

LOW VOLUME ROAD PROJECT REVIEW

Highway Name and Location	SH 96A, Milepost 25 - 46
Treatment Used	Chip seal topped 1.5" Overlay and/or Milling in surgical locations.

2014



2015



2016



LOW VOLUME ROAD PROJECT REVIEW

2017



2018



Condition before treatment 2013						See Below:					
BMP	Emp	Year	Iri	Rut	Fatg	Tran	Long	Crbk	DL	DL_idx	Cond
22.1	27.1	1995	73	99	68	78	88	0	3	FATG	LOW
27.1	28	1995	71	100	25	77	62	0	0	FATG	LOW
28	29	1989	62	96	46	81	83	0	0	FATG	LOW
29	34	1990	66	97	56	69	84	0	1	FATG	LOW
34	39	1990	69	98	76	71	93	0	7	FATG	MODERATE
39	42	1993	79	99	97	81	94	0	14	FATG	HIGH
42	46	1972	71	82	96	89	99	0	12	FATG	HIGH
Condition after treatment Yr 1 - 2014						See Below:					
BMP	Emp	Year	Iri	Rut	Fatg	Tran	Long	Crbk	DL	DL_idx	Cond
22.1	26	1995	74	100	80	40	96	0	0	TRAN	LOW
26	31	2014	100	100	100	100	100	0	15	FATG	HIGH
31	36	2014	100	100	100	100	100	0	15	FATG	HIGH
36	41	2014	100	100	100	100	100	0	15	FATG	HIGH
41	46	2014	100	100	100	100	100	0	15	FATG	HIGH
Condition after treatment Yr 2 - 2015						See Below:					
BMP	Emp	Year	Iri	Rut	Fatg	Tran	Long	Crbk	DL	DL_idx	Cond
22.1	26	1995	81	100	91	62	92	0	3	TRAN	LOW
26	31	2014	85	100	100	96	99	0	8	IRI	MODERATE
31	36	2014	90	100	100	99	100	0	9	IRI	MODERATE
36	41	2014	88	100	89	81	95	0	7	TRAN	MODERATE

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41	46	2014	91	100	97	92	97	0	7	TRAN	MODERATE
Condition after treatment Yr 3 - 2016						See Below:					

BMP	Emp	Year	Iri	Rut	Fatg	Tran	Long	Crbk	DL	DL_Idx	Cond
22	26	1995	79	100	93	57	88	-1	3	TRAN	LOW
26	31	2014	83	100	100	94	100	-1	9	IRI	MODERATE
31	36	2014	89	100	100	96	100	-1	10	IRI	MODERATE
36	41	2014	87	100	97	74	89	-1	7	TRAN	MODERATE
41	46	2014	89	100	99	88	94	-1	6	TRAN	MODERATE

Condition after treatment Yr 4 - 2017	See Below:
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BMP	Emp	Year	Iri	Rut	Fatg	Tran	Long	Crbk	DL	DL_Idx	Cond
22.1	26	1995	80	98	71	46	96	-1	0	TRAN	LOW
26	31	2014	83	100	99	88	99	-1	9	IRI	MODERATE
31	36	2014	89	100	100	93	100	-1	10	IRI	MODERATE
36	39.1	2014	89	100	100	97	100	-1	10	IRI	MODERATE
39.1	43	2017	100	100	100	100	100	-1	15	FATG	HIGH
43	46	2014	91	98	100	94	99	-1	7	IRI	MODERATE

Condition after treatment Yr 5 - 2018	See Below:
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BMP	Emp	Year	Iri	Rut	Fatg	Tran	Long	Crbk	DL	DL_Idx	Cond
22.1	26	1995	80	98	71	46	96	-1	0	TRAN	LOW
26	31	2014	84	100	98	90	100	-1	9	IRI	MODERATE
31	36	2014	89	100	100	89	100	-1	10	TRAN	MODERATE
36	39.1	2014	89	100	100	95	100	-1	10	IRI	MODERATE
39.1	43	2017	83	83	92	65	89	-1	4	TRAN	MODERATE
43	46	2014	91	98	100	94	99	-1	7	IRI	MODERATE

Change in DL condition documented	Average DL increase of ~10 years.
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Treatment	Quantity	Unit	Treatment Area (SY)	Unit Cost	Cost	Calculated Cost (SY)
Rem of Asphalt Mat (Planing)	49,826	SY	49,826	\$2.45	\$122,073.70	\$2.45
HMA (Gr SX) (75)(PG 64-22) (1.5")	24,938	Ton	302,279	\$73.15	\$1,824,214.70	\$6.03
Cover Coat Material (Type II)	171,881	SY	171,881	\$2.20	\$378,138.20	\$2.20
Emulsified Asphalt (CRS-2P)	413	Ton	171,881	\$180.00	\$74,340.00	\$0.43
Emulsified Asphalt (Slow Setting)	13,856	Gal	277,120	\$2.50	\$34,640.00	\$0.13

Takeaways	<p>Areas of the project where delamination of the existing HMA was occurring were treated with 1.5" mill/fill. Most of the remainder of the project was a thin overlay. A couple of areas where the roadway was not too rough compared to adjacent areas were not treated with HMA mill/fill or overlay. A chip seal was placed over as much of the project as budget would allow upon completion of the paving (chip seal was placed from MP 26 to MP 39). The project allowed the use of slag chips in one test section which has performed very well. Similar to the US 24 project, the areas selected to remain in place with no HMA treatment prior to the project are now noticeably rougher than those areas where no HMA was placed. Noticeable enough to get complaints about the ride in those areas upon completion of the project. As noted in the condition data, the treatment offered very little benefit to the transverse cracking reflecting through.</p>
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