

Warm Mix Asphalt Site Report

Job No: PEI DOT Rte 2
Date (D/M/Y): Aug 5, 2010
Location: Rte 2 in Richmond, PEI west of Summerside
Other Job Reference: PEI WMA # 2
Contractor/Agency: Curran and Briggs/PEI DOT
Job Description: 3GV DAT ET
Mill, Base, and Seal on Rte 2 with Evotherm PG 58-28 3GV. This job was not tendered as WMA but PEI DOT allowed it to proceed based on the positive results from their previous Evotherm 3GV job done July 23'10 on Malpeque Road (Rte 20).

Arrival Time: 10:00AM
Departure Time: 4:30PM

Weather Conditions: Rained overnight. Cloudy all day. Approx. high of 23C. Winds moderate
Length of Job: 2km
Total Tonnage: 3200MT of 3/4" Type A Base Mix (some of which was done today); 2600MT of 3/8" Type B Seal Mix (to be done in the following days)
Stations: NA

WMA General Info:

- Mix Type: Type A 3/4" WMA Base mix; Type B 3/8" WMA Seal mix
- A/C Type: Evotherm 58-28 3GV
- A/C Source: McAsphalt Eastern Passage
- Temp. of A/C in Storage Tanks: 148C
- Antistripping Type and Amt: None required; TSRs OK
- McAsphalt Ticket No(s): NA- various
- WMA Discharge Temperature: 130C +/- 2C targeted, but varied because alternating from WMA to private work at times. Actual was 128-138C
- WMA Laydown Temperature: 125-132C behind spreader
- Compaction Equipment Used: Rubber Tire Breakdown, DD Vib. Intermediate, Same DD vib used for finish rolling (not typical)



EVOTHERM - Warm Mix Asphalt Site Report

(Cont'd)

**Table 1: General Tack Coat and WMA Checklist
(Re: Bond and Compaction Related Checklist)**

Description of Task	Yes	No	Comments
Was the distributor's application of tack to the existing roadway's surface homogenous? Take note of tack temperature and type.	X		SS-1D; very good coverage and streak free; excellent job!
Were all surfaces clean prior to tacking (longitudinal jts, transverse jts and roadway)?	X		Tack was already placed when I arrived on site, but based on the good bond and no pick-up it must have been clean.
Were the distributor's spray nozzles between 15 to 30 deg. and all at the same angle?	X		Great coverage and no streaking
Was the surface free of signs of moisture?	X		I assume so due to good bond to underlying HMA
Were the rollers keeping up with the spreader?	X		
Did the spreader stop frequently to wait for WMA trucks?		X	There was no shuttle buggy so the spreader stopped for a <u>short</u> time between all loads
Was a shuttle buggy used to promote continuous paving and to ensure a more homogenous heat distribution and better overall compaction?		X	Not required in PEI DOT Specs
Were the WMA trucks tarped?	X		

The above checklist focuses only on tack coat issues (i.e. bond issues) and factors which influence compaction and the overall performance of the PG Warm A/C's and polymer modified Warm A/Cs. Other issues such as segregation, profilograph smoothness, mix results, etc, are not directly A/C related and as such are not covered.

McAsphalt Representative: Alain Cormier

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Warm Mix Asphalt Site Report (Cont'd)

Additional Comments or Concerns:

- Target AC content 5.2%; actual AC also 5.2%
- Plant output was 185t/hr for the WMA at 31% burner capacity, while the HMA done earlier that morning was at 170t/hr and at 49% burner. i.e. there were obvious fuel savings. They could not run the HMA at more than 170t/hr because the mix temperature would drop too low. This reinforces the fact that production can sometimes increase when doing WMA vs. typical HMA.
- Haul distance to site was 18.5km.
- Existing surface was cracked and rutted in several areas. Glass grid was used in an effort to stop reflective cracking (see Pics. 1 & 2). Picture 1 also shows how, even after milling, ruts were still present in the EBL, which will lead to variable thicknesses and potential for variable compaction across the mat.



Pic 1. Glass Grid in EBL



Pic 2. Close-up of Glass grid over cracks

- The tack job was excellent with no pick-up, streaking or tracking (see Pic 3).



Pic. 3: Good uniform tack application!

- The average density for the Aug 5'10 WMA Base Mix was 93.8%, which is quite good and above typical HMA densities.
- The project went well and the PEI DOT and Contractor were pleased with the performance of the WMA.

Please do not hesitate to call if you have any question or comments.

Regards,

Alain Cormier, P. Eng.
McAsphalt Atlantic Marketing