3	-	-	-	-	-	-	-	-	-	-	10	Rock (V)
		4	50	-	-	33	SS-4	-	-	-	-	-	-	-	-	-	-	16	Rock (V)
	1093.4	6																	
		7																	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT. - 7/7/20 11:14 - X:\SHARED\DISCIPLINE\GEO\GINT - COLUMBUS\PROJECTS\1822-1016-001-76 - 77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>394+85, 75' LT.</u>	EXPLORATION ID <u>B-040-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT:	
PID: <u>102329</u> SFN: <u></u>	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1093.8 (MSL)</u> EOB: <u>5.5 ft.</u>	PAGE <u>1 OF 1</u>
START: <u>1/10/19</u> END: <u>1/10/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>506015.9600 N, 2242975.8600 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI			
PAVEMENT AND BASE 4" of asphalt 8" of concrete	1093.8																	
MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND, TRACE SILT, TRACE CLAY, DAMP	1092.8	1	5															
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED.	1091.3	2	13	22	56	SS-1	-	37	30	26	-	7	-	NP	NP	NP	8	A-1-b (0)
		3	31	118	72	SS-2	-	16	12	8	42	22	29	20	9	4	Rock (V)	
		4	50															
		5	20	122	111	SS-3	-	-	-	-	-	-	-	-	-	4	Rock (V)	
	1088.3	EOB	34															

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:14 - X:\SHARED\DISCIPLINE\GEO\GINT - COLUMBUS\PROJECTS\1822-1016-001-76 - 77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / MULLEN</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>398+62, 64' RT.</u>	EXPLORATION ID <u>B-041-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1088.1 (MSL)</u> EOB: <u>5.5 ft.</u>	
START: <u>1/22/19</u> END: <u>1/22/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>506392.0400 N, 2243117.1500 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			ODOT CLASS (GI)	HOLE SEALED	
								GR	CS	FS	SI	CL	LL	PL	PI			WC
PAVEMENT AND BASE 5" of asphalt 9.5" of concrete	1088.1																	
MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS WITH SAND , TRACE SILT, TRACE CLAY, DAMP	1086.9	1	3															
LOOSE TO MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS , SOME SAND, TRACE SILT, TRACE CLAY, DAMP	1085.6	2	4	7	13	28	SS-1	-	37	32	19	9	3	NP	NP	NP	5	A-1-b (0)
		3	9	10	22	56	SS-2	-	59	18	14	-	9	NP	NP	NP	5	A-1-a (0)
		4	2	4	6	11	SS-3	-	-	-	-	-	-	-	-	-	8	A-1-a (V)
	1082.6	5	1															

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:14 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / DEARING</u>	DRILL RIG: <u>'18 CME 55 404185</u>	STATION / OFFSET: <u>401+90, 63' LT.</u>	EXPLORATION ID <u>B-042-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>4/25/18</u>	ELEVATION: <u>1085.4 (MSL)</u> EOB: <u>7.0 ft.</u>	
START: <u>1/22/19</u> END: <u>1/22/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>87.1</u>	COORD: <u>506720.5600 N, 2242992.3700 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			WC	ODOT CLASS (GI)	HOLE SEALED		
								GR	CS	FS	SI	CL	LL	PL	PI					
PAVEMENT AND BASE 4" of asphalt 8" of concrete	1085.4																			
LOOSE TO MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS , AND SAND, TRACE SILT, TRACE CLAY, DAMP	1084.4	1	4			1A	-	54	17	21	-	8	-	NP	NP	NP	7	A-1-a (0)		
SANDSTONE , GRAY, HIGHLY TO MODERATELY WEATHERED.	1083.5	2	4	5	13	39	1B	-	-	-	-	-	-	-	-	-	-	Rock (V)		
		3	50			33	SS-2	-	-	-	-	-	-	-	-	-	-	9	Rock (V)	
		4	TR				SS-3	-	-	-	-	-	-	-	-	-	-	9	Rock (V)	
		5		50			6	SS-3	-	-	-	-	-	-	-	-	-	9	Rock (V)	
		6	50				SS-4	-	-	-	-	-	-	-	-	-	-	7	Rock (V)	
	1078.4	EOB																		

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 7/7/20 11:14 - X:\SHARED\DISCIPLINE\GEO\TECH\GINT_COLUMBUS\PROJECTS\1822-1016-001-76-77 EL ROBINSON.GPJ

PROJECT: <u>INTERSTATE 76/77</u>	DRILLING FIRM / OPERATOR: <u>DLZ-AD / PAE</u>	DRILL RIG: <u>CME45 RENTAL</u>	STATION / OFFSET: <u>406+10, 8' RT.</u>	EXPLORATION ID <u>B-043-0-18</u>
TYPE: <u>ROADWAY</u>	SAMPLING FIRM / LOGGER: <u>DLZ / VOLLBORN</u>	HAMMER: <u>CME AUTOMATIC</u>	ALIGNMENT: _____	PAGE 1 OF 1
PID: <u>102329</u> SFN: _____	DRILLING METHOD: <u>3.25" HSA</u>	CALIBRATION DATE: <u>N/A</u>	ELEVATION: <u>1083.9 (MSL)</u> EOB: <u>5.5 ft.</u>	
START: <u>1/28/19</u> END: <u>1/28/19</u>	SAMPLING METHOD: <u>SPT</u>	ENERGY RATIO (%): <u>72</u>	COORD: <u>507140.5800 N, 2243041.2600 E</u>	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)					ATTERBERG			ODOT CLASS (GI)	HOLE SEALED
								GR	CS	FS	SI	CL	LL	PL	PI		
PAVEMENT AND BASE 4" of asphalt 9" of concrete	1083.9																
MEDIUM DENSE, BROWN, GRAVEL AND STONE FRAGMENTS , SOME SAND, TRACE SILT, TRACE CLAY, DAMP	1082.8	1	14														
SANDSTONE , WHITE.	1081.4	2	10	23	67	SS-1	-	69	14	12	5	-	NP	NP	NP	9	A-1-a (0)
		3	9	-	22	SS-2	-	-	-	-	-	-	-	-	-	12	Rock (V)
		4	50														
		5	50	-	17	SS-3	-	-	-	-	-	-	-	-	-	11	Rock (V)
	1078.4	EOB															

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED 1 BAG ASPHALT PATCH; AUGER CUTTINGS MIXED WITH BENTONITE CHIPS

GRAIN SIZE REPORTS

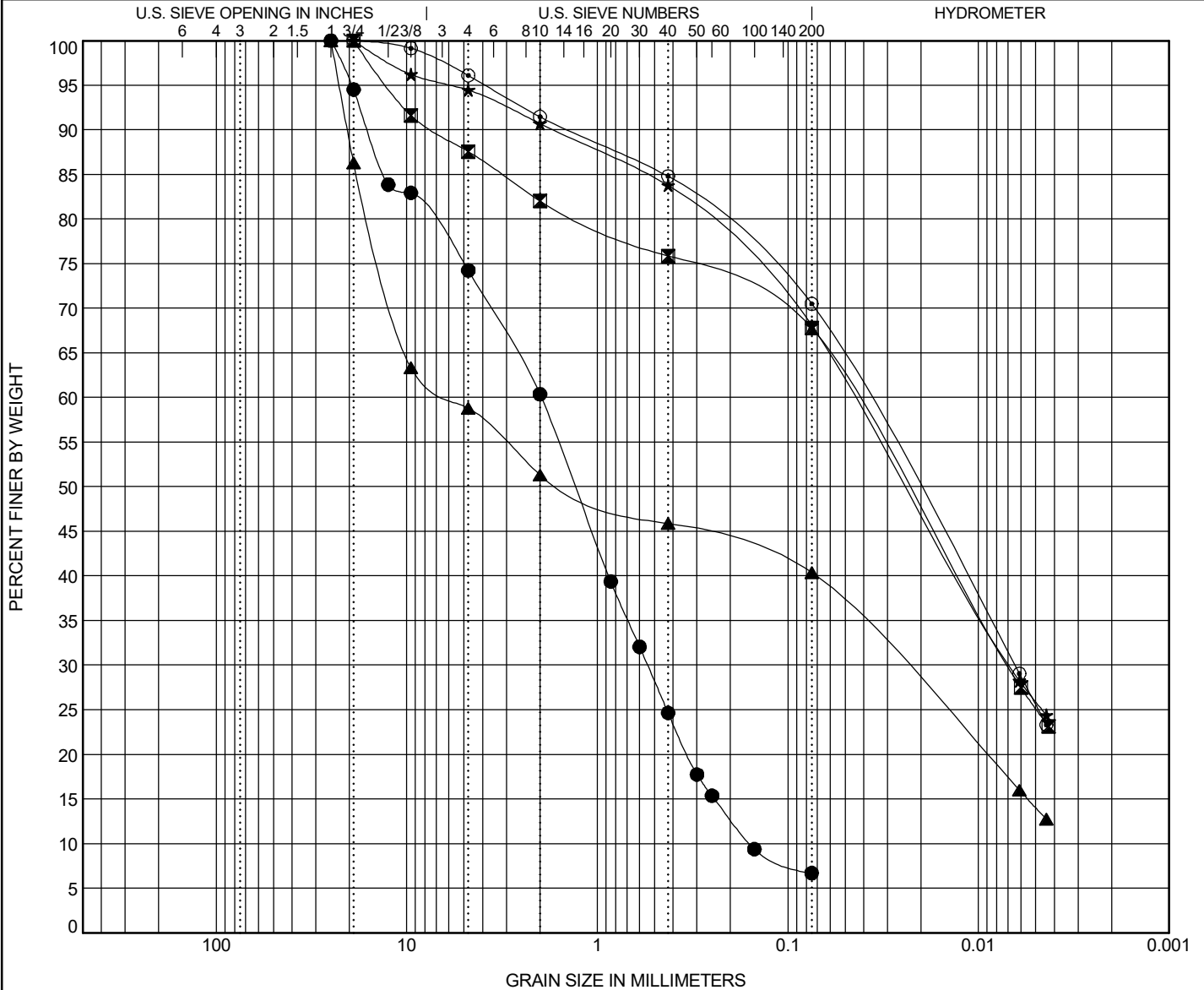


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-004-0-18 1.0	A-1-b ~ POORLY GRADED SAND with SILT and GRAVEL(SP-SM)										NP	NP	NP
☒ B-004-0-18 2.5	A-4a ~ SANDY LEAN CLAY(CL)										26	17	9
▲ B-007-0-18 1.0	A-4a ~ CLAYEY GRAVEL with SAND(GC)										29	19	10
★ B-007-0-18 2.5	A-4a ~ SANDY LEAN CLAY(CL)										25	16	9
◎ B-010-0-18 1.1	A-4a ~ LEAN CLAY with SAND(CL)										25	16	9
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-004-0-18 1.0	15.905	1.311	0.545	0.158	39	36	18	7		0.95	12.45		
☒ B-004-0-18 2.5	7.199	0.025	0.007		18	6	8	43	25				
▲ B-007-0-18 1.0	20.461	1.379	0.026		50	5	5	26	14				
★ B-007-0-18 2.5	1.71	0.024	0.007		9	7	16	42	26				
◎ B-010-0-18 1.1	1.423	0.022	0.006		9	7	14	44	26				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:06 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

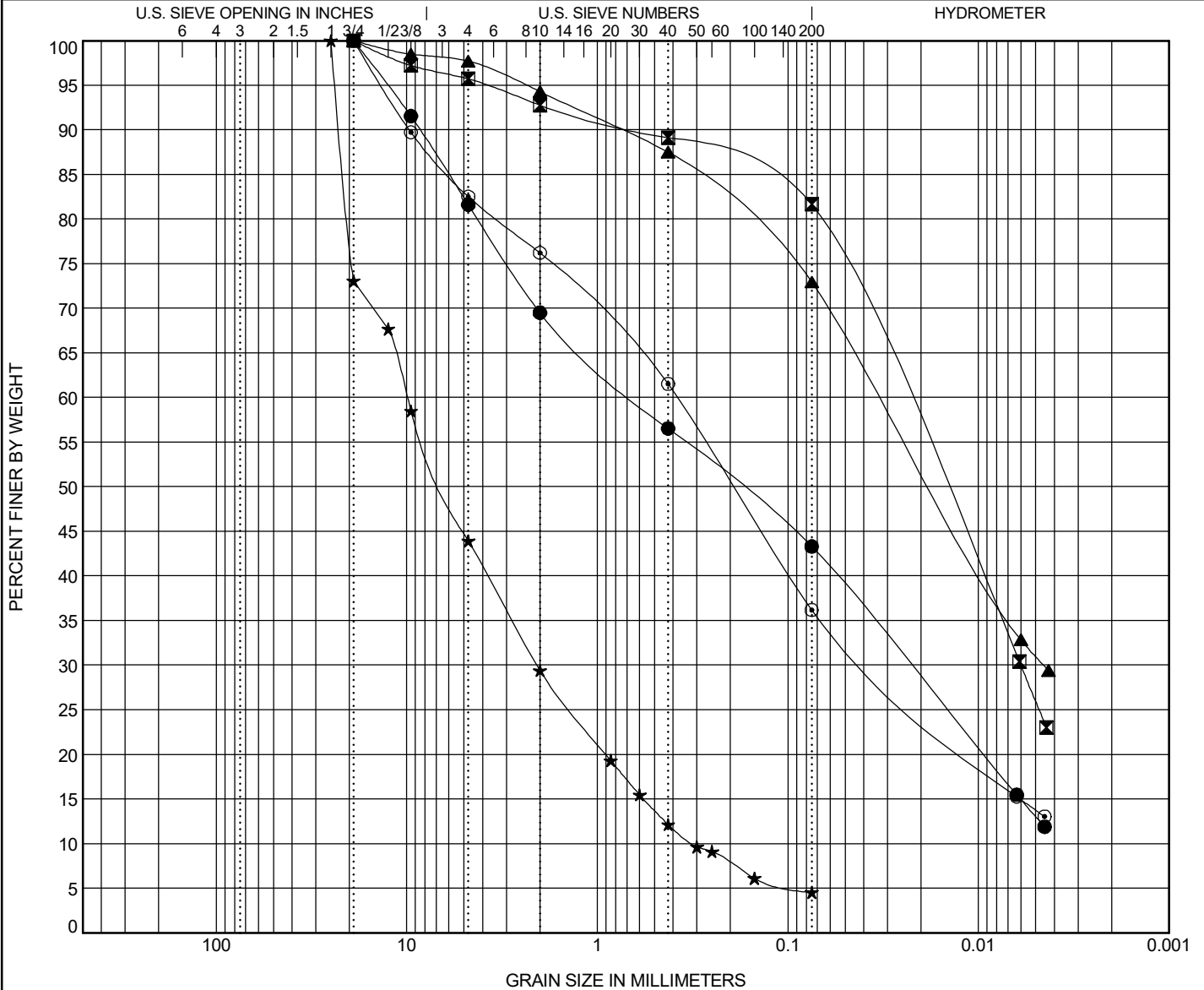


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-010-0-18 2.5	A-6a ~ CLAYEY SAND with GRAVEL(SC)										32	21	11
☒ B-011-0-18 1.3	A-4b ~ LEAN CLAY with SAND(CL)										27	19	8
▲ B-011-0-18 2.5	A-4a ~ LEAN CLAY with SAND(CL)										26	16	10
★ B-012-0-18 1.0	A-1-a ~ WELL-GRADED GRAVEL with SAND(GW)										NP	NP	NP
⊙ B-012-0-18 2.5	A-4a ~ SILTY, CLAYEY SAND with GRAVEL(SC-SM)										20	16	4
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-010-0-18 2.5	8.531	0.181	0.023		31	13	13	30	13				
☒ B-011-0-18 1.3	0.613	0.016	0.006		7	4	7	56	26				
▲ B-011-0-18 2.5	0.752	0.018	0.005		5	7	15	42	31				
★ B-012-0-18 1.0	22.579	6.345	2.073	0.316	70	17	8	5		1.37	31.41		
⊙ B-012-0-18 2.5	9.678	0.193	0.036		24	15	25	22	14				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:06 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ



OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING

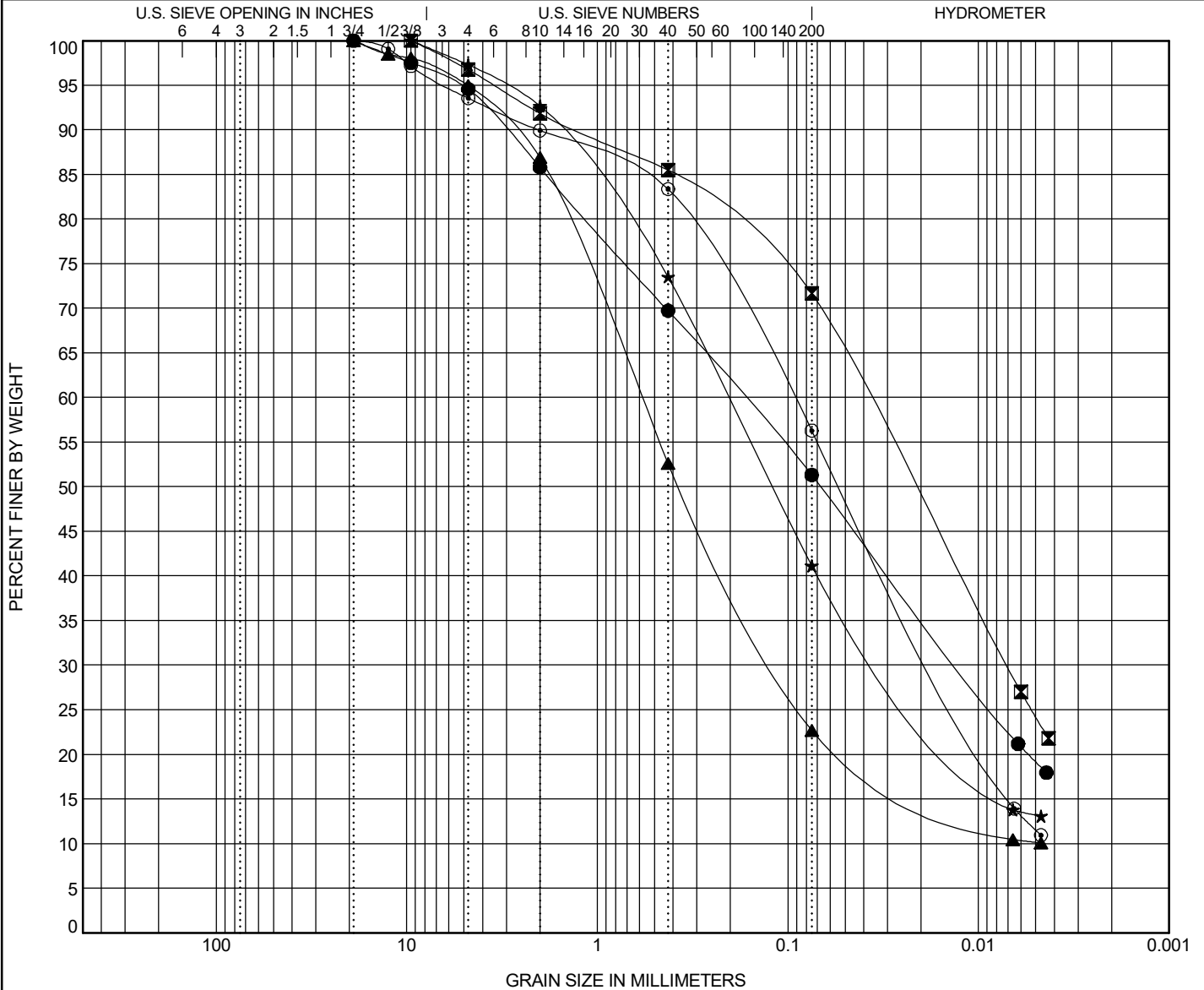
GRAIN SIZE DISTRIBUTION

PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-013-0-18 1.0	A-4a ~ SANDY SILTY CLAY(CL-ML)										20	15	5
☒ B-013-0-18 2.5	A-4a ~ LEAN CLAY with SAND(CL)										25	17	8
▲ B-014-0-20 1.5	A-3a ~ SILTY SAND(SM)										NP	NP	NP
★ B-014-0-20 3.0	A-4a ~ SILTY SAND(SM)										NP	NP	NP
◎ B-014-0-20 4.5	A-4a ~ SANDY SILTY CLAY(CL-ML)										18	13	5
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-013-0-18 1.0	3.028	0.067	0.013		15	16	18	32	19				
☒ B-013-0-18 2.5	1.278	0.022	0.007		8	6	14	48	24				
▲ B-014-0-20 1.5	2.791	0.365	0.115		13	34	30	13	10				
★ B-014-0-20 3.0	1.609	0.121	0.028		8	19	32	28	13				
◎ B-014-0-20 4.5	2.035	0.052	0.016		10	7	27	45	11				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:06 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

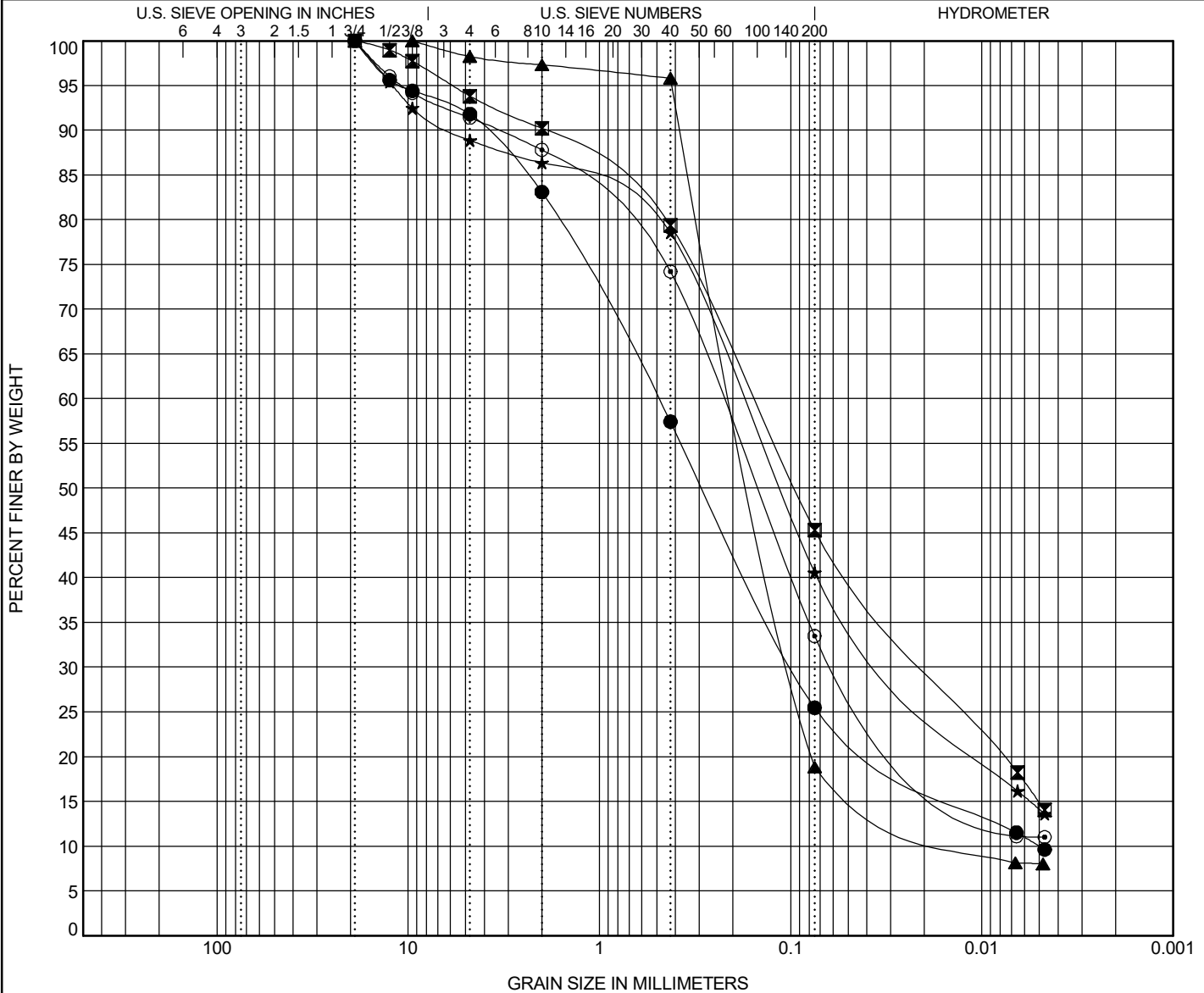


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-015-0-20 1.0	A-3a ~ SILTY SAND(SM)										NP	NP	NP
☒ B-015-0-20 2.5	A-4a ~ SILTY, CLAYEY SAND(SC-SM)										19	14	5
▲ B-015-0-20 4.0	A-3a ~ SILTY SAND(SM)										NP	NP	NP
★ B-016-0-20 1.0	A-4a ~ SILTY, CLAYEY SAND(SC-SM)										23	16	7
◎ B-016-0-20 2.5	A-3a ~ SILTY SAND(SM)										15	14	1
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-015-0-20 1.0	3.971	0.284	0.096	0.005	17	26	32	15	10	3.68	98.43		
☒ B-015-0-20 2.5	1.937	0.095	0.019		10	11	34	30	15				
▲ B-015-0-20 4.0	0.373	0.151	0.096	0.01	2	2	77	11	8	4.78	18.48		
★ B-016-0-20 1.0	5.912	0.115	0.026		13	8	38	27	14				
◎ B-016-0-20 2.5	3.387	0.152	0.051		12	14	41	22	11				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:06 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

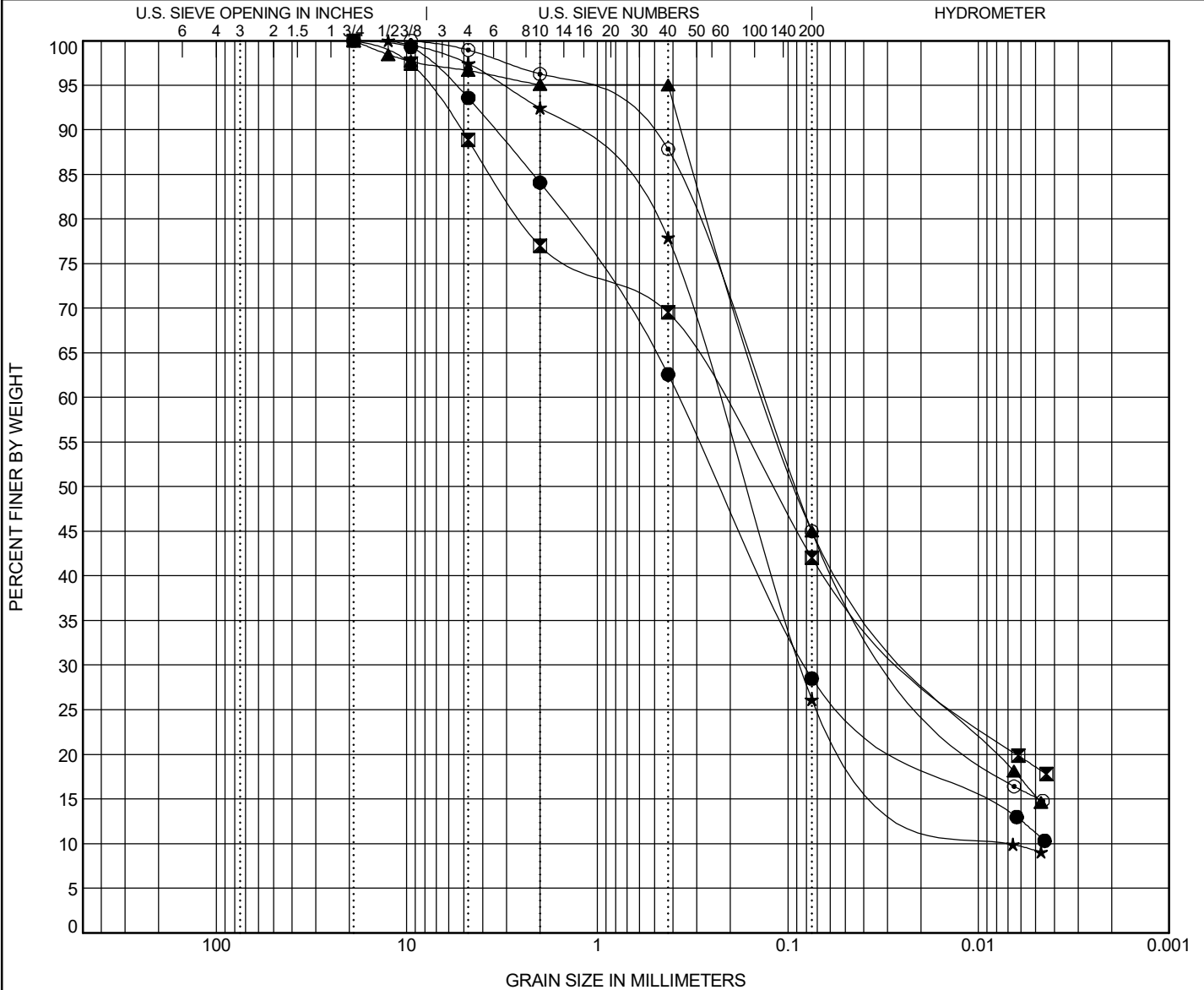


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-017-0-18 1.0	A-3a ~ SILTY SAND(SM)										16	13	3
■ B-017-0-18 2.5	A-4a ~ CLAYEY SAND(SC)										22	14	8
▲ B-018-0-20 1.5	A-4a ~ SILTY SAND(SM)										NP	NP	NP
★ B-019-0-20 1.0	A-3a ~ SILTY SAND(SM)										NP	NP	NP
○ B-020-0-20 1.0	A-4a ~ SILTY SAND(SM)										NP	NP	NP
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-017-0-18 1.0	3.427	0.224	0.081		17	21	34	17	11				
■ B-017-0-18 2.5	5.21	0.124	0.019		23	7	28	23	19				
▲ B-018-0-20 1.5	0.357	0.089	0.019		5	0	50	30	15				
★ B-019-0-20 1.0	1.54	0.167	0.085	0.007	7	15	52	17	9	4.66	34.78		
○ B-020-0-20 1.0	0.632	0.092	0.021		4	8	43	30	15				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:07 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

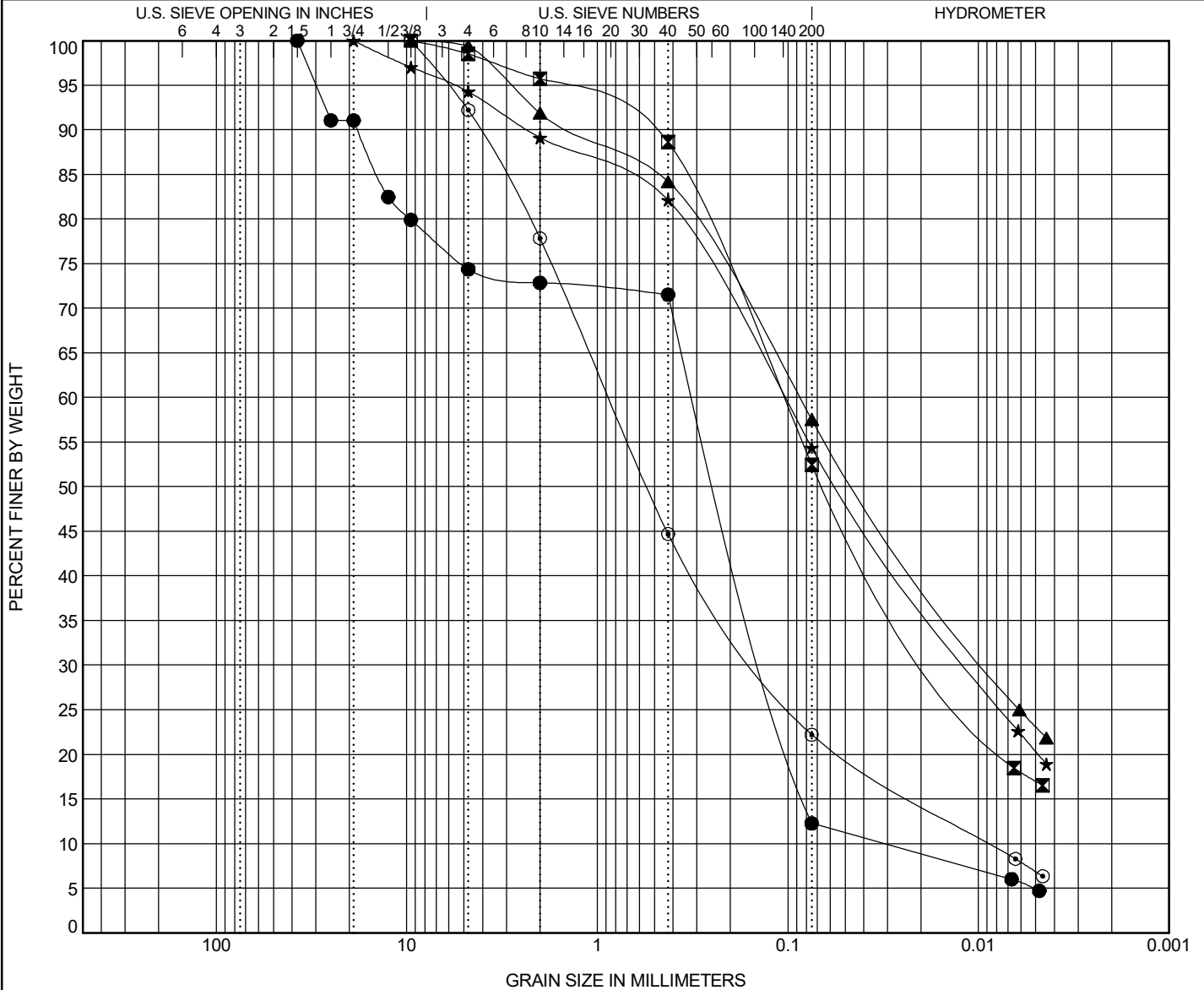


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification			ODOT (Modified AASHTO) ~ USCS Classification								LL	PL	PI
●	B-020-0-20	2.5	A-3a ~ SILTY SAND with GRAVEL(SM)								NP	NP	NP
☒	B-020-0-20	4.0	A-4a ~ SANDY SILTY CLAY(CL-ML)								19	15	4
▲	B-021-0-18	1.0	A-4a ~ SANDY LEAN CLAY(CL)								23	15	8
★	B-021-0-18	2.5	A-4a ~ SANDY LEAN CLAY(CL)								23	15	8
◎	B-022-0-18	1.0	A-1-b ~ SILTY, CLAYEY SAND(SC-SM)								25	21	4
Specimen Identification			D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu
●	B-020-0-20	2.5	18.044	0.226	0.126	0.031	28	1	59	7	5	1.67	9.65
☒	B-020-0-20	4.0	0.57	0.063	0.015		5	7	36	35	17		
▲	B-021-0-18	1.0	1.372	0.042	0.009		7	8	27	35	23		
★	B-021-0-18	2.5	2.318	0.053	0.011		11	7	28	34	20		
◎	B-022-0-18	1.0	4.157	0.545	0.137	0.009	23	33	22	15	7	2.49	100.11

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:07 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

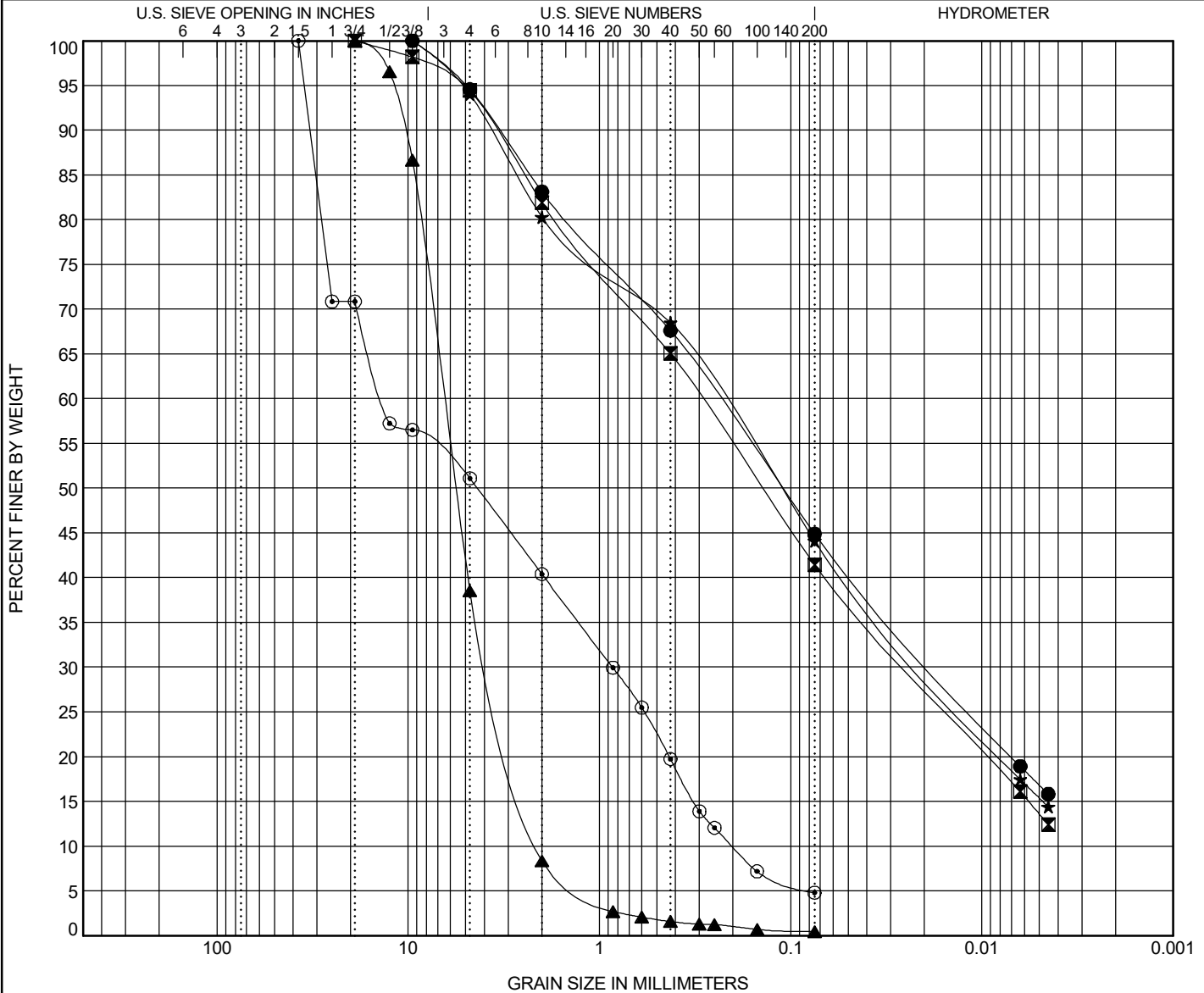


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification									LL	PL	PI
● B-023-0-18 1.3	A-4a ~ CLAYEY SAND(SC)									28	18	10
☒ B-023-0-18 2.5	A-4a ~ CLAYEY SAND(SC)									27	18	9
▲ B-024-0-18 1.0	A-1-a ~ POORLY GRADED GRAVEL with SAND(GP)									NP	NP	NP
★ B-024-0-18 2.5	A-4a ~ SILTY, CLAYEY SAND(SC-SM)									22	15	7
◎ B-025-0-18 1.0	A-1-a ~ POORLY GRADED GRAVEL with SAND(GP)									NP	NP	NP
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu	
● B-023-0-18 1.3	3.36	0.111	0.018		16	16	23	28	17			
☒ B-023-0-18 2.5	3.495	0.141	0.025		18	17	24	27	14			
▲ B-024-0-18 1.0	10.422	5.604	3.721	2.098	92	7	1	0		1.02	3.08	
★ B-024-0-18 2.5	3.684	0.114	0.02		20	12	24	29	15			
◎ B-025-0-18 1.0	32.63	4.347	0.854	0.202	59	21	15	5		0.27	67.38	

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:07 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

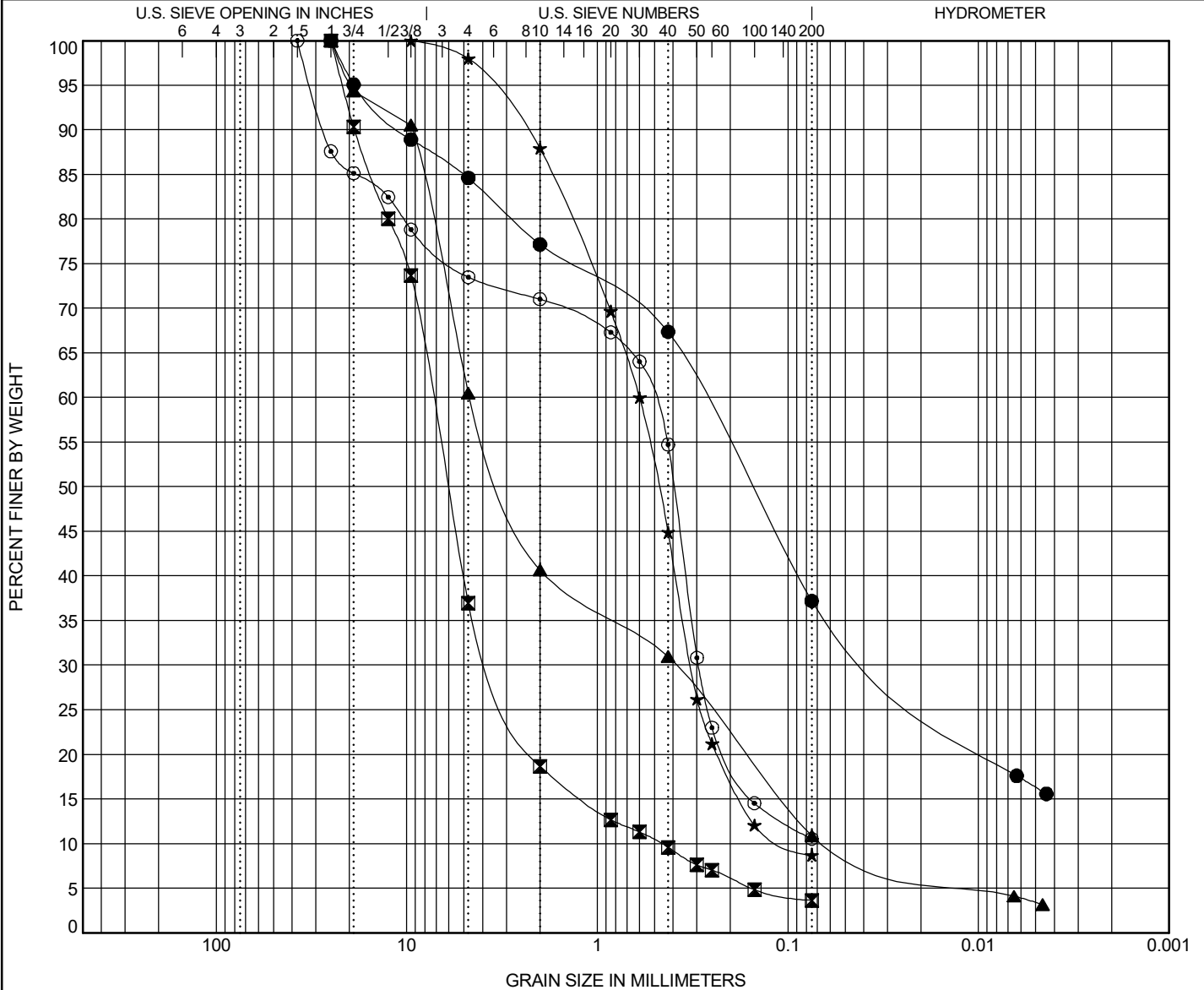


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-025-0-18 2.5	A-4a ~ CLAYEY SAND with GRAVEL(SC)										21	13	8
■ B-026-0-18 1.1	A-1-a ~ POORLY GRADED GRAVEL with SAND(GP)										NP	NP	NP
▲ B-026-0-18 2.5	A-1-b ~ POORLY GRADED SAND with SILT and GRAVEL(SP-SM)										NP	NP	NP
★ B-027-0-18 1.0	A-1-b ~ WELL-GRADED SAND with SILT(SW-SM)										NP	NP	NP
⊙ B-027-0-18 2.5	A-3a ~ WELL-GRADED SAND with SILT and GRAVEL(SW-SM)										NP	NP	NP
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-025-0-18 2.5	10.738	0.157	0.03		23	10	30	21	16				
■ B-026-0-18 1.1	18.73	6.077	3.42	0.463	81	9	6	4		3.44	15.84		
▲ B-026-0-18 2.5	9.383	3.005	0.392	0.055	59	10	20	8	3	0.60	84.62		
★ B-027-0-18 1.0	2.389	0.478	0.322	0.098	12	43	36	9		1.76	6.11		
⊙ B-027-0-18 2.5	27.049	0.397	0.294		29	16	44	11		2.45	7.54		

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:08 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

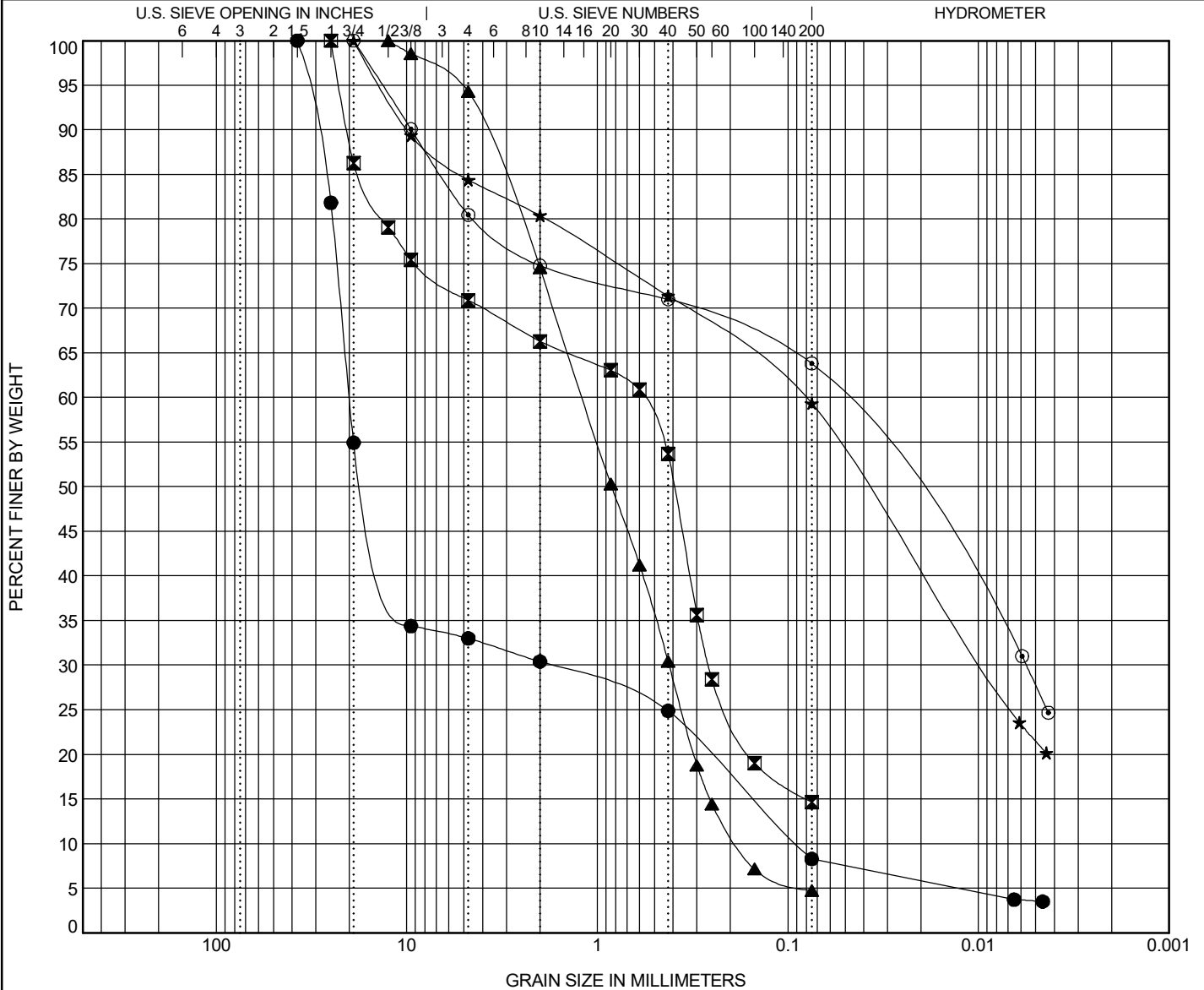


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-028-0-18 1.2	A-1-a ~ WELL-GRADED GRAVEL with SILT and SAND(GW-GM)										NP	NP	NP
☒ B-028-0-18 2.5	A-3a ~ SILTY SAND with GRAVEL(SM)										NP	NP	NP
▲ B-029-0-18 1.0	A-1-b ~ POORLY GRADED SAND(SP)										NP	NP	NP
★ B-029-0-18 2.5	A-4a ~ SANDY LEAN CLAY with GRAVEL(CL)										28	20	8
◎ B-030-0-18 1.0	A-4a ~ GRAVELLY LEAN CLAY with SAND(CL)										31	21	10
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-028-0-18 1.2	30.002	16.092	1.789	0.09	69	6	17	4	4	1.78	222.55		
☒ B-028-0-18 2.5	20.463	0.396	0.26		33	13	39	15					
▲ B-029-0-18 1.0	3.938	0.84	0.42	0.183	25	44	26	5		0.80	6.53		
★ B-029-0-18 2.5	9.896	0.039	0.01		20	9	12	38	21				
◎ B-030-0-18 1.0	9.442	0.026	0.006		25	4	7	36	28				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:08 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

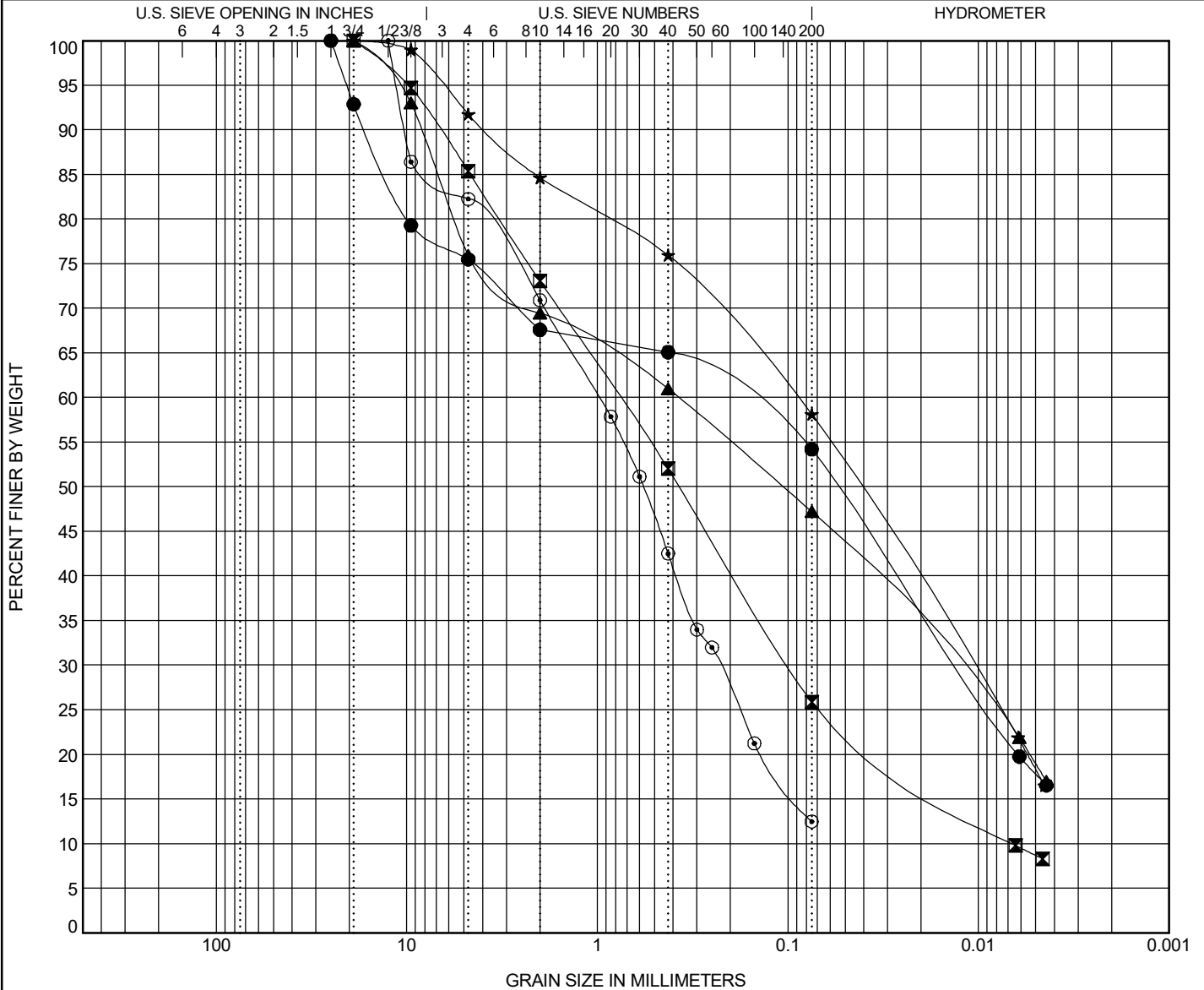


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification			ODOT (Modified AASHTO) ~ USCS Classification							LL	PL	PI	
●	B-030-0-18	2.5	A-6a ~ GRAVELLY LEAN CLAY with SAND(CL)							30	19	11	
■	B-031-0-18	1.0	A-2-4 ~ SILTY SAND(SM)							28	23	5	
▲	B-031-0-18	2.5	A-6a ~ CLAYEY SAND with GRAVEL(SC)							28	16	12	
★	B-032-0-18	1.0	A-4a ~ SANDY LEAN CLAY(CL)							27	19	8	
○	B-032-0-18	2.5	A-1-b ~ SILTY SAND with GRAVEL(SM)							NP	NP	NP	
Specimen Identification			D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu
●	B-030-0-18	2.5	16.407	0.055	0.013		32	3	11	36	18		
■	B-031-0-18	1.0	6.7	0.371	0.099	0.007	27	21	26	17	9	1.92	115.41
▲	B-031-0-18	2.5	8.406	0.107	0.014		31	8	14	28	19		
★	B-032-0-18	1.0	3.833	0.043	0.011		15	9	18	40	18		
○	B-032-0-18	2.5	10.214	0.574	0.228		30	28	30	12		0.86	15.86

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:08 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

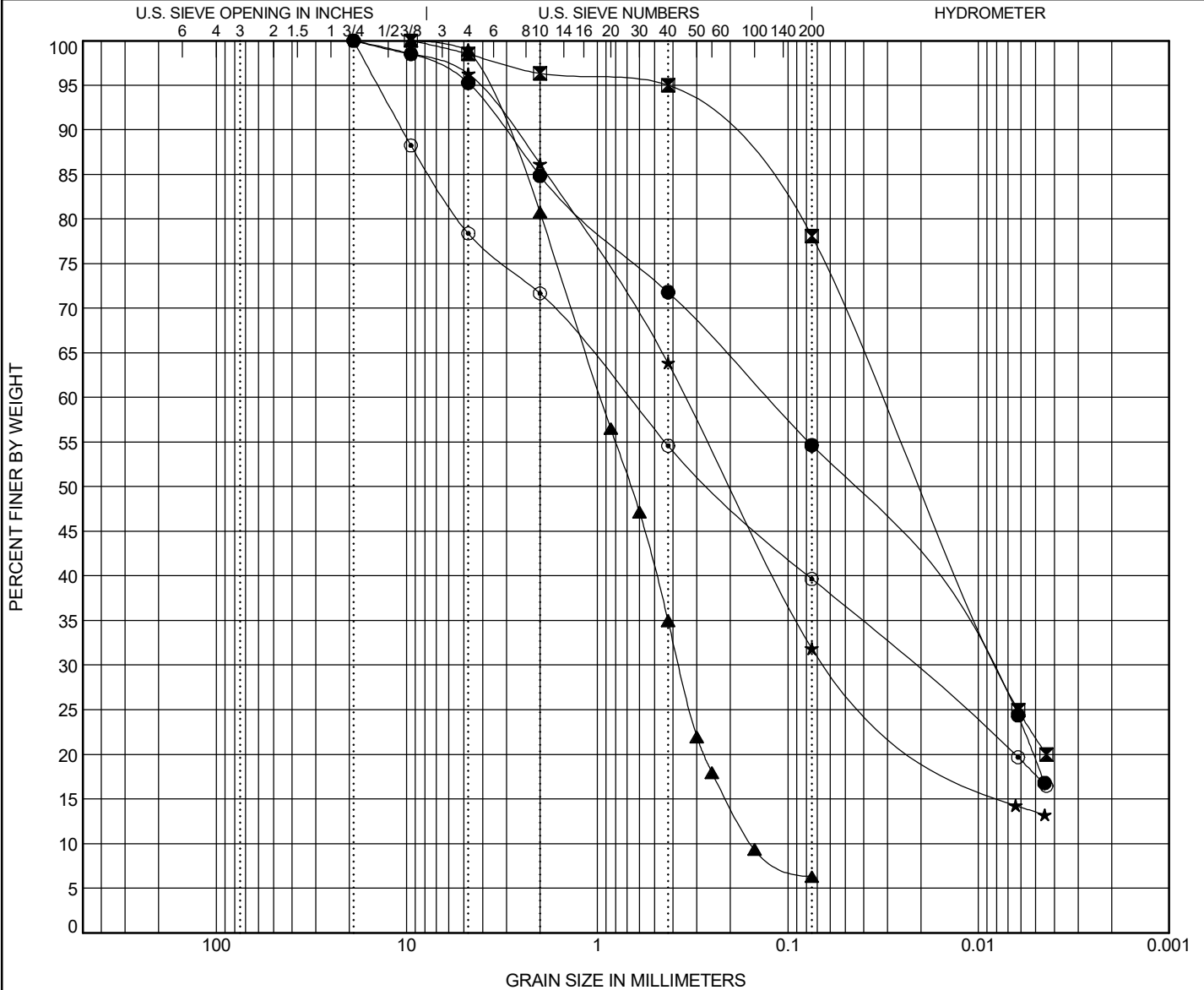


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-033-0-18 1.1	A-4a ~ SANDY LEAN CLAY(CL)										24	16	8
☒ B-033-0-18 2.5	A-4b ~ SILTY CLAY with SAND(CL-ML)										25	18	7
▲ B-034-0-18 1.0	A-1-b ~ POORLY GRADED SAND with SILT(SP-SM)										NP	NP	NP
★ B-034-0-18 2.5	A-2-4 ~ CLAYEY SAND(SC)										17	8	9
◎ B-035-0-18 1.1	A-6a ~ CLAYEY SAND with GRAVEL(SC)										27	15	12
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-033-0-18 1.1	3.065	0.051	0.01		15	13	17	36	19				
☒ B-033-0-18 2.5	0.254	0.02	0.008		4	1	17	56	22				
▲ B-034-0-18 1.0	3.107	0.667	0.372	0.156	19	46	29	6		0.92	6.15		
★ B-034-0-18 2.5	2.772	0.2	0.058		14	22	32	18	14				
◎ B-035-0-18 1.1	10.533	0.249	0.023		28	17	15	22	18				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:09 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

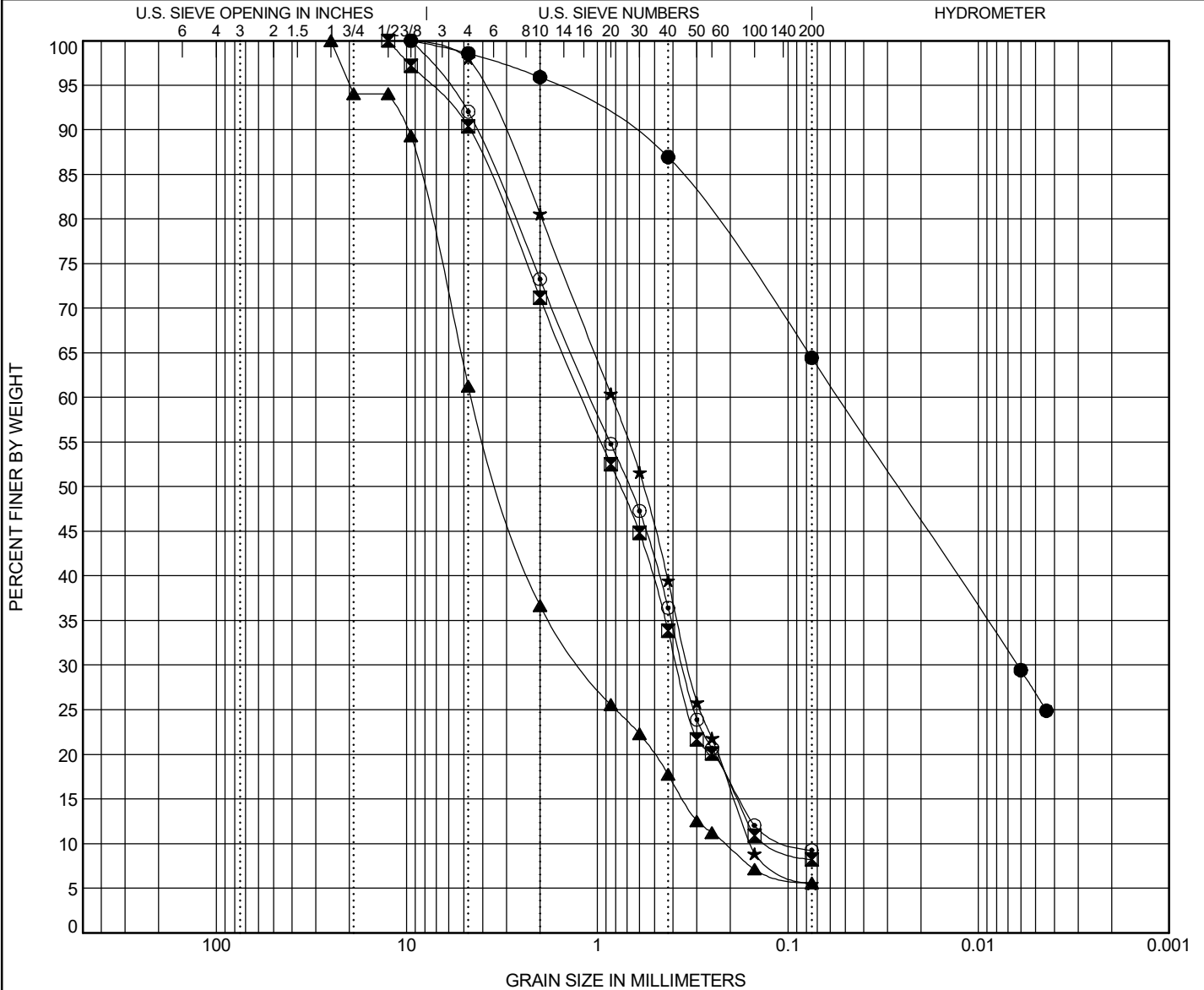


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification			ODOT (Modified AASHTO) ~ USCS Classification							LL	PL	PI	
●	B-035-0-18	2.5	A-4a ~ SANDY LEAN CLAY(CL)							24	14	10	
■	B-036-0-18	1.0	A-1-b ~ WELL-GRADED SAND with SILT(SW-SM)							NP	NP	NP	
▲	B-036-0-18	2.5	A-1-a ~ WELL-GRADED SAND with SILT and GRAVEL(SW-SM)							NP	NP	NP	
★	B-037-0-18	1.0	A-1-b ~ POORLY GRADED SAND with SILT(SP-SM)							NP	NP	NP	
○	B-037-0-18	2.5	A-1-b ~ WELL-GRADED SAND with SILT(SW-SM)							NP	NP	NP	
Specimen Identification			D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu
●	B-035-0-18	2.5	0.72	0.026	0.006		4	9	23	37	27		
■	B-036-0-18	1.0	4.661	0.758	0.381	0.119	29	37	26	8		1.02	10.05
▲	B-036-0-18	2.5	9.879	3.196	1.197	0.215	63	19	12	6		1.47	21.14
★	B-037-0-18	1.0	3.191	0.573	0.334	0.157	20	41	34	5		0.85	5.33
○	B-037-0-18	2.5	4.323	0.681	0.356	0.091	27	37	27	9		1.29	11.93

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:09 - X:\SHARE\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

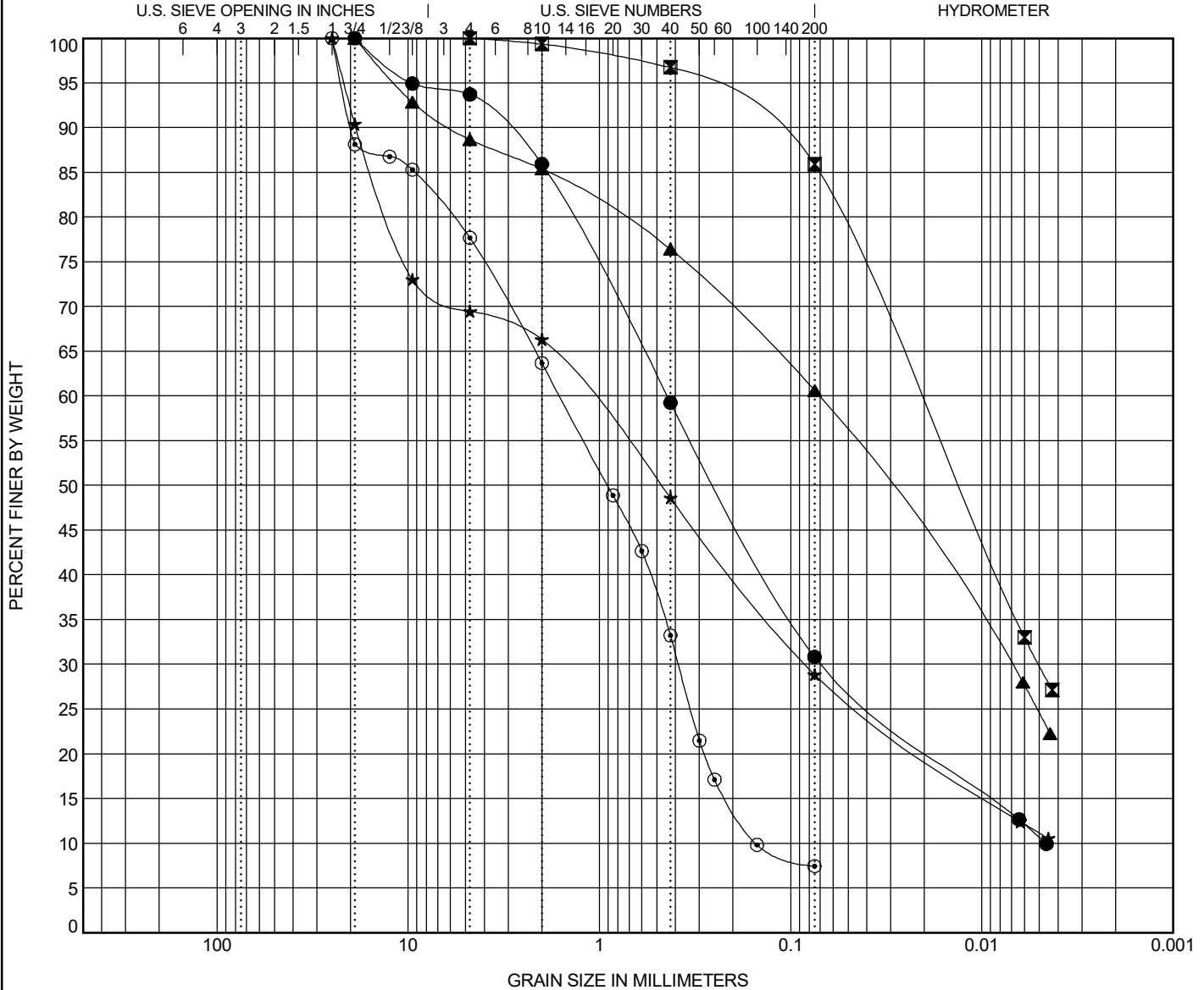


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-038-0-18 1.3	A-3a ~ SILTY, CLAYEY SAND(SC-SM)										18	12	6
☒ B-038-0-18 2.5	A-4b ~ LEAN CLAY(CL)										27	18	9
▲ B-039-0-18 1.1	A-4a ~ SANDY LEAN CLAY(CL)										28	20	8
★ B-039-0-18 2.5	A-2-4 ~ CLAYEY SAND with GRAVEL(SC)										25	17	8
◎ B-040-0-18 1.0	A-1-b ~ POORLY GRADED SAND with SILT and GRAVEL(SP-SM)										NP	NP	NP
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-038-0-18 1.3	3.143	0.242	0.067	0.005	14	27	28	20	11	2.18	95.33		
☒ B-038-0-18 2.5	0.144	0.014	0.005		0	3	11	56	30				
▲ B-039-0-18 1.1	5.933	0.033	0.007		14	9	16	37	24				
★ B-039-0-18 2.5	18.7	0.48	0.083		33	18	20	18	11				
◎ B-040-0-18 1.0	19.837	0.906	0.386	0.152	37	30	26	7		0.61	10.63		

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:10 - X:\SHARED\DISCIPLINE\GEOTECH\INT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

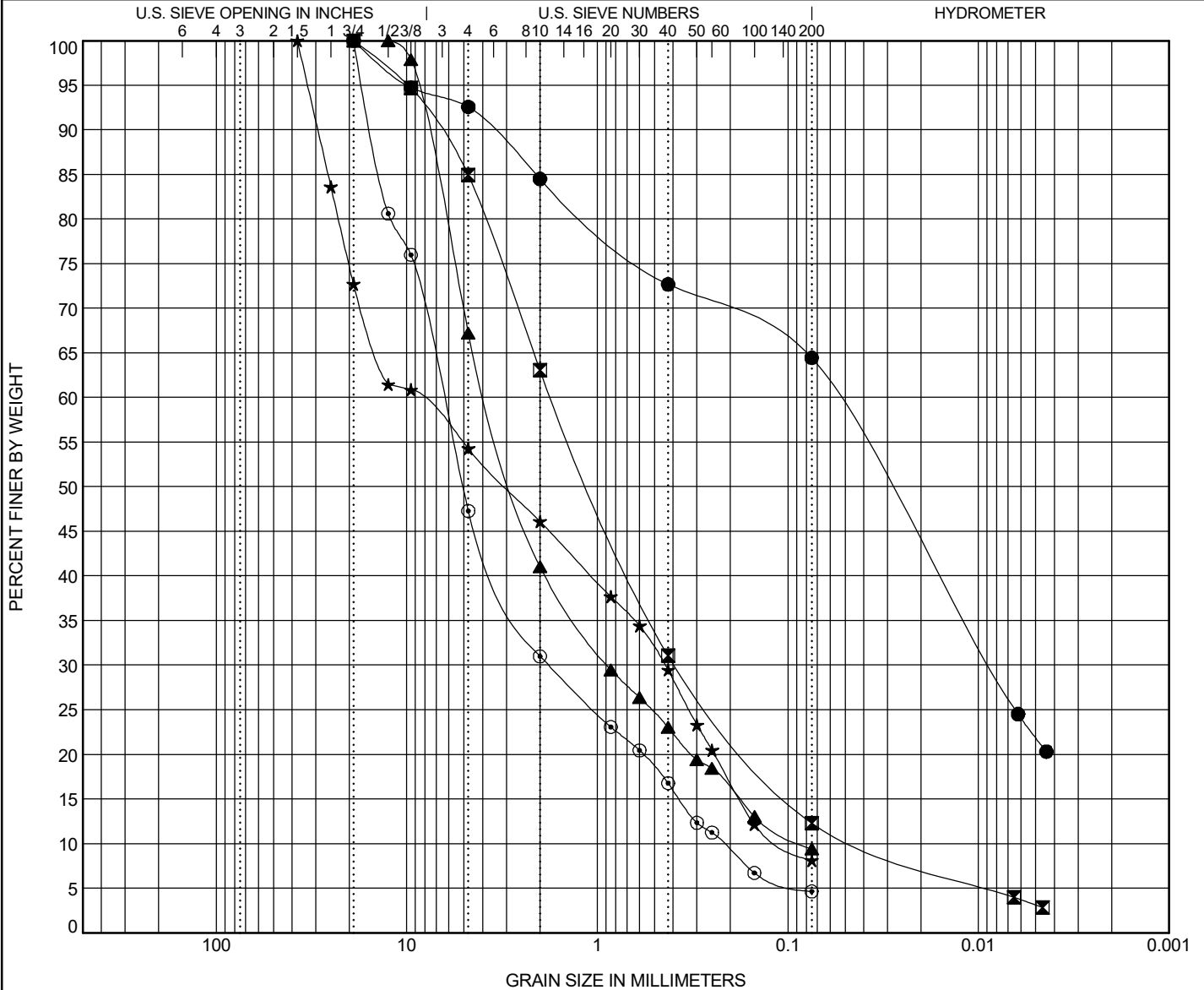


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification			ODOT (Modified AASHTO) ~ USCS Classification								LL	PL	PI
●	B-040-0-18	2.5	A-4a ~ SANDY LEAN CLAY(CL)								29	20	9
■	B-041-0-18	1.2	A-1-b ~ SILTY SAND with GRAVEL(SM)								NP	NP	NP
▲	B-041-0-18	2.5	A-1-a ~ WELL-GRADED SAND with SILT and GRAVEL(SW-SM)								NP	NP	NP
★	B-042-0-18	1.0	A-1-a ~ POORLY GRADED SAND with SILT and GRAVEL(SP-SM)								NP	NP	NP
⊙	B-043-0-18	1.1	A-1-a ~ WELL-GRADED GRAVEL with SAND(GW)								NP	NP	NP
Specimen Identification			D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu
●	B-040-0-18	2.5	3.606	0.03	0.009		16	12	8	42	22		
■	B-041-0-18	1.2	6.809	1.064	0.386	0.039	37	32	19	9	3	2.25	44.84
▲	B-041-0-18	2.5	7.947	2.691	0.884	0.084	59	18	14	9		2.48	44.54
★	B-042-0-18	1.0	29.274	3.02	0.441	0.104	54	17	21	8		0.22	83.45
⊙	B-043-0-18	1.1	15.309	5.073	1.799	0.218	69	14	12	5		2.30	29.65

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:11 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

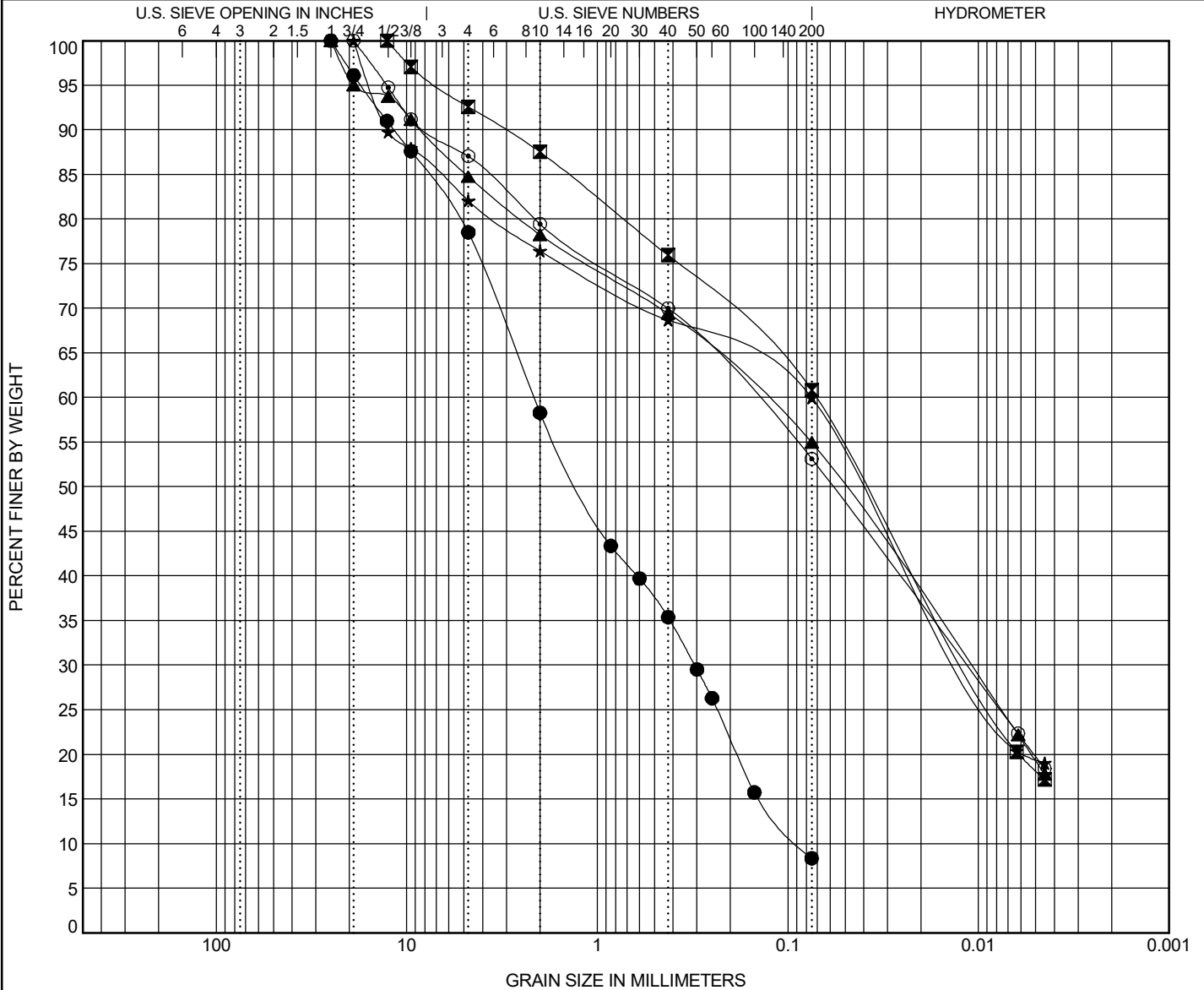


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification								LL	PL	PI
● B-009-1-19 1.0	~										
☒ B-009-1-19 2.5	A-4a ~ SANDY SILTY CLAY(CL-ML)								24	18	6
▲ B-009-1-19 4.0	A-4a ~ SANDY SILTY CLAY with GRAVEL(CL-ML)								22	15	7
★ B-009-1-19 5.5	A-4a ~ SANDY LEAN CLAY with GRAVEL(CL)								25	16	9
◎ B-009-1-19 8.5	A-4a ~ SANDY SILTY CLAY(CL-ML)								22	15	7
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu
● B-009-1-19 1.0	11.658	1.244	0.309	0.088	42	23	27	8		0.51	24.56
☒ B-009-1-19 2.5	3.053	0.039	0.011		12	12	15	43	18		
▲ B-009-1-19 4.0	8.381	0.051	0.011		22	9	14	36	19		
★ B-009-1-19 5.5	12.62	0.04	0.012		23	8	9	41	19		
◎ B-009-1-19 8.5	7.785	0.058	0.012		21	9	17	33	20		

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:20 - X:\SHARE\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ



OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING

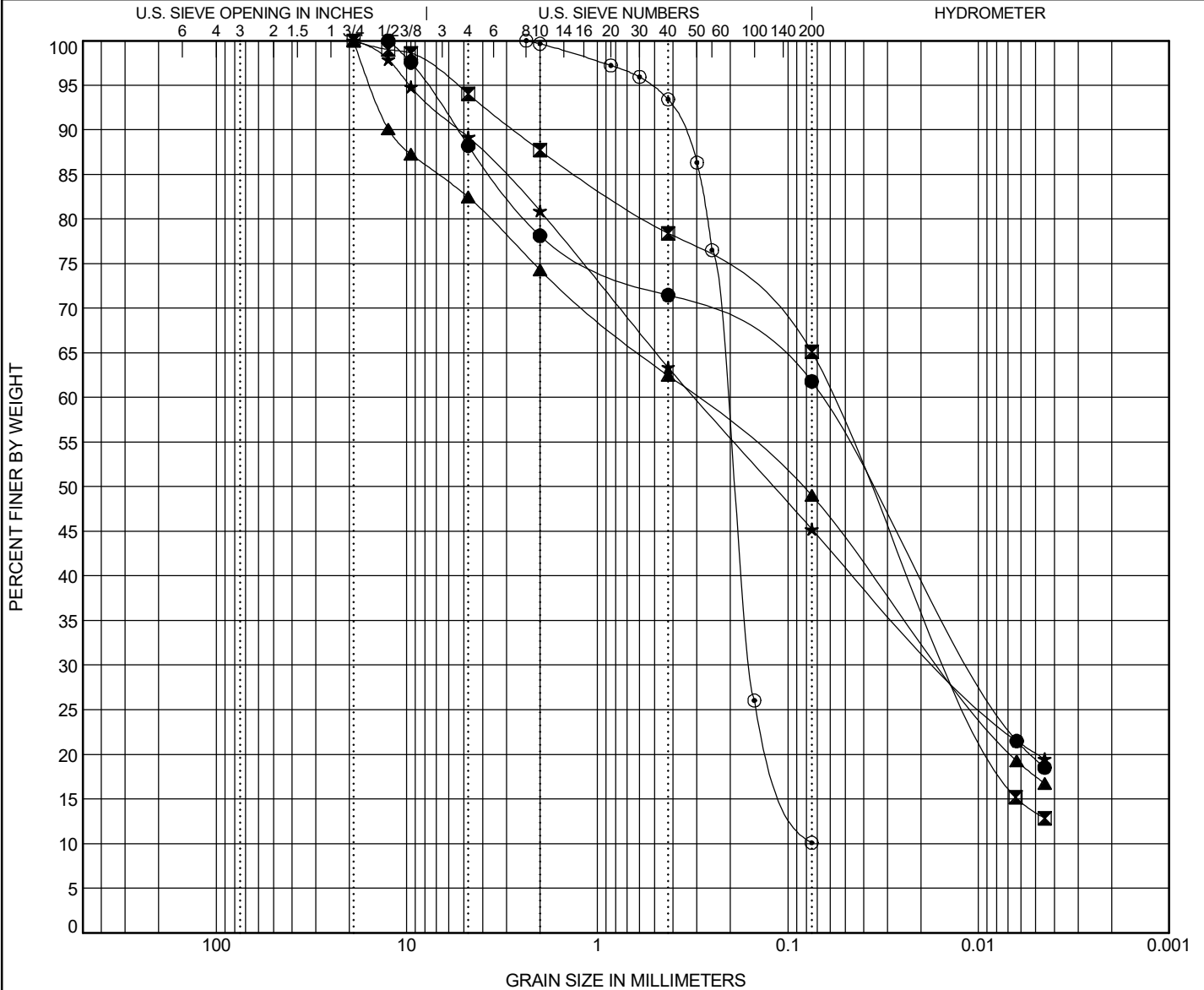
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PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-009-1-19 11.0	A-4a ~ SANDY LEAN CLAY(CL)										26	18	8
■ B-009-1-19 13.5	A-6a ~ SANDY LEAN CLAY(CL)										29	18	11
▲ B-009-1-19 18.5	A-4a ~ SILTY, CLAYEY SAND with GRAVEL(SC-SM)										25	18	7
★ B-009-1-19 23.5	A-4a ~ SILTY SAND(SM)										NP	NP	NP
○ B-009-1-19 28.5	~												
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-009-1-19 11.0	5.419	0.036	0.011		21	7	10	43	19				
■ B-009-1-19 13.5	2.737	0.036	0.013		13	9	13	51	14				
▲ B-009-1-19 18.5	12.39	0.085	0.015		26	12	13	31	18				
★ B-009-1-19 23.5	5.251	0.118	0.015		19	18	18	25	20				
○ B-009-1-19 28.5	0.359	0.191	0.156		1	6	83	10		1.54	2.83		

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:21 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

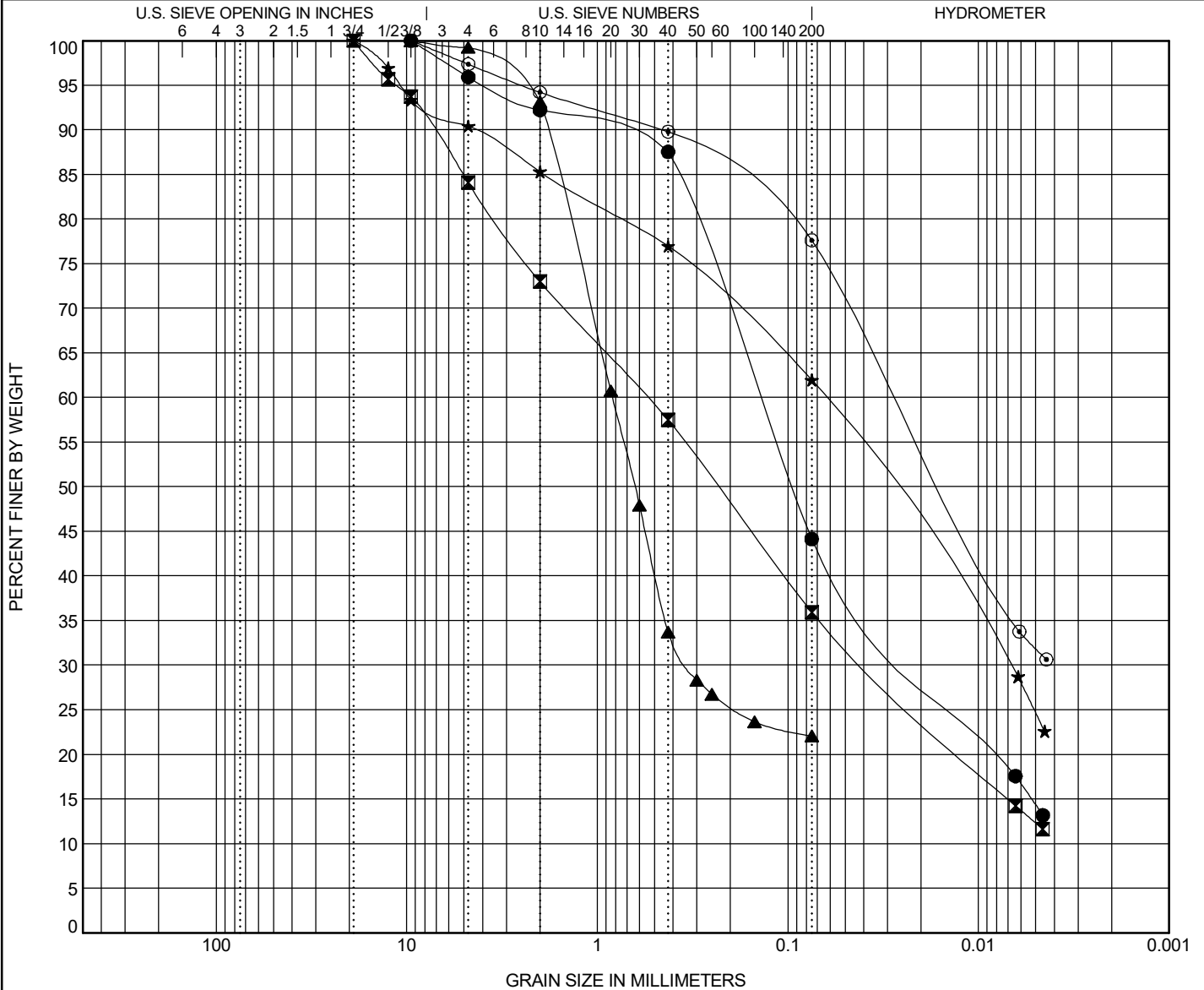


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-009-1-19 33.5	A-4a ~ SILTY SAND(SM)										NP	NP	NP
☒ B-009-1-19 38.5	A-4a ~ SILTY SAND with GRAVEL(SM)										19	16	3
▲ B-009-2-19 1.0	~												
★ B-009-2-19 4.0	A-4a ~ SANDY LEAN CLAY(CL)										24	16	8
◎ B-009-2-19 5.5	A-6a ~ LEAN CLAY with SAND(CL)										28	16	12
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-009-1-19 33.5	0.96	0.095	0.02		8	5	43	30	14				
☒ B-009-1-19 38.5	7.276	0.233	0.038		26	16	22	24	12				
▲ B-009-2-19 1.0	1.841	0.635	0.334		7	59	12	22					
★ B-009-2-19 4.0	4.416	0.031	0.007		15	8	15	37	25				
◎ B-009-2-19 5.5	0.456	0.015			6	4	12	46	32				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:21 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

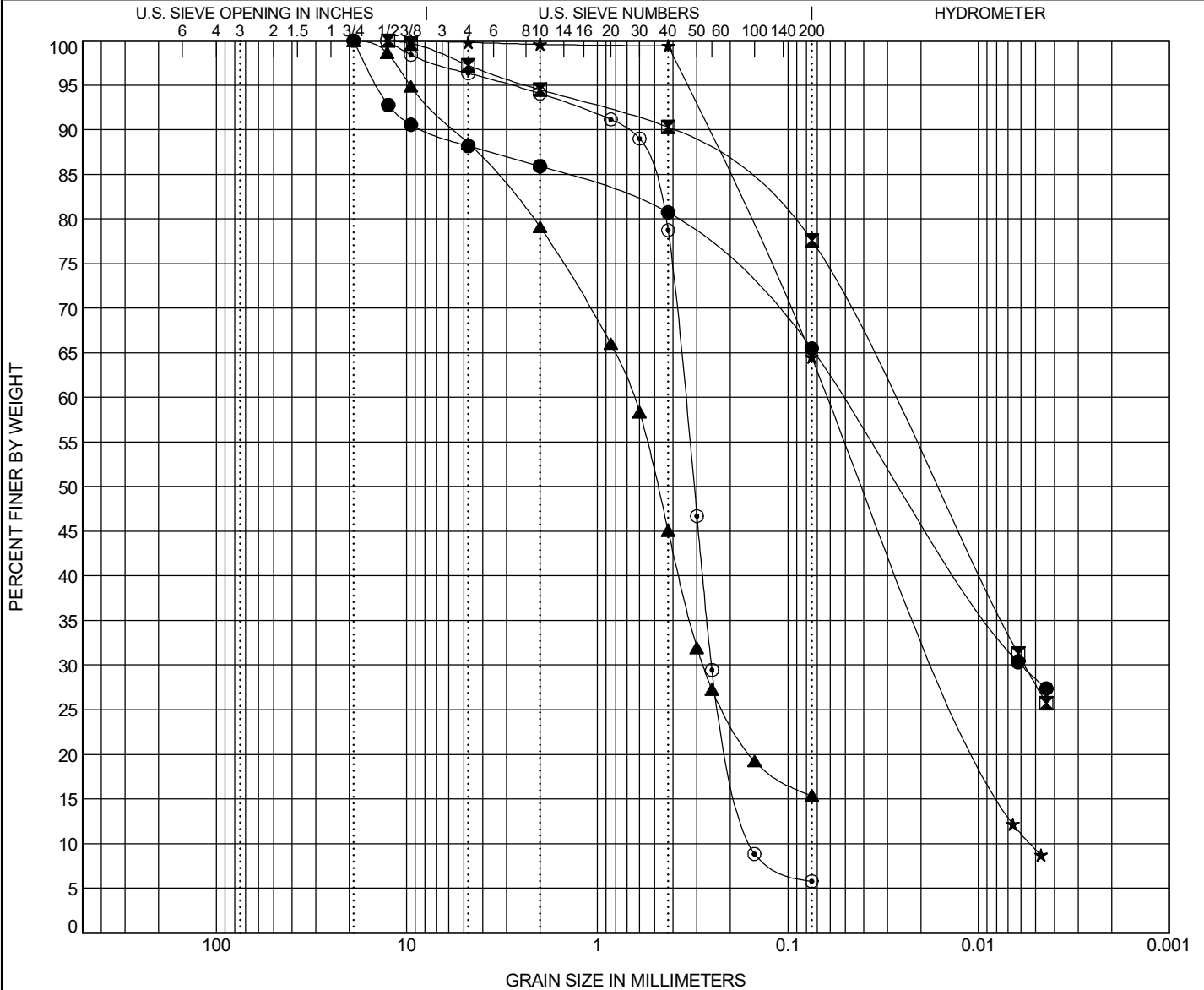


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-009-2-19 11.0	A-4a ~ SANDY LEAN CLAY(CL)										28	18	10
☒ B-009-2-19 18.5	A-6a ~ LEAN CLAY with SAND(CL)										28	16	12
▲ B-009-2-19 28.5	~												
★ B-009-2-19 43.5	A-4b ~ SANDY SILT(ML)										NP	NP	NP
⊙ B-009-2-19 48.5	~												
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-009-2-19 11.0	8.034	0.025	0.006		15	5	15	37	28				
☒ B-009-2-19 18.5	0.407	0.017	0.006		5	4	13	50	28				
▲ B-009-2-19 28.5	5.581	0.483	0.278		21	34	30	15					
★ B-009-2-19 43.5	0.266	0.038	0.015	0.005	0	0	35	56	9	0.70	11.39		
⊙ B-009-2-19 48.5	0.703	0.311	0.251	0.154	6	15	73	6		1.18	2.24		

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:21 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

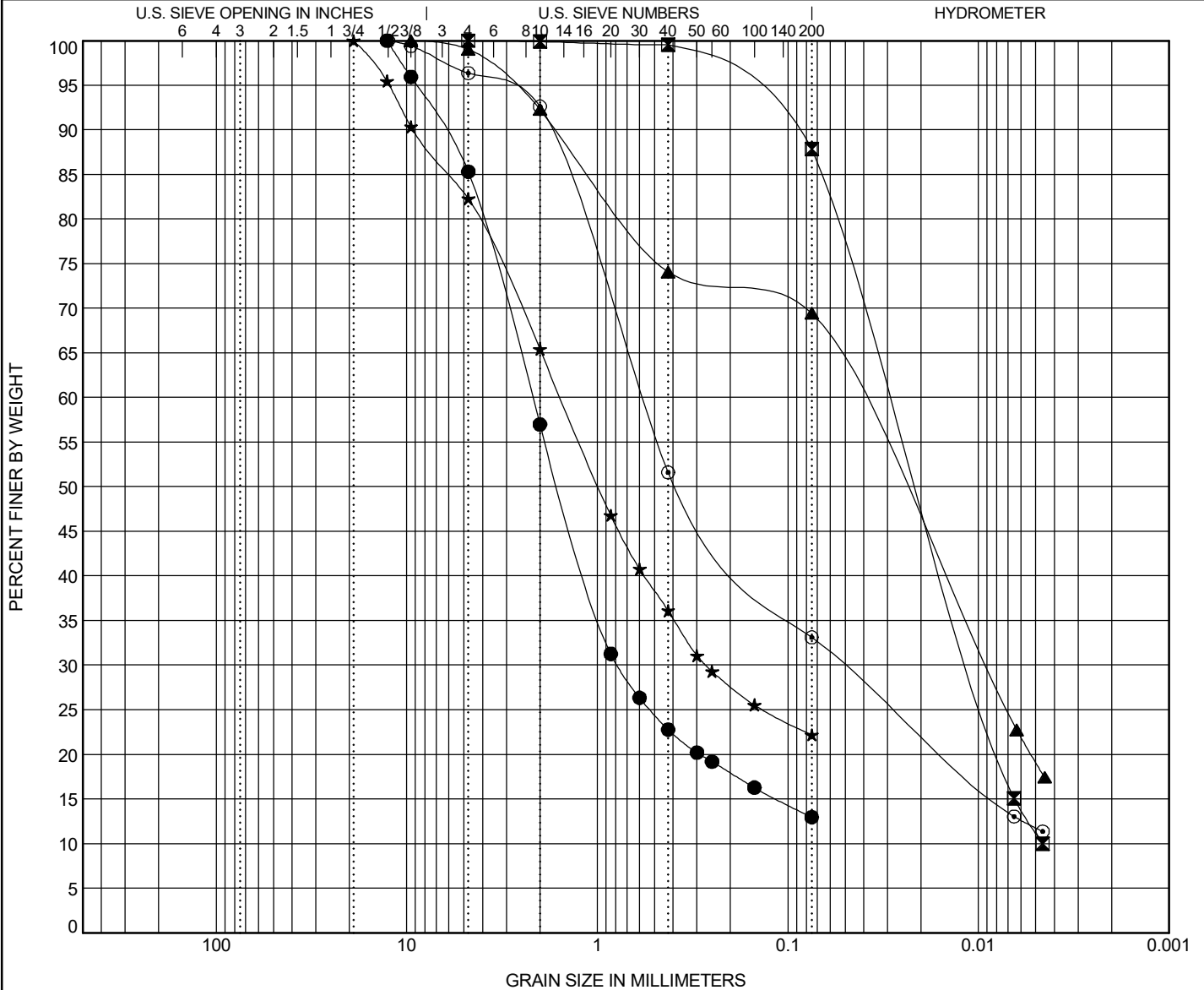


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-009-2-19 53.5	~												
■ B-009-2-19 63.5	A-4b ~ SILT (ML)										NP	NP	NP
▲ B-009-2-19 83.5	A-4b ~ SANDY SILTY CLAY (CL-ML)										23	19	4
★ B-014-1-19 1.5	~												
◎ B-014-1-19 3.0	A-3a ~ SILTY, CLAYEY SAND (SC-SM)										19	13	6
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-009-2-19 53.5	6.448	1.586	0.778		43	34	10	13					
■ B-009-2-19 63.5	0.103	0.021	0.011	0.005	0	0	12	77	11	0.85	6.38		
▲ B-009-2-19 83.5	1.648	0.027	0.009		8	18	5	50	19				
★ B-014-1-19 1.5	9.226	0.985	0.269		35	29	14	22					
◎ B-014-1-19 3.0	1.811	0.366	0.051		8	41	18	21	12				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:21 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

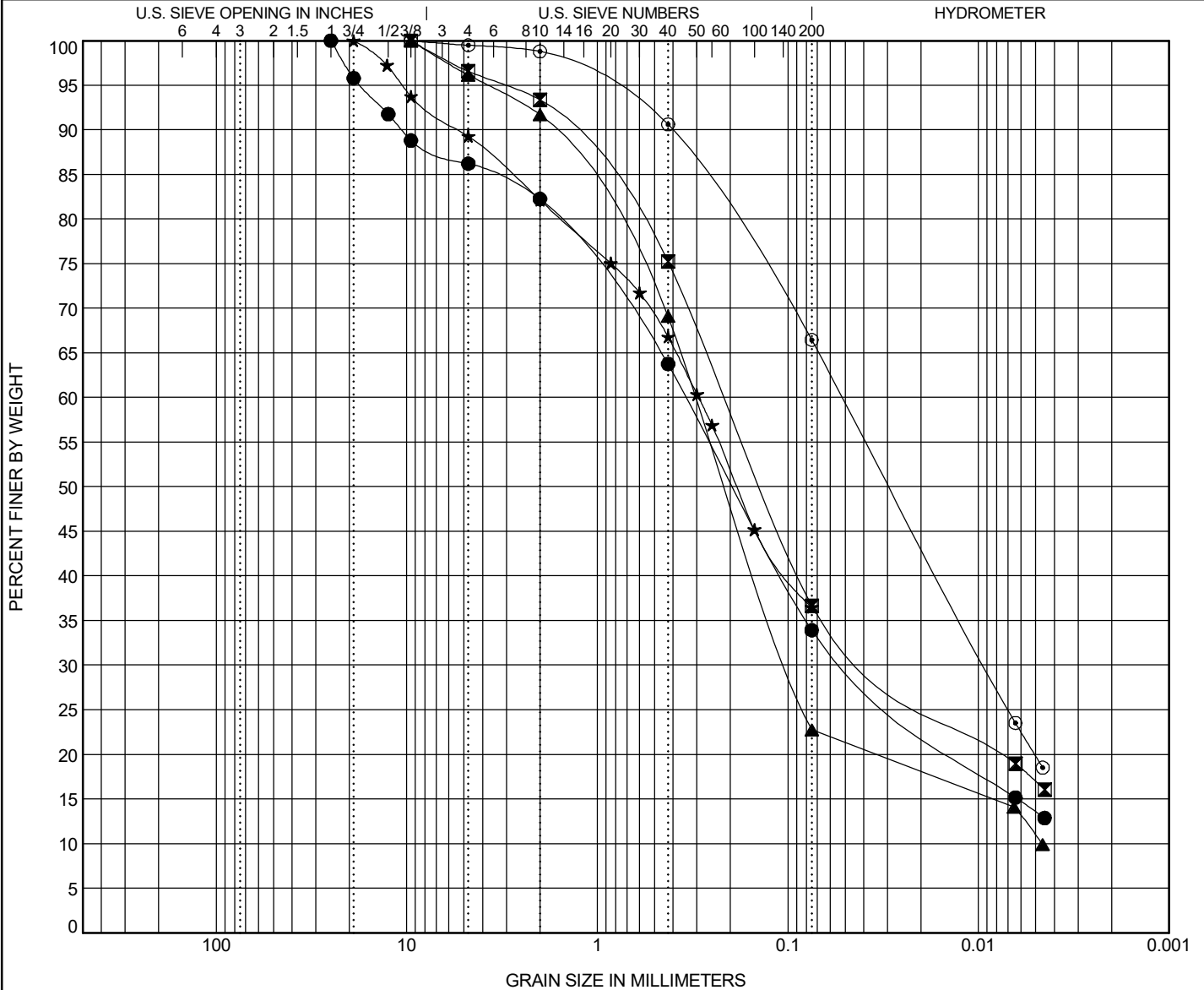


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-014-1-19 4.5	A-2-4 ~ SILTY, CLAYEY SAND(SC-SM)										19	14	5
■ B-014-1-19 6.0	A-4a ~ CLAYEY SAND(SC)										22	13	9
▲ B-014-1-19 8.5	A-3a ~ SILTY SAND(SM)										NP	NP	NP
★ B-014-1-19 16.0	~												
⊙ B-014-1-19 21.0	A-4a ~ SANDY SILT(ML)										36	31	5
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-014-1-19 4.5	10.616	0.191	0.045		17	19	30	20	14				
■ B-014-1-19 6.0	1.5	0.137	0.03		6	18	39	20	17				
▲ B-014-1-19 8.5	1.779	0.208	0.098	0.005	8	23	46	12	11	6.89	65.10		
★ B-014-1-19 16.0	5.306	0.185			18	15	30	37					
⊙ B-014-1-19 21.0	0.407	0.029	0.009		2	8	24	46	20				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:22 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

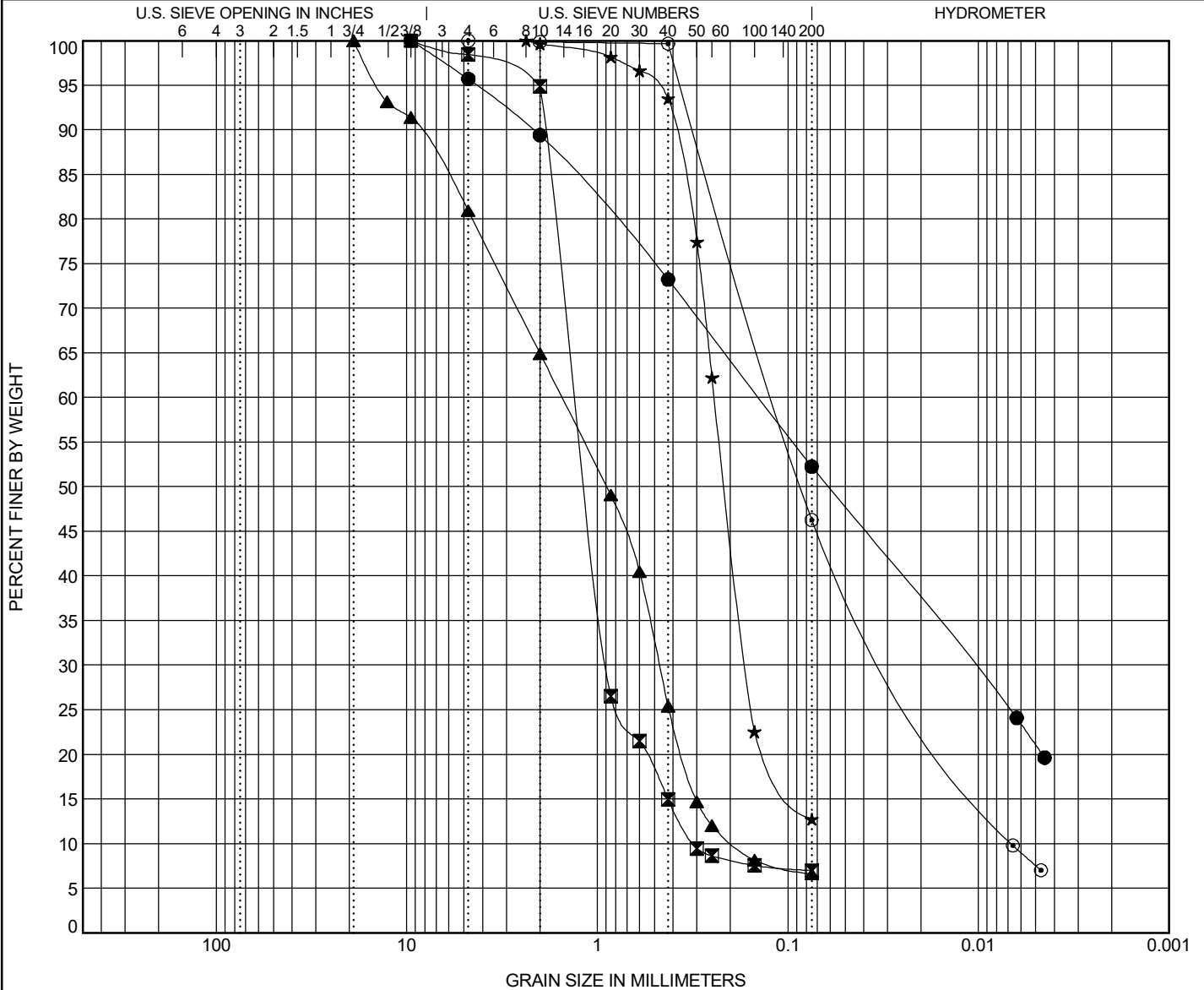


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-014-1-19 28.5	A-4a ~ SANDY SILTY CLAY(CL-ML)										19	13	6
■ B-014-1-19 33.5	~												
▲ B-014-1-19 38.5	~												
★ B-014-1-19 48.5	~												
◎ B-014-1-19 58.5	A-4a ~ SILTY SAND(SM)										NP	NP	NP
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-014-1-19 28.5	2.168	0.062	0.011		11	16	21	31	21				
■ B-014-1-19 33.5	1.882	1.14	0.888	0.311	5	80	8	7		1.96	4.16		
▲ B-014-1-19 38.5	8.666	0.894	0.472	0.192	34	40	19	7		0.76	8.00		
★ B-014-1-19 48.5	0.394	0.214	0.165		0	6	81	13					
◎ B-014-1-19 58.5	0.311	0.085	0.025	0.007	1	0	53	38	8	0.82	17.50		

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:22 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

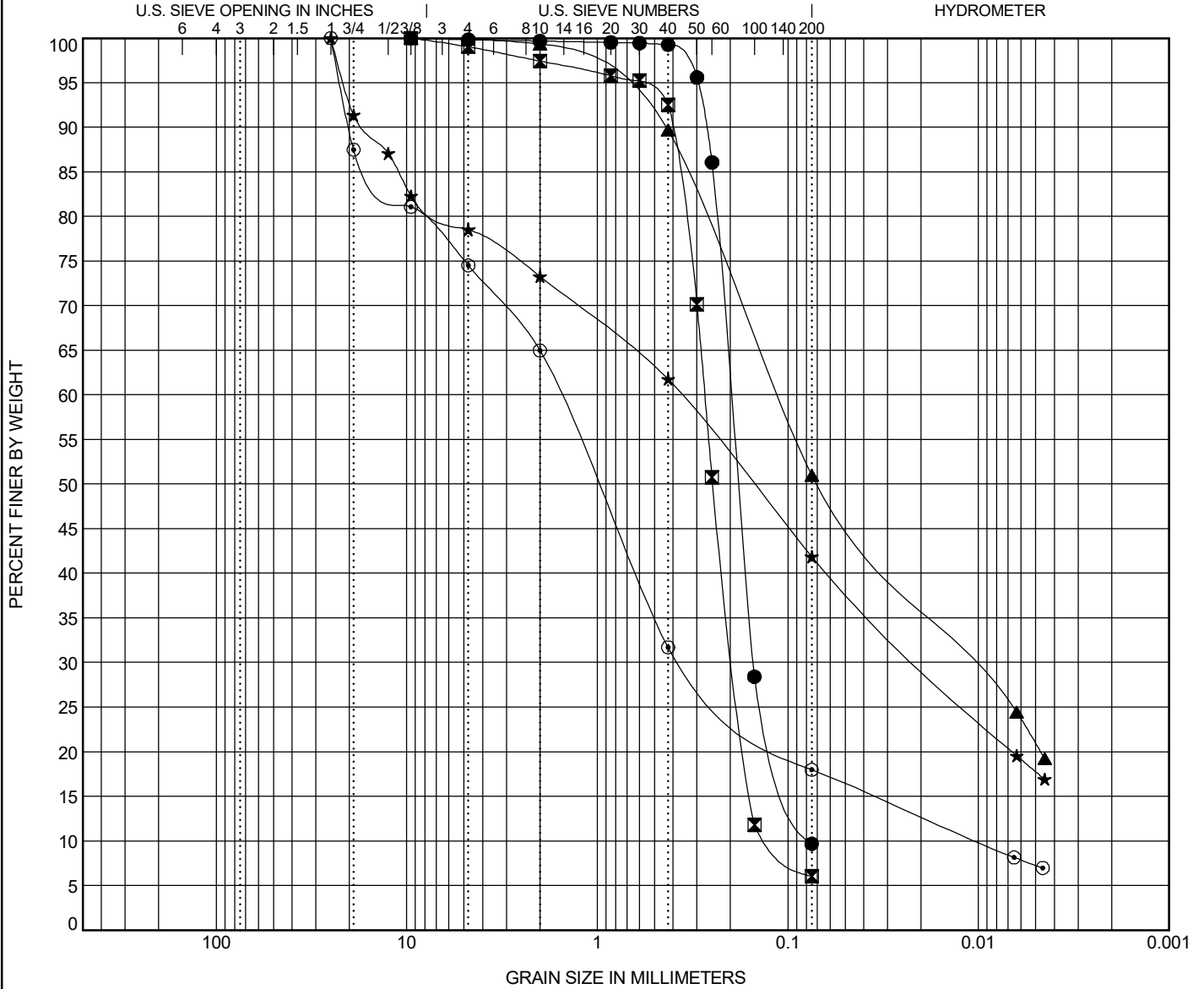


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification									LL	PL	PI
● B-014-1-19 73.5	~											
☒ B-014-1-19 88.5	~											
▲ B-014-2-19 1.0	A-4a ~ SANDY SILT(ML)									31	24	7
★ B-014-2-19 3.5	A-4a ~ SILTY, CLAYEY SAND with GRAVEL(SC-SM)									23	17	6
⊙ B-014-2-19 6.0	A-1-b ~ SILTY SAND with GRAVEL(SM)									NP	NP	NP
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu	
● B-014-1-19 73.5	0.27	0.182	0.152	0.076	0	0	90	10		1.54	2.61	
☒ B-014-1-19 88.5	0.409	0.248	0.19	0.121	2	5	87	6		1.10	2.25	
▲ B-014-2-19 1.0	0.447	0.069	0.011		0	10	39	30	21			
★ B-014-2-19 3.5	16.626	0.152	0.02		26	12	20	24	18			
⊙ B-014-2-19 6.0	20.075	0.996	0.343	0.01	35	33	14	11	7	7.18	153.53	

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:22 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ



**OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING**

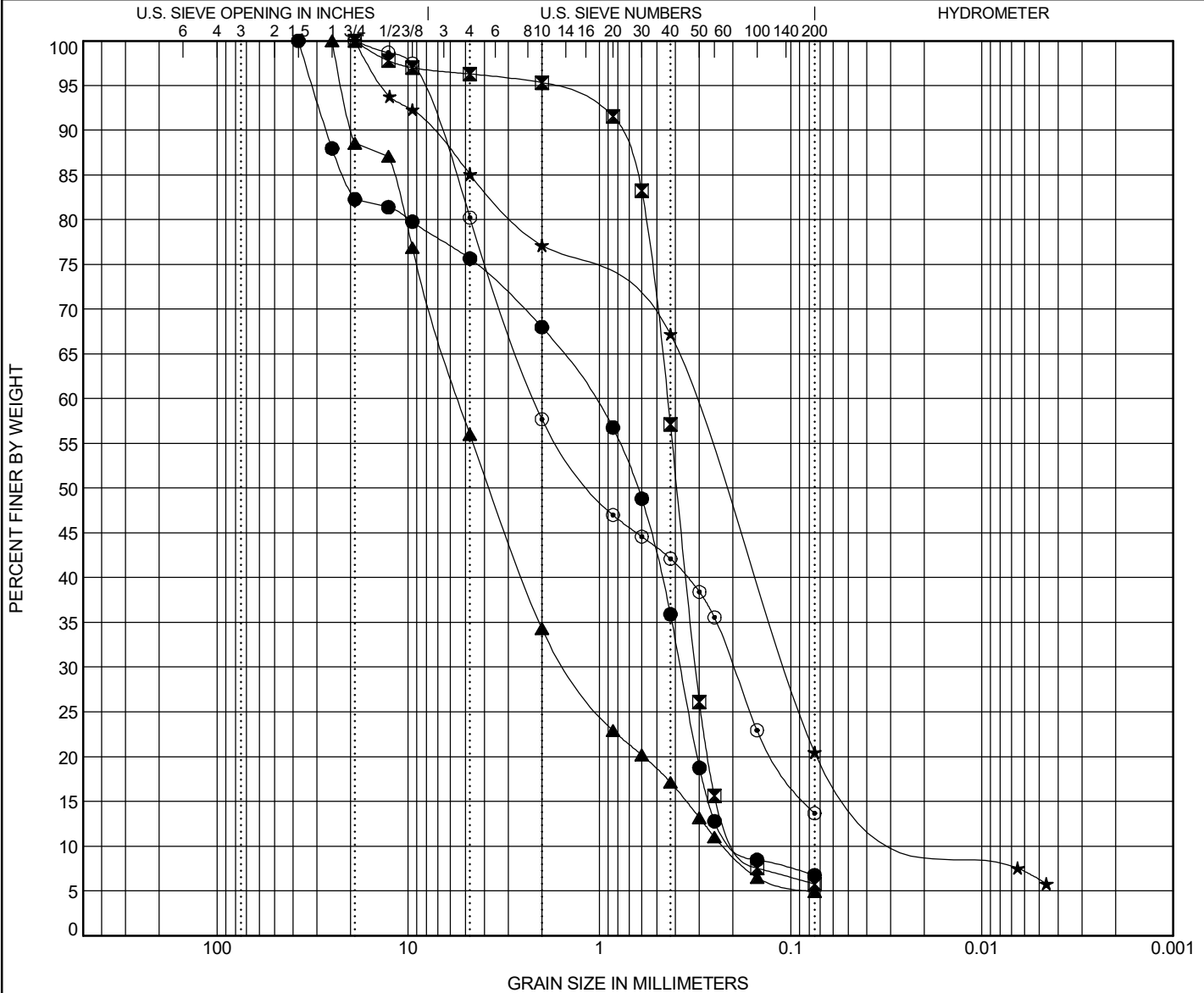
GRAIN SIZE DISTRIBUTION

PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-014-2-19 8.5	~												
■ B-014-2-19 11.0	~												
▲ B-014-2-19 18.5	~ WELL-GRADED SAND with GRAVEL(SW)												
★ B-014-2-19 21.0	A-3a ~ SILTY SAND(SM)										NP	NP	NP
⊙ B-014-2-19 23.5	~												
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-014-2-19 8.5	26.774	0.632	0.377	0.18	32	32	29	7		0.73	6.03		
■ B-014-2-19 11.0	0.796	0.392	0.314	0.176	5	38	51	6		1.27	2.52		
▲ B-014-2-19 18.5	19.669	3.741	1.449	0.223	66	17	12	5		1.73	24.31		
★ B-014-2-19 21.0	7.621	0.224	0.107	0.01	23	10	47	14	6	3.38	31.34		
⊙ B-014-2-19 23.5	7.036	1.08	0.2		42	16	28	14					

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:23 - X:\SHARE\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

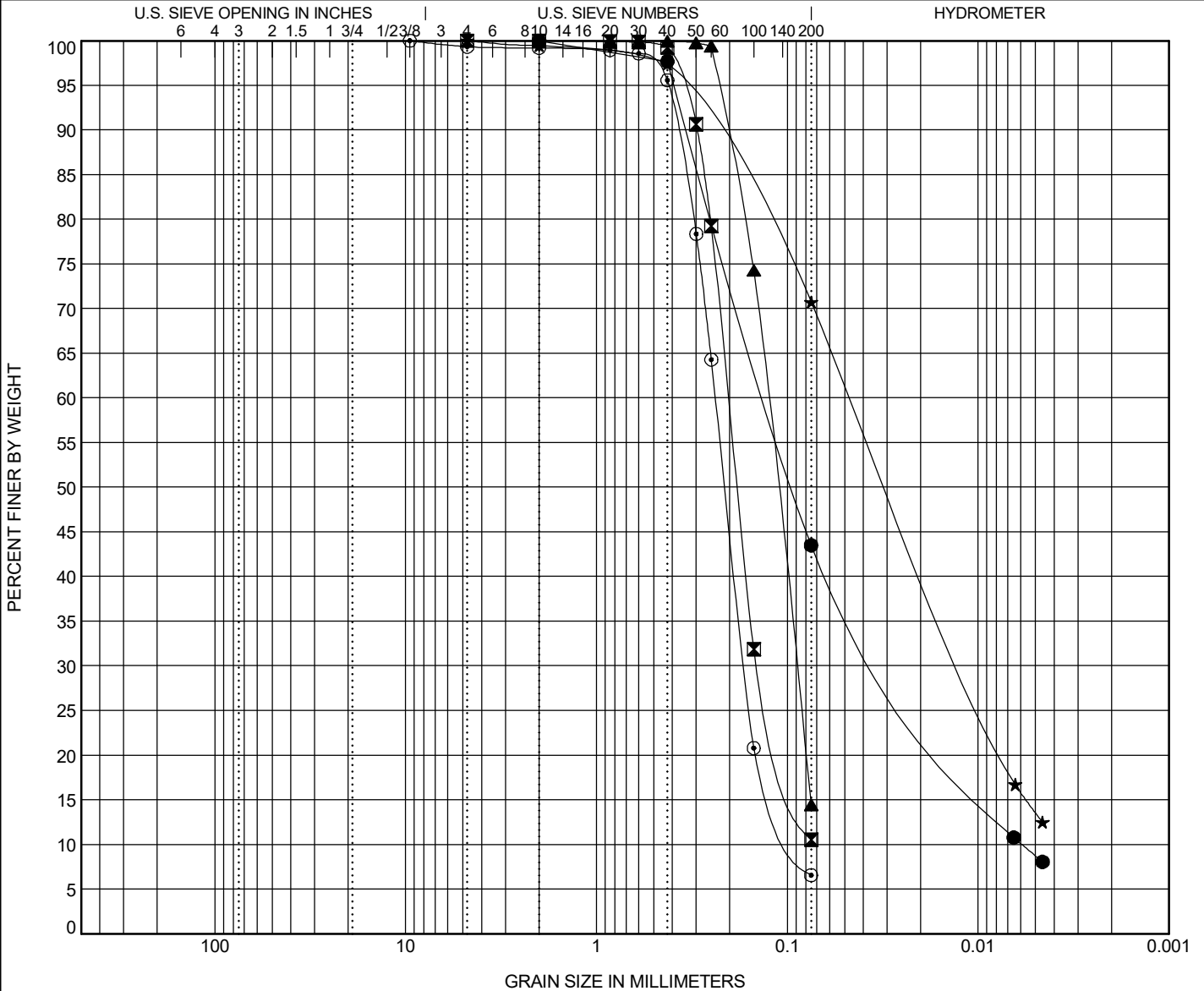


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-014-2-19 28.5	A-4a ~ SILTY SAND(SM)										NP	NP	NP
■ B-014-2-19 38.5	~												
▲ B-014-2-19 53.5	~												
★ B-014-2-19 78.5	A-4b ~ SILT with SAND(ML)										NP	NP	NP
⊙ B-014-2-19 98.5	~												
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-014-2-19 28.5	0.332	0.092	0.027	0.006	0	3	54	34	9	1.00	21.54		
■ B-014-2-19 38.5	0.297	0.182	0.141		0	0	89	11		1.33	2.76		
▲ B-014-2-19 53.5	0.207	0.113	0.09		0	0	86	14					
★ B-014-2-19 78.5	0.262	0.029	0.012		0	2	27	57	14				
⊙ B-014-2-19 98.5	0.38	0.211	0.167	0.089	0	4	89	7		1.32	2.68		

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:23 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

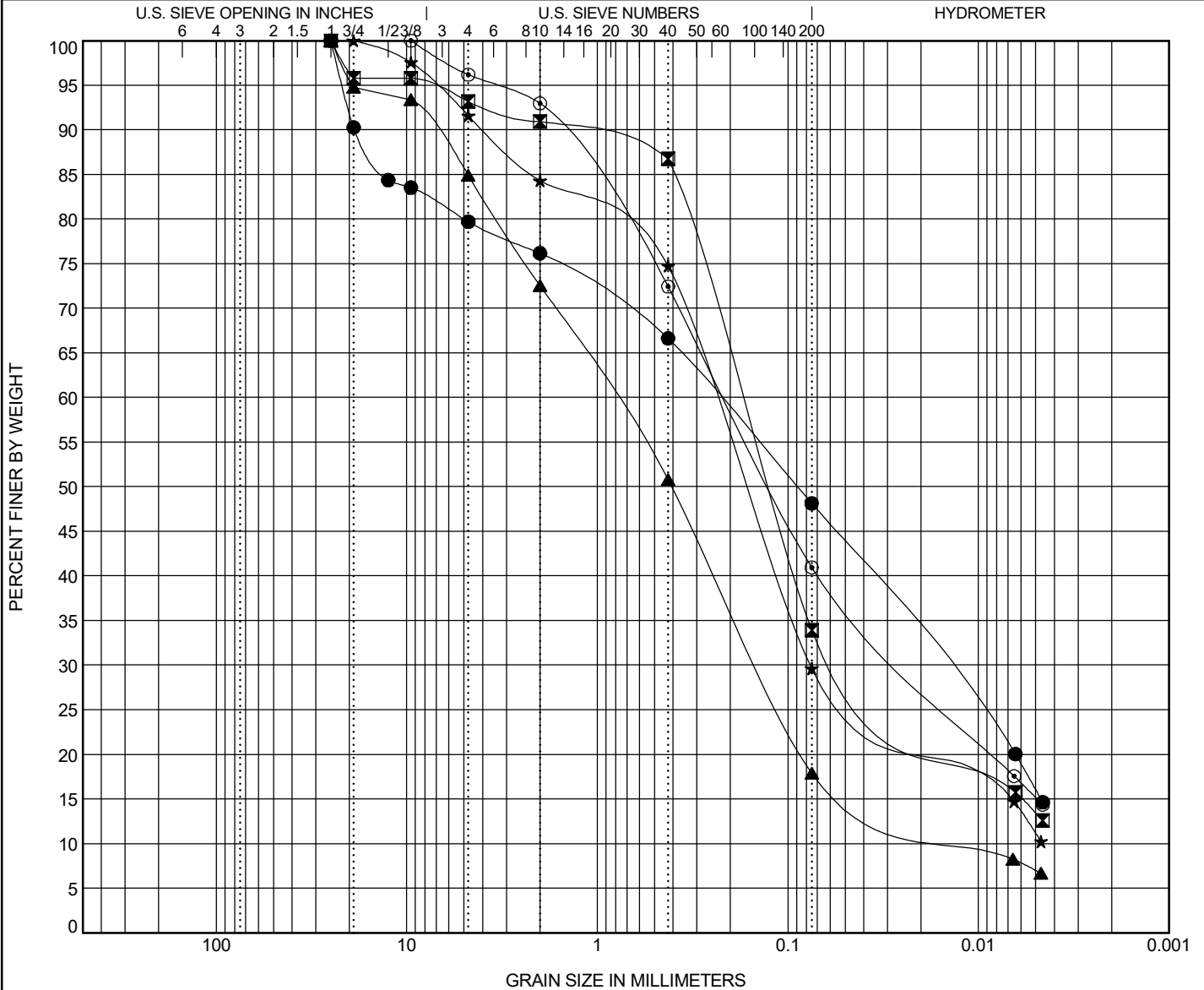


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification			ODOT (Modified AASHTO) ~ USCS Classification							LL	PL	PI	
●	B-014-3-19	1.5	A-4a ~ SILTY, CLAYEY SAND with GRAVEL(SC-SM)							20	14	6	
■	B-014-3-19	3.0	A-3a ~ SILTY SAND(SM)							NP	NP	NP	
▲	B-014-3-19	4.5	A-3a ~ SILTY SAND with GRAVEL(SM)							NP	NP	NP	
★	B-014-3-19	6.0	A-3a ~ SILTY SAND(SM)							NP	NP	NP	
○	B-014-3-19	16.0	A-4a ~ SILTY SAND(SM)							NP	NP	NP	
Specimen Identification			D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu
●	B-014-3-19	1.5	18.644	0.089	0.015		24	10	18	32	16		
■	B-014-3-19	3.0	1.411	0.127	0.044		9	4	53	21	13		
▲	B-014-3-19	4.5	7.206	0.407	0.142	0.01	27	22	33	11	7	2.40	79.63
★	B-014-3-19	6.0	3.929	0.164	0.076		15	10	45	19	11		
○	B-014-3-19	16.0	1.599	0.123	0.024		7	21	31	26	15		

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:24 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

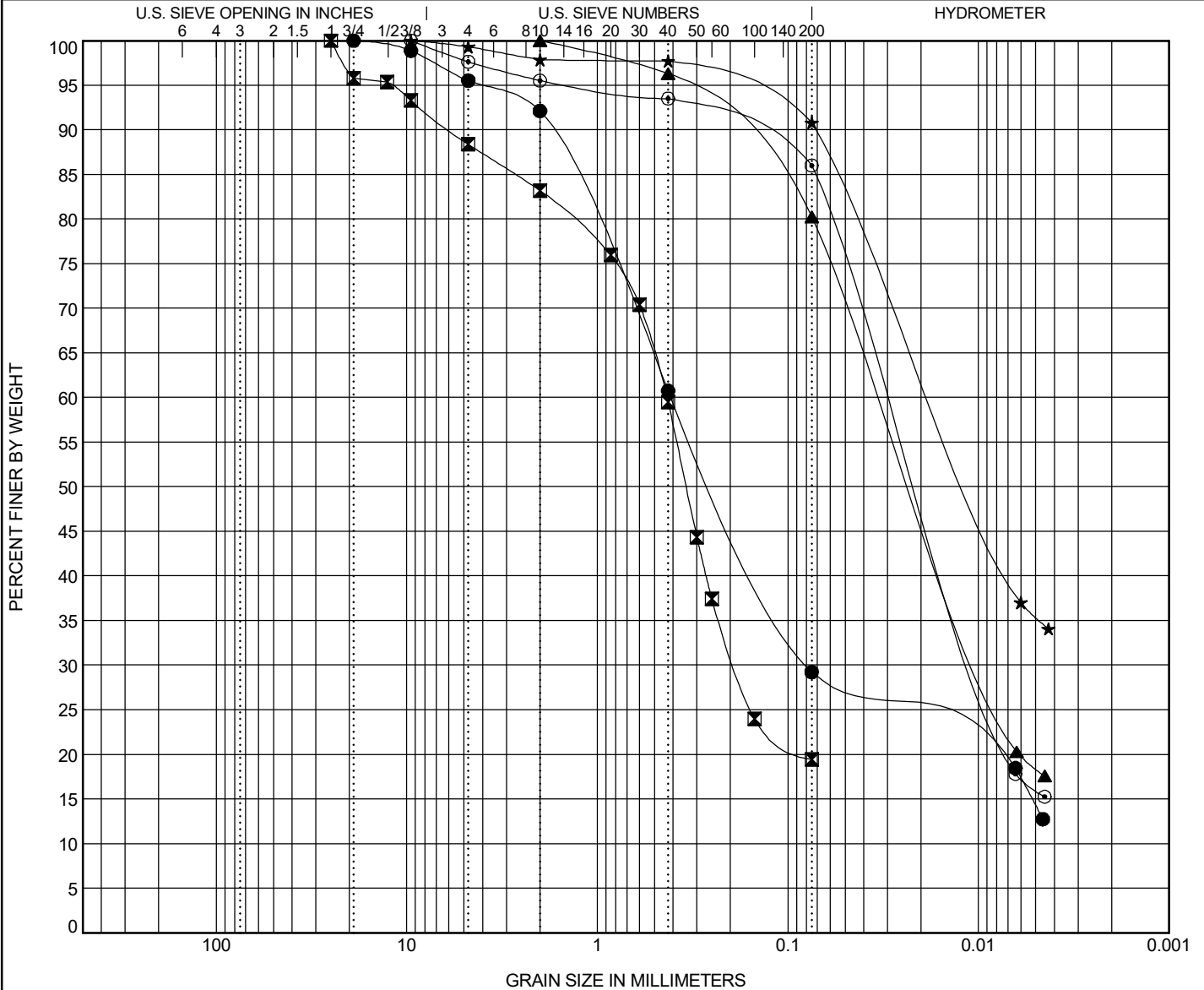


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-014-3-19 23.5	A-3a ~ SILTY, CLAYEY SAND(SC-SM)										18	12	6
☒ B-014-3-19 28.5	~												
▲ B-014-3-19 48.5	A-4b ~ SILT with SAND(ML)										20	18	2
★ B-014-3-19 63.5	A-4b ~ LEAN CLAY(CL)										23	15	8
◎ B-014-3-19 73.5	A-4b ~ SILTY CLAY(CL-ML)										19	15	4
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-014-3-19 23.5	1.801	0.235	0.078		8	31	32	15	14				
☒ B-014-3-19 28.5	5.973	0.342	0.189		17	24	40	19					
▲ B-014-3-19 48.5	0.215	0.022	0.009		0	4	16	62	18				
★ B-014-3-19 63.5	0.072	0.011			2	0	7	56	35				
◎ B-014-3-19 73.5	0.189	0.02	0.01		4	2	8	70	16				

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:24 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

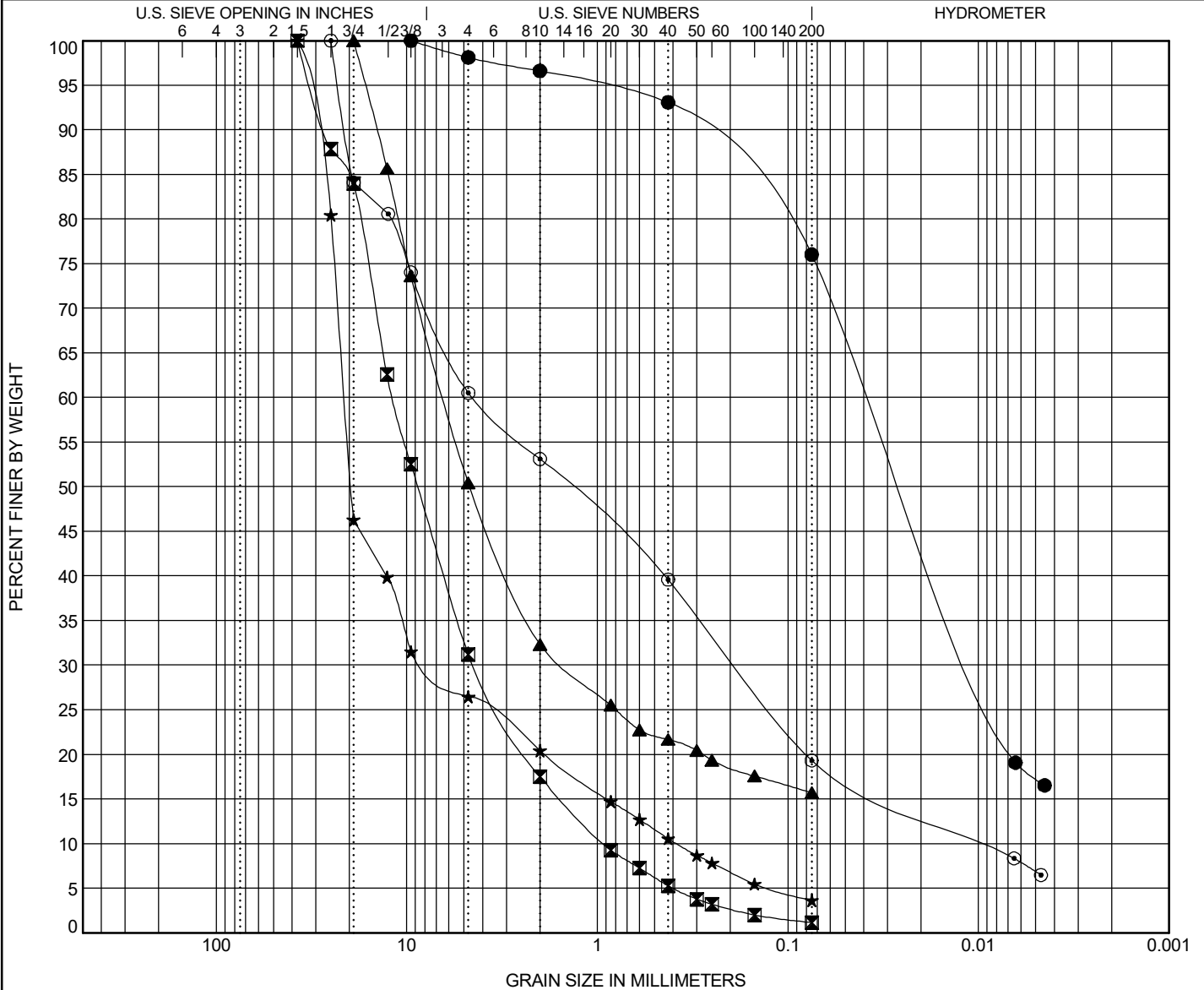


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification										LL	PL	PI
● B-014-3-19 88.5	A-4b ~ SILTY CLAY with SAND(CL-ML)										21	16	5
☒ B-014-4-19 1.0	~ WELL-GRADED GRAVEL with SAND(GW)												
▲ B-014-4-19 2.5	~												
★ B-014-4-19 4.0	~ POORLY GRADED GRAVEL with SAND(GP)												
◎ B-014-4-19 5.5	A-1-b ~ SILTY, CLAYEY SAND with GRAVEL(SC-SM)										20	16	4
Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu		
● B-014-3-19 88.5	0.311	0.024	0.01		3	4	17	59	17				
☒ B-014-4-19 1.0	26.876	8.761	4.41	0.918	83	12	4	1		1.80	12.85		
▲ B-014-4-19 2.5	14.345	4.659	1.496		67	11	6	16					
★ B-014-4-19 4.0	30.479	19.576	7.743	0.384	79	10	7	4		7.35	55.20		
◎ B-014-4-19 5.5	21.042	1.401	0.187	0.009	47	14	20	12	7	0.83	474.81		

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:25 - X:\SHARED\DISCIPLINE\GEOTECH\INT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

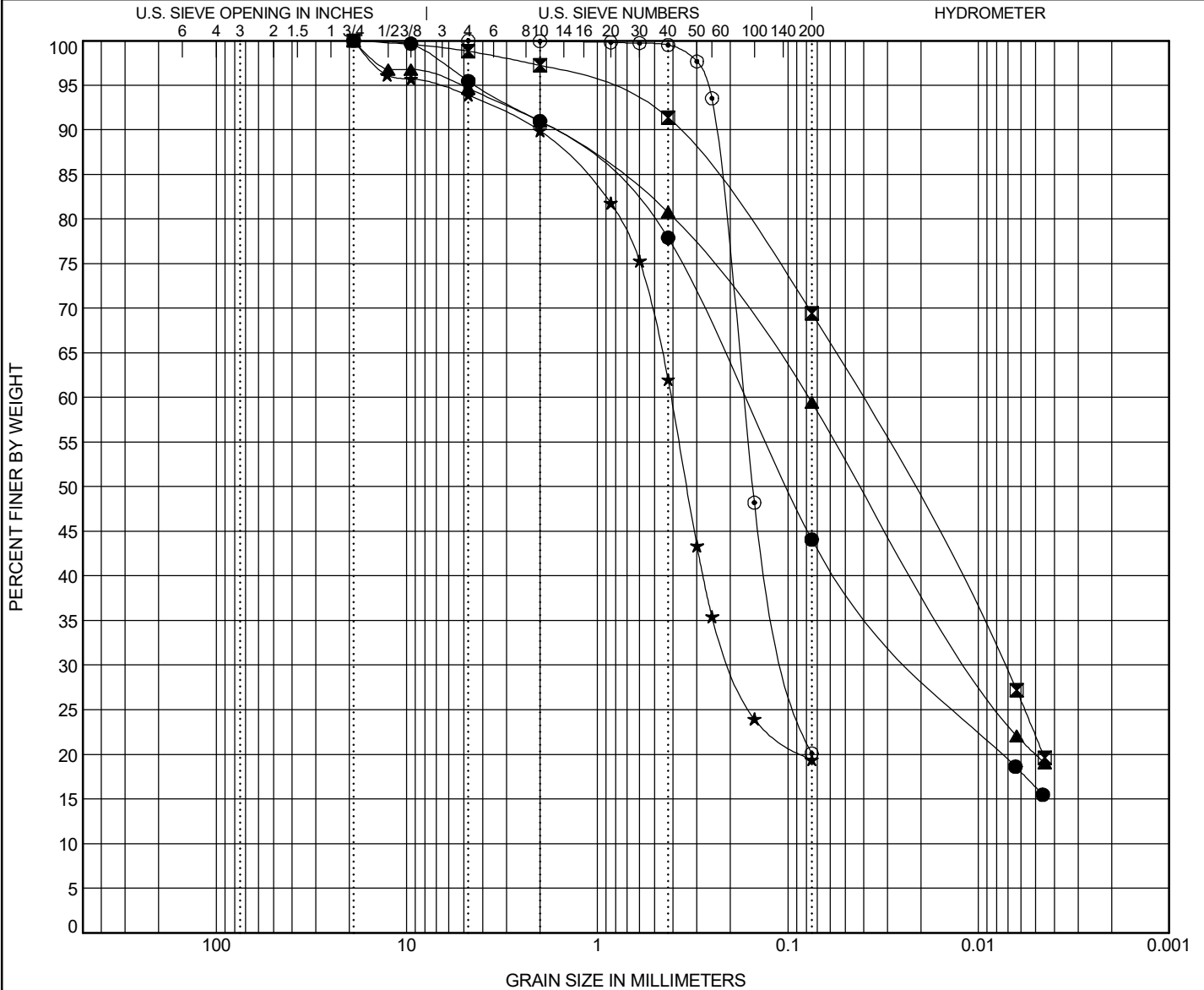


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification	ODOT (Modified AASHTO) ~ USCS Classification					LL	PL	PI
● B-014-4-19 8.5	A-4a ~ SILTY, CLAYEY SAND(SC-SM)					18	14	4
■ B-014-4-19 13.5	A-4a ~ SANDY SILTY CLAY(CL-ML)					22	15	7
▲ B-014-4-19 18.5	A-4a ~ SANDY SILTY CLAY(CL-ML)					25	18	7
★ B-014-4-19 23.5	~							
○ B-014-4-19 43.5	~							

Specimen Identification	D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu
● B-014-4-19 8.5	1.781	0.102	0.019		9	13	34	28	16		
■ B-014-4-19 13.5	0.381	0.024	0.007		3	6	22	47	22		
▲ B-014-4-19 18.5	1.724	0.04	0.011		10	10	21	39	20		
★ B-014-4-19 23.5	2.039	0.34	0.196		10	28	43	19			
○ B-014-4-19 43.5	0.24	0.153	0.096		1	0	79	20			

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:26 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

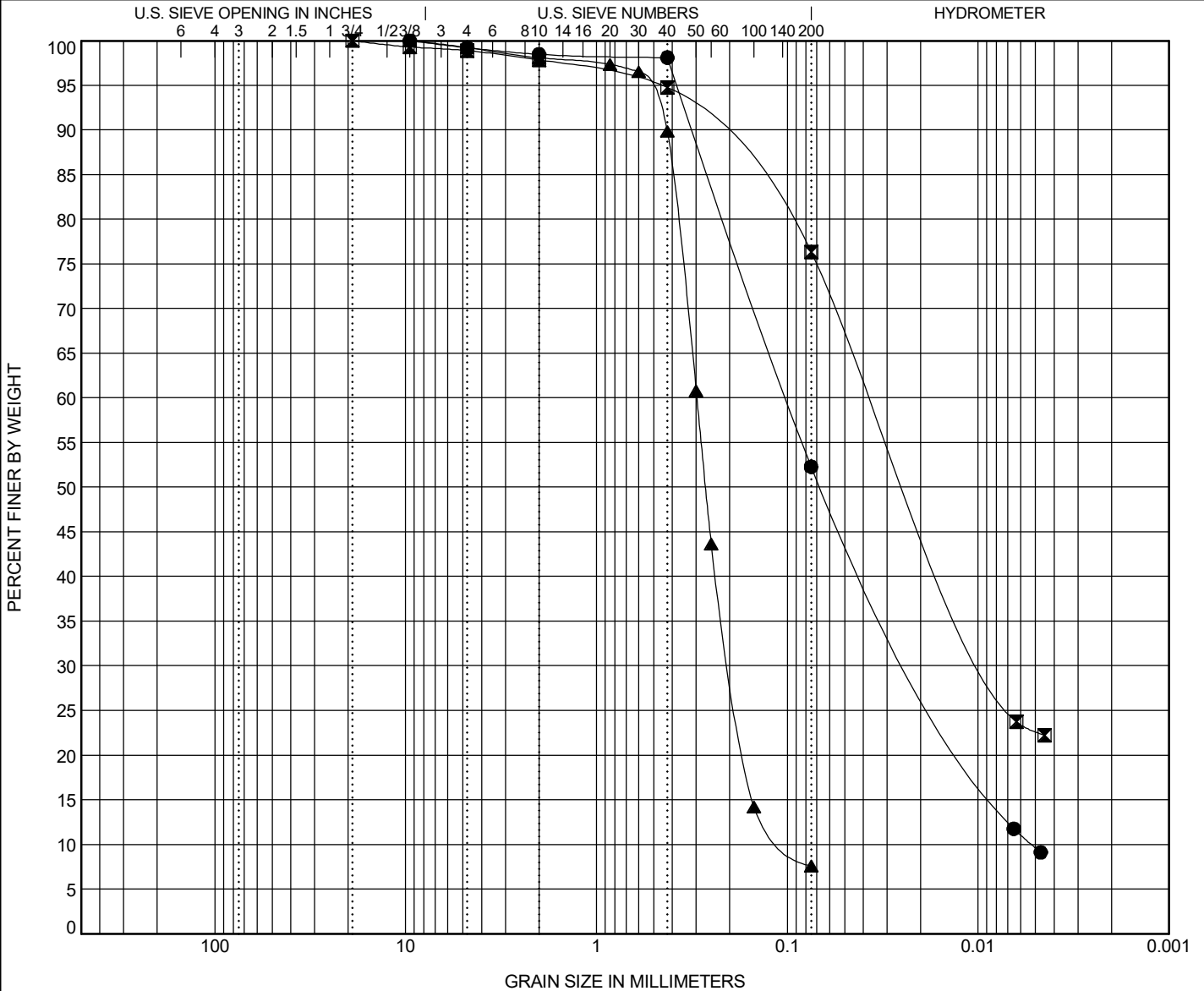


PROJECT INTERSTATE 76/77

PID 102329

OGE NUMBER SUM-076/077-08.42/09.74

PROJECT TYPE ROADWAY



COBBLES	GRAVEL	SAND		SILT	CLAY
		coarse	fine		

Specimen Identification			ODOT (Modified AASHTO) ~ USCS Classification								LL	PL	PI
●	B-014-4-19	53.5	A-4a ~ SANDY SILT (ML)								NP	NP	NP
☒	B-014-4-19	68.5	A-4b ~ SILTY CLAY with SAND (CL-ML)								18	14	4
▲	B-014-4-19	88.5	~										
Specimen Identification			D90	D50	D30	D10	%G	%CS	%FS	%M	%C	Cc	Cu
●	B-014-4-19	53.5	0.313	0.065	0.02	0.005	2	0	46	42	10	0.73	19.13
☒	B-014-4-19	68.5	0.271	0.022	0.008		3	3	18	53	23		
▲	B-014-4-19	88.5	0.428	0.268	0.197	0.097	2	8	82	8		1.35	3.08

GRAIN SIZE - OH.DOT.GDT - 5/8/20 11:27 - X:\SHARED\DISCIPLINE\GEOTECH\GINT_COLUMBUS\PROJECTS\1822-1016-00 I-76_77 EL ROBINSON.GPJ

SULFATE TEST DATA



Sulfate Content Report

PROJECT NAME I-76/77 PROJECT NO. 1822-1016.00 SHEET 1 OF 1
 CLIENT E.L. Robinson PROCEDURE Supplement 1122 COMP. BY PB DATE 5/11/2020

Boring No.	Sample No.	Depth	Initial Can No.	Can No.	Can No.	Bottle No.	Beaker No.	Readings w/Dilution of 1/20			Average (ppm)	Actual (ppm) (Avg x 20)
				Weight	Weight			1	2	3		
B-014-0-20	S-1	1.5'-3.0'			10	10	1005	4	5	5	5	<100
					15g							
B-015-0-20	S-2	2.5'-4.0'			14	11	1007	1	1	1	1	<100
					20g							
B-016-0-20	S-2	2.5'-4.0'			61	12	1008	3	3	3	3	<100
					20g							
B-017-0-20	S-1	1.5'-3.0'			94	13	1009	9	9	10	9	190
					10g							
B-018-0-20	S-2	2.5'-3.4'		104	101	14	1010	10	10	10	10	200
				20g	20g							
B-019-0-20	S-3	4.5'6.0'			119	15	1013	3	3	3	3	<100
					15g							
B-020-0-20	S-4	5.52'-7.0'			121	16	1019	32	32	32	32	640
					20g							

Remarks _____

GB-1 SUBGRADE ANALYSIS TAB

EXPLOR. ID	STATION	OFFSET	DIR	SAMPLE ID	SAMPLE FROM	TO	SUBGRADE FROM	TO	N60	N60L	tsf HP	LL	PL	PI	% SILT	% CLAY	P 200	% WC	MOPT	ODOT CLASS	GI	ppm SO4
E-032-0-18	358+95	14	Lt	SS-3	04.00	04.70			8/50									15		Rock		-
E-032-0-18	358+95	14	Lt	SS-4	05.50	05.80			50									4		Rock		-
E-033-0-18	362+84	49	Rt	SS-1	01.10	02.50												12		A-4a		-
E-033-0-18	362+84	49	Rt	SS-2	02.50	04.00						24	16		36	19		16		A-4b		-
E-033-0-18	362+84	49	Rt	SS-3	04.00	05.50			12			25	18		56	22		15		A-6b		-
E-033-0-18	362+84	49	Rt	SS-4	05.50	07.00			11		1.75							16		A-6b		-
E-034-0-18	367+68	64	Lt	SS-1	01.00	02.50			55									5		A-1-b		-
E-034-0-18	367+68	64	Lt	SS-2	02.50	04.00			22			NP	NP					11		A-2-4		-
E-034-0-18	367+68	64	Lt	SS-3	04.00	05.50			19		2.25	17	8		18	14		17		A-4a		-
E-034-0-18	367+68	64	Lt	SS-4	05.50	07.00			17									11		A-4a		-
E-034-0-18	367+68	64	Lt	SS-5	07.00	08.50			32									17		A-4b		-
E-035-0-18	374+89	15	Rt	SS-1	01.13	02.50			16									12		A-6a		-
E-035-0-18	374+89	15	Rt	SS-2	02.50	04.00			27			27	15		22	18		13		A-4a		-
E-035-0-18	374+89	15	Rt	SS-3	04.00	05.50			24		4.50	24	14		37	27		13		A-4a		-
E-035-0-18	374+89	15	Rt	SS-4	05.50	07.00			22		4.50							13		A-4a		-
E-036-0-18	379+64	5	Lt	SS-1	01.00	01.30			32									11		A-4a		-
E-036-0-18	379+64	5	Lt	SS-2	02.50	04.00			50			NP	NP					9		A-1-b		-
E-036-0-18	379+64	5	Lt	SS-3	04.00	05.50			8		4.50	NP	NP					9		UCF		-
E-036-0-18	379+64	5	Lt	SS-4	05.50	07.00			29		4.50							14		A-6a		-
E-037-0-18	382+89	39	Rt	SS-1	01.00	02.50			30		4.50							12		A-6a		-
E-037-0-18	382+89	39	Rt	SS-2	02.50	04.00			12			NP	NP					10		A-1-b		-
E-037-0-18	382+89	39	Rt	SS-3	04.00	05.50			5		4.00	NP	NP					10		A-1-b		-
E-037-0-18	382+89	39	Rt	SS-4	05.50	07.00			7									11		A-6a		-
E-038-0-18	386+89	50	Lt	SS-1	01.30	02.50			2									16		A-3a		-
E-038-0-18	386+89	50	Lt	SS-2	02.50	04.00			18			18	12		20	11		12		A-3a		-
E-038-0-18	386+89	50	Lt	SS-3	04.00	05.50			27		4.25	27	18		56	30		19		A-4b		-
E-038-0-18	386+89	50	Lt	SS-4	05.50	07.00			16		4.25							14		A-4b		-
E-038-0-18	386+89	50	Lt	SS-5	07.00	08.50			25		4.00							14		A-4b		-
E-039-0-18	390+90	6	Rt	SS-1	01.10	02.50			13									15		A-4b		-
E-039-0-18	390+90	6	Rt	SS-2	02.50	04.00			28			28	20		37	24		11		A-4a		-
E-039-0-18	390+90	6	Rt	SS-3	04.00	04.70			25			25	17		18	11		8		A-2-4		-
E-039-0-18	390+90	6	Rt	SS-4	05.50	05.80			46									10		Rock		-
E-040-0-18	394+89	75	Lt	SS-1	01.00	02.50			50									16		Rock		-
E-040-0-18	394+89	75	Lt	SS-2	02.50	03.70			22			NP	NP					8		A-1-b		-
E-040-0-18	394+89	75	Lt	SS-3	04.00	05.20			118			29	20		42	22		4		Rock		-
E-041-0-18	398+66	64	Rt	SS-1	01.20	02.50			122						9	3		4		Rock		-
E-041-0-18	398+66	64	Rt	SS-2	02.50	04.00						NP	NP					5		A-1-b		-
E-041-0-18	398+66	64	Rt	SS-3	04.00	05.50			22									5		A-1-a		-
E-042-0-18	402+00	51	Lt	1A	01.00	01.90			6									8		A-1-a		-
E-042-0-18	402+00	51	Lt	1B	01.90	02.50			13			NP	NP					7		A-1-a		-
E-042-0-18	402+00	51	Lt	SS-2	02.50	02.80												9		Rock		-
E-042-0-18	402+00	51	Lt	SS-3	04.00	04.20			50									9		Rock		-
E-042-0-18	402+00	51	Lt	SS-4	05.50	05.80			50									7		Rock		-
E-043-0-18	406+11	16	Rt	SS-1	01.10	02.50			50			NP	NP					9		A-1-a		-
E-043-0-18	406+11	16	Rt	SS-2	02.50	03.10			9/50									12		Rock		-
E-043-0-18	406+11	16	Rt	SS-3	04.00	04.30			50									11		Rock		-