

PROJECT DESCRIPTION

THE EXISTING 4-SIDED BOX CULVERT BENEATH RIDGE ROAD (SR 3) IS BEING REPLACED WITH A 63" X 98", TYPE A, CONCRETE ELLIPTICAL CULVERT THAT WILL FOLLOW ESSENTIALLY THE SAME ALIGNMENT AS THE EXISTING CULVERT. THE PROPOSED CULVERT WILL BE 102 FEET LONG COMPARED TO THE EXISTING CULVERT LENGTH OF APPROXIMATELY 62 FEET TO ACCOMMODATE FLATTENED EMBANKMENTS SLOPES AT AN INCLINATION OF 3(H):1(V) ON BOTH SIDES OF THE ROADWAY. LITTLE TO NO ADJUSTMENT OF THE ROADWAY PROFILE IS PLANNED AS PART OF THIS PROJECT.

HISTORIC RECORDS

THE ON-LINE ODOT TRANSPORTATION INFORMATION MAPPING SYSTEM (TIMS) RECORDS WERE SEARCHED FOR HISTORIC BORING INFORMATION FOR THE EXISTING BRIDGE; HOWEVER, NO AVAILABLE HISTORIC BORING RECORDS WERE LOCATED FOR THIS SITE.

GEOLOGY

THE PROJECT SITE IS WITHIN A PREVIOUSLY GLACIATED PORTION OF OHIO, AND WITHIN THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU PHYSIOGRAPHIC REGION. THIS REGION IS CHARACTERIZED BY CLAY TO LOAM TILL OF THE WISCONSINAN-AGE UNDERLAIN BY MISSISSIPPIAN AND PENNSYLVANIAN-AGE SHALES, SANDSTONES AND CONGLOMERATES. THE GROUND SURFACE ELEVATION AT THE CULVERT CROSSING IS APPROXIMATELY EL. 884. ACCORDING TO THE MEDINA COUNTY SOIL SURVEY AS PERFORMED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA), THE SOILS ARE PRIMARILY COMPOSED OF LOBDELL SILT LOAM (LE) WHICH IS DERIVED FROM ALLUVIUM DEPOSITS WITH APPROXIMATELY EQUAL PERCENTAGES OF SANDS AND FINES (SILTS/CLAYS). BEDROCK TOPOGRAPHY MAPPING SUGGEST THAT THE SITE IS LOCATED OVER THE SIDESLOPES OF A GLACIALLY CARVED BURIED VALLEY, WITH THE UPPERMOST BEDROCK ANTICIPATED NEAR EL. 650.

ACCORDING TO ODNR GROUNDWATER RESOURCE MAPPING, THE SITE LIES IN AN AREA CHARACTERIZED BY GLACIAL DEPOSITS OVERLAYING SHALE OR SANDSTONE, OR YIELDS FROM SHALE BEDROCK. GROUNDWATER POLLUTION POTENTIAL MAPPING SUGGESTS THE PROJECT SITE LIES IN AN AREA CHARACTERIZED BY BURIED VALLEY CONDITIONS AND/OR VARYING THICKNESSES OF GLACIAL TILL THAT OVERLIE SANDSTONE OR SHALE BEDROCK.

A REVIEW OF THE ODNR "OHIO KARST AREAS" MAP INDICATES THE SITE LIES IN AN AREA NOT KNOWN TO CONTAIN KARST FEATURES. A REVIEW OF THE ODNR "LANDSLIDES IN OHIO" MAP REVEALS THE SITE IS IN AN AREA OF LOW INCIDENCE AND LOW SUSCEPTIBILITY TO LANDSLIDES, AND THE ODNR "ABANDONED UNDERGROUND MINES OF OHIO" MAP INDICATES THESE SITES LIE IN AREAS WITH NO MAPPED ABANDONED MINES NEAR THE AREA OF THE PROJECT SITE.

RECONNAISSANCE

SITE RECONNAISSANCE VISITS WERE MADE BY S&ME PERSONNEL ON NOVEMBER 13, 2017, AND MARCH 8, 2018, TO OBSERVE THE EXISTING CULVERT AND PROJECT VICINITY AND TO FIELD MARK THE BORING LOCATIONS. THE MED-3-24.34 STRUCTURE CARRIES AN UNNAMED TRIBUTARY OF THE EAST BRANCH ROCKY RIVER AT A DEPTH OF APPROXIMATELY 14.5 FEET BENEATH RIDGE ROAD (SR 3). AN AREA OF EXISTING EMBANKMENT ON THE SOUTH SIDE OF THE CULVERT AND ON THE WEST SIDE OF RIDGE ROAD IS SHOWING EVIDENCE OF EITHER INSTABILITY OR SURFACE SLOUGHING FROM EROSION, ALTHOUGH IT DOES NOT APPEAR THAT AN ACTIVE "LANDSLIDE" HAS OCCURRED.

SUBSURFACE EXPLORATION

ON MARCH 21 AND 22, 2018, S&ME PERFORMED FOUR (4) BORINGS DESIGNATED B-001-0-18 THROUGH B-004-0-18 (HEREAFTER REFERRED TO AS B-001 THROUGH B-004) TO EXPLORE THE EXISTING SOILS IN THE AREA OF THE PROPOSED REPLACEMENT CULVERT, THE POTENTIALLY UNSTABLE SLOPE SOUTH OF THE CULVERT, AND THE PAVEMENT/EMBANKMENT NORTH OF THE CULVERT. THE EMBANKMENT BORINGS NORTH AND SOUTH OF THE CULVERT (B-001 AND B-004) WERE EXTENDED TO DEPTHS OF 20 FEET BELOW THE EXISTING GROUND SURFACE, WHILE BORINGS B-002 AND B-003 WERE PERFORMED AT THE CULVERT AND WERE EXTENDED TO DEPTHS OF 45 FEET.

THE BORINGS WERE PERFORMED USING AN ATV-MOUNTED DRILLING RIG USING A 3-1/4-INCH I.D. HOLLOW-STEM AUGER. DISTURBED (BUT REPRESENTATIVE) SOIL SAMPLES WERE OBTAINED BY LOWERING A 2-INCH O.D. SPLIT-BARREL SAMPLER TO THE BOTTOM OF THE BORING AND THEN DRIVING THE SAMPLER INTO THE SOIL WITH BLOWS FROM A 140-POUND HAMMER FREELY FALLING 30 INCHES (AASHTO T206 - STANDARD PENETRATION TEST, SPT). IN ACCORDANCE WITH THE CURRENT ODOT SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS (SGE), THE HAMMER SYSTEM ON THE DRILL RIG HAD BEEN CALIBRATED IN ACCORDANCE WITH ASTM D4633 TO DETERMINE THE DRILL ROD ENERGY RATIO (84.7%). SAMPLING INTERVALS RANGED FROM BEING CONTINUOUSLY SAMPLED (SUBGRADE OR SCOUR ZONE SAMPLING) TO 5-FOOT INTERVALS AS REQUIRED BY THE ODOT SGE. AT THE TIME OF THE FIELD WORK, A THREE-SIDED REPLACEMENT CULVERT WAS BEING CONSIDERED, AND AS SUCH, CONTINUOUS SCOUR-ZONE SAMPLING WAS PERFORMED.

LEGEND		ODOT CLASS	CLASSIFIED MECH./VISUAL
	GRAVEL WITH SAND	A-1-b	-- 1
	COARSE AND FINE SAND	A-3a	-- 6
	SANDY SILT	A-4a	2 1
	SILT	A-4b	1 --
	SILT AND CLAY	A-6a	7 17
	SILTY CLAY	A-6b	6 9
		TOTAL	16 34
	PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL	
	BORING LOCATION - PLAN VIEW		
	DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.		
WC	INDICATES WATER CONTENT IN PERCENT.		
N ₆₀	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.		
W	INDICATES FREE WATER ELEVATION.		
	INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25 % OR GREATER THAN 19 % WITH A WET APPEARANCE.		
NP	INDICATES A NON-PLASTIC SAMPLE.		
SS	INDICATES A SPLIT SPOON SAMPLE, STANDARD PENETRATION TEST.		

EXPLORATION FINDINGS

PAVEMENT AND BASE MATERIALS WERE ENCOUNTERED IN EACH OF THE BORINGS TO A DEPTH OF APPROXIMATELY 18 INCHES BELOW THE EXISTING GRADE. THE ASPHALT THICKNESS RANGED FROM 11 TO 15 INCHES AND WAS UNDERLAIN BY BRICK AND/OR GRANULAR BASE.

FILL AND/OR POSSIBLE/PROBABLE FILL MATERIALS WERE ENCOUNTERED IN EACH OF THE BORINGS TO DEPTHS RANGING FROM APPROXIMATELY 3 FEET TO 11.7 FEET BELOW THE EXISTING GRADE. THE FILL MATERIALS WERE COMPOSED OF STIFF TO HARD SILTY CLAY (A-6b), MEDIUM-DENSE GRAVEL WITH SAND (A-1-b), OR MEDIUM-DENSE COARSE AND FINE SAND (A-3a). BRICK FRAGMENTS, ORGANIC FRAGMENTS, AND A CHEMICAL ODOR WERE NOTED WITHIN THE FILL MATERIALS IN ALL OF THE BORINGS EXCEPT BORING B-003.

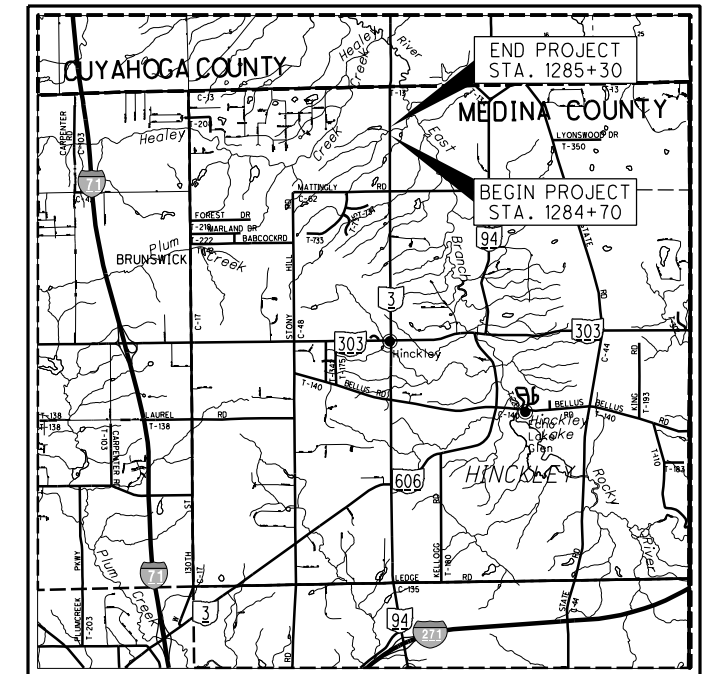
NATURAL SOILS WERE ENCOUNTERED BENEATH THE FILL MATERIALS TO THE TERMINATION DEPTHS OF THE BORINGS. THE NATURAL SOILS CONSISTED FOR THE MOST PART OF STIFF TO HARD SILT AND CLAY (A-6a) OR SILTY CLAY (A-6b) WITH A FEW VERY-SOFT TO MEDIUM-STIFF ZONES AND, IN BORING B-003, 0.8-FOOT TO 2.5-FOOT THICK LAYERS OF COARSE AND FINE SAND (A-3a) AND SANDY SILT (A-4a). BORING B-001 WAS TERMINATED WITHIN THESE COHESIVE SOILS. BORINGS B-002 THROUGH B-004 WERE TERMINATED AFTER PENETRATING 3.3 TO 11.2 FEET INTO GRANULAR SOILS CONSISTING OF MEDIUM-DENSE TO VERY-DENSE COARSE AND FINE SAND (A-3a), SANDY SILT (A-4a) AND SILT (A-4b).

SPECIFICATIONS

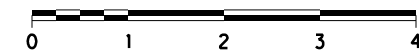
THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JULY 2017.

AVAILABLE INFORMATION

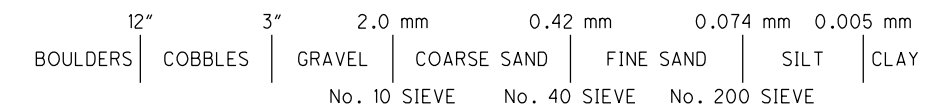
ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S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



LOCATION MAP
SCALE IN MILES

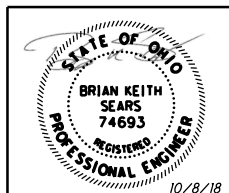


PARTICLE SIZE DEFINITIONS



D ₅₀ VALUES			
BORING NO.	SAMPLE NO.	SAMPLE ELEVATION	D ₅₀ (mm)
B-002-0-18	SS-5	867.2 - 865.7	0.0094
	SS-6	865.7 - 864.2	0.0087
	SS-7	864.2 - 862.7	0.0078
	SS-8	862.7 - 861.2	0.0089
B-003-0-18	SS-4	867.9 - 866.4	0.0079
	SS-5	866.4 - 864.9	0.0791
	SS-6	864.9 - 863.4	0.0128
	SS-7	863.4 - 861.9	0.011

- RECON. - S&ME 11/13/17, 3/8/18
- DRILLING - S&ME 3/21/18 - 3/22/18
- DRAWN - KAH 5/16/18 - 5/18/18, 10/8/18
KJD 8/10/18
- REVIEWED - BKS 5/17/18, 8/10/18, 10/8/18



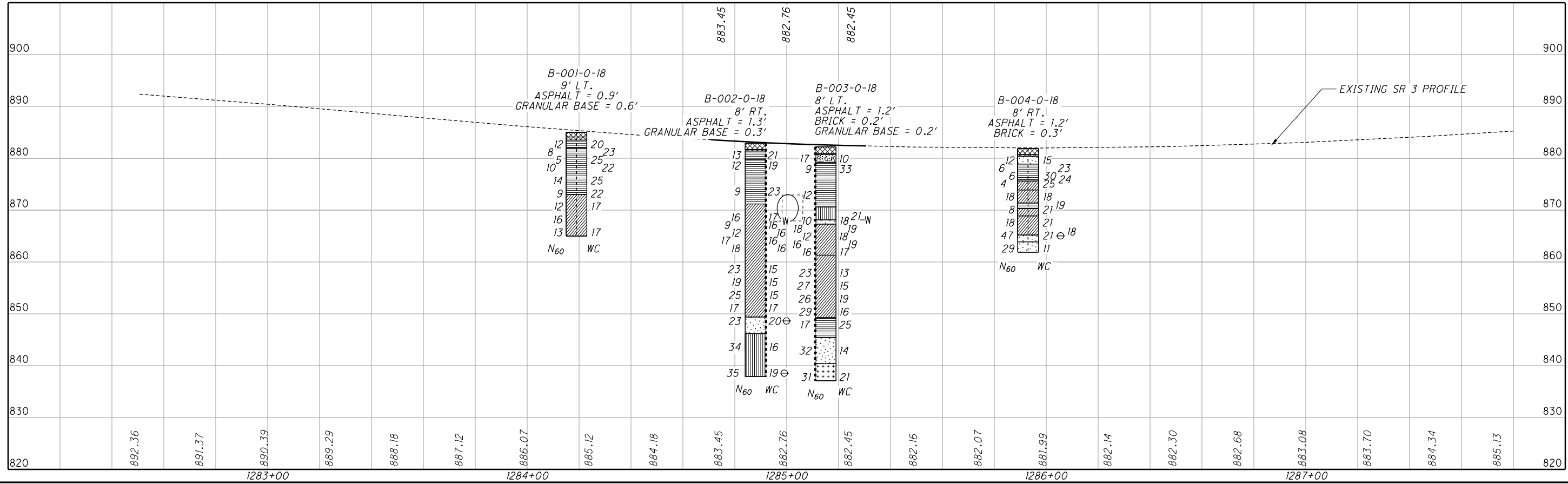
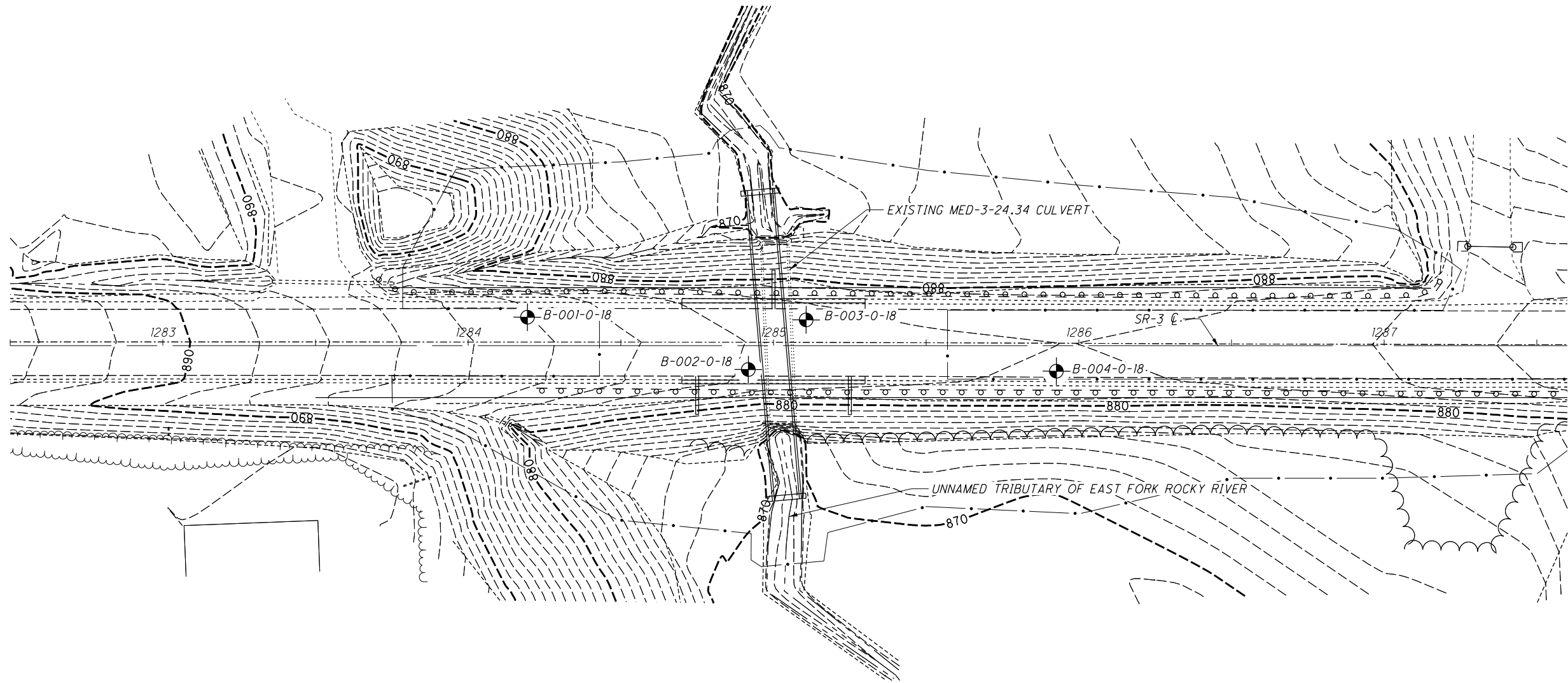
PID NO.
106354

STRUCTURE FOUNDATION EXPLORATION
BR. NO MED-3-2433 OVER E. BRANCH OF ROCKY RIVER

MED-3-24.33



S:\Projects\2018\117-18-009 MED-3-24.34\CAD\Structure Foundation Sheets\0001.dgn Sheet P-N-P (106354_P001).dgn Sheet 10/8/2018 12:39:17 PM kharper



STRUCTURE FOUNDATION EXPLORATION OF
BR. NO MED-3-2433 OVER TRIBUTARY OF
EAST BRANCH OF ROCKY RIVER

MED - 3 - 24.33

S&ME JOB: 1117-18-009



PROJECT: MED-3-24.33	DRILLING FIRM / OPERATOR: S&ME / A. MESSER	DRILL RIG: S&ME ATV D50	STATION / OFFSET: 1284+19, 9' LT	EXPLORATION ID: B-001-0-18													
TYPE: CULVERT REPLACEMENT	SAMPLING FIRM / LOGGER: S&ME / K. DOHLEN	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 3														
PID: 106354 BR ID: MED-3-2434	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 10/20/17	ELEVATION: 885.0 (MSL) EOB: 20.0 ft.	PAGE: 1 OF 1													
START: 3/21/18 END: 3/21/18	SAMPLING METHOD: SPT	ENERGY RATIO (%): 77.8	LAT / LONG: 41.269841 N, 81.744884 W														
MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC SAMPLE (%)	HP ID	GR	GRADATION (%)							WC	ODOT CLASS (GI)	BACK FILL
ASPHALT - 11 INCHES	885.0	1															
GRANULAR BASE - 7 INCHES	884.1	2	3	12	39	4.5+	3	4	6	29	58	38	19	19	20	A-6b (12)	
POSSIBLE FILL: Hard dark-brown mottled with gray SILTY CLAY, trace fine to coarse sand, trace fine gravel, few wood fragments, damp.	883.5	3	2	8	56	2.5-4.5	4	3	5	29	59	37	21	16	23	A-6b (10)	
Stiff to very-stiff brown SILTY CLAY, trace to little fine to coarse sand, trace fine gravel, few gray silt seams, few pockets of hard silty clay, damp.	882.0	4	1	5	33	1.25-2.0	-	-	-	-	-	-	-	-	25	A-6b (V)	
		5	2	2													
		6	2	3	10	83	1.5-3.5	6	7	23	56	39	20	19	22	A-6b (12)	
		7	3	5													
		8															
		9	2	5	14	67	3.0-4.0	-	-	-	-	-	-	-	25	A-6b (V)	
		10	5	6													
		11	1	2	9	28	2.75-3.75	-	-	-	-	-	-	-	22	A-6b (V)	
	873.0	12	1	5													
		13															
		14	3	4	12	100	1.6-2.1	8	6	10	31	45	28	15	17	A-6a (9)	
		15	4	5													
		16	3	5	16	0	SS	-	-	-	-	-	-	-	-		
		17	5	7													
		18															
		19	2	5	13	100	2.5-4.5+	-	-	-	-	-	-	-	17	A-6a (V)	
	865.0	20	5	5													

NOTES:
 - No seepage or groundwater encountered during drilling.
 - Borehole was observed to be dry at completion.

PLATE 1

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH: PLASTIC HOLE PLUG DEVICE: SOIL CUTTINGS



MED - 3 - 24.33

3 / 6

STRUCTURE FOUNDATION EXPLORATION
 LOG OF BORING B-001-0-18

DRAWN: KAH
 CHECKED: BKS

S&ME JOB: 1117-18-009



PROJECT: MED-3-24.33 DRILLING FIRM / OPERATOR: S&ME / A. MESSER DRILL RIG: S&ME ATV D50 EXPLORATION ID
 TYPE: CULVERT REPLACEMENT SAMPLING FIRM / LOGGER: S&ME / K. DOHLEN HAMMER: CME AUTOMATIC B-002-0-18
 PID: 106354 BR ID: MED-3-2434 DRILLING METHOD: 3.25" HSA SPT DEPTHS: 1-45 ELEV.: 882.9
 START: 3/22/18 END: 3/22/18 SAMPLING METHOD: SPT
 STATION / OFFSET: 1284+92.8' RT
 ALIGNMENT: SR 3
 ELEVATION: 882.9 (MSL) EOB: 45.0 ft.
 LAT / LONG: 41.270091 N, 81.744881 W
 ENERGY RATIO (%): 77.8
 CALIBRATION DATE: 10/20/17
 PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC SAMPLE (%)	HP (tsf)	ID	GRADATION (%)								WC	ODOT CLASS (g)
								GR	CS	FS	SI	CL	PL	PI	LL		
ASPHALT - 14 INCHES	882.9	1															
BRICK - 2 INCHES	881.7	2															
	881.4	3															
GRANULAR BASE - 2 INCHES	879.8	4															
PROBABLE FILL: Very-stiff brown SILTY CLAY, little fine to coarse sand, trace fine gravel, chemical odor, damp.		5															
PROBABLE FILL: Very-stiff light-gray SILTY CLAY, some fine to coarse sand, little fine gravel, damp.		6															
PROBABLE FILL: Stiff brown SILTY CLAY, little to some fine to coarse sand, trace fine gravel, few granite fragments, slight chemical odor, damp.	876.2	7															
Very-stiff to hard gray SILT AND CLAY, little fine to coarse sand, trace fine to coarse gravel, few stiff zones above 15', damp.	871.2	8															
		9															
M		10															
		11															
A-6b (V)		12															
		13															
A-6a (V)		14															
		15															
A-6a (V)		16															
		17															
A-6a (8)		18															
		19															
A-6a (V)		20															
		21															
A-6a (V)		22															
		23															
A-6a (V)		24															
		25															
A-6a (8)		26															
		27															
A-6a (V)		28															
		29															
A-6a (V)		30															
		31															
A-6a (8)		32															
		33															
Medium-dense gray COARSE AND FINE SAND, trace to little silt, trace fine gravel, trace clay, wet.	849.4	34															
		35															
Dense gray SANDY SILT, little clay, little fine gravel, wet.	846.2	36															
		37															
A-4a (2)		38															
		39															
A-4a (V)		40															
		41															
A-4a (V)		42															
		43															
A-4a (V)		44															
		45															

EOB

NOTES:
 - Groundwater encountered at 15.0' during drilling.
 - After removal of augers, boring caved at 3.0' and was observed to be dry.

ABANDONMENT METHODS: MATERIALS: QUANTITIES: PLACED ASPHALT PATCH: PLASTIC HOLE PLUG DEVICE: SOIL CUTTINGS

NOTES: NONE

S&ME JOB: 1117-18-009



PROJECT: MED-3-24.33		DRILLING FIRM / OPERATOR: S&ME / A. MESSER		DRILL RIG: S&ME ATV D50		STATION / OFFSET: 1285+11, 8' LT		EXPLORATION ID									
TYPE: CULVERT REPLACEMENT		SAMPLING FIRM / LOGGER: S&ME / K. DOHLEN		HAMMER: CME AUTOMATIC		ALIGNMENT: SR 3		B-003-0-18									
PID: 106354 BR ID: MED-3-2434		DRILLING METHOD: 3.25" HSA		CALIBRATION DATE: 10/20/17		ELEVATION: 882.2 (MSL) EOB: 45.0 ft.		PAGE									
START: 3/22/18 END: 3/22/18		SAMPLING METHOD: SPT		ENERGY RATIO (%): 77.8		LAT / LONG: 41.270039 N, 81.744822 W		1 OF 1									
MATERIAL DESCRIPTION AND NOTES		ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC SAMPLE (%)	HP (tsf)	GR	CS	FS	SI	CL	PL	PI	WC	ODOT CLASS (g)	BACK FILL
ASPHALT - 15 INCHES		882.2	1														
GRANULAR BASE - BRICK FRAGMENTS - BRICK PAVERS - 3 INCHES		880.9	2	43	17	33	SS-1										
PROBABLE FILL: Medium-dense brown and gray GRAVEL WITH SAND, little silt, trace clay, dry.		880.7	3														
POSSIBLE FILL: Medium-stiff brown SILTY CLAY, trace to little fine to coarse sand, trace fine gravel, few roots, damp to moist.		879.2	4	3	9	44	SS-3	0.5-1.0									A-1-b (V)
Medium-dense brown SANDY SILT, some clay, little fine gravel, damp.		870.5	5	4	3												A-6b (V)
Medium-dense gray COARSE AND FINE SAND, little silt, trace clay, trace fine gravel, wet.		868.0	6														
Very-stiff to hard brown SILT AND CLAY, little fine to coarse sand, trace fine gravel, damp.		867.2	7														
- Zone with some fine to coarse gravel from 16.5' to 18.0'.			8														
Very-stiff gray SILT AND CLAY, little fine to coarse sand, trace fine gravel, damp.		861.2	9	4	12	39	SS-5										
			10														
			11														
			12														
			13														
			14	2	10	72	SS-3AB										A-4a (2)
			15	3	5												A-3a (V)
			16	4	18	100	SS-4	3.5-4.25	7	5	10	34	44	-	-	-	19
			17	3	4	12	39	SS-5		32	9	9	21	29	-	-	18
			18	4	16	94	SS-6	4.0-4.5+	5	6	11	44	34	19	15		19
			19	2	10												
			20	4	16	100	SS-7	4.5+	9	6	10	36	39	-	-	-	17
			21	8	4												
			22														
			23														
			24	4	23	94	SS-8	2.5-3.25	-	-	-	-	-	-	-	-	13
			25	7	11												
			26	4	27	100	SS-9	3.7-4.0	9	6	10	35	40	27	16	11	15
			27	8	13												
			28														
			29	4	26	100	SS-10	3.5	-	-	-	-	-	-	-	-	19
			30	7	13												
			31														
			32	6	29	100	SS-11	2.25-3.5	-	-	-	-	-	-	-	-	16
			33	8	14												
			34	3	17	100	SS-12	1.3-1.75	1	2	4	32	61	35	19	16	25
			35	4	9												
			36														
			37														
			38														
			39	4	32	100	SS-13	-	-	-	-	-	-	-	-	-	14
			40	11	14												
			41														
			42														
			43														
			44	5	10	31	SS-14	-	1	1	16	64	18	NP	NP	NP	21
			45	10	14												

NOTES:
 - No seepage encountered during drilling.
 - Groundwater encountered at 14.0' during drilling.
 - After removal of augers, boring caved at 28.5' and water was measured at 15.0'.

NOTES: NONE
 ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH, PLASTIC HOLE PLUG DEVICE, SOIL CUTTINGS

S&ME JOB: 1117-18-009



PROJECT: MED-3-24.33		DRILLING FIRM / OPERATOR: S&ME / A. MESSER		DRILL RIG: S&ME ATV D50		STATION / OFFSET: 1285+93, 8' RT		EXPLORATION ID										
TYPE: CULVERT REPLACEMENT		SAMPLING FIRM / LOGGER: S&ME / K. DOHLEN		HAMMER: CME AUTOMATIC		ALIGNMENT: SR 3		B-004-0-18										
PID: 106354 BR ID: MED-3-2434		DRILLING METHOD: 3.25" HSA		CALIBRATION DATE: 10/20/17		ELEVATION: 881.9 (MSL) EOB: 20.0 ft.		PAGE										
START: 3/22/18 END: 3/22/18		SAMPLING METHOD: SPT		ENERGY RATIO (%): 77.8		LAT / LONG: 41.270316 N, 81.744819 W		1 OF 1										
MATERIAL DESCRIPTION AND NOTES		ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC SAMPLE (%)	HP (ksf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (G)	BACK FILL
ASPHALT - 14 INCHES		881.9	1															
BRICK FRAGMENTS - BRICK PAVERS - 4 INCHES		880.7	2	10	12	28	SS-1											
FILL: Medium-dense brown coarse and fine sand, little fine to coarse gravel, trace silt, trace clay, few brick fragments, damp.		880.4	3	5	4													
FILL: Stiff brown and gray SILTY CLAY, little fine to coarse sand, trace fine gravel, few brick fragments, damp.		878.9	4	3	6	61	SS-2	1.1	3	4	9	38	46	38	18	20	23	A-6b (12)
Very-soft to medium-stiff gray SILT AND CLAY, little fine to coarse sand, trace fine gravel, damp to moist.		875.6	5	2	2	6	SS-3	1.0										
Very-stiff to hard brownish-gray SILT AND CLAY, little fine to coarse sand, trace fine gravel, damp.		873.9	6	1	4	56	SS-4A	1.1										
			7	1	2		SS-4B	0.6	4	7	12	36	41	31	17	14	25	A-6a (10)
			8					0.5										
Soft to medium-stiff gray SILTY CLAY, little fine to coarse sand, trace fine gravel, damp.		871.4	9	4	6	18	SS-5	2.6-4.5+										
Stiff brown mottled with gray SILT AND CLAY, trace fine to coarse sand, trace fine gravel, damp.		870.3	10															
Hard light-brown becoming gray SILT AND CLAY, little fine to coarse sand, trace fine gravel, damp.		868.9	11	2	8	72	SS-6A	0.5										
			12	2	4		SS-6B	1.1										
Very-dense brown COARSE AND FINE SAND, trace to little silt, trace to little fine gravel, trace clay, wet.		865.2	13															
Dense gray COARSE AND FINE SAND, trace fine gravel, trace silt, trace clay, wet.		863.9	14	3	6	18	SS-7	4.5+										
			15	8														
			16	5	15	47	SS-8A	4.5+										
			17	21		89	SS-8B											
			18															
			19	3	10	29	SS-9											
			20	12														

NOTES:

- Groundwater encountered at 12.5' during drilling.
- After removal of augers, boring caved at 4.0' and was observed to be dry.

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; PLASTIC HOLE PLUG DEVICE; SOIL CUTTINGS

