



Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

March 22, 2012
File No. 12-5811

Florida Department of Transportation
1650 N. Kepler Road
DeLand, Florida 32724

Attention: Mr. Tim Keefe

Subject: Final Pavement Evaluation and Condition Data Report
SR 421 from East of I-95 to East of SR 5A/Nova Road
Volusia County, Florida
FPN: 427279-1
Section No.: 79230
Contract No. C8S59

Dear Mr. Keefe,

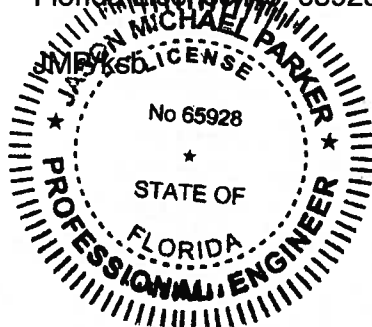
As requested, we have obtained pavement core and other relative information for the subject project. Our scope of work was conducted in accordance with your request for proposal issued, January 12, 2012.

The pavement core data is presented on the attached Pavement Evaluation and Condition Data (PECD) Sheets 1 through 4. We have also included a CD containing the PECD excel file and roadway and core photographs. To the best of our knowledge, the information presented is accurate and represents the existing pavement conditions at the locations cored. The cores have been retained in storage awaiting instructions from FDOT concerning their disposal.

Please contact us if you have any questions or need any additional information.

Very truly yours,
ARDAMAN AND ASSOCIATES, INC.
Certificate of Authorization No. 5950

 3/22/12
Jason M. Parker, P.E.
Senior Project Engineer
Florida License No. 65928



**State of Florida Department of Transportation
PAVEMENT EVALUATION AND CONDITION DATA SHEET**

Project No.:		427279-1		Cored By:		Ardaman		Date:		2/13/12-2/14/12		Page No.:		1 of 4			
County:		Volusia		Highway Sect. No.:		79230		From:		East of I-95		To:		E. of SR 5A			
Road No.:		SR 421		Begin MP:		0.300		End MP:		2.464		Length:		2.164			
Core No.	MP	Distance from left edge of lane (ft.)	Lane	Wheel Path	Base					Crack			Pavt Cond.	Rut Depth (in)	Cross Slope (%)	Comments	
					FC 9.5	SP 12.5	FC-3	Type S	ABC-3	Core Length (in)	Type	Thick-ness (in)					Depth (in)
1	0.558	10.0	RLTL	X			1.1	4.4	6.5	12.0	ABC	6.5	---	---	F		
2	0.685	3.0	R2	X			0.9	3.0		3.9	LR	---	0.9	Br	I	L	F
3	0.954	6.0	R2				1.0	3.2		4.2	LR	12.5	0.4	Br	I	L	F
4	1.352	6.0	R2				1.1	3.5		4.6	LR	---	0.3	Br	I	L	F
5	1.606	9.0	R2	X			0.8	2.9		3.7	LR	11.1	B	Br	I	L	F
6	2.180	6.0	R2				0.6	3.3		3.9	LR	---	1.5	Br	I	L	F
7	2.441	5.0	R2				1.0	1.5		2.5	LR	8.3	B	Br	II	L	F
8	2.177	2.5	L2	X			0.7	3.0		3.7	LR	8.5	B	Br	II	M	F
9	1.699	4.5	L2				0.9	3.1		4.0	LR	---	0.9	Br	II	L	F
10	1.524	9.0	L2	X			0.7	3.1		3.8	LR	13.0	B	Br	II	L	F
11	0.733	2.5	L2	X			1.2	1.8		3.0	LR	---	B	Br	I	L	F
12	0.393	8.5	RRTL	X			0.7	2.9		3.6	LR	10.3	0.7	Br	I	L	P
13	0.477	4.5	RRTL			1.8		2.6		4.4	LR	9.0	---	---	---	---	G
14	0.574	2.0	R3	X			0.8	3.9		4.7	LR	12.5	0.8	Br	II	L	F
15	0.884	7.0	R3				0.9	3.0		3.9	LR	---	0.9	Br	II	L	F
16	1.142	7.0	RRTL				1.1	4.0		11.8	ABC	6.7	1.1	Br	I	L	F

Remarks: Crack Depth of "B" indicates full depth crack to the base. EOP = Edge of Pavement
Crack Extent: L= Light; M= Moderate; S= Severe **Pavement Condition:** G= Good; F= Fair; P= Poor **Crack Types:** A= Alligator; BI= Block; Br= Branch
SL= Single Longitudinal; **ST=** Single Transverse; **R=** Reflective; **J=** Joint; **OGFC=** Open-Graded FC Stress Crack
Base Types: LR= Limerock; COQ= Coquina; SC= Soil Cement; ABC= Asphalt Base; SAHM= Sand Asphalt Hot Mix; NB= No Base
 Pavement Showing/Slippage

**State of Florida Department of Transportation
PAVEMENT EVALUATION AND CONDITION DATA SHEET**

Project No.:		427279-1		Cored By:		Ardaman		Date:		2/13/12-2/14/12		Page No.:		3 of 4			
County:		Volusia		Highway Sect. No.:		79230		From:		East of I-95		To:		E. of SR 5A			
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					FC9.5	SP 12.5	FC-3	Type S	ABC-3	Core Length (in)	Type	Thickness (in)					Depth (in)
33	1.819	7.5	L3			0.8	2.9			3.7	LR	3.8	---	---	F		
34	1.827	1.5	OL			0.9	1.7			2.6	LR	2.5	---	---	F		
35	1.422	4.0	L3	X		0.9	3.2			4.1	LR	4.3	---	---	F		
36	1.304	7.0	LRTL			1.0	3.6			4.6	LR	4.8	0.3	Br	I	L	F
37	1.109	3.5	LRTL	X		1.5	2.0	6.0		9.5	ABC	6.0	---	---	F		
38	0.846	5.0	L3			0.8	3.2			4.0	LR	10.8	1.0	Br	I	L	F
39	0.651	0.5	LRTL			1.1	3.4	5.6		10.1	ABC	3.6	B	J	II	M	F
40	0.491	2.0	LRTL	X	1.2	3.8				5.0	LR	10.3	---	---	G		
41	0.361	3.0	LRTL	X		0.9	3.5			4.4	LR	11.8	0.7	Br	I	L	F
42	0.674	1.0	RLTL			1.2	2.8			4.0	LR	12.3	B	Br	II	L	F
43	0.846	1.5	R1			1.2	2.6			3.8	LR	11.5	B	A	III	S	P
44	0.943	2.0	RLTL2	X		0.8	3.2			4.0	LR	12.3	B	Br	II	M	F
45	0.966	8.5	RLTL1	X		1.2	3.2			4.4	LR	11.3	0.5	Br	II	L	F
46	1.095	6.0	R1			1.1	2.8			3.9	LR	---	0.7	Br	II	M	F
47	1.400	3.5	R1	X		0.9	2.8			3.7	LR	11.8	0.9	Br	II	M	F
48	1.417	5.0	RLTL			1.1	2.8			3.9	LR	11.5	0.6	Br	I	L	F

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State of Florida Department of Transportation PAVEMENT EVALUATION AND CONDITION DATA SHEET

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					FC9.5	SP 12.5	FC-3	Type S	ABC-3	Core Length (in)	Type					Thick-ness (in)	Depth (in)	Type	Class
49	1.732	2.0	R1	X		1.0	3.1			4.1	LR		1.0	Br	II	M	F		
50	1.725	1.0	IR			1.0	1.2			2.2	LR		12.8				F		
51	2.151	8.5	R1	X		0.8	2.8			3.6	LR		10.3	Br	II	M	F		
52	2.156	1.0	IR			1.1	1.6			2.7	LR		11.8	Br	I	L	F		
53	2.324	9.5	RLTL2	X		1.5	2.4	6.1		10.0	ABC		6.1				F		
54	2.320	8.5	RLTL1	X		1.5	2.3	6.1		9.9	ABC		6.1				F		
55	2.164	1.0	IL			1.3	1.8			3.1	LR		10.3	ST	II	M	F		
56	2.137	2.5	L1	X		0.9	3.1			4.0	LR			2.0	Br	II	L	F	
57	2.067	2.5	LLTL	X		0.6	3.1			3.7	LR		10.3				F		
58	1.645	7.5	L1			0.7	3.1			3.8	LR		10.5	Br	II	L	F		
59	1.631	1.0	IL			1.2	1.6			2.8	LR		6.8	ST	II	L	P		
60	1.494	9.0	LLTL	X		0.7	3.1			3.8	LR		11.3				F		
61	0.941	3.0	L1	X		1.1	3.6			4.7	LR			1.6	Br	II	L	F	
62	0.612	8.5	L1	X		0.6	3.8			4.4	LR		10.8	A	III	M	P		
63	0.431	5.0	LLTL			0.7	3.5			4.2	LR		10.8	Br	II	L	F		

FC-3 Unbonded at Structural Course

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Supplemental Data to PECD

(GPS Coordinates for Each Locations Cored)

SR 40 FPN: 424904-1 County: Volusia

Core #	GPS Coordinates	
1	N 29.109843	W -81.026153
2	N 29.111612	W -81.025538
3	N 29.115445	W -81.024190
4	N 29.119228	W -81.019152
5	N 29.121317	W -81.015630
6	N 29.125955	W -81.007784
7	N 29.128100	W -81.004177
8	N 29.126084	W -81.007945
9	N 29.122206	W -81.014500
10	N 29.120761	W -81.016920
11	N 29.112627	W -81.025411
12	N 29.107529	W -81.026769
13	N 29.108677	W -81.026360
14	N 29.110042	W -81.025962
15	N 29.114411	W -81.024612
16	N 29.117384	W -81.022156
17	N 29.118192	W -81.020736
18	N 29.118760	W -81.019864
19	N 29.120381	W -81.017133
20	N 29.120450	W -81.017004

Core #	GPS Coordinates	
21	N 29.120596	W -81.016764
22	N 29.120537	W -81.016835
23	N 29.126077	W -81.007491
24	N 29.126139	W -81.007369
25	N 29.127138	W -81.005618
26	N 29.127181	W -81.005572
27	N 29.127836	W -81.004470
28	N 29.127864	W -81.004431
29	N 29.128047	W -81.004634
30	N 29.128026	W -81.004683
31	N 29.126645	W -81.007010
32	N 29.126667	W -81.006947
33	N 29.123113	W -81.012967
34	N 29.123188	W -81.012878
35	N 29.119904	W -81.018439
36	N 29.119003	W -81.020058
37	N 29.117438	W -81.022693
38	N 29.114209	W -81.024933
39	N 29.111477	W -81.025878
40	N 29.109236	W -81.026490

