

# MTO-OAPC HOT MIX ASPHALT SUBCOMMITTEE MEETING NOTES

**Date:** September 19, 2024  
**Time:** 10:00am to 1:00 pm  
**Location:** 365 Brunel Road, Mississauga & Microsoft Teams

<b>ATTENDEE</b>	<b>ORG.</b>	<b>ATTENDEE</b>	<b>ORG.</b>
<b>Doubra Ambaiowei (DA)</b>	OAPC/ORBA	<b>Joel Magnan (JM)</b>	MTO
<b>Fernando Magisano (FM)</b>	Canadian Asphalt Industries Inc.	<b>Seyed Tabib (ST)</b>	MTO
<b>Mark Latyn (ML)</b>	Capital Paving	<b>Gelu Vasiliu (GV)</b>	MTO
<b>Selena Lavorato (SL)</b>	GIP Inc.	<b>Gizelle Cotton (GC)</b>	MTO
<b>Kevin Martin (KM)</b>	Fermar Paving Ltd.	<b>Sonja Dambremont (SD)</b>	MTO
<b>Trevor Moore (TM)</b>	COLAS Construction	<b>Dariusz Wodala (DW)</b>	MTO
<b>Amma Agbedor (AA)</b>	Asphalt Institute	<b>Imran Bashir (IB)</b>	MTO
<b>Sina Varamini (SV)</b>	CRM of Americas	<b>Stephen Lee (SL)</b>	MTO
<b>Steven Crombie (SC)</b>	ORBA	<b>Warren Lee (WL)</b>	MTO
<b>Kate Lyons-Davies (KL)</b>	CRH	<b>Loan Le (LL)</b>	MTO
<b>Hashim Anwar (HA)</b>	CRH		
<b>REGRET</b>	<b>ORG.</b>	<b>REGRET</b>	<b>ORG.</b>
<b>Walid Abou-Hamde (WAH)</b>	ORBA		
<b>Steve Manolis (SM)</b>	GIP Materials Engineering		

<b>INTRODUCTION / ANNOUNCEMENTS</b>	
	<ul style="list-style-type: none"> <li>Kate Lyons-Davies and Hashim Anwar of CRH are joining the subcommittee. CRH will select a single permanent representative soon.</li> <li>Vincent Gangaram has left the subcommittee.</li> <li>MTO delivered a safety talk on overhead hazards</li> </ul>

<b>OPEN ITEMS</b>		<b>ACTION BY</b>
<b>Dec-19-8</b>	<b>MIX PERFORMANCE TESTING</b> <i>Description:</i>	

OPEN ITEMS	ACTION BY
<ul style="list-style-type: none"> <li>• MTO to develop specification for MPT that can be included on any project.</li> <li>• OAPC wondering if MTO has preferred method for balanced mix designs.</li> <li>• OAPC enquiring about IDEAL CT. Is it a consideration for Ontario?</li> <li>• MTO is conducting ongoing MPT Lab Correlations</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• MTO shared the ISS correlation results (titled “Dec-19-8_Cummulative MTO ISS Correlation Results 2024 R1”) for round 1 in 2024 – 8 labs participated.</li> <li>• MTO noted high variation due to a single laboratory, however the laboratory was not determined to be an outlier based on statistical analysis.</li> <li>• OAPC asked MTO what its opinion of the four rounds of correlation are. MTO noted that the conditions and materials in each correlation are different which is why the average values of ultimate load and ISS are variable between rounds of correlation.</li> <li>• OAPC asked MTO why the laboratory prepared samples have a significantly higher ISS value. MTO indicated that the laboratory prepared samples were ideal conditions. There is no dust or debris. Adequate curing is provided. The focus should be on field obtained ISS values.</li> <li>• OAPC asked if there are any recommended thresholds or penalties for ISS. MTO indicated it is too early to discuss acceptance criteria.</li> <li>• OAPC asked if there are correlation results for MPT. MTO indicated that results were just received last week, and analysis should be ready for the December meeting.</li> </ul> <p><b>ACTION – No Action.</b></p>	

OPEN ITEMS		ACTION BY
<p><b>May-22-10</b></p>	<p><b>ENVIRONMENTAL PRODUCT DECLARATIONS (EPD’S) FOR ASPHALT IN ONTARIO – MTO’S POSITION?</b></p> <p><i>Description:</i></p> <ul style="list-style-type: none"> <li>As part of the net zero emissions goal, OAPC is seeking to understand MTO perspectives on EPD’s for Ontario Asphalt Mixes and forging a collaborative approach to make it work.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>MTO indicated that the framework for EPDs to be incorporated into GreenPave has been provided to OAPC.</li> <li>MTO indicated there is no direction from climate change office.</li> <li>OAPC indicated that various RAP proportions, crumb rubber, and other technologies will be beneficial to asphalt materials from an environmental perspective.</li> </ul> <p><b>ACTION – No action.</b></p>	
<p><b>May-22-13</b></p>	<p><b>SMA Applications – Grit Sand Specification Revisions</b></p> <p><i>Description:</i></p> <ul style="list-style-type: none"> <li>OAPC suggests MTO can look at revising specification due to lack of grit sand sources available.</li> <li>OAPC indicated that there is variability in how CA firms accept gritting material on MTO contracts.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>OSSGA was given the proposed grit sand gradations through the MTO-OSSGA subcommittee.</li> <li>OAPC indicated no friction data or information was able to be gathered.</li> <li>MTO is looking at friction data for retexturing methods in the case that a SMA grit fails, and mitigation is required. Data was gathered for diamond grinding, ball blasting, and water blasting.</li> <li>MTO is also drafting the CAIS document for CA agreements. There is currently no CAIS for SMA Grit.</li> </ul> <p><b>ACTION – No action.</b></p>	

OPEN ITEMS	ACTION BY
<p><b>Sept-22-12</b> <b>Smoothness specification – future changes</b>  <i>Description:</i></p> <ul style="list-style-type: none"> <li>• MTO reviewing the current smoothness specification and the list of exemptions for existing pavements. Specifically, MTO would like to modify section 8.01.02 paragraph f:                             <ul style="list-style-type: none"> <li>○ <i>“The first adjacent lane consisting of one or more lifts of hot mix asphalt that shall match to an existing surface that is not being resurfaced as part of this Work.”</i></li> </ul> </li> <li>• MTO noted that currently projects have excluded entire lanes from smoothness measurements due to the tie-in exemption.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• MTO is still in the consultation process. The document is with Standards Management Section (SMS).</li> <li>• Once comments are received from SMS the comments will be addressed and it will be published on TCP.</li> <li>• The CAIS has also been drafted and may be published on TCP at the same time.</li> </ul> <p><b>ACTION – MTO will continue following the consultation process.</b></p>	<p><b>MTO</b></p>
<p><b>Dec-22-13</b> <b>ADDITIONAL OAPC 2024 RESEARCH PROGRAM OUTLINE</b>  <i>Description:</i></p> <ul style="list-style-type: none"> <li>• OAPC initiated a new Study in collaboration with Carleton University. The expected timeline to complete Study is 3 years.</li> <li>• The study objective is to quantify the GHG emissions at asphalt plants. This study supports the move to net zero emissions.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• OAPC is working on the OMAP Mix Asphalt Performance Program. The mix was prepared in the laboratory and participating laboratories had to perform cutting and notching. Samples were sent at three different AC contents. Results will be obtained, and data processed shortly.</li> <li>• OAPC with NRC is doing a green house gas emission study with Carleton University. Emissions data from various plants will be analyzed.</li> <li>• MTO asked how detailed the study is. MTO asked if data is plant specific or if it will be a regional/provincial benchmark. OAPC indicated that the idea is to have a provincial benchmark for various style plants. OAPC is instructing members to take this study seriously as part of the decarbonization of the industry. The study should take about a year to complete.</li> </ul> <p><b>ACTION – No Action.</b></p>	

OPEN ITEMS	ACTION BY
<p><b>June-23-1</b></p>	<p><b>HMA OPTIMIZATION</b>  <i>Description:</i></p> <ul style="list-style-type: none"> <li>• WMA coupled with higher RAP combinations to reduce environmental impacts.</li> <li>• OAPC wants to promote using recycled material.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• OAPC is approaching municipalities for participation in the Pave-In trial for 2025. York Region might be interested in conducting the trial with WMA and various high RAP combinations. OAPC also wants to incorporate rejuvenation technology into the trial. York Region has a rejuvenation product that they would like to try and OAPC suggests some alternate suppliers.</li> <li>• The trial will also incorporate strain gauges and other Mix Performance Testing methodologies.</li> <li>• OAPC hopes to confirm this trial at the fall seminar.</li> <li>• MTO asked if OAPC will look at effective binder. OAPC indicated that this is also something being considered.</li> <li>• OAPC indicated that the trials will include a control section of Warm mix, one section of RAP, rejuvenator, and warm mix, and a third section of different RAP quantity and warm mix but no rejuvenator.</li> <li>• This trial meets OAPC priorities to optimize RAP contents.</li> </ul> <p><b>ACTION – No action.</b></p>

OPEN ITEMS	ACTION BY
<p><b>Sept-23-1</b>     <b>BALANCED MIX DESIGN</b>  <i>Description:</i></p> <ul style="list-style-type: none"> <li>• OAPC wants to understand ministry's process on BMD.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• OAPC presented some material from NCAT at the ATS.</li> <li>• OAPC delivered this presentation to help members understand what BMD is and the direction that industry needs to go related to MPT and BMD.</li> <li>• OAPC inquired about the FHWA trailer. The trailer is booked but there may be an accommodation in 2025 or 2026. OAPC is looking for further details and confirmation, as well as the cost of bringing the trailer.</li> <li>• OAPC indicated that it would like to know MTO expectations for the FHWA trailer. ORBA and OAPC directors want MTO collaboration related to importing the trailer across the border, the mix that will be tested and prepared, power sources, and financial support, as well as a venue to house the trailer.</li> <li>• OAPC indicated it is particularly interested on training related to HWT testing.</li> <li>• MTO will look into the asks of OAPC related to the trailer.</li> <li>• Related to BMD testing, OAPC indicated that they are looking at one mix and the changes in AC content. The next step is to change the gradation, however the coarser the mix becomes, the less workable the mix will be and subsequently in place density may be reduced.</li> </ul> <p><b>ACTION</b> – OAPC will determine specifics about the requirements, including financial, for bringing the trailer to Ontario.  <b>ACTION</b> – MTO will determine to what extent it can help with the FHWA trailer.</p>	<p><b>MTO</b></p>
<p><b>Sept-23-2</b>     <b>PH-CC-866: BINDER REPLACEMENT ADJUSTMENTS</b>  <i>Description:</i></p> <ul style="list-style-type: none"> <li>• OAPC stated that the PH-CC-866 indicates +0.2% in AC Content and a Binder Replacement of -5.0%. The negative may be a mistake.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• OAPC reiterated that MTO sees that a positive binder replacement allows for an increase in RAP but OAPC wants to be able to reduce AC if necessary.</li> <li>• MTO indicated that if a specific case is presented it can re-evaluate. MTO requested the item be closed.</li> </ul> <p><b>ACTION</b> – Close item.</p>	

OPEN ITEMS	ACTION BY
<p><b>Sept-23-3</b>     <b>OPSS 313 – REVISITING QUALITY EVALUATION</b></p> <p><i>Description:</i></p> <ul style="list-style-type: none"> <li>• How can OAPC increase or strive for better quality in asphalt pavement?</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• MTO indicated that PWL is not a measure of material quality, it is a measure of the consistency of the quality of the material.</li> <li>• MTO shared “Sept -23-3_PWL distribution analysis for ERS of HMA”. MTO looked with emphasis on PWL 96 to 100.</li> <li>• The analysis contained data from 950 lots prior to the 2016 AG report and 700 lots after the AG report.</li> <li>• OAPC looks at this as MTO is penalizing contractors harder and quality is dropping because there is no incentive to do well.</li> </ul> <p><b>ACTION</b> – <i>MTO will continue to review the previous letter from OAPC and will continue to examine the technical justification of changing any parameters/pay factors in the ERS, in relation to potential benefits of durability and lifecycle, including a financial analysis and assessment of potential impacts. Jurisdictional scans and current practices and literature will also be taken into account.</i></p>	<p><b>MTO</b></p>
<p><b>2023-12-1</b>     <b>CTAA 2025 &amp; MTO’S COLLABORATION</b></p> <p><i>Description:</i></p> <ul style="list-style-type: none"> <li>• OAPC requested MTO to collaborate for CTAA 2025 since the conference is coming to Ontario. OAPC feels that MTO should not be declining given their leadership role.</li> <li>• OAPC requested MTO to showcase their facility during CTAA 2025.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• OAPC indicated that the MTO committed to showcasing the CETI laboratories at the MTO-ORBA Executive Committee.</li> <li>• OAPC will contact MTO regarding details of the showcasing. It will likely be over a weekend.</li> <li>• MTO indicated that there will be some updates to laboratory facilities expected in 2025, but MTO is hopeful that the work will not significantly limit the ability to showcase the facility.</li> </ul> <p><b>ACTION</b> - <i>OAPC to contact MTO.</i></p>	<p><b>OAPC</b></p>

OPEN ITEMS	ACTION BY
<p><b>2024-03-1 REVISITING AC INDEX PUBLICATIONS</b></p> <p><i>Description:</i></p> <ul style="list-style-type: none"> <li>• OAPC asked why AC Index was not published with updated values over the winter.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• MTO has conducted a jurisdictional scan of Canadian and US DOTs, especially those in colder climates.</li> <li>• There is variation between whether jurisdictions have an index, and whether the index is published year-round or only during paving months. MTO methodology behind the index is not unique but other methodologies exist.</li> <li>• OAPC requested the calculation behind the index is shared.</li> </ul> <p><b>ACTION – MTO to continue reviewing the data and determine the feasibility of publishing the index with updated values over the winter months.</b></p> <p><b>ACTION – MTO to determine whether the details of the calculation can be shared.</b></p>	<p><b>MTO</b></p>
<p><b>2024-03-3 OAPC’S PROPOSED PAVE-IN FOR HIGH-RAP MIX TRIALS IN 2025</b></p> <p><i>Description:</i></p> <ul style="list-style-type: none"> <li>• Discuss OAPC’s proposed demonstration with high-rap mixes in 2025.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• This was discussed under HMA optimization.</li> </ul> <p><b>ACTION – Close item.</b></p>	



NEW ITEMS	ACTION BY
<p><b>2024-09-1</b>    <b>INSOLUBLE RESIDUE REQUIREMENTS</b>  <i>Description:</i></p> <ul style="list-style-type: none"> <li>• OAPC inquired why this is a requirement when RAP is used.</li> <li>• OAPC indicated that this specification was initially implemented for RAP in surface course mixtures, but currently MTO does not allow RAP in the surface course.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• MTO does not want to focus on this issue at the subcommittee meeting as the issue is specific to one contract and the proper communication within the contract does not appear to have been followed by the contractor.</li> <li>• MTO confirmed that there was no change to the specification.</li> <li>• MTO indicated that the requirement for when RAP is used in surface course has not been removed because it is possible RAP could return to the surface course in the future or may be allowed for trials. Therefore, this table in the specification remains unchanged so that it does not need to be subsequently updated.</li> </ul> <p><b>ACTION</b> – Close item.</p>	
<p><b>2024-09-2</b>    <b>PGAC SAMPLING REQUIREMENTS</b>  <i>Description:</i></p> <ul style="list-style-type: none"> <li>• OAPC inquired if it is possible to change the OPSS 1101 requirement to have a sampling spigot and whether in-line samples should be acceptable.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• OAPC indicated that both in-line sampling and spigot sampling have benefits and drawbacks.</li> <li>• OAPC indicated that there are methods to do both samples safely.</li> <li>• MTO indicated that in-line samples are difficult because staff responsible for witnessing samples cannot be knowledgeable on PGAC lines and specific valve systems for a plant. For this reason, PGAC tank samples are much simpler to verify.</li> <li>• OAPC indicated that staff that are not knowledgeable will not know which tank PGAC is being pumped from and could be provided with a sample from the wrong tank.</li> <li>• MTO may consider changes in the future, however MTO is committed to treat all contractors equally and fairly based on existing specification.</li> </ul> <p><b>ACTION</b> – OAPC will consult members on whether they want a specification change.</p>	<p><b>OAPC</b></p>
<p><b>ROUND TABLE</b></p> <ul style="list-style-type: none"> <li>• OAPC brought up the Fall Asphalt Seminar and several significant topics that will be discussed including Warm Mix, decarbonization, cooperation in industry, etc.</li> </ul>	

<b>INFORMATION SHARED FOR THIS MEETING</b>		
<b>Document Title</b>	<b>Shared By</b>	<b>Format</b>
Sept -23-3_PWL distribution analysis for ERS of HMA	MTO	Text, graphs and tables in document format (pdf)
Dec-19-8_Cumulative MTO ISS Correlation Results 2024 R1	MTO	Text, graphs and tables in slide format (pdf)

<b>NEXT MEETING</b>
<ul style="list-style-type: none"> <li>• 2024 Meeting Dates:                             <ul style="list-style-type: none"> <li>• March 28 (OAPC Host)</li> <li>• May 23 (MTO Host)</li> <li>• September 19 (OAPC Host)</li> <li>• December 5 (MTO Host)</li> </ul> </li> </ul> <p>All meeting scheduled from 10 am - 1 pm</p>
Meeting adjourned: 12:55 pm