SHERWOOD ROAD – CRESTON ROAD TO FONTANA ROAD

RECOMMENDATIONS

Pavement Maintenance Options (Short-Term)

For Option 1, we recommend 4 inch digouts of base failures, placing a 1/2 inch leveling course and a 1-1/4 inch TMO (thin maintenance overlay).

Estimated Cost: $566,000 Estimated Life Expectancy: 3-5 Years

Pavement Rehabilitation Options (Long-Term)

Overlay Options

For option 1, we recommend 4 inch digouts for base failures, placing a 1/2 inch HMA leveling course, pavement fabric and a 1-3/4 inch HMA overlay.

Estimated Cost: $598,000 Estimated Life Expectancy: 10-12 Years

For option 2, we recommend 4 inch digouts for base failures, placing a 1/2 inch HMA leveling course and a 1-3/4 inch RHMA overlay.

Estimated Cost: $600,000 Estimated Life Expectancy: 10-12 Years

Recycle and Mill and Replace Options

For option 1, we recommend cold **foam** in-place recycling to a depth of 5 inches, and placing a new 2 inch HMA surface.

Estimated Cost: $816,000 Estimated Life Expectancy: 12-15 Years

Mill and Replace options are not available for this street because of the thin pavement layer.

Reconstruction Options

For option 1, we recommend removing the pavement to a depth of 12 inches and placing 12 inches of new HMA. The HMA should be placed in 5 lifts.

Estimated Cost: $2,234,000 Estimated Life Expectancy: 20 Years

For option 2, we recommend removing 6 inches of the existing structure, lime treating the native soil to a depth of 15 inches and replacing 6 inches of new HMA in 3 lifts.

Estimated Cost: $1,302,000 Estimated Life Expectancy: 20 Years

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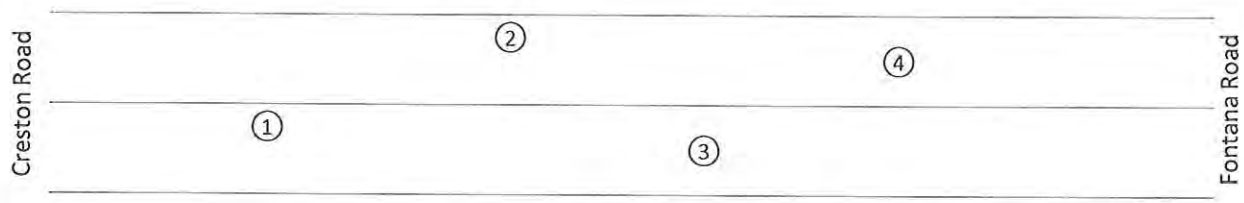

NOTES:
- NTS
- ACTUAL ROAD MAY NOT BE STRAIGHT
- NOT ALL ROADS CONNECTING TO THIS STREET ARE SHOWN
- WIDTH OF ROAD MAY VARY WITHIN THE BOUNDARY SECTION
- ALL LOCATIONS SHOWN ARE APPROXIMATED

Sherwood Road

[Section of Road ≈ 2400ft]

TRAFFIC LAYOUT:
- 2-WAY STREET
- 1 LANE EACH WAY

VISUAL DESCRIPTION FOR THIS SECTION OF ROAD

The pavement exhibits severe alligator cracking. There is newer pavement near Creston Road adjacent to the shopping center.

CORING LOG

Symbol	Location	Core Data		R-value
1	East of Creston Road 450ft	AC AB	3.25" 11.75"	8
2	East of Creston Road 950ft	AC AB	3.25" 13.00"	-
3	East of Creston Road 1350ft	AC AB	3.25" 19.75"	-
4	East of Creston Road 1750	AC AB	3.25" 13.75"	27

DEFLECTION ANALYSIS

Lane	Tolerable	TI	80th Percentile	Percent Reduction	HMA Overlay
West Bound	23	8.0	20.37	0.00	0.00 - inches
East Bound	23	8.0	26.25	12.40	0.36 - inches
				Overlay Required by Reflective Cracking	1.65 - inches

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City of Paso Robles

Road:	Sherwood	Survey Date:	03/13/13
From:	Creston	Thickness:	0.27
To:	Fontana	Traffic Index:	8.00
Lane/Line:	EB	Project Number:	130065

Deflection Data Analysis

Deflection Readings (Equivalent Deflectometer Units)

No. of Tests	Low	Mean	High	Std. Dev.
23	10.62	19.84	46.91	7.64

Road Surface

Thickness	Traffic Index
0.27	8.00

Structural Design

Tolerable	80th Percentile	90th Percentile	% Reduction	GE Deficient
23.00	26.25	29.61	12.40	0.05

HMA Overlay
0.03

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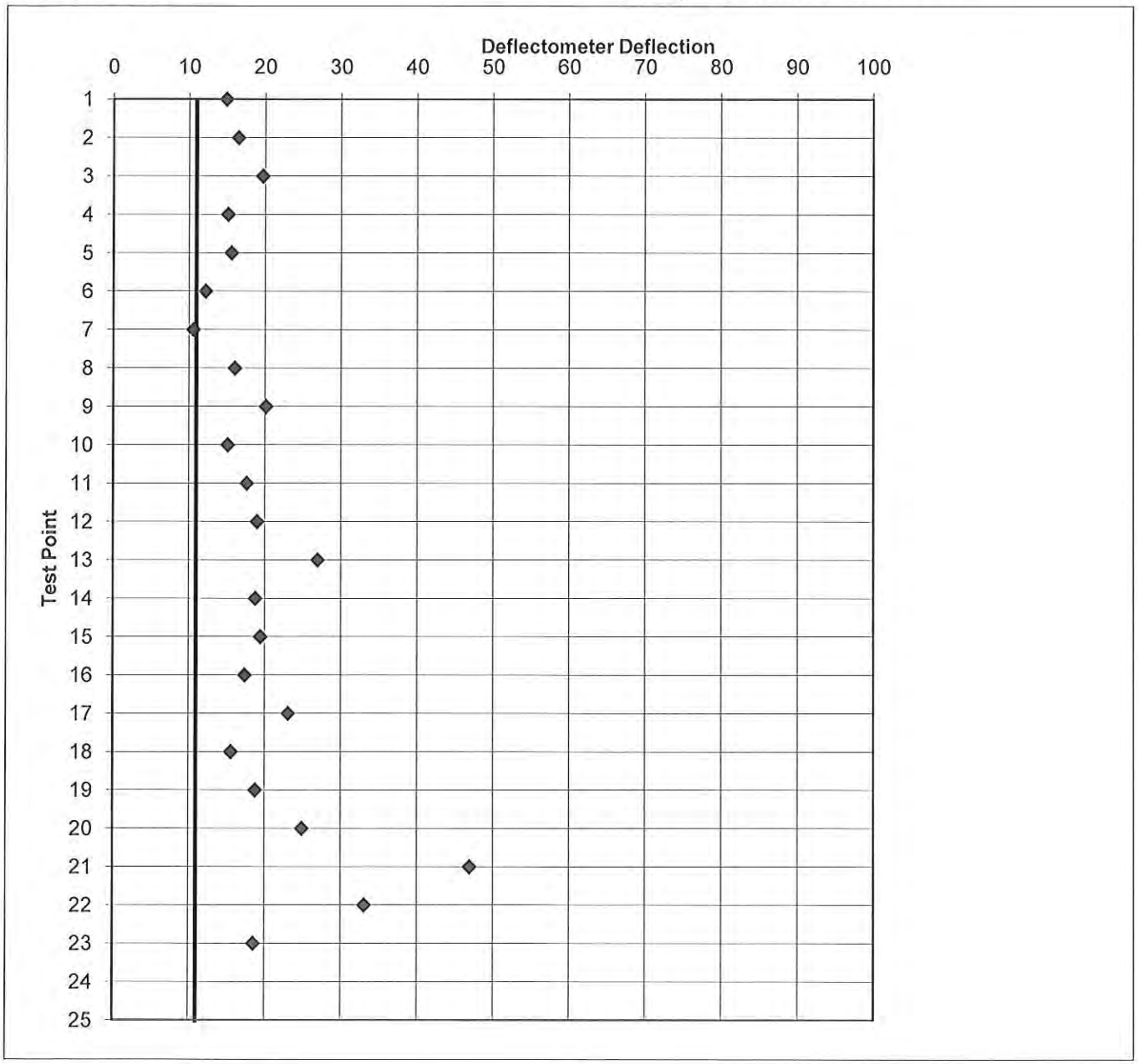
City of Paso Robles

Road: Sherwood
From: Creston
To: Fontana
Lane/Line: EB

Survey Date: 03/13/13
Thickness: 0.27
Traffic Index: 8.00
Project Number: 130065



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Date: 4/1/2013

Client: City of Paso Robles
Road: Sherwood
From: Creston
To: Fontana
Lane/Line: EB

Interval: 100
Survey Date: 3/13/13
Thickness: 0.27
Traffic Index: 8.00
Project Number: 130065

Test Points	Dynaflect	Conditions	Comments	Deflection	Exclude
1	0.68			14.927	
2	0.75			16.515	
3	0.89			19.691	
4	0.69			15.154	
5	0.71			15.608	
6	0.56			12.205	
7	0.49			10.616	
8	0.73			16.061	
9	0.91			20.145	
10	0.69			15.154	
11	0.80			17.649	
12	0.86			19.010	
13	1.21			26.951	
14	0.85			18.784	
15	0.88			19.464	
16	0.79			17.422	
17	1.04		Quail Run	23.094	
18	0.71			15.608	
19	0.85			18.784	
20	1.12		Commerce	24.909	
21	2.09			46.915	
22	1.48			33.076	
23	0.84			18.557	

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City of Paso Robles

Road: Sherwood
From: Fontana
To: Creston
Lane/Line: WB

Survey Date: 03/13/13
Thickness: 0.27
Traffic Index: 8.00
Project Number: 130065

Deflection Data Analysis

Deflection Readings (Equivalent Deflectometer Units)

No. of Tests	Low	Mean	High	Std. Dev.
24	11.52	17.00	25.36	4.02

Road Surface

Thickness	Traffic Index
0.27	8.00

Structural Design

Tolerable	80th Percentile	90th Percentile	% Reduction	GE Deficient
23.00	20.37	22.14	0.00	0.00

HMA Overlay
0.00

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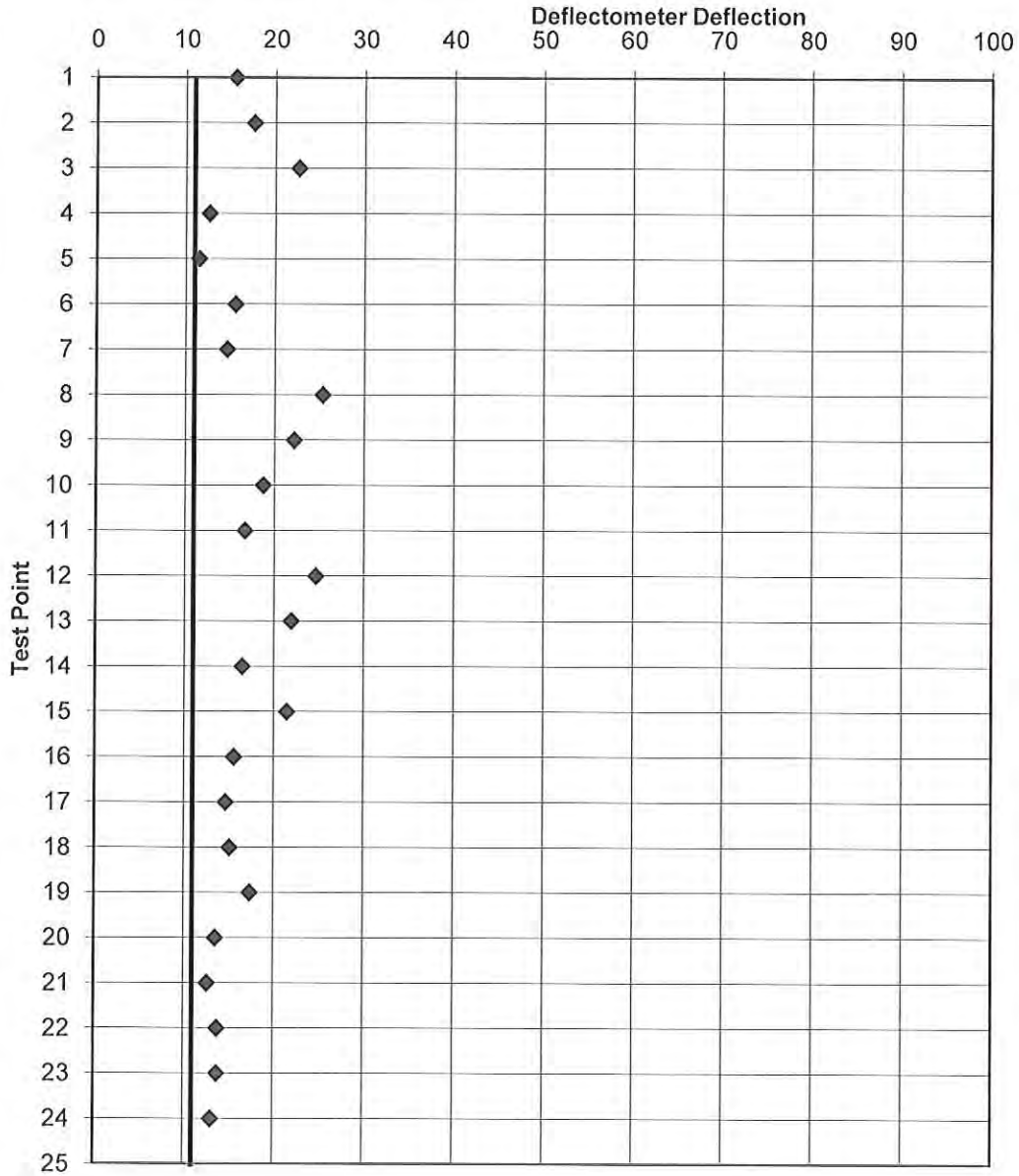
City of Paso Robles

Road: Sherwood
From: Fontana
To: Creston
Lane/Line: WB

Survey Date: 03/13/13
Thickness: 0.27
Traffic Index: 8.00
Project Number: 130065



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Date: 4/1/2013

Client: City of Paso Robles
Road: Sherwood
From: Fontana
To: Creston
Lane/Line: WB

Interval: 100
Survey Date: 3/13/13
Thickness: 0.27
Traffic Index: 8.00
Project Number: 130065

Test Points	Dynaflect	Conditions	Comments	Deflection	Exclude
1	0.71			15.608	
2	0.80			17.649	
3	1.02			22.640	
4	0.58			12.658	
5	0.53			11.524	
6	0.71		Commerce	15.608	
7	0.67			14.700	
8	1.14			25.363	
9	1.00		Quail Run	22.187	
10	0.85			18.784	
11	0.76			16.742	
12	1.11			24.682	
13	0.99			21.960	
14	0.75			16.515	
15	0.97			21.506	
16	0.71			15.608	
17	0.67			14.700	
18	0.69			15.154	
19	0.79			17.422	
20	0.62			13.566	
21	0.58		Lane Split	12.658	
22	0.63		Before COP	13.793	
23	0.63		WB 1	13.793	
24	0.60		WB 2	13.112	

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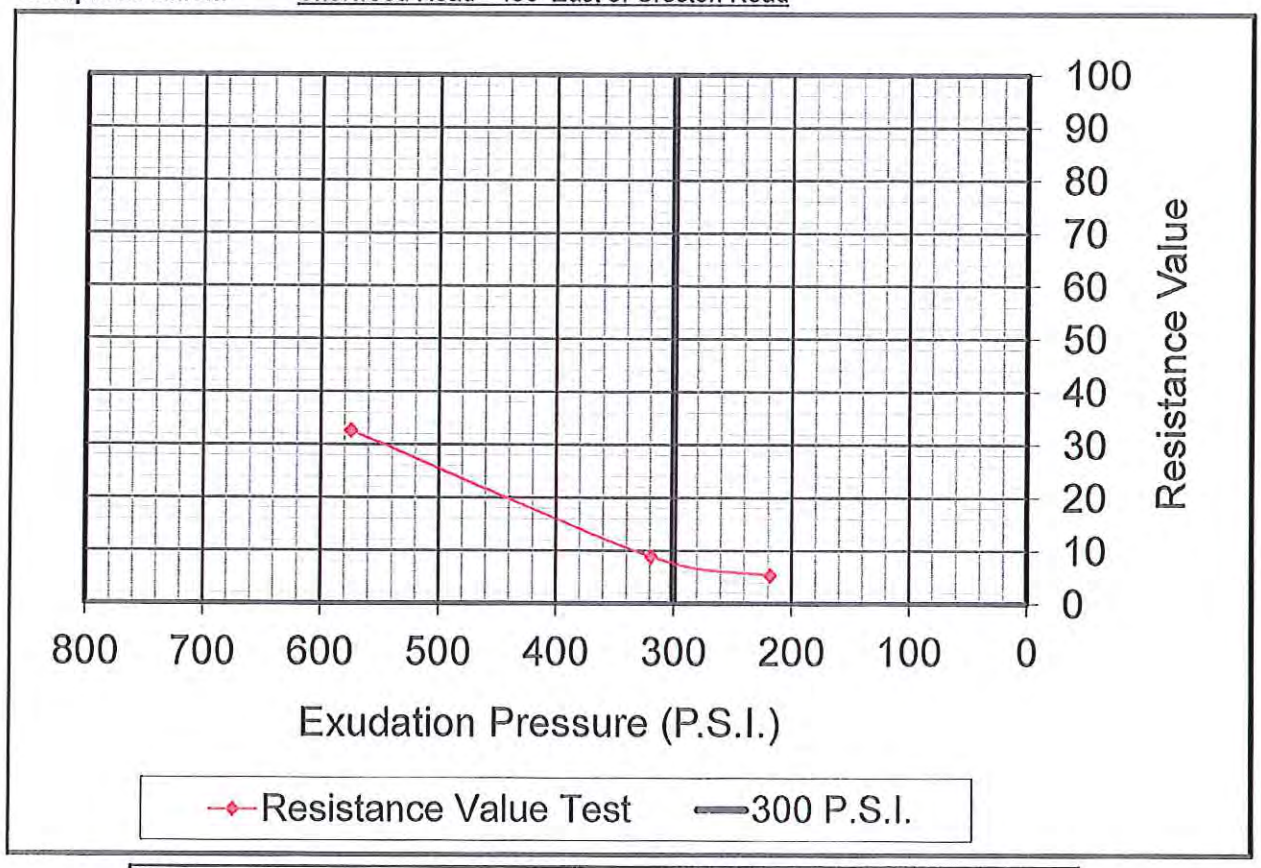
RESISTANCE (R) VALUE TEST
ASTM D 2844

Laboratory No.: L130083AT
Project No.: 130065
Sample Date: March 13, 2013
Report Date: April 11, 2013
Client: City of Paso Robles
Project Name: City of Paso Robles 2013 Pavement Analysis
Sample Description: Brown Sandy Clay
Sample Location: Sherwood Road - 450' East of Creston Road



Specimen No.	1	2	3
Moisture Content (%)	8.5	9.4	9.9
Dry Density (PCF)	133.5	130.7	130.5
Resistance Value (R)	33	9	5
Exudation Pressure (PSI)	575	320	219
Expansion Pressure	9	0	0

RESISTANCE VALUE AT 300 P.S.I. 8

AAP® AASHTO R18

Reviewed By: Craig Long
Craig W. Long
Laboratory Operations Manager

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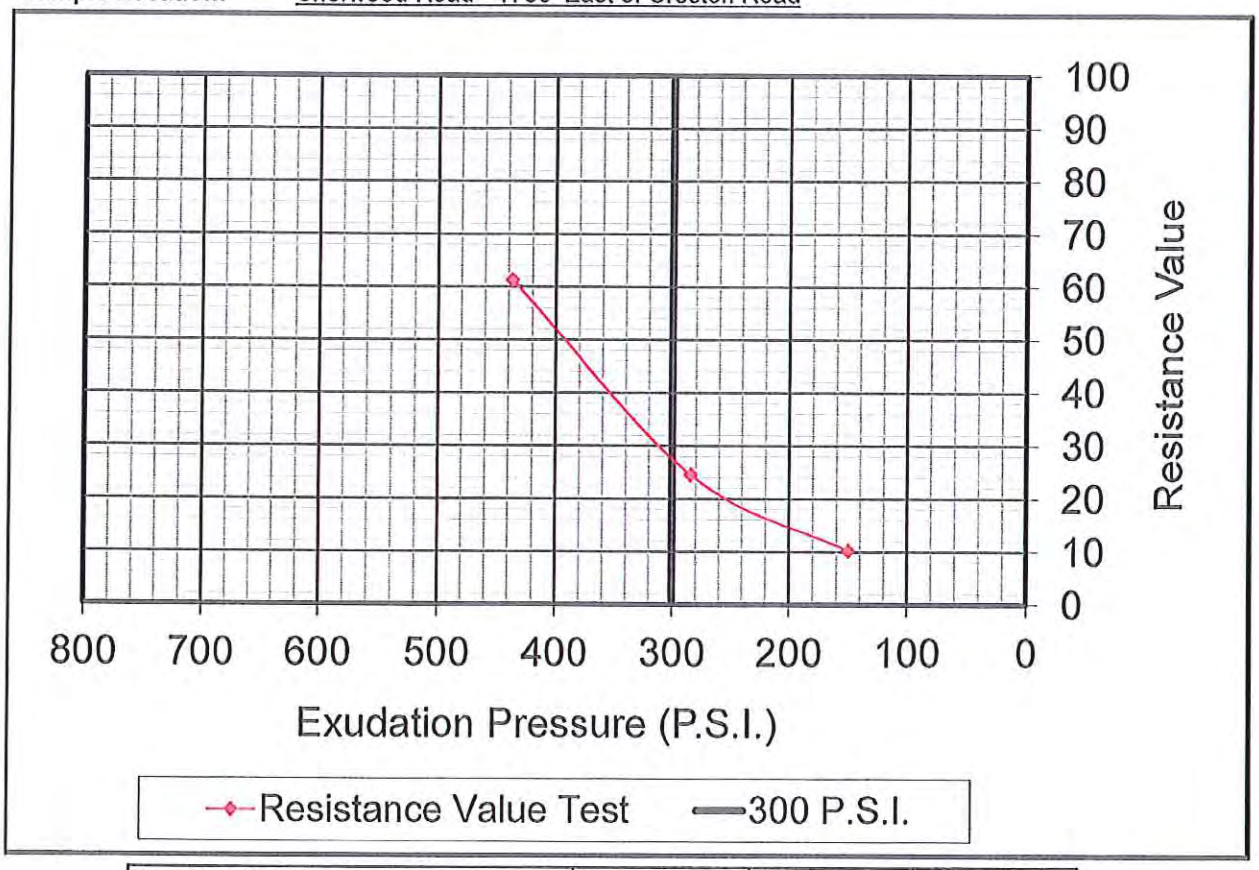
RESISTANCE (R) VALUE TEST
ASTM D 2844

Laboratory No.: L130083BA
Project No.: 130065
Sample Date: March 15, 2013
Report Date: April 11, 2013
Client: City of Paso Robles
Project Name: City of Paso Robles 2013 Pavement Analysis
Sample Description: Brown Clayey Sand
Sample Location: Sherwood Road - 1750' East of Creston Road



Specimen No.	1	2	3
Moisture Content (%)	8.4	9.3	9.7
Dry Density (PCF)	132.6	131.6	131.0
Resistance Value (R)	61	25	10
Exudation Pressure (PSI)	437	285	151
Expansion Pressure	26	17	0

RESISTANCE VALUE AT 300 P.S.I. 27

AASHTO R18

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SHERWOOD ROAD – CRESTON ROAD TO FONTANA ROAD
Fontana Road looking Westbound

SHERWOOD ROAD – CRESTON ROAD TO FONTANA ROAD
Quail Run looking Westbound

SHERWOOD ROAD – CRESTON ROAD TO FONTANA ROAD
Creston Road looking Eastbound