SCOTT STREET – VIA RAMONA TO AIRPORT ROAD

RECOMMENDATIONS

Pavement Maintenance Options (Short-Term)

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

Estimated Cost: $347,000 Estimated Life Expectancy: 5-7 Years

For Option 2, we recommend 4 inch digouts of base failures and placing a Cape Seal.

Estimated Cost: $317,000 Estimated Life Expectancy: 5-7 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 and a 1-3/4 inch HMA overlay.

Estimated Cost: $434,000 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: $461,000 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 3 inch HMA surface course.

Estimated Cost: $898,000 Estimated Life Expectancy: 12-15 Years

Milling and replacing is not an option because of the thin existing HMA layer.

Reconstruction Options

For option 1, we recommend removing the pavement to a depth of 10-1/2 inches and replacing 10-1/2 inches of new HMA. The HMA should be placed in 4 lifts.

Estimated Cost: $1,796,000 Estimated Life Expectancy: 20 Years

For option 2, we recommend removing 4 inches of the existing structure, lime treating the native soil to a depth of 13 inches and placing 4 inches of new HMA in 2 lifts.

Estimated Cost: $832,000 Estimated Life Expectancy: 20 Years

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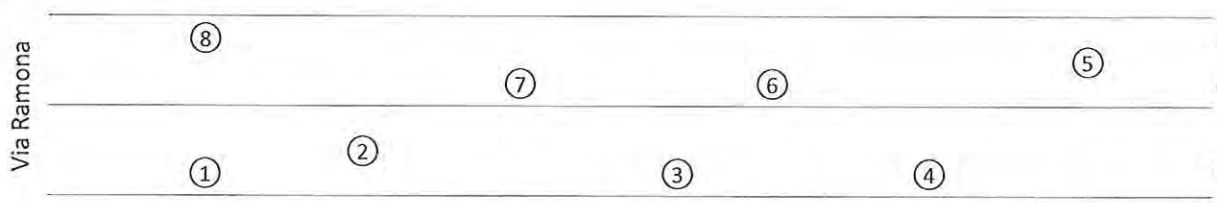

NOTES:
- NTS
- ACTUAL ROAD MAY NOT BE STRAIGHT
- NOT ALL ROADS CONNECTING TO THIS STREET ARE SHOWN
- WIDTH OF ROAD MAY VARY WITHIN THE BOUNDARY SECTION
- ALL LOCATIONS SHOWN ARE APPROXIMATED

Scott Street

[Section of Road ≈ 3700ft]

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

VISUAL DESCRIPTION FOR THIS SECTION OF ROAD

The pavement from Via Ramona to Westfiled exhibits moderate weathering and raveling, alligator cracking and some base failure. The pavement from Westfield to Airport exhibits weathering and raveling and moderate block shrinkage cracking. The raod is divided with a planted median. Tree roots are lifting the median curbs and pavement in several sections.

CORING LOG

Symbol	Location	Core Data		R-value
①	East of Via Ramona 500ft	AC AB	3.50" 10.00"	10
②	East of Via Ramona 1000ft	AC AB	4.00" 9.75"	-
③	East of Via Ramona 2000ft	AC AB	2.50" 7.50"	-
④	East of Via Ramona 2800ft	AC AB	2.50" 21.50"+	-
⑤	East of Via Ramona 3300ft	AC AB	3.25" 20.75"+	-
⑥	East of Via Ramona 2300ft	AC AB	3.00" 15.25"	7
⑦	East of Via Ramona 1500ft	AC AB	2.75" 15.25"	11
⑧	East of Via Ramona 500ft	AC AB	3.00" 10.00"	13

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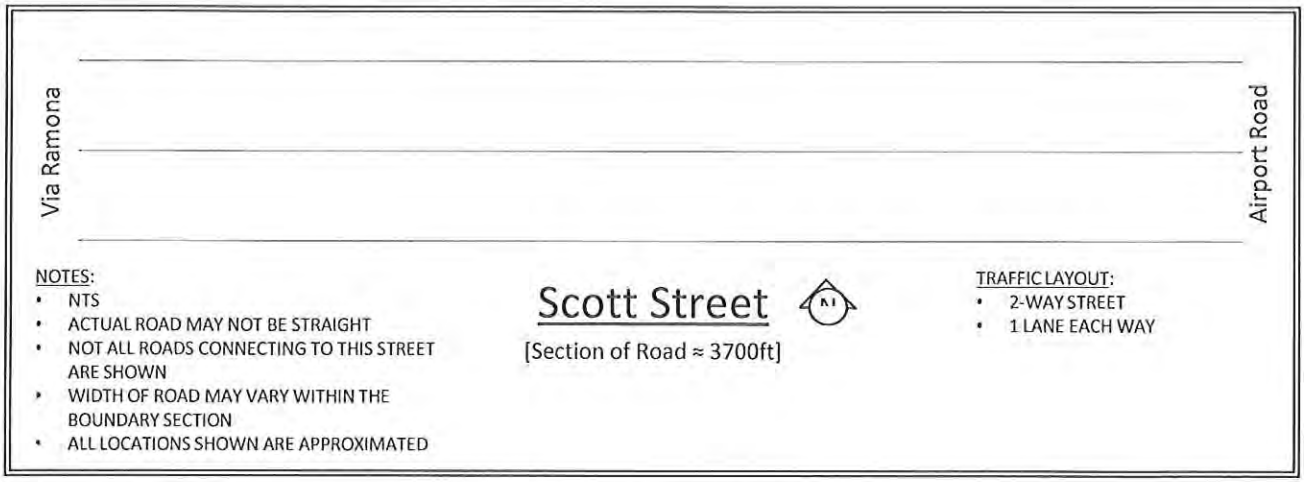

NOTES:
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- ALL LOCATIONS SHOWN ARE APPROXIMATED

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

DEFLECTION ANALYSIS					
Lane	Tolerable	TI	80th Percentile	Percent Reduction	HMA Overlay
West Bound	27	7.0	22.83	0.00	0.00 - inches
East Bound	27	7.0	23.46	0.00	0.00 - inches
				Overlay Required by Reflective Cracking	1.50 - inches

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City of Paso Robles

Road: Scott
From: Airport
To: Via Ramona
Lane/Line: WB

Survey Date: 01/13/13
Thickness: 0.29
Traffic Index: 7.00
Project Number: 130065

Deflection Data Analysis

Deflection Readings (Equivalent Deflectometer Units)

No. of Tests	Low	Mean	High	Std. Dev.
37	13.11	19.81	30.13	3.60

Road Surface

Thickness	Traffic Index
0.29	7.00

Structural Design

Tolerable	80th Percentile	90th Percentile	% Reduction	GE Deficient
27.00	22.83	24.41	0.00	0.00

HMA Overlay
0.00

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City of Paso Robles

Road: Scott
From: Airport
To: Via Ramona
Lane/Line: WB

Survey Date: 01/13/13
Thickness: 0.29
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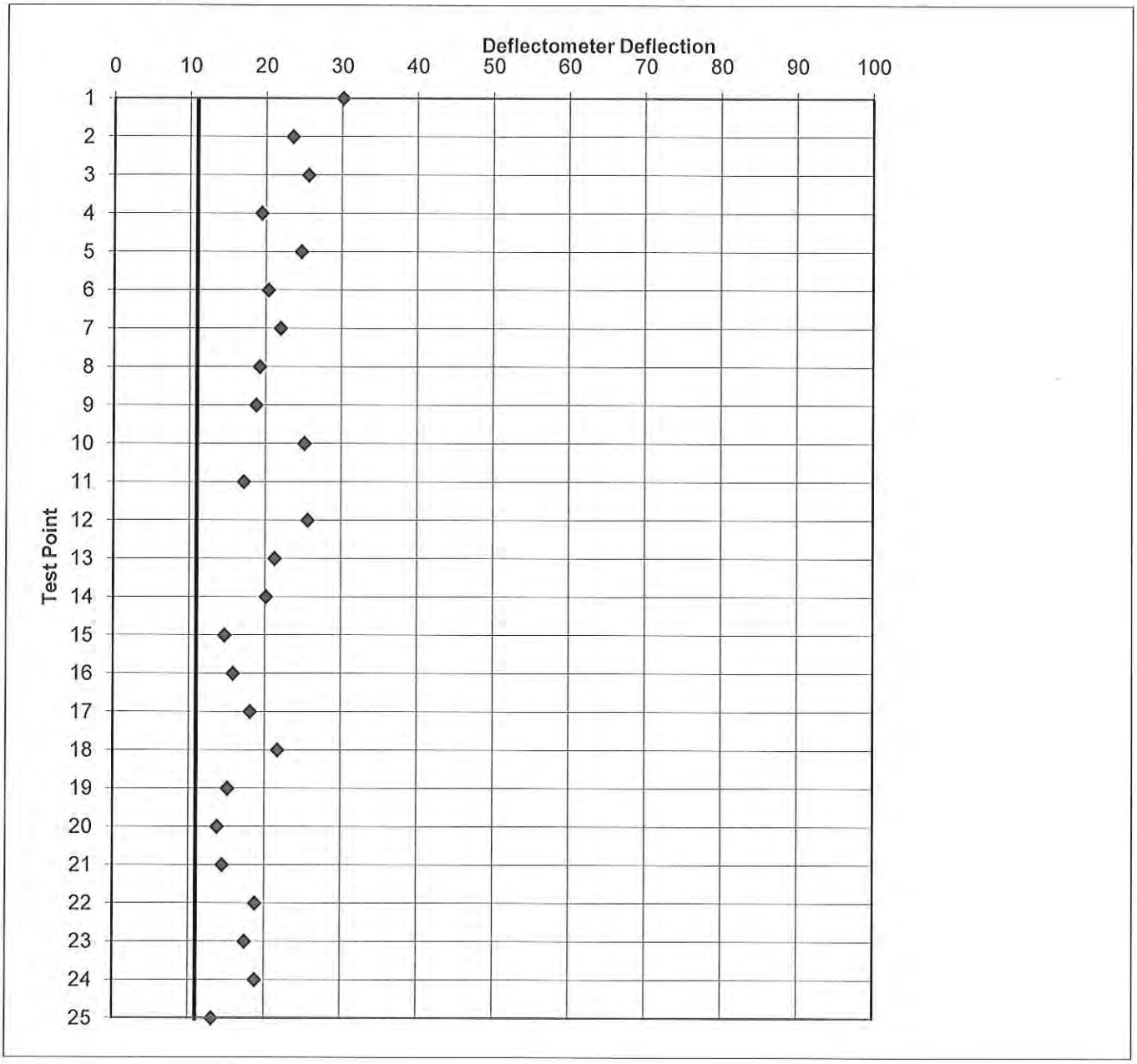

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Date: 3/27/2013

Client:	City of Paso Robles	Interval:	100
Road:	Scott	Survey Date:	1/13/13
From:	Airport	Thickness:	0.29
To:	Via Ramona	Traffic Index:	7.00
Lane/Line:	WB	Project Number:	130065

Test Points	Dynaflect	Conditions	Comments	Deflection	Exclude
1	1.35			30.127	
2	1.06		Marigold	23.548	
3	1.15			25.590	
4	0.88			19.464	
5	1.11		Ponderosa	24.682	
6	0.92			20.372	
7	0.99		Kimberly	21.960	
8	0.87			19.237	
9	0.85			18.784	
10	1.13		Carkaelleu	25.136	
11	0.78			17.196	
12	1.15		Kings	25.590	
13	0.96			21.279	
14	0.91			20.145	
15	0.67		Shepherd	14.700	
16	0.72			15.834	
17	0.82			18.103	
18	0.98		West Field	21.733	
19	0.69			15.154	
20	0.63			13.793	
21	0.66			14.473	
22	0.85			18.784	
23	0.79			17.422	
24	0.85		Driftwood	18.784	
25	0.60			13.112	
26	0.91		Commerce	20.145	
27	0.77		Cul-de-sac	16.969	
28	0.86			19.010	
29	0.93			20.599	
30	0.82			18.103	
31	0.86			19.010	

32	0.89			19.691	
33	0.87		Camino Cobo	19.237	
34	0.93			20.599	
35	0.95			21.052	
36	0.96			21.279	
37	1.00			22.187	

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City of Paso robles

Road: Scott
From: Via Ramona
To: Airport
Lane/Line: EB

Survey Date: 03/13/13
Thickness: 0.29
Traffic Index: 7.00
Project Number: 130065

Deflection Data Analysis

Deflection Readings (Equivalent Deflectometer Units)

No. of Tests	Low	Mean	High	Std. Dev.
36	13.79	20.16	30.35	3.93

Road Surface

Thickness	Traffic Index
0.29	7.00

Structural Design

Tolerable	80th Percentile	90th Percentile	% Reduction	GE Deficient
27.00	23.46	25.19	0.00	0.00

HMA Overlay
0.00

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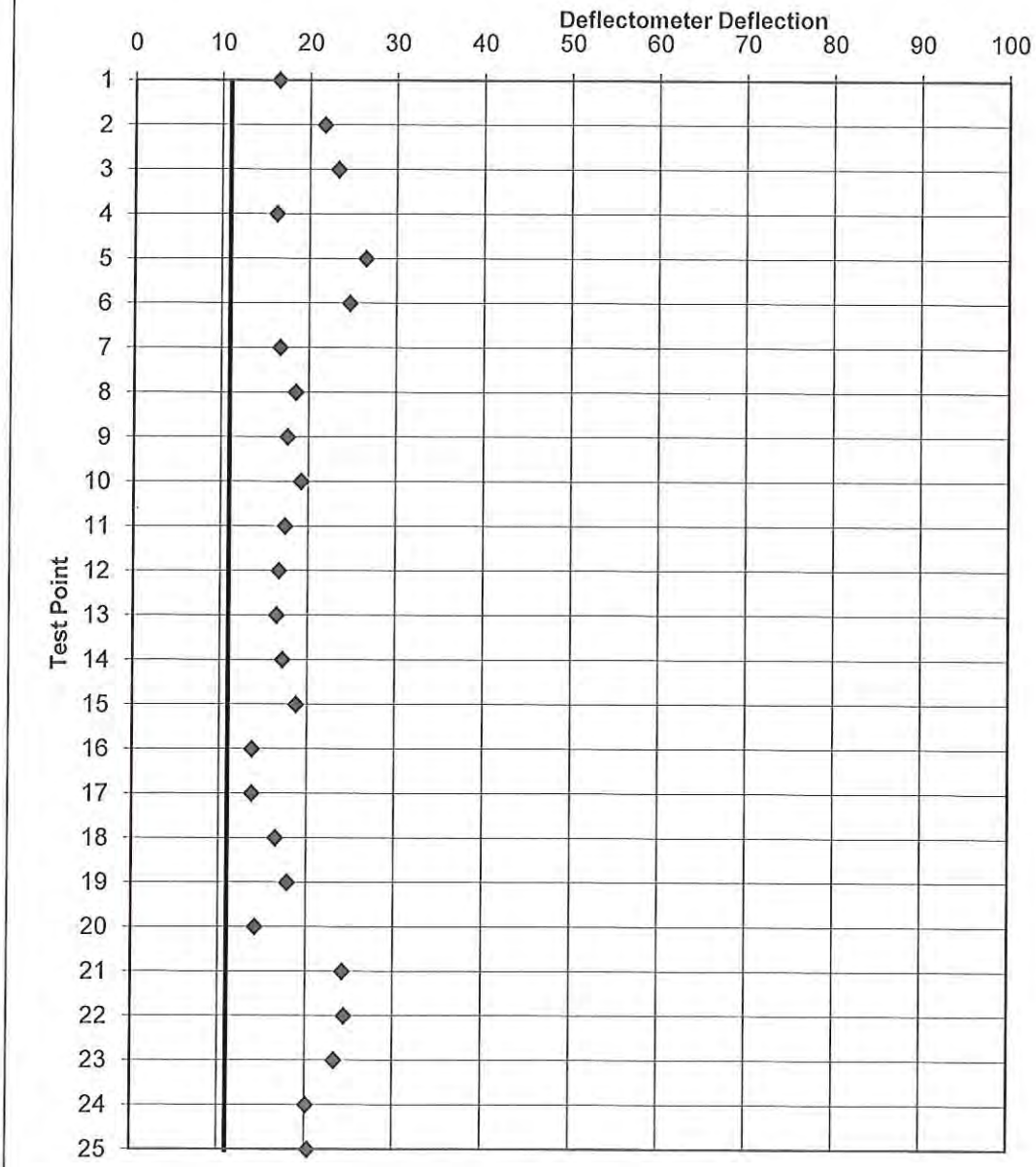
City of Paso robles

Road: Scott
From: Via Ramona
To: Airport
Lane/Line: EB

Survey Date: 03/13/13
Thickness: 0.29
Traffic Index: 7.00
Project Number: 130065



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Date: 3/27/2013

Client:	City of Paso robles	Interval:	100
Road:	Scott	Survey Date:	3/13/13
From:	Via Ramona	Thickness:	0.29
To:	Airport	Traffic Index:	7.00
Lane/Line:	EB	Project Number:	130065

Test Points	Dynaflect	Conditions	Comments	Deflection	Exclude
1	0.75			16.515	
2	0.98		Camino Cobo	21.733	
3	1.05	Digout Area		23.321	
4	0.74	COP		16.288	
5	1.19			26.497	
6	1.11			24.682	
7	0.76			16.742	
8	0.84		Cul-de-sac	18.557	
9	0.80		Commerce	17.649	
10	0.87			19.237	
11	0.79		Driftwood	17.422	
12	0.76			16.742	
13	0.75			16.515	
14	0.78			17.196	
15	0.85			18.784	
16	0.63			13.793	
17	0.63			13.793	
18	0.75		West Field	16.515	
19	0.81			17.876	
20	0.65			14.246	
21	1.09		Shepherd	24.228	
22	1.10		Before COP	24.455	
23	1.05			23.321	
24	0.91		Kings	20.145	
25	0.92			20.372	
26	1.08			24.002	
27	1.06		Carkaelleu	23.548	
28	0.92			20.372	
29	0.94		Kimberly	20.825	
30	0.78		before COP	17.196	
31	0.96			21.279	

32	0.93		Ponderosa	20.599	
33	1.18			26.270	
34	1.09			24.228	
35	1.36		Marigold	30.354	
36	0.93			20.599	

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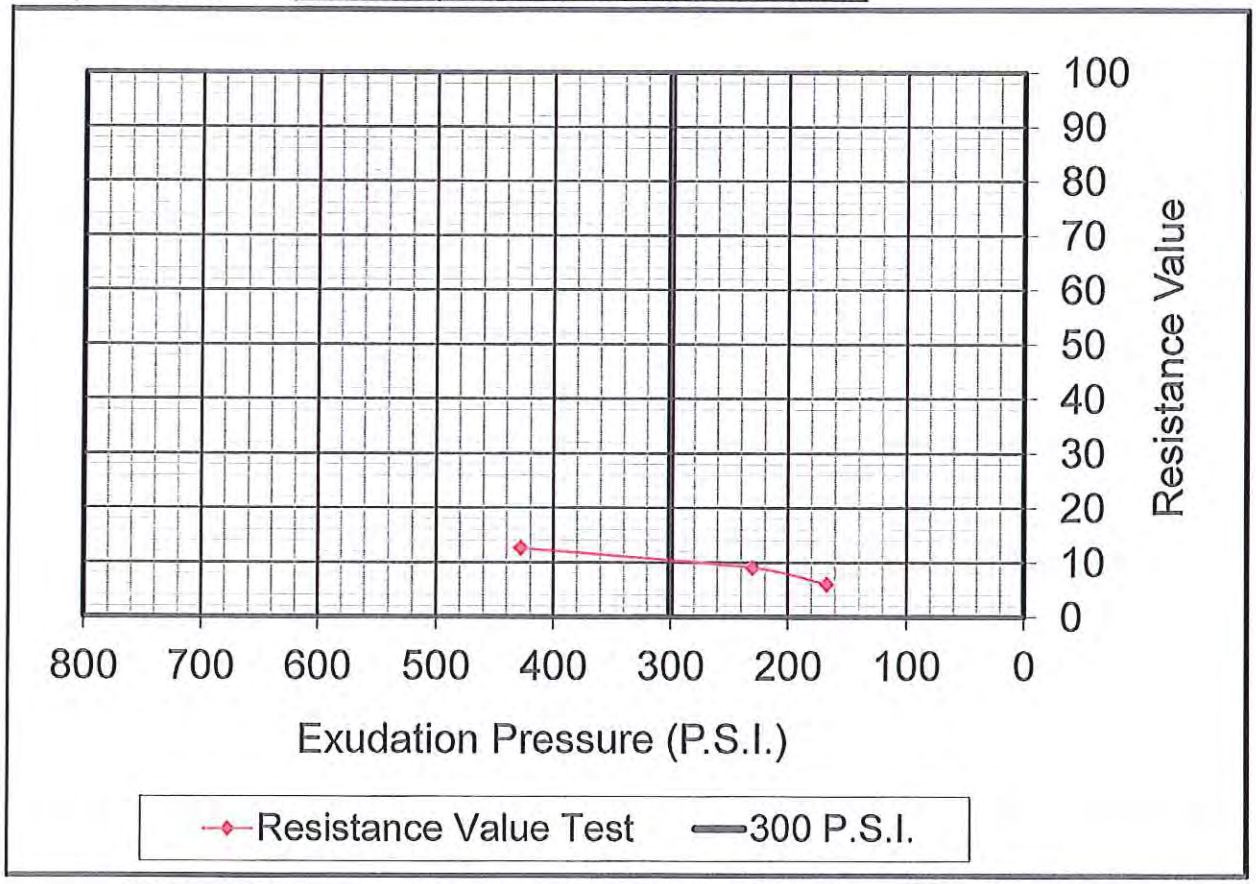
RESISTANCE (R) VALUE TEST

ASTM D 2844

Laboratory No.:	L130083A
Project No.:	130065
Sample Date:	March 12, 2013
Report Date:	March 21, 2013
Client:	City of Paso Robles
Project Name:	City of Paso Robles 2013 Pavement Analysis
Sample Description:	Brown Sandy Clay with Gravel
Sample Location:	Scott Street (Eastbound) - 500' East of Via Ramona



Specimen No.	1	2	3
Moisture Content (%)	10.9	11.8	12.3
Dry Density (PCF)	127.2	123.9	123.3
Resistance Value (R)	13	9	6
Exudation Pressure (PSI)	429	231	168
Expansion Pressure	35	4	0

RESISTANCE VALUE AT 300 P.S.I. 10

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Reviewed By: Craig Long

Craig W. Long
Laboratory Operations Manager

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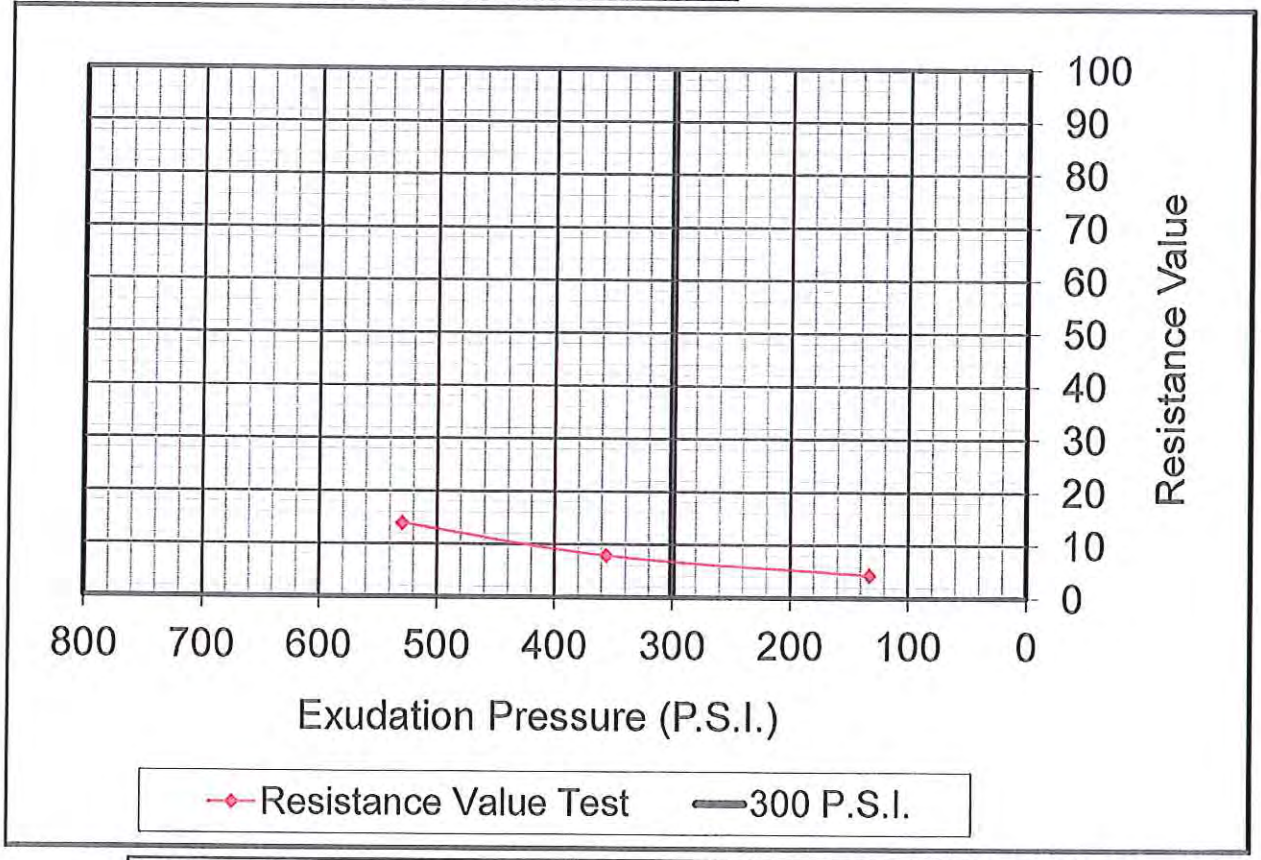
RESISTANCE (R) VALUE TEST

ASTM D 2844

Laboratory No.:	L130083AR
Project No.:	130065
Sample Date:	March 12, 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:	Scott Street - 2300' East of Via Ramona



Specimen No.	1	2	3
Moisture Content (%)	13.4	14.8	15.3
Dry Density (PCF)	123.5	119.8	118.6
Resistance Value (R)	14	8	4
Exudation Pressure (PSI)	530	357	133
Expansion Pressure	130	52	35

RESISTANCE VALUE AT 300 P.S.I. 7

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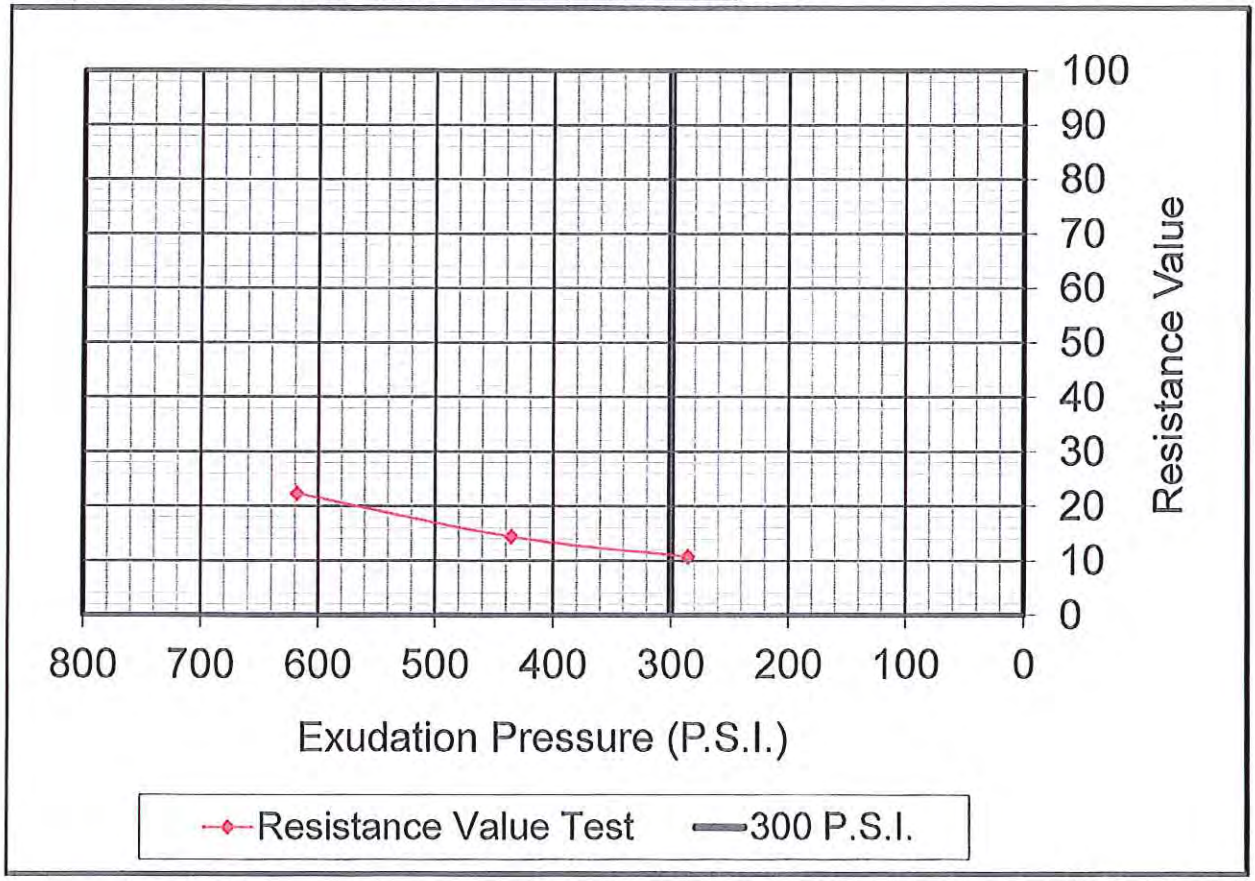
RESISTANCE (R) VALUE TEST
ASTM D 2844

Laboratory No.:	L130083J
Project No.:	130065
Sample Date:	March 14, 2013
Report Date:	March 25, 2013
Client:	City of Paso Robles
Project Name:	City of Paso Robles 2013 Pavement Analysis
Sample Description:	Brown Sandy Clay with Gravel
Sample Location:	Scott Street - 1500' East of Via Ramona



Specimen No.	1	2	3
Moisture Content (%)	16.0	17.2	17.8
Dry Density (PCF)	115.6	112.4	111.9
Resistance Value (R)	22	14	11
Exudation Pressure (PSI)	619	436	286
Expansion Pressure	95	74	61

RESISTANCE VALUE AT 300 P.S.I. 11

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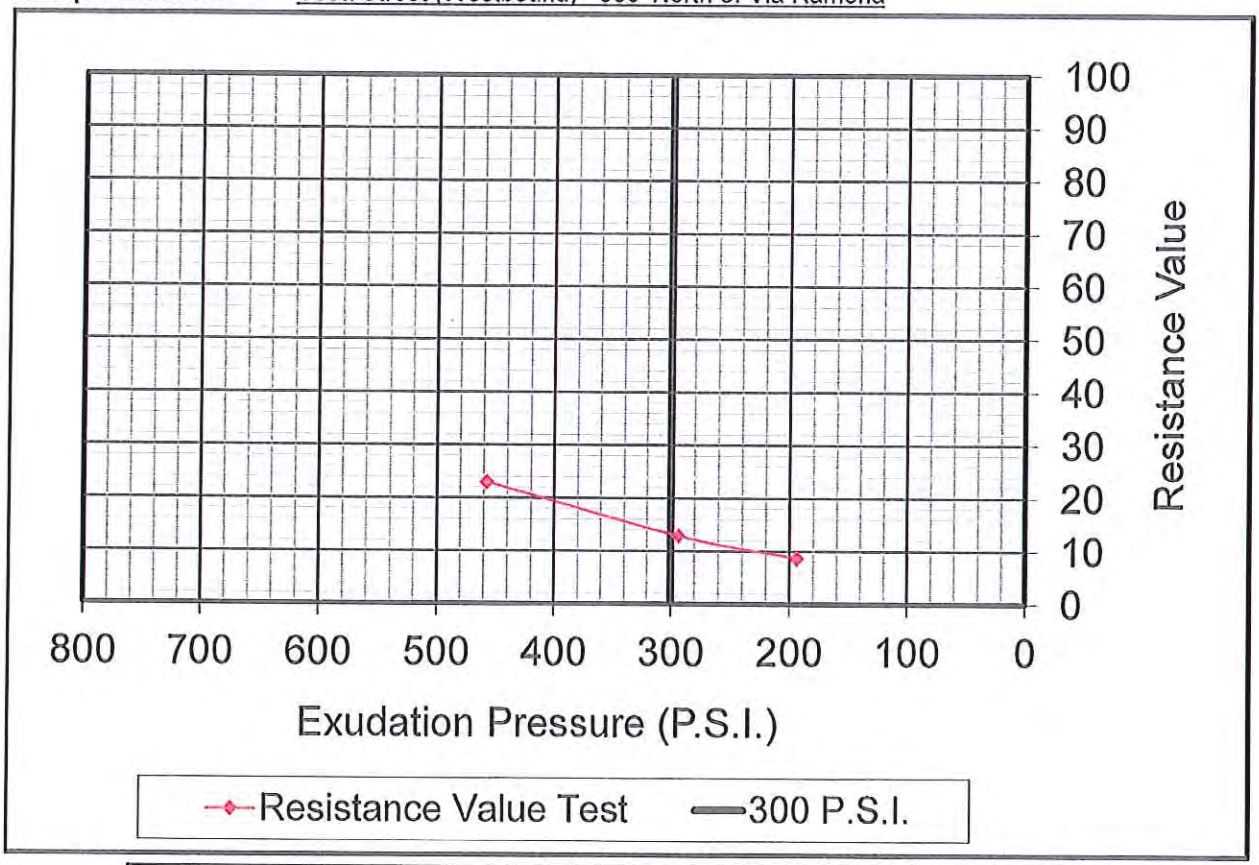
RESISTANCE (R) VALUE TEST
ASTM D 2844

Laboratory No.:	L130083AP
Project No.:	130065
Sample Date:	March 12, 2013
Report Date:	April 11, 2013
Client:	City of Paso Robles
Project Name:	City of Paso Robles 2013 Pavement Analysis
Sample Description:	Brown Clayey Silt with Sand
Sample Location:	Scott Street (Westbound) - 500' North of Via Ramona



Specimen No.	1	2	3
Moisture Content (%)	12.1	13.1	13.5
Dry Density (PCF)	125.5	123.2	122.2
Resistance Value (R)	23	13	9
Exudation Pressure (PSI)	458	294	195
Expansion Pressure	13	0	0

RESISTANCE VALUE AT 300 P.S.I. 13

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SCOTT STREET – VIA RAMONA TO AIRPORT ROAD
Via Ramona looking Eastbound

SCOTT STREET – VIA RAMONA TO AIRPORT ROAD
Commerce Way looking Eastbound

SCOTT STREET – VIA RAMONA TO AIRPORT ROAD
Lark Ellen Drive looking Eastbound

SCOTT STREET – VIA RAMONA TO AIRPORT ROAD
Airport Road looking Westbound