ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SUBSURFACE INVESTIGATION

STATE JOB NO. CA0906

FEDERAL AID PROJECT NO. 9991

MAXIE CAMP RD. – HWY. 206 (WIDENING) (S)

STATE HIGHWAY 65 **SECTION** 2

IN BOONE **COUNTY**

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FINAL
GEOTECHNICAL INVESTIGATION

Maxie Camp Rd – Hwy 123 (Widening)(S)
Boone & Newton County
Route HWY 65 Sections 2 & 3
Fed. Aid Project 9991
JOB CA0906

for

Burns & McDonnell
Kansas City, MO

October, 2014
Project No. FY143801

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FINAL
GEOTECHNICAL INVESTIGATION

Maxie Camp Road – Hwy 123 (Widening)(S)
BOONE AND NEWTON COUNTIES
ROUTE HWY 65 SECTIONS 2 AND 3
FEDERAL AID PROJECT 9991
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BURNS & MCDONNELL
SPRINGDALE, ARKANSAS

EXECUTIVE SUMMARY

This is a report of findings from the subsurface exploration conducted at the planned Maxie Camp Road to Highway 123 Widening project along US Highway 65 in Boone and Newton Counties. This report includes information on subsurface conditions, recommendations for design and construction of the bridge foundations and embankments, roadway embankments, and site retaining structures. The following is a summary of significant findings:

- A total of 132 borings were conducted to investigate subsurface conditions across the project site. Forty (40) borings were conducted within the existing roadway pavement. Thirty-eight (38) borings were conducted in planned roadway widening areas. Twenty-seven (27) borings were conducted in planned bridge widening and extension areas. Twenty-seven (27) borings were conducted in location-specific groupings for the purpose of investigation subgrade conditions in pavement areas deemed "good", "fair", and "poor".

- A surface stratum of silty topsoil was found to be between six (6) and twelve (12) inches in thickness across the site in non-paved areas.

- Subgrade soils were found to be very soft to firm sandy clays and loose to dense clayey sands and clayey gravels.

- A tan to gray weathered sandstone formation was encountered intermittently across the Marshall Creek and Hog Creek bridge locations with fissures and void-like areas being encountered within the formation.

- The basal stratum at this site consisted of dolomitic limestone indicative of the Boone Formation. Auger refusal resulted where the limestone formation was encountered.

- Groundwater was encountered in three (3) of the boring locations in the form of isolated perched water tables.

- Onsite soils conforming to the recommendations found in the **Select Fill Material** section of this report are considered adequate for use as fill material beneath paved areas and embankments on the project.

- North and south end-abutments (Bents 1 and 4) of project bridges may be supported by driven H-piles founded on the competent limestone formation using a nominal bearing capacity of 960,000 pounds per square foot (psf). Resistance factors include 0.5 for tip resistance and 0.25 for single pile uplift resistance.

- Alternatively, the interior bridge foundations may be supported by a drilled caisson system founded into the competent limestone formation with a nominal bearing capacity of 960,000 psf. Resistance factors include 0.5 for tip resistance in rock and 0.5 for side resistance in rock.

- Roadway embankments at the Elm Branch, Hog Creek, and Marshall Creek bridges may be designed for 2H:1V end slopes and 3H:1V side slopes. Slope stability analysis was utilized to confirm this recommendation using a minimum factor of safety of 1.5.

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INTRODUCTION

An investigation of subsurface soil conditions was conducted by McClelland Consulting Engineers, Inc., for the planned widening and improvements project of US Highway 65, south of Harrison from the intersection of Maxie Camp Road in Valley Springs to the intersection of Highway 123 in Western Grove. The investigation was requested and authorized by the Arkansas Highway and Transportation Department in conjunction with Mr. Steven Beam, PE of Burns and McDonnell to investigate subsurface soil conditions at the project site and to prepare recommendations for site grading and embankments, retaining structures, bridge foundations and subgrade of the planned highway widening and overlay.

The data was determined from the following three-phase program:

A. An investigation of the subsurface conditions, and visual soil classification by use of sample borings.

B. An engineering analysis of the laboratory and field data for construction recommendations.

C. An engineering analysis of the laboratory and field data for bearing capacity recommendations.

PROJECT DESCRIPTION

The proposed project site is located along Highway 65 south of Harrison, Arkansas for an approximate length of seven (7) miles from the intersection of Maxie Camp Road in Valley Springs to the intersection of Highway 123 in Western Grove. The project scope is understood to consist of widening the existing two (2) lane roadway and three (3) bridges to five (5) lanes, as well as the construction of roadway and bridge embankments.

FIELD INVESTIGATION

Pavement and Widening Borings

The soil conditions along the existing roadway were investigated by forty (40) borings within the existing pavement areas, which are referenced P1 through P40, and by thirty-eight (38) borings in planned widening areas, which are referenced S1 through S38. The existing pavement and widening area borings were each drilled at approximately 1,000 feet intervals to terminal depths of ten (10) feet or auger refusal material, whichever was less. In areas of planned cut, the terminal depths were increased to between twelve (12) and fifteen (15) feet. The extensions of the terminal depths were relevant to planned cut depths. The boring logs of the pavement borings and widening borings can be referenced on Plate 2 through Plate 41 and Plate 66 through Plate 103, respectively.

Bridge Foundation Borings

Subsurface conditions in the three (3) bridge locations were planned to be investigated by twenty-four (24) borings, with eight (8) planned borings located at each bridge. Bridge borings were conducted to depths that varied from fourteen (14) to forty-three (43) feet below existing ground elevations. The bridge borings are referenced in this report as B1 through B24. Boring logs for the bridges can be referenced on Plates 42 through 65. Figures 1, 2, and 3 below show the depths and elevations that refusal material and competent bearing material were encountered at bridge foundation boring locations near structural elements for each of the three (3) bridges.

FIGURE 1: Elm Branch Bridge (Station 201+51.50 to Station 203+14.34)

Bridge Structure	Boring Description	Ground Elevation	Bottom Elevation	Refusal Material Elevation	Competent Limestone Elevation
West Bent 1	B1	1052.6	1022.6	1042.1	1042.1
East Bent 1	B2	1052.0	1029.5	1043.5	1043.5
West Bent 2	B3	1043.0	1028.0	1043.0	1043.0
East Bent 2	B4	1041.1	1027.1	1041.1	1041.1
West Bent 3	B5	1053.3	1027.3	1041.3	1041.3
East Bent 3	B6	1053.0	1023.0	1037.0	1037.0
West Bent 4	B7	1053.1	1025.6	1040.6	1040.6
East Bent 4	B8	1054.0	1016.0	1036.0	1036.0

Note: Elevations shown in Figure 1 are rounded to the nearest 0.1 feet.

FIGURE 2: Hog Creek Bridge (Station 253+73.85 to Station 255+76.35)

Bridge Structure	Boring Description	Ground Elevation	Bottom Elevation	Refusal Material Elevation	Competent Limestone Elevation
West Bent 1	B9	1036.5	996.5	1011.5	1008.5
East Bent 1	B10	1035.7	995.7	1010.7	1005.7
West Bent 2	B11	1009.7	992.7	1007.7	1007.7
East Bent 2	B12	1010.4	993.9	1004.9	1004.9
West Bent 3	B13	1013.0	990.0	1005.0	995.5
East Bent 3	B14	1019.3	999.3	1017.3	1004.3
West Bent 4	B15	1035.1	1021.1	1024.1	1020.2
West Bent 4	B15A	1035.0	1010.0	1027.0	1019.0
East Bent 4	B16	1020.2	1000.2	1020.2	1020.2

Note: Elevations shown in Figure 2 are rounded to the nearest 0.1 feet.

FIGURE 3: Marshall Creek Bridge (Station 434+02.92 to Station 436+45.08)

Bridge Structure	Boring Description	Ground Elevation	Bottom Elevation	Refusal Material Elevation	Competent Limestone Elevation
West Bent 1	B17	1107.3	1064.3	1081.3	1069.3
East Bent 1	B18	1101.3	1062.3	1081.3	1081.3
West Bent 2	B19	1080.1	1050.6	1053.1	1053.1
West Bent 2	B19A	1078.5	1058.5	1068.5	1068.5
East Bent 2	B20	1080.3	1047.3	1061.3	1061.3
East Bent 2	B20A	1096.0	1054.0	1064.0	1064.0
West Bent 3	B21	1081.7	1058.7	1068.7	1063.7
East Bent 3	B22	1083.3	1047.3	1067.3	1067.3
West Bent 4	B23	1106.6	1070.6	1073.6	1072.0
East Bent 4	B24	1106.5	1068.5	1083.5	1071.0

Note: Elevations shown in Figure 3 are rounded to the nearest 0.1 feet.

Group Pavement Borings

Additionally, twenty-seven (27) location-specific asphalt borings were conducted in three (3) pre-determined locations along the project length, each with different severity levels. Within each of the three locations, nine (9) borings were drilled at twenty (20) feet intervals, with three (3) being located on the outside wheel path, three (3) being located on the inside wheel path, and three (3) being located between the wheel paths. The location-specific borings are referencing in this report as A1 through A27. Boring logs for the location-specific areas can be referenced on Plates 104 through 130.

Drilling and Sampling Methods and Procedures

The borings were drilled to "refusal depth" using a truck-mounted rotary drilling rig with a six and one-half (6 ½) inch hollow-stem auger. Soil samples were obtained at the depths indicated on the boring logs by the use of a two (2) inch split-spoon sampler, for obtaining samples from non-cohesive or slightly cohesive soils. The split-spoon sampler was driven by blows from a 140-pound hammer dropped thirty (30) inches. The number of blows required to drive the split-spoon sampler the final twelve (12) inches of an eighteen (18) inch drive, or portion thereof, is referred to as the Standard Penetration value, N, and is recorded on the boring logs in the blows-per-foot column.

The borings were then advanced into the rock formations using a three (3) inch NX diamond core bit and core sampler. Continuous core samples of the sandstone, chert, and limestone formations were obtained using the three (3) inch diamond-tipped NX double-tube core barrel sampler. The core interval, the percent recovery and percent Rock Quality Determination (RQD) are given on the boring logs.

The field tests performed included visual soil classifications and groundwater observations. The visual soil classifications are given on the boring logs. In the majority of the boring locations, the groundwater table was not encountered at the time of drilling. Locations where the groundwater table was encountered can be referenced in Figure 4 below. The encountered groundwater was in the form of isolated perched water tables.

FIGURE 4: Encountered Groundwater Depths and Elevations

Boring	Depth (ft)	Elevation
B-6	14.5	1038.4
B-20A	29.0	1067.0
P-6	7.0	1264.7
P-31	9.0	1089.3

Note: Elevations shown in Figure 4 are rounded to the nearest 0.1 feet.

LABORATORY TESTING

Laboratory tests were performed on soil samples recovered from the borings. The laboratory tests were directed at determining the engineering properties of the project soil strata. The laboratory tests were conducted in accordance with the American Association of State Highway and Transportation Officials (AASHTO) designations. The tests performed on samples from the borings included moisture content, dry unit weight, gradation, unconfined compressive strength, Atterberg Limits, Standard Proctor Tests, and California Bearing Ratio.

The natural soil moisture content was determined for the selected soil samples to provide a moisture profile for each boring. Unit weight determinations were performed on suitable soil samples and the dry unit weight is given on the boring logs.

Atterberg Limits tests (liquid and plastic limits) were performed on selected samples to aid in the soil classification and to help evaluate the volume-change characteristics of each soil stratum.

Gradation analyses were performed on representative soil samples to aid in the soil classification of the selected soil strata. The gradation results are given on the summary of Laboratory Test Results at the end of this report.

Unconfined compression tests were performed on selected samples for evaluation of the shear strength of the soil strata. The cohesive shear strength reported on the boring logs is the maximum observed compressive stress. The crushing strength of the encountered rock formations is reported as the maximum compressive stress in tons per square foot (tsf).

Test pits were conducted at Stations 150+12, 281+97, and 342+50 for the purpose of obtaining bulk samples. Standard Proctor Tests (AASHTO T-99) were performed on the bulk samples to determine the relationship between moisture content and compacted dry unit weight of the material. California Bearing Ratio Tests (AASHTO T-193) were then performed on the bulk sample material using the proctor values to evaluate the

potential strength of subgrade materials. The results of the Standard Proctor tests and the CBR values at ninety-five (95) percent Standard Proctor density for each sample are presented on Plate 158 through Plate 165.

Results of laboratory testing are provided on the boring logs and on the Laboratory Test Results Summary in Appendix C, Plates 131 through 165.

SITE GEOLOGY

The project site is underlain by the Mississippian-age Boone Formation and the Ordovician Age Everton Formation. The Everton formation in the project area consists of three (3) members, the Jasper Member, a massive and cross-bedded sandstone member, the Newton Member, a gray to brown sandstone member, and the Kings River Member, a heavy-bedded white and friable sandstone member. The Jasper and Newton members were encountered by the borings where sandstone is noted in the boring logs, typically immediately above dolomitic limestone and often interbedded with chert formations.

The Boone Formation member was encountered as the predominant basal formation for the project. The formation was encountered by the borings as massive, white to gray crystalline and dolomitic limestone, often with chert interbedding. Some sections may be predominantly limestone or chert. The chert segments are dark in color in the lower parts of the sequence and light in the upper portion. The quantity of chert varies considerably, both vertically and horizontally. Typically, the limestone and

cherty-limestone units of the Boone Formation weather to somewhat erratic blends of chert fragments and clay/silty-clay. The residual soils above solid rock may extend to significant depths on higher terrain and may contain hard chert seams and/or layers. The Boone Formation is well-known for features such as sinkholes, caves, and enlarged fissures. The thickness of the Boone Formation in northern Arkansas is typically between 300 and 350 feet.

GENERAL SOIL CONDITIONS

The subsurface soil conditions at the site are described as below.

Stratum I
The borings conducted in non-paved encountered a surface stratum of brown silty topsoil in the sampled locations. The silty soils were determined to be between six (6) and twelve (12) inches in thickness across the project length.

Stratum II
Soils generally underlying the surface stratum consisted of very soft to firm sandy clays, often with fine chert gravel. Sandy clays were encountered with both low to moderate and high plasticity values. Stratum II soils were often saturated, particularly in the upper two (2) to three (3) feet of the stratum. Standard Penetration Resistance values (N-values) from 3 blows per foot to 30 blows per foot were recorded for this stratum. The wide range of shear strengths in this soil grouping was often related to the degree of saturation and the amount of gravel in the soil samples. Higher blow counts were also recorded at greater depths below existing grades as in-situ relative density and effective stress increased.

Stratum III
The Stratum II soils were generally underlain by strata of coarse-grained soils consisting of loose to dense clayey sands and clayey chert gravels. N-values in this stratum ranged from 5 blows per foot to 50 blows with 4 inches of advancement of the split-spoon sampler. The wide range of shear strengths in this soil grouping was related to the in-situ relative density and the amount of gravel in the soil samples. Generally, this soil stratum existed immediately above auger refusal material. Instances did occur in some of the boring locations where fine-grained CL or CH soils existed immediately above the basal stratum. The fine-grained soils at these elevations were often saturated.

Stratum V
The basal stratum at this site consisted of hard, dolomitic limestone. As is characteristic of the Boone Formation, the limestone formation was often sampled with chert interbedding. Auger refusal resulted where the basal stratum was encountered.

Existing Pavement Sections

The existing pavement section was encountered by the "P" and "A" borings, as noted by the Boring Layout and Boring Logs. Asphalt thicknesses ranged from 2.6 inches to 14.6 inches with numerous overlays being detected in cores with thicknesses larger than 5 inches. Base course material thickness was consistently found to be approximately six (6) inches in thickness, but measurements did vary with a maximum recorded thickness of twenty-four (24) inches being recorded.

Measured asphalt thicknesses can be referenced in the Boring Logs (Plates 2 through 41 and 104 through 130) and in Appendix D, "Asphalt Pavement Core Depth" which is presented at the end of this report.

Group Pavement Boring Subgrade

Borings A1 through A9 and A10 through A18 were conducted at locations referenced with "fair" and "good" severity levels, respectively. Sub-pavement soils in the "fair" and "good" areas were coarse-grained and medium-dense to dense, providing stable subgrade material. Borings A19 through A27 were conducted in a location denoted with a "poor" severity level. The sub-pavement soils in this area were found to be fine-grained, moisture-sensitive, and often saturated, resulting in a soft and unstable subgrade. The subgrade soils within the "poor" area will likely require undercutting to a minimum of two (2) feet below planned subgrade elevation. Other sub-pavement areas with fine grained-soils of similar properties near planned subgrade elevation will likely require similar undercutting amounts.

Fine-grained Soil Analysis

The clay fraction of the subsurface sandy clay (CL) materials has a low to moderate potential for volumetric changes due to changes and sensitivity to the soil moisture content. Plasticity Index (PI) values ranged from 12 to 31 within the soil stratum. The clay fraction of the CL material makes up between 51 and 90 percent of the entire soil mass as indicated by the results of gradation analyses of materials from the borings.

The clay fraction of the subsurface high plasticity sandy clay (CH) materials has a moderate to high potential for volumetric changes due to changes and sensitivity to the soil moisture content. Plasticity Index (PI) values ranged from 34 to 66 within the soil stratum. The clay fraction of the CH material makes up between 52 and 86 percent of the entire soil mass as indicated by the results of gradation analyses of materials from the borings.

IBC Site Classification

The soil profile at this project site is a Site Class B according to Section 1613.5.2 of the 2006 International Building Code. The liquefaction potential is considered minor for the cherty-clay overburden soils and underlying limestone bedrock.

ANALYSIS AND RECOMMENDATIONS

Highway Bridge Foundation Recommendations

The north and south end-abutments (Bents 1 and 4) for each of the three (3) bridges may be supported by steel H-piles, driven to practical refusal upon the limestone bedrock. The H-piles should be installed to the point-bearing elevations referenced by the Boring Logs and according to the requirements of the AHTD Standard Specifications for Highway Construction; Section 805. Piles should be driven with a suitable hammer, exhibiting a minimum of 15,000 foot-pounds of energy, to a depth where no more than one-quarter (¼) inch of penetration is observed for the last five (5) hammer blows.

A nominal bearing capacity of 960,000 pounds per square foot (psf) may be used for the driven piles on the competent limestone formation. The recommended nominal bearing capacity was determined by a combination of average laboratory unconfined compressive strengths of core samples and RQD with Terzaghi and Peck. Resistance factors for the driven piles include 0.5 for Tip Resistance (end-bearing in rock) and 0.25 for Uplift Resistance for single piles using the Alpha (α) method, per Table 10.5.5.2.3-1 in the AASHTO LRFD. The provided resistance factors are based on single pile values. The referenced pile resistance factors and side resistance values can be referenced in Figure 5 on the following page.

FIGURE 5: End-Bent Pile Resistance Factors

Bridge	Bent	Nominal Tip Resistance (end-bearing in rock)	Nominal Side Resistance (ksf)	Side Resistance Factor (Compression)	Side Resistance Factor (Uplift)	Top Elevation	Bottom Elevation	Layer Thickness (ft.)
Elm Branch	1 (North)	0.5	2.0	0.5	0.25	1052.5	1042.0	10.5
Elm Branch	4 (South)	0.5	2.0	0.5	0.25	1054.0	1045.0	9.0
Elm Branch	4 (South)	0.5	8.0	0.5	0.25	1054.0	1045.0	9.0
Hog Creek	1 (North)	0.5	2.0	0.5	0.25	1036.5	1011.5	25.0
Hog Creek	4 (South)	0.5	6.0	0.5	0.25	1035.0	1028.0	7.0
Marshall Creek	1 (North)	0.5	2.0	0.5	0.25	1107.0	1097.0	10.0
Marshall Creek	1 (North)	0.5	8.0	0.5	0.25	1097.0	1081.0	16.0
Marshall Creek	4 (South)	0.5	2.0	0.5	0.25	1106.5	1073.5	33.0

Note: Elevations shown in Figure 5 are rounded to the nearest 0.1 feet.

The piles may be designed for maximum load with the use of pile points to increase bearing area of the pile in contact with the limestone formation. Because of the gravelly nature of the overburden material found on the project site and the possibility of the slightly-sloping rock formation, it is recommended that the steel piles be fitted or fabricated with reinforced points, prior to installation. Pre-boring is not expected to be required to advance piles to the recommended depth and bearing stratum. Uplift loads will be resisted by the weight of the pile and frictional shaft resistance (skin friction). The allowable steel pile compressive stress should not exceed one-fourth (¼) of the yield strength of the steel. This occurrence would allow for unpredictable factors, such

as damage during driving, excessive corrosion, ineffective tip contact, or slight eccentricity. Post-construction settlement of bearing piles on rock should be negligible. Down-drag due to long-term embankment settlement will also be minor. Down-drag occurs when skin friction forces are in the same direction as axial loading; however, skin friction forces are not anticipated to develop due to the piles being end-bearing on competent rock. Adequate consolidation and testing of fill material in new embankment areas will alleviate potential for down-drag in those areas. The driven piles will not encounter forces from skin friction without approximately ⅛-inches of settlement, which should not be anticipated. Therefore, skin friction is not recommended to be factored into the driven pile foundation bearing capacities, but may be used in calculating uplift resistance.

The installation of test piles and load tests according to ASTM D 1143 and ASTM D 3966 is recommended to confirm the computed compressive nominal pile capacity, the planned tip elevations, and to determine the lateral pile capacity. The installation of the test pile and load test is recommended to be observed and monitored by the Engineer or Geotechnical Engineer, or their representative. A record of the driving resistance should be made for each test and foundation pile.

The interior foundations (Bents 2 and 3) for the bridges may be supported by short, straight-shaft drilled caissons founded into the competent dolomitic limestone formation. The recommended minimum caisson length and depth of embedment is greater than or equal to one (1) caisson diameter. A nominal bearing capacity of 960,000 psf may be

used for the drilled caissons in the limestone formation. The recommended nominal bearing capacity was determined by a combination of average laboratory unconfined compressive strengths of core samples and RQD with Terzaghi and Peck.

The drilled caisson resistance factors include 0.5 for single-drilled shaft Tip Resistance in rock and 0.5 for single-drilled shaft Side Resistance in rock, per Table 10.5.5.2.4-1 in the AASHTO LRFD.

Foundation settlement under the structures for the drilled pier systems should be less than ⅛-inch. Differential settlement between foundations should be negligible to ⅛-inch. Foundation settlement for spread foundations bearing on competent rock will be ⅛-inch total and/or differential.

Uplift loads for the drilled caissons will be resisted by the weight of the concrete and skin friction between the caisson and the limestone rock socket. The drilled caissons will not encounter forces from skin friction without approximately ⅛-inches of settlement, which should not be anticipated. Therefore, skin friction should not be factored into the drilled caisson foundation bearing capacities, but may be used in calculating uplift resistance.

Temporary or permanent casings may be used for the drilled caissons in the overburden material; however, it is not anticipated that casing will be required for drilled pier installation on the project.

A minimum of one (1) probe hole should be conducted at each interior bent location to proof the rock competency and to determine the presence of any weathered or fractured zones. In bent locations with drilled caissons, the probe holes should be drilled beyond the bottom of the foundations to an additional depth of twice the individual drilled caisson diameter into competent rock. In bent locations with shallow spread foundations, the probe holes should be drilled to five (5) feet below planned bottom of foundation elevation into competent rock.

The ultimate foundation depth should be a minimum of two (2) feet below any encountered fractured or weathered zones. If weathered or fractured zones are encountered during proofing operations, the frequency of probe holes should be increased at the discretion of the Department.

All foundation systems should be thoroughly cleaned of all loose material after excavation and before concrete placement. The foundation construction should be observed by the Owner, Engineer and/or Geotechnical Engineer, or their representatives, to verify the adequacy of bearing material. Concrete should be placed directly down the center of the drilled caissons, uninterrupted by reinforcing bars of tie-wires. Multiple methods of concrete placement can be performed to accomplish this; however, the preferred method is to use a tremie pipe to place the concrete to the bottom of the caisson excavation, particularly when groundwater issues may present themselves. Heavy-duty drilling equipment will be warranted for drilled caisson installation. Coring will be required for advancement into the dolomitic limestone formation.

The above bridge foundation recommendations were referenced with the 2012 AASHTO LRFD Bridge Design Specifications, Sixth Edition and current AHTD Bridge Division criteria.

Site Grading and Embankment Recommendations

Stratum I and soft Stratum II soils were encountered by many of the borings in the existing bridge embankment locations and in the planned widening areas. The soft Stratum I and soft Stratum II soils often extended to depths that ranged between one (1) foot and four (4) feet below existing ground elevations.

Generally, subgrade areas with fine-grained soils (CL and CH) near planned finish elevations will required undercut amounts in the order of one (1) foot to two (2) feet in planned roadway areas, however; undercut depths will vary across the site to potential maximum undercut depths of four (4) feet. Thickened bridging lifts may be utilized to prevent extensive undercutting amounts beyond three (3) to four (4) feet. Sub-pavement areas with coarse-grained soils (SC and GC) near planned finish elevations were generally stable across the site and will provide suitable subgrade material. Undercutting should be at the direction of the Engineer or Department and should be based on results of proof-rolling at planned subgrade elevations when exposed soils are at a moisture content that is near optimum.

All project excavation and embankment procedures should follow AHTD Standard Specifications for Highway Construction, 2014 Edition, Section 210.

Slope stability analysis was performed on the bridge embankment end and side slopes in both the existing roadway areas and planned widening areas. It is our recommendation that the roadway embankments may utilize a 2H:1V embankment end slope and a 3H:1V embankment side slope for the three (3) bridges.

Using the 2H:1V slope to govern, the bridge embankments were analyzed resulting in minimum factors of safety of 2.700 for the Elm Branch Bridge, 1.841 for the Hog Creek Bridge, and 1.858 for the Marshall Creek Bridge. Embankment fill material should follow the guidelines detailed in the **Select Fill Material** section of this report. The embankment slope stability analysis results can be reference in Appendix F of this report.

Adequate subgrade preparation of the roadway embankments is essential to satisfactory performance of the roadway pavement sections and earth fills. The subgrade should be stripped to sound materials before placing select fill material to reduce embankment settlement and to ensure overall stability. Generally, soils in the pavement and widening boring locations will require minimal stripping to reach stable subgrade support. Determination of stable subgrade material and/or undercut amounts should be verified by proof-rolling.

Exposed rock outcroppings in planned cut and widening areas may be sloped to 0.5H:1V, particularly in the cut areas from Station 120+00 to 130+00 and Station 256+00 to 260+00, the exposed rock near the existing quarry from Station 155+00 to

165+00, and in the widening and cut area near the power substation and transmission lines from Station 310+00 to 320+00. The excavation and sloping of rock formations should be observed by the Geotechnical Engineer or a representative of AHTD to verify competency and stability. Weathered and friable rock formations, particularly exposed chert formations, may require sloping up to a 3H:1V. Alternatively, the rock outcroppings may be benched using the same sloping guidelines.

All embankment slopes, both of finished construction and at the completion of the various phases of construction, should be stabilized to prevent erosion by placement of topsoil and seeding in accordance with the project specifications. Alternatively, erosion control mats may be used to cover erodible materials in areas where construction is not complete but has been stopped for periods of time in excess of twenty-one (21) days.

Select Fill Material

Any select fill material required for the project is recommended to be an off-site borrow material of locally available reddish-brown silty or sandy clay with broken chert gravel meeting Unified Soils Classification as a GC or GM material and having a Plasticity Index of 30 or less, a Liquid Limit of 55 or less, a minimum of 30% retained on the ¾-inch sieve and a maximum of 35% passing the No. 200 sieve. Onsite materials meeting the requirements detailed in this report for "Select Fill" may be used. Any material to be used as select fill on the project should be reviewed and approved by the Geotechnical Engineer. Select fill material should be placed in maximum 8-inch compacted lifts at a minimum density of 95 percent of the maximum dry density as determined by the Modified Proctor Test, AASHTO T-180.

The use of thickened lifts to a maximum thickness of twenty-four (24) inches is permitted to prevent further undercutting beneath roadway subgrade elevations. Thickened lifts should be placed to an elevation so that a minimum of two (2) standard lifts of select fill material may be placed above. The top twelve (12) inches of any thickened lift should be compacted and tested per project specifications. The select fill material should be compacted at a moisture content of two (2) percent above and four (4) percent below optimum moisture.

All fill and backfill should be placed in horizontal lifts. When placing fill next to existing slopes, the slope face should be stripped of all vegetation and the face "benched" to allow placement of horizontal lifts and bonding to the slope face.

Slope Stability Analysis

Slope stability analysis was conducted on both the north and south embankment slopes at each bridge location. Separate analyses were also performed for existing and new embankment slopes. The program SLIDE v.5.0 was used to conduct the analysis. The program analyzed the slopes using 5,000 individual surfaces. The analysis methods included the Bishop Simplified and Janbu Simplified, with Janbu showing more conservative values between the two (2) methods. Input parameters for CL, SC, CH, and GC soils included unit weight, cohesion, and internal friction values. Pore water pressure was included in the Factor of Safety interpretations. The resulting Factor of Safety for each slope analyzed can be referenced in Figure 7 below.

FIGURE 7: **Resulting Factors of Safety from Slope Stability Analysis**

BRIDGE	APPROACH	FACTOR OF SAFETY
Elm Branch	North – Existing	2.752
Elm Branch	North – Widening	2.972
Elm Branch	South – Existing	2.700
Elm Branch	South – Widening	2.774
Hog Creek	North – Existing	1.841
Hog Creek	North – Widening	2.144
Hog Creek	South – Existing	1.934
Hog Creek	South – Widening	2.455
Marshall Creek	North – Existing	2.124
Marshall Creek	North – Widening	2.674
Marshall Creek	South – Existing	1.858
Marshall Creek	South – Widening	1.920

Quality Control testing of the earthwork operation, concrete, paving and other phases is recommended to be utilized during construction to assure the Engineer and Owner that the construction complies with the specifications.

All trenching and excavation should be conducted in accordance with Arkansas State Law and OSHA guidelines and requirements.

LIMITATIONS AND RESERVED RIGHTS

The recommendations and conclusions made in this report are based on the assumption that the subsoil conditions do not deviate appreciably from those disclosed in the subsurface exploration. Should significant subsoil variations or undesirable conditions, be encountered during construction that are not described herein, the Geotechnical Engineer reserves the right to inspect these conditions for the purpose of reevaluating this report. A review of the final construction plans and specifications by this office is encouraged to ensure compliance with the intent of these recommendations.

Sincerely yours,
McCLELLAND CONSULTING ENGINEERS, INC.

Steven Head, EI
Geotechnical Engineer

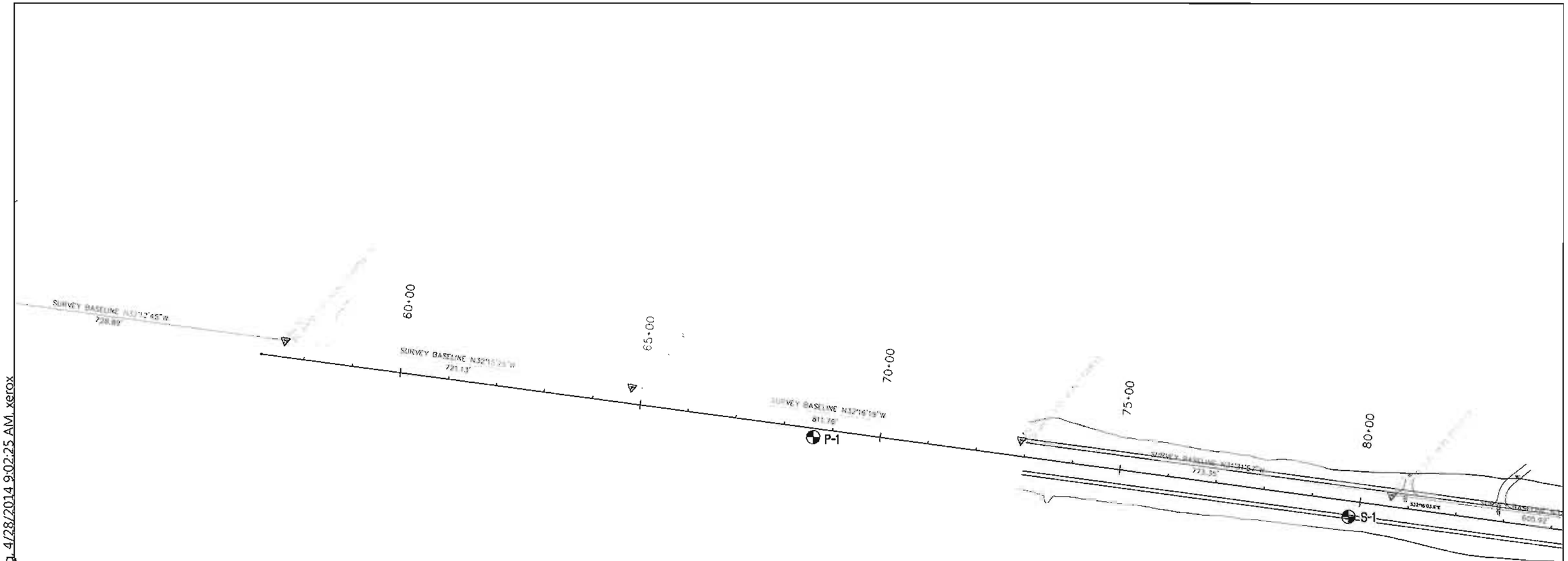
R. Wayne Jones, P.E.
Project Manager

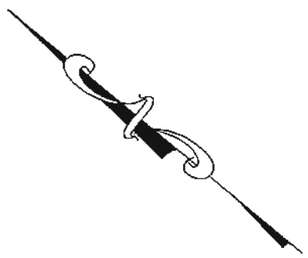
10-9-14

Enclosures: Appendix A: Boring Layout
Appendix B: Boring Logs
Appendix C: Laboratory Testing Results
Appendix D: Asphalt Pavement Core Depth
Appendix E: Boring Location Tables
Appendix F: Slope Stability Analysis
Appendix G: Bridge Profiles
Appendix H: Roadway Boring Soil Log

APPENDIX A

BORING LAYOUT





P-1 PAVEMENT BORINGS
S-1 WIDENED AREA BORINGS
B-1 BRIDGE BORINGS
A-1 ASPHALT BORINGS
BORING LOCATIONS

200 100 0 200
150 50
SCALE: 1"= 200'

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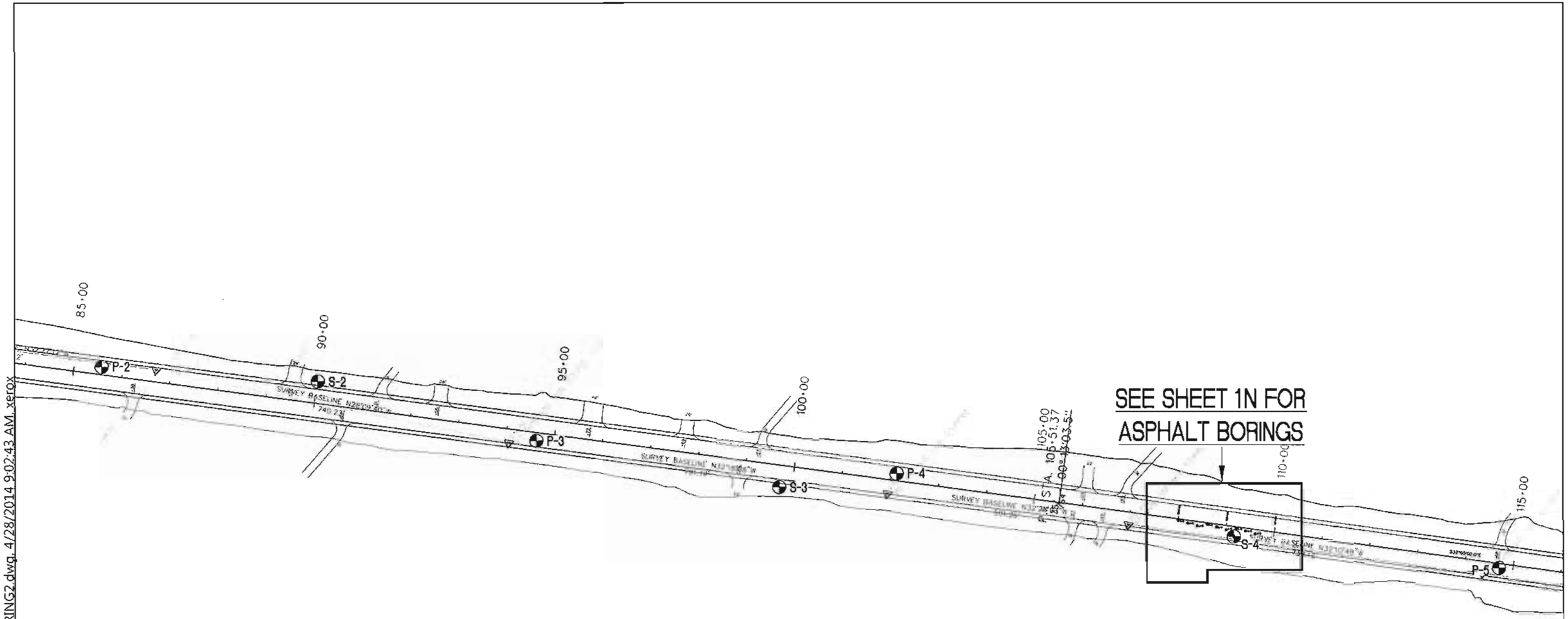

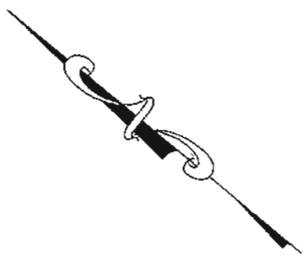

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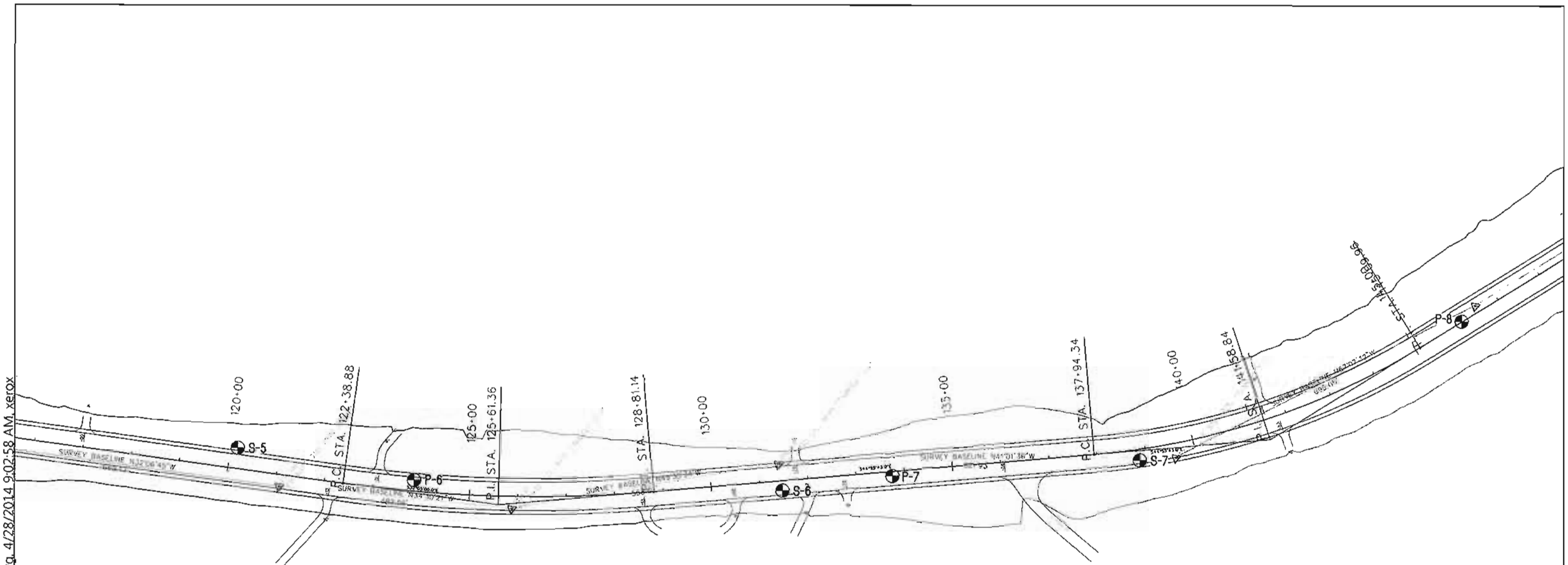

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B-1 BRIDGE BORINGS
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BORING LOCATIONS

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SCALE: 1"= 200'

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B-1 BRIDGE BORINGS
A-1 ASPHALT BORINGS
BORING LOCATIONS

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SCALE: 1"= 200'

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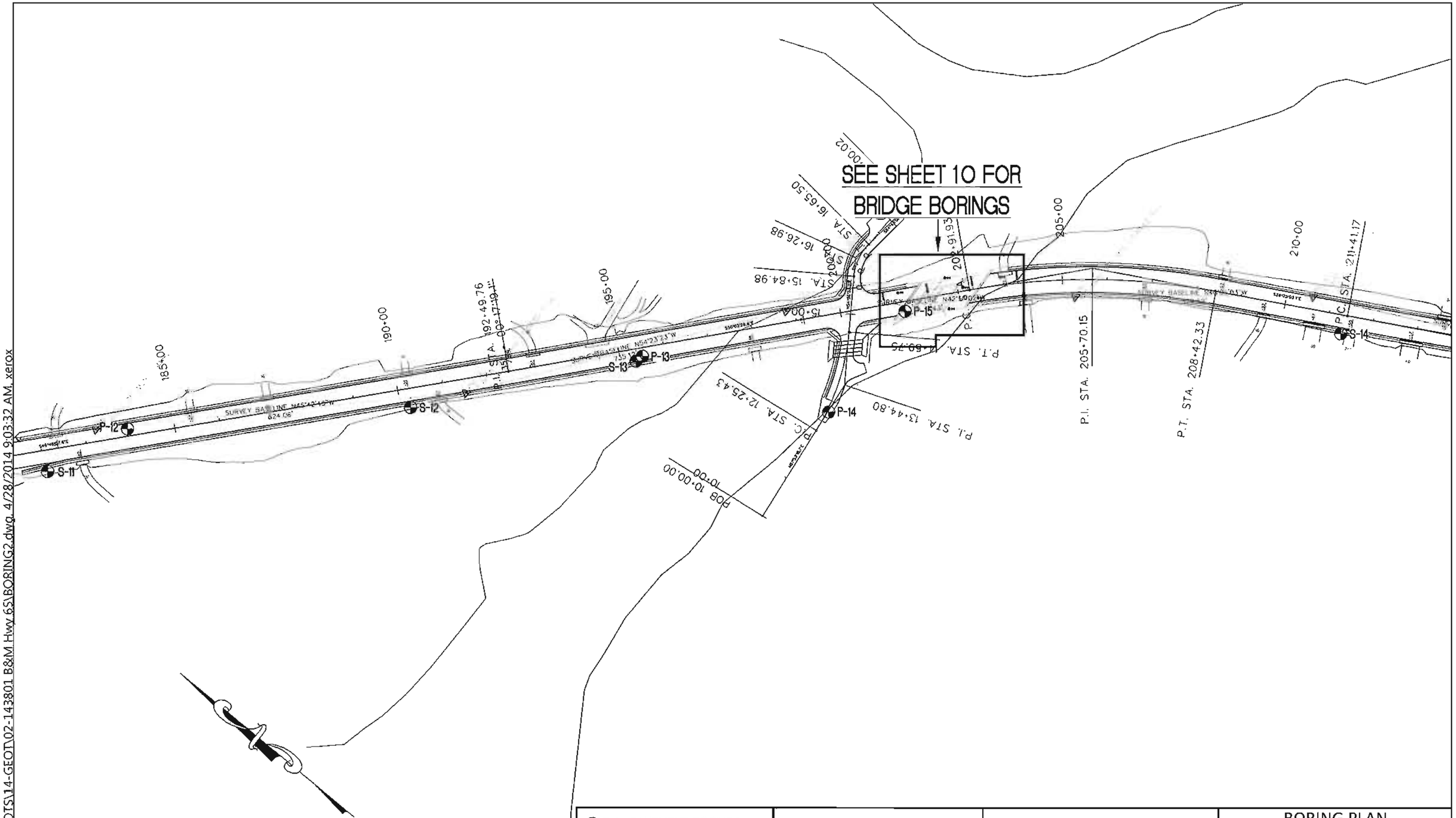

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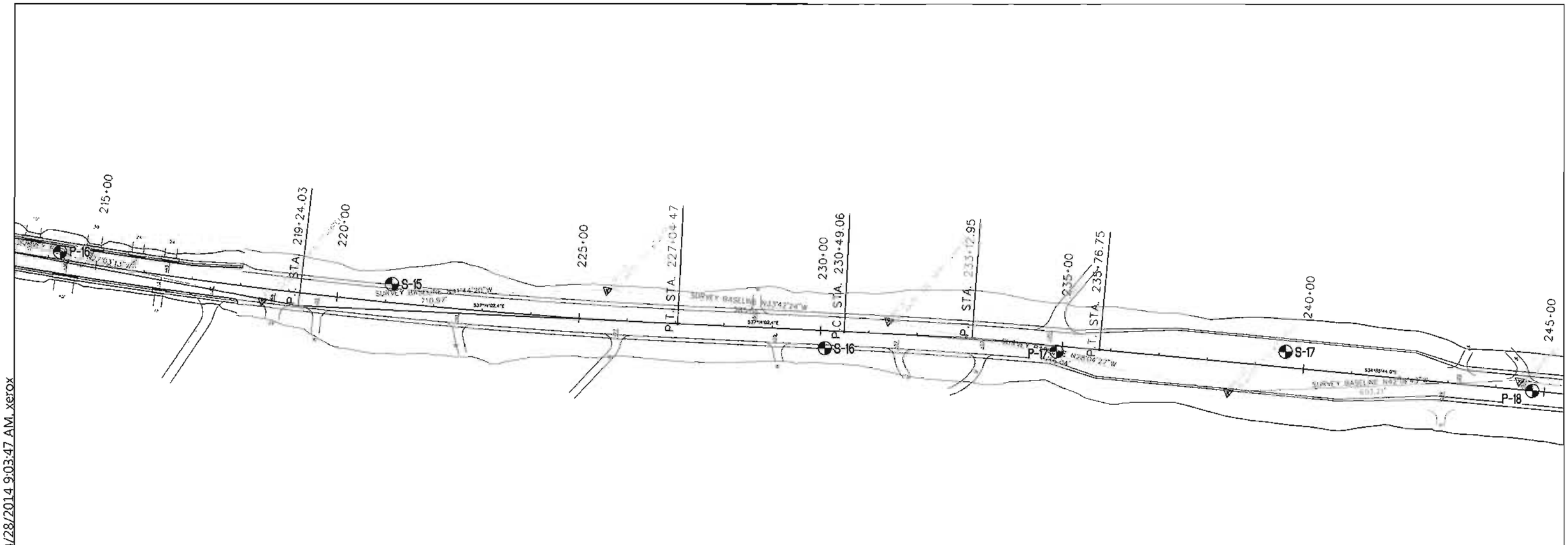

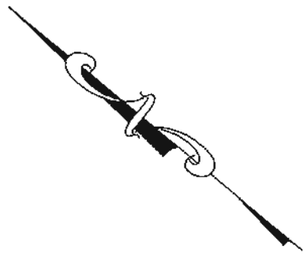

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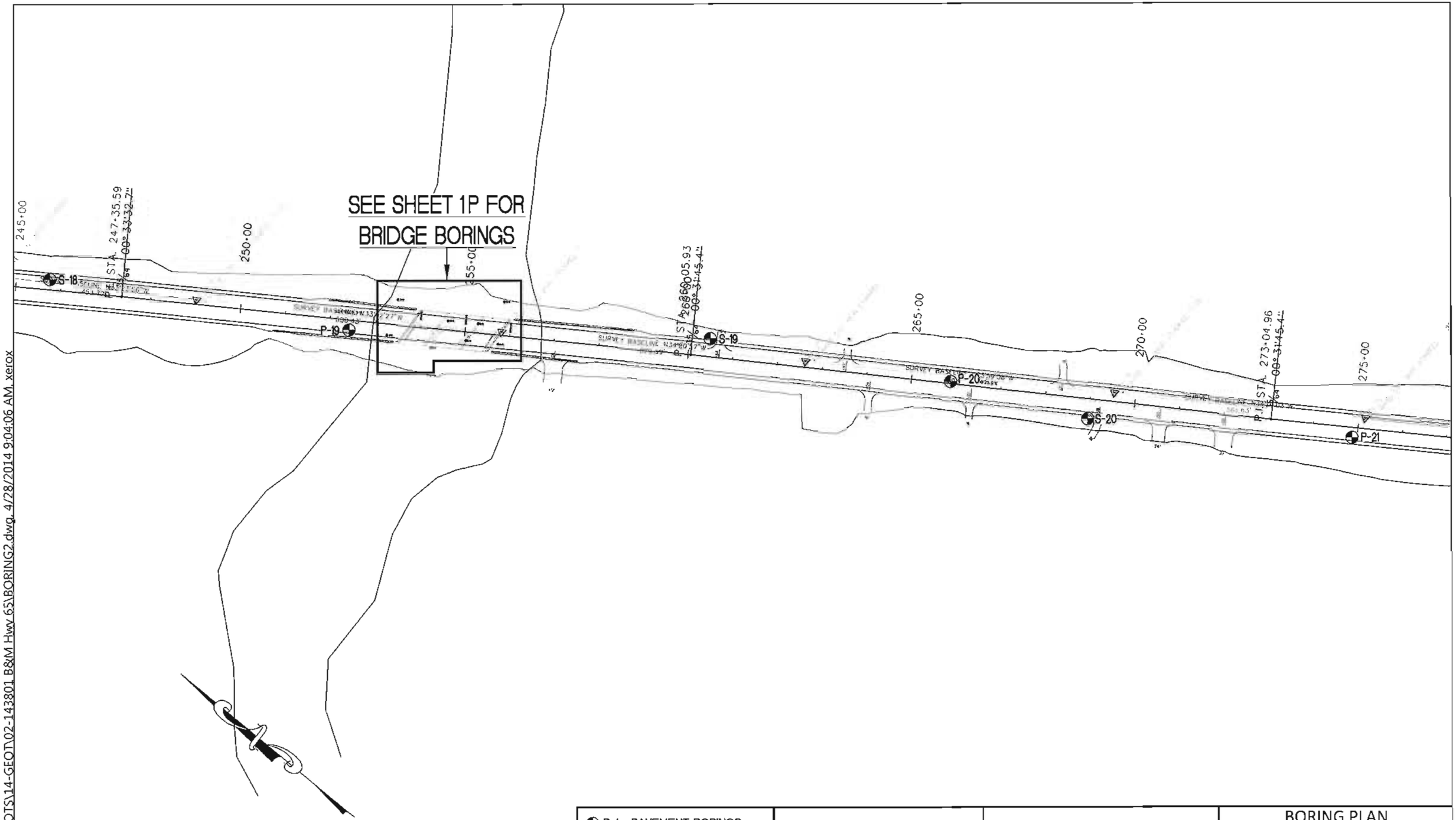

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- A-1 ASPHALT BORINGS

BORING LOCATIONS

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SCALE: 1"= 200'

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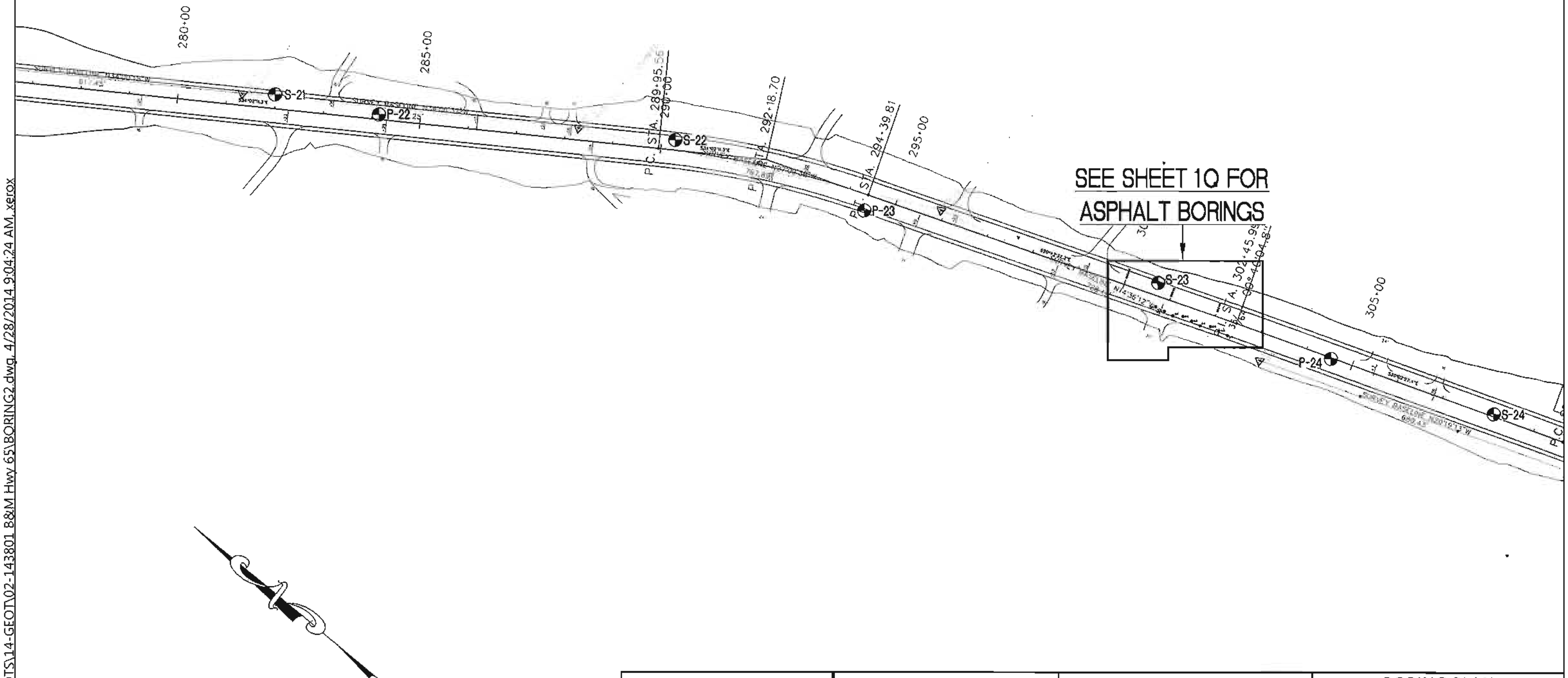

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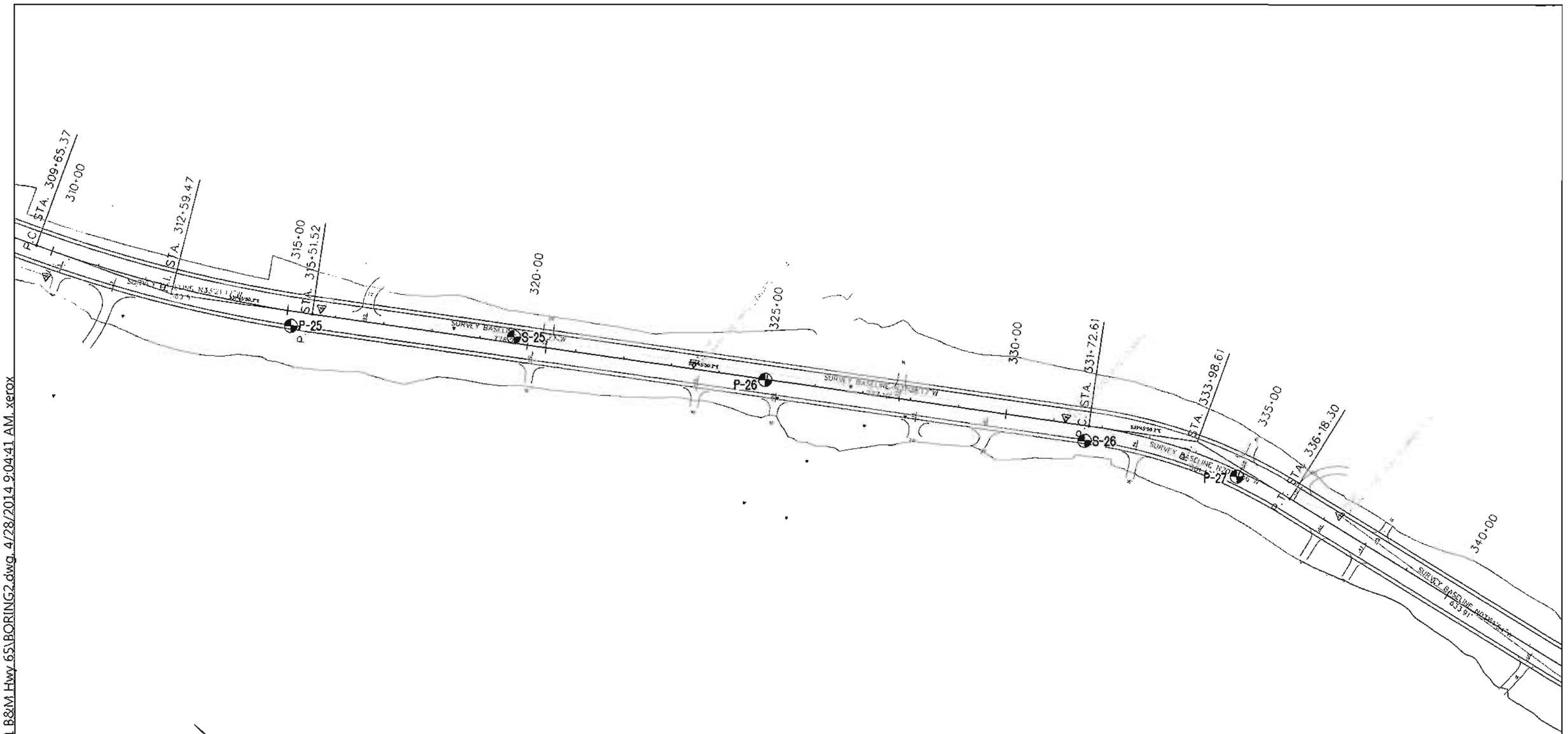

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BORING LOCATIONS

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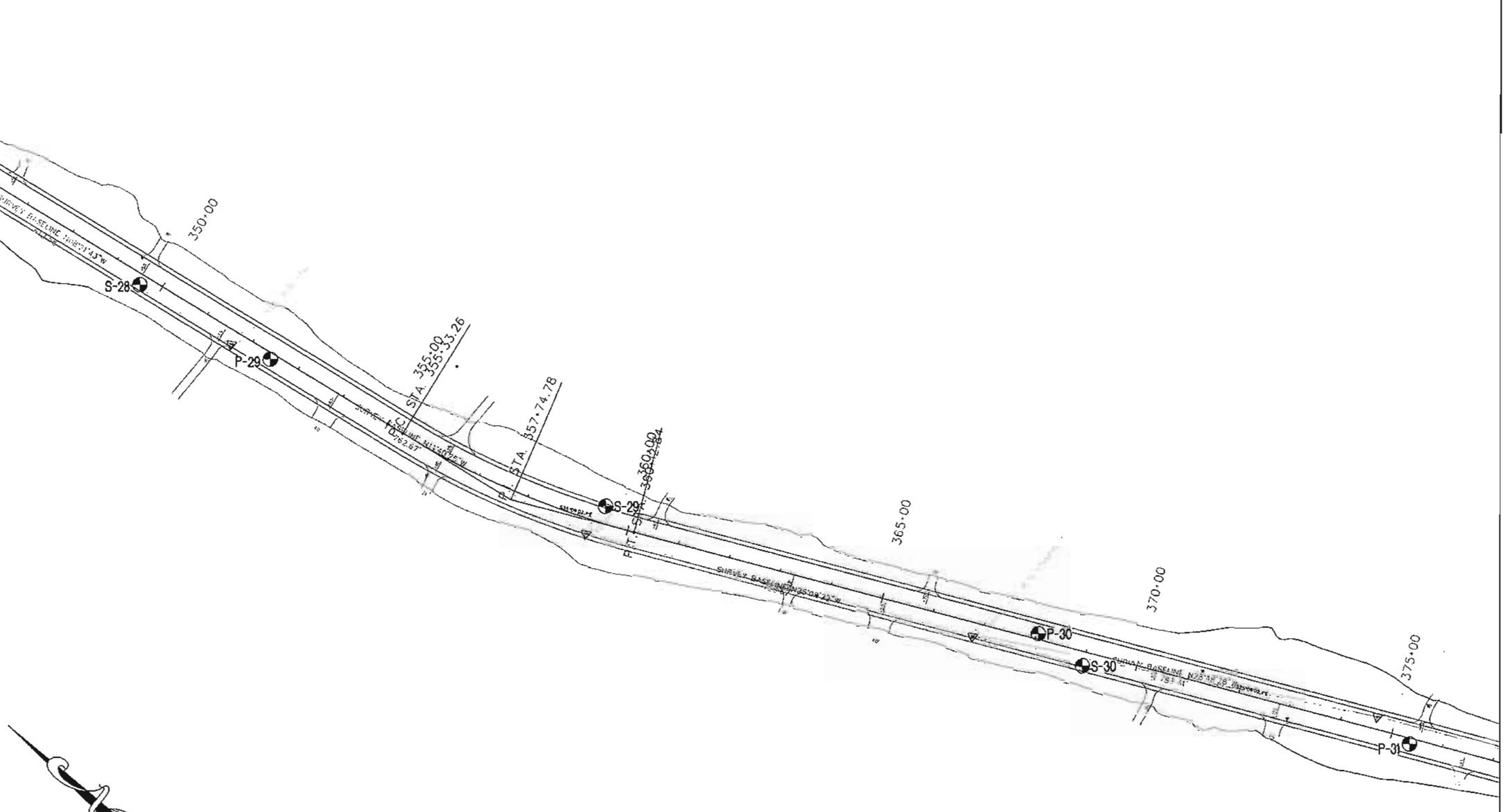

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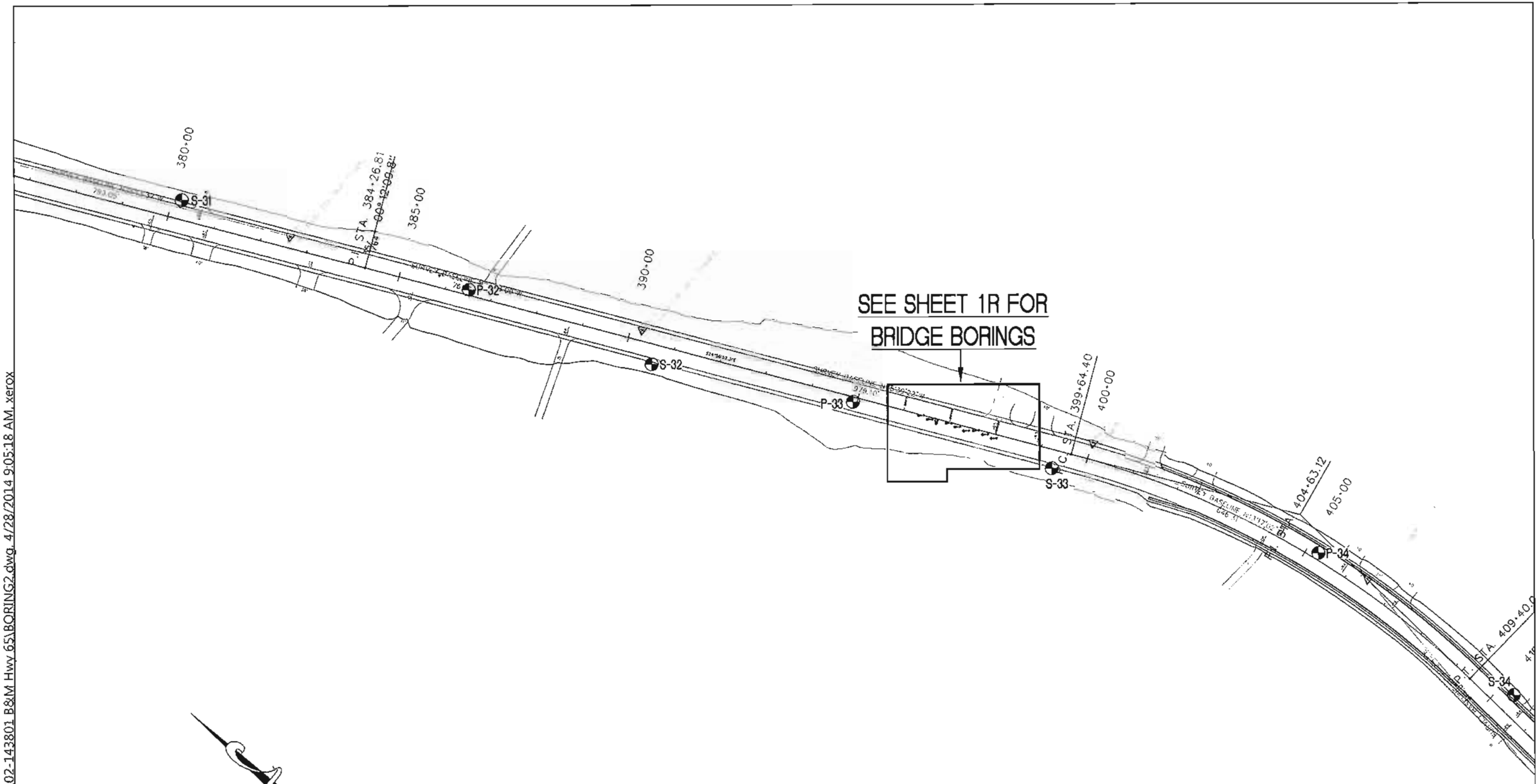

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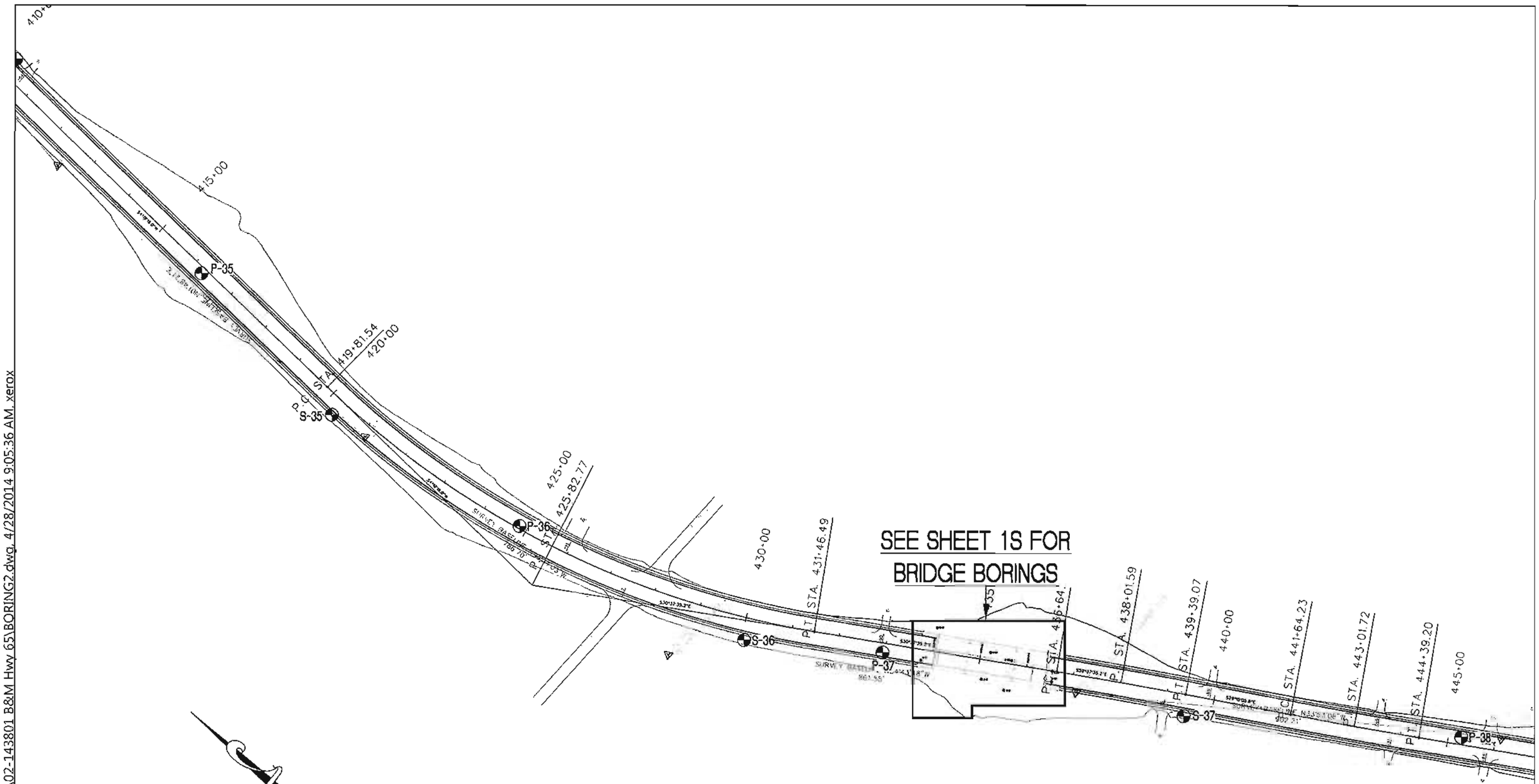

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BORING LOCATIONS

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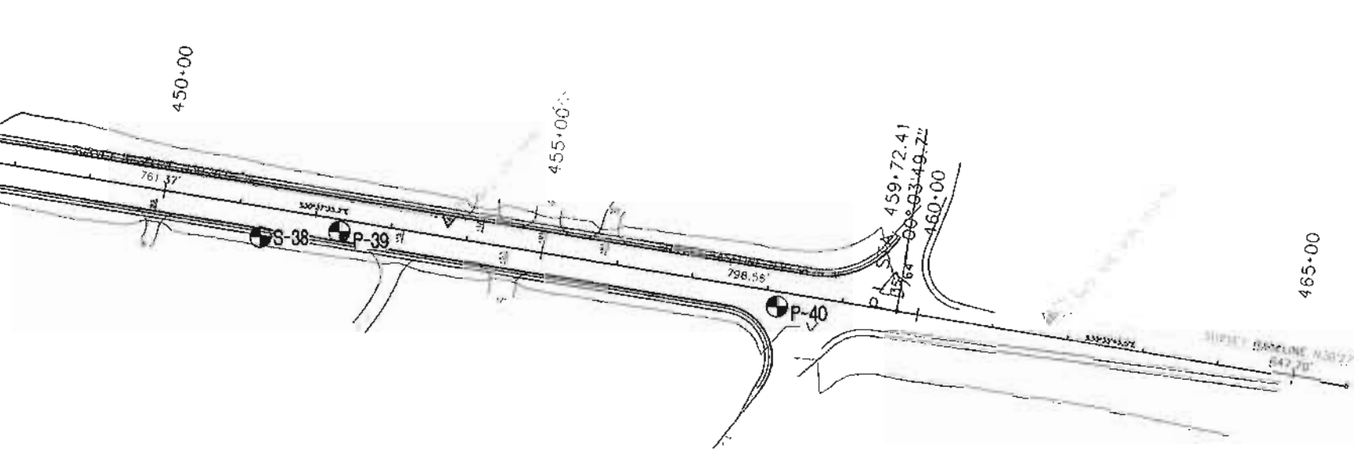

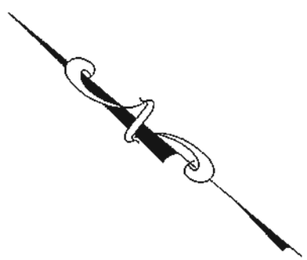

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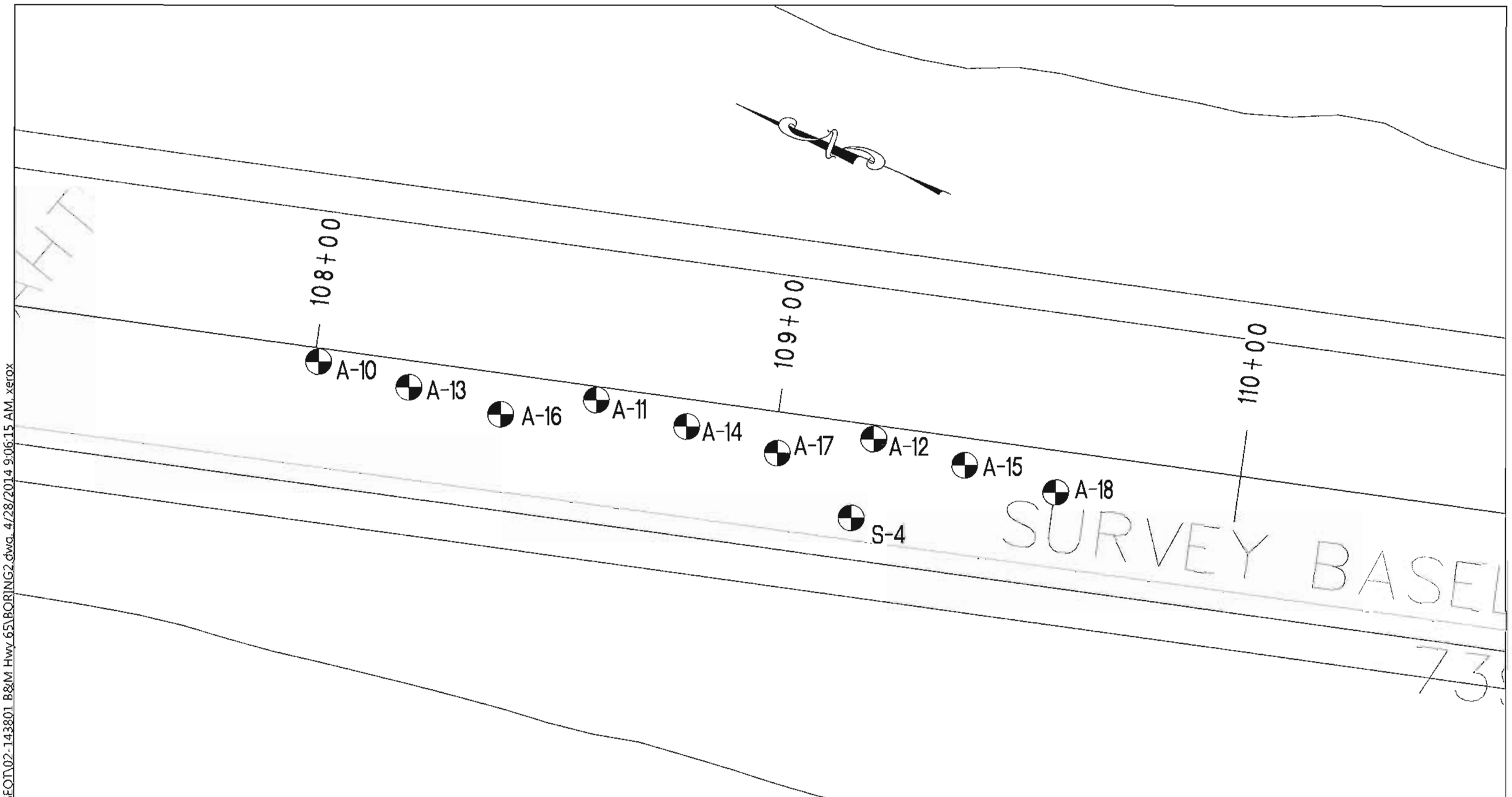

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B-1 BRIDGE BORINGS
A-1 ASPHALT BORINGS
BORING LOCATIONS

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SCALE: 1"= 20'

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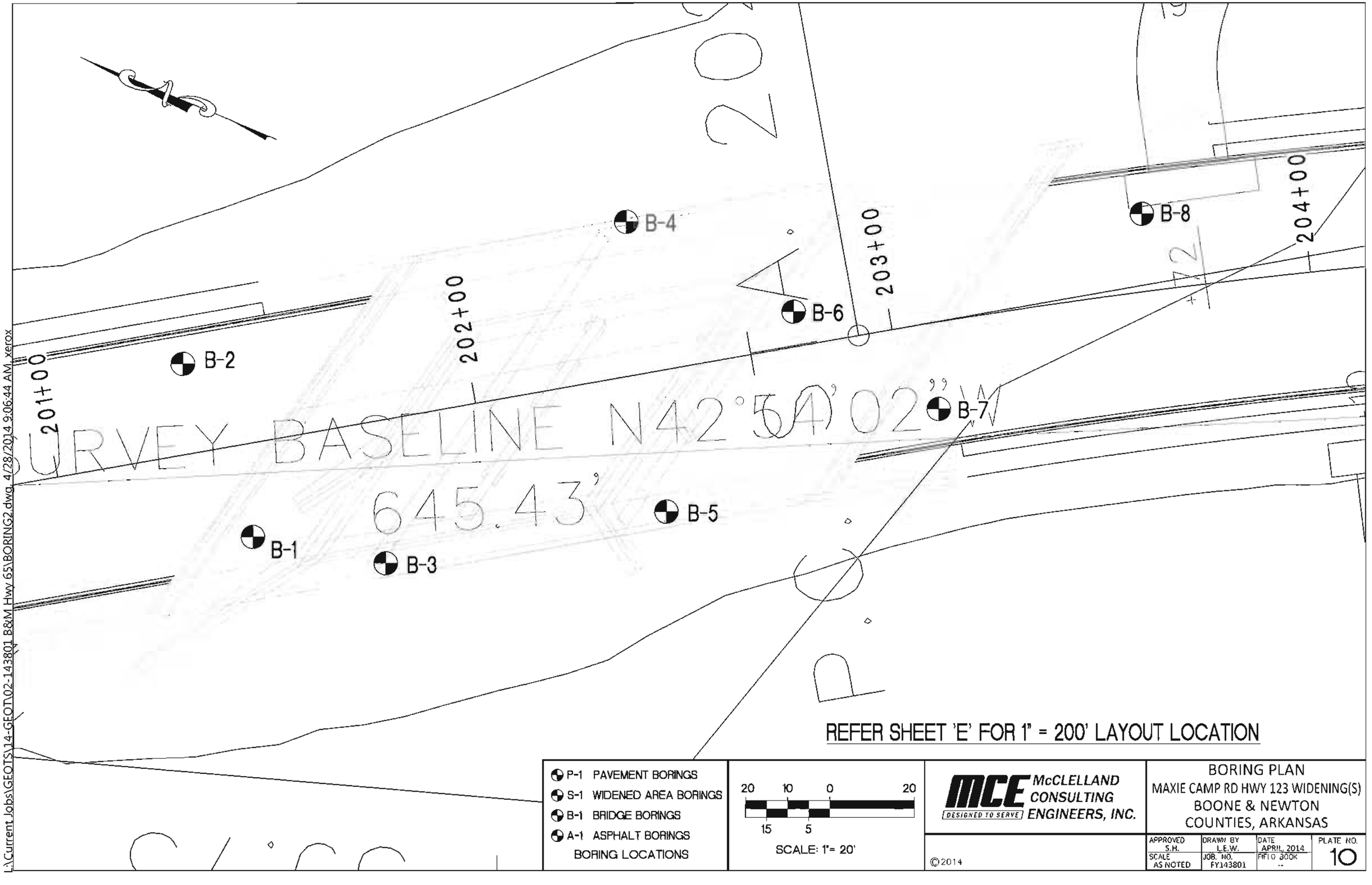

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BORING LOCATIONS

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SCALE: 1"= 20'

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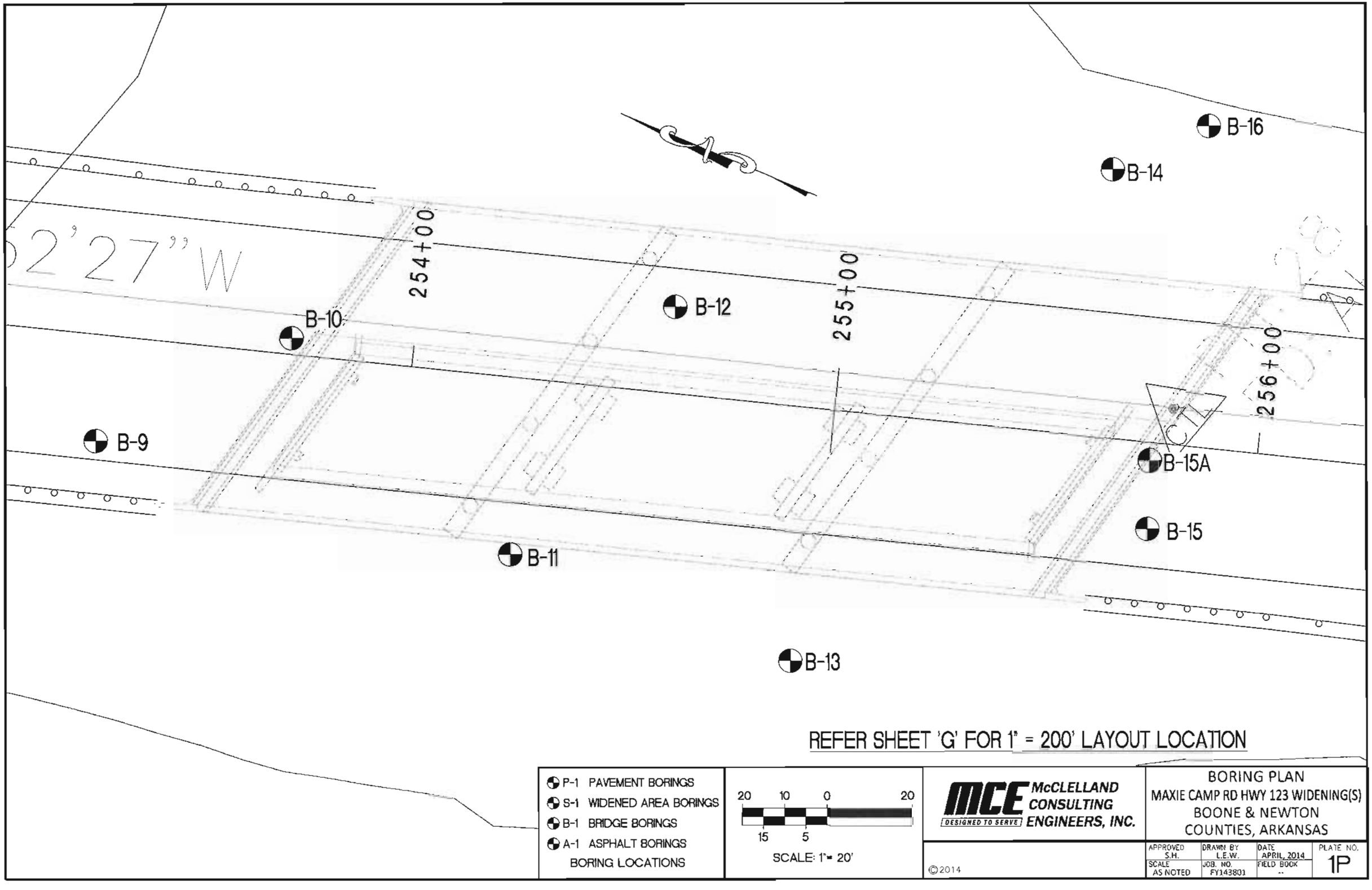

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B-1 BRIDGE BORINGS
A-1 ASPHALT BORINGS
BORING LOCATIONS

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15 5
SCALE: 1"= 20'

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300+00

301+00

302+00

S-23

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A-4

A-7

A-2

A-5

A-8

A-3

A-6

A-9

N14°36'12"W

REFER SHEET 'H' FOR 1" = 200' LAYOUT LOCATION

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S-1 WIDENED AREA BORINGS
B-1 BRIDGE BORINGS
A-1 ASPHALT BORINGS
BORING LOCATIONS

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15 5
SCALE: 1"= 20'

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25°39'22" W

396+00

397+00

398+00

40'

A-19

A-20

A-21

A-22

A-23

A-24

A-25

A-26

A-27

REFER SHEET 'K' FOR 1" = 200' LAYOUT LOCATION

P-1 PAVEMENT BORINGS
S-1 WIDENED AREA BORINGS
B-1 BRIDGE BORINGS
A-1 ASPHALT BORINGS
BORING LOCATIONS

20 10 0 20
15 5
SCALE: 1"= 20'

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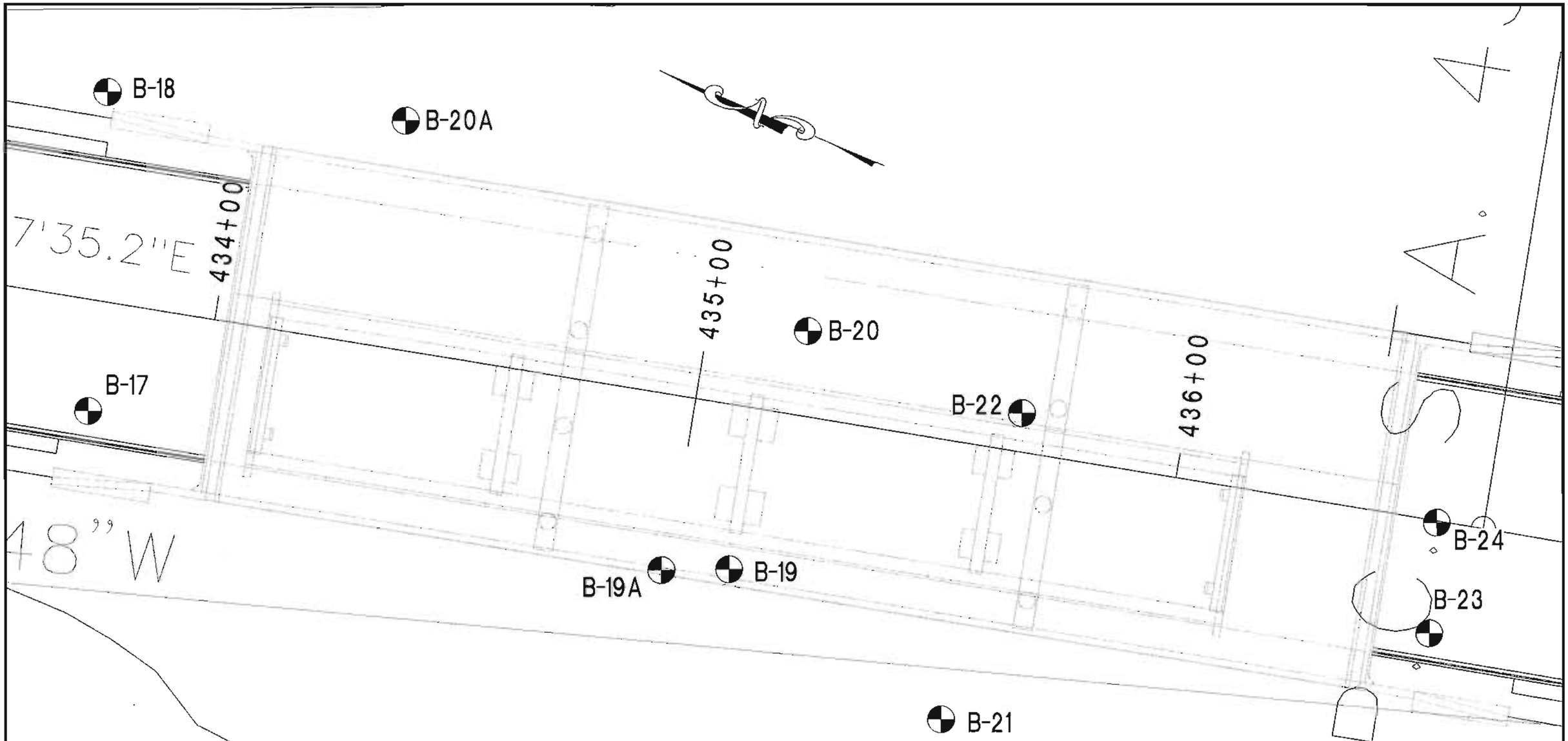

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S-1 WIDENED AREA BORINGS
B-1 BRIDGE BORINGS
A-1 ASPHALT BORINGS
BORING LOCATIONS

20 10 0 20
15 5
SCALE: 1"= 20'

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APPROVED	DRAWN BY	DATE	PLATE NO.
S.H.	L.E.W.	APRIL, 2014	1S
SCALE	JOB. NO.	FIELD BOOK	
AS NOTED	FY143801	–	

APPENDIX B

BORING LOGS

PAVEMENT
BORING LOGS

LOG OF BORING NO. B - P1

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/29/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 68+62.45, 18.39' Rt.
ELEVATION: 1175.01

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1175					Asphalt (8.5 inches)								
	1				Base Course Material (6 inches)	1.5							
	2	12		GC	Reddish Brown Clayey Chert Gravel; Medium-Dense	18.5	77	26	51				
3 / 1173	3	14				15.3							
6 / 1170	4	11				15.2				36.7			
	5	9				21.8							
9 / 1167	6	24			(Dense from 9 to 10 feet)	18.9							
					END OF BORING								
12 / 1164													
15 / 1161													
18 / 1158													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P2

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 85+56.62, 16.48' Lt.
ELEVATION: 1195.22

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (2.6 inches)								
						Base Course Material (6 inches)	5.6							
	1194	1												
		2	23		SC	Reddish Brown Clayey Sand with Fine Gravel; Medium-Dense	11.9							109.7
3		3	17				16.0	33	17	16	43.3			
	1191													
		4	9			(Loose from 5 to 7 feet)	14.7							108.8
6														
	1188	5	12		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	23.6					1.15		99.0
9		6	14				27.8							
	1185													
						END OF BORING								
12														
	1182													
15														
	1179													
18														

Completion Depth: 11.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P3

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/29/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 94+63.50, 16.68' Rt.
ELEVATION: 1196.69

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (5.2 inches)								
		1				Base Course Material (8 inches)	1.4							
		2	11		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	8.5							
3	1194	3	8		SC	Reddish-Brown Clayey Sand with Fine Gravel; Loose	8.8	31	17	14	33.3			
		4	6				22.9							103.8
6	1191													
		5	5				22.0							100.5
9	1188	6	25		GC	Reddish-Brown Clayey Chert Gravel; Dense	17.0							
						END OF BORING								
12	1185													
15	1182													
18	1179													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P4

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 102+11.60, 15.06' Lt.
ELEVATION: 1222.71

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (4.9 inches)								
		1				Base Course Material (6 inches)	10.1							
	1221	2	16		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	5.5							
3		3	17				11.0							
	1218													
		4	10		SC	Reddish-Brown Clayey Sand with Fine Chert Gravel; Firm	27.0	77	32	45	43.3			
6														
		5	9				33.8					0.44		81.5
	1215													
						(Auger Refusal at 8.5 feet)								
9						Limestone								
						END OF BORING								
	1212													
12														
	1209													
15														
	1206													
18														

Completion Depth: 9.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P5

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/29/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 114+71.02, 9.40' Rt.
ELEVATION: 1242.16

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 – 1242	1				Asphalt (5.9 inches)								
	2	50/ 8"			Base Course Material (15 inches)	1.9 2.1							
3 – 1239	3	16		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm								
	4	7			(Soft from 4 to 10 feet)	16.9							
6 – 1236	5	5				14.5							
9 – 1233	6	8				19.2	37	15	22	58.8			
					END OF BORING								
12 – 1230													
15 – 1227													
18 – 1224													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P6

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 123+84.02, 23.68' Lt.
ELEVATION: 1271.68

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (5.5 inches)								
		1				Base Course Material (6 inches)	2.4							
		2	10		CH	Reddish-Brown Sandy Clay; Firm; High Plasticity	16.3							96.3
3	1269	3	9											
		4	9				39.3	88	41	47		0.88		
6	1266													
		5	7			(Soft and Saturated from 7 to 8.5 feet)	51.7							
						(Auger Refusal at 8.5 feet)								
9	1263					Limestone								
						END OF BORING								
12	1260													
15	1257													
18	1254													

Completion Depth: 9.0 feet **Depth to Water:** 7 **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P7

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/29/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 133+74.87, 9.34' Rt.
ELEVATION: 1239.01

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1239					Asphalt (5 inches)								
		1				Base Course Material (6 inches)	1.7							
		2	11		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	19.3							
3	1236	3	18		GC	Reddish-Brown Clayey Chert Gravel; Dense	18.2							
		4	25				9.4							
						(Auger Refusal at 5.5 feet)								
6	1233					Limestone								
						END OF BORING								
9	1230													
12	1227													
15	1224													
18	1221													

Completion Depth: 6.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P8

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 146+11.75, 1.04' Lt.
ELEVATION: 1238.04

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1238	1				Asphalt (5.1 inches)								
	2	30		GC	Base Course Material (6 inches)	11.5							
					Reddish-Brown Clayey Chert Gravel; Dense	17.1							
3 / 1236	3	50/ 0"			(Auger Refusal at 4.5 feet)								
					Limestone								
6 / 1233					END OF BORING								
9 / 1230													
12 / 1227													
15 / 1224													
18 / 1221													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P9

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/30/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 154+75.47, 34.92' Rt.
ELEVATION: 1229.08

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0					Asphalt (5 inches)								
	1				Base Course Material (12 inches)	1.2							
1227	2	10		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	10.1							
3	3	50/ 6"		SC	Reddish-Brown Clayey Sand with Chert Gravel; Very Dense	11.6							
	4	50/ 0"			(Auger Refusal at 5 feet)	16.9	30	16	14	48.9			
1224					Limestone								
6					END OF BORING								
1221													
9													
1218													
12													
1215													
15													
1212													
18													

Completion Depth: 5.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P10

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 167+51.68, 11.55' Lt.
ELEVATION: 1154.81

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (5 inches)								
		1				Base Course Material (4 inches)	1.9							
		2	12		CL	Reddish-Brown Sandy Clay; Firm	20.3							
3	1152	3	14				15.4	34	14	20				
		4	14				14.7							
6	1149													
		5	20		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	11.3							
						(Auger Refusal at 8.5 feet)								
9	1146					Limestone								
						END OF BORING								
12	1143													
15	1140													
18	1137													

Completion Depth: 9.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P11

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/30/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 175+84.42, 18.91' Rt.
ELEVATION: 1123.03

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1123					Asphalt (5 inches)								
						Base Course Material (8 inches)	1.7							
	1122	1 2	18		SC	Reddish-Brown Clayey Sand with Fine Gravel; Firm	22.8	52	22	30	47.6			
3							17.8					1.27		102.5
	1119	3	13											
		4	12				19.2							102.3
6	1116	5	12				26.9					1.07		95.7
9		6	10				31.3					0.93		93.2
	1113					END OF BORING								
12	1110													
15	1107													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P12

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 183+96.25, 16.38' Lt.
ELEVATION: 1101.21

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1101					Asphalt (5.5 inches)								
		1				Base Course Material (6 inches)	2.5							
		2	14		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	23.9							
3	1098	3	23			(Stiff from 3 to 5 feet)	13.6	36	15	21				
		4	22		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	6.5							
6	1095					(Auger Refusal at 6.5 feet)								
						Limestone								
						END OF BORING								
9	1092													
12	1089													
15	1086													
18	1083													

Completion Depth: 7.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P13

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/30/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 195+49.38, 19.37' Rt.
ELEVATION: 1067.00

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (4.9 inches)								
		1				Base Course Material (8 inches)	2.0							
	1065	2	25		SC	Reddish-Brown Clayey Sand with Fine Gravel; Medium-Dense	17.0	39	15	24	28.4			
3		3	12				9.8							
	1062	4	10				25.8							86.3
6		5	11				20.7							
	1059													
9		6	24		GC	Reddish-Brown Clayey Chert Gravel with Sand; Dense	17.0							107.4
						END OF BORING								
	1056													
12														
	1053													
15														
	1050													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P14

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/30/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 199+34.87, 214.33' Rt.
ELEVATION: 1051.84

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1051.84	1				Asphalt (5.6 inches)	14.8							
		2	19		SC	"Dirty" Base Course Material (6 inches)	10.1	33	17	16	27.9			
	1050					Brown to Tan Clayey Sand with Fine Gravel; Dense								
3		3	26				11.2							
	1047	4	18				13.4							
6		5	12		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	18.7							81.8
	1044					(Auger Refusal at 8 feet)								
9						Dolomitic Limestone								
	1041					END OF BORING								
12														
	1038													
15														
	1035													
18														

Completion Depth: 8.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P15

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/18/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 201+42.64, 22.05' Rt.
ELEVATION: 1052.63

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (4.7 inches)								
		1				Base Course Material (6 inches)	1.8							
		2	15		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	4.2	41	18	23				98.9
3	1050	3	10				3.9							
		4	7			(Soft from 5 to 10 feet)	16.2							97.6
6	1047	5	7				15.6							
9	1044	6	7				15.9							
						(Auger Refusal at 10.5 feet)								
						END OF BORING								
12	1041													
15	1038													
18	1035													

Completion Depth: 10.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P16

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 214+22.81, 15.77' Lt.
ELEVATION: 1064.40

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (4.7 inches)								
		1				Base Course Material (10 inches)	2.3							
		2	34		CL	Reddish-Brown Sandy Clay with Fine Chert Gravel; Stiff	6.4							
	1062													
3		3	30				16.4	30	14	16				
		4	15			(Firm from 5 to 7 feet)								
	1059													
6		5	6			(Soft from 7 to 8.5 feet)	28.1							
	1056													
9		6	3		CH	Red Sandy Clay; Very Soft; High Plasticity	21.8							107.0
						END OF BORING								
	1053													
12														
	1050													
15														
	1047													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P17

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/31/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 234+89.10, 11.61' Rt.
ELEVATION: 1092.12

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1092					Asphalt (5.4 inches)								
		1				Base Course Material (6 inches)	2.5							
		2	16		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	4.6	36	15	21				
3	1089	3	20		GC	Reddish-Brown Clayey Chert Gravel with Sand; Dense	17.1				61.2	1.78		
		4	13			(Medium-Dense from 5 to 9 feet)	15.6							106.7
6	1086													
		5	16				11.3							
9	1083	6	20			(Dense from 9 to 10 feet)	13.8							
						END OF BORING								
12	1080													
15	1077													
18	1074													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P18

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 244+75.55, 0.17' Rt.
ELEVATION: 1074.01

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1074					Asphalt (6.8 inches)								
		1				Base Course Material (6 inches)	2.3							
		2	12		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	18.6	39	19	20	71.7			114.7
3	1071	3	14				18.5							
		4	15				21.1							102.2
6	1068	5	11				22.3							105.8
9	1065	6	50/ 11"		GC	Reddish-Brown Clayey Chert Gravel with Sand; Dense	20.0							
						END OF BORING								
12	1062													
15	1059													
18	1056													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P19

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/31/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 252+43.51, 22.38' Rt.
ELEVATION: 1038.42

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1038	1				Asphalt (6.5 inches)								
						Base Course Material (8 inches)	2.2							
		2	15		SC	Reddish-Brown Clayey Sand with Fine Gravel; Medium-Dense	18.2							
3	1035	3	4			(Very loose from 3 to 5 feet)	16.7	60	20	40	40.8			101.6
		4	19			(Medium-Dense fron 5 to 7 feet)	24.4							
6	1032	5	12		GC	Reddish-Brown Clayey Chert Gravel with Sand; Medium-Dense	14.0							101.2
9	1029	6	11				18.5							
						END OF BORING								
12	1026													
15	1023													
18	1020													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P20

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 265+86.75, 4.52' Lt.
ELEVATION: 1076.77

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (6.3 inches)								
		1				Base Course Material (8 inches)	1.8							
		2	13		SC	Reddish-Brown Clayey Sand with Fine Gravel; Medium-Dense	4.0							
3	1074	3	50/ 6"		GC	Reddish-Brown Clayey Chert Gravel with Sand; Dense	13.0	39	18	21				
						(Auger Refusal at 4.5 feet)								
						Limestone								
6	1071					END OF BORING								
9	1068													
12	1065													
15	1062													
18	1059													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P21

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/31/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 274+88.59, 22.11' Rt.
ELEVATION: 1115.17

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1115					Asphalt (6.5 inches)								
		1				Base Course Material (8 inches)	2.3							
		2	7		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity	9.4							
	1113													
3		3	8				21.7					0.91		104.4
	1110	4	10			(Firm from 4.5 to 10 feet)	10.0	50	19	31	58.1			113.8
6														
		5	11				17.3					1.16		114.9
	1107													
9		6	9				26.9					0.72		95.2
						END OF BORING								
	1104													
12														
	1101													
15														
	1098													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P22

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 284+14.17, 10.52' Lt.
ELEVATION: 1102.43

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (6.5 inches)								
		1				Base Course Material (6 inches)	2.3							
	1101	2	14		SC	Reddish-Brown Clayey Sand with Fine Gravel; Medium-Dense								
3		3	15				22.7							
	1098													
		4	16				29.0	70	30	40	49.3			
6						(Auger Refusal at 6.5 feet)								
						Limestone								
	1095					END OF BORING								
9														
	1092													
12														
	1089													
15														
	1086													
18														

Completion Depth: 7.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P23

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 1/31/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 294+42.55, 33.14' Rt.
ELEVATION: 1101.84

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1101	1				Asphalt (3.5 inches)								
					Base Course Material (6 inches)	2.7							
	2	14		SC	Reddish-Brown Clayey Sand with Fine Gravel; Medium-Dense	14.5							
3 / 1098	3	20				12.7	28	18	10				
	4	12				23.3	33	16	17	45.1			114.1
6 / 1095	5	9			(Loose from 7 to 8.5 feet)	10.2							
					(Auger Refusal at 8.5 feet)								
9 / 1092					Limestone with Chert Interbedding								
					END OF BORING								
12 / 1089													
15 / 1086													
18 / 1083													

Completion Depth: 9.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P24

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 304+53.99, 2.33' Rt.
ELEVATION: 1128.44

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1128	1	14			Asphalt (4.7 inches)								
		2				Base Course Material (24 inches)	1.6 3.1							
3	1125	3			SC	Reddish-Brown Clayey Sand with Fine Gravel	14.4	40	18	22	47.0			
						(Auger Refusal at 4 feet)								
						Limestone with Chert Interbedding								
						END OF BORING								
6	1122													
9	1119													
12	1116													
15	1113													
18	1110													

Completion Depth: 4.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P25

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/14/2013
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 315+11.54, 30.75' Rt.
ELEVATION: 1155.28

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1155	1				Asphalt (5 inches)								
		2	50/ 11			Base Course Material (24 inches)	5.5 2.1							
3	1152	3	18		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	12.2							
		4	20				21.6	45	17	28		0.63		97.9
6	1149	5	20				13.7							
						(Auger Refusal at 8 feet)								
9	1146					Dolomitic Limestone								
						END OF BORING								
12	1143													
15	1140													
18	1137													

Completion Depth: 8.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P26

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/14/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 324+96.44, 1.47' Rt.
ELEVATION: 1110.06

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1110					Asphalt (5 inches)								
		1				Base Course Material (12 inches)	2.6							
		2	17		SC	Reddish-Brown Clayey Sand with Fine Gravel; Firm					43.8			
3	1107	3	18				12.3							103.9
		4	38			(Dense from 5 to 6.5 feet)	11.7					0.52		107.3
6	1104					(Auger Refusal at 6.5 feet)								
						Dolomitic Limestone								
						END OF BORING								
9	1101													
12	1098													
15	1095													
18	1092													

Completion Depth: 7.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P27

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/14/14
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 334+98.24, 12.38' Rt.
ELEVATION: 1130.45

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1130	1				Asphalt (5 inches)								
					Base Course Material (6 inches)	2.5							
	2	14		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	20.0							
3 / 1128	3	7			(Soft from 3 to 5 feet)	20.3	42	18	24	57.8			
	4	11				41.5							
6 / 1125	5				(Auger Refusal at 6.5 feet)								
					Dolomitic Limestone								
					END OF BORING								
9 / 1122													
12 / 1119													
15 / 1116													
18 / 1113													

Completion Depth: 7.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P28

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/14/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 345+16.52, 10.51' Lt.
ELEVATION: 1135.46

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (5.5 inches)								
		1				Base Course Material (6 inches)	2.4							
	1134	2	8		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity	24.9	79	33	46	61.7			
3		3	11			(Firm from 3 to 8 feet)	32.2							
	1131													
		4	12				19.7					1.81		100.1
6														
	1128	5	14				35.1					1.56		
						(Auger Refusalt at 8 feet)								
						Dolomitic Limestone								
9						END OF BORING								
	1125													
12														
	1122													
15														
	1119													
18														

Completion Depth: 8.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P29

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/14/2013
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 352+45.29, 11.02' Rt.
ELEVATION: 1136.02

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1136	1				Asphalt (2.9 inches)								
					Base Course Material (6 inches)	2.8							
	2	14		CL	Reddish-Brown Sandy Clay with Chert Gravel; Firm	16.4	37	17	20	50.3			115.7
3 / 1134	3	11				16.1							
	4	6			(Soft from 5 to 7 feet)	15.2							
6 / 1131	5	15			(Firm from 7 to 10 feet)	13.6							93.9
9 / 1128	6	11				31.1							86.9
					END OF BORING								
12 / 1125													
15 / 1122													
18 / 1119													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P30

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 368+03.01, 10.67' Lt.
ELEVATION: 1099.53

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1099					Asphalt (4.2 inches)								
					Base Course Material (6 inches)	2.0							
1098	1 2	5		CL	Reddish-Brown Sandy Clay with Fine Gravel; Very Soft	29.9	51	20	31	57.9			104.3
3 / 1095	3	4				23.8							
6 / 1092	4 5	11 10			(Firm from 5 to 9 feet)	17.1 35.5							
9 / 1089	6	4			(Very Soft from 9 to 10 feet)	21.0							
					END OF BORING								
12 / 1086													
15 / 1083													
18													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P31

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/13/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 375+37.66, 10.90' Rt.
ELEVATION: 1098.31

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1098	1				Asphalt (5.2 inches)								
						Base Course Material (6 inches)	3.2							
		2	8		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity	41.3	77	28	49	86.1			
3	1095	3	9				48.4					1.05		74.6
		4	14			(Firm from 5 to 9 feet)	42.1							76.8
6	1092													
		5	12				44.6					1.12		77.2
9	1089	6	7			(Soft and Saturated from 9 to 10 feet)	52.8							68.2
						END OF BORING								
12	1086													
15	1083													
18	1080													

Completion Depth: 10.0 feet **Depth to Water:** 9 **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P32

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/12/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 386+49.00, 11.25' Lt.
ELEVATION: 1094.33

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (4.9 inches)								
		1				Base Course Material (6 inches)	4.8							
		2	8		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity	39.7							
	1092													
3		3	9				34.3							
	1089	4	9				29.9	93	34	59	52.3			77.8
6														
		5	11			(Firm from 7 to 10 feet)	40.3							82.1
	1086													
9		6	26				44.7							73.8
						END OF BORING								
	1083													
12														
	1080													
15														
	1077													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P33

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/11/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 394+91.52, 10.12' Rt.
ELEVATION: 1093.74

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_U (TSF)	Field Q_U (TSF)	Dry Density (pcf)
0						Asphalt (6.9 inches)								
		1				Base Course Material (6 inches)	2.0							
		2	5		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft	27.8							
	1092													
3		3	8				22.3							
	1089													
		4	7				29.5							
6														
		5	7				33.2	101	36	65				
	1086													
9		6	10			(Firm from 9 to 10 feet)	24.2							
						END OF BORING								
	1083													
12														
	1080													
15														
	1077													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P34

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/12/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 405+25.13, 13.67' Lt.
ELEVATION: 1120.75

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1120	1				Asphalt (4.8 inches)								
						Base Course Material (6 inches)	2.5							
		2	10		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	26.1							
3	1119	3	15				30.3							
	1116	4	28			Chert Seams from 5 to 7 feet	20.3							
6		5	21		SC	Reddish-Brown Clayey Sand with Fine Gravel; Medium-Dense	13.2				34.1			94.9
	1113													
9		6	12				35.6							82.8
	1110					END OF BORING								
12	1107													
15	1104													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P35

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/12/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 416+24.32, 11.48' Rt.
ELEVATION: 1100.09

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1100	1	10		CH	Asphalt (5.9 inches)	9.4	101	35	66	76.1			
		2				Base Course Material (6 inches)	32.9							
		3	10			Reddish-Brown Sandy Clay with Gravel; Firm; High Plasticity	32.4							
		4	9				37.3							82.7
		5	9			(Auger Refusal at 8 feet)	40.3							75.2
10	1090					Dolomitic Limestone								
						END OF BORING								
20	1080													
30	1070													
40	1060													
50	1050													
60	1040													

Completion Depth: 8.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P36

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/12/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 424+83.18, 5.52' Lt.
ELEVATION: 1105.79

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (5.1 inches)								
		1				Base Course Material (6 inches)	3.1							
		2	9		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	27.8	49	22	27	76.5			95.0
	1104													
3		3	14				17.2							106.5
	1101													
		4	11				12.9							
6														
		5	10				17.8							110.1
	1098													
9		6	10		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity	38.4							
						END OF BORING								
	1095													
12														
	1092													
15														
	1089													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P37

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 4/20/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 432+95.18, 20.25' Rt.
ELEVATION: 1107.45

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Asphalt (6.7 inches)	2.6							
		2	12		GC	Base Course Material (6 inches)	22.5							
	1105	3	13			Reddish-Brown Clayey Chert Gravel; Medium-Dense	23.2							
5		4	3		CL	Reddish-Brown Sandy Clay with Fine Chert Gravel; Very Soft	14.2							
	1100	5	13			(Firm from 6 to 8 feet)	35.8							
		6	4			(Very soft from 8 to 10 feet)	18.2							
10		7	24		GC	Reddish-Brown Clayey Chert Gravel; Dense	15.4							
	1095					END OF BORING								
15														
	1090													
20														
	1085													
25														
	1080													
30														

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 12.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

LOG OF BORING NO. B - P38

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/12/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 445+27.35, 15.74' Lt.
ELEVATION: 1112.44

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (4.2 inches)								
		1				Base Course Material (6 inches)	1.5							
		2	18		GC	Reddish-Brown Clayey Chert Gravel with Sand; Medium-Dense	13.9	28	15	11	30.2			
3	1110	3	22				12.5							
		4	25				7.8							
6	1107													
		5	28				20.0							
	1104													
9		6	13				15.2							
						END OF BORING								
	1101													
12														
	1098													
15														
	1095													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P39

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/12/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 452+33.96, 16.12' Rt.
ELEVATION: 1123.18

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1123	1				Asphalt (6.4 inches)								
						Base Course Material (6 inches)	1.8							
	1122	2	12		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	17.8							
3		3	17				19.4							
	1119													
		4	10				12.5							
6														
	1116	5	15				21.5				60.8			
9		6	13				35.5							79.5
	1113					END OF BORING								
12														
	1110													
15														
	1107													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - P40

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/12/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 458+15.68, 19.67' Rt.
ELEVATION: 1142.69

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (5.2 inches)								
		1				Base Course Material (6 inches)	1.3							
		2	14		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	9.0	29	15	14	39.7			119.5
3	1140	3	10				9.3							
		4	13				12.9							
6	1137	5	8			(Loose from 5 to 7 feet)	18.1							
9	1134	6	20			(Medium-Dense from 9 to 10 feet)	15.4							
						END OF BORING								
12	1131													
15	1128													
18	1125													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

BRIDGE
BORING LOGS

LOG OF BORING NO. B - B1

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 8-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 2/18/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 201+42.64, 22.05' Rt.
ELEVATION: 1052.63

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1052.63	1				Asphalt (6 inches)	1.8							
		2	15		CL	Base Course Material (6 inches)	4.2							
						Reddish-Brown Sandy Clay with Fine Gravel; Firm								
	1050	3	10				3.9							
5		4	7			(Soft from 5 to 10 feet)	16.2							
	1045	5	7				15.6							
		6	7				15.9							
10		7				(Auger Refusal at 10.5 feet)								
	1040					Dolomitic Limestone 100% Recovery 82% RQD						198.9		167.7
15		8				100% Recovery 77% RQD						254.9		166.8
	1035													
20		9				100% Recovery 87% RQD						218.5		166.9
	1030													
25		10				98% Recovery 52% RQD						316.0		167.5
	1025													
30						END OF BORING								

Completion Depth: 30.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B2

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 3/11/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 201+33.70, 21.39' Lt.
ELEVATION: 1051.97

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1051.97	1				Asphalt (3 inches)	2.6							
						Base Course Material (12 inches)								
	1050	2	12		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	7.3							
		3	7			(Soft from 3 to 5 feet)	39.1							75.1
5		4	3			(Very Soft from 5 to 7 feet)	30.0							109.7
	1045	5	18		SC	Reddish-Brown Clayey Sand with Gravel; Medium-Dense	18.6	32	15	17	47.8			
		6				(Auger Refusal at 8.5 feet)						150.5		122.8
10						Dolomitic Limestone 100% Recovery 85% RQD								
	1040	7				95% Recovery 78% RQD						182.6		122.4
15														
	1035	8				100% Recovery 80% RQD						192.3		118.6
20														
	1030					END OF BORING								
25														
	1025													
30														

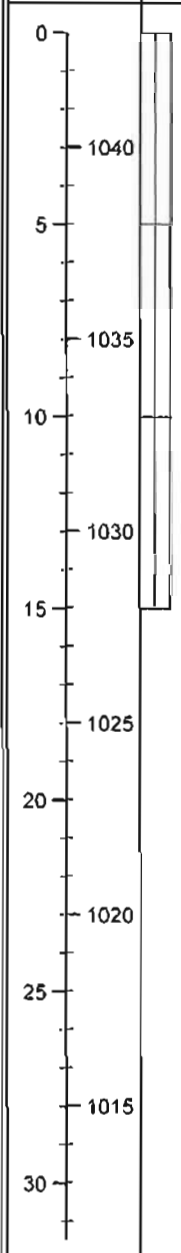
This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 22.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

LOG OF BORING NO. B - B3

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 2/19/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 201+72.31, 33.72' Rt.
ELEVATION: 1042.98



Depth (Feet) / Elevation (Feet)	Sample No.	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_U (TSF)	Field Q_U (TSF)	Dry Density (pcf)
0 / 1042.98	1	Dolomitic Limestone 97% Recovery 62% RQD						260.0		166.9
5 / 1040	2	100% Recovery 83% RQD						310.0		167.9
10 / 1035	3	100% Recovery 55% RQD						214.8		166.5
15 / 1030		END OF BORING								

Completion Depth: 15.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B4

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 2/19/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 202+42.64, 36.26' Lt.
ELEVATION: 1041.15

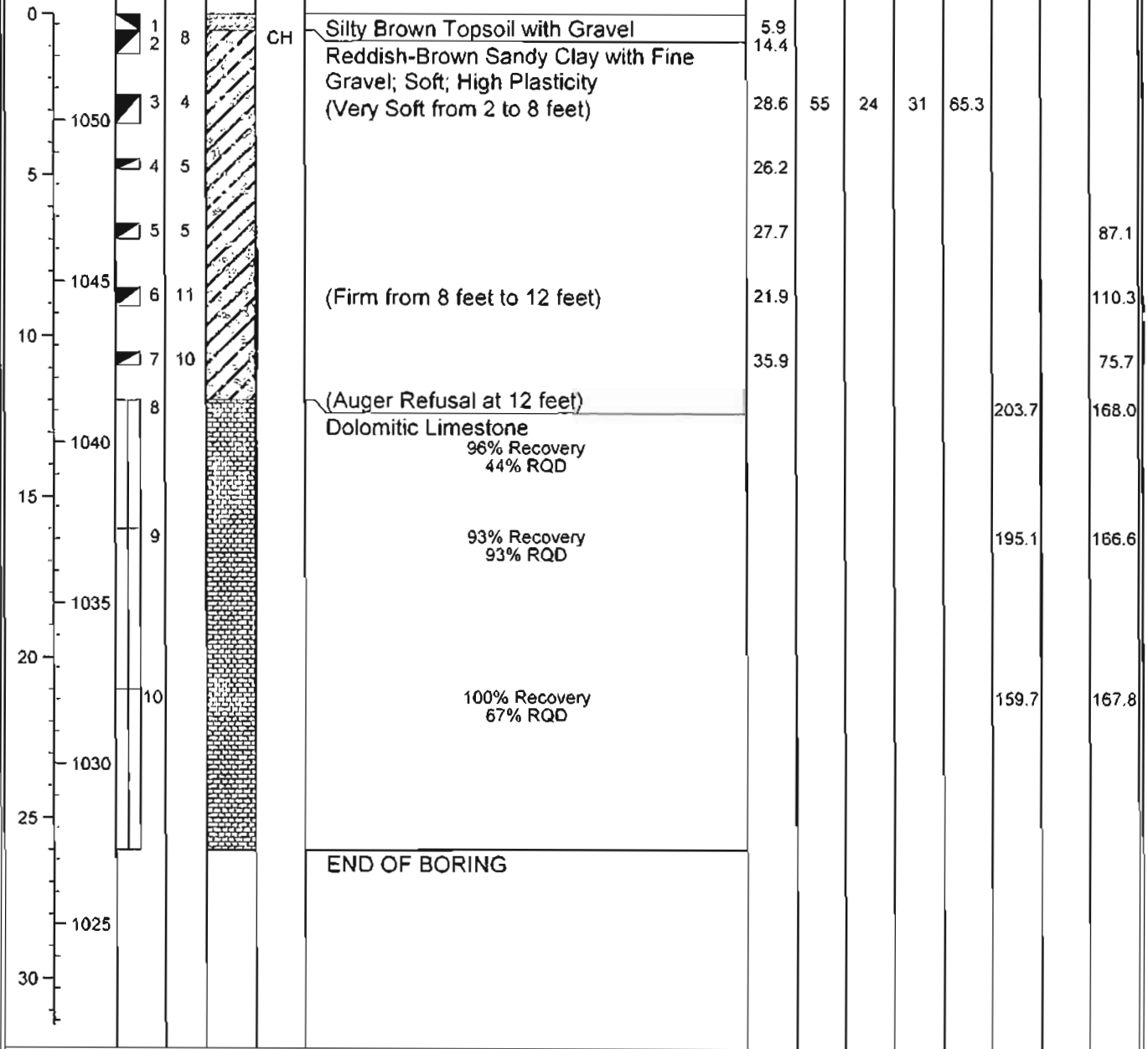
Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1040	1				Dolomitic Limestone 83% Recovery 48% RQD						205.6		168.7
5	1035	2				100% Recovery 100% RQD						190.7		167.7
10	1030	3				100% Recovery 92% RQD						265.0		169.3
15	1025					END OF BORING								
20	1020													
25	1015													
30	1010													

Completion Depth: 14.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B5

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 2/20/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 202+39.78, 33.28' Rt.
ELEVATION: 1053.31



Completion Depth: 26.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B6

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 2/21/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 202+77.84, 8.27' Lt.
ELEVATION: 1052.91

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1052.91	1				Base Course Material (18 inches)	1.7							
		2	43		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	2.5							
	1050	3	9				3.7							
5		4	6			(Very Soft from 4 to 8 feet)	2.4							
		5	3											
	1045	6	27		GC	Reddish-Brown Clayey Chert Gravel; Dense	7.3	30	16	14				
10		7	31				11.5				14.6			
	1040													
15		8	11			(Medium-Dense from 15 to 16 feet)	41.8							
		9				(Auger Refusal at 16 feet)								
	1035					Dolomitic Limestone 96% Recovery 63% RQD						213.9		167.7
20		10				100% Recovery 98% RQD						205.0		163.8
	1030													
25		11				97% Recovery 63% RQD						163.0		164.7
	1025													
30						END OF BORING								

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 30.0 feet **Depth to Water:** 15 **Logged By:** G. Brown

LOG OF BORING NO. B - B7

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/12/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 203+07.70, 20.74' Rt.
ELEVATION: 1053.13

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1053.13	1				Asphalt (4 inches)								
						Base Course Material (12 inches)	2.2							
		2	6		CH	Reddish-Brown Sandy Clay; Soft; High Plasticity	20.5							
	1050	3	6				18.2							
5		4	3			(Very Soft from 5 to 9 feet)	12.8							
	1045	5	2				20.2							
10		6	15		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	13.4	38	16	22	23.9			104.6
		7	6			(Loose from 11 to 12.5 feet)	18.7	42	19	23				
	1040	8				(Auger Refusal at 12.5 feet)								
						Dolomitic Limestone						243.8		168.6
15						97% Recovery 63% RQD								
	1035	9				100% Recovery 55% RQD						234.4		167.8
20														
	1030	10				100% Recovery 92% RQD						334.1		168.1
25														
	1025					END OF BORING								
30														

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 27.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

LOG OF BORING NO. B - B8

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/19/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 203+62.99, 18.43' Lt.
ELEVATION: 1054.02

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Asphalt (4 inches)	1.5							
		2	9		CL	Base Course Material (6 inches)	16.8							107.9
		3	5			Reddish-Brown Sany Clay with Fine Gravel; Soft	11.3							
	1050													
5		4	5				12.8							
		5	4				14.3							
	1045	6	28		GC	Reddish-Brown Clayey Chert Gravel; Dense	15.5							
10		7	25				13.0							
	1040													
15		8	25				35.8							83.7
		9				(Auger Refusal at 18 feet) Dolomitic Limestone								
	1035					88% Recovery 57% RQD						264.0		
20														
		10				100% Recovery 90% RQD						167.2		
	1030													
25														
		11				97% Recovery 82% RQD						186.5		
	1025													
30														

Completion Depth: 38.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B8

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/19/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 203+62.99, 18.43' Lt.
ELEVATION: 1054.02

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
35	1020	12				100% Recovery 80% RQD						131.5		
40	1015					END OF BORING								
45	1010													
50	1005													
55	1000													
60	995													

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

Completion Depth: 38.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

LOG OF BORING NO. B - B9

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/21/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 253+28.08, 25.09' Rt.
ELEVATION: 1036.50

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Base Course Material (12 inches)	3.1							
	1035	2	15		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	24.4							
		3	10				19.5				60.8			
5		4	12				20.6	51	23	28				
	1030	5	9			(Soft from 6 to 15 feet)	16.7							
		6	7				32.7							
10		7	6				23.1							
	1025													
15		8	6		CH	Reddish-Brown Sandy Clay; Soft; High Plasticity	23.7							101.7
	1020													
20		9	7				20.0							
	1015													
25		10				(Auger Refusal at 25 feet)								
	1010					Tan to Gray Weathered Sandstone 97% Recovery 45% RQD						90.38		14.7
						(Voids and Fissures from 27 to 28 feet)								
						Dolomitic Limestone								
30		11				97% Recovery 93% RQD						207.8		159.4

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 40.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

LOG OF BORING NO. B - B9

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/21/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 253+28.08, 25.09' Rt.
ELEVATION: 1036.50

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
1005													
35	12				100% Recovery 100% RQD						302.4		165.7
1000													
40					END OF BORING								
995													
45													
990													
50													
985													
55													
980													
60													
975													

Completion Depth: 40.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

LOG OF BORING NO. B - B10

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 5/30/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 253+71.27, 3.81' Rt.
ELEVATION: 1035.73

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1035	1				Asphalt (6 inches)								
						Base Course Material (18 inches)	1.9							
		2	4		CL	Reddish-Brown Sandy Clay with Fine Chert Gravel; Soft	21.4							
5	1030	3	13				20.6							
		4	8		SC	Reddish-Brown Clayey Sand with Fine Chert Gravel; Loose	31.1	39	16	23	45.9			
		5	6				29.8							
10	1025	6	6				19.6							
15	1020	7	7			Reddish-Brown Sandy Clay with Fine Chert Gravel; Soft	41.4							77.5
20	1015	8	16			(Firm from 20 to 25 feet)	27.4							
25	1010	9				(Auger Refusal at 25 feet) Tan to Gray Weathered Sandstone (Fractured from 27 to 28 feet) 93% Recovery 47% RQD						210.5		155.2
30	1005	10				93% Recovery 93% RQD						143.5		149.7

Completion Depth: 40.0 feet **Depth to Water:** Dry **Logged By:** J. Thomas

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B10

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 5/30/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 253+71.27, 3.81' Rt.
ELEVATION: 1035.73

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
						Dolomitic Limestone								
35	1000	11				100% Recovery 100% RQD						152.8		143.2
40	995					END OF BORING								
45	990													
50	985													
55	980													
60	975													

Completion Depth: 40.0 feet **Depth to Water:** Dry **Logged By:** J. Thomas

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

LOG OF BORING NO. B - B11

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 4/16/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 254+27.47, 41.72' Rt.
ELEVATION: 1009.69

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1009	1				Silty Brown Topsoil with Gravel	27.1							
						(Auger Refusal at 2 feet)								
		2				Dolomitic Limestone 90% Recovery 78% RQD						154.2		145.8
5	1005													
		3				92% Recovery 85% RQD						205.4		156.0
10	1000													
		4				70% Recovery 70% RQD						258.0		161.8
15	995													
						END OF BORING								
20	990													
25	985													
30	980													

Completion Depth: 17.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B12

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 4/15/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 254+60.20, 20.42' Lt.
ELEVATION: 1010.39

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1010	1	50/9		SC	Silty Brown Topsoil with Gravel	12.4				33.2			
		2				Reddish-Brown Clayey Sand with Chert Gravel; Dense	14.7							
		3	50/ 4"				13.2							
5	1005	4	50/ 0"				6.1							
		5				(Auger Refusal at 5.5 feet) Dolomitic Limestone								
						87% Recovery 87% RQD						419.8		156.5
10	1000	6				97% Recovery 97% RQD						357.4		163.1
15	995	7				75% Recovery 58% RQD						345.8		157.1
						END OF BORING								
20	990													
25	985													
30	980													

Completion Depth: 16.5 feet **Depth to Water:** Dry **Logged By:** R. Severson

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B13

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 6/3/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 254+95.59, 59.96' Rt.
ELEVATION: 1013.02

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1013.02	1	6			Silty Brown Topsoil with Gravel	18.2							103.3
		2				Silty Brown Topsoil; Soft								
	1010	3	8				14.0							108.9
5		4	9		CL	Brown Sandy Clay with Gravel; Soft	12.1							
		5	15		SC	Tan to Brown Clayey Sand With Gravel; Medium-Dense	9.4							
	1005	6				(Auger Refusal at 8 feet)						269.9		157.4
10						Tan to Gray Weathered Sandstone 82% Recovery 65% RQD								
	1000	7				100% Recovery 83% RQD								
15		7				Dolomitic Limestone						496.9		160.6
	995	8				92% Recovery 92% RQD						208.9		160.4
20														
	990					END OF BORING								
25														
	985													
30														

Completion Depth: 23.0 feet **Depth to Water:** Dry **Logged By:** J. Thomas

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B14

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 5/28/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 255+59.31, 63.18' Lt.
ELEVATION: 1019.32

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1	50/ 6"			Brown Silty Topsoil with Chert Gravel	12.7							
		2					16.4							
		3				(Auger Refusal at 2 feet)								
	1015					Tan to Gray Weathered Sandstone with Chert Interbedding								
5		4				67% Recovery 25% RQD 80% Recovery 60% RQD						214.0		153.5
	1010													
10		5				100% Recovery 50% RQD						162.1		158.9
						Tan to Gray Weathered Sandstone								
	1005													
15		6				Dolomitic Limestone 53% Recovery 52% RQD						241.1		158.7
	1000													
20						END OF BORING								
	995													
25														
	990													
30														

Completion Depth: 20.0 feet **Depth to Water:** Dry **Logged By:** J. Thomas

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B15

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/20/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 255+75.94, 20.37' Rt.
ELEVATION: 1035.05

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1035	1	12		CL	Base Course Material (6 inches)	2.3							
		2				Reddish-Brown Sandy Clay with Fine Gravel; Firm	22.7	32	20	12				
		3	10				10.0							
5	1030	4	15		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	25.1				43.0			
		5	22			(Dense from 6 to 8 feet)	26.6							99.3
		6	50/ 0"			(Chert Cobbles and Boulders from 8 to 10 feet)	22.3							
10	1025	7	50/ 4"			(Auger Refusal at 11 feet)								
		8				Tan to Gray Weathered Sandstone 83% Recovery 64% RQD						132.0		148.6
15	1020					See Boring 15A								
20	1015													
25	1010													
30	1005													

Completion Depth: 14.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B15A

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 6/5/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 255+74.91, 4.15' Rt.
ELEVATION: 1035.05

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1035	1				Asphalt (6 inches)								
						Base Course Material (18 inches)	1.9							
		2	9		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	8.3							
5	1030	3	10		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	14.6							
		4	12				16.4	64	25	39	30.7			
						(Auger Refusal at 8 feet)								
		5				Dolomitic Limestone 30% Recovery 15% RQD						138.8		166.4
10	1025					Dolomitic Limestone with Sandstone Interbedding; Weathered and Fractured								
		6				20% Recovery 0% RQD								
15	1020													
		7				Dolomitic Limestone 100% Recovery 83% RQD						308.2		150.0
20	1015	7										122.7		152.6
						END OF BORING								
25	1010													
30	1005													

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 22.0 feet **Depth to Water:** Dry **Logged By:** J. Thomas

LOG OF BORING NO. B - B16

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 4/20/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 255+80.76, 75.67' Lt.
ELEVATION: 1020.21

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1020	1				Dolomitic Limestone 97% Recovery 62% RQD						334.0		175.0
5	1015	2				80% Recovery 62% RQD						224.4		163.1
10	1010	3				100% Recovery 100% RQD						516.2		163.7
15	1005	4				100% Recovery 100% RQD						409.8		165.6
20	1000					END OF BORING								
25	995													
30	990													

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 20.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

LOG OF BORING NO. B - B17

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 4/20/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 433+77.58, 22.78' Rt.
ELEVATION: 1107.33

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1			CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	23.1							
		2	12				21.1				68.1			
	1105	3	12				26.4							
5		4	2			(Very soft from 4 to 6 feet)	15.4							
	1100	5	15			(Firm from 6 to 8 feet)	43.0							
		6	4			(Very soft from 8 to 10 feet)	13.0							
10		7	23		GC	Reddish-Brown Clayey Chert Gravel; Dense	13.9							
	1095													
15		8	17			(Medium-Dense from 15 to 20 feet)	36.6					1.692		79.8
	1090													
20		9	26				22.2				43.8			
	1085													
25		10	32				41.6							65.8
	1080					(Auger Refusal at 26 feet)								
						Weathered Chert and Sandstone								
30						Highly Fractured Weathered Chert and Sandstone Seams with Cobbles and Boulders; Apparent VOID from 27 to 38 feet; Drilling steel dropped under its own weight.								

Completion Depth: 43.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B17

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 4/20/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 433+77.58, 22.78' Rt.
ELEVATION: 1107.33

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
	1075					Coring was unable to continue below 43 feet due to misalignment caused by cobbles/boulders from 27 to 38 feet. If requested, the boring can be attempted to a lower elevation at a later date.								
35	1070	11				Dolomitic Limestone 90% Recovery 68% RQD						120.4		167.0
40	1065					END OF BORING								
45	1060													
50	1055													
55	1050													
60	1045													

Completion Depth: 43.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

LOG OF BORING NO. B - B18

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 4/16/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 433+70.86, 42.66' Lt.
ELEVATION: 1101.29

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1101	1				Brown Topsoil with Chert Gravel	24.9							
	1100	2			GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	21.1							
		3	14				29.7							90.3
5		4	5		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity	40.9					1.189		79.6
	1095	5	14			(Firm from 5 to 10 feet)	35.6	92	33	59	84.0			85.3
		6	18		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	21.8							88.9
10		7	23				45.3							75.6
	1090													
15		8	21		SC	Reddish-Brown Clayey Sand with Chert Gravel; Dense	34.6							
	1085													
20		9				(Auger Refusal at 20 feet)								
	1080					Dolomitic Limestone 79% Recovery 75% RQD						195.1		165.7
		10				100% Recovery 62% RQD						158.8		165.7
25	1075													
		11				83% Recovery 45% RQD						267.5		165.7
30	1070													

Completion Depth: 39.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B18

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 4/16/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 433+70.86, 42.66' Lt.
ELEVATION: 1101.29

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
35	1065	12				100% Recovery 32% RQD						86.0		159.9
40	1060					END OF BORING								
45	1055													
50	1050													
55	1045													
60	1040													

Completion Depth: 39.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

LOG OF BORING NO. B - B19

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 4/9/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 435+12.45, 33.64' Rt.
ELEVATION: 1080.07

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1080	1	7		CH	Silty Brown Topsoil with Gravel	10.5							
		2				Reddish-Brown Sandy Clay with Fine Gravel; Soft High Plasticity	8.9							
		3	5				18.2							
5	1075	4	11		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	29.4							
		5	11				44.3							
		6	16				23.5				48.4			
10	1070	7	17				40.8							
15	1065	8	18				24.9							88.0
20	1060	9	28			(Dense from 20 to 27 feet)	23.2							
						(Cobbles/Boulders from 23 to 27 feet)								
25	1055					(Auger Refusal at 27 feet)								
		8				Dolomitic Limestone 100% Recovery 89% RQD								
30	1050					END OF BORING								

Completion Depth: 29.5 feet **Depth to Water:** Dry **Logged By:** R. Severson

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B19A

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 6/2/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 434+98.75, 36.10' Rt.
ELEVATION: 1078.48

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1078	1	6		CL	Silty Brown Topsoil with Gravel	10.2							
		2				Reddish-Brown Sandy Clay with Fine Gravel; Soft	9.5							
		3	6				12.6							
5	1075	4	13		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	26.7							
		5	12				29.6							
	1070	6	15				26.8							
10		7				(Auger Refusal at 10 feet)								
						Dolomitic Limestone						131.9		159.1
	1065					100% Recovery 73% RQD								
15		8				87% Recovery 80% RQD						187.7		165.6
	1060													
20						END OF BORING								
	1055													
25														
	1050													
30														

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 20.0 feet **Depth to Water:** Dry **Logged By:** J. Thomas

LOG OF BORING NO. B - B20

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 4/7/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 435+20.52, 17.49' Lt.
ELEVATION: 1080.31

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1080	1				Silty Brown Topsoil with Gravel	13.9							
		2	9		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	18.6							
		3	14				16.9							
5	1075	4	15		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	22.8							
		5	12				26.4				32.4			
10	1070	6	12		CH	Reddish-Brown Sandy Clay with Fine Gravel; Firm; High Plasticity	31.2	80	31	49				93.2
15	1065	7	23		SC	Reddish-Brown Clayey Sand with Chert Gravel; Dense	25.0							90.9
						(Auger Refusal at 19 feet)								
20	1060	8				Dolomitic Limestone 100% Recovery 50% RQD						242.9		166.1
		9				100% Recovery 77% RQD						201.9		163.7
25	1055													
		10				97% Recovery 70% RQD						241.6		167.0
30	1050													

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 33.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

LOG OF BORING NO. B - B20

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 4/7/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 435+20.52, 17.49' Lt.
ELEVATION: 1080.31

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
						END OF BORING								
35	1045													
40	1040													
45	1035													
50	1030													
55	1025													
60	1020													

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

Completion Depth: 33.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

LOG OF BORING NO. B - B20A

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 5/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 434+31.97, 46.80' Lt.
ELEVATION: 1095.99

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1095	1	7		CH	Brown Silty Topsoil with Gravel	22.5							
		2				Reddish-Brown Sandy Clay with Chert Gravel; Soft; High Plasticity	22.5	92	35	57				
		3	5				43.3							77.4
5	1090	4	10			(Firm from 4 to 8 feet)	21.6							90.9
		5	16				41.0					1.31		79.3
		6	27		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	26.7							
10	1085	7	18				39.5				71.5			
15	1080	8	24				47.0							114.6
20	1075	9	20				23.6							
25	1070	10	17				23.7							88.0
30	1065	11	50/ 0"											

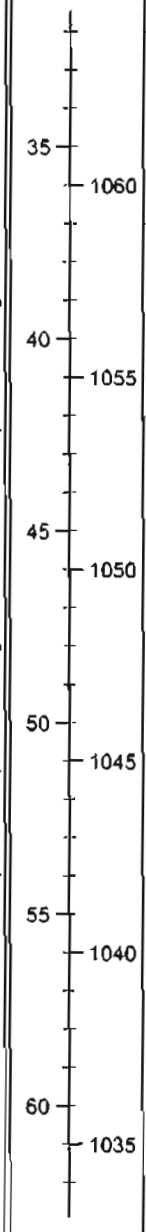
Completion Depth: 42.0 feet **Depth to Water:** 29 **Logged By:** J. Thomas

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B20A

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 5/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 434+31.97, 46.80' Lt.
ELEVATION: 1095.99



Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
		12				(Auger Refusal at 32 feet) Dolomitic Limestone 88% Recovery 62% RQD						163.3		162.0
		13				63% Recovery 25% RQD						264.6		165.4
						END OF BORING								

Completion Depth: 42.0 feet **Depth to Water:** 29 **Logged By:** J. Thomas

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

LOG OF BORING NO. B - B21

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 4/8/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 435+60.42, 57.10' Rt.
ELEVATION: 1081.72

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1081	1	12		SC	Silty Brown Topsoil with Gravel	6.9				31.7			
		2				Reddish-Brown Clayey Sand with Fine Gravel; Firm	13.3							
	1080	3	10				10.9							
5		4	13		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	24.2							
	1075	5	4		CH	Reddish-Brown Sandy Clay; Very Soft; High Plasticity	21.4							
		6	6				23.6	67	27	40				
10		7	2				34.3							
	1070					(Auger Refusal at 13 feet)								
		8				Sandstone and Chert Seams								168.9
15						(Cobbles and Boulders with Apparent VOIDS)								
	1065													
		9				Dolomitic Limestone 87% Recovery 73% RQD						205.8		162.8
20	1060													
						END OF BORING								
25	1055					Coring was unable to continue below 23 feet due to misalignment caused by cobbles/boulders from 14 to 18 feet. If requested, the boring can be attempted to a lower elevation at a later date.A								
30														

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 23.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

LOG OF BORING NO. B - B22

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit
PROJECT NO.: FY143801
DATE DRILLED: 4/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 435+66.66, 7.97' Lt.
ELEVATION: 1083.34

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Silty Brown Topsoil with Gravel	43.5							
		2	6		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	21.4				57.4			
	1080	3	4			(Very Soft from 2 to 4 feet)	25.7							91.4
5		4	7				21.8							
		5	6				22.4							
	1075	6	25		GC	Reddish-Brown Clayey Chert Gravel; Dense	40.7							
10		7	11			(Medium-Dense from 10 to 15 feet)	40.5							
	1070													
15		8	50/ 11"				23.8							
		8				(Auger Refusal at 16 feet)								
	1065					Dolomitic Limestone 100% Recovery 83% RQD								
20		9				100% Recovery 60% RQD						96.4		161.2
	1060													
25		10				87% Recovery 62% RQD						162.4		163.5
	1055													
30		12				97% Recovery						151.5		167.6

Completion Depth: 36.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B22

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 4/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 435+66.66, 7.97' Lt.
ELEVATION: 1083.34

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_U (TSF)	Field Q_U (TSF)	Dry Density (pcf)
35	1050					68% RQD								
						END OF BORING								
40	1045													
45	1040													
50	1035													
55	1030													
60	1025													

Completion Depth: 36.0 feet **Depth to Water:** Dry **Logged By:** R. Severson

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

LOG OF BORING NO. B - B23

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/24/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 436+56.59, 23.14' Rt.
ELEVATION: 1106.56

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_U (TSF)	Field Q_U (TSF)	Dry Density (pcf)
0		1				Asphalt (4 inches)	1.7							
	1105	2	6		CH	Base Course Material (6 inches)	25.2	10	37	-27				
						Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity								
		3	6				21.1							
5		4	6				27.3				56.1			
	1100	5	6		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	19.8							
		6	9				37.8							103.7
10		7	7				38.1							
	1095													
15		8	21		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	19.2							
	1090													
20		9	8			(Loose from 20 to 25 feet)	32.9							
	1085													
25		10	3		CL	Reddish-Brown Sandy Clay with Fine Gravel; Very Soft	5.4							
	1080													
30		11	4				20.2							

Completion Depth: 36.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - B23

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/24/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 436+56.59, 23.14' Rt.
ELEVATION: 1106.56

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
1075													
	12				(Auger Refusal at 33 feet) (Cobbles and Boulders with Apparent VOIDS) Dolomitic Limestone 61% Recovery 28% RQD						356.4		168.6
35 1070					END OF BORING Coring was unable to continue below 36 feet due to misalignment caused by cobbles/boulders from 33 to 34 feet. If requested, the boring can be attempted to a lower elevation at a later date.								
40 1065													
45 1060													
50 1055													
55 1050													
60 1045													

Completion Depth: 36.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

LOG OF BORING NO. B - B24

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 436+54.42, 0.37' Rt.
ELEVATION: 1106.47

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1106	1				Asphalt (4 inches)	2.0							
1105	2	7		SC	Base Course Material (6 inches)	17.8				36.5			
					Reddish-Brown Clayey Sand with Fine Gravel; Loose								
	3	8				26.3							
5 /	4	7				27.1							
1100	5	7				16.7							
	6	7		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity	29.9	79	35	44				
10 /	7	9		GC	Reddish-Brown Clayey Chert Gravel; Loose	34.4							
1095													
15 /	8	3		CL	Reddish-Brown Sandy Clay with Fine Gravel; Very Soft	26.7							
1090													
20 /	9	11		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	22.8							
1085					(Auger Refusal at 23 feet)								
					(Cobbles and Boulders with Apparent VOIDS)								
25 /													
1080													
	10				Dolomitic Limestone; Fractured with Weathered Chert and Sandstone Seams 30% Recovery 7% RQD						99.7		161.0
30 /													

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Completion Depth: 38.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

LOG OF BORING NO. B - B24

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger & 3" NX Bit

PROJECT NO.: FY143801
DATE DRILLED: 3/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 436+54.42, 0.37' Rt.
ELEVATION: 1106.47

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
1075													
	11				Dolomitic Limestone 68% Recovery 28% RQD						167.5		167.6
35													
1070													
					END OF BORING Coring was unable to continue below 38 feet due to misalignment caused by cobbles/boulders from 23 to 28 feet. If requested, the boring can be attempted to a lower elevation at a later date.								
40													
1065													
45													
1060													
50													
1055													
55													
1050													
60													
1045													

Completion Depth: 38.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

WIDENING AREA
BORING LOGS

LOG OF BORING NO. B - S1

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 79+80.32, 33.05' Rt.
ELEVATION: 1183.30

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Silty Brown Topsoil with Gravel	18.9							
	1182	2	7		CL	Brown Sandy Clay with Fine Gravel; Soft	19.6				50.2			98.2
3		3	6				20.3	39	19	20				
	1179	4	6				20.4							107.0
6		5	5				22.3							100.0
	1176													
9		6	9		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	25.4							
	1173					END OF BORING								
12														
	1170													
15														
	1167													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S2

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 90+01.45, 45.81' Lt.
ELEVATION: 1190.83

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Silty Brown Topsoil	21.6							
		2	5		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	23.0							101.5
3	1188	3	13			(Firm from 2 to 4 feet)	22.3							99.2
		4	8			(Soft from 4 to 6 feet)	19.5							
6	1185	5	17			(Firm from 6 to 10 feet)	33.2				64.7			84.2
9	1182	6	19				30.9	85	41	44				
						END OF BORING								
12	1179													
15	1176													
18	1173													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S3

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/24/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 99+75.00, 45.09' Rt.
ELEVATION: 1205.93

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Silty Brown Topsoil with Gravel	21.1							
		2	10		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	19.5							
3	1203	3	17			(Chert Seams)	18.6							
		4	7			(Loose from 4 to 6 feet)	18.4				15.7			
6	1200					(Auger Refusal at 6 feet)								
						Dolomitic Limestone								
						END OF BORING								
9	1197													
12	1194													
15	1191													
18	1188													

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S4

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 109+18.32, 20.52' Rt.
ELEVATION: 1234.23

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1234	1				Base Course Material (6 inches)	4.7							
	2	11		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	12.8				33.8			
1233													
3 /	3	20				14.0							
					(Auger Refusal at 4 feet)								
1230					Dolomitic Limestone								
					END OF BORING								
6 / 1227													
9 / 1224													
12 / 1221													
15 / 1218													
18													

Completion Depth: 4.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S5

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 120+15.37, 43.70' Lt.
ELEVATION: 1262.03

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1262	1				Silty Brown Topsoil	18 3							
1260					(Auger Refusal at 2 feet)								
3					Hard Chert Seams								
					END OF BORING								
1257													
6													
1254													
9													
1251													
12													
1248													
15													
1245													
18													

Completion Depth: 2.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S6

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 131+46.76, 20.82' Rt.
ELEVATION: 1247.64

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				"Dirty" Base Course Material (6 inches)	1.0							
		2	17		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	3.8							
3	1245	3	22				9.9	32	15	17	37.6			
		4	24				9.2							
6	1242					(Auger Refusal at 6 feet) Dolomitic Limestone								
						END OF BORING								
9	1239													
12	1236													
15	1233													
18	1230													

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S7

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 138+85.68, 22.99' Rt.
ELEVATION: 1236.14

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1236	1				Base Course Material (12 inches)	3.7							
		2	15		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	2.9							
3	1233	3	13				13.3				32.7			
		4	15				12.8	48	19	29				
6	1230	5	4			(Very loose from 7 to 9 feet)	13.3							
9	1227	6	50/ 6"		GC	(Dense from 9 to 10 feet)	18.8							
						END OF BORING								
12	1224													
15	1221													
18	1218													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S8

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 150+12.05, 18.72' Lt.
ELEVATION: 1233.20

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1233	1				Silty Brown Topsoil	28.4							
		2	19		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	25.1				33.7			97.0
3	1230	3	13				24.3							
						(Auger Refusal at 4 feet)								
						Dolomitic Limestone								
						END OF BORING								
6	1227													
9	1224													
12	1221													
15	1218													
18	1215													

Completion Depth: 4.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S9

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 162+53.05, 23.25' Lt.
ELEVATION: 1190.26

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1190	1				Asphalt (6 inches)								
					"Dirty" Base Course Material (12 inches)	15.9							
2 / 1188	2	14		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	3.9							
3	3	4			(Very soft from 3.5 to 5.5 feet)	19.0				56.6			
1185													
6	4	7			(Soft from 5.5 to 6.5 feet)	16.4							
					(Auger Refusal at 6.5 feet)								
					Dolomitic Limestone								
					END OF BORING								
1182													
9													
1179													
12													
1176													
15													
1173													
18													

Completion Depth: 7.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S10

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 174+86.75, 55.70' Rt.
ELEVATION: 1118.88

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Silty Brown Topsoil	20.6							
		2	13		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	23.7	58	22	36				
3	1116	3	50/ 6"			(Dense from 2 to 6 feet)	28 3				54.7			
		4	50/ 0"											
6	1113					(Auger Refusal at 6 feet)								
						Dolomitic Limestone								
						END OF BORING								
9	1110													
12	1107													
15	1104													
18	1101													

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

LOG OF BORING NO. B - S11

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 182+05.45, 47.88' Rt.
ELEVATION: 1102.71

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1102	1				Silty Brown Topsoil with Gravel	24.3							
		2	6		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	34.1				47.8			
3	1101	3	7				39.2	91	44	47				79.6
		4	50/ 8"		GC	Reddish-Brown Clayey Chert Gravel; Dense	29.3							
6	1098					(Auger Refusal at 6 feet)								
						Dolomitic Limestone								
	1095					END OF BORING								
9	1092													
12	1089													
15	1086													
18														

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S12

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 190+21.78, 42.56' Rt.
ELEVATION: 1089.68

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1089	1				Silty Brown Topsoil with Gravel	27.4							
		2	9		GC	Reddish-Brown Clayey Chert Gravel; Loose	18.4							
3	1086	3	7				19.1				28.8			
		4	8				19.8							
6	1083	5	9				19.3							
9	1080	6	16			(Medium-Dense from 8 to 10 feet)	22.5							
						END OF BORING								
12	1077													
15	1074													
18	1071													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S13

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 195+33.69, 27.20' Rt.
ELEVATION: 1067.76

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Base Course Material (6 inches)	3.4							
		2	17		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	2.4	33	14	19				
3	1065	3	5			(Soft from 2.5 to 6 feet)	12.9							
		4	8				22.1				41.7			
6	1062	5	18		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	16.0							
9	1059	6	20				15.5							
						END OF BORING								
12	1056													
15	1053													
18	1050													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S14

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 211+34.06, 41.79' Rt.
ELEVATION: 1066.50

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1066	1	7		CL	Brown Sandy Clay with Fine Gravel; Soft	39.3							
		2					15.5	37	18	19				
	1065													
3		3	7				18.8				67.9			
	1062	4	4			(Very Soft from 4 to 10 feet)	20.4							
6		5	4				22.2							92.7
	1059													
9		6	3				21.8							
	1056					END OF BORING								
12														
	1053													
15														
	1050													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S15

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 221+10.16, 38.78' Lt.
ELEVATION: 1062.86

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1062	1				Brown Silty Topsoil with Fine Gravel; Soft	30.3							
		2	6		CL	Red Sandy Clay; Soft	47.6	96	47	49				71.4
3	1059	3	7				44.3				90.0			74.0
		4	12			(Firm from 4 to 6 feet)	43.0							78.5
6	1056	5	16		CL	Red Sandy Clay with Fine Gravel; Firm	40.9							74.4
9	1053	6	11				45.0							74.6
						END OF BORING								
12	1050													
15	1047													
18	1044													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S16

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 230+10.58, 36.46' Rt.
ELEVATION: 1084.06

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1084	1				Brown Silty Clay Topsoil	26.2							
	1083	2	4		CL	Reddish-Brown Sandy Clay; Very Soft	24.0							98.3
3	1080	3	16		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	25.8							
		4	5			(Loose from 4 to 6 feet)	24.5	36	17	19				
6	1077	5	15			(Medium-Dense from 6 to 10 feet)	22.3				42.3			
9		6	10				36.7							84.5
	1074					END OF BORING								
12	1071													
15	1068													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S17

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 239+60.23, 32.24' Lt.
ELEVATION: 1088.07

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Brown Silty Clay Topsoil	19.0							
		2	13		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	18.5							
	1086													
3		3	14				19.9							
		4	10		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	40.3							79.4
	1083													
6		5	34		GC	Reddish-Brown Clayey Chert Gravel; Dense	32.4				74.2			
	1080													
9		6	23				43.4							80.5
						END OF BORING								
	1077													
12														
	1074													
15														
	1071													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S18

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/11/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 245+73.67, 22.99' Lt.
ELEVATION: 1067.24

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1067	1				Brown Silty Topsoil with Gravel	19.7							
		2	24		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	11.1				26.5			
	1065													
3		3	11				19.3							
		4	7		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity	43.3							70.0
6	1062													
		5	8		CH	Reddish-Brown Sandy Clay; Soft; High Plasticity	31.3	93	41	52				74.9
	1059													
9		6	8				43.7							78.1
						END OF BORING								
	1056													
12														
	1053													
15														
	1050													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S19

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/11/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 260+45.26, 40.61' Lt.
ELEVATION: 1045.95

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1044	1				Brown Silty Topsoil with Chert Cobbles (Rip-Rap) (Unable to Continue Augering in Loose Cobbles)	15.3							
3 / 1041					END OF BORING								
6 / 1038													
9 / 1035													
12 / 1032													
15 / 1029													
18													

Completion Depth: 2.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S20

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/11/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 268+99.31, 44.51' Rt.
ELEVATION: 1090.72

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1090	1				Reddish-Brown Sandy Clay with Chert Cobbles (Rip-Rap) (Unable to Continue Augering in Loose Cobbles)	15.7							
3	1089					END OF BORING								
6	1086													
9	1083													
12	1080													
15	1077													
18	1074													

Completion Depth: 2.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S21

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/17/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 281+97.38, 29.80' Lt.
ELEVATION: 1104.79

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1104	1				Base Course Material (12 inches)	1.9							
		2	12		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	2.8							
3	1101	3	12				22.2							
		4	50/ 10"				20.7				51.4			
6	1098					(Auger Refusal at 6 feet) Dolomitic Limestone END OF BORING								
9	1095													
12	1092													
15	1089													
18	1086													

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S22

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 290+28.13, 21.71' Lt.
ELEVATION: 1103.14

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1103	1				Base Course Material (18 inches)	2.9							
	2	35		CL	Reddish-Brown Sandy Clay with Fine Gravel, Firm	3.0							
3 / 1101	3	14				21.7							
	4	11		GC	Reddish-Brown Clayey Gravel; Medium-Dense	17.3	78	25	53				
6 / 1098	5	10				21.7				32.7			
9 / 1095					(Auger Refusal at 8 feet)								
					Dolomitic Limestone								
12 / 1092					END OF BORING								
15 / 1089													
18 / 1086													

Completion Depth: 8.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S23

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 300+65.94, 26.19' Lt.
ELEVATION: 1107.40

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1107	1				Brown Silty-Clay Topsoil with Gravel	21.6							
		2	11		GC	Brown Clayey Chert Gravel; Medium-Dense	21.3	51	22	29				
3	1104	3	50/ 6"			(Dense at 2.5 feet)	17.5				58.6			
						(Auger Refusal at 4 feet)								
						Dolomitic Limestone								
						END OF BORING								
6	1101													
9	1098													
12	1095													
15	1092													
18	1089													

Completion Depth: 4.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S24

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 308+10.39, 4.98' Lt.
ELEVATION: 1146.30

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1146	1				Base Course Material (6 inches)	4.7							
		2	9		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	13.2							
3	1143	3	11				23.1	47	16	31				
		4	20		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	15.9				40.4			
6	1140					(Auger Refusal at 6 feet) Dolomitic Limestone END OF BORING								
9	1137													
12	1134													
15	1131													
18	1128													

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S25

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/11/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 319+70.05, 12.75' Lt.
ELEVATION: 1133.65

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Base Course Material (6 inches)	2.9							
		2	8		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	15.8				35.5			
3	1131	3	13				15.7	43	19	24				
		4	11		CH	Reddish-Brown Sandy Clay with Fine Gravel; Firm; High Plasticity	19.1							
6	1128	5	10		CH	Reddish-Brown Sandy Clay; Firm; High Plasticity	44.6							113.9
						(Auger Refusal at 8 feet)								
9	1125					Dolomitic Limestone								
						END OF BORING								
12	1122													
15	1119													
18	1116													

Completion Depth: 8.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S26

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 331+68.34, 31.63' Rt.
ELEVATION: 1118.69

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Base Course Material (6 inches)	2.4							
		2	10		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	6.6							
3	1116	3	12				9.7							
		4	11				12.0	48	19	29				
6	1113	5	50/ 6"		GC	Reddish-Brown Clayey Chert Gravel; Dense	20.1							
						(Auger Refusal at 8 feet)								
9	1110					Dolomitic Limestone								
						END OF BORING								
12	1107													
15	1104													
18	1101													

Completion Depth: 8.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S27

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 342+76.51, 42.40' Lt.
ELEVATION: 1130.98

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Brown Silty Topsoil with Fine Gravel	22.1							
		2	7		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	20.1	62	20	42	47.2			
3	1128	3	7				21.1							
		4	8				23.8							
6	1125	5	7				41.4							
9	1122	6	14		GC	Brown Clayey Chert Gravel; Medium-Dense	31.5							
						END OF BORING								
12	1119													
15	1116													
18	1113													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S28

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 349+61.07, 19.06' Rt.
ELEVATION: 1135.63

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1135	1				Base Course Material (6 inches)	2.2							
	2	7		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	19.7							88.4
3 / 1134	3	8				24.0	57	23	34				
6 / 1131	4	6				21.6				66.6			82.4
	5	6				23.8							
9 / 1128	6	4			(Very Soft from 8 to 10 feet)	20.9							
					END OF BORING								
12 / 1125													
15 / 1122													
18 / 1119													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S29

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 359+46.32, 32.94' Lt.
ELEVATION: 1125.40

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1125	1				Brown Silty Topsoil with Chert Cobbles (Rip-Rap) (Unable to Continue Augering in Loose Cobbles)	22.7							
						END OF BORING								
3	1122													
6	1119													
9	1116													
12	1113													
15	1110													
18	1107													

Completion Depth: 2.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S30

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/10/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 368+99.91, 27.32' Rt.
ELEVATION: 1095.65

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1095	1				Base Course Material (6 inches)	3.2							
		2	5		CH	Reddish-Brown Sandy Clay with Fine Gravel; Soft; High Plasticity	28.7				73.2			
3	1092	3	5				14.4	84	25	59				
		4	5				39.2							83.4
6	1089	5	7				20.6							74.9
9	1086	6	6				25.5							
						END OF BORING								
12	1083													
15	1080													
18	1077													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S31

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 380+19.04, 40.46' Lt.
ELEVATION: 1096.24

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1096	1				Silty Brown Topsoil	19.9							
		2	11		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	20.6	34	17	17				
3	1092	3	7			(Soft from 2 to 4 feet)	22.8				39.6			
		4	9			(Firm from 4 to 10 feet)	41.7							
6	1089	5	9				40.0							81.0
9	1086	6	10				33.3							85.1
						END OF BORING								
12	1083													
15	1080													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S32

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 390+61.97, 42.04' Rt.
ELEVATION: 1085.07

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Silty Brown Topsoil	21.7							
		2	7		CL	Reddish-Brown Sandy Clay; Soft	33.2	36	16	20	67.4			
	1083													
3		3	4		CL	Reddish-Brown Sandy Clay with Fine Gravel; Very Soft	23.7							96.3
		4	4				24.7							96.7
	1080													
6														
		5	7				21.8							107.0
	1077													
9		6	25		GC	Reddish-Brown Clayey Chert Gravel; Dense	23.3							
						END OF BORING								
	1074													
12														
	1071													
15														
	1068													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S33

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 399+32.47, 39.14' Rt.
ELEVATION: 1106.63

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Brown Silty Topsoil	44.5							
		2	9		SC	Reddish-Brown Clayey Sand with Fine Gravel; Medium-Dense	23.9	89	38	51	28.0			
3	1104					(Unable to Continue Augering in Loose Cobbles)								
						END OF BORING								
6	1101													
9	1098													
12	1095													
15	1092													
18	1089													

Completion Depth: 4.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S34

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 410+31.36, 40.01' Lt.
ELEVATION: 1108.54

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1108.5	1				Silty Brown Topsoil with Chert Gravel	21.1							
		2	12		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	24.1	42	17	25				
	1107													
3		3	7			(Loose from 2 to 6 feet)	27.0				57.7			
	1104	4	5				39.6							
6		5	10		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	39.1							81.0
	1101													
9		6	11		CH	Reddish-Brown Sandy Clay; Firm; High Plasticity	47.9	87	38	49				
	1098					END OF BORING								
12														
	1095													
15														
	1092													
18														

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S35

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 420+28.62, 36.15' Rt.
ELEVATION: 1100.60

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Reddish-Brown Silty Clay	19.7							
		2	22		GC	Reddish-Brown Clayey Chert Gravel; Dense	19.4				58.1			
3	1098	3	25				16.4	38	17	21				
		4	13			(Medium-Dense from 4 to 8 feet)	19.9							109.7
6	1095	5	16				19.0							107.6
9	1092	6	27			(Dense from 8 to 10 feet)	23.5							
						END OF BORING								
12	1089													
15	1086													
18	1083													

Completion Depth: 10.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S36

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/25/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 430+06.66, 47.27' Rt.
ELEVATION: 1106.14

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0		1				Silty Brown Topsoil	47.6							
		2	9		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	27.5							
	1104													
3		3	11				32.9				31.7			
		4	8				46.3							
	1101													
6		5	4			(Very Loose from 6 to 8 feet)	16.8	75	35	40				
						(Auger Refusal at 8 feet)								
	1098					Dolomitic Limestone								
9						END OF BORING								
	1095													
12														
	1092													
15														
	1089													
18														

Completion Depth: 8.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S37

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 439+43.13, 45.79' Rt.
ELEVATION: 1104.04

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1104	1				Brown Silty Topsoil	44.4							
		2	50/ 0"			Chert Cobbles								
						(Auger Refusal at 2 feet)								
						Chert								
3	1101					END OF BORING								
6	1098													
9	1095													
12	1092													
15	1089													
18	1086													

Completion Depth: 2.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - S38

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 2/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 451+33.33, 40.03' Rt.
ELEVATION: 1116.22

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1116	1				Silty Brown Topsoil with Fine Gravel	17.6							
		2	10		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	30.6				26.4			
3	1113	3	10				41.5	55	27	28				
		4	15				41.4							
6	1110	5	18				43.9							
						(Auger Refusal at 8 feet)								
						Dolomitic Limestone								
9	1107					END OF BORING								
12	1104													
15	1101													
18	1098													

Completion Depth: 8.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

GROUP PAVEMENT
BORING LOGS

LOG OF BORING NO. B - A1

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/15/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 300+77.28, 22.20 ' Rt.
ELEVATION: 1110.53

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1110					Asphalt (11.2 inches)								
		1				Base Course Material (6 inches)	6.0							
		2	17		SC	Reddish-Brown Clayey Sand with Fine Gravel; Medium-Dense	13.0	42	20	22				
3	1107	3	17				17.3				42.1			
		4	22				14.0							
6	1104					END OF BORING								
9	1101													
12	1098													
15	1095													
18	1092													

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A2

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/15/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 301+37.26, 23.10' Rt.
ELEVATION: 1112.90

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (11.4 inches)								
		1				Base Course Material (8 inches)	7.1							
		2	22		SC	Reddish-Brown Clayey Sand with Fine Gravel; Dense	10.9	40	15	25	29.6			
3	1110													
		3	21				12.2							
6	1107	4	4		CL	(Very Loose from 5 to 6.5 feet)	16.4							108.0
						END OF BORING								
9	1104													
12	1101													
15	1098													
18	1095													

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A3

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 301+97.26, 23.61' Rt.
ELEVATION: 1115.64

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (14.5 inches)								
		1				Base Course Material (8 inches)	4.5							
		2	17		SC	Reddish-Brown Clayey Sand with Fine Gravel; Firm	4.0							
3	1113													
		3	14				14.4							
6	1110					END OF BORING								
9	1107													
12	1104													
15	1101													
18	1098													

Completion Depth: 6.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A4

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/15/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 300+97.11, 25.45' Rt.
ELEVATION: 1111.21

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1111					Asphalt (10.5 inches)								
	1110	1				Base Course Material (6 inches)	3.9							
		2	21		SC	Reddish-Brown Clayey Sand with Fine Gravel; Dense	17.4							
3	1107	3	28				14.0							
		4	27				12.6	38	15	23	40.4			
6	1104					END OF BORING								
9	1101													
12	1098													
15	1095													
18														

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A5

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/15/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 301+57.13, 26.27' Rt.
ELEVATION: 1113.71

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1113	1				Asphalt (14.5 inches)								
	2	21		SC	Base Course Material (6 inches) Reddish-Brown Clayey Sand with Fine Gravel; Dense								
3 / 1110	3	18											
					END OF BORING								
6 / 1107													
9 / 1104													
12 / 1101													
15 / 1098													
18 / 1095													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A6

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 302+17.08, 26.85' Rt.
ELEVATION: 1116.53

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1116					Asphalt (13.7 inches)								
	1				Base Course Material (6 inches)	4.0							
	2	24		SC	Reddish-Brown Clayey Sand with Fine Gravel; Dense	2.8							
3 / 1113	3	16			(Medium-Dense from 3 to 6 feet)	16.7							104.6
	4	27											
6 / 1110					END OF BORING								
9 / 1107													
12 / 1104													
15 / 1101													
18 / 1098													

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A7

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/15/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 301+17.02, 28.73' Rt.
ELEVATION: 1111.92

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1111.92					Asphalt (10.9 inches)								
		1				Base Course Material (6 inches)								
	1110	2	22		SC	Reddish-Brown Clayey Sand with Fine Gravel; Dense								
3		3	19											
	1107					END OF BORING								
6														
	1104													
9														
	1101													
12														
	1098													
15														
	1095													
18														

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A8

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/15/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 301+77.01, 29.40' Rt.
ELEVATION: 1114.53

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1114					Asphalt (9.8 inches)								
	1				Base Course Material (6 inches)								
1113	2	17		SC	Reddish-Brown Clayey Sand with Fine Gravel; Medium-Dense								
3 / 1110	3	16											
					END OF BORING								
6 / 1107													
9 / 1104													
12 / 1101													
15 / 1098													
18													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A9

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 302+37.01, 30.14' Rt.
ELEVATION: 1117.41

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1116	1				Asphalt (13.6 inches)								
	2	24		SC	Base Course Material (6 inches)	3.9							
					Reddish-Brown Clayey Sand with Fine Gravel; Dense	12.1							
3 / 1113	3	16			(Medium-Dense from 3 to 5 feet)	16.8							
					END OF BORING								
6 / 1110													
9 / 1107													
12 / 1104													
15 / 1101													
18													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A10

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 108+00.92, 2.94' Rt.
ELEVATION: 1234.54

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1234					Asphalt (10.6 inches)								
		1				Base Course Material (6 inches)	8.5							
	1233	2	9		GC	Reddish-Brown Clayey Chert Gravel; Loose	21.0							
3		3	18			(Medium-Dense from 3 to 4.5 feet)								
	1230					(Auger Refusal at 4.5 feet)								
						END OF BORING								
6	1227													
9	1224													
12	1221													
15	1218													
18														

Completion Depth: 4.5 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A11

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 108+60.89, 2.90' Rt.
ELEVATION: 1234.85

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (10.5 inches)								
		1				Base Course Material (6 inches)	3.6							
	1233	2	7		GC	Reddish-Brown Clayey Chert Gravel; Loose	20.9							
3		3	18			(Medium-Dense from 3 to 4.5 feet)								
	1230					(Auger Refusal Material at 4.5 feet)								
6						END OF BORING								
	1227													
9														
	1224													
12														
	1221													
15														
	1218													
18														

Completion Depth: 4.5 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A12

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 109+20.83, 2.99' Rt.
ELEVATION: 1235.19

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1235					Asphalt (10.2 inches)								
	1				Base Course Material (6 inches)	6.1							
	2	11		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	7.8							
3 / 1233													
	3	7			(Loose from 3 to 5 feet)	13.6							
6 / 1230					END OF BORING								
9 / 1227													
12 / 1224													
15 / 1221													
18 / 1218													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

LOG OF BORING NO. B - A13

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/26/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 108+20.77, 5.74' Rt.
ELEVATION: 1234.55

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1234					Asphalt (10.2 inches)								
	1				Base Course Material (6 inches)	12.7							
1233	2	28		CL	Reddish-Brown Sandy Clay with Fine Chert Gravel; Stiff	19.2	44	18	26	65.0			
3 / 1230	3	50/ 4"		GC	Reddish-Brown Clayey Chert Gravel; Dense (Auger Refusal at 4 feet)	18.0							
					END OF BORING								
6 / 1227													
9 / 1224													
12 / 1221													
15 / 1218													
18													

Completion Depth: 4.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A14

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 108+80.87, 5.88' Rt.
ELEVATION: 1234.88

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1234					Asphalt (9.8 inches)								
	1				Base Course Material (6 inches)	11.7							
1233	2	28		GC	Reddish-Brown Clayey Chert Gravel; Dense	8.9							
					(Auger Refusal at 2 feet) END OF BORING								
3 / 1230													
6 / 1227													
9 / 1224													
12 / 1221													
15 / 1218													
18													

Completion Depth: 2.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A15

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 109+40.88, 5.86' Rt.
ELEVATION: 1235.20

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1235					Asphalt (9.6 inches)								
		1				Base Course Material (6 inches)	4.7							
		2	28		GC	Reddish-Brown Clayey Chert Gravel; Dense	19.3							
3	1233					(Auger Refusal at 2.5 feet)								
						END OF BORING								
	1230													
6														
	1227													
9														
	1224													
12														
	1221													
15														
	1218													
18														

Completion Depth: 2.5 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A16

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 108+40.97, 8.81' Rt.
ELEVATION: 1234.53

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1234					Asphalt (4.5 inches)								
	1				Base Course Material (6 inches)	7.6							
1233	2	11		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	22.7	39	22	17	43.7			
3	3	19				8.8							107.9
1230					END OF BORING								
6 / 1227													
9 / 1224													
12 / 1221													
15 / 1218													
18													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A17

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 109+00.99, 8.86' Rt.
ELEVATION: 1234.88

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0					Asphalt (3.9 inches)								
	1				Base Course Material (6 inches)	9.3							
1233	2	11		GC	Reddish-Brown Clayey Chert Gravel; Medium-Dense	7.6							105.8
3	3	22			(Dense from 3 to 5 feet)	8.6							
1230					END OF BORING								
6													
1227													
9													
1224													
12													
1221													
15													
1218													
18													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A18

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/27/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 109+61.03, 8.96' Rt.
ELEVATION: 1235.19

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (5.3 inches)								
		1				Base Course Material (6 inches)	3.5							
	1233	2	20		GC	Reddish-Brown Clayey Chert Gravel; Dense	18.7							
3		3	16				16.6							
	1230					END OF BORING								
6														
	1227													
9														
	1224													
12														
	1221													
15														
	1218													
18														

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Fayetteville, Arkansas

McCLELLAND CONSULTING ENGINEERS, INC.

Little Rock, Arkansas

PLATE 121

LOG OF BORING NO. B - A19

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: N/A
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 396+33.10, 2.57' Rt.
ELEVATION: 1098.55

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1098	1				Asphalt (8.9 inches)								
	2	13		CL	Base Course Material (6 inches)	6.4							
					Reddish-Brown Sandy Clay with Fine Gravel; Firm	24.1							
3 / 1095	3	10				40.9							
					END OF BORING								
6 / 1092													
9 / 1089													
12 / 1086													
15 / 1083													
18 / 1080													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** G. Brown

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A20

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/28/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 396+53.09, 5.96' Rt.
ELEVATION: 1099.28

Depth (Feet) / Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0 / 1098	1				Asphalt (10.2 inches)								
	2	9		CL	Base Course Material (6 inches)	6.9							
					Reddish-Brown Sandy Clay with Fine Gravel; Soft	30.8							86.3
3 / 1095	3	5			(Very Soft from 3 to 5 feet)	19.2							89.7
6 / 1092	4	27			END OF BORING								
9 / 1089													
12 / 1086													
15 / 1083													
18													

Completion Depth: 6.5 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A21

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/28/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 396+72.96, 9.17' Rt.
ELEVATION: 1099.93

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (10.4 inches)								
		1				Base Course Material (6 inches)	20.1							
	1098	2	6		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	29.5							
3														
		3	3			(Very Soft from 3 to 5 feet)	11.6							
	1095													
						END OF BORING								
6														
	1092													
9														
	1089													
12														
	1086													
15														
	1083													
18														

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A22

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/28/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 396+93.13, 3.45' Rt.
ELEVATION: 1100.81

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (10.64 inches)								
		1				Base Course Material (6 inches)	9.8							
		2	14		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	29.5				67.8			
3	1098													
		3	4			(Very Soft from 3 to 5 feet)	17.4							96.2
						END OF BORING								
6	1095													
9	1092													
12	1089													
15	1086													
18	1083													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A23

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/28/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 397+13.10, 6.56' Rt.
ELEVATION: 1101.48

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1101					Asphalt (10.4 inches)								
		1				Base Course Material (6 inches)	15.8							
		2	14		CL	Reddish-Brown Sandy Clay with Fine Gravel; Firm	26.4							
3	1098	3	6				21.5							89.4
						END OF BORING								
6	1095													
9	1092													
12	1089													
15	1086													
18	1083													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A24

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/28/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 397+32.92, 9.89' Rt.
ELEVATION: 1102.10

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1101	1				Asphalt (10.8 inches)								
						Base Course Material (6 inches)	7.4							
		2	9		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	22.2							
3	1098	3	3			(Very Soft from 3 to 5 feet)	27.1							
						END OF BORING								
6	1095													
9	1092													
12	1089													
15	1086													
18														

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A25

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/28/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 397+753.10, 4.23' Rt.
ELEVATION: 1102.94

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (8.6 inches)								
		1				Base Course Material (6 inches)	9.5							
	1101	2	5		CL	Reddish-Brown Sandy Clay; Very Soft; Saturated	21.2							
3		3	3				10.0							
	1098					END OF BORING								
6														
	1095													
9														
	1092													
12														
	1089													
15														
	1086													
18														

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A26

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/28/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 397+73.10, 7.46' Rt.
ELEVATION: 1103.57

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0						Asphalt (10.2 inches)								
		1				Base Course Material (6 inches)	13.5							
		2	7		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	36.6							87.5
3	1101	3	14				27.2							
						END OF BORING								
6	1098													
9	1095													
12	1092													
15	1089													
18	1086													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

LOG OF BORING NO. B - A27

DESCRIPTION: CA0906 Maxie Camp Rd.-Hwy. 123
LOCATION: Harrison, AR
PROJECT OWNER: Arkansas Hwy. & Trans. Department
DRILLING METHOD: 6-1/2" Hollow Stem Auger

PROJECT NO.: FY143801
DATE DRILLED: 3/28/2014
PROJECT ENGINEER: R. Wayne Jones, PE
BORING LOCATION: 397+93.04, 10.58' Rt.
ELEVATION: 1104.19

Depth (Feet)	Elevation (Feet)	Sample No.	Blows/ Foot	Soil Legend	USCS Type	Description of Material (Color, Type, Moisture, and Consistency)	Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	P200	Lab Q_u (TSF)	Field Q_u (TSF)	Dry Density (pcf)
0	1104					Asphalt (4.7 inches)								
		1				Base Course Material (6 inches)	7.6							
		2	8		CL	Reddish-Brown Sandy Clay with Fine Gravel; Soft	39.9							
3	1101	3	12				15.1							
						END OF BORING								
6	1098													
9	1095													
12	1092													
15	1089													
18	1086													

Completion Depth: 5.0 feet **Depth to Water:** Dry **Logged By:** C. Easley

This information pertains only to this boring and should not be interpreted as being indicative of the site.

SYMBOLS AND TERMS USED ON BORING LOGS

Symbol	Description
Strata symbols	
	High plasticity clay
	Low plasticity clay
	Gravel
	Silt
	Elastic silt
	Poorly graded sand
	Fill

Symbol	Description
	Granite
	Limestone
	Organics
	Sandstone
	Shale
	Topsoil
Misc. Symbols	
	Water table during drilling

Symbol	Description
	Water table at second check
Soil Samplers	
	Bulk sample taken from 6 in. auger
	Standard penetration test
	Undisturbed thin wall Shelby tube
	Rock core
	Denison

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE-GRAINED SOILS (major portion retained on #200 sieve): Includes (1) clean gravels and sands, and (2) silty or clayey gravels and sands. Condition is rated according to relative density, as determined by laboratory tests.

DESCRIPTIVE TERM	RELATIVE DENSITY
Loose	0 to 40%
Medium Dense	40 to 70%
Dense	70 to 100%

FINE-GRAINED SOILS (major portion passing #200 sieve): Includes (1) inorganic and organic silts and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated.

DESCRIPTIVE TERM	UNCONFINED COMPRESSION STRENGTH (TSF)
Very Soft	Less than 0.25
Soft	0.25 to 0.50
Firm	0.50 to 1.00
Stiff	1.00 to 2.00
Very Stiff	2.00 to 4.00
Hard	4.00 and higher

Note: Slickensided and fissured clays may have lower unconfined compressive strengths than shown above because of planes of weakness or cracks in the soil. The consistency rating of such soils are based on penetration readings.

TERMS CHARACTERIZING SOIL STRUCTURE

Slickensided	having inclined planes of weakness that are slick and glossy in appearance
Fissured	containing shrinkage cracks, frequently filled with fine sand or silt, usually vertical
Laminated	composed of thin layers of varying color and texture
Interbedded	composed of alternate layers of different soil types
Calcareous	containing appreciable quantities of calcium carbonate
Well Graded	having wide range in grain sizes and substantial amounts of all intermediate particle sizes
Poorly Graded	predominantly of one grain size, or having a range in sizes with some intermediate sizes missing

Terms used in this report for describing soils according to their texture or grain size distribution are in accordance with the UNITED SOIL CLASSIFICATION SYSTEM as described in ASTM D 2488

McCLELLAND CONSULTING ENGINEERS, INC.

APPENDIX C

LABORATORY TESTING RESULTS

PAVEMENT BORINGS
TESTING RESULTS

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Friday, April 25, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
P1																
	1	Base Course Material	6"-1'	1.5												
	2	Reddish-Brown Clayey Chert Gravel	1'-1'9"	18.5	77	26	51									
	3	Reddish-Brown Clayey Chert Gravel	3'-4'2"	15.3												
	4	Reddish-Brown Clayey Chert Gravel	5'-6'2"	15.2						100.0	74.0	62.7	50.6	36.7		
	5	Reddish-Brown Clayey Chert Gravel	7'-8'3"	21.8												
	6	Reddish-Brown Clayey Chert Gravel	9'-9'11"	18.9												
P2																
	1	Base Course Material	6"-1'	5.6												
	2	Reddish Brown Clayey Sand with Fine Gravel	1'-1'9"	11.9											109.7	
	3	Reddish Brown Clayey Sand with Fine Gravel	3'-3'11"	16.0	33	17	16	SC	A-6(3)	100.0	75.2	64.9	52.1	43.3		
	4	Reddish Brown Clayey Sand with Fine Gravel	5'-5'9"	14.7											108.8	
	5	Reddish-Brown Clayey Chert Gravel	7'-8'2"	23.6											99.0	1.15
	6	Reddish-Brown Clayey Chert Gravel	9'-10'	27.8												
P3																
	1	Base Course Material	6"-1'	1.4												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'8"	8.5												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'-3'6"	8.8	31	17	14	SC	A-2-6(1)	92.7	71.6	60.7	46.7	33.3		
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'-5'6"	22.9											103.8	
	5	Reddish-Brown Clayey Sand with Fine Gravel	7'-8'5"	22.0											100.5	
	6	Reddish-Brown Clayey Chert Gravel	9'-10'5"	17.0												
P4																
	1	Base Course Material	6"-1'	10.1												
	2	Reddish-Brown Clayey Chert Gravel	1'-1'9"	5.5												
	3	Reddish-Brown Clayey Chert Gravel	3'-3'8"	11.0												
	4	Reddish-Brown Clayey Sand with Fine Chert Gravel	5'-6'3"	27.0	77	32	45	SC	A-7-5(13)	94.9	75.1	68.3	61.1	43.3		
	5	Reddish-Brown Clayey Sand with Fine Chert Gravel	7'-8'	33.8											81.5	0.44

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, April 24, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
P5																
	1	Base Course Material	6"-1'	1.9												
	2	Base Course Material	1'-1'6"	2.1												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'													
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'11"	16.9												
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'3"	14.5												
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-10'	19.2	37	15	22	CL	A-6(10)	100.0	92.7	88.7	82.3	58.8		
P6																
	1	Base Course Material	6"-1'	2.4												
	2	Reddish-Brown Sandy Clay	1'-2'2"	16.3											96.3	
	3	Reddish-Brown Sandy Clay	3'-3'5"													
	4	Reddish-Brown Sandy Clay	5'-5'6"	39.3	88	41	47									0.88
	5	Reddish-Brown Sandy Clay	7'-7'6"	51.7												
P7																
	1	Base Course Material	6"-1'	1.7												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'11"	19.3												
	3	Reddish-Brown Clayey Chert Gravel	3'-4'	18.2												
	4	Reddish-Brown Clayey Chert Gravel	5'-5'11"	9.4												
P8																
	1	Base Course Material	6"-1'	11.5												
	2	Reddish-Brown Clayey Chert Gravel	1'-1'11"	17.1												
	3	Reddish-Brown Clayey Chert Gravel	3'-3'													
P9																
	1	Base Course Material	6"-1'	1.2												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-2'2"	10.1												
	3	Reddish-Brown Clayey Sand with Chert Gravel	2'6"-3'	11.6												
	4	Reddish-Brown Clayey Sand with Chert Gravel	4'6"-4'6"	16.9	30	16	14	SC	A-6(3)	100.0	84.0	76.6	64.5	48.9		
P10																
	1	Base Course Material	6"-1'	1.9												
	2	Reddish-Brown Sandy Clay	1'-1'11"	20.3												
	3	Reddish-Brown Sandy Clay	3'-3'9"	15.4	34	14	20									
	4	Reddish-Brown Sandy Clay	5'-5'9"	14.7												
	5	Reddish-Brown Clayey Chert Gravel	7'-7'6"	11.3												

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, April 24, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_C tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
P11																
	1	Base Course Material	6"-1'	1.7												
	2	Base Course Material	9"-2'1"	22.8												
		Reddish-Brown Clayey Sand with Fine Gravel			52	22	30	SC	A-7-6(10)	100.0	88.4	79.0	63.4	47.6		
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'-4'	17.8											102.5	1.27
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-6'	19.2											102.3	
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'3"	26.9											95.7	1.07
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-10'3"	31.3											93.2	0.93
P12																
	1	Base Course Material	6"-1'	2.5												
	2	Reddish-Brown Sandy Clay	1'-1'8"	23.9												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'9"	13.6	36	15	21									
	4	Reddish-Brown Clayey Chert Gravel	5'-5'9"	6.5												
P13																
	1	Base Course Material	6"-1'	2.0												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'-2'3"	17.0	39	15	24	SC	A-2-6(2)	94.9	68.6	60.7	45.4	28.4		
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'-4'	9.8												
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'-5'9"	25.8											86.3	
	5	Reddish-Brown Clayey Sand with Fine Gravel	7'-7'8"	20.7												
	6	Reddish-Brown Clayey Chert Gravel with Sand	9'-9'9"	17.0											107.4	
P14																
	1	"Dirty" Base Course Material	3"-9"	14.8												
	2	Brown to Tan Clayey Sand with Fine Gravel	9"-1'11"	10.1	33	17	16	SC	A-2-6(1)	100.0	70.3	57.3	42.5	27.9		
	3	Brown to Tan Clayey Sand with Fine Gravel	2'9"-4'	11.2												
	4	Brown to Tan Clayey Sand with Fine Gravel	4'9"-5'8"	13.4												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'9"-7'3"	18.7											81.8	
P15																
	1	Base Course Material	6"-1'	1.8												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-2'	4.2	41	18	23								98.9	
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-4'	3.9												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-6'	16.2											97.6	
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'	15.6												
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-10'	15.9												

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, April 24, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
P16																
	1	Base Course Material	6"-1'	2.3												
	2	Reddish-Brown Sandy Clay with Fine Chert Gravel	1'-2'	6.4												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'9"	16.4	30	14	16									
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'													
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-7'3"	26.1												
	6	Red Sandy Fat Clay	9'-10'3"	21.8											107.0	
P17																
	1	Base Course Material	6"-1'	2.5												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-2'3"	4.6	36	15	21									
	3	Reddish-Brown Clayey Chert Gravel with Sand	3'-4'5"	17.1						100.0	88.4	83.8	72.0	61.2		1.78
	4	Reddish-Brown Clayey Chert Gravel with Sand	5'-6'3"	15.6											106.7	
	5	Reddish-Brown Clayey Chert Gravel with Sand	7'-8'	11.3												
	6	Reddish-Brown Clayey Chert Gravel with Sand	9'-10'3"	13.8												
P18																
	1	Base Course Material	6"-1'	2.3												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-2'3"	18.6	39	19	20	CL	A-6(13)	100.0	93.6	91.8	84.3	71.7	114.7	
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'8"	18.5												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-6'5"	21.1											102.2	
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'6"	22.3											105.8	
	6	Reddish-Brown Clayey Chert Gravel with Sand	9'-9'11"	20.0												
P19																
	1	Base Course Material	6"-1'	2.2												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'-2'3"	18.2												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'-4'3"	16.7	60	20	40	SC	A-7-6(10)	86.7	78.5	70.0	58.9	40.8	101.6	
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'-5'9"	24.4												
	5	Reddish-Brown Clayey Chert Gravel with Sand	7'-8'	14.0											101.2	
	6	Reddish-Brown Clayey Chert Gravel with Sand	9'-9'9"	18.5												
P20																
	1	Base Course Material	6"-1'	1.8												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'-1'9"	4.0												
	3	Reddish-Brown Clayey Chert Gravel with Sand	3'-3'6"	13.0	39	18	21									

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, April 24, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
P21																
	1	Base Course Material	6"-1'	2.3												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-2'2"	9.4												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-4'5"	21.7											104.4	0.91
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-6'3"	10.0	50	19	31	CH	A-7-6(15)	100.0	91.2	85.6	77.7	58.1	113.8	
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'3"	17.3											114.9	1.16
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-10'3"	26.9											95.2	0.72
P22																
	1	Base Course Material	6"-1'	2.3												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'-1'9"													
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'-3'11"	22.7												
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'-5'9"	29.0	70	30	40	SC	A-7-5(15)	100.0	88.6	81.5	70.0	49.3		
P23																
	1	Base Course Material	6"-1'	2.7												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'-2'6"	14.5												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'-4'3"	12.7	28	18	10									
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'-6'2"	23.3	33	16	17	SC	A-6(4)	100.0	73.2	66.0	62.0	45.1	114.1	
	5	Reddish-Brown Clayey Sand with Fine Gravel	7'-7'9"	10.2												
P24																
	1	Base Course Material	6"-1'	1.6												
	2	Base Course Material	1'-2'	3.1												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'-4'	14.4	40	18	22	SC	A-6(6)	100.0	91.6	82.7	64.3	47.0		
P25																
	1	Base Course Material	6"-1'	5.5												
	2	Base Course Material	1'-1'11"	2.1												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-4'3"	12.2												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-6'2"	21.6	45	17	28								97.9	0.63
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-7'8"	13.7												
P26																
	1	Base Course Material	6"-1'	2.6												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'6"-2'9"							100.0	78.2	69.3	57.6	43.8		
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'-3'9"	12.3											103.9	
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'-5'11"	11.7											107.3	0.52

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, April 24, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_C tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
P27																
	1	Base Course Material	6"-1'	2.5												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'9"	20.0												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'9"	20.3	42	18	24	CL	A-7-6(11)	100.0	84.8	79.0	70.5	57.8		
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'11"	41.5												
	5		6'2"-6'2"													
P28																
	1	Base Course Material	6"-1'	2.4												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'9"	24.9	79	33	46	CH	A-7-5(28)	100.0	92.1	89.8	85.8	61.7		
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'9"	32.2												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'6"	19.7											100.1	1.81
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'3"	35.1												1.56
P29																
	1	Base Course Material	6"-1'	2.8												
	2	Reddish-Brown Sandy Clay with Chert Gravel	1'-2'2"	16.4	37	17	20	CL	A-6(6)	95.6	82.8	80.0	75.8	50.3	115.7	
	3	Reddish-Brown Sandy Clay with Chert Gravel	3'-4'3"	16.1												
	4	Reddish-Brown Sandy Clay with Chert Gravel	5'-5'2"	15.2												
	5	Reddish-Brown Sandy Clay with Chert Gravel	7'-8'3"	13.6											93.9	
	6	Reddish-Brown Sandy Clay with Chert Gravel	9'-9'9"	31.1											86.9	
P30																
	1	Base Course Material	6"-1'	2.0												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-2'3"	29.9	51	20	31	CH	A-7-6(15)	95.7	92.0	89.5	84.1	57.9	104.3	
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'8"	23.8												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'3"	17.1												
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-7'3"	35.5												
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-10'3"	21.0												
P31																
	1	Base Course Material	6"-1'	3.2												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'8"	41.3	77	28	49	CH	A-7-6(47)	100.0	89.5	88.6	87.6	86.1		
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-4'3"	48.4											74.6	1.05
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-6'	42.1											76.8	
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'5"	44.6											77.2	1.12
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-10'6"	52.8											68.2	

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Friday, April 25, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
P32																
	1	Base Course Material	6"-1'	4.8												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'9"	39.7												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-4'2"	34.3												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-6'	29.9	93	34	59	CH	A-7-5(26)	82.2	77.1	75.2	70.8	52.3	77.8	
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'6"	40.3											82.1	
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-10'6"	44.7											73.8	
P33																
	1	Base Course Material	6"-1'	2.0												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'6"	27.8												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'5"	22.3												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'6"	29.5												
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-7'9"	33.2	101	36	65									
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-9'9"	24.2												
P34																
	1	Base Course Material	6"-1'	2.5												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'3"	26.1												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'9"	30.3												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'11"	20.3												
	5	Reddish-Brown Clayey Sand with Fine Gravel	7'-8'3"	13.2						89.5	79.0	74.6	64.0	34.1	94.9	
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-10'3"	35.6											82.8	
P35																
	1	Base Course Material	6"-1'	9.4												
	2	Reddish-Brown Sandy Clay with Gravel	1'-1'9"	32.9	101	35	66	CH	A-7-5(55)	100.0	86.6	82.8	80.0	76.1		
	3	Reddish-Brown Sandy Clay with Gravel	3'-4'3"	32.4												
	4	Reddish-Brown Sandy Clay with Gravel	5'-5'8"	37.3											82.7	
	5	Reddish-Brown Sandy Clay with Gravel	7'-7'5"	40.3											75.2	
P36																
	1	Base Course Material	6"-1'	3.1												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-2'	27.8	49	22	27	CL	A-7-6(20)	100.0	90.9	86.8	82.2	76.5	95.0	
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-4'3"	17.2											106.5	
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'9"	12.9												
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'2"	17.8											110.1	
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-9'3"	38.4												

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Friday, April 25, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
P37																
	1	Base Course Material	6"-1'	2.6												
	2	Reddish-Brown Clayey Chert Gravel	1'-1'11"	22.5												
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'6"	23.2												
	4	Reddish-Brown Sandy Clay with Fine Chert Gravel	4'6"-5'2"	14.2												
	5	Reddish-Brown Sandy Clay with Fine Chert Gravel	6'6"-7'6"	35.8												
	6	Reddish-Brown Sandy Clay with Fine Chert Gravel	8'6"-9'2"	18.2												
	7	Reddish-Brown Clayey Chert Gravel	10'6"-11'3"	15.4												
P38																
	1	Base Course Material	6"-1'	1.5												
	2	Reddish-Brown Clayey Chert Gravel with Sand	1'-2'	13.9	26	15	11	GC	A-2-6(0)	75.1	47.3	42.2	36.7	30.2		
	3	Reddish-Brown Clayey Chert Gravel with Sand	3'-4'2"	12.5												
	4	Reddish-Brown Clayey Chert Gravel with Sand	5'-5'8"	7.8												
	5	Reddish-Brown Clayey Chert Gravel with Sand	7'-8'3"	20.0												
	6	Reddish-Brown Clayey Chert Gravel with Sand	9'-9'9"	15.2												
P39																
	1	Base Course Material	6"-1'	1.8												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'8"	17.8												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'11"	19.4												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'6"	12.5												
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'3"	21.5						97.2	88.4	83.3	68.2	60.8		
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-10'3"	35.5											79.5	
P40																
	1	Base Course Material	6"-1'	1.3												
	2	Reddish-Brown Clayey Chert Gravel	1'-2'	9.0	29	15	14	GC	A-6(2)	92.3	58.7	54.0	48.5	39.7	119.5	
	3	Reddish-Brown Clayey Chert Gravel	3'-4'	9.3												
	4	Reddish-Brown Clayey Chert Gravel	5'-6'	12.9												
	5	Reddish-Brown Clayey Chert Gravel	7'-8'	18.1												
	6	Reddish-Brown Clayey Chert Gravel	9'-10'	15.4												

BRIDGE BORINGS
TESTING RESULTS

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Friday, April 25, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B1																
	1	Base Course Material	6"-1'	1.8												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'11"	4.2												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'9"	3.9												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'6"	16.2												
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-7'9"	15.6												
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-9'6"	15.9												
	7	Dolomitic Limestone	10'6"-15'6"												167.7	198.90
	8	Dolomitic Limestone	15'6"-20'6"												166.8	254.90
	9	Dolomitic Limestone	20'6"-25'6"												166.9	218.50
	10	Dolomitic Limestone	25'6"-30'6"												167.5	316.00
B2																
	1	Base Course Material	6"-1'	2.6												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-1'9"	7.3												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'8"	39.1											75.1	
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'9"	30.0											109.7	
	5	Reddish-Brown Clayey Sand with Gravel	7'-7'11"	18.6	32	15	17	SC	A-6(4)	100.0	74.5	66.2	58.2	47.8		
	6	Dolomitic Limestone	8'6"-13'6"												122.8	150.50
	7	Dolomitic Limestone	13'6"-18'6"												122.4	182.60
	8	Dolomitic Limestone	17'6"-22'6"												118.6	192.30
B3																
	1	Dolomitic Limestone	0'-5'												166.9	260.00
	2	Dolomitic Limestone	5'-10'												167.9	310.00
	3	Dolomitic Limestone	10'-15'												166.5	214.80
B4																
	1	Dolomitic Limestone	0'-4'												168.7	205.60
	2	Dolomitic Limestone	4'-9'												167.7	190.70
	3	Dolomitic Limestone	9'-14'												169.3	265.00

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Friday, April 25, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B5																
	1	Silty Brown Topsoil with Gravel	0'-6"	5.9												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'3"	14.4												
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'5"	28.6	55	24	31	CH	A-7-6(19)	100.0	84.9	79.5	73.8	65.3		
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-4'9"	26.2												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'	27.7											87.1	
	6	Reddish-Brown Sandy Clay with Fine Gravel	8'6"-9'	21.9											110.3	
	7	Reddish-Brown Sandy Clay with Fine Gravel	10'6"-10'11"	35.9											75.7	
	8	Dolomitic Limestone	12'-16'												168.0	203.70
	9	Dolomitic Limestone	16'-21'												166.6	195.10
	10	Dolomitic Limestone	21'-26'												167.8	159.70
B6																
	1	Base Course Material	0'-6"	1.7												
	2	Base Course Material	1'-2'	2.5												
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'	3.7												
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-4'11"	2.4												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-6'11"													
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'8"	7.3	30	16	14									
	7	Reddish-Brown Clayey Chert Gravel	10'6"-11'9"	11.5						81.1	46.5	34.8	23.6	14.6		
	8	Reddish-Brown Clayey Chert Gravel	15'-15'6"	41.8												
	9	Dolomitic Limestone	16'-20'												167.7	213.90
	10	Dolomitic Limestone	20'-25'												163.8	205.00
	11	Dolomitic Limestone	25'-30'												164.7	163.00
B7																
	1	Base Course Material	6"-1'	2.2												
	2	Reddish-Brown Sandy Clay	1'6"-1'11"	20.5												
	3	Reddish-Brown Sandy Clay	3'6"-3'11"	18.2												
	4	Reddish-Brown Sandy Clay	5'6"-5'9"	12.8												
	5	Reddish-Brown Sandy Clay	7'6"-7'9"	20.2												
	6	Reddish-Brown Clayey Chert Gravel	9'6"-10'8"	13.4	38	16	22	GC	A-2-6(1)	100.0	59.6	47.4	36.5	23.9	104.6	
	7	Reddish-Brown Clayey Chert Gravel	11'6"-12'11"	18.7	42	19	23									
	8	Dolomitic Limestone	12'6"-17'6"												168.6	243.80
	9	Dolomitic Limestone	17'6"-22'6"												167.8	234.40
	10	Dolomitic Limestone	22'6"-27'6"												168.1	334.10

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801

PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123

DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_C tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B8																
	1	Base Course Material	6"-1'	1.5												
	2	Reddish-Brown Sany Clay with Fine Gravel	1'-1'9"	16.8											107.9	
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'	11.3												
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-4'11"	12.8												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'	14.3												
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'5"	15.5												
	7	Reddish-Brown Clayey Chert Gravel	10'6"-11'8"	13.0												
	8	Reddish-Brown Clayey Chert Gravel	15'-16'	35.8											83.7	
	9	Dolomitic Limestone	18'-23'													264.00
	10	Dolomitic Limestone	23'-28'													167.20
	11	Dolomitic Limestone	28'-33'													186.50
	12	Dolomitic Limestone	33'-38'													131.50
B9																
	1	Base Course Material	0'-6"	3.1												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'9"	24.4												
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'6"	19.5						100.0	88.2	83.3	76.0	60.8		
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'2"	20.6	51	23	28									
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'	16.7												
	6	Reddish-Brown Sandy Clay with Fine Gravel	8'6"-9'	32.7												
	7	Reddish-Brown Sandy Clay with Fine Gravel	10'-10'8"	23.1												
	8	Reddish-Brown Sandy Clay	15'-16'5"	23.7											101.7	
	9	Reddish-Brown Sandy Clay	20'-20'6"	20.0												
	10	Tan to Gray Weathered Sandstone	25'-30'												14.7	90.38
	11	Dolomitic Limestone	30'-35'												159.4	207.80
	12	Dolomitic Limestone	35'-40'												165.7	302.40

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B10																
	1	Base Course Material	6"-1'	1.9												
	2	Reddish-Brown Sandy Clay with Fine Chert Gravel	2'6"-2'11"	21.4												
	3	Reddish-Brown Sandy Clay with Fine Chert Gravel	4'6"-4'11"	20.6												
	4	Reddish-Brown Clayey Sand with Fine Chert Gravel	6'6"-7'2"	31.1	39	16	23	SC	A-6(6)	92.0	74.3	66.9	58.1	45.9		
	5	Reddish-Brown Clayey Sand with Fine Chert Gravel	8'6"-8'9"	29.8												
	6	Reddish-Brown Clayey Sand with Fine Chert Gravel	10'6"-12'	19.6												
	7	Reddish-Brown Sandy Clay with Fine Chert Gravel	15'6"-16'3"	41.4											77.5	
	8	Reddish-Brown Sandy Clay with Fine Chert Gravel	20'6"-21'3"	27.4												
	9	Tan to Gray Weathered Sandstone	25'-30'												155.2	210.50
	10	Tan to Gray Weathered Sandstone	30'-35'												149.7	143.50
	11	Dolomitic Limestone	35'-40'												143.2	152.80
B11																
	1	Silty Brown Topsoil with Gravel	0'-6"	27.1												
	2	Dolomitic Limestone	2'-7'												145.8	154.20
	3	Dolomitic Limestone	7'-12'												156.0	205.40
	4	Dolomitic Limestone	12'-17'												161.8	258.00
B12																
	1	Silty Brown Topsoil with Gravel	0'-6"	12.4												
	2	Reddish-Brown Clayey Sand with Chert Gravel	6"-1'3"	14.7						100.0	78.4	71.5	62.0	33.2		
	3	Reddish-Brown Clayey Sand with Chert Gravel	2'6"-2'9"	13.2												
	4	Reddish-Brown Clayey Sand with Chert Gravel	4'6"-4'6"	6.1												
	5	Dolomitic Limestone	5'6"-10'6"												156.5	419.80
	6	Dolomitic Limestone	10'6"-15'6"												163.1	357.40
	7	Dolomitic Limestone	15'6"-16'6"												157.1	345.80

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B13																
	1	Silty Brown Topsoil with Gravel	0'-6"													
	2	Silty Brown Topsoil	6"-1'11"	18.2											103.3	
	3	Silty Brown Topsoil	2'6"-3'3"	14.0											108.9	
	4	Brown Sandy Clay with Gravel	4'6"-5'3"	12.1												
	5	Tan to Brown Clayey Sand With Gravel	6'6"-7'3"	9.4												
	6	Tan to Gray Weathered Sandstone	8'-13'												157.4	269.90
	7	Tan to Gray Weathered Sandstone	13'-18'													
	7A	Dolomitic Limestone	14'6"-14'6"												160.6	496.90
	8	Dolomitic Limestone	18'-23'												160.4	208.90
B14																
	1	Brown Silty Topsoil with Chert Gravel	0'-6"	12.7												
	2	Brown Silty Topsoil with Chert Gravel	6"-1'	16.4												
	3	Tan to Gray Sandstone with Chert Interbedding	2'-5'													
	4	Tan to Gray Sandstone with Chert Interbedding	5'-10'												153.5	214.00
	5	Tan to Gray Sandstone with Chert Interbedding	10'-15'												158.9	162.10
	6	Dolomitic Limestone	15'-20'												158.7	241.10
B15																
	1	Base Course Material	0'-6"	2.3												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'6"	22.7	32	20	12									
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'3"	10.0												
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'3"	25.1						84.6	62.8	57.8	52.6	43.0		
	5	Reddish-Brown Clayey Chert Gravel	6'6"-6'9"	26.6											99.3	
	6	Reddish-Brown Clayey Chert Gravel	8'6"-8'6"	22.3												
	7	Reddish-Brown Clayey Chert Gravel	10'-10'3"													
	8	Tan to Gray Weathered Sandstone	11'-14'												148.6	132.00

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B16																
	1	Dolomitic Limestone	0'-5'												175.0	334.00
	2	Dolomitic Limestone	5'-10'												163.1	224.40
	3	Dolomitic Limestone	10'-15'												163.7	516.20
	4	Dolomitic Limestone	15'-20'												165.6	409.80
B17																
	1	Reddish-Brown Sandy Clay with Fine Gravel	0'-6"	23.1												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-2'	21.1						100.0	90.9	86.5	80.4	68.1		
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'3"	26.4												
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-4'9"	15.4												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'5"	43.0												
	6	Reddish-Brown Sandy Clay with Fine Gravel	8'6"-9'3"	13.0												
	7	Reddish-Brown Clayey Chert Gravel	10'6"-11'2"	13.9												
	8	Reddish-Brown Clayey Chert Gravel	15'6"-17'	36.6											79.8	1.69
	9	Reddish-Brown Clayey Chert Gravel	20'6"-22'	22.2						83.2	57.8	53.3	48.7	43.8		
	10	Reddish-Brown Clayey Chert Gravel	25'-26'	41.6											65.8	
	11	Dolomitic Limestone	38'-43'												167.0	120.40
B15A																
	1	Base Course Material	6"-1'	1.9												
	2	Reddish-Brown Sandy Clay with Fine Gravel	2'-3'3"	8.3												
	3	Reddish-Brown Clayey Chert Gravel	4'-4'9"	14.6												
	4	Reddish-Brown Clayey Chert Gravel	6'-7'	16.4	64	25	39	GC	A-2-7(5)	92.5	58.7	48.7	39.2	30.7		
	5	Dolomitic Limestone	8'-13'												166.4	138.80
	6	Dolomitic Limestone with Sandstone Interbedding	13'-18'													
	7	Dolomitic Limestone	17'-22'												150.0	308.20
	7A	Dolomitic Limestone	21'-21'												152.6	122.70

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
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DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_C tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B18																
	1	Brown Topsoil with Chert Gravel	0'-6"	24.9												
	2	Reddish-Brown Clayey Chert Gravel	1'-1'9"	21.1												
	3	Reddish-Brown Clayey Chert Gravel	3'-4'	29.7											90.3	
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-6'	40.9											79.6	1.19
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'6"	35.6	92	33	59	CH	A-7-5(56)	100.0	92.9	90.6	89.0	84.0	85.3	
	6	Reddish-Brown Clayey Chert Gravel	9'-10'3"	21.8											88.9	
	7	Reddish-Brown Clayey Chert Gravel	10'6"-11'8"	45.3											75.6	
	8	Reddish-Brown Clayey Sand with Chert Gravel	15'-16'5"	34.6												
	9	Dolomitic Limestone	20'-24'												165.7	195.10
	10	Dolomitic Limestone	24'-29'												165.7	158.80
	11	Dolomitic Limestone	29'-34'												165.7	267.50
	12	Dolomitic Limestone	34'-39'												159.9	86.00
B19																
	1	Silty Brown Topsoil with Gravel	0'-6"	10.5												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-8"	8.9												
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'3"	18.2												
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'	29.4												
	5	Reddish-Brown Clayey Chert Gravel	6'6"-7'6"	44.3												
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'6"	23.5						89.1	64.1	57.7	52.1	48.4		
	7	Reddish-Brown Clayey Chert Gravel	10'6"-11'8"	40.8												
	8	Reddish-Brown Clayey Chert Gravel	15'-16'5"	24.9											88.0	
	9	Reddish-Brown Clayey Chert Gravel	20'-21'3"	23.2												
	8	Dolomitic Limestone	27'-28'6"													
B19A																
	1	Silty Brown Topsoil with Gravel	0'-6"	10.2												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'	9.5												
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'3"	12.6												
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'3"	26.7												
	5	Reddish-Brown Clayey Chert Gravel	6'6"-7'8"	29.6												
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'5"	26.8												
	7	Dolomitic Limestone	10'-15'												159.1	131.90
	8	Dolomitic Limestone	15'-20'												165.6	187.70

LABORATORY TEST RESULTS

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B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B20																
	1	Silty Brown Topsoil with Gravel	0'-6"	13.9												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'9"	18.6												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-4'	16.9												
	4	Reddish-Brown Clayey Chert Gravel	5'-5'5"	22.8												
	5	Reddish-Brown Clayey Chert Gravel	7'-7'9"	26.4						95.5	57.6	45.5	36.8	32.4		
	6	Reddish-Brown Sandy Clay with Fine Gravel	10'-11'5"	31.2	80	31	49								93.2	
	7	Reddish-Brown Clayey Sand with Chert Gravel	15'-16'	25.0											90.9	
	8	Dolomitic Limestone	19'-23'												166.1	242.90
	9	Dolomitic Limestone	23'-28'												163.7	201.90
	10	Dolomitic Limestone	28'-33'												167.0	241.60
B20A																
	1	Brown Silty Topsoil with Gravel	0'-6"	22.5												
	2	Reddish-Brown Sandy Clay with Chert Gravel	6"-2'	22.5	92	35	57									
	3	Reddish-Brown Sandy Clay with Chert Gravel	2'6"-3'8"	43.3											77.4	
	4	Reddish-Brown Sandy Clay with Chert Gravel	4'6"-5'3"	21.6											90.9	
	5	Reddish-Brown Sandy Clay with Chert Gravel	6'6"-8'	41.0											79.3	1.31
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'3"	26.7												
	7	Reddish-Brown Clayey Chert Gravel	10'6"-12'3"	39.5						88.1	82.7	79.5	75.6	71.5		
	8	Reddish-Brown Clayey Chert Gravel	15'-16'6"	47.0											114.6	
	9	Reddish-Brown Clayey Chert Gravel	20'-21'3"	23.6												
	10	Reddish-Brown Clayey Chert Gravel	25'-25'9"	23.7											88.0	
	11	Reddish-Brown Clayey Chert Gravel	30'-30'													
	12	Dolomitic Limestone	32'-37'												162.0	163.30
	13	Dolomitic Limestone	37'-42'												165.4	264.60

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801

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B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B21																
	1	Silty Brown Topsoil with Gravel	0'-6"	6.9												
	2	Reddish-Brown Clayey Sand with Fine Gravel	6"-1'3"	13.3						84.1	59.5	51.7	40.2	31.7		
	3	Reddish-Brown Clayey Sand with Fine Gravel	2'6"-2'11"	10.9												
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'2"	24.2												
	5	Reddish-Brown Sandy Clay	6'6"-7'6"	21.4												
	6	Reddish-Brown Sandy Clay	8'6"-9'	23.6	67	27	40									
	7	Reddish-Brown Sandy Clay	10'6"-10'11"	34.3												
	8	Sandstone and Chert Seams	13'-18'												168.9	
	9	Dolomitic Limestone	18'-23'												162.8	205.80
B22																
	1	Silty Brown Topsoil with Gravel	0'-6"	43.5												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'3"	21.4						94.0	78.4	73.9	66.8	57.4		
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'3"	25.7											91.4	
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'9"	21.8												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'5"	22.4												
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'11"	40.7												
	7	Reddish-Brown Clayey Chert Gravel	10'6"-12'	40.5												
	8	Reddish-Brown Clayey Chert Gravel	15'-15'11"	23.8												
	8	Dolomitic Limestone	16'-21'													
	9	Dolomitic Limestone	21'-26'												161.2	96.40
	10	Dolomitic Limestone	26'-31'												163.5	162.40
	12	Dolomitic Limestone	31'-36'												167.6	151.50

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801

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DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
B23																
	1	Base Course Material	6"-1'	1.7												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'8"	25.2	10	37	-27									
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'-3'3"	21.1												
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'-5'6"	27.3						94.7	74.1	68.4	62.0	56.1		
	5	Reddish-Brown Sandy Clay with Fine Gravel	7'-8'6"	19.8												
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-9'11"	37.8											103.7	
	7	Reddish-Brown Sandy Clay with Fine Gravel	10'6"-10'8"	38.1												
	8	Reddish-Brown Clayey Chert Gravel	15'-15'11"	19.2												
	9	Reddish-Brown Clayey Chert Gravel	20'-20'11"	32.9												
	10	Reddish-Brown Sandy Clay with Fine Gravel	25'-25'2"	5.4												
	11	Reddish-Brown Sandy Clay with Fine Gravel	30'-30'5"	20.2												
	12	Dolomitic Limestone	34'-34'												168.6	356.40
B24																
	1	Base Course Material	6"-1'	2.0												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'-1'8"	17.8						95.2	58.6	50.0	42.4	36.5		
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'-3'3"	26.3												
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'-5'3"	27.1												
	5	Reddish-Brown Clayey Sand with Fine Gravel	7'-7'8"	16.7												
	6	Reddish-Brown Sandy Clay with Fine Gravel	9'-9'5"	29.9	79	35	44									
	7	Reddish-Brown Clayey Chert Gravel	10'6"-11'	34.4												
	8	Reddish-Brown Sandy Clay with Fine Gravel	15'-16'	26.7												
	9	Reddish-Brown Clayey Chert Gravel	20'-20'2"	22.8												
	10	Dolomitic Limestone	28'-33'												161.0	99.70
	11	Dolomitic Limestone	33'-38'												167.6	167.50

WIDENING BORINGS
TESTING RESULTS

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801

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B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
S1																
	1	Silty Brown Topsoil with Gravel	0'-6"	18.9												
	2	Brown Sandy Clay with Fine Gravel	6"-1'5"	19.6						100.0	66.6	61.8	57.2	50.2	98.2	
	3	Brown Sandy Clay with Fine Gravel	2'6"-3'6"	20.3	39	19	20									
	4	Brown Sandy Clay with Fine Gravel	4'6"-5'2"	20.4											107.0	
	5	Brown Sandy Clay with Fine Gravel	6'6"-7'3"	22.3											100.0	
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'3"	25.4												
S2																
	1	Silty Brown Topsoil	0'-6"	21.6												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'11"	23.0											101.5	
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'6"	22.3											99.2	
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-4'9"	19.5												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'3"	33.2						91.8	79.3	72.7	68.0	64.7	84.2	
	6	Reddish-Brown Sandy Clay with Fine Gravel	8'6"-9'5"	30.9	85	41	44									
S3																
	1	Silty Brown Topsoil with Gravel	0'-6"	21.1												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'6"	19.5												
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'6"	18.6												
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'6"	18.4						80.1	45.9	38.7	28.3	15.7		
S4																
	1	Base Course Material	0'-6"	4.7												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'2"	12.8						91.4	57.3	48.8	40.7	33.8		
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'	14.0												
S5																
	1	Silty Brown Topsoil	0'-6"	18.3												
S6																
	1	"Dirty" Base Course Material	0'-6"	1.0												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'9"	3.8												
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'3"	9.9	32	15	17	GC	A-6(2)	85.5	65.2	56.1	47.4	37.6		
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'2"	9.2												

LABORATORY TEST RESULTS

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B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
S7																
	1	Base Course Material	0'-6"	3.7												
	2	Reddish-Brown Clayey Chert Gravel	1'-1'9"	2.9												
	3	Reddish-Brown Clayey Chert Gravel	3'-3'11"	13.3						86.0	55.1	46.8	39.5	32.7		
	4	Reddish-Brown Clayey Chert Gravel	5'-5'6"	12.8	48	19	29									
	5	Reddish-Brown Clayey Chert Gravel	7'-7'	13.3												
	6	Reddish-Brown Clayey Chert Gravel	9'-9'3"	18.8												
S8																
	1	Silty Brown Topsoil	0'-6"	28.4												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'3"	25.1						83.3	69.1	64.3	53.1	33.7	97.0	
	3	Reddish-Brown Clayey Chert Gravel	2'6"-2'11"	24.3												
S9																
	1	"Dirty" Base Course Material	6"-1'	15.9												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-2'3"	3.9												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'6"-4'3"	19.0						93.9	76.5	71.0	64.9	56.6		
	4	Reddish-Brown Sandy Clay with Fine Gravel	5'6"-6'	16.4												
S10																
	1	Silty Brown Topsoil	0'-6"	20.6												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'6"	23.7	58	22	36									
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'	28.3						89.6	80.2	72.8	64.8	54.7		
S11																
	1	Silty Brown Topsoil with Gravel	0'-6"	24.3												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'3"	34.1						100.0	85.8	81.5	68.9	47.8		
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'2"	39.2	91	44	47								79.6	
	4	Reddish-Brown Clayey Chert Gravel	4'-4'8"	29.3												
S12																
	1	Silty Brown Topsoil with Gravel	0'-6"	27.4												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'	18.4												
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'3"	19.1						92.2	60.1	52.2	40.1	28.8		
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'	19.8												
	5	Reddish-Brown Clayey Chert Gravel	6'6"-7'3"	19.3												
	6	Reddish-Brown Clayey Chert Gravel	8'6"-8'11"	22.5												

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
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B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
S13																
	1	Base Course Material	0'-6"	3.4												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'6"	2.4	33	14	19									
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-2'9"	12.9												
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'3"	22.1						83.4	64.2	58.0	48.6	41.7		
	5	Reddish-Brown Clayey Chert Gravel	6'6"-7'5"	16.0												
	6	Reddish-Brown Clayey Chert Gravel	8'6"-8'9"	15.5												
S14																
	1	Brown Sandy Clay with Fine Gravel	0'-6"	39.3												
	2	Brown Sandy Clay with Fine Gravel	6"-1'3"	15.5	37	18	19									
	3	Brown Sandy Clay with Fine Gravel	2'6"-3'6"	18.8						100.0	89.6	85.5	79.9	67.9		
	4	Brown Sandy Clay with Fine Gravel	4'6"-5'3"	20.4												
	5	Brown Sandy Clay with Fine Gravel	6'6"-8'	22.2											92.7	
	6	Brown Sandy Clay with Fine Gravel	8'6"-10'	21.8												
S15																
	1	Brown Silty Topsoil with Fine Gravel	0'-6"	30.3												
	2	Red Sandy Clay	6"-1'6"	47.6	96	47	49								71.4	
	3	Red Sandy Clay	2'6"-3'6"	44.3						89.8	95.1	93.4	91.9	90.0	74.0	
	4	Red Sandy Clay	4'6"-5'11"	43.0											78.5	
	5	Red Sandy Clay with Fine Gravel	6'6"-7'6"	40.9											74.4	
	6	Red Sandy Clay with Fine Gravel	8'6"-9'9"	45.0											74.6	
S16																
	1	Brown Silty Clay Topsoil	0'-6"	26.2												
	2	Reddish-Brown Sandy Clay	6"-1'8"	24.0											98.3	
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'9"	25.8												
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'2"	24.5	36	17	19									
	5	Reddish-Brown Clayey Chert Gravel	6'6"-7'9"	22.3						86.7	60.4	52.7	47.0	42.3		
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'6"	36.7											84.5	

LABORATORY TEST RESULTS

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B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
S17																
	1	Brown Silty Clay Topsoil	0'-6"	19.0												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'8"	18.5												
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'5"	19.9												
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'11"	40.3											79.4	
	5	Reddish-Brown Clayey Chert Gravel	6'6"-7'9"	32.4						100.0	88.0	84.9	78.4	74.2		
	6	Reddish-Brown Clayey Chert Gravel	8'6"-10'	43.4											80.5	
S18																
	1	Brown Silty Topsoil with Gravel	0'-6"	19.7												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'8"	11.1						96.1	58.4	45.1	34.6	26.5		
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'6"	19.3												
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'3"	43.3											70.0	
	5	Reddish-Brown Sandy Clay	6'6"-7'6"	31.3	93	41	52								74.9	
	6	Reddish-Brown Sandy Clay	8'6"-9'5"	43.7											78.1	
S19																
	1	Brown Silty Topsoil with Chert Cobbles	0'-6"	15.3												
S20																
	1	Reddish-Brown Sandy Clay with Chert Cobbles	0'-6"	15.7												
S21																
	1	Base Course Material	0'-6"	1.9												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'-1'9"	2.8												
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'5"	22.2												
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'3"	20.7						95.8	83.1	78.2	70.8	51.4		
S22																
	1	Base Course Material	0'-6"	2.9												
	2	Base Course Material	6"-1'8"	3.0												
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'6"	21.7												
	4	Reddish-Brown Clayey Gravel	4'6"-5'2"	17.3	78	25	53									
	5	Reddish-Brown Clayey Gravel	6'6"-7'	21.7						100.0	89.0	81.9	65.4	32.7		

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
S23																
	1	Brown Silty-Clay Topsoil with Gravel	0'-6"	21.6												
	2	Brown Clayey Chert Gravel	6"-1'5"	21.3	51	22	29									
	3	Brown Clayey Chert Gravel	2'6"-3'6"	17.5						100.0	78.8	73.2	67.1	58.6		
S24																
	1	Base Course Material	0'-6"	4.7												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'8"	13.2												
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'9"	23.1	47	16	31									
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'6"	15.9						92.9	62.1	55.6	48.5	40.4		
S25																
	1	Base Course Material	0'-6"	2.9												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'3"	15.8						96.6	58.5	50.9	43.6	35.5		
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'5"	15.7	43	19	24									
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'3"	19.1												
	5	Reddish-Brown Sandy Clay	6'6"-7'9"	44.6											113.9	
S26																
	1	Base Course Material	0'-6"	2.4												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-8"	6.6												
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'3"	9.7												
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'3"	12.0	48	19	29									
	5	Reddish-Brown Clayey Chert Gravel	6'6"-7'3"	20.1												
S27																
	1	Brown Silty Topsoil with Fine Gravel	0'-6"	22.1												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'2"	20.1	62	20	42	SC	A-7-6(14)	96.1	74.0	66.0	60.9	47.2		
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'	21.1												
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-4'11"	23.8												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'	41.4												
	6	Brown Clayey Chert Gravel	8'6"-9'5"	31.5												

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
S28																
	1	Base Course Material	0'-6"	2.2												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'3"	19.7											88.4	
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'5"	24.0	57	23	34									
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'3"	21.6						100.0	86.4	82.0	78.5	66.6	82.4	
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'2"	23.8												
	6	Reddish-Brown Sandy Clay with Fine Gravel	8'6"-8'9"	20.9												
S29																
	1	Brown Silty Topsoil with Chert Cobbles	0'-6"	22.7												
S30																
	1	Base Course Material	0'-6"	3.2												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'2"	28.7						100.0	94.4	89.8	82.4	73.2		
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'	14.4	84	25	59									
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'3"	39.2											83.4	
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'9"	20.6											74.9	
	6	Reddish-Brown Sandy Clay with Fine Gravel	8'6"-9'9"	25.5												
S31																
	1	Silty Brown Topsoil	0'-6"	19.9												
	2	Reddish-Brown Sandy Clay with Fine Gravel	6"-1'3"	20.6	34	17	17									
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'	22.8						83.8	67.9	64.1	60.0	39.6		
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'3"	41.7												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'5"	40.0											81.0	
	6	Reddish-Brown Sandy Clay with Fine Gravel	8'6"-8'9"	33.3											85.1	
S32																
	1	Silty Brown Topsoil	0'-6"	21.7												
	2	Reddish-Brown Sandy Clay	6"-1'9"	33.2	36	16	20	CL	A-6(11)	100.0	93.3	91.2	85.4	67.4		
	3	Reddish-Brown Sandy Clay with Fine Gravel	2'6"-3'6"	23.7											96.3	
	4	Reddish-Brown Sandy Clay with Fine Gravel	4'6"-5'11"	24.7											96.7	
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-8'	21.8											107.0	
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'8"	23.3												

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
S33																
	1	Brown Silty Topsoil	0'-6"	44.5												
	2	Reddish-Brown Clayey Sand with Fine Gravel	6"-1'2"	23.9	89	38	51	SC	A-2-7(5)	100.0	94.4	87.2	54.6	28.0		
S34																
	1	Silty Brown Topsoil with Chert Gravel	0'-6"	21.1												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'9"	24.1	42	17	25									
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'8"	27.0						100.0	93.3	89.9	74.6	57.7		
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'2"	39.6												
	5	Reddish-Brown Sandy Clay with Fine Gravel	6'6"-7'6"	39.1											81.0	
	6	Reddish-Brown Sandy Clay	8'6"-10'	47.9	87	38	49									
S35																
	1	Reddish-Brown Silty Clay	0'-6"	19.7												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'2"	19.4						100.0	94.8	91.3	83.2	58.1		
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'9"	16.4	38	17	21									
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'9"	19.9											109.7	
	5	Reddish-Brown Clayey Chert Gravel	6'6"-8'	19.0											107.6	
	6	Reddish-Brown Clayey Chert Gravel	8'6"-9'5"	23.5												
S36																
	1	Silty Brown Topsoil	0'-6"	47.6												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'	27.5												
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'	32.9						90.8	71.6	68.5	61.2	31.7		
	4	Reddish-Brown Clayey Chert Gravel	4'6"-4'11"	46.3												
	5	Reddish-Brown Clayey Chert Gravel	6'6"-7'3"	16.8	75	35	40									
S37																
	1	Brown Silty Topsoil	0'-3"	44.4												
S38																
	1	Silty Brown Topsoil with Fine Gravel	0'-6"	17.6												
	2	Reddish-Brown Clayey Chert Gravel	6"-1'6"	30.6						82.5	68.9	66.0	62.7	26.4		
	3	Reddish-Brown Clayey Chert Gravel	2'6"-3'3"	41.5	55	27	28									
	4	Reddish-Brown Clayey Chert Gravel	4'6"-5'5"	41.4												
	5	Reddish-Brown Clayey Chert Gravel	6'6"-7'6"	43.9												

GROUP
PAVEMENT BORINGS
TESTING RESULTS

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_C tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
A1																
	1	Base Course Material	1'-1'6"	6.0												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'6"-2'6"	13.0	42	20	22									
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'6"-4'5"	17.3						92.6	72.5	66.5	57.4	42.1		
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'6"-6'6"	14.0												
A2																
	1	Base Course Material	1'-1'6"	7.1												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'6"-2'8"	10.9	40	15	25	SC	A-2-6(2)	100.0	73.9	59.9	46.7	29.6		
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'6"-4'9"	12.2												
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'6"-6'3"	16.4											108.0	
A3																
	1	Base Course Material	1'6"-2'	4.5												
	2	Reddish-Brown Clayey Sand with Fine Gravel	2'-3'	4.0												
	3	Reddish-Brown Clayey Sand with Fine Gravel	4'-5'6"	14.4												
A4																
	1	Base Course Material	1'-1'6"	3.9												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'6"-2'3"	17.4												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'6"-4'9"	14.0												
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'6"-6'9"	12.6	38	15	23	SC	A-6(4)	100.0	77.2	68.1	56.1	40.4		
A5																
	1	Base Course Material	1'-1'6"	3.4												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'6"-2'3"	15.8												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'6"-4'9"	17.2												
A6																
	1	Base Course Material	1'-1'6"	4.0												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'6"-2'2"	2.8												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'6"-4'9"	16.7											104.6	
	4	Reddish-Brown Clayey Sand with Fine Gravel	5'6"-6'9"													
A7																
	1	Base Course Material	1'-1'6"	4.1												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'6"-2'	14.8												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'6"-4'6"	16.1												

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_C tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
A8																
	1	Base Course Material	1'-1'6"	3.5												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'6"-2'3"	13.3												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'6"-4'3"	15.2												
A9																
	1	Base Course Material	1'-1'6"	3.9												
	2	Reddish-Brown Clayey Sand with Fine Gravel	1'6"-2'2"	12.1												
	3	Reddish-Brown Clayey Sand with Fine Gravel	3'6"-4'9"	16.8												
A10																
	1	Base Course Material	1'-1'6"	8.5												
	2	Reddish-Brown Clayey Chert Gravel	1'6"-2'9"	21.0												
	3	Reddish-Brown Clayey Chert Gravel	3'6"-4'3"	19.3												
A11																
	1	Base Course Material	1'-1'6"	3.6												
	2	Reddish-Brown Clayey Chert Gravel	1'6"-2'	20.9												
	3	Reddish-Brown Clayey Chert Gravel	3'6"-4'6"	19.5												
A12																
	1	Base Course Material	1'-1'6"	6.1												
	2	Reddish-Brown Clayey Chert Gravel	1'6"-1'9"	7.8												
	3	Reddish-Brown Clayey Chert Gravel	3'6"-3'8"	13.6												
A13																
	1	Base Course Material	1'-1'6"	12.7												
	2	Reddish-Brown Sandy Clay with Fine Chert Gravel	1'6"-2'3"	19.2	44	18	26	CL	A-7-6(15)	87.0	79.9	75.9	70.8	65.0		
	3	Reddish-Brown Clayey Chert Gravel	3'6"-3'9"	18.0												
A14																
	1	Base Course Material	1'-1'6"	11.7												
	2	Reddish-Brown Clayey Chert Gravel	1'6"-1'9"	8.9												
A15																
	1	Base Course Material	1'-1'6"	4.7												
	2	Reddish-Brown Clayey Chert Gravel	1'6"-2'3"	19.3												

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
PROJECT: CA0906 Maxie Camp Rd.-Hwy. 123
DATE: Thursday, June 12, 2014

B #	S #	Description	Depth Feet	Molsture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
A16																
	1	Base Course Material	1'-1'6"	7.6												
	2	Reddish-Brown Clayey Chert Gravel	1'6"-2'8"	22.7	39	22	17	GC	A-6(4)	84.0	64.0	56.5	50.5	43.7		
	3	Reddish-Brown Clayey Chert Gravel	3'6"-4'3"	8.8											107.9	
A17																
	1	Base Course Material	1'-1'6"	9.3												
	2	Reddish-Brown Clayey Chert Gravel	1'6"-2'6"	7.6											105.8	
	3	Reddish-Brown Clayey Chert Gravel	3'6"-4'3"	8.6												
A18																
	1	Base Course Material	1'-1'6"	3.5												
	2	Reddish-Brown Clayey Chert Gravel	1'6"-2'6"	18.7												
	3	Reddish-Brown Clayey Chert Gravel	3'6"-3'11"	16.6												
A19																
	1	Base Course Material	1'-1'6"	6.4												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-2'2"	24.1												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'6"-4'6"	40.9												
A20																
	1	Base Course Material	1'-1'6"	6.9												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-2'6"	30.8											86.3	
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'6"-3'11"	19.2											89.7	
	4	Reddish-Brown Clayey Chert Gravel	5'6"-6'9"													
A21																
	1	Base Course Material	1'-1'6"	20.1												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-2'5"	29.5												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'6"-4'2"	11.6												
A22																
	1	Base Course Material	1'-1'6"	9.8												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-2'6"	29.5						96.3	86.5	81.6	76.4	67.8		
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'6"-4'2"	17.4											96.2	

LABORATORY TEST RESULTS

PROJECT NUMBER: FY143801
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DATE: Thursday, June 12. 2014

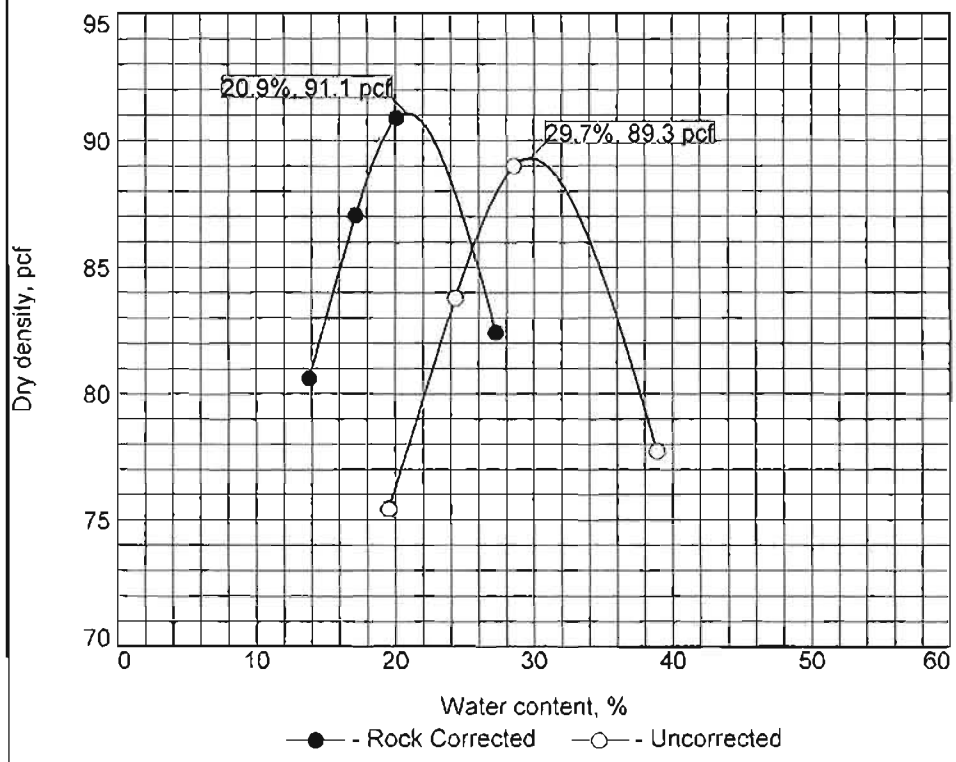
B #	S #	Description	Depth Feet	Moisture (%)	LL	PL	PI	USCS	AASHTO	SIEVE ANALYSIS % FINER					UDW pcf	U_c tsf
										3/4 IN	No. 4	NO. 10	NO. 40	NO. 200		
A23																
	1	Base Course Material	1'-1'6"	15.8												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-2'3"	26.4												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'6"-4'	21.5											89.4	
A24																
	1	Base Course Material	1'-1'6"	7.4												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-2'5"	22.2												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'6"-3'9"	27.1												
A25																
	1	Base Course Material	1'-1'6"	9.5												
	2	Reddish-Brown to Tan Sandy Clay	1'6"-1'11"	21.2												
	3	Reddish-Brown to Tan Sandy Clay	3'6"-4'2"	10.0												
A26																
	1	Base Course Material	1'-1'6"	13.5												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-2'2"	36.6											87.5	
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'6"-3'9"	27.2												
A27																
	1	Base Course Material	1'-1'6"	7.6												
	2	Reddish-Brown Sandy Clay with Fine Gravel	1'6"-1'9"	39.9												
	3	Reddish-Brown Sandy Clay with Fine Gravel	3'6"-3'11"	15.1												

PROCTOR CURVE
CBR TEST RESULTS

McCLELLAND CONSULTING ENGINEERS, INC.
DESIGNED TO SERVE
Materials Laboratory

1810 N. College Avenue
P.O. Box 1229
Fayetteville, AR 72703/72702-1229
479-587-1303 · FAX 479-443-9241
www.mcclelland-engrs.com

COMPACTION TEST REPORT



Curve No.
1

Test Specification:
ASTM D 698-07 Method C Standard
ASTM D 4718-87 Oversize Corr. Applied to Each Test Point

Preparation Method	Moist
Hammer Wt.	5.5 lb.
Hammer Drop	12 in.
Number of Layers	three
Blows per Layer	56
Mold Size	0.075 cu. ft.

Test Performed on Material Passing 3/4 in. **Sieve**

NM 20.0 **LL** 68 **PI** 45
Sp.G. (ASTM D 854)
%>3/4 in. 30.7 **%<No.200** 31.8
USCS GC **AASHTO** A-2-7(6)
Date Sampled 4/11/2014
Date Tested 4/16/2014
Tested By Dustin Lawrence

TESTING DATA

	1	2	3	4	5	6
WM + WS	9825.0	10302.0	10650.0	10430.0		
WM	6758.0	6758.0	6758.0	6758.0		
WW + T #1	656.4	744.5	732.0	726.9		
WD + T #1	569.4	622.1	600.2	554.2		
TARE #1	123.9	119.0	138.6	110.0		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	13.8	17.2	20.1	27.3		
DRY DENSITY	80.6	87.1	90.9	82.4		

ROCK CORRECTED TEST RESULTS	UNCORRECTED
Maximum dry density = 91.1 pcf	89.3 pcf
Optimum moisture = 20.9 %	29.7 %

Material Description
Reddish-Brown Clayey Gravel

Remarks:
Material sampled from 1 foot below exisiting grade at Station 150+12, approximately 50 feet left of centerline.

Project No. FY143801 **Client:** Arkansas Hwy. & Trans. Department
Project: CA0906 Maxie Camp Rd.-Hwy. 123

○ **Source of Sample:** TP's **Depth:** 1' **Sample Number:** 1

Checked by: Steven Head, E.I.
Title: Supervisor

McCLELLAND CONSULTING ENGINEERS, INC.
Fayetteville, Arkansas

Figure 160

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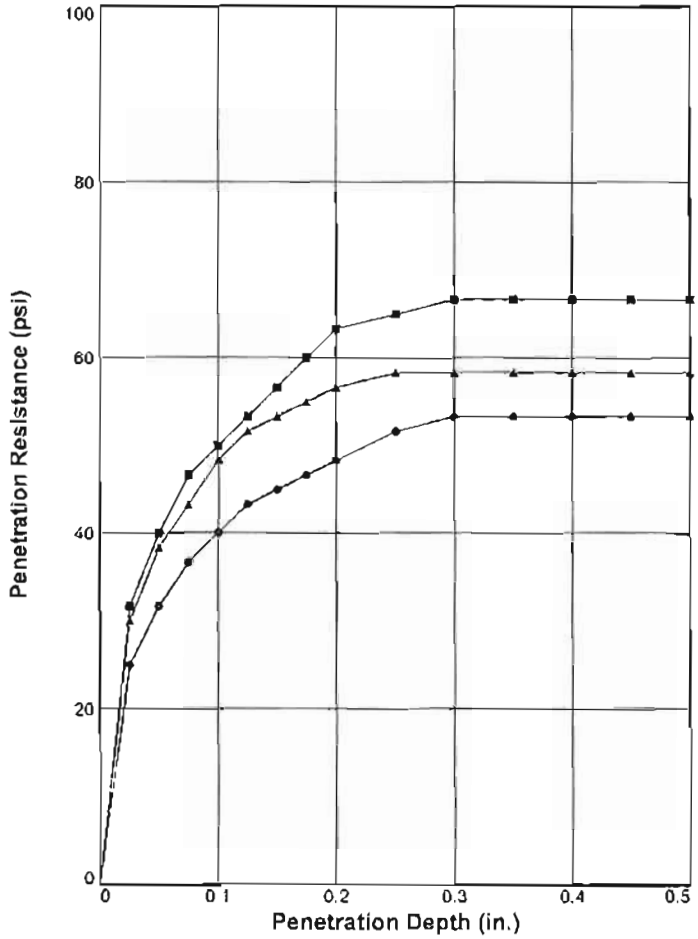
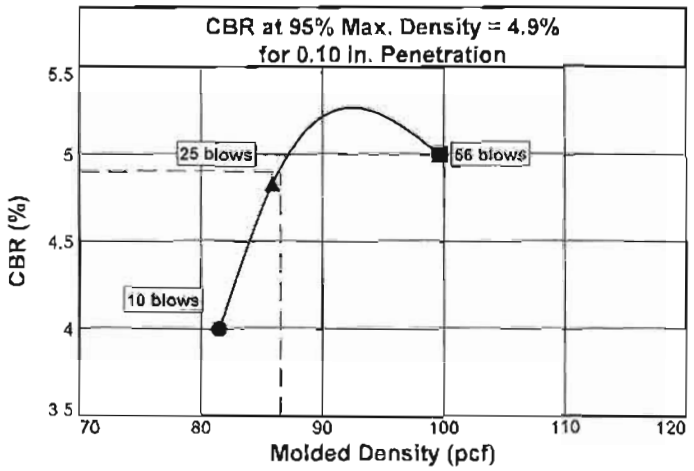
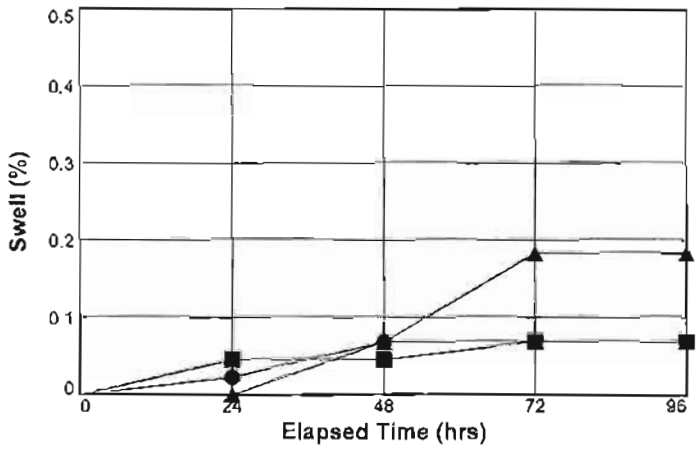
BEARING RATIO TEST REPORT
ASTM D 1883-07







	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ●	81.5	89.5	20.5	81.4	89.4	40.4	4.0	3.2	0.000	25	0.1
2 ▲	85.9	94.3	20.6	85.7	94.1	47.0	4.8	3.8	0.000	25	0.2
3 ■	99.7	109.4	20.6	99.6	109.3	43.2	5.0	4.2	0.000	25	0.1

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Reddish-Brown Clayey Gravel	GC	91.1	20.9	68	45

Project No: FY143801
Project: CA0906 Maxie Camp Rd.-Hwy. 123
Source of Sample: TP's **Depth:** 1'
Sample Number: 1
Date: 4/11/2014

Test Description/Remarks:

Material sampled from 1 foot below existing grade at Stati

BEARING RATIO TEST REPORT
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Figure 161

McCLELLAND CONSULTING ENGINEERS, INC.
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479-587-1303 · FAX 479-443-9241
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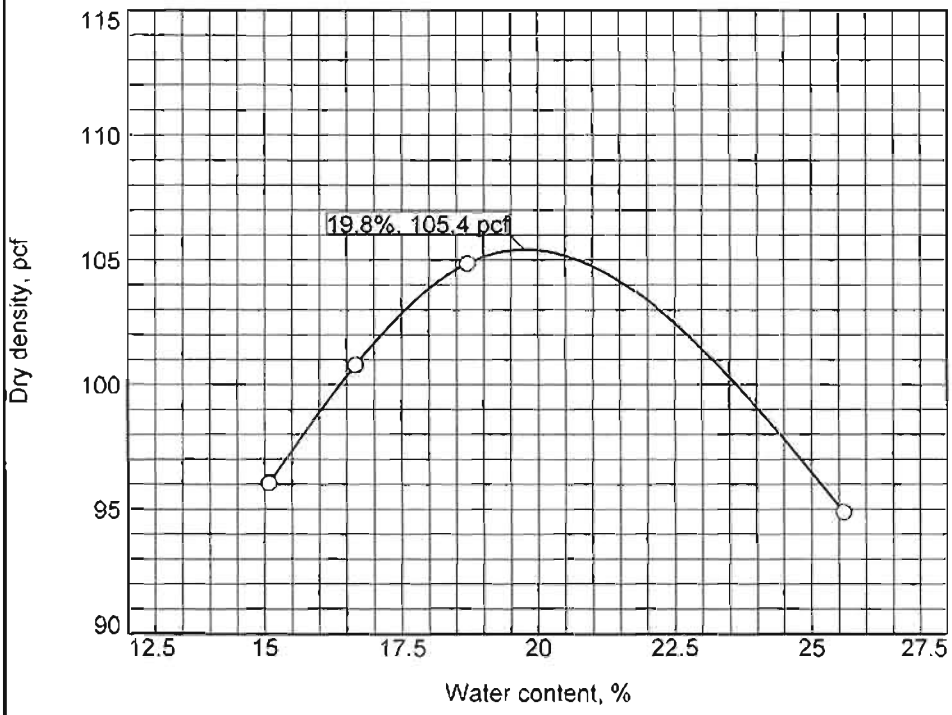
COMPACTION TEST REPORT



Curve No.
2

Test Specification:
ASTM D 698-07 Method C Standard

Preparation Method	Moist
Hammer Wt.	5.5 lb.
Hammer Drop	12 in.
Number of Layers	three
Blows per Layer	56
Mold Size	0.075 cu. ft.
Test Performed on Material Passing	3/4 in. **Sieve**
NM 20.9 **LL** 49 **PI** 31	
Sp.G. (ASTM D 854)	
%>3/4 in. 14.3 **%<No.200** 46.9	
USCS GC **AASHTO** A-7-6(10)	
Date Sampled	4/11/2014
Date Tested	4/16/2014
Tested By	Dustin Lawrence

TESTING DATA

	1	2	3	4	5	6
WM + WS	10518.0	10758.0	10993.0	10812.0		
WM	6758.0	6758.0	6758.0	6758.0		
WW + T #1	633.3	742.0	879.7	746.5		
WD + T #1	565.2	650.2	771.2	617.8		
TARE #1	113.6	99.3	191.2	114.9		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	15.1	16.7	18.7	25.6		
DRY DENSITY	96.0	100.8	104.9	94.9		

TEST RESULTS

Maximum dry density = 105.4 pcf

Optimum moisture = 19.8 %

Project No. FY143801 **Client:** Arkansas Hwy. & Trans. Department
Project: CA0906 Maxie Camp Rd.-Hwy. 123

○ **Source of Sample:** TP's **Depth:** 1' **Sample Number:** 2

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Fayetteville, Arkansas

Material Description

Reddish-Brown Clayey Gravel

Remarks:
Material sampled from 1 foot below existing grade at Station 281+97, approximately 50 feet left of planned centerline.

Checked by: Steven Head, E.I.
Title: Supervisor

Figure 162

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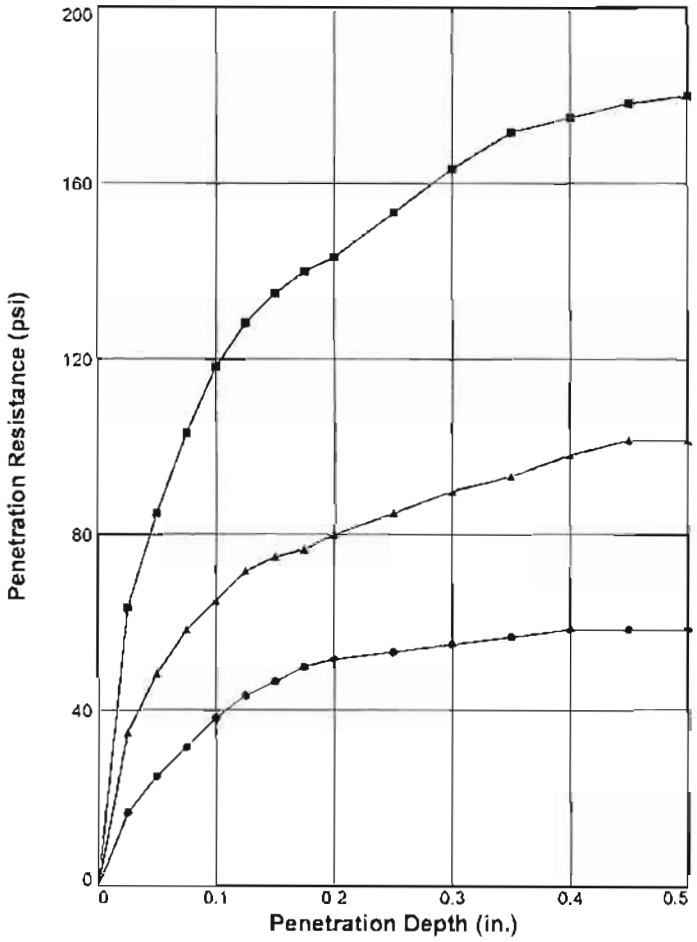
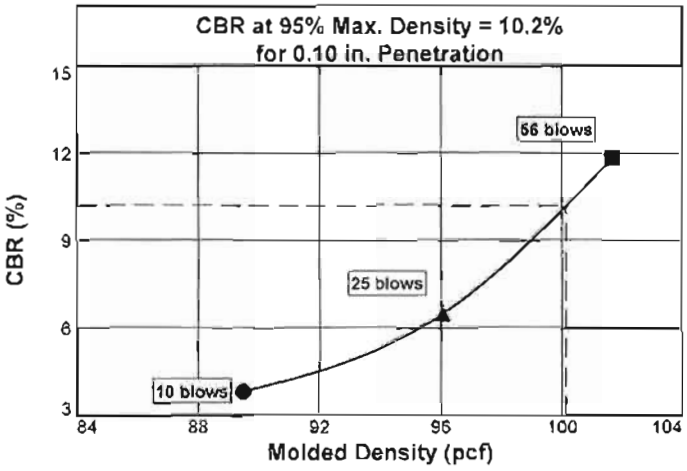
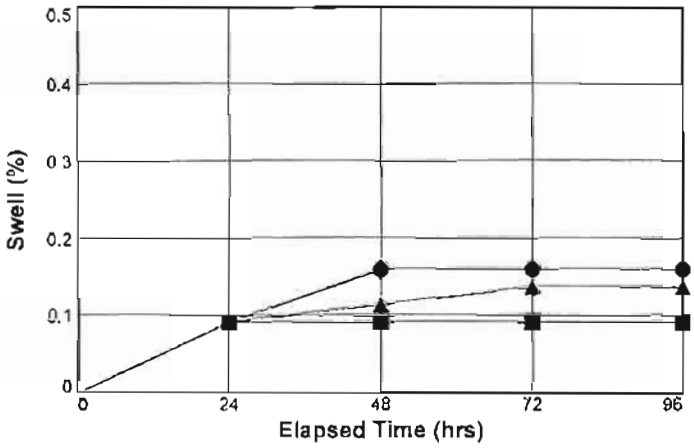
BEARING RATIO TEST REPORT
ASTM D 1883-07







	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	89.5	84.9	15.8	89.3	84.8	34.0	3.8	3.4	0.000	25	0.2
2 △	96.1	91.2	14.4	95.9	91	30.6	6.5	5.3	0.000	25	0.1
3 □	101.7	96.5	15.3	101.6	96.4	27.7	11.8	9.6	0.000	25	0.1

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Reddish-Brown Clayey Gravel	GC	105.4	19.8	49	31

Project No: FY143801
Project: CA0906 Maxie Camp Rd.-Hwy. 123
Source of Sample: TP's **Depth:** 1'
Sample Number: 2
Date: 4/11/2014

Test Description/Remarks:

Material sampled from 1 foot below existing grade at Station 281+97, approximately 50 feet left of centerline.

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Figure 163

McCLELLAND CONSULTING ENGINEERS, INC.
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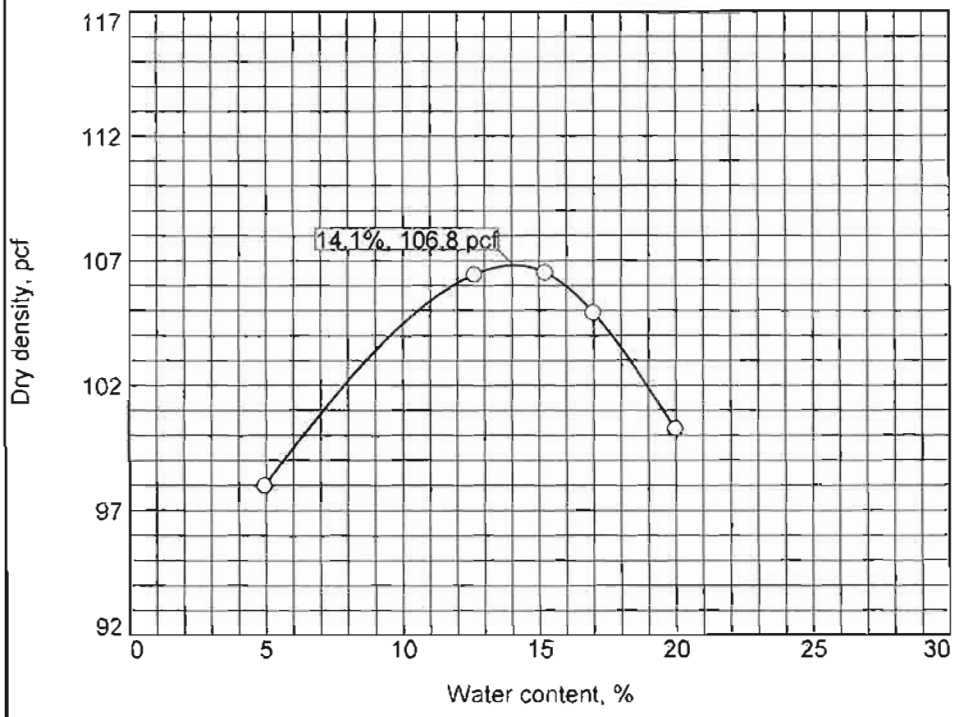
COMPACTION TEST REPORT



Curve No.
3

Test Specification:
ASTM D 698-07 Method C Standard

Preparation Method	Moist
Hammer Wt.	5.5 lb.
Hammer Drop	12 in.
Number of Layers	three
Blows per Layer	56
Mold Size	0.075 cu. ft.
Test Performed on Material Passing	3/4 in. Sieve
NM 21.4 LL 35 PI 14	
Sp.G. (ASTM D 854)	
%>3/4 in. 16.6 %<No.200 48.1	
USCS GC AASHTO A-6(4)	
Date Sampled	4/11/2014
Date Tested	4/16/2014
Tested By	Dustin Lawrence

TESTING DATA

	1	2	3	4	5	6
WM + WS	10836.0	10934.0	10934.0	10850.0	10256.0	
WM	6758.0	6758.0	6758.0	6758.0	6758.0	
WW + T #1	970.6	1070.5	966.7	966.2	687.5	
WD + T #1	874.2	943.5	844.0	823.8	660.4	
TARE #1	109.8	108.7	121.5	110.5	110.5	
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	12.6	15.2	17.0	20.0	4.9	
DRY DENSITY	106.4	106.5	104.9	100.3	98.0	

TEST RESULTS

Maximum dry density = 106.8 pcf

Optimum moisture = 14.1 %

Material Description

Reddish-Brown Clayey Gravel

Project No. FY143801 **Client:** Arkansas Hwy. & Trans. Department
Project: CA0906 Maxie Camp Rd.-Hwy. 123

○ **Source of Sample:** TP's **Depth:** 1' **Sample Number:** 3

Remarks:
Material sampled from 1 foot below existing grade at Station 342+50, approximately 50 feet left of planned centerline.

Checked by: Steven Head, E.I.
Title: Supervisor

McCLELLAND CONSULTING ENGINEERS, INC.
Fayetteville, Arkansas

Figure 164

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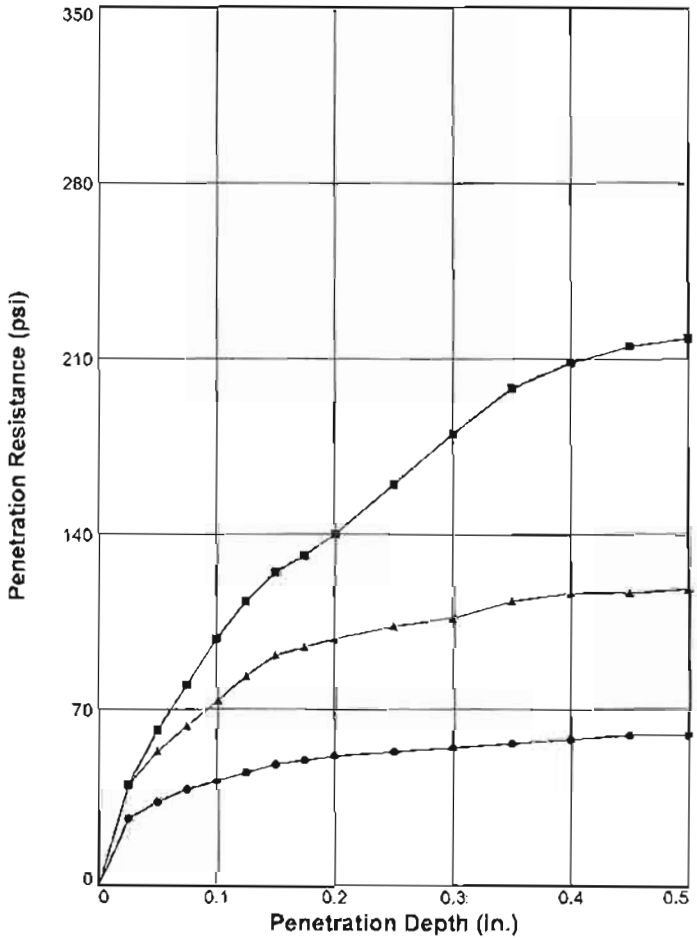
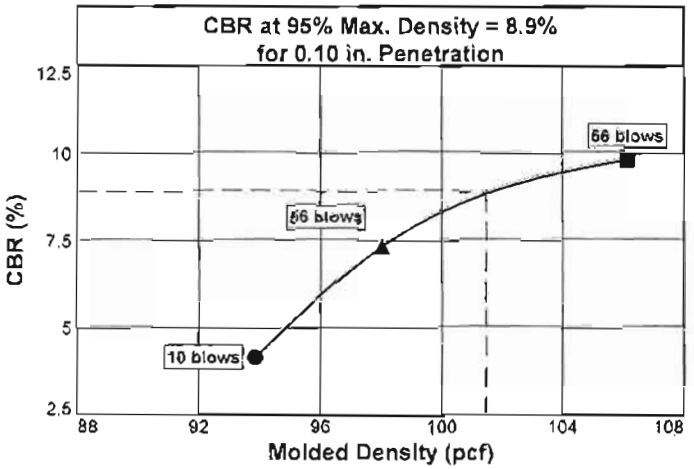
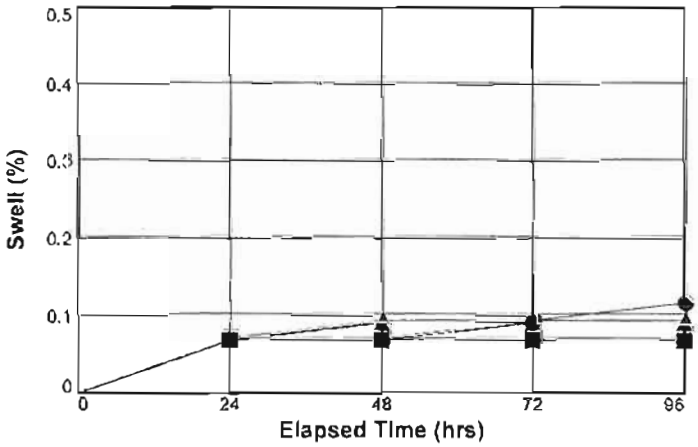
BEARING RATIO TEST REPORT
ASTM D 1883-07







	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	93.8	87.8	11.8	93.7	87.8	28.1	4.2	3.4	0.000	25	0.1
2 △	98.0	91.8	14.7	97.9	91.7	24.3	7.3	6.6	0.000	25	0.1
3 □	106.1	99.3	14.8	106.1	99.3	22.3	9.8	9.3	0.000	25	0.1

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Reddish-Brown Clayey Gravel	GC	106.8	14.1	35	14

Project No: FY143801
Project: CA0906 Maxie Camp Rd.-Hwy. 123
Source of Sample: TP's **Depth:** 1'
Sample Number: 3
Date: 4/11/2014

Test Description/Remarks:

Material sampled from 1 foot below existing grade at Station 342+50, approximately 50 feet left of centerline.

BEARING RATIO TEST REPORT
McCLELLAND CONSULTING ENGINEERS, INC.

Figure 165

APPENDIX D

ASPHALT PAVEMENT CORE DEPTH

APPENDIX E: Asphalt Pavement Core Thicknesses and Locations

Description	Station	Offset	Elevation	Average Measured Thickness (in.)
P-1	68+62.45	18.39' Rt.	1,175.01'	8.492
P-2	85+56.62	16.48' Lt.	1,195.22'	2.592
P-3	94+63.50	16.68' Rt.	1,196.69'	5.221
P-4	102+11.60	15.06' Lt.	1,222.71'	4.948
A10	108+00.92	2.94' Rt.	1,234.54'	10.651
A13	108+20.77	5.74' Rt.	1,234.55'	10.183
A16	108+40.97	8.81' Rt.	1,234.53'	4.496
A11	108+60.89	2.90' Rt.	1,234.85'	10.457
A14	108+80.87	5.88' Rt.	1,234.88'	9.847
A17	109+00.99	8.86' Rt.	1,234.88'	3.919
A12	109+20.83	2.99' Rt.	1,235.19'	10.188
A15	109+40.88	5.86' Rt.	1,235.20'	9.555
A18	109+61.03	8.96' Rt.	1,235.19'	5.332
P-5	114+71.02	9.40' Rt.	1,242.16'	5.961
P-8	146+11.75	1.04' Lt.	1,238.04'	5.127
P-12	183+96.25	16.38' Lt.	1,101.21'	5.484
P-13	195+49.38	19.37' Rt.	1,067.00'	4.878
P-14	199+34.87	214.33' Rt.	1,051.84'	5.609
P-15	201+42.64	22.05' Rt.	1,052.63'	4.695
P-16	214+22.81	15.77' Lt.	1,064.40'	4.747
P-17	234+89.10	11.61' Rt.	1,092.12'	5.423
P-18	244+75.55	0.17' Rt.	1,074.01'	6.864
P-20	265+86.75	4.52' Lt.	1,076.77'	6.335
P-22	284+14.17	10.52' Lt.	1,102.43'	6.491
P-23	294+42.55	33.14' Rt.	1,101.84'	3.457
A1	300+77.28	22.20' Rt.	1,110.53'	11.221
A4	300+97.11	25.45' Rt.	1,111.21'	10.498
A7	301+17.02	28.73' Rt.	1,111.92'	10.906
A2	301+37.26	23.10' Rt.	1,112.90'	11.437
A5	301+57.13	26.27' Rt.	1,113.71'	14.563
A8	301+77.01	29.40' Rt.	1,114.53'	9.820
A3	301+97.26	23.61' Rt.	1,115.64'	14.473
A6	302+17.08	26.85' Rt.	1,116.53'	13.718
A9	302+37.01	30.14' Rt.	1,117.41'	13.645
P-24	304+53.99	2.33' Rt.	1,128.44'	4.774
P-28	345+16.52	10.51' Lt.	1,135.46'	5.457
P-29	352+45.29	11.02' Rt.	1,136.02'	2.864
P-30	368+03.01	10.67' Lt.	1,099.53'	4.199
P-31	375+37.66	10.90' Rt.	1,098.31'	5.173
P-32	386+49.00	11.25' Lt.	1,094.33'	4.865
P-33	394+91.52	10.12' Rt.	1,093.74'	6.950
A19	396+33.09	2.57' Rt.	1,099.28'	8.930
A20	396+53.09	5.96' Rt.	1,098.55'	10.218
A21	396+72.96	9.17' Rt.	1,099.93'	10.373
A22	396+93.13	3.45' Rt.	1,100.81'	10.641

A23	397+13.10	6.56' Rt.	1,101.48'	10.428
A24	397+32.92	9.89' Rt.	1,102.10'	10.765
A25	397+53.10	4.23' Rt.	1,102.94'	8.563
A26	397+73.10	7.46' Rt.	1,103.57'	10.209
A27	397+93.04	10.58' Rt.	1,104.19'	4.741
P-34	405+25.13	13.67' Lt.	1,120.75'	4.797
P-35	416+24.32	11.48' Rt.	1,100.09'	5.902
P-36	424+83.18	5.52' Lt.	1,105.79'	5.802
P-37	432+95.18	20.25' Rt.	1,107.45'	6.717
P-38	445+27.35	15.74' Lt.	1,112.44'	4.198
P-39	452+33.96	16.12' Rt.	1,123.18'	6.366
P-40	458+15.68	19.67' Rt.	1,142.69'	5.168

Note: Pavement boring locations without asphalt cores are in areas of significant planned cut or fill.

APPENDIX E

BORING LOCATION TABLES

BORING LOCATIONS

MAXIE CAMP RD. - HWY 123 (WIDENING)(S)
BOONE & NEWTON COUNTY
ROUTE HWY 65, SECTIONS 2 & 3
Fed Aid project 9991
JOB CA0906

Boring No.	Station	Offset	Elevation	Northing	Easting
P-1	68+62.45	18.39'	1,175.01'	674257.61	1010259.36
P-2	85+56.62	-16.48'	1,195.22'	672844.24	1011194.14
P-3	94+63.50	16.68'	1,196.69'	672059.98	1011650.72
P-4	102+11.60	-15.06'	1,222.71'	671444.60	1012077.31
P-5	114+71.02	9.40'	1,242.16'	670365.17	1012726.65
P-6	123+84.02	-23.68'	1,271.68'	669612.19	1013242.04
P-7	133+74.87	9.34'	1,239.01'	668861.88	1013883.57
P-8	146+11.75	-1.04'	1,238.04'	668168.51	1014887.03
P-9	154+75.47	34.92'	1,229.08'	667864.09	1015696.12
P-10	167+51.68	-11.55'	1,154.81'	667201.64	1016766.74
P-11	175+84.42	18.91'	1,123.03'	666642.35	1017384.41
P-12	183+96.25	-16.38'	1,101.21'	666144.95	1018026.99
P-13	195+49.38	19.37'	1,067.00'	665373.97	1018885.30
P-14	199+34.87	214.33'	1,051.84'	664977.00	1019055.69
P-16	214+22.81	-15.77'	1,064.40'	663995.30	1020118.65
P-17	234+89.10	11.61'	1,092.12'	662289.21	1021280.44
P-18	244+75.55	0.17'	1,074.01'	661483.94	1021850.17
P-19	252+43.51	22.38'	1,038.42'	660836.55	1022263.71
P-20	265+86.75	-4.52'	1,076.77'	659735.47	1023033.40
P-21	274+88.59	22.11'	1,115.17'	658969.57	1023510.57
P-22	284+14.17	-10.52'	1,102.43'	658220.82	1024055.68
P-23	294+42.55	33.14'	1,101.84'	657325.25	1024546.15
P-24	304+53.99	2.33'	1,128.44'	656389.23	1024930.35
P-25	315+11.54	30.75'	1,155.28'	655401.60	1025316.22
P-26	324+96.44	1.47'	1,110.06'	654579.10	1025859.57
P-27	334+98.24	12.38'	1,130.45'	653703.70	1026332.68
P-28	345+16.52	-10.51'	1,135.46'	652702.12	1026509.69
P-29	352+45.29	11.02'	1,136.02'	651977.96	1026594.42
P-30	368+03.01	-10.67'	1,099.53'	650526.37	1027130.49
P-31	375+37.66	10.90'	1,098.31'	649852.20	1027423.18
P-32	386+49.00	-11.25'	1,094.33'	648855.27	1027914.86
P-33	394+91.52	10.12'	1,093.74'	648082.35	1028250.85
P-34	405+25.13	-13.67'	1,120.75'	647124.18	1028632.05
P-35	416+24.32	11.48'	1,100.09'	646026.92	1028569.24
P-36	424+83.18	-5.52'	1,105.79'	645171.46	1028587.14
P-37	432+95.18	20.25'	1,107.45'	644414.69	1028873.08
P-38	445+27.35	-15.74'	1,112.44'	643366.72	1029521.38
P-39	452+33.96	16.12'	1,123.18'	642742.45	1029853.93
P-40	458+15.68	19.67'	1,142.69'	642240.07	1030147.22

BORING LOCATIONS

MAXIE CAMP RD. - HWY 123 (WIDENING)(S)
BOONE & NEWTON COUNTY
ROUTE HWY 65, SECTIONS 2 & 3
Fed Aid project 9991
JOB CA0906

Boring No.	Station	Offset	Elevation	Northing	Easting
S-1	79+80.32	33.05'	1,183.30'	673304.89	1010844.32
S-2	90+01.45	-45.81'	1,190.83'	672483.91	1011456.64
S-3	99+75.00	45.09'	1,205.93'	671612.45	1011900.04
S-4	109+18.32	20.52'	1,234.23'	670827.56	1012423.66
S-5	120+15.37	-43.70'	1,262.03'	669932.16	1013060.77
S-6	131+46.76	20.82'	1,247.64'	669015.27	1013714.34
S-7	138+85.68	22.99'	1,236.14'	668491.62	1014237.54
S-8	150+12.05	-18.72'	1,233.20'	668060.04	1015272.76
S-9	162+53.05	-23.25'	1,190.26'	667530.63	1016391.86
S-10	174+86.75	55.70'	1,118.88'	666677.34	1017286.09
S-11	182+05.45	47.88'	1,102.71'	666219.12	1017839.83
S-12	190+21.78	42.56'	1,089.68'	665695.94	1018466.48
S-13	195+33.69	27.20'	1,067.76'	665378.04	1018868.24
S-14	211+34.06	41.79'	1,066.50'	664216.48	1019923.88
S-15	221+10.16	-38.78'	1,062.86'	663429.72	1020506.87
S-16	230+10.58	36.46'	1,084.06'	662659.82	1020978.18
S-17	239+60.23	-32.24'	1,088.07'	661926.54	1021584.27
S-18	245+73.67	-22.99'	1,067.24'	661416.33	1021924.95
S-19	260+45.26	-40.61'	1,045.95'	660206.90	1022764.57
S-20	268+99.31	44.51'	1,090.72'	659447.78	1023165.07
S-21	281+97.38	-29.80'	1,104.79'	658411.27	1023950.32
S-22	290+28.13	-21.71'	1,103.14'	657717.85	1024408.57
S-23	300+65.94	-26.19'	1,107.40'	656763.12	1024822.08
S-24	308+10.39	-4.98'	1,146.30'	656056.93	1025059.35
S-25	319+70.05	-12.75'	1,133.65'	655034.14	1025594.55
S-26	331+68.34	31.63'	1,118.69'	653991.96	1026187.62
S-27	342+76.51	-42.40'	1,130.98'	652944.21	1026506.33
S-28	349+61.07	19.06'	1,135.63'	652258.00	1026545.12
S-29	359+46.32	-32.94'	1,125.40'	651310.64	1026788.33
S-30	368+99.91	27.32'	1,095.65'	650422.51	1027137.27
S-31	380+19.04	-40.46'	1,096.24'	649438.29	1027674.26
S-32	390+61.97	42.04'	1,085.07'	648458.35	1028040.73
S-33	399+32.47	39.14'	1,106.63'	647670.30	1028410.53
S-34	410+31.36	-40.01'	1,108.54'	646614.31	1028665.27
S-35	420+28.62	36.15'	1,100.60'	645624.70	1028514.69
S-36	430+06.66	47.27'	1,106.14'	644654.74	1028705.66
S-37	439+43.13	45.79'	1,104.04'	643843.37	1029177.70
S-38	451+33.33	40.03'	1,116.22'	642816.86	1029782.09

BORING LOCATIONS

MAXIE CAMP RD. - HWY 123 (WIDENING)(S)
BOONE & NEWTON COUNTY
ROUTE HWY 65, SECTIONS 2 & 3
Fed Aid project 9991
JOB CA0906

Boring No.	Station	Offset	Elevation	Northing	Easting
B-1	201+42.64	22.05'	1,052.63'	664991.03	1019338.43
B-2	201+33.70	-21.39'	1,051.97'	665030.07	1019359.46
B-3	201+72.31	33.72'	1,042.98'	664963.04	1019353.68
B-4	202+42.64	-36.26'	1,041.15'	664971.53	1019452.53
B-5	202+39.78	33.28'	1,053.31'	664920.05	1019405.69
B-6	202+77.84	-8.27'	1,052.91'	664927.48	1019461.55
B-7	203+07.70	20.74'	1,053.15'	664886.14	1019465.60
B-8	203+62.99	-18.43'	1,054.02'	664878.78	1019532.92
B-9	253+28.08	25.09'	1,036.50'	660764.95	1022308.80
B-10	253+71.27	3.81'	1035.73'	660741.07	1022350.61
B-11	254+27.47	41.72'	1,009.69'	660673.28	1022350.65
B-12	254+60.20	-20.42'	1,010.39'	660680.94	1022420.46
B-13	254+95.59	59.96'	1,013.02'	660606.62	1022373.66
B-14	255+59.31	-63.18'	1,019.32	660622.74	1022511.37
B-15	255+75.94	20.37'	1,035.05'	660562.19	1022451.44
B-15A	255+74.91	4.15'	1,035.05'	660572.12	1022464.31
B-16	255+80.76	-75.67'	1,020.21'	660611.96	1022533.73
B-17	433+77.58	22.78'	1,107.33'	644342.50	1028912.88
B-18	433+70.86	-42.66'	1,101.29'	644381.61	1028965.76
B-19	435+12.45	33.64'	1,080.07'	644220.91	1028972.24
B-19A	434+98.75	36.10'	1,078.48'	644231.45	1028963.15
B-20	435+20.52	-17.49'	1,080.31'	644240.01	1029020.35
B-20A	434+31.97	-46.80'	1,095.99'	644331.14	1029000.46
B-21	435+60.42	57.10'	1,081.72'	644167.68	1028976.48
B-22	435+66.66	-7.97'	1,083.34'	644195.46	1029035.65
B-23	436+56.59	23.14'	1,106.56'	644102.23	1029054.70
B-24	436+54.42	0.37'	1,106.47'	644115.70	1029073.19

BORING LOCATIONS

MAXIE CAMP RD. - HWY 123 (WIDENING)(S)
BOONE & NEWTON COUNTY
ROUTE HWY 65, SECTIONS 2 & 3
Fed Aid project 9991
JOB CA0906

Boring No.	Station	Offset	Elevation	Northing	Easting
A1	300+77.28	22.20'	1,110.53'	656735.39	1024780.83
A2	301+37.26	23.10'	1,112.90'	656678.98	1024801.20
A3	301+97.26	23.61'	1,115.64'	656622.67	1024821.94
A4	300+97.11	25.45'	1,111.21'	656715.71	1024784.80
A5	301+57.13	26.27'	1,113.71'	656659.27	1024805.27
A6	302+17.08	26.85'	1,116.53'	656602.98	1024825.92
A7	301+17.02	28.73'	1,111.92'	656695.92	1024788.78
A8	301+77.01	29.40'	1,114.53'	656639.57	1024809.36
A9	302+37.01	30.14'	1,117.41'	656583.18	1024829.89
A10	108+00.92	2.94'	1,234.54'	670936.37	1012376.20
A11	108+60.89	2.90'	1,234.85'	670885.58	1012408.08
A12	109+20.83	2.99'	1,235.19'	670834.75	1012439.85
A13	108+20.77	5.74'	1,234.55'	670918.06	1012384.37
A14	108+80.87	5.88'	1,234.88'	670867.06	1012416.17
A15	109+40.88	5.86'	1,235.20'	670816.23	1012448.06
A16	108+40.97	8.81'	1,234.53'	670899.32	1012392.49
A17	109+00.99	8.86'	1,234.88'	670848.44	1012424.33
A18	109+61.03	8.96'	1,235.19'	670797.51	1012456.14
A19	396+33.10	2.57'	1,098.55'	647957.16	1028317.41
A20	396+53.09	5.96'	1,099.28'	647937.61	1028322.77
A21	396+72.96	9.17'	1,099.93'	647918.24	1028328.24
A22	396+93.13	3.45'	1,100.81'	647902.36	1028341.93
A23	397+13.10	6.56'	1,101.48'	647882.94	1028347.53
A24	397+32.92	9.89'	1,102.10'	647863.57	1028352.88
A25	397+53.10	4.23'	1,102.94'	647847.66	1028366.52
A26	397+73.10	7.46'	1,103.57'	647828.16	1028372.03
A27	397+93.04	10.58'	1,104.19'	647808.77	1028377.60

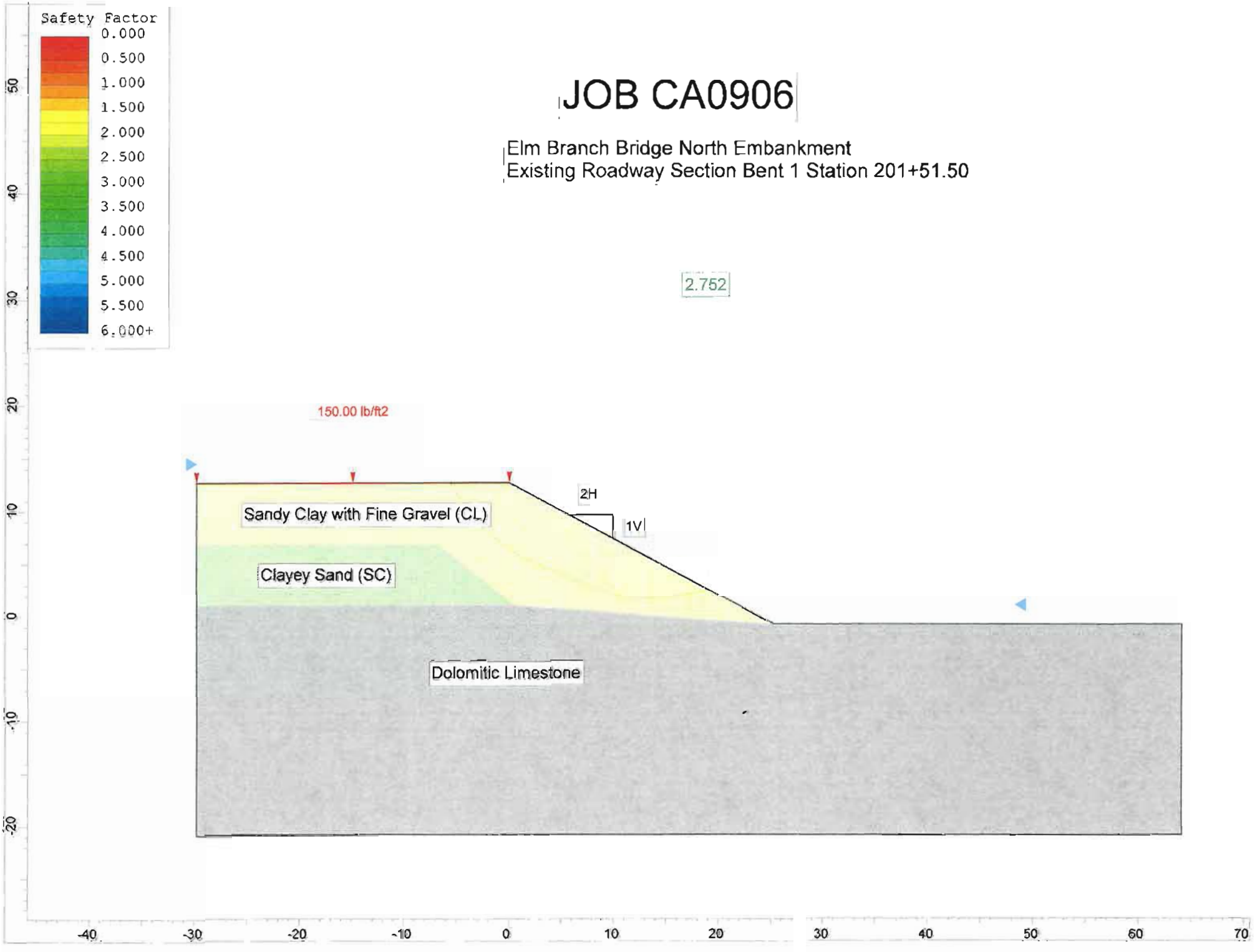
APPENDIX F

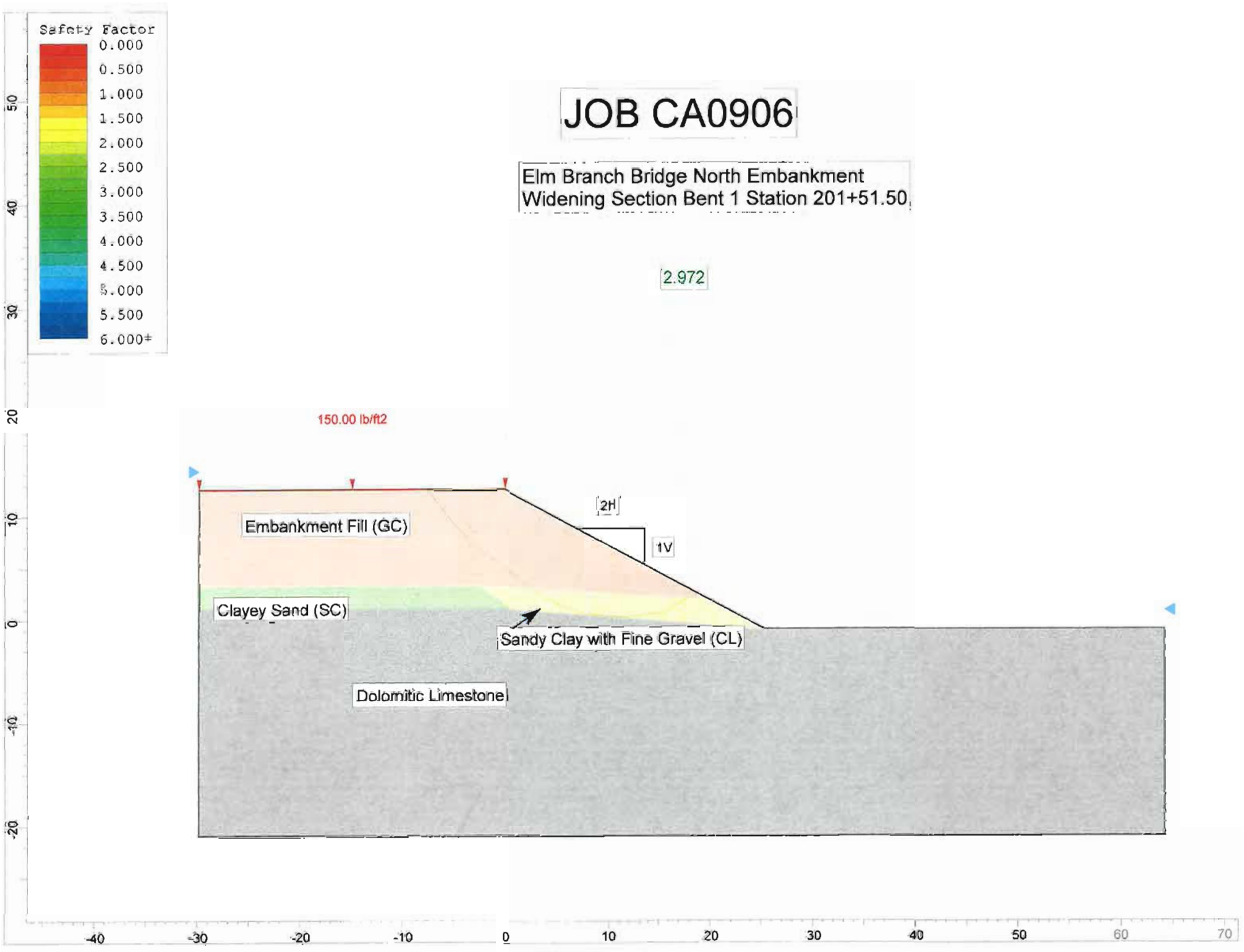
STABILITY ANALYSIS

ELM BRANCH
BRIDGE

JOB CA0906

Elm Branch Bridge North Embankment
Existing Roadway Section Bent 1 Station 201+51.50

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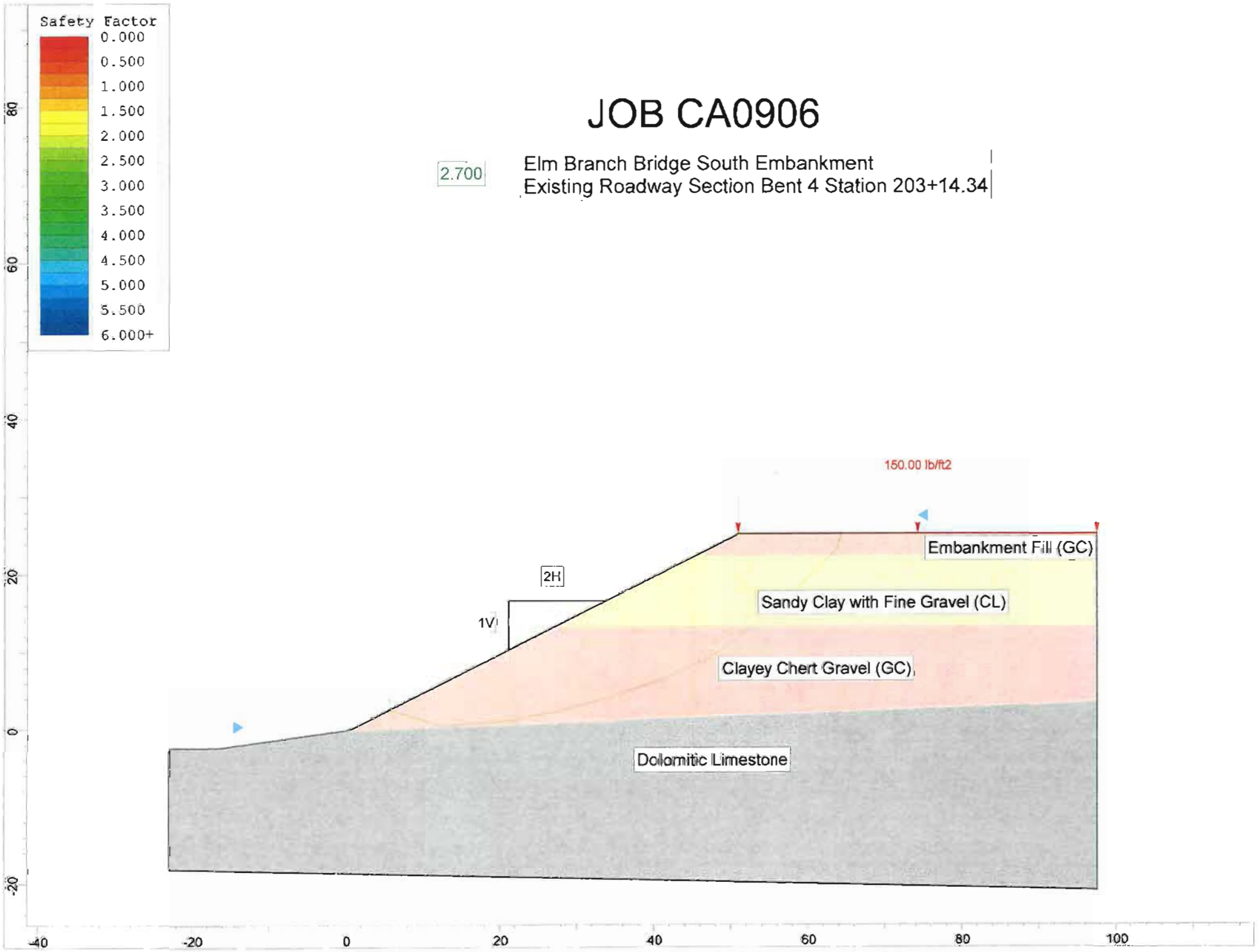
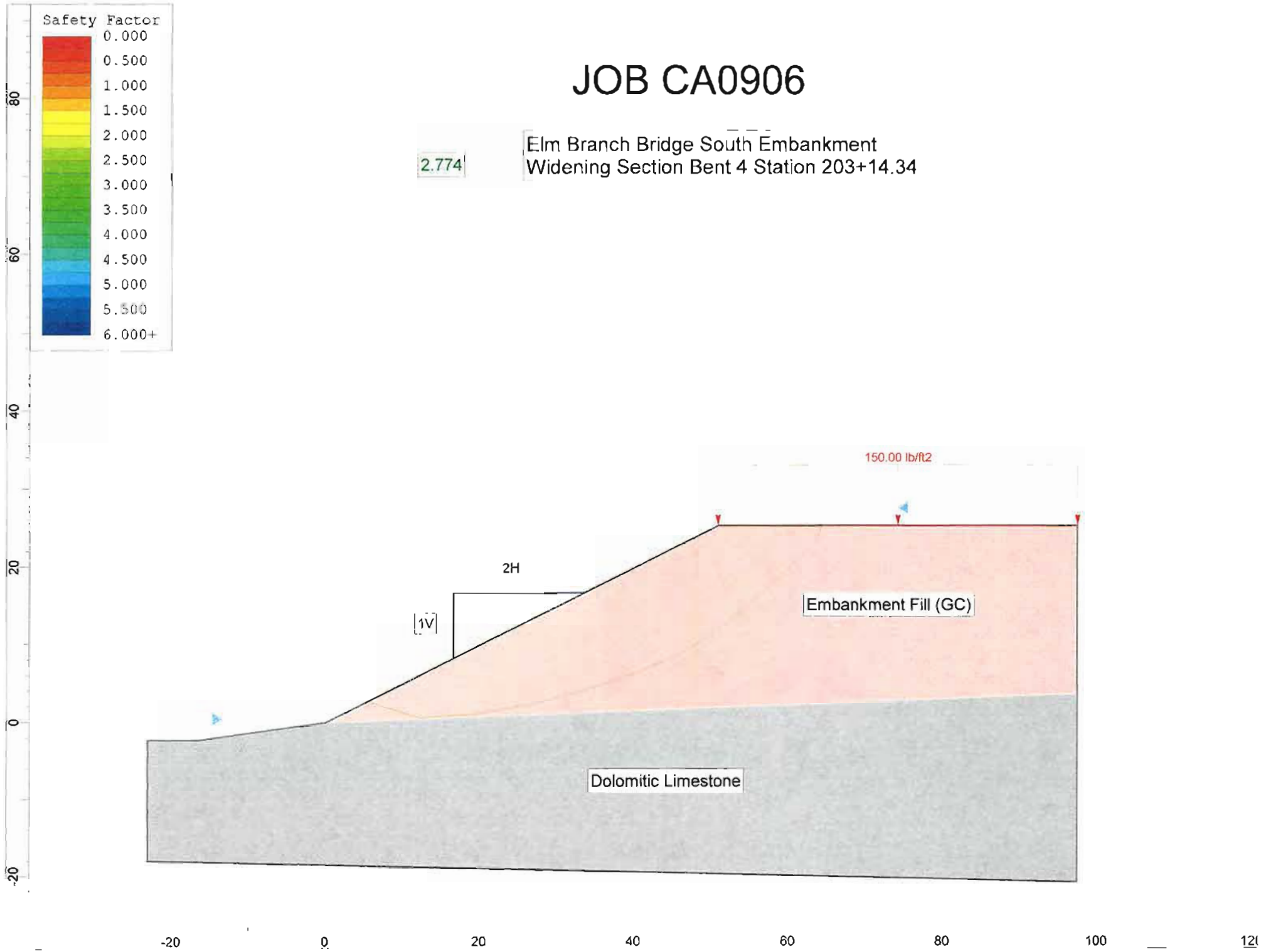
0.500
1.000
1.500
2.000
2.500
3.000
3.500
4.000
4.500
5.000
5.500
6.000+
JOB CA0906
Elm Branch Bridge North Embankment
Widening Section Bent 1 Station 201+51.50
2.972
150.00 lb/ft2
2H
1V
Embankment Fill (GC)
Clayey Sand (SC)
Sandy Clay with Fine Gravel (CL)
Dolomitic Limestone
50
40
30
20
10
0
-10
-20
-40
-30
-20
-10
0
10
20
30
40
50
60
70


Safety Factor
0.000
0.500
1.000
1.500
2.000
2.500
3.000
3.500
4.000
4.500
5.000
5.500
6.000+
JOB CA0906
2.700
Elm Branch Bridge South Embankment
Existing Roadway Section Bent 4 Station 203+14.34
150.00 lb/ft2
Embankment Fill (GC)
2H
1V
Sandy Clay with Fine Gravel (CL)
Clayey Chert Gravel (GC)
Dolomitic Limestone
80
60
40
20
0
-20
-40
-20
0
20
40
60
80
100

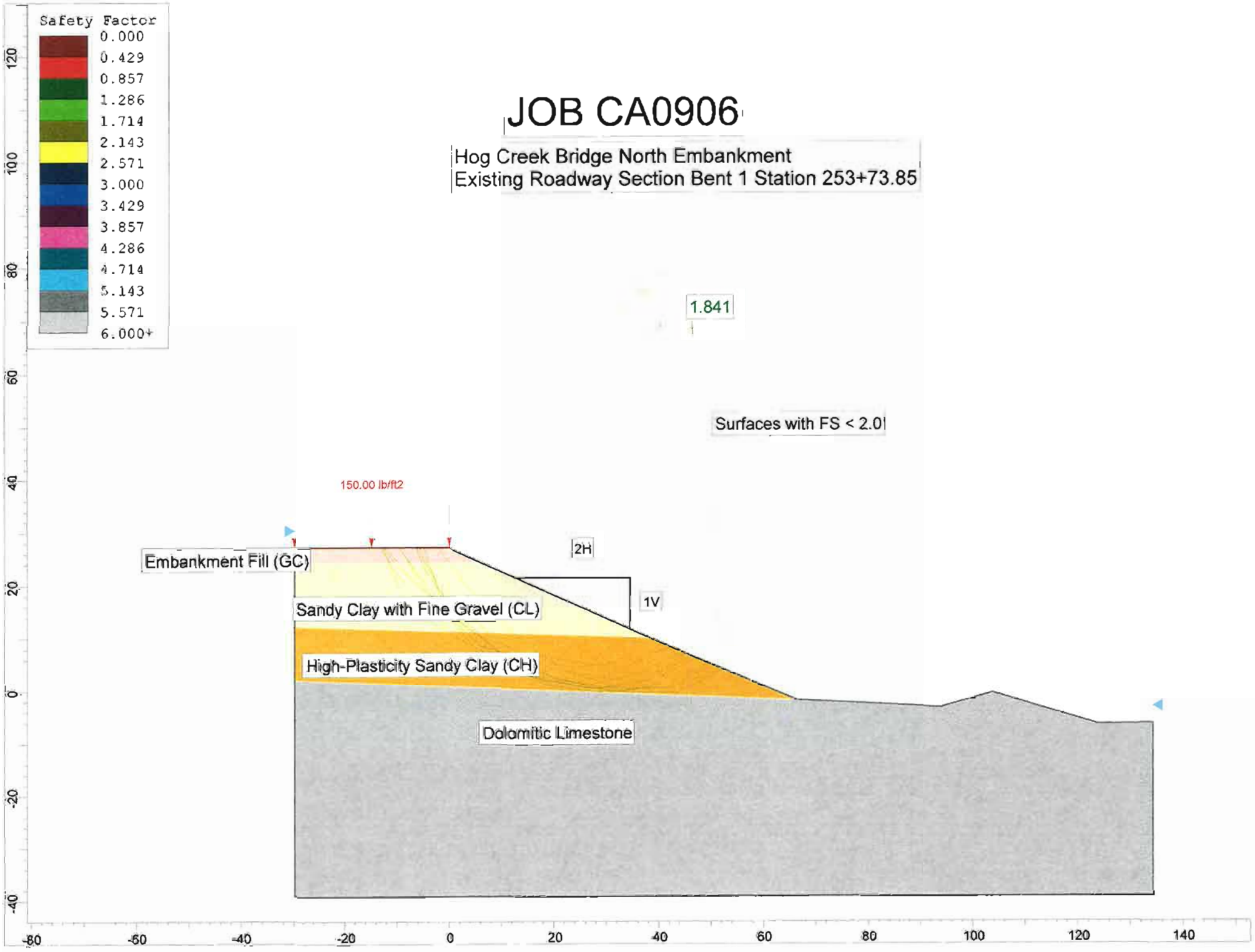
JOB CA0906

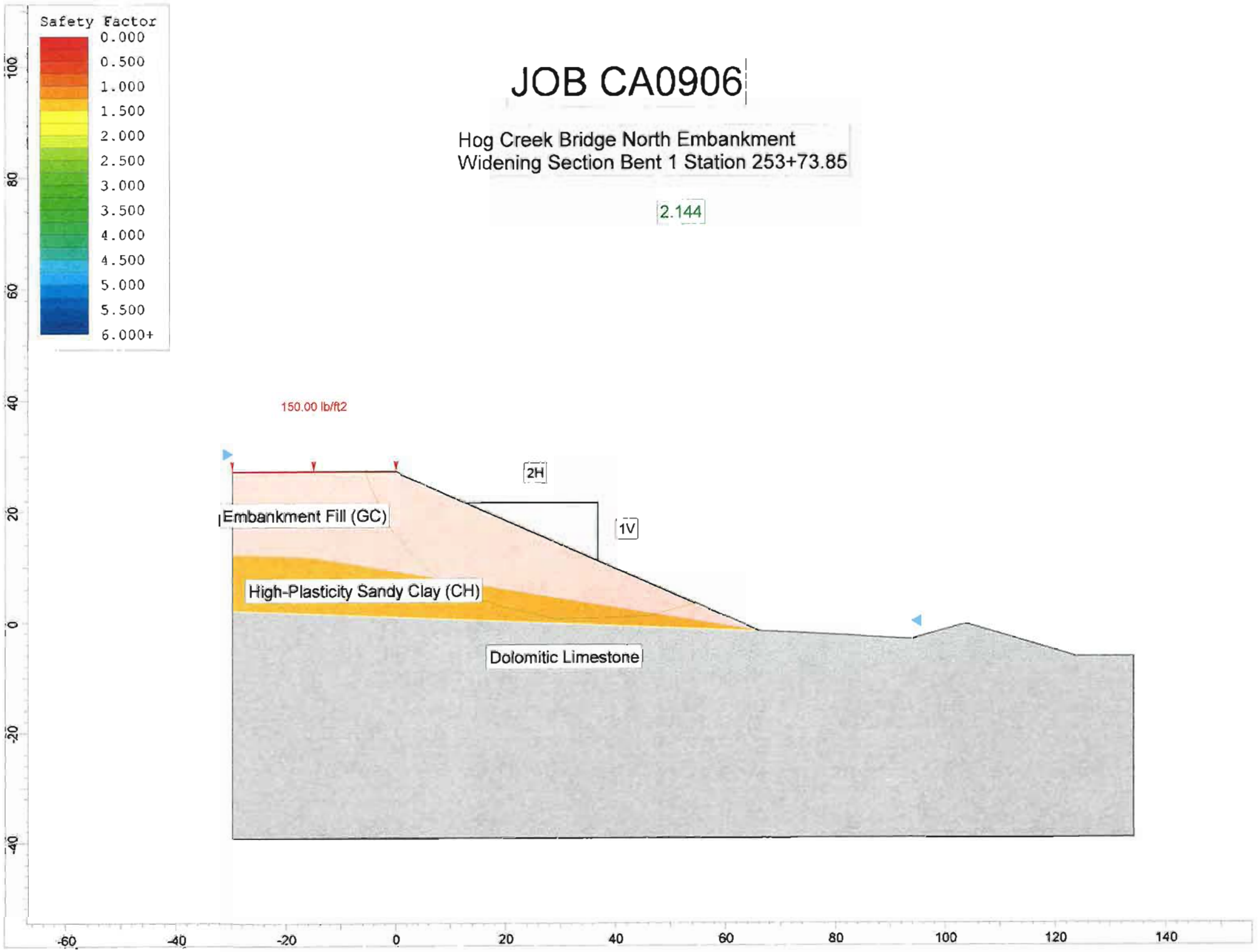
2.774

Elm Branch Bridge South Embankment
Widening Section Bent 4 Station 203+14.34



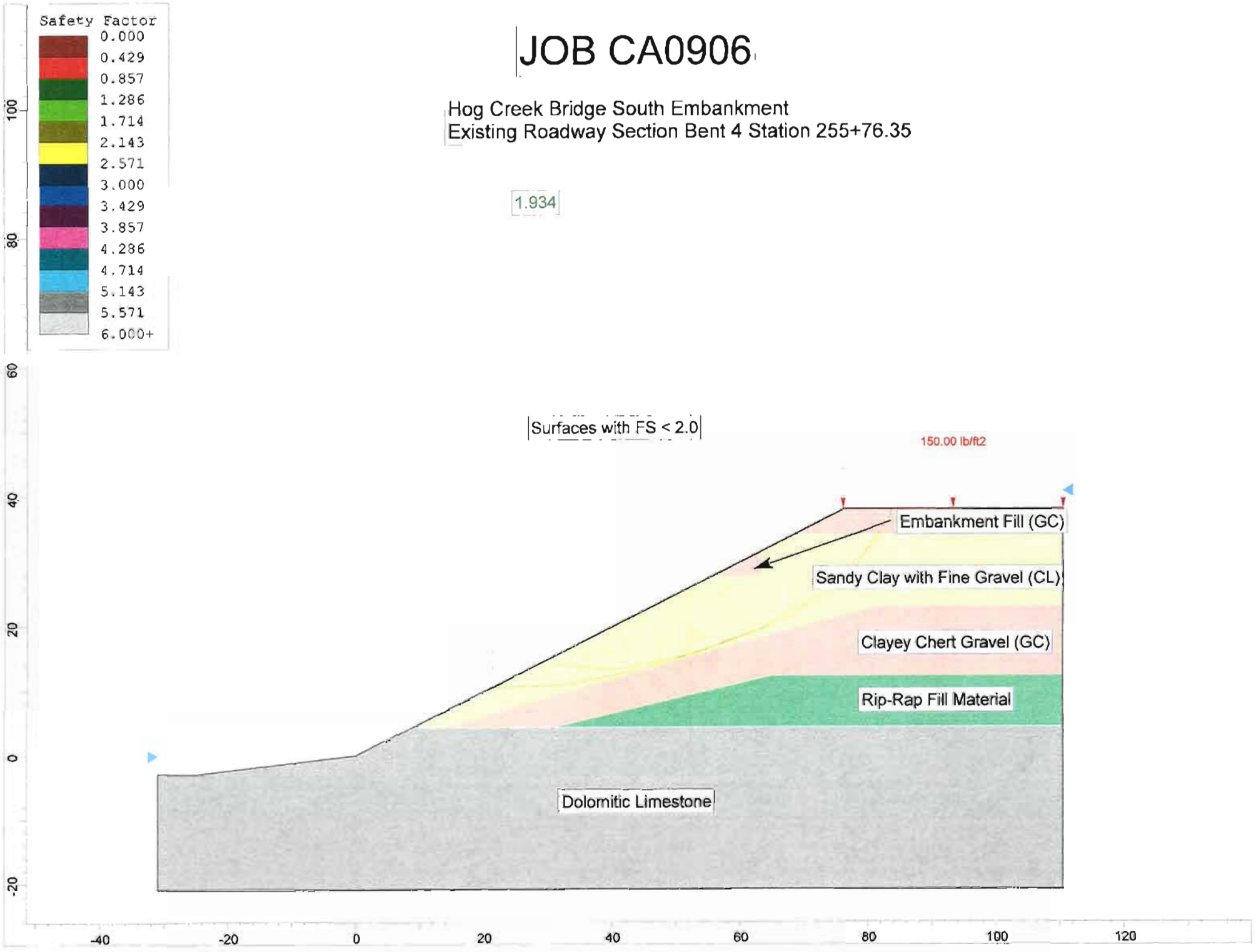
HOG CREEK
BRIDGE

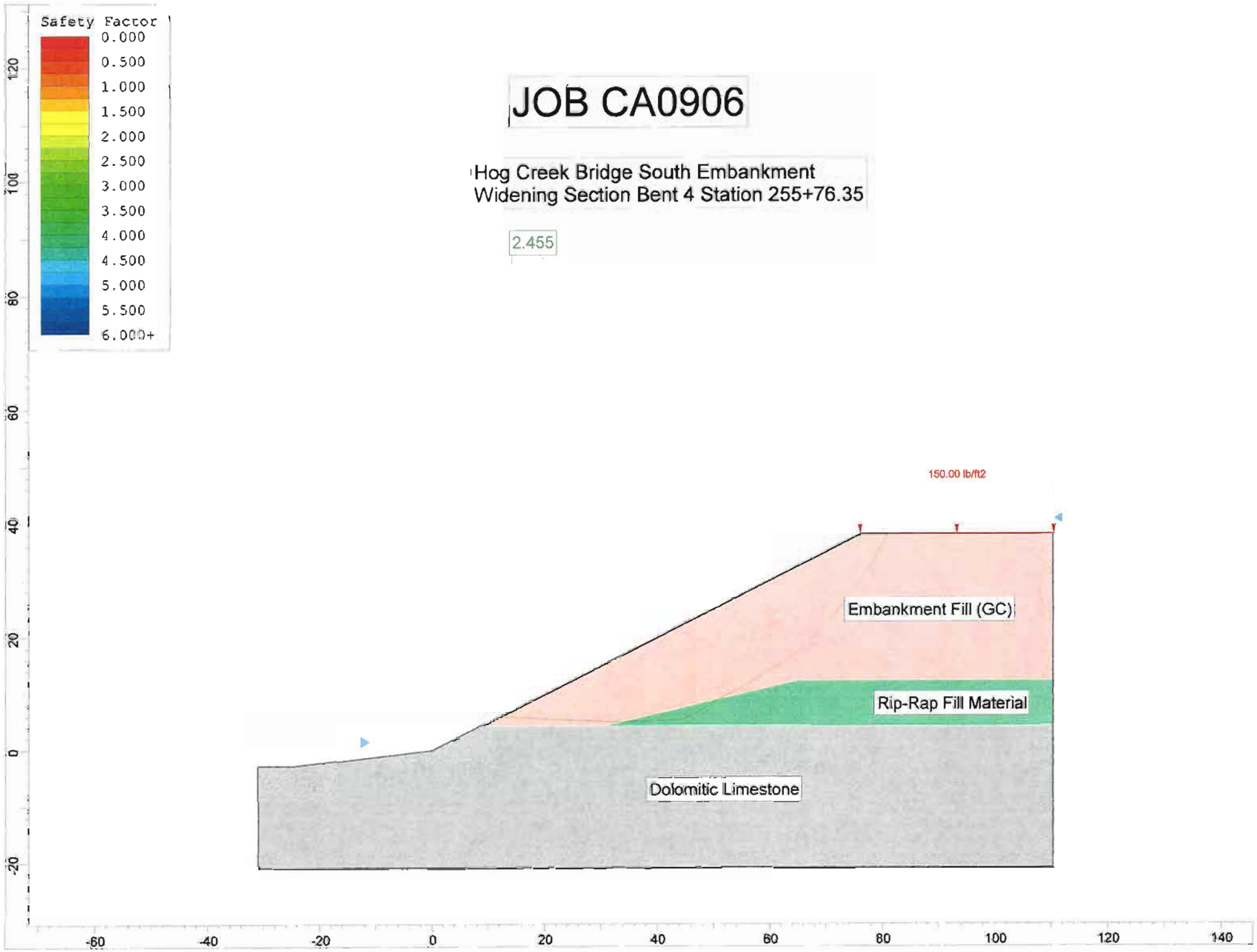

Safety Factor
0.000
0.429
0.857
1.286
1.714
2.143
2.571
3.000
3.429
3.857
4.286
4.714
5.143
5.571
6.000+
JOB CA0906
Hog Creek Bridge North Embankment
Existing Roadway Section Bent 1 Station 253+73.85
1.841
Surfaces with FS < 2.0
150.00 lb/ft2
2H
1V
Embankment Fill (GC)
Sandy Clay with Fine Gravel (CL)
High-Plasticity Sandy Clay (CH)
Dolomitic Limestone
120
100
80
60
40
20
0
-20
-40
-80
-60
-40
-20
0
20
40
60
80
100
120
140


Safety Factor
0.000
0.500
1.000
1.500
2.000
2.500
3.000
3.500
4.000
4.500
5.000
5.500
6.000+
JOB CA0906
Hog Creek Bridge North Embankment
Widening Section Bent 1 Station 253+73.85
2.144
150.00 lb/ft2
2H
1V
Embankment Fill (GC)
High-Plasticity Sandy Clay (CH)
Dolomitic Limestone
100
80
60
40
20
0
-20
-40
-60
-40
-20
0
20
40
60
80
100
120
140

JOB CA0906

Hog Creek Bridge South Embankment
Existing Roadway Section Bent 4 Station 255+76.35

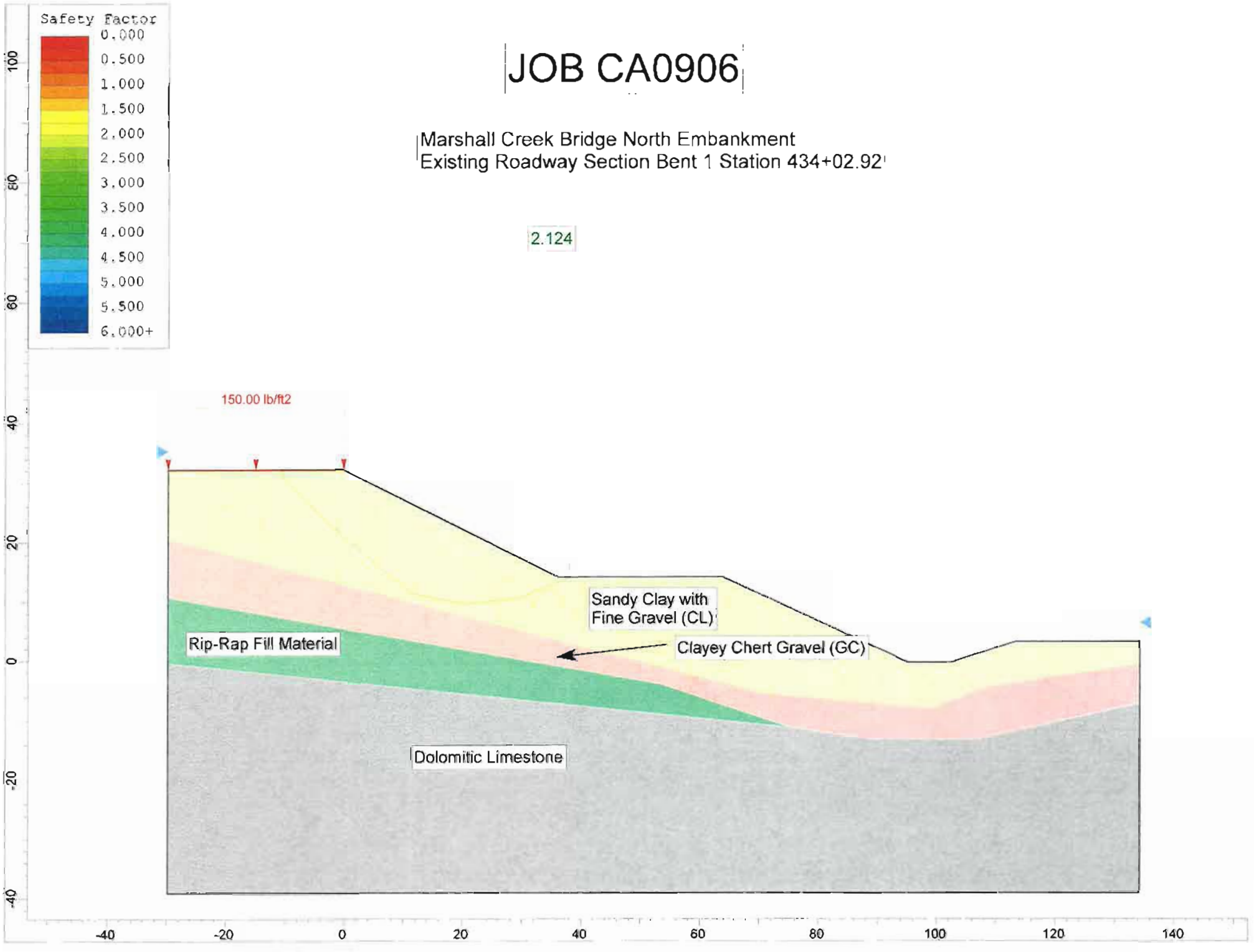


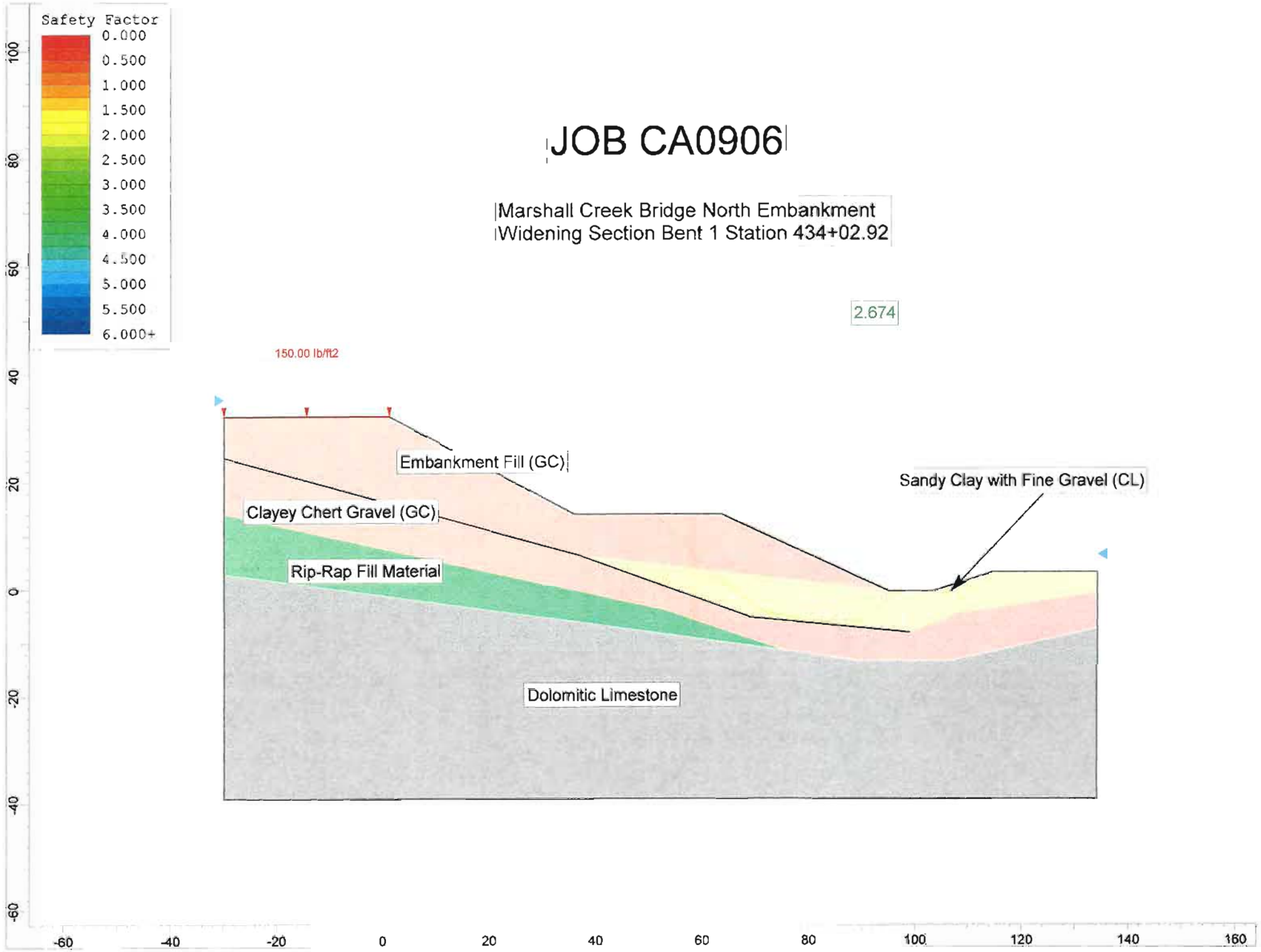

Safety Factor
0.000
0.500
1.000
1.500
2.000
2.500
3.000
3.500
4.000
4.500
5.000
5.500
6.000+
JOB CA0906
Hog Creek Bridge South Embankment
Widening Section Bent 4 Station 255+76.35
2.455
150.00 lb/ft2
Embankment Fill (GC)
Rip-Rap Fill Material
Dolomitic Limestone
120
100
80
60
40
20
0
-20
-60
-40
-20
0
20
40
60
80
100
120
140

MARSHALL CREEK
BRIDGE

JOB CA0906

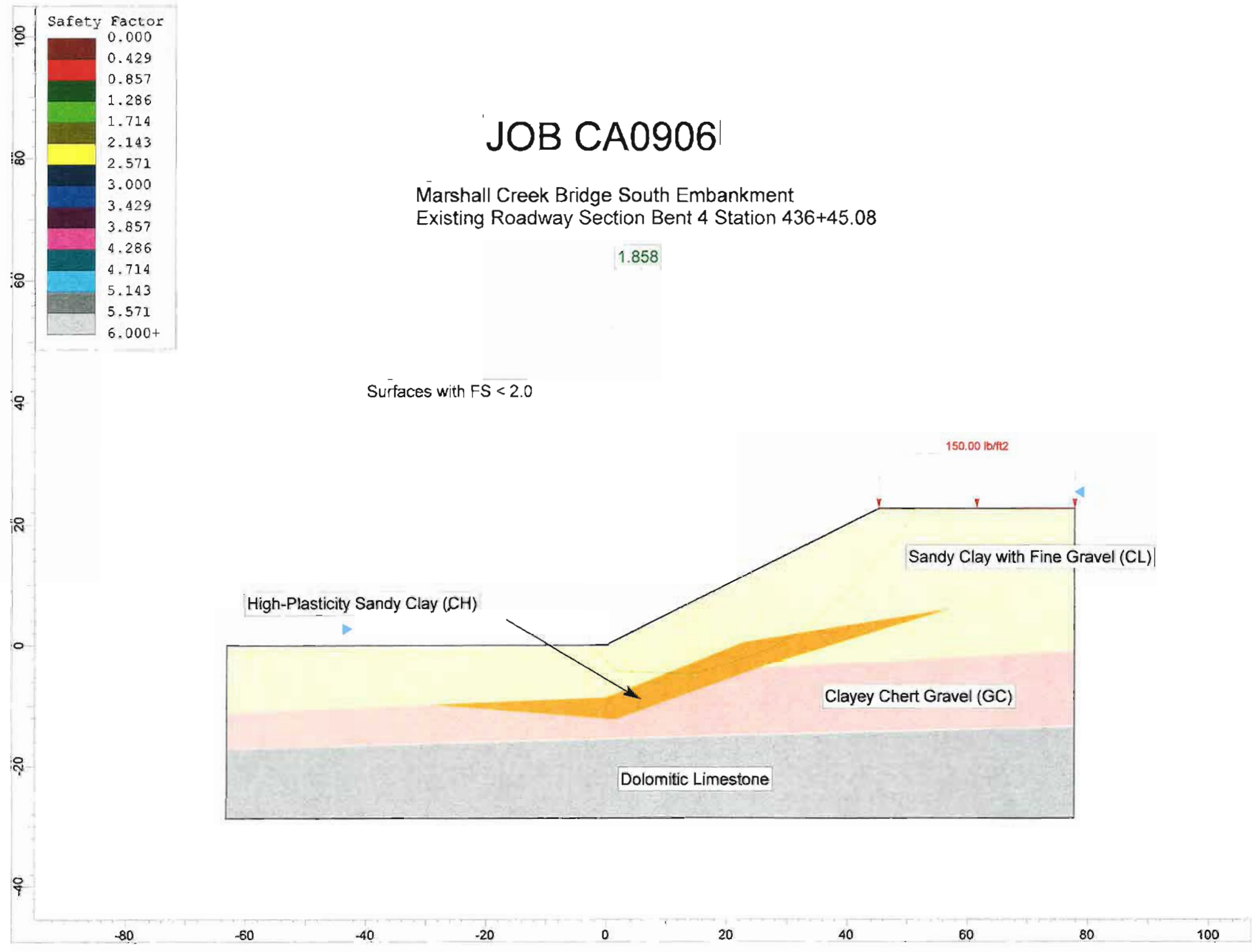
Marshall Creek Bridge North Embankment
Existing Roadway Section Bent 1 Station 434+02.92

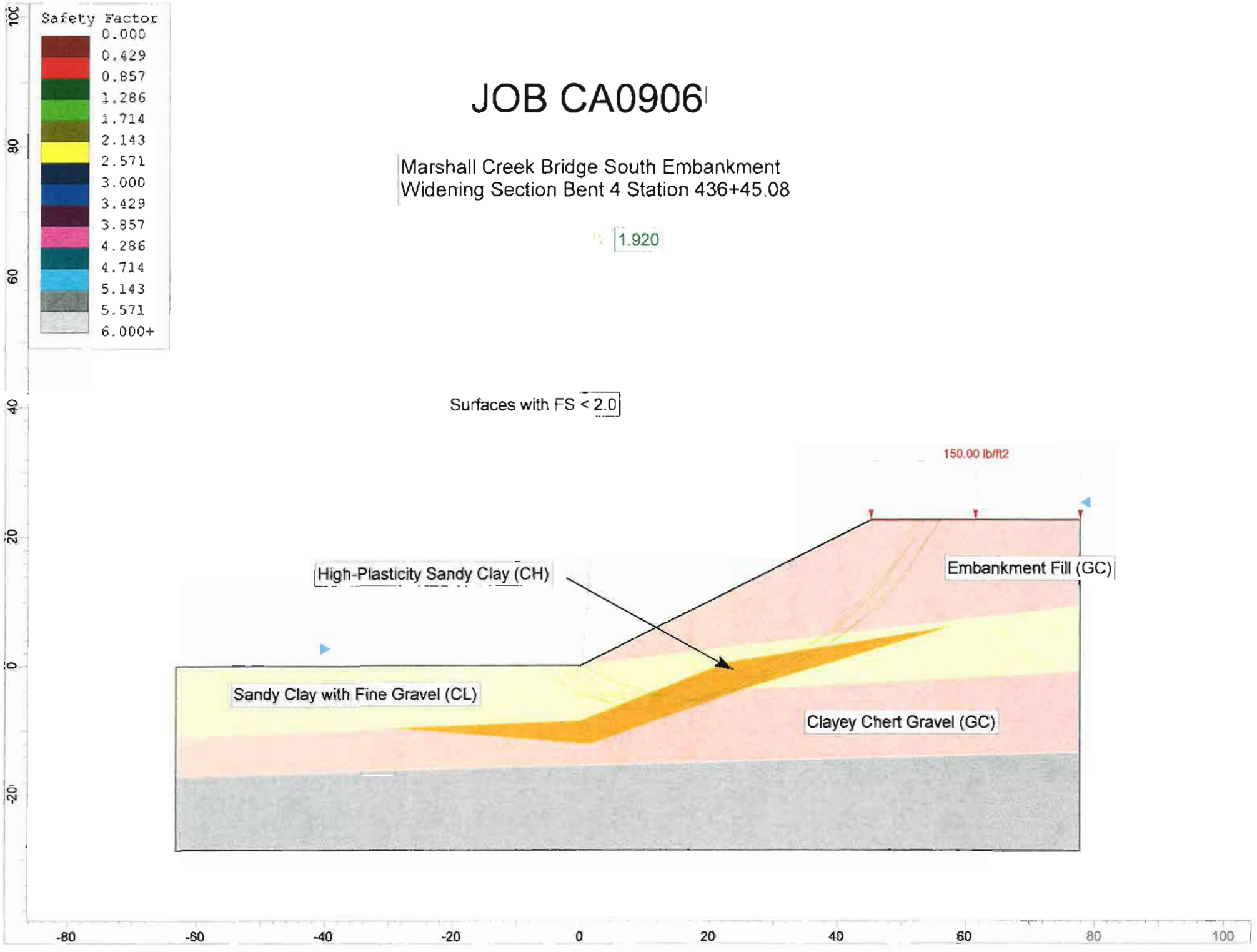



Safety Factor
0.000
0.500
1.000
1.500
2.000
2.500
3.000
3.500
4.000
4.500
5.000
5.500
6.000+
JOB CA0906
Marshall Creek Bridge North Embankment
Widening Section Bent 1 Station 434+02.92
2.674
150.00 lb/ft2
Embankment Fill (GC)
Sandy Clay with Fine Gravel (CL)
Clayey Chert Gravel (GC)
Rip-Rap Fill Material
Dolomitic Limestone
100
80
60
40
20
0
-20
-40
-60
-60
-40
-20
0
20
40
60
80
100
120
140
160

JOB CA0906

Marshall Creek Bridge South Embankment
Existing Roadway Section Bent 4 Station 436+45.08

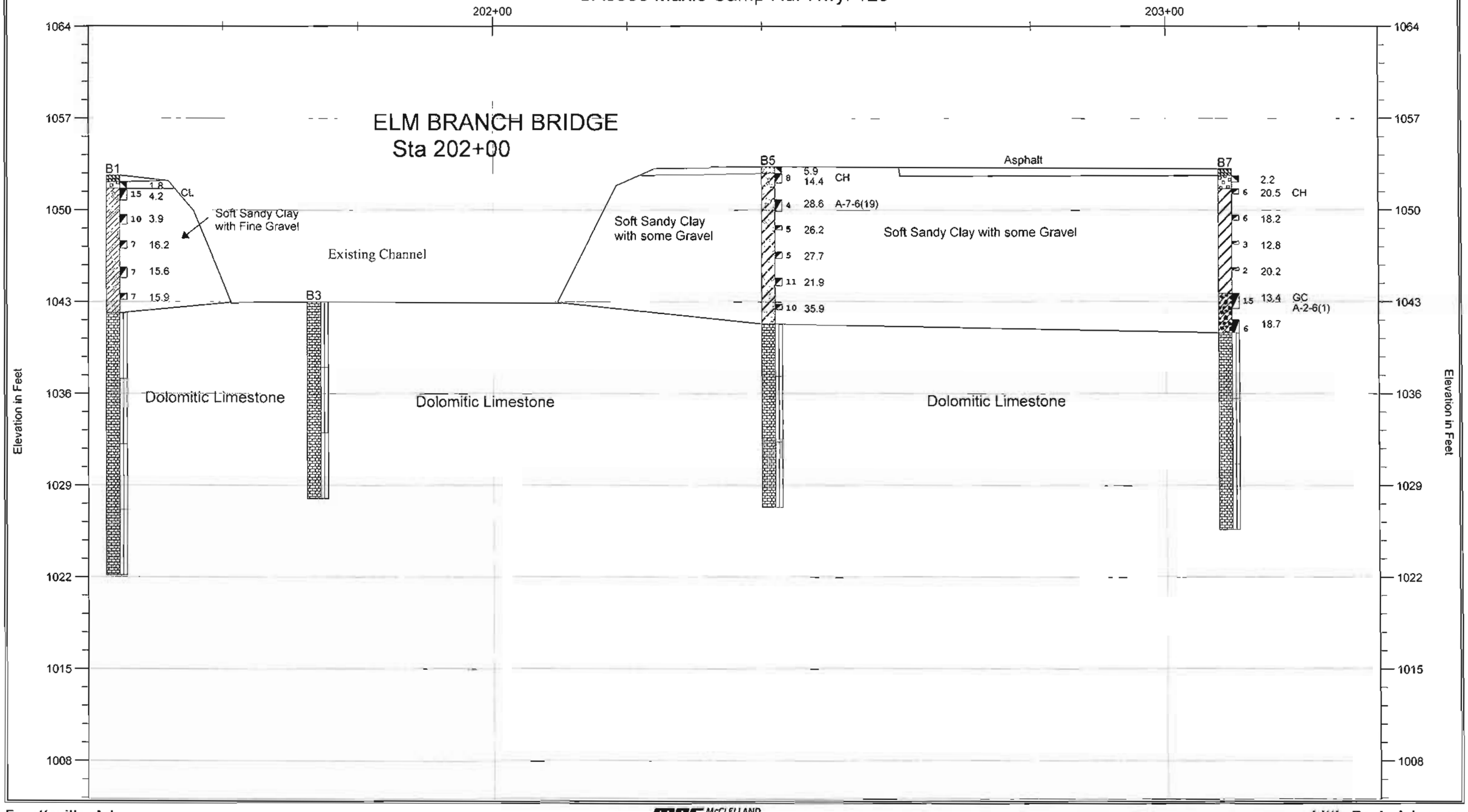



Safety Factor
0.000
0.429
0.857
1.286
1.714
2.143
2.571
3.000
3.429
3.857
4.286
4.714
5.143
5.571
6.000+
JOB CA0906
Marshall Creek Bridge South Embankment
Widening Section Bent 4 Station 436+45.08
1.920
Surfaces with FS < 2.0
150.00 lb/ft2
High-Plasticity Sandy Clay (CH)
Embankment Fill (GC)
Sandy Clay with Fine Gravel (CL)
Clayey Chert Gravel (GC)
100
80
60
40
20
0
-20
-80
-60
-40
-20
0
20
40
60
80
100

APPENDIX G

BRIDGE PROFILES

PROFILE OF BORINGS
CA0906 Maxie Camp Rd.-Hwy. 123



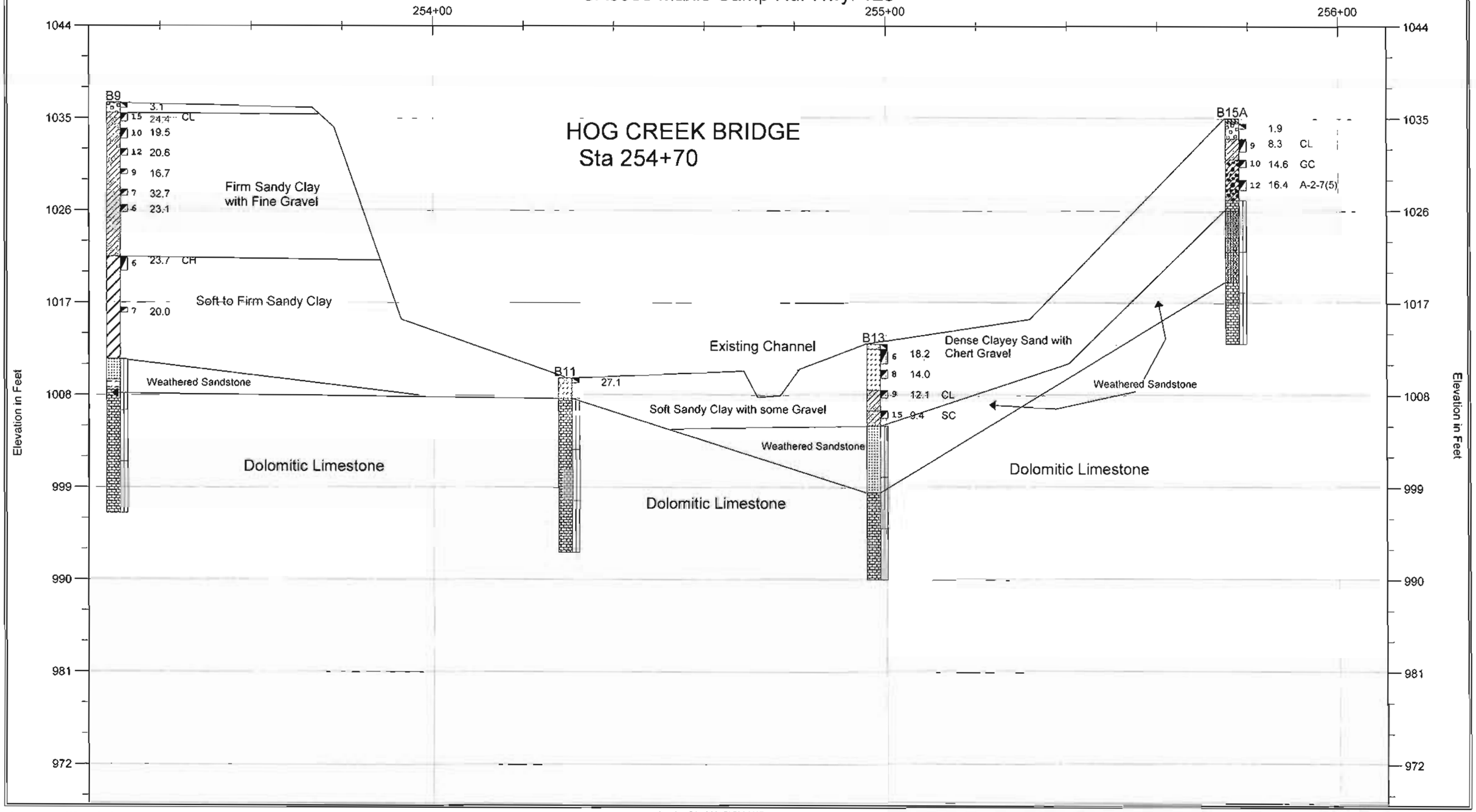
Fayetteville, Arkansas

McCLELLAND CONSULTING ENGINEERS, INC.

Little Rock, Arkansas

PLATE

PROFILE OF BORINGS
CA0906 Maxie Camp Rd.-Hwy. 123



Fayetteville, Arkansas

McCLELLAND CONSULTING ENGINEERS, INC.

Little Rock, Arkansas

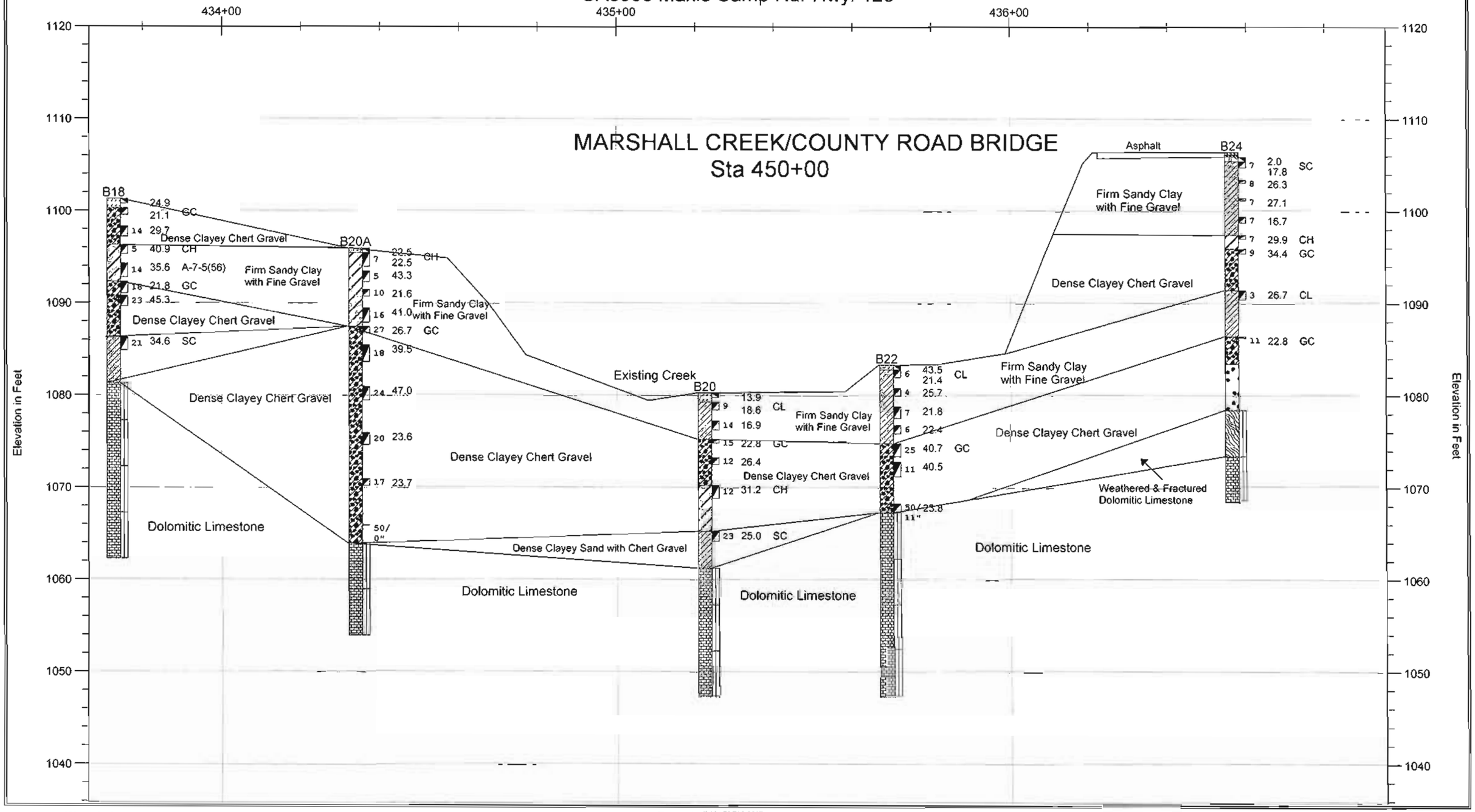
PLATE

PROFILE OF BORINGS

CA0906 Maxie Camp Rd.-Hwy. 123

MARSHALL CREEK/COUNTY ROAD BRIDGE

Sta 450+00



Fayetteville, Arkansas

McCLELLAND CONSULTING ENGINEERS, INC.

Little Rock, Arkansas

PLATE

APPENDIX H

ROADWAY BORING
SOIL LOG

ROADWAY BORINGS SOIL LOG

MAXIE CAMP RD. - HWY 123 (WIDENING)(S)
BOONE & NEWTON COUNTY
ROUTE HWY 65, SECTIONS 2 & 3
Fed Aid project 9991
JOB CA0909

Boring No.	Station	Offset	Elevation	Northing	Easting	Latitude	Longitude	Depth to SG (ft.)	LL	PI	AASHTO	Color
P-1	68+62.45	18.39' Rt.	1,175.01'	674257.61	1010259.36	36.18128741	-93.02378613	0 to 9	77	51	A-7	Reddish-Brown
P-2	85+56.62	16.48' Lt.	1,195.22'	672844.24	1011194.14	36.17743215	-93.02056954	0 to 6	33	16	A-6	Reddish-Brown
P-3	94+63.50	16.68' Rt.	1,196.69'	672059.98	1011650.72	36.17529111	-93.01899527	2 to 7	31	14	A-2-6	Reddish-Brown
P-4	102+11.60	15.06' Lt.	1,222.71'	671444.60	1012077.31	36.17361304	-93.01752858	0 to 4	77	45	A-7	Reddish-Brown
A10	108+00.92	2.94' Rt.	1,234.54'	670936.37	1012376.20	36.17222562	-93.01649829	0 to 3.5	77	45	A-7	Reddish-Brown
A11	108+60.89	2.90' Rt.	1,234.85'	670885.58	1012408.08	36.17208703	-93.01638852	0 to 3.5	77	45	A-7	Reddish-Brown
A12	109+20.83	2.99' Rt.	1,235.19'	670834.75	1012439.85	36.17194832	-93.01627912	0 to 4	77	45	A-7	Reddish-Brown
A13	108+20.77	5.74' Rt.	1,234.55'	670918.06	1012384.37	36.17217557	-93.01646998	0 to 3	44	26	A-7	Reddish-Brown
A14	108+80.87	5.88' Rt.	1,234.88'	670867.08	1012416.17	36.17203639	-93.01636047	0 to 1	39	17	A-6	Reddish-Brown
A15	109+40.88	5.86' Rt.	1,235.20'	670816.23	1012448.06	36.17189769	-93.01625067	0 to 1.5	39	17	A-6	Reddish-Brown
A16	108+40.97	8.81' Rt.	1,234.53'	670899.32	1012392.49	36.17212432	-93.01644182	0 to 4	39	17	A-6	Reddish-Brown
A17	109+00.99	8.86' Rt.	1,234.88'	670848.44	1012424.33	36.17198548	-93.01633218	0 to 4	39	17	A-6	Reddish-Brown
A18	109+61.03	8.96' Rt.	1,235.19'	670797.51	1012456.14	36.17184650	-93.01622264	0 to 4	39	17	A-6	Reddish-Brown
P-5	114+71.02	9.40' Rt.	1,242.16'	670365.17	1012726.65	36.17066671	-93.01529118	0 to 7	37	22	A-6	Reddish-Brown
P-6	123+84.02	23.68' Lt.	1,271.68'	669612.19	1013242.04	36.16861317	-93.01351906	0 to 7.5	88	47	A-7	Reddish-Brown
P-7	133+74.87	9.34' Rt.	1,239.01'	668861.88	1013883.57	36.16657050	-93.01131985	0 to 2	77	45	A-7	Reddish-Brown
P-8	146+11.75	1.04' Lt.	1,238.04'	668168.51	1014887.03	36.16469436	-93.00789680	0 to 3.5	77	45	A-7	Reddish-Brown
P-9	154+75.47	34.92' Rt.	1,229.08'	667864.09	1015696.12	36.16388096	-93.00514572	0 to 4	30	14	A-6	Reddish-Brown
P-10	167+51.68	11.55' Lt.	1,154.81'	667201.64	1016766.74	36.16209145	-93.00149651	0 to 6	34	20	A-6	Reddish-Brown
P-11	175+84.42	18.91' Rt.	1,123.03'	666642.35	1017384.41	36.16057254	-92.99938517	0 to 9	52	30	A-7	Reddish-Brown
P-12	183+96.25	16.38' Lt.	1,101.21'	666144.95	1018026.99	36.15922428	-92.99719167	0 to 4	36	21	A-6	Reddish-Brown
P-13	195+49.38	19.37' Rt.	1,067.00'	665373.97	1018885.30	36.15713055	-92.99425822	0 to 8	39	24	A-2-6	Reddish-Brown
P-14	199+34.87	214.33' Rt.	1,051.84'	664977.00	1019055.69	36.15604495	-92.99366756	0 to 7	33	16	A-2-6	Reddish-Brown
P-15	201+42.64	22.05' Rt.	1052.63'	664991.03	1019338.43	36.15609132	-92.99271044	0 to 9.5	41	23	A-6	Reddish-Brown
P-16	214+22.81	15.77' Lt.	1,064.40'	663995.30	1020118.65	36.15337803	-92.99003404	0 to 7.5	30	16	A-6	Reddish-Brown
P-17	234+89.10	11.61' Rt.	1,092.12'	662289.21	1021280.44	36.14872409	-92.98604149	0 to 2	36	21	A-6	Reddish-Brown
P-18	244+75.55	0.17' Rt.	1,074.01'	661483.94	1021850.17	36.14652798	-92.98408482	0 to 8	39	20	A-6	Reddish-Brown
P-19	252+43.51	22.38' Rt.	1,038.42'	660836.55	1022263.71	36.14476120	-92.98266251	0 to 6	60	40	A-7	Reddish-Brown
P-20	265+86.75	4.52' Lt.	1,076.77'	659735.47	1023033.40	36.14175802	-92.98001894	0 to 3.5	39	21	A-2-6	Reddish-Brown
P-21	274+88.59	22.11' Rt.	1,115.17'	658989.57	1023510.57	36.13966742	-92.97837735	0 to 9	50	31	A-7	Reddish-Brown
P-22	284+14.17	10.52' Lt.	1,102.43'	658220.82	1024055.68	36.13762575	-92.97650638	0 to 5.5	70	40	A-7	Reddish-Brown
P-23	294+42.55	33.14' Rt.	1,101.84'	657325.25	1024546.15	36.13517931	-92.97481559	0 to 4	28	10	A-2-4	Reddish-Brown
A1	300+77.28	22.20' Rt.	1,110.53'	656735.39	1024780.83	36.13356556	-92.97400121	0 to 5	42	22	A-6	Reddish-Brown
A2	301+37.26	23.10' Rt.	1,112.90'	656678.98	1024801.20	36.13341118	-92.97393035	0 to 5	40	25	A-2-6	Reddish-Brown
A3	301+97.25	23.61' Rt.	1,115.64'	656622.67	1024821.94	36.13325708	-92.97385824	0 to 5	40	25	A-6	Reddish-Brown
A4	300+97.11	25.45' Rt.	1,111.21'	656715.71	1024784.80	36.13351162	-92.97398711	0 to 5	38	23	A-6	Reddish-Brown
A5	301+57.13	26.27' Rt.	1,113.71'	656659.27	1024805.27	36.13335715	-92.97391591	0 to 5	38	23	A-6	Reddish-Brown
A6	302+17.08	26.85' Rt.	1,116.53'	656602.98	1024825.92	36.13320311	-92.97384411	0 to 5	38	23	A-6	Reddish-Brown
A7	301+17.02	28.73' Rt.	1,111.92'	656695.92	1024788.78	36.13345737	-92.97397297	0 to 5	38	23	A-6	Reddish-Brown
A8	301+77.01	29.40' Rt.	1,114.53'	656639.57	1024809.36	36.13330315	-92.97390140	0 to 5	38	23	A-6	Reddish-Brown
A9	302+37.01	30.14' Rt.	1,117.41'	656583.18	1024829.89	36.13314883	-92.97383000	0 to 5	38	23	A-6	Reddish-Brown

ROADWAY BORINGS SOIL LOG

MAXIE CAMP RD. - HWY 123 (WIDENING)(S)
BOONE & NEWTON COUNTY
ROUTE HWY 65, SECTIONS 2 & 3
Fed Aid project 9991
JOB CA0909

Boring No.	Station	Offset	Elevation	Northing	Easting	Latitude	Longitude	Depth to SG (ft.)	LL	PI	AASHTO	Color
P-24	304+53.99	2.33' Rt.	1,128.44'	656389.23	1024930.35	36.13261885	-92.97348336	0 to 3	40	22	A-6	Reddish-Brown
P-25	315+11.54	30.75' Rt.	1,155.28'	655401.60	1025316.22	36.12991667	-92.72143840	0 to 7	45	28	A-7	Reddish-Brown
P-26	324+96.44	1.47' Rt.	1,110.06'	654579.10	1025859.57	36.12767228	-92.97027675	0 to 5.5	42	24	A-7	Reddish-Brown
P-27	334+98.24	12.38' Rt.	1,130.45'	653703.70	1026332.68	36.12528068	-92.96864581	0 to 5.5	42	24	A-7	Reddish-Brown
P-28	345+16.52	10.51' Lt.	1,135.46'	652702.12	1026509.69	36.12253448	-92.96801320	0 to 7	79	46	A-7	Reddish-Brown
P-29	352+45.29	11.02' Rt	1,136.02'	651977.96	1026594.42	36.12054776	-92.96770225	0 to 9	37	20	A-6	Reddish-Brown
P-30	368+03.01	10.67' Lt.	1,099.53'	650526.37	1027130.49	36.11657522	-92.96583926	0 to 9	51	31	A-7	Reddish-Brown
P-31	375+37.66	10.90' Rt.	1,098.31'	649852.20	1027423.18	36.11473140	-92.96482609	0 to 9	77	49	A-7	Reddish-Brown
P-32	386+49.00	11.25' Lt.	1,094.33'	648855.27	1027914.86	36.11200640	-92.96312869	0 to 9	93	59	A-7	Reddish-Brown
P-33	394+91.52	10.12' Rt.	1,093.74'	648082.35	1028250.85	36.10989248	-92.96196580	0 to 9	101	65	A-7	Reddish-Brown
A19	396+33.10	2.57' Rt.	1,098.55'	647957.16	1028317.41	36.10955042	-92.96173636	0 to 4	93	59	A-7	Reddish-Brown
A20	396+53.09	5.96' Rt.	1,099.28'	647937.61	1028322.77	36.10949686	-92.96171758	0 to 4	93	59	A-7	Reddish-Brown
A21	396+72.96	9.17' Rt.	1,099.93'	647918.24	1028328.24	36.10944381	-92.96169842	0 to 4	93	59	A-7	Reddish-Brown
A22	396+93.13	3.45' Rt.	1,100.81'	647902.36	1028341.93	36.10940056	-92.96165156	0 to 4	93	59	A-7	Reddish-Brown
A23	397+13.10	6.56' Rt.	1,101.48'	647882.94	1028347.53	36.10934737	-92.96163196	0 to 4	93	59	A-7	Reddish-Brown
A24	397+32.92	9.89' Rt.	1,102.10'	647863.57	1028352.88	36.10929431	-92.96161321	0 to 4	93	59	A-7	Reddish-Brown
A25	397+53.10	4.23' Rt.	1,102.94'	647847.66	1028366.52	36.10925097	-92.96156651	0 to 4	93	59	A-7	Reddish-Brown
A26	397+73.10	7.46' Rt.	1,103.57'	647828.16	1028372.03	36.10919756	-92.96154722	0 to 4	93	59	A-7	Reddish-Brown
A27	397+93.04	10.58' Rt.	1,104.19'	647808.77	1028377.60	36.10914445	-92.96152772	0 to 4	93	59	A-7	Reddish-Brown
P-34	405+25.13	13.67' Lt.	1,120.75'	647124.18	1028632.05	36.10727095	-92.96064383	0 to 4	90	60	A-7	Reddish-Brown
P-35	416+24.32	11.48' Rt.	1,100.09'	646026.92	1028569.24	36.10425547	-92.96082019	0 to 8	101	66	A-7	Reddish-Brown
P-36	424+83.18	5.52' Lt.	1,105.79'	645171.46	1028587.14	36.10190629	-92.96073135	0 to 8	49	27	A-7	Reddish-Brown
P-37	432+95.18	20.25' Rt.	1,107.45'	644414.69	1028873.08	36.09983536	-92.95973860	0 to 3	26	11	A-2-6	Reddish-Brown
P-38	445+27.35	15.74' Lt.	1,112.44'	643366.72	1029521.38	36.09697428	-92.95750995	0 to 9	26	11	A-2-6	Reddish-Brown
P-39	452+33.96	16.12' Rt.	1,123.18'	642742.45	1029853.93	36.09526849	-92.95636396	0 to 9	49	22	A-7	Reddish-Brown
P-40	458+15.68	19.67' Rt.	1,142.69'	642240.07	1030147.22	36.09389644	-92.95535489	0 to 9	29	14	A-6	Reddish-Brown