

***SOIL SURVEY REPORT***

***CALL ORDER # 5***

***NHS00-0000-00 (762)***  
***LOWNDES COUNTY***

***JUNE 16, 2017 LETTING***

**Attached is a SOIL SURVEY report on the above referenced project.**

**The Department of Transportation, in making this SOIL SURVEY available to contractors, assumes no responsibility for its accuracy. No claim will be considered if the contractor relies on this information in his bidding or in his construction operations and finds that it is inaccurate. This SOIL SURVEY is furnished FOR INFORMATION ONLY and is not considered as part of the plans, specifications, or contract for this project. The contractor's attention is directed to Subsection 102.05 of the Standard Specifications to satisfy himself concerning the conditions to be encountered.**



Moreland Altobelli Associates, Inc.

## **SOIL SURVEY SUMMARY REPORT**

Prepared For

**SR 7 (Exit 22) and SR 122 (Exit 29) over I-75**

Lowndes County, Georgia

Project No. NHS00-0000-00(762)  
Georgia DOT P.I. No. 0000762

MAAI Project No. 11512  
January 8, 2014  
(Revised March 21, 2014)

# SOIL SURVEY SUMMARY

## SR 7 and SR 122 over I-75

Lowndes County, Georgia

Project No. NHS00-0000-00(762)

Georgia DOT P.I. No. 0000762

- 1. Location / Description**

This project is for the intersection improvements/constructions of SR 7 (North Valdosta Road) and SR 122 (Main Street) over Highway I-75. The improvements include construction of ramps and side streets (see attached location map). The project lies north of the city limits of Valdosta in Lowndes County.
- 2. Geology**

This project will be geologically sited in the Miccosukee Formation of the Georgia Coastal Plain.
- 3. Removal**

The soils near the proposed grade in the following areas were found to have in-place moisture contents far above the optimum moisture contents. This condition has the potential to cause severe pumping problems during subgrade and base construction. After excavation in these areas is complete, we recommend that 24 inches of subgrade soils beneath the pavement and shoulders be removed and either dried out and replaced, or replaced with drier soils:

### Station to Station

### Location

Shiloh road 20+00± to 40+00±	Left and Right
Holly lane 10+50± to 13+00±	Left and Right
Ramp "B" 67+50± to 77+50±	Right
Reloc. Morven Rd 54+00± to 61+00±	Left and Right
Reloc. Union Rd 32+50± to 43+00±	Left and Right

This work should be done at the direction of the Engineer, and may be eliminated if the subgrade soils are dry and stable at the time of construction.

- 4. Subgrade Materials**

We recommend that the top 12 inches of subgrade on this project, including ramps and cross roads, be constructed with Class II B3 or better material.

This work shall be done in accordance with Special Provision Section 209.
- 5. Pavement Design Values**

We recommend the following values for use in the pavement design calculations for this project:

**Soil Support Value = 4.0**  
**Regional Factor = 1.4**  
**Subgrade Reaction, k = 190 pci**

Acceptable base materials for use on this project are graded aggregate, limerock, soil cement, and asphaltic concrete bases.

- 6. Ditch Lining** We recommend the following values for use in the ditch lining calculations for this project (Sample # 4685 at station Shiloh Rd 48+00 was used as representative soils for the Index tests):

**Plasticity Index, PI = 5**  
**D75 (mm) = 0.229**  
**Unified Soils Classification System**  
**(USCS) = SC-SM**

- 7. Slopes** Maximum 2:1 slopes will be safe for this project.

- 8. Groundwater** The groundwater elevation was encountered near grade at the time of the investigation at the following locations on this project:

<u>Station to Station</u>	<u>Location</u>
Ramp "A" 33+00± to 40+00±	Left and Right
Ramp "BB" 55+00± to 60+00±	Left and Right
Reloc. Union Rd 35+00± to 45+00±	Left and Right

We recommend that one layer of low-strength filter fabric be placed on top of the existing ground prior to placing the fills, as shown on the attached detail, to provide stability for embankment construction. However, if these areas stable at the time of construction, the fabric may be eliminated, as directed by the Engineer.

We recommend that underdrains and drainage stone be set up on an as-needed basis, as directed by the Engineer, at the following locations:

<u>Station to Station</u>	<u>Location</u>
Ramp "DD" 80+00± to 84+00±	Right

- 9. Shrinkage** We recommend an average shrinkage factor of 25 % for use in the earthwork calculations for this project.

- 10. Culverts** We recommend that a 12-inch blanket of Type II Foundation Backfill material be placed under the barrel of all culverts and 48-inch diameter and larger cross-drains on this project.

**11. Corrosion**

Reference should be made to the attached "Pipe Culvert Material Alternates" chart for materials allowable by the Laboratory corrosion test.

**12. Bench Detail**

Where new fills are to be placed on existing slopes steeper than 3:1, the existing slope should be benched in accordance with the attached detail.

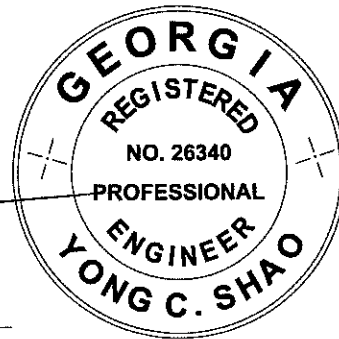
**13. Special Problems**

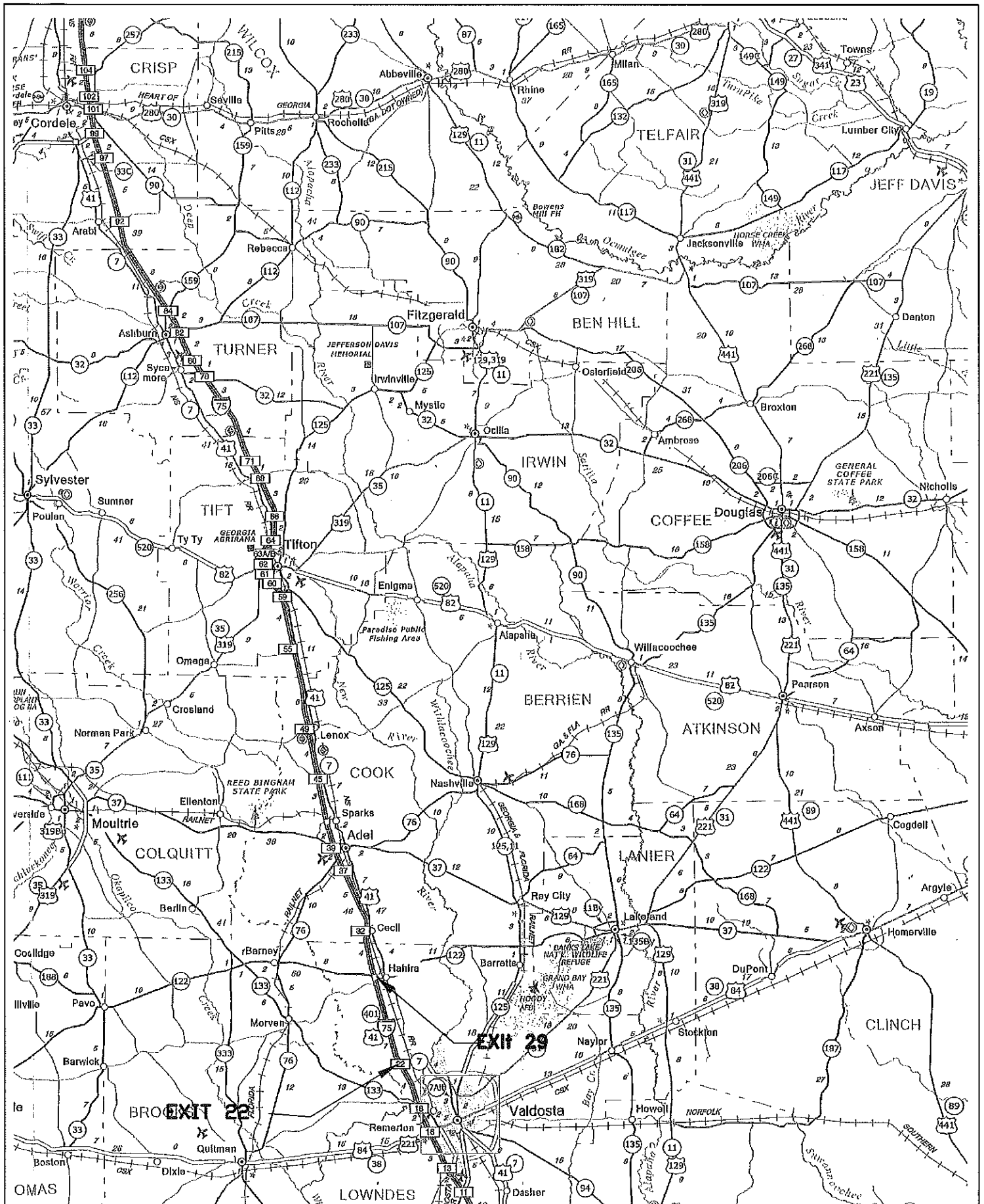
A. Several residences are located very close to the construction limits of this project. Vibrations from construction may cause some concern with property owners. We recommend that the Project Engineer contact the Geotechnical Engineering Bureau prior to construction to evaluate the need for crack surveys.

B. We recommend that all bridge approach slabs on this project be constructed in accordance with the notched detail on Georgia Standard 9017-R.

**Reported By:**

\_\_\_\_\_  
Yong Shao, PhD, PE





**TITLE:** SITE LOCATION MAP

**PROJECT:** SR7 and SR122 OVER I-75 INTERCHANGES  
LOWNDES COUNTY, GEORGIA



**MORELAND ALTOBELLI ASSOCIATES, INC.**

2211 BEAVER RUIN ROAD, SUITE 190  
NORCROSS, GEORGIA 30071  
TEL: 770-2636945; FAX: 770-2635954

**PROJECT NO:** NHS00-0000-00(762) / PI. 0000762

**DRAWN BY:** YCS

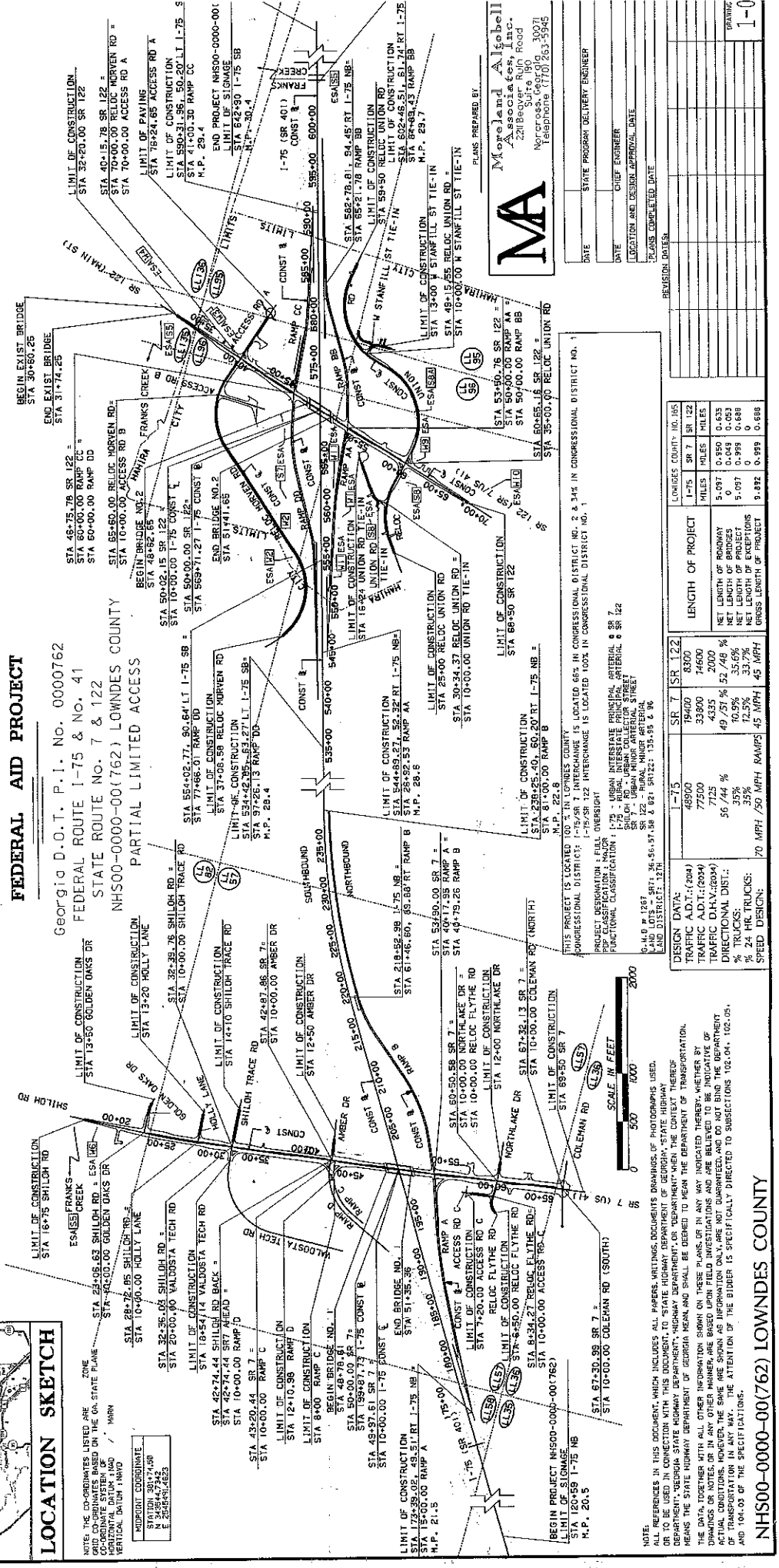
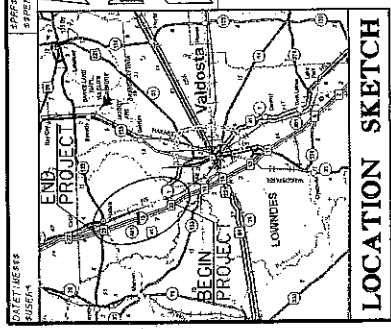
**DATE:** 12/4/2013

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

## PLAN AND PROFILE OF PROPOSED WIDENING OF I-75 FROM NORTH OF S.R. 133 TO COOK COUNTY LINE - PHASE II INTERSTATE 75 AT SR 7 & SR 122 INTERCHANGE IMPROVEMENTS

FEDERAL AID PROJECT

Georgia D.O.T. P.I. No. 0000762  
 FEDERAL ROUTE 1-75 & No. 41  
 STATE ROUTE No. 7 & 122  
 NWS00-0000-00(762) LOWNDES COUNTY  
 PARTIAL LIMITED ACCESS



**MA**  
 Moreland Aligbell  
 Associates, Inc.  
 2218 Bayview, N.W. Road  
 Norcross, Georgia 30071  
 Telephone: (770) 263-5945

DATE	STATE PROGRAM DELIVERY ENGINEER
DATE	CHIEF ENGINEER
DATE	LOCATION AND DESIGN APPROVAL DATE
DATE	PLANS COMPLETED DATE

DESIGN DATA:	
TRAFFIC ADT: (2004)	4800
TRAFFIC ADT: (2009)	7250
TRAFFIC ADT: (2014)	7735
PERCENTAGE OF TRUCKS:	35%
PERCENTAGE OF TRUCKS:	35%
SPEED DESIGN:	70 MPH / 50 MPH RAMP

LENGTH OF PROJECT	
MILES	1.75
NET LENGTH OF BRIDGES	0
NET LENGTH OF EXCHANGES	0
GROSS LENGTH OF PROJECT	1.75

DESIGN DATA:	
TRAFFIC ADT: (2004)	4800
TRAFFIC ADT: (2009)	7250
TRAFFIC ADT: (2014)	7735
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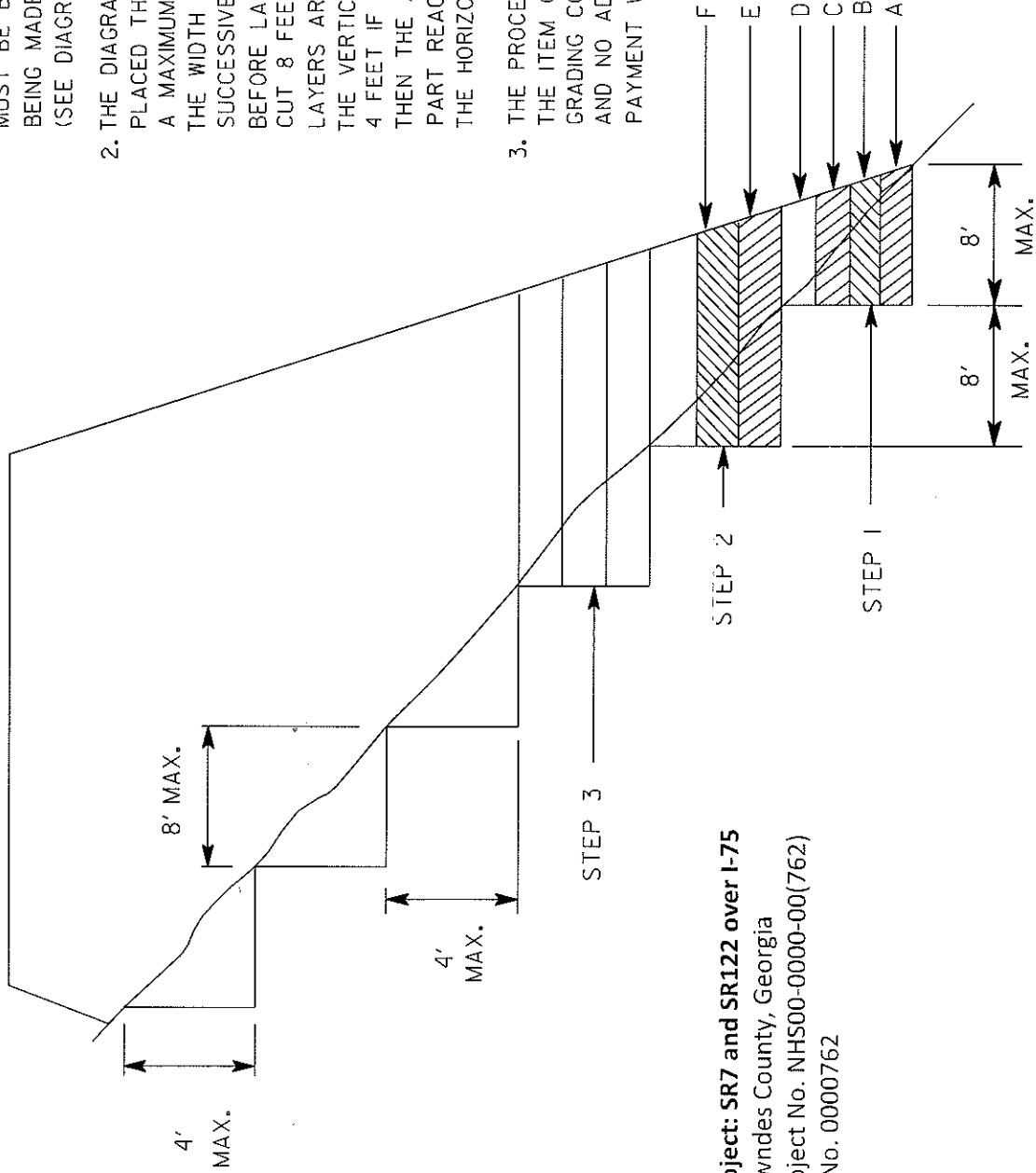
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NOTE: ALL REFERENCES IN THIS DOCUMENT, WHICH INCLUDES ALL PAPERS, WRITINGS, DOCUMENTS, DRAWINGS, OR PHOTOGRAPHS, USED OR TO BE USED IN CONNECTION WITH THIS DOCUMENT, SHALL BE THE PROPERTY OF THE STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION. THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS, OR IN ANY WAY INDICATED THEREON, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF THE BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 104.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.

1. WHERE THE EMBANKMENT IS TO BE PLACED ON A HILLSIDE OR ANOTHER EXISTING EMBANKMENT HAVING A SLOPE OF 3 TO 1 OR STEEPER, THE FOUNDATION MUST BE BENCHING WHILE THE EMBANKMENT IS BEING MADE.  
(SEE DIAGRAM AT LEFT.)
2. THE DIAGRAM SHOWS THAT BEFORE LAYER "A" IS PLACED THE FIRST STEP (D) IS CUT INTO THE SLOPE A MAXIMUM DISTANCE OF ABOUT 8 FEET (ABOUT  $\frac{3}{4}$  THE WIDTH OF THE TYPICAL D-8 BULLDOZER BLADE). SUCCESSIVE LAYERS B, C, AND D ARE THEN PLACED BEFORE LAYER "E" IS PLACED, THE SECOND STEP IS CUT 8 FEET INTO THE SLOPE AND SUCCESSIVE LAYERS ARE AGAIN PLACED. IF IT IS ANTICIPATED THAT THE VERTICAL PART OF THE STEP WILL EXCEED 4 FEET IF A 8 FEET HORIZONTAL CUT IS MADE, THEN THE ACTUAL CUT STOPS WHEN THE VERTICAL PART REACHES A MAXIMUM OF 4 FEET ALLOWING THE HORIZONTAL DISTANCE TO VARY.
3. THE PROCESS OF BENCHING IS CONSIDERED INCIDENTAL TO THE ITEM OF UNCLASSIFIED EXCAVATION AND BORROW OR GRADING COMPLETE IN CONSTRUCTION OF THE EMBANKMENT AND NO ADDITIONAL MEASUREMENT OF QUANTITY OR PAYMENT WILL BE MADE FOR BENCHING.



Project: SR7 and SR122 over I-75  
 Lowndes County, Georgia  
 Project No. NHS00-0000-00(762)  
 PI No. 0000762

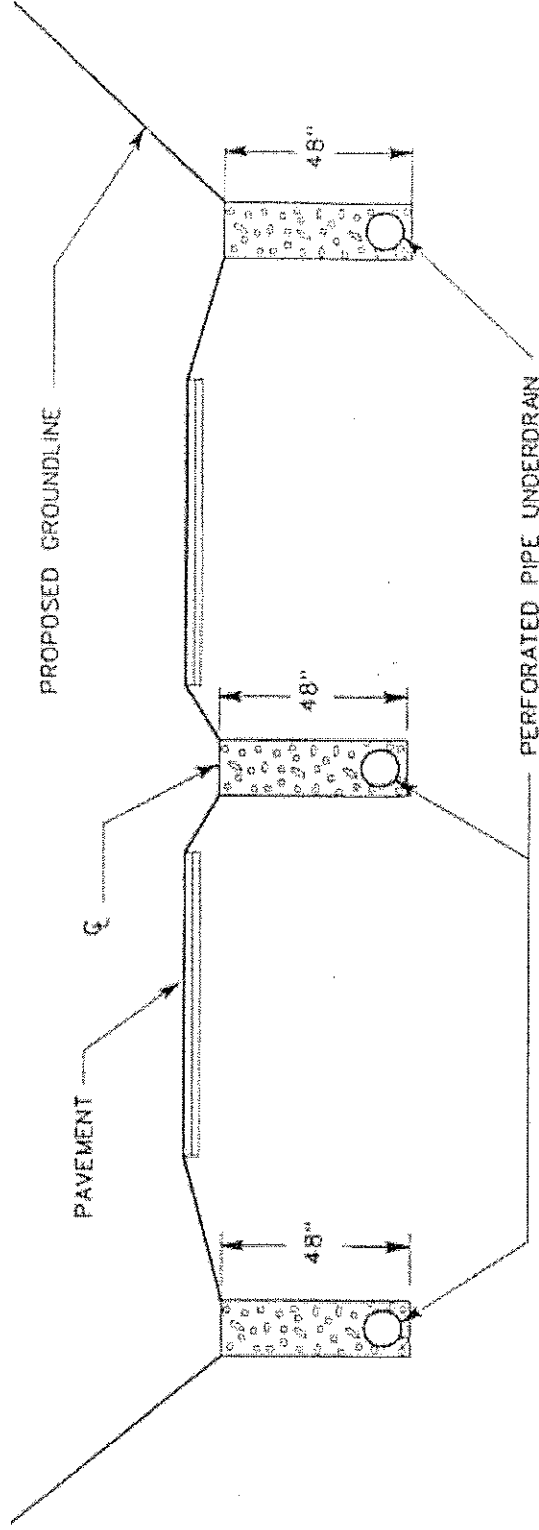
# BENCHING DETAIL



Project: SR7 and SR122 over I-75  
Lowndes County, Georgia  
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PI No. 0000762

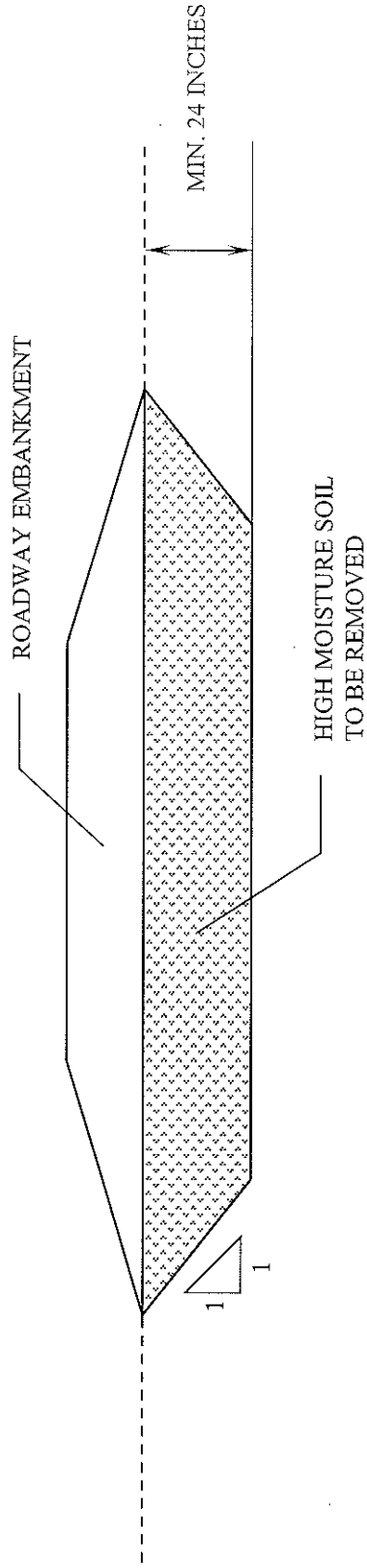
**Applies to Station to Station**  
Ramp "DD" 80+00± to 84+00±

**Location**  
Right



Typical Detail : Underdrain Placement for Highwater Table Areas

**Project: SR7 and SR122 over I-75**  
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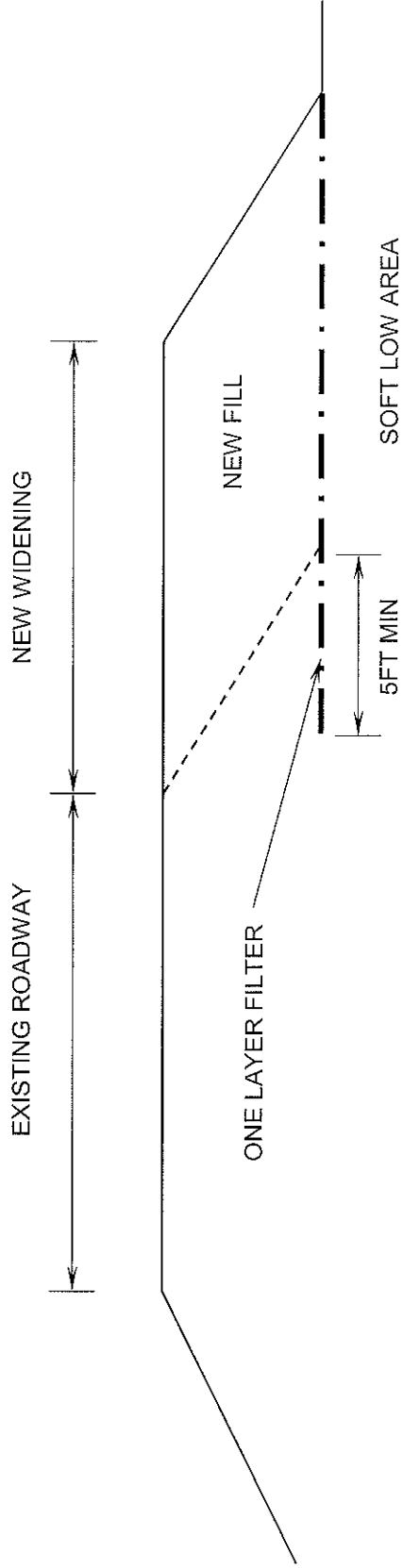
**NOTES:**

1. Detail applies to the following stations

<u>Station to Station</u>	<u>Location</u>
Shiloh road 20+00± to 40+00±	Left and Right
Shiloh road 61+50± to 64+50±	Left and Right
Holly lane 10+50± to 13+00±	Left and Right
Ramp "B" 67+50± to 77+50±	Right
Reloc. Morven Rd 54+00± to 61+00±	Left and Right
Reloc. Union Rd 32+50± to 43+00±	Left and Right

**REMOVAL DETAIL**

**Project: SR7 and SR122 over I-75**  
 Lowndes County, Georgia  
 Project No. NHS00-0000-00(762)  
 PI No. 0000762



**NOTES:**

1. DETAIL APPLIES FROM FOLLOWING STATIONS
  - RAMP "A" 33+00± TO 40+00± LEFT AND RIGHT
  - RAMP "BB" 55+00± TO 60+00± LEFT AND RIGHT
  - RELOCATED UNION RD. 35+00± TO 45+00± LEFT AND RIGHT
2. BENCH 1 LAYER OF FILTER FABRIC A MINIMUM OF 5 FEET INTO EXISTING FILL AS SHOWN.
3. FABRICS SHALL MEET THE REQUIREMENTS SPECIFIED IN SPECIAL PROVISION 881

**FILTER FABRIC PLACEMENT DETAIL**

pH 5.75  
 Resistivity 11500

Project No.: NHS00-0000-00(762)

County: Lowndes Co.

P.I. No.: 0000762

## Pipe Culvert Material Alternates For Coastal Plain Region

TYPE OF PIPE INSTALLATION		CONCRETE	CORRUGATED STEEL AASHTO M-36		CORRUGATED ALUMINUM AASHTO M-196	PLASTIC				
			ALUMINUM COATED (TYPE 2) CORR. STEEL	PLAIN ZINC COATED	PLAIN UNCOATED ALUMINUM	CORR. POLY-ETHYLENE AASHTO M-252	CORR. POLY-ETHYLENE SMOOTHED LINED AASHTO M-294 TYPE "S"	POLY VINYL CHLORIDE (PVC) PROFILE WALL AASHTO M-304	POLY VINYL CHLORIDE (PVC) CORRUGATED SMOOTH INTERIOR ASTM F-949	
STORM DRAIN	LONGITUDINAL INTERSTATE AND TRAVEL BEARING	X								
	LONGITUDINAL NON-INTERSTATE AND NON-TRAVEL BEARING	X	X		X		X	X	X	
	CROSS DRAIN	GRADE ≤ 10%	ADT < 250	X	X	X		X	X	X
			250 < ADT < 1,500	X		X		X	X	X
			1,500 < ADT < 15,000	X				X	X	X
			ADT > 15,000	X						
	GRADE > 10%	ADT < 250		X		X		X	X	X
		ADT > 250				X		X	X	X
	SIDE DRAIN		X	X		X		X	X	X
	PERMANENT SLOPE DRAIN			X	X	X		X	X	X
PERFORATED UNDERDRAIN			X	X	X	X	X		X	

**NOTES:**

- 1 Allowable materials are indicated by an "X".
- 2 Structural requirements of storm drain pipe will be in accordance with Georgia Standard 1030-D or 1030-P, whichever is applicable, and the Standard Specifications.
- 3 Graded aggregate backfill shall be used in cross drain applications for all plastic pipes (AASHTO M-294, HDPE pipe; AASHTO M-304, PVC pipe; ASTM F-949, PVC pipe).
- 4 The Contractor shall provide additional storm sewer capacity calculations if a pipe material other than concrete is selected.
- 5 Pipe used under mechanically stabilized earth (MSE) walls, within MSE wall backfill, or within five feet of an MSE wall face shall be Class V Concrete Pipe.
- 6 Project specific pH and Resistivity values are entered into the respective boxes above to determine allowable pipe materials.

Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT class	Field Soil Description and Comments
Shiloh Rd 19+50	30' Rt	5.0' Fill	BT @ 5'	4'	4679	13.5%	<b>IA3</b>	6" to 3.5' Tan sand 3.5' to 5.0' Tan and gray sand
Shiloh Rd 25+00	30' Lt	On Grade	BT @ 5'	NE	4680	17.4%	<b>IA3</b>	6" to 1.5' Brown sandy clay 1.5' to 5.0' Light gray sand
Shiloh Rd 30+00	30' Lt	2.0' Cut	BT @ 6'	NE	4681	18.3%	<b>IIB2</b>	0.0' to 2.0' Red/light gray clayey sand 2.0' to 6.0' Pink sand with some clay
Shiloh Rd 35+00	30' Lt	2.0' Cut	BT @ 7'	NE	4682	18.6%	<b>IIB2</b>	0.0' to 2.0' Light gray silty sand 2.0' to 7.0' Red to light gray sand/clay mix
Shiloh Rd 40+00	50' Rt	10.0' Fill	BT @ 3.5'	3.5	4683	11.7%	<b>IIB3</b>	6" to 2.0' Brown silty sand 2.0' to 3.5' sand/clay mix 3.5' Tan sand, unable to collect sample due to water
Shiloh Rd 45+00	30' Lt	4.0' Fill	BT @ 5'	NE	4684	11.9%	<b>IIB3</b>	0.0' to 2.0' Dark brown/black silty sand 2.0' to 4.0' Brown clayey sand 4.0' to 5.0' Tan sand with some clay
Shiloh Rd 48+00	50' Rt	25.0' Fill	BT @ 5'	NE	4685	12.9%	<b>IIB2</b>	6" to 4.0' Brown/gray silty sand 4.0' to 5.0' Same with some clay
Shiloh Rd 52+00	30' Lt	On Grade	BT @ 5'	NE	4686	14.3%	<b>IIB2</b>	0.0' to 1.0' Brown/tan silty sand with clay 1.0' to 5.0' Tan/gray silty sand with some clay

\* Depths of Fill/cut at boring locations are estimated from roadway cross sections

BT - Boring Terminated  
NE - Not Encountered  
AR - Auger Refusal

Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT	Field Soil Description and Comments
Shiloh Rd 55+00	40' Rt	On Grade	BT @ 5'	NE	4687	12.9%	<b>IIB2</b>	6" to 4.0' Brown silty sand 4.0' to 5.0' Silty sand with clay
Shiloh Rd 60+00	30' Lt	1.0' Cut	BT @ 6'	NE	4688	15.8%	<b>IIB3</b>	1.0' to 6.0' Brown sandy silt with some clay
Shiloh Rd 63+00	BL	On Grade	BT @ 5'	NE	4689	20.5%	<b>IIB2</b>	0.0' to 1.0' Brown/black sand 1.0' to 5.0' Brown/red clayey sand
Shiloh Rd 66+00	30' Rt	On Grade	BT @ 5'	NE	4690	10.6%	<b>IIB2</b>	1.0' to 4.0' Brown/tan silty sand 4.0' to 5.0' Same as above with some clay
Golden Oaks Dr. 12+00	20' Rt	3.0' Cut	BT @ 8'	NE	4691	20.0%	<b>IIB4</b>	0.0' to 8.0' Grey/red clay
Holly Ln 12+00	20' Rt	4.0' Cut	BT @ 8'	NE	4691A	18.7%	<b>IIB3</b>	0.0' to 8.0' Light red brown sandy silt with some clay
Shiloh Trace Rd 12+00	20' Lt	5.0' Cut	BT @ 10'	NE	4692	15.3%	<b>IIB3</b>	1.0' to 4.0' Red/grey sandy clay 4.0' to 10.0' Grey sands with some clay
Amber Drive 11+50	20' Rt	On Grade	BT @ 5'	NE	4693	9.6%	<b>IIB1</b>	1.0' to 2.0' Brown silty sand 2.0' to 5.0' Light brown/tan sand

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BT - Boring Terminated  
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AR - Auger Refusal

**Soil Survey Field Notes**  
(Widening of I-75 from SR7 to SR 122, Lowndes Co., Georgia)

Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT	Field Soil Description and Comments
Ramp A 16+00	10' Rt	On Grade	BT @ 5'	NE	4694	13.3%	IIB1	1.0' to 5.0' Dark grey sand
Ramp A 20+00	10' Rt	4.0' Fill	BT @ 5'	4.5	4695	11.8%	IIB2	0.0' to 2.0' Grey clayey sand 2.0' to 5.0' Hard, grey sandy clay, wet
Ramp A 25+00	BL	4.0' Fill	BT @ 5'	NE	4696	14.7%	IIB1	1.0' to 5.0' Tan sand
Ramp A 30+00	BL	On Grade	BT @ 5'	NE	4697	10.3%	IIB1	1.0' to 5.0' Tan sand with some red clay
Ramp A 35+00	BL	15.0' Fill		1				No sample was taken, too wet, high ground water table
Ramp A 39+00	20' Rt	22.0' Fill		0.5				No sample was taken, too wet, high ground water table
Ramp B 43+50	BL	13.0' Fill	BT @ 5'	NE	4700	8.9%	IIB2	1.0' to 3.0' Grey sand/clay mix 3.0' to 5.0' Tan/grey sandy clay
Ramp B 48+00	BL	5.0' Cut	BT @ 4.5'	NE	4701	6.8%	IIB2	1.0' to 2.5' Grey silty sand 2.5' to 4.5' Grey sand Hand auger refused at 4.5 feet

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**Soil Survey Field Notes**  
(Widening of I-75 from SR7 to SR 122, Lowndes Co., Georgia)

Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT	Field Soil Description and Comments
Ramp B 51+00	BL	13.0' Cut	BT @ 15'	NE	4702	11.8	IIB2	1.0' to 2.5' Tan sandy clay 5.0' to 15.0' Red/tan clayey sand
Ramp B 54+00	BL	12.0' Cut	BT @ 15'	NE	4703	13.3%	IIB2	1.0' to 2.5' Tan sandy clay 5.0' to 15.0' Red/tan clayey sand
Ramp B 57+00	BL	12.0' Cut	BT @ 15'	NE	4704	12.1%	IIB2	1.0' to 2.5' Brown/tan sandy clay 5.0' to 15.0' Red/tan clayey sand
Ramp B 60+00	BL	On Grade	BT @ 5'	NE	4705	11.7%	IIB2	1.0' to 5.0' Brown/grey silty sand
Ramp B 65+00	BL	5.0' Fill	BT @ 5'	NE	4706	7.0%	IIB2	1.0' to 5.0' Brown/light grey silty sand
Ramp B 70+00	10' Rt	3.0' Fill	BT @ 5'	NE	4707	21.4%	IIB2	1.0' to 5.0' Pink/white sandy silt with clay
Ramp B 75+00	10' Rt	3.0' Fill	BT @ 5'	NE	4708	14.9%	IIB2	1.0' to 5.0' Light grey clayey sand
Ramp B 80+00	10' Rt	2.0' Fill	BT @ 5'	NE	4709	16.6%	IIB2	1.0' to 5.0' Light grey clayey sand

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**Soil Survey Field Notes**  
(Widening of I-75 from SR7 to SR 122, Lowndes Co., Georgia)

Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT	Field Soil Description and Comments
Access Rd C 8+50	CL	1.0' Cut	BT @ 5'	NE	4710	16.6%	<b>IIB3</b>	1.0' to 5.0' Red/brown sandy silt
Main St (SR 122) 35+00	20' Lt	3.0' Fill	BT @ 5'	NE	4711	9.6%	<b>IA1</b>	1.0' to 5.0' Moist grey/black sand with some brown silt
Main St (SR 122) 40+00	30' Rt	3.0' Cut	BT @ 6'	NE	4712	7.8%	<b>IA2</b>	1.0' to 4.0' Grey sand 4.0' to 6.0' Grey sand/clay mix
Main St (SR 122) 45+00	30' Rt	6.0' Fill	BT @ 5'	NE	4713	9.8%	<b>IA2</b>	1.0' to 5.0' Dark grey sand with some clay
Main St (SR 122) 53+00	30' Rt	8.0' Fill	BT @ 5'	NE	4714	4.8%	<b>IA2</b>	1.0' to 5.0' Brown/grey sandy with some clay
Main St (SR 122) 58+00	30' Lt	8.0' Fill	BT @ 5'	NE	4715	6.5%	<b>IA2</b>	1.0' to 2.5' Black/grey sand 2.5' to 4.0' Grey/tan silty sand 4.0' to 5.0' Moist sand/clay mix
Main St (SR 122) 63+00	20' Rt	2.0' Fill	BT @ 5'	4.8	4716	6.7%	<b>IA2</b>	1.0' to 2.0' Brown sand 2.0' to 4.0' Light grey sand 4.0' to 5.0' Light grey sand with clay
Main St (SR 122) 68+00	20' Lt	1.0' Cut	BT @ 6'	NE	4717	7.2%	<b>IA2</b>	1.0' to 2.5' Dark grey sand 2.5' to 4.0' Tan/grey sand 4.0' to 6.0' Light tan sand with some clay mix

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Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT	Field Soil Description and Comments
Relocated Morven Rd 40+00	BL	On Grade	BT @ 5'	NE	4718	12.8%	IA1	1.0' to 2.0' Blackish sand 2.0' to 5.0' Tan sand
Relocated Morven Rd 45+00	BL	5.0' Fill	BT @ 5'	4	4719	18.2%	IA2	1.0' to 3.0' Tan sand 3.0' to 5.0' Moist to wet tan/grey sand
Relocated Morven Rd 50+00	BL	5.0' Fill	BT @ 5'	NE	4720	6.6%	IA2	1.0' to 4.0' Tan sand with some clay 4.0' to 5.0' Golden sand with red clay
Relocated Morven Rd 55+00	BL	3.0' Fill	BT @ 5'	NE	4721	15.4%	IA2	1.0' to 5.0' Dark grey sand
Relocated Morven Rd 60+00	BL	3.0' Fill	BT @ 5'	NE	4722	16.8%	IA2	1.0' to 5.0' Golden/tansilty sand
Relocated Morven Rd 65+00	BL	5.0' Fill	BT @ 5'	NE	4723	12.7%	IA2	1.0' to 5.0' Golden/tan silty sand with some rock fragments
Relocated Morven Rd 69+00	BL	3.0' Cut	BT @ 8'	NE	4724	8.7%	IIB1	1.0' to 6.0' Gray/tan sand 6.0' to 8.0' Weathered rock, red clayey sand
Relocated Morven Rd 73+00	BL	4.0' Cut	BT @ 8'	NE	4725	5.4%	IA2	1.0' to 5.0' Tan sand 5.0' to 8.0' Golden sand with some red sandy clay

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**Soil Survey Field Notes**  
(Widening of I-75 from SR7 to SR 122, Lowndes Co., Georgia)

Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT	Field Soil Description and Comments
Ramp CC 45+00	BL	On Grade	BT @ 5'	NE	4726	11.9%	IA2	1.0' to 2.0' Blackish sand 2.0' to 5.0' Tan silty sand
Ramp CC 50+00	10' Lt	1.0' Fill	BT @ 5'	NE	4727	7.2%	IA1	1.0' to 5.0' Tan/light grey sand
Ramp CC 55+00	10' Lt	3.0' Fill	BT @ 5'	NE	4728	4.7%	IA1	1.0' to 5.0' Tan/light grey sand
Ramp CC 59+00	10' Rt	6.0' Fill	BT @ 5'	NE	4729	7.9%	IA1	1.0' to 5.0' Tan/light grey sand
Ramp DD 62+00	BL	12.0' Fill	BT @ 5'	NE	4730	10.6%	IA2	1.0' to 5.0' Dark grey sand
Ramp DD 67+00	BL	10.0' Fill	BT @ 5'	NE	4731	12.7%	IA2	1.0' to 3.0' Tan/red clayey sand 3.0' to 5.0' Grey/tan sand
Ramp DD 72+00	BL	6.0' Fill	BT @ 5'	NE	4732	10.7%	IA2	1.0' to 5.0' Tan/red clayey sand
Ramp DD 77+00	BL	5.0' Fill	BT @ 5'	4	4733	10.3%	IA2	1.0' to 3.0' Tan sand 3.0' to 5.0' Wet tan sand

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**Soil Survey Field Notes**  
(Widening of I-75 from SR7 to SR122, Lowndes Co., Georgia)

Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT	Field Soil Description and Comments
Ramp DD 82+00	BL	On Grade	BT @ 5'	3	4734	11.9%	IIB1	1.0' to 5.0' Blackish sand
Ramp DD 87+00	BL	On Grade	BT @ 5'	NE	4735	10.8%	IIB2	1.0' to 5.0' Grey clayey sand
Ramp DD 92+00	BL	On Grade	BT @ 5'	NE	4736	12.5%	IIB2	1.0' to 5.0' Red clayey sand
Ramp DD 96+00	BL	On Grade	BT @ 5'	NE	4737	8.8%	IIB1	1.0' to 5.0' Red clayey sand
Ramp AA 30+00	BL	On Grade	BT @ 5'	NE	4738	8.2%	IIB2	1.0' to 5.0' Red clayey sand
Ramp AA 35+00	BL	9.0' Fill	BT @ 5'	NE	4739	8.7%	IIB2	1.0' to 5.0' Grey clayey sand
Ramp AA 40+00	BL	9.0' Fill	BT @ 5'	4.5	4740	12.5%	IIB2	1.0' to 5.0' Grey clayey sand
Ramp AA 45+00	BL	5.0' Fill	BT @ 5'	4	4741	11.7%	IIB2	1.0' to 5.0' Tan clayey sand

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**Soil Survey Field Notes**  
(Widening of I-75 from SR7 to SR 122, Lowndes Co., Georgia)

Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT	Field Soil Description and Comments
Ramp BB 52+00	10' Lt	9.0' Fill	BT @ 5'	NE	4742	10.6%	IIB2	1.0' to 5.0' Tan clayey sand
Ramp BB 57+00	BL	6.0' Fill		1.5	4743	7.8%		No sample is collected due to high water table
Ramp BB 62+00	BL	6.0' Cut	BT @ 10'	NE	4744	7.8%	IA1	1.0' to 5.0' Tan/golden silty sand 5.0' to 10.0' Tan/light grey sand
Ramp BB 65+00	BL	On Grade	BT @ 5'	NE	4745	5.5%	IA1	1.0' to 5.0' Dark grey sand
Ramp BB 70+00	BL	On Grade	BT @ 5'	NE	4746	7.7%	IA2	1.0' to 5.0' Grey sand
Ramp BB 75+00	BL	On Grade	BT @ 5'	NE	4747	8.2%	IA2	1.0' to 5.0' Grey sand
Ramp BB 80+00	BL	On Grade	BT @ 5'	NE	4748	6.6%	IA2	1.0' to 5.0' Light grey/tan sand
Relocated Union Rd 28+00	BL	On Grade	BT @ 5'	NE	4749	7.1%	IA2	1.0' to 5.0' Grey clayey sand

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Station	Location	Approx. Cut/Fill*, ft	Boring Depth, ft	Ground water table, ft	Lab No.	In-place moisture	GDOT	Field Soil Description and Comments
Relocated Union Rd 33+00	BL	3.0' Fill	BT @ 5'	NE	4750	22.4%	IA2	1.0' to 5.0' Black/grey/tan sand
Relocated Union Rd 38+00	BL	On Grade	BT @ 5'	2.5	4751	17.9%	IA2	1.0' to 5.0' Black/tan sand
Relocated Union Rd 43+00	BL	2.0' Fill	BT @ 5'	3	4752	17.5%	IA1	1.0' to 5.0' Black/tan sand
Relocated Union Rd 48+00	BL	4.0' Fill	BT @ 5'	4	4753	5.8%	IA1	1.0' to 5.0' Tan sand
Relocated Union Rd 53+00	BL	5.0' Fill	BT @ 5'	NE	4754	10.9%	IA1	1.0' to 5.0' Tan/gold sand
Relocated Union Rd 58+00	BL	On Grade	BT @ 5'	NE	4755	12.4%	IA1	1.0' to 5.0' Tan sand
Union Rd Tie-in 11+00	BL	7.0' Fill	BT @ 5'	NE	4756	11.5%	IA2	1.0' to 5.0' Dark grey sand
Union Rd Tie-in 15+00	BL	On Grade	BT @ 5'	NE	4757	9.4%	IA2	1.0' to 5.0' Dark grey sand

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**Summary of Soil Laboratory Tests**

<b>Project Name: Widening of I-75 from SR7 to SR122, Lowndes County</b> <b>GDOT Project No.: NHS00-0000-00(762)</b> <b>GDOT P.I. No.: 0000762</b> <b>MAAI Project No.: 11512</b>				
Sample location:	Shiloh Rd 19+50, 30' Rt	Shiloh Rd 30+00, 30' Lt	Shiloh 40+00, 50' Rt	Shiloh Rd 48+00, 50' Rt
Sample depth:	1' - 5'	2' - 6'	1' - 3'	1' - 4'
Lab No.:	4679	4681	4683	4685
Date sampled:	11/7/2013	11/7/2013	11/7/2013	11/4/2013
Date tested:	12/4/2013	12/4/2013	12/6/2013	12/11/2013
Soil description:	Tan/grey sand	Red/light grey clayey sand	Tan/brown silty sand	Brown/grey silty sand
% Passing No. 10:	100.0	100.0	100.0	100.0
% Passing No. 20:	98.8	99.2	99.0	97.6
% Passing No. 40:	93.2	96.4	94.7	90.9
% Passing No. 60:	78.8	88.5	85.2	79.6
% Passing No. 100:	39.7	58.5	59.1	53.2
% Passing No. 200:	13.6	34.3	37.7	35.9
% Clay:	9.0	25.4	31.6	22.2
D <sub>75</sub> (mm)	0.238	0.199	0.205	0.229
Total volume change:	8.2	1.6	3.2	13.4
% Swell:	7.2	0.4	1.2	11.9
% Shrinkage:	1.0	1.2	2.0	1.5
Max. Dry Density (pcf):	109.6	120.1	115.8	117.7
% Optimal Moisture:	9.3	10.1	12.5	11.7
Liquid Limit:	NP	27	25	22
Plastic Limit:	NP	19	18	17
Plasticity Index:	NP	8	7	5
Erosion index	8.53	5.95	5.58	7.42
CBR				
Resistivity				
In-situ Moist Content, %	13.5	18.3	11.7	12.9
Ph				
Organic				
<b>GDOT Class:</b>	<b>IA3</b>	<b>IIB2</b>	<b>IIB3</b>	<b>IIB2</b>

Remarks: GDOT Methods GDT-4, GDT-5, GDT-67

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## Summary of Soil Laboratory Tests

<b>Project Name: Widening of I-75 from SR7 to SR122, Lowndes County</b> <b>GDOT Project No.: NHS00-0000-00(762)</b> <b>GDOT P.I. No.: 0000762</b> <b>MAAI Project No.: 11512</b>				
Sample location:	Shiloh Rd 60+00, 30' Lt	Shiloh Rd 66+00, 30' Rt	Golden Oaks Dr. 12+00, 20' Rt	Amber Dr. 11+50, 20' Rt
Sample depth:	1' - 6'	1' - 4'	4' - 8'	2' - 5'
Lab No.:	4688	4690	4691	4693
Date sampled:	11/7/2013	11/4/2013	11/7/2013	11/8/2013
Date tested:	12/11/2013	11/28/2013	11/28/2013	12/8/2013
Soil description:	Brown sandy silt with clay	Brown/tan silty sand	Grey/red clay	Light brown/tan silty sand
% Passing No. 10:	100.0	100.0	100.0	100.0
% Passing No. 20:	98.2	98.2	99.8	99.0
% Passing No. 40:	93.6	91.0	98.4	94.8
% Passing No. 60:	86.3	78.1	95.3	84.9
% Passing No. 100:	71.5	54.2	84.9	57.4
% Passing No. 200:	54.7	31.5	69.7	29.1
% Clay:	46.3	21.1	56.0	19.1
D <sub>5</sub> (mm)	0.169	0.234	0.096	0.208
Total volume change:	5.6	8.8	15.9	8.9
% Swell:	1.0	7.4	9.9	7.7
% Shrinkage:	4.6	1.4	6.0	1.2
Max. Dry Density (pcf):	106.0	122.0	101.9	122.8
% Optimal Moisture:	16.0	10.0	18.3	9.8
Liquid Limit:	39	29	37	NP
Plastic Limit:	34	18	25	NP
Plasticity Index:	5	11	12	NP
Erosion index	3.49	6.32	1.64	7.79
CBR				
Resistivity				
In-situ Moist Content, %	15.8	10.6	20.3	9.6
Ph				
Organic				
<b>GDOT Class:</b>	<b>IIB3</b>	<b>IIB2</b>	<b>IIB4</b>	<b>IIB1</b>

Remarks: GDOT Methods GDT-4, GDT-6, GDT-67

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## Summary of Soil Laboratory Tests

<b>Project Name: Widening of I-75 from SR7 to SR122, Lowndes County</b> <b>GDOT Project No.: NHS00-0000-00(762)</b> <b>GDOT P.I. No.: 0000762</b> <b>MAAI Project No.: 11512</b>					
Sample location:	Ramp A 20+00, 10' Rt	Ramp A 30+00, BL	Ramp A 43+50, BL	Ramp B 54+00, BL	Ramp B 60+00, BL
Sample depth:	2' - 5'	1' - 5'	1' - 3'	5' - 10'	1' - 5'
Lab No.:	4695	4697	4700	4703	4705
Date sampled:	11/8/2013	11/7/2013	11/7/2013	11/4/2013	11/10/2013
Date tested:	12/4/2013	12/9/2013	12/17/2013	11/29/2013	11/29/2013
Soil description:	Grey clayey sand	Tan clayey sand	Grey clayey sand	Red/tan clayey sand	Brown/grey sandy silt
% Passing No. 10:	100.0	100.0	100.0	100.0	100.0
% Passing No. 20:	96.4	97.2	98.7	96.9	96.4
% Passing No. 40:	84.2	86.3	92.7	85.3	87.3
% Passing No. 60:	68.9	71.5	81.6	79.4	74.1
% Passing No. 100:	48.7	49.2	58.5	55.3	54.4
% Passing No. 200:	31.5	29.5	38.4	40.9	34.7
% Clay:	19.4	17.3	25.5	22.5	28.5
D <sub>50</sub> (mm)	0.309	0.283	0.216	0.228	0.259
Total volume change:	4.7	6.4	6.7	8.2	8.3
% Swell:	3.5	5.2	4.7	4.0	3.8
% Shrinkage:	1.2	1.2	2.0	4.2	4.5
Max. Dry Density (pcf):	124.4	124.2	120.4	115.3	117.3
% Optimal Moisture:	9.2	9.3	10.0	8.5	8.7
Liquid Limit:	18	NP			19
Plastic Limit:	16	NP			15
Plasticity Index:	2	NP			4
Erosion index	6.32	6.57	5.46	7.42	6.69
CBR					
Resistivity					
In-situ Moist Content, %	11.8	10.3	8.9		9.8
Ph					
Organic					
<b>GDOT Class:</b>	<b>IIB2</b>	<b>IIB1</b>	<b>IIB2</b>	<b>IIB2</b>	<b>IIB2</b>

Remarks: GDOT Methods GDT-4, GDT-6, GDT-67

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**Summary of Soil Laboratory Tests**

<b>Project Name: Widening of I-75 from SR7 to SR122, Lowndes County</b> <b>GDOT Project No.: NHS00-0000-00(762)</b> <b>GDOT P.I. No.: 0000762</b> <b>MAAI Project No.: 11512</b>				
Sample location:	Ramp B 70+00, 10' Rt	Access Rd 8+50, CL	Main St. 35+00, 20' Lt	Main St. 40+00, 30' Rt
Sample depth:	1' - 5'	1' - 5'	1' - 5'	1' - 4'
Lab No.:	4707	4710	4711	4712
Date sampled:	11/10/2013	11/9/2013	11/7/2013	11/9/2013
Date tested:	11/29/2013	11/28/2013	11/17/2013	11/20/2013
Soil description:	Pink/white sandy silt	Brown micaceous sandy silt	Dark grey sand	Grey sand
% Passing No. 10:	100.0	100.0	100.0	100.0
% Passing No. 20:	98.8	97.8	95.0	92.5
% Passing No. 40:	93.5	93.0	79.5	75.2
% Passing No. 60:	86.3	83.9	61.2	57.5
% Passing No. 100:	70.2	65.4	38.4	35.0
% Passing No. 200:	52.0	43.9	18.5	18.6
% Clay:	43.8	35.4	9.7	10.9
D <sub>50</sub> (mm)	0.175	0.196	0.373	0.422
Total volume change:	3.7	9.4	1.8	5.8
% Swell:	1.2	4.9	0.7	3.9
% Shrinkage:	2.5	4.5	1.1	1.9
Max. Dry Density (pcf):	106.4	106.7	120.2	114.6
% Optimal Moisture:	16.4	14.0	8.5	8.9
Liquid Limit:	28		NP	NP
Plastic Limit:	22		NP	NP
Plasticity Index:	6		NP	NP
Erosion index	3.73	4.84	7.92	8.90
CBR				
Resistivity				
In-situ Moist Content, %	21.4	16.6	9.6	7.8
Ph				
Organic				
<b>GDOT Class:</b>	<b>IIB3</b>	<b>IIB3</b>	<b>IA1</b>	<b>IA2</b>

Remarks: GDOT Methods GDT-4, GDT-6, GDT-67

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## Summary of Soil Laboratory Tests

	Main St. 45+00, 30' Rt 1' - 5'	Main St. 53+00, 30' Rt 1' - 5'	Main St. 63+00, 20' Rt 1' - 4'	Relocated Morven St. 40+00, BL 2' - 5'	Relocated Morven St. 50+00, BL 1' - 4'
<b>Project Name:</b>	<b>Widening of I-75 from SR7 to SR122, Lowndes County</b>				
<b>GDOT Project No.:</b>	<b>NHS00-0000-00(762)</b>				
<b>GDOT P.I. No.:</b>	<b>0000762</b>				
<b>MAAI Project No.:</b>	<b>11512</b>				
Sample location:	Dark grey sand				
Sample depth:	1' - 5'				
Lab No.:	4713	4714	4716	4718	4720
Date sampled:	11/9/2013	11/8/2013	11/8/2013	11/8/2013	11/8/2013
Date tested:	11/21/2013	11/21/2013	12/17/2013	11/26/2013	11/29/2013
Soil description:	Dark grey sand				
% Passing No. 10:	100.0	100.0	100.0	100.0	100.0
% Passing No. 20:	97.2	96.2	97.0	94.3	95.8
% Passing No. 40:	86.0	82.0	83.5	80.5	79.6
% Passing No. 60:	68.9	64.0	65.7	64.0	65.1
% Passing No. 100:	42.9	41.4	40.3	38.6	36.9
% Passing No. 200:	16.8	24.7	16.9	19.9	20.1
% Clay:	6.2	15.9	5.1	11.2	13.6
D <sub>75</sub> (mm)	0.302	0.346	0.330	0.356	0.359
Total volume change:	4.8	5.6	2.5	4.0	4.5
% Swell:	3.6	3.7	2.3	3.3	2.9
% Shrinkage:	1.2	1.9	0.2	0.7	1.6
Max. Dry Density (pcf):	115.3	115.0	116.6	119.2	117.9
% Optimal Moisture:	8.8	8.9	8.7	8.6	8.5
Liquid Limit:	NP	NP	NP	NP	NP
Plastic Limit:	NP	NP	NP	NP	NP
Plasticity Index:	NP	NP	NP	NP	NP
Erosion index	8.16	7.18	8.16	8.80	8.53
CBR					
Resistivity					
In-situ Moist Content, %	9.8	4.8	6.7	12.8	6.6
Ph					
Organic					
<b>GDOT Class:</b>	<b>IA2</b>	<b>IA2</b>	<b>IA2</b>	<b>IA1</b>	<b>IA2</b>

Remarks: GDOT Methods GDT-4, GDT-6, GDT-67

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## Summary of Soil Laboratory Tests

<b>Project Name: Widening of I-75 from SR7 to SR122, Lowndes County</b> <b>GDOT Project No.: NHS00-0000-00(762)</b> <b>GDOT P.I. No.: 0000762</b> <b>MAAI Project No.: 11512</b>				
Sample location:	Relocated Morven Rd 60+00, BL	Relocated Morven Rd 69+00, BL	Ramp CC 45+00, BL	Ramp CC 55+00, 10' Lt
Sample depth:	1' - 5'	1' - 6'	2' - 5'	1' - 5'
Lab No.:	4722	4724	4726	4728
Date sampled:	11/8/2013	11/9/2013	11/9/2013	11/11/2013
Date tested:	12/3/2013	12/4/2013	12/6/2013	12/6/2013
Soil description:	Tan sand	Grey/tan clayey sand	Tan sand	Tan sand
% Passing No. 10:	100.0	100.0	100.0	100.0
% Passing No. 20:	96.3	89.1	95.9	94.4
% Passing No. 40:	84.1	69.0	82.5	77.4
% Passing No. 60:	67.7	52.8	65.4	59.3
% Passing No. 100:	44.9	36.8	40.4	33.7
% Passing No. 200:	24.3	23.9	17.7	14.7
% Clay:	15.3	18.4	9.1	6.6
D <sub>75</sub> (mm)	0.317	0.523	0.337	0.396
Total volume change:	4.2	8.9	7.1	5.5
% Swell:	3.5	7.2	6.4	4.6
% Shrinkage:	0.7	1.7	0.7	0.9
Max. Dry Density (pcf):	120.5	122.5	119.0	117.8
% Optimal Moisture:	10.0	9.5	8.7	8.7
Liquid Limit:	NP	NP	NP	NP
Plastic Limit:	NP	NP	NP	NP
Plasticity Index:	NP	NP	NP	NP
Erosion index	7.18	7.30	8.06	9.39
CBR				
Resistivity				
In-situ Moist Content, %	16.8	8.7	11.9	4.7
Ph				
Organic				
<b>GDOT Class:</b>	<b>IA2</b>	<b>IIB1</b>	<b>IA2</b>	<b>IA1</b>

Remarks: GDOT Methods GDT-4, GDT-6, GDT-67

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**Moreland Altobelli Associates, Inc.**

**Summary of Soil Laboratory Tests**

<b>Project Name: Widening of I-75 from SR7 to SR122, Lowndes County</b> <b>GDOT Project No.: NHS00-0000-00(762)</b> <b>GDOT P.I. No.: 0000762</b> <b>MAAI Project No.: 11512</b>				
Sample location:	Ramp DD 62+00, BL	Ramp DD 72+00, BL	Ramp DD 82+00, BL	Ramp DD 92+00, BL
Sample depth:	1' - 5'	1' - 5'	1' - 5'	1' - 5'
Lab No.:	4730	4732	4734	4736
Date sampled:	11/12/2013	11/12/2013	11/12/2013	11/12/2013
Date tested:	12/10/2013	12/9/2013	12/10/2013	12/12/2013
Soil description:	Dark grey sand	Tan/red sand	Dark grey silty sand	Red clayey sand
% Passing No. 10:	100.0	100.0	100.0	100.0
% Passing No. 20:	97.6	86.1	92.9	94.1
% Passing No. 40:	85.3	62.7	78.9	78.9
% Passing No. 60:	65.9	42.8	62.7	60.1
% Passing No. 100:	38.3	28.3	40.5	39.9
% Passing No. 200:	16.5	20.0	26.1	34.4
% Clay:	5.8	15.4	19.4	20.0
D <sub>5</sub> (mm)	0.321	0.612	0.374	0.381
Total volume change:	2.4	1.0	6.5	4.4
% Swell:	0.9	0.2	5.3	3.2
% Shrinkage:	1.5	0.8	1.2	1.2
Max. Dry Density (pcf):	119.8	112.5	123.8	122.8
% Optimal Moisture:	10.9	12.4	9.1	9.4
Liquid Limit:	NP	NP	NP	NP
Plastic Limit:	NP	NP	NP	NP
Plasticity Index:	NP	NP	NP	NP
Erosion index	8.16	7.67	6.93	7.67
CBR				
Resistivity				
In-situ Moist Content, %	10.6	10.7	11.9	12.5
Ph				
Organic				
<b>GDOT Class:</b>	<b>IA2</b>	<b>IA2</b>	<b>IIB1</b>	<b>IIB2</b>

Remarks: GDOT Methods GDT-4, GDT-6, GDT-67

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**Summary of Soil Laboratory Tests**

**Widening of I-75 from SR7 to SR122, Lowndes County**

**Project Name:** Widening of I-75 from SR7 to SR122, Lowndes County

**GDOT Project No.:** NHS00-0000-00(762)

**GDOT P.I. No.:** 0000762

**MAAI Project No.:** 11512

Sample location:	Ramp DD 96+00, BL	Ramp AA 40+00, BL	Ramp BB 52+00, 10' Lt	Ramp BB 62+00, BL	Ramp BB 70+00, BL
Sample depth:	1' - 5'	1' - 5'	1' - 5'	1' - 5'	1' - 5'
Lab No.:	4737	4740	4742	4744	4746
Date sampled:	11/12/2013	11/13/2013	11/13/2013	11/13/2013	11/13/2013
Date tested:	12/18/2013	12/10/2013	12/10/2013	12/12/2013	12/12/2013
Soil description:	Red clayey sand	Grey clayey sand	Tan clayey sand	Tan/gloden sand	Grey sand
% Passing No. 10:	100.0	100.0	100.0	100.0	100.0
% Passing No. 20:	93.5	97.0	92.9	94.3	98.4
% Passing No. 40:	79.3	81.4	76.0	78.0	80.6
% Passing No. 60:	61.9	61.8	56.0	58.8	61.1
% Passing No. 100:	40.5	41.4	34.8	36.2	35.2
% Passing No. 200:	25.2	26.7	22.5	18.5	20.3
% Clay:	18.1	20.6	16.3	9.6	13.1
D <sub>50</sub> (mm)	0.373	0.357	0.414	0.391	0.365
Total volume change:	4.4	5.0	1.9	5.0	5.2
% Swell:	3.2	3.6	0.6	4.7	3.9
% Shrinkage:	1.2	1.4	1.3	0.3	1.3
Max. Dry Density (pcf):	122.8	118.8	119.5	122.0	119.6
% Optimal Moisture:	9.4	10.6	10.3	9.6	9.2
Liquid Limit:		21.0		NP	NP
Plastic Limit:		18.0		NP	NP
Plasticity Index:		3		NP	NP
Erosion index	7.06	6.93	7.42	9.02	8.53
CBR					
Resistivity					
In-situ Moist Content, %	8.8	12.5	10.6	7.8	7.7
Ph					
Organic					
<b>GDOT Class:</b>	<b>IIB1</b>	<b>IIB2</b>	<b>IIB2</b>	<b>IA1</b>	<b>IA2</b>

Remarks: GDOT Methods GDT-4, GDT-6, GDT-67

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## Summary of Soil Laboratory Tests

<b>Widening of I-75 from SR7 to SR122, Lowndes County</b>					
<b>Project Name:</b>					
<b>GDOT Project No.:</b> NHS00-0000-00(762)					
<b>GDOT P.I. No.:</b> 0000762					
<b>MAAI Project No.:</b> 11512					
<b>Sample location:</b>	Ramp BB 80+00, BL	Reloc. Union Rd. 33+00, BL	Reloc. Union Rd. 43+00, BL	Reloc. Union Rd. 58+00, BL	Union Rd. Tie-in
<b>Sample depth:</b>	1' - 5'	1' - 5'	1' - 5'	1' - 5'	1' - 5'
<b>Lab No.:</b>	4748	4750	4752	4755	4756
<b>Date sampled:</b>	11/14/2013	11/14/2013	11/13/2013	11/15/2013	11/15/2013
<b>Date tested:</b>	12/12/2013	12/16/2013	12/16/2013	12/18/2013	12/16/2013
<b>Soil description:</b>	Light grey/tan sand	Black/grey sand	Black/tan sand	Tan sand	Dark grey sand
<b>% Passing No. 10:</b>	100.0	100.0	100.0	100.0	100.0
<b>% Passing No. 20:</b>	94.6	95.1	95.8	95.8	96.2
<b>% Passing No. 40:</b>	85.4	81.2	81.9	81.9	83.0
<b>% Passing No. 60:</b>	54.3	62.6	62.8	62.8	65.8
<b>% Passing No. 100:</b>	340.5	37.6	37.0	37.0	41.2
<b>% Passing No. 200:</b>	19.8	19.0	23.3	23.3	23.7
<b>% Clay:</b>	12.6	11.3	4.8	4.8	11.6
<b>D<sub>75</sub> (mm)</b>	0.352	0.356	0.351	0.351	0.332
<b>Total volume change:</b>	4.1	2.7	5.6	5.6	5.7
<b>% Swell:</b>	2.2	1.2	4.9	4.9	4.5
<b>% Shrinkage:</b>	1.9	1.5	0.7	0.7	1.2
<b>Max. Dry Density (pcf):</b>	118.9	114.9	119.5	119.5	115.3
<b>% Optimal Moisture:</b>	8.5	8.8	8.6	8.6	8.8
<b>Liquid Limit:</b>	NP	NP	NP	NP	NP
<b>Plastic Limit:</b>	NP	NP	NP	NP	NP
<b>Plasticity index:</b>	NP	NP	NP	NP	NP
<b>Erosion index</b>	9.65	7.79	7.30	7.30	8.80
<b>CBR</b>					
<b>Resistivity</b>					
<b>In-situ Moist Content, %</b>	6.6	22.4	17.5	17.5	11.5
<b>Ph</b>					
<b>Organic</b>					
<b>GDOT Class:</b>	<b>IA2</b>	<b>IA2</b>	<b>IA1</b>	<b>IA1</b>	<b>IA2</b>

Remarks: GDOT Methods GDT-4, GDT-6, GDT-67

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