ARKANSAS DEPARTMENT OF TRANSPORTATION



SUBSURFACE INVESTIGATION

IN		CROSS CO				
STATE HIGHWAY	1	SECTION	14			
CHERRY	VALLEY – PO	INSETT CO. LINE (PASSI	NG LANE) (S)			
FEDERAL AID PROJEC	T NO	NHPP-0019(48)				
STATE JOB NO.		110622				

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

ARDOT.gov | IDriveArkansas.com | Scott E. Bennett, P.E., Director

MATERIALS DIVISION

11301 West Baseline Road | P.O. Box 2261 | Little Rock, AR 72203-2261 | Phone: 501.569.2185 | Fax: 501.569.2368

April 2, 2018

TO:

Mr. Trinity Smith, Engineer of Roadway Design

SUBJECT:

Job No. 110622

Cherry Valley - Poinsett Co. Line (Passing Lanes)(S)

Route 1 Section 14

Cross County

Transmitted herewith is the requested Soil Survey, strength data and Resilient Modulus test results for the above referenced job. The project consists of adding a northbound passing lane. Samples were taken in the existing travel lane, shoulder, and ditch line.

Based on laboratory results of samples obtained, the subgrade soils consist primarily of low plasticity clayey sands. The subgrade soils are expected to provide a stable working platform with conventional processing if the weather is favorable during construction.

Based on currently available cross-sections the maximum embankment height is less than 5 feet. Prior to embankment construction the wet unstable organic material in the ditch line should be undercut, anticipated to be no more than 2 feet. The embankment may be constructed with locally available unspecified material utilizing the 4:1 slope configuration shown.

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 of Judsonia.

2. Asphalt Concrete Hot Mix

PG 64-22

Type	Asphalt Cement %	Mineral Aggregate %
Surface Course	5.3	94.7
Binder Course	4.3	95.7
Base Course	4.0	96.0

PG 70-22

PG	76-22	2
	10-21	_

Type	Asphalt Cement %	Mineral Aggregate %
Surface Course	5.3	94.7
Binder Course	4.3	95.7
Base Course	3.8	96.2

Michael C. Berson Materials Engineer

MCB:pt:bjj Attachment

State Constr. Eng. – Master File Copy District 1 Engineer System Information and Research Div.

G. C. File

MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY STRENGTH TEST REPORT ***

DATE = 03/20/2018 SEQUENCE NO. = 1

JOB NUMBER - 110622 MATERIAL CODE - SSRV

SPEC. YEAR - 2014

SUPPLIER ID. - 1

COUNTY/STATE - 19

DISTRICT NO. - 01

JOB NAME - CHERRY VALLEY-POINSETT CO.LINE (PASSING LANES)(S)

BEGIN JOB - END JOB 8

RESILIENT MODULUS

STA. 113 + 00 8233

REMARKS -

-

AASHTO TESTS : T190

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT MATERIALS DIVISION

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

Job No. Date Sampled: Date Tested: Name of Project:	110622 1/25/18 February 13, 2018 CHERRY VALLEY - POINSETT CO. LINE (PASSIN	Material Code Station No.: Location: NG LANES)(S)	SSRVPS 113+00 24'LT
County: Sampled By: Lab No.: Sample ID: LATITUDE:	Code: 19 Name: CROSS THORNTON 20180154 RV27	Depth: AASHTO Class: Material Type (1 or 2): LONGITUDE:	0-5 A-4 (3) 2
1. Testing Inforn	nation:		
	Preconditioning - Permanent Strain > 5% (Y=Ye Testing - Permanent Strain > 5% (Y=Yes or N=N Number of Load Sequences Completed (0-15)	•	N N 15
2. Specimen Info	ormation:		
3. Soil Specimer 4. Soil Propertie	Specimen Diameter (in): Top Middle Bottom Average Membrane Thickness (in): Height of Specimen, Cap and Base (in): Height of Cap and Base (in): Initial Length, Lo (in): Initial Area, Ao (sq. in): Initial Volume, AoLo (cu. in): Weight: Weight of Wet Soil Used (g): S: Optimum Moisture Content (%): Maximum Dry Density (pcf): 95% of MDD (pcf):		3.94 3.93 3.93 3.93 0.01 8.02 0.00 8.02 12.08 96.86 3212.60
	In-Situ Moisture Content (%):		N/A
5. Specimen Pro	perties: Wet Weight (g): Compaction Moisture content (%): Compaction Wet Density (pcf): Compaction Dry Density (pcf): Moisture Content After Mr Test (%):		3212.60 15.3 126.38 109.61 15.3
6. Quick Shear T	est (Y=Yes, N=No, N/A=Not Applicable):		#VALUE!
7. Resilient Mod	ulus, Mr:	8590(S	c)^-0.12546(S3)^0.30061
8. Comments			7
9. Tested By:	GW Dat	e: February 13, 2018	

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT MATERIALS DIVISION

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

SSRVPS 113+00 24'LT Material Code Station No.: Location: February 13, 2018 1/25/18 110622 Date Sampled: Date Tested: Job No.

CHERRY VALLEY - POINSETT CO. LINE (PASSING LANES)(S) Name: Code: 19 Name of Project:

Material Type (1 or 2): 2 **AASHTO Class:** Depth: THORNTON 20180154 RV27 Sampled By: Sample ID: Lab No.: County:

A-4 (3)

0-5

	LONGITUDE:	
•	LATITUDE:	

	Chamber	Nominal	Actual	Actual	Actual	Actual	Actual	Actual	Average	Resilient	Resilient
	Confining	Maximum	Applied	Applied	Applied	Applied	Applied	Applied	Recov Def.	Strain	Modulus
PARAMETER	Pressure	Axia/	_	Cyclic Load	Contact	Мах.	Cyclic	Contact	LVDT 1		
		Stress	Load		Poad	Axial	Stress	Stress	and 2		
						Stress					
DESIGNATION	Š	Scyclic	Р мах	P _{cyclic}	P _{contact}	S _{max}	S _{cyclic}	Scontact	Hava	ည်	Ā
UNIT	psi	psi	sql	lps	sql	psi	psi	psi	ŗ	in/in	psi
Sequence 1	6.0	2.0	25.0	22.2	2.8	2.1	1.8	0.2	0.00110	0.00014	13,475
Sequence 2	0.9	4.0	47.1	44.3	2.8	3.9	3.7	0.2	0.00229	0.00029	12,839
Sequence 3	0.9	6.0	8.69	66.2	3.6	5.8	5.5	0.3	0.00358	0.00045	12,282
Sequence 4	6.0	8.0	93.4	87.4	6.0	7.7	7.2	0.5	0.00504	0.00063	11,509
Sequence 5	0.9	10.0	117.2	108.7	8.4	9.7	9.0	0.7	0.00648	0.00081	11,144
Sequence 6	4.0	2.0	24.9	22.1	2.8	2.1	1.8	0.2	0.00122	0.00015	11,993
Sequence 7	4.0	4.0	46.6	43.7	2.9	3.9	3.6	0.2	0.00264	0.00033	10,987
Sequence 8	4.0	0.9	62.9	65.1	2.9	5.6	5.4	0.2	0.00422	0.00053	10,236
Sednence 9	4.0	8.0	91.5	86.4	5.1	7.6	7.2	0.4	0.00574	0.00072	966'6
Sequence 10	4.0	10.0	115.3	107.7	9.7	9.5	8.9	9.0	0.00729	0.00091	9,817
Sequence 11	2.0	2.0	24.7	21.9	2.8	2.0	1.8	0.2	0.00146	0.00018	9'956
Sequence 12	2.0	4.0	45.8	43.0	2.8	3.8	3.6	0.2	0.00317	0.00040	9,020
Sequence 13	2.0	0.9	9.99	63.8	2.8	5.5	5.3	0.2	0.00498	0.00062	8,503
Sequence 14	2.0	8.0	88.5	84.2	4.3	7.3	7.0	0.4	0.00673	0.00084	8,314
Sequence 15	2.0	10.0	111.7	105.1	6.7	9.3	8.7	9.0	0.00848	0.00106	8,233

February 13, 2018

DATE DATE

MD

REVIEWED BY

TESTED BY

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT MATERIALS DIVISION

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

Job No. 110622 Material Code SSRVPS

Date Sampled:1/25/18Station No.: 113+00Date Tested:February 13, 2018Location: 24'LT

Name of Project: CHERRY VALLEY - POINSETT CO. LINE (PASSING LANES)(S)

County: Code: 19 Name: CROSS

Sampled By:THORNTONDepth: 0-5Lab No.:20180154AASHTO Class: A-4 (3)Sample ID:RV27Material Type (1 or 2): 2LATITUDE:LONGITUDE:

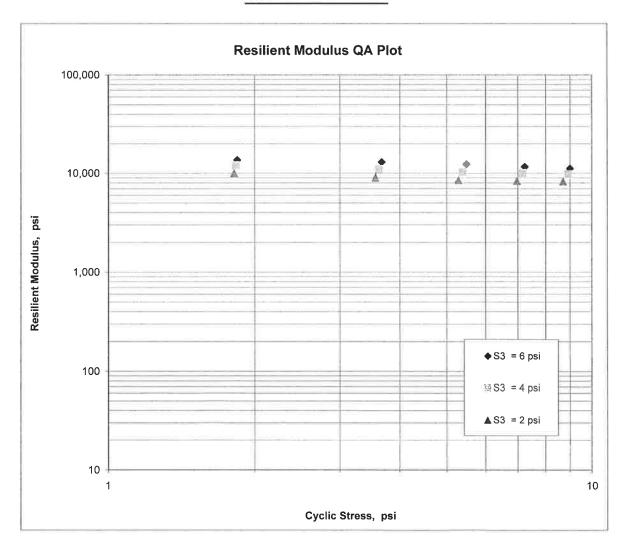
$$M_R = K1 (S_C)^{K2} (S_3)^{K5}$$

K1 = 8,590

K2 = -0.12546

K5 = 0.30061

 $R^2 = 0.99$



MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 03/ JOB NUMBER - 110 FEDERAL AID NO TO PURPOSE - SOI SPEC. REMARKS - NO SUPPLIER NAME - STA NAME OF PROJECT - C PROJECT ENGINEER - N PIT/QUARRY - ARKAN LOCATION - CROSS SAMPLED BY - THORNI SAMPLE FROM - TEST MATERIAL DESC SOI	622 BE ASSI L SURVE SPECIFI TE HERRY V OT APPL SAS , COUNT ON HOLE	Y SAMPLE CATION CHECK ALLEY-POINSETT CC ICABLE Y		IE (PASSING	MATERIAI SPEC. YE SUPPLIES COUNTY/S DISTRICT LANES)(DATE SAI DATE RE DATE TE	E NO 1 L CODE - SSRVPS EAR - 2014 R ID 1 STATE - 19 C NO 01 S) MPLED - 01/25/18 CEIVED - 01/25/18 STED - 03/20/18
LAB NUMBER	_	20180130	_	20180131	2	20180132
SAMPLE ID	_	S3		S4		S5
TEST STATUS	_		_	INFORMATIO		INFORMATION ONLY
STATION	-	105+00		105+00		105+00
LOCATION	-	06 RT	-	16 RT	<u> </u>	24 RT
DEPTH IN FEET	-	0-5	_	0 - 5	_	0-5
MAT'L COLOR	-	BROWN	-	GRAY	,	BROWN
MAT'L TYPE	-	25 25 0 20	-	35 65		25 25 0 20
LATITUDE DEG-MIN-		35 25 9.30 90 45 7.10	-	35 25 90 45	9.20	35 25 9.20 90 45 7.00
LONGITUDE DEG-MIN-	520	90 45 7.10		90 45	7.10	90 45 7.00
% PASSING 2	IN		= 3			
**	IN	100	-	100	/.m	
	IN IN	100 97	:	100 99	24	100
NO.		91	-	98	35	97
NO.		84	-	96	-	92
NO.		73	-	92	-	82
NO.	80 -	66	= 2	90	,	74
NO.	200 -	64		88		69
LIQUID LIMIT	_	27		29	<u>~</u>	26
PLASTICITY INDEX	_	10	120	11	-	07
AASHTO SOIL	-	A-4(4)	-	A-6(8)	-	A-4(3)
UNIFIED SOIL	-		*		5	
% MOISTURE CONTENT	-	23.6	-	25.0	-	27.5
ACHMSC	(IN) -	8.5W	-	1.25		
ACHMBC	(IN) -	2.0	:	4.0		8 55.5 55
AGG.BASE CRS CL-7	(IN) -		-	3.0		ಚಿನ್ನಡ
	_		-			- -
	-		-			-
	-		()		-	-
	_		-			<u>.</u>
	~		1771 1441			-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

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MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

JOB NUMBER - 110 FEDERAL AID NO TO PURPOSE - SOI SPEC. REMARKS - NO SUPPLIER NAME - STA NAME OF PROJECT - C PROJECT ENGINEER - N PIT/QUARRY - ARKAN	BE ASSIGNED L SURVEY SAMPLE SPECIFICATION OF THE CHERRY VALLEY-PO TOT APPLICABLE USAS TON HOLE	CHECK OINSETT CO.LIN	MAT SPE SUP COU DIS NE (PASSING LAN DAT DAT	C. YEAR PLIER II NTY/STAT TRICT NO NES)(S)	DDE - SSRVPS - 2014 D 1 FE - 19 D 01 ED - 01/25/18 VED - 01/25/18
LAB NUMBER SAMPLE ID TEST STATUS STATION LOCATION DEPTH IN FEET MAT'L COLOR MAT'L TYPE LATITUDE DEG-MIN-	- 113+00 - 06 LT - 0-5 - BROWN - SEC - 35	ATION ONLY	113+00 16 LT 0-5 BROWN 35 25 17.2	- S SILY - I - 1 - 2 - 0 - B - 0	INFORMATION ONLY 13+00 4 LT -5 ROWN 35 25 17.20
3/4 3/8 NO. NO. NO.	IN IN IN 100 IN 99	45 6.70	90 45 7.0 100 96 91 86 76 68 65	* * 5	90 45 7.10 100 99 94 90 88 87
LIQUID LIMIT PLASTICITY INDEX AASHTO SOIL UNIFIED SOIL % MOISTURE CONTENT ACHMSC ACHMSC AGG.BASE CRS CL-7	- 25 - 07 - A-4(4 - 20. (IN) - 2.0 (IN) - 4.0X (IN) - 8.0	9 -	25 09 A-4(3) 17.3 5.0 3.0		34 16 A-6(13) 24.2

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 03/ JOB NUMBER - 110 FEDERAL AID NO TO PURPOSE - SOI SPEC. REMARKS - NO SUPPLIER NAME - STA NAME OF PROJECT - C PROJECT ENGINEER - N PIT/QUARRY - ARKAN LOCATION - CROSS SAMPLED BY - THORNT	622 BE ASSIC L SURVEY SPECIFIC TE HERRY VA OT APPLE SAS , COUNTY	Y SAMPLE CATION CHECK ALLEY-POINSETT CO ICABLE	O.LII	NE (PASSING	MATERIAN SPEC. YN SUPPLIEN COUNTY/S DISTRICT LANES)(E NO 3 L CODE - SSRVPS EAR - 2014 R ID 1 STATE - 19 F NO 01 S) MPLED - 01/25/18 CEIVED - 01/25/18
SAMPLE FROM - TEST MATERIAL DESC SOI		Y - R VALUE- PA	VEME	NT SOUNDING		STED - 03/20/18
LAB NUMBER SAMPLE ID TEST STATUS STATION LOCATION DEPTH IN FEET MAT'L COLOR MAT'L TYPE LATITUDE DEG-MIN-	- - - SEC -	S9 INFORMATION ONLY 121+00 06 RT 0-5 BR/GR 35 25 25.10	-	121+00 16 RT 0-5 BR/GR	ONLY -	20180138 - S11 - INFORMATION ONLY 121+00 24 RT 0-5 BROWN
LONGITUDE DEG-MIN-	SEC =	90 45 6.40		90 45	6.40	90 45 6.40
3/4 3/8 NO. NO. NO.	IN IN IN IN 4 - 10 - 40 - 80 - 200 -	100 98 97 95 92 87 82		100 98		92
LIQUID LIMIT	Ě	20	**	29		- 27 - 06
PLASTICITY INDEX AASHTO SOIL UNIFIED SOIL	7 7	A-4(1)	*	N-4(/)		A-4(5)
% MOISTURE CONTENT ACHMSC ACHMBC AGG.BASE CRS CL-7	(IN) - (IN) - - - -	18.9 7.0WX 2.5 2.0		24.1 5.25X 4.0 4.0	2 2 3 4 5	22.4
	-		-		3	<u> </u>

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 03/2 JOB NUMBER - 1106 FEDERAL AID NO TO H PURPOSE - SOII SPEC. REMARKS - NO S SUPPLIER NAME - STAT NAME OF PROJECT - CH PROJECT ENGINEER - NO PIT/QUARRY - ARKANS LOCATION - CROSS SAMPLED BY - THORNTO SAMPLE FROM - TEST H MATERIAL DESC SOI	522 BE ASSI SURVE SPECIFI FE HERRY V OT APPL SAS , COUNT ON HOLE	Y SAMPLE CATION CHEC ALLEY-POINS ICABLE Y	K ETT CO.:			MATERI SPEC. SUPPLI COUNTY DISTRI LANES) DATE S DATE R DATE I	AL YEA ER /ST (S) CAME	R - ID ATE - NO PLED - IVED -	SSI 20: 1 19 01 01,	/25/18
LAB NUMBER	-	20180139		=	20180140		_	201801	41	
SAMPLE ID	200	S12			S13			S14	4.T	
TEST STATUS	343				INFORMATIO	N ONLY			ATI	ON ONLY
STATION	72	129+00		-0	129+00			129+00		
LOCATION	(6	06 LT		= 1	16 LT		•	24 LT		
DEPTH IN FEET	0.75	0-5			0-5		-	0-5		
MAT'L COLOR	-	GRAY		_	GRAY		-	GRAY		
MAT'L TYPE	<u>;</u> ₩			=						
LATITUDE DEG-MIN-S		35 25 3		**		2.90	-	35	25	32.90
LONGITUDE DEG-MIN-S	SEC -	90 45	6.50		90 45	6.80		90	45	6.90
% PASSING 2	IN.			*			-			
1 1/2	IN	100		=			_	100		
	IN	99		-	100		_	100 99		
	4 -	95		-	98		-	96		
	10 -			7	96		-	91		
	40 -	87		=	91		_	84		
NO.	80 -	83		_	88		_	80		
NO. 2	200 =	80			87			79		
LIQUID LIMIT		22		-	25			25		
PLASTICITY INDEX		05		77.5	06		-	06		
AASHTO SOIL	100	A-4(2)		2	A-4(4)		: 	A-4 (3)	
UNIFIED SOIL	-			-			-			
% MOISTURE CONTENT	-	19.6		-	18.5		· 📆	24.	2	
ACHMSC	(IN) -	2.5W		-	2.0		-			
ACHMSC	(IN) -	3 . 0X		-	1.0X		-			
ACHMSC	(IN) -	2.5		-	3.5		_			
ACHMBC	(IN) -	3.0		-	4.0		_			
AGG.BASE CRS CL-7	(IN) -	4.0		•	4.0		-			
	-			-			-			
	-			-			_			
	12			-			-			

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

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MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 03/ JOB NUMBER - 110 FEDERAL AID NO - TO PURPOSE - SOI SPEC. REMARKS - NO SUPPLIER NAME - STA NAME OF PROJECT - C PROJECT ENGINEER - N PIT/QUARRY - ARKAN LOCATION - CROSS SAMPLED BY - THORNT SAMPLE FROM - TEST MATERIAL DESC SOI	622 BE ASSI L SURVE SPECIFI TE HERRY V OT APPL SAS , COUNT ON HOLE	Y SAMPLI CATION (ALLEY-P(ICABLE Y	CHECK			MATERI SPEC. SUPPLI COUNTY DISTRI LANES DATE S DATE S DATE I	AL YEA ER CT (CT (S)	PLED -	SSI 203 1 19 01 01,	/25/18
LAB NUMBER	-	2018014	12	*	20180143			201801	44	
SAMPLE ID	_	S15		-	S16			S17		
TEST STATUS	-	INFORMA	TION ONLY	_	INFORMATIO	N ONLY	-	INFORM	ATI	ON ONLY
STATION	-	137+00			137+00		-	137+00		
LOCATION	_	00 101		*	16 RT		-	24 RT		
DEPTH IN FEET	-	0-5		2	0-5		_	0-5		
MAT'L COLOR	-	BROWN		2	BROWN		-	BROWN		
MAT'L TYPE	-			-			1,000			
LATITUDE DEG-MIN-				7		10.90				40.90
LONGITUDE DEG-MIN-	SEC -	90 4	15 6.60		90 45	6.60		90	45	6.50
% PASSING 2	IN			-			-			
1 1/2	IN			**			-			
•	IN			=						
	IN	100		□ ≘	100		15. 22.	100		
	4 -	97		-	97		-	97		
NO.		92		=	93		÷	95		
NO.				77	88		177	88		
NO.	-			_	82 79		_	80		
NO.	200 -	73			79			77		
LIQUID LIMIT	-	25		$\frac{1}{2}$	23		$i \in \mathcal{C}$	26		
PLASTICITY INDEX	~			77	05		9000	05		
AASHTO SOIL	-	A-4(2))	=	A-4(2)		_	A-4(2)	
UNIFIED SOIL	-		_	-			-			
% MOISTURE CONTENT	-	19.	L		22.7			24.	3	
ACHMSC	(IN) -	5.0		-	6.5W		-			
ACHMBC	(IN) -	4.0		= 3	1.0		-			
AGG.BASE CRS CL-7	(IN) -	3.0			6.0		_			
	-						_			
	100			-			-			
				-			-			
	-						_			
	=						_			

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

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MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

JOB NUMBER - 110 FEDERAL AID NO TO PURPOSE - SOI SPEC. REMARKS - NO SUPPLIER NAME - STA NAME OF PROJECT - C PROJECT ENGINEER - N PIT/QUARRY - ARKAN LOCATION - CROSS SAMPLED BY - THORN SAMPLE FROM - TEST	BE ASSIGNED L SURVEY SAMPLE SPECIFICATION CHECK THE CHERRY VALLEY-POINS OT APPLICABLE ISAS C, COUNTY TON HOLE	MAT SPE SUP K COU DIS ETT CO.LINE (PASSING LAT DAT	DUENCE NO 6 PERIAL CODE - SSRVPS CC. YEAR - 2014 PPLIER ID 1 NTY/STATE - 19 PTRICT NO 01 NES)(S) PE SAMPLED - 01/25/18 PE RECEIVED - 01/25/18 PE TESTED - 03/20/18
LAB NUMBER SAMPLE ID TEST STATUS STATION LOCATION DEPTH IN FEET MAT'L COLOR MAT'L TYPE LATITUDE DEG-MIN- LONGITUDE DEG-MIN-	- 145+00 - 06 LT - 0-5 - BROWN - SEC - 35 25 4	- 20180146 - S19 N ONLY - INFORMATION ON - 145+00 - 16 LT - 0-5 - GRAY - 9.00 - 35 25 48.9 6.50 90 45 6.8	- 145+00 - 24 LT - 0-5 - GRAY - 0 - 35 25 48.90
3/4 3/8	40 - 80 -	- - - 100 - 98 - 95 - 90 - 85 81	- - 100 - 99 - 89 - 84 - 73 - 62 - 59
LIQUID LIMIT PLASTICITY INDEX AASHTO SOIL UNIFIED SOIL % MOISTURE CONTENT ACHMSC ACHMBC AGG.BASE CRS CL-7	- ND - NP - A-4(0) - 21.4 (IN) - 8.0W (IN) - 1.5 (IN) - 4.0	- 24 - 05 - A-4(2) - 18.4 - 7.0 	- 24 - 05 - A-4(1) - 20.3

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

AASHTO TESTS : T24 T88 T89 T90 T265

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MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 03/	20/18	,				SEOTIEN	ICE	NO	7	
TOR NUMBER - 110	1622					MATERI				RVDS
FEDERAL AID NO TO PURPOSE - SOI SPEC. REMARKS - NO	DE ACCT	CNED								
PURPOSE - SOI	andina i.	A GUMDIE ANED						.R -		14
FORPOSE - SOI	AVAOC L.	I SAMPLE				SUPPLI				
0120	DILCIII	CATION CHI	ECK			COUNTY				
SUPPLIER NAME - STA						DISTRI			01	•
NAME OF PROJECT - C			NSETT CO	.LI	NE (PASSIN	G LANES) (S)		
PROJECT ENGINEER - 1		ICABLE								
PIT/QUARRY - ARKAN	ISAS									
LOCATION - CROSS	G, COUNT	Y				DATE S	IMAE	PLED -	- 01	/25/18
SAMPLED BY - THORN	ron					DATE F	RECI	EIVED -	01	/25/18
SAMPLE FROM - TEST	HOLE					DATE	res:	red -	0.3	/20/18
MATERIAL DESC SO	IL SURVE	Y - R VA	LUE- PAV	EME	NT SOUNDIN	GS				
LAB NUMBER	_	00100110		_	00100140		_			
		20180148			20180149			20180	150	
SAMPLE ID		S21			S22			S23		
TEST STATUS	-	INFORMATI	ION ONLY		INFORMATIO	ON ONLY				ON ONLY
STATION		153+00		-	153+00			153+0)	
LOCATION		06 RT		-	16 RT		_	24 RT		
DEPTH IN FEET	_			-	0-5		2	0-5		
MAT'L COLOR	-	BR/GR		-	BR/GR		_	GRAY		
MAT'L TYPE	-			-			-			
LATITUDE DEG-MIN-	SEC -	35 25	56.90	-	35 25	56.80	=	35	25	56.80
LONGITUDE DEG-MIN-	SEC -	90 45	6.40		90 45	6.30		90	45	6.30
% PASSING 2	IN			_			_			
1 1/2	IN			**	100		_			
		100		-	95		-	100		
		99		•	93		-	97		
•		98		-	90		-	93		
	10 -	96		-	86		_	91		
	40 -	91		-5	78		-	85		
	80 -	86		20	72		_	77		
=:=:	200 -	82			68		_	72		
LIQUID LIMIT		24		-	24			21		
PLASTICITY INDEX	-			573	07		=	02		
AASHTO SOIL	-	A-4(2)			A-4(2)		_	A-4 (0)	
UNIFIED SOIL	-			_			_			
% MOISTURE CONTENT	· -	19.1			18.2			21	. 7	
ACHMSC	(IN) -	7 = 0W		-	5.0		_			
ACHMBC	(IN) -	5 . 0		-	3.0		-			
AGG.BASE CRS CL-7	(IN) -	3.0		-	3.0		-			
	-			-			-			
	-			-			-			
	_			55. 55.			-			
	_						_			
	_			-			_			
	_			-			_			

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

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MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 03/ JOB NUMBER - 110 FEDERAL AID NO TO PURPOSE - SOI SPEC. REMARKS - NO SUPPLIER NAME - STA NAME OF PROJECT - C PROJECT ENGINEER - N PIT/QUARRY - ARKAN LOCATION - CROSS SAMPLED BY - THORNT SAMPLE FROM - TEST	622 BE ASSI L SURVE SPECIFI TE HERRY V OT APPI SAS , COUNT	Y SAMPLE CATION CHE VALLEY-POIN	CK	. LI	NE (PASSING	SPEC. YE SUPPLIER COUNTY/S DISTRICT G LANES)(CODE - SEAR - 2 LID 1 LITATE - 1 LINO 0 SS)	SRVPS 014 9 1
MATERIAL DESC SOI		EY - R VAI	LUE- PAV	EME	ENT SOUNDING		0	3,20,20
			302 2110					
LAB NUMBER	120	20180151		_	20180152		20180153	
SAMPLE ID	=			-	S25		S26	
TEST STATUS	:=:		ON ONLY	=	INFORMATIO	ON ONLY -		ION ONLY
STATION	-			2	161+00	_	161+00	
LOCATION	-			-	16 LT	_	24 LT	
DEPTH IN FEET	-				0-5	-	0-5	
MAT'L COLOR	2.55	BR/GR		7	BR/GR	_	BR/GR	
MAT'L TYPE				=		-		4 70
LATITUDE DEG-MIN-		35 26		*	35 26			4.70
LONGITUDE DEG-MIN-	SEC -	90 45	6.30		90 45	6.50	90 45	6.60
% PASSING 2	IN. =			77.		2.55		
1 1/2	IN.			2		=		
3/4	IN.	100		-	100	7	100	
3/8	IN. =	99		-	98	: -	98	
NO.	4	94		- 2	94		94	
NO.	10 -	91		_	90	32	91	
NO.	40 -	85		-	82) <u>-</u>	84	
NO.	80 ==	81		$\overline{\mathcal{A}}_{i}$	75	-	78	
NO.	200 =	79			72		75	
LIQUID LIMIT	02	27			25	72	26	
PLASTICITY INDEX	12	08		_	06	194	05	
AASHTO SOIL	1000	A-4(5)		_	A-4(2)	25	A-4(2)	
UNIFIED SOIL		11 4 (5)		-	11 1(2)	3	11 4(2)	
% MOISTURE CONTENT	:=:	18.0		-	19.3	-	24.9	
* MOISTORE CONTENT							24.5	
ACHMSC	(IN) -	4.0W		-	7.0W	-		
ACHMSC	(IN) -	3.0X		-	-		7.5.5	
ACHMBC	(IN) _			_	1.5			
AGG.BASE CRS CL-7	(IN) _	4.0		_	3.0			
	100			_			20	
	266			-			€:	
	(5			-			50: 	
	-			-				
	-			-			-:	

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

MICHAEL BENSON, MATERIALS ENGINEER

*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 03/20/18 JOB NUMBER - 110622 FEDERAL AID NO TO BE ASS: PURPOSE - SOIL SURVE SPEC. REMARKS - NO SPECIF: SUPPLIER NAME - STATE NAME OF PROJECT - CHERRY OF PROJECT ENGINEER - NOT APP: PIT/QUARRY - ARKANSAS LOCATION - CROSS, COUNTS	EY SAMPLE CATION CHECK VALLEY-POINSETT CO.LI LICABLE	DATE SAMPLED DATE RECEIVE	E - RV - 2014 - 1 - 19 - 01 - 01 - 01/25/18 D - 01/25/18
SAMPLE FROM - TEST HOLE MATERIAL DESC SOIL SURV	EY - RESISTANCE R-VA	DATE TESTED LUE ACTUAL RESULTS	- 03/20/18
LAB NUMBER -		e note in the second	
SAMPLE ID -	20180154 - RV27 -		
TEST STATUS -		-	
STATION -		-	
LOCATION -	_	12	
	0-5	:=	
	BROWN	N=	
MAT'L TYPE -		V⊊. Y⊘	
LATITUDE DEG-MIN-SEC -	35 25 17.20 -	_	
LONGITUDE DEG-MIN-SEC -			
% PASSING 2 IN	-	.=	
1 1/2 IN	100 -	=	
3/4 IN	93 -	24	
3/8 IN	84 -	-	
NO. 4 -	82		
NO. 10 -	79 _		
NO. 40 -	73 _	æ	
NO. 80 -	- 68	350	
NO. 200 -	65		
LIQUID LIMIT -	27 -	-	
PLASTICITY INDEX -	08	-	
AASHTO SOIL -	A-4(3)	-	
UNIFIED SOIL -	-	-	
% MOISTURE CONTENT -	<i>₹</i> (-	
_	~	¥	
-	-	· ·	
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REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

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JOB NAME: CHERRY VALLEY-POINSETT CO.LINE (PASSING LANES)(S)

Materials Division

COUNTY NO. 19 **DATE TESTED** 3/20/2018

Michael Benson, Materials Engineer

00011	11110.	19	DAIL ILSII	,) ZUI	2010						•	
STA.#	LOC.	DEPTH	COLOR	#4	#10	#40	#80	#200 E S —	L.L.	P.I.	SOIL CLASS	<i>LAB</i> #:	%MOISTURE
113+00	24 LT	0-5	BROWN	82	79	73	68	65	27	08	A-4(3)	RV27	
121+00	16 RT	0-5	BR/GR	100	000			98	29	08	A-4(7)	S10	24.1
121+00	24 RT	0-5	BROWN	100	Sell I	(19)14/		92	27	06	A-4(5)	S11	22.4
129+00	06 LT	0-5	GRAY	95	92	87	83	80	22	05	A-4(2)	S12	19.6
129+00	16 LT	0-5	GRAY	98	96	91	88	87	25	06	A-4(4)	S13	18.5
129+00	24 LT	0-5	GRAY	96	91	84	80	79	25	06	A-4(3)	S14	24.2
137+00	06 RT	0-5	BROWN	97	92	83	76	73	25	06	A-4(2)	S15	19.1
137+00	16 RT	0-5	BROWN	97	93	88	82	79	23	05	A-4(2)	S16	22.7
137+00	24 RT	0-5	BROWN	97	95	88	80	77	26	05	A-4(2)	S17	24.3
145+00	06 LT	0-5	BROWN	100		E 98/3	1976	91	ND	NP	A-4(0)	S18	21.4
145+00	16 LT	0-5	GRAY	98	95	90	85	81	24	05	A-4(2)	S19	18.4
145+00	24 LT	0-5	GRAY	89	84	73	62	59	24	05	A-4(1)	S20	20.3
153+00	06 RT	0-5	BR/GR	98	96	91	86	82	24	05	A-4(2)	S21	19.1
153+00	16 RT	0-5	BR/GR	90	86	78	72	68	24	07	A-4(2)	S22	18.2
153+00	24 RT	0-5	GRAY	93	91	85	77	72	21	02	A-4(0)	S23	21.7
161+00	06 LT	0-5	BR/GR	94	91	85	81	79	27	08	A-4(5)	S24	18
161+00	16 LT	0-5	BR/GR	94	90	82	75	72	25	06	A-4(2)	S25	19.3
161+00	24 LT	0-5	BR/GR	94	91	84	78	75	26	05	A-4(2)	S26	24.9
105+00	06 RT	0-5	BROWN	91	84	73	66	64	27	10	A-4(4)	S 3	23.6
105+00	16 RT	0-5	GRAY	98	96	92	90	88	29	11	A-6(8)	S4	25
105+00	24 RT	0-5	BROWN	97	92	82	74	69	26	07	A-4(3)	S5	27.5
113+00	06 LT	0-5	BROWN	97	93	87	82	79	25	07	A-4(4)	S6	20.9
113+00	16 LT	0-5	BROWN	91	86	76	68	65	25	09	A-4(3)	S 7	17.3
113+00	24 LT	0-5	BROWN	99	94	90	88	87	34	16	A-6(13)	\$8	24.2
121+00	06 RT	0-5	BR/GR	97	95	92	87	82	23	03	A-4(1)	S 9	18.9

Arkansas State Highway Transporation Department

DATE TESTED 3/20/2018

> Materials Division $JOB\ NAME$: CHERRY VALLEY-POINSETT CO.LINE (PASSING LANES)(S)

110622

JOB:

COUNTY NO.

Michael Benson, Materials Engineer

AGG.BASE CRS CL-7 AGG.BASE CRS CL-7 AGG.BASE CRS CL-7 PAVEMENT SOUNDINGS 4.0 ACHMBC 3.0 ACHIMBC ACHMBC AGG.BASE CRS CL-7 ACHMSC **ACHMSC** ACHIMSC 2.5 3.5 4.0 ACHMSC ACHMBC ACHMSC ACHMSC ACHIMSC ACHIMBC ACHIMSC ACHIMBC ACHIMBC ACHMBC ACHMBC ACHIMBC ACHIMBC ACHIMBC **ACHIMBC** ACHIMBC ACHIMSC 3.0X 4.0X 1.0X 4.0 2.5 4.0 1.0 ACHIMSC ACHIMSC ACHIMSC ACHIMSC ACHMSC ACHIMSC ACHMSC 7.0WX 5.25X 2.5W 8.0W 6.5W 8.5W 1.25 5.0 06 RT 16 RT 24 RT 16 RT 24 RT 24 LT 06 LT 06 RT 24 RT 24 LT 06 RT 06 LT 16 LT 16 LT 16 RT 06 LT 16 LT STA.# LOC. 145+00 105+00 105+00 105+00 113+00 113+00 113+00 121+00 121+00 121+00 129+00 129+00 129+00 137+00 137+00 137+00 145+00

Wednesday, March 21, 2018

comments: W=MULTIPLE LAYERS, X=STRIPPED

Page I of 2

Wednesday, March 21, 2018

PAVEMENT SOUNDINGS	AGG.BASE CRS CL-7		AGG.BASE CRS CL-7 3.0	AGG.BASE CRS CL-7 3.0	AGG.BASE CRS CL-7		ACHMBC AGG.BASE CRS CL-7 4.0	ACHMBC AGG.BASE CRS CL-7 3.0	ACHMBC AGG.BASE CRS CL-7
	ACHIMSC ACHIMBC AG	1	ACHMSC ACHMBC AGG 7.0W 5.0 3.0	ACHMSC ACHMBC AGG 5.0 3.0 3.0	ACHMSC ACHMBC AG	1	ACHMSC ACHMSC AC 4.0W 3.0X	ACHMSC ACHMSC AC	ACHMSC ACHMSC AC
LOC.			06 RT		24 RT		06 LT	16 LT	24 LT
STA.# LOC.	145+00 24 LT		153+00	153+00 16 RT	153+00		161+00	161+00	161+00