ARKANSAS DEPARTMENT OF TRANSPORTATION

SUBSURFACE INVESTIGATION

STATE JOB NO. 100950

FEDERAL AID PROJECT NO. HSIP-0016(67)

HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)

STATE HIGHWAY 158 & 163 **SECTION** 5 & 5

IN CRAIGHEAD **COUNTY**

The information contained herein was obtained by the Department for design and estimating purposes only. It is being furnished with the express understanding that said information does not constitute a part of the Proposal or Contract and represents only the best knowledge of the Department as to the location, character and depth of the materials encountered. The information is only included and made available so that bidders may have access to subsurface information obtained by the Department and is not intended to be a substitute for personal investigation, interpretation and judgment of the bidder. The bidder should be cognizant of the possibility that conditions affecting the cost and/or quantities of work to be performed may differ from those indicated herein.

ARKANSAS DEPARTMENT OF TRANSPORTATION

February 20, 2018

TO: Mr. Trinity Smith, Engineer of Roadway Design

SUBJECT: Job No. 100950
Hwy. 158/Hwy. 163 Inters. Safety Impvts. (S)
Routes 163 & 158 Sections 5 & 5
Craighead County

The Geotechnical section has reviewed the proposed cross-sections and offers the following recommendations.

The proposed 3:1 cut slopes are acceptable as shown.

The maximum embankment height is approximately 7 feet. The embankment will extend into ditches beside the road, which based on seasonal conditions may contain water. It is recommended that an "as directed" quantity of 400 cubic yards of Unclassified Excavation and Compacted Embankment be added to the plans for undercut. Locally available unspecified material may be used for backfill and embankment construction. The proposed 3:1 slope configurations are acceptable as shown.

Michael C. Benson
Materials Engineer

MCB:pt:bjj
cc: G. C. File

ARKANSAS DEPARTMENT OF TRANSPORTATION

July 6, 2017

TO: Mr. Trinity Smith, Engineer of Roadway Design

SUBJECT: Job No. 100950
Hwy. 158/Hwy. 163 Inters. Safety Impvts. (S)
Routes 163 & 158 Sections 5 & 5
Craighead County

Transmitted herewith is the requested Soil Survey, strength data and Resilient Modulus test results for the above referenced job. The project consists of constructing a roundabout at the intersection of Highway 158 and Highway 163. Samples were obtained in the existing travel lanes and ditch line. There were no paved shoulders within the project limits.

Based on laboratory results of samples obtained, the subgrade soils consist primarily of moderately plasticity sandy clay. Isolated locations of highly plastic clay were encountered within the project limits. Cross sections are not currently available, but it is assumed the construction grade line will closely match that of the existing roadway. The subgrade soils are expected to provide a stable working platform with conventional processing, if the weather is favorable during construction. If embankment is to be placed in the existing ditch line, all soft unstable organic material should be undercut (anticipated to be no more than 2 feet) prior to construction.

Additional earthwork recommendations will be made upon request when plans are further developed and cross sections are available.

Listed below is the additional information requested for use in developing the plans:

1. The Qualified Products List (QPL) indicates that Aggregate Base Course (Class CL-7) is available from commercial producers located in the vicinity Powhatan.

2. Asphalt Concrete Hot Mix

Type	Asphalt Cement %	Mineral Aggregate %
Surface Course	5.2	94.8
Binder Course	4.1	95.9
Base Course	3.9	96.1

Michael C. Benson
Materials Engineer

MCB:pt:bjj
Attachment
cc: State Constr. Eng. – Master File Copy
District 10 Engineer
System Information and Research Div.
G. C. File

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY STRENGTH TEST REPORT ***

DATE - 06/15/2017
JOB NUMBER - 100950

SEQUENCE NO. - 1
MATERIAL CODE - SSRV
SPEC. YEAR - 2014
SUPPLIER ID. - 1
COUNTY/STATE - 16
DISTRICT NO. - 10

JOB NAME - HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)

STATION LIMITS	R-VALUE AT 240 psi
BEGIN JOB - END JOB	LESS THAN 5
RESILIENT MODULUS STA. 050+00	5619

REMARKS -
-

AASHTO TESTS : T190

JOB: 100950

JOB NAME: HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)

COUNTY NO. 16 **DATE TESTED** 6/6/2017

Arkansas State Highway Transporation Department

Materials Division

Michael Benson, Materials Engineer

STA.#	LOC.	DEPTH	COLOR	#4	#10	#40	#80	#200	L.L.	P.I.	SOIL CLASS	LAB #:	%MOISTURE
				S	I	E	V	E S					
050+00	20 RT	0-5	BROWN	100				93	38	19	A-6(18)	RV399	
050+00	06 RT	0-5	BROWN	90	87	80	75	72	32	16	A-6(9)	S391	38
050+00	18 RT	0-5	BROWN	94	89	84	80	75	43	25	A-7-6(18)	S392	37.5
055+00	06 LT	0-5	BR/GR	82	71	64	61	57	30	13	A-6(5)	S393	37.5
055+00	18 LT	0-5	BROWN	97	93	83	77	75	34	15	A-6(10)	S394	36.7
108+00	06 RT	0-5	BR/GR	97	96	94	88	86	40	25	A-6(21)	S395	36.8
108+00	18 RT	0-5	BR/GR	99	99	96	84	79	32	16	A-6(11)	S396	36.8
115+00	06 LT	0-5	BROWN	96	94	91	88	85	34	17	A-6(13)	S397	38.4
115+00	18 LT	0-5	BROWN	100				94	36	15	A-6(15)	S398	37.5

comments:

Monday, June 19, 2017

JOB: 100950

JOB NAME: HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)

COUNTY NO. 16

Arkansas State Highway Transporation Department

Materials Division

Michael Benson, Materials Engineer

DATE TESTED

6/6/2017

PAVEMENT SOUNDINGS

STA.#	LOC.				
050+00	06 RT	ACHMSC	SAND ASPHALT	ASPHALT TREATED BA	AGG BASE CRS CL-7
		2.5	**2.0**	**1.0**	**7.0**
050+00	18 RT	ACHMSC	SAND ASPHALT	ASPHALT TREATED BA	AGG BASE CRS CL-7
		---	---	---	---
055+00	06 LT	ACHMSC	SAND ASPHALT	ASPHALT TREATED BA	AGG BASE CRS CL-7
		3.0	**3.0**	---	**7.0**
055+00	18 LT	ACHMSC	SAND ASPHALT	ASPHALT TREATED BA	AGG BASE CRS CL-7
		---	---	---	---
108+00	06 RT	ACHMSC	SAND ASPHALT	ASPHALT TREATED BA	AGG BASE CRS CL-7
		4.0XW	---	---	**6.0**
108+00	18 RT	ACHMSC	SAND ASPHALT	ASPHALT TREATED BA	AGG BASE CRS CL-7
		---	---	---	---
115+00	06 LT	ACHMSC	SAND ASPHALT	ASPHALT TREATED BA	AGG BASE CRS CL-7
		2.5	---	---	**5.0**
115+00	18 LT	ACHMSC	SAND ASPHALT	ASPHALT TREATED BA	AGG BASE CRS CL-7
		---	---	---	---

comments:

Monday, June 19, 2017

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No.	100950	**Material Code**	SSRVPS
Date Sampled:	5/17/17	**Station No.:**	050+00
Date Tested:	June 13, 2017	**Location:**	20RT
Name of Project:	HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)		
County:	**Code:** 16 **Name:** CRAIGHEAD		
Sampled By:	THORNTON/TAYLOR	**Depth:**	0-5
Lab No.:	20171670	**AASHTO Class:**	A-6(18)
Sample ID:	RV399	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

1. Testing Information:

Preconditioning - Permanent Strain > 5% (Y=Yes or N= No)	N
Testing - Permanent Strain > 5% (Y=Yes or N=No)	N
Number of Load Sequences Completed (0-15)	15

2. Specimen Information:

Specimen Diameter (in):	
Top	3.95
Middle	3.95
Bottom	3.94
Average	3.95
Membrane Thickness (in):	0.01
Height of Specimen, Cap and Base (in):	8.02
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8.02
Initial Area, Ao (sq. in):	12.16
Initial Volume, AoLo (cu. in):	97.52

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3064.10

4. Soil Properties:

Optimum Moisture Content (%):	18.2
Maximum Dry Density (pcf):	102.8
95% of MDD (pcf):	97.7
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3064.10
Compaction Moisture content (%):	18.2
Compaction Wet Density (pcf):	119.72
Compaction Dry Density (pcf):	101.29
Moisture Content After Mr Test (%):	18.5

6. Quick Shear Test (Y=Yes, N=No, N/A=Not Applicable): #VALUE!

7. Resilient Modulus, Mr: 10045(Sc)^-0.33772(S3)^0.22727

8. Comments _____

9. Tested By: GW **Date:** June 13, 2017

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No.	100950	**Material Code**	SSRVPS
Date Sampled:	5/17/17	**Station No.:**	050+00
Date Tested:	June 13, 2017	**Location:**	20RT
Name of Project:	HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)		
County:	**Code:** 16 **Name:** CRAIGHEAD		
Sampled By:	THORNTON/TAYLOR	**Depth:**	0-5
Lab No.:	20171670	**AASHTO Class:**	A-6(18)
Sample ID:	RV399	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

PARAMETER	*Chamber Confining Pressure*	*Nominal Maximum Axial Stress*	*Actual Applied Max. Axial Load*	*Actual Applied Cyclic Load*	*Actual Applied Contact Load*	*Actual Applied Max. Axial Stress*	*Actual Applied Cyclic Stress*	*Actual Applied Contact Stress*	*Average Recov Def. LVDT 1 and 2*	*Resilient Strain*	*Resilient Modulus*
DESIGNATION	S_3	S_{cyclic}	P_{max}	P_{cyclic}	$P_{contact}$	S_{max}	S_{cyclic}	$S_{contact}$	H_{avg}	ε_r	M_r
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	25.3	22.6	2.7	2.1	1.9	0.2	0.00125	0.00016	11,863
Sequence 2	6.0	4.0	47.5	44.8	2.7	3.9	3.7	0.2	0.00275	0.00034	10,750
Sequence 3	6.0	6.0	70.0	66.4	3.6	5.8	5.5	0.3	0.00476	0.00059	9,198
Sequence 4	6.0	8.0	92.6	86.6	6.0	7.6	7.1	0.5	0.00744	0.00093	7,678
Sequence 5	6.0	10.0	114.5	106.0	8.4	9.4	8.7	0.7	0.01041	0.00130	6,721
Sequence 6	4.0	2.0	25.3	22.5	2.7	2.1	1.9	0.2	0.00142	0.00018	10,501
Sequence 7	4.0	4.0	47.1	44.3	2.7	3.9	3.6	0.2	0.00322	0.00040	9,079
Sequence 8	4.0	6.0	68.2	65.4	2.8	5.6	5.4	0.2	0.00547	0.00068	7,886
Sequence 9	4.0	8.0	91.0	85.9	5.1	7.5	7.1	0.4	0.00808	0.00101	7,012
Sequence 10	4.0	10.0	113.4	105.8	7.5	9.3	8.7	0.6	0.01102	0.00137	6,337
Sequence 11	2.0	2.0	25.1	22.4	2.8	2.1	1.8	0.2	0.00159	0.00020	9,278
Sequence 12	2.0	4.0	46.7	44.0	2.7	3.8	3.6	0.2	0.00364	0.00045	7,956
Sequence 13	2.0	6.0	67.3	64.5	2.8	5.5	5.3	0.2	0.00618	0.00077	6,892
Sequence 14	2.0	8.0	88.7	84.4	4.3	7.3	6.9	0.4	0.00907	0.00113	6,140
Sequence 15	2.0	10.0	110.8	104.1	6.7	9.1	8.6	0.6	0.01222	0.00152	5,619

TESTED BY GW DATE June 13, 2017

REVIEWED BY _____ DATE _____

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS

RECOMPACTED / THINWALL TUBE SAMPLES

Job No.	100950	**Material Code**	SSRVPS
Date Sampled:	5/17/17	**Station No.:**	050+00
Date Tested:	June 13, 2017	**Location:**	20RT
Name of Project:	HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)		
County:	**Code:** 16 **Name:** CRAIGHEAD		
Sampled By:	THORNTON/TAYLOR	**Depth:**	0-5
Lab No.:	20171670	**AASHTO Class:**	A-6(18)
Sample ID:	RV399	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

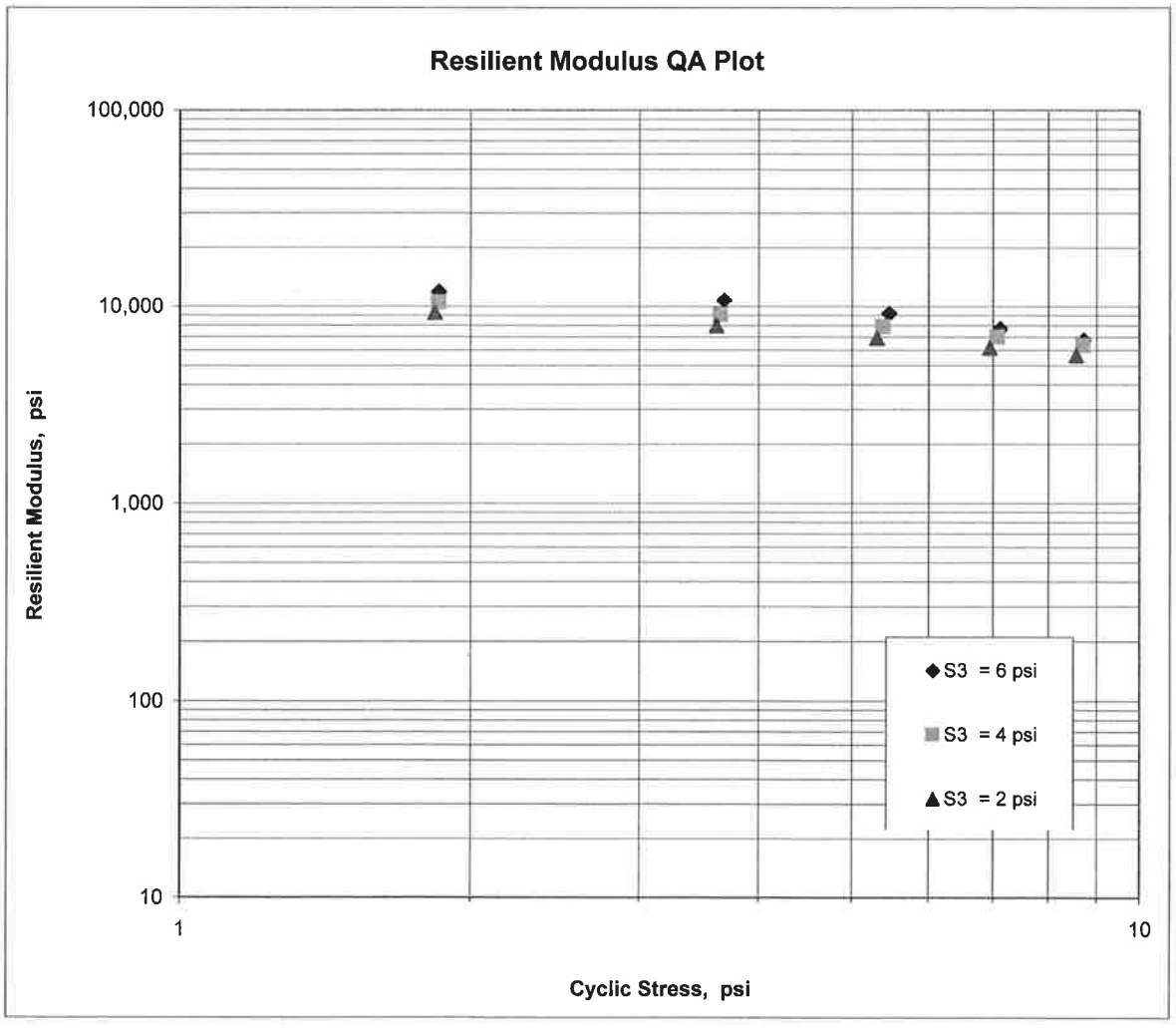
$$M_R = K1\ (S_C)^{K2}\ (S_3)^{K5}$$

K1 = 10,045

K2 = -0.33772

K5 = 0.22727

R^2 = 0.95



ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE	- 06/19/17	SEQUENCE NO.	- 1
JOB NUMBER	- 100950	MATERIAL CODE	- SSRVPS
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2014
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTY/STATE	- 16
SUPPLIER NAME	- STATE	DISTRICT NO.	- 10
NAME OF PROJECT	- HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- CRAIGHEAD COUNTY	DATE SAMPLED	- 05/17/17
SAMPLED BY	- THORNTON/TAYLOR	DATE RECEIVED	- 05/22/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 06/06/17

MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20171662	20171663	20171664
SAMPLE ID	S391	S392	S393
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	050+00	050+00	055+00
LOCATION	06 RT	18 RT	06 LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BR/GR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	35 44 53.40	35 44 53.40	35 44 58.20
LONGITUDE DEG-MIN-SEC	90 39 57.50	90 39 57.40	90 39 57.70
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			100
3/8 IN.	100	100	99
NO. 4	90	94	82
NO. 10	87	89	71
NO. 40	80	84	64
NO. 80	75	80	61
NO. 200	72	75	57
LIQUID LIMIT	32	43	30
PLASTICITY INDEX	16	25	13
AASHTO SOIL	A-6(9)	A-7-6(18)	A-6(5)
UNIFIED SOIL			
% MOISTURE CONTENT	38.0	37.5	37.5
ACHMSC (IN)	2.5	---	3.0
SAND ASPHALT (IN)	2.0	---	3.0
ASPHALT TREATED BASE (IN)	1.0	---	---
AGG BASE CRS CL-7 (IN)	7.0	---	7.0

REMARKS -

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 06/19/17
JOB NUMBER - 100950
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - CRAIGHEAD COUNTY
SAMPLED BY - THORNTON/TAYLOR
SAMPLE FROM - TEST HOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 2
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2014
SUPPLIER ID. - 1
COUNTY/STATE - 16
DISTRICT NO. - 10
DATE SAMPLED - 05/17/17
DATE RECEIVED - 05/22/17
DATE TESTED - 06/06/17

LAB NUMBER	20171665	20171666	20171667
SAMPLE ID	S394	S395	S396
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	055+00	108+00	108+00
LOCATION	18 LT	06 RT	18 RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BR/GR	BR/GR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	35 44 58.20	35 44 55.40	35 44 55.30
LONGITUDE DEG-MIN-SEC	90 39 57.70	90 40 2.40	90 40 2.40
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.	100		
3/8 IN.	99	100	100
NO. 4	97	97	99
NO. 10	93	96	99
NO. 40	83	94	96
NO. 80	77	88	84
NO. 200	75	86	79
LIQUID LIMIT	34	40	32
PLASTICITY INDEX	15	25	16
AASHTO SOIL	A-6(10)	A-6(21)	A-6(11)
UNIFIED SOIL			
% MOISTURE CONTENT	36.7	36.8	36.8
ACHMSC (IN)	---	4.0XW	---
SAND ASPHALT (IN)	---	---	---
ASPHALT TREATED BASE (IN)	---	---	---
AGG BASE CRS CL-7 (IN)	---	6.0	---

REMARKS - X=STRIPPED, W=MULTIPLE LAYERS

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE	- 06/19/17	SEQUENCE NO.	- 3
JOB NUMBER	- 100950	MATERIAL CODE	- SSRVPS
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2014
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTY/STATE	- 16
SUPPLIER NAME	- STATE	DISTRICT NO.	- 10

NAME OF PROJECT - HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS

LOCATION	- CRAIGHEAD COUNTY	DATE SAMPLED	- 05/17/17
SAMPLED BY	- THORNTON/TAYLOR	DATE RECEIVED	- 05/22/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 06/06/17

MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20171668	20171669
SAMPLE ID	S397	S398
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY
STATION	115+00	115+00
LOCATION	06 LT	18 LT
DEPTH IN FEET	0-5	0-5
MAT'L COLOR	BROWN	BROWN
MAT'L TYPE		
LATITUDE DEG-MIN-SEC	35 44 55.60	35 44 55.70
LONGITUDE DEG-MIN-SEC	90 39 54.00	90 39 54.00
% PASSING 2 IN.		
1 1/2 IN.		
3/4 IN.	100	
3/8 IN.	99	
NO. 4	96	100
NO. 10	94	
NO. 40	91	
NO. 80	88	
NO. 200	85	94
LIQUID LIMIT	34	36
PLASTICITY INDEX	17	15
AASHTO SOIL	A-6(13)	A-6(15)
UNIFIED SOIL		
% MOISTURE CONTENT	38.4	37.5
ACHMSC (IN)	2.5	---
SAND ASPHALT (IN)	---	---
ASPHALT TREATED BASE (IN)	---	---
AGG BASE CRS CL-7 (IN)	5.0	---

REMARKS -

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 06/06/17
JOB NUMBER - 100950
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 158/HWY. 163 INTERS. SAFETY IMPVTS. (S)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - CRAIGHEAD COUNTY
SAMPLED BY - THORNTON/TAYLOR
SAMPLE FROM - TEST HOLE
MATERIAL DESC. - SOIL SURVEY - RESISTANCE R-VALUE ACTUAL RESULTS

SEQUENCE NO. - 1
MATERIAL CODE - RV
SPEC. YEAR - 2014
SUPPLIER ID. - 1
COUNTY/STATE - 16
DISTRICT NO. - 10

DATE SAMPLED - 05/17/17
DATE RECEIVED - 05/22/17
DATE TESTED - 06/06/17

LAB NUMBER	20171670
SAMPLE ID	RV399
TEST STATUS	INFORMATION ONLY
STATION	050+00
LOCATION	20 RT
DEPTH IN FEET	0-5
MAT'L COLOR	BROWN
MAT'L TYPE	
LATITUDE DEG-MIN-SEC	35 44 53.40
LONGITUDE DEG-MIN-SEC	90 39 57.40
% PASSING 2 IN.	
1 1/2 IN.	
3/4 IN.	
3/8 IN.	
NO. 4	100
NO. 10	
NO. 40	
NO. 80	
NO. 200	93
LIQUID LIMIT	38
PLASTICITY INDEX	19
AASHTO SOIL	A-6(18)
UNIFIED SOIL	
% MOISTURE CONTENT	

REMARKS -

AASHTO TESTS : T24 T88 T89 T90 T265