ALABAMA DEPARTMENT OF TRANSPORTATION

1409 Coliseum Boulevard, Montgomery, Alabama 36110

Bureau of Materials and Tests

3700 Fairground Road, Montgomery, Alabama 36110
Phone (334)206-2200 FAX (334)264-6263

Robert Bentley
Governor

John R. Cooper
Transportation Director

February 17, 2016

Mr. Vincent E. Calametti, P.E.
Southwest Region Engineer
OFFICE

ATTN: **Mr. Brian Aaron**
Pre-Construction Engineer

RE: **Project No.: ST-049-I10-004**
CPMS No.: 100064696
Soil Survey & Materials Report
I-10 Eastbound Water Street On-Ramp Closure and
And Texas Street Interchange Modifications
MP 25.5 to MP 27.0
Mobile County

Dear Mr. Calametti:

Attached you will find a soil survey and materials report which gives the Division's recommendations for the design and construction of the above referenced project. After reviewing this information it is being forwarded with the approval of this Bureau.

Sincerely,

Scott W. George, P.E.
Materials and Tests Engineer

BY _____
Robert W. Shugart, Jr., P.E.
Materials Section Engineer

RWS/JPJ/AWS/jpj

cc: Mr. William Adams, P.E.
Mr. Stacey Glass, P.E.
Mr. Matthew Ericksen, P.E.
Mr. Ed Baldwin, P.E.
Mr. Curtis W. Vincent, P. E. (with attachment)
Ms. Theresa Barksdale, Quality Control Engineer
FHWA
Project File
File

ALABAMA DEPARTMENT OF TRANSPORTATION

1409 Coliseum Boulevard, Montgomery, Alabama 36110

Bureau of Materials and Tests

3700 Fairground Road, Montgomery, Alabama 36110
Phone (334)206-2200 FAX (334)264-6263

Robert Bentley
Governor

John R. Cooper
Transportation Director

February 17, 2016

MEMORANDUM

TO: Mr. Robert Shugart, P.E.
Materials Engineer

FROM: Ms. Kaye Chancellor Davis, P.E.
Geotechnical Engineer

BY: Mr. Renardo Dorsey, P.E.
Asst. Geotechnical Engineer

RE: PE Project No. ST-049-I10-004
CN Project No. NH-AL06 ( )
I-10 Eastbound Water Street On-Ramp Closure
And Texas Street Interchange Modifictions
Mobile County

Please be advised the Geotechnical Division of the Bureau of Materials and Tests and the Area Materials Engineer has reviewed and agrees with the recommendations contained in the Soil Survey and Materials Report as produced by GET. This Soil Survey and Materials Report is being submitted to the Bureau of Materials and Tests - Materials Engineer for approval and final distribution. The mylar boring logs are being transmitted to the Area Materials Engineer, under separate cover, for inclusion in the final plan assembly.

AKCD:RLD:amb
Attachment

C: Mr. Ed Baldwin, P.E., Southwest Region Materials Engineer- Mobile
File

ALABAMA
DEPARTMENT OF TRANSPORTATION

SOUTHWEST REGION
OFFICE OF REGION ENGINEER
1701 I-65 WEST SERVICE ROAD NORTH
MOBILE, ALABAMA 36618-1109
TELEPHONE: (251) 470-8200
FAX (251) 473-3624

Robert Bentley
GOVERNOR

John R. Cooper
TRANSPORTATION DIRECTOR

February 17, 2016

Mr. Scott George, P.E.
Materials and Tests Engineer
Bureau of Materials and Tests
Alabama Department of Transportation
1409 Coliseum Boulevard
Montgomery, AL 36177-7867

Attention: Mr. Renardo Dorsey, P.E.

Dear Gentlemen:

RE: ALDOT PE Project No. ST-049-I10-004
ALDOT CN Project No. NH-AL06( )
I-10 Eastbound Water Street On-Ramp Closure & Texas Street Interchange Modification
Mobile County

This office has reviewed the final copy of the materials report per step 10 of the submittal procedures and concurs with the report as submitted.

If additional information is needed, please contact this office.

Sincerely,

Vincent E. Calametti, P.E., Region Engineer

By:_____
Edward L. Baldwin, P.E.
Materials & Tests Engineer – Mobile

VEC/elb
Attachments
C: File

GEOTECHNICAL ENGINEERING TESTING, INC.

~ Geotechnical Evaluations ~ Construction Materials Testing ~ Geosciences ~ Infrastructure Management Services ~

SOILS SURVEY AND MATERIALS REPORT
PROJECT NO.: ST-049-I10-004
CONSTRUCTION NO.: NH-AL06( )
I-10 EASTBOUND WATER ST. ON-RAMP CLOSURES AND TEXAS ST. INTERCHANGE MODIFICATIONS
MOBILE COUNTY

Professional Services Since 1974

904 Butler Drive, Mobile, AL 36693

251.666.7197 FAX: 251.666.7380

www.geoengr.com

TABLE OF CONTENTS

APPENDICES

Geotechnical Engineering-Testing, Inc.

PROFESSIONAL ENGINEERS

Geotechnical Evaluations - Geosciences - Construction Materials - Pavement Management

February 12, 2016

Mr. Scott George, P. E.
Materials and Tests Engineer
Alabama Department of Transportation
Bureau of Materials and Tests
1409 Coliseum Boulevard
Montgomery, Alabama 36130-3050

Attn: Ms. Kaye Chancellor, P. E.

Re: Soils Survey and Materials Report
ALDOT PE Project No. ST-049-I10-004
ALDOT CN Project No. NH-AL06( )
I-10 Eastbound Water St. On-Ramp Closures And Texas St. Interchange Modifications
Mobile County

Dear Mr. George:

Geotechnical Engineering-Testing, Inc. (GET) is pleased to provide this soils survey and materials report for the proposed modifications to be constructed at the interchange of Interstate 10 (I-10) and Texas St. in Mobile County. This report has been prepared in general accordance with ALDOT Guidelines 390.

PROJECT DESCRIPTION

The project consists of performing modifications to Canal St. from the intersection of Canal St. and Water St. to the intersection of Claiborne St. and Canal St., Claiborne St. between Texas St. and Canal St., Texas St. from just east of S. Conception St. to just west of Claiborne St. and the I-10 EB On-Ramp to accommodate the additional traffic for a loop interchange at I-10 and Texas St. Minor modifications to the I-10 WB Off-Ramp at Texas St. and South Conception St. are also anticipated as part of the project. This work is being performed to have capacity for the additional traffic from Water St. after the closure of the I-10 EB On-Ramp at the I-10 and Water St. Interchange. We understand from discussions with Southwest Region personnel that this traffic will be routed from Water St. to Canal St. to Claiborne St. as part of this project. This project will require modifying Texas St. from a four lane roadway to a two lane roadway in the immediate area of I-10 to accommodate the proposed loop around lane. No pavement evaluations have been performed for Water St. as part of this study.

Within the project limits, Canal St. is 7 lanes wide with 4 lanes in the northbound direction from Water St. to Claiborne St. Claiborne St. is a two lane one-way roadway between Canal St. and Texas St., Texas St. is four lanes wide with a raised grass median between Claiborne St. and S. Conception St. The current west bound lanes of Texas St. will be converted to an eastbound one lane loop between Claiborne St. and the I-10 EB On-Ramp. The current east bound lanes of Texas St. will be converted to maintain the two-way traffic along Texas St. Each of these roadway sections as well as the I-10 ramps at Texas St. have curb and gutter.

The general project location is identified on a preliminary project Title Sheet (provided by SW Region design personnel), Highway Location, Topographic Map and a Geologic map included in Appendix A of this report.

SUBSURFACE EXPLORATIONS PROCEDURES

Field Investigation

Six soil test borings were utilized in the field investigation program for this soils survey and materials report. The soil test borings were conducted by GET drill crew personnel using a SIMCO 2800. The existing roadways within the project limits were cored at 18 locations. The boring and core locations were selected by GET engineers and staked in the field by ALDOT personnel. The approximate boring/core locations are shown on the preliminary Plan Sheets that was provided to us by the ALDOT SW Region-Mobile Area Materials Engineer on January 25, 2016 and are included in Appendix I of this report.

All drilling operations were in general accordance with ALDOT 390 and AASHTO T-206. Standard penetration tests were performed and split spoon samples were generally collected continuously in the upper 6 ft and then from 8.5 ft to 10 ft. The split spoon samples collected during the boring operations were visually described and logged in the field, placed in moisture tight plastic bags and were transported to GET's soils laboratory. At the laboratory the samples were visually examined to confirm or adjust the field classifications and representative samples were selected for laboratory testing.

The depths where samples were collected and the results of the standard penetration tests and laboratory classification tests are shown on the Logs of Boring in Appendix J of this report. It should be noted that the stratification lines shown on the boring logs represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is

the highest level recorded in the borings during the time of this study and the level may fluctuate large amounts for other conditions or seasons.

Soil Profiles

Soil profiles illustrating the materials encountered along the centerline are shown on the plan/profile sheets included in Appendix K of this report.

Cross Sections

Cross sections illustrating the materials encountered at each boring are shown on the cross section sheets included in Appendix L of this report.

Laboratory Testing

The materials study included natural moisture content, grain size and Atterberg limits, on selected split spoon samples to determine classification of the subgrade soils. Bulk samples were obtained at selected locations on the project from auger cuttings. Standard Proctor density and laboratory resilient modulus tests were completed on selected bulk samples from two locations. These tests were performed in accordance with applicable soil mechanics test standards. Soil samples, on which applicable tests were performed, were classified in accordance with the AASHTO System. Results of the material study testing program have been presented in a summary of the classification tests and on BMT-5 forms included in Appendix H of this report.

GENERAL SUBSURFACE CONDITIONS

The natural soils in the area of the proposed lane addition generally consisted of firm gray silty sands (A-2-4(0)) in the upper 6 to 8 ft at each of the borings. Beneath these upper firm silty sands, very loose and loose clayey sands and medium consistency sandy clay soils were encountered to the boring termination depths at 10 ft.

Cores and base thickness measurements were taken within the existing roadways in the area of the project by GET personnel. Asphalt and base thickness measurements were also taken by the GET drill crew in a boring performed within the existing lanes of Texas Street. The asphalt core thicknesses were widely variable. On the two lanes of Canal St. to be reconstructed the core thicknesses were 3.75 and 4 inches above granular soil base. Between about station 10+30 (near Texas St.) and station 19+85 on Claiborne St., approximately 2.75 to 4.75 inches

of asphalt existed above granular soil base. Between about station 19+85 and station 42+25 (near Canal St.) on Claiborne St., approximately 3 to 5.25 inches of asphalt existed above 5 to 6 inches of concrete pavement. The pavement thickness on Texas St. varied between 2.5 and 5.7 inches in thickness above granular soil base. Crushed aggregate base was encountered in boring B-7 where a previous repair had been made in the roadway. On the I-10 EB Ramp the asphalt was measured at about 5.5 inches above granular soil base.

A table of asphalt measurements has been included in Appendix B of this report.

Sinkholes

According to the USGS Mapping of Sinkholes/Possible Sinkholes, the project site is not located in an area of sinkhole susceptibility or where sinkholes are known to have occurred.

Topography

The profile grade along Canal St., Claiborne St. and Texas St. is about 0 % and the profile grade along the I-10 EB Ramp varies from about 1 to 2.5%. The elevation of the streets and most adjacent city streets is at about +11 to +12 ft.

Groundwater

Groundwater was encountered at about 5 ft below ground surface (approximate elevation +7 to +8 ft). Water levels measured after a rain event was measured in borings B-1, B-2 and B-3 at 1 to 2 ft below ground surface. These high water levels were consistent with gray coloring of the soils indicated throughout the boring depths. The gray coloring typically indicates that water is within the soil layer for extended periods of time.

Muck

Muck excavation will not be required on the project.

Soft/Unsuitable Soils

Although some of the soils encountered in the borings at 8 to 10 ft are considered very loose or soft, these soils will not negatively impact the project.

Hazardous Materials Sites

There were no visible signs of hazardous materials located within the project limits. A formal investigation was not included in this scope of work.

PAVEMENT RECOMMENDATIONS

Traffic Data

Traffic data for the project was provided to us by Akhter B. Hossain, P.E. of ALDOT Southwest Region. The traffic data provided was for 2016, 2017, 2018, 2026, 2027 and 2028. A compound growth rate of 1 percent was provided and this was used to project the 20 year traffic used in the ESAL range computations. The current let date for this project is scheduled for August 2016 therefore the 2016 and 2036 traffic data is being utilized in the report. No traffic data was provided for the short sections of Canal St. and Texas St. that will be modified. However since the majority of the traffic along Claiborne St. will utilize each of these areas, we recommend that this traffic data be utilized for these minor sections of the project. Therefore the average daily traffic (ADT) at 2016 and 2036 for Claiborne St., Canal St. and the Texas St. Loop is 5958 and 7275, respectively and design truck traffic is 8 percent. Traffic was also provided for the I-10 Texas St. On-Ramp and I-10 Texas St. Off-Ramp. The 2016 and 2036 traffic for the I-10 Texas St. On-Ramp is 6111 and 6750, respectively, with design truck traffic of 8 percent and the 2016 and 2036 traffic for the I-10 Texas St. Off-Ramp is 592 and 653, respectively, with design truck traffic of 9 percent. The traffic data provided is shown in Appendix C of this report.

ESAL Range Computations

Based upon the traffic data provided, an ESAL Range C/D asphalt mix is required for all areas of the project except the I-10 Texas St. Off-Ramp. However, we recommend that an ESAL Range C/D asphalt mix be utilized in all areas of the project. The ESAL range computations have been included in Appendix D of this report.

Subgrade Soil Resilient Modulus

Two resilient modulus tests were conducted on materials obtained from the subgrade elevations at borings B-2 and B-3 in the areas of the proposed roadway widening. Resilient modulus testing was performed in accordance with AASHTO T-307-99 and ALDOT Procedure 390. A Design MR of 9500 psi was used for the subgrade soil strength. The soils encountered at the subgrade elevation at the selected locations were classified as A-2-4 materials. A summary of the resilient modulus test results with the design MR for the project has been included in Appendix E of this report.

Drainage Coefficients

The drainage coefficients selected are based upon the average annual rainfall of 62 inches for the project site. The ALDOT drainage coefficient worksheets are included in Appendix F of this report.

FWD Analysis

Since the majority of the in place pavements on the project will be removed an FWD data is not required for the minor area of pavement overlay.

Pavement Section Design

Due to the significant change in the traffic volumes on the roadways within the limits of this project caused by the closure of the I-10 EB On-Ramp Closure at the I-10 and Water St. Interchange, pavement sections have been designed based upon traffic volumes and the subgrade resilient modulus of the soils. The required Structural Number, SN_{req}, was determined using a subgrade resilient modulus of 9500 psi.

The 1993 AASHTO Pavement Design Procedure (DARWin Pavement Design and Analysis System) was used to compute the pavement section designs for this project. Based upon the average traffic data for 2016 and the design subgrade soil strength, the required Structural Number was computed to be 3.91 for Claiborne St., 4.03 for the Texas St. Loop, and 4.05 for the I-10 EB On-Ramp. Based upon the core data collected it was determined that the left two lanes of Canal St., Claiborne St. from the tie with Texas St. to about station 19+85, the required one-way loop around lane on Texas St. and the I-10 EB On-Ramp will require full depth replacement. Details of the pavement sections are shown on the DARWin Pavement Designs in Appendix G of this report.

The average effective Structural Number, SN_{eff}, was determined using the core data obtained during our investigation and a visual pavement condition survey. This was utilized in the determining the required overlay utilizing the component analyses method in the DARWin software program. Claiborne St. between about station 19+85 and Canal St. was underlain by concrete pavement and we recommend the removal of the asphalt concrete pavement down to the top of the cement concrete pavement. Upon the removal of the existing asphalt in this area, an asphalt overlay shall be placed. Details of the overlay pavement section are shown on the DARWin Pavement Designs in Appendix G of this report.

Additionally, we recommend that the I-10 EB Off-Ramp, areas of Texas St. outside of the loop to be constructed, and the minor portion of S. Conception St. within the project limits be planed and resurfaced.

Recommended Pavement Buildup

The recommended pavement buildups for each of the roadway sections are as follows:

- *Canal St., Claiborne St. (Texas St. to Approx. Sta. 19+85), Texas St. Loop and I-10 EB Ramp)*

Pay Item 424A-360: Superpave Bituminous Concrete Wearing Surface Layer, 1/2" Maximum Aggregate Size Mix, ESAL Range C/D (175 Lb/SY)
Pay Item 424B-651: Superpave Bituminous Concrete Upper Binder Layer, 1" Maximum Aggregate Size Mix, ESAL Range C/D (250 Lb/SY)
Pay Item 424B-681: Superpave Bituminous Concrete Lower Binder Layer, 1" Maximum Aggregate Size Mix, ESAL Range C/D (250 Lb/SY)
Pay Item 401A-000: Bituminous Treatment A
Pay Item 301A-012: Crushed Aggregate Base Course, Type B, Plant Mixed, 6" Compacted Thickness
Pay Item 230A-000: Roadbed Processing

- *Claiborne St. (19+85 to Canal St.)*

Pay Item 408A-055: Planing Existing Pavement (Approximately 4.10" Thru 5.0" Thick) (Average 4.5")
Pay Item 424A-360: Superpave Bituminous Concrete Wearing Surface Layer, 1/2" Maximum Aggregate Size Mix, ESAL Range C/D (175 Lb/SY)
Pay Item 424B-651: Superpave Bituminous Concrete Upper Binder Layer, 1" Maximum Aggregate Size Mix, ESAL Range C/D (250 Lb/SY)
Pay Item 424B-657: Superpave Bituminous Concrete Upper Binder Layer, Leveling, 1/2" Maximum Aggregate Size, ESAL Range C/D (Rate Varies) (0 Lb/SY to 159 Lb/SY)

- *Texas St., I-10 WB Off-Ramp and S. Conception St.*

Pay Item 408A-052: Planing Existing Pavement (Approximately 1.10" Thru 2.0" Thick) (Actual 1.5")
Pay Item 424A-360: Superpave Bituminous Concrete Wearing Surface Layer, 1/2" Maximum Aggregate Size Mix, ESAL Range C/D (175 Lb/SY)

Required Project Notes

- We recommend that the full pavement buildup be extended through all drives to the back of radius.
- Roadbed processing is waived in areas where the required processing width is less than six (6) ft. In these areas the subgrade shall be compacted to 100% of AASHTO T-99.

Borrow Excavation

We recommend that all offsite borrow meeting the specifications for Borrow Excavation (A-2-4(0) or A-4(0)) (Loose Truckbed Measurement) (Pay Item No. 210D-022).

Roadway Pipe Recommendations

It is recommended that concrete pipe be used for all roadway pipe that may be required on the project.

Field (Soils/Structures) Laboratory

A field laboratory will not be required on the project.

Nuclear Density Device

The nuclear density device shall be furnished by ALDOT.

Profilograph

This will not be required due to the short length of the project.

LA Abrasion

Data is not available.

RECOMMENDED PAY ITEMS

Unclassified Excavation - Pay Item No. 210A-000.

Borrow Excavation (A-2-4(0) or A-4(0)) - Pay Item No. 210D-012. The Contractor should provide the source and all necessary clearances for any borrow needed.

Tack Coat – Pay Item 405A-000

Joint Sealant for Hot Mix Asphalt Pavement - Pay Item No. 407B-000.

Material Remixing Device - Pay Item No. 410H-000.

Patching - Pay Item No. 424B-655. Superpave Bituminous Concrete Upper Binder Layer, Patching, 1" Maximum Aggregate Size Mix, ESAL Range C/D.

Topsoil - Pay Item No. 650A-000.

CONCLUSION

The evaluations and recommendations submitted in this report are based on the data obtained from the soil borings drilled and pavement coring performed at the locations shown on the boring location plans and selected laboratory testing. Our evaluations for the project roadways were based upon the preliminary plans submittal that was provided to us. Additional assumptions and information provided have been outlined in the discussions contained in previous sections of this report.

The recommendations only apply to the specific project and site discussed in this report. If the project information section in this report contains incorrect information or if additional or revised information is available, correct or additional information should be conveyed to GET for review. We can then modify our recommendations, if they are inappropriate for the proposed project.

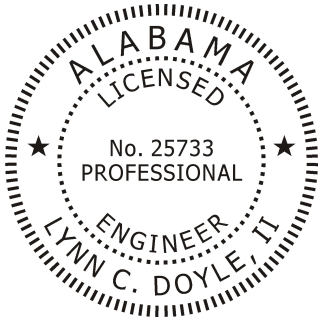
Regardless of the thoroughness of a geotechnical exploration, there is always a possibility that conditions at locations remote from borings will be different from those at specific boring locations and that conditions will not be as anticipated by the designers or contractors. In addition, the construction process may itself alter soil conditions. Therefore, experienced geotechnical personnel should observe and document the construction procedures used and the conditions encountered. Unanticipated conditions and inadequate procedures should be reported to the design team along with timely recommendations to solve the problems created. We recommend that the owner retain GET to provide this service based upon our familiarity with the project, the subsurface conditions and the intent of the recommendations and design.

Please call Curt Doyle, P.E. if you have any questions or if you need additional information.

Sincerely,

GEOTECHNICAL ENGINEERING-TESTING, INC.

Curt Doyle, P.E.
Principal Engineer
Alabama License No. 25733
Date: 2/12/2016



APPENDIX A

PROJECT LOCATION MAPS

STATE	REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO	LAST SHEET NO
AL	NH-AL06( )	2016	1	63
CONTRACT ID NO				

ALABAMA

DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED PROJECT NUMBER

NH-AL06( )

I-10 EASTBOUND WATER STREET ON-RAMP
CLOSURE AND TEXAS STREET
INTERCHANGE MODIFICATION
MOBILE COUNTY

Preliminary Project No ST-049-I10-004
Code No 4338-0109-0104-STATE-100064696

Design Designation

ADT ( ).....
ADT ( ).....
K .....
D .....
TDHV .....
TADT .....
V (Design Speed) .....
Min Stopping Sight Dist .....

A

These plans have been prepared to conform with the Alabama Department of Transportation Standard Specifications for Highway Construction, 2012 Edition.

INDEX TO PROJECT

SEE SHEET 1A

Existing Bridge (Culvert)

INDEX	STA TO STA	LENGTH	BIN
N/A			

TOTAL EFFECT

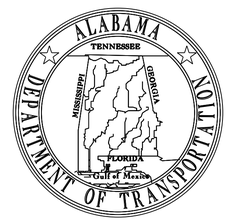
Required Bridge (Culvert)

INDEX	STA TO STA	LENGTH	BIN
N/A			

Equations & Exceptions

Index	Station to Station	Effect
N/A		

Total Stationing of Project
Equations & Exceptions
Net Length of Project
Net Length of Bridges
Net Length of Roadways



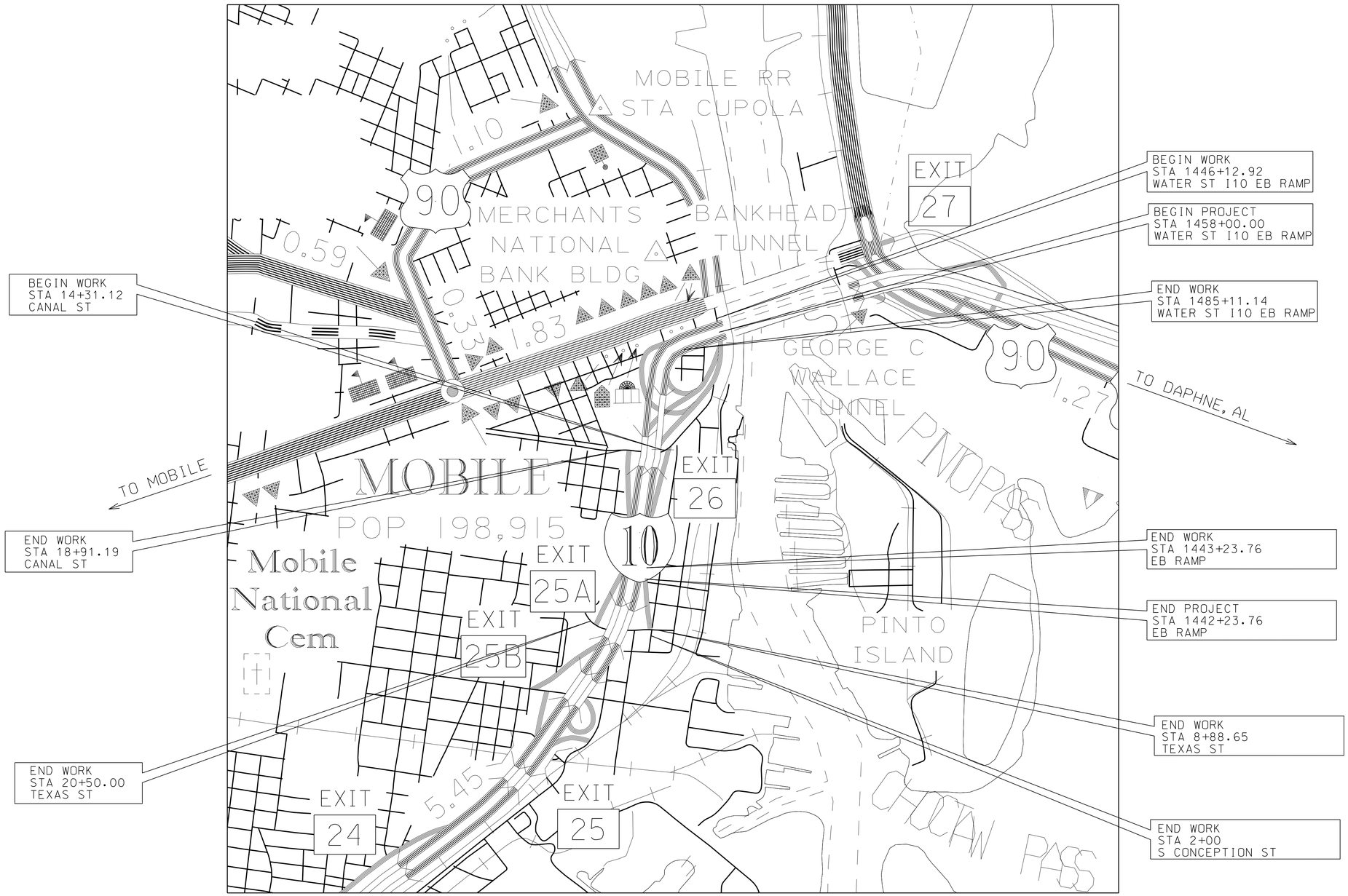
ALABAMA DEPARTMENT OF TRANSPORTATION
Submitted for Approval:
REGION ENGINEER
CHIEF ENGINEER
Approved:
TRANSPORTATION DIRECTOR

PREPARED BY:

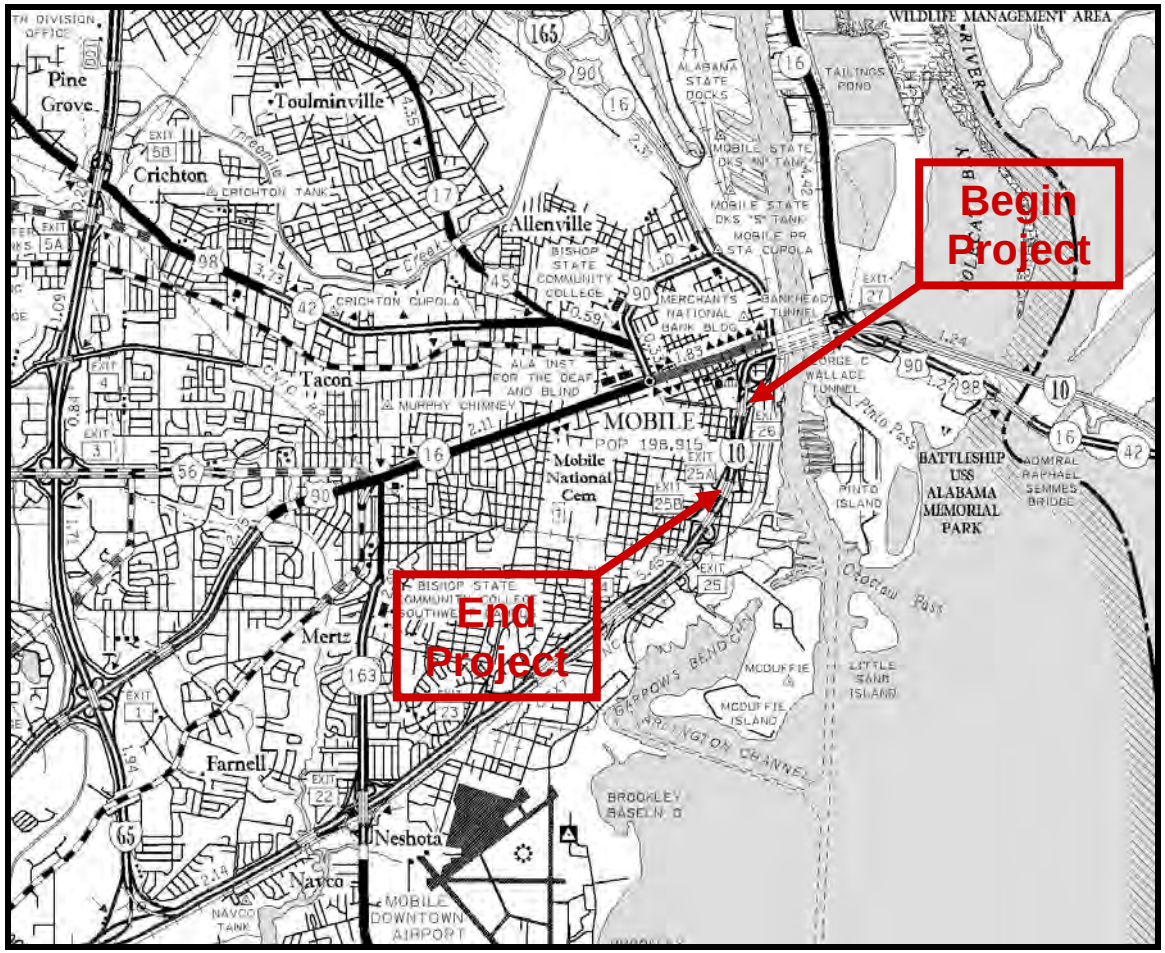
ENGINEER:
NO:
DATE:

LOCATION SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	1A



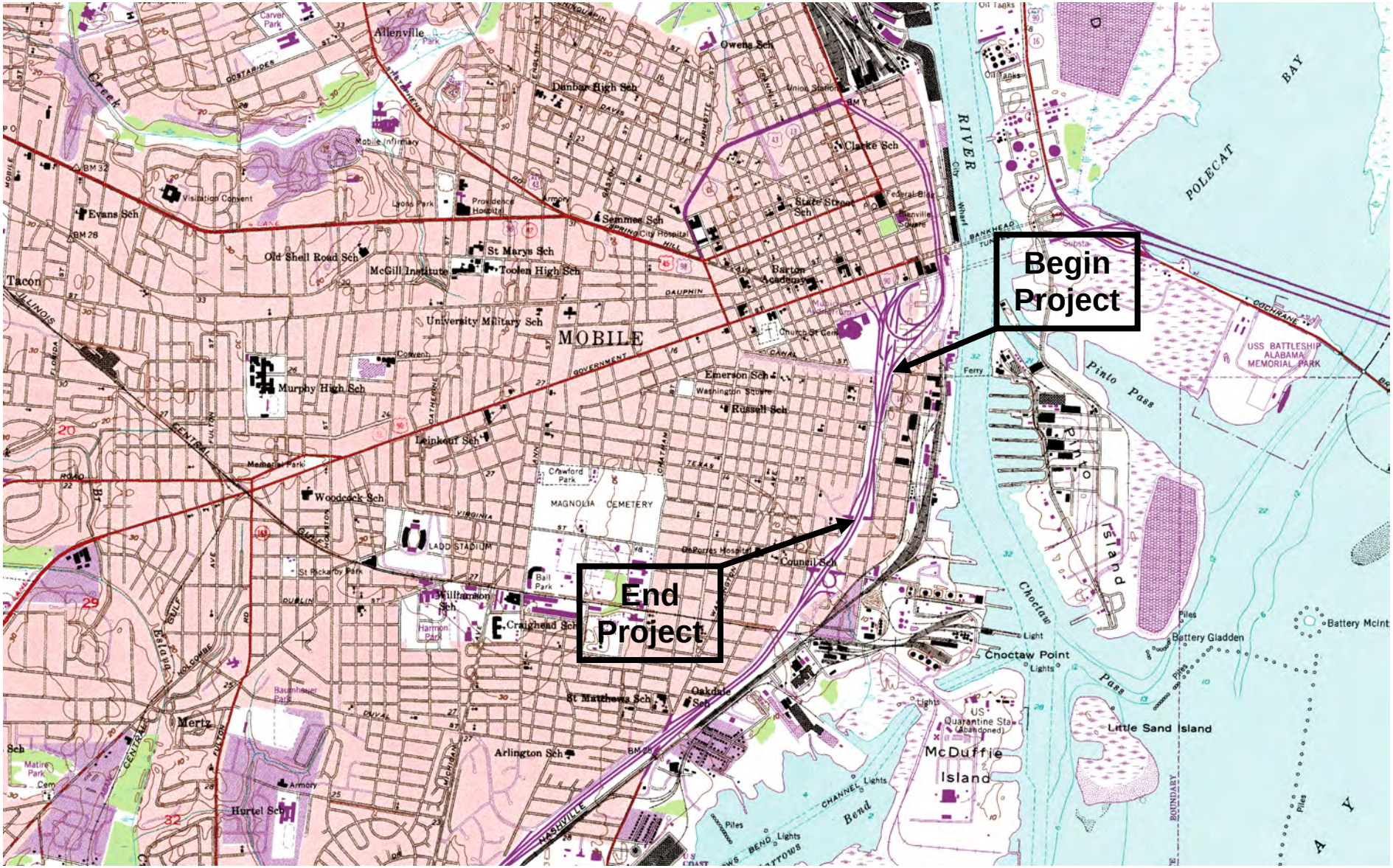
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	NOT TO SCALE	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:				LOCATION SHEET	I10



Source – General Highway Map Mobile County, Alabama, Alabama Dept. of Transportation, 2011

GEOTECHNICAL ENGINEERING TESTING, INC.

Highway Location Map
Project No. ST-049-I10-004
I-10 Eastbound Water St. On-Ramp Closures and Texas St. Interchange Modifications
Mobile County

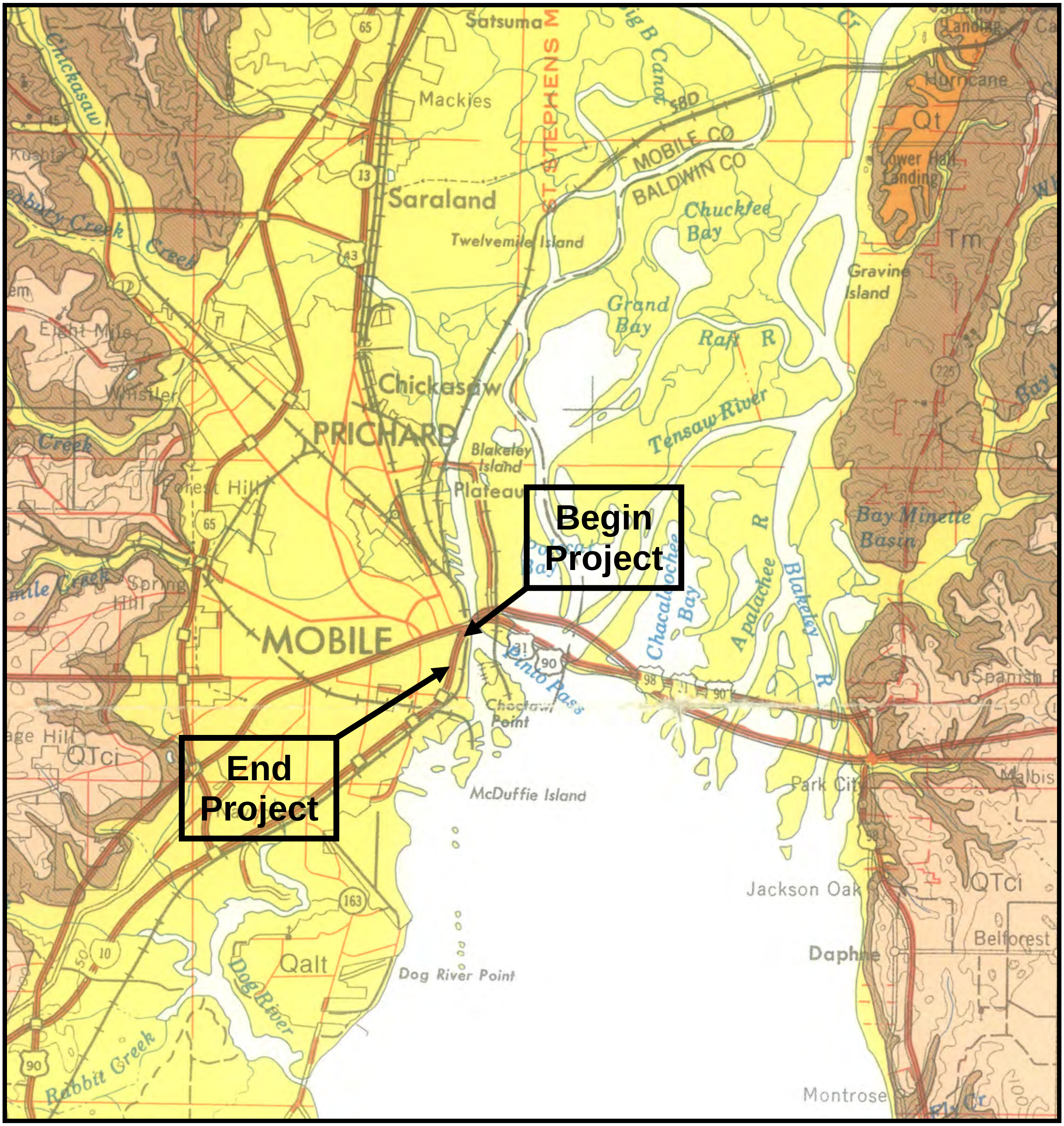


Source – Mobile Quadrangle – Alabama— Mobile County. 7.5 Minute Series

GEOTECHNICAL ENGINEERING TESTING, INC.

Topographic Location Map

Project No. ST-049-I10-004
I-10 Eastbound Water St. On-Ramp Closures and Texas St. Interchange Modifications
Mobile County



Source – Geological Survey of Alabama – Southwest Sheet, 1988

Qalt	**Alluvial**– Varicolored fine to coarse sand containing clay lenses and gravel in places. Gravel composed of quartz and chert pebbles. Coastal deposits include fine to medium quartz sand with shell fragments.

GEOTECHNICAL ENGINEERING TESTING, INC.

Geologic Location Map

Project No. ST-049-I10-004
I-10 Eastbound Water St. On-Ramp Closures and Texas St. Interchange Modifications
Mobile County

APPENDIX B

TABLE OF ASPHALT CORE MEASUREMENTS

TABULATION OF ASPHALT THICKNESS
ALDOT PE PROJECT # ST-049-I10-004
ALDOT CN PROJECT # NH-AL06( )
I-10 EASTBOUND WATER ST. ON-RAMP CLOSURES AND TEXAS ST. INTERCHANGE MODIFICATIONS
MOBILE COUNTY

Boring	Station	CL or BL Offset	Asphalt Thickness (Inches)	Base Material	Remarks
	Claiborne St.				
C-2	10 + 91	6' L OF CL	4.80	Granular Soil Base	
C-1	13 + 01	24' R OF CL	4.00	1.5" Oyster Shell Over Granular Soil Base	
C-10	14 + 22	7' R OF CL	4.25	Granular Soil Base	
C-16	16 + 90	9' L OF CL	2.75		
C-15	18 + 33	3' R OF CL	3.75		
C-9	23 + 54	7' L OF CL	5.25	Granular Soil Base	Asphalt over 6 Inches of Concrete
C-8	32 + 55	5' R OF CL	4.75	Granular Soil Base	Asphalt over 5.5 Inches of Concrete
C-14	39 + 80	3' L OF CL	3.00	Granular Soil Base	Asphalt over 5.0 Inches of Concrete
	I-10 EB Ramp				
C-3	1434 + 42	23' R OF CL	2.75	1.5" Oyster Shell Over Granular Soil Base	Asphalt over 4.75 Inches of Concrete
C-4	1436 + 42	14' L OF CL	5.50	1.5" Oyster Shell Over Granular Soil Base	
C-11	1438 + 47	1' L OF CL	5.75	2" Oyster Shell Over Granular Soil Base	
	Texas St.				
C-7	9 + 09	5' R OF CL	5.70	2" Oyster Shell Over Granular Soil Base	
B-7	9 + 94	10' L OF CL	2.50	Crushed Aggregate Base	
C-6	11 + 69	15' L OF CL	5.00	Granular Soil Base	
C-6B	12 + 81	16' R OF CL	2.75	2" Oyster Shell Over Granular Soil Base	
C-6A	13 + 69	25' R OF CL	3.50	Granular Soil Base	
C-5	17 + 69	20' L OF CL	4.90	Granular Soil Base	
	Canal St.				
C-12	15 + 66	12' R OF CL	3.75	Granular Soil Base	
C-13	17 + 03	23' R OF CL	4.00	Granular Soil Base	

Note: C-3 is located in S. Conception St.

APPENDIX C

TRAFFIC DATA

ALABAMA
DEPARTMENT OF TRANSPORTATION

SOUTHWEST REGION
OFFICE OF REGION ENGINEER
1701 I-65 WEST SERVICE ROAD NORTH
MOBILE, ALABAMA 36618-1109
TELEPHONE: (251) 470-8200
FAX: (251) 473-3624

Robert Bentley
GOVERNOR

John R. Cooper
TRANSPORTATION DIRECTOR

December 14, 2015

MEMORANDUM

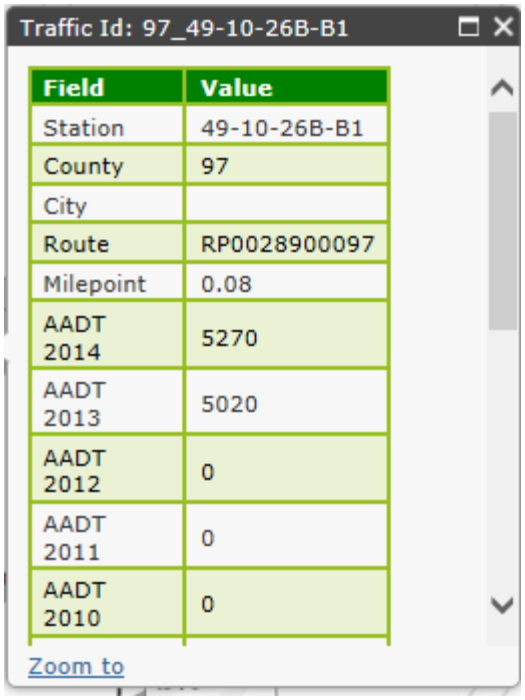
TO: Akhter Hossain, P.E.
Assistant Design/Location Engineer

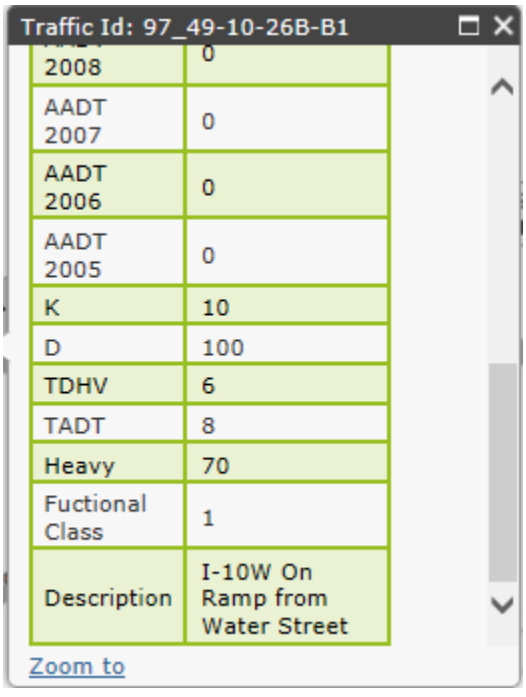
FROM: Edwin Perry III, P.E.
Design Engineer - Mobile

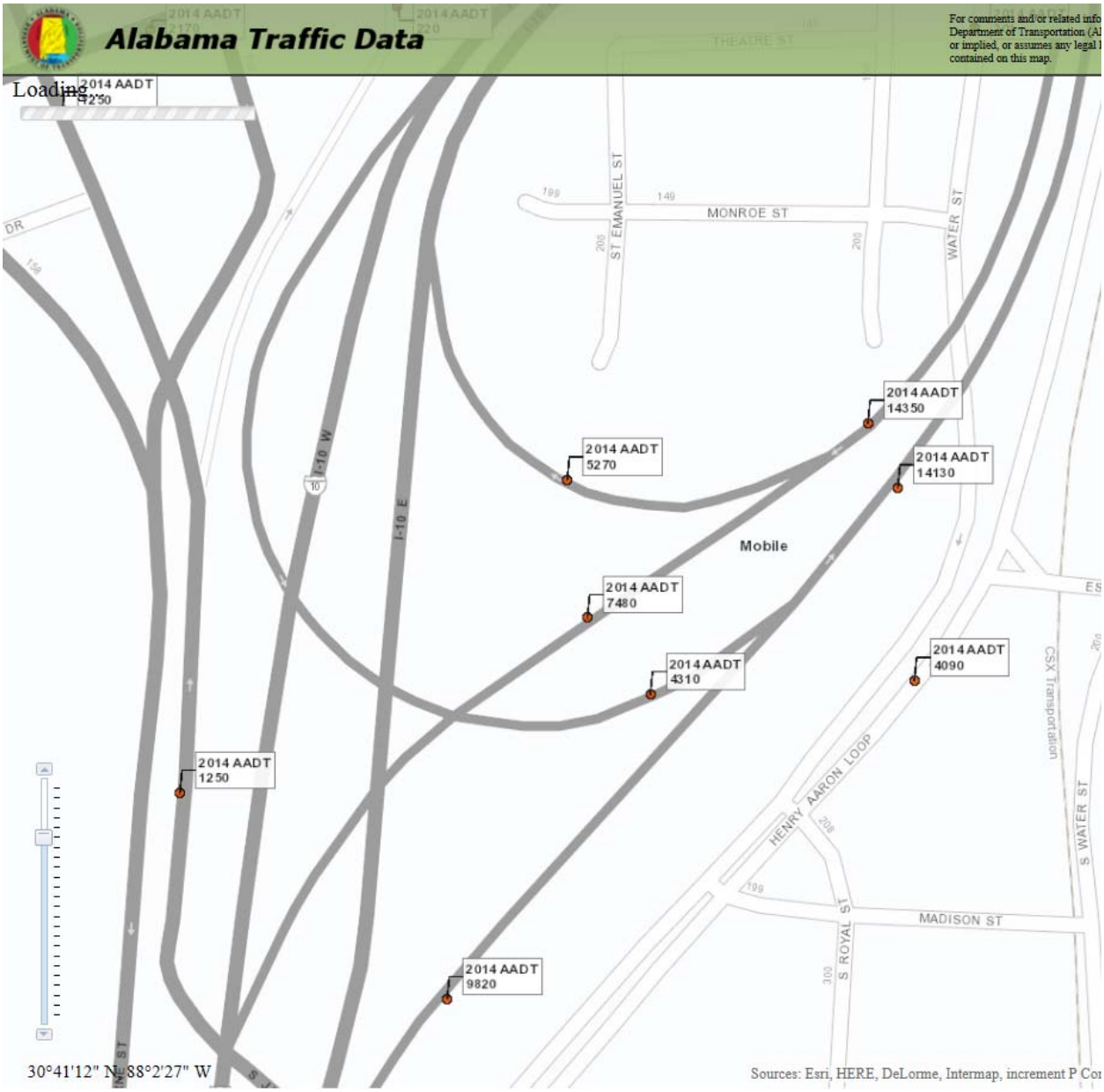
RE: **ST-049-I10-004**
I-10 EB Water Street On-Ramp Closure and Texas Street Interchange Modification
Mobile County
Traffic Data

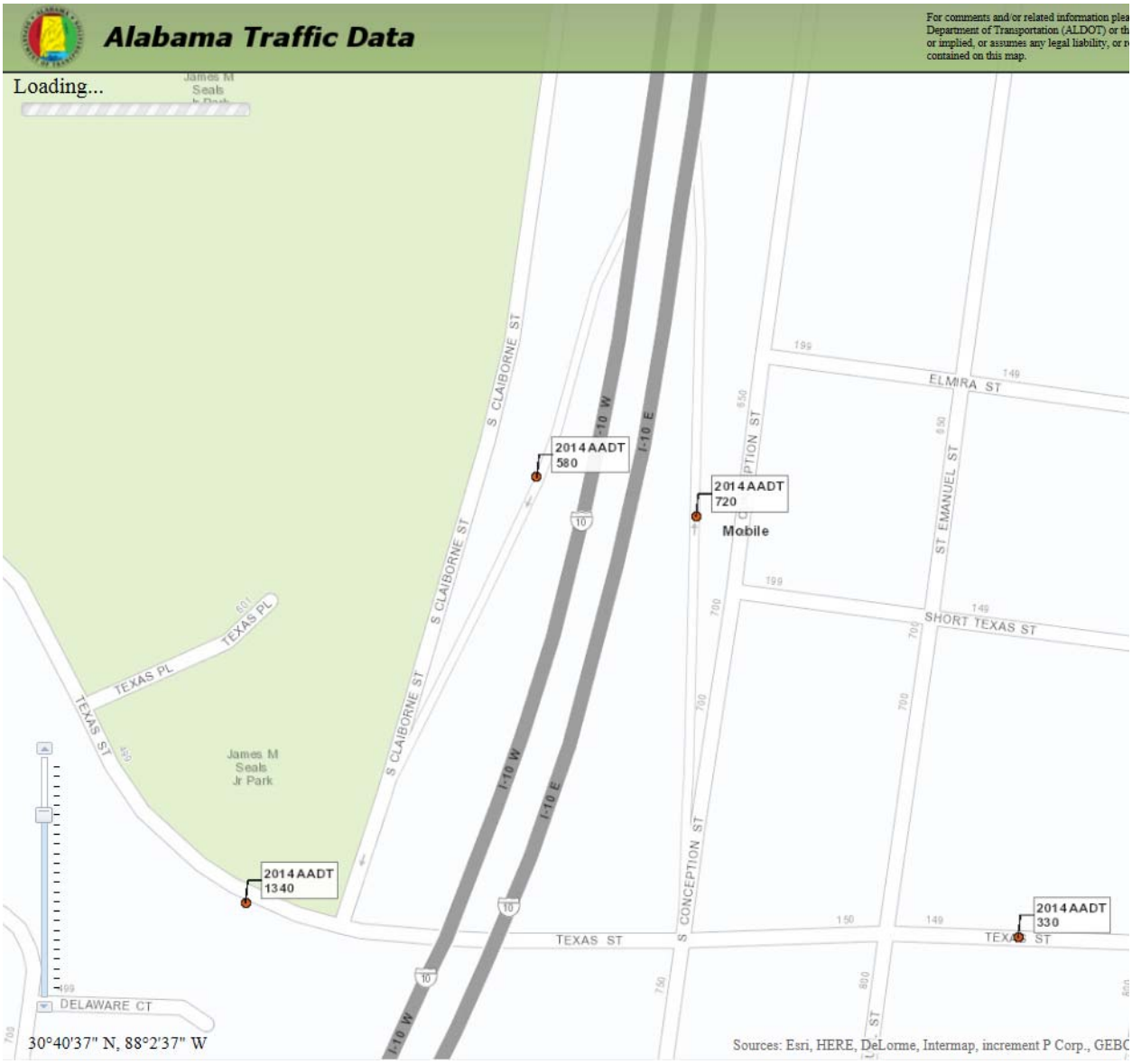
The below data has been taken from the ALDOT Traffic data website and a 1% growth rate was used from the FHWA approved Interchange Modification Study. Please use this data for the design of your project.

Clairborne St	**I-10 Texas St On Ramp**	**I-10 Texas St Off Ramp**
2016 ADT 5958	2016 ADT 6111	2016 ADT 592
2026 ADT 6581	2026 ADT 6750	2026 ADT 653
K = 10%	K = 12%	K = 13%
D = 100%	D = 100%	D = 100%
TDHV = 6%	TDHV = 6%	TDHV = 7%
TADT = 8%	TADT = 8%	TADT = 9%
MT = 30%	MT = 30%	MT = 30%
HT = 70%	HT = 70%	HT = 70%


Traffic Id: 97_49-10-26B-B1
Field
Value
Station
49-10-26B-B1
County
97
City
Route
RP0028900097
Milepoint
0.08
AADT 2014
5270
AADT 2013
5020
AADT 2012
0
AADT 2011
0
AADT 2010
0
Zoom to


Traffic Id: 97_49-10-26B-B1
2008
0
AADT 2007
0
AADT 2006
0
AADT 2005
0
K
10
D
100
TDHV
6
TADT
8
Heavy
70
Fuctional Class
1
Description
I-10W On Ramp from Water Street
Zoom to


Alabama Traffic Data
For comments and/or related info
Department of Transportation (A
or implied, or assumes any legal
contained on this map.
Loading
2014 AADT
2250
2014 AADT
14350
2014 AADT
5270
2014 AADT
14130
Mobile
2014 AADT
7480
2014 AADT
4310
2014 AADT
4090
2014 AADT
1250
2014 AADT
9820
MONROE ST
ST EMANUEL ST
WATER ST
I-10 W
I-10 E
HENRY AARON LOOP
S WATER ST
S ROYAL ST
MADISON ST
CSX Transportation
30°41'12" N 88°2'27" W
Sources: Esri, HERE, DeLorme, Intermap, increment P Cor


Alabama Traffic Data
For comments and/or related information plea
Department of Transportation (ALDOT) or th
or implied, or assumes any legal liability, or r
contained on this map.
Loading...
James M
Seals
Jr Park
2014 AADT
580
2014 AADT
720
Mobile
2014 AADT
1340
2014 AADT
330
S CLAIBORNE ST
I-10 W
I-10 E
ELMIRA ST
ST EMANUEL ST
SHORT TEXAS ST
TEXAS PL
TEXAS ST
S CONCEPTION ST
DELAWARE CT
30°40'37" N, 88°2'37" W
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBC

APPENDIX D

ESAL RANGE CALCULATION WORKSHEET

Project Number: ST-049-I10-004

I-10 Eastbound Water St. On-Ramp Closures And Texas St. Interchange Modifications

Mobile County

2016 ESAL Range Calculations

January 27, 2016

$$ESALS = \frac{(\text{Current Traffic} + \text{Projected Traffic})}{2} (TADT)\ (0.99)\ (FDD)\ (FLD)\ (7300)$$

CLAIBORNE ST. (TEXAS ST. LOOP)

Current Traffic (2016)	=	5,958
Projected traffic (2036)	=	6,581
Current Traffic TADT	=	8.0%
FDD (Direction Dist.)	=	100%
FLD (Lane Distribution)	=	100%

$$\frac{(5{,}958 + 6{,}581)}{2} (0.080)\ (0.99)\ (1.00)\ (1.00)\ (7300) = 3{,}624{,}774\ ESALS$$

ESAL RANGE = C/D

I-10 TEXAS ST. ON-RAMP

Current Traffic (2016)	=	6,111
Projected traffic (2036)	=	6,750
Current Traffic TADT	=	8%
FDD (Direction Dist.)	=	100%
FLD (Lane Distribution)	=	100%

$$\frac{(6{,}111 + 6{,}750)}{2} (0.08)\ (0.99)\ (1.00)\ (1.00)\ (7300) = 3{,}717{,}858\ ESALS$$

ESAL RANGE = C/D

I-10 TEXAS ST. OFF-RAMP

Current Traffic (2016)	=	592
Projected traffic (2036)	=	653
Current Traffic TADT	=	9%
FDD (Direction Dist.)	=	100%
FLD (Lane Distribution)	=	100%

$$\frac{(592 + 653)}{2} (0.09)\ (0.99)\ (1.00)\ (1.00)\ (7300) = 404{,}893\ ESALS$$

ESAL RANGE = A/B

APPENDIX E

RESILIENT MODULUS SUMMARY

Results Summary

Boring	Station	Depth	AASHTO Classification	Dry Density (pcf)	Moisture Content, %	% Compaction	Mr values at 4 psi confining pressure Seq. 6	Seq. 7	Seq. 8	Seq. 9	Seq. 10	Ave.
B-2	Claiborne 10+66	0.5' - 2.0'	A-2-4 (0)	113.4	11.3	96.0	8,298	8,318	8,705	9,307	9,779	8881
B-3	EB Ramp 1432+91	0.5' - 2.0'	A-2-4 (0)	120.3	10.7	96.0	9,835	9,588	9,907	10,512	10,999	10168

Boring	Station	Depth	AASHTO Classification	Dry Density (pcf)	Moisture Content, %	% Compaction	Mr values at 2 psi confining pressure Seq. 11	Seq. 12	Seq. 13	Seq. 14	Seq. 15	Ave.

Average	**9525**
Std. Dev.	910
AVG - 2(Std. Dev.)	7705
AVG + 2(Std. Dev.)	11345
85th percentile	9,074
90th percentile	9,010
100th percentile	8,881
DESIGN MR	**9,500**

GEOTECHNICAL ENGINEERING TESTING, INC.

M_R Calculation Summary

Alabama Department of Transportation
Project Number: ST-049-I10-004
Project Name: I-10 Eastbound Water St. On-Ramp Closures And Texas St. Interchange Modifications
County: Mobile

Notes:

Tests performed at Boudreau Engineering on January 18, 2016

APPENDIX F

DRAINAGE COEFFICIENTS

FIGURE 1: AVERAGE ANNUAL RAINFALL (AAR) IN INCHES (REFERENCE 2)

ADAPTED FROM REFERENCE 2

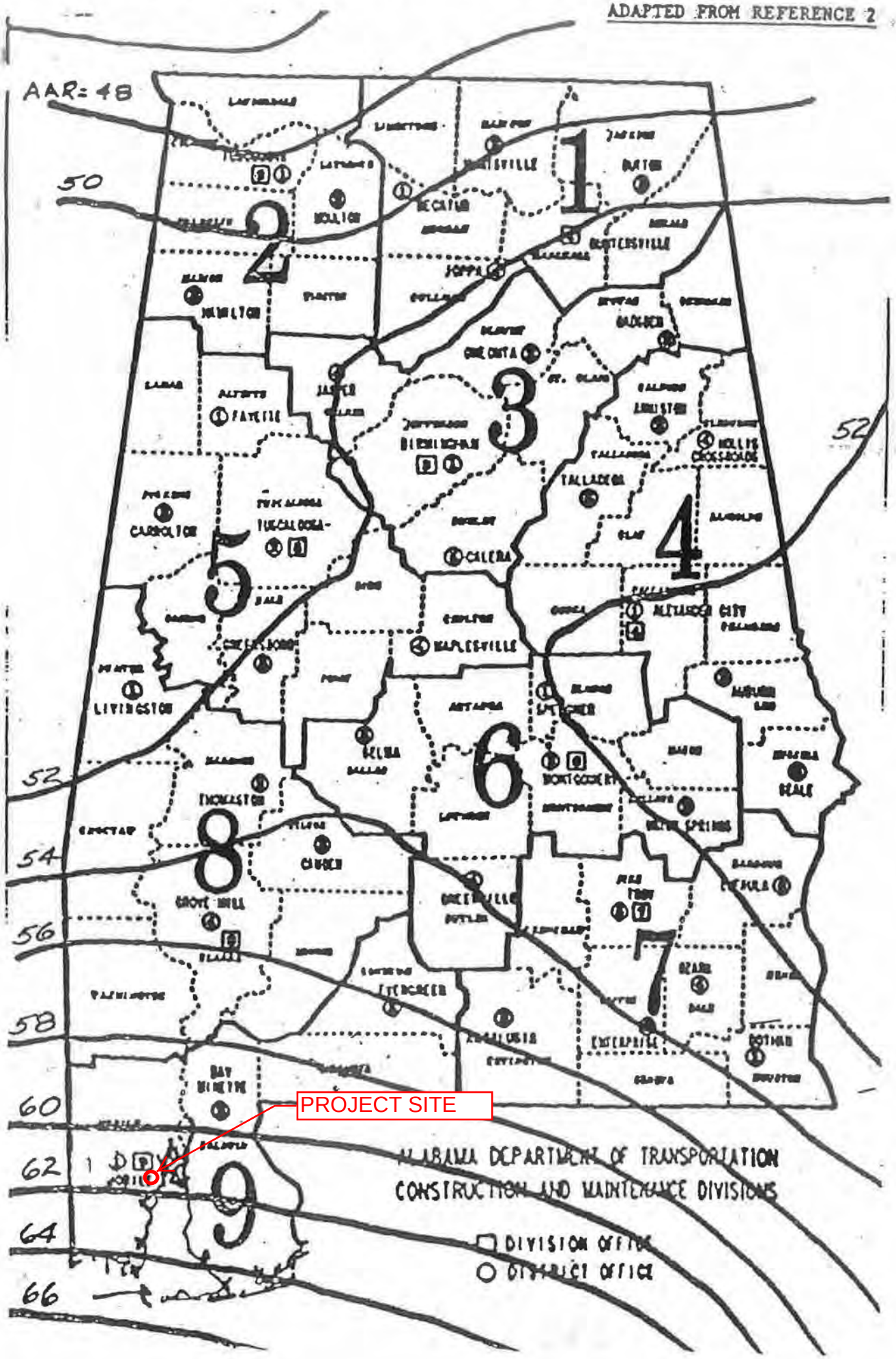


Table No. 1 Percent Passing The Number 200 Sieve

Specification Section Number	Class	% Passing #8	% of #8 Passing #200	% of Total Passing #200	(*) Use %
820 Selected Materials	A	60-100	12-45	7.2-45	25
	A1	42-100	12-45	5.04-45	25
	B	22-75	12-50	2.64-37.5	20
	B1	20-70	15-65	3-45.5	25
	C	20-50	15-75	3-37.5	20
821 Granular Soils	A	20-100	12-45	2.4-45	25
	B	20-100	12-40	2.4-40	20
	C	20-100	12-35	2.4-45	20
823 Soil Aggregate	A	35-75	12-37	4.2-27.75	15
	B	25-70	12-42	3-29.4	15
	C	22-50	12-45	2.64-22.5	10
824 Processed Reef Shell	A	40-70	10-40	4-28	15
	B	20-55	10-40	2-22	10
825 Crushed Aggregate	A			0-10	5
	B			4-18	10

(*) The values shown in this column are approximate mid-range values to be used for design purposes in the absence of other data. If the materials source is known and there is documentation to show that another value should be used for the per cent passing the #200 sieve, the documented value should be used.

AVG ANNUAL RAINFALL INCHES	% PASS NO 200	SAT LEVEL Si	DRAINAGE QUALITY	mi	USE mi	mi CAL FROM REGRESS EQUATION
48	0	0.912	1.2	1.0944	1.09	1.09
48	5	0.912	1.17	1.06704	1.07	1.06
48	10	0.912	1.14	1.03968	1.04	1.04
48	15	0.912	1.11	1.01232	1.01	1.01
48	20	0.912	1.08	0.98496	0.98	0.98
48	25	0.912	1.05	0.9576	0.96	0.96
48	30	0.912	1.02	0.93024	0.93	0.93
48	35	0.912	0.99	0.90288	0.90	0.91
48	40	0.912	0.96	0.87552	0.88	0.88
48	45	0.912	0.93	0.84816	0.85	0.85
48	50	0.912	0.9	0.8208	0.82	0.83
50	0	0.9	1.2	1.08	1.08	1.07
50	5	0.9	1.17	1.053	1.05	1.05
50	10	0.9	1.14	1.026	1.03	1.02
50	15	0.9	1.11	0.999	1.00	1.00
50	20	0.9	1.08	0.972	0.97	0.97
50	25	0.9	1.05	0.945	0.95	0.94
50	30	0.9	1.02	0.918	0.92	0.92
50	35	0.9	0.99	0.891	0.89	0.89
50	40	0.9	0.96	0.864	0.86	0.87
50	45	0.9	0.93	0.837	0.84	0.84
50	50	0.9	0.9	0.81	0.81	0.82
52	0	0.888	1.2	1.0656	1.07	1.06
52	5	0.888	1.17	1.03896	1.04	1.04
52	10	0.888	1.14	1.01232	1.01	1.01
52	15	0.888	1.11	0.98568	0.99	0.98
52	20	0.888	1.08	0.95904	0.96	0.96
52	25	0.888	1.05	0.9324	0.93	0.93
52	30	0.888	1.02	0.90576	0.91	0.91
52	35	0.888	0.99	0.87912	0.88	0.88
52	40	0.888	0.96	0.85248	0.85	0.85
52	45	0.888	0.93	0.82584	0.83	0.83
52	50	0.888	0.9	0.7992	0.80	0.80

NOTE: For improved roadbed mateial, a drainage coefficient (mi) value of 1.00 will be used in all cases.

BLE 2: CONTINUED

54	0	0.876	1.2	1.0512	1.05	1.05
54	5	0.876	1.17	1.02492	1.02	1.02
54	10	0.876	1.14	0.99864	1.00	1.00
54	15	0.876	1.11	0.97236	0.97	0.97
54	20	0.876	1.08	0.94608	0.95	0.95
54	25	0.876	1.05	0.9198	0.92	0.92
54	30	0.876	1.02	0.89352	0.89	0.89
54	35	0.876	0.99	0.86724	0.87	0.87
54	40	0.876	0.96	0.84096	0.84	0.84
54	45	0.876	0.93	0.81468	0.81	0.82
54	50	0.876	0.9	0.7884	0.79	0.79
56	0	0.864	1.2	1.0368	1.04	1.04
56	5	0.864	1.17	1.01088	1.01	1.01
56	10	0.864	1.14	0.98496	0.98	0.98
56	15	0.864	1.11	0.95904	0.96	0.96
56	20	0.864	1.08	0.93312	0.93	0.93
56	25	0.864	1.05	0.9072	0.91	0.91
56	30	0.864	1.02	0.88128	0.88	0.88
56	35	0.864	0.99	0.85536	0.86	0.86
56	40	0.864	0.96	0.82944	0.83	0.83
56	45	0.864	0.93	0.80352	0.80	0.80
56	50	0.864	0.9	0.7776	0.78	0.78
58	0	0.852	1.2	1.0224	1.02	1.02
58	5	0.852	1.17	0.99684	1.00	1.00
58	10	0.852	1.14	0.97128	0.97	0.97
58	15	0.852	1.11	0.94572	0.95	0.95
58	20	0.852	1.08	0.92016	0.92	0.92
58	25	0.852	1.05	0.8946	0.89	0.89
58	30	0.852	1.02	0.86904	0.87	0.87
58	35	0.852	0.99	0.84348	0.84	0.84
58	40	0.852	0.96	0.81792	0.82	0.82
58	45	0.852	0.93	0.79236	0.79	0.79
58	50	0.852	0.9	0.7668	0.77	0.77
60	0	0.84	1.2	1.008	1.01	1.01
60	5	0.84	1.17	0.9828	0.98	0.99
60	10	0.84	1.14	0.9576	0.96	0.96
60	15	0.84	1.11	0.9324	0.93	0.93
60	20	0.84	1.08	0.9072	0.91	0.91
60	25	0.84	1.05	0.882	0.88	0.88
60	30	0.84	1.02	0.8568	0.86	0.86
60	35	0.84	0.99	0.8316	0.83	0.83
60	40	0.84	0.96	0.8064	0.81	0.80
60	45	0.84	0.93	0.7812	0.78	0.78
60	50	0.84	0.9	0.756	0.76	0.75

TE: For improved roadbed mateial, a drainage coefficient (mi) value of 1.00 will be used in all cases.

ABLE 2: CONTINUED

62	0	0.828	1.2	0.9936	0.99	1.00
62	5	0.828	1.17	0.96876	0.97	0.97
62	10	0.828	1.14	0.94392	0.94	0.95
62	15	0.828	1.11	0.91908	0.92	0.92
62	20	0.828	1.08	0.89424	0.89	0.90
62	25	0.828	1.05	0.8694	0.87	0.87
62	30	0.828	1.02	0.84456	0.84	0.84
62	35	0.828	0.99	0.81972	0.82	0.82
62	40	0.828	0.96	0.79488	0.79	0.79
62	45	0.828	0.93	0.77004	0.77	0.77
62	50	0.828	0.9	0.7452	0.75	0.74
64	0	0.816	1.2	0.9792	0.98	0.99
64	5	0.816	1.17	0.95472	0.95	0.96
64	10	0.816	1.14	0.93024	0.93	0.93
64	15	0.816	1.11	0.90576	0.91	0.91
64	20	0.816	1.08	0.88128	0.88	0.88
64	25	0.816	1.05	0.8568	0.86	0.86
64	30	0.816	1.02	0.83232	0.83	0.83
64	35	0.816	0.99	0.80784	0.81	0.80
64	40	0.816	0.96	0.78336	0.78	0.78
64	45	0.816	0.93	0.75888	0.76	0.75
64	50	0.816	0.9	0.7344	0.73	0.73

NOTE: For improved roadbed materal, a drainage coefficient (mi) value of 1.00 will be used in all cases.

APPENDIX G

DARWIN ANALYSES

1993 AASHTO Pavement Design

DARWin Pavement Design and Analysis System

A Proprietary AASHTOWare Computer Software Product

Geotechnical Engineeringing-Testing, Inc.
904 Butler Drive
Mobile, AL 36693

Flexible Structural Design Module

TEXAS STREET MODIFICATIONS

ALDOT PE Project No. ST-049-I10-004
ALDOT CN Project No. NH-AL06( )

CLAIBORNE ST. - TWO LANE
CANAL ST. - TWO LANE
2016 TRAFFIC

Flexible Structural Design

18-kip ESALs Over Initial Performance Period	1,922,910
Initial Serviceability	4.2
Terminal Serviceability	3
Reliability Level	90 %
Overall Standard Deviation	0.49
Roadbed Soil Resilient Modulus	9,500 psi
Stage Construction	1
Calculated Design Structural Number	3.91 in

Rigorous ESAL Calculation

Performance Period (years)	12
Two-Way Traffic (ADT)	5,958
Number of Lanes in Design Direction	2
Percent of All Trucks in Design Lane	85 %
Percent Trucks in Design Direction	100 %

Vehicle Class	Percent of ADT	Annual % Growth	Average Initial Truck Factor (ESALs/ Truck)	Annual % Growth in Truck Factor	Accumulated 18-kip ESALs over Performance Period
2	92	1	0.0002	0	4,317
5	8	1	1.0223	0	1,918,594
Total	100	-	-	-	1,922,910

Growth	Compound
Total Calculated Cumulative ESALs	1,922,910

Specified Layer Design

Layer	Material Description	Struct Coef. (Ai)	Drain Coef. (Mi)	Thickness (Di)(in)	Width (ft)	Calculated SN (in)
1	Wearing 1/2" Mix, 175 lb/yd2	0.54	1	1.57	-	0.85
2	UBL 1" Mix, 250 lb/yd2	0.54	1	2.25	-	1.22
3	LBL 1" Mix, 250 lb/yd2	0.54	1	2.25	-	1.22
4	Crushed Agg Base	0.14	0.94	6	-	0.79
Total	-	-	-	12.07	-	4.07

1993 AASHTO Pavement Design

DARWin Pavement Design and Analysis System

A Proprietary AASHTOWare Computer Software Product

Geotechnical Engineeringing-Testing, Inc.
904 Butler Drive
Mobile, AL 36693

Flexible Structural Design Module

TEXAS STREET MODIFICATIONS

ALDOT PE Project No. ST-049-I10-004
ALDOT CN Project No. NH-AL06( )

I-10 EB ON-RAMP - ONE LANE

2016 TRAFFIC

Flexible Structural Design

18-kip ESALs Over Initial Performance Period	2,320,341
Initial Serviceability	4.2
Terminal Serviceability	3
Reliability Level	90 %
Overall Standard Deviation	0.49
Roadbed Soil Resilient Modulus	9,500 psi
Stage Construction	1
Calculated Design Structural Number	4.05 in

Rigorous ESAL Calculation

Performance Period (years)	12
Two-Way Traffic (ADT)	6,111
Number of Lanes in Design Direction	1
Percent of All Trucks in Design Lane	100 %
Percent Trucks in Design Direction	100 %

Vehicle Class	Percent of ADT	Annual % Growth	Average Initial Truck Factor (ESALs/ Truck)	Annual % Growth in Truck Factor	Accumulated 18-kip ESALs over Performance Period
2	92	1	0.0002	0	5,209
5	8	1	1.0223	0	2,315,132
Total	100	-	-	-	2,320,341

Growth	Compound
Total Calculated Cumulative ESALs	2,320,341

Specified Layer Design

Layer	Material Description	Struct Coef. (Ai)	Drain Coef. (Mi)	Thickness (Di)(in)	Width (ft)	Calculated SN (in)
1	Wearing 1/2" Mix, 175 lb/yd2	0.54	1	1.58	-	0.85
2	UBL 1" Mix, 250 lb/yd2	0.54	1	2.25	-	1.22
3	LBL 1" Mix, 250 lb/yd2	0.54	1	2.25	-	1.22
4	Crushed Agg Base	0.14	0.94	6	-	0.79
Total	-	-	-	12.08	-	4.07

1993 AASHTO Pavement Design

DARWin Pavement Design and Analysis System

A Proprietary AASHTOWare Computer Software Product

Geotechnical Engineeringing-Testing, Inc.
904 Butler Drive
Mobile, AL 36693

Flexible Structural Design Module

TEXAS STREET MODIFICATIONS

ALDOT PE Project No. ST-049-I10-004
ALDOT CN Project No. NH-AL06( )

TEXAS STREET LOOP- ONE LANE

2016 TRAFFIC

Flexible Structural Design

18-kip ESALs Over Initial Performance Period	2,262,247
Initial Serviceability	4.2
Terminal Serviceability	3
Reliability Level	90 %
Overall Standard Deviation	0.49
Roadbed Soil Resilient Modulus	9,500 psi
Stage Construction	1
Calculated Design Structural Number	4.03 in

Rigorous ESAL Calculation

Performance Period (years)	12
Two-Way Traffic (ADT)	5,958
Number of Lanes in Design Direction	1
Percent of All Trucks in Design Lane	100 %
Percent Trucks in Design Direction	100 %

Vehicle Class	Percent of ADT	Annual % Growth	Average Initial Truck Factor (ESALs/ Truck)	Annual % Growth in Truck Factor	Accumulated 18-kip ESALs over Performance Period
2	92	1	0.0002	0	5,078
5	8	1	1.0223	0	2,257,169
Total	100	-	-	-	2,262,247

Growth	Compound
Total Calculated Cumulative ESALs	2,262,247

Specified Layer Design

Layer	Material Description	Struct Coef. (Ai)	Drain Coef. (Mi)	Thickness (Di)(in)	Width (ft)	Calculated SN (in)
1	Wearing 1/2" Mix, 175 lb/yd2	0.54	1	1.57	-	0.85
2	UBL 1" Mix, 250 lb/yd2	0.54	1	2.25	-	1.22
3	LBL 1" Mix, 250 lb/yd2	0.54	1	2.25	-	1.22
4	Crushed Agg Base	0.14	0.94	6	-	0.79
Total	-	-	-	12.07	-	4.07

1993 AASHTO Pavement Design

DARWin Pavement Design and Analysis System

A Proprietary AASHTOWare Computer Software Product

Geotechnical Engineeringing-Testing, Inc.
904 Butler Drive
Mobile, AL 36693

Overlay Design Module

TEXAS STREET MODIFICATIONS
ALDOT PE Project No. ST-049-I10-004
ALDOT CN Project No. NH-AL06( )
CLAIBORNE ST. - TWO LANE
OVERLAY OF AC/PCC
2016 TRAFFIC

AC Overlay of AC Pavement

Structural Number for Future Traffic	3.91 in

Design Method	Effective Existing Structural Number (in)	Overlay Structural Number (in)
Component Analysis	2	1.91
Remaining Life	-	-
Non-Destructive Testing	-	-

Structural Number for Future Traffic

Future 18-kip ESALs Over Design Period	1,922,910
Initial Serviceability	4.2
Terminal Serviceability	3
Reliability Level	90 %
Overall Standard Deviation	0.49
Subgrade Resilient Modulus	9,500 psi
Calculated Structural Number for Future Traffic	3.91 in

Effective Pavement Thickness - Component Analysis Method

Layer	Material Description	Structural Coefficient	Drainage Coefficient	Thickness (in)
1	In-place Asphalt	0.2	1	5
2	In-Place Concrete	0.32	1	5.5

Milling Thickness	3.82 in

Calculated Results

Calculated Pavement Structural Number Before Milling	2.76 in
Calculated Effective Pavement Structural Number	2.00 in

Future Rigorous ESAL Calculation

Performance Period (years)	12
Two-Way Traffic (ADT)	5,958
Number of Lanes in Design Direction	2
Percent of All Trucks in Design Lane	85 %
Percent Trucks in Design Direction	100 %

Vehicle Class	Percent of ADT	Annual % Growth	Average Initial Truck Factor (ESALs/ Truck)	Annual % Growth in Truck Factor	Accumulated 18-kip ESALs over Performance Period
2	92	1	0.0002	0	4,317
5	8	1	1.0223	0	1,918,594
Total	100	-	-	-	1,922,910

Growth	Compound
Total Calculated Cumulative ESALs	1,922,910

Specified Layer Design

Layer	Material Description	Struct Coef. (Ai)	Drain Coef. (Mi)	Thickness (Di)(in)	Width (ft)	Calculated SN (in)
1	Wearing 1/2" Mix, 175 lb/yd2	0.54	1	1.57	-	0.85
2	UBL 1" Mix, 250 lb/yd2	0.54	1	2.25	-	1.22
Total	-	-	-	3.82	-	2.06

APPENDIX H

LABORATORY TEST REPORTS

Station & Offset	Boring No.	Sample ID	Depth (ft)	Water Content (%)	Atterberg Limits			% Gravel	% Sand	% Passing 200 (if hydrometer data available)		D_{50} (mm)	USCS	AASHTO Class
					LL	PL	PI			% Silt	% Clay			
CLAIBORNE STREET STATION 13+31 39' R of CL	B-1	1	0.5	16	NP	NP	NP	12.6	70.7	16.8		0.296	SM	A-2-4 (0)
CLAIBORNE STREET STATION 13+31 39' R of CL	B-1	3	3.5	14	NP	NP	NP	0.0	81.9	18.1		0.189	SM	A-2-4 (0)
CLAIBORNE STREET STATION 10+66 31' R of CL	B-2	1	0.5	9	NP	NP	NP	1.5	78.7	19.8		0.16	SM	A-2-4 (0)
CLAIBORNE STREET STATION 10+66 31' R of CL	B-2	2	2.0	13	NP	NP	NP	0.0	83.6	16.4		0.158	SM	A-2-4 (0)
CLAIBORNE STREET STATION 10+66 31' R of CL	B-2	3	3.5	19	NP	NP	NP	0.0	84.4	15.6		0.166	SM	A-2-4 (0)
CLAIBORNE STREET STATION 10+66 31' R of CL	B-2 BULK		0.0	13	NP	NP	NP	0.3	81.2	11.8	6.6	0.158	SM	A-2-4 (0)
I-10 EB ON-RAMP STATION 1432+91 40' L of CL	B-3	1	0.5	7	NP	NP	NP	8.9	74.2	16.9		0.232	SM	A-2-4 (0)
I-10 EB ON-RAMP STATION 1432+91 40' L of CL	B-3	2	2.0	8	NP	NP	NP	3.0	77.7	19.3		0.26	SM	A-2-4 (0)
I-10 EB ON-RAMP STATION 1432+91 40' L of CL	B-3	3	3.5	15	NP	NP	NP	0.0	83.1	16.9		0.173	SM	A-2-4 (0)
I-10 EB ON-RAMP STATION 1432+91 40' L of CL	B-3 BULK		0.0	10	NP	NP	NP	10.3	74.1	10.7	4.8	0.277	SM	A-2-4 (0)
I-10 EB ON-RAMP STATION 1435+42 5' R of CL	B-4	2	2.0	14	NP	NP	NP	3.4	73.5	23.1		0.164	SM	A-2-4 (0)
I-10 EB ON-RAMP STATION 1435+42 5' R of CL	B-4	3	3.5	12	NP	NP	NP	1.7	80.4	17.9		0.177	SM	A-2-4 (0)
I-10 EB ON-RAMP STATION 1437+42 4' R of CL	B-5	1	0.5	7	NP	NP	NP	3.5	78.5	17.9		0.222	SM	A-2-4 (0)
I-10 EB ON-RAMP STATION 1437+42 4' R of CL	B-5	2	2.0	7	NP	NP	NP	1.7	80.9	17.4		0.279	SM	A-2-4 (0)
I-10 EB ON-RAMP STATION 1437+42 4' R of CL	B-5	3	3.5	16	NP	NP	NP	0.4	88.0	11.6		0.19	SP-SM	A-2-4 (0)
TEXAS STREET STATION 9+94 10' L of CL	B-7	2	2.0	5	NP	NP	NP	0.0	81.7	18.3		0.163	SM	A-2-4 (0)

GEOTECHNICAL ENGINEERING TESTING, INC.

SOIL CLASSIFICATION SUMMARY

ALABAMA DEPARTMENT OF TRANSPORTATION
ALDOT PROJ. NUMBER: ST-049-I10-004
PROJECT NAME: TEXAS STREET INTERCHANGE MODIFICATIONS
COUNTY: MOBILE

ALDOT - MODIFIED -SOIL CLASS SUMMARY 15-219 TEXAS STREET MODIFICATIONS.GPJ GETI_AL.GDT 1/28/16

Station & Offset	Boring No.	Sample ID	Depth (ft)	Water Content (%)	Atterberg Limits			% Gravel	% Sand	% Passing 200 (if hydrometer data available)		D_{50} (mm)	USCS	AASHTO Class
					LL	PL	PI			% Silt	% Clay			
TEXAS STREET STATION 9+94 10' L of CL	B-7	3	3.5	4	NP	NP	NP	0.2	86.0	13.8		0.173	SM	A-2-4 (0)

GEOTECHNICAL ENGINEERING TESTING, INC.

SOIL CLASSIFICATION SUMMARY

ALABAMA DEPARTMENT OF TRANSPORTATION
ALDOT PROJ. NUMBER: ST-049-I10-004
PROJECT NAME: TEXAS STREET INTERCHANGE MODIFICATIONS
COUNTY: MOBILE

BMT-5
Rev. 04/18/94

GEOTECHNICAL ENGINEERING-TESTING, INC.
904 Butler Drive
Mobile, Alabama 36693
251-666-7197

Project No. ST-049-I10-004
County MOBILE
Division
Date

Copies:
Dist. Engr.
Proj. Engr.
File

ALABAMA DEPARTMENT OF TRANSPORTATION
SOILS AND BASE COURSE ANALYSIS

Project: TEXAS STREET INTERCHANGE MODIFICATIONS

Report of Analysis on Sample of In Situ Soils

Specification Section Number

Source of Material B-1 13+31 39 Ft Rt of C/L

Sampled by GET Submitted by GET Producer

Date Sampled 12/4/15 Date Received Date Tested

Laboratory No.			
Marks			
Source		In Situ Soils	In Situ Soils
Location			
Quantity		0.5 - 1.5	3.5 - 4.5
TOTAL PASSING %			
75 mm	Sieve (3")		
63 mm	Sieve (2½")		
50 mm	Sieve (2")		
37.5 mm	Sieve (1½")		
25 mm	Sieve (1")		
19 mm	Sieve (3/4")	100.0	
12.5 mm	Sieve (½")		
9.5 mm	Sieve (3/8")	94.0	
4.75 mm	Sieve (#4)	87.4	100.0
2.36 mm	Sieve (#8)		
2.00 mm	Sieve (#10)	80.8	99.9
1.18 mm	Sieve (#16)		
425 µm	Sieve (#40)	65.4	88.9
300 µm	Sieve (#50)		
75 µm	Sieve (#200)	16.8	18.1
Material Passing 2.36 mm			
Clay			
Silt			
Total Sand		79.5	81.9
Mat'l. Pass. 425 µm		79.7	89.0
Mat'l. Pass. 75 µm		20.5	18.1
ATTERBERG LIMITS			
Liquid Limit		NP	NP
Plastic Limit		NP	NP
Plasticity Index		NP	NP
Group		A-2-4(0)	A-2-4(0)
Crushed Particle Count			
Meets Specifications			

Remarks

Inspector

BMT-5
Rev. 04/18/94

GEOTECHNICAL ENGINEERING-TESTING, INC.
904 Butler Drive
Mobile, Alabama 36693
251-666-7197

Project No. ST-049-I10-004
County MOBILE
Division
Date

Copies:
Dist. Engr.
Proj. Engr.
File

ALABAMA DEPARTMENT OF TRANSPORTATION
SOILS AND BASE COURSE ANALYSIS

Project: TEXAS STREET INTERCHANGE MODIFICATIONS

Report of Analysis on Sample of In Situ Soils

Specification Section Number

Source of Material B-2 10+66 31 Ft Rt of C/L

Sampled by GET Submitted by GET Producer

Date Sampled 12/4/15 Date Received Date Tested

Laboratory No.				
Marks				
Source		In Situ Soils	In Situ Soils	In Situ Soils
Location				
Quantity		0.5 - 1.5	2 - 3	3.5 - 4.5
TOTAL PASSING %				
75 mm	Sieve (3")			
63 mm	Sieve (2½")			
50 mm	Sieve (2")			
37.5 mm	Sieve (1½")			
25 mm	Sieve (1")			
19 mm	Sieve (3/4")	100.0		
12.5 mm	Sieve (½")			
9.5 mm	Sieve (3/8")	98.7		
4.75 mm	Sieve (#4)	98.5		100.0
2.36 mm	Sieve (#8)			
2.00 mm	Sieve (#10)	98.2	100.0	100.0
1.18 mm	Sieve (#16)			
425 µm	Sieve (#40)	94.1	97.6	97.1
300 µm	Sieve (#50)			
75 µm	Sieve (#200)	19.8	16.4	15.6
Material Passing 2.36 mm				
Clay				
Silt				
Total Sand		79.9	83.6	84.4
Mat'l. Pass. 425 µm		95.8	97.6	97.1
Mat'l. Pass. 75 µm		20.1	16.4	15.6
ATTERBERG LIMITS				
Liquid Limit		NP	NP	NP
Plastic Limit		NP	NP	NP
Plasticity Index		NP	NP	NP
Group		A-2-4(0)	A-2-4(0)	A-2-4(0)
Crushed Particle Count				
Meets Specifications				

Remarks

Inspector

BMT-5
Rev. 04/18/94

GEOTECHNICAL ENGINEERING-TESTING, INC.
904 Butler Drive
Mobile, Alabama 36693
251-666-7197

Project No. ST-049-I10-004
County MOBILE
Division
Date

Copies:
Dist. Engr.
Proj. Engr.
File

ALABAMA DEPARTMENT OF TRANSPORTATION
SOILS AND BASE COURSE ANALYSIS

Project: TEXAS STREET INTERCHANGE MODIFICATIONS

Report of Analysis on Sample of In Situ Soils

Specification Section Number

Source of Material B-2 BULK 10+66 31 Ft Rt of C/L

Sampled by GET Submitted by GET Producer

Date Sampled Date Received Date Tested

Laboratory No.		
Marks		
Source		In Situ Soils
Location		
Quantity		- 0
TOTAL PASSING %		
75 mm	Sieve (3")	
63 mm	Sieve (2½")	
50 mm	Sieve (2")	
37.5 mm	Sieve (1½")	
25 mm	Sieve (1")	
19 mm	Sieve (3/4")	100.0
12.5 mm	Sieve (½")	
9.5 mm	Sieve (3/8")	99.8
4.75 mm	Sieve (#4)	99.7
2.36 mm	Sieve (#8)	
2.00 mm	Sieve (#10)	99.4
1.18 mm	Sieve (#16)	
425 µm	Sieve (#40)	96.8
300 µm	Sieve (#50)	
75 µm	Sieve (#200)	18.4
Material Passing 2.36 mm		
Clay		6.7
Silt		11.9
Total Sand		81.5
Mat'l. Pass. 425 µm		97.3
Mat'l. Pass. 75 µm		18.5
ATTERBERG LIMITS		
Liquid Limit		NP
Plastic Limit		NP
Plasticity Index		NP
Group		A-2-4(0)
Crushed Particle Count		
Meets Specifications		

Remarks

Inspector

BMT-5
Rev. 04/18/94

GEOTECHNICAL ENGINEERING-TESTING, INC.
904 Butler Drive
Mobile, Alabama 36693
251-666-7197

Project No. ST-049-I10-004
County MOBILE
Division
Date

Copies:
Dist. Engr.
Proj. Engr.
File

ALABAMA DEPARTMENT OF TRANSPORTATION
SOILS AND BASE COURSE ANALYSIS

Project: TEXAS STREET INTERCHANGE MODIFICATIONS

Report of Analysis on Sample of In Situ Soils

Specification Section Number

Source of Material B-3 1432+91 40 Ft Lt of C/L

Sampled by GET Submitted by GET Producer

Date Sampled 12/4/15 Date Received Date Tested

Laboratory No.				
Marks				
Source		In Situ Soils	In Situ Soils	In Situ Soils
Location				
Quantity		0.5 - 1.5	2 - 3	3.5 - 4.5
TOTAL PASSING %				
75 mm	Sieve (3")			
63 mm	Sieve (2½")			
50 mm	Sieve (2")			
37.5 mm	Sieve (1½")			
25 mm	Sieve (1")			
19 mm	Sieve (3/4")	100.0	100.0	
12.5 mm	Sieve (½")			
9.5 mm	Sieve (3/8")	97.1	98.7	
4.75 mm	Sieve (#4)	91.1	97.0	100.0
2.36 mm	Sieve (#8)			
2.00 mm	Sieve (#10)	87.0	96.2	100.0
1.18 mm	Sieve (#16)			
425 µm	Sieve (#40)	75.0	78.5	97.1
300 µm	Sieve (#50)			
75 µm	Sieve (#200)	16.9	19.3	16.9
Material Passing 2.36 mm				
Clay				
Silt				
Total Sand		80.7	79.9	83.1
Mat'l. Pass. 425 µm		85.5	81.4	97.1
Mat'l. Pass. 75 µm		19.3	20.1	16.9
ATTERBERG LIMITS				
Liquid Limit		NP	NP	NP
Plastic Limit		NP	NP	NP
Plasticity Index		NP	NP	NP
Group		A-2-4(0)	A-2-4(0)	A-2-4(0)
Crushed Particle Count				
Meets Specifications				

Remarks

Inspector

BMT-5
Rev. 04/18/94

GEOTECHNICAL ENGINEERING-TESTING, INC.
904 Butler Drive
Mobile, Alabama 36693
251-666-7197

Project No. ST-049-I10-004
County MOBILE
Division
Date

Copies:
Dist. Engr.
Proj. Engr.
File

ALABAMA DEPARTMENT OF TRANSPORTATION
SOILS AND BASE COURSE ANALYSIS

Project: TEXAS STREET INTERCHANGE MODIFICATIONS

Report of Analysis on Sample of In Situ Soils

Specification Section Number

Source of Material B-3 BULK 1432+91 40 Ft Lt of C/L

Sampled by GET Submitted by GET Producer

Date Sampled Date Received Date Tested

Laboratory No.		
Marks		
Source		In Situ Soils
Location		
Quantity		- 0
TOTAL PASSING %		
75 mm	Sieve (3")	
63 mm	Sieve (2½")	
50 mm	Sieve (2")	
37.5 mm	Sieve (1½")	
25 mm	Sieve (1")	
19 mm	Sieve (3/4")	100.0
12.5 mm	Sieve (½")	
9.5 mm	Sieve (3/8")	95.8
4.75 mm	Sieve (#4)	89.7
2.36 mm	Sieve (#8)	
2.00 mm	Sieve (#10)	85.4
1.18 mm	Sieve (#16)	
425 µm	Sieve (#40)	70.4
300 µm	Sieve (#50)	
75 µm	Sieve (#200)	15.6
Material Passing 2.36 mm		
Clay		5.6
Silt		12.4
Total Sand		82.0
Mat'l. Pass. 425 µm		81.7
Mat'l. Pass. 75 µm		18.0
ATTERBERG LIMITS		
Liquid Limit		NP
Plastic Limit		NP
Plasticity Index		NP
Group		A-2-4(0)
Crushed Particle Count		
Meets Specifications		

Remarks

Inspector

BMT-5
Rev. 04/18/94

GEOTECHNICAL ENGINEERING-TESTING, INC.
904 Butler Drive
Mobile, Alabama 36693
251-666-7197

Project No. ST-049-I10-004
County MOBILE
Division
Date

Copies:
Dist. Engr.
Proj. Engr.
File

ALABAMA DEPARTMENT OF TRANSPORTATION
SOILS AND BASE COURSE ANALYSIS

Project: TEXAS STREET INTERCHANGE MODIFICATIONS

Report of Analysis on Sample of In Situ Soils

Specification Section Number

Source of Material B-4 1435+42 5 Ft Rt of C/L

Sampled by GET Submitted by GET Producer

Date Sampled 12/4/15 Date Received Date Tested

Laboratory No.			
Marks			
Source		In Situ Soils	In Situ Soils
Location			
Quantity		2 - 3	3.5 - 4.5
TOTAL PASSING %			
75 mm	Sieve (3")		
63 mm	Sieve (2½")		
50 mm	Sieve (2")		
37.5 mm	Sieve (1½")		
25 mm	Sieve (1")		
19 mm	Sieve (3/4")	100.0	100.0
12.5 mm	Sieve (½")		
9.5 mm	Sieve (3/8")	97.6	99.2
4.75 mm	Sieve (#4)	96.6	98.3
2.36 mm	Sieve (#8)		
2.00 mm	Sieve (#10)	95.1	95.9
1.18 mm	Sieve (#16)		
425 µm	Sieve (#40)	86.3	88.6
300 µm	Sieve (#50)		
75 µm	Sieve (#200)	23.1	17.9
Material Passing 2.36 mm			
Clay			
Silt			
Total Sand		75.7	81.5
Mat'l. Pass. 425 µm		90.5	92.0
Mat'l. Pass. 75 µm		24.3	18.5
ATTERBERG LIMITS			
Liquid Limit		NP	NP
Plastic Limit		NP	NP
Plasticity Index		NP	NP
Group		A-2-4(0)	A-2-4(0)
Crushed Particle Count			
Meets Specifications			

Remarks

Inspector

BMT-5
Rev. 04/18/94

GEOTECHNICAL ENGINEERING-TESTING, INC.
904 Butler Drive
Mobile, Alabama 36693
251-666-7197

Project No. ST-049-I10-004
County MOBILE
Division
Date

Copies:
Dist. Engr.
Proj. Engr.
File

ALABAMA DEPARTMENT OF TRANSPORTATION
SOILS AND BASE COURSE ANALYSIS

Project: TEXAS STREET INTERCHANGE MODIFICATIONS

Report of Analysis on Sample of In Situ Soils

Specification Section Number

Source of Material B-5 1437+42 4 Ft Rt of C/L

Sampled by GET Submitted by GET Producer

Date Sampled 12/4/15 Date Received Date Tested

Laboratory No.				
Marks				
Source		In Situ Soils	In Situ Soils	In Situ Soils
Location				
Quantity		0.5 - 1.5	2 - 3	3.5 - 4.5
TOTAL PASSING %				
75 mm	Sieve (3")			
63 mm	Sieve (2½")			
50 mm	Sieve (2")			
37.5 mm	Sieve (1½")			
25 mm	Sieve (1")			
19 mm	Sieve (3/4")	100.0	100.0	
12.5 mm	Sieve (½")			
9.5 mm	Sieve (3/8")	98.7	99.6	100.0
4.75 mm	Sieve (#4)	96.5	98.3	99.6
2.36 mm	Sieve (#8)			
2.00 mm	Sieve (#10)	95.0	97.2	98.9
1.18 mm	Sieve (#16)			
425 µm	Sieve (#40)	81.1	77.1	92.9
300 µm	Sieve (#50)			
75 µm	Sieve (#200)	17.9	17.4	11.6
Material Passing 2.36 mm				
Clay				
Silt				
Total Sand		81.2	82.2	88.3
Mat'l. Pass. 425 µm		85.1	79.1	93.8
Mat'l. Pass. 75 µm		18.8	17.8	11.7
ATTERBERG LIMITS				
Liquid Limit		NP	NP	NP
Plastic Limit		NP	NP	NP
Plasticity Index		NP	NP	NP
Group		A-2-4(0)	A-2-4(0)	A-2-4(0)
Crushed Particle Count				
Meets Specifications				

Remarks

Inspector

BMT-5
Rev. 04/18/94

GEOTECHNICAL ENGINEERING-TESTING, INC.
904 Butler Drive
Mobile, Alabama 36693
251-666-7197

Project No. ST-049-I10-004
County MOBILE
Division
Date

Copies:
Dist. Engr.
Proj. Engr.
File

ALABAMA DEPARTMENT OF TRANSPORTATION
SOILS AND BASE COURSE ANALYSIS

Project: TEXAS STREET INTERCHANGE MODIFICATIONS

Report of Analysis on Sample of In Situ Soils

Specification Section Number

Source of Material B-7 9+94 10 Ft Lt of C/L

Sampled by GET Submitted by GET Producer

Date Sampled 12/4/15 Date Received Date Tested

Laboratory No.			
Marks			
Source		In Situ Soils	In Situ Soils
Location			
Quantity		2 - 3	3.5 - 4.5
TOTAL PASSING %			
75 mm	Sieve (3")		
63 mm	Sieve (2½")		
50 mm	Sieve (2")		
37.5 mm	Sieve (1½")		
25 mm	Sieve (1")		
19 mm	Sieve (3/4")		
12.5 mm	Sieve (½")		
9.5 mm	Sieve (3/8")		100.0
4.75 mm	Sieve (#4)	100.0	99.8
2.36 mm	Sieve (#8)		
2.00 mm	Sieve (#10)	99.9	98.9
1.18 mm	Sieve (#16)		
425 µm	Sieve (#40)	97.3	94.7
300 µm	Sieve (#50)		
75 µm	Sieve (#200)	18.3	13.8
Material Passing 2.36 mm			
Clay			
Silt			
Total Sand		81.7	86.1
Mat'l. Pass. 425 µm		97.4	95.6
Mat'l. Pass. 75 µm		18.3	13.9
ATTERBERG LIMITS			
Liquid Limit		NP	NP
Plastic Limit		NP	NP
Plasticity Index		NP	NP
Group		A-2-4(0)	A-2-4(0)
Crushed Particle Count			
Meets Specifications			

Remarks

Inspector

APPENDIX I

BORING LOCATION PLAN SHEETS

PLAN SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	4

END WORK
STA 18+91.19
CANAL ST
N=248958.658
E=1797718.479

STA ~~18+64.63, CANAL ST~~=
STA 42+77.32, CLAIBORNE ST

PI STA 39+92.22

END WORK
STA 14+31.12
CANAL ST
N=248953.757
E=1798171.885

MATCHLINE STA 34+01.37
SEE SHEET 5

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 50 0 50 SCALE (FEET)	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			PLAN SHEET	CANAL ST CLAIBORNE ST

PLAN SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	5

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL
DATE:	DATE:	DATE:	_____

ALABAMA DEPARTMENT OF TRANSPORTATION
SW REGION
DESIGN SECTION

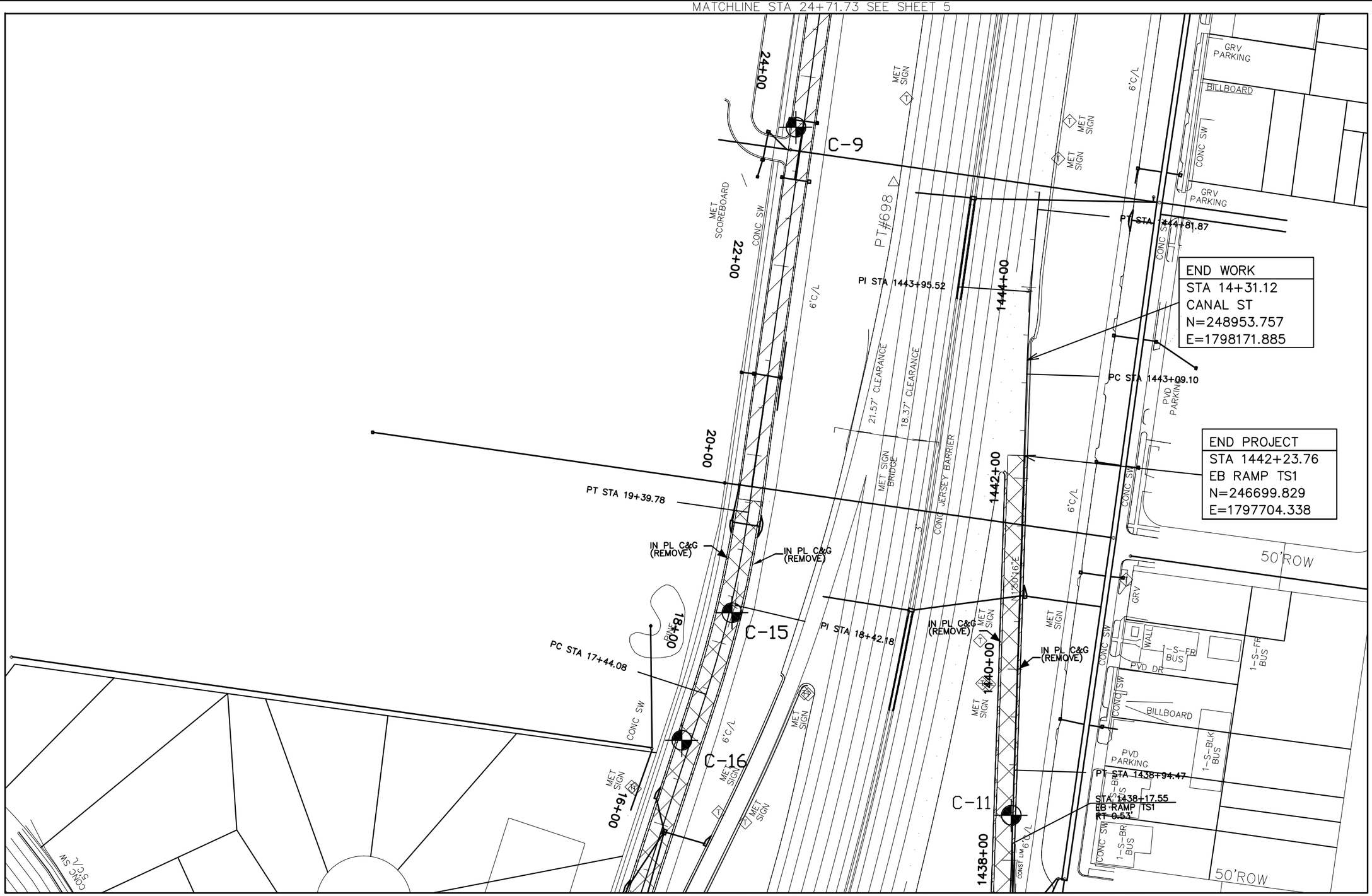
HORIZ SCALE (FEET) 50 0 50

SHEET TITLE	ROUTE
PLAN SHEET	CLAIBORNE AVE

PLAN SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	6

MATCHLINE STA 24+71.73 SEE SHEET 5

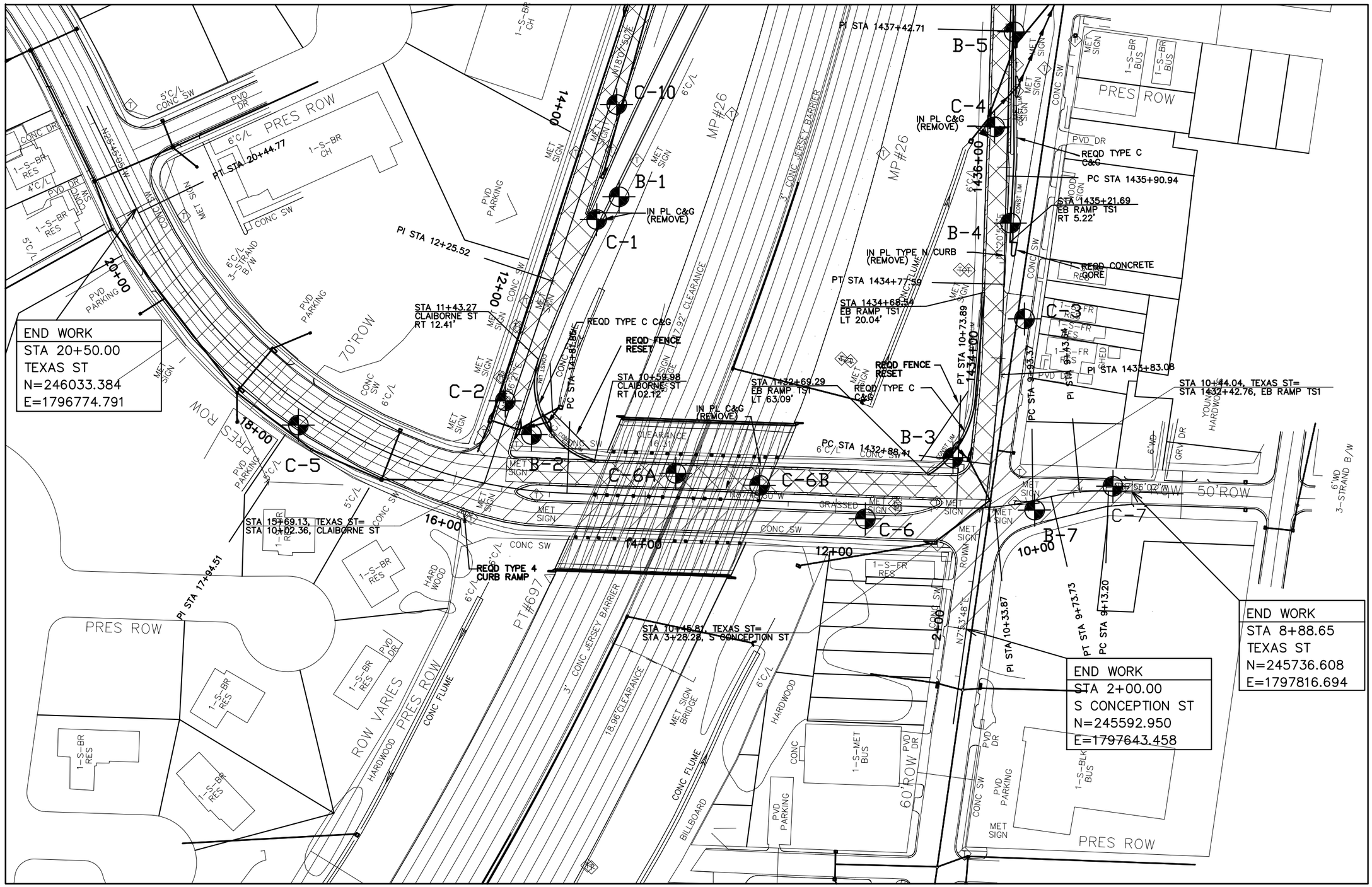


MATCHLINE STA 15+25.25 SEE SHEET 7 MATCHLINE STA 1437+65.87 SEE SHEET 7

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 50 0 50 SCALE (FEET)	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			PLAN SHEET	CLAIBORNE ST EB RAMP

PLAN SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	7



RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 50 0 50 SCALE (FEET)	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	----------			PLAN SHEET	TEXAS ST CLAIBORNE ST EB RAMP

APPENDIX J

LOGS OF BORING

PROJECT NO.	FISCAL YEAR	SHEET NO.

CLAIBORNE STREET
STATION 13+31
39' R of CL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, BT, VS(LOGGER)
DATE DRILLED: 12/4/15
REMARKS:

BORING DEPTH: 10 FT.
BORING ELEV.: 13.9 FT.
DATUM:
WATER DEPTH: 1.5 FT.

GEOTECHNICAL ENGINEERING TESTING, INC.

BORING NUMBER: B-1

NORTH:246045.5 **EAST:**1797280

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N_f	AASHTO CLASS	LAB DATA
14	0		2" Topsoil				
			Loose red & dark gray silty sand w/ small amount of gravel	1	8	A-2-4 (0)	-200=16.8 MC=16 LL=NP PI=NP
			Firm red silty sand w/ trace of shell	2	27	A-2	
				3	60	A-2-4 (0)	-200=18.1 MC=14 LL=NP PI=NP
9	5		Very dense to dense light gray & red silty sand	4	36	A-2	
			Loose light gray & yellow silty sand	5	7	A-2	
4	10		B.T. @ 10 FT				
-1	15						
-6	20						
-11	25						
-16	30						

CLAIBORNE STREET
STATION 10+66
31' R of CL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, BT, VS(LOGGER)
DATE DRILLED: 12/4/15
REMARKS:

BORING DEPTH: 10 FT.
BORING ELEV.: 12.3 FT.
DATUM:
WATER DEPTH: 1.1 FT.

GEOTECHNICAL ENGINEERING TESTING, INC.

BORING NUMBER: B-2

NORTH:245796.6 **EAST:**1797188.2

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N_f	AASHTO CLASS	LAB DATA
12	0		3.5" Topsoil				
				1	19	A-2-4 (0)	-200=19.8 MC=9 LL=NP PI=NP
				2	29	A-2-4 (0)	-200=16.4 MC=13 LL=NP PI=NP
			Firm light gray, yellow & gray silty sand	3	20	A-2-4 (0)	-200=15.6 MC=19 LL=NP PI=NP
7	5			4	25	A-2	
			Very loose gray fine to medium sand w/ silt				
2	10		Very loose gray silty sand	5	3	A-2	
			B.T. @ 10 FT				
-3	15						
-8	20						
-13	25						
-18	30						

I-10 EB ON-RAMP
STATION 1432+91
40' L of CL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, BT, VS(LOGGER)
DATE DRILLED: 12/4/15
REMARKS:

BORING DEPTH: 10 FT.
BORING ELEV.: 12.0 FT.
DATUM:
WATER DEPTH: 2.0 FT.

GEOTECHNICAL ENGINEERING TESTING, INC.

BORING NUMBER: B-3

NORTH:245772.5 **EAST:**1797629.5

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N_f	AASHTO CLASS	LAB DATA
12	0		2" Topsoil				
				1	12	A-2-4 (0)	-200=16.9 MC=7 LL=NP PI=NP
			Firm gray, red & light gray silty sand w/ trace of shell	2	15	A-2-4 (0)	-200=19.3 MC=8 LL=NP PI=NP
				3	15	A-2-4 (0)	-200=16.9 MC=15 LL=NP PI=NP
7	5		Firm light gray & yellow fine to medium sand w/ silt	4	13	A-3	
			Very loose gray clayey sand				
2	10			5	3	A-2	
			B.T. @ 10 FT				
-3	15						
-8	20						
-13	25						
-18	30						

NOTE(S):

The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level indicated is for the highest elevation recorded during this investigation and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- Topsoil
- A-1a, A-1b
- A-2-4, A-2-5
- A-2-6, A-2-7
- A-3
- A-4
- A-5
- A-6
- A-7-5, A-7-6
- A-8
- Asphalt Pavement
- Crushed Stone
- Auger Cuttings
- Standard Penetration Test
- Ground Water Measurement
- N_f = SPT Value determined in field
- NWTE = No Water Table Encountered

ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL
ENGINEERING-TESTING,INC

APPROVED : CURT DOYLE, P.E.

GEOTECHNICAL ENGINEER

DATE :

PROJECT NUMBER:
TEXAS STREET INTERCHANGE MODIFICATIONS

MOBILE

PRELIMINARY PROJECT NO.: ST-049-I10-004

TEST BORING RECORD
SHEET NO. 1 OF 2

PROJECT NO.	FISCAL YEAR	SHEET NO.

I-10 EB ON-RAMP
STATION 1435+42
5' R of CL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, BT, VS(LOGGER)
DATE DRILLED: 12/4/15
REMARKS:

BORING DEPTH: 10 FT.
BORING ELEV.: 12.8 FT.
DATUM:
WATER DEPTH: 5.0 FT.

GEOTECHNICAL ENGINEERING TESTING, INC.

BORING NUMBER: B-4

NORTH:246018.1 **EAST:**1797689.7

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N_f	AASHTO CLASS	LAB DATA
13	0		3.5" Topsoil				
			Very dense gray & yellow silty sand w/ small amount of rubble	1	50/.2	A-2	
			Firm light gray, dark gray & red silty sand w/ trace of gravel	2	28	A-2-4 (0)	-200=23.1 LL=NP MC=14 PI=NP
				3	12	A-2-4 (0)	-200=17.9 LL=NP MC=12 PI=NP
8	5			4	17	A-2	
			Firm to loose light yellow, gray & light red silty sand				
3	10			5	5	A-2	
			B.T. @ 10 FT				
-2	15						
-7	20						
-12	25						
-17	30						

I-10 EB ON-RAMP
STATION 1437+42
4' R of CL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, BT, VS(LOGGER)
DATE DRILLED: 12/4/15
REMARKS:

BORING DEPTH: 10 FT.
BORING ELEV.: 12.2 FT.
DATUM:
WATER DEPTH: 5.0 FT.

GEOTECHNICAL ENGINEERING TESTING, INC.

BORING NUMBER: B-5

NORTH:246218.2 **EAST:**1797693.4

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N_f	AASHTO CLASS	LAB DATA
12	0		3" Topsoil				
			Firm dark gray, red & yellow silty sand w/ trace of shell	1	10	A-2-4 (0)	-200=17.9 LL=NP MC=7 PI=NP
				2	18	A-2-4 (0)	-200=17.4 LL=NP MC=7 PI=NP
				3	11	A-2-4 (0)	-200=11.6 LL=NP MC=16 PI=NP
7	5		Firm light gray & yellow fine sand w/ silt	4	10	A-2	
			Medium consistency gray sandy clay w/ sand layer				
2	10			5	5	A-6	
			B.T. @ 10 FT				
-3	15						
-8	20						
-13	25						
-18	30						

TEXAS STREET
STATION 9+94
10' L of CL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, BT, VS(LOGGER)
DATE DRILLED: 12/4/15
REMARKS:

BORING DEPTH: 10 FT.
BORING ELEV.: 9.7 FT.
DATUM:
WATER DEPTH: 2.0 FT.

GEOTECHNICAL ENGINEERING TESTING, INC.

BORING NUMBER: B-7

NORTH:245717.5 **EAST:**1797714.9

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N_f	AASHTO CLASS	LAB DATA
10	0		2.5" Asphalt				
			Crushed aggregate base	1		A-1	
			Dense gray & light gray silty sand	2	45	A-2-4 (0)	-200=18.3 LL=NP MC=5 PI=NP
				3	31	A-2-4 (0)	-200=13.8 LL=NP MC=4 PI=NP
5	5		Firm brownish yellow & gray silty, clayey sand	4	23	A-2	
			Loose gray & red clayey sand				
0	10			5	8	A-2	
			B.T. @ 10 FT				
-5	15						
-10	20						
-15	25						
-20	30						

NOTE(S):

The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level indicated is for the highest elevation recorded during this investigation and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- Topsoil
- A-1a, A-1b
- A-2-4, A-2-5
- A-2-6, A-2-7
- A-3
- A-4
- A-5
- A-6
- A-7-5, A-7-6
- A-8
- Asphalt Pavement
- Crushed Stone
- Auger Cuttings
- Standard Penetration Test
- Ground Water Measurement
- N_f = SPT Value determined in field
- NWTE = No Water Table Encountered

ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL
ENGINEERING-TESTING,INC

APPROVED : CURT DOYLE, P.E.

GEOTECHNICAL ENGINEER

DATE :

PROJECT NUMBER:
TEXAS STREET INTERCHANGE MODIFICATIONS

MOBILE

PRELIMINARY PROJECT NO.: ST-049-I10-004

TEST BORING RECORD
SHEET NO. 2 OF 2

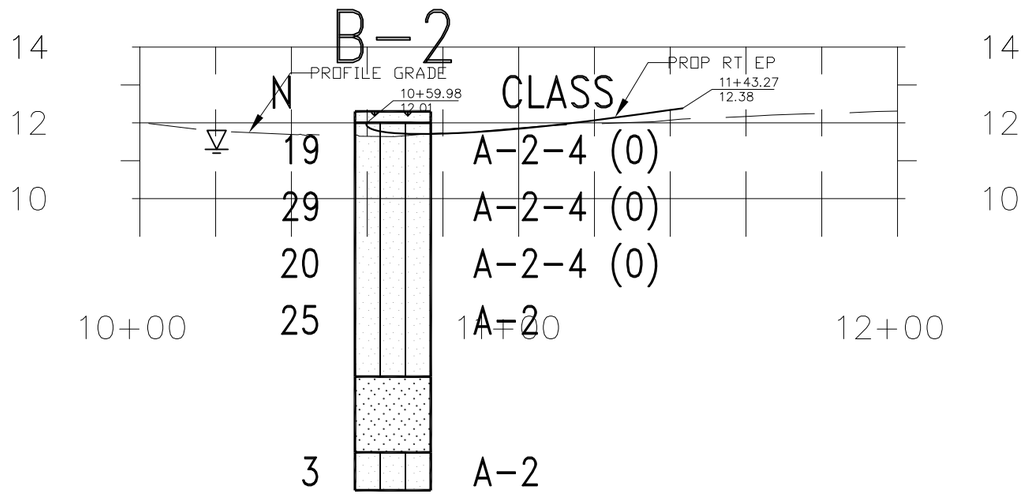
APPENDIX K

BORING LOCATION PROFILE SHEETS

PROFILE SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	7

CLAIBORNE ST



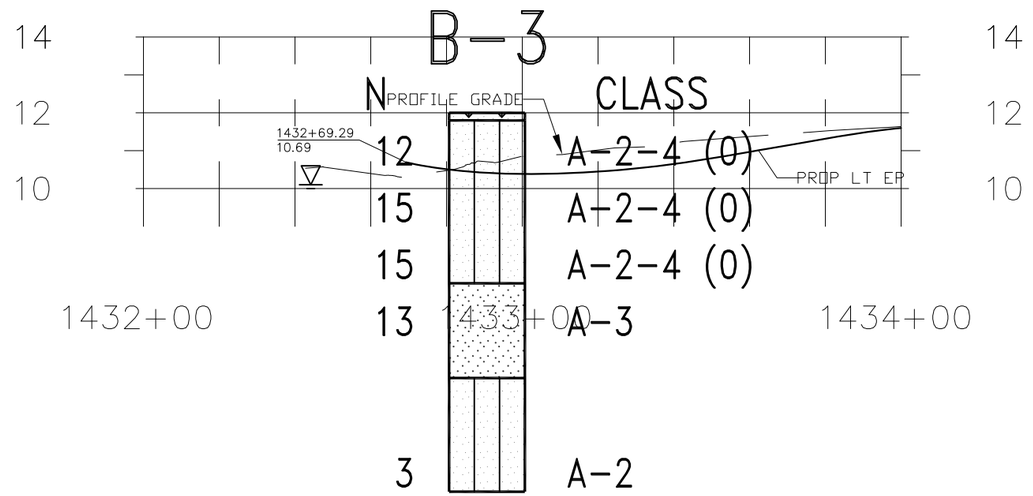
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____	SW REGION DESIGN SECTION	PROFILE SHEET	CLAIBORNE ST

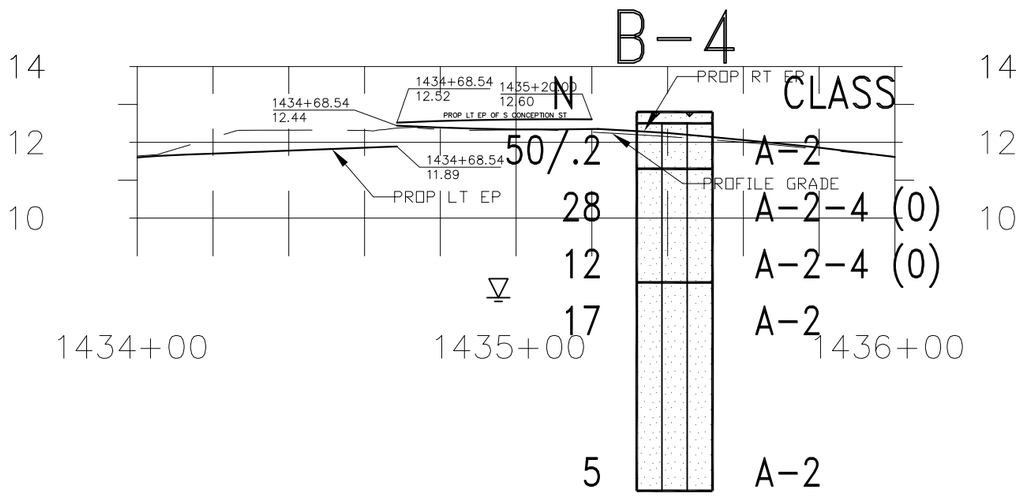
HORIZ 10 0 10 SCALE (FEET) VERT 2 0 2

PROFILE SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	7

EB RAMP



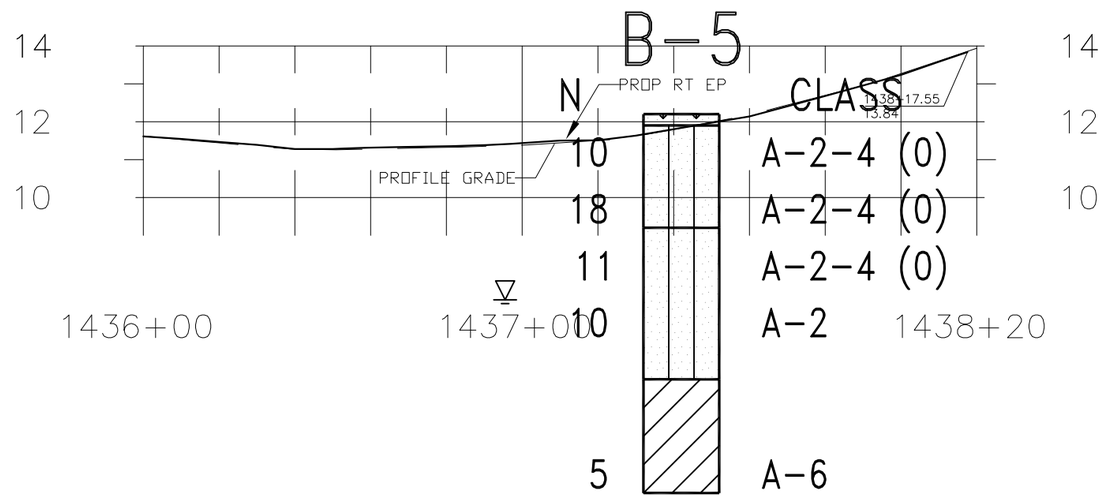


RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 10 0 10 SCALE (FEET) VERT 2 0 2	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	---------			PROFILE SHEET	EB RAMP

PROFILE SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	7

EB RAMP



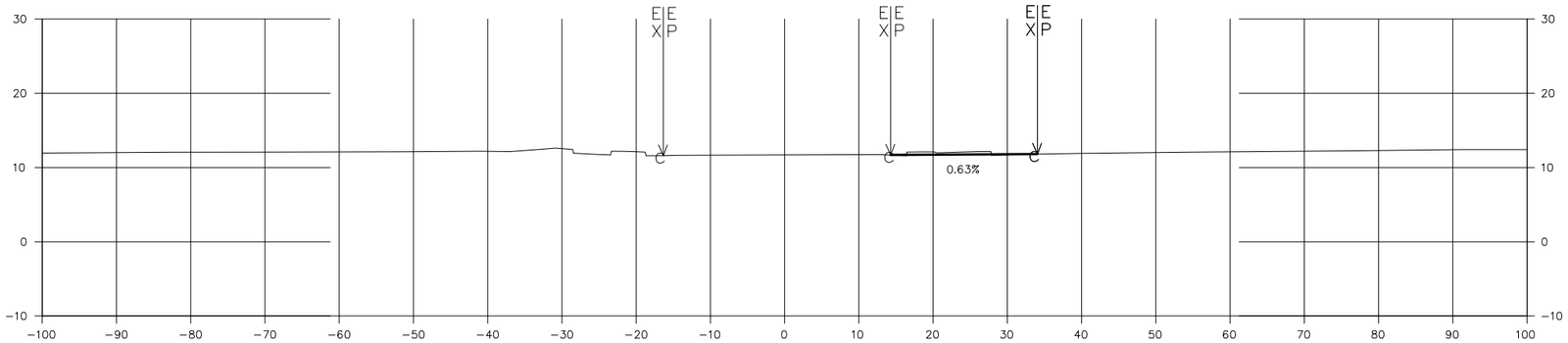
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 10 0 10 SCALE (FEET) VERT 2 0 2	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	---------			PROFILE SHEET	EB RAMP

APPENDIX L

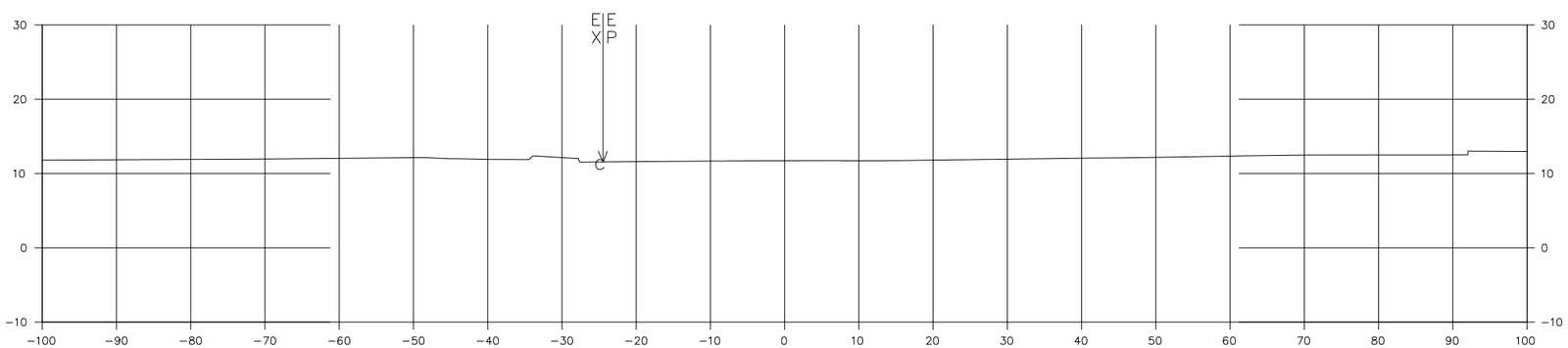
CROSS SECTIONS

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	38



STA 10+40.00



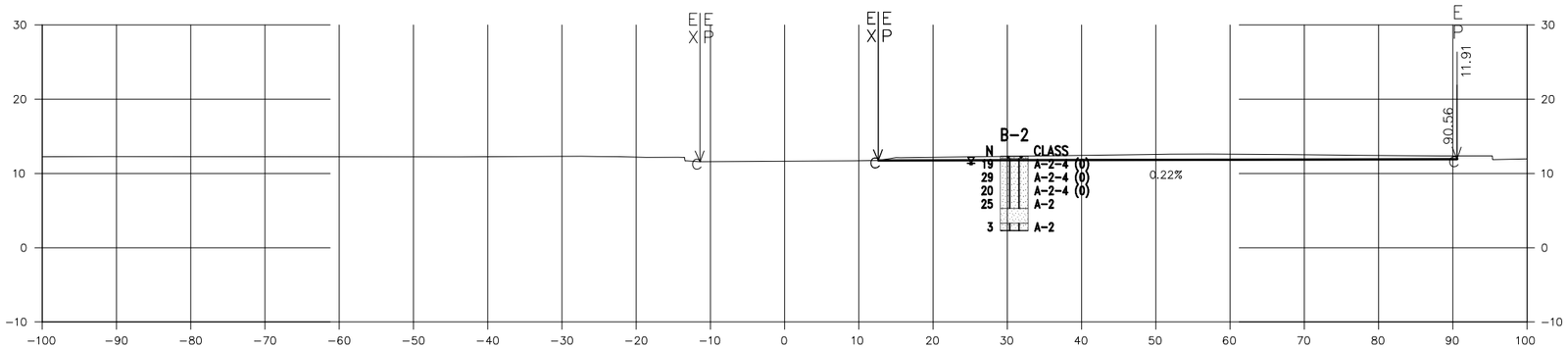
STA 10+30.00

Sta 10+30.00 TO Sta 10+40.00

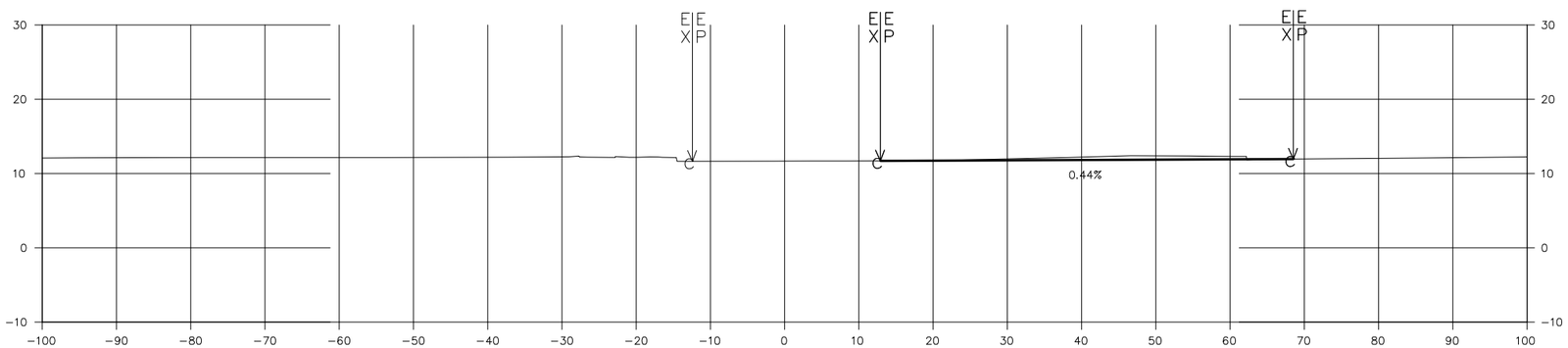
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	CLAIBORNE ST

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	39



STA 10+60.00



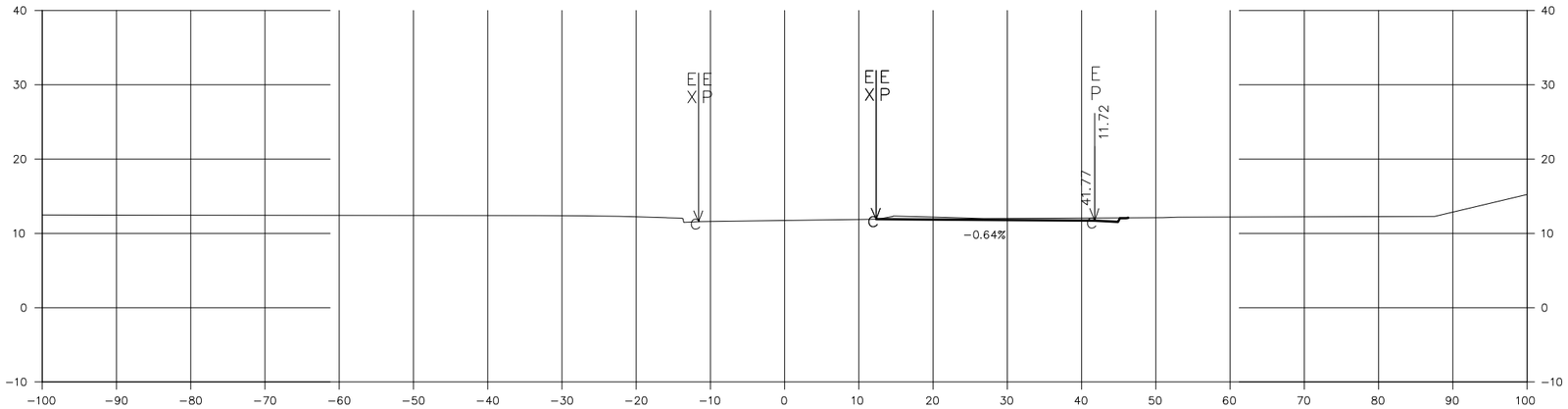
STA 10+50.00

Sta 10+50.00 TO Sta 10+60.00

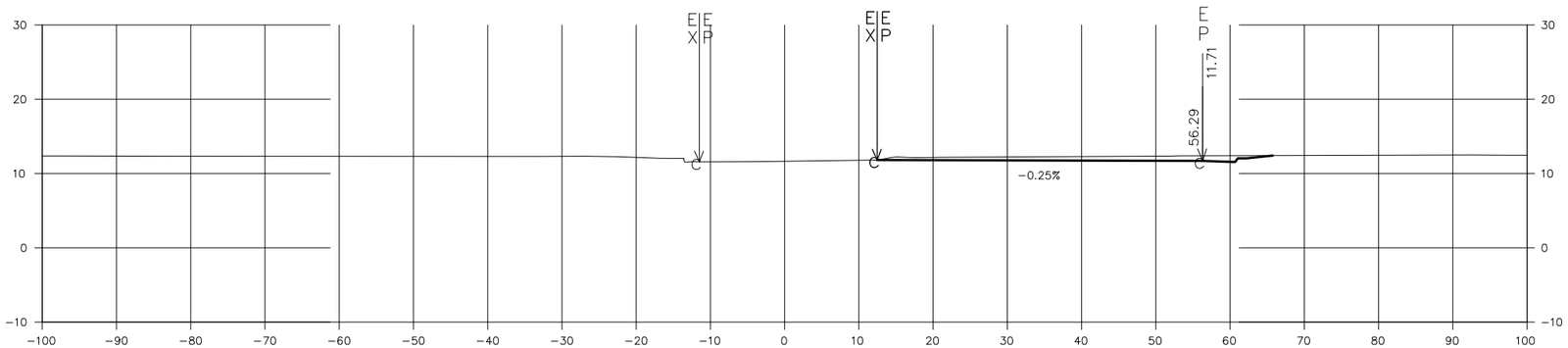
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION	HORIZ 10 0 10 SCALE (FEET) VERT 10 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	CLAIBORNE ST

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	~~40~~



STA 10+80.00



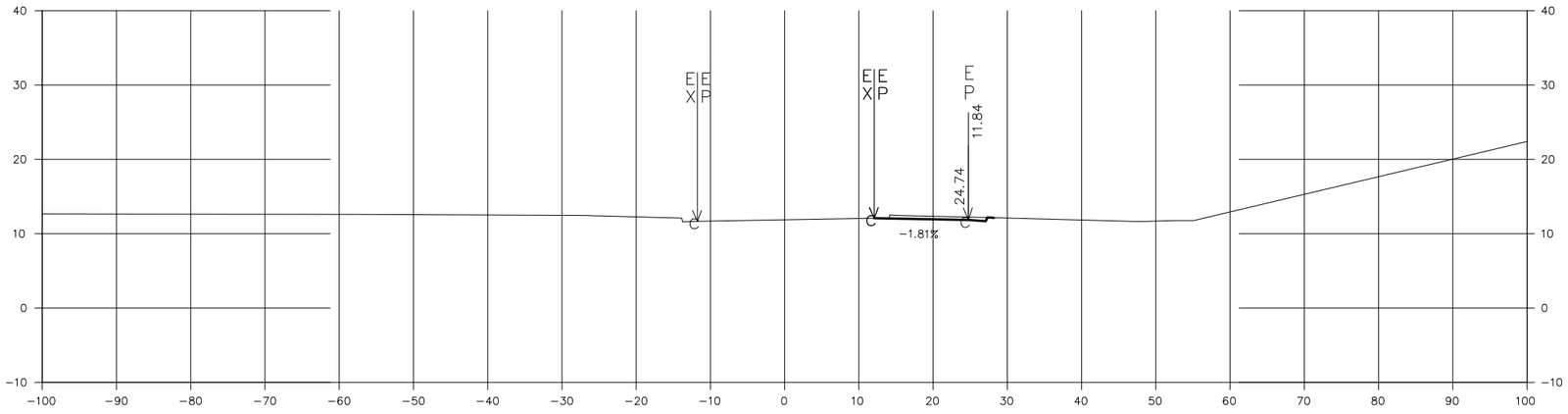
STA 10+70.00

Sta 10+70.00 TO Sta 10+80.00

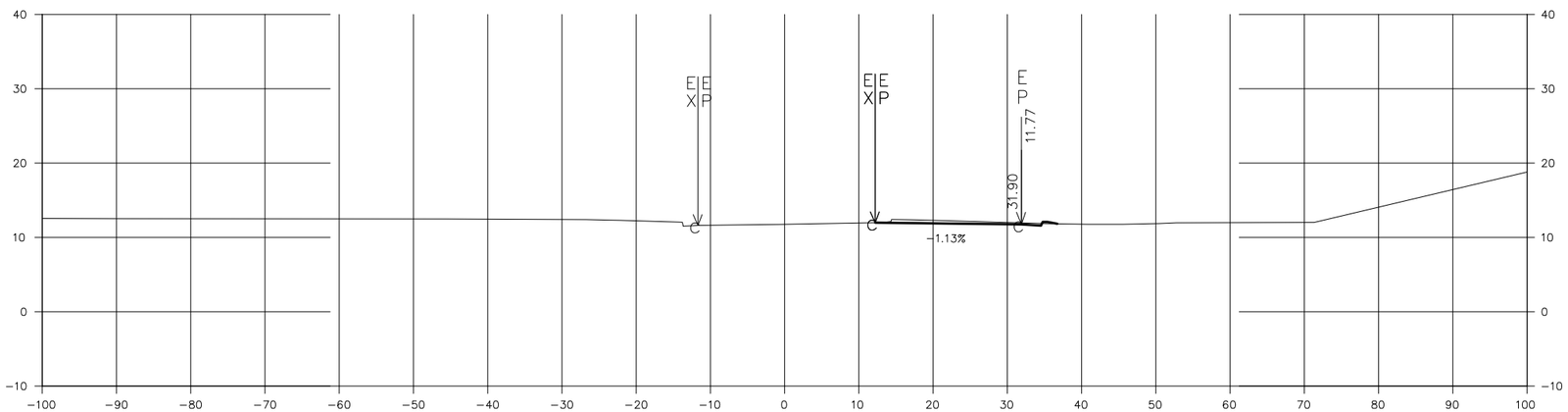
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 10 0 10 SCALE (FEET) VERT 10 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	CLAIBORNE ST

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	41



STA 11+00.00



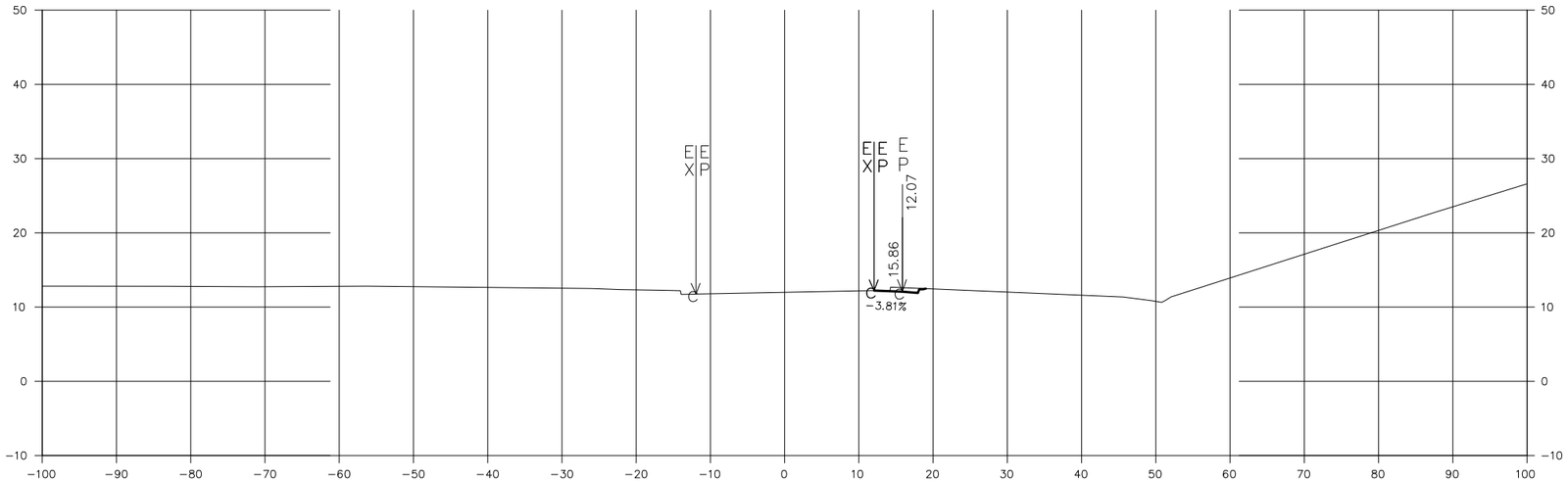
STA 10+90.00

Sta 10+90.00 TO Sta 11+00.00

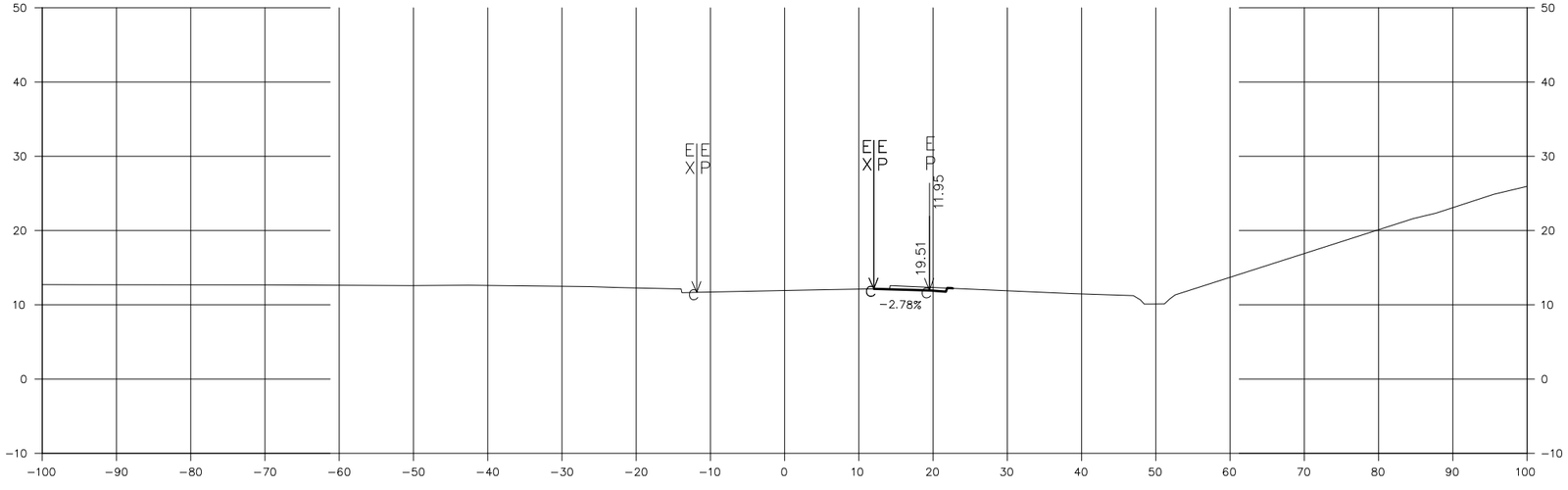
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	CLAIBORNE ST

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	42



STA 11+20.00



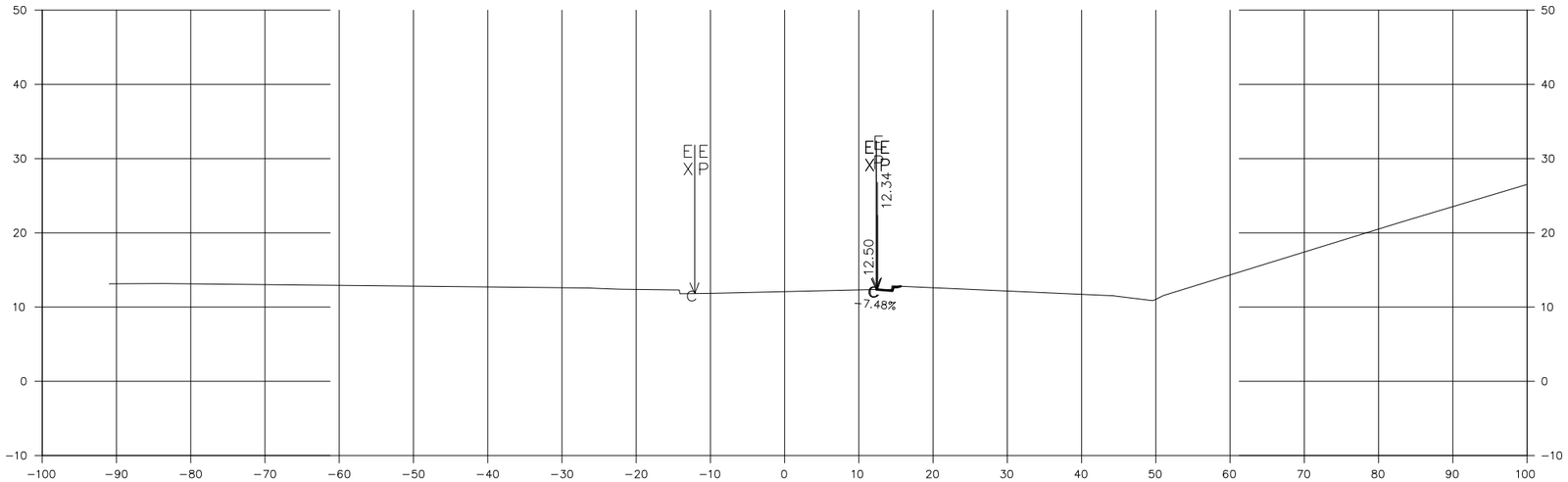
STA 11+10.00

Sta 11+10.00 TO Sta 11+20.00

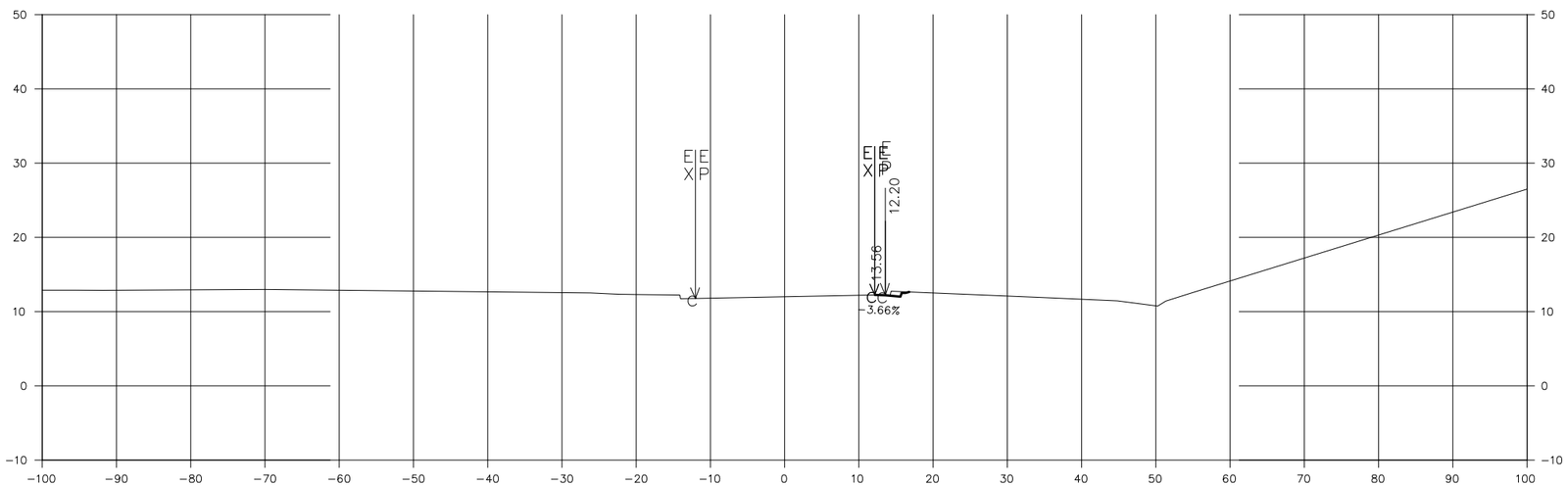
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	CLAIBORNE ST

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	43



STA 11+40.00



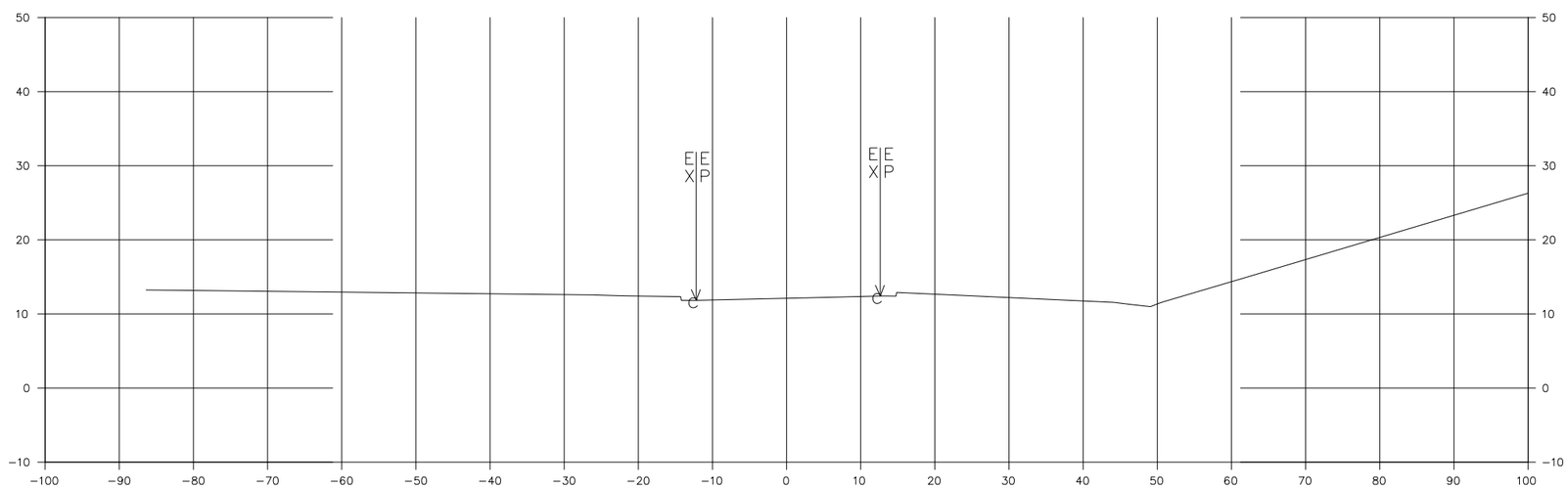
STA 11+30.00

Sta 11+30.00 TO Sta 11+40.00

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	CLAIBORNE ST

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	44



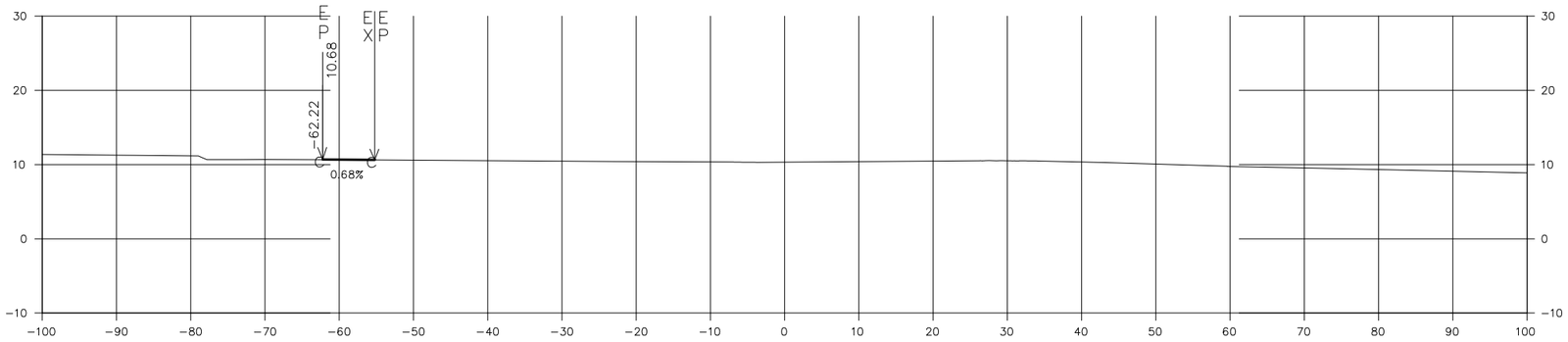
STA 11+50.00

Sta 11+50.00 TO Sta 11+50.00

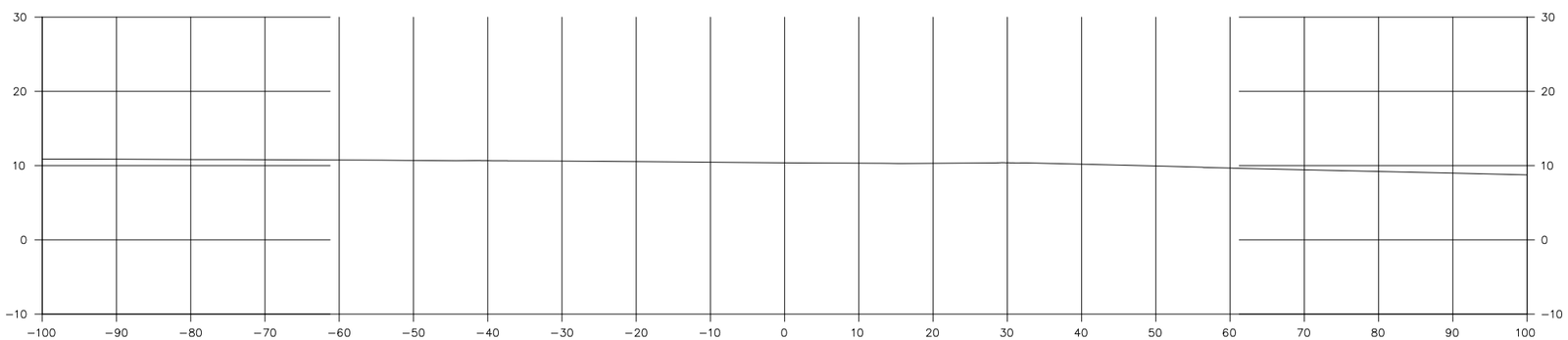
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	CLAIBORNE ST

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	45



STA 1432+70.00



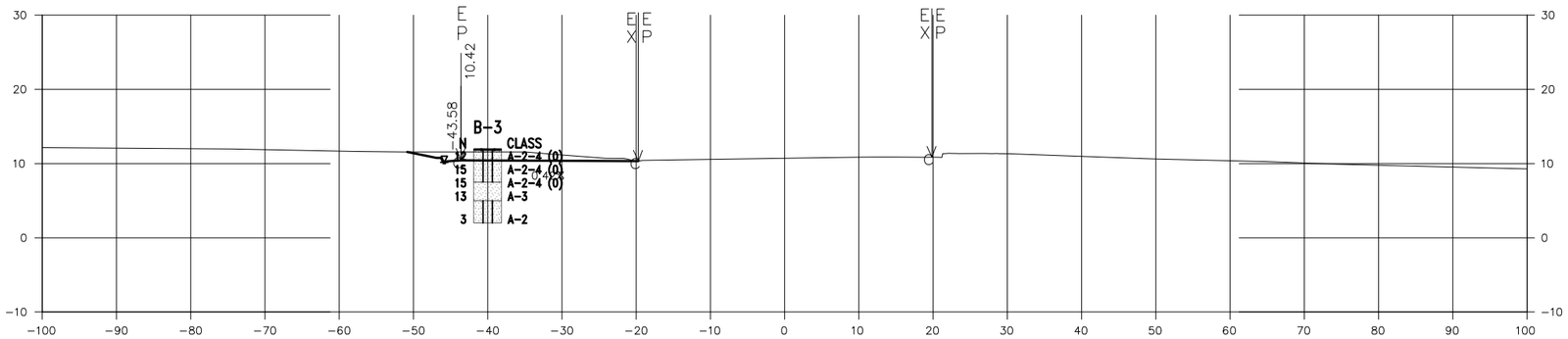
STA 1432+60.00

Sta 1432+60.00 TO Sta 1432+70.00

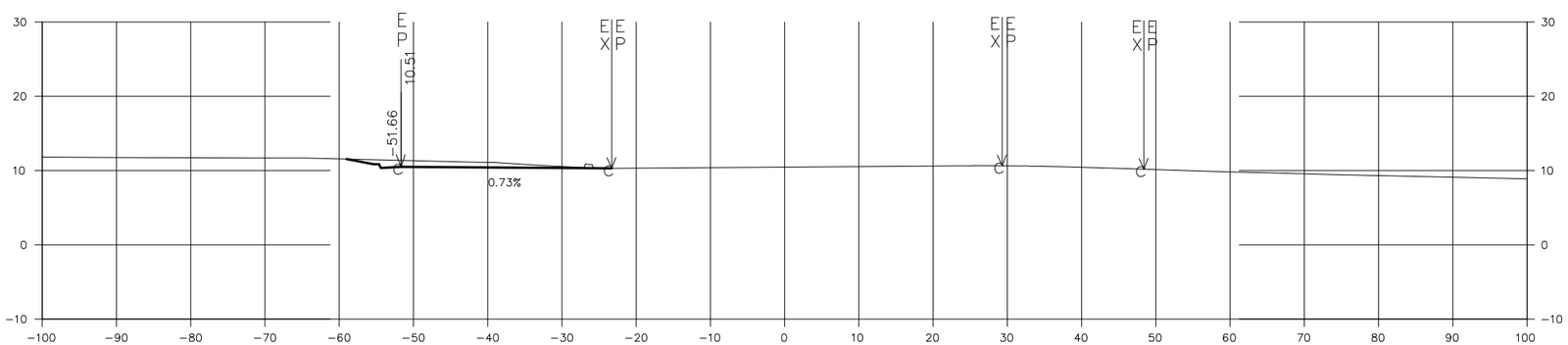
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	46



STA 1432+90.00



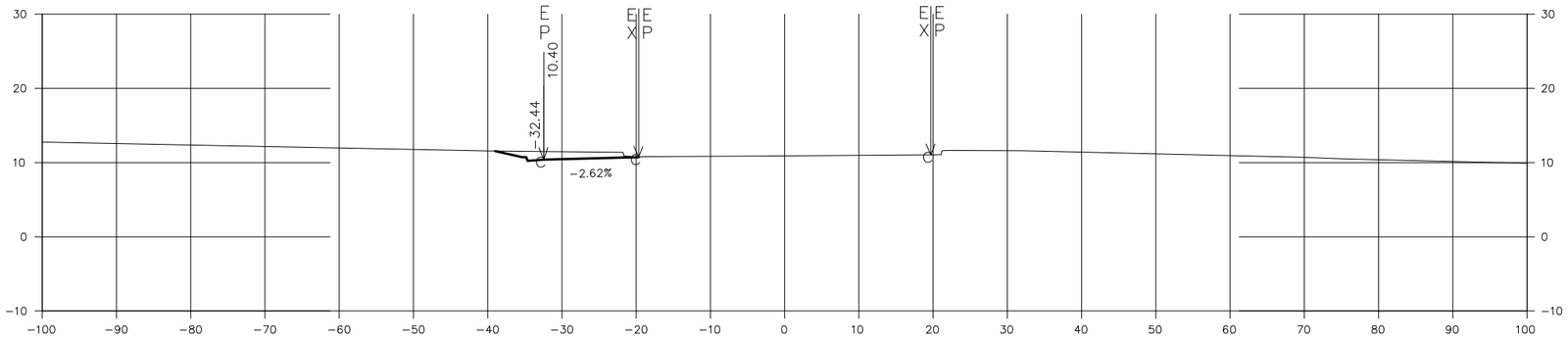
STA 1432+80.00

Sta 1432+80.00 TO Sta 1432+90.00

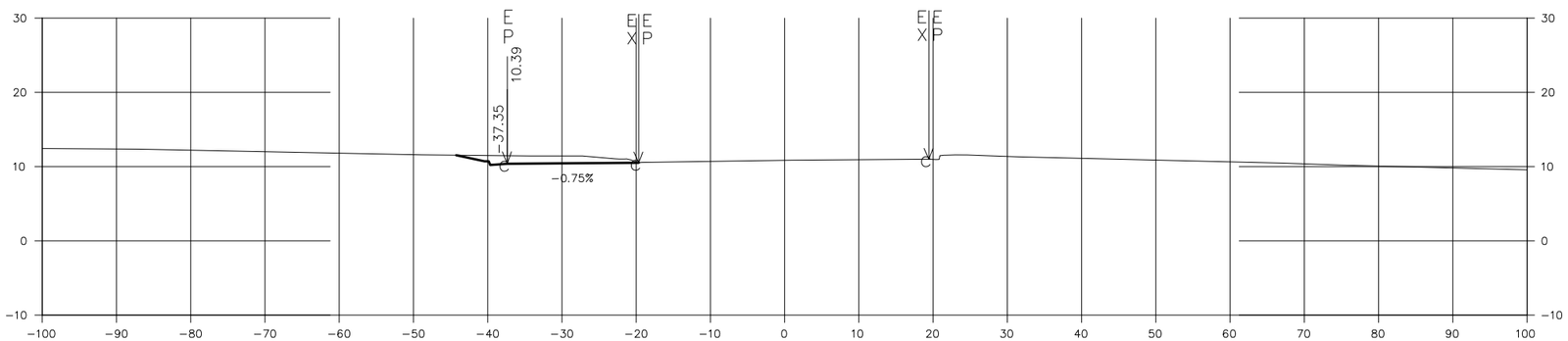
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 10 0 10 SCALE (FEET) VERT 10 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	47



STA 1433+10.00



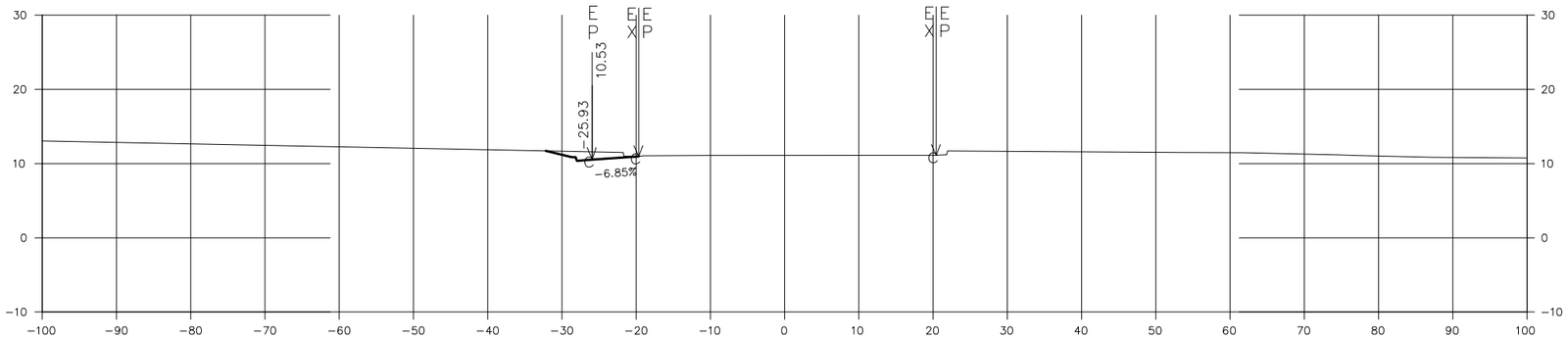
STA 1433+00.00

Sta 1433+00.00 TO Sta 1433+10.00

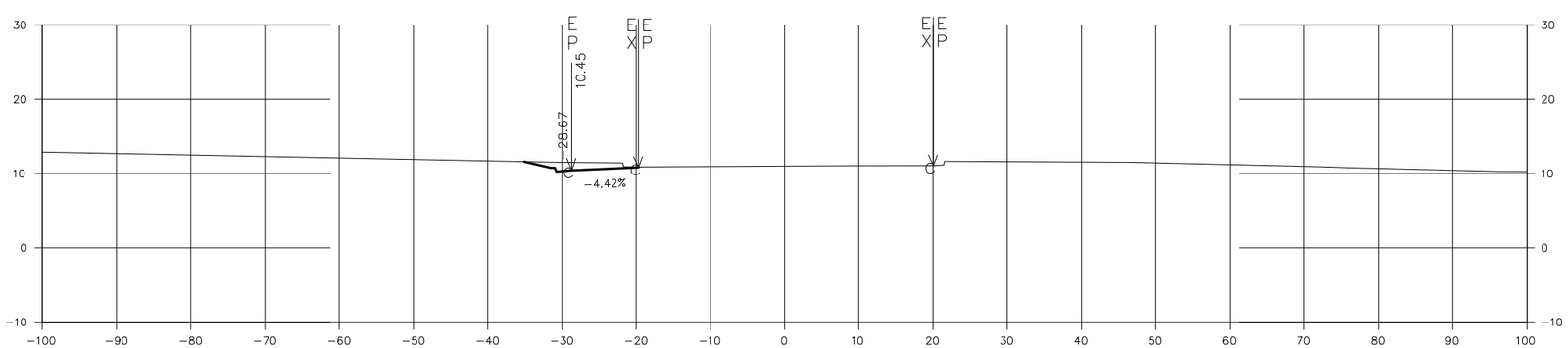
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 10 0 10 SCALE (FEET) VERT 10 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	48



STA 1433+30.00



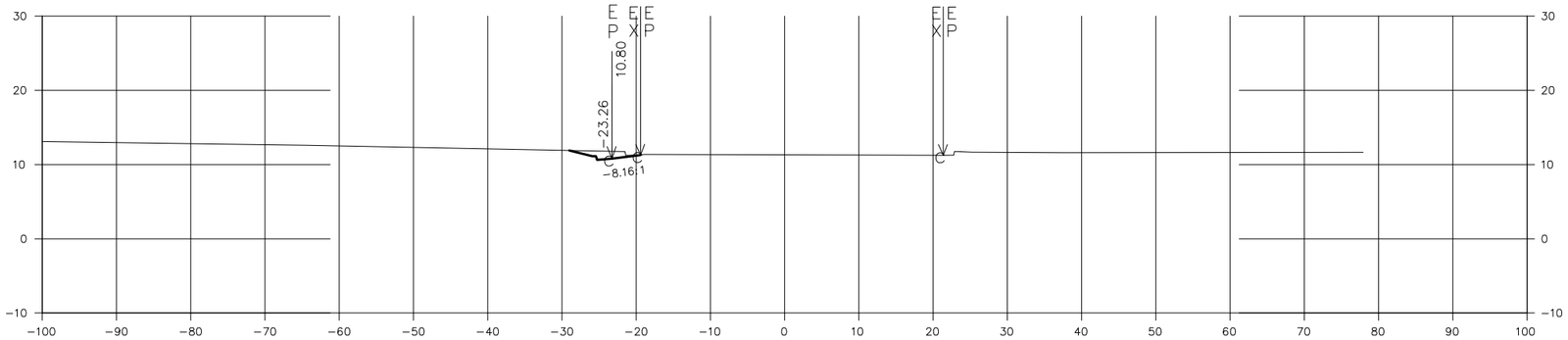
STA 1433+20.00

Sta 1433+20.00 TO Sta 1433+30.00

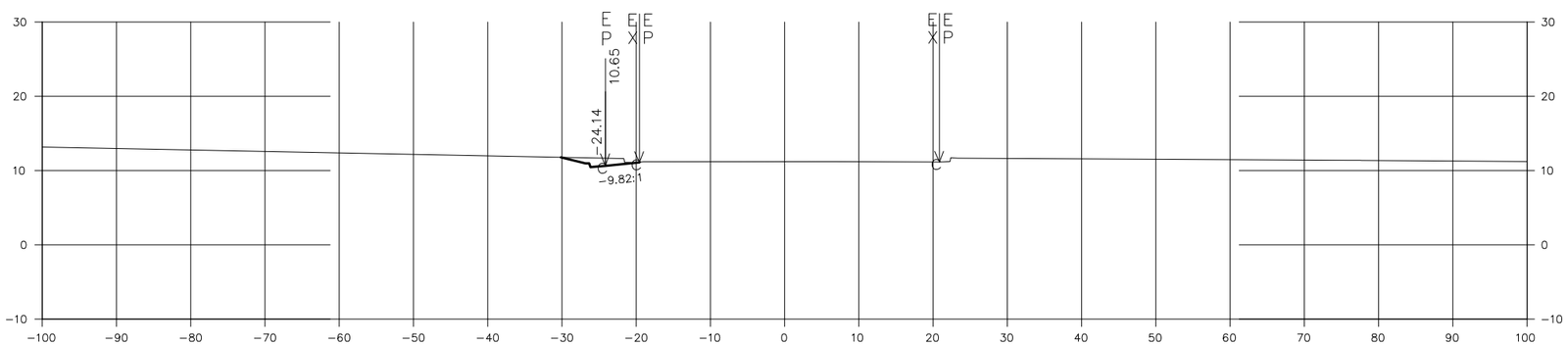
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 10 0 10 SCALE (FEET) VERT 10 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	49



STA 1433+50.00



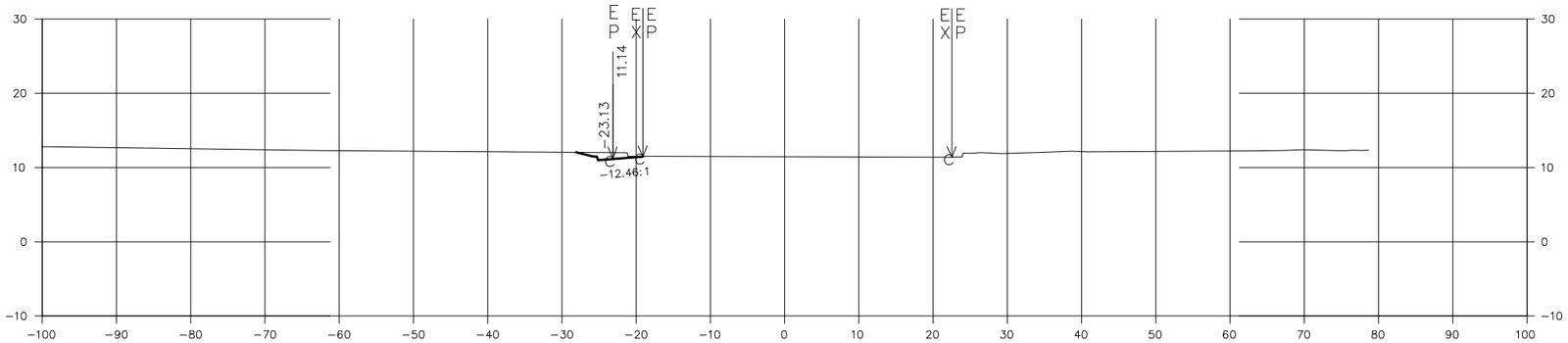
STA 1433+40.00

Sta 1433+40.00 TO Sta 1433+50.00

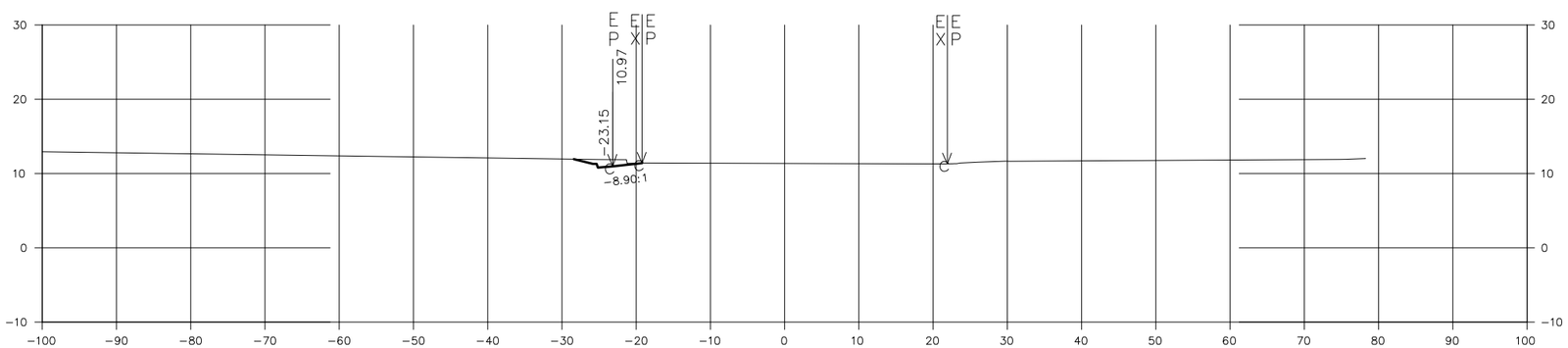
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	50



STA 1433+70.00



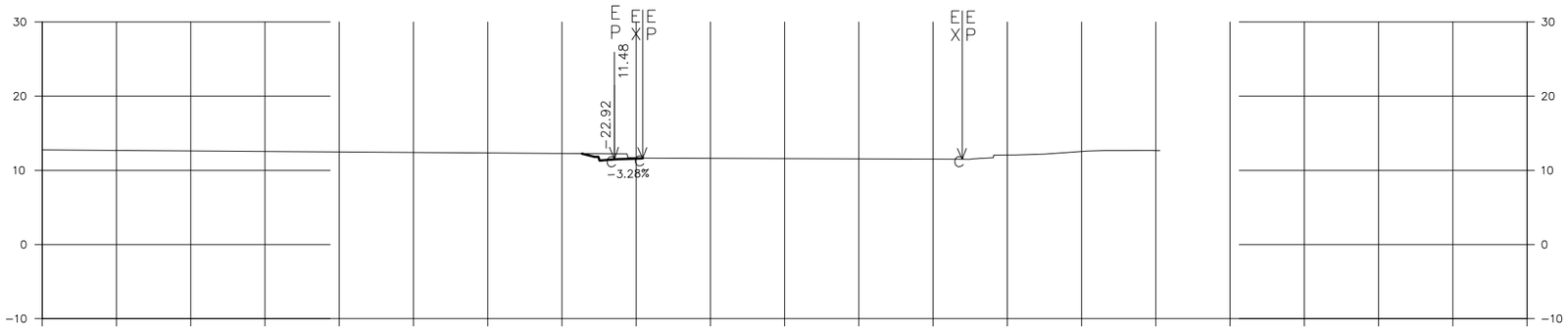
STA 1433+60.00

Sta 1433+60.00 TO Sta 1433+70.00

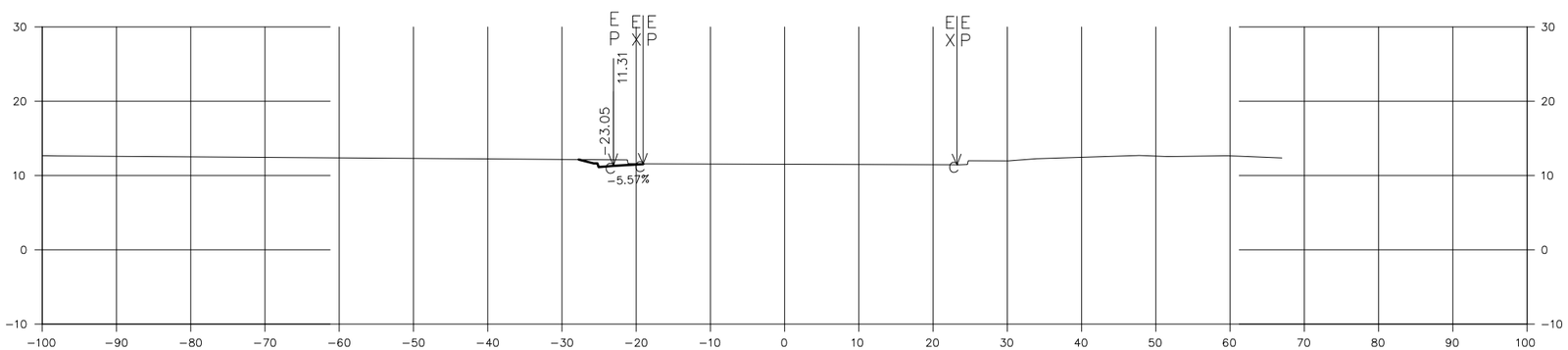
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	51



STA 1433+90.00



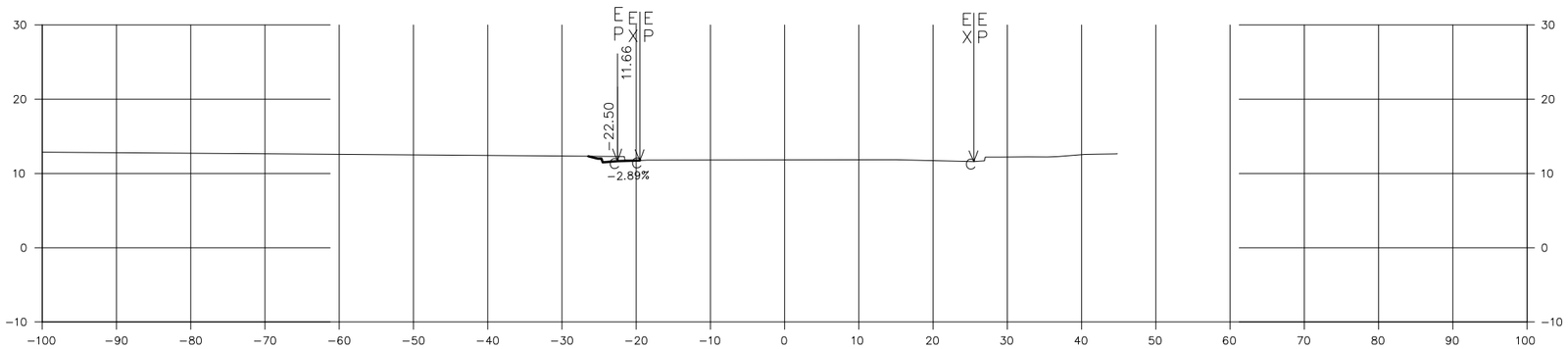
STA 1433+80.00

Sta 1433+80.00 TO Sta 1433+90.00

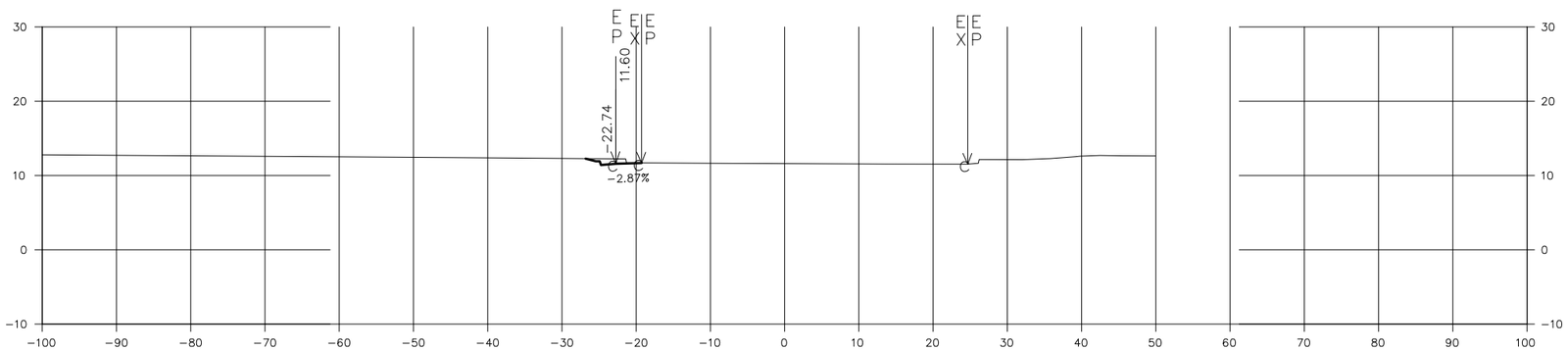
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	HORIZ 10 0 10 SCALE (FEET) VERT 10 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	52



STA 1434+10.00



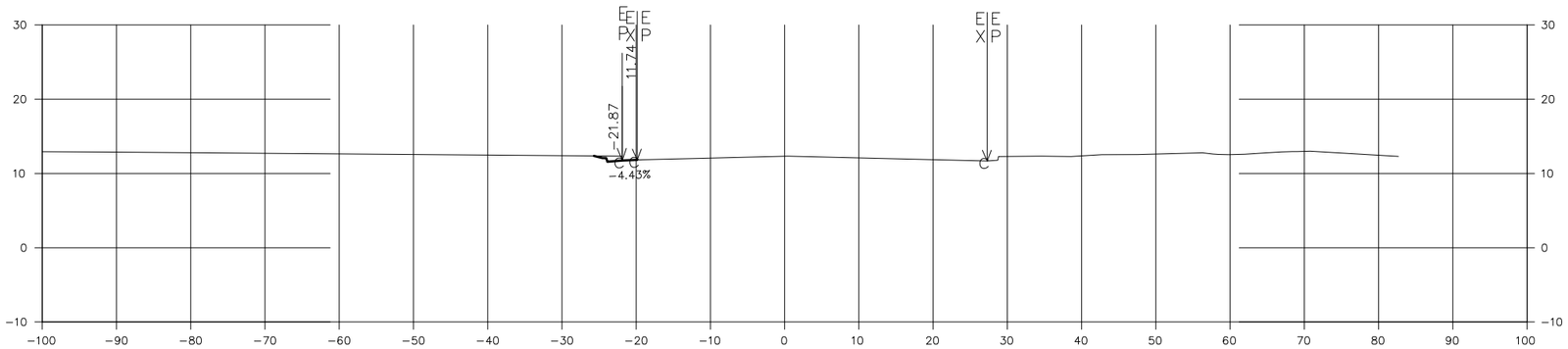
STA 1434+00.00

Sta 1434+00.00 TO Sta 1434+10.00

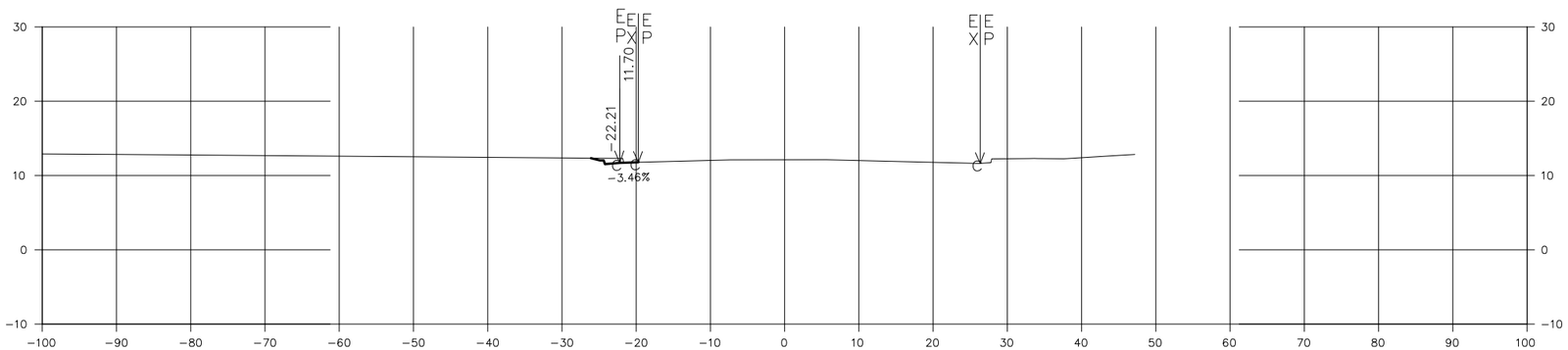
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	53



STA 1434+30.00



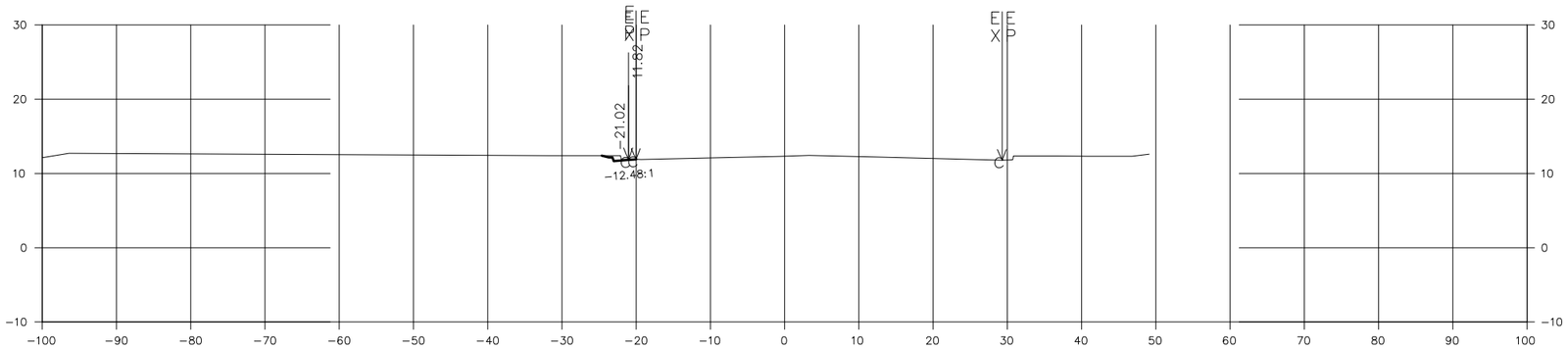
STA 1434+20.00

Sta 1434+20.00 TO Sta 1434+30.00

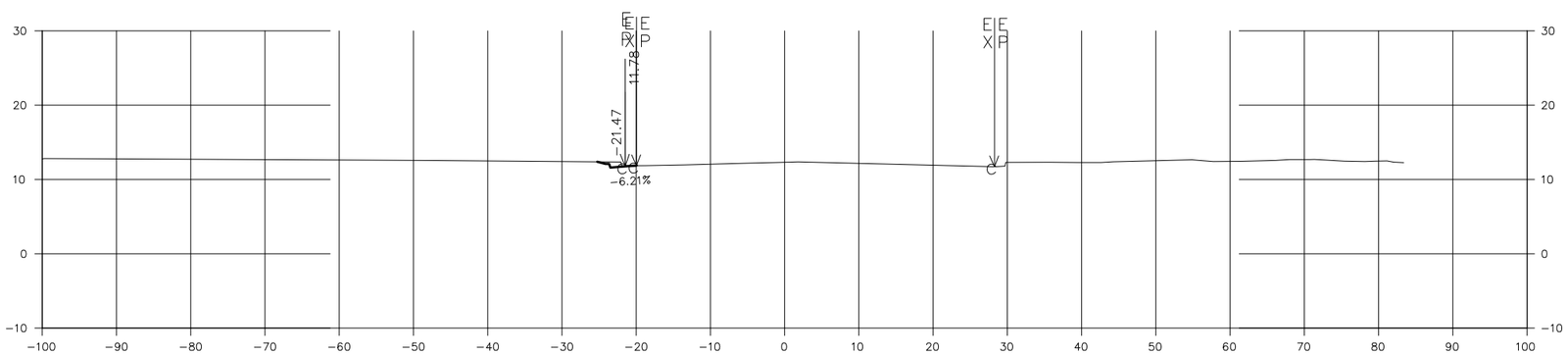
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	54



STA 1434+50.00



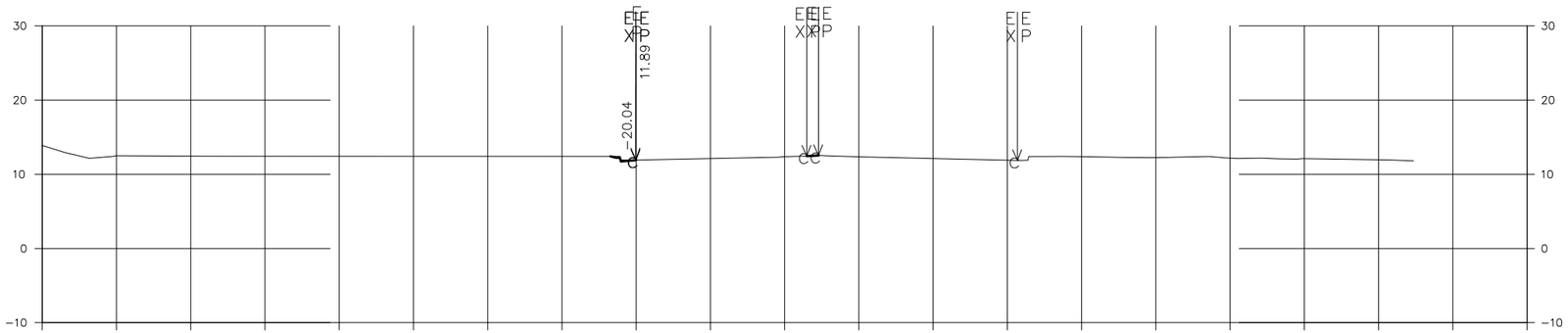
STA 1434+40.00

Sta 1434+40.00 TO Sta 1434+50.00

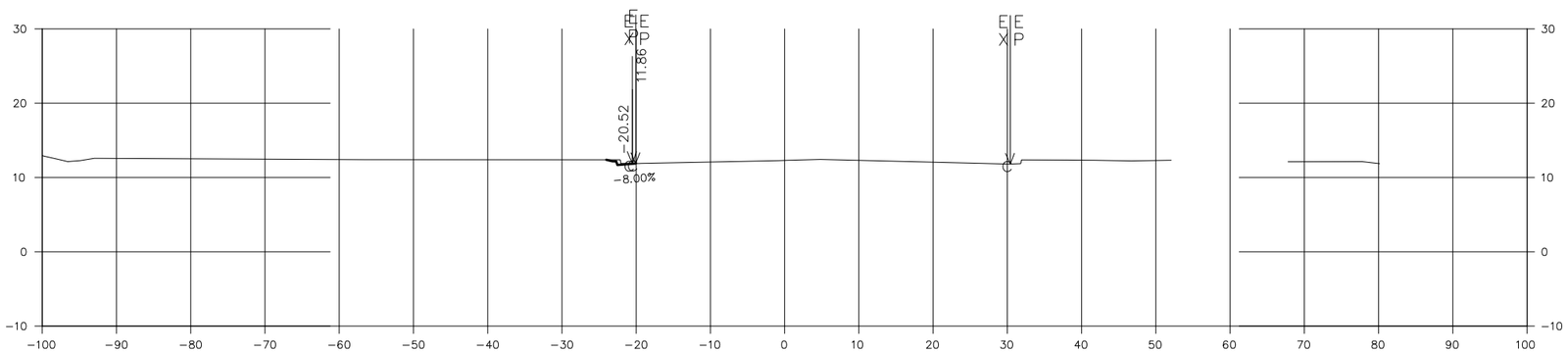
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	55



STA 1434+68.54



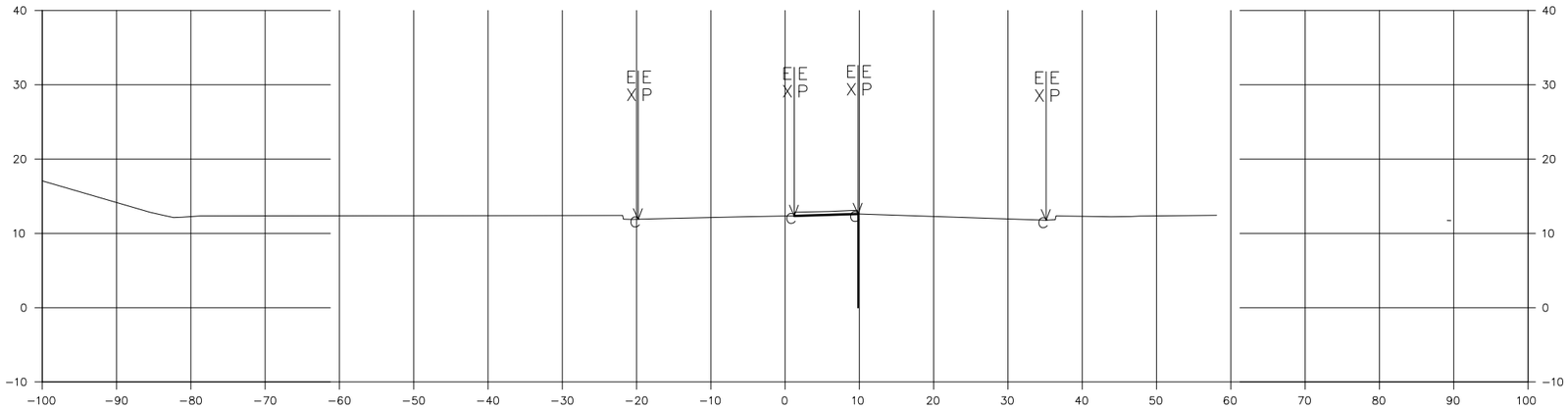
STA 1434+60.00

Sta 1434+60.00 TO Sta 1434+68.54

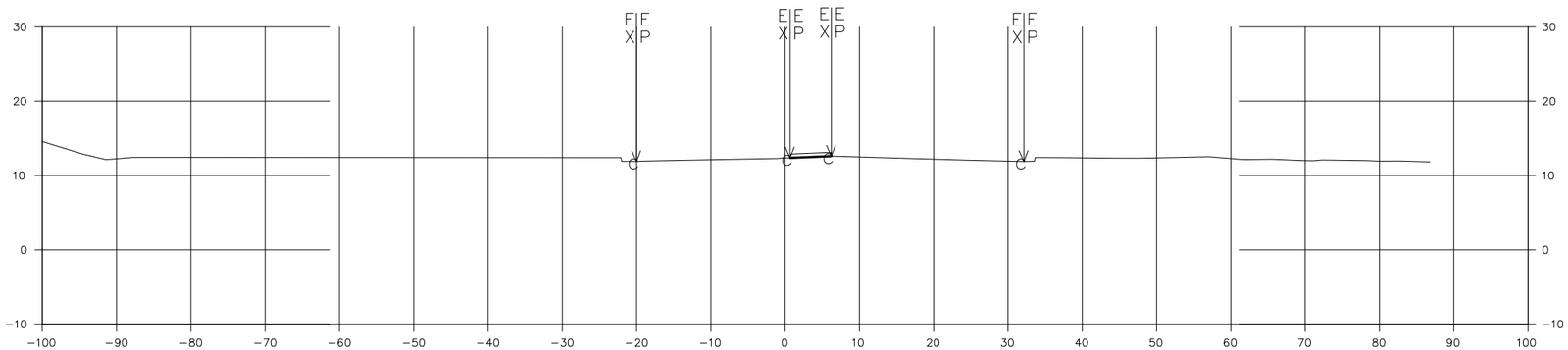
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	56



STA 1435+00.00



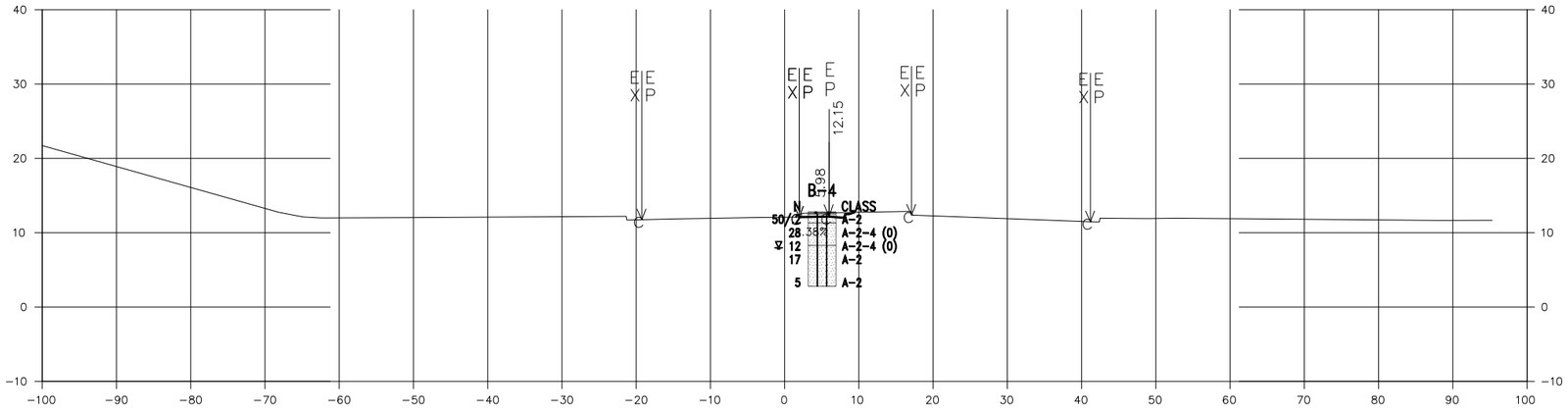
STA 1434+75.00

Sta 1434+75.00 TO Sta 1435+00.00

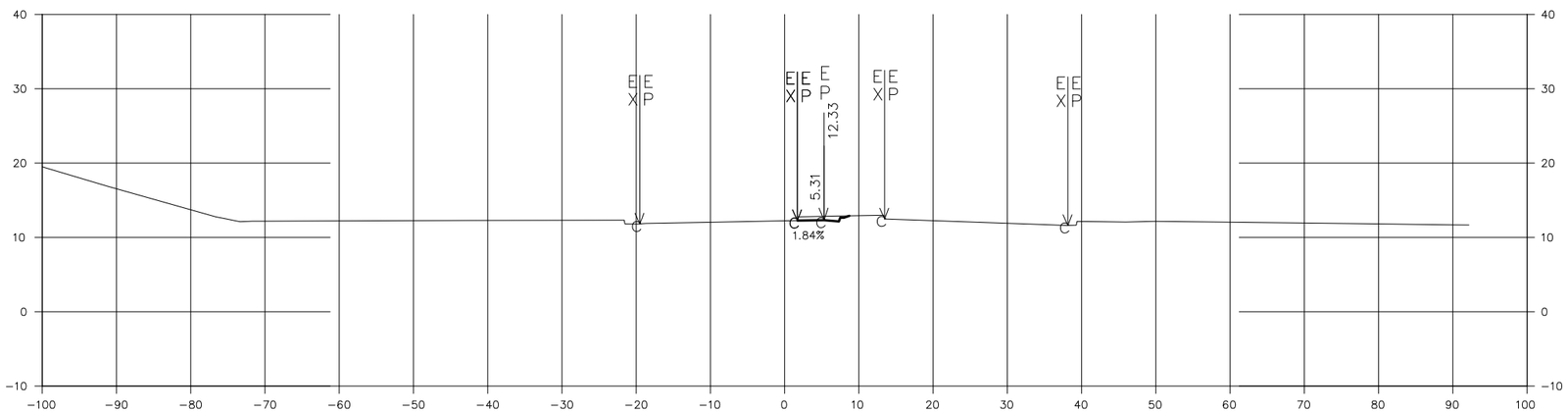
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	57



STA 1435+50.00



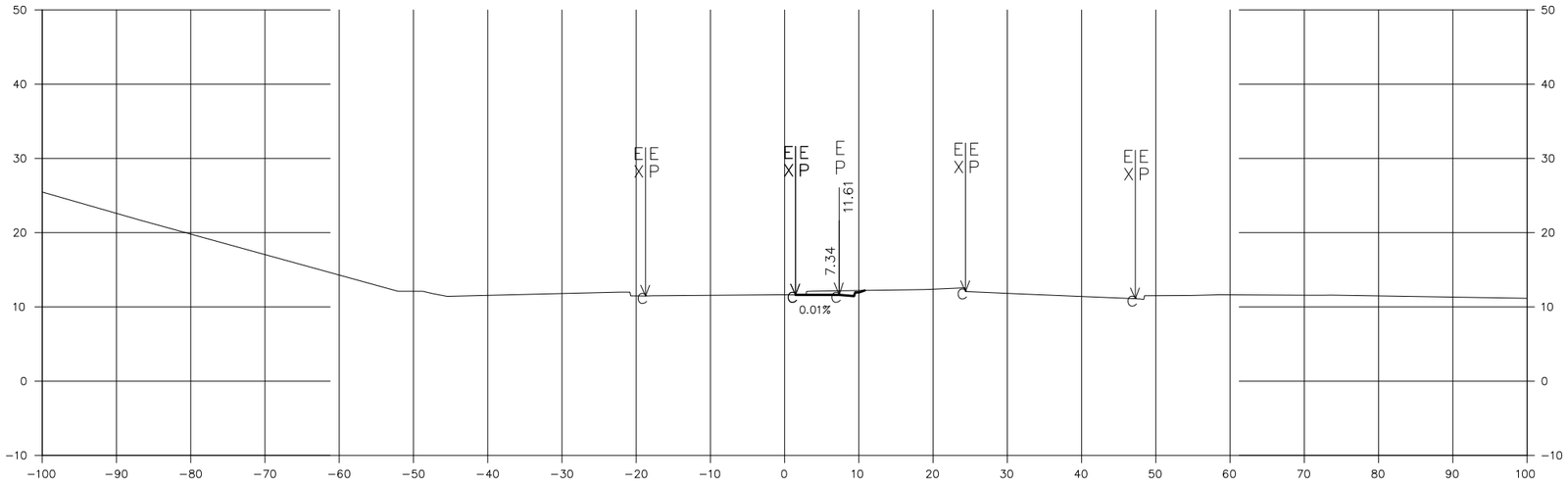
STA 1435+25.00

Sta 1435+25.00 TO Sta 1435+50.00

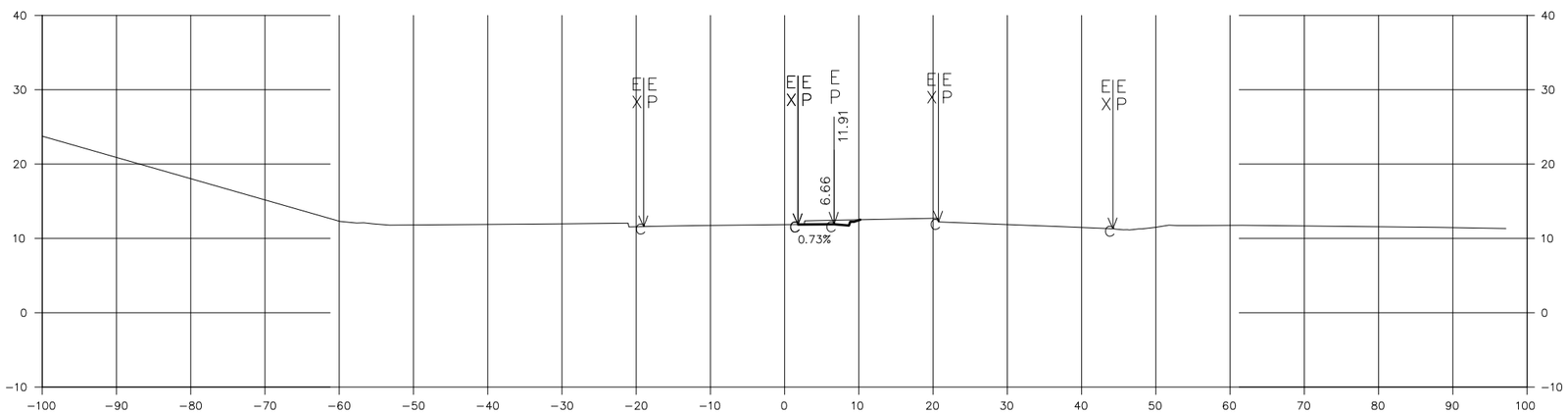
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	58



STA 1436+00.00



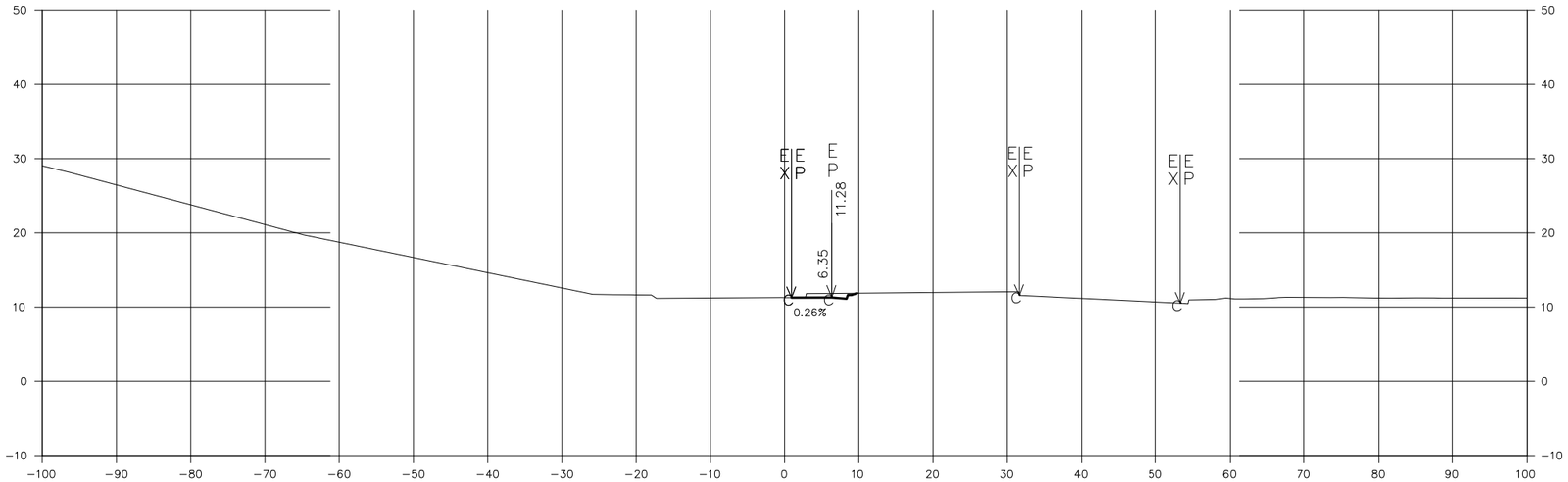
STA 1435+75.00

Sta 1435+75.00 TO Sta 1436+00.00

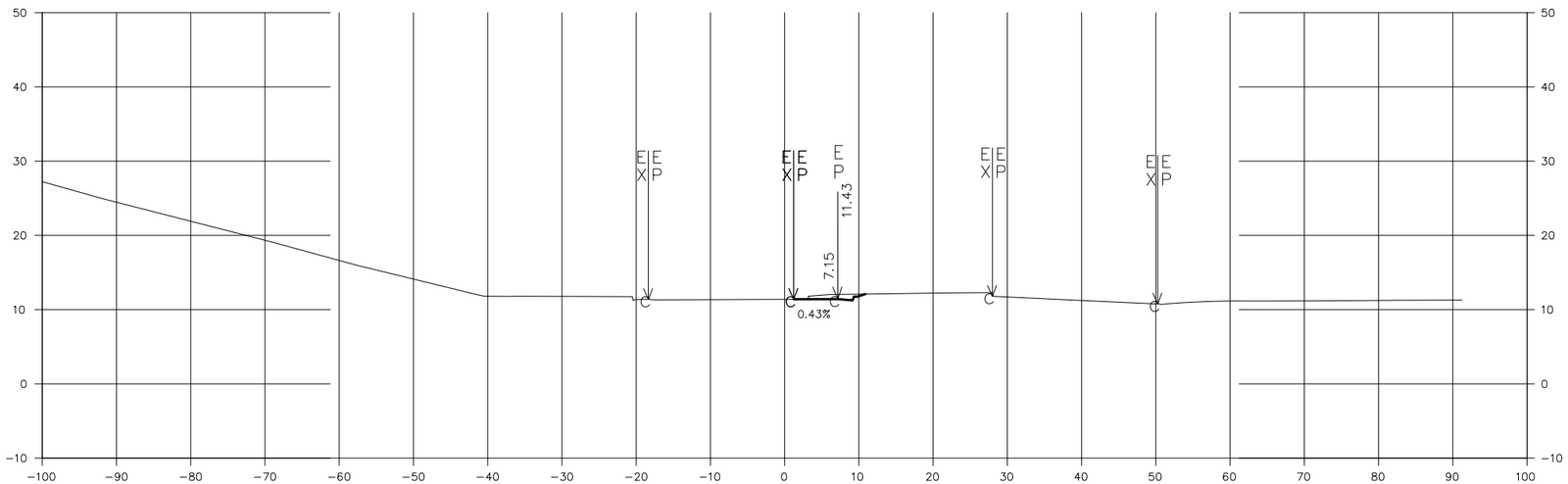
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	59



STA 1436+50.00



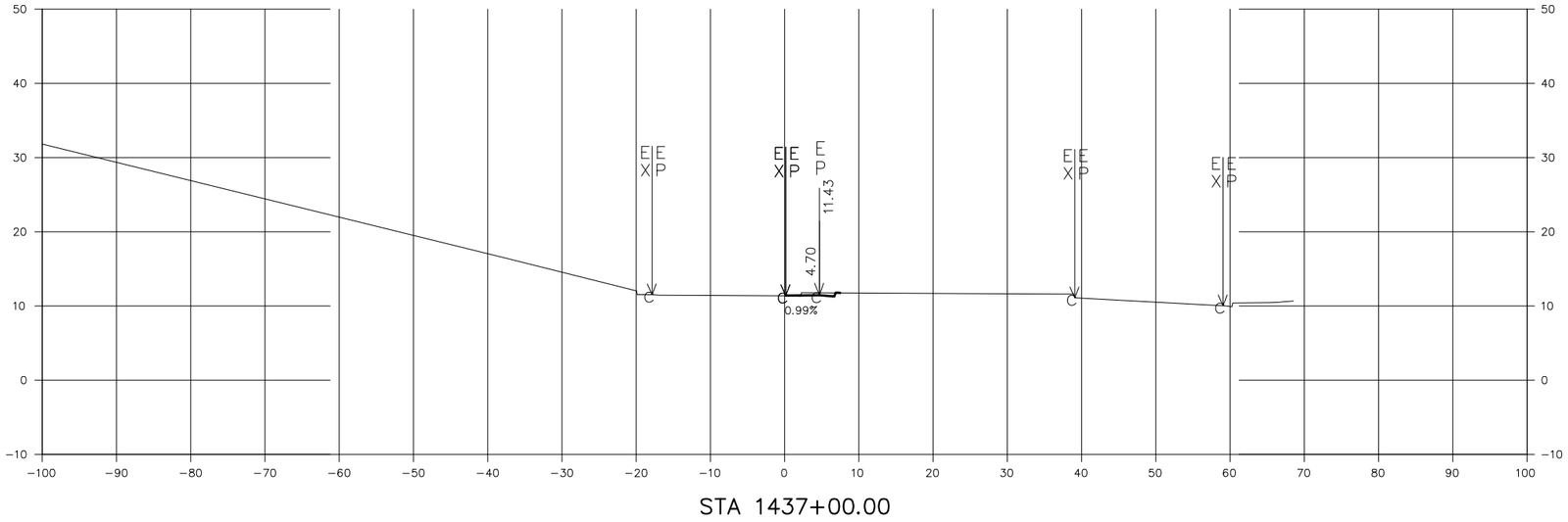
STA 1436+25.00

Sta 1436+25.00 TO Sta 1436+50.00

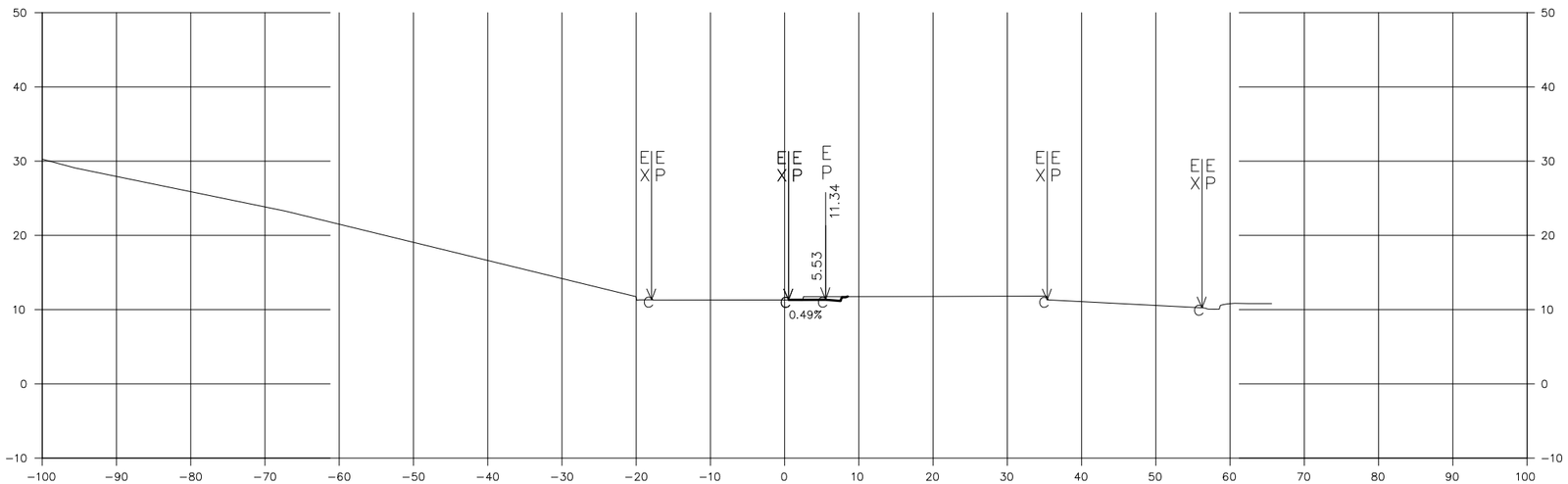
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	60



STA 1437+00.00



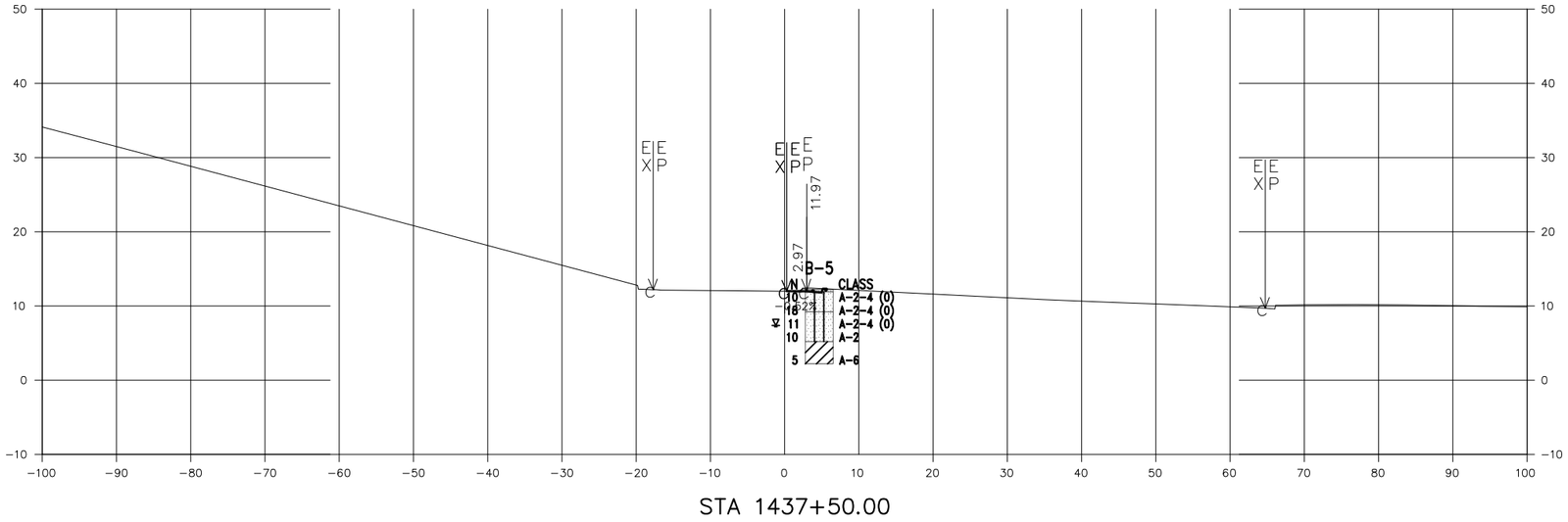
STA 1436+75.00

Sta 1436+75.00 TO Sta 1437+00.00

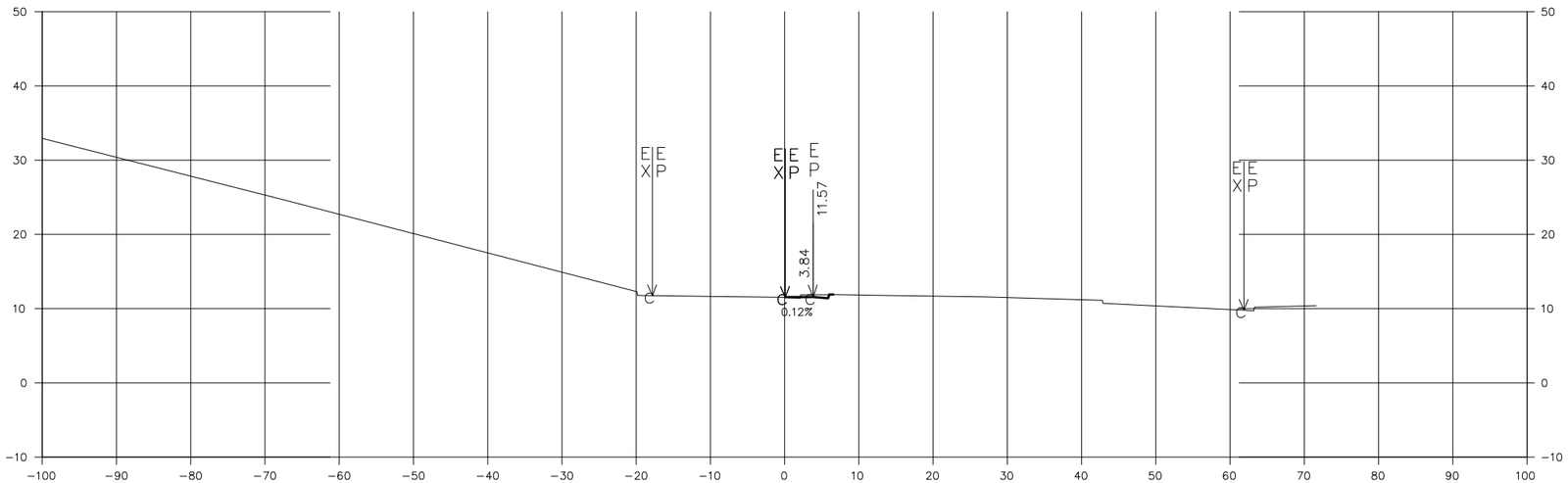
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	61



STA 1437+50.00



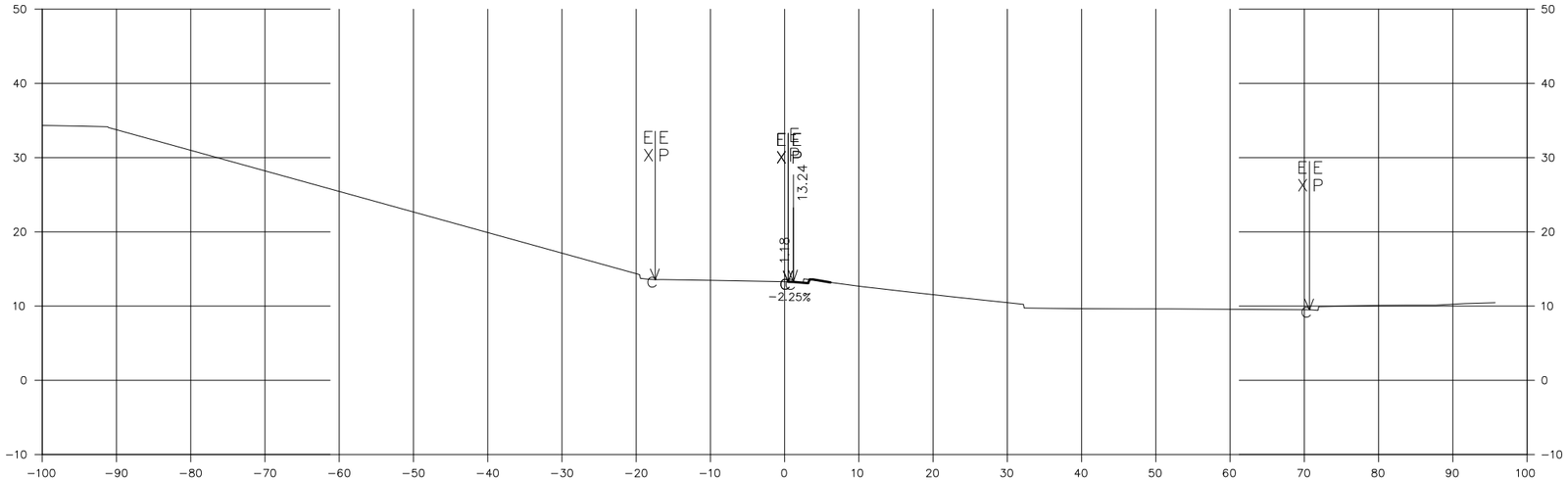
STA 1437+25.00

Sta 1437+25.00 TO Sta 1437+50.00

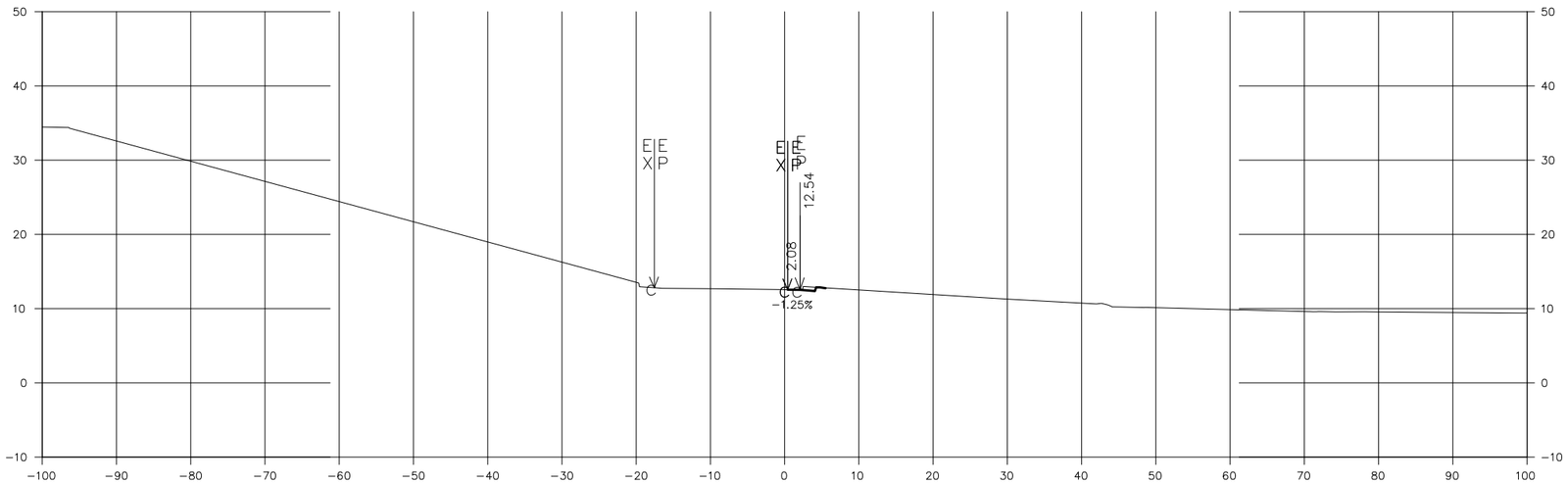
RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	62



STA 1438+00.00



STA 1437+75.00

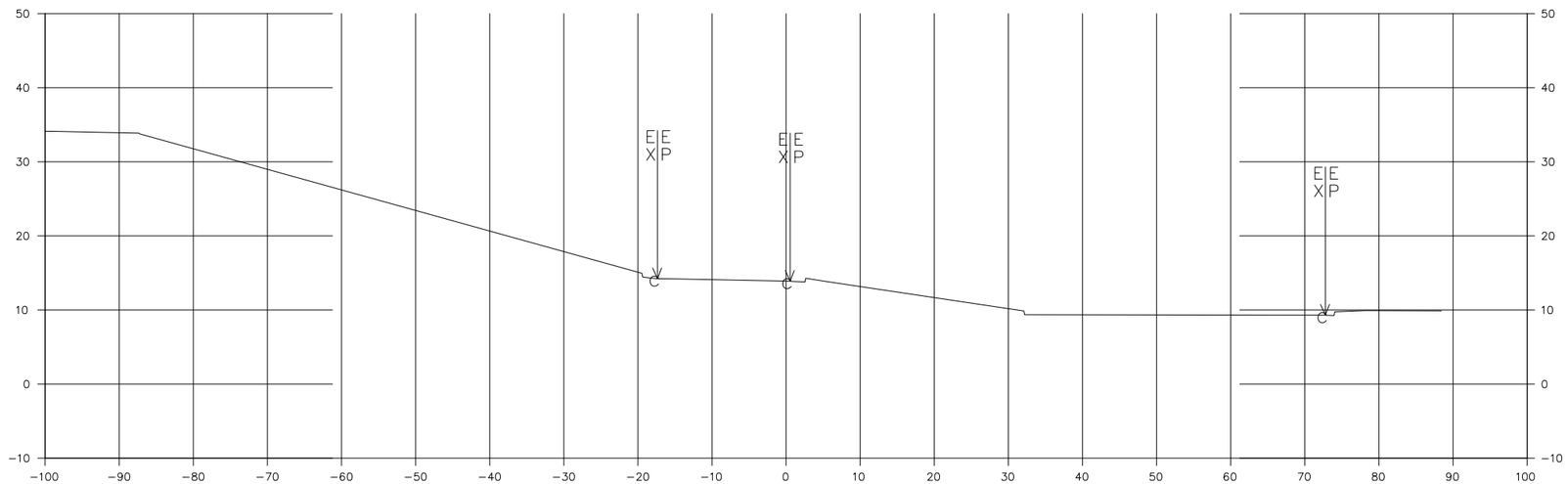
Sta 1437+75.00 TO Sta 1438+00.00

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP

CROSS SECTIONS

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
NH-AL06( )	2016	63

Sta 1438+19.00 TO Sta 1438+19.00



STA 1438+19.00

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION SW REGION DESIGN SECTION	10 HORIZ 0 10 SCALE (FEET) 10 VERT 0 10	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:	_____			CROSS SECTIONS	EB RAMP