

MnROAD Surface Type Summary (May 2012)

Source:

Rolling Resistance Measurements at the MnROAD Facility

APPENDIX A. SUMMARY OF PAVEMENT SURFACE TYPES AT MnROAD

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March 2012



Research Project



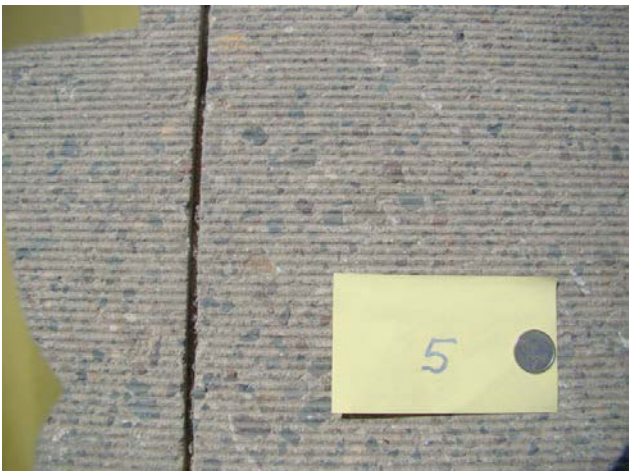
Interim Report 2012-07




Note:


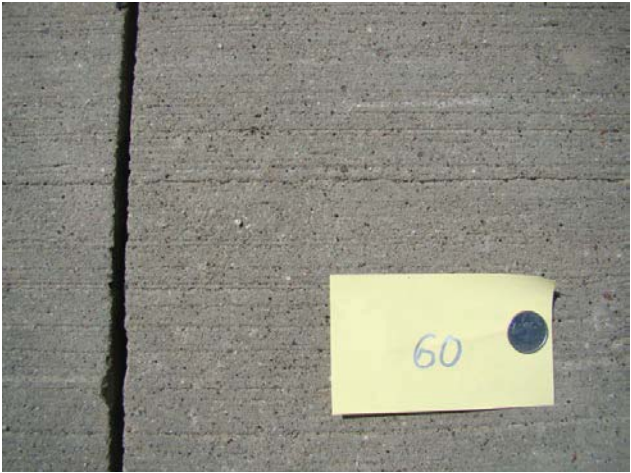

R212 (SMA) surface is not located at MnROAD




Table A-1. Characteristics of MnROAD Cells and Pavement Surfaces.




Cell	SubCell	Experiment	Surface Type	Picture
2		SemMaterials FDR Study	Ultra Thin Bonded Wearing Course	
3		SemMaterials FDR Study	Ultra Thin Bonded Wearing Course	


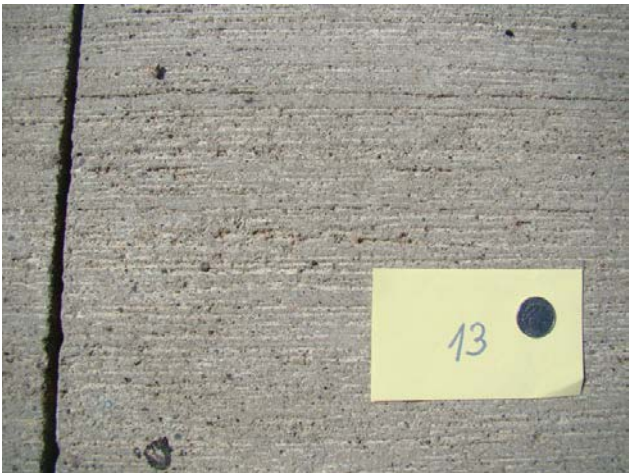

4		SemMaterials FDR Study	12.5 mm Dense Graded Superpave	
5	505 605		Transverse Broom	
	305 405		Longitudinal Tine + Conventional Grind	




6	306 406		Longitudinal Tine + Turf	
7		5 year design PCC - Widened lane - PASB - longer panel	Innovative Diamond Grind	
8		5 year design PCC - Widened lane - PASB - Supplemental Steel	Conventional Diamond Grind	




9		5 year design PCC - Widened lane - PASB	Ultimate Diamond Grind (2008)	
60		Thin Bonded Concrete Overlay of HMA - 5 inch - sealed	Turf	
61		Thin Bonded Concrete Overlay of HMA - 5 inch - unsealed	Turf	

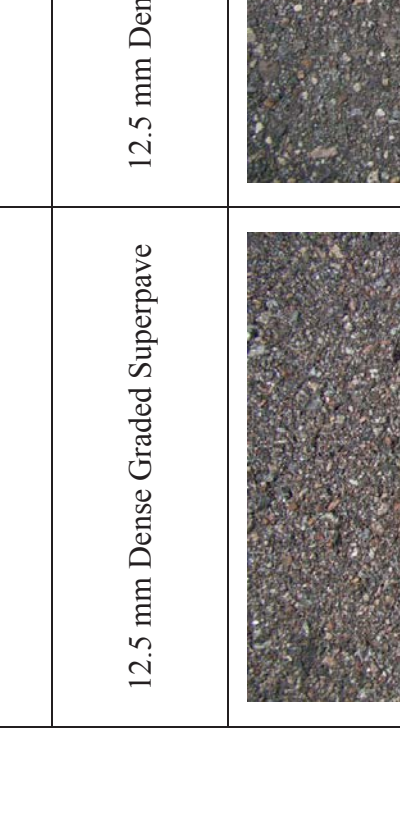


62		Thin Bonded Concrete Overlay of HMA - 4 inch - sealed	Turf	
63		Thin Bonded Concrete Overlay of HMA - 4 inch - unsealed	Conventional Diamond Grind	
96		Thin Bonded Concrete Overlay of HMA - 5 by 6 panels	Conventional Diamond Grind	




70		SHRP II Composite Pavement Study - DL Doweled, PL Not Doweled	12.5 mm Dense Graded Superpave	
71		SHRP II Composite Pavement Study - Diamond Grind Surface	2010 Ultimate Diamond Grind (Driving) Conventional Diamond Grind (Passing)	
72		SHRP II Composite Pavement Study - EAC Surface	Exposed Aggregate	




12		10 year design PCC - Drained base	Transverse Tine	
13	513 413 313 213 113	PCC Thickness Optimization - 5 inch - Flat Plate Dowels - 12 and 15 foot panel lengths	Longitudinal Turf Drag	
14	914 814 714 614 514 414 314 214 114		Longitudinal Broom Drag	




15		Warm Mix Asphalt Overlay	12.5 mm Dense Graded Superpave	
16		Recycled Unbound Base Study, Warm Mix Asphalt Surface	12.5 mm Dense Graded Superpave	
17		Recycled Unbound Base Study, Warm Mix Asphalt Surface	12.5 mm Dense Graded Superpave	

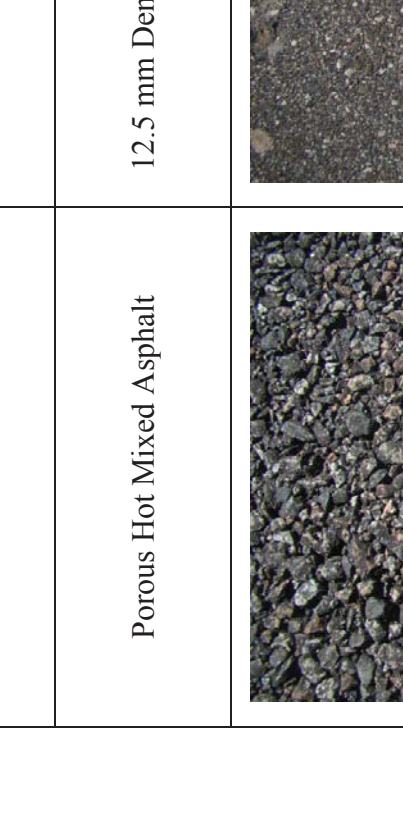

18		Recycled Unbound Base Study, Warm Mix Asphalt Surface	12.5 mm Dense Graded Superpave	
19		Recycled Unbound Base Study, Warm Mix Asphalt Surface	12.5 mm Dense Graded Superpave	
20		Low Temperature Cracking, RAP Study	12.5 mm Dense Graded Superpave	




21		Low Temperature Cracking, RAP Study	12.5 mm Dense Graded Superpave	
22		Low Temperature Cracking, RAP Study	12.5 mm Dense Graded Superpave	
33		Polyphosphoric Acid Study	12.5 mm Dense Graded Superpave	




34		Polyphosphoric Acid Study	12.5 mm Dense Graded Superpave	
35		Polyphosphoric Acid Study	12.5 mm Dense Graded Superpave	
36		LVR design PCC - SUBGRADE R70 subgrade - doweled	Transverse Tine	




37		LVR design PCC - SUBGRADE R70 subgrade -undoweled	Conventional Diamond Grind (TS3) Innovative Diamond Grind (TS 1 and 2) 2010 Diamond Grind (TS 5) Transverse Tine (TS 4 and Inside)	
38		LVR design PCC - Standard base - doweled	Transverse Tine	
39		Porous Concrete Overlay Experiment	Pervious Overlay	

40		LVR design PCC - 7-5.5-7 inch Trapezoidal - undoweled	Transverse Tine	
24		Aging Study, WMA Control	12.5 mm Dense Graded Superpave, Fog seals each year in 100-ft sections	
85		Pervious Concrete Experiment - Low Volume Road - Sand subgrade	Pervious Concrete	

86		Porous HMA Study	Porous Hot Mixed Asphalt	
87		Porous Pavement Study - Control Section	12.5 mm Dense Graded Superpave	
88		Porous HMA Study	Porous Hot Mixed Asphalt	

89		Pervious Concrete Experiment - Low Volume Road - Clay subgrade	Pervious Concrete	
27		Geocomposite Capillary Barrier Drain	Chip Seals (FA-2 and FA-3)	
28		Stabilized Full Depth Reclamation	Double Chip Seal	

77		Fly Ash Study, Polyphosphoric Acid Study	12.5 mm Dense Graded Superpave	
78		Fly Ash Study, Polyphosphoric Acid Study	12.5 mm Dense Graded Superpave	
79		Fly Ash Study, Polyphosphoric Acid Study	12.5 mm Dense Graded Superpave	

31		2004 LVR Taconite Superpave	12.5 mm Dense Graded Superpave	
32		LVR design PCC - Thin Slab	Longitudinal Turf Drag	
52		5 year design PCC - Load testing - FRP dowels	Longitudinal Turf Drag	

53		60-year PCC	Transverse Broom	
54		PCC mix experiment - Mesabi Select aggregates	Longitudinal Turf Drag	
R212		Stone Matrix Asphalt	Stone Matrix Asphalt	