

PROJECT DESCRIPTION

PROJECT TO ADDRESS FLOODING LOCATION BY IMPROVING DRAINAGE AND REALIGNING VERTICAL ROADWAY PROFILE AT ATH-56-0.90-1.10.

HISTORIC RECORDS

NO HISTORICAL GEOTECHNICAL RECORDS WERE FOUND FOR THIS PROJECT.

GEOLOGY

THE PROJECT IS LOCATED WITHIN THE NON-GLACIATED MUSKINGUM-PITTSBURGH PLATEAU PHYSIOGRAPHIC REGION WHICH IS CHARACTERIZED AS A MODERATE TO HIGH RELIEF DISSECTED PLATEAU WHICH HAVE BROAD MAJOR DRAINAGE VALLEYS. UNDERLYING THE OVERBURDEN SOILS PENNSYLVANIAN AGED SHALE, SILTSTONE, CLAYSTONE, SANDSTONE, LIMESTONE AND COAL BEDROCK ARE FOUND WITHIN THE PROJECT AREA. THE CONEMAUGH GROUP COMPRISES THE BEDROCK FOR THE HILLSIDES AND RIDGE TOPS AND THE ALLEGHENY AND POTTSVILLE GROUPS COMPRISES THE BEDROCK OF THE LOWER HILLSIDES AND VALLEY FLOORS.

RECONNAISSANCE

FIELD RECONNAISSANCE WAS COMPLETED BY PERSONNEL FROM THE DISTRICT AND OFFICE OF GEOTECHNICAL ENGINEERING (OGE) ON FEBRUARY 29, 2016. THE ROADWAY ELEVATION IS RELATIVELY FLAT WITH A SHARP HORIZONTAL CURVE WRAPPING AROUND THE NOSE OF A HILLSIDE. PAVEMENT WAS NOTED AS BEING FAIR CONDITION WITH A LONG MILL AND FILL PATCHING OF THE CURVE SECTION WITHIN THE WESTBOUND LANE. THE PROJECT AREA IS A STEEP WOODED HILLSIDE RISING ABOVE THE ROADWAY TO THE NORTH. LOCAL DRAINAGE FROM THE NORTH AND WEST PERIODICALLY FLOODS THE ROADWAY AT THE CURVE. THE WESTBOUND DITCH WAS PARTIALLY BLOCKED AND HELD STANDING WATER TO THE EDGE OF PAVEMENT. SOUTH OF THE ROADWAY IS LOW LYING GROUND AND WETLANDS. THE AREA WAS NOTED AS WELL VEGETATED WITH SHRUBS, TREES AND WETLAND VEGETATION. EVIDENCE OF ACID MINE DRAINAGE WAS NOTED WITHIN THE LOCAL DRAINAGE AND DITCHES.

ADDITIONAL FIELD RECONNAISSANCES WERE CARRIED OUT OCTOBER 3, 2023, BY OGE PERSONNEL FOR COMPLETION OF AN ADDITIONAL BORING. THE HILLSIDE WAS IN SIMILAR CONDITIONS AS NOTED DURING THE PREVIOUS RECONNAISSANCE WITH THE ROADWAY NOTED AS BEING IN VERY GOOD CONDITION DUE TO A RECENT RESURFACING PROJECT BEING COMPLETED. THE WESTBOUND DITCH WAS STILL NOT DRAINING PROPERLY AT THE CURVE AND HELD STANDING WATER TO THE EDGE OF PAVEMENT.

SUBSURFACE EXPLORATION

THIS GEOTECHNICAL EXPLORATION WAS COMPLETED IN TWO (2) PHASES. THE FIRST PHASE CONSISTED OF ONE (1) BORING, B-001-0-16, COMPLETED BETWEEN MARCH 15 AND 17, 2016, UTILIZING A TRACK MOUNTED CME 850 ROTARY DRILL RIG, USING 4.25-INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE BORINGS THROUGH THE SOIL. DISTURBED SAMPLES WERE COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT 2.5-FOOT INTERVALS WITHIN THE OVERBURDEN SOILS AND INTO WEATHERED BEDROCK. THE HAMMER SYSTEM USED WAS CALIBRATED ON MAY 27, 2015, WITH AN AVERAGE DRILL ROD ENERGY RATIO (ER) OF 87%. THE BORING WAS ADVANCED INTO BEDROCK AND SAMPLED (AASHTO T225) USING AN N SERIES WIRELINE CORE BARREL, WATER METHOD.

THE SECOND PHASE OF THE EXPLORATION CONSISTED OF AN ADDITIONAL BORING, B-002-0-23, COMPLETED BETWEEN DECEMBER 5 AND 7, 2023, UTILIZING A TRACK MOUNTED CME 850 ROTARY DRILL RIG, USING 3.75-INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE BORING THROUGH THE SOIL. DISTURBED SAMPLES WERE COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT 2.5-FOOT INTERVALS WITHIN THE OVERBURDEN SOILS AND INTO WEATHERED BEDROCK. THE HAMMER SYSTEM USED WAS CALIBRATED ON APRIL 25, 2023, WITH AN AVERAGE DRILL ROD ENERGY RATIO (ER) OF 89%. THE BORING WAS ADVANCED INTO BEDROCK AND SAMPLED (AASHTO T225) USING AN N SERIES WIRELINE CORE BARREL, WATER METHOD.

EXPLORATION FINDINGS

BOTH BORINGS WERE COMPLETED ALONG THE HILLSIDE LOCATED ABOVE THE CURRENT ROADWAY WITH B-001-0-16 DRILLED MID-SLOPE AND B-002-0-23 DRILLED NEAR THE TOP OF THE HILLSIDE. B-002-0-23 NOTED 4-INCHES OF TOPSOIL AT THE GROUND SURFACE. THE TOPSOIL WAS REMOVED AT B-001-0-16 DUE TO BENCHING FOR RIG ACCESS. OVERBURDEN SOILS CONSISTED OF RESIDUAL OR COLLUVIAL SOIL WHICH WERE VARIABLE. B-001-0-16 ENCOUNTERED MEDIUM DENSE STONE FRAGMENTS WITH SAND (A-1-b) AT THE GROUND SURFACE UNDERLAIN BY HARD SANDY SILT (A-4a) EXTENDING TO ELEVATION (EL.) 821.2 FEET (FT) WHEREAS B-002-0-23 ENCOUNTERED COARSE AND FINE SAND (A-3a) TO EL. 877.5 FT.

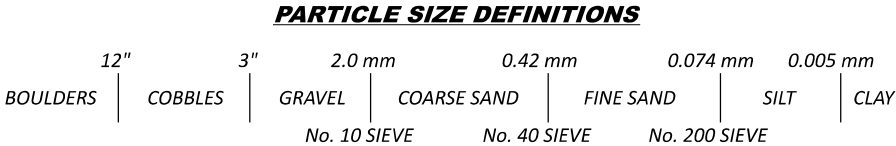
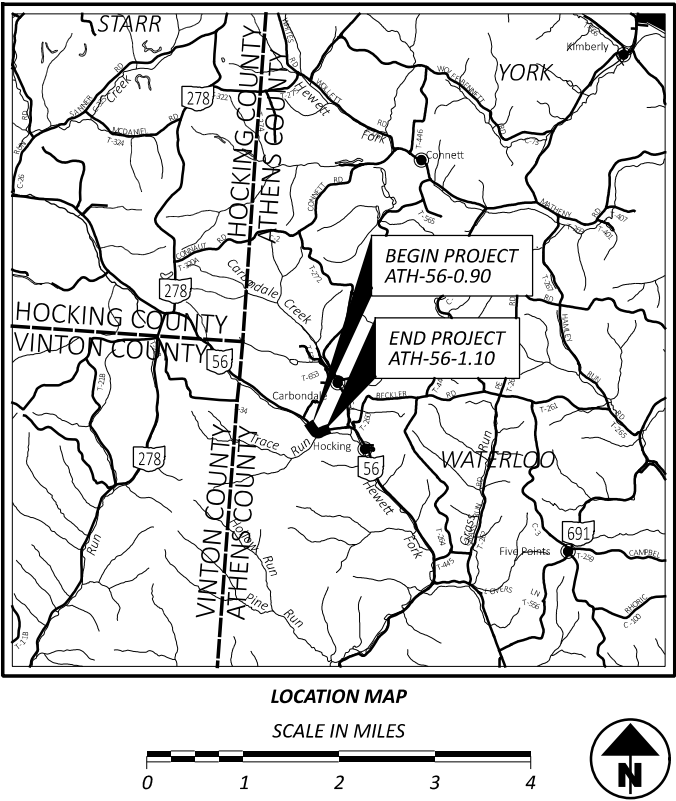
WITHIN B-002-0-23 THE SEVERELY WEATHERED SANDSTONE WAS INITIALLY SPLIT SPOON SAMPLED PRIOR TO CORING WHEN BECOMING HIGHLY WEATHERED. THE CORED SANDSTONE WAS DESCRIBED AS SLIGHTLY STRONG, MEDIUM TO COARSE GRAINED, AND MEDIUM TO THICK BEDDED WITH UNIT ROCK QUALITY DESIGNATION (RQD) OF 42% AND UNIT RECOVERY OF 91%. AT EL. 849.5 FT THE SANDSTONE BECAME SEVERELY WEATHERED AND WEAK TO SLIGHTLY STRONG WITH A UNIT RQD OF 14% AND UNIT RECOVERY OF 69% UNDERLAIN BY SILTSTONE IN MODERATELY WEATHERED CONDITION AND SLIGHTLY STRONG WITH A UNIT RQD OF 25% AND UNIT RECOVERY OF 97%.

BELOW EL. 836.8 FT B-002-0-23 PREDOMINANTLY ENCOUNTERED SANDSTONE IN A MODERATELY TO SLIGHTLY WEATHERED CONDITION AND MODERATELY STRONG TO VERY STRONG WITH UNIT RQD RANGING FROM 37% TO 88% AND UNIT RECOVERY RANGING FROM 84% TO 96%. CLAYSTONE WAS NOTED BETWEEN EL. 828.0 AND 824.1 FT AND AT EL. 814.0 FT INTO WHICH THE BORING WAS TERMINATED. THE CLAYSTONE WAS NOTED AS BEING IN MODERATELY WEATHERED CONDITION AND VERY WEAK WITH UNIT RQD RANGING FROM 0% TO 47% AND UNIT RECOVERY RANGING FROM 75% TO 92%. SHALE WAS ENCOUNTERED BETWEEN EL. 818.0 AND 816.2 FT IN HIGHLY WEATHERED CONDITION WITH A UNIT RQD OF 0% AND UNIT RECOVERY OF 100%.

EXPLORATION NOTES CONTINUED, SEE SHEET 2.

| LEGEND | | ODOT CLASS | CLASSIFIED MECH./VISUAL | |
|-----------------|--|------------|-------------------------|---|
| DESCRIPTION | | | | |
| | STONE FRAGMENTS WITH SAND | A-1-b | - | 1 |
| | COARSE AND FINE SAND | A-3a | - | 1 |
| | SANDY SILT | A-4a | 1 | - |
| | | TOTAL | | |
| | CLAYSTONE | VISUAL | | |
| | COAL | VISUAL | | |
| | LIMESTONE | VISUAL | | |
| | SANDSTONE | VISUAL | | |
| | SHALE | VISUAL | | |
| | SILTSTONE | VISUAL | | |
| | TOPSOIL = X = APPROXIMATE THICKNESS | VISUAL | | |
| | BORING LOCATION - PLAN VIEW. | | | |
| | DRIVE SAMPLE AND ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY. | | | |
| WC | INDICATES WATER CONTENT IN PERCENT. | | | |
| N ₆₀ | INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO. | | | |
| γ | INDICATES UNIT WEIGHT OF ROCK. | | | |
| Id ₂ | INDICATES SLAKE DURABILITY TEST, ASTM D4644. | | | |
| NP | INDICATES A NON-PLASTIC SAMPLE. | | | |
| NQ | "N" SERIES ROCK CORE BARREL OF "Q" WIRELINE BIT SIZE. | | | |
| Qu | INDICATES UNCONFINED COMPRESSION TEST, ASTM D7012. | | | |
| Sc | INDICATES POINT LOAD STRENGTH VALUE, ASTM D5731. | | | |
| SS | INDICATES A SPLIT SPOON SAMPLE. | | | |
| TR | INDICATES TOP OF ROCK ELEVATION. | | | |

| INDEX OF SHEETS | | | |
|-------------------------------------|-------|--------------|------------------|
| EXPLORATION NOTES (CONT.), SHEET 2. | | | |
| LOCATION FROM STA. TO STA. | | PLAN VIEW | CROSS SECTION |
| CONST. S.R. 56 | | | |
| 48+50 | 56+50 | 3 | - |
| 53+00 | | - | 4 |
| BORING LOGS, SHEETS 5-8. | | | |
| ROCK CORE PHOTOS, SHEETS 9-17. | | | |



| | | |
|------------|-----|-------------|
| RECON. - | PPP | 02/29/16 |
| | PPP | 10/03/23 |
| DRILLING - | DML | 03/15-17/16 |
| | JAS | 12/05-07/23 |
| DRAWN - | ARR | 02/27/25 |
| REVIEWED - | SAT | 02/28/25 |



EXPLORATION FINDINGS, CONT.

B-001-0-16, COMPLETED MID-SLOPE, FIRST ENCOUNTERED HIGHLY WEATHERED SHALE WHICH WAS SPLIT SPOON SAMPLED PRIOR TO ENCOUNTERING LIMESTONE BETWEEN EL. 819.7 AND 816.9 FT IN HIGHLY WEATHERED CONDITION HAVE A UNIT RQD OF 26% AND UNIT RECOVERY OF 100%. SHALE WAS ENCOUNTERED BETWEEN EL. 816.9 AND 801.8 FT IN SEVERELY TO MODERATELY WEATHERED CONDITIONS AND WEAK TO MODERATELY STRONG WITH UNIT RQD RANGING FROM 13% TO 26% AND UNIT RECOVERY RANGING FROM 44% TO 71%. SANDSTONE WAS ENCOUNTERED BETWEEN EL. 808.3 AND 806.1 FT IN MODERATELY WEATHERED CONDITION WITH A UNIT RQD OF 69% AND UNIT RECOVERY OF 100%.

BELOW EL. 801.8 FT B-001-0-16 PREDOMINATELY ENCOUNTERED SANDSTONE IN MODERATELY TO SLIGHTLY WEATHERED CONDITIONS AND FROM SLIGHTLY TO MODERATELY STRONG WITH UNIT RQD RANGING FROM 78% TO 100% AND UNIT RECOVERY RANGING FROM 97% TO 100%. SILTSTONE WAS ENCOUNTERED BETWEEN EL. 785.3 AND 779.0 FT IN MODERATELY WEATHERED CONDITION AND COAL WAS ENCOUNTERED BETWEEN EL. 759.8 AND 756.2 FT. BORING B-001-0-16 WAS TERMINATED IN SANDSTONE BEDRCOK.

BEDROCK TESTING FOR STRENGTH AND SLAKE DURABILITY WERE COMPLETED WITHIN EACH DESIGN UNIT. TESTING RESULTS ARE PRESENTED ON THE BORING LOGS AND SUMMARIZED TABULAR FORM, SEE THE BEDROCK TEST SUMMARY TABLE.

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 2016.

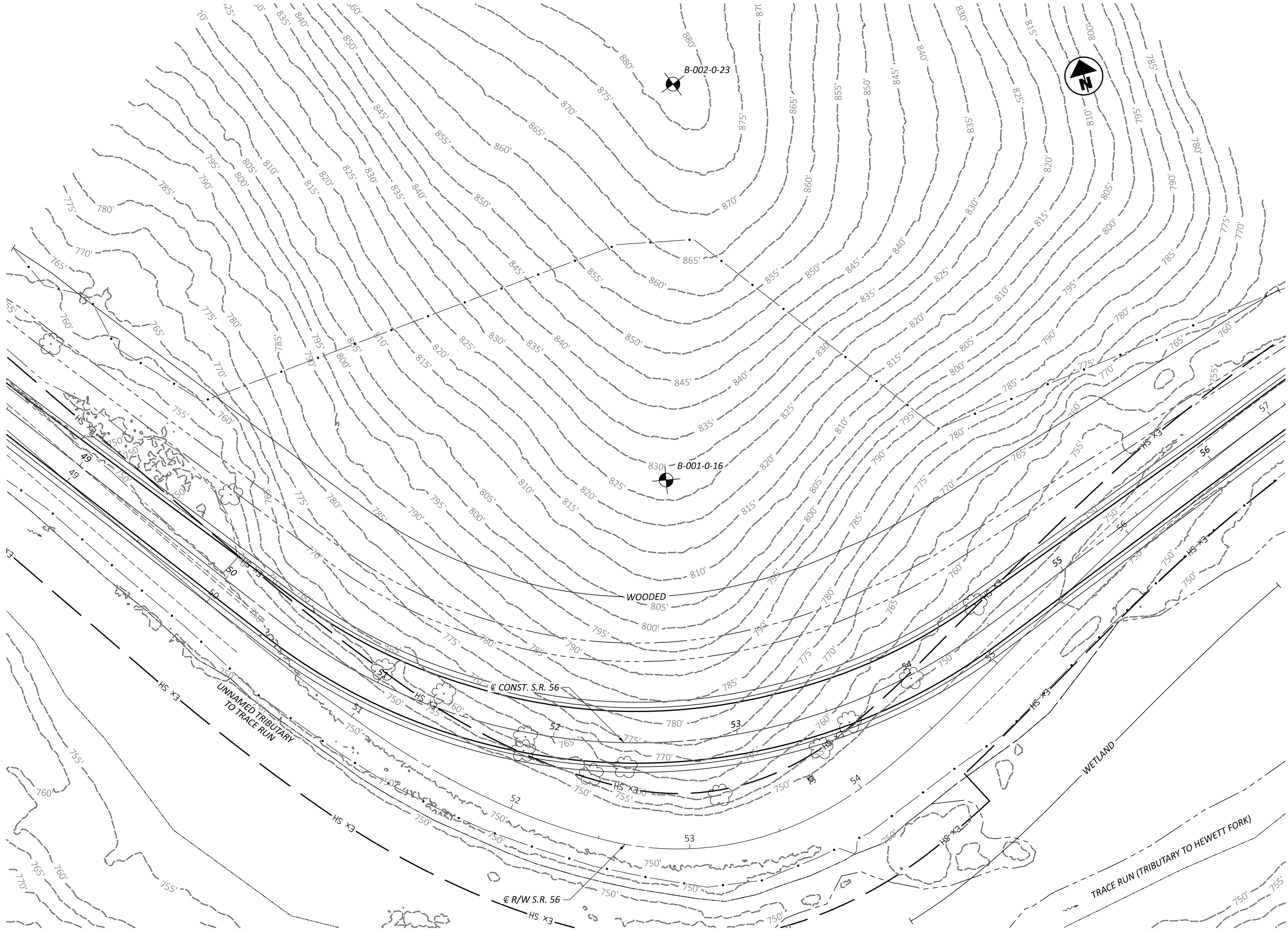
AVAILABLE INFORMATION

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

| BEDROCK TEST SUMMARY | | | | | | | |
|----------------------|------------------|---------------|------|------|----------|----------|-----------|
| BORING ID | SAMPLE ELEVATION | SAMPLE DEPTH | Id2 | | Sc (PSI) | Qu (PSI) | LITHOLOGY |
| | | | (%) | TYPE | | | |
| B-001-0-16 | 819.0' - 818.5' | 8.2' - 8.7' | - | - | 6,430 | - | LIMESTONE |
| | 810.2' - 809.9' | 17.0' - 17.3' | - | - | - | 6,136 | SHALE |
| | 796.5' - 796.2' | 30.7' - 31.0' | - | - | - | 7,141 | SANDSTONE |
| | 790.4' - 790.1' | 36.8' - 37.1' | - | - | - | 2,649 | SANDSTONE |
| | 774.1' - 773.5' | 53.1' - 53.7' | 86.4 | II | - | - | SANDSTONE |
| | 761.7' - 761.4' | 65.5' - 65.8' | - | - | - | 4,034 | SANDSTONE |
| | 756.2' - 755.9' | 71.0' - 71.3' | - | - | - | 1,683 | SANDSTONE |
| | 754.9' - 754.2' | 72.3' - 73.0' | 94.4 | II | - | - | SANDSTONE |
| | 753.8' - 753.5' | 73.4' - 73.7' | - | - | - | 7,800 | SANDSTONE |
| | 749.2' - 748.9' | 78.0' - 78.3' | - | - | - | 6,849 | SANDSTONE |
| | 743.3' - 742.3' | 83.9' - 84.9' | 53.7 | III | - | - | SANDSTONE |
| | 740.4' - 739.5' | 86.8' - 87.7' | 98.0 | I | - | - | SANDSTONE |
| | 740.3' - 740.0' | 86.9' - 87.2' | - | - | - | 6,784 | SANDSTONE |
| | 734.0' - 733.7' | 93.2' - 93.5' | - | - | - | 8,664 | SANDSTONE |
| B-002-0-23 | 865.5' - 865.1' | 15.5' - 15.9' | - | - | - | 3,252 | SANDSTONE |
| | 865.2' - 864.3' | 15.8' - 16.7' | 89.8 | I | - | - | SANDSTONE |
| | 863.7' - 863.4' | 17.3' - 17.6' | - | - | - | 2,650 | SANDSTONE |
| | 862.8' - 862.4' | 18.2' - 18.6' | - | - | - | 2,952 | SANDSTONE |
| | 857.4' - 856.5' | 23.6' - 24.5' | 76.8 | I | - | - | SANDSTONE |
| | 853.9' - 853.5' | 27.1' - 27.5' | - | - | - | 3,016 | SANDSTONE |
| | 848.0' - 846.8' | 33.0' - 34.2' | 67.5 | I | - | - | SANDSTONE |
| | 847.3' - 846.9' | 33.7' - 34.1' | - | - | - | 1,502 | SANDSTONE |
| | 844.2' - 841.6' | 36.8' - 39.4' | 90.0 | I | - | - | SILTSTONE |
| | 841.9' - 838.5' | 39.1' - 42.5' | - | - | 1,799 | - | SILTSTONE |
| | 836.8' - 836.4' | 44.2' - 44.6' | - | - | - | 3,652 | SANDSTONE |
| | 835.2' - 834.8' | 45.8' - 46.2' | 94.4 | I | - | - | SANDSTONE |
| | 827.8' - 826.3' | 53.2' - 54.7' | 2.4 | III | - | - | CLAYSTONE |
| | 823.3' - 822.8' | 57.7' - 58.2' | - | - | - | 4,955 | SANDSTONE |
| | 822.4' - 822.0' | 58.6' - 59.0' | 92.3 | II | - | - | SANDSTONE |
| | 818.0' - 814.2' | 63.0' - 66.8' | 76.7 | II | - | - | SHALE |
| | 818.0' - 815.6' | 63.0' - 65.4' | - | - | 1,662 | - | SHALE |
| | 815.3' - 814.9' | 65.7' - 66.1' | - | - | - | 17,391 | SANDSTONE |
| | 812.6' - 812.2' | 68.4' - 68.8' | - | - | - | 7,892 | LIMESTONE |
| | 810.9' - 808.4' | 70.1' - 72.6' | 25.6 | III | - | - | CLAYSTONE |



| | |
|------------|----------|
| DESIGNER | |
| ARR | |
| REVIEWER | |
| SAT | 02/28/25 |
| PROJECT ID | |
| 119908 | |
| SUBSET | TOTAL |
| 2 | 17 |
| SHEET | TOTAL |
| P.52 | 67 |



GEOTECHNICAL PROFILE - ROADWAY
STA. 48+50 TO STA. 56+50 CONST. S.R. 56

DESIGN AGENCY



DESIGNER

ARR

REVIEWER

SAT 02/28/25

PROJECT ID

119908

SUBSET

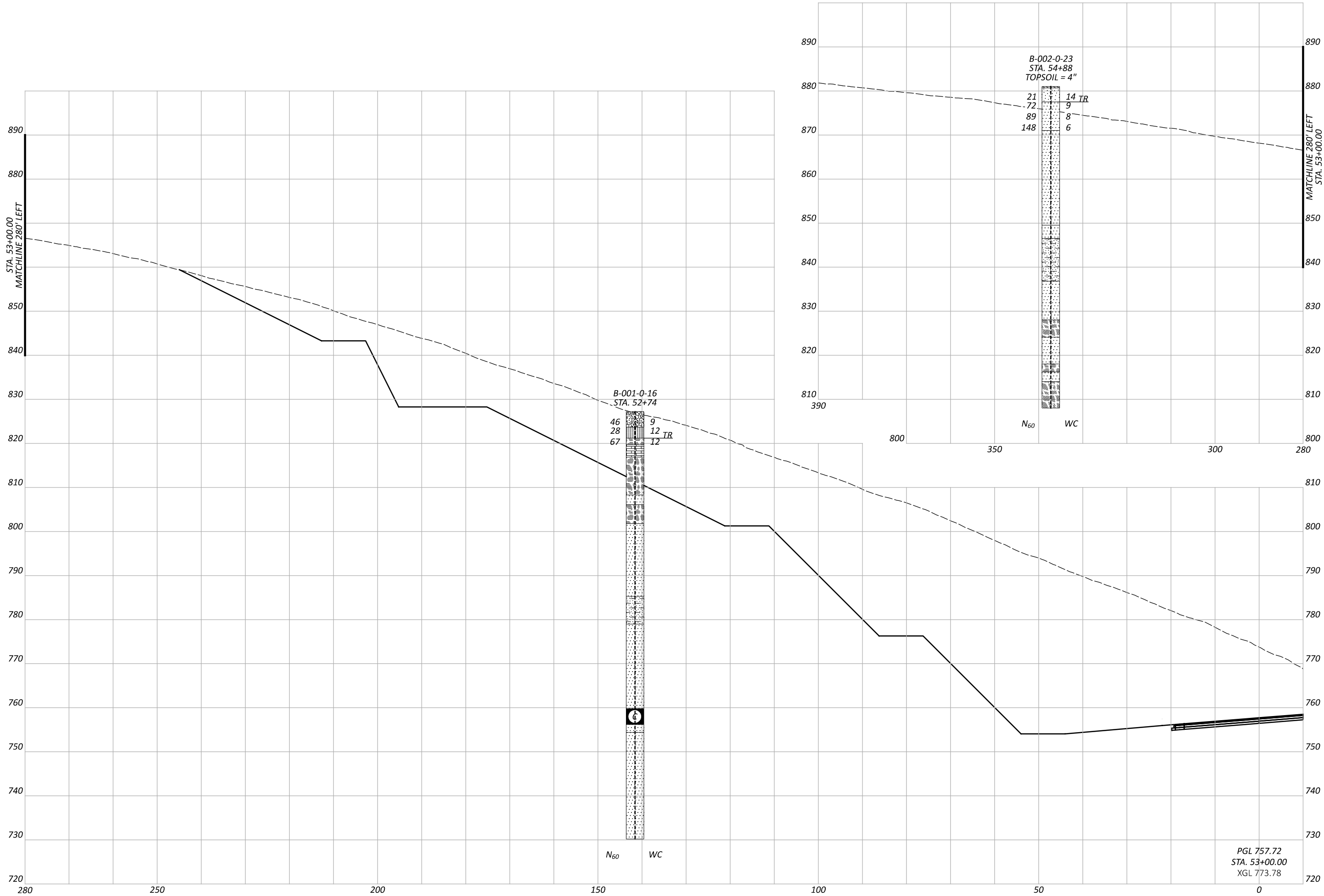
3 TOTAL 17

SHEET

P.53 TOTAL 67

HORIZONTAL
SCALE IN FEET





GEOTECHNICAL PROFILE - ROADWAY
CROSS SECTION STA. 53+00 CONST. S.R. 56

DESIGN AGENCY



DESIGNER

ARR

REVIEWER

SAT 02/28/25

PROJECT ID

119908

SUBSET TOTAL

4 17

SHEET TOTAL

P.54 67

ATH-56-0.90

MODEL: B-001-0-16-1of2 PAPER SIZE: 17x11 (in.) DATE: 3/3/2025 TIME: 10:30:06 AM USER: aross3
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| PROJECT: _____ ATH-56-00.90 | | | DRILLING FIRM / OPERATOR: _____ | | | ODOT / FAST | | | DRILL RIG: CME 850R TRACKED | | | STATION / OFFSET: _____ 52+74. 142' LT. | | | EXPLORATION N | | | | | | |
|--|--|--|--|--|--|--------------|--|--------|---------------------------------|----------|--|---|--|---------------|---------------|-----------|--|-----------------|--|-------------|--|
| TYPE: _____ ROADWAY | | | SAMPLING FIRM / LOGGER: _____ | | | ODOT / LEWIS | | | HAMMER: _____ CME AUTOMATIC | | | ALIGNMENT: _____ CL CONST SR 56 | | | B-001-Q-16 | | | | | | |
| PID: _____ SFN: _____ N/A | | | DRILLING METHOD: _____ 4.25' HSA / NQ2 | | | | | | CALIBRATION DATE: _____ 5/27/15 | | | ELEVATION: _____ 827.2 (ft) EOB: _____ 97.0 ft. | | | PAGE | | | | | | |
| START: _____ 3/15/16 END: _____ 3/17/16 | | | SAMPLING METHOD: _____ SPT / NQ2 | | | | | | ENERGY RATIO (%): _____ 87 | | | LAT / LONG: _____ 39.370692, -82.274988 | | | 1 OF 2 | | | | | | |
| MATERIAL DESCRIPTION AND NOTES | | | | | | ELEV. | | DEPTHS | | SPT/ RQD | | REC SAMPLE ID | | GRADATION (%) | | ATTERBERG | | ODOT CLASS (GI) | | ABAN- DONED | |
| MEDIUM DENSE, DARK BROWN, STONE FRAGMENTS WITH SAND, LITTLE SILT, TRACE CLAY, DAMP | | | | | | 827.2 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| HARD, YELLOWISH BROWN, SANDY SILT, LITTLE STONE FRAGMENTS, LITTLE CLAY, DAMP | | | | | | 823.7 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| SHALE, GRAY, HIGHLY WEATHERED, VERY WEAK TO WEAK, THINLY LAMINATED. | | | | | | 821.2 | | TR | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| LIMESTONE, BROWNISH GRAY, HIGHLY WEATHERED, MODERATELY STRONG, THICK BEDDED, JOINT, FRACTURED, OPEN, SLIGHTLY ROUGH; RQD 26%, REC 100%. @7.9' - 10.3': HIGH ANGLE FRACTURE WITH RUST STAINING AND PARTIALLY HEALED @8.2' - 8.7"; S _u = 6,430 psi | | | | | | 819.7 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| SHALE, BROWNISH GRAY WITH YELLOWISH ORANGE. SEVERELY WEATHERED, MODERATELY STRONG, MEDIUM BEDDED, CALCAREOUS, JOINT, FRACTURED TO MODERATELY FRACTURED, TIGHT, SLIGHTLY ROUGH; CONTAINS VERY THIN LIMESTONE LAYERS; RQD 26%, REC 71%. @ 17.0' - 17.3'; γ = 156 pcf; Qu = 6,136 psi | | | | | | 816.9 | | | | | | | | | | | | | | CORE | |
| | | | | | | | | | | | | | | | | | | | | | |
| SANDSTONE, GRAY AND BROWN, MODERATELY WEATHERED, SLIGHTLY STRONG, FINE TO COARSE GRAINED, THIN TO MEDIUM BEDDED, SLIGHTLY CALCAREOUS, VERY BLOCKY, FAIR; JOINT, MODERATELY FRACTURED, NARROW, VERY ROUGH; RQD 69%, REC 100%. SHALE, GRAY, MODERATELY WEATHERED, WEAK, LAMINATED TO VERY THIN BEDDED, SLIGHTLY CALCAREOUS, POORLY FISSILE, JOINT, FRACTURED, NARROW, SLIGHTLY ROUGH, BLOCKY/DISTURBED/SEAMY, POOR; RQD 13%, REC 44%. @24.1' - 24.7"; CARBONACEOUS | | | | | | 808.3 | | | | | | | | | | | | | | CORE | |
| | | | | | | | | | | | | | | | | | | | | | |
| SANDSTONE, BROWN AND GRAY, MODERATELY WEATHERED, SLIGHTLY TO MODERATELY STRONG, FINE TO COARSE GRAINED, THIN TO MEDIUM BEDDED, SLIGHTLY MICACEOUS, JOINT, SLIGHTLY FRACTURED, NARROW TO OPEN, VERY ROUGH, BLOCKY, FAIR; RQD 78%, REC 97%. @27.1' - 27.8'; HIGH ANGLE FRACTURE @29.2' - 30.7'; HIGH ANGLE FRACTURE | | | | | | 806.1 | | | | | | | | | | | | | | CORE | |
| | | | | | | | | | | | | | | | | | | | | | |
| SANDSTONE, BROWN AND GRAY, MODERATELY WEATHERED, SLIGHTLY WEATHERED, CONTAINS LITHIC FRAGMENTS. @ 30.7' - 31.0'; γ = 161 pcf; Qu = 7,141 psi | | | | | | 801.8 | | | | | | | | | | | | | | CORE | |
| | | | | | | | | | | | | | | | | | | | | | |
| SANDSTONE, BROWN AND GRAY, MODERATELY WEATHERED, SLIGHTLY WEATHERED, CONTAINS LOW ANGLE RUST STAINED FRACTURES @ 34.6' - 36.1'; MODERATELY FRACTURED, CONTAINS LOW ANGLE RUST STAINED FRACTURES | | | | | | 785.3 | | | | | | | | | | | | | | CORE | |
| | | | | | | | | | | | | | | | | | | | | | |
| SILTSTONE, GRAY, MODERATELY WEATHERED, WEAK TO SLIGHTLY STRONG, THIN BEDDED, JOINT, FRACTURED, NARROW, VERY ROUGH; VERY BLOCKY, FAIR; RQD 11%, REC 64%. @41.9' - 42.6'; SLIGHTLY ARENACEOUS (GRADATIONAL CHANGE) @43.0' - 47.5'; HIGHLY WEATHERED WITH LOSS | | | | | | 779.0 | | | | | | | | | | | | | | CORE | |
| | | | | | | | | | | | | | | | | | | | | | |
| SANDSTONE, GRAY, MODERATELY WEATHERED, MODERATELY STRONG, VERY FINE GRAINED TO FINE GRAINED, THIN TO MEDIUM BEDDED, SLIGHTLY ARGILLACEOUS, JOINT, MODERATELY FRACTURED, NARROW TO OPEN, VERY ROUGH; BLOCKY, GOOD; RQD 93%, REC 100%. @48.2' - 49.3'; ARGILLACEOUS (GRADATIONAL CHANGE) | | | | | | | | | | | | | | | | | | | | CORE | |
| | | | | | | | | | | | | | | | | | | | | | |
| SANDSTONE, GRAY, MODERATELY WEATHERED, MODERATELY STRONG, VERY FINE GRAINED TO FINE GRAINED, THIN TO MEDIUM BEDDED, SLIGHTLY ARGILLACEOUS, JOINT, MODERATELY FRACTURED, NARROW TO OPEN, VERY ROUGH; BLOCKY, GOOD; RQD 93%, REC 100%. @48.2' - 49.3'; ARGILLACEOUS (GRADATIONAL CHANGE) | | | | | | | | | | | | | | | | | | | | CORE | |
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| SANDSTONE, GRAY, MODERATELY WEATHERED, MODERATELY STRONG, VERY FINE GRAINED TO FINE GRAINED, THIN TO MEDIUM BEDDED, SLIGHTLY ARGILLACEOUS, JOINT, MODERATELY FRACTURED, NARROW TO OPEN, VERY ROUGH; BLOCKY, GOOD; RQD 93%, REC 100%. @48.2' - 49.3'; ARGILLACEOUS (GRADATIONAL CHANGE) | | | | | | | | | | | | | | | | | | | | CORE | |
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STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 2/25/25 12:43 - X:\GINT\PROJECTS\2016 COMPLETE\600204.GPJ

| PID: | 119908 | SFN: | N/A | PROJECT: | ATH-56-00-90 | STATION / OFFSET: | 52+74.142 LT. | START: | 3/15/16 | END: | 3/17/16 | PG 2 OF 2 | B-001-0-16 | | | | |
|--|--------|------|-----|----------|--------------|-------------------|---------------|----------|-----------------|---------|-----------|-----------|---------------|--|--|-----------------|-----------|
| MATERIAL DESCRIPTION AND NOTES | | | | | | ELEV. | DEPTHS | SPT/ RQD | N ₆₀ | REC (%) | SAMPLE ID | HP (tsf) | GRADATION (%) | | | ODOT CLASS (gl) | ABANDONED |
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| | | | | | | 759.8 | 67 | 74 | 99 | NQ2-7 | | | | | | | CORE |
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| | | | | | | 730.2 | EOB | | | | | | | | | | |

STANDARD ODOT BORING LOG (11 X 17) - OH DOT.GDT - 2/25/25 12:43 - X:\GINT\PROJECTS\2016 COMPLETE\600204.GPJ

NOTES: S_c = POINT LOAD STRENGTH VALUES AS PER ASTM D 5731. LAT/LONG/ELEV FROM DISTRICT SURVEY GRADE INSTRUMENTS.
ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

ATH-56-0-90

MODEL: B-002-0-23 1of2 PAPER SIZE: 17x11 (in.) DATE: 3/3/2025 TIME: 10:30:20 AM USER: aross3
pw:\ohiodot-pw.bentley.com\ohiodot-pw-02\Documents\01 Active Projects\District 10\Athens\119908\400-Engineering\Geotechnical\Sheets\119908_ID001.dgn

| PROJECT: _____ ATH-56-0-90 | | | DRILLING FIRM / OPERATOR: _____ | | | ODOT / LEWIS | | | DRILL RIG: CME 850R TRACKED | | | STATION / OFFSET: 54+88, 337' LT. | | | EXPLORATION ID | | | | | | | | |
|--|--|--|----------------------------------|--|--|----------------|--------|----------|-----------------------------|---------|-----------|--|----|----|----------------|----|----|----|----|----|-----------------|-------------|------|
| TYPE: _____ ROADWAY | | | SAMPLING FIRM / LOGGER: _____ | | | ODOT / SPROUSE | | | HAMMER: CME AUTOMATIC | | | ALIGNMENT: CL CONST SR 56 | | | B-002-0-23 | | | | | | | | |
| PID: 119908 SFN: N/A | | | DRILLING METHOD: 3.75" HSA / NQ2 | | | SPT / NQ2 | | | CALIBRATION DATE: 4/25/23 | | | ELEVATION: 881.0 (ft) EOB: 73.0 ft. | | | PAGE | | | | | | | | |
| START: 12/5/23 END: 12/7/23 | | | SAMPLING METHOD: _____ | | | SPT / NQ2 | | | ENERGY RATIO (%): 89 | | | LAT / LONG: 39.371256, -82.274770 | | | 1 OF 2 | | | | | | | | |
| MATERIAL DESCRIPTION AND NOTES | | | | | | ELEV. | DEPTHS | SPT/ RQD | N ₆₀ | REC (%) | SAMPLE ID | HP (tsf) | GR | CS | FS | SI | CL | LL | PL | WC | ODOT CLASS (gl) | HOLE SEALED | |
| TOPSOIL (4") MEDIUM DENSE, REDDISH BROWN, COARSE AND FINE SAND, SOME STONE FRAGMENTS, LITTLE CLAY, LITTLE SILT, MOIST | | | | | | 881.0 | TR | | | | | | | | | | | | | | | | |
| | | | | | | 880.7 | | 1 | | | | | | | | | | | | | | | |
| SANDSTONE, REDDISH BROWN, SEVERELY WEATHERED, VERY WEAK, VERY FINE GRAINED TO FINE GRAINED. | | | | | | 877.5 | 2 | 3 | 21 | 61 | SS-1 | - | 20 | 0 | 49 | 14 | 17 | NP | NP | NP | 14 | A-3a (0) | |
| | | | | | | | 876.0 | 4 | 13 | 72 | 94 | SS-2 | - | - | - | - | - | - | - | - | - | - | - |
| @6.0'; LIGHT BROWN AND REDDISH BROWN, HIGHLY WEATHERED. | | | | | | | 5 | | | | | | | | | | | | | | | | |
| | | | | | | | 875.0 | 6 | | | | | | | | | | | | | | | |
| @8.5'; GRAYISH BROWN AND BROWN, VERY FINE GRAINED, SLIGHTLY ARGILLACEOUS. | | | | | | 871.0 | 7 | 16 | 89 | 100 | SS-3 | - | - | - | - | - | - | - | - | - | 8 | Rock (V) | |
| | | | | | | | 870.0 | 8 | | | | | | | | | | | | | | | |
| SANDSTONE, YELLOWISH BROWN, HIGHLY WEATHERED, SLIGHTLY STRONG, MEDIUM TO COARSE GRAINED, MEDIUM TO THICK BEDDED, MICACEOUS, JOINT, HIGHLY FRACTURED TO FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, FAIR; RQD 42%, REC 91%. | | | | | | | 9 | 26 | 148 | 83 | SS-4 | - | - | - | - | - | - | - | - | 6 | Rock (V) | | |
| | | | | | | | 870.0 | 10 | | | | | | | | | | | | | | | |
| @13.4'-13.7'; CLAY SEAM | | | | | | | 11 | 0 | 53 | NQ2-1 | | | | | | | | | | | | CORE | |
| | | | | | | | 870.0 | 12 | | | | | | | | | | | | | | | |
| @14.6'; MODERATELY WEATHERED, SLIGHTLY FRACTURED | | | | | | | 13 | | | | | | | | | | | | | | | CORE | |
| | | | | | | | 870.0 | 14 | | | | | | | | | | | | | | | |
| @15.5' - 15.9'; γ = 135 pcf; Qu = 3,252 psi @15.8' - 16.7'; Id ₂ = 89.8% | | | | | | | 15 | 53 | | 100 | NQ2-2 | | | | | | | | | | | CORE | |
| | | | | | | | 870.0 | 16 | | | | | | | | | | | | | | | |
| @17.3' - 17.6'; γ = 133 pcf; Qu = 2,650 psi @18.2' - 18.6'; γ = 137 pcf; Qu = 2,952 psi | | | | | | | 17 | | | | | | | | | | | | | | | | |
| | | | | | | | 870.0 | 18 | | | | | | | | | | | | | | | |
| @20.3' - 22.8'; HIGH ANGLE FRACTURE, SEVERELY TO HIGHLY WEATHERED, HIGHLY FRACTURED, CONTAINS CLAY INFILLING AND LOSS | | | | | | | 19 | | | | | | | | | | | | | | | CORE | |
| | | | | | | | 870.0 | 20 | | | | | | | | | | | | | | | |
| @22.8'; YELLOWISH BROWN WITH OLIVE BLACK, HIGHLY WEATHERED, HIGHLY FRACTURED @23.6' - 24.5'; Id ₂ = 76.8% | | | | | | | 21 | 33 | 60 | NQ2-3 | | | | | | | | | | | | CORE | |
| | | | | | | | 870.0 | 22 | | | | | | | | | | | | | | | |
| @23.8'; HIGHLY TO MODERATELY WEATHERED, MODERATELY FRACTURED | | | | | | | 23 | | | | | | | | | | | | | | | CORE | |
| | | | | | | | 870.0 | 24 | | | | | | | | | | | | | | | |
| @27.1' - 27.5'; γ = 135 pcf; Qu = 3,016 psi | | | | | | | 25 | 48 | 98 | NQ2-4 | | | | | | | | | | | | CORE | |
| | | | | | | | 870.0 | 26 | | | | | | | | | | | | | | | |
| SANDSTONE, YELLOWISH BROWN AND REDDISH BROWN, SEVERELY WEATHERED, WEAK TO SLIGHTLY STRONG, COARSE GRAINED, THIN BEDDED, FRIABLE, FERRIFEROUS, JOINT, FRACTURED TO MODERATELY FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, FAIR; RQD 14%, REC 69% @33.0' - 34.2'; Id ₂ = 67.5% @33.7' - 34.1'; γ = 135 pcf; Qu = 1,502 psi | | | | | | 849.5 | 27 | | | | | | | | | | | | | | | | |
| | | | | | | | 849.5 | 28 | | | | | | | | | | | | | | | |
| SILTSTONE, BLuish GRAY, MODERATELY WEATHERED, SLIGHTLY STRONG, VERY THIN TO THIN BEDDED, ARGILLACEOUS, SLIGHTLY ARENACEOUS, MICACEOUS, JOINT, FRACTURED TO MODERATELY FRACTURED, OPEN TO MARROW, SLIGHTLY ROUGH; BLOCKY, POOR; RQD 25%, REC 97% @36.8' - 39.4'; Id ₂ = 90.0% @37.6' - 38.4'; SEVERELY WEATHERED, HIGHLY FRACTURED @39.1' - 42.5'; S _u = 1,799 psi @39.7' - 40.9'; HIGH ANGLE FRACTURE WITH RUST STAINING | | | | | | 846.5 | 29 | | | | | | | | | | | | | | | | |
| | | | | | | | 846.5 | 30 | 45 | 82 | NQ2-5 | | | | | | | | | | | | |
| @43.6' - 44.2'; CLAY SEAM | | | | | | 836.8 | 31 | | | | | | | | | | | | | | | | |
| | | | | | | | 836.8 | 32 | | | | | | | | | | | | | | | |
| SANDSTONE, GRAY, MODERATELY TO SLIGHTLY WEATHERED, MODERATELY STRONG, FINE TO COARSE GRAINED, THIN TO MEDIUM BEDDED, ARGILLACEOUS, MICACEOUS, JOINT, MODERATELY TO SLIGHTLY FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, GOOD; RQD 88%, REC 96% @44.2' - 44.6'; γ = 155 pcf; Qu = 3,652 psi @45.8' - 46.2'; Id ₂ = 94.4% | | | | | | | 33 | | | | | | | | | | | | | | | CORE | |
| | | | | | | | | 34 | 14 | 100 | NQ2-6 | | | | | | | | | | | | |
| | | | | | | | 35 | | | | | | | | | | | | | | | | CORE |
| | | | | | | | | 36 | | | | | | | | | | | | | | | |
| | | | | | | | 37 | | | | | | | | | | | | | | | | CORE |
| | | | | | | | | 38 | | | | | | | | | | | | | | | |
| | | | | | | | 39 | | | | | | | | | | | | | | | | CORE |
| | | | | | | | | 40 | | | | | | | | | | | | | | | |
| | | | | | | | 41 | 58 | 94 | NQ2-7 | | | | | | | | | | | | | CORE |
| | | | | | | | | 42 | | | | | | | | | | | | | | | |
| | | | | | | | 43 | | | | | | | | | | | | | | | | CORE |
| | | | | | | | | 44 | | | | | | | | | | | | | | | |
| | | | | | | | 45 | 58 | 93 | NQ2-8 | | | | | | | | | | | | | CORE |
| | | | | | | | | 46 | | | | | | | | | | | | | | | |
| | | | | | | | 47 | | | | | | | | | | | | | | | | CORE |
| | | | | | | | | 48 | | | | | | | | | | | | | | | |
| | | | | | | | 49 | | | | | | | | | | | | | | | | CORE |
| | | | | | | | | 50 | | | | | | | | | | | | | | | |
| | | | | | | | 51 | 97 | 100 | NQ2-9 | | | | | | | | | | | | | CORE |
| | | | | | | | | 52 | | | | | | | | | | | | | | | |
| | | | | | | | 53 | | | | | | | | | | | | | | | | CORE |
| | | | | | | | | 54 | | | | | | | | | | | | | | | |
| | | | | | | | 55 | 23 | 80 | NQ2-10 | | | | | | | | | | | | | CORE |
| | | | | | | | | 56 | | | | | | | | | | | | | | | |
| | | | | | | | 57 | | | | | | | | | | | | | | | | |
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STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 2/28/25 06:33 - X:\GINT\PROJECTS\2024 COMPLETE\1106.GPJ

GEOTECHNICAL PROFILE - ROADWAY
BORING LOG FOR B-002-0-23

| | |
|---------------|--------|
| DESIGN AGENCY | |
| | |
| DESIGNER | ARR |
| REVIEWER | SAT |
| PROJECT ID | 119908 |
| SUBSET | TOTAL |
| 7 | 17 |
| SHEET | TOTAL |
| P.57 | 67 |

| PID: 119908 | SFN: | N/A | PROJECT: | ATH-56-0-90 | STATION / OFFSET: | | 54+88.337' LT. | START: 12/5/23 | | | END: 12/7/23 | | | PG 2 OF 2 | | B-002-0-23 |
|---|-------|--------|-------------|-----------------|-------------------|---------------|----------------|----------------|--|--|--------------|--|-----------------|-------------|------|------------|
| MATERIAL DESCRIPTION AND NOTES | | | | | | | | | | | | | | | | |
| SANDSTONE , GRAY, SLIGHTLY WEATHERED, MODERATELY STRONG, FINE TO MEDIUM GRAINED, THIN BEDDED, ARGILLACEOUS, MICACEOUS, JOINT, FRACTURED TO MODERATELY FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, GOOD; RQD 74%, REC 96%. <i>(continued)</i> @57.7' - 58.2'; γ = 162 pcf; Qu = 4,955 psi @58.6' - 59.0'; γ = 92.3% SHALE , GRAYISH BLACK, HIGHLY WEATHERED, SLIGHTLY STRONG, LAMINATED, ARENACEOUS, JOINT, HIGHLY FRACTURED, OPEN, SLIGHTLY ROUGH; BLOCKY, POOR; RQD 0%, REC 100%. @63.0' - 66.8'; γ = 76.7% @63.0' - 65.4'; S_u = 1,662 psi SANDSTONE , LIGHT GRAY, MODERATELY WEATHERED, VERY STRONG, FINE GRAINED, THIN BEDDED, MICACEOUS, JOINT, FRACTURED TO MODERATELY FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, GOOD; RQD 37%, REC 84%. @65.7' - 66.1'; γ = 174 pcf; Qu = 17,391 psi @66.7'; ARGILLACEOUS CLAYSTONE , DARK GRAY, MODERATELY WEATHERED, WEAK TO SLIGHTLY STRONG, THIN TO MEDIUM BEDDED, CALCAREOUS, JOINT, FRACTURED TO MODERATELY FRACTURED, NARROW, SLIGHTLY ROUGH; BLOCKY, POOR; RQD 47%, REC 92%. @68.3' - 69.3'; STRONG LIMESTONE @68.4' - 68.8'; LIMESTONE γ = 166 pcf; Qu = 7,892 psi @70.1' - 72.6'; γ = 25.6% @71.2' - 71.4'; STRONG, LIMESTONE, NON-MARINE @72.5'; SILTSTONE LAYER | ELEV. | DEPTHS | SPT/ RQD | N ₆₀ | REC (%) | REC SAMPLE ID | HP (tsf) | GRADATION (%) | | | ATTERBERG | | ODOT CLASS (gl) | HOLE SEALED | | |
| | 821.0 | | | | | 95 | NQ2-11 | | | | | | | | CORE | |
| | 818.0 | | | | | | | | | | | | | | | |
| | 816.2 | | | | | 88 | NQ2-12 | | | | | | | | CORE | |
| | 814.0 | | | | | | | | | | | | | | | |
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| | 808.0 | | | | 92 | NQ2-13 | | | | | | | | | CORE | |
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NOTES: S_c = POINT LOAD STRENGTH VALUES AS PER ASTM D 5731. LAT/LONG/ELEV FROM DISTRICT SURVEY GRADE INSTRUMENTS.
ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 120 GAL. BENTONITE GROUT; SLUFF

DESIGN AGENCY

DESIGNER

ARR

REVIEWER

SAT 02/28/25

PROJECT ID

119908

SUBSET

8

TOTAL

17

SHEET

P.58

TOTAL

67

GEOTECHNICAL PROFILE - ROADWAY
BORING LOG FOR B-002-0-23 (CONT.)



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|-------|-----|
| NQ2-1 | 7.5' | 12.0' | 43/54 | 80% | 15/54 | 28% |
| | | | | | | |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|--------|-----|
| NQ2-2 | 12.0' | 22.0' | 101/120 | 84% | 46/120 | 38% |
| | | | | | | |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|--------|-----|
| NQ2-3 | 22.0' | 32.0' | 110/120 | 92% | 58/120 | 48% |
| | | | | | | |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|---------|-----|
| NQ2-4 | 32.0' | 42.0' | 116/120 | 97% | 104/120 | 87% |
| | | | | | | |
| ATH-56-0-90 PID 119908 | | | | | | |



| | | | |
|------------|-------|--------------|--|
| DESIGNER | | ARR | |
| REVIEWER | | SAT 02/28/25 | |
| PROJECT ID | | 119908 | |
| SUBSET | TOTAL | | |
| 10 | 17 | | |
| SHEET | TOTAL | | |
| P.60 | 67 | | |



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|--------|-----|
| NQ2-5 | 42.0' | 52.0' | 94/120 | 78% | 53/120 | 44% |
| | | | | | | |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|------|---------|-----|
| NQ2-6 | 52.0' | 62.0' | 120/120 | 100% | 109/120 | 91% |
| | | | | | | |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|--------|-----|
| NQ2-7 | 62.0' | 72.0' | 119/120 | 99% | 89/120 | 74% |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|------|---------|------|
| NQ2-8 | 72.0' | 82.0' | 120/120 | 100% | 120/120 | 100% |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|---------|-----|
| NQ2-9 | 82.0' | 92.0' | 119/120 | 99% | 106/120 | 88% |
| | | | | | | |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-001-0-16



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|------|-------|------|
| NQ2-10 | 92.0' | 97.0' | 60/60 | 100% | 60/60 | 100% |
| | | | | | | |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-002-0-23



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|------|----|
| NQ2-1 | 10.0' | 13.0' | 19/36 | 53% | 0/36 | 0% |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-002-0-23



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|------|-------|-----|
| NQ2-2 | 13.0' | 18.0' | 60/60 | 100% | 32/60 | 53% |
| NQ2-3 | 18.0' | 23.0' | 36/60 | 60% | 20/60 | 33% |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-002-0-23



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|-------|-----|
| NQ2-4 | 23.0' | 28.0' | 59/60 | 98% | 29/60 | 48% |
| NQ2-5 | 28.0' | 33.0' | 49/60 | 82% | 27/60 | 45% |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-002-0-23



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|------|-------|-----|
| NQ2-6 | 33.0' | 39.0' | 72/72 | 100% | 10/72 | 14% |
| NQ2-7 | 39.0' | 43.0' | 45/48 | 94% | 28/48 | 58% |
| ATH-56-0-90 PID 119908 | | | | | | |



Office of Geotechnical Engineering

B-002-0-23



| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|------|-------|-----|
| NQ2-8 | 43.0' | 48.0' | 56/60 | 93% | 35/60 | 58% |
| NQ2-9 | 48.0' | 53.0' | 60/60 | 100% | 58/60 | 97% |
| ATH-56-0-90 PID 119908 | | | | | | |



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| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|-------|-----|
| NQ2-10 | 53.0' | 58.0' | 48/60 | 80% | 14/60 | 23% |
| NQ2-11 | 58.0' | 63.0' | 57/60 | 95% | 24/60 | 40% |
| ATH-56-0-90 PID 119908 | | | | | | |



DESIGN AGENCY

DESIGNER
ARR

REVIEWER
SAT 02/28/25

PROJECT ID
119908

SUBSET TOTAL
16 17

SHEET TOTAL
P.66 67



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| Run #: | Depth | | Recovery | | RQD | |
|------------------------|-------|-------|----------|-----|-------|-----|
| NQ2-12 | 63.0' | 68.0' | 53/60 | 88% | 14/60 | 23% |
| NQ2-13 | 68.0' | 73.0' | 55/60 | 92% | 28/60 | 47% |
| ATH-56-0-90 PID 119908 | | | | | | |

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|---------------|-------|
| DESIGN AGENCY | |
| | |
| DESIGNER | ARR |
| REVIEWER | SAT |
| PROJECT ID | |
| 119908 | |
| SUBSET | TOTAL |
| 17 | 17 |
| SHEET | TOTAL |
| P.67 | 67 |