

**PROJECT DESCRIPTION**

THIS PROJECT, TER-395-0.00, IS THE WIDENING OF SR 395 FROM US 92 TO CR 10. ALSO INCLUDED IN THIS PROJECT IS THE REALIGNMENT OF RAMP H FROM US 102 TO SR 395 AND OF A PORTION OF WEST STREET (TR 130).

**HISTORIC RECORDS**

FOUR HISTORIC HAND AUGER BORINGS ALONG EXISTING RAMP H FROM THE ORIGINAL CONSTRUCTION PLANS, TER-102-7.86, DATED 1965, ARE PRESENTED ON THIS SOIL PROFILE.

**GEOLOGY**

THE SITE LIES IN THE GLACIATED PORTION OF OHIO, WITHIN THE SOUTHERN OHIO LOAMY TILL PLAIN, ALONG THE WESTERN EDGE OF THE BLACK RIVER INTERLOBATE PLAIN, BOTH FROM THE LATE WISCONSINIAN GLACIATION. THE SOILS UNDERLYING THE PROJECT AREA ARE COMPOSED PRIMARILY OF GLACIALLY DEPOSITED OUTWASH AND TILL MATERIALS, HOWEVER, SOME ALLUVIAL (WATER-DEPOSITED) SOILS MAY BE ENCOUNTERED CLOSE TO THE BLACK RIVER, UNDERLAIN BY OHIO SHALE OF DEVONIAN AGE.

**RECONNAISSANCE**

STEVE YOUNG VISITED THE SITE ON AUGUST 14, 2014. THE LAND USAGE AROUND THE PROJECT IS GENERALLY COMMERCIAL AND RESIDENTIAL. THE PAVEMENT IS GENERALLY GOOD, BUT A BAD PAVEMENT AREA WITH PATCHES WAS OBSERVED ON SR 395 FROM STA. 11+50 TO 12+50. ONE PROPERTY ON THE EAST SIDE OF SR 395, BETWEEN THE RAILROAD AND THE US 92 AND US 102 INTERCHANGE, IS THE SITE OF AN ABANDONED LANDFILL. THE REALIGNED RAMP H IS PROPOSED TO CUT ACROSS THE SOUTH EDGE OF THIS PROPERTY. NO EVIDENCE OF SURFACE FEATURES ASSOCIATED WITH ABANDONED LANDFILL WERE OBSERVED. THE BLACK RIVER RUNS FROM NORTH TO SOUTH JUST TO THE EAST OF THE PROJECT.

**SUBSURFACE EXPLORATION**

(2) TEST BORINGS WERE COMPLETED AS PART OF THIS SUBSURFACE EXPLORATION, BETWEEN SEPTEMBER 15 AND 18, 2014. MOST BORINGS WERE DRILLED WITH A TRUCK MOUNTED ROTARY DRILL RIG, USING 3/4-INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE HOLES THROUGH SOIL. A MECHANICALLY POWERED, CONTINUOUS HELICAL SCREW AUGER (HAND AUGER) WAS USED TO ADVANCE TWO OF THE BORINGS, H-014-2-14 AND H-014-3-14 TO DELINEATE LIMITS OF UNCONTROLLED FILL. DISTURBED SOIL SAMPLES WERE OBTAINED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT 1.5 TO 5.0 FOOT INTERVALS FOR THE FULL DEPTH OF THE SOIL PORTION OF THE BORINGS. HAMMER CALIBRATED ON AUGUST 8, 2013 AND HAS A DRILL ROD ENERGY RATIO OF 81.9%. UNDISTURBED SOIL SAMPLES WERE OBTAINED AS SHOWN ON THE LOGS OR IN THE SUMMARY OF SOIL TEST DATA, IN ACCORDANCE WITH AASHTO T207. AUGER SAMPLES WERE OBTAINED WITH THE HAND AUGER. WHERE BEDROCK WAS ENCOUNTERED, THE BORINGS WERE ADVANCED AND THE ROCK WAS SAMPLED USING A TYPE NQ SERIES CORE BARREL, WATER METHOD.

**EXPLORATION FINDINGS**

ALL OF THE BORINGS ENCOUNTERED SOILS OF GLACIAL ORIGIN, EITHER GLACIAL OUTWASH OR GLACIAL TILL. GRANULAR SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-1-a, A-1-b, AND A-3a. COHESIVE SOILS, CLASSIFIED AS ODOT A-4a, A-6a, AND A-6b WERE LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. A LAYER OF SLIGHTLY ORGANIC SOIL (A-6b) WAS ENCOUNTERED IN B-015-14.

IN THE AREA OF THE ABANDONED LANDFILL, BORINGS WERE DRILLED TO DELINEATE THE LIMITS OF POSSIBLE UNCONTROLLED FILL ASSOCIATED WITH THE LANDFILL. UNCONTROLLED FILL, DESCRIBED AS BROWN SILT WITH GARBAGE AND PAPER, WAS ENCOUNTERED IN B-014-1-14. THE TWO HAND AUGER BORINGS H-014-2-14 AND H-014-3-14 DID NOT ENCOUNTER UNCONTROLLED FILL.

GRAY SHALE BEDROCK DESCRIBED AS, SLIGHTLY WEATHERED, MODERATELY STRONG, THIN BEDDED, CARBANACEOUS AND FRACTURED, WAS ENCOUNTERED IN THE BORING B-015-1-14, DRILLED NEAR THE TOE OF SLOPE, IN THE VICINITY OF THE ABANDONED LANDFILL.

TRANSIENT GROUNDWATER WAS ENCOUNTERED SPORADICALLY IN THE BORINGS, AS NOTED, TYPICALLY IN GRANULAR SOILS.

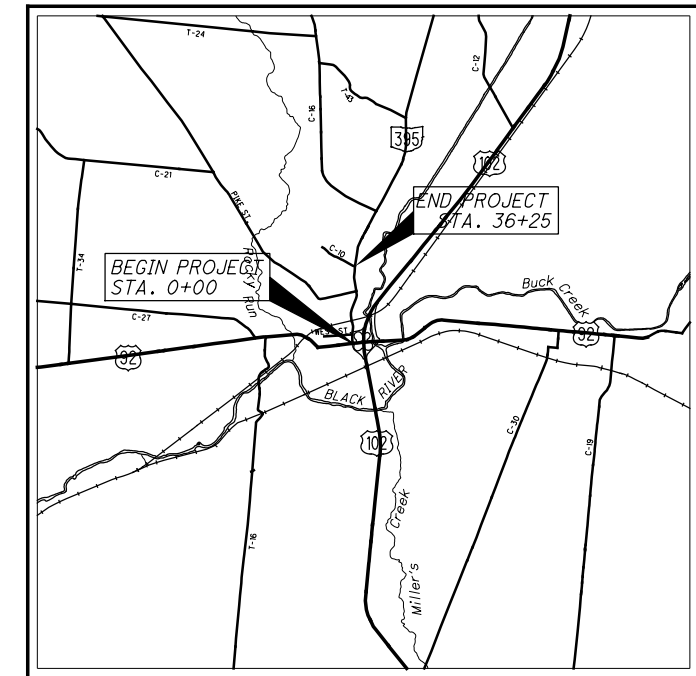
**SPECIFICATIONS**

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JULY 2014.

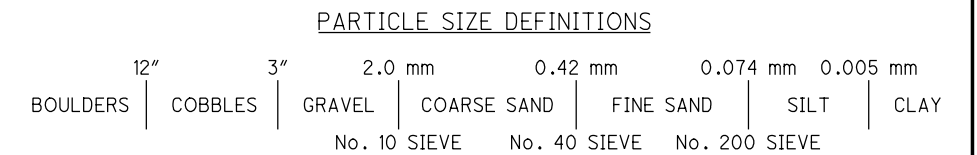
**AVAILABLE INFORMATION**

ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE OR THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1980 WEST BROAD STREET.

LEGEND		ODOT CLASS	CLASSIFIED MECH./VISUAL	
DESCRIPTION				
GRAVEL AND/OR STONE FRAGMENTS		A-1-a	8	14
GRAVEL AND/OR STONE FRAGMENTS WITH SAND		A-1-b	11	5
COARSE AND FINE SAND		A-3a	3	4
GRAVEL AND/OR ST. FRAGS. WITH SAND AND SILT		A-2-4	7	3
SANDY SILT		A-4a	11	12
SILT AND CLAY		A-6a	8	9
SILTY CLAY		A-6b	2	2
		TOTAL	50	49
UNCONTROLLED FILL (UCF)		VISUAL		
SHALE		VISUAL		
PAVEMENT OR BASE = X = APPROXIMATE THICKNESS		VISUAL		
SOD AND TOPSOIL = X = APPROXIMATE THICKNESS		VISUAL		
EXPLORATION LOCATION - PLAN VIEW				
HISTORIC BORING LOCATION - PLAN VIEW - TER-102-7.86, 1965				
DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.				
AUGER BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.				
<i>WC</i>	INDICATES WATER CONTENT IN PERCENT.			
<i>W</i>	INDICATES FREE WATER ELEVATION.			
<i>N<sub>60</sub></i>	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.			
●	INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.			
⊕	INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25% OR GREATER THAN 19% WITH A WET APPEARANCE.			
SS	INDICATES A SPLIT-SPOON SAMPLE.			
ST	INDICATES A SHELBY TUBE SAMPLE.			
HA	INDICATES A HAND AUGER SAMPLE.			
NP	INDICATES A NON-PLASTIC SAMPLE.			
TR	INDICATES THE TOP OF ROCK.			
HISTORIC BORING DESCRIPTIONS		ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGMENTS		A-1-a	8	-
GRAVEL AND/OR ST. FRAGS. W/SAND & SILT		A-2-4	1	-
ELASTIC CLAY		A-7-5	2	-
CLAY		A-7-6	2	-
UNCONTROLLED FILL		VISUAL	-	3
		TOTAL	13	3



LOCATION MAP  
SCALE IN MILES



INDEX OF SHEETS						
LOCATION FROM STA.	TO STA.	PLAN VIEW SHEET	PROFILE SHEET	CROSS-SECTION SHEET	CUT MAX.	FILL EMB. MAX.
SR 395						
0+00	12+50	5	5	-	5 FT	11 FT
12+50	25+00	6	6	-	5 FT	<1 FT
25+00	36+25	7	7	-	6 FT	5 FT
WEST ST.						
6+75	10+43.42	8	8	-	7 FT	12 FT
RAMP H						
50+00	61+30.87	9	9	-	16 FT	19 FT
52+00 & 54+00		-	-	10	14 FT	9 FT
55+00 & 56+00		-	-	11	6 FT	19 FT

RECON. - SPY 08/14/14  
 DRILLING - BIT 09/15-18/14  
 DRAWN - INK 12/11-15/14  
 REVIEWED - RED 12/18/14

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

PID NO.  
**99999**

**SOIL PROFILE**

**TER-395-0.00**

