

**2010 Composite Pavement Construction at MnROAD
 Engineer's Weekly Report
 Week of May 3 - 7, 2010
 Mark Watson, MnDOT**

The fourth weekly construction meeting was held Monday morning at MnROAD, items discussed included: the planned paving schedule for the week, the upcoming mainline construction (mix issues, timing/number of trucks, application of MBT Reveal), materials testing results (revised values for recycled concrete aggregate absorption) and safety items (hard hats, vests, safety glasses and location of research personnel in relation to contractor) it was agreed to continue the practice of pre/post paving meetings on the grade.

Summary of Research and Construction Activities Completed during week of May 3 - 7

Monday, May 3

MnROAD and University personnel continued work on installing and preparing sensors.

Tuesday, May 4

MnROAD and University personnel continued work on installing and preparing sensors.

Wednesday, May 5

Paving on MnROAD Mainline cell 70. This 474' cell consisted of 6" of recycled concrete (RCC) mix that will subsequently be overlaid with 3" of HMA. There were some issues present with the air content of the mix and 4 loads were rejected. Consistency was better than the demo slab, and the slump was generally close 1.5 – 1.75". At this slump, the mix could be walked on after approximately 45 minutes. The first 8 yd load of RCA was delivered at 7:17, and finished paving at 12:15, rained at 12:00 and entire job was covered with poly by 12:45.

Table 1. Tests on Fresh PCC

Mix	Date	Location	Time	% Air	Slump (in)
RCCMR	5/5/2010	1164+10	7:30 AM	7.0%	0.75
RCCMR	5/5/2010	1164+80	7:50 AM	10.8%	1 1/2
RCCMR	5/5/2010	1165+50	8:15 AM	10.6%	
RCCMR	5/5/2010	1165+60	9:07 AM	8.4%	3.25
RCCMR	5/5/2010	1166+50	9:43 AM	6.8%	1.5
RCCMR	5/5/2010	1168+00	10:55 AM	6.8%	1.75



Thursday, May 6

Paving on MnROAD Mainline cell 71, which consists of 6” of RCC overlaid (wet-on-wet composite concrete) with 3” of exposed aggregate concrete (EAC). Ran out of RCA resulting in cell length of only 266’. 40% of PCC lost during washing process. 2 load of RCC had high slump and was rejected. Consistency was better than the demo slab, and the slump was generally close 1.5 – 1.75”. Started paving at 8:15, and the last load (EAC) arrived at approximately 11:22.

Table 2. Tests on Fresh PCC

Mix	Date	Location	Time	% Air	Slump (in)
RCCMR	5/6/2010	1169+30	8:10 AM	6.6%	1.25
EACMR	5/6/2010	1169+30	9:10 AM	5.0%	2.25
EACMR	5/6/2010	1169+40	9:20 AM	6.2%	2.25



Friday, May 7

Rain day, no work completed, paving of Mainline cell 72 rescheduled for Monday, May 10.

Next week: cell 72 will be paved on Monday, May 10, assuming no weather or equipment related delays.

If you have any questions, please feel free to contact me.

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CC: SHRP 2 Research, Mn/DOT Materials and Road Research, File