

SUPERSTRUCTURE

FLOOR CROWN:

SUPERELEVATION:

VERT CLEAR: OPEN

SIDEWALKS:

EXP JT MATL:

DRAINS:

SPAN NO	FLOOR DEPTH AND MATL	WEAR SURF DEPTH AND MATL	CURBS HEIGHT AND MATL	RAILING					CLEARANCE	
				TYPE	NO	MATL	HT	POSTS	BETW CURBS	BETW RAILS

STRINGERS - BEAMS OR GIRDERS

SPAN NO	MATL	SPAN C C BEARS	NO OF BEAMS	SPACING	SECTION		TYPE EXP	STD DWG	DESIGN RATING
					OUTS STRING	INS STRING			

TRUSSES

WHEN MADE:		YIELD POINT:		FABRICATED BY:			
DESIGN RATING:		FLOOR:		TRUSSES:			
SPAN NO	MATL - KIND TYPE CONNS	SPAN C C BEARS	NO AND LGTH OF PANELS	DIST C C TRUSSES	DEPTH AT CENTER	TYPE EXP	STD DWG

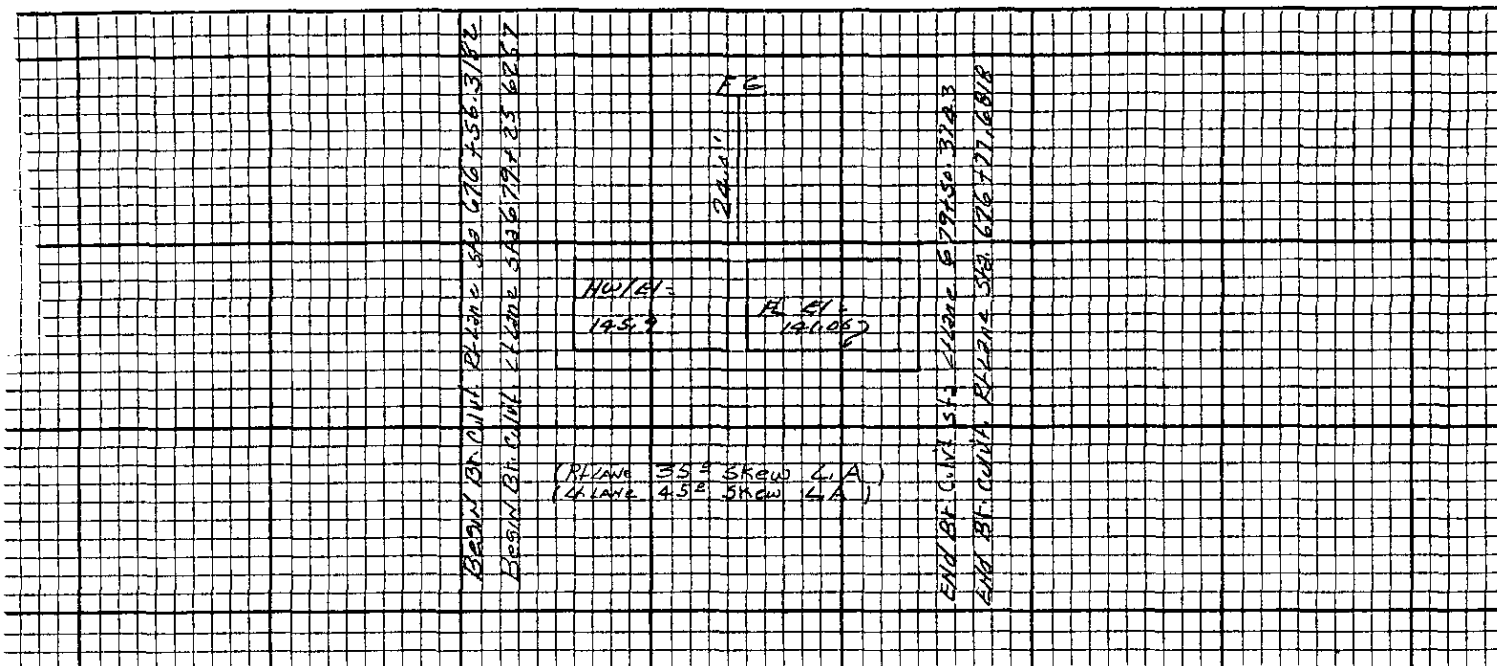
SUBSTRUCTURE

BENT NO	TYPE AND MATL	HT GRADE TO TOP CAP	HT TOP CAP TO BOTY FOOT	NO AND LGTH PILES	FOUNDATION MATL	DIST GRADE TO GROUND
REAR ABUT						
FWD						
PIER OR BENT						

DL 4.65

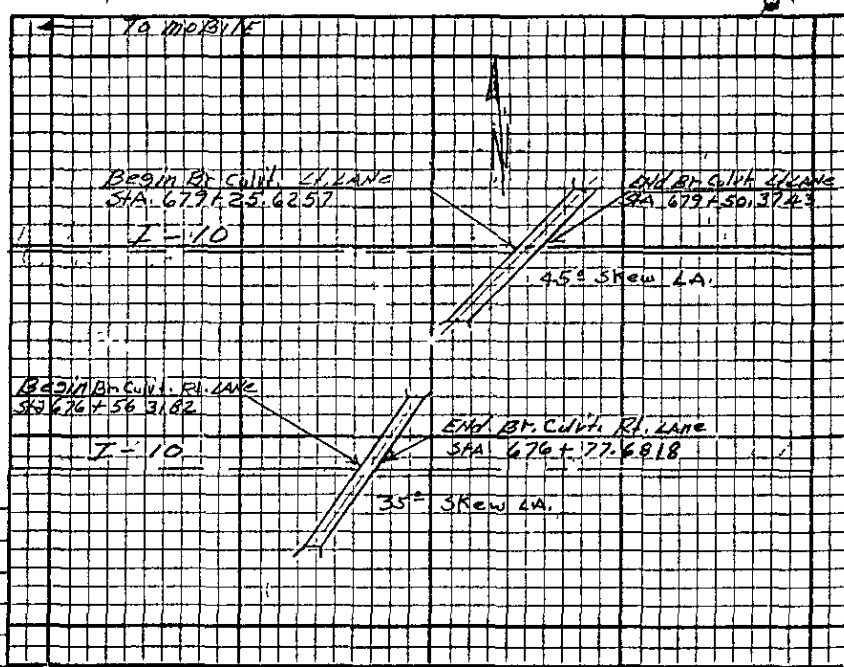
BIN: 9855 (CULVERT)

BRIDGE NO	COUNTY	FED RT	U S HWY	PROJECT NO	TYPE	STRENGTH				ROADWAY				CLEARANCE			
						H10	H10	H15	H20	18	18	20	21	22	24	24+	12
10 02 10.8	Baldwin			I-10-1(21)35	R.C.C.												



GENERAL		ELEVATION OF STRUCTURE		SCALE H- 1" = 10' V- 1" = 10'	
NAME OF BRIDGE:		MIN DESIGN RATING:	H15 To H20 S14 FOR.		
OVER. STREAM R R OR HIGHWAY:	Stream	OPERATING RATING:			
WHEN BUILT:	1969	APPROACH PAVT TYPE:	Asphalt		
MAINT BY:	State	PAVT. WIDTH:	2 @ 24'	SHOULDER WIDTH:	2 @ 40'
NO AND LENGTH OF SPANS:	C D 8' X 5' X 289'	SIGHT DIST VERT:			
REMARKS:	RT & LT Rdwy				

PHOTOGRAPH



WATERWAY DATA	
DIST LOW BRIDGE TO HW DRAINAGE AREA:	GRADE TO LOW BRIDGE:
CHARACTER AND CONSTANT CHANNEL DEPTH:	WIDTH BETW BANKS:
NATURE OF BOTTOM:	
CONDITION OF BANKS:	
DESCRIP OF PROTECTIVE WORKS:	
DOES ALL FLOOD PASS STRUCTURE?	IF NOT, WHERE?
REMARKS:	

LOCATION SKETCH SCALE 1" = 300'

Received

JUL - 8 1968

BUREAU OF BRIDGES
HIGHWAY DEPARTMENT



STATE OF ALABAMA
HIGHWAY DEPARTMENT
MONTGOMERY, ALABAMA 36104

July 8, 1968

H L NELSON
STATE HIGHWAY DIRECTOR
BLUE BARBER
ASSISTANT HIGHWAY DIRECTOR

Handwritten initials

Plotted 8-69 J.V.

*Foundation Bearings
Baldwin Co*

Mr. W. F. Land
Interstate Engineer
Bureau of Interstate
OFFICE

Re: I-10-1(21) Baldwin County
Spanish Fort to Loxley

Dear Sir:

Attached are the results of foundation investigation for culverts on the above project.

This investigation was performed by the Fifth Division and this office concurs in their recommendations.

Yours very truly,

D. B. Flournoy, Engineer
of Materials and Tests

BY Edward Eiland
Edward Eiland, Assistant
Engineer of Materials
and Tests

EE:sre

cc: Mr. W. D. Crawford
Mr. B. E. Higgins
Mr. M. E. Ming
File

Attachments



STATE OF ALABAMA
HIGHWAY DEPARTMENT

FIFTH DIVISION
OFFICE OF DIVISION ENGINEER
P O BOX 7158
MOBILE, ALABAMA 36607

1701 Belt Line Highway, North
Telephone 471-3441

H L NELSON
STATE HIGHWAY DIRECTOR
BLUE BARBER
ASSISTANT HIGHWAY DIRECTOR

July 1, 1968

Mr. D. B. Flournoy, Engineer
Bureau of Materials & Tests
State Highway Department
Montgomery, Alabama

Re: I-10-1(21)
Spanish Fort - Loxley
Baldwin County

Dear Sir:

Attached are several copies of results of soil borings taken at Culvert Sites shown on plans for the above numbered project.

Most of the culverts (with the exceptions shown below) are located in muck sections where muck will be removed and underwater backfill placed prior to construction of the culverts and will not require undercutting and backfilling for Culvert Excavation.

The following Culvert Sites will require undercutting and foundation backfill.

<u>Station</u>		<u>Average depth undercut required</u>
671+78	Lt. Lane	2.0 ft.
✓726+00	Rt. Lane	2.0 ft.
✓726+30	Lt. Lane	2.0 ft.
12+55	U.S. 90 connection	5.0 ft.

It is recommended that foundation backfill be set up under Item 108-D, Local Material for Bridge Culverts and Item 109-B, Local Material for Culverts and Minor Structures.

Yours very truly,

W. R. Glass
Acting Division Engineer

By *T. G. Drinkard*
T. G. Drinkard
Assistant Division Engineer

TGD/dr
Attach.
cc: File (2)

Mr. D.B. Flournoy, Engineer
Bureau of Materials and Tests
State Highway Department
Montgomery, Ala.

Re: I-10-1(99)21
Spanish Fort - Loxley
Baldwin County

Dear Sir:

Listed below are the results of Soundings made at the
Culvert Sites on the above Project.

Station 441+30 275' Left Centerline

Elevation of Hub - 7.2

7.2 to 5.2	Very soft gray sandy muck and water
+5.2 to -2.8	Dense fine to medium grained sand
-2.8 to -6.8	Soft gray silty clay
-6.8 to -17.8	Loose gray silty sand with silty clay layers

Station 441+30 Centerline

Elevation of Hub - 4.0

4.0 to -3.0	Very soft gray silty clay, muck and water
-3.0 to -8.0	Dense medium grained sand
-8.0 to -21.0	Medium stiff gray silty clay and fine sand

Station 441+30 135' Right Centerline

Elevation of Hub - 4.3

4.3 to 1.3	Very soft black muck and water
1.3 to -1.7	Loose fine gray silty sand with small amount Organic Matter.
-1.7 to -17.7	Dense gray medium grained silty sand
-17.7 to -20.7	Medium stiff gray silty clay

Station 512+80 Centerline

Elevation of Hub - 48.3

48.3 to 46.3	Very loose brown silty sand with small amount Organic Matter
46.3 to 44.3	Very soft black sandy muck
44.3 to 33.3	Dense medium grained sand with soft clay layer
33.3 to 26.3	Soft gray silty marine clay
26.3 to 23.3	Stiff blue marine clay with few small gravel

Station 512+80 240' Right CenterlineElevation of Hub - 44.6

44.6 to 42.6	Soft brown sand clay and muck
42.6 to 40.6	Medium dense brown sand clay
40.6 to 30.6	Loose gray medium to fine silty sand
30.6 to 19.6	Soft gray silty marine clay

Station 512+80 200' Left CenterlineElevation of Hub - 50.5

50.5 to 46.5	Soft black muck
46.5 to 41.5	Loose gray silty sand with silty clay layers
41.5 to 25.5	Medium stiff gray silty marine clay

Station 532+60 160' Right CenterlineElevation of Hub - 44.6

44.6 to 38.6	Very soft black muck
38.6 to 32.6	Loose fine gray silty sand
32.6 to 19.6	Medium dense gray and brown sand

Station 532+60 10' Left CenterlineElevation of Hub - 45.3

45.3 to 39.3	Very soft black muck
39.3 to 33.3	Loose fine gray silty sand
33.3 to 28.3	Dense brown sand with few pea gravel
28.3 to 20.3	Medium dense tan and yellow sand clay

Station 532+60 155' Left CenterlineElevation of Hub - 46.2

46.2 to 40.2	Very soft black muck
40.2 to 36.2	Loose gray silty sand
36.2 to 21.2	Dense coarse to medium grained sand

Station 654+12 85' Right Centerline Left LaneElevation of Hub - 143.1

143.1 to 136.1	Medium dense brown sand clay
136.1 to 129.1	Dense tan fine silty sand
129.1 to 124.1	Dense tan medium to coarse sand with small amount clay layers
124.1 to 118.1	Soft pink clay

<u>Station 654+12</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>140.0</u>
140.0 to 131.0	Very soft black muck
131.0 to 124.0	Dense tan silty sand
124.0 to 115.0	Dense yellow and brown sand with clay layers
<u>Station 654+12</u>	<u>90' Left Centerline Left Lane</u>
Elevation of Hub -	<u>140.3</u>
140.3 to 133.3	Very soft black muck
133.3 to 131.3	Soft gray sand clay
131.3 to 128.3	Medium dense brown sand clay
<u>Station 654+90</u>	<u>Centerline Right Lane</u>
Elevation of Hub -	<u>138.0</u>
138.0 to 131.0	Very soft black muck
131.0 to 124.0	Dense gray silty sand
124.0 to 113.0	Medium dense gray and yellow sand clay
<u>Station 654+90</u>	<u>90' Right Centerline Right Lane</u>
Elevation of Hub -	<u>137.0</u>
137.0 to 131.0	Very soft black muck
131.0 to 129.0	Dense gray silty sand
129.0 to 125.0	Dense tan sand
<u>Station 671+78</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>148.0</u>
148.0 to 146.5	Black loamy top soil
146.5 to 143.0	Medium stiff brown wet silty clay
143.0 to 138.0	Medium dense tan sand clay
138.0 to 123.0	Dense red and tan medium grained sand
<u>Station 671+78</u>	<u>90' Right Centerline Left Lane</u>
Elevation of Hub -	<u>146.7</u>
146.7 to 144.7	Black loamy top soil
144.7 to 140.7	Medium stiff brown silty clay
140.7 to 136.7	Medium dense gray and red sand clay
136.7 to 121.7	Dense red and tan medium grained sand
<u>Station 671+78</u>	<u>80' Left Centerline Left Lane</u>
Elevation of Hub -	<u>149.0</u>
149.0 to 148.0	Black loamy top soil
148.0 to 143.0	Medium stiff brown silty clay
143.0 to 124.0	Dense tan grained sand

Station 673+70Centerline Right Lane

Elevation of Hub

144.8

144.8 to 137.8
 137.8 to 132.8
 132.8 to 127.8
 127.8 to 119.8

Very soft black muck and silt
 Medium dense gray sand clay
 Loose yellow coarse grained sand
 Dense tan coarse grained sand

Station 673+70125' Right Centerline Right Lane

Elevation of Hub -

142.8

142.8 to 134.8
 134.8 to 130.8
 130.8 to 125.8
 125.8 to 117.8

Very soft black muck
 Medium dense gray sand clay
 Loose tan medium grained sand
 Dense tan medium to coarse sand

Station 673+70110' Left Centerline Right Lane

Elevation of Hub -

146.3

146.3 to 136.3
 136.3 to 132.3
 132.3 to 121.3

Very soft black muck
 Medium dense gray sand clay
 Loose tan med grained sand

Station 676+65110' Left Centerline Right Lane

Elevation of Hub -

141.7

141.7 to 132.7
 132.7 to 120.7
 120.7 to 116.7

Very soft black muck
 Dense gray and tan medium grained sand
 Soft yellow silty clay

Station 676+65Centerline Right Lane

Elevation of Hub -

141.2

141.2 to 131.2
 131.2 to 122.2
 122.2 to 116.2

Very soft black muck
 Dense gray and tan medium grained sand
 Soft yellow silty clay

Station 676+65130' Right Centerline Right Lane

Elevation of Hub -

141.1

141.1 to 131.1
 131.1 to 129.1

Very soft black muck
 Dense gray fine to medium grained sand

Station 679+40130' Right Centerline Left Lane

Elevation of Hub -

143.8

143.8 to 132.8
 132.8 to 121.8
 121.8 to 118.8

Very soft black muck
 Dense gray medium grained sand
 Soft yellow silty clay

<u>Station 679+40</u>	<u>130' Left Centerline Left Lane</u>
Elevation of Hub -	<u>146.0</u>
146.0 to 135.0	Very soft black muck
135.0 to 132.0	Dense gray and tan medium grained sand
<u>Station 679+40</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>144.9</u>
144.9 to 134.9	Very soft black muck
134.9 to 132.9	Dense gray medium grained sand
<u>Station 726+00</u>	<u>Centerline Right Lane</u>
Elevation of Hub -	<u>118.3</u>
118.3 to 116.3	Soft black muck
116.3 to 110.3	Dense fine white sand
110.3 to 108.3	Dense coarse tan and yellow sand with pea gravel
<u>Station 726+00</u>	<u>120' Right Centerline Right Lane</u>
Elevation of Hub -	<u>117.6</u>
117.6 to 114.6	Soft black muck
114.6 to 111.6	Dense Fine white sand
<u>Station 726+00</u>	<u>120' Left Centerline Right Lane</u>
Elevation of Hub -	<u>119.0</u>
119.0 to 116.0	Soft black sandy muck
116.0 to 111.0	Dense fine gray sand
<u>Station 726+30</u>	<u>115' Right Centerline Left Lane</u>
Elevation of Hub -	<u>119.9</u>
119.9 to 116.9	Soft black muck
116.9 to 114.9	Soft gray silty clay
114.9 to 112.9	Medium dense gray sand clay
112.9 to 110.9	Dense fine white sand
<u>Station ⁷²⁶722+30</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>120.2</u>
120.2 to 117.2	Soft black muck
117.2 to 115.2	Loose tan sand with traces of Organic Matter
115.2 to 113.2	Dense fine white sand
113.2 to 110.2	Dense coarse white sand with pea gravel
<u>Station 726+30</u>	<u>115' Left Centerline Left Lane</u>
Elevation of Hub -	<u>120.8</u>
120.8 to 116.8	Soft black muck
116.8 to 115.8	Soft gray silty clay
115.8 to 112.8	Medium stiff gray silty clay

<u>Station 773+00</u>	<u>140' Left Centerline Right Lane</u>
Elevation of Hub -	<u>132.7</u>
132.7 to 125.7	Soft wet gray silty clay and organic matter
125.7 to 118.7	Medium dense fine red sand clay
118.7 to 107.7	Dense tan fine to medium grained sand
<u>Station 773+00</u>	<u>Centerline Right Lane</u>
Elevation of Hub -	<u>133.6</u>
133.6 to 126.2	Soft wet silty clay and Organic Matter
126.6 to 124.6	Medium dense gray sand clay
124.6 to 108.6	Dense fine tan sand
<u>Station 773+00</u>	<u>130' Right Centerline Right Lane</u>
Elevation fo Hub -	<u>136.2</u>
136.2 to 129.2	Medium dense tan sand clay, small layer sand stone
129.2 to 111.2	Medium dense tan and red medium grained sand
<u>Station 776+12</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>130.1</u>
130.1 to 123.1	Soft silt, clay and Organic Matter
123.1 to 115.1	Medium dense fine tan sand clay
115.1 to 105.1	Medium dense fine tan sand
<u>Station 776+12</u>	<u>115' Right Centerline Left Lane</u>
Elevation of Hub -	<u>130.9</u>
130.9 to 123.9	Soft gray silty clay and Organic matter
123.9 to 116.9	Loose fine tan silty sand
116.9 to 105.9	Dense fine tan sand
<u>Station 776+12</u>	<u>100' Left Centerline Left Lane</u>
Elevation of Hub -	<u>129.5</u>
129.5 to 122.5	Soft gray silty clay and Organic Matter
122.5 to 104.5	Medium dense fine tan silty sand
<u>Station 776+50</u>	<u>180' Left Centerline Left Lane (Service Road)</u>
Elevation of Hub -	<u>129.4</u>
129.4 to 122.4	Soft black silty clay and Organic Matter
122.4 to 104.4	Medium dense tan and yellow sand

Station 776+50 230' Left Centerline Left Lane (Servic Road)

Elevation of Hub - 129.2

129.2 to 123.2 Soft black silty clay and Organic Matter
 123.2 to 115.2 Loose fine gray silty sand
 115.2 to 104.2 Medium dense tan sand

Station 12+55 45' Left (US 90 Connection)

Elevation of Hub - 3.0

3.0 to -17.0 Soft gray silty clay and sand
 -17.0 to -22.0 Soft gray silty clay

Station 12+45 50' Right (US 90 Connection)

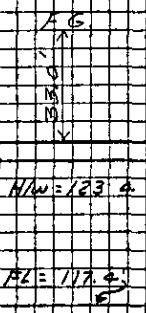
Elevation of Hub - 4.8

4.8 to 1.8 Loose coarse tan sand
 1.8 to -2.2 Very soft gray silty clay
 -2.2 to -20.2 Medium dense gray silty sand

Yours very truly,

Assistant Division Engineer

Begin Br Culvert (R Lane) Sta 725+13.25
 Begin Br Culvert (L Lane) Sta 726+13.25

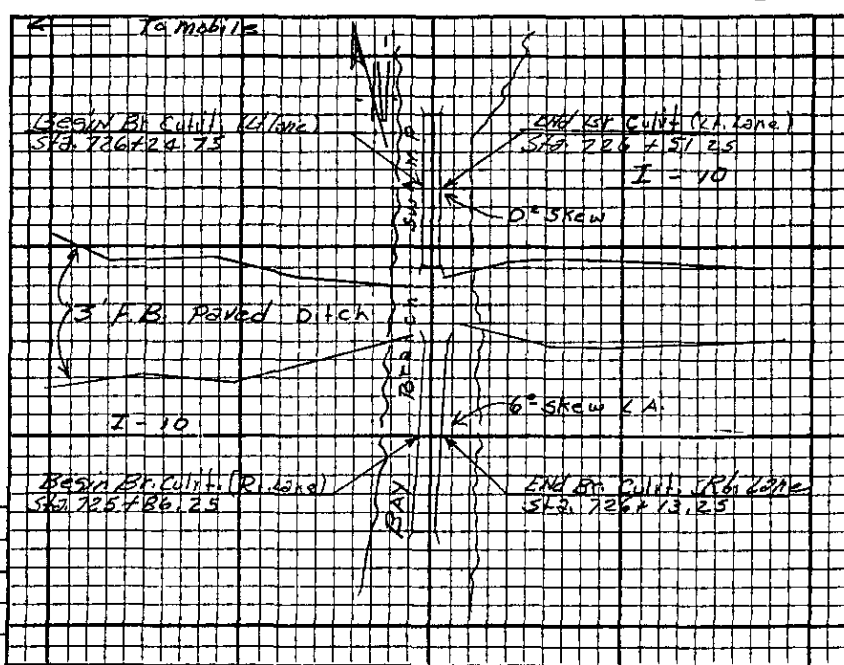


6° Skew (L.A. (R Lane))
 0° Skew (L.A. (L Lane))

End Br Culvert (R Lane) Sta 726+13.25
 End Br Culvert (L Lane) Sta 726+13.25

GENERAL		ELEVATION OF STRUCTURE		SCALE H- " = 10' V- " = 10'	
NAME OF BRIDGE: Bay Branch		MIN DESIGN RATING: H15 To H20S16 FOR.			
OVER STREAM R R OR HIGHWAY: Bay Branch		OPERATING RATING:			
WHEN BUILT: 1969 BY: State		APPROACH PAVT TYPE: Asphalt			
MAINT BY: State		PAVT WIDTH: 2 @ 24'		SHOULDER WIDTH: 2 @ 40'	
NO AND LENGTH OF SPANS: C.T 8'x8'x 265' (R Lane) C.T 8'x8'x 256' (L Lane)		SIGHT DIST VERT		HORIZ	
REMARKS: 4.5 RI Rdwy		ORIG COST:			

PHOTOGRAPH



LOCATION SKETCH SCALE 1" = 300' (Approx)

WATERWAY DATA	
DIST LOW BRIDGE TO HW: 946 AC	GRADE TO LOW BRIDGE:
CHARACTER AND CONSTANT: Q = 1150 CPS	WIDTH BETW BANKS:
NATURE OF BOTTOM:	
CONDITION OF BANKS:	
DESCRIP OF PROTECTIVE WORKS DOES ALL FLOOD PASS STRUCTURE?	IF NOT, WHERE?
REMARKS:	



STATE OF ALABAMA
HIGHWAY DEPARTMENT
MONTGOMERY, ALABAMA 36104

Received
JUL - 8 1968
BUREAU OF BRIDGES
HIGHWAY DEPARTMENT

H L NELSON
STATE HIGHWAY DIRECTOR
BLUE BARBER
ASSISTANT HIGHWAY DIRECTOR

July 8, 1968

WJH

Plotted 8-69 J.V.

Mr. W. F. Land
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Re: I-10-1(21) Baldwin County
Spanish Fort to Loxley

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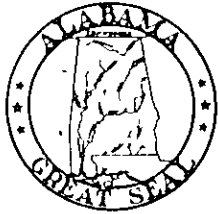
D. B. Flournoy, Engineer
of Materials and Tests

BY *Edward Eiland*
Edward Eiland, Assistant
Engineer of Materials
and Tests

EE:sre

cc: Mr. W. D. Crawford
Mr. B. E. Higgins
Mr. M. E. Ming
File

Attachments



STATE OF ALABAMA HIGHWAY DEPARTMENT

FIFTH DIVISION
OFFICE OF DIVISION ENGINEER
P O BOX 7158
MOBILE, ALABAMA 36607

1701 Belt Line Highway, North
Telephone 471-3441

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STATE HIGHWAY DIRECTOR
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July 1, 1968

Mr. D. B. Flournoy, Engineer
Bureau of Materials & Tests
State Highway Department
Montgomery, Alabama

Re: I-10-1(21)
Spanish Fort - Loxley
Baldwin County

Dear Sir:

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Yours very truly,

W. R. Glass
Acting Division Engineer

By *T. G. Drinkard*
T. G. Drinkard
Assistant Division Engineer

TGD/dr
Attach.
cc: File (2)

Mr. D.B. Flournoy, Engineer
Bureau of Materials and Tests
State Highway Department
Montgomery, Ala.

Re: I-10-1(99)21
Spanish Fort - Loxley
Baldwin County

Dear Sir:

Listed below are the results of Soundings made at the
Culvert Sites on the above Project.

Station 441+30 275' Left Centerline

Elevation of Hub - 7.2

7.2 to 5.2	Very soft gray sandy muck and water
+5.2 to -2.8	Dense fine to medium grained sand
-2.8 to -6.8	Soft gray silty clay
-6.8 to -17.8	Loose gray silty sand with silty clay layers

Station 441+30 Centerline

Elevation of Hub - 4.0

4.0 to -3.0	Very soft gray silty clay, muck and water
-3.0 to -8.0	Dense medium grained sand
-8.0 to -21.0	Medium stiff gray silty clay and fine sand

Station 441+30 135' Right Centerline

Elevation of Hub - 4.3

4.3 to 1.3	Very soft black muck and water
1.3 to -1.7	Loose fine gray silty sand with small amount Organic Matter.
-1.7 to -17.7	Dense gray medium grained silty sand
-17.7 to -20.7	Medium stiff gray silty clay

Station 512+80 Centerline

Elevation of Hub - 48.3

48.3 to 46.3	Very loose brown silty sand with small amount Organic Matter
46.3 to 44.3	Very soft black sandy muck
44.3 to 33.3	Dense medium grained sand with soft clay layer
33.3 to 26.3	Soft gray silty marine clay
26.3 to 23.3	Stiff blue marine clay with few small gravel

Station 512+80 240' Right CenterlineElevation of Hub - 44.6

44.6 to 42.6	Soft brown sand clay and muck
42.6 to 40.6	Medium dense brown sand clay
40.6 to 30.6	Loose gray medium to fine silty sand
30.6 to 19.6	Soft gray silty marine clay

Station 512+80 200' Left CenterlineElevation of Hub - 50.5

50.5 to 46.5	Soft black muck
46.5 to 41.5	Loose gray silty sand with silty clay layers
41.5 to 25.5	Medium stiff gray silty marine clay

Station 532+60 160' Right CenterlineElevation of Hub - 44.6

44.6 to 38.6	Very soft black muck
38.6 to 32.6	Loose fine gray silty sand
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Station 532+60 10' Left CenterlineElevation of Hub - 45.3

45.3 to 39.3	Very soft black muck
39.3 to 33.3	Loose fine gray silty sand
33.3 to 28.3	Dense brown sand with few pea gravel
28.3 to 20.3	Medium dense tan and yellow sand clay

Station 532+60 155' Left CenterlineElevation of Hub - 46.2

46.2 to 40.2	Very soft black muck
40.2 to 36.2	Loose gray silty sand
36.2 to 21.2	Dense coarse to medium grained sand

Station 654+12 85' Right Centerline Left LaneElevation of Hub - 143.1

143.1 to 136.1	Medium dense brown sand clay
136.1 to 129.1	Dense tan fine silty sand
129.1 to 124.1	Dense tan medium to coarse sand with small amount clay layers
124.1 to 118.1	Soft pink clay

<u>Station 654+12</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>140.0</u>
140.0 to 131.0	Very soft black muck
131.0 to 124.0	Dense tan silty sand
124.0 to 115.0	Dense yellow and brown sand with clay layers
<u>Station 654+12</u>	<u>90' Left Centerline Left Lane</u>
Elevation of Hub -	<u>140.3</u>
140.3 to 133.3	Very soft black muck
133.3 to 131.3	Soft gray sand clay
131.3 to 128.3	Medium dense brown sand clay
<u>Station 654+90</u>	<u>Centerline Right Lane</u>
Elevation of Hub -	<u>138.0</u>
138.0 to 131.0	Very soft black muck
131.0 to 124.0	Dense gray silty sand
124.0 to 113.0	Medium dense gray and yellow sand clay
<u>Station 654+90</u>	<u>90' Right Centerline Right Lane</u>
Elevation of Hub -	<u>137.0</u>
137.0 to 131.0	Very soft black muck
131.0 to 129.0	Dense gray silty sand
129.0 to 125.0	Dense tan sand
<u>Station 671+78</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>148.0</u>
148.0 to 146.5	Black loamy top soil
146.5 to 143.0	Medium stiff brown wet silty clay
143.0 to 138.0	Medium dense tan sand clay
138.0 to 123.0	Dense red and tan medium grained sand
<u>Station 671+78</u>	<u>90' Right Centerline Left Lane</u>
Elevation of Hub -	<u>146.7</u>
146.7 to 144.7	Black loamy top soil
144.7 to 140.7	Medium stiff brown silty clay
140.7 to 136.7	Medium dense gray and red sand clay
136.7 to 121.7	Dense red and tan medium grained sand
<u>Station 671+78</u>	<u>80' Left Centerline Left Lane</u>
Elevation of Hub -	<u>149.0</u>
149.0 to 148.0	Black loamy top soil
148.0 to 143.0	Medium stiff brown silty clay
143.0 to 124.0	Dense tan grained sand

Station 673+70Centerline Right Lane

Elevation of Hub

144.8

144.8 to 137.8
 137.8 to 132.8
 132.8 to 127.8
 127.8 to 119.8

Very soft black muck and silt
 Medium dense gray sand clay
 Loose yellow coarse grained sand
 Dense tan coarse grained sand

Station 673+70125' Right Centerline Right Lane

Elevation of Hub -

142.8

142.8 to 134.8
 134.8 to 130.8
 130.8 to 125.8
 125.8 to 117.8

Very soft black muck
 Medium dense gray sand clay
 Loose tan medium grained sand
 Dense tan medium to coarse sand

Station 673+70110' Left Centerline Right Lane

Elevation of Hub -

146.3

146.3 to 136.3
 136.3 to 132.3
 132.3 to 121.3

Very soft black muck
 Medium dense gray sand clay
 Loose tan med grained sand

Station 676+65110' Left Centerline Right Lane

Elevation of Hub -

141.7

141.7 to 132.7
 132.7 to 120.7
 120.7 to 116.7

Very soft black muck
 Dense gray and tan medium grained sand
 Soft yellow silty clay

Station 676+65Centerline Right Lane

Elevation of Hub -

141.2

141.2 to 131.2
 131.2 to 122.2
 122.2 to 116.2

Very soft black muck
 Dense gray and tan medium grained sand
 Soft yellow silty clay

Station 676+65130' Right Centerline Right Lane

Elevation of Hub -

141.1

141.1 to 131.1
 131.1 to 129.1

Very soft black muck
 Dense gray fine to medium grained sand

Station 679+40130' Right Centerline Left Lane

Elevation of Hub -

143.8

143.8 to 132.8
 132.8 to 121.8
 121.8 to 118.8

Very soft black muck
 Dense gray medium grained sand
 Soft yellow silty clay

<u>Station 679+40</u>	<u>130' Left Centerline Left Lane</u>
Elevation of Hub -	<u>146.0</u>
146.0 to 135.0	Very soft black muck
135.0 to 132.0	Dense gray and tan medium grained sand
<u>Station 679+40</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>144.9</u>
144.9 to 134.9	Very soft black muck
134.9 to 132.9	Dense gray medium grained sand
<u>Station 726+00</u>	<u>Centerline Right Lane</u>
Elevation of Hub -	<u>118.3</u>
118.3 to 116.3	Soft black muck
116.3 to 110.3	Dense fine white sand
110.3 to 108.3	Dense coarse tan and yellow sand with pea gravel
<u>Station 726+00</u>	<u>120' Right Centerline Right Lane</u>
Elevation of Hub -	<u>117.6</u>
117.6 to 114.6	Soft black muck
114.6 to 111.6	Dense Fine white sand
<u>Station 726+00</u>	<u>120' Left Centerline Right Lane</u>
Elevation of Hub -	<u>119.0</u>
119.0 to 116.0	Soft black sandy muck
116.0 to 111.0	Dense fine gray sand
<u>Station 726+30</u>	<u>115' Right Centerline Left Lane</u>
Elevation of Hub -	<u>119.9</u>
119.9 to 116.9	Soft black muck
116.9 to 114.9	Soft gray silty clay
114.9 to 112.9	Medium dense gray sand clay
112.9 to 110.9	Dense fine white sand
<u>Station 726⁷²⁶+30</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>120.2</u>
120.2 to 117.2	Soft black muck
117.2 to 115.2	Loose tan sand with traces of Organic Matter
115.2 to 113.2	Dense fine white sand
113.2 to 110.2	Dense coarse white sand with pea gravel
<u>Station 726+30</u>	<u>115' Left Centerline Left Lane</u>
Elevation of Hub -	<u>120.8</u>
120.8 to 116.8	Soft black muck
116.8 to 115.8	Soft gray silty clay
115.8 to 112.8	Medium stiff gray silty clay

<u>Station 773+00</u>	<u>140' Left Centerline Right Lane</u>
Elevation of Hub -	<u>132.7</u>
132.7 to 125.7	Soft wet gray silty clay and organic matter
125.7 to 118.7	Medium dense fine red sand clay
118.7 to 107.7	Dense tan fine to medium grained sand
<u>Station 773+00</u>	<u>Centerline Right Lane</u>
Elevation of Hub -	<u>133.6</u>
133.6 to 126.2	Soft wet silty clay and Organic Matter
126.6 to 124.6	Medium dense gray sand clay
124.6 to 108.6	Dense fine tan sand
<u>Station 773+00</u>	<u>130' Right Centerline Right Lane</u>
Elevation fo Hub -	<u>136.2</u>
136.2 to 129.2	Medium dense tan sand clay, small layer sand stone
129.2 to 111.2	Medium dense tan and red medium grained sand
<u>Station 776+12</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>130.1</u>
130.1 to 123.1	Soft silt, clay and Organic Matter
123.1 to 115.1	Medium dense fine tan sand clay
115.1 to 105.1	Medium dense fine tan sand
<u>Station 776+12</u>	<u>115' Right Centerline Left Lane</u>
Elevation of Hub -	<u>130.9</u>
130.9 to 123.9	Soft gray silty clay and Organic matter
123.9 to 116.9	Loose fine tan silty sand
116.9 to 105.9	Dense fine tan sand
<u>Station 776+12</u>	<u>100' Left Centerline Left Lane</u>
Elevation of Hub -	<u>129.5</u>
129.5 to 122.5	Soft gray silty clay and Organic Matter
122.5 to 104.5	Medium dense fine tan silty sand
<u>Station 776+50</u>	<u>180' Left Centerline Left Lane (Service Road)</u>
Elevation of Hub -	<u>129.4</u>
129.4 to 122.4	Soft black silty clay and Organic Matter
122.4 to 104.4	Medium dense tan and yellow sand

Station 776+50 230' Left Centerline Left Lane (Service Road)

Elevation of Hub - 129.2

129.2 to 123.2 Soft black silty clay and Organic Matter
 123.2 to 115.2 Loose fine gray silty sand
 115.2 to 104.2 Medium dense tan sand

Station 12+55 45' Left (US 90 Connection)

Elevation of Hub - 3.0

3.0 to -17.0 Soft gray silty clay and sand
 -17.0 to -22.0 Soft gray silty clay

Station 12+45 50' Right (US 90 Connection)

Elevation of Hub - 4.8

4.8 to 1.8 Loose coarse tan sand
 1.8 to -2.2 Very soft gray silty clay
 -2.2 to -20.2 Medium dense gray silty sand

Yours very truly,

Assistant Division Engineer



STATE OF ALABAMA
HIGHWAY DEPARTMENT

MONTGOMERY, ALABAMA 36104

H L NELSON
STATE HIGHWAY DIRECTOR
BLUE BARBER
ASSISTANT HIGHWAY DIRECTOR

September 19, 1968

Plotted 8-69
JF

Mr. B. E. Higgins
Bridge Engineer
OFFICE

Re: Project I-10-1(21)35
Baldwin County
Foundation Investigation

Dear Sir:

Attached are the results of bridge foundation investigation conducted on the above project for bridges and culverts.

The borings indicate that adequate steel pile penetration can be obtained.

We recommend that the mucky material be removed at the culvert sites and replaced by foundation backfill.

Yours very truly,

D. B. Flournoy, Engineer
of Materials and Tests

By: Edward Eiland
Edward Eiland, Assistant Engineer
of Materials and Tests

WBH/sap
ccs:
Mr. W. R. Glass
Mr. W. F. Land
Mr. W. D. Bill, Resident Engineer
BPR (send to Mr. Higgins)
Mr. J. M. Ragland
Project File
File

Attachment

STATE HIGHWAY DEPARTMENT OF ALABAMA
 BUREAU OF MATERIALS & TESTS
 DIVISION OF MATERIALS
 MONTGOMERY 4, ALABAMA

Form M & T F-1

September 18, 1968

Mr J. F. Tribble, Materials Engineer
 Bureau of Materials & Research
 State Highway Department
 OFFICE

I-10-1(21)35
 Underpass Alabama 181
 Station 620+79
 Re: Baldwin County

Dear Sir

Listed below are the results of soundings made at the above location.

		15	Ft	Rt. C/L Survey	T.	STA.	28+51
Elevation of Hub		196.5					
196.5	to	195.0		Fill Material			
195.0	"	187.5		Medium gray sandy clay			
187.5	"	180.0		Medium light gray sandy marl			
180.0	"	179.9		Thin layer of pyrite			
179.9	"	175.0		Dense red and brown silty sand			
	"						
	"						
	"						

		15	Ft	Lt. C/L Survey	T.	STA.	28+51
Elevation of Hub		196.4					
196.4	to	191.0		Stiff brown silty sandy clay			
191.0	"	187.0		Dense gray sandy clay			
187.0	"	186.0		Medium light gray and silty sandy clay			
186.0	"	181.4		Dense brown and red silty sand			
181.4	"	174.9		Dense red and pink silty sand			
	"						
	"						
	"						

	40	Ft	Lt. C/L Survey STA. 28+51
Elevation of Hub	195.5		
195.5	to	194.0	Medium red silty sandy clay
194.0	"	190.0	Medium gray sandy clay
190.0	"	185.5	Dense gray sandy clay
185.5	"	179.0	Dense brown silty sand w/ thin layers of pyrite.
	"		
179.0	"	174.0	Dense red and pink sand
	"		
	"		
	40	Ft.	Rt. C/L Survey STA. 28+51
Elevation of Hub	195.9		
195.9	to	194.0	Stiff red silty sand and clay
194.0	"	190.0	Medium gray sandy clay
190.0	"	182.9	Dense light gray sandy clay
182.9	"	174.4	Dense red and pink sand
	"		
	"		
	"		
	"		
	15	Ft	Lt. C/L Survey STA 29+18
Elevation of Hub	196.8		Bent #2
196.8	to	192.0	Medium brown silty sand
192.0	"	189.0	Medium brown silty sandy clay
189.0	"	185.0	Stiff red silty sandy clay
185.0	"	183.5	N=17
183.5	"	180.0	Dense red and pink sand
180.0	"	178.5	N=15
178.5	"	175.0	Dense red and pink sand
175.0	"	173.5	N=19

Elevation of Hub		Ft.	T.	STA.
162.7	to	146.0		Medium yellow sand
	"			
	"			
	"			
	"			
	"			
	"			
	"			

Elevation of Hub		40 Ft.	Lt. C/L Survey	STA	29+18
195.9	to	191.0			Medium gray sandy clay
191.0	"	189.0			Stiff brown clay
189.0	"	180.0			Stiff red clay w/ small amount of gravel
180.0	"	173.0			Stiff red sand clay
173.0	"	160.0			Medium yellow and red sand
160.0	"	145.0			Stiff wet red sand w/ layers of sand clay
	"				
	"				

Elevation of Hub		40 Ft.	Lt. C/L Survey	STA	30+00	Bent No. 3
196.9	to	195.0				Stiff brown sand clay
195.0	"	192.0				Stiff yellow clay w/ small amount of sand
192.0	"	180.0				Stiff red clay w/ small amount of sand
180.0	"	167.0				Stiff red sand
167.0	"	147.0				Medium yellow sand
	"					
	"					
	"					

15

Ft. Rt. C/L Survey

STA 30+00

Elevation of Hub 197.6

197.6 to 196.0

Dense red silty sand

196.0 " 192.6

Medium gray sandy clay

192.6 " 191.0

Stiff red silty clay

191.0 " 185.0

Dense red silty sand

185.0 " 183.5

N=22

Bottom of dense red silty sand
185.0

183.5 " 180.0

Dense red and pink sand

180.0 " 178.5

N=16

178.5 " 175.0

Dense white and pink sand

Ft

T

STA

Elevation of Hub

175.0 to 173.5

N=18

173.5 " 172.6

Dense white and pink sand

"

"

"

"

"

"

15

Ft Lt. C/L Survey

STA 30+00

Elevation of Hub 197.6

197.6 to 191.0

Stiff brown silty clay

191.0 " 180.0

Stiff red silty sandy clay

180.0 " 177.6

Dense red silty sand

177.6 " 156.0

Dense red and pink silty sand

156.0 " 146.6

Dense pink and white sand

"

"

"

40 Ft. Rt. C/L Survey STA. 30+00

Elevation of Hub	197.0		
197.0	to	192.0	Stiff brown and red silty clay
192.0	"	180.0	Hard red silty clay
180.0	"	150.0	Dense red sand
150.0	"	146.0	Dense white and pink sand
	"		
	"		
	"		
	"		

15 Ft. Rt. C/L Survey STA 30+82

Elevation of Hub	198.4		Bent # 4
198.4	to	198.0	Stiff brown silty clay
198.0	"	197.0	Stiff red silty clay
197.0	"	193.0	Stiff brown silty sand clay
193.0	"	184.0	Stiff red silty sand clay
184.0	"	184.4	Dense red and white silty sand
	"		
	"		
	"		

40 Ft. Rt. C/L Survey STA 30+82

Elevation of Hub	197.8		
197.8	to	195.0	Medium brown and red silty clay
195.0	"	191.0	Stiff brown and yellow clay
191.0	"	186.0	Hard red silty clay
186.0	"	184.5	N=31 <i>184.5 bottom of hard red silty clay</i>
184.5	"	181.0	Dense white and pink sand
181.0	"	179.5	N=20
179.5	"	176.0	Dense white and pink sand
176.0	"	174.5	N=19

Elevation of Hub		Ft.	T.	STA	
174.5	to	146.0			Dense white and pink sand w/ thin layers of sandrock
146.0	"	145.8			Very dense white and pink sand
	"				
	"				
	"				
	"				
	"				
	"				
	"				
		15	Ft	Lt. C/L Survey	STA 30+82
Elevation of Hub		198.3			
198.3	to	196.0			Medium red sand clay
196.0	"	191.0			Stiff yellow clay
191.0	"	181.0			Stiff red clay w/ small amount of sand
181.0	"	177.0			Stiff red sand clay
177.0	"	168.0			Medium red sand w/ small amount of gravel
168.0	"	148.0			Dense fine white sand
	"				
	"				
		40	Ft	Lt. C/L Survey	STA 30+82
Elevation of Hub		197.2			
197.2	to	191.0			Stiff yellow clay
191.0	"	179.0			Stiff red clay w/ small amount of sand
179.0	"	162.0			Medium brown sand
162.0	"	156.0			Medium yellow sand w/ small amount pea gravel
156.0	"	149.0			Dense fine white sand
	"				
	"				
	"				

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		40	Ft.	Lt. C/L Survey	STA.	31+49
Elevation of Hub		198.1				Abut. # 5
198.1	to	192.0				Stiff yellow clay
192.0	"	183.0				Stiff red clay w/ small amount of sand
183.0	"	178.0				Stiff red sand clay
178.0	"	173.0				Medium red sand
	"					
	"					
	"					
	"					

		15	Ft.	Lt. C/L Survey	STA.	31+49
Elevation of Hub		199.1				
199.1	to	196.0				Stiff red sand clay
196.0	"	193.0				Stiff yellow sand clay
193.0	"	181.0				Stiff red clay w/ small amount of sand
181.0	"	174.0				Dense red sand
	"					
	"					
	"					
	"					

		15	Ft.	Rt. C/L Survey	STA.	31+49
Elevation of Hub		199.0				
199.0	to	198.0				Medium brown silty sand
198.0	"	196.0				Stiff red silty clay
196.0	"	189.0				Dense red silty sand
189.0	"	185.0				Dense brown silty sand
185.0	"	177.5				Dense red and pink sand
	"					
	"					
	"					

40

Ft.

Rt. C/L Survey

STA.

31+49

Elevation of Hub

198.6

198.6

to

195.6

Dense red silty sand

195.6

"

193.0

Dense brown silty sand

193.0

"

192.0

Very Dense brown silty sand

192.0

"

177.1

Dense red and pink silty sand

"

"

"

"

Ft.

T

STA.

Elevation of Hub

to

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"

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Ft

T

STA

Elevation of Hub

to

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(2)
(10)

C/L	Ft.	Rt. Lane	T.	STA	850+00
Elevation of Hub	108.1				Culvert
108.1	to	104.7			Sandy muck
104.7	"	93.0			White fine sand
93.0	"	87.0			Stiff gray sandy clay
"					
"					
"					
"					
"					

C/L	Ft.	Lt. Lane	T.	STA	850+00
Elevation of Hub	108.5				
108.5	to	105.8			Muck
105.8	"	100.5			Gray sand w/ thin layers of clay
100.5	"	96.0			Fine yellow sand clay
96.0	"	94.0			Pea gravel w/ fine sand
94.6	"	87.0			Fine yellow sand w/ thin layers of clay
"					
"					
"					

C/L	Ft.	Rt. Lane	T.	STA	655+32
Elevation of Hub	138.1				Culvert at Sta. 655+00
138.1	to	134.0			Brown muck
134.0	"	129.0			Gray sand
129.0	"	128.0			Pea Gravel
128.0	"	117.0			Stiff gray sandy marl
"					
"					
"					
"					

		G/L	Ft.	Rt.	Lane	T.	STA.	655+00
Elevation of Hub		138.1						
138.1	to	133.0						Brown muck
133.0	"	129.0						Gray sandy clay
129.0	"	125.0						Stiff gray sandy marl
	"							
	"							
	"							
	"							
	"							

		110	Ft.	Lt.	T.	STA.	441+30
Elevation of Hub		5.2					Culvert at Sta. 441+30
5.2	to	1.4					Muck
1.4	"	-1.0					Gray sand
-1.0	"	-5.0					Stiff yellow sand
-5.0	"	-6.0					Stiff gray marl
-6.0	"	-16.0					Stiff gray sandy marl
	"						
	"						
	"						

		320	Ft.	Lt.	T.	STA.	441+30
Elevation of Hub		8.2					Culvert at Sta. 441+30
8.2	to	4.2					Brown muck
4.2	"	-1.0					Gray sand
-1.0	"	-7.0					Medium yellow sand
-7.0	"	-15.0					Medium gray sandy marl
	"						
	"						
	"						
	"						

		140	Ft.
Elevation of Hub		4.9	
4.9	to	1.6	
1.6	"	-13.0	
-13.0	"	-17.0	
	"		
	"		
	"		
	"		

Rt.	T.	STA.	441+30

		345	Ft.
Elevation of Hub		9.5	
9.5	to	7.7	
7.7	"	-5.0	
-5.0	"	-12.0	
	"		
	"		
	"		
	"		

Rt.	T.	STA.	441+30

		Abut. # 1	48	Ft.
Elevation of Hub		24.1		
24.1	to	20.0		
20.0	"	16.0		
16.0	"	11.0		
11.0	"	4.0		
4.0	"	1.0		
	"			
	"			
	"			

Rt. C/L	T.	STA.	520+44

Underpass US-98 at Sta. 431+00
Baldwin County

Yellow Sand
Stiff brown sand clay w/ small amount of gravel
Stiff gray sandy clay
Medium gray sand
Soft yellow clay w/ small amount of sand

M & T F-1

(13)

		10	Ft.	Rt.	T.	STA.	520+44
Elevation of Hub		23.2					
23.2	to	20.0					Brown clay
20.0	"	15.0					Stiff yellow and gray sand clay
15.0	"	6.0					Medium brown and gray clay w/ small amount of sand
6.0	"	2.0					Soft gray clay
	"						
	"						
	"						

		20	Ft.	Lt. C/L	T.	STA.	520+44
Elevation of Hub		24.4					
24.4	to	20.0					Red sand clay
20.0	"	10.0					Gray sand clay (Stiff)
10.0	"	4.0					Medium gray sand
4.0	"	1.0					Soft yellow clay
	"						
	"						
	"						

		48	Ft.	Lt. C/L	T.	STA.	520+44
Elevation of Hub		24.8					
24.8	to	21.0					Yellow sand clay
21.0	"	11.0					Stiff brown sand clay
11.0	"	5.0					Stiff gray sand w/ layers of gray clay
5.0	"	0.0					Stiff yellow clay
	"						
	"						
	"						

Elevation of Hub		20	Ft.	Lt. C/L T.	STA. 521+26
	22.6				
22.6	to	18.0		Stiff brown sand clay	
18.0	"	12.0		Stiff red sand clay	
12.0	"	3.0		Stiff yellow sand clay	
3.0	"	-8.0		Medium gray clay w/ small amount of sand	
-8.0	"	-23.0		Medium blue sandy marl	
	"				
	"				
	"				

Elevation of Hub		48	Ft.	Rt. C/L T.	STA. 521+26	Bent #2
	25.8					
25.8	to	18.0		Stiff brown sand clay		
18.0	"	14.0		Stiff yellow clay		
14.0	"	1.0		Medium yellow sand		
1.0	"	-5.0		Stiff gray sand clay w/ thin layers of soft sandstone		
-5.0	"	-19.0		Stiff blue marl w/ small amount of sand		
	"					
	"					

Elevation of Hub		10	Ft.	Rt. C/L T.	STA. 521+26	Bent #2
	24.2					
24.2	to	18.0		Stiff yellow sand clay		
18.0	"	16.5		N=20		
16.5	"	14.0		Stiff yellow sand clay		<i>Bottom this</i>
14.0	"	12.5		N=12		
12.5	"	10.0		<i>stiff</i> Yellow and gray sand clay		<i>Be there this</i>
10.0	"	8.5		N=16		
8.5	"	5.0		Stiff gray clay w/ small amount of sand		
	"					

(2)

(16)

Lt. C/L T STA 522+26

48 Ft.

Elevation of Hub 29.1

Bent #3

29.1 to 19.0

Very stiff yellow sand clay

19.0 " 15.0

Stiff gray and pink clay

15.0 " 5.0

Stiff yellow sand clay

5.0 " -1.0

Soft brown and gray clay

-1.0 " -14.0

Stiff blue sand marl

"

"

"

20 Ft.

Lt. T STA 522+26

Elevation of Hub 30.0

30.0 to 22.0

Stiff brown sand clay

22.0 " 20.0

Stiff red sand clay

Bottom this

20.0 " 18.5

N=9

18.5 " 16.0

Medium red and gray clay

Bottom this

16.0 " 14.5

N=8

14.5 " 12.0

Medium red sand clay

Bottom this

12.0 " 10.5

N=5

10.5 " -5.0

Soft gray marl

Ft.

T STA

Elevation of Hub

-5.0 to -16.0

Medium blue sandy marl

"

"

"

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"

Elevation of Hub		Ft.	Rt.	T.	STA.
		18			522+26
31.0		31.0			
31.0	to	26.0			Stiff yellow clay
26.0	"	21.0			Stiff yellow sand clay
21.0	"	19.5			N=11
19.5	"	17.0			Stiff yellow clay
17.0	"	15.5			N=10 <i>Bottom this</i>
15.5	"	13.0			Stiff gray sand clay
13.0	"	11.5			N=9 <i>Bottom this</i>
11.5	"	5.0			Soft blue marl
			Ft.	T.	STA.

Elevation of Hub					
5.0	to	10			Medium yellow sand clay
1.0	"	-19.0			Medium blue sandy marl
	"				
	"				
	"				
	"				
	"				
	"				

Elevation of Hub		Ft.	Rt.	T.	STA.
		10			522+26
32.0		32.0			
32.0	to	20.0			Very stiff yellow clay
20.0	"	10.0			Stiff yellow and gray clay
10.0	"	2.0			Medium gray sandy marl
2.0	"	-18.0			Medium blue marl w/ layers of sand
	"				
	"				
	"				
	"				

Elevation of Hub		48	Ft.	Rt. C/L	T.	STA.	524+06
41.1	to	36.0					Bent #5
36.0	"	28.0					Medium brown sand clay
28.0	"	25.0					Stiff yellow sand clay
25.0	"	1.0					Medium red sand clay
1.0	"	-15.0					Medium yellow sand w/ small amount of clay
	"						Soft yellow clay w/ small amount of sand
	"						
	"						

Elevation of Hub		10	Ft.	Rt. C/L	T.	STA.	524+06
38.6	to	37.0					Soft brown sand
37.0	"	28.0					Hard yellow sand clay
28.0	"	22.0					Very stiff sand clay
22.0	"	20.5					N=41
20.5	"	18.0					Dense yellow sand
18.0	"	16.5					N=36
16.5	"	14.0					Wet yellow sand
14.0	"	12.5					N=16

Bottom this

Bottom this

is all over this

Elevation of Hub			Ft.		T.	STA.
12.5	to	3.0				
3.0	"	-12.0				
-12.0	"	-32.0				
	"					
	"					
	"					
	"					
	"					

Loose wet yellow and gray sand
Medium wet brown sand clay
Stiff blue sandy marl

(2X)
(21)

	30	Ft
Elevation of Hub	36.0	
36.0	to	34.0
34.0	"	26.0
26.0	"	1.0
1.0	"	-15.0

Lt. C/L T.	STA.	524+06
		Brown silty sand
		Hard yellow sand clay
		Dense yellow sand
		Wet yellow sand w/ layers of yellow clay

	48	Ft.
Elevation of Hub	32.0	
32.0	to	27.0
27.0	"	22.0
22.0	"	20.5
20.5	"	18.0
18.0	"	16.5
16.5	"	14.0
14.0	"	12.5
12.5	"	-3.0

Lt.	T.	STA.	524+06
			Very stiff yellow sand clay
			Very stiff yellow sand <i>is at the top of this</i>
			N=19
			Dense yellow sand
			N= 22
			Dense yellow sand
			N=16 <i>Bottom of this</i>
			Medium yellow sand

		Ft.
Elevation of Hub		
-3.0	to	-13.0
-13.0	"	-18.0
	"	
	"	
	"	
	"	
	"	
	"	

	T.	STA.
		Soft yellow sand clay
		Soft gray sandy marl

48 Ft.

Lt. C/L T. STA. 524+48

Elevation of Hub 32.0

32.0 to 30.0

Stiff brown silty clay

30.0 " 24.0

Very stiff yellow sand clay

24.0 " 2.0

Medium yellow sand w/ layers of clay

"

"

"

"

"

20 Ft.

Lt. C/L T. STA. 524+48

Elevation of Hub 34.1

34.1 to 32.0

Stiff brown clay

32.0 " 28.0

Very stiff yellow sand clay

28.0 " -4.0

Dense yellow sand w/ small amount of clay

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"

10 Ft.

Rt. C/L T. STA. 524+48

Elevation of Hub 38.0

38.0 to 36.0

Stiff brown sand clay

36.0 " 28.0

Very stiff yellow sand clay

28.0 " 8.0

Dense yellow sand

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	48	Ft.	Rt. C/L	T.	STA	524+48
Elevation of Hub	43.5					
43.5	to	38.0				Stiff red and brown clay
38.0	"	22.0				Very stiff red sand clay
22.0	"	7.0				Dense yellow sand
	"					
	"					
	"					
	"					
	"					

	C/L	Ft.	Rt. Lane	T.	STA	726+00
Elevation of Hub	118.1					Culvert @ Sta. 726+00
118.1	to	115.6				Brown sandy muck
115.6	"	107.0				Medium gray sand
107.0	"	98.0				Stiff gray sandy marl
	"					
	"					
	"					
	"					
	"					

	C/L	Ft.	It. Lane	T.	STA	726+40
Elevation of Hub	119.7					
119.7	to	115.7				Brown sandy muck
115.7	"	110.0				Gray sand
110.0	"	98.0				Stiff gray sandy marl
	"					
	"					
	"					
	"					
	"					

140 Ft.

Lt. C/L T. STA. 533+25

Elevation of Hub 46.6

Culvert at Station 532+75

46.6 to 41.4

Brown muck

41.4 " 28.0

Medium gray and white sand

28.0 " 24.0

Stiff yellow sand clay

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"

"

140 Ft.

Rt. C/L T. STA. 532+00

Elevation of Hub 44.8

44.8 to 39.6

Brown muck

39.6 " 30.0

Medium gray sand

30.0 " 24.0

Medium yellow sand w/ small amount of clay

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C/L Ft.

T. STA. 512+90

Elevation of Hub 47.7

Culvert at Station 512+90

47.7 to 40.7

Brown sandy muck

40.7 " 26.0

Medium pink and gray sand w/ layer of marl

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"

160 Ft.
 Elevation of Hub 45.0

Rt. C/L T. STA. 512+00

45.0 to 40.5
 40.5 " 35.0
 35.0 " 25.0
 " "
 " "
 " "
 " "

Brown muck
 Gray sandy marl
 Medium gray sand w/ layer of marl
 "
 "
 "
 "

160 Ft.
 Elevation of Hub 49.7

Lt. C/L T. STA. 513+70

49.7 to 44.2
 44.2 " 42.0
 42.0 " 40.0
 40.0 " 32.0
 32.0 " 29.0
 " "
 " "
 " "

Brown muck
 Fine gray sand
 Pea Gravel
 Fine gray sand w/ thin layers of clay
 Stiff gray sandy marl
 "
 "
 "

Ft.
 Elevation of Hub

T. STA.

to
 "
 "
 "
 "
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 "
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 "
 "

Elevation of Hub			
109.5	to	109.5	
109.5	to	99.0	Very soft brown sandy muck
99.0	"	97.5	N=10
97.5	"	94.0	Medium white sand
94.0	"	92.5	N=12
92.5	"	89.0	Medium yellow sand w/ small amount of gravel
89.0	"	87.5	N=5
87.5	"	84.0	Medium yellow sand w/ small amount of gravel
84.0	"	82.5	N=6

Ft. T. STA.

Elevation of Hub

82.5	to	79.0	Very soft gray and yellow silty sand
79.0	"	77.5	N=2 Bottom of
77.5	"	74.0	Stiff gray and yellow sandy marl
74.0	"	72.5	N=17
72.5	"	69.0	Dense fine gray sand w/ thin layers of yellow clay
69.0	"	67.5	N=12
67.5	"	64.0	Medium fine gray sand

Ft. T. STA.

Elevation of Hub

64.0	to	62.5	N=8
62.5	"	59.0	Fine yellow and gray sand in layers
59.0	"	57.5	N=10
57.5	"	49.0	Medium fine yellow and gray sand
	"		
	"		
	"		
	"		

Elevation of Hub	106.9		
106.9	to	101.0	Black muck
101.0	"	97.0	White sand
97.0	"	95.5	N=20
95.5 97.0	"	92.0	Stiff gray sandy marl.
92.0	"	90.5	N=10
90.5 92.0	"	87.0	Stiff gray silty sand
87.0	"	85.5	N=11
85.5 87.0	"	82.0	Dense yellow sand w/ small amount of clay

Ft T STA

Elevation of Hub	82.0	to	80.5	N=33
80.5 82.0	"	77.0	Yellow sand and pea gravel	
77.0	"	75.5	N=7	
75.5 77.0	"	72.0	Soft gray and yellow silty sand	
72.0	"	70.5	N=3	
70.5 72.0	"	67.0	Soft gray silty sand	
67.0	"	65.5	N=9	
65.5 67.0	"	62.0	Fine yellow silty sand	

Ft T STA

Elevation of Hub	62.0	to	60.5	N=10
60.5 62.0	"	57.0	Fine yellow silty sand	
57.0	"	47.0	Dense yellow and gray silty sand	



Ft C/L Lt. Lane T STA 814+00

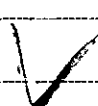
Elevation of Hub			
105.1	to	100.0	Brown Muck
100.0	"	95.0	White sand w/ organic matter
95.0	"	93.5	N=5
93.5	"	90.0	Medium white sand w/ thin layers of clay
90.0	"	88.5	N=7
88.5	"	85.0	Dense brown silty sand
85.0	"	83.5	N=19
83.5	"	80.0	Dense gray sand w/ layers of yellow sand clay

Ft T STA

Elevation of Hub			
80.0	to	78.5	N=14
78.5	"	75.0	Stiff gray silty sand w/ layers of yellow sand clay
75.0	"	73.5	N=25
73.5	"	70.0	Stiff yellow sandy clay
70.0	"	68.5	N=27
68.5	"	65.0	Dense gray and pink sand
65.0	"	63.5	N=48

Ft T STA

Elevation of Hub			
63.5	to	60.0	Dense yellow and gray sand w/ small amount of clay
60.0	"	58.5	N=28
58.5	"	55.0	Dense yellow sand w/ layers of gray clay
	"		
	"		
	"		



Ft C/L Rt. Lane T STA 815+00

Elevation of Hub 104.1

104.1 to 100.0 Black muck

100.0 " 94.0 Medium gray sand

94.0 " 92.5 N=17

92.5 " 89.0 Dense gray and yellow sand

89.0 " 87.5 N=9

87.5 " 84.0 Dense yellow sand w/ small amount of gravel

84.0 " 82.5 N=20

82.5 " 79.0 Dense yellow sand w/ small amount of gravel

Ft T STA

Elevation of Hub

79.0 to 77.5 N=24

77.5 " 74.0 Dense fine yellow and gray sand

74.0 " 72.5 N=10

72.5 " 69.0 Medium fine yellow and gray sand w/ thin layers of clay

69.0 " 67.5 N=4

67.5 " 64.0 Fine yellow and gray sand

64.0 " 62.5 N=9

Ft T STA

Elevation of Hub

62.5 to 59.0 Medium fine yellow sand

59.0 " 57.5 N=10

57.5 " 54.0 Medium fine yellow and gray sand

54.0 " 52.5 N=7

"
"
"
"

Ft C/L Rt. Lane T STA 817+00

Elevation of Hub			
103.8	to	99.0	Brown muck
99.0	"	94.0	White sand
94.0	"	92.5	N=7
92.5	"	89.0	Loose yellow sand w/ small amount of gravel
89.0	"	87.5	N=5
87.5	"	84.0	Dense yellow sand w/ small amount of gravel
84.0	"	82.5	N=16
82.5	"	79.0	Dense yellow sand w/ thin layers of clay

Ft T STA

Elevation of Hub			
79.0	to	77.5	N=10
77.5	"	74.0	Medium fine yellow and gray sand w/ thin layers of gray clay
74.0	"	72.5	N=8
72.5	"	69.0	Stiff gray sand clay w/ layers of sand
69.0	"	67.5	N=9
67.5	"	64.0	Dense yellow sand w/ hard layers
64.0	"	62.5	N=79

Ft T STA

Elevation of Hub			
62.5	to	59.0	Dense yellow sand w/ thin hard layers
59.0	"	57.5	N=22
57.5	"	44.0	Dense yellow and gray sand w/ layers of stiff gray clay
	"		
	"		
	"		
	"		



STATE OF ALABAMA
HIGHWAY DEPARTMENT
MONTGOMERY, ALABAMA 36104

Received
JUL - 8 1968
BUREAU OF BRIDGES
HIGHWAY DEPARTMENT

H L NELSON
STATE HIGHWAY DIRECTOR
BLUE BARBER
ASSISTANT HIGHWAY DIRECTOR

July 8, 1968

WJH

Plotted 8-69 J.V.

Mr. W. F. Land
Interstate Engineer
Bureau of Interstate
OFFICE

*Foundation Bearings
Baldwin Co*

Re: I-10-1(21) Baldwin County
Spanish Fort to Loxley

Dear Sir:

Attached are the results of foundation investigation for culverts on the above project.

This investigation was performed by the Fifth Division and this office concurs in their recommendations.

Yours very truly,

D. B. Flournoy, Engineer
of Materials and Tests

BY *Edward Eiland*
Edward Eiland, Assistant
Engineer of Materials
and Tests

EE:sre

cc: Mr. W. D. Crawford
Mr. B. E. Higgins
Mr. M. E. Ming
File

Attachments



STATE OF ALABAMA
HIGHWAY DEPARTMENT

FIFTH DIVISION
OFFICE OF DIVISION ENGINEER
P O BOX 7158
MOBILE, ALABAMA 36607

1701 Belt Line Highway, North
Telephone 471-3441

H L NELSON
STATE HIGHWAY DIRECTOR
BLUE BARBER
ASSISTANT HIGHWAY DIRECTOR

July 1, 1968

Mr. D. B. Flournoy, Engineer
Bureau of Materials & Tests
State Highway Department
Montgomery, Alabama

Re: I-10-1(21)
Spanish Fort - Loxley
Baldwin County

Dear Sir:

Attached are several copies of results of soil borings taken at Culvert Sites shown on plans for the above numbered project.

Most of the culverts (with the exceptions shown below) are located in muck sections where muck will be removed and underwater backfill placed prior to construction of the culverts and will not require undercutting and backfilling for Culvert Excavation.

The following Culvert Sites will require undercutting and foundation backfill.

<u>Station</u>		<u>Average depth undercut required</u>
671+78	Lt. Lane	2.0 ft.
✓726+00	Rt. Lane	2.0 ft.
✓726+30	Lt. Lane	2.0 ft.
12+55	U.S. 90 connection	5.0 ft.

It is recommended that foundation backfill be set up under Item 108-D, Local Material for Bridge Culverts and Item 109-B, Local Material for Culverts and Minor Structures.

Yours very truly,

W. R. Glass
Acting Division Engineer

By *T. G. Drinkard*
T. G. Drinkard
Assistant Division Engineer

TGD/dr
Attach.
cc: File (2)

Mr. D.B. Flournoy, Engineer
Bureau of Materials and Tests
State Highway Department
Montgomery, Ala.

Re: I-10-1(99)21
Spanish Fort - Loxley
Baldwin County

Dear Sir:

Listed below are the results of Soundings made at the
Culvert Sites on the above Project.

Station 441+30 275' Left Centerline

Elevation of Hub - 7.2

7.2 to 5.2	Very soft gray sandy muck and water
+5.2 to -2.8	Dense fine to medium grained sand
-2.8 to -6.8	Soft gray silty clay
-6.8 to -17.8	Loose gray silty sand with silty clay layers

Station 441+30 Centerline

Elevation of Hub - 4.0

4.0 to -3.0	Very soft gray silty clay, muck and water
-3.0 to -8.0	Dense medium grained sand
-8.0 to -21.0	Medium stiff gray silty clay and fine sand

Station 441+30 135' Right Centerline

Elevation of Hub - 4.3

4.3 to 1.3	Very soft black muck and water
1.3 to -1.7	Loose fine gray silty sand with small amount Organic Matter.
-1.7 to -17.7	Dense gray medium grained silty sand
-17.7 to -20.7	Medium stiff gray silty clay

Station 512+80 Centerline

Elevation of Hub - 48.3

48.3 to 46.3	Very loose brown silty sand with small amount Organic Matter
46.3 to 44.3	Very soft black sandy muck
44.3 to 33.3	Dense medium grained sand with soft clay layer
33.3 to 26.3	Soft gray silty marine clay
26.3 to 23.3	Stiff blue marine clay with few small gravel

Station 512+80 240' Right CenterlineElevation of Hub - 44.6

44.6 to 42.6	Soft brown sand clay and muck
42.6 to 40.6	Medium dense brown sand clay
40.6 to 30.6	Loose gray medium to fine silty sand
30.6 to 19.6	Soft gray silty marine clay

Station 512+80 200' Left CenterlineElevation of Hub - 50.5

50.5 to 46.5	Soft black muck
46.5 to 41.5	Loose gray silty sand with silty clay layers
41.5 to 25.5	Medium stiff gray silty marine clay

Station 532+60 160' Right CenterlineElevation of Hub - 44.6

44.6 to 38.6	Very soft black muck
38.6 to 32.6	Loose fine gray silty sand
32.6 to 19.6	Medium dense gray and brown sand

Station 532+60 10' Left CenterlineElevation of Hub - 45.3

45.3 to 39.3	Very soft black muck
39.3 to 33.3	Loose fine gray silty sand
33.3 to 28.3	Dense brown sand with few pea gravel
28.3 to 20.3	Medium dense tan and yellow sand clay

Station 532+60 155' Left CenterlineElevation of Hub - 46.2

46.2 to 40.2	Very soft black muck
40.2 to 36.2	Loose gray silty sand
36.2 to 21.2	Dense coarse to medium grained sand

Station 654+12 85' Right Centerline Left LaneElevation of Hub - 143.1

143.1 to 136.1	Medium dense brown sand clay
136.1 to 129.1	Dense tan fine silty sand
129.1 to 124.1	Dense tan medium to coarse sand with small amount clay layers
124.1 to 118.1	Soft pink clay

<u>Station 654+12</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>140.0</u>
140.0 to 131.0	Very soft black muck
131.0 to 124.0	Dense tan silty sand
124.0 to 115.0	Dense yellow and brown sand with clay layers
<u>Station 654+12</u>	<u>90' Left Centerline Left Lane</u>
Elevation of Hub -	<u>140.3</u>
140.3 to 133.3	Very soft black muck
133.3 to 131.3	Soft gray sand clay
131.3 to 128.3	Medium dense brown sand clay
<u>Station 654+90</u>	<u>Centerline Right Lane</u>
Elevation of Hub -	<u>138.0</u>
138.0 to 131.0	Very soft black muck
131.0 to 124.0	Dense gray silty sand
124.0 to 113.0	Medium dense gray and yellow sand clay
<u>Station 654+90</u>	<u>90' Right Centerline Right Lane</u>
Elevation of Hub -	<u>137.0</u>
137.0 to 131.0	Very soft black muck
131.0 to 129.0	Dense gray silty sand
129.0 to 125.0	Dense tan sand
<u>Station 671+78</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>148.0</u>
148.0 to 146.5	Black loamy top soil
146.5 to 143.0	Medium stiff brown wet silty clay
143.0 to 138.0	Medium dense tan sand clay
138.0 to 123.0	Dense red and tan medium grained sand
<u>Station 671+78</u>	<u>90' Right Centerline Left Lane</u>
Elevation of Hub -	<u>146.7</u>
146.7 to 144.7	Black loamy top soil
144.7 to 140.7	Medium stiff brown silty clay
140.7 to 136.7	Medium dense gray and red sand clay
136.7 to 121.7	Dense red and tan medium grained sand
<u>Station 671+78</u>	<u>80' Left Centerline Left Lane</u>
Elevation of Hub -	<u>149.0</u>
149.0 to 148.0	Black loamy top soil
148.0 to 143.0	Medium stiff brown silty clay
143.0 to 124.0	Dense tan grained sand

Station 673+70Centerline Right Lane

Elevation of Hub

144.8

144.8 to 137.8
 137.8 to 132.8
 132.8 to 127.8
 127.8 to 119.8

Very soft black muck and silt
 Medium dense gray sand clay
 Loose yellow coarse grained sand
 Dense tan coarse grained sand

Station 673+70125' Right Centerline Right Lane

Elevation of Hub -

142.8

142.8 to 134.8
 134.8 to 130.8
 130.8 to 125.8
 125.8 to 117.8

Very soft black muck
 Medium dense gray sand clay
 Loose tan medium grained sand
 Dense tan medium to coarse sand

Station 673+70110' Left Centerline Right Lane

Elevation of Hub -

146.3

146.3 to 136.3
 136.3 to 132.3
 132.3 to 121.3

Very soft black muck
 Medium dense gray sand clay
 Loose tan med grained sand

Station 676+65110' Left Centerline Right Lane

Elevation of Hub -

141.7

141.7 to 132.7
 132.7 to 120.7
 120.7 to 116.7

Very soft black muck
 Dense gray and tan medium grained sand
 Soft yellow silty clay

Station 676+65Centerline Right Lane

Elevation of Hub -

141.2

141.2 to 131.2
 131.2 to 122.2
 122.2 to 116.2

Very soft black muck
 Dense gray and tan medium grained sand
 Soft yellow silty clay

Station 676+65130' Right Centerline Right Lane

Elevation of Hub -

141.1

141.1 to 131.1
 131.1 to 129.1

Very soft black muck
 Dense gray fine to medium grained sand

Station 679+40130' Right Centerline Left Lane

Elevation of Hub -

143.8

143.8 to 132.8
 132.8 to 121.8
 121.8 to 118.8

Very soft black muck
 Dense gray medium grained sand
 Soft yellow silty clay

<u>Station 679+40</u>	<u>130' Left Centerline Left Lane</u>
Elevation of Hub -	<u>146.0</u>
146.0 to 135.0	Very soft black muck
135.0 to 132.0	Dense gray and tan medium grained sand
<u>Station 679+40</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>144.9</u>
144.9 to 134.9	Very soft black muck
134.9 to 132.9	Dense gray medium grained sand
<u>Station 726+00</u>	<u>Centerline Right Lane</u>
Elevation of Hub -	<u>118.3</u>
118.3 to 116.3	Soft black muck
116.3 to 110.3	Dense fine white sand
110.3 to 108.3	Dense coarse tan and yellow sand with pea gravel
<u>Station 726+00</u>	<u>120' Right Centerline Right Lane</u>
Elevation of Hub -	<u>117.6</u>
117.6 to 114.6	Soft black muck
114.6 to 111.6	Dense Fine white sand
<u>Station 726+00</u>	<u>120' Left Centerline Right Lane</u>
Elevation of Hub -	<u>119.0</u>
119.0 to 116.0	Soft black sandy muck
116.0 to 111.0	Dense fine gray sand
<u>Station 726+30</u>	<u>115' Right Centerline Left Lane</u>
Elevation of Hub -	<u>119.9</u>
119.9 to 116.9	Soft black muck
116.9 to 114.9	Soft gray silty clay
114.9 to 112.9	Medium dense gray sand clay
112.9 to 110.9	Dense fine white sand
<u>Station 726⁷²⁶+30</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>120.2</u>
120.2 to 117.2	Soft black muck
117.2 to 115.2	Loose tan sand with traces of Organic Matter
115.2 to 113.2	Dense fine white sand
113.2 to 110.2	Dense coarse white sand with pea gravel
<u>Station 726+30</u>	<u>115' Left Centerline Left Lane</u>
Elevation of Hub -	<u>120.8</u>
120.8 to 116.8	Soft black muck
116.8 to 115.8	Soft gray silty clay
115.8 to 112.8	Medium stiff gray silty clay

<u>Station 773+00</u>	<u>140' Left Centerline Right Lane</u>
Elevation of Hub -	<u>132.7</u>
132.7 to 125.7	Soft wet gray silty clay and organic matter
125.7 to 118.7	Medium dense fine red sand clay
118.7 to 107.7	Dense tan fine to medium grained sand
<u>Station 773+00</u>	<u>Centerline Right Lane</u>
Elevation of Hub -	<u>133.6</u>
133.6 to 126.2	Soft wet silty clay and Organic Matter
126.6 to 124.6	Medium dense gray sand clay
124.6 to 108.6	Dense fine tan sand
<u>Station 773+00</u>	<u>130' Right Centerline Right Lane</u>
Elevation fo Hub -	<u>136.2</u>
136.2 to 129.2	Medium dense tan sand clay, small layer sand stone
129.2 to 111.2	Medium dense tan and red medium grained sand
<u>Station 776+12</u>	<u>Centerline Left Lane</u>
Elevation of Hub -	<u>130.1</u>
130.1 to 123.1	Soft silt, clay and Organic Matter
123.1 to 115.1	Medium dense fine tan sand clay
115.1 to 105.1	Medium dense fine tan sand
<u>Station 776+12</u>	<u>115' Right Centerline Left Lane</u>
Elevation of Hub -	<u>130.9</u>
130.9 to 123.9	Soft gray silty clay and Organic matter
123.9 to 116.9	Loose fine tan silty sand
116.9 to 105.9	Dense fine tan sand
<u>Station 776+12</u>	<u>100' Left Centerline Left Lane</u>
Elevation of Hub -	<u>129.5</u>
129.5 to 122.5	Soft gray silty clay and Organic Matter
122.5 to 104.5	Medium dense fine tan silty sand
<u>Station 776+50</u>	<u>180' Left Centerline Left Lane (Service Road)</u>
Elevation of Hub -	<u>129.4</u>
129.4 to 122.4	Soft black silty clay and Organic Matter
122.4 to 104.4	Medium dense tan and yellow sand

Station 776+50 230' Left Centerline Left Lane (Service Road)

Elevation of Hub - 129.2

129.2 to 123.2 Soft black silty clay and Organic Matter
 123.2 to 115.2 Loose fine gray silty sand
 115.2 to 104.2 Medium dense tan sand

Station 12+55 45' Left (US 90 Connection)

Elevation of Hub - 3.0

3.0 to -17.0 Soft gray silty clay and sand
 -17.0 to -22.0 Soft gray silty clay

Station 12+45 50' Right (US 90 Connection)

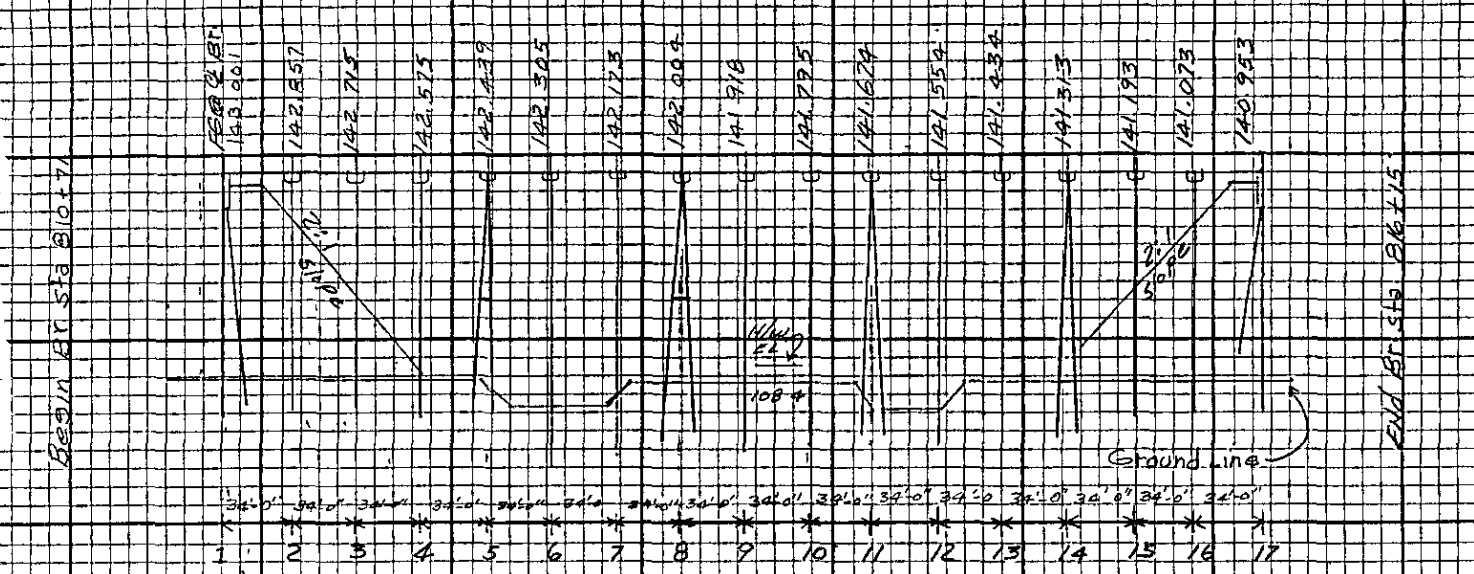
Elevation of Hub - 4.8

4.8 to 1.8 Loose coarse tan sand
 1.8 to -2.2 Very soft gray silty clay
 -2.2 to -20.2 Medium dense gray silty sand

Yours very truly,

Assistant Division Engineer

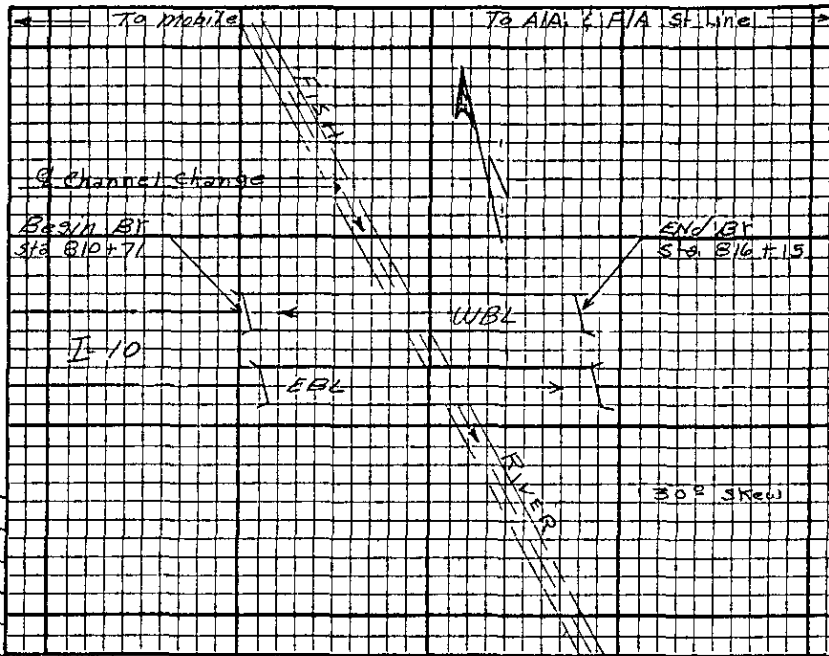
Overall Length = 544'-0" - Planment: Tangent - Grade = -0.3537% - 2000' V.C. - 30° Skew



GENERAL		ELEVATION OF STRUCTURE		SCALE H-1" = 100' V-1" = 30'	
NAME OF BRIDGE:		MIN DESIGN RATING:	HS20-44	FOR:	
OVER, STREAM R R OR HIGHWAY:	Fish River	OPERATING RATING:			
WHEN BUILT:	1970	APPROACH PAVT TYPE:	Bit Conc.		
MAINT BY NO AND LENGTH OF SPANS:	State 16 @ 34'-0"	PAVT WIDTH:	2 @ 24'	SHOULDER WIDTH:	48'
		SIGHT DIST VERT:		HORIZ:	
		ORIG COST:			

REMARKS: W.B.L

PHOTOGRAPH



LOCATION SKETCH SCALE 1" = 300'

WATERWAY DATA	
DIST LOW BRIDGE TO HW:	GRADE TO LOW BRIDGE:
DRAINAGE AREA:	= 11.58 mi
CHARACTER AND CONSTANT:	Q50 = 4500 cfs - Vm 50 = 3.56 ft/sec
CHANNEL DEPTH:	WIDTH BETW BANKS:
NATURE OF BOTTOM:	Opening Provided 1264, 59. ft.
CONDITION OF BANKS:	
DESCRIP OF PROTECTIVE WORKS:	
DOES ALL FLOOD PASS STRUCTURE?	IF NOT, WHERE?
REMARKS:	



STATE OF ALABAMA
HIGHWAY DEPARTMENT

MONTGOMERY, ALABAMA 36104

H L NELSON
STATE HIGHWAY DIRECTOR
BLUE BARBER
ASSISTANT HIGHWAY DIRECTOR

September 19, 1968

Plotted 8-69
JF

Mr. B. E. Higgins
Bridge Engineer
OFFICE

Re: Project I-10-1(21)35
Baldwin County
Foundation Investigation

Dear Sir:

Attached are the results of bridge foundation investigation conducted on the above project for bridges and culverts.

The borings indicate that adequate steel pile penetration can be obtained.

We recommend that the mucky material be removed at the culvert sites and replaced by foundation backfill.

Yours very truly,

D. B. Flournoy, Engineer
of Materials and Tests

By: Edward Eiland
Edward Eiland, Assistant Engineer
of Materials and Tests

WBH/sap
ccs:
Mr. W. R. Glass
Mr. W. F. Land
Mr. W. D. Bill, Resident Engineer
BPR (send to Mr. Higgins)
Mr. J. M. Ragland
Project File
File

Attachment

STATE HIGHWAY DEPARTMENT OF ALABAMA
 BUREAU OF MATERIALS & TESTS
 DIVISION OF MATERIALS
 MONTGOMERY 4, ALABAMA

Form M & T F-1

September 18, 1968

Mr J. F. Tribble, Materials Engineer
 Bureau of Materials & Research
 State Highway Department
 OFFICE

I-10-1(21)35
 Underpass Alabama 181
 Station 620+79
 Re: Baldwin County

Dear Sir

Listed below are the results of soundings made at the above location.

		15	Ft	Rt. C/L Survey	T.	STA.	28+51
Elevation of Hub		196.5					
196.5	to	195.0		Fill Material			
195.0	"	187.5		Medium gray sandy clay			
187.5	"	180.0		Medium light gray sandy marl			
180.0	"	179.9		Thin layer of pyrite			
179.9	"	175.0		Dense red and brown silty sand			
	"						
	"						
	"						

		15	Ft	Lt. C/L Survey	T.	STA.	28+51
Elevation of Hub		196.4					
196.4	to	191.0		Stiff brown silty sandy clay			
191.0	"	187.0		Dense gray sandy clay			
187.0	"	186.0		Medium light gray and silty sandy clay			
186.0	"	181.4		Dense brown and red silty sand			
181.4	"	174.9		Dense red and pink silty sand			
	"						
	"						
	"						

	40	Ft	Lt. C/L Survey STA. 28+51
Elevation of Hub	195.5		
195.5	to	194.0	Medium red silty sandy clay
194.0	"	190.0	Medium gray sandy clay
190.0	"	185.5	Dense gray sandy clay
185.5	"	179.0	Dense brown silty sand w/ thin layers of pyrite.
	"		
179.0	"	174.0	Dense red and pink sand
	"		
	"		
	40	Ft.	Rt. C/L Survey STA. 28+51
Elevation of Hub	195.9		
195.9	to	194.0	Stiff red silty sand and clay
194.0	"	190.0	Medium gray sandy clay
190.0	"	182.9	Dense light gray sandy clay
182.9	"	174.4	Dense red and pink sand
	"		
	"		
	"		
	"		
	15	Ft	Lt. C/L Survey STA 29+18
Elevation of Hub	196.8		Bent #2
196.8	to	192.0	Medium brown silty sand
192.0	"	189.0	Medium brown silty sandy clay
189.0	"	185.0	Stiff red silty sandy clay
185.0	"	183.5	N=17
183.5	"	180.0	Dense red and pink sand
180.0	"	178.5	N=15
178.5	"	175.0	Dense red and pink sand
175.0	"	173.5	N=19

Elevation of Hub		Ft.	T.	STA.
162.7	to	146.0		Medium yellow sand
	"			
	"			
	"			
	"			
	"			
	"			
	"			

Elevation of Hub		40 Ft.	Lt. C/L Survey	STA	29+18
195.9	to	191.0			Medium gray sandy clay
191.0	"	189.0			Stiff brown clay
189.0	"	180.0			Stiff red clay w/ small amount of gravel
180.0	"	173.0			Stiff red sand clay
173.0	"	160.0			Medium yellow and red sand
160.0	"	145.0			Stiff wet red sand w/ layers of sand clay
	"				
	"				

Elevation of Hub		40 Ft.	Lt. C/L Survey	STA	30+00	Bent No. 3
196.9	to	195.0				Stiff brown sand clay
195.0	"	192.0				Stiff yellow clay w/ small amount of sand
192.0	"	180.0				Stiff red clay w/ small amount of sand
180.0	"	167.0				Stiff red sand
167.0	"	147.0				Medium yellow sand
	"					
	"					
	"					

15

Ft. Rt. C/L Survey

STA 30+00

Elevation of Hub 197.6

197.6 to 196.0

Dense red silty sand

196.0 " 192.6

Medium gray sandy clay

192.6 " 191.0

Stiff red silty clay

191.0 " 185.0

Dense red silty sand

185.0 " 183.5

N=22

185.0 Bottom of dense red silty sand

183.5 " 180.0

Dense red and pink sand

180.0 " 178.5

N=16

178.5 " 175.0

Dense white and pink sand

Ft

T

STA

Elevation of Hub

175.0 to 173.5

N=18

173.5 " 172.6

Dense white and pink sand

"

"

"

"

"

"

15

Ft Lt. C/L Survey

STA 30+00

Elevation of Hub 197.6

197.6 to 191.0

Stiff brown silty clay

191.0 " 180.0

Stiff red silty sandy clay

180.0 " 177.6

Dense red silty sand

177.6 " 156.0

Dense red and pink silty sand

156.0 " 146.6

Dense pink and white sand

"

"

"

40 Ft. Rt. C/L Survey STA. 30+00

Elevation of Hub	197.0		
197.0	to	192.0	Stiff brown and red silty clay
192.0	"	180.0	Hard red silty clay
180.0	"	150.0	Dense red sand
150.0	"	146.0	Dense white and pink sand
	"		
	"		
	"		
	"		

15 Ft. Rt. C/L Survey STA 30+82

Elevation of Hub	198.4		Bent # 4
198.4	to	198.0	Stiff brown silty clay
198.0	"	197.0	Stiff red silty clay
197.0	"	193.0	Stiff brown silty sand clay
193.0	"	184.0	Stiff red silty sand clay
184.0	"	184.4	Dense red and white silty sand
	"		
	"		
	"		

40 Ft. Rt. C/L Survey STA 30+82

Elevation of Hub	197.8		
197.8	to	195.0	Medium brown and red silty clay
195.0	"	191.0	Stiff brown and yellow clay
191.0	"	186.0	Hard red silty clay
186.0	"	184.5	N=31 <i>184.5 bottom of hard red silty clay</i>
184.5	"	181.0	Dense white and pink sand
181.0	"	179.5	N=20
179.5	"	176.0	Dense white and pink sand
176.0	"	174.5	N=19

Ft.

T. STA

Elevation of Hub

174.5	to	146.0	Dense white and pink sand w/ thin layers of sandrock
146.0	"	145.8	Very dense white and pink sand
	"		
	"		
	"		
	"		

15 Ft

Lt. C/L Survey STA 30+82

Elevation of Hub

198.3

198.3	to	196.0	Medium red sand clay
196.0	"	191.0	Stiff yellow clay
191.0	"	181.0	Stiff red clay w/ small amount of sand
181.0	"	177.0	Stiff red sand clay
177.0	"	168.0	Medium red sand w/ small amount of gravel
168.0	"	148.0	Dense fine white sand
	"		
	"		

40 Ft

Lt. C/L Survey STA 30+82

Elevation of Hub

197.2

197.2	to	191.0	Stiff yellow clay
191.0	"	179.0	Stiff red clay w/ small amount of sand
179.0	"	162.0	Medium brown sand
162.0	"	156.0	Medium yellow sand w/ small amount pea gravel
156.0	"	149.0	Dense fine white sand
	"		
	"		
	"		

(X)
(#)

		40	Ft.	Lt. C/L Survey	STA.	31+49
Elevation of Hub		198.1				Abut. # 5
198.1	to	192.0				Stiff yellow clay
192.0	"	183.0				Stiff red clay w/ small amount of sand
183.0	"	178.0				Stiff red sand clay
178.0	"	173.0				Medium red sand
	"					
	"					
	"					
	"					

		15	Ft.	Lt. C/L Survey	STA.	31+49
Elevation of Hub		199.1				
199.1	to	196.0				Stiff red sand clay
196.0	"	193.0				Stiff yellow sand clay
193.0	"	181.0				Stiff red clay w/ small amount of sand
181.0	"	174.0				Dense red sand
	"					
	"					
	"					
	"					

		15	Ft.	Rt. C/L Survey	STA.	31+49
Elevation of Hub		199.0				
199.0	to	198.0				Medium brown silty sand
198.0	"	196.0				Stiff red silty clay
196.0	"	189.0				Dense red silty sand
189.0	"	185.0				Dense brown silty sand
185.0	"	177.5				Dense red and pink sand
	"					
	"					
	"					

40

Ft.

Rt. C/L Survey

STA.

31+49

Elevation of Hub

198.6

198.6

to

195.6

Dense red silty sand

195.6

"

193.0

Dense brown silty sand

193.0

"

192.0

Very Dense brown silty sand

192.0

"

177.1

Dense red and pink silty sand

"

"

"

"

Ft.

T

STA.

Elevation of Hub

to

"

"

"

"

"

"

"

Ft

T

STA

Elevation of Hub

to

"

"

"

"

"

"

"

(2)
(10)

	C/L	Ft.	Rt. Lane	T.	STA	850+00
Elevation of Hub	108.1					Culvert
108.1	to	104.7				Sandy muck
104.7	"	93.0				White fine sand
93.0	"	87.0				Stiff gray sandy clay
"						
"						
"						
"						
"						

	C/L	Ft.	Lt. Lane	T.	STA	850+00
Elevation of Hub	108.5					
108.5	to	105.8				Muck
105.8	"	100.5				Gray sand w/ thin layers of clay
100.5	"	96.0				Fine yellow sand clay
96.0	"	94.0				Pea gravel w/ fine sand
94.6	"	87.0				Fine yellow sand w/ thin layers of clay
"						
"						
"						

	C/L	Ft.	Rt. Lane	T.	STA	655+32
Elevation of Hub	138.1					Culvert at Sta. 655+00
138.1	to	134.0				Brown muck
134.0	"	129.0				Gray sand
129.0	"	128.0				Pea Gravel
128.0	"	117.0				Stiff gray sandy marl
"						
"						
"						
"						

		G/L	Ft.	Rt.	Lane	T.	STA.	655+00
Elevation of Hub		138.1						
138.1	to	133.0						Brown muck
133.0	"	129.0						Gray sandy clay
129.0	"	125.0						Stiff gray sandy marl
	"							
	"							
	"							
	"							
	"							

		110	Ft.	Lt.	T.	STA.	441+30
Elevation of Hub		5.2					Culvert at Sta. 441+30
5.2	to	1.4					Muck
1.4	"	-1.0					Gray sand
-1.0	"	-5.0					Stiff yellow sand
-5.0	"	-6.0					Stiff gray marl
-6.0	"	-16.0					Stiff gray sandy marl
	"						
	"						
	"						

		320	Ft.	Lt.	T.	STA.	441+30
Elevation of Hub		8.2					Culvert at Sta. 441+30
8.2	to	4.2					Brown muck
4.2	"	-1.0					Gray sand
-1.0	"	-7.0					Medium yellow sand
-7.0	"	-15.0					Medium gray sandy marl
	"						
	"						
	"						
	"						

		140	Ft.
Elevation of Hub		4.9	
4.9	to	1.6	
1.6	"	-13.0	
-13.0	"	-17.0	
	"		
	"		
	"		
	"		

Rt.	T.	STA.	441+30

		345	Ft.
Elevation of Hub		9.5	
9.5	to	7.7	
7.7	"	-5.0	
-5.0	"	-12.0	
	"		
	"		
	"		
	"		

Rt.	T.	STA.	441+30

	Abut. # 1	48	Ft.
Elevation of Hub		24.1	
24.1	to	20.0	
20.0	"	16.0	
16.0	"	11.0	
11.0	"	4.0	
4.0	"	1.0	
	"		
	"		
	"		

Rt. C/L	T.	STA.	520+44

Underpass US-98 at Sta. 431+00
Baldwin County

Yellow Sand
Stiff brown sand clay w/ small amount of gravel
Stiff gray sandy clay
Medium gray sand
Soft yellow clay w/ small amount of sand

M & T F-1

(13)

		10	Ft.	Rt.	T.	STA.	520+44
Elevation of Hub		23.2					
	23.2	to	20.0				Brown clay
	20.0	"	15.0				Stiff yellow and gray sand clay
	15.0	"	6.0				Medium brown and gray clay w/ small amount of sand
	6.0	"	2.0				Soft gray clay
		"					
		"					
		"					

		20	Ft.	Lt. C/L	T.	STA.	520+44
Elevation of Hub		24.4					
	24.4	to	20.0				Red sand clay
	20.0	"	10.0				Gray sand clay (Stiff)
	10.0	"	4.0				Medium gray sand
	4.0	"	1.0				Soft yellow clay
		"					
		"					
		"					

		48	Ft.	Lt. C/L	T.	STA.	520+44
Elevation of Hub		24.8					
	24.8	to	21.0				Yellow sand clay
	21.0	"	11.0				Stiff brown sand clay
	11.0	"	5.0				Stiff gray sand w/ layers of gray clay
	5.0	"	0.0				Stiff yellow clay
		"					
		"					
		"					

Elevation of Hub		20	Ft.	Lt. C/L T.	STA. 521+26
22.6	to	18.0		Stiff brown sand clay	
18.0	"	12.0		Stiff red sand clay	
12.0	"	3.0		Stiff yellow sand clay	
3.0	"	-8.0		Medium gray clay w/ small amount of sand	
-8.0	"	-23.0		Medium blue sandy marl	
	"				
	"				
	"				

Elevation of Hub		48	Ft.	Rt. C/L T.	STA. 521+26	Bent #2
25.8	to	18.0		Stiff brown sand clay		
18.0	"	14.0		Stiff yellow clay		
14.0	"	1.0		Medium yellow sand		
1.0	"	-5.0		Stiff gray sand clay w/ thin layers of soft sandstone		
-5.0	"	-19.0		Stiff blue marl w/ small amount of sand		
	"					
	"					

Elevation of Hub		10	Ft.	Rt. C/L T.	STA. 521+26	Bent #2
24.2	to	18.0		Stiff yellow sand clay		
18.0	"	16.5		N=20		
16.5	"	14.0		Stiff yellow sand clay		<i>Bottom this</i>
14.0	"	12.5		N=12		
12.5	"	10.0		<i>stiff</i> Yellow and gray sand clay		<i>Be there this</i>
10.0	"	8.5		N=16		
8.5	"	5.0		Stiff gray clay w/ small amount of sand		
	"					

(2)

(16)

Lt. C/L T STA 522+26

48 Ft.

Elevation of Hub 29.1

Bent #3

29.1 to 19.0

Very stiff yellow sand clay

19.0 " 15.0

Stiff gray and pink clay

15.0 " 5.0

Stiff yellow sand clay

5.0 " -1.0

Soft brown and gray clay

-1.0 " -14.0

Stiff blue sand marl

"

"

"

20 Ft.

Lt. T STA 522+26

Elevation of Hub 30.0

30.0 to 22.0

Stiff brown sand clay

22.0 " 20.0

Stiff red sand clay

Bottom this

20.0 " 18.5

N=9

18.5 " 16.0

Medium red and gray clay

Bottom this

16.0 " 14.5

N=8

14.5 " 12.0

Medium red sand clay

Bottom this

12.0 " 10.5

N=5

10.5 " -5.0

Soft gray marl

Ft.

T STA

Elevation of Hub

-5.0 to -16.0

Medium blue sandy marl

"

"

"

"

"

"

"

Elevation of Hub		Ft.	Rt.	T.	STA.
		18			522+26
31.0		31.0			
31.0	to	26.0			Stiff yellow clay
26.0	"	21.0			Stiff yellow sand clay
21.0	"	19.5			N=11
19.5	"	17.0			Stiff yellow clay
17.0	"	15.5			N=10 <i>Bottom this</i>
15.5	"	13.0			Stiff gray sand clay
13.0	"	11.5			N=9 <i>Bottom this</i>
11.5	"	5.0			Soft blue marl

Elevation of Hub				T.	STA.
5.0	to	10			Medium yellow sand clay
1.0	"	-19.0			Medium blue sandy marl
	"				
	"				
	"				
	"				
	"				
	"				

Elevation of Hub		Ft.	Rt.	T.	STA.
		10			522+26
32.0		32.0			
32.0	to	20.0			Very stiff yellow clay
20.0	"	10.0			Stiff yellow and gray clay
10.0	"	2.0			Medium gray sandy marl
2.0	"	-18.0			Medium blue marl w/ layers of sand
	"				
	"				
	"				
	"				

Elevation of Hub		48	Ft.	Rt. C/L	T.	STA.	524+06
Elevation of Hub		41.1					Bent #5
41.1	to	36.0					Medium brown sand clay
36.0	"	28.0					Stiff yellow sand clay
28.0	"	25.0					Medium red sand clay
25.0	"	1.0					Medium yellow sand w/ small amount of clay
1.0	"	-15.0					Soft yellow clay w/ small amount of sand
	"						
	"						
	"						

Elevation of Hub		10	Ft.	Rt. C/L	T.	STA.	524+06
Elevation of Hub		38.6					
38.6	to	37.0					Soft brown sand
37.0	"	28.0					Hard yellow sand clay
28.0	"	22.0					Very stiff sand clay
22.0	"	20.5					N=41
20.5	"	18.0					Dense yellow sand
18.0	"	16.5					N=36
16.5	"	14.0					Wet yellow sand
14.0	"	12.5					N=16

Bottom this

Bottom this

is all over this

Elevation of Hub			Ft.	T.	STA.
Elevation of Hub		12.5			
12.5	to	3.0			
3.0	"	-12.0			
-12.0	"	-32.0			
	"				
	"				
	"				
	"				
	"				
	"				

Loose wet yellow and gray sand

Medium wet brown sand clay

Stiff blue sandy marl

Elevation of Hub		30	Ft	Lt. C/L T. STA.	524+06
36.0	to	34.0		Brown silty sand	
34.0	"	26.0		Hard yellow sand clay	
26.0	"	1.0		Dense yellow sand	
1.0	"	-15.0		Wet yellow sand w/ layers of yellow clay	
	"				
	"				
	"				

Elevation of Hub		48	Ft.	Lt. T. STA.	524+06
32.0	to	27.0		Very stiff yellow sand clay	
27.0	"	22.0		Very stiff yellow sand	<i>is at the top of this</i>
22.0	"	20.5		N=19	
20.5	"	18.0		Dense yellow sand	
18.0	"	16.5		N= 22	
16.5	"	14.0		Dense yellow sand	
14.0	"	12.5		N=16	<i>Bottom of this</i>
12.5	"	-3.0		Medium yellow sand	

Elevation of Hub			Ft.	T. STA.	
-3.0	to	-13.0		Soft yellow sand clay	
-13.0	"	-18.0		Soft gray sandy marl	
	"				
	"				
	"				
	"				
	"				

48 Ft.

Lt. C/L T. STA. 524+48

Elevation of Hub 32.0

32.0 to 30.0

Stiff brown silty clay

30.0 " 24.0

Very stiff yellow sand clay

24.0 " 2.0

Medium yellow sand w/ layers of clay

"

"

"

"

"

20 Ft.

Lt. C/L T. STA. 524+48

Elevation of Hub 34.1

34.1 to 32.0

Stiff brown clay

32.0 " 28.0

Very stiff yellow sand clay

28.0 " -4.0

Dense yellow sand w/ small amount of clay

"

"

"

"

"

10 Ft.

Rt. C/L T. STA. 524+48

Elevation of Hub 38.0

38.0 to 36.0

Stiff brown sand clay

36.0 " 28.0

Very stiff yellow sand clay

28.0 " 8.0

Dense yellow sand

"

"

"

"

"

	48	Ft.	Rt. C/L	T.	STA	524+48
Elevation of Hub	43.5					
43.5	to	38.0				Stiff red and brown clay
38.0	"	22.0				Very stiff red sand clay
22.0	"	7.0				Dense yellow sand
	"					
	"					
	"					
	"					
	"					

	C/L	Ft.	Rt. Lane	T.	STA	726+00
Elevation of Hub	118.1					Culvert @ Sta. 726+00
118.1	to	115.6				Brown sandy muck
115.6	"	107.0				Medium gray sand
107.0	"	98.0				Stiff gray sandy marl
	"					
	"					
	"					
	"					
	"					

	C/L	Ft.	It. Lane	T.	STA	726+40
Elevation of Hub	119.7					
119.7	to	115.7				Brown sandy muck
115.7	"	110.0				Gray sand
110.0	"	98.0				Stiff gray sandy marl
	"					
	"					
	"					
	"					
	"					

140 Ft.

Lt. C/L T. STA. 533+25

Elevation of Hub 46.6

Culvert at Station 532+75

46.6 to 41.4

Brown muck

41.4 " 28.0

Medium gray and white sand

28.0 " 24.0

Stiff yellow sand clay

"

"

"

"

"

140 Ft.

Rt. C/L T. STA. 532+00

Elevation of Hub 44.8

44.8 to 39.6

Brown muck

39.6 " 30.0

Medium gray sand

30.0 " 24.0

Medium yellow sand w/ small amount of clay

"

"

"

"

"

C/L Ft.

T. STA. 512+90

Elevation of Hub 47.7

Culvert at Station 512+90

47.7 to 40.7

Brown sandy muck

40.7 " 26.0

Medium pink and gray sand w/ layer of marl

"

"

"

"

"

"

(2)

(25)

Rt. C/L T. STA. 512+00

160 Ft.

Elevation of Hub 45.0

45.0 to 40.5

Brown muck

40.5 " 35.0

Gray sandy marl

35.0 " 25.0

Medium gray sand w/ layer of marl

"

"

"

"

"

160 Ft.

Lt. C/L T. STA. 513+70

Elevation of Hub 49.7

49.7 to 44.2

Brown muck

44.2 " 42.0

Fine gray sand

42.0 " 40.0

Pea Gravel

40.0 " 32.0

Fine gray sand w/ thin layers of clay

32.0 " 29.0

Stiff gray sandy marl

"

"

"

Ft.

T. STA.

Elevation of Hub

to

"

"

"

"

"

"

"

Elevation of Hub			
109.5	to	109.5	
109.5		99.0	bottom of muck Very soft brown sandy muck
99.0	"	97.5	N=10
97.5	"	94.0	Medium white sand
94.0	"	92.5	N=12
92.5	"	89.0	Medium yellow sand w/ small amount of gravel
89.0	"	87.5	N=5
87.5	"	84.0	Medium yellow sand w/ small amount of gravel
84.0	"	82.5	N=6

Ft. T. STA.

Elevation of Hub

82.5	to	79.0	Very soft gray and yellow silty sand
79.0	"	77.5	N=2 Bottom of 5
77.5	"	74.0	Stiff gray and yellow sandy marl
74.0	"	72.5	N=17
72.5	"	69.0	Dense fine gray sand w/ thin layers of yellow clay
69.0	"	67.5	N=12
67.5	"	64.0	← Bottom of this Medium fine gray sand

Ft. T. STA.

Elevation of Hub

64.0	to	62.5	N=8
62.5	"	59.0	Fine yellow and gray sand in layers
59.0	"	57.5	N=10
57.5	"	49.0	Medium fine yellow and gray sand
	"		
	"		
	"		
	"		

Elevation of Hub	106.9		
106.9	to	101.0	Black muck
101.0	"	97.0	White sand
97.0	"	95.5	N=20
95.5 97.0	"	92.0	Stiff gray sandy marl.
92.0	"	90.5	N=10
90.5 92.0	"	87.0	Stiff gray silty sand
87.0	"	85.5	N=11
85.5 87.0	"	82.0	Dense yellow sand w/ small amount of clay

Ft T STA

Elevation of Hub	82.0	to	80.5	N=33
80.5 82.0	"	77.0	Yellow sand and pea gravel	
77.0	"	75.5	N=7	
75.5 77.0	"	72.0	Soft gray and yellow silty sand	
72.0	"	70.5	N=3	
70.5 72.0	"	67.0	Soft gray silty sand	
67.0	"	65.5	N=9	
65.5 67.0	"	62.0	Fine yellow silty sand	

Ft T STA

Elevation of Hub	62.0	to	60.5	N=10
60.5 62.0	"	57.0	Fine yellow silty sand	
57.0	"	47.0	Dense yellow and gray silty sand	



Ft C/L Lt. Lane T STA 814+00

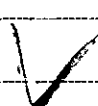
Elevation of Hub			
105.1	to	100.0	Brown Muck
100.0	"	95.0	White sand w/ organic matter
95.0	"	93.5	N=5
93.5	"	90.0	Medium white sand w/ thin layers of clay
90.0	"	88.5	N=7
88.5	"	85.0	Dense brown silty sand
85.0	"	83.5	N=19
83.5	"	80.0	Dense gray sand w/ layers of yellow sand clay

Ft T STA

Elevation of Hub			
80.0	to	78.5	N=14
78.5	"	75.0	Stiff gray silty sand w/ layers of yellow sand clay
75.0	"	73.5	N=25
73.5	"	70.0	Stiff yellow sandy clay
70.0	"	68.5	N=27
68.5	"	65.0	Dense gray and pink sand
65.0	"	63.5	N=48

Ft T STA

Elevation of Hub			
63.5	to	60.0	Dense yellow and gray sand w/ small amount of clay
60.0	"	58.5	N=28
58.5	"	55.0	Dense yellow sand w/ layers of gray clay
	"		
	"		
	"		
	"		



Ft C/L Rt. Lane T STA 815+00

Elevation of Hub 104.1

104.1	to	100.0	Black muck
100.0	"	94.0	Medium gray sand
94.0	"	92.5	N=17
92.5	"	89.0	Dense gray and yellow sand
89.0	"	87.5	N=9
87.5	"	84.0	Dense yellow sand w/ small amount of gravel
84.0	"	82.5	N=20
82.5	"	79.0	Dense yellow sand w/ small amount of gravel

Ft T STA

Elevation of Hub

79.0	to	77.5	N=24
77.5	"	74.0	Dense fine yellow and gray sand
74.0	"	72.5	N=10
72.5	"	69.0	Medium fine yellow and gray sand w/ thin layers of clay
69.0	"	67.5	N=4
67.5	"	64.0	Fine yellow and gray sand
64.0	"	62.5	N=9

Ft T STA

Elevation of Hub

62.5	to	59.0	Medium fine yellow sand
59.0	"	57.5	N=10
57.5	"	54.0	Medium fine yellow and gray sand
54.0	"	52.5	N=7
	"		
	"		
	"		
	"		

Ft C/L Rt. Lane T STA 817+00

Elevation of Hub			
103.8	to	99.0	Brown muck
99.0	"	94.0	White sand
94.0	"	92.5	N=7
92.5	"	89.0	Loose yellow sand w/ small amount of gravel
89.0	"	87.5	N=5
87.5	"	84.0	Dense yellow sand w/ small amount of gravel
84.0	"	82.5	N=16
82.5	"	79.0	Dense yellow sand w/ thin layers of clay

Ft T STA

Elevation of Hub			
79.0	to	77.5	N=10
77.5	"	74.0	Medium fine yellow and gray sand w/ thin layers of gray clay
74.0	"	72.5	N=8
72.5	"	69.0	Stiff gray sand clay w/ layers of sand
69.0	"	67.5	N=9
67.5	"	64.0	Dense yellow sand w/ hard layers
64.0	"	62.5	N=79

Ft T STA

Elevation of Hub			
62.5	to	59.0	Dense yellow sand w/ thin hard layers
59.0	"	57.5	N=22
57.5	"	44.0	Dense yellow and gray sand w/ layers of stiff gray clay
	"		
	"		
	"		
	"		

SUPERSTRUCTURE

FLOOR CROWN: <i>4" Parabolic</i>		SUPERELEVATION: <i>—</i>		VERT CLEAR: <i>OPEN</i>						
SIDEWALKS:		EXP JT MATL: <i>1" Open</i>		DRAINS: <i>3" Ø</i>						
SPAN NO	FLOOR DEPTH AND MATL	WEAR SURF DEPTH AND MATL	CURBS HEIGHT AND MATL	RAILING			CLEARANCE			
				TYPE	NO	MATL	HT	POSTS	BETW CURBS	BETW RAILS
<i>1-13</i>	<i>6" CONC</i>		<i>11" CONC</i>	<i>F</i>	<i>1</i>	<i>CONC</i>	<i>2'-3"</i>	<i>CONC</i>	<i>39'-3"</i>	<i>40'-9"</i>

STRINGERS - BEAMS OR GIRDERS									
SPAN NO	MATL	SPAN C C BEARS	NO OF BEAMS	SPACING	SECTION		TYPE EXP	STD DWG	DESIGN RATING
					OUTS STRING	INS STRING			
<i>1-13</i>	<i>RC DG</i>		<i>6</i>	<i>7'-0"</i>	<i>16 3/4"</i>	<i>x 29"</i>	<i>Slide</i>	<i>C3934-B-30</i>	<i>HS20-44</i>

TRUSSES									
WHEN MADE:			YIELD POINT:			FABRICATED BY:			
DESIGN RATING: FLOOR:					TRUSSES:				
SPAN NO	MATL - KIND - TYPE - CONNS			SPAN C C BEARS	NO AND LGTH OF PANELS	DIST C C TRUSSES	DEPTH AT CENTER	TYPE EXP	STD DWG

SUBSTRUCTURE

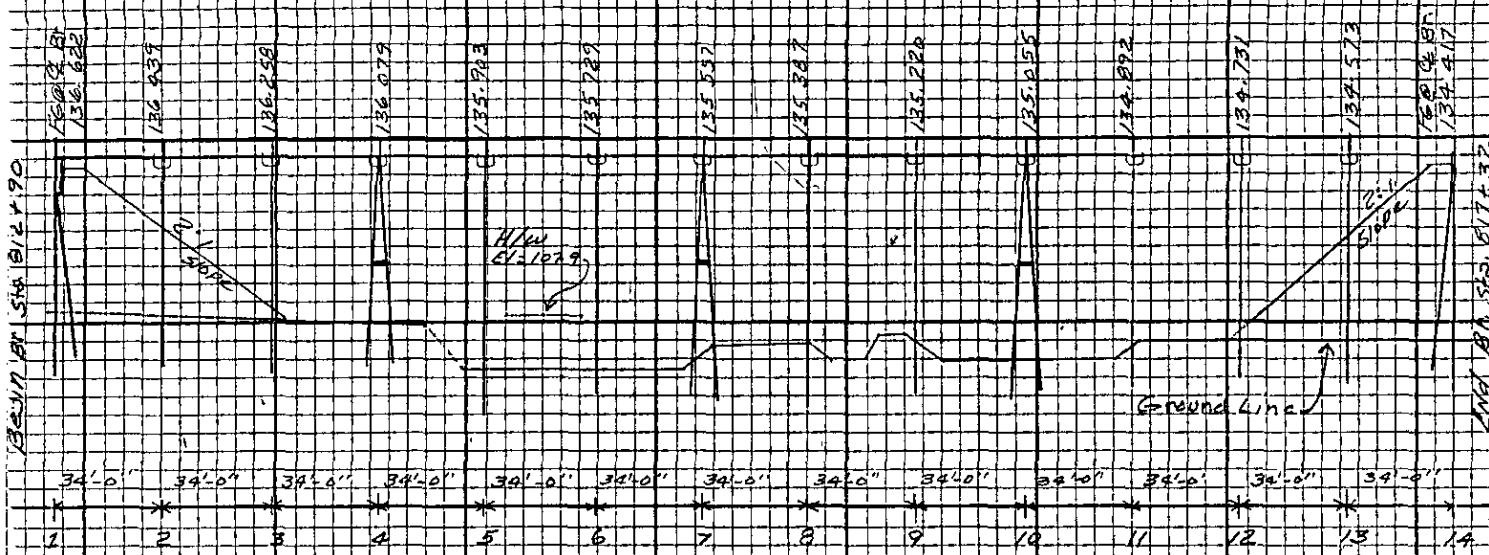
BENT NO	TYPE AND MATL	HT GRADE TO TOP CAP	HT TOP CAP TO BOTY FOOT	NO AND LGTH PILES	FOUNDATION MATL	DIST GRADE TO GROUND
REAR ABUT	<i>1 6' R.C. & Steel Pile</i>	<i>2'-7"</i>				<i>Std. DWG PA 3900-B-30</i>
FWD	<i>14 " " " "</i>	<i>"</i>				<i>"</i>
PIER OR BENT	<i>2 RC & Steel Pile (6 Pile)</i>	<i>"</i>				<i>PB-3934-30</i>
	<i>3 " " " "</i>	<i>"</i>				<i>"</i>
	<i>4 RC & Steel Pile (Tower)</i>	<i>"</i>				<i>"</i>
	<i>5 R.C. & Steel Pile (6 Pile)</i>	<i>"</i>				<i>Br. Sh. # 3</i>
	<i>6 " " " "</i>	<i>"</i>				
	<i>7 RC & Steel Pile (Tower)</i>	<i>"</i>				
	<i>8 RC & Steel Pile (6 Pile)</i>	<i>"</i>				
	<i>9 " " " "</i>	<i>"</i>				
	<i>10 RC & Steel Pile (Tower)</i>	<i>"</i>				
	<i>11 RC & Steel Pile (6 Pile)</i>	<i>"</i>				
	<i>12 " " " "</i>	<i>"</i>				
	<i>13 " " " "</i>	<i>"</i>				

DL 7.23

BIN: 10171 (+1)

BRIDGE NO	COUNTY	FED RT	US HWY	PROJECT NO	TYPE	STRENGTH				ROADWAY						CLEARANCE				
						H10	H10	H15	H20	-18	18	18	30	31	22	24	24+	12	12	14
<i>10 02</i>	<i>13.38 Baldwin</i>	<i>—</i>	<i>—</i>	<i>I-10-1(21)35</i>	<i>S.C.C.</i>															

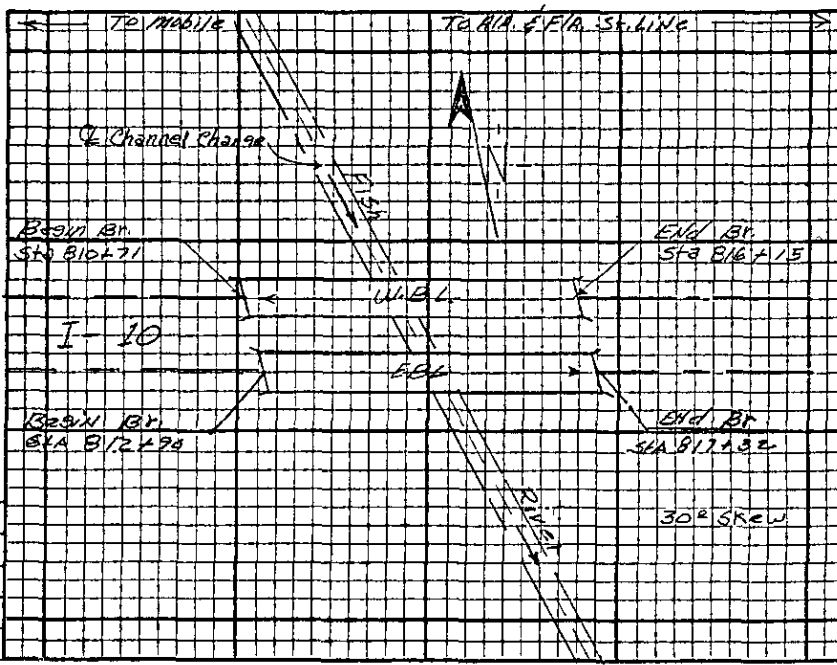
Overall Length = 442'-0" Alignment: Tangent - Grade = -0.6965% , 2000' V.C , 30° skew



GENERAL		ELEVATION OF STRUCTURE		SCALE H- 1" = 60' V- 1" = 30'	
NAME OF BRIDGE:		MIN DESIGN RATING:	HS20-44	FOR:	
OVER: STREAM	Fish River	OPERATING RATING:			
R R OR HIGHWAY:		APPROACH PAVT TYPE:	Bit Conc		
WHEN BUILT:	1970	PAVT WIDTH:	2 @ 24'	SHOULDER WIDTH:	48'
MAINT BY:	State	SIGHT DIST VERT:		HORIZ:	
NO AND LENGTH OF SPANS:	13 @ 34'-0"	ORIG COST:			
BY OVERALL LGTH FLOOR:		442'-0"			

REMARKS: EBL

PHOTOGRAPH



LOCATION SKETCH SCALE 1" = 300' (APPROX)

WATERWAY DATA	
DIST LOW BRIDGE TO HW:	GRADE TO LOW BRIDGE:
DRAINAGE AREA:	11.59 mi
CHARACTER AND CONSTANT:	Q50 = 4500 CFS, Vm50 = 325 ft/sec
CHANNEL DEPTH:	WIDTH BETW BANKS:
NATURE OF BOTTOM:	Opening Provided, 1384 sq ft
CONDITION OF BANKS:	
DESCRIP OF PROTECTIVE WORKS:	
DOES ALL FLOOD PASS STRUCTURE?	IF NOT, WHERE?
REMARKS:	

SUPERSTRUCTURE

FLOOR CROWN: *4" Parabolic on EBL* SUPERELEVATION: *1/4" 1/1 ON W.B.L.* VERT CLEAR: *OPEN*
 SIDEWALKS: _____ EXP JT MATL: *1" OPEN* DRAINS: *3" Ø*

SPAN NO	FLOOR DEPTH AND MATL	WEAR SURF DEPTH AND MATL	CURBS HEIGHT AND MATL	RAILING			CLEARANCE			
				TYPE	NO	MATL	HT	POSTS	BETW CURBS	BETW RAILS
<i>1-7</i>	<i>6" CONC.</i>		<i>11" CONC</i>	<i>F</i>	<i>1</i>	<i>Conc</i>	<i>2'-3"</i>	<i>Conc.</i>	<i>39'-3"</i>	<i>40'-9"</i>

STRINGERS - BEAMS OR GIRDERS

SPAN NO	MATL	SPAN C C BEARS	NO OF BEAMS	SPACING	SECTION		TYPE EXP	STD DWG	DESIGN RATING
					OUTS STRING	INS STRING			
<i>1-7</i>	<i>R.C.D.G.</i>	<i>—</i>	<i>6</i>	<i>7'-0"</i>	<i>16 3/4"</i>	<i>X 29"</i>	<i>Slide</i>	<i>C-3934B-30</i>	<i>HS20-44</i>

TRUSSES

WHEN MADE: _____ YIELD POINT: _____ FABRICATED BY: _____

DESIGN RATING, FLOOR: _____ TRUSSES: _____

SPAN NO	MATL - KIND - TYPE - CONNS	SPAN C C BEARS	NO AND LGTH OF PANELS	DIST C C TRUSSES	DEPTH AT CENTER	TYPE EXP	STD DWG

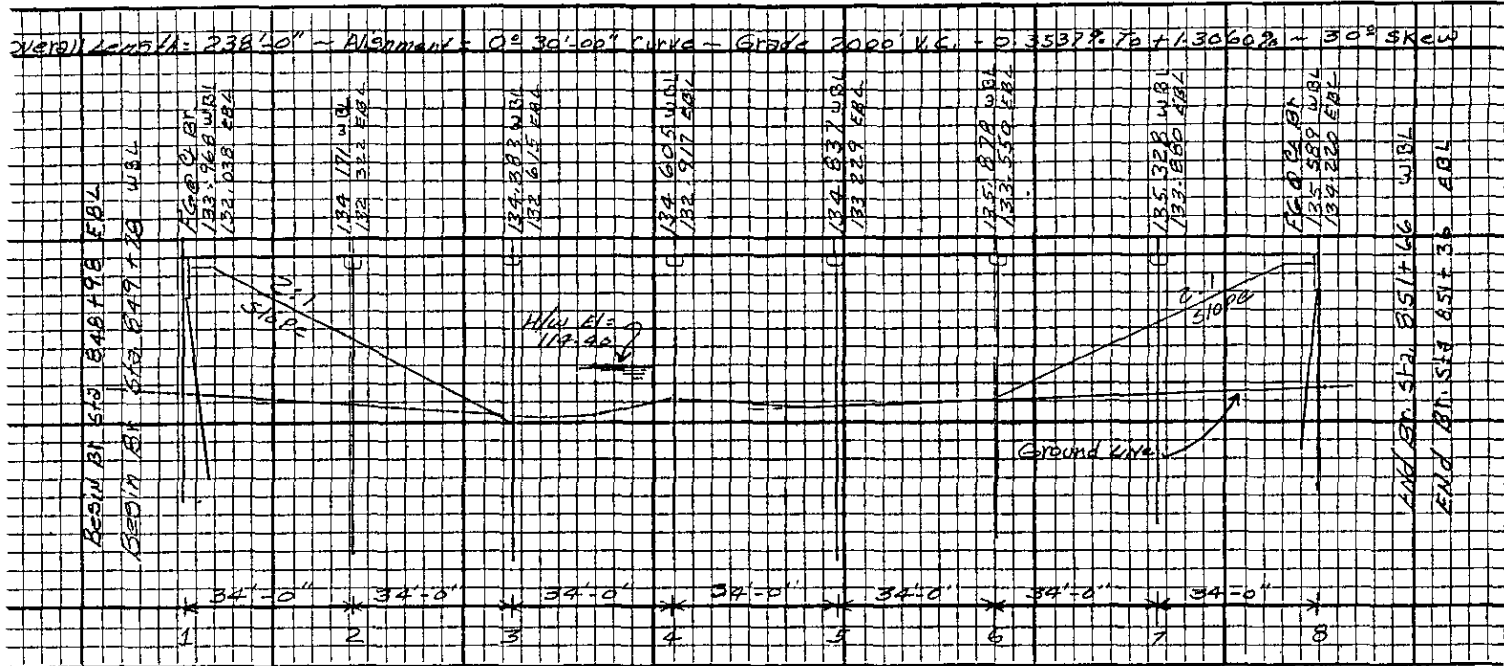
SUBSTRUCTURE

BENT NO	TYPE AND MATL	HT GRADE TO TOP CAP	HT TOP CAP TO BOTY FOOT	NO AND LGTH PILES	FOUNDATION MATL	DIST GRADE TO GROUND	Std DWG
<i>REAR ABUT</i>	<i>1 6' RC & Steel Pile</i>	<i>2'-7"</i>					<i>PA 3900-B 30</i>
<i>FWD</i>	<i>8 " " " "</i>	<i>"</i>					<i>"</i>
<i>PIER OR BENT:</i>	<i>2 RC & Steel Pile (6 Pile)</i>	<i>"</i>					<i>PB 3934-30</i>
	<i>3 " " " "</i>	<i>"</i>					<i>& Br sl # 3</i>
	<i>4 " " " "</i>	<i>"</i>					<i>"</i>
	<i>5 " " " "</i>	<i>"</i>					<i>"</i>
	<i>6 " " " "</i>	<i>"</i>					<i>"</i>
	<i>7 " " " "</i>	<i>"</i>					<i>"</i>

DL 7.91

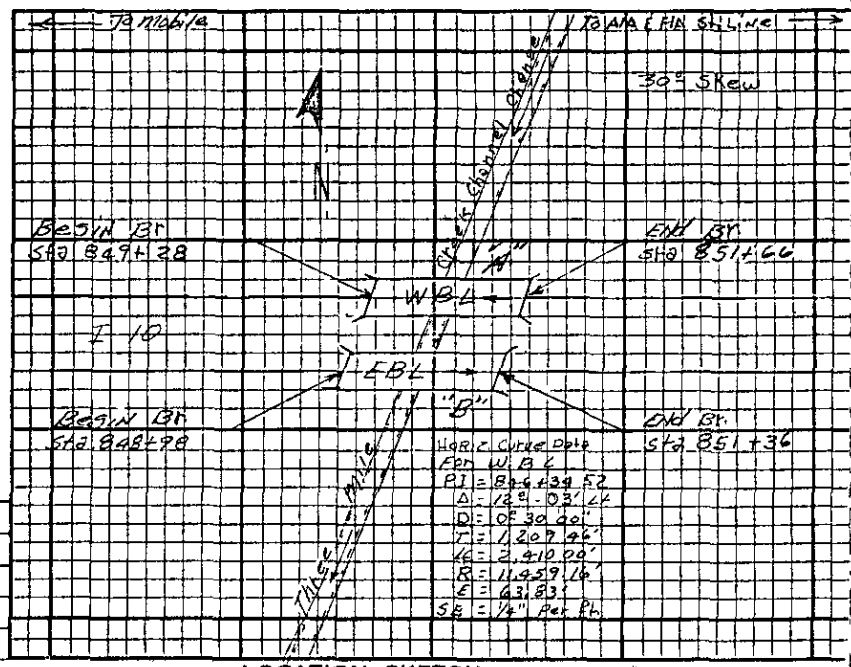
BIN: 10172(-) & BIN: 10173(+)

BRIDGE NO	COUNTY	FED RT	US HWY	PROJECT NO	TYPE	STRENGTH				ROADWAY				CLEARANCE			
						H10	H10	H15	H20	18	18	20	24	24+	12	12	14
<i>10 02</i>	<i>14.0 Baldwin</i>	<i>—</i>	<i>—</i>	<i>I-10-1(21) 35</i>	<i>S.C.C</i>												



GENERAL		ELEVATION OF STRUCTURE		SCALE H. 1" = 40' V. 1" = 30'	
NAME OF BRIDGE:		MIN DESIGN RATING: HS20-44		FOR:	
OVER: STREAM R R OR HIGHWAY: Three mile creek		OPERATING RATING:			
WHEN BUILT: 1970		APPROACH PAVT TYPE: Bit Conc			
MAINT BY: State		PAVT WIDTH: 2 @ 24'		SHOULDER WIDTH: 4B	
NO AND LENGTH OF SPANS: 7 @ 34'-0"		SIGHT DIST VERT:		HORIZ	
REMARKS		ORIG COST:			
Note: W.B.L is in $0^\circ-30'-00"$ Horiz Curve, EBL is on Tangent.					
Dual Bridges					

PHOTOGRAPH



WATERWAY DATA	
DIST LOW BRIDGE TO HW:	GRADE TO LOW BRIDGE:
DRAINAGE AREA: 2,490 Ac, 3.9 Sp mi	
CHARACTER AND CONSTANT: $Q_{50} = 2200$ cfs, $V_{M50} = 3.03$ ft/sec	
CHANNEL DEPTH:	WIDTH BETW BANKS:
NATURE OF BOTTOM: Opening provided	725 Sp ft
CONDITION OF BANKS:	
DESCRIP OF PROTECTIVE WORKS:	
DOES ALL FLOOD PASS STRUCTURE?	IF NOT, WHERE?
REMARKS	

LOCATION SKETCH SCALE 1" = 300' Approx.

SUPERSTRUCTURE

FLOOR CROWN: 4" Parabolic on EBL

SUPERELEVATION: 1/4" 1/1 ON W.B.L.

VERT CLEAR OPEN

SIDEWALKS:

EXP JT MATL: 1" OPEN

DRAINS: 3" Ø

SPAN NO	FLOOR DEPTH AND MATL	WEAR SURF DEPTH AND MATL	CURBS HEIGHT AND MATL	RAILING			CLEARANCE			
				TYPE	NO	MATL	HT	POSTS	BETW CURBS	BETW RAILS
1-7	6" CONC.		11" CONC	F	1	Conc	2'-3"	Conc.	39'-3"	40'-9"

STRINGERS - BEAMS OR GIRDERS

SPAN NO	MATL	SPAN C C BEARS	NO OF BEAMS	SPACING	SECTION		TYPE EXP	STD DWG	DESIGN RATING
					OUTS STRING	INS STRING			
1-7	R.C.D.G.	—	6	7'-0"	16 3/4" X	29"	Slide	C-3934B-30	HS20-44

TRUSSES

WHEN MADE

YIELD POINT:

FABRICATED BY:

DESIGN RATING, FLOOR:

TRUSSES:

SPAN NO	MATL - KIND - TYPE - CONNS	SPAN C C BEARS	NO AND LGTH OF PANELS	DIST C C TRUSSES	DEPTH AT CENTER	TYPE EXP	STD DWG

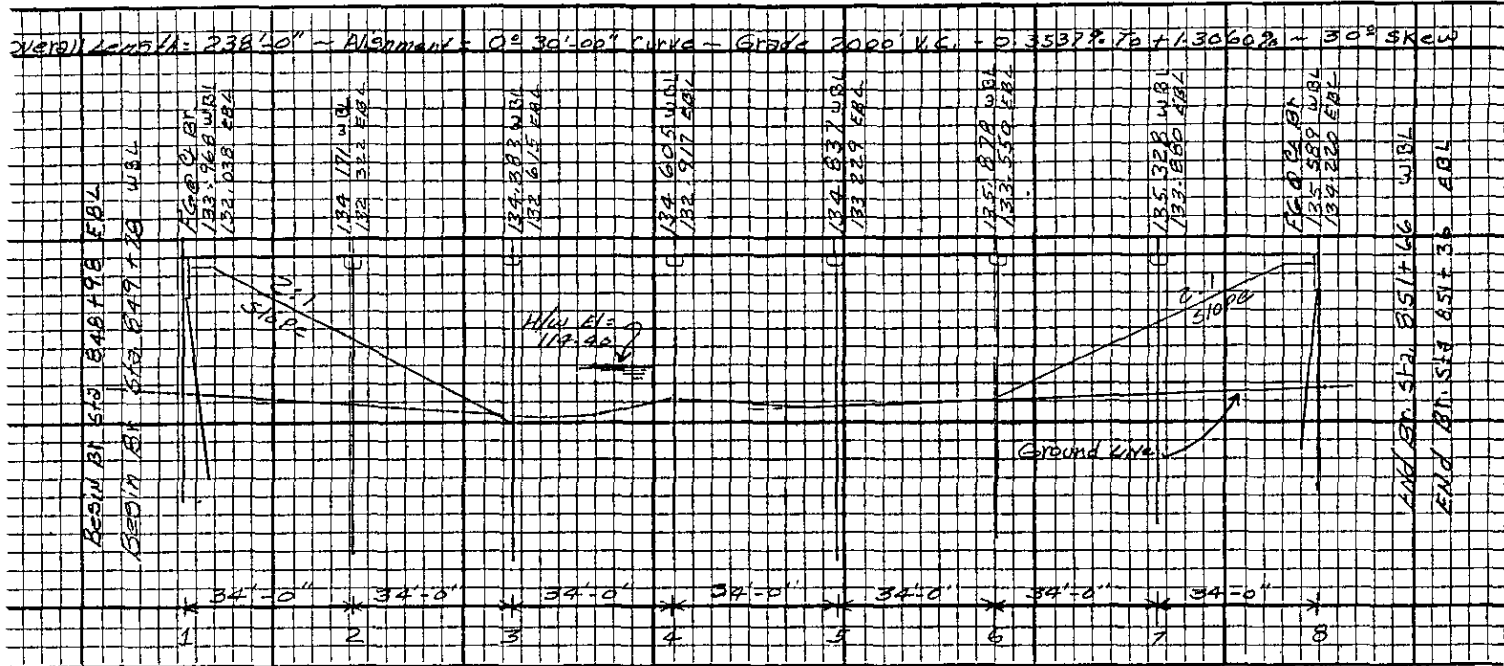
SUBSTRUCTURE

BENT NO	TYPE AND MATL	HT GRADE TO TOP CAP	HT TOP CAP TO BOTY FOOT	NO AND LGTH PILES	FOUNDATION MATL	DIST GRADE TO GROUND	Std DWG
REAR ABUT	1 6' RC & Steel Pile	2'-7"					PA 3900-B 30
FWD	8 " " " "	"					"
PIER OR BENT:	2 RC & Steel Pile (6 Pile)	"					PB 3934-30
	3 " " " "	"					& Br sl # 3
	4 " " " "	"					"
	5 " " " "	"					"
	6 " " " "	"					"
	7 " " " "	"					"

DL 7.91

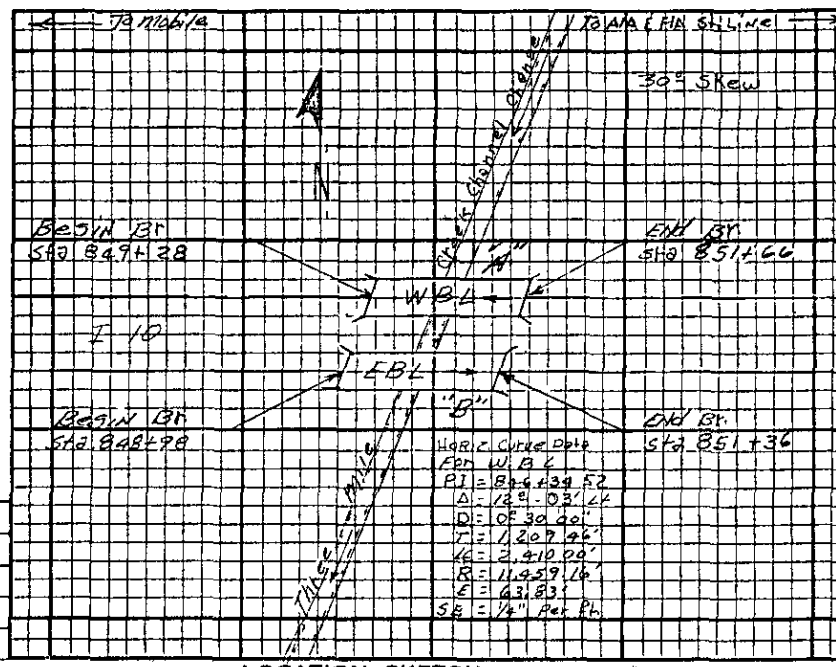
BIN: 10172(-) & BIN: 10173(+)

BRIDGE NO	COUNTY	FED RT	US HWY	PROJECT NO	TYPE	STRENGTH				ROADWAY				CLEARANCE					
						H10	H10	H15	H20	18	18	20	24	24+	12	12	14	14+	OPEN
10 02	14.0 Baldwin	—	—	I-10-1(21) 35	S.C.C														



GENERAL		ELEVATION OF STRUCTURE		SCALE H. 1" = 40' V. 1" = 30'	
NAME OF BRIDGE:		MIN DESIGN RATING: HS20-44		FOR:	
OVER: STREAM R R OR HIGHWAY: Three mile creek		OPERATING RATING:			
WHEN BUILT: 1970		APPROACH PAVT TYPE: Bit Conc			
MAINT BY: State		PAVT WIDTH: 2 @ 24'		SHOULDER WIDTH: 4B	
BY: State		SIGHT DIST VERT:		HORIZ	
OVERALL LGTH FLOOR: 238'-0"		ORIG COST:			
NO AND LENGTH OF SPANS: 7 @ 34'-0"					
REMARKS: Note: W.B.L is in 0°-30'-00" Horiz Curve, EBL is on Tangent.					
Dual Bridges					

PHOTOGRAPH



LOCATION SKETCH SCALE 1" = 300' Approx.

WATERWAY DATA	
DIST LOW BRIDGE TO HW:	GRADE TO LOW BRIDGE:
DRAINAGE AREA: 2,490 Ac, 3.9 Sp mi	
CHARACTER AND CONSTANT: Q ₅₀ = 2200 cfs, V _{m50} = 3.03 ft/sec	
CHANNEL DEPTH:	WIDTH BETW BANKS:
NATURE OF BOTTOM: Opening provided	72.5 Sp ft
CONDITION OF BANKS:	
DESCRIP OF PROTECTIVE WORKS:	
DOES ALL FLOOD PASS STRUCTURE?	IF NOT, WHERE?
REMARKS:	

SUPERSTRUCTURE

FLOOR CROWN: $\frac{1}{4}$ " $\frac{1}{1}$ slope. SUPERELEVATION: — VERT CLEAR: OPEN

SPAN NO	FLOOR DEPTH AND MATL	WEAR SURF DEPTH AND MATL	CURBS HEIGHT AND MATL	RAILING				CLEARANCE		
				TYPE	NO	MATL	HT	POSTS	BETW CURBS	BETW RAILS
1-4	6" Conc		11" Conc	F	1	Conc	2'-3"	Conc	39'-3"	40'-9"

STRINGERS BEAMS OR GIRDERS

SPAN NO	MATL	SPAN C C BEARS	NO OF BEAMS	SPACING	SECTION		TYPE EXP	STD DWG	DESIGN RATING
					OUTS STRING	INS STRING			
1-4	RC DG	66-82.82-66	6	7'-0"	16 3/4" X 48 7/8" 84 7/8"	16 3/4" X 48 7/8" 84 7/8"	Slide	SPECIAL	H320-44

TRUSSES

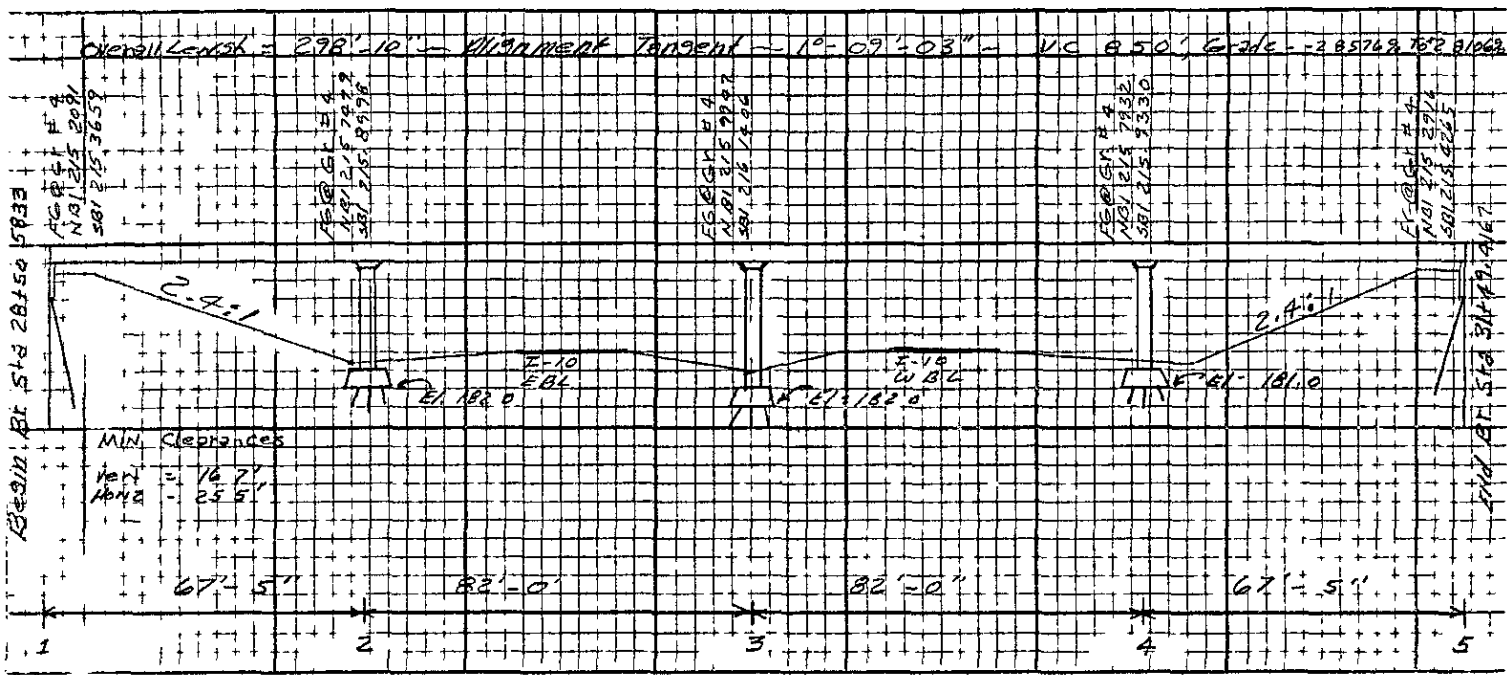
WHEN MADE:				YIELD POINT		FABRICATED BY				
DESIGN RATING: FLOOR				TRUSSES						
SPAN NO	MATL	KIND	TYPE	CONNS	SPAN C C BEARS	NO AND LGTH OF PANELS	DIST C C TRUSSES	DEPTH AT CENTER	TYPE EXP	STD DWG

SUBSTRUCTURE

BENT NO	TYPE AND MATL	HT GRADE TO TOP CAP	HT TOP CAP TO BOTY FOOT	NO AND LGTH PILES	FOUNDATION MATL	DIST GRADE TO GROUND	Std DWG
REAR ABUT	1 Steel Pile & Conc Abut	4'-7 1/8"	—				SPECIAL
FWD	5 "	4'-7 1/8"	—				"
PIER OR BENT	2 RC. IRL Bents (Pile Bents)	7'-5 1/8"	33.7'				"
	3 "	7'-5 1/8"	33.9'				"
	4 "	7'-5 1/8"	34.7'				"

A BIN 010418 (1)
B BIN 010419 (1)

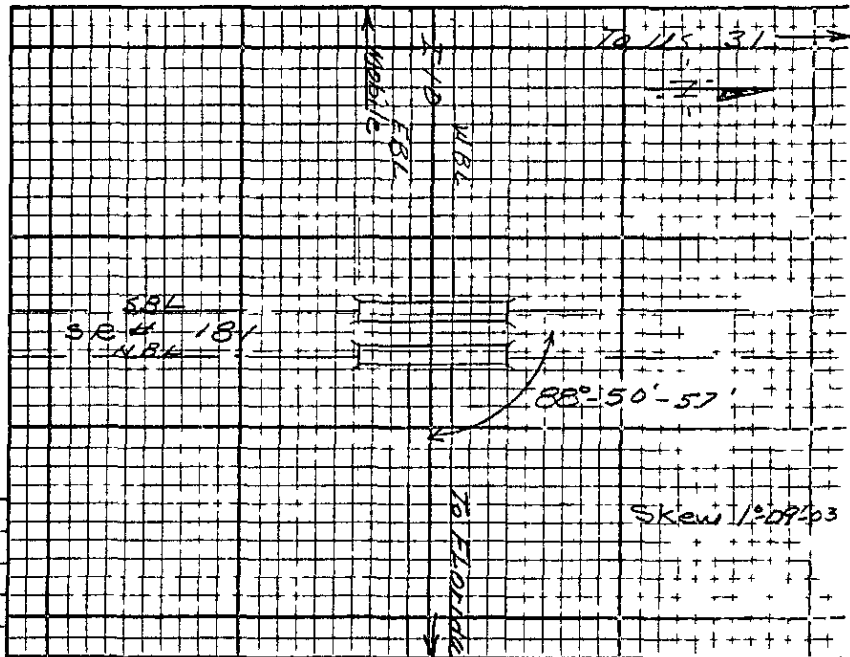
BRIDGE NO	COUNTY	FPO RT	U S HWY	PROJECT NO	TYPE	STRENGTH				ROADWAY				CLEARANCE				
						H10	H10	H15	H20	18	18 19	20 21	22 24	24+	12	12 14	14+	OPEN
121	205	RAHWAL	FAS	—	T-10-1 (21)	RC DG												



GENERAL		ELEVATION OF STRUCTURE		SCALE H = 40' V = 30'	
NAM OF BRIDGE	I-10	MIN DESIGN RATING	HS20-44	FOR	
OVER STREAM OR ON HIGHWAY		OPERATING RATING			
WHEN BUILT?	1970	APPROACH PAVT TYPE	Asphalt		
MAINT BY:	State	PAVT WIDTH	2 @ 24	SHOULDER WIDTH	2 @ 40
NO AND LENGTH OF SPAN	1 @ 67'-5", 82'-0, 82'-0, 67'-5"	SIGHT DIST VERT		HORIZ	
		ORIG COST:			

Dual Bridges

PHOTOGRAPH



WATERWAY DATA	
DIST LOW (RIDGE TO HW)	GRADE TO LOW BRIDGE
CHANNEL AREA	
CHARACTER AND CONSTANT CHANNEL	WIDTH BETW BANKS:
DEPTH	
NATURE OF BOTTOM	
CONDITION OF BANKS	
DESCRIPTION OF PROPOSED WORKS	
DOES ALL LOAD PASS THROUGH STRUCTURE?	IF NOT, WHERE?

SUPERSTRUCTURE

FLOOR CROWN: $\frac{1}{4}$ " $\frac{1}{1}$ slope. SUPERELEVATION: — VERT CLEAR: OPEN

SPAN NO	FLOOR DEPTH AND MATL	WEAR SURF DEPTH AND MATL	CURBS HEIGHT AND MATL	RAILING				CLEARANCE		
				TYPE	NO	MATL	HT	POSTS	BETW CURBS	BETW RAILS
1-4	6" Conc		11" Conc	F	1	Conc	2'-3"	Conc	39'-3"	40'-9"

STRINGERS BEAMS OR GIRDERS

SPAN NO	MATL	SPAN C C BEARS	NO OF BEAMS	SPACING	SECTION		TYPE EXP	STD DWG	DESIGN RATING
					OUTS STRING	INS STRING			
1-4	RC DG	66-82.82-66	6	7'-0"	16 3/4" X 48 7/8" 84 7/8"	16 3/4" X 48 7/8" 84 7/8"	Slide	SPECIAL	H320-44

TRUSSES

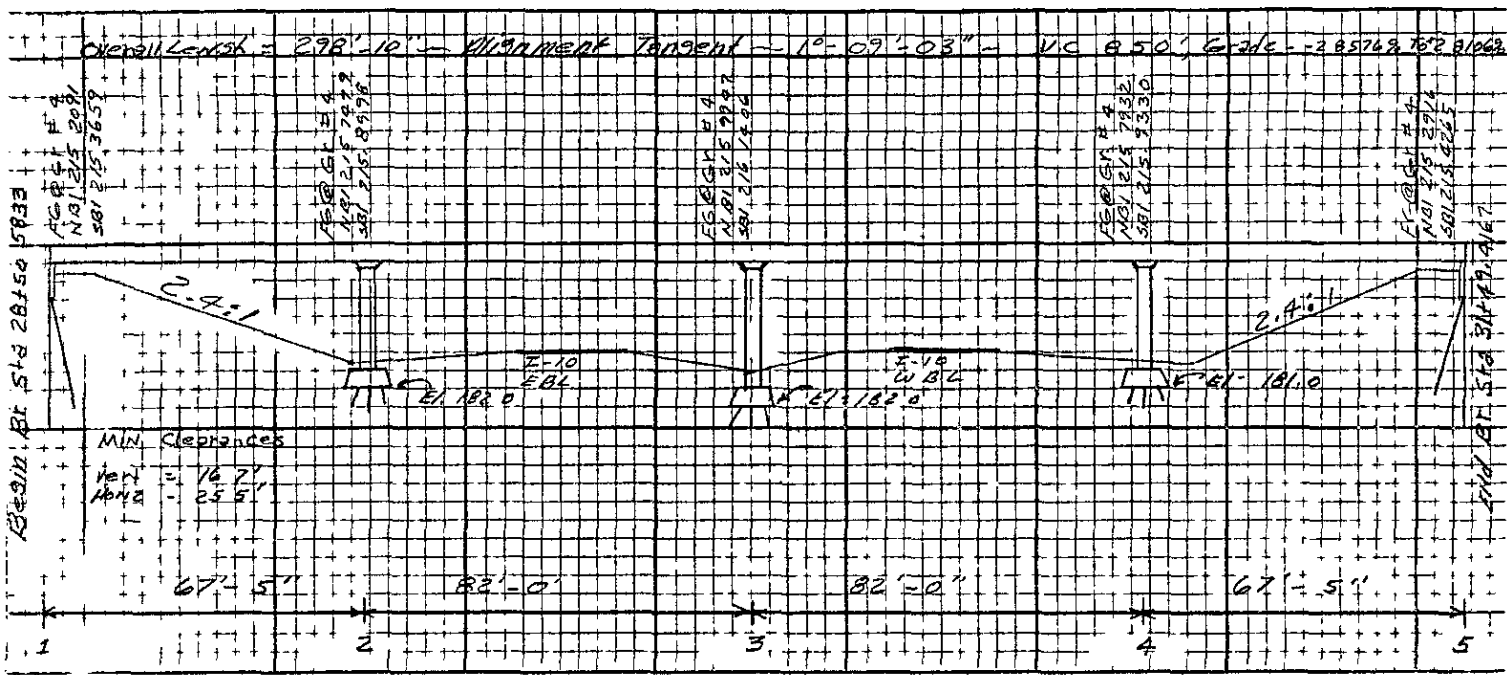
WHEN MADE:				YIELD POINT		FABRICATED BY				
DESIGN RATING: FLOOR				TRUSSES						
SPAN NO	MATL	KIND	TYPE	CONNS	SPAN C C BEARS	NO AND LGTH OF PANELS	DIST C C TRUSSES	DEPTH AT CENTER	TYPE EXP	STD DWG

SUBSTRUCTURE

BENT NO	TYPE AND MATL	HT GRADE TO TOP CAP	HT TOP CAP TO BOTY FOOT	NO AND LGTH PILES	FOUNDATION MATL	DIST GRADE TO GROUND	Std DWG
REAR ABUT	1 Steel Pile & Conc Abut	4'-7 1/8"	—				SPECIAL
FWD	5 "	4'-7 1/8"	—				"
PIER OR BENT	2 RC. IRL Bents (Pile Bts)	7'-5 1/8"	33.7'				"
	3 "	7'-5 1/8"	33.9'				"
	4 "	7'-5 1/8"	34.7'				"

A BIN 010418(-)
B BIN 010419(+)

BRIDGE NO	COUNTY	FPO RT	U S HWY	PROJECT NO	TYPE	STRENGTH				ROADWAY				CLEARANCE				
						H10	H10	H15	H20	18	18 19	20 21	22 24	24+	12	12 14	14+	OPEN
121	205	RAHWAL	FAS	—	T-10-1(21)	RC DG												



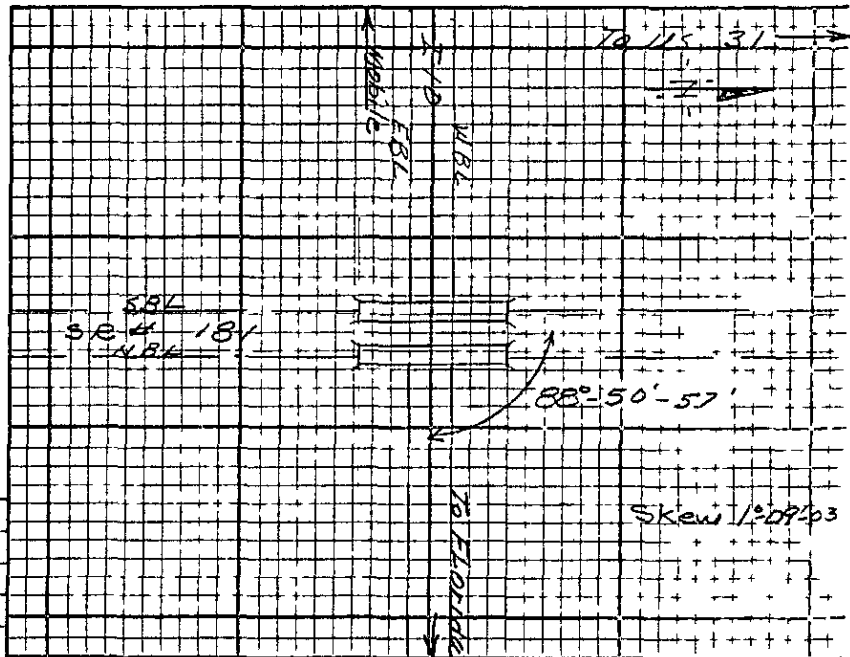
ELEVATION OF STRUCTURE

SCALE H | = 40' V | = 30'

GENERAL		MIN DESIGN RATING HS20-44		FOR	
NAME OF BRIDGE OVER STREAM OR HIGHWAY		OPERATING RATING:			
I-10		APPROACH PAVT TYPE		Asphalt	
WHEN BUILT? 1970		BY State		PAVT WIDTH 2 @ 24	
MAINT BY: State		OVERALL LGTH FLOOR: 298'-10"		SHOULDER WIDTH 2 @ 40	
NO AND LENGTH OF SPAN		1 @ 67'-5", 82'-0, 82'-0, 67'-5"		SIGHT DIST VERT	
				HORIZ	
				ORIG COST:	

Dual Bridges

PHOTOGRAPH



LOCATION SKETCH

SCALE 1" = 100'

WATERWAY DATA	
DIST LOW	GRADE TO LOW BRIDGE
DIRT TO HW	
DRAINAGE	
AREA	
CHARACTER AND CONSTANT	
CHANNEL	WIDTH BETW BANKS:
DEPTH	
NATURE OF BOTTOM	
CONDITION	
OF BANKS	
DESCRIPTION OF	
POST OFFICE WORKS	
DOES ALL LOAD	
STRUCTURE?	IF NOT, WHERE?



**GEOTECHNICAL
ENGINEERING
TESTING, INC**

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

**SOILS SURVEY AND SLOPE STUDY REPORT—
ADDENDUM
PROJECT NO. IM-I010 (320)
I-10 AND SR-181 INTERCHANGE IMPROVEMENTS
BALDWIN COUNTY**

Professional Services Since 1974

904 Butler Drive
Mobile, AL 36693
251.666.7197
FAX: 251.666.7380

1629 Government Street
Ocean Springs, MS 39564
228.872.2854
FAX: 228.872.5618

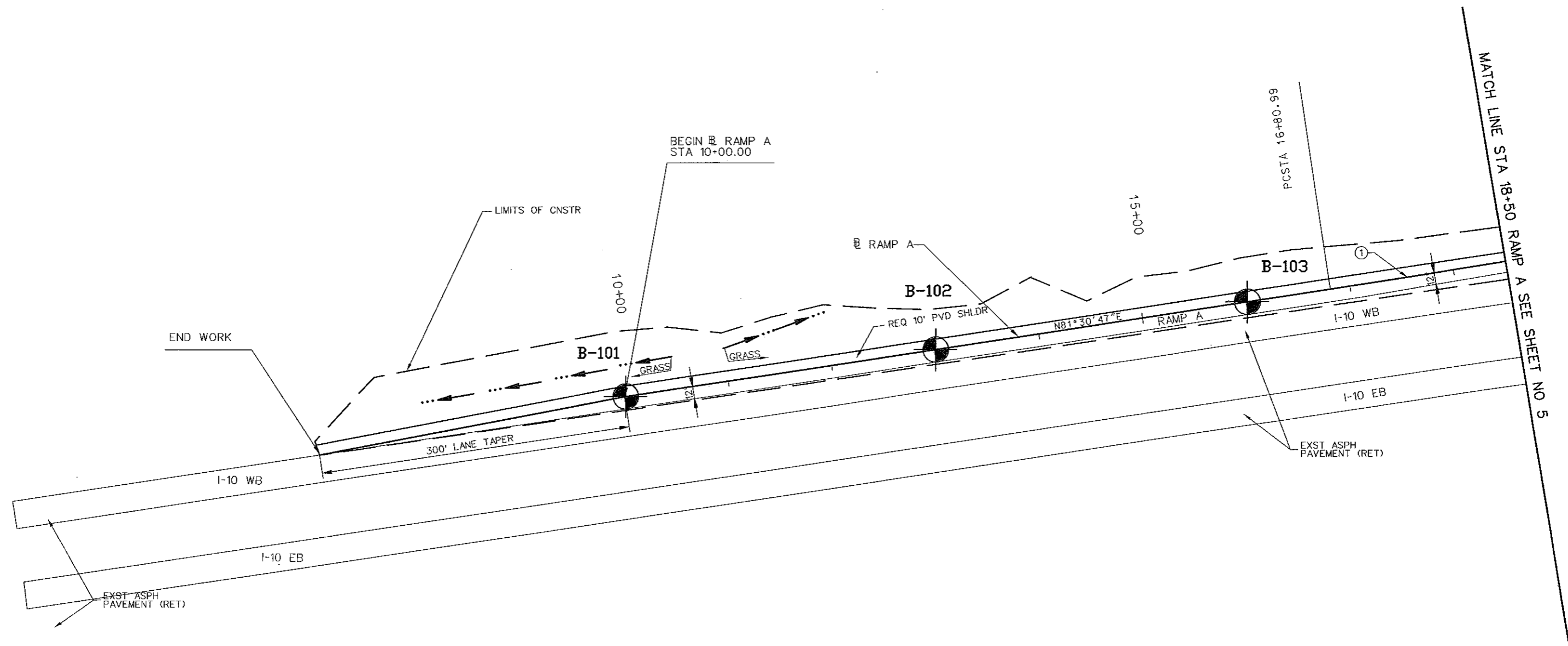
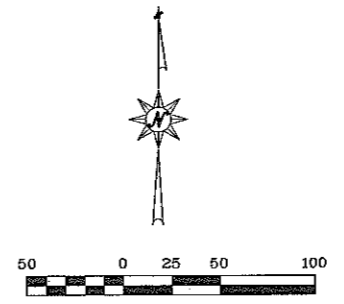
www.geoengr.com

PLAN SHEETS

CURVE NO	1	NORTHING	EASTING
PC STA	16+80.99	241243.321	1855487.853
PI STA	19+39.53	241281.477	1855743.566
PCR STA			
PT STA	21+97.98	241331.606	1855997.205
Δ	2° 41'34" LT		
D	0° 31'15"		
T	258.54		
L	516.95		
R	11000.00		
e			

PROJECT NOTE
201

GN-2 NOTE
101
108
114
120



NOTE
FOR PROFILE OF RAMP A
SEE SHEETS NO 11 AND 12.

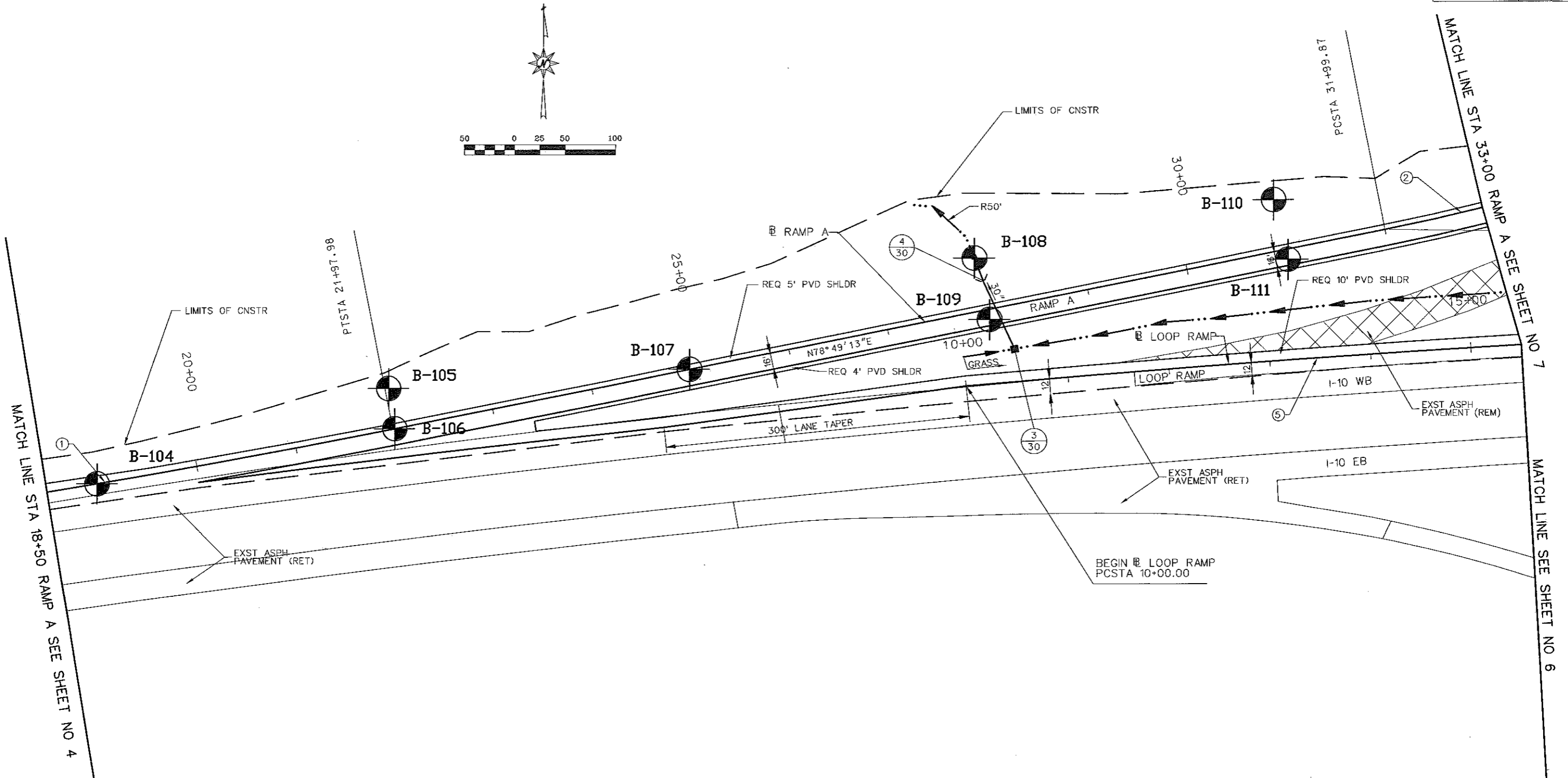
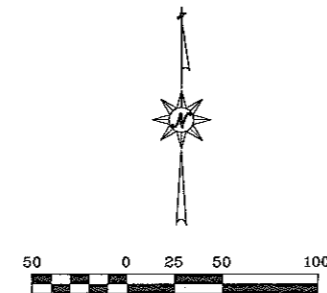
**ALABAMA
DEPARTMENT OF TRANSPORTATION**

**I-10 AND SR-181
INTERCHANGE IMPROVEMENTS**

**PLAN
RAMP A**

JBT	J.S. TRIMBLE, INC.	Hatch Mott MacDonald
A DIVISION OF		Hatch Mott MacDonald Alabama, LLC
		1110 Montimer Drive, Suite 600 Mobile, Alabama 36609

DESIGNED	DETAILED	QUANTITIES
CHECKED	CHECKED	CHECKED
DATE	DWG NO	



NOTE:
 FOR PROFILE OF LOOP RAMP,
 SEE SHEET NO 10.
 FOR PROFILE OF RAMP A,
 SEE SHEET NO 11 AND 12.

CURVE NO	1	NORTHING	EASTING	CURVE NO	2	NORTHING	EASTING	CURVE NO	5	NORTHING	EASTING
PC STA	16+80.99	241243.321	1855487.853	PC STA	31+99.87	241525.859	1856980.081	PC STA	10+00.00	241373.071	1856566.893
PI STA	19+39.53	241281.477	1855743.566	PI STA	35+07.19	241585.445	1857281.571	PI STA	17+11.01	241433.840	1857275.302
PCR STA				PCR STA				PCR STA	24+21.27	241438.174	1857986.299
PT STA	21+97.98	241331.606	1855997.205	PT STA	38+11.44	241716.277	1857559.653	PT STA			
Δ	2° 41'34" LT			Δ	14° 00'59" LT			Δ	4° 33'13" RT		
D	0° 31'15"			D	2° 17'31"			D	0° 19'13"		
T	258.54			T	307.32			T	711.01		
L	516.95			L	611.57			L	1421.27		
R	11000.00			R	2500.00			R	17882.72		
e				e	3.80%			e			

ALABAMA
DEPARTMENT OF TRANSPORTATION
I-10 AND SR-101
INTERCHANGE IMPROVEMENTS
 PLAN
RAMP A AND LOOP RAMP

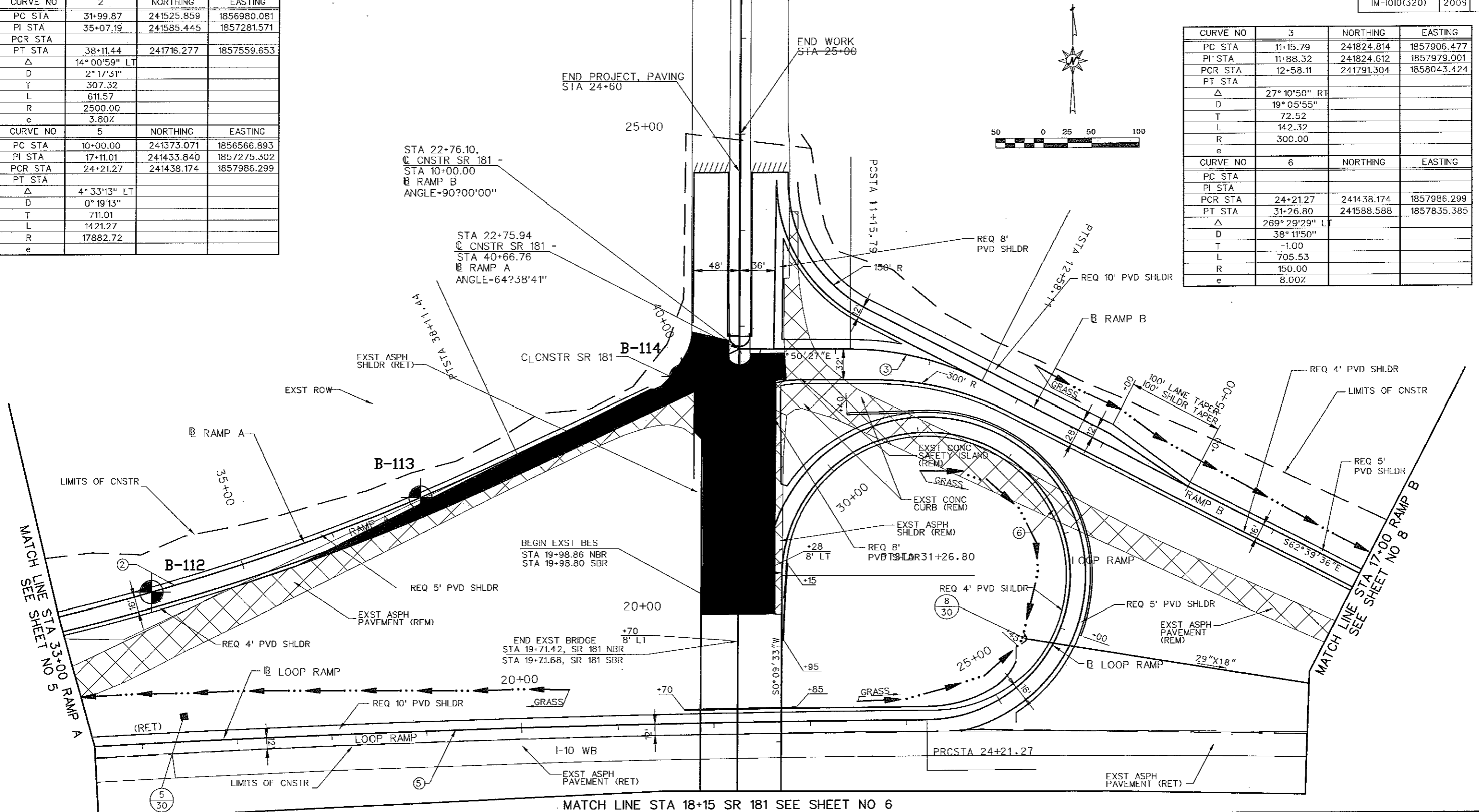
JBT J.B. TRIMBLE, INC. Hatch Mott MacDonald, LLC
 A DIVISION OF

1110 Montimer Drive, Suite 650
 Mobile, Alabama 36608

DESIGNED	DETAILED	QUANTITIES
CHECKED	CHECKED	CHECKED
DATE		DWG NO

CURVE NO	2	NORTHING	EASTING
PC STA	31+99.87	241525.859	1856980.081
PI STA	35+07.19	241585.445	1857281.571
PCR STA			
PT STA	38+11.44	241716.277	1857559.653
Δ	14° 00' 59" LT		
D	2° 17' 31"		
T	307.32		
L	611.57		
R	2500.00		
e	3.80%		
CURVE NO	5	NORTHING	EASTING
PC STA	10+00.00	241373.071	1856566.893
PI STA	17+11.01	241433.840	1857275.302
PCR STA	24+21.27	241438.174	1857986.299
PT STA			
Δ	4° 33' 13" LT		
D	0° 19' 13"		
T	711.01		
L	1421.27		
R	17882.72		
e			

CURVE NO	3	NORTHING	EASTING
PC STA	11+15.79	241824.814	1857906.477
PI STA	11+88.32	241824.612	1857979.001
PCR STA	12+58.11	241791.304	1858043.424
PT STA			
Δ	27° 10' 50" RT		
D	19° 05' 55"		
T	72.52		
L	142.32		
R	300.00		
e			
CURVE NO	6	NORTHING	EASTING
PC STA			
PI STA			
PCR STA	24+21.27	241438.174	1857986.299
PT STA	31+26.80	241588.588	1857835.385
Δ	269° 29' 29" LT		
D	38° 11' 50"		
T	-1.00		
L	705.53		
R	150.00		
e	8.00%		



MATCH LINE STA 33+00 RAMP A
SEE SHEET NO 5

MATCH LINE STA 17+00 RAMP B
SEE SHEET NO 8

MATCH LINE STA 18+15 SR 181 SEE SHEET NO 6

NOTES:
FOR PROFILE OF LOOP RAMP,
SEE SHEET NO 10.
FOR PROFILE OF RAMP A,
SEE SHEETS NO 11 AND 12.
FOR PROFILE OF RAMP B,
SEE SHEET NO 13.
FOR PROFILE OF SR 181,
SEE SHEET NO 16.

ALABAMA
DEPARTMENT OF TRANSPORTATION
I-10 AND SR-181
INTERCHANGE IMPROVEMENTS
PLAN
SR 181, RAMP A, RAMP B AND LOOP RAMP

JBT J.B. TRIMBLE, INC. Hatch Mott MacDonald
A DIVISION OF

1110 Montclair Drive, Suite 650
Mobile, Alabama 36602

DESIGNED	DETAILED	QUANTITIES
CHECKED	CHECKED	CHECKED
DATE		DWG NO

BORING LOGS
(Half Sized)

RAMP A
STA. 10+00
25.5 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 10 FT.
BORING ELEV.: 164.61 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-101



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _i	AASHTO CLASS	LAB DATA
165	0		4.5" TOPSOIL	1	13	A-2-4 (0)	-200=19.6 LL=NP MC=13 PI=NP
			Firm to dense brownish red and red silty sand w/ trace ironstone	2	48	A-2-4 (0)	-200=29.7 LL=19 MC=11 PI=2
				3	50/6		
160	5		Very dense to firm light brown and white silty sand	4	19		
			Firm white and red fine sand w/ red and pink clayey sand layer	5	22		
155	10		B.T. @ 10 FT				
150	15						
145	20						
140	25						
135	30						
130	35						
125	40						

RAMP A
STA. 13+00
25.5 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 10 FT.
BORING ELEV.: 167.80 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-102



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _i	AASHTO CLASS	LAB DATA
168	0		Firm to very dense brown and red silty sand	1	13	A-2-4 (0)	-200=24.5 LL=NP MC=13 PI=NP
				2	15	A-2-4 (0)	-200=25.5 LL=17 MC=12 PI=1
				3	53	A-2-4 (0)	-200=14.6 LL=NP MC=9 PI=NP
163	5		Dense light red sand w/ silt	4	40		
			Dense red and light red silty sand	5	43		
158	10		B.T. @ 10 FT				
153	15						
148	20						
143	25						
138	30						
133	35						
128	40						

RAMP A
STA. 16+00
25.5 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 10 FT.
BORING ELEV.: 171.76 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-103



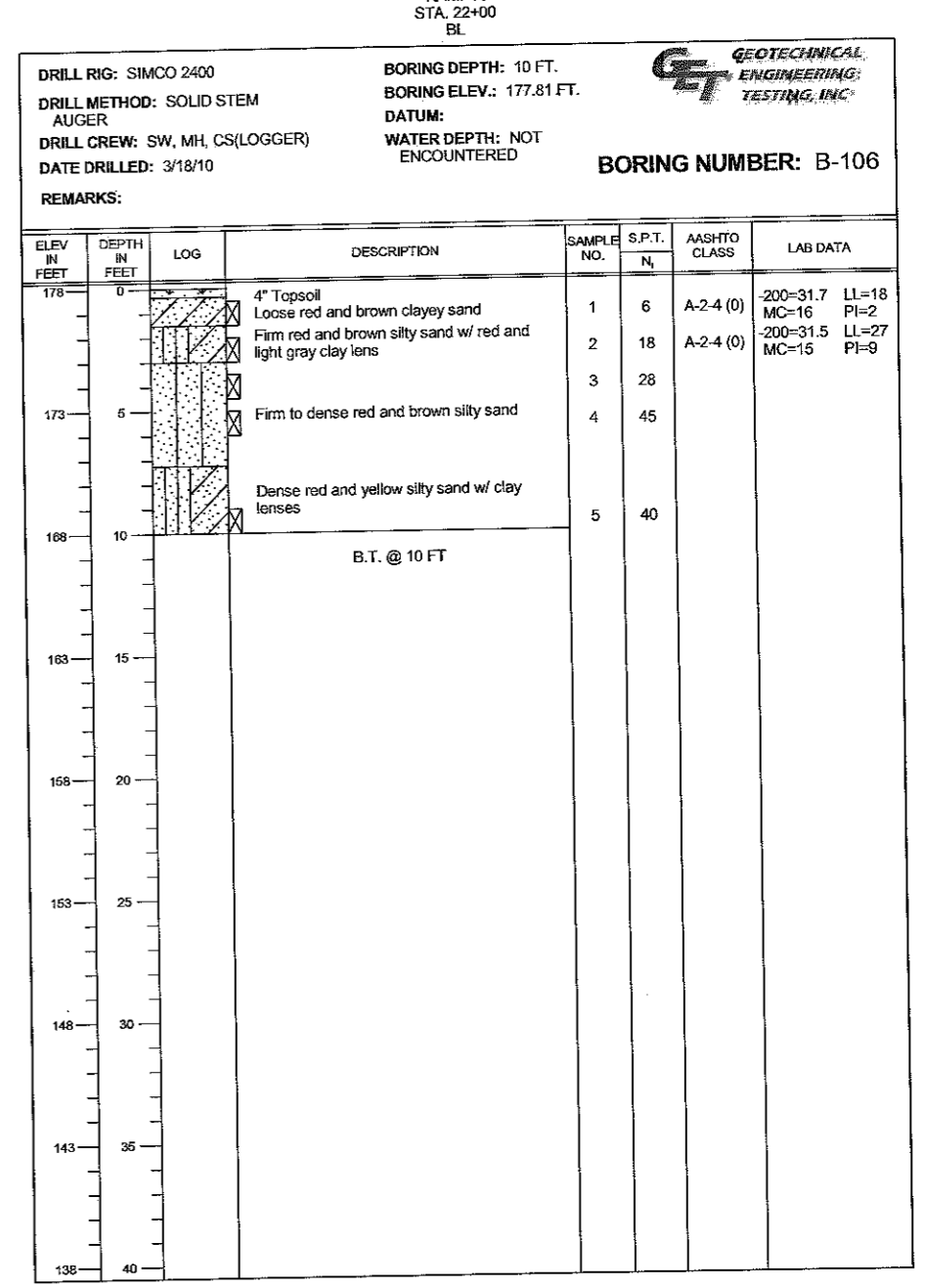
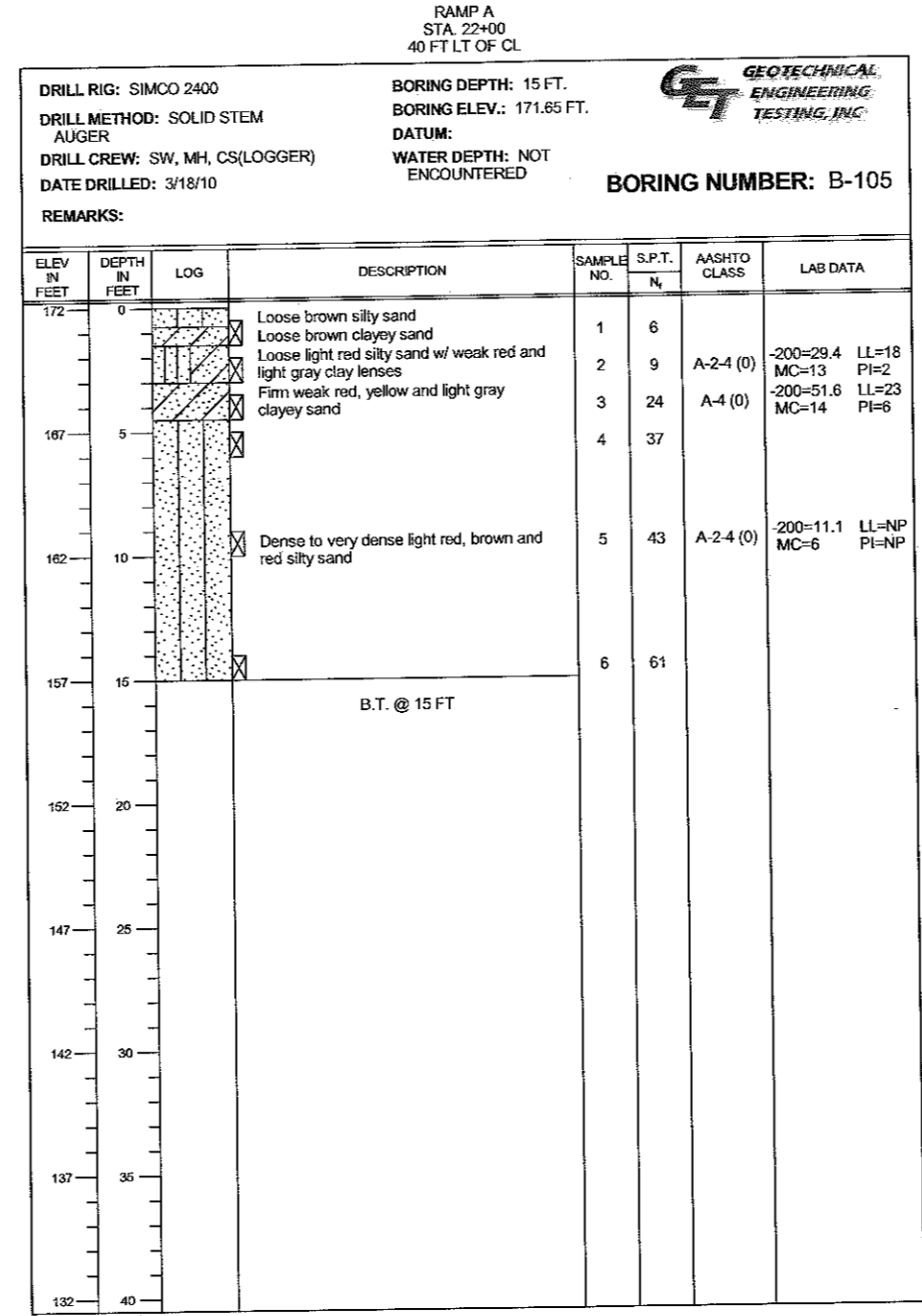
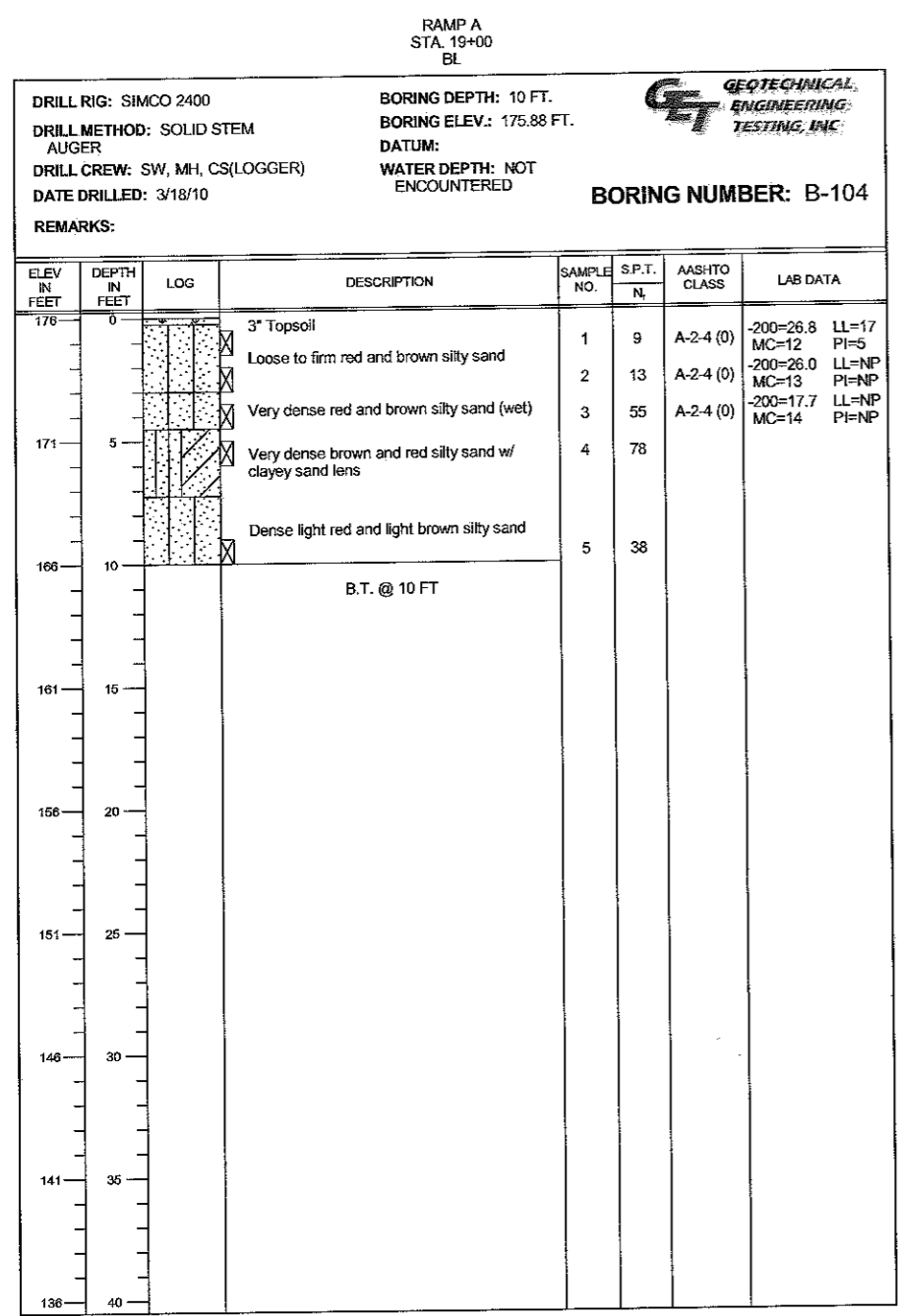
ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _i	AASHTO CLASS	LAB DATA
172	0		6" Topsoil	1	18	A-2-4 (0)	-200=33.3 LL=17 MC=13 PI=2
			Firm red silty sand w/ trace shell	2	15	A-2-4 (0)	-200=31.4 LL=21 MC=14 PI=5
			Firm red clayey sand	3	50	A-2-4 (0)	-200=15.6 LL=NP MC=11 PI=NP
167	5		Dense to very dense red and brown silty sand	4	63		
			Firm red and white silty sand	5	24		
162	10		B.T. @ 10 FT				
157	15						
152	20						
147	25						
142	30						
137	35						
132	40						

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- Standard Penetration Test
- Undisturbed Shelby Tube Sample
- Ground Water
- N_i = SPT Value determined in field
- NWTE = No Water Table Encountered

ALABAMA DEPARTMENT OF TRANSPORTATION	
SHEET NO. OF	PROJECT NUMBER: IM-1010(320)
GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT DESCRIPTION: I-10 / SR-181 INTERCHANGE IMPROVEMENTS
APPROVED: CURT DOYLE, P.E. GEOTECHNICAL ENGINEER	COUNTY: BALDWIN
DATE:	TEST BORING RECORD
DIVISIONS MATERIAL ENGINEER	
APPROVED:	
DATE:	

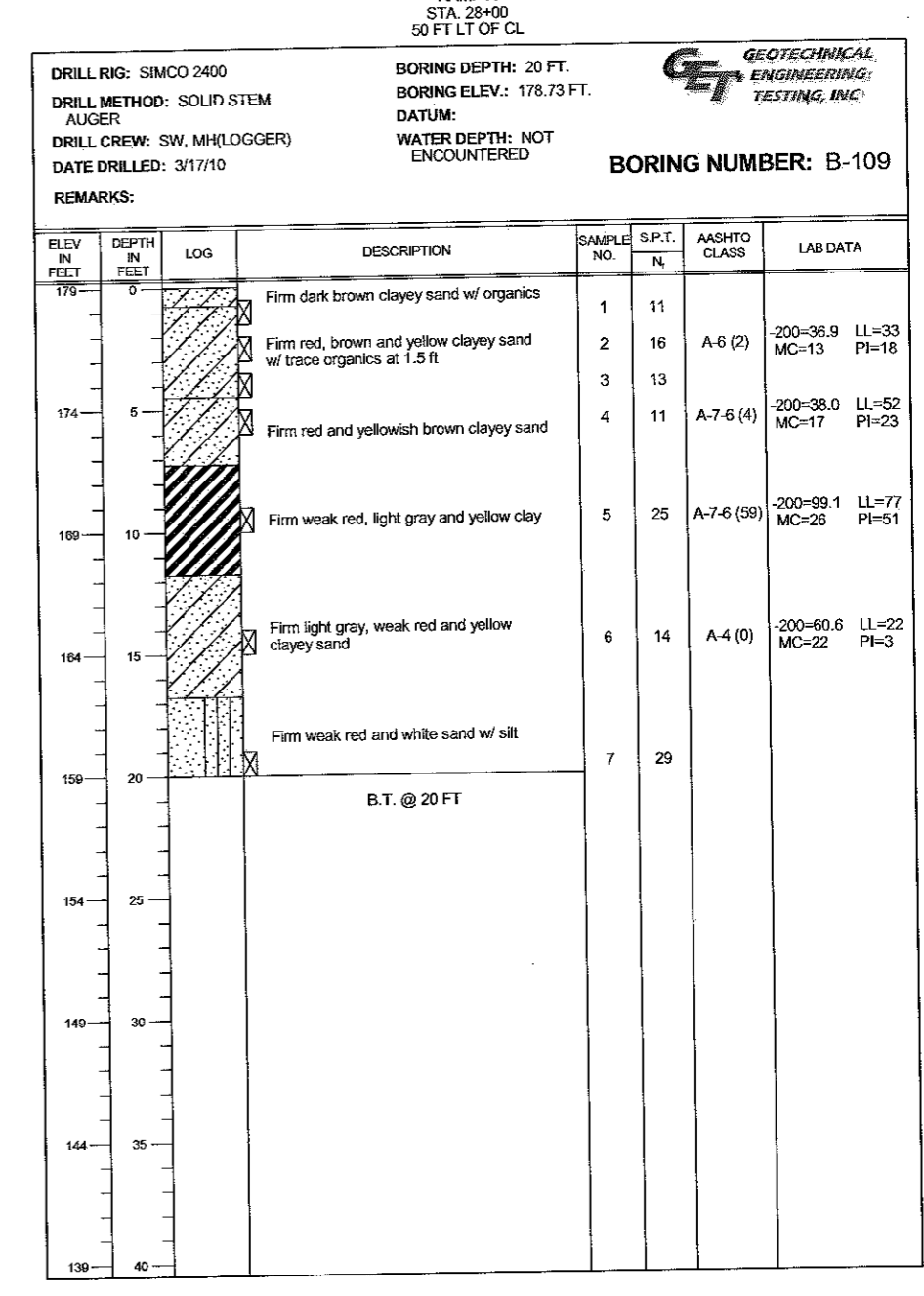
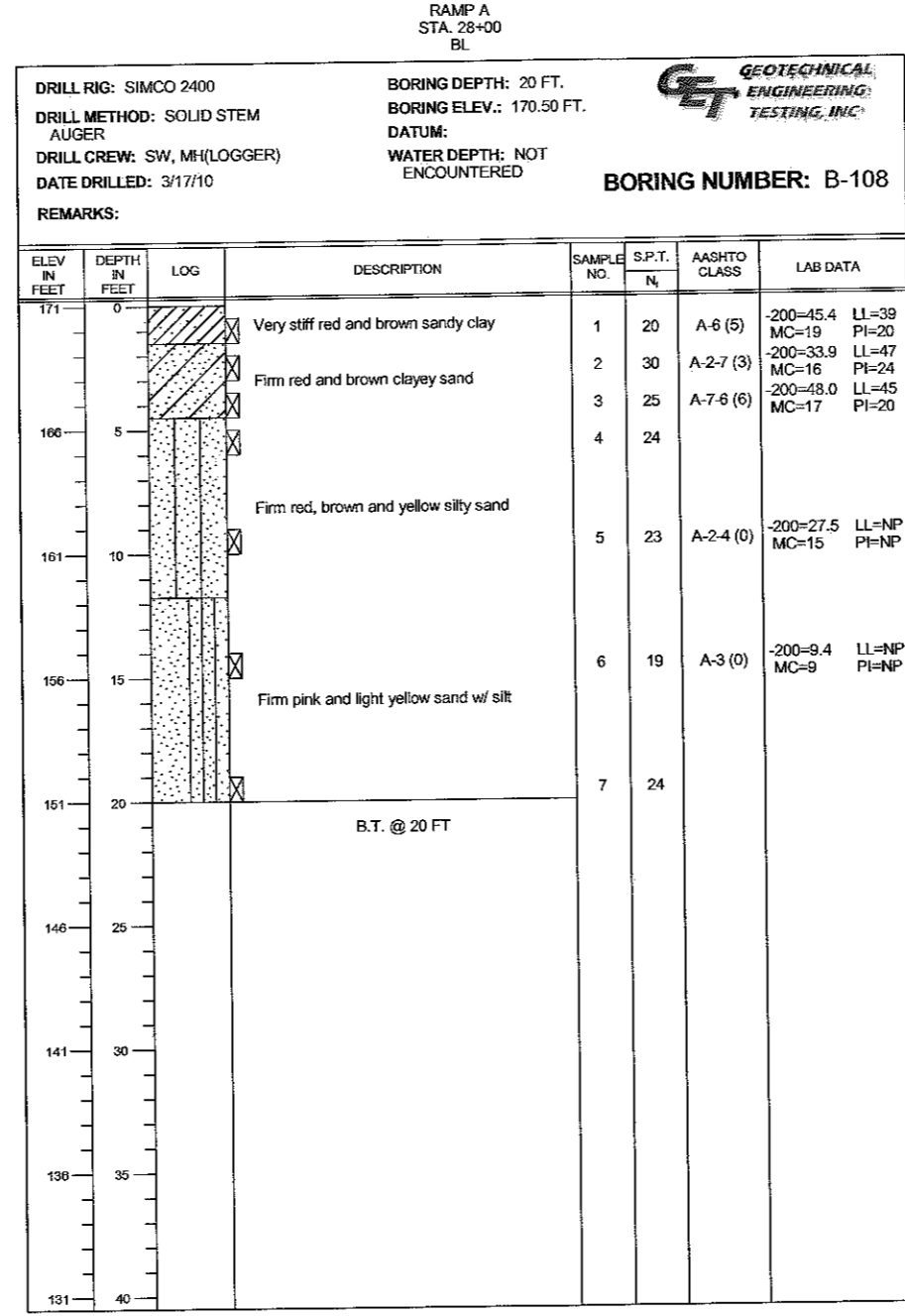
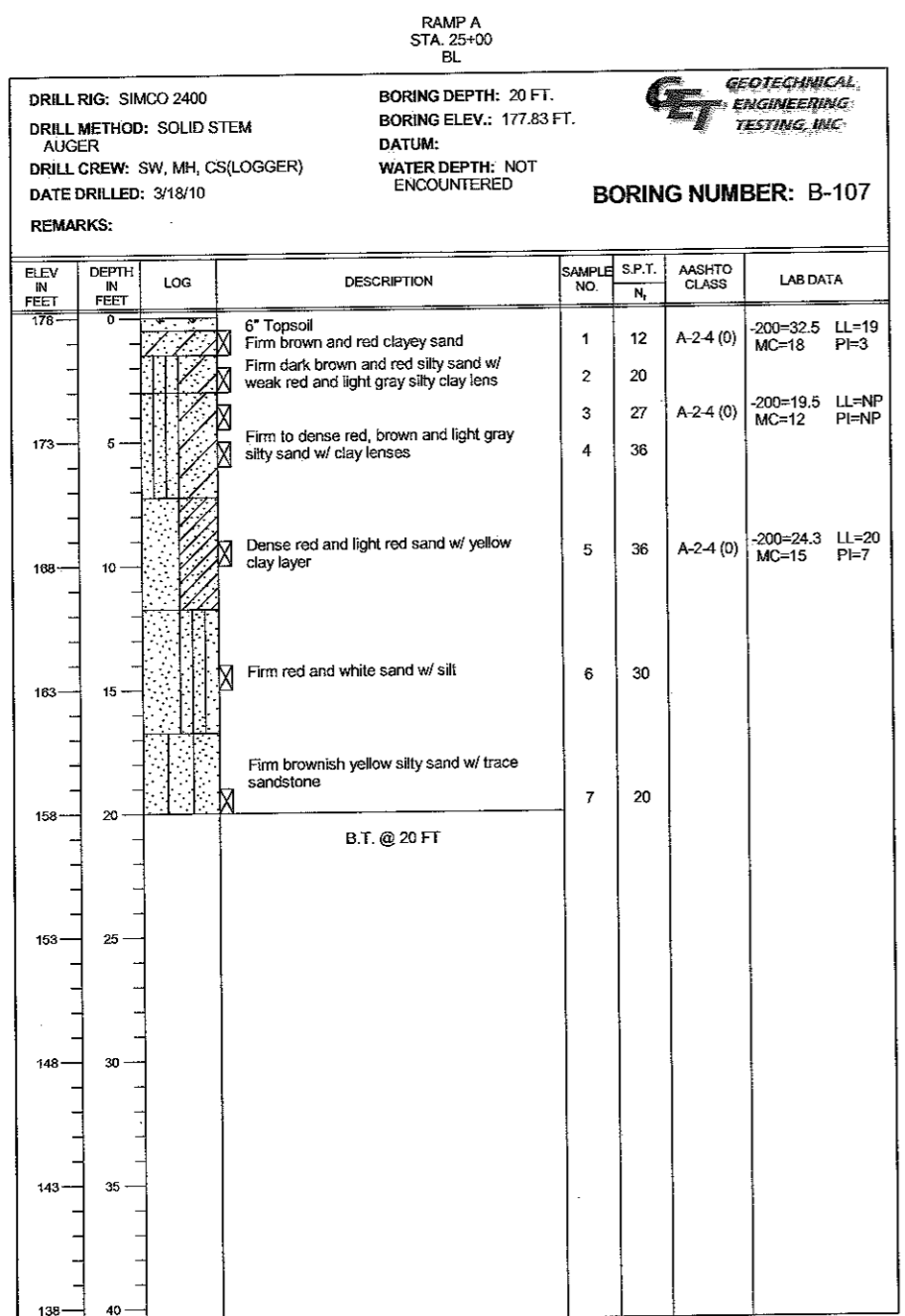


NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- Standard Penetration Test
- Undisturbed Shelby Tube Sample
- Ground Water
- N_s = SPT Value determined in field
- NWTE = No Water Table Encountered

ALABAMA DEPARTMENT OF TRANSPORTATION	
SHEET NO. OF	PROJECT NUMBER: IM-I010(320)
GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT DESCRIPTION: I-10 / SR-181 INTERCHANGE IMPROVEMENTS
APPROVED:	COUNTY: BALDWIN
CURT DOYLE, P.E.	
GEOTECHNICAL ENGINEER	
DATE:	
DIVISIONS MATERIAL ENGINEER	
APPROVED:	
DATE:	TEST BORING RECORD



NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- Standard Penetration Test
- Undisturbed Shelby Tube Sample
- Ground Water
- N_s = SPT Value determined in field
- NWTE = No Water Table Encountered

ALABAMA DEPARTMENT OF TRANSPORTATION	
SHEET NO. OF	PROJECT NUMBER: IM-I010(320)
GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT DESCRIPTION: I-10 / SR-181 INTERCHANGE IMPROVEMENTS
APPROVED:	COUNTY: BALDWIN
CURT DOYLE, P.E.	
GEOTECHNICAL ENGINEER	
DATE:	
DIVISIONS MATERIAL ENGINEER	
APPROVED:	
DATE:	
TEST BORING RECORD	

RAMP A
STA. 31+00
60 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH(LOGGER)
DATE DRILLED: 3/17/10

BORING DEPTH: 20 FT.
BORING ELEV.: 175.17 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-110



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N	AASHTO CLASS	LAB DATA	
175	0		Firm yellowish brown and brown clayey sand	1	14	A-6 (3)	-200=50.2 LL=24 MC=13 PI=12	
			Firm red and yellowish brown silty sand w/ trace clay	2	17			
			Firm red, brown and light gray clayey sand	3	11	A-2-6 (0)	-200=31.1 LL=28 MC=14 PI=12	
170	5			4	20			
			Firm light red fine sand w/ silt					
185	10			5	28			
			Very stiff grayish brown silty clay					
160	15			6	24			
			Firm red clayey sand					
			Firm light red fine sand					
155	20		B.T. @ 20 FT					
150	25							
145	30							
140	35							
135	40							

RAMP A
STA. 31+00
10 FT RT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH(LOGGER)
DATE DRILLED: 3/17/10

BORING DEPTH: 20 FT.
BORING ELEV.: 180.92 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-111



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N	AASHTO CLASS	LAB DATA	
181	0		Medium consistency brown and red sandy clay	1	7	A-6 (3)	-200=50.2 LL=24 MC=16 PI=13	
			Firm red, yellow, light gray and brown clayey sand	2	16	A-6 (1)	-200=35.9 LL=26 MC=15 PI=12	
			Firm red, white and pink silty sand w/ small amount of clay	3	20			
176	5			4	15			
			Firm light red, light gray and yellow clayey sand					
171	10			5	43			
			Dense red and brown silty sand					
166	15			6	8	A-6 (5)	-200=54.4 LL=30 MC=17 PI=15	
			Stiff to hard grayish brown sandy clay					
				T-1		A-2-4 (0)	-200=15.6 LL=NP MC=24 PI=NP	
161	20			7	35			
			Dense red silty sand					
			B.T. @ 20 FT					
156	25							
151	30							
146	35							
141	40							

RAMP A
STA. 34+00
BL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH(LOGGER)
DATE DRILLED: 3/17/10

BORING DEPTH: 10 FT.
BORING ELEV.: 190.91 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-112



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N	AASHTO CLASS	LAB DATA	
191	0		5" Topsoil	1	13	A-6 (5)	-200=47.7 LL=34 MC=19 PI=18	
			Stiff to hard red and brown sandy clay	2	39	A-7-6 (6)	-200=46.9 LL=43 MC=18 PI=21	
			Very stiff red sandy clay w/ trace sandstone	3	21			
186	5			4	28			
			Firm red clayey sand					
181	10		B.T. @ 10 FT					
176	15							
171	20							
166	25							
161	30							
156	35							
151	40							

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- Standard Penetration Test
- Undisturbed Shelby Tube Sample
- Ground Water
- N_f = SPT Value determined in field
- NWTE = No Water Table Encountered

ALABAMA DEPARTMENT OF TRANSPORTATION	
SHEET NO. OF	PROJECT NUMBER: IM-1010(320)
GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT DESCRIPTION: I-10 / SR-181 INTERCHANGE IMPROVEMENTS
APPROVED: CURT DOYLE, P.E. GEOTECHNICAL ENGINEER	COUNTY: BALDWIN
DATE: DIVISIONS MATERIAL ENGINEER	
APPROVED:	
DATE:	TEST BORING RECORD

RAMP A
STA. 37+00
BL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH(LOGGER)
DATE DRILLED: 3/17/10

BORING DEPTH: 10 FT.
BORING ELEV.: 202.12 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-113

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _s	AASHTO CLASS	LAB DATA	
202	0		4" Asphalt					
			Dense red and brown silty sand w/ small amount of gravel	1	34			
			Firm red and brown clayey sand	2	22	A-2-4 (0)	-200=31.3 LL=19 MC=14 PI=5	
			Very stiff red and brown sandy clay	3	18	A-6 (4)	-200=49.5 LL=31 MC=15 PI=16	
197	5			4	23			
			Firm brown and red clayey sand					
192	10			5	27			
			B.T. @ 10 FT					
187	15							
182	20							
177	25							
172	30							
167	35							
162	40							

RAMP A
STA. 40+00
BL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH(LOGGER)
DATE DRILLED: 3/17/10

BORING DEPTH: 10 FT.
BORING ELEV.: 209.19 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-114

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _s	AASHTO CLASS	LAB DATA	
209	0		3" Topsoil	1	19	A-2-4 (0)	-200=18.7 LL=NP MC=12 PI=NP	
			Firm brown and red silty sand w/ small amount of gravel and shell	2	16	A-2-4 (0)	-200=29.4 LL=19 MC=12 PI=5	
				3	10			
204	5		Stiff red and brown sandy clay	4	12			
			Firm red clayey sand	5	16			
199	10							
			B.T. @ 10 FT					
194	15							
189	20							
184	25							
179	30							
174	35							
169	40							

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- Standard Penetration Test
- Undisturbed Shelby Tube Sample
- Ground Water
- N_s = SPT Value determined in field
- NWTE = No Water Table Encountered

ALABAMA DEPARTMENT OF TRANSPORTATION	
SHEET NO. OF	PROJECT NUMBER: IM-1010(320)
GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT DESCRIPTION: I-10 / SR-181 INTERCHANGE IMPROVEMENTS
APPROVED: CURT DOYLE, P.E.	COUNTY: BALDWIN
GEOTECHNICAL ENGINEER	
DATE:	
DIVISIONS MATERIAL ENGINEER	
APPROVED:	
DATE:	
TEST BORING RECORD	



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

November 15, 2016

Mr. William Adams, P.E.
Design Engineer
OFFICE

ATTN: Mr. Sean Frank, P.E.
Design Section Engineer

RE: Project No.: IMF-I010(320)
CPMS No.: 100050132
Soil Survey
I-10/SR-181 Interchange Modifications to Diverging Diamond
MP 38.519 to MP 38.979
Baldwin County

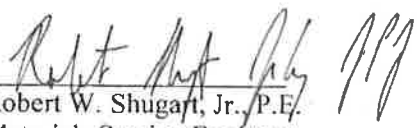
Dear Mr. Adams:

Attached you will find a soil survey which gives the Region'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. Stacey Glass, P.E.
Mr. Vincent E. Calametti, P.E.
Mr. Matthew Ericksen, P.E.
Mr. Ed Baldwin, P.E.
Mr. Skip Powe, P. E. (with attachment)
Ms. Theresa Barksdale, Quality Control Engineer
FHWA
Project File
File



Robert Bentley
Governor

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



John R. Cooper
Transportation Director

November 14, 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. *R.D.*
Asst. Geotechnical Engineer

RE: PE Project No. IM-I010 (320)
CN Project No. IMF-I010 (320)
I-10/SR-181 Interchange Modifications to
Diverging Diamond
Baldwin 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 Report as produced by GET. This Soil Survey is being submitted to the Bureau of Materials and Tests - Materials Engineer for approval and final distribution. The test boring logs are being transmitted to the Lead Designer, 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

November 7, 2016

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

Attention: Ms. Kaye Chancellor Davis, P.E.

Dear Sir:

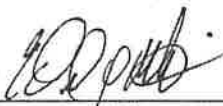
**RE: Project No. IM-I010(320)
I-10/SR-181 Interchange Modification to Diverging Diamond
Soils Survey Report
Baldwin County**

This office has reviewed the final copy of the soils survey 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,

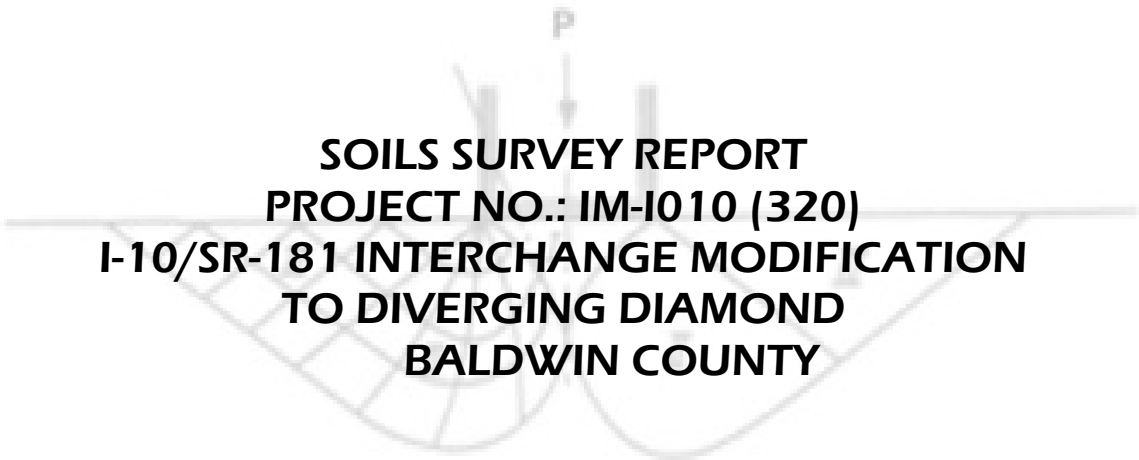
Vincent E. Calametti, P.E., Region Engineer

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

VEC/elb
C: File



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



**SOILS SURVEY REPORT
PROJECT NO.: IM-I010 (320)
I-10/SR-181 INTERCHANGE MODIFICATION
TO DIVERGING DIAMOND
BALDWIN COUNTY**

Professional Services Since 1974

904 Butler Drive, Mobile, AL 36693

251.666.7197 FAX: 251.666.7380

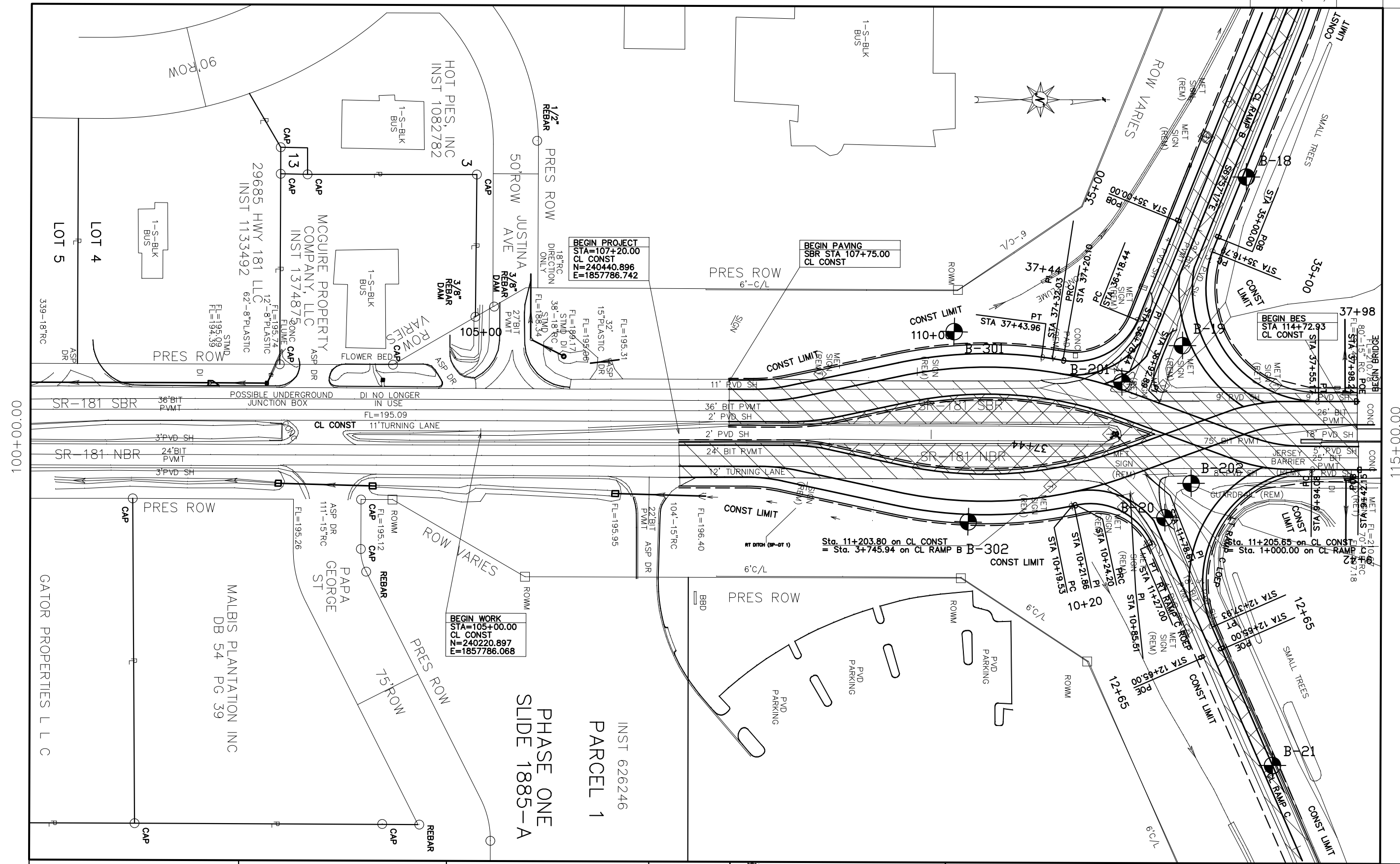
www.geoengr.com

APPENDIX E

BORING LOCATION PLAN AND PROFILE SHEETS

PLAN SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
IM-1010(320)	2017	4



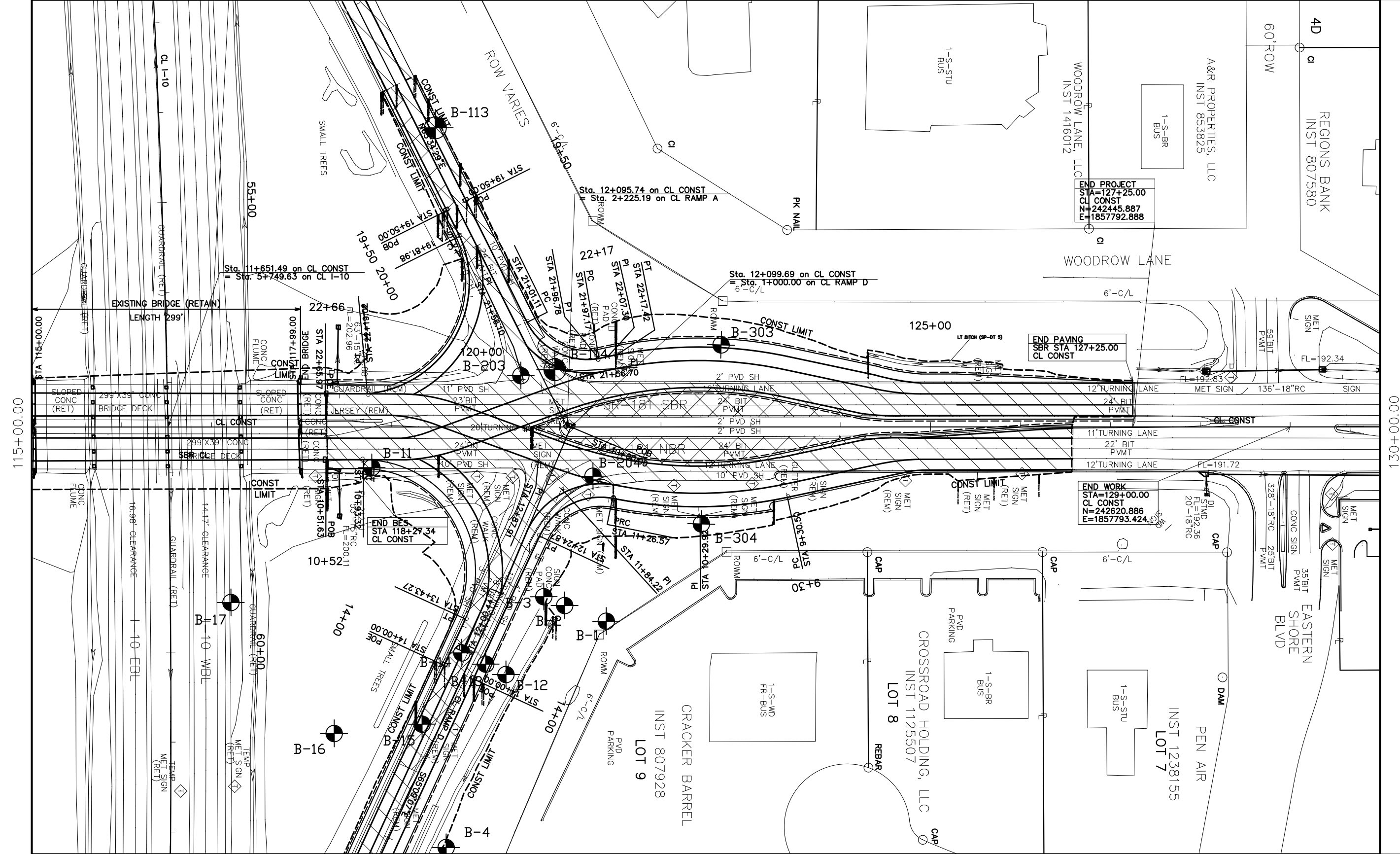
100+00.00

115+00.00

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	 ALABAMA DEPARTMENT OF TRANSPORTATION DESIGN BUREAU SECTION D2	50 0 50 HORIZ SCALE (FEET)	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:				PLAN SHEET	SR-181


PLAN SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
IM-1010(320)	2017	5



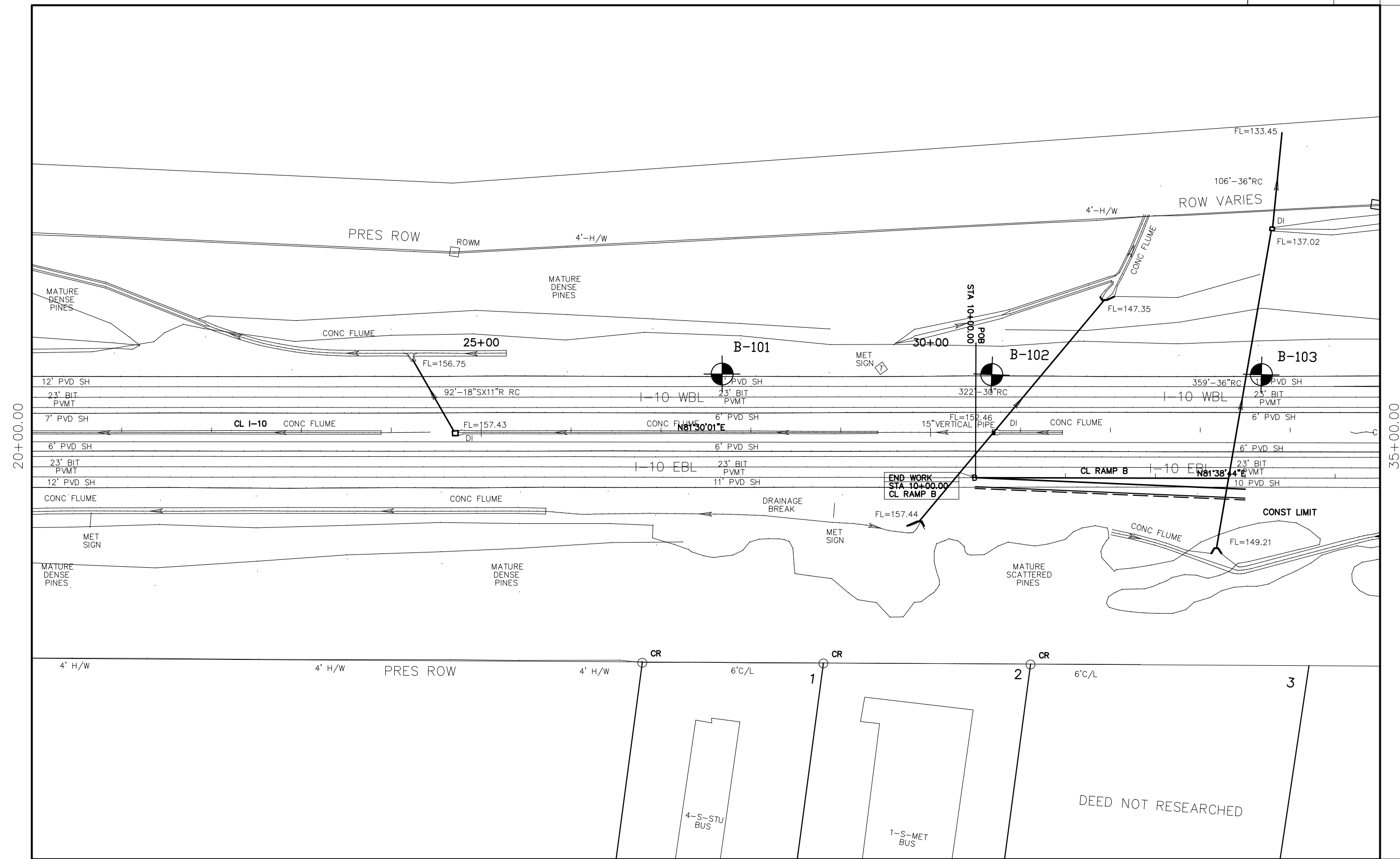
115+00.00

130+00.00

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	 ALABAMA DEPARTMENT OF TRANSPORTATION DESIGN BUREAU SECTION D2	50 0 50 HORIZ SCALE (FEET)	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:				PLAN SHEET	SR-181

PLAN SHEET

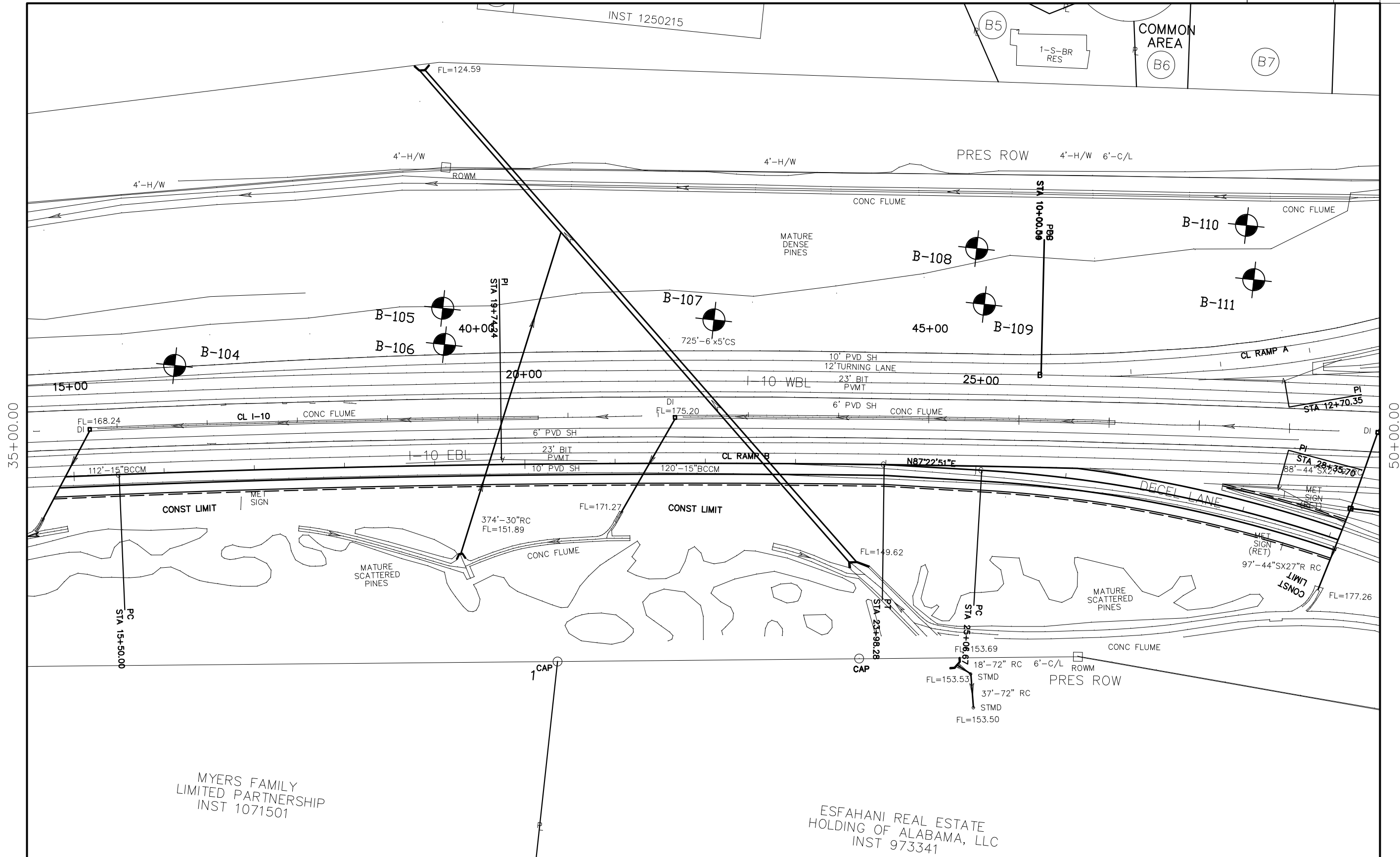
REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
IM-1010(320)	2017	6



RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION DESIGN BUREAU SECTION D2	HORIZ	SCALE (FEET)	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:					PLAN SHEET	I-10

PLAN SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
IM-1010(320)	2017	7



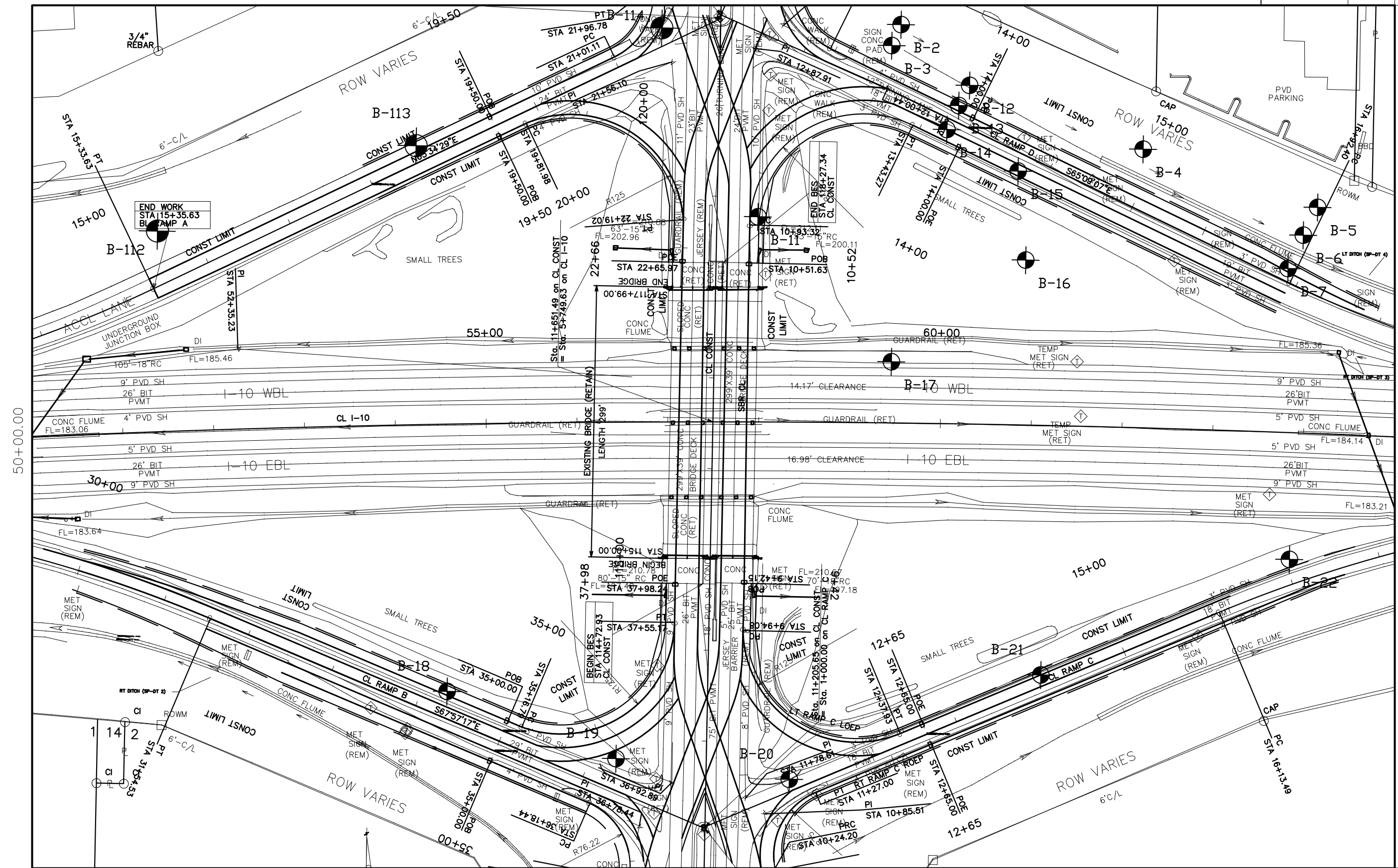
MYERS FAMILY
LIMITED PARTNERSHIP
INST 1071501

ESFAHANI REAL ESTATE
HOLDING OF ALABAMA, LLC
INST 973341

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	ALABAMA DEPARTMENT OF TRANSPORTATION DESIGN BUREAU SECTION D2	.50_ 0 .50_ HORIZ SCALE (FEET)	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:				PLAN SHEET	I-10

PLAN SHEET

REFERENCE PROJECT NO IM-1010(320)	FISCAL YEAR 2017	SHEET NO 8
--------------------------------------	---------------------	---------------



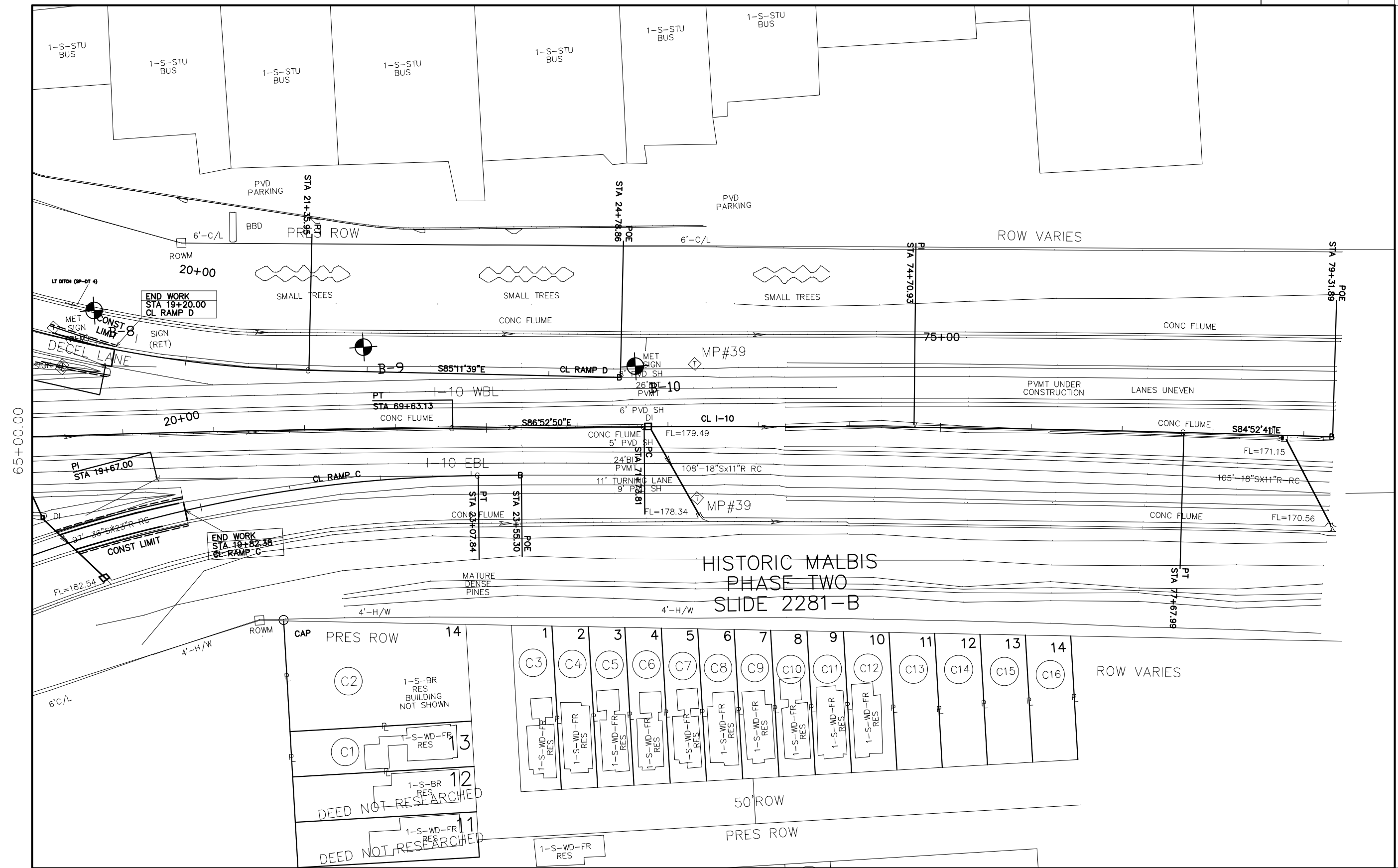
50+00.00

65+00.00

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL	 ALABAMA DEPARTMENT OF TRANSPORTATION DESIGN BUREAU SECTION D2	.50_ 0 .50_ HORIZ SCALE (FEET)	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:				PLAN SHEET	I-10

PLAN SHEET

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO
IM-1010(320)	2017	9



RESPONSIBLE PE:
DATE:

SUPERVISOR:
DATE:

DESIGNER:
DATE:

PLAN SUBMITTAL



ALABAMA DEPARTMENT OF TRANSPORTATION
DESIGN BUREAU SECTION D2



SHEET TITLE
PLAN SHEET

ROUTE
I-10

APPENDIX F
LOGS OF BORING

SR-181
STA. 110+26
114 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, PH, CS(LOGGER)
DATE DRILLED: 9/29/16

BORING DEPTH: 20 FT.
BORING ELEV.: 197 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-301

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _t	AASHTO CLASS	LAB DATA	NORTH: EAST:		
197	0		3" Topsoil	1	8					
			Medium consistency red sandy clay w/ trace of gravel	2	12	MC=12				
			Stiff consistency red & brown sandy clay	3	14					
192	5		Loose red & light brown clayey sand	4	9	MC=16				
				5	24	MC=17				
187	10		Very stiff consistency red sandy clay							
				6	23					
182	15		Firm red silty, clayey sand w/ trace of ironstone							
				7	16					
177	20		B.T. @ 20 FT							
172	25									
167	30									
162	35									
157	40									

SR-181
STA. 110+41
97 FT RT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, PH, CS(LOGGER)
DATE DRILLED: 9/29/16

BORING DEPTH: 20 FT.
BORING ELEV.: 197.5 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-302

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _t	AASHTO CLASS	LAB DATA	NORTH: EAST:		
198	0		3" Topsoil	1	12					
			Firm brown silty sand	2	13	MC=16				
			Stiff consistency red sandy clay	3	11					
193	5		Brown & red sandy clay w/ small amount of sandstone	4	11	MC=22				
				5	19					
188	10		Very stiff consistency red w/ light brown sandy clay							
				6	17					
183	15		Firm red silty, clayey sand w/ trace of ironstone							
				7	14					
178	20		B.T. @ 20 FT							
173	25									
168	30									
163	35									
158	40									

SR-181
STA. 112+12
58 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: MUD ROTARY
DRILL CREW: SM, CS, VS(LOGGER)
DATE DRILLED: 3/17/10

BORING DEPTH: 30 FT.
BORING ELEV.: 209.24 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-201

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _t	AASHTO CLASS	LAB DATA	NORTH: EAST:		
209	0		5" Topsoil	1	14					
			Firm red silty sand	2	19	A-2-4 (0)	-200=26.6 LL=21 MC=14 PI=9			
				3	13					
204	5		Firm to loose red and brown clayey sand	4	9					
				T-1		A-6 (5)	-200=46.8 LL=34 MC=15 PI=19			
199	10			5	27					
				6	18					
194	15		Firm red and brown clayey sand							
				7	30	A-6 (5)	-200=49.1 LL=37 MC=22 PI=18			
189	20			8	29					
				9	52					
184	25		Firm to very dense red silty sand							
179	30		B.T. @ 30 FT							
174	35									
169	40									

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.

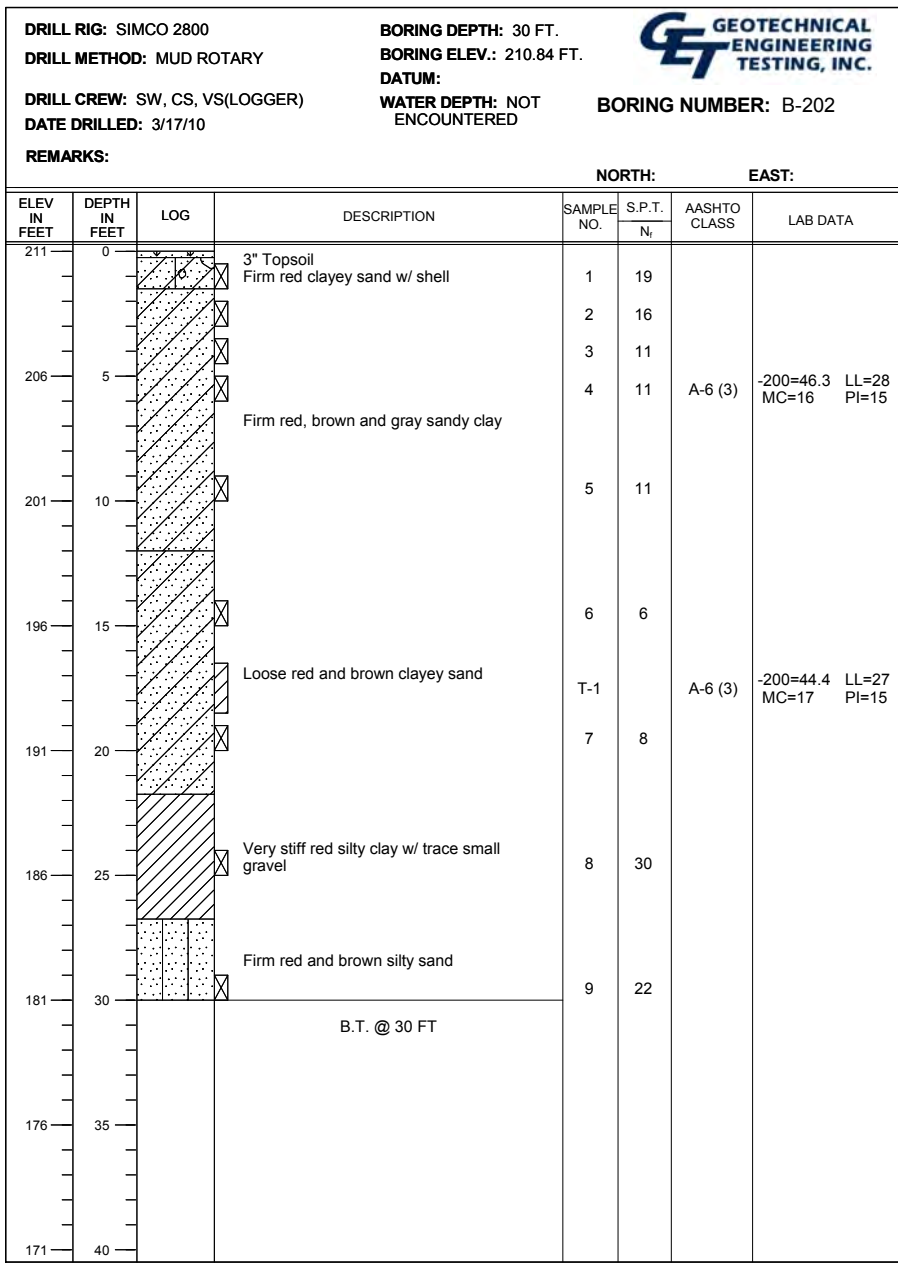
LEGEND OF SYMBOLS

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

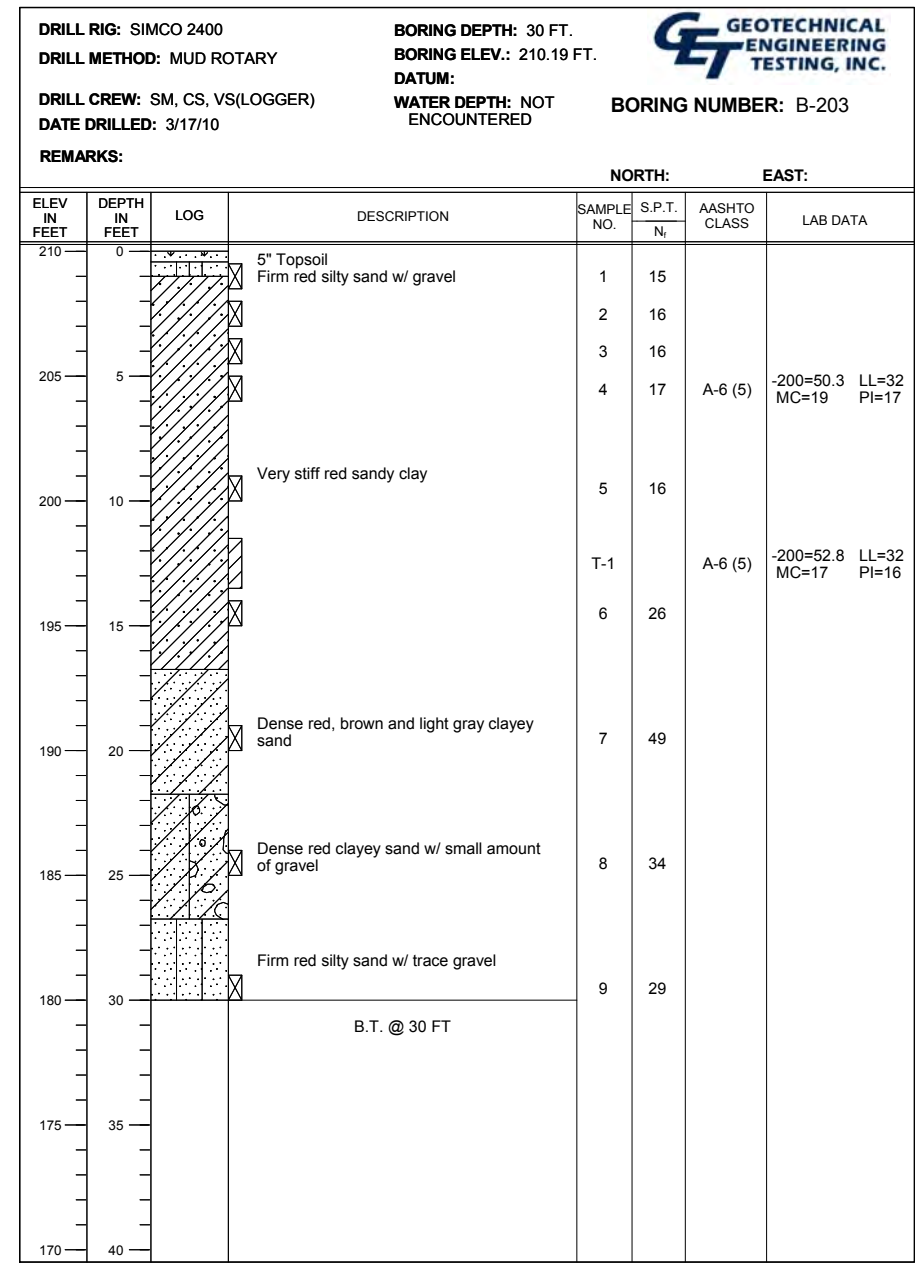
ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN
APPROVED : CURT DOYLE, P.E.	PRELIMINARY PROJECT NO.: IM-I010(320)
GEOTECHNICAL ENGINEER	TEST BORING RECORD
DATE :	SHEET NO. 1 OF 15

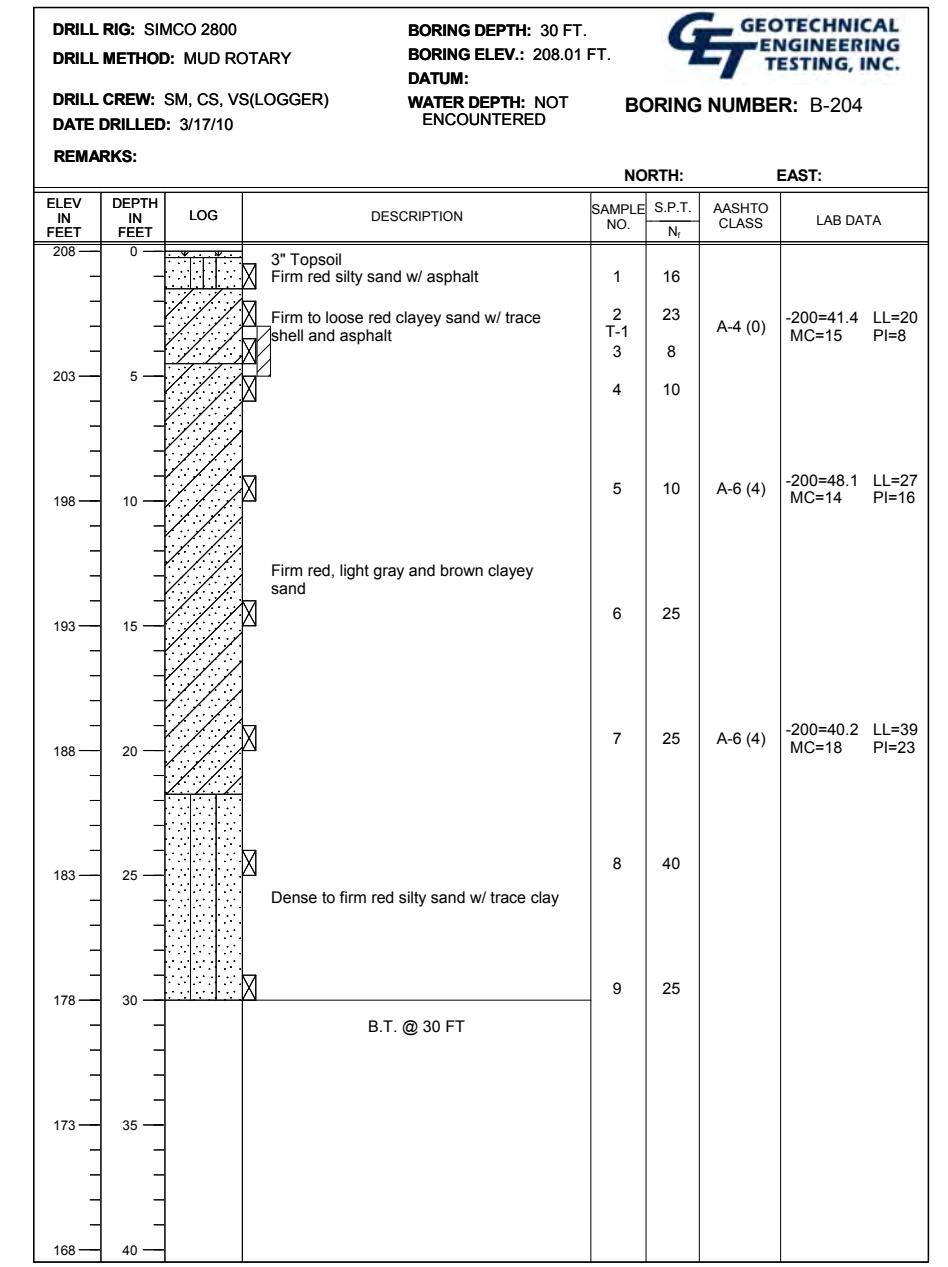
SR-181
STA. 112+88
54 FT RT OF CL



SR-181
STA. 120+44
57 FT LT OF CL



SR-181
STA. 121+24
55 FT RT OF CL



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.

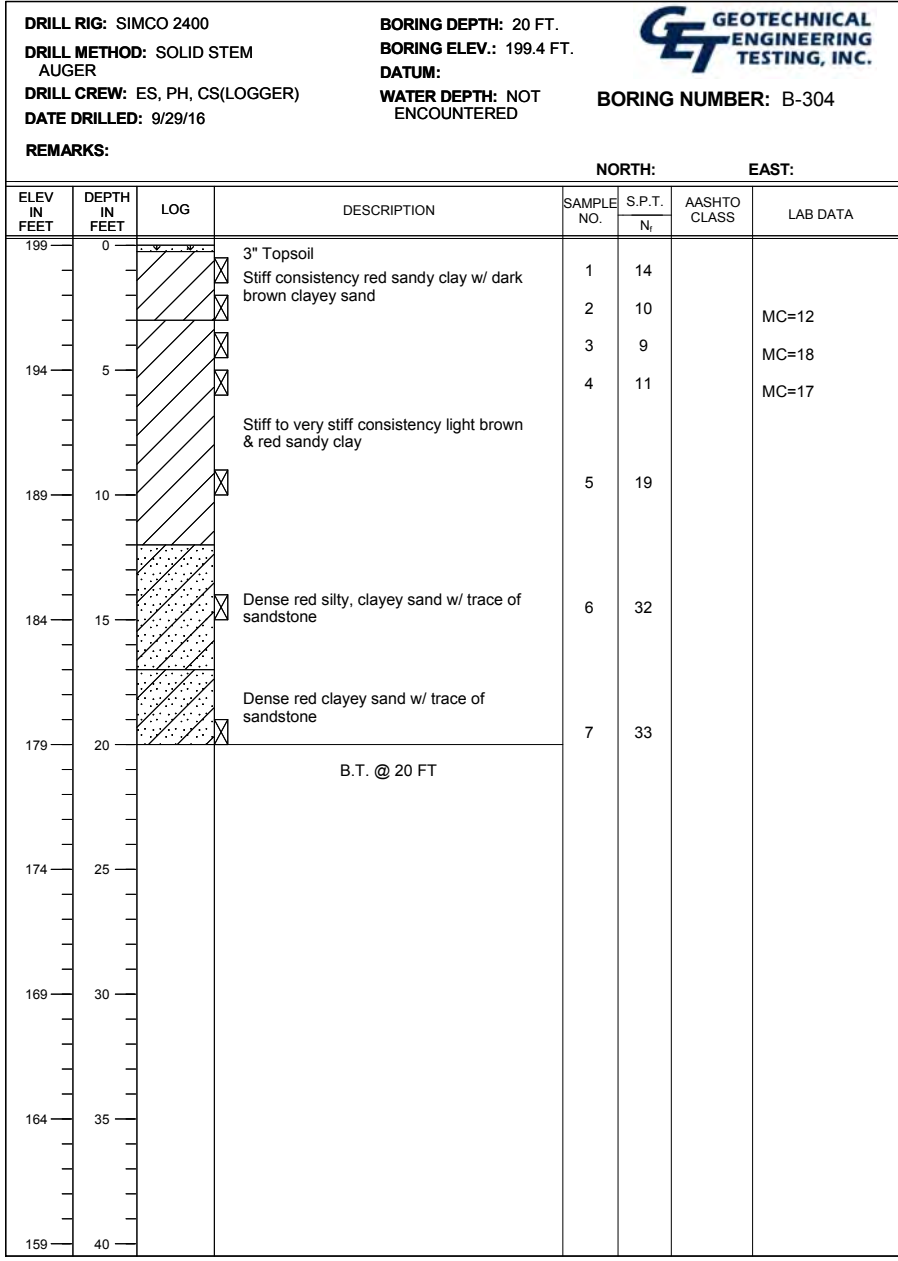
LEGEND OF SYMBOLS

	Topsoil		A-5		Standard Penetration Test		Ground Water Measurement
	A-1a, A-1b		A-6		Undisturbed Shelby Tube Sample		N _t = SPT Value determined in field
	A-2-4, A-2-5		A-7-5, A-7-6				NWTE = No Water Table Encountered
	A-2-6, A-2-7		A-8				
	A-3		Asphalt Pavement				
	A-4		Crushed Stone				

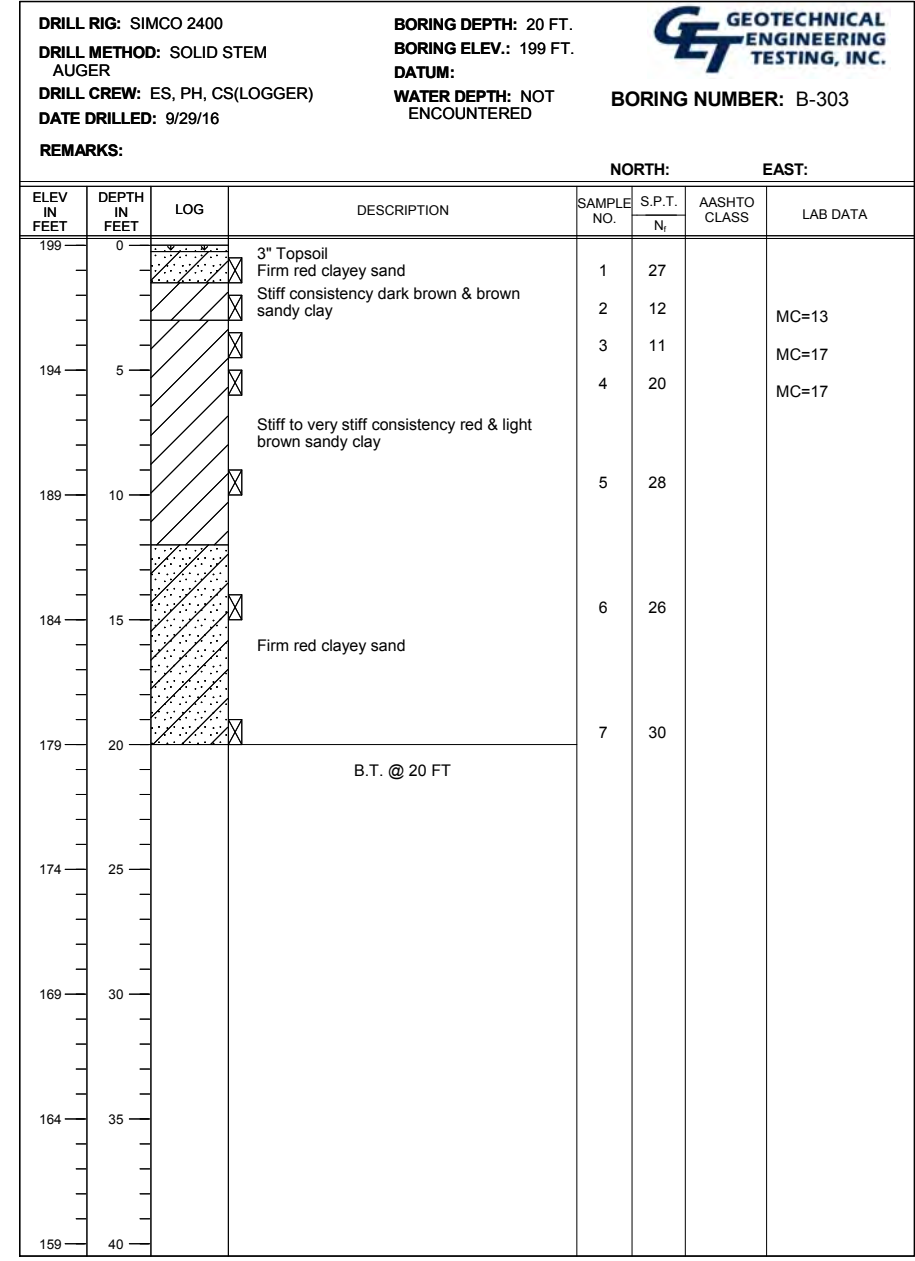
ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN
APPROVED : CURT DOYLE, P.E.	PRELIMINARY PROJECT NO.: IM-I010(320)
GEOTECHNICAL ENGINEER	TEST BORING RECORD
DATE :	SHEET NO. 2 OF 15

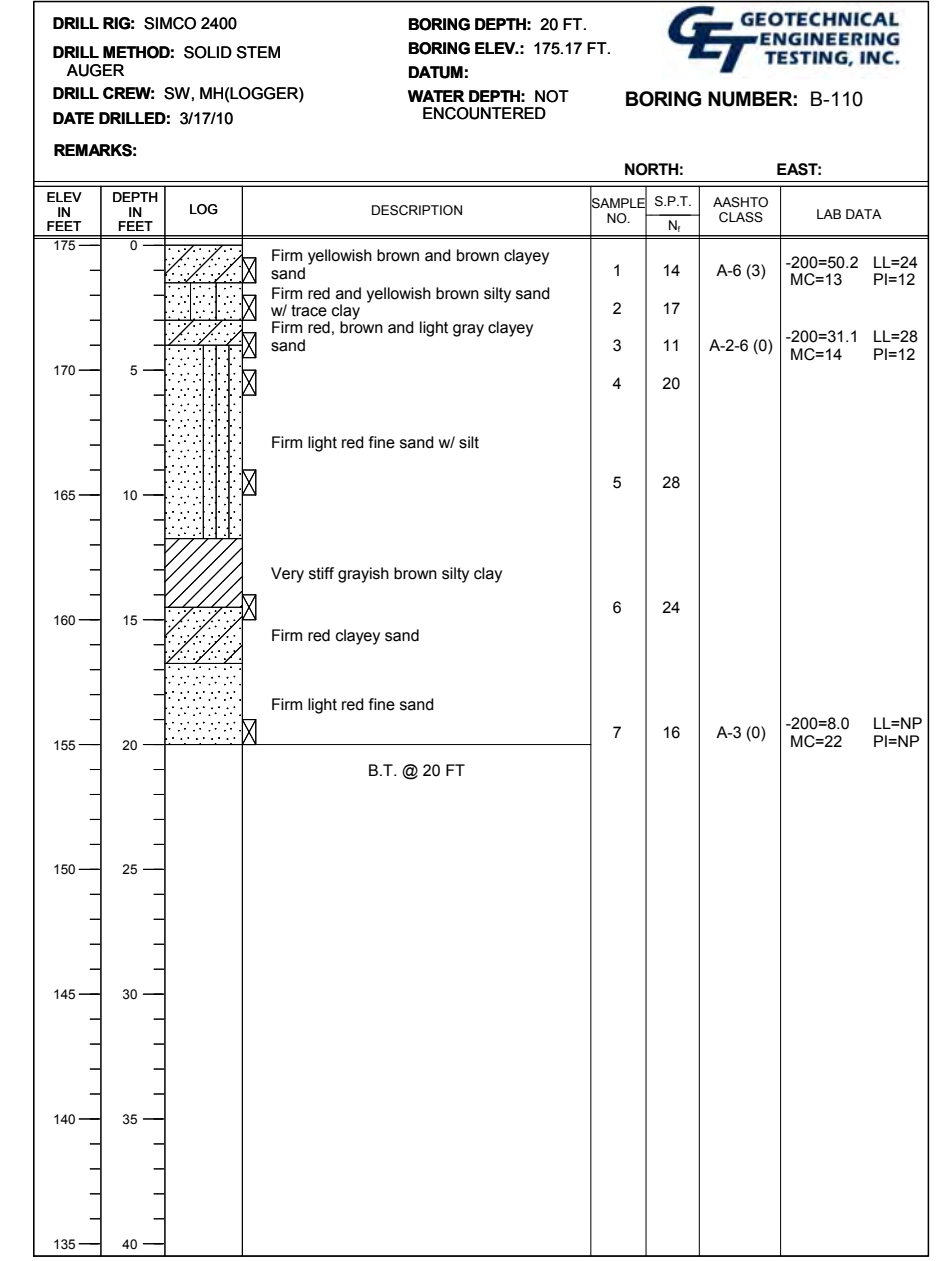
SR-181
STA. 122+45
108 FT RT OF CL



SR-181
STA. 122+67
91 FT LT OF CL



RAMP A
STA. 12+40
138 FT LT OF BL



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-5	Standard Penetration Test	Ground Water Measurement
A-1a, A-1b	A-6	Undisturbed Shelby Tube Sample	N_t = SPT Value determined in field
A-2-4, A-2-5	A-7-5, A-7-6		NWTE = No Water Table Encountered
A-2-6, A-2-7	A-8		
A-3	Asphalt Pavement		
A-4	Crushed Stone		

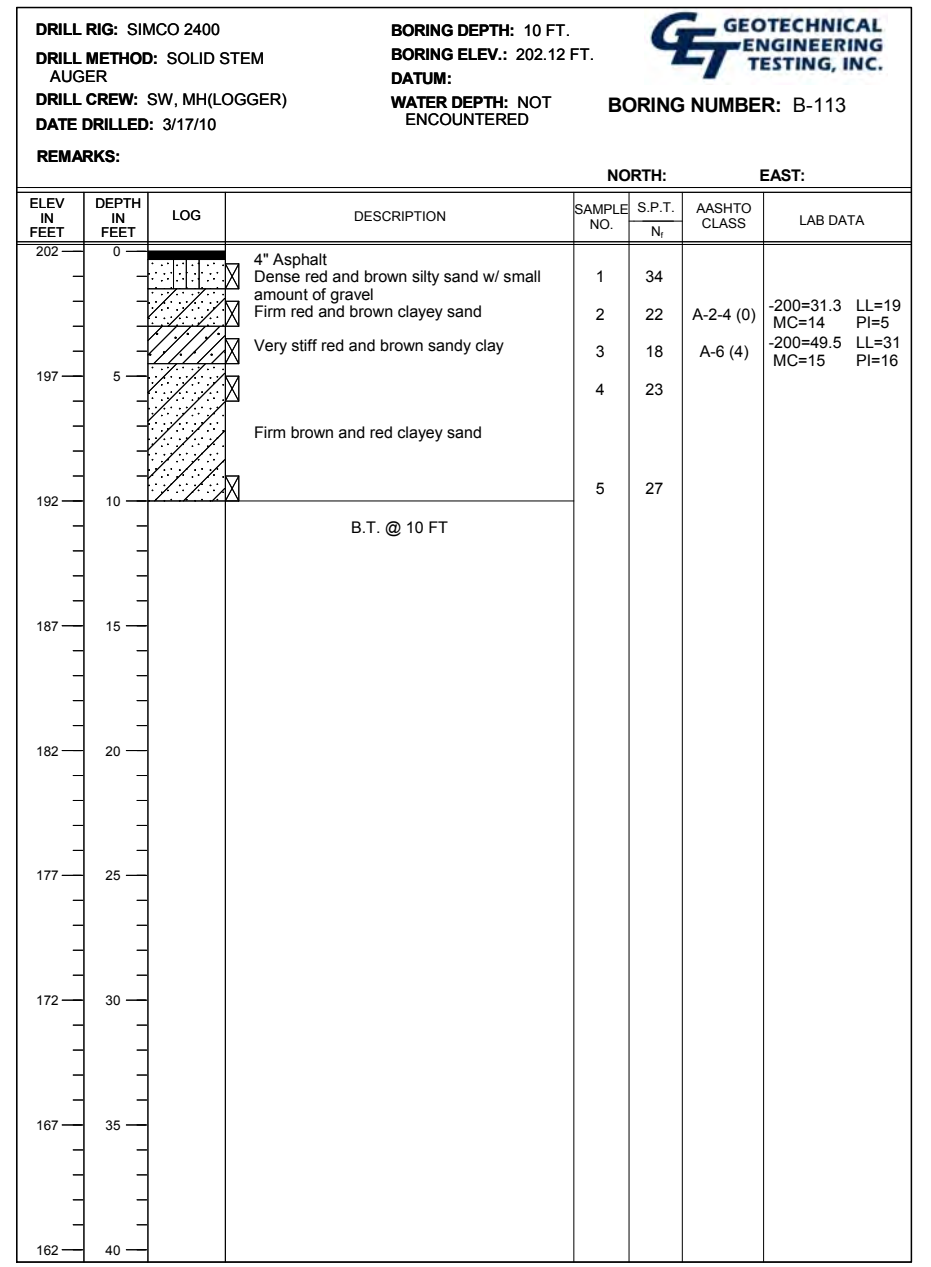
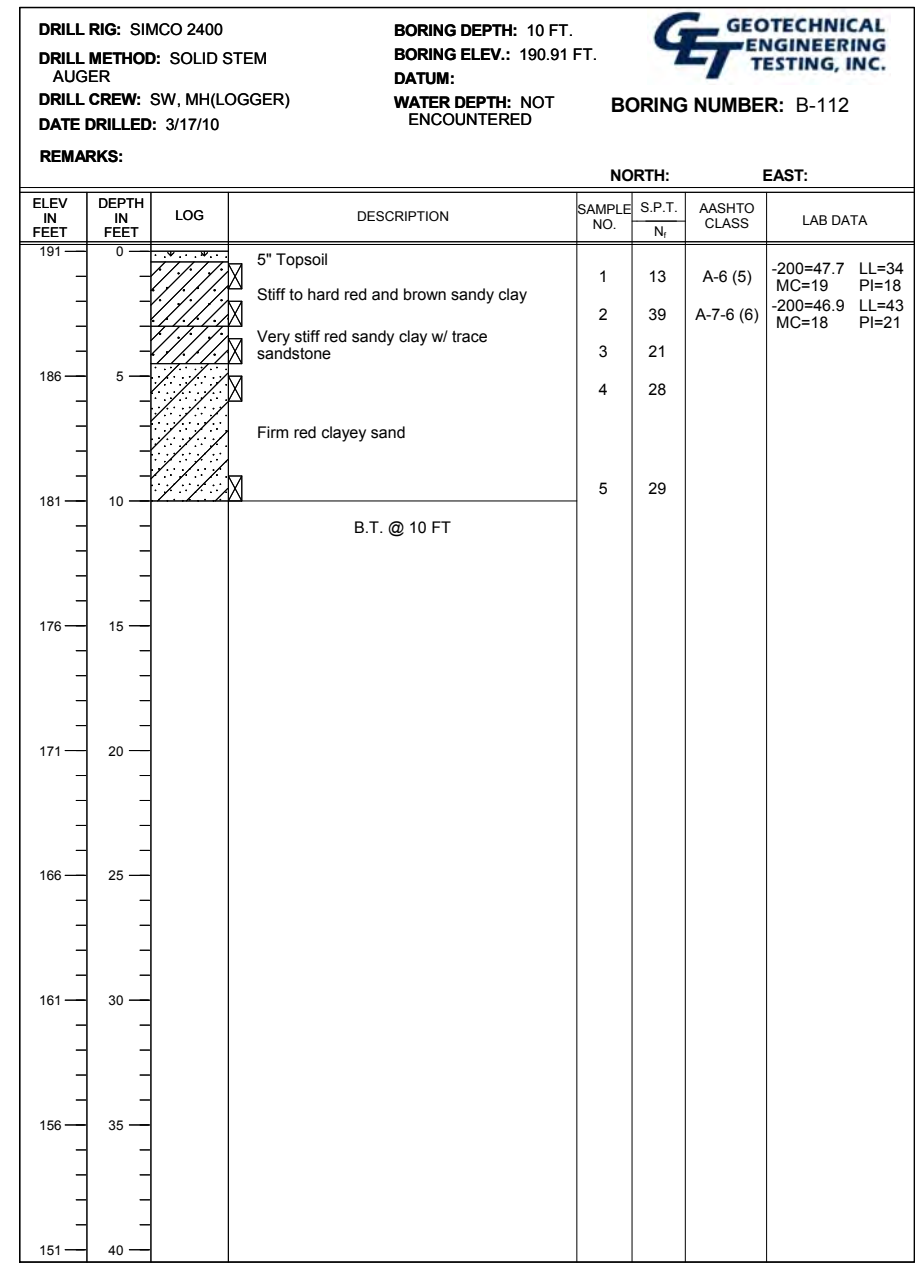
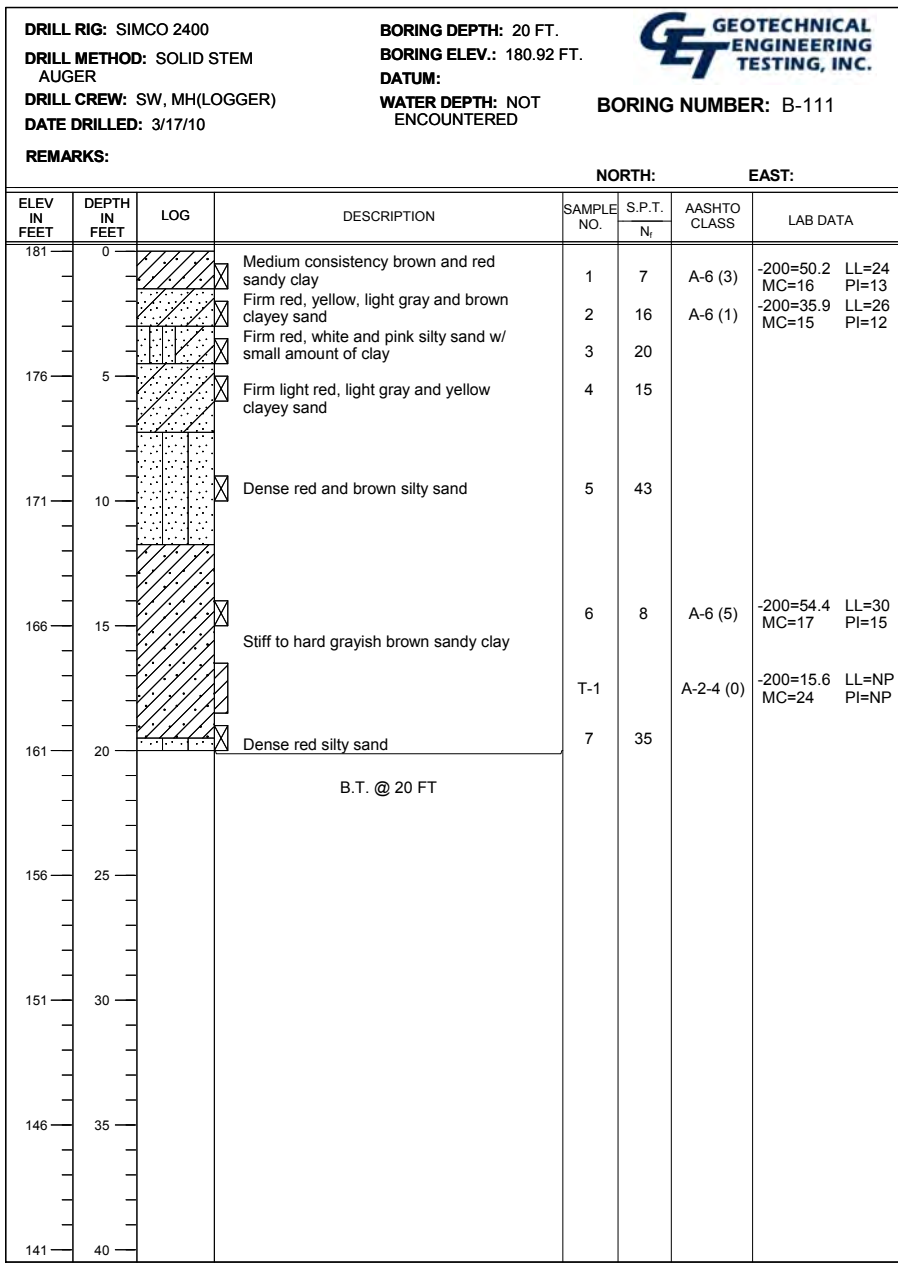
ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN PRELIMINARY PROJECT NO.: IM-I010(320)
APPROVED : CURT DOYLE, P.E.	TEST BORING RECORD
DATE :	SHEET NO. 3 OF 15

RAMP A
STA. 12+43
78 FT LT OF BL

RAMP A
STA. 15+62
55 FT LT OF BL

RAMP A
STA. 18+60
17 FT LT OF BL



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-5		Standard Penetration Test		Ground Water Measurement
	A-1a, A-1b		A-6		Undisturbed Shelby Tube Sample		N _i = SPT Value determined in field
	A-2-4, A-2-5		A-7-5, A-7-6		NWTE = No Water Table Encountered		
	A-2-6, A-2-7		A-8				
	A-3		Asphalt Pavement				
	A-4		Crushed Stone				

ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN PRELIMINARY PROJECT NO.: IM-I010(320)
APPROVED : CURT DOYLE, P.E.	TEST BORING RECORD
DATE :	SHEET NO. 4 OF 15

RAMP A
STA. 21+60
17 FT LT OF BL

RAMP B
STA. 34+30
28 FT LT OF BL

RAMP B
STA. 36+28
32 FT LT OF BL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH(LOGGER)
DATE DRILLED: 3/17/10

BORING DEPTH: 10 FT.
BORING ELEV.: 209.19 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-114

REMARKS:

NORTH: EAST:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _t	AASHTO CLASS	LAB DATA
209	0		3" Topsoil	1	19	A-2-4 (0)	-200=18.7 LL=NP MC=12 PI=NP
			Firm brown and red silty sand w/ small amount of gravel and shell	2	16	A-2-4 (0)	-200=29.4 LL=19 MC=12 PI=5
204	5		Stiff red and brown sandy clay	3	10		
				4	12		
199	10		Firm red clayey sand	5	16		
			B.T. @ 10 FT				
194	15						
189	20						
184	25						
179	30						
174	35						
169	40						

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SM, VS, CS(LOGGER)
DATE DRILLED: 6/9/08

BORING DEPTH: 10 FT.
BORING ELEV.: 202.92 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-18

REMARKS:

NORTH: EAST:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _t	AASHTO CLASS	LAB DATA
203	0		3.0" Topsoil	1	14	A-2-4 (0)	-200=26.0 LL=NP MC=12 PI=NP
			Firm red & dark brown silty sand	2	14	A-6 (2)	-200=40.3 LL=26 MC=15 PI=15
			Firm red clayey sand	3	16		
198	5		Very stiff to stiff red & brown clay w/ sand	4	12		
				5	29		
193	10		Very stiff yellowish brown & light gray clay				
			B.T. @ 10 FT				
188	15						
183	20						
178	25						
173	30						
168	35						
163	40						

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SM, VS, CS(LOGGER)
DATE DRILLED: 6/9/08

BORING DEPTH: 10 FT.
BORING ELEV.: 206.27 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-19

REMARKS:

NORTH: EAST:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _t	AASHTO CLASS	LAB DATA
206	0		3.0" Topsoil	1	16	A-2-4 (0)	-200=25.1 LL=NP MC=11 PI=NP
			Firm brown & red silty sand	2	17	A-2-4 (0)	-200=32.9 LL=23 MC=13 PI=10
			Firm red & gray clayey sand	3	13		
201	5		Stiff red & light gray sandy clay	4	13		
				5	23		
196	10		Stiff to very stiff red clay				
			B.T. @ 10 FT				
191	15						
186	20						
181	25						
176	30						
171	35						
166	40						

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-5		Standard Penetration Test		Ground Water Measurement
	A-1a, A-1b		A-6		Undisturbed Shelby Tube Sample	N_t	N_t = SPT Value determined in field
	A-2-4, A-2-5		A-7-5, A-7-6			NWTE	NWTE = No Water Table Encountered
	A-2-6, A-2-7		A-8				
	A-3		Asphalt Pavement				
	A-4		Crushed Stone				

ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN PRELIMINARY PROJECT NO.: IM-I010(320)
APPROVED : CURT DOYLE, P.E.	TEST BORING RECORD
GEOTECHNICAL ENGINEER	SHEET NO. 5 OF 15
DATE :	

RAMP C
STA. 11+05
11 FT LT OF BL

RAMP C
STA. 14+08
26 FT LT OF BL

RAMP C
STA. 17+05
36 FT LT OF BL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08

BORING DEPTH: 10 FT.
BORING ELEV.: 207.95 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-20

REMARKS:



DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08

BORING DEPTH: 10 FT.
BORING ELEV.: 198.39 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-21

REMARKS:



DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08

BORING DEPTH: 10 FT.
BORING ELEV.: 193.11 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-22

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	NORTH		EAST		
					S.P.T. N _i	AASHTO CLASS	LAB DATA		
208	0		5.0" Topsoil	1	33	A-2-4 (0)	-200=35.3 MC=9	LL=18 PI=7	
			Dense dark brown & red clayey sand	2	30				
			Firm dark brown & red clayey sand w/ trace rock	3	12				
203	5		Very stiff red sandy clay	4	18				
			Very stiff light brown & red silty clay	5	18				
198	10		B.T. @ 10 FT						
193	15								
188	20								
183	25								
178	30								
173	35								
168	40								

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	NORTH		EAST		
					S.P.T. N _i	AASHTO CLASS	LAB DATA		
198	0		5.0" Topsoil	1	14				
			Firm dark brown & red clayey sand	2	17				
			Firm dark brown & red clayey sand	3	15	A-6 (1)	-200=36.9 MC=16	LL=31 PI=14	
193	5		Firm red clayey sand	4	20				
			Stiff light gray silty sandy clay	5	10		MC=21		
188	10		B.T. @ 10 FT						
183	15								
178	20								
173	25								
168	30								
163	35								
158	40								

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	NORTH		EAST		
					S.P.T. N _i	AASHTO CLASS	LAB DATA		
193	0		5.0" Topsoil	1	12				
			Firm dark brown & red clayey sand	2	10				
			Firm red clayey sand	3	20				
188	5		Very stiff red & light gray clay	4	32				
			Hard red sandy clay	5	17				
183	10		B.T. @ 10 FT						
178	15								
173	20								
168	25								
163	30								
158	35								
153	40								

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.

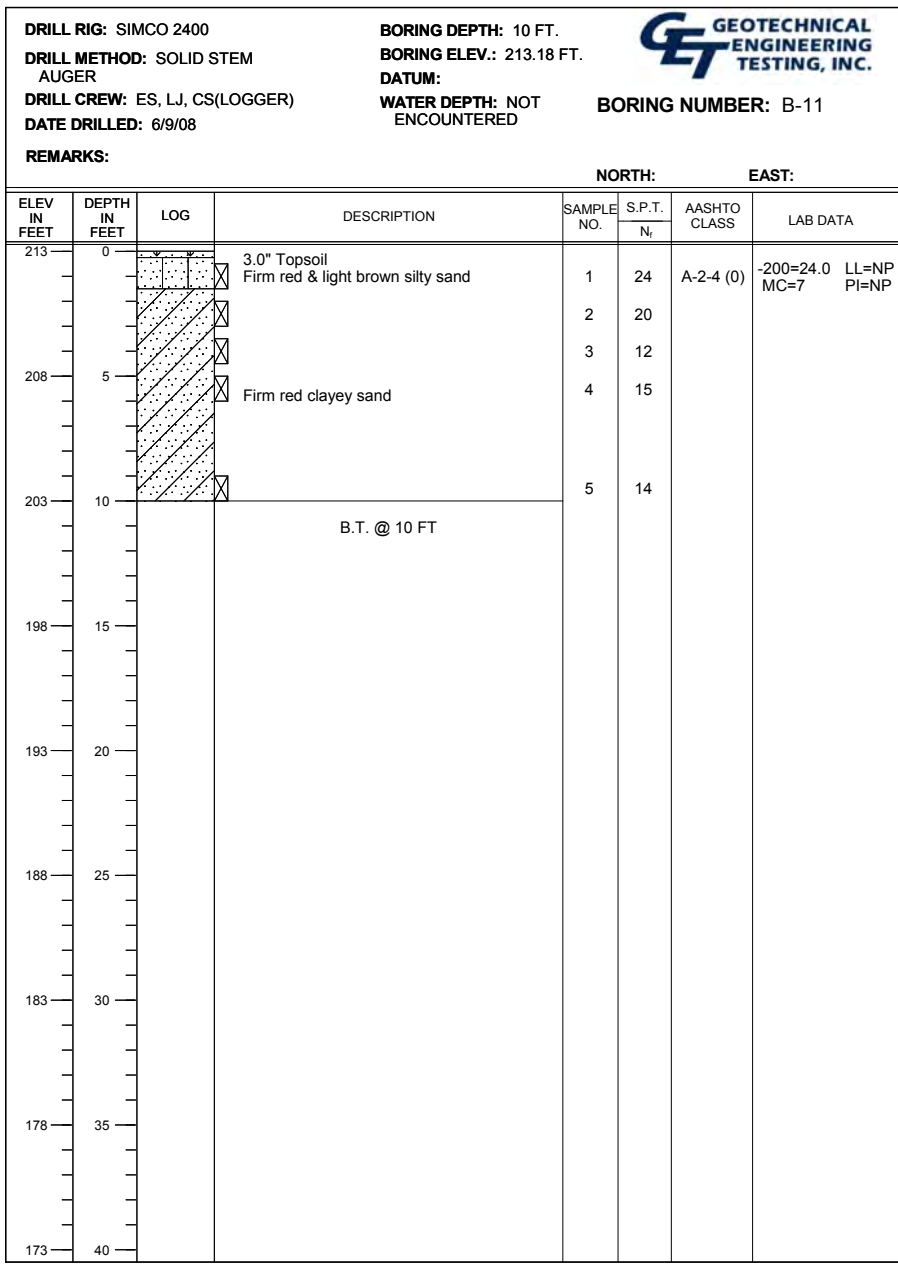
LEGEND OF SYMBOLS

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

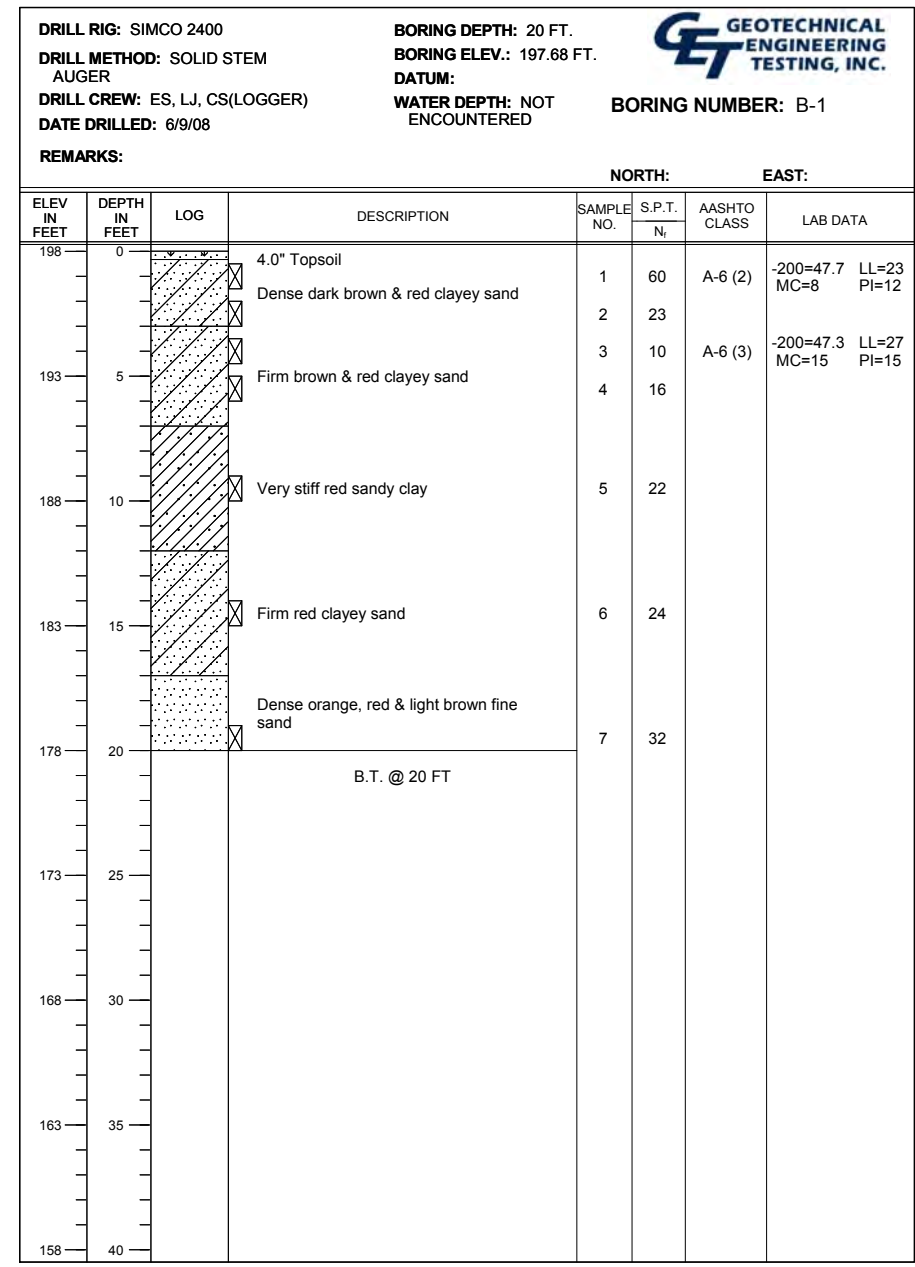
ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN PRELIMINARY PROJECT NO.: IM-I010(320)
APPROVED : CURT DOYLE, P.E.	TEST BORING RECORD SHEET NO. 6 OF 15
DATE : GEOTECHNICAL ENGINEER	

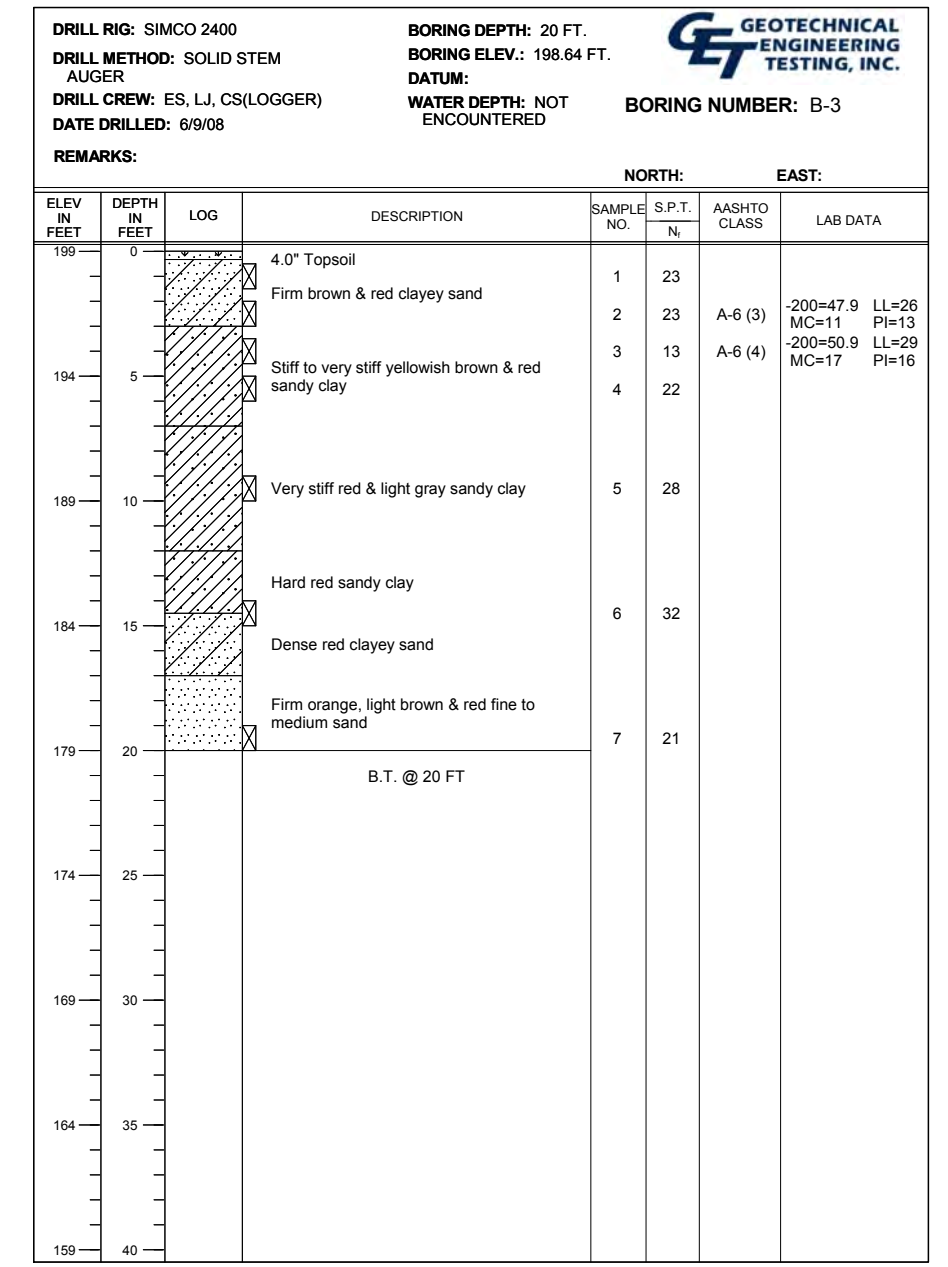
RAMP D
STA. 11+09
8 FT RT OF BL



RAMP D
STA. 11+85
120 FT LT OF BL



RAMP D
STA. 11+85
46 FT LT OF BL



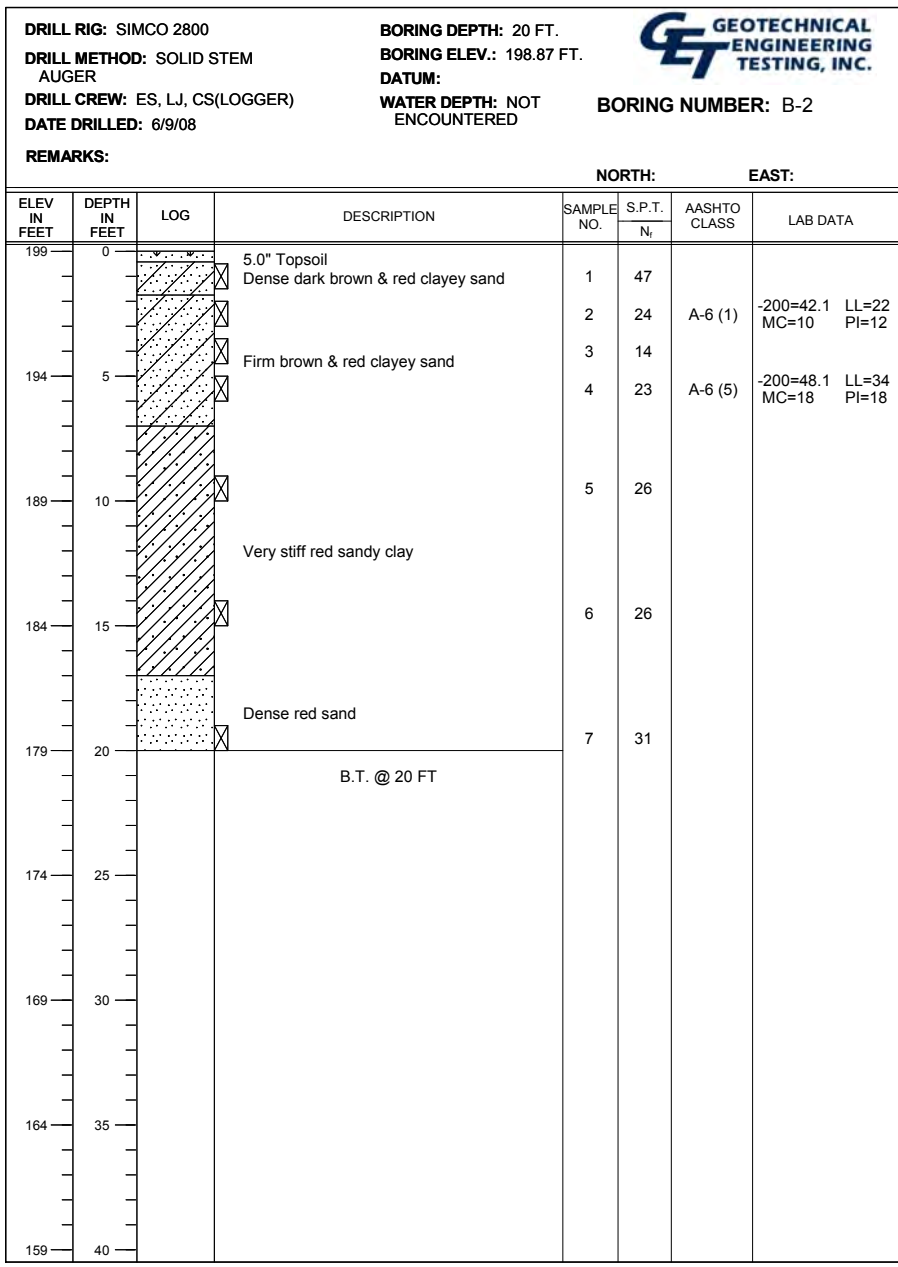
NOTE(S):

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.

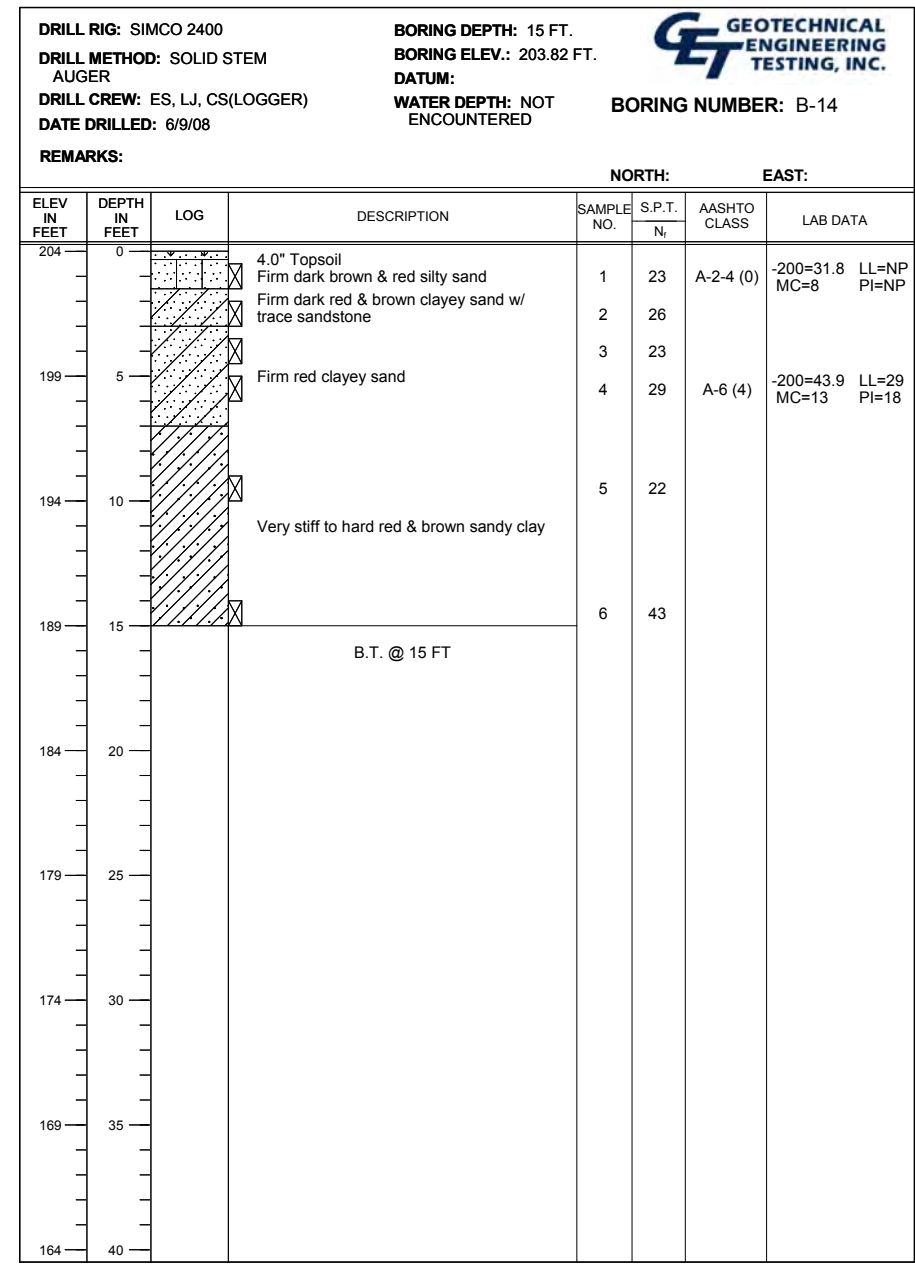
LEGEND OF SYMBOLS			
	Topsoil		A-5
	A-1a, A-1b		A-6
	A-2-4, A-2-5		A-7-5, A-7-6
	A-2-6, A-2-7		A-8
	A-3		Asphalt Pavement
	A-4		Crushed Stone
	Standard Penetration Test		Ground Water Measurement
	Undisturbed Shelby Tube Sample	N_i	N_i = SPT Value determined in field
		NWTE	NWTE = No Water Table Encountered

ALABAMA DEPARTMENT OF TRANSPORTATION	
GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
APPROVED : CURT DOYLE, P.E.	BALDWIN
GEOTECHNICAL ENGINEER	PRELIMINARY PROJECT NO.: IM-1010(320)
DATE :	TEST BORING RECORD SHEET NO. 7 OF 15

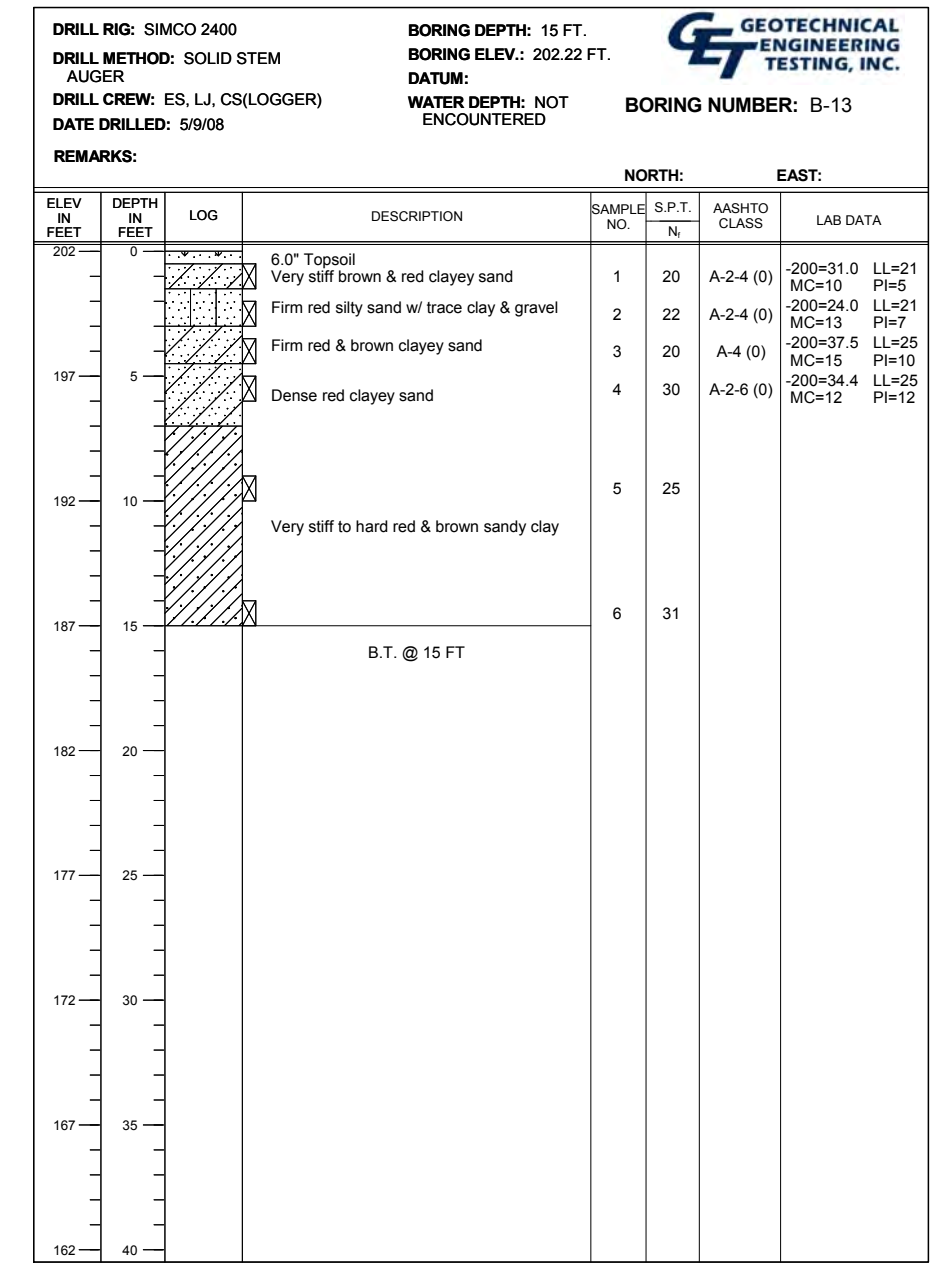
RAMP D
STA. 11+85
73 FT LT OF BL



RAMP D
STA. 12+80
12 FT RT OF BL



RAMP D
STA. 12+80
17.5 FT LT OF BL



NOTE(S):

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LEGEND OF SYMBOLS

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

ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN PRELIMINARY PROJECT NO.: IM-I010(320)
APPROVED : CURT DOYLE, P.E.	TEST BORING RECORD
DATE : GEOTECHNICAL ENGINEER	SHEET NO. 8 OF 15

RAMP D
STA. 12+80
43.5 FT LT OF BL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/9/08

BORING DEPTH: 15 FT.
BORING ELEV.: 197.22 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-12

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	NORTH		AASHTO CLASS	LAB DATA
					S.P.T. N _i	EAST		
197	0		5.0" Topsoil	1	11			
			Firm red silty sand					
			Hard red sandy clay	2	30	A-6 (4)	-200=51.7 LL=29 MC=14 PI=14	
				3	17			
192	5			4	35	A-6 (2)	-200=43.1 LL=34 MC=20 PI=13	
			Firm to dense red & brown clayey sand					
187	10			5	39			
			Hard red sandy clay					
182	15			6	37			
			B.T. @ 15 FT					
177	20							
172	25							
167	30							
162	35							
157	40							

RAMP D
STA. 13+70
18 FT RT OF BL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SM, VS, CS(LOGGER)
DATE DRILLED: 6/7/08

BORING DEPTH: 15 FT.
BORING ELEV.: 201.18 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-15

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	NORTH		AASHTO CLASS	LAB DATA
					S.P.T. N _i	EAST		
201	0		4.0" Topsoil	1	34			
			Dense to firm red clayey sand	2	24			
				3	18			
196	5		Firm to dense red clayey sand	4	34			
				5	29			
191	10		Very stiff to hard red sandy clay					
186	15			6	30			
			B.T. @ 15 FT					
181	20							
176	25							
171	30							
166	35							
161	40							

RAMP D
STA. 14+20
103 FT RT OF BL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08

BORING DEPTH: 10 FT.
BORING ELEV.: 194.43 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-16

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	NORTH		AASHTO CLASS	LAB DATA
					S.P.T. N _i	EAST		
194	0		6.0" Topsoil	1	15	A-6 (3)	-200=47.9 LL=25 MC=17 PI=15	
			Firm dark brown & red clayey sand	2	24			
				3	24	A-6 (6)	-200=48.6 LL=35 MC=18 PI=19	
189	5		Firm red & brown clayey sand	4	28			
184	10			5	22			
			B.T. @ 10 FT					
179	15							
174	20							
169	25							
164	30							
159	35							
154	40							

NOTE(S):

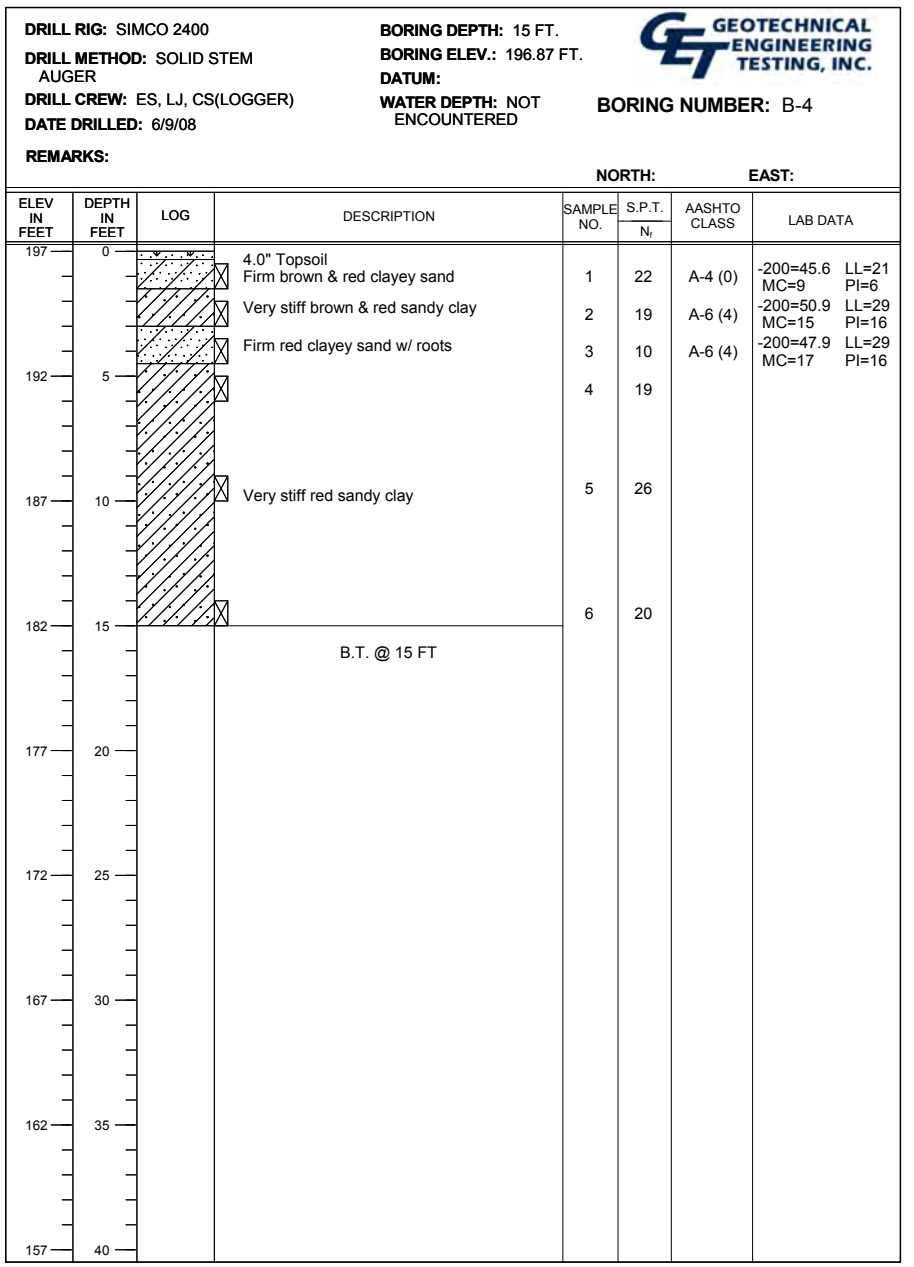
The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level indicated is for the highest elevation recorded during this investigation and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

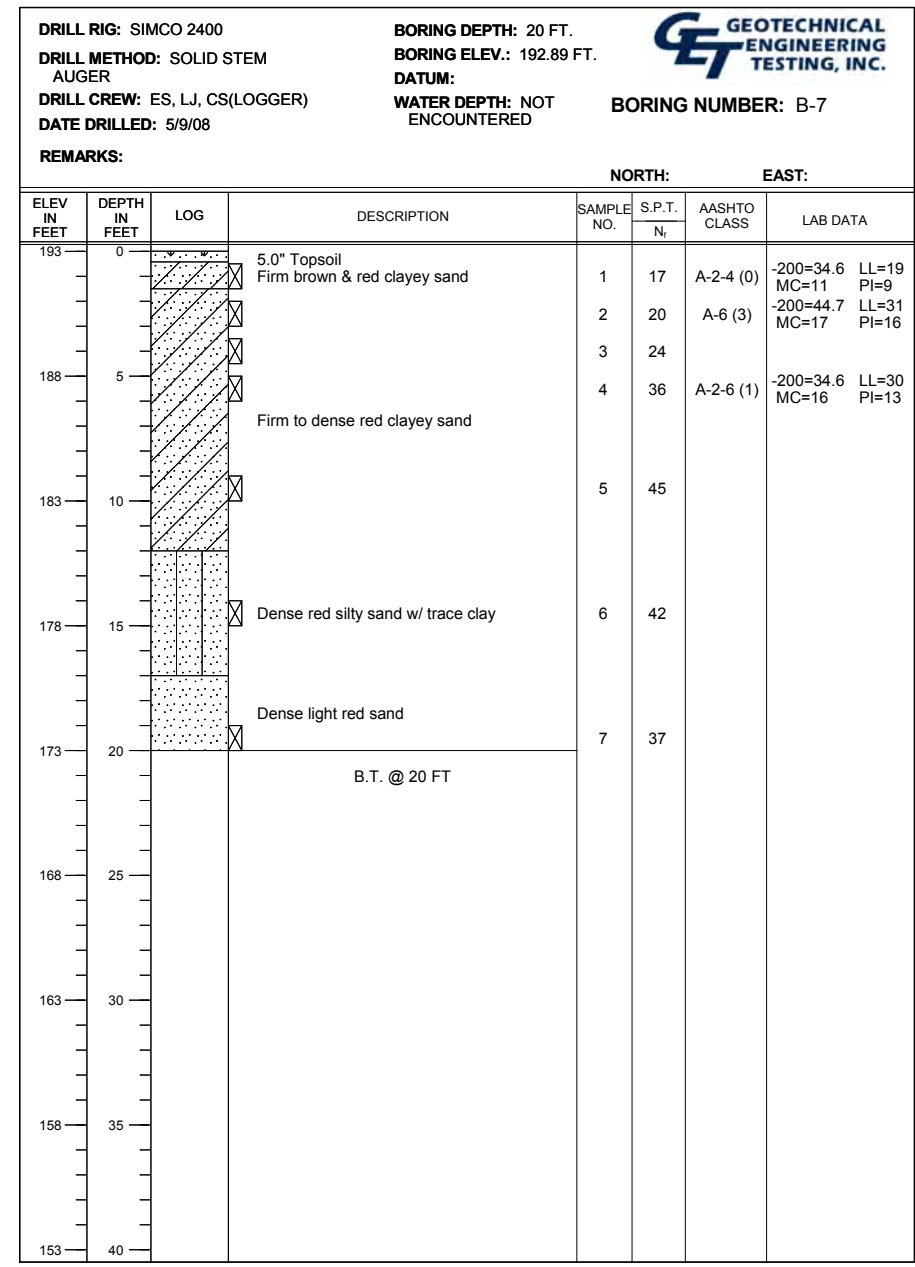
	Topsoil		A-5		Standard Penetration Test		Ground Water Measurement
	A-1a, A-1b		A-6		Undisturbed Shelby Tube Sample	N_i	N_i = SPT Value determined in field
	A-2-4, A-2-5		A-7-5, A-7-6			NWTE	NWTE = No Water Table Encountered
	A-2-6, A-2-7		A-8				
	A-3		Asphalt Pavement				
	A-4		Crushed Stone				

ALABAMA DEPARTMENT OF TRANSPORTATION	
GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
APPROVED : CURT DOYLE, P.E.	BALDWIN
GEOTECHNICAL ENGINEER	PRELIMINARY PROJECT NO.: IM-I010(320)
DATE :	TEST BORING RECORD SHEET NO. 9 OF 15

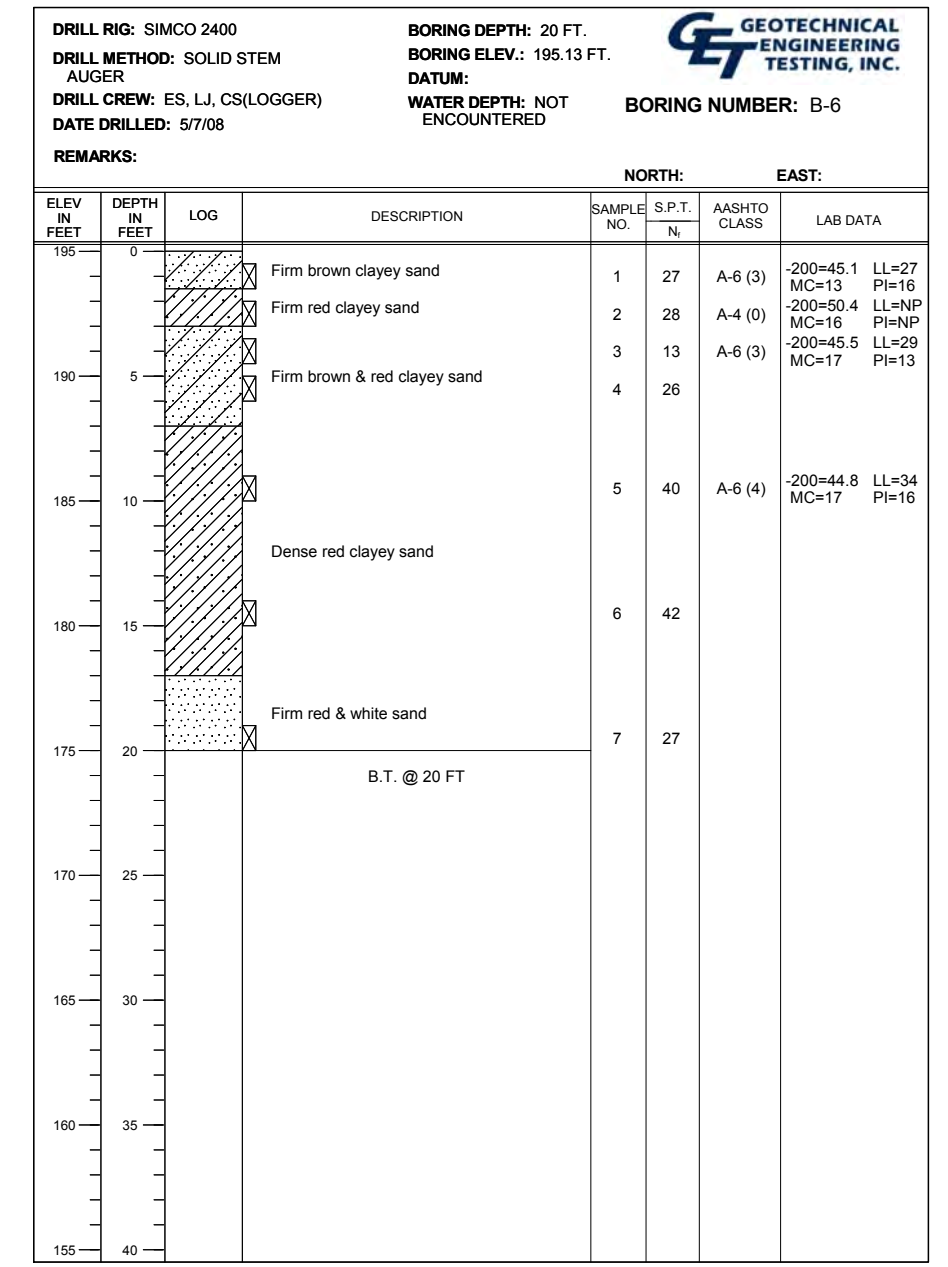
RAMP D
STA. 14+82
63 FT LT OF BL



RAMP D
STA. 16+84
13.5 FT LT OF BL



RAMP D
STA. 16+84
53.5 FT LT OF BL



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.

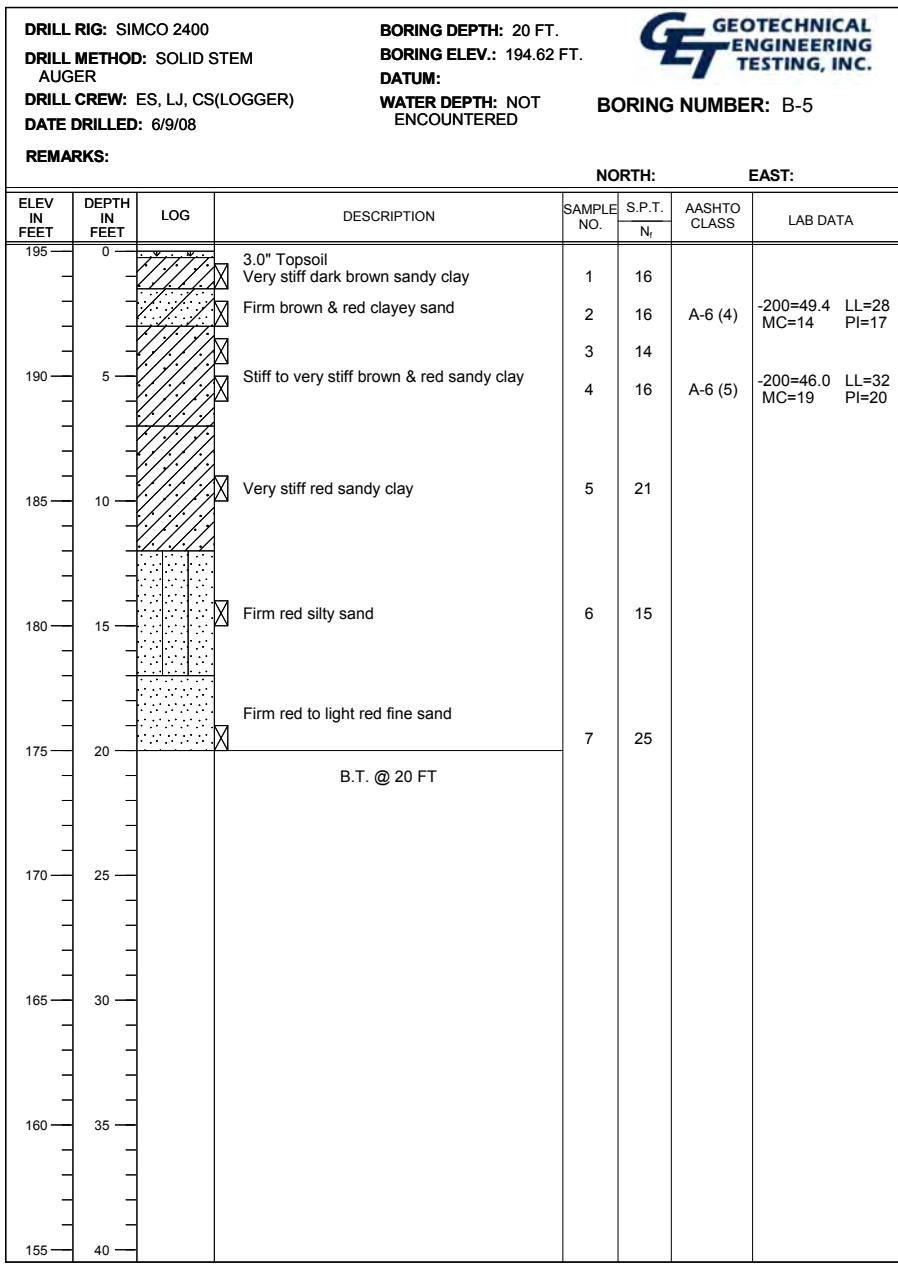
LEGEND OF SYMBOLS

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

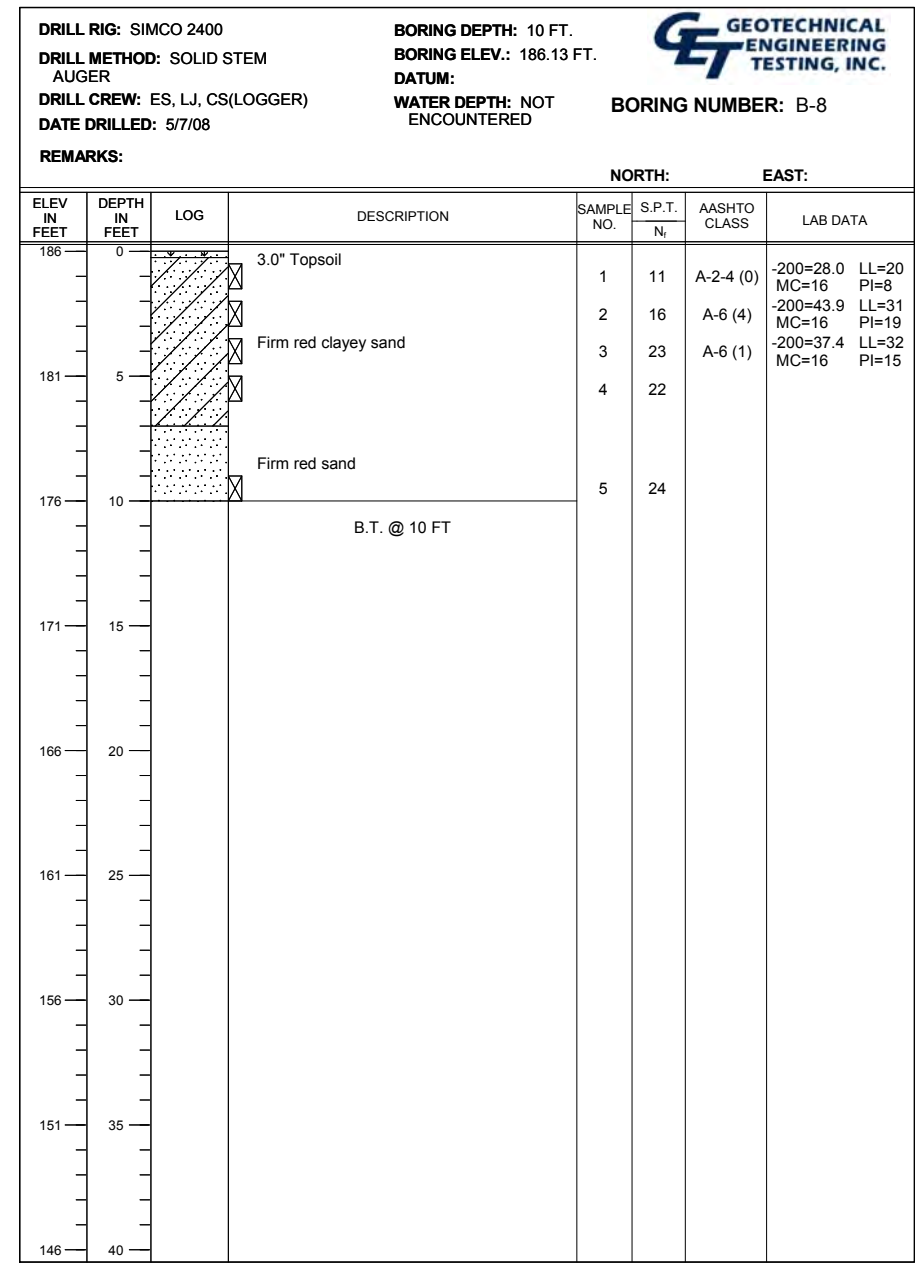
ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN PRELIMINARY PROJECT NO.: IM-I010(320)
APPROVED : CURT DOYLE, P.E.	TEST BORING RECORD
GEOTECHNICAL ENGINEER	SHEET NO. 10 OF 15
DATE :	

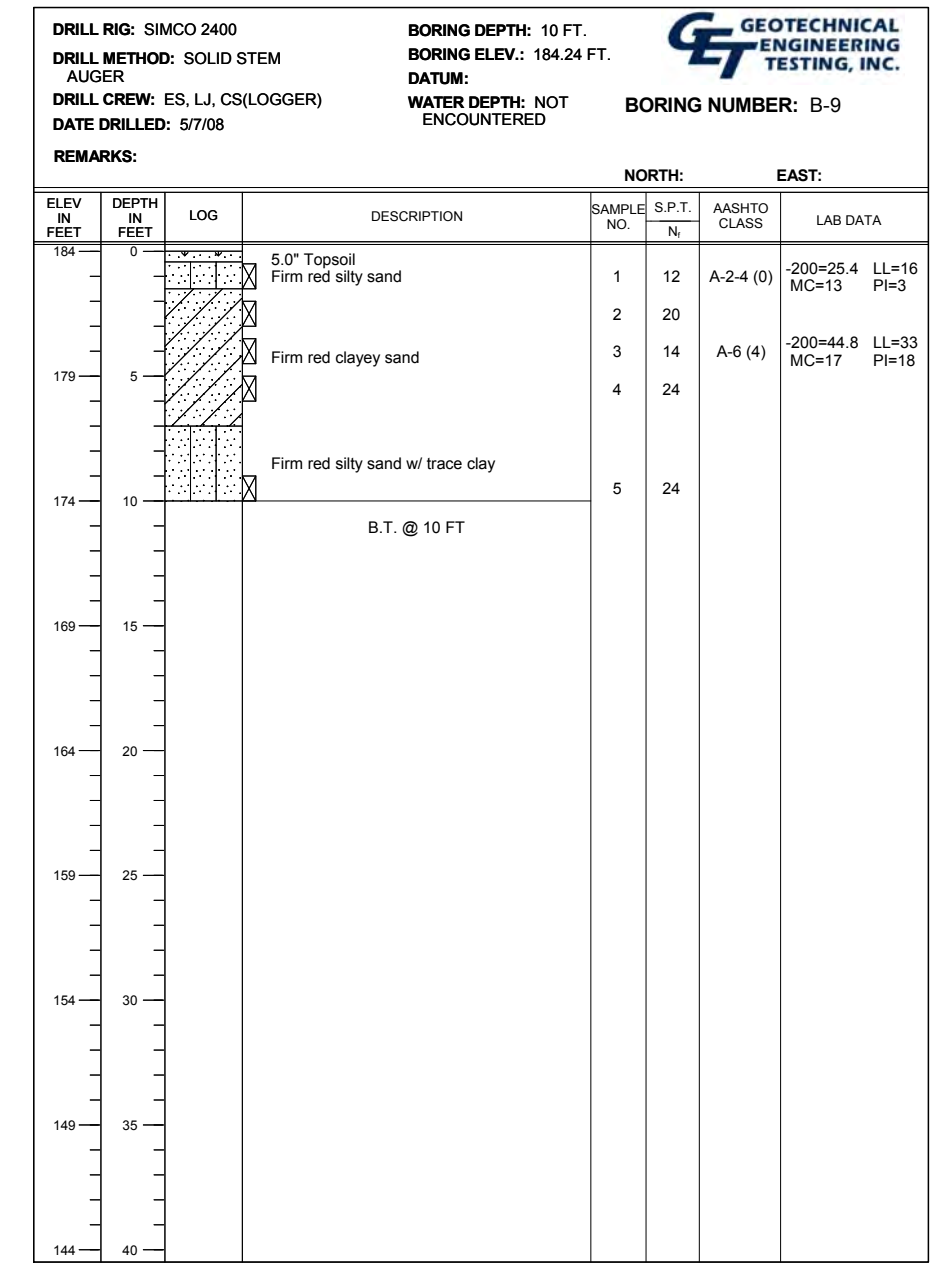
RAMP D
STA. 16+84
88 FT LT OF BL



RAMP D
STA. 18+87
37 FT LT OF BL



RAMP D
STA. 21+95
25 FT LT OF BL



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.

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

ALABAMA DEPARTMENT OF TRANSPORTATION	
GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
APPROVED : CURT DOYLE, P.E.	BALDWIN
GEOTECHNICAL ENGINEER	PRELIMINARY PROJECT NO.: IM-I010(320)
DATE :	TEST BORING RECORD SHEET NO. 11 OF 15

RAMP D
STA. 24+95
12 FT LT OF BL

I-10
STA. 27+67
65 FT LT OF CL

I-10
STA. 30+68
64 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/9/08

BORING DEPTH: 10 FT.
BORING ELEV.: 183.11 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-10

REMARKS:

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 10 FT.
BORING ELEV.: 164.61 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-101

REMARKS:

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 10 FT.
BORING ELEV.: 167.80 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-102

REMARKS:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		AASHTO CLASS	LAB DATA	
					N _i	N _t			
183	0		6.0" Topsoil	1	21				
			Firm brown clayey sand w/ reddish brown silty sand layer	2	30	A-2-4 (0)	-200=27.3 MC=12	LL=22 PI=8	
			Dense red clayey sand	3	12				
178	5			4	14				
			Firm red clayey sand w/ trace gravel	5	17				
173	10		B.T. @ 10 FT						
168	15								
163	20								
158	25								
153	30								
148	35								
143	40								

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		AASHTO CLASS	LAB DATA	
					N _i	N _t			
165	0		4.5" TOPSOIL	1	13	A-2-4 (0)	-200=19.6 MC=13	LL=NP PI=NP	
			Firm to dense brownish red and red silty sand w/ trace ironstone	2	48	A-2-4 (0)	-200=29.7 MC=11	LL=19 PI=2	
			Very dense to firm light brown and white silty sand	3	50/6				
160	5			4	19				
			Firm white and red fine sand w/ red and pink clayey sand layer	5	22				
155	10		B.T. @ 10 FT						
150	15								
145	20								
140	25								
135	30								
130	35								
125	40								

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		AASHTO CLASS	LAB DATA	
					N _i	N _t			
168	0		Firm to very dense brown and red silty sand	1	13	A-2-4 (0)	-200=24.5 MC=13	LL=NP PI=NP	
				2	15	A-2-4 (0)	-200=25.5 MC=12	LL=17 PI=1	
				3	53	A-2-4 (0)	-200=14.6 MC=9	LL=NP PI=NP	
163	5			4	40				
			Dense red and light red silty sand	5	43				
158	10		B.T. @ 10 FT						
153	15								
148	20								
143	25								
138	30								
133	35								
128	40								

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-5		Standard Penetration Test		Ground Water Measurement
	A-1a, A-1b		A-6		Undisturbed Shelby Tube Sample	N_i	N_i = SPT Value determined in field
	A-2-4, A-2-5		A-7-5, A-7-6			NWTE	NWTE = No Water Table Encountered
	A-2-6, A-2-7		A-8				
	A-3		Asphalt Pavement				
	A-4		Crushed Stone				

ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN PRELIMINARY PROJECT NO.: IM-1010(320)
APPROVED : CURT DOYLE, P.E.	TEST BORING RECORD
DATE :	SHEET NO. 12 OF 15

I-10
STA. 33+67
64 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 10 FT.
BORING ELEV.: 171.76 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-103

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		AASHTO CLASS	LAB DATA
					N _t	N ₆₀		
172	0		6" Topsoil	1	18		A-2-4 (0)	-200=33.3 MC=13 LL=17 PI=2
			Firm red silty sand w/ trace shell					
			Firm red clayey sand	2	15		A-2-4 (0)	-200=31.4 MC=14 LL=21 PI=5
				3	50		A-2-4 (0)	-200=15.6 MC=11 LL=NP PI=NP
167	5		Dense to very dense red and brown silty sand	4	63			
				5	24			
162	10		Firm red and white silty sand					
			B.T. @ 10 FT					
157	15							
152	20							
147	25							
142	30							
137	35							
132	40							

I-10
STA. 36+60
67 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 10 FT.
BORING ELEV.: 175.88 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-104

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		AASHTO CLASS	LAB DATA
					N _t	N ₆₀		
176	0		3" Topsoil	1	9		A-2-4 (0)	-200=26.8 MC=12 LL=17 PI=5
			Loose to firm red and brown silty sand	2	13		A-2-4 (0)	-200=26.0 MC=13 LL=NP PI=NP
			Very dense red and brown silty sand (wet)	3	55		A-2-4 (0)	-200=17.7 MC=14 LL=NP PI=NP
171	5		Very dense brown and red silty sand w/ clayey sand lens	4	78			
				5	38			
166	10		Dense light red and light brown silty sand					
			B.T. @ 10 FT					
161	15							
156	20							
151	25							
146	30							
141	35							
136	40							

I-10
STA. 39+62
123 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 15 FT.
BORING ELEV.: 171.65 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-105

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		AASHTO CLASS	LAB DATA
					N _t	N ₆₀		
172	0		Loose brown silty sand	1	6			
			Loose brown clayey sand					
			Loose light red silty sand w/ weak red and light gray clay lenses	2	9		A-2-4 (0)	-200=29.4 MC=13 LL=18 PI=2
			Firm weak red, yellow and light gray clayey sand	3	24		A-4 (0)	-200=51.6 MC=14 LL=23 PI=6
167	5			4	37			
				5	43		A-2-4 (0)	-200=11.1 MC=6 LL=NP PI=NP
162	10		Dense to very dense light red, brown and red silty sand					
				6	61			
157	15		B.T. @ 15 FT					
152	20							
147	25							
142	30							
137	35							
132	40							

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-5		Standard Penetration Test		Ground Water Measurement
	A-1a, A-1b		A-6		Undisturbed Shelby Tube Sample	N_t	N_t = SPT Value determined in field
	A-2-4, A-2-5		A-7-5, A-7-6			NWTE	NWTE = No Water Table Encountered
	A-2-6, A-2-7		A-8				
	A-3		Asphalt Pavement				
	A-4		Crushed Stone				

ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN PRELIMINARY PROJECT NO.: IM-I010(320)
APPROVED : CURT DOYLE, P.E.	TEST BORING RECORD SHEET NO. 13 OF 15
GEOTECHNICAL ENGINEER	
DATE :	

I-10
STA. 39+62
82 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 10 FT.
BORING ELEV.: 177.81 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-106

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _i	AASHTO CLASS	LAB DATA		
							-200	LL	
178	0		4" Topsoil	1	6	A-2-4 (0)	-200=31.7	LL=18	
			Loose red and brown clayey sand	2	18	A-2-4 (0)	MC=16	PI=2	
			Firm red and brown silty sand w/ red and light gray clay lens	3	28		-200=31.5	LL=27	
				4	45		MC=15	PI=9	
173	5		Firm to dense red and brown silty sand						
				4	45				
			Dense red and yellow silty sand w/ clay lenses	5	40				
168	10		B.T. @ 10 FT						
163	15								
158	20								
153	25								
148	30								
143	35								
138	40								

I-10
STA. 42+62
108 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH, CS(LOGGER)
DATE DRILLED: 3/18/10

BORING DEPTH: 20 FT.
BORING ELEV.: 177.83 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-107

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _i	AASHTO CLASS	LAB DATA		
							-200	LL	
178	0		6" Topsoil	1	12	A-2-4 (0)	-200=32.5	LL=19	
			Firm brown and red clayey sand	2	20		MC=18	PI=3	
			Firm dark brown and red silty sand w/ weak red and light gray silty clay lens	3	27	A-2-4 (0)	-200=19.5	LL=NP	
				4	36		MC=12	PI=NP	
173	5		Firm to dense red, brown and light gray silty sand w/ clay lenses						
				4	36				
			Dense red and light red sand w/ yellow clay layer	5	36	A-2-4 (0)	-200=24.3	LL=20	
168	10						MC=15	PI=7	
163	15		Firm red and white sand w/ silt	6	30				
			Firm brownish yellow silty sand w/ trace sandstone	7	20				
158	20		B.T. @ 20 FT						
153	25								
148	30								
143	35								
138	40								

I-10
STA. 45+50
189 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH(LOGGER)
DATE DRILLED: 3/17/10

BORING DEPTH: 20 FT.
BORING ELEV.: 170.50 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-108

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _i	AASHTO CLASS	LAB DATA		
							-200	LL	
171	0		Very stiff red and brown sandy clay	1	20	A-6 (5)	-200=45.4	LL=39	
				2	30	A-2-7 (3)	MC=19	PI=20	
			Firm red and brown clayey sand	3	25	A-7-6 (6)	-200=33.9	LL=47	
				4	24		MC=16	PI=24	
							-200=48.0	LL=45	
166	5			4	24		MC=17	PI=20	
			Firm red, brown and yellow silty sand						
				5	23	A-2-4 (0)	-200=27.5	LL=NP	
161	10						MC=15	PI=NP	
156	15		Firm pink and light yellow sand w/ silt	6	19	A-3 (0)	-200=9.4	LL=NP	
							MC=9	PI=NP	
151	20		B.T. @ 20 FT						
146	25								
141	30								
136	35								
131	40								

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-5		Standard Penetration Test		Ground Water Measurement
	A-1a, A-1b		A-6		Undisturbed Shelby Tube Sample		N _i = SPT Value determined in field
	A-2-4, A-2-5		A-7-5, A-7-6				NWTE = No Water Table Encountered
	A-2-6, A-2-7		A-8				
	A-3		Asphalt Pavement				
	A-4		Crushed Stone				

ALABAMA DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING-TESTING, INC.	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
	BALDWIN
APPROVED : CURT DOYLE, P.E.	PRELIMINARY PROJECT NO.: IM-1010(320)
GEOTECHNICAL ENGINEER	TEST BORING RECORD
DATE :	SHEET NO. 14 OF 15

I-10
STA. 45+58
127 FT LT OF CL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SW, MH(LOGGER)
DATE DRILLED: 3/17/10
REMARKS:

BORING DEPTH: 20 FT.
BORING ELEV.: 178.73 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-109



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		AASHTO CLASS	LAB DATA		
					N _t	N ₆₀		-200	LL	
179	0		Firm dark brown clayey sand w/ organics	1	11					
			Firm red, brown and yellow clayey sand w/ trace organics at 1.5 ft	2	16	A-6 (2)	-200=36.9 MC=13	LL=33 PI=18		
				3	13					
174	5		Firm red and yellowish brown clayey sand	4	11	A-7-6 (4)	-200=38.0 MC=17	LL=52 PI=23		
				5	25	A-7-6 (59)	-200=99.1 MC=26	LL=77 PI=51		
169	10		Firm weak red, light gray and yellow clay							
				6	14	A-4 (0)	-200=60.6 MC=22	LL=22 PI=3		
164	15		Firm light gray, weak red and yellow clayey sand							
				7	29					
159	20		Firm weak red and white sand w/ silt							
			B.T. @ 20 FT							
154	25									
149	30									
144	35									
139	40									

I-10
STA. 59+45
68 FT LT OF CL

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08
REMARKS:

BORING DEPTH: 10 FT.
BORING ELEV.: 193.51 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED
BORING NUMBER: B-17



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.		AASHTO CLASS	LAB DATA		
					N _t	N ₆₀		-200	LL	
194	0		6.0" Topsoil	1	15	A-2-4 (0)	-200=20.7 MC=12	LL=NP PI=NP		
			Firm dark brown & red silty sand	2	23					
				3	18	A-6 (6)	-200=48.8 MC=17	LL=35 PI=19		
189	5		Firm to dense red clayey sand	4	35					
				5	18					
184	10		Firm red silty clayey sand							
			B.T. @ 10 FT							
179	15									
174	20									
169	25									
164	30									
159	35									
154	40									

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-5		Standard Penetration Test		Ground Water Measurement
	A-1a, A-1b		A-6		Undisturbed Shelby Tube Sample		N _t = SPT Value determined in field
	A-2-4, A-2-5		A-7-5, A-7-6				NWTE = No Water Table Encountered
	A-2-6, A-2-7		A-8				
	A-3		Asphalt Pavement				
	A-4		Crushed Stone				

ALABAMA DEPARTMENT OF TRANSPORTATION	
GEOTECHNICAL ENGINEERING-TESTING, INC	PROJECT NUMBER: I-10/SR-181 INTERCHANGE MODIFICATION TO DIVERGING DIAMOND
APPROVED : CURT DOYLE, P.E.	BALDWIN
GEOTECHNICAL ENGINEER	PRELIMINARY PROJECT NO.: IM-1010(320)
DATE :	TEST BORING RECORD SHEET NO. 15 OF 15



**GEOTECHNICAL
ENGINEERING
TESTING, INC**

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

**SOILS SURVEY AND SLOPE STUDY REPORT
PROJECT NO. IM-I010 (320)
I-10 AND SR-181 INTERCHANGE IMPROVEMENTS
BALDWIN COUNTY**

Professional Services Since 1974

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FAX: 251.666.7380

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Foley, AL 36536
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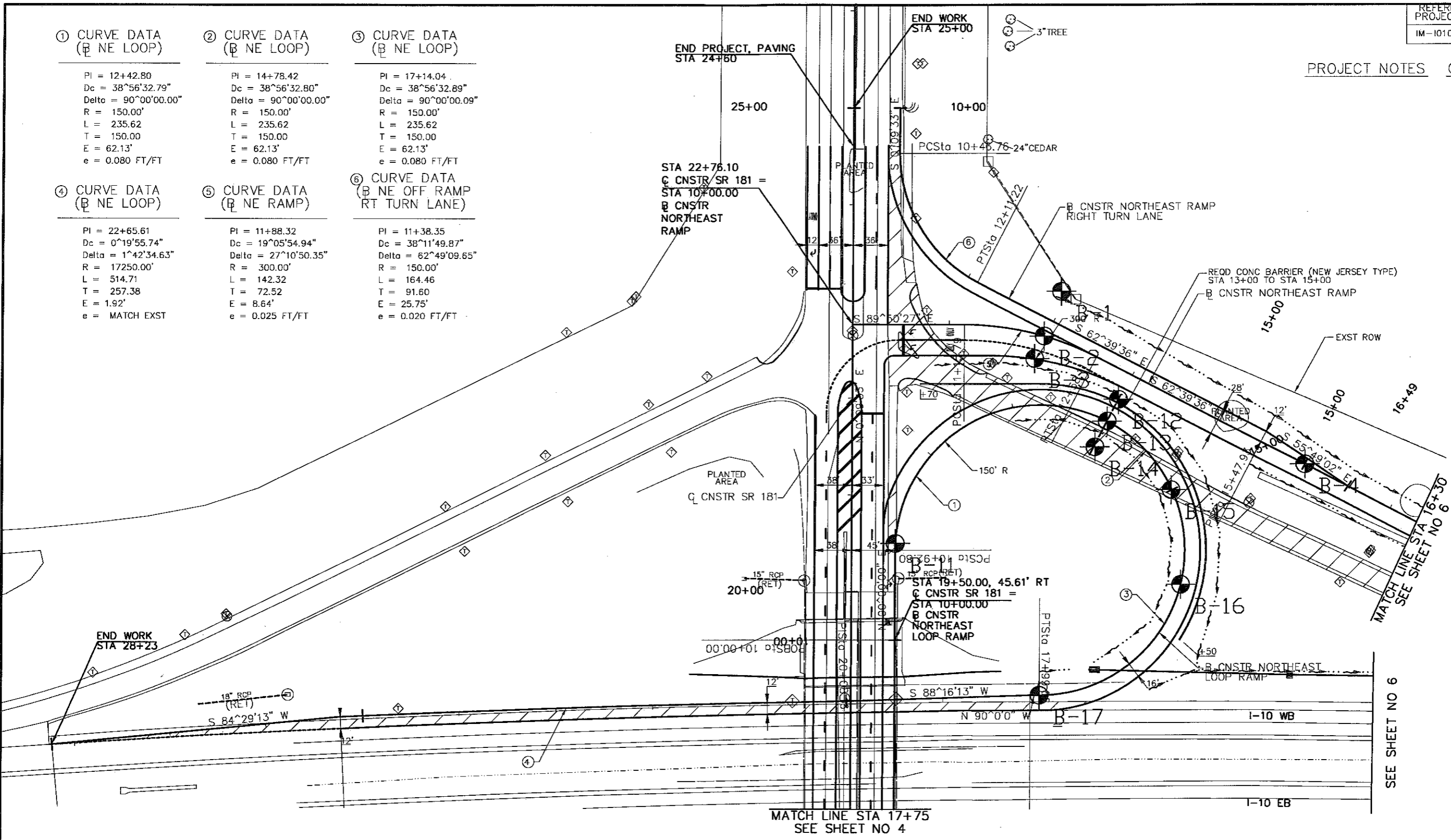
1629 Government Street
Ocean Springs, MS 39564
228.872.2854
FAX: 228.872.5618

PLAN/PROFILE SHEETS

REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.
IM-1010(320)	2008	5

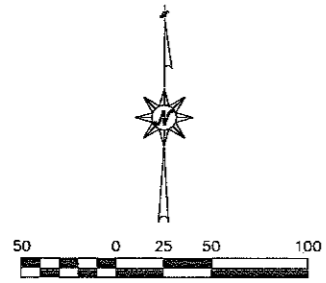
PROJECT NOTES GN2 NOTES

- ① CURVE DATA (B NE LOOP)
 PI = 12+42.80
 Dc = 38°56'32.79"
 Delta = 90°00'00.00"
 R = 150.00'
 L = 235.62
 T = 150.00
 E = 62.13'
 e = 0.080 FT/FT
- ② CURVE DATA (B NE LOOP)
 PI = 14+78.42
 Dc = 38°56'32.80"
 Delta = 90°00'00.00"
 R = 150.00'
 L = 235.62
 T = 150.00
 E = 62.13'
 e = 0.080 FT/FT
- ③ CURVE DATA (B NE LOOP)
 PI = 17+14.04
 Dc = 38°56'32.89"
 Delta = 90°00'00.09"
 R = 150.00'
 L = 235.62
 T = 150.00
 E = 62.13'
 e = 0.080 FT/FT
- ④ CURVE DATA (B NE LOOP)
 PI = 22+65.61
 Dc = 0°19'55.74"
 Delta = 1°42'34.63"
 R = 17250.00'
 L = 514.71
 T = 257.38
 E = 1.92'
 e = MATCH EXST
- ⑤ CURVE DATA (B NE RAMP)
 PI = 11+88.32
 Dc = 19°05'54.94"
 Delta = 27°10'50.35"
 R = 300.00'
 L = 142.32
 T = 72.52
 E = 8.64'
 e = 0.025 FT/FT
- ⑥ CURVE DATA (B NE OFF RAMP RT TURN LANE)
 PI = 11+38.35
 Dc = 38°11'49.87"
 Delta = 62°49'09.65"
 R = 150.00'
 L = 164.46
 T = 91.60
 E = 25.75'
 e = 0.020 FT/FT



LEGEND

EXST PVMT	
EXST ASP PVMT/CURB (TO BE REMOVED)	



ALABAMA DEPARTMENT OF TRANSPORTATION
I-10 AND SR-181 INTERCHANGE IMPROVEMENTS
 PLAN
 STA 17+75 TO STA 25+00

JBT J.B. TRIMBLE, INC.
 857 Downtowner Blvd.
 Suite F
 Mobile, AL 36609

DESIGNED	DETAILED	QUANTITIES
CHECKED	CHECKED	CHECKED
DATE		DWG NO

SEE SHEET NO 6

MATCH LINE STA 17+75
SEE SHEET NO 4

MATCH LINE STA 16+30
SEE SHEET NO 6

⑦ CURVE DATA
(NE RAMP)

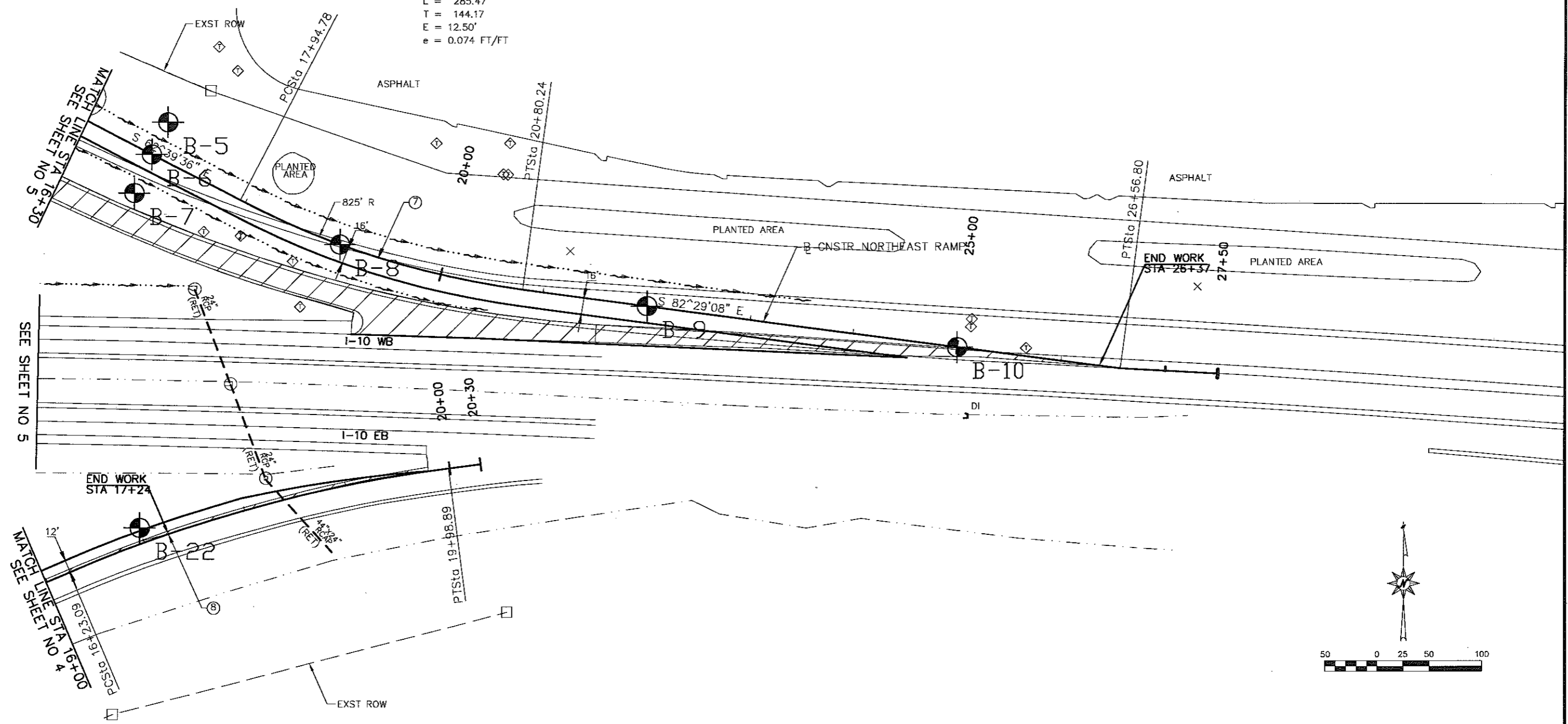
PI = 19+38.95
Dc = 6°56'41.79"
Delta = 19°49'31.90"
R = 825.00'
L = 285.47
T = 144.17
E = 12.50'
e = 0.074 FT/FT

⑧ CURVE DATA
(SE RAMP)

PI = 18+12.21
Dc = 4°14'38.87"
Delta = 15°56'58.81"
R = 1350.00'
L = 375.79
T = 189.12
E = 13.18'
e = MATCH EXST

LEGEND

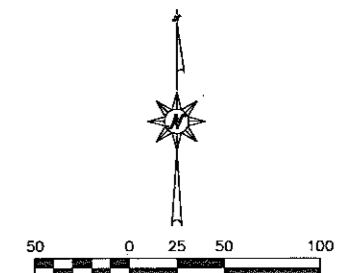
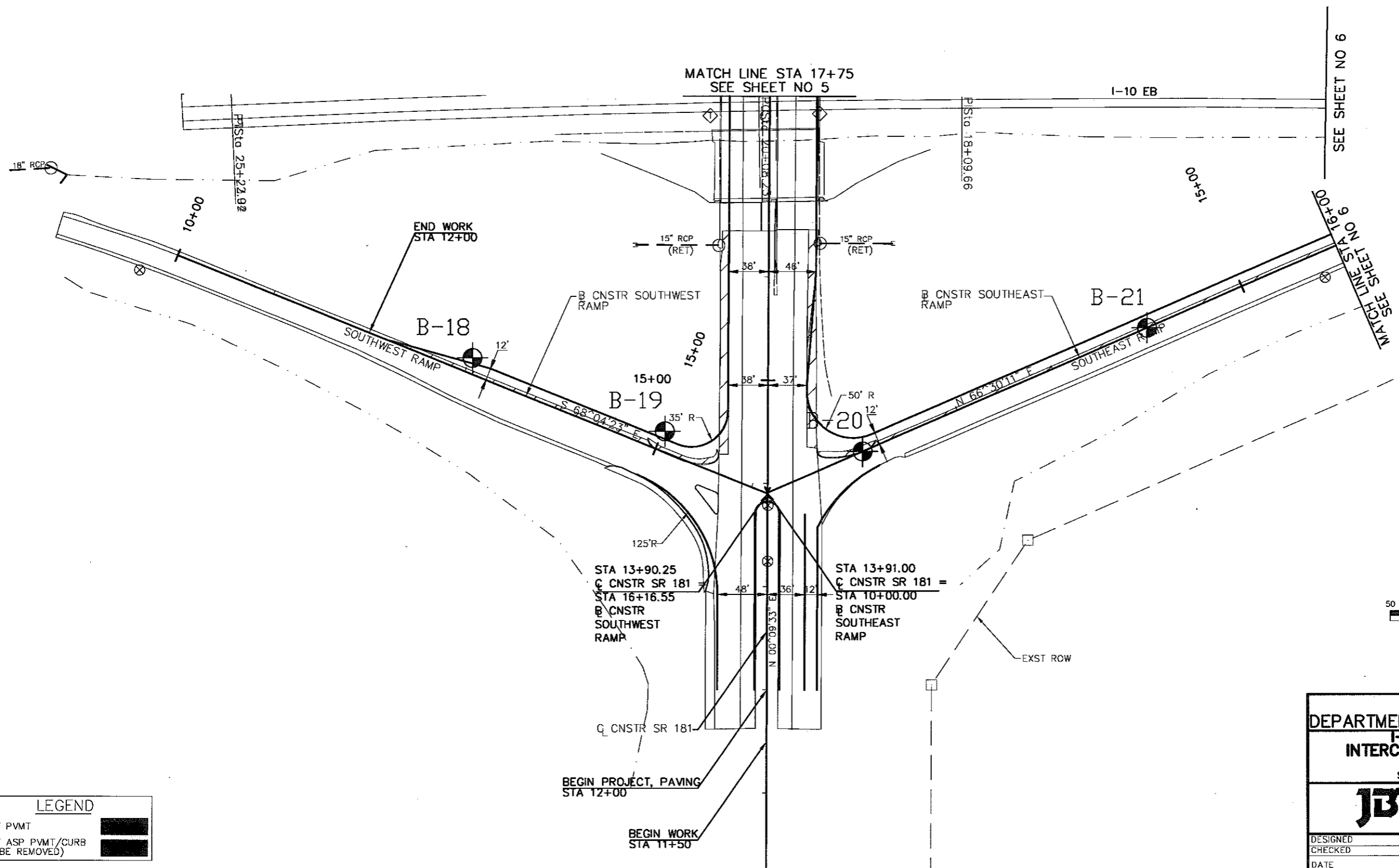
EXST PVMT	
EXST ASP PVMT/CURB (TO BE REMOVED)	



ALABAMA
DEPARTMENT OF TRANSPORTATION
I-10 AND SR-181
INTERCHANGE IMPROVEMENTS
PLAN
NORTHEAST AND SOUTHEAST RAMPS

JBT J.B. TRIMBLE, INC.
857 Downtowner Blvd.
Suite F
Mobile, AL 36609

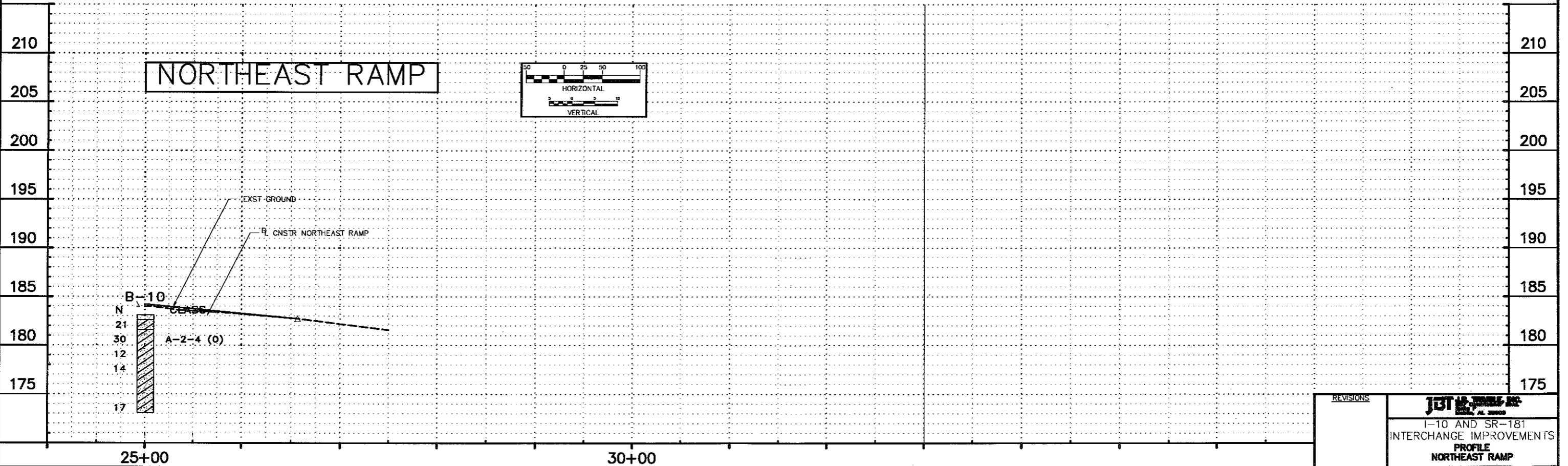
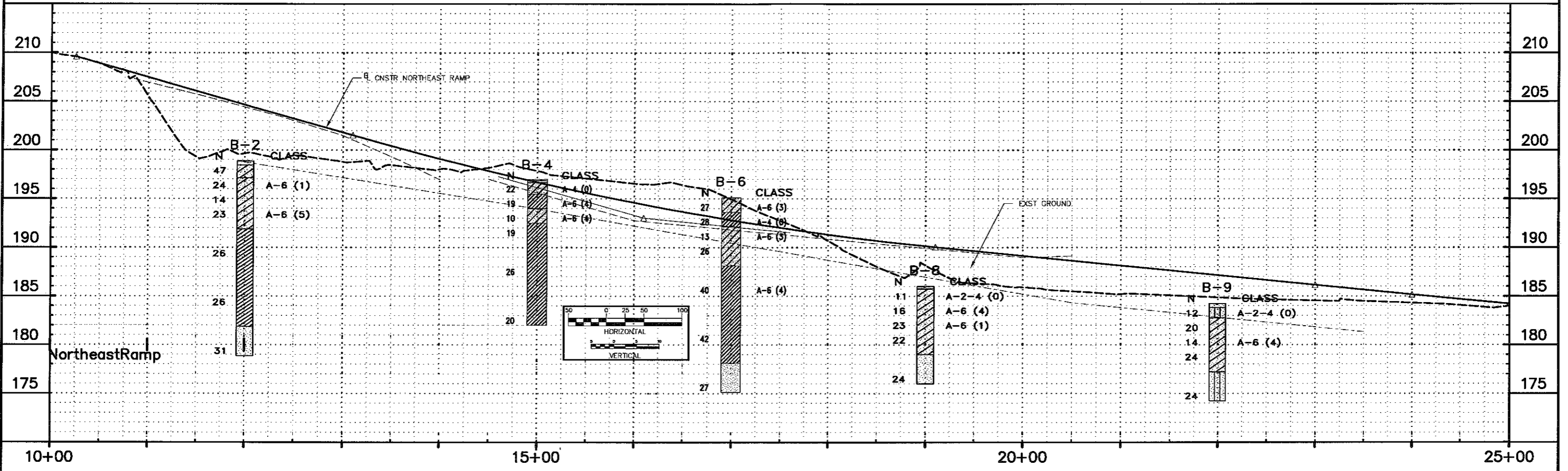
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CHECKED	CHECKED	CHECKED
DATE		DWG NO



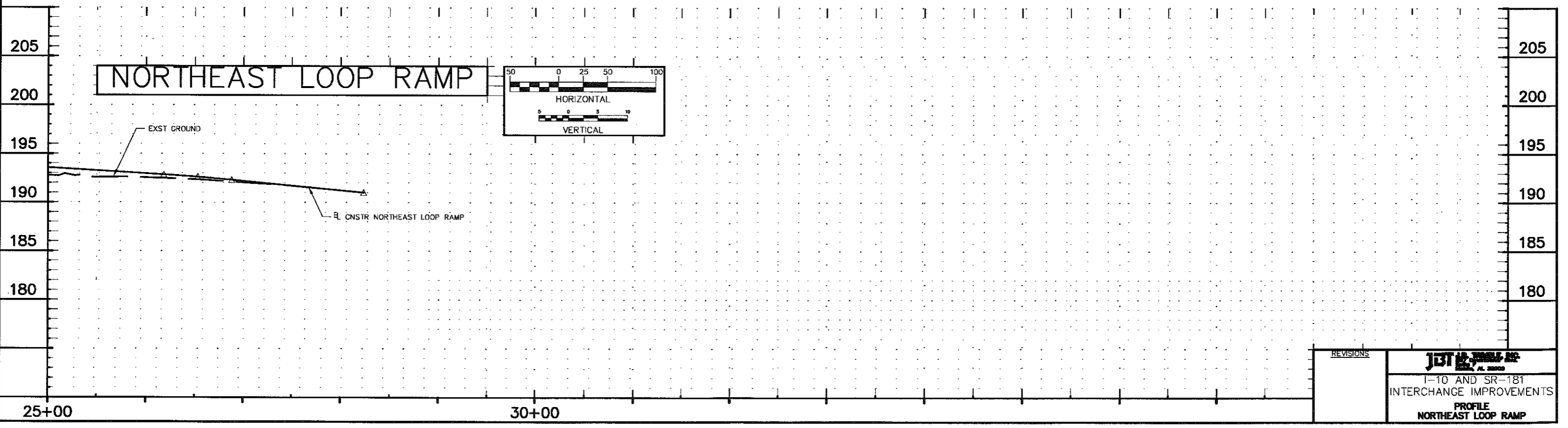
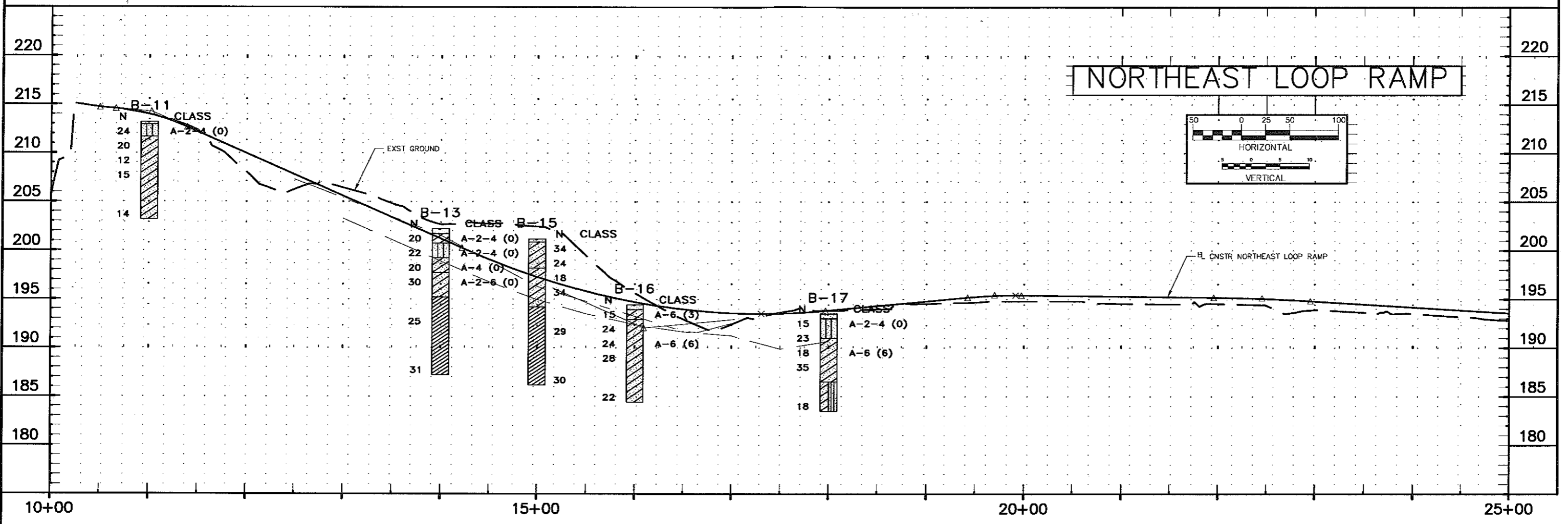
LEGEND

EXST PVMT	
EXST ASP PVMT/CURB (TO BE REMOVED)	

ALABAMA DEPARTMENT OF TRANSPORTATION I-10 AND SR-181 INTERCHANGE IMPROVEMENTS PLAN STA 11+50 TO STA 17+75		
J.B. TRIMBLE, INC. 857 Downtowner Blvd. Suite F Mobile, AL 36609		
DESIGNED	DETAILED	QUANTITIES
CHECKED	CHECKED	CHECKED
DATE	DWG NO	



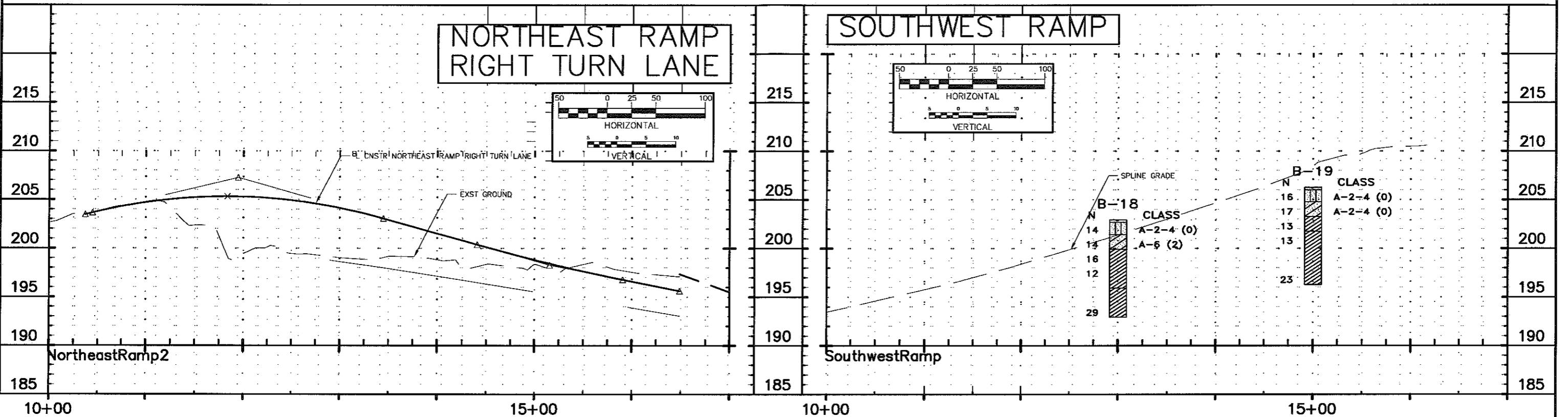
REVISIONS	 JBT ENGINEERING INC. I-10 AND SR-181 INTERCHANGE IMPROVEMENTS PROFILE NORTHEAST RAMP



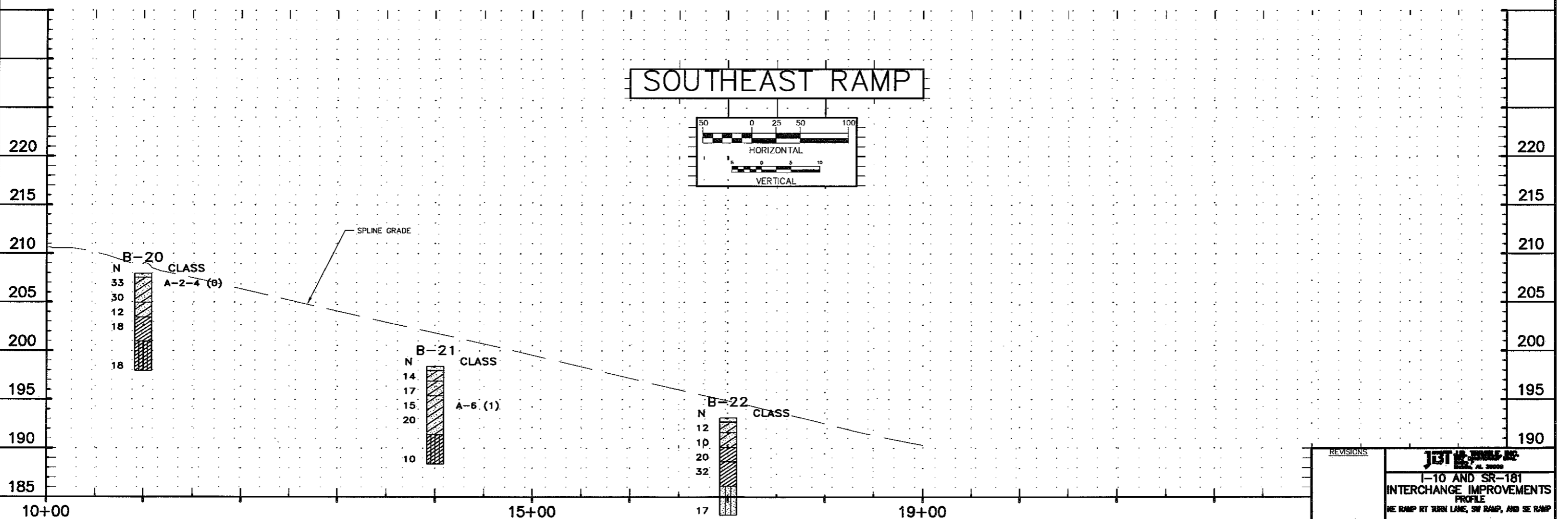
REVISIONS	 JBT ENGINEERING INC. A. 2000 I-10 AND SR-181 INTERCHANGE IMPROVEMENTS PROFILE NORTHEAST LOOP RAMP

NORTHEAST RAMP RIGHT TURN LANE

SOUTHWEST RAMP



SOUTHEAST RAMP



REVISIONS

JTB ENGINEERS
INC., AL 35000

I-10 AND SR-181
INTERCHANGE IMPROVEMENTS
PROFILE
NE RAMP RT TURN LANE, SW RAMP, AND SE RAMP

BORING LOGS
(Half Sized)

NORTHEAST RAMP
STATION 12+00
50' LT OF B/L

NORTHEAST RAMP
STATION 12+00
B/L

NORTHEAST RAMP
STATION 12+00
25' RT OF B/L

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 6/9/08

BORING DEPTH: 20 FT.
BORING ELEV.: 197.68 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-1

REMARKS:

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 6/9/08

BORING DEPTH: 20 FT.
BORING ELEV.: 198.87 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-2

REMARKS:

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 6/9/08

BORING DEPTH: 20 FT.
BORING ELEV.: 198.64 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-3

REMARKS:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _r	AASHTO CLASS	LAB DATA
198	0		4.0" Topsoil	1	60	A-6 (2)	-200=47.7 LL=23 MC=8 PI=12
			Dense dark brown & red clayey sand	2	23		
				3	10	A-6 (3)	-200=47.3 LL=27 MC=15 PI=15
193	5		Firm brown & red clayey sand	4	16		
188	10		Very stiff red sandy clay	5	22		
183	15		Firm red clayey sand	6	24		
178	20		Dense orange, red & light brown fine sand	7	32		
			B.T. @ 20 FT				
173	25						
168	30						
163	35						
158	40						

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _r	AASHTO CLASS	LAB DATA
199	0		5.0" Topsoil	1	47		
			Dense dark brown & red clayey sand	2	24	A-6 (1)	-200=42.1 LL=22 MC=10 PI=12
			Firm brown & red clayey sand	3	14		
194	5			4	23	A-6 (5)	-200=48.1 LL=34 MC=18 PI=18
189	10		Very stiff red sandy clay	5	26		
184	15		Dense red sand	6	26		
179	20		B.T. @ 20 FT	7	31		
174	25						
169	30						
164	35						
159	40						

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _r	AASHTO CLASS	LAB DATA
199	0		4.0" Topsoil	1	23		
			Firm brown & red clayey sand	2	23	A-6 (3)	-200=47.9 LL=26 MC=11 PI=13
			Stiff to very stiff yellowish brown & red sandy clay	3	13	A-6 (4)	-200=50.9 LL=29 MC=17 PI=16
194	5			4	22		
189	10		Very stiff red & light gray sandy clay	5	28		
184	15		Hard red sandy clay	6	32		
179	20		Dense red clayey sand	7	21		
			Firm orange, light brown & red fine to medium sand				
174	25		B.T. @ 20 FT				
169	30						
164	35						
159	40						

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- ⊗ Standard Penetration Test
- ▽ Ground Water
- N_r = SPT Value determined in field

GEOTECHNICAL ENGR.-TEST., INC.	SHEET NO. OF	ALABAMA DEPARTMENT OF TRANSPORTATION
	APPROVED :	REVIEWED :
CURT DOYLE, P.E. GEOTECHNICAL ENGINEER	DIVISION MATERIALS ENGINEER	COUNTY: BALDWIN
DATE :	DATE :	TEST BORING RECORD

NORTHEAST RAMP
STATION 15+00
B/L

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 6/9/08

BORING DEPTH: 15 FT.
BORING ELEV.: 196.87 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-4

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.	AASHTO CLASS	LAB DATA	
					N _s		LL	PI
197	0	4.0" Topsoil		1	22	A-4 (0)	-200=45.6	LL=21
		Firm brown & red clayey sand					MC=9	PI=6
		Very stiff brown & red sandy clay		2	19	A-6 (4)	-200=50.9	LL=29
		Firm red clayey sand w/ roots		3	10	A-6 (4)	MC=15	PI=16
192	5			4	19		-200=47.9	LL=29
							MC=17	PI=16
187	10		Very stiff red sandy clay	5	26			
182	15		B.T. @ 15 FT	6	20			
177	20							
172	25							
167	30							
162	35							
157	40							

NORTHEAST RAMP
STATION 17+00
35' LT OF B/L

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 6/9/08

BORING DEPTH: 20 FT.
BORING ELEV.: 194.62 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-5

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.	AASHTO CLASS	LAB DATA	
					N _s		LL	PI
195	0	3.0" Topsoil		1	16			
		Very stiff dark brown sandy clay						
		Firm brown & red clayey sand		2	16	A-6 (4)	-200=49.4	LL=28
							MC=14	PI=17
190	5		Stiff to very stiff brown & red sandy clay	3	14			
				4	16	A-6 (5)	-200=46.0	LL=32
							MC=19	PI=20
185	10		Very stiff red sandy clay	5	21			
180	15		Firm red silty sand	6	15			
175	20		Firm red to light red fine sand	7	25			
			B.T. @ 20 FT					
170	25							
165	30							
160	35							
155	40							

NORTHEAST RAMP
STATION 17+00
B/L

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/7/08

BORING DEPTH: 20 FT.
BORING ELEV.: 195.13 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-6

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.	AASHTO CLASS	LAB DATA	
					N _s		LL	PI
195	0		Firm brown clayey sand	1	27	A-6 (3)	-200=45.1	LL=27
							MC=13	PI=16
			Firm red clayey sand	2	28	A-4 (0)	-200=50.4	LL=NP
							MC=16	PI=NP
190	5		Firm brown & red clayey sand	3	13	A-6 (3)	-200=45.5	LL=29
							MC=17	PI=13
185	10		Dense red clayey sand	5	40	A-6 (4)	-200=44.8	LL=34
							MC=17	PI=16
180	15		Firm red & white sand	6	42			
175	20		B.T. @ 20 FT	7	27			
170	25							
165	30							
160	35							
155	40							

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- ⊗ Standard Penetration Test
- ∇ Ground Water
- N_s = SPT Value determined in field

GEOTECHNICAL ENGR.-TEST., INC.	SHEET NO. OF	ALABAMA DEPARTMENT OF TRANSPORTATION
	APPROVED : CURT DOYLE, P.E. GEOTECHNICAL ENGINEER DATE :	REVIEWED : DIVISION MATERIALS ENGINEER DATE :
TEST BORING RECORD		

NORTHEAST RAMP
STATION 17+00
40' RT OF B/L

NORTHEAST RAMP
STATION 19+00
B/L

NORTHEAST RAMP
STATION 22+00
B/L

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/9/08

BORING DEPTH: 20 FT.
BORING ELEV.: 192.89 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-7

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/7/08

BORING DEPTH: 10 FT.
BORING ELEV.: 186.13 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-8

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/7/08

BORING DEPTH: 10 FT.
BORING ELEV.: 184.24 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-9

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _s	AASHTO CLASS	LAB DATA
193	0		5.0" Topsoil	1	17	A-2-4 (0)	-200=34.6 LL=19 MC=11 PI=9
			Firm brown & red clayey sand	2	20	A-6 (3)	-200=44.7 LL=31 MC=17 PI=16
				3	24		
188	5		Firm to dense red clayey sand	4	36	A-2-6 (1)	-200=34.6 LL=30 MC=16 PI=13
				5	45		
183	10						
178	15		Dense red silty sand w/ trace clay	6	42		
			Dense light red sand	7	37		
173	20		B.T. @ 20 FT				
168	25						
163	30						
158	35						
153	40						

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _s	AASHTO CLASS	LAB DATA
186	0		3.0" Topsoil	1	11	A-2-4 (0)	-200=28.0 LL=20 MC=16 PI=8
			Firm red clayey sand	2	16	A-6 (4)	-200=43.9 LL=31 MC=16 PI=19
181	5		Firm red sand	3	23	A-6 (1)	-200=37.4 LL=32 MC=16 PI=15
				4	22		
176	10		B.T. @ 10 FT				
171	15						
166	20						
161	25						
156	30						
151	35						
146	40						

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _s	AASHTO CLASS	LAB DATA
184	0		5.0" Topsoil	1	12	A-2-4 (0)	-200=25.4 LL=16 MC=13 PI=3
			Firm red silty sand	2	20		
179	5		Firm red clayey sand	3	14	A-6 (4)	-200=44.8 LL=33 MC=17 PI=18
				4	24		
174	10		B.T. @ 10 FT				
169	15						
164	20						
159	25						
154	30						
149	35						
144	40						

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

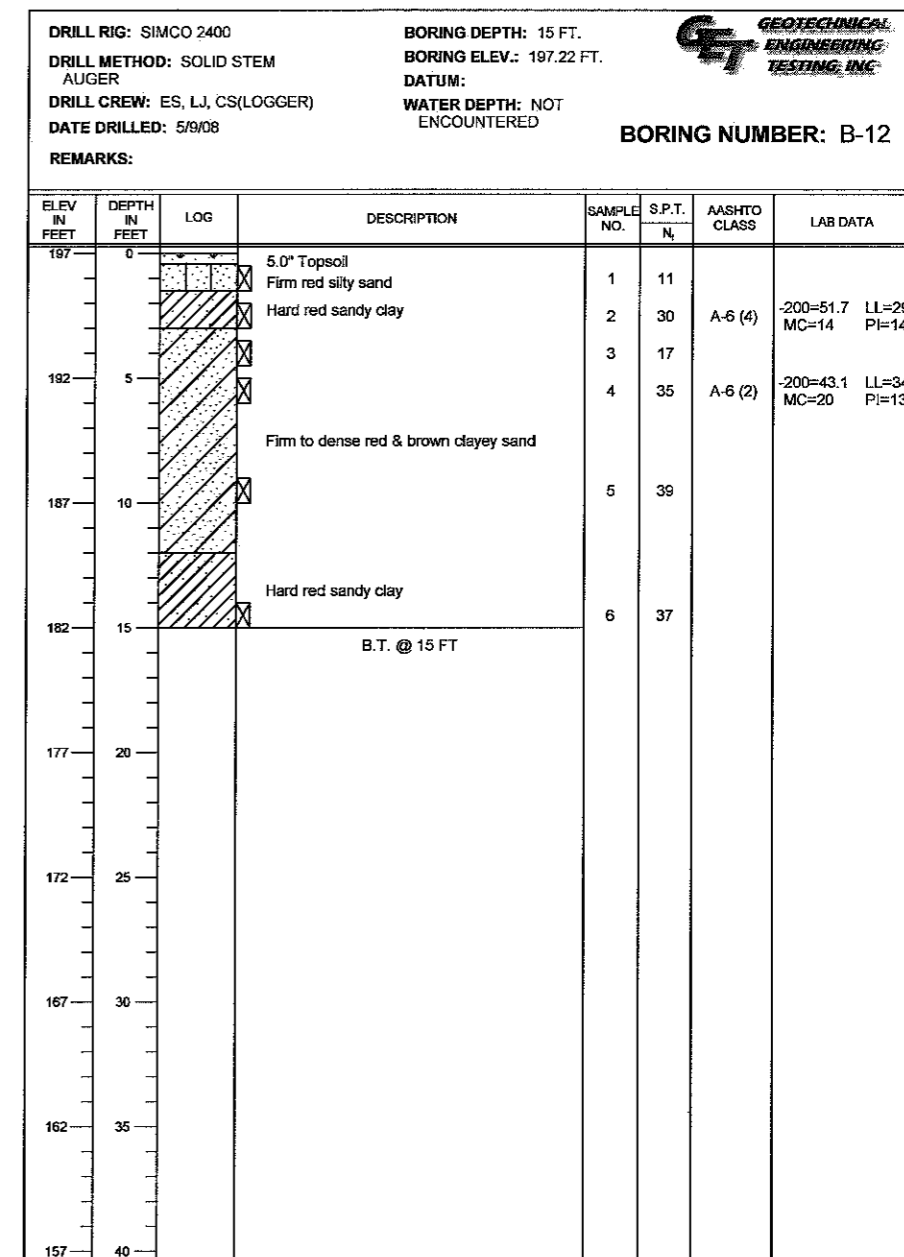
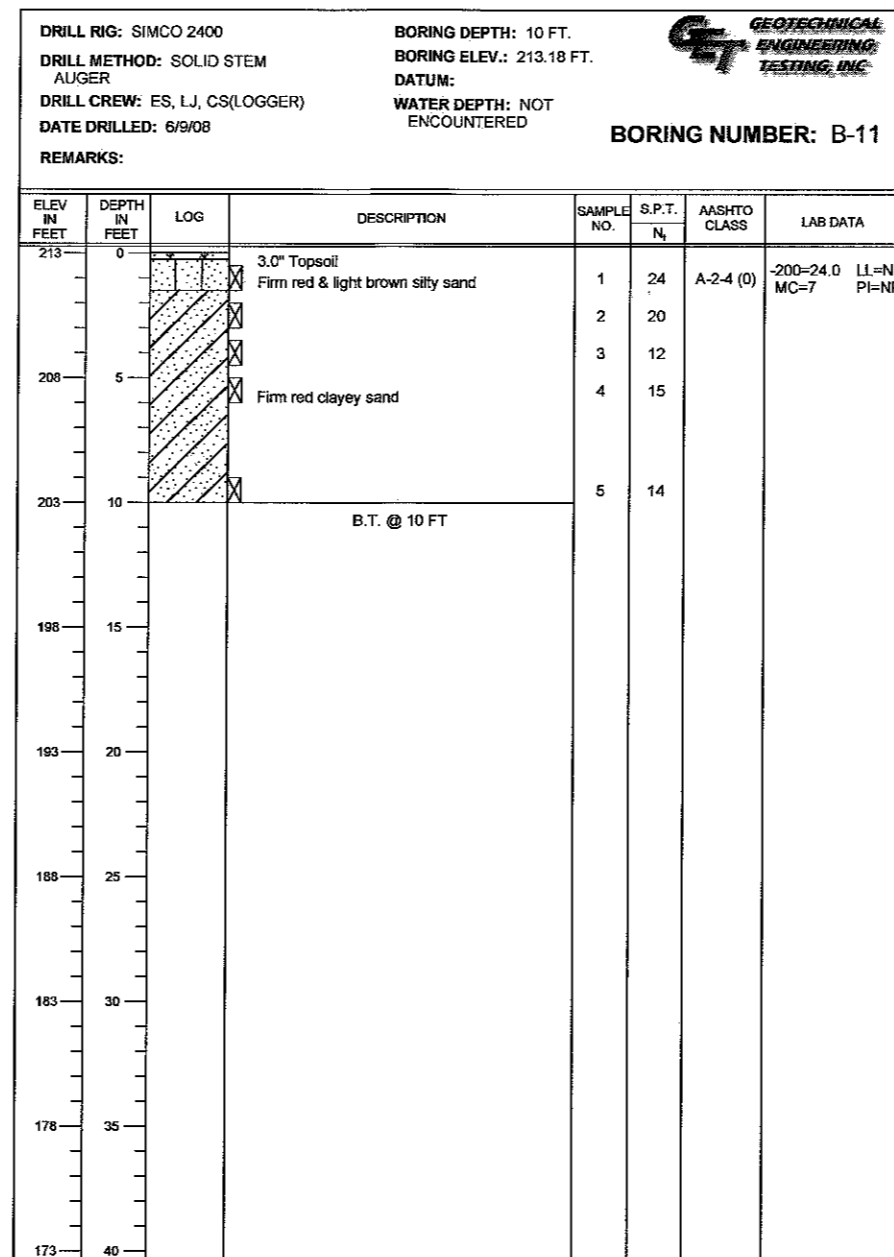
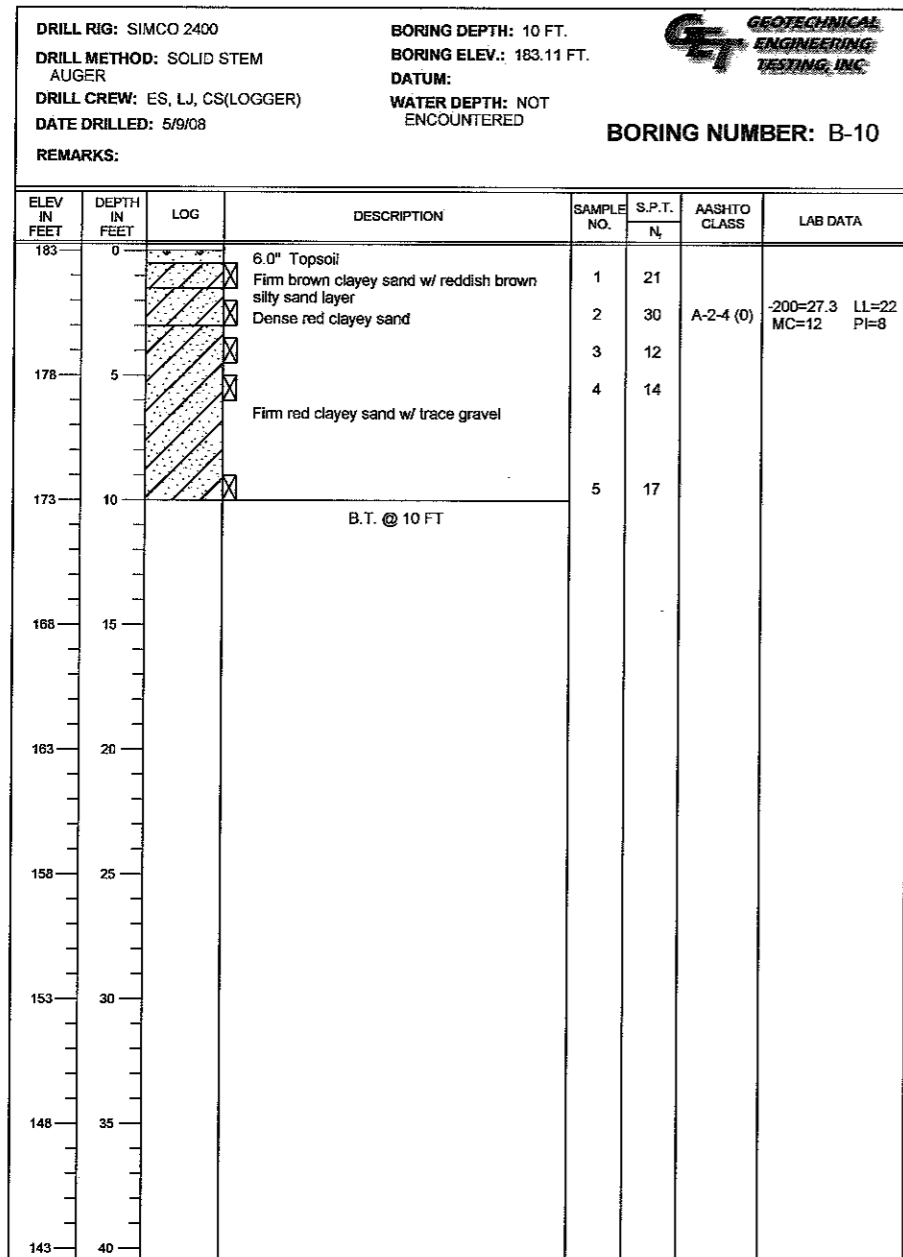
- ⊗ Standard Penetration Test
- ∇ Ground Water
- N_s = SPT Value determined in field

GEOTECHNICAL ENGR.-TEST., INC.	SHEET NO. OF	ALABAMA DEPARTMENT OF TRANSPORTATION	
	APPROVED :	REVIEWED :	PROJECT NUMBER: IM-1010(320)
CURT DOYLE, P.E. GEOTECHNICAL ENGINEER	DATE :	DIVISION MATERIALS ENGINEER	PROJECT DESCRIPTION: I-10 / SR-181 INTERCHANGE IMPROVEMENTS
		DATE :	COUNTY: BALDWIN
			TEST BORING RECORD

NORTHEAST RAMP
STATION 25+00
B/L

NORTHEAST LOOP RAMP
STATION 11+00
B/L

NORTHEAST LOOP RAMP
STATION 14+00
25' LT OF B/L



NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- Standard Penetration Test
- Ground Water
- N_s = SPT Value determined in field

GEOTECHNICAL ENGR.-TEST., INC.	SHEET NO. OF	ALABAMA DEPARTMENT OF TRANSPORTATION
	APPROVED :	REVIEWED :
CURT DOYLE, P.E. GEOTECHNICAL ENGINEER	DIVISION MATERIALS ENGINEER	COUNTY: BALDWIN
DATE :	DATE :	TEST BORING RECORD

NORTHEAST LOOP RAMP
STATION 14+00
BL

NORTHEAST LOOP RAMP
STATION 14+00
30' RT OF BL

NORTHEAST LOOP RAMP
STATION 15+10
BL

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/9/08

BORING DEPTH: 15 FT.
BORING ELEV.: 202.22 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-13

REMARKS:

DRILL RIG: SIMCO 2400
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/9/08

BORING DEPTH: 15 FT.
BORING ELEV.: 203.82 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-14

REMARKS:

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SM, VS, CS(LOGGER)
DATE DRILLED: 6/7/08

BORING DEPTH: 15 FT.
BORING ELEV.: 201.18 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-15

REMARKS:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _s	AASHTO CLASS	LAB DATA
202	0		6.0" Topsoil				
			Very stiff brown & red clayey sand	1	20	A-2-4 (0)	-200=31.0 LL=21 MC=10 PI=5
			Firm red silty sand w/ trace clay & gravel	2	22	A-2-4 (0)	-200=24.0 LL=21 MC=13 PI=7
			Firm red & brown clayey sand	3	20	A-4 (0)	-200=37.5 LL=25 MC=15 PI=10
197	5		Dense red clayey sand	4	30	A-2-6 (0)	-200=34.4 LL=25 MC=12 PI=12
192	10		Very stiff to hard red & brown sandy clay	5	25		
187	15		B.T. @ 15 FT	6	31		
182	20						
177	25						
172	30						
167	35						
162	40						

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _s	AASHTO CLASS	LAB DATA
204	0		4.0" Topsoil				
			Firm dark brown & red silty sand	1	23	A-2-4 (0)	-200=31.8 LL=NP MC=8 PI=NP
			Firm dark red & brown clayey sand w/ trace sandstone	2	26		
			Firm red clayey sand	3	23		
199	5		Firm red clayey sand	4	29	A-6 (4)	-200=43.9 LL=29 MC=13 PI=18
194	10		Very stiff to hard red & brown sandy clay	5	22		
189	15		B.T. @ 15 FT	6	43		
184	20						
179	25						
174	30						
169	35						
164	40						

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _s	AASHTO CLASS	LAB DATA
201	0		4.0" Topsoil				
			Dense to firm red clayey sand	1	34		
			Firm to dense red clayey sand	2	24		
198	5		Firm to dense red clayey sand	3	18		
191	10		Very stiff to hard red sandy clay	4	34		
186	15		B.T. @ 15 FT	5	29		
181	20			6	30		
176	25						
171	30						
166	35						
161	40						

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- ☒ Standard Penetration Test
- ▽ Ground Water
- N_s = SPT Value determined in field

GEOTECHNICAL ENGR.-TEST., INC.	SHEET NO. OF	ALABAMA DEPARTMENT OF TRANSPORTATION
	APPROVED :	REVIEWED :
CURT DOYLE, P.E. GEOTECHNICAL ENGINEER	DIVISION MATERIALS ENGINEER	COUNTY: BALDWIN
DATE :	DATE :	TEST BORING RECORD

FHWA REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	AL	IM-1010(320)			

NORTHEAST LOOP RAMP
STATION 16+00
B/L

NORTHEAST LOOP RAMP
STATION 19+00
B/L

SOUTHWEST RAMP
STATION 13+00
15' LT OF B/L

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08

BORING DEPTH: 10 FT.
BORING ELEV.: 194.43 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-16

REMARKS:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _r	AASHTO CLASS	LAB DATA
194	0		6.0" Topsoil	1	15	A-6 (3)	-200=47.9 LL=25 MC=17 PI=15
			Firm dark brown & red clayey sand	2	24		
				3	24	A-6 (5)	-200=48.6 LL=35 MC=18 PI=19
189	5		Firm red & brown clayey sand	4	28		
184	10		B.T. @ 10 FT	5	22		
179	15						
174	20						
169	25						
164	30						
159	35						
154	40						

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08

BORING DEPTH: 10 FT.
BORING ELEV.: 193.51 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-17

REMARKS:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _r	AASHTO CLASS	LAB DATA
194	0		6.0" Topsoil	1	15	A-2-4 (0)	-200=20.7 LL=NP MC=12 PI=NP
			Firm dark brown & red silty sand	2	23		
				3	18	A-6 (5)	-200=48.8 LL=35 MC=17 PI=19
189	5		Firm to dense red clayey sand	4	35		
184	10		B.T. @ 10 FT	5	18		
179	15						
174	20						
169	25						
164	30						
159	35						
154	40						

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SM, VS, CS(LOGGER)
DATE DRILLED: 6/9/08

BORING DEPTH: 10 FT.
BORING ELEV.: 202.92 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-18

REMARKS:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N _r	AASHTO CLASS	LAB DATA
203	0		3.0" Topsoil	1	14	A-2-4 (0)	-200=26.0 LL=NP MC=12 PI=NP
			Firm red & dark brown silty sand	2	14	A-6 (2)	-200=40.3 LL=26 MC=15 PI=15
			Firm red clayey sand	3	16		
188	5		Very stiff to stiff red & brown clay w/ sand	4	12		
193	10		B.T. @ 10 FT	5	29		
188	15						
183	20						
178	25						
173	30						
168	35						
163	40						

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- Standard Penetration Test
- Ground Water
- N_r = SPT Value determined in field

<p>SHEET NO. OF</p> <p>GEOTECHNICAL ENGR.-TEST., INC.</p> <p>APPROVED : CURT DOYLE, P.E. GEOTECHNICAL ENGINEER DATE :</p>	<p>REVIEWED : DIVISION MATERIALS ENGINEER DATE :</p>	<p>ALABAMA DEPARTMENT OF TRANSPORTATION</p> <p>PROJECT NUMBER: IM-1010(320)</p> <p>PROJECT DESCRIPTION: I-10 / SR-181 INTERCHANGE IMPROVEMENTS</p> <p>COUNTY: BALDWIN</p> <p>TEST BORING RECORD</p>
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SOUTHWEST RAMP
STATION 15+00
20' LT OF B/L

SOUTHEAST RAMP
STATION 11+00
15' LT OF B/L

SOUTHEAST RAMP
STATION 14+00
25' LT OF B/L

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: SM, VS, CS(LOGGER)
DATE DRILLED: 6/9/08

BORING DEPTH: 10 FT.
BORING ELEV.: 206.27 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-19

REMARKS:

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08

BORING DEPTH: 10 FT.
BORING ELEV.: 207.95 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-20

REMARKS:

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08

BORING DEPTH: 10 FT.
BORING ELEV.: 198.39 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-21

REMARKS:

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N ₆₀	AASHTO CLASS	LAB DATA
206	0		3.0" Topsoil	1	16	A-2-4 (0)	-200=25.1 LL=NP MC=11 PI=NP
			Firm brown & red silty sand	2	17	A-2-4 (0)	-200=32.9 LL=23 MC=13 PI=10
			Firm red & gray clayey sand				
			Stiff red & light gray sandy clay	3	13		
201	5			4	13		
			Stiff to very stiff red clay				
196	10		B.T. @ 10 FT	5	23		
191	15						
186	20						
181	25						
176	30						
171	35						
166	40						

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N ₆₀	AASHTO CLASS	LAB DATA
208	0		5.0" Topsoil	1	33	A-2-4 (0)	-200=35.3 LL=18 MC=9 PI=7
			Dense dark brown & red clayey sand	2	30		
			Firm dark brown & red clayey sand w/ trace rock	3	12		
203	5			4	18		
			Very stiff red sandy clay				
198	10		B.T. @ 10 FT	5	18		
193	15						
188	20						
183	25						
178	30						
173	35						
168	40						

ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T. N ₆₀	AASHTO CLASS	LAB DATA
198	0		5.0" Topsoil	1	14		
			Firm dark brown & red clayey sand	2	17		
			Firm dark brown & red clayey sand	3	15	A-6 (1)	-200=36.9 LL=31 MC=16 PI=14
193	5			4	20		
			Firm red clayey sand				
188	10		B.T. @ 10 FT	5	10		MC=21
183	15						
178	20						
173	25						
168	30						
163	35						
158	40						

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

LEGEND OF SYMBOLS

- ⊗ Standard Penetration Test
- ▽ Ground Water
- N₆₀ = SPT Value determined in field

GEOTECHNICAL ENGR.-TEST., INC.	SHEET NO. OF	ALABAMA DEPARTMENT OF TRANSPORTATION	
	APPROVED :	REVIEWED :	PROJECT NUMBER: IM-1010(320) PROJECT DESCRIPTION: I-10 / SR-181 INTERCHANGE IMPROVEMENTS
CURT DOYLE, P.E. GEOTECHNICAL ENGINEER	DATE :	DIVISION MATERIALS ENGINEER DATE :	COUNTY: BALDWIN
TEST BORING RECORD			

FHWA REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	AL	IM-1010(320)			

SOUTHEAST RAMP
STATION 17+00
15' LT OF C/L

DRILL RIG: SIMCO 2800
DRILL METHOD: SOLID STEM AUGER
DRILL CREW: ES, LJ, CS(LOGGER)
DATE DRILLED: 5/31/08

BORING DEPTH: 10 FT.
BORING ELEV.: 193.11 FT.
DATUM:
WATER DEPTH: NOT ENCOUNTERED

BORING NUMBER: B-22

REMARKS:



ELEV IN FEET	DEPTH IN FEET	LOG	DESCRIPTION	SAMPLE NO.	S.P.T.	AASHTO CLASS	LAB DATA	
					N _r			
193	0		5.0" Topsoil	1	12			
			Firm dark brown & red clayey sand	2	10			
			Firm red clayey sand	3	20			
			Very stiff red & light gray clay	4	32			
188	5		Hard red sandy clay	5	17			
			Firm red silty sand					
183	10		B.T. @ 10 FT					
178	15							
173	20							
168	25							
163	30							
158	35							
153	40							

LEGEND OF SYMBOLS

- Standard Penetration Test
- Ground Water
- N_r = SPT Value determined in field

NOTE: The stratification lines shown represent the approximate boundary between soil types and the transition may be gradual. The groundwater level stated is for conditions at the time of boring and the level may fluctuate large amounts for other conditions or seasons.

 GEOTECHNICAL ENGR.-TEST., INC.		SHEET NO. OF	ALABAMA DEPARTMENT OF TRANSPORTATION
			PROJECT NUMBER: IM-1010(320) PROJECT DESCRIPTION: I-10 / SR-181 INTERCHANGE IMPROVEMENTS
APPROVED :	REVIEWED :		COUNTY: BALDWIN
CURT DOYLE, P.E. GEOTECHNICAL ENGINEER	DIVISION MATERIALS ENGINEER		
DATE :	DATE :		TEST BORING RECORD