

# Meeting Notes

## MTO/ORBA Structures Technical Subcommittee

<b>Date</b>	November 20, 2025
<b>Time</b>	10:00 am to 1:25 pm
<b>Meeting Hosted By</b>	MTO
<b>Location</b>	Microsoft Teams

### Attendance:

Attendee	Organization
Alfredo Maggio	Graham Bros. Construction Ltd.
Luigi Chioldo	Alliance Verdi Civil Inc.
Mike Desautels	Atlantic Industries Ltd.
Steve D'Orazio	Clearwater Structures
Mike Doupe	McLean Taylor Construction Ltd.
Kris Gangaram	CRH Canada Group Inc.
Jesse Hopkins	Powell (Richmond Hill) Contracting Limited
Bart Kanters	Concrete Ontario
Alexis Del Rosario	ORBA
Tim Smith	Cement Association of Canada
Jon Vallieres	EllisDon (Looby Construction Limited)
Andrew Weltz	BAUER Foundations Canada Inc.
Cole Zanchetta	R.W. Tomlinson Limited
Jenn Meleschuk	MTO, Contract Management Office
Mohammad Aqel	MTO, Engineering Materials Office
James Combe	MTO, Structures Office
Laura Donaldson	MTO, Structures Office
Jeffrey Giroux	MTO, Quality Assurance
Benjamin Hamilton	MTO, Contract Management Office
Gustavo Julio-Betancourt	MTO, Engineering Materials Office
Olta Kociu	MTO, Structures Office
Joel Magnan	MTO, Engineering Materials Office
Kris Mermigas	MTO, Structures Office
Quinn Mieske	MTO, Contract Management Office
Amanda Naylor	MTO, Contract Management Office
Bo Ni	MTO, Engineering Materials Office
Ahmed Ouda	MTO, Contract Management Office
Melissa Titherington	MTO, Engineering Materials Office

## Introduction / Announcements:

- Amanda Naylor has joined the subcommittee.
- Tim Smith will be leaving the subcommittee, today is his last meeting.
- Kris Mermigas joins today as a guest.
- Quinn Mieske joins today as a guest.

## Open Items

### Sept 25-2, MTO RCP Acceptance Limit

#### Description:

- OPSS 1350 has an RCP acceptance limit of 2,500 Coulombs at 28-days. ORBA proposes the MTO consider providing an alternative 56-day acceptance criteria if the 28-day result does not pass.

#### Discussion:

##### *September 2025:*

- ORBA asks MTO to consider testing RCP at 56-days following a failed 28-day test, with the understanding that as concrete continues to age and mature, the permeability performance improves.
- A 56-day RCP acceptance threshold would need to be significantly more stringent than a 28-day acceptance threshold to be considered equivalent material, taking into account the well-established improvements in RCP results with increased curing time. Based on this, delaying testing would not necessarily result in higher acceptance rates, but would result in more significant project impacts.
- MTO specifications include a referee process that can be invoked. The higher performance threshold of the referee test considers that RCP performance increases with time and is to account for the time difference between testing and referee testing.
- MTO's opinion is that it is better to test earlier than later to have fewer project impacts in the event of a failed test.

##### *November 2025:*

- MTO has done some review on seven years of previous RCP results. Results from 2024 are currently being reviewed and could change the review outcome, but the passing rate for RCP testing has been between 91% and 97% for each year reviewed. MTO's position is that it is better to know of a test failure sooner than later to mitigate impacts, and the failure rate appears to be low so there does not appear to be a need to change the specification.
- MTO's database is based on 28-day RCP tests so there is a question about what an acceptance value would be at other testing times. The improvement of concrete microstructure over time, therefore RCP values, is well established and documented. Higher slag contents delay the improvement of RCP values, so MTO is reviewing quality assurance testing of higher slag content mixes.
- ORBA suggested a second acceptance threshold for 56-day testing so a mix that fails 28-day testing that takes longer to achieve the expected permeability performance could still be acceptable if it meets a lower 56-day RCP value that compensates for concrete's improvement to RCP values over time.

Action Items:

- MTO will provide an update when the review of RCP results from 2024 is complete.

**Sept 25-3, MTO Slag Limit**

Description:

- ORBA proposes MTO increase the slag replacement limit of concrete exposed to chlorides from 25% to 30%

Discussion:

*September 2025:*

- ORBA notes MTO's concrete pavements limit is currently 30% slag replacement, and the industry is confident that current concrete technology can result in higher performing/less permeable concretes if slag content is increased.
- Previous concrete industry and MTO discussions were to identify locations where salt scaling is not an issue for trials. There is recurring interest with industry average EPD's being updated again. MTO requests updated EPD's when report is completed.
- MTO considers the effective slag content as the ratio of slag to clinker. With the change from GU to GUL cement, the effective content is already closer to 28-29% than 25%. There is an inherently lower water/cement ratio of pavement concrete than other concrete because of the typical construction process of MTO contracts and MTO does not consider pavement concrete and other concrete equivalent for comparison.

*November 2025*

- MTO is open to trials with slag contents greater than 25% in low risk buried elements. MTO would also like to investigate construction impacts during the trials.
- ORBA suggests a trial could have multiple mix designs with different slag contents for comparison and that not all mixes would need to be incorporated into the work.
- ORBA and Concrete Ontario will remind members to propose trials to MTO when possible.

Action Items:

- Item closed.

**Sept 25-4, MTO Concrete Discharge Time Limit**

Description:

- ORBA proposes MTO increase the concrete discharge time allowance from 90 minutes to 120 minutes where supply and full discharge of a concrete delivery cannot be completed within 90 minutes from an MTO approved batch plant.

Discussion:

*September 2025*

- CSA A23.1:24 allows 120-minute discharge time with owner approval so ORBA members have, without success, requested MTO on specific contracts to allow the use of set-retarders to extend discharge time. Concrete producers believe they can

demonstrate that concrete properties are not impacted by this discharge time extension through trials.

- MTO did many trials over the years with respect to workability retaining admixtures but the outcome was not successful. Hydration is slowed, but it is still happening and there will eventually be an impact on concrete properties and durability.
- MTO, Concrete Ontario, and admixture companies have recently discussed new technologies. MTO is open to reviewing new technologies impact on this requirement when Concrete Ontario is prepared to discuss.

*November 2025:*

- An ORBA member is moving forward with a potential trial for Spring 2026, to be submitted to MTO for review if confirmed.

Action Items:

- None.

**Sept 25-5, Construction Site Third-Party Concrete Testing**

Description:

- Concerns with the quality of commercial field testing of concrete has prompted discussion of concrete field testing overall. ORBA proposes discussion of systems/processes to ensure quality field testing of concrete and accountability for non-conformance.

Discussion:

*September 2025:*

- Improper testing can lead to poor, inaccurate, and misleading results. ORBA's concern is how testers that are not performing tests correctly are identified and remediated, and how to address an improper test without affecting a concrete load. MTO projects have more oversight, but commercial work has prompted this concern.
- MTO has strict specification requirements for the qualifications of concrete testers to do the work and this is an uncommon issue. The current tracking/remediation process is on a case-by-case basis.

Action Items:

- Item closed.

**May 25-1, Ontario Procurement Restriction Policy**

Description:

- Ontario Management Board of Cabinet issued a procurement restriction policy, effective March 4, 2025, that is designed to restrict United States (U.S.) businesses from accessing public sector procurements in Ontario.

Discussion:

*May 2025:*

- In March 2025, the United States of America introduced tariffs on Canadian products. In response, Ontario's Treasury Board implemented U.S. bid restrictions. In April

2025, the Procurement Restriction Policy was issued to OPS staff and posted to Ontario.ca.

- Since April 2025, the OPS has been working on operationalizing this policy. The MTO must exclude U.S. businesses from procurements.
- A NSSP or Addendum will be issued on a go-forward basis with a bidder declaration to declare whether or not the bidder meets the definition of a U.S. company provided. Subcontractors are not currently part of the policy.

*September 2025:*

- The policy has been operationalized since mid-May.
- Canadian Institute of Steel Construction (CISC) has requested that MTO enact a policy that all fabrication of structural steel take place in Canada. This request is currently under review but does not appear to deviate from the current fabrication process.

Action Items:

- Item closed.

### **May 24-3, Compensation for Mobilization Costs for Rapid Concrete Base Repairs**

Description:

- ORBA put forward this item at the end of the meeting because members have encountered an issue where a contract specifies Type A concrete removal and rapid set concrete replacement for concrete pavement patching but after asphalt removal, no concrete repair is required and the quantity for the payment item is 0.
- ORBA notes the small closure times permitted requires mobilization of all equipment and materials expecting the quantity of work identified in the contract documents. When the quantity is not accurate, there is no contractual mechanism for payment.

Discussion:

*May 2024:*

- ORBA notes that rapid hardening concrete and proprietary materials need to be purchased and on-site ahead of removal of asphalt or it will not be available for the repair within traffic closure time. A method of payment for these materials and mobilization costs for labour/equipment is requested.

*September 2024:*

- ORBA received contract information the morning of the meeting and provided four contract number examples for the MTO to review.

*November 2024:*

- ORBA suggests that paying some fixed percentage of the quantity sheet repair unit tender price, regardless of the quantity of work performed is another option that could alleviate contractor concern of 0-quantity rapid concrete base repairs. For example, a 2m<sup>3</sup> patch is listed in the contract that is found to not require repair and 20% of that patches' tender price is paid.
- MTO review of contract number examples previously provided suggests that compensation was addressed at the field level, but MTO is still reviewing how the

issue might otherwise be addressed. There was discussion with ORBA about what types of fixed costs are associated with the work.

**May 2025:**

- MTO review suggests that 0-quantity issues have been addressed by change order at the field level. MTO will not be making a change to the item payment clauses and will address each contract specific issue on a case-by-case basis via change order.
- ORBA disagrees with this approach. There is no contract language that says a change order will be issued for a 0-quantity repair, it is difficult to price the risk into the item at the time of bidding without knowing whether or not a particular contract administrator will issue a change order. Pile driving pays for equipment mobilization and a separate item pays for length of driven pile. ORBA also has examples of this issue where a change order was not issued.

**September 2025:**

- MTO and ORBA reiterate points from the previous meeting. MTO re-iterated previous meeting action for ORBA to provide requested examples of projects that have not received additional compensation by change order to review if a policy change or clarification is required. ORBA will provide contract examples.

**November 2025:**

- MTO and ORBA reiterate points from the previous meeting. MTO re-iterated the previous meeting action for ORBA to provide requested examples of projects that have not received additional compensation by change order to review if a policy change or clarification is required. ORBA will provide contract examples when they're received.

**Action Items:**

- Item closed. The item will be re-opened if ORBA provides additional contract examples.

**Nov 23-1, Volumetric Mix Truck Trials**

**Description:**

- This item was originally put forward by ORBA at the Contracts and Documents Subcommittee. MTO proposed that technical discussions about concrete acceptance requirements take place in the MTO-ORBA Structures Technical Subcommittee.
- The discussion of this item at previous meetings has effectively changed it to conducting trials of volumetric mix trucks. ORBA would like the option to use volumetric mix trucks without having to submit a change proposal. The item title was changed at the November 2025 meeting.

**Discussion:**

**November 2023:**

- Concrete supply challenges include fewer numbers of suppliers outside of the Greater Toronto Area as well as suppliers choosing to not supply concrete for MTO projects. Of 88 Concrete Ontario members, only 11 will supply MTO contracts.

- ORBA suggests the concrete specification requirements could be changed to attract more suppliers or permitting contractors to use mobile mix plants.
- MTO has not substantially changed concrete requirements from when more suppliers provided concrete and intends for specification requirements to be related to increased material durability. Volumetric mix trucks are being actively investigated and MTO will be meeting with industry soon to discuss research.
- Concrete Ontario has GPS located all 270 concrete plants and a map is available on the website. Location of supply should now be easier.

*May 2024:*

- Concrete Ontario does not anticipate any raw material shortages for 2024. Supply issues to MTO will be from member evaluation of risk involved with bidding on MTO contracts.
- ORBA suggests the concrete specification requirements could be changed to attract more suppliers or permitting contractors to use volumetric mixing trucks because MTO contracts are paying far above the market rate per m<sup>3</sup> of concrete and there are few available suppliers.
- MTO is currently conducting some trials with volumetric mix trucks for non-structural concrete and has concerns with uniformity of concrete being produced that's discharged from the truck. A second trial is being conducted with a second supplier.

*September 2024:*

- Concrete supply in general is down about 8%. Concrete Ontario doesn't see a foreseeable issue with the concrete supply. Steel plate for bridge girders seems to consistently have a 2–3-month delay between placing an order to getting a rolling date. Girder fabrication is generally 5-6 months and can be an issue for some new bridges.
- Volumetric mix trucks have previously been discussed but the OPSS 1350 draft provided to ORBA does not include volumetric mix trucks; ORBA would like to know if MTO is still considering trials and possibly accepting volumetric mix trucks in the future. ORBA reiterates concerns about concrete waste related to patch work, supplier reluctance to supply MTO contracts, and greenhouse gas emissions.
- MTO would still like to conduct volumetric mix truck trials for non-structural components and is looking for suitable contracts to conduct trials. Requirements for volumetric mix trucks would be by NSSP modifying OPSS 1350. MTO stresses that consideration is only for non-structural applications because MTO still has technology concerns including uniformity of mixes, challenges with cementing materials because volumetric mix trucks can't have 2 types of cementing materials, and some trucks can't mix 19mm aggregate mixes.
- Trials will ideally include exposed conditions for extended performance monitoring, so trials may take 2-3 years.

*November 2024:*

- Ready-mix concrete volume was down last year and is expected to be down again this year. There are not expected to be concrete shortage issues.

- Potential USA tariff implementation in January 2025 could severely impact the admixture industry and other specialty materials that are processed in the USA and other cross-border critical materials.

*May 2025:*

- MTO is still open to proposals to use volumetric mix trucks for specific non-structural applications such as noise wall footings. There are ongoing discussions with MTO and Concrete Ontario and equipment suppliers.

*September 2025:*

- Concrete Ontario would like to add some ORBA members to the liaison committee discussing volumetric mix trucks with MTO to ensure all perspectives are considered. The next meeting is next Wednesday.
- MTO remains open to proposals to use volumetric mix trucks for non-structural applications. Change proposals should already be flagged to Quality Assurance (QA) to ensure it reaches the correct MTO staff, but ORBA members may also request the Contract Administrator to contact QA/Concrete when submitting trial proposals.

*November 2025:*

- The title of this item is changed to better reflect the ongoing discussions since May 2024.
- MTO and Concrete Ontario recently had a meeting to discuss MTO's concerns with volumetric mix trucks. MTO remains open to proposals to use volumetric mix trucks for low-risk non-structural elements, e.g., noise wall footings, sidewalks and curb and gutter to evaluate them.

Action Items:

- Item closed. The item will be re-opened if new information is provided.

## **Sept 23-2, Concrete Spalling Issues and Acceptance Specifications**

Description:

- ORBA's position is that there is no contractual requirement to resist chemical attacks nor is there any specific durability specification pertaining to salt or any other chemical. ORBA believes it is unreasonable for MTO to suggest that it is the contractor's and supplier's responsibility to make sure the concrete mix design is durable to a chemical that is not specifically identified.
- OPSS 1350.04.01.01 "The concrete mix shall be designed to provide adequate strength and durability for the intended use and to meet the requirements as specified in the Contract Documents."
- 904.08.01 also refers OPSS 1350, "Acceptance shall be according to OPSS 1350 and this specification..."

Discussion:

*September 2023*

- ORBA noted the issue seems to be particular to concrete barrier, sidewalk, and curb, and would like to mitigate the issue (sealers) until MTO determines the specific cause. ORBA noted the following concerns:

- The barrier seems to only spall on the traffic face so de-icing chemicals are suspected.
- The sole purpose of the barrier is to prevent errant vehicles from leaving the highway and MTO shouldn't refer to OPSS 904 and OPSS 1350 to extend the purpose of barrier to resist de-icing chemical attack.
- MTO contracts do not specify what chemical will be applied and how it will react with the concrete. Concretes exposed to severe chemical attack are typically epoxy coated.
- Concrete has passed RCP and AVS tests and many examples were built in staged construction so at least half the barrier has had sufficient time to cure.
- MTO commented that a purpose of concrete is to be durable in its environment, RCP and AVS are specified for durability, proper curing is an important factor, and sealers may not be an effective solution based on data to date.
- The specific failure mechanism needs to be determined first before any further discussion can occur.

*November 2023:*

- MTO and ORBA repeated their positions from the September 2023 meeting.

*May 2024:*

- MTO held an industry outreach meeting in February 2024. Scaling was identified in 23 cases over the past 5 years, so the issue is not as widespread as initially thought. MTO's experience is that concrete sealers do not solve the problem but just delay observation of the problem.
- MTO is continuing work on site investigations and winter maintenance practices, as well as lab testing to identify potential cause(s) and will follow up with ORBA when results of investigations are complete.
- MTO is also proceeding with a related HIIFP research project. ORBA would like to see the terms of the research proposals.
- Discussion about higher supplementary cementitious materials (SCM) content for concrete not exposed to chlorides that was also discussed at the industry outreach meeting. Any specifications changes related to SCMs will not be complete in 2024.
- ORBA suggests higher strength concrete for barriers/sidewalks and states MTQ specifies 50MPa for barriers, and that some DOT's specify sealers.

*September 2024:*

- MTO sent ORBA HIIFP topic 4 about research related to slag content between meetings. The topic was recently awarded to University of Toronto and should start later this month. Research will investigate different slag content and the impact of slag content on salt scaling and freeze/thaw performance.
- ORBA would have liked to see the research include higher slag percentages and investigate different de-icing chemicals. The scope of research appears to be less than discussed at the stakeholders meeting. This research proposal was issued prior to any discussion at stakeholder meetings and 2025 HIIFP proposals are due soon so future research may include additional scope.
- ORBA asks for specific de-icing chemical compositions being used and application rates from Area Maintenance Contracts (AMC).
- Draft OPSS 904 includes a clause about an approved list for concrete sealers. MTO position on sealers has not changed, they were already permitted for certain

applications in the specification but did not say what sealers to use. The new clause is to notify contractors of the approved product list.

*November 2024:*

- MTO provided ORBA with the MTO highways maintenance program de-icing chemical information prior to the meeting.
- The awarded HIIFP project now includes some investigation of chlorides.
- Alternative approaches to barriers were discussed including 50 MPa concrete, sealers, and steel traffic barrier.
- MTO and ORBA do not agree on how to approach 2025 construction contracts. MTO's position is that each issue will be treated as a contractual issue and will be evaluated on an individual basis. The EMO Concrete section will get involved with each dispute for consistency and to collect additional data.

*May 2025:*

- MTO didn't identify any issues and there were no reported issues for the 2023/2024 winter season. The 2024/2025 season is under active investigation for any potential issues. MTO is also following up with site inspection and laboratory work.
- ORBA requests de-icing chemical information – each chemical, its application volume and frequency, the concentration over the last 10 years, and the proportion of each chemical being applied (e.g., is NaCl<sub>(s)</sub> being applied 70% of the time?). MTO will investigate volume and frequency; concentration was shared in the information for the last meeting for each region.

*September 2025:*

- MTO, Concrete Ontario, and ORBA reiterate previous discussion and positions.
- ORBA did not report new instances of scaling/spalling relating to disputes on MTO contracts.
- Concrete Ontario does not want to receive any information about de-icing chemicals used by MTO.
- A smaller group will be organized to discuss this particular issue elsewhere.

*November 2025:*

- MTO would like to clarify notes from previous meeting discussions:
  - The issue with barrier walls was primarily located in East Region in 2018, peaking in 2022 in Central and East Regions. Since then, MTO Concrete has not received any non-conformances for the 2023 or 2024 construction seasons related to scaling from either of these regions.
  - There are a couple of cases starting to develop in West Region, as well as a sidewalk in the municipality of Halton. The Halton sidewalk has been reviewed and the spalling has been attributed to workmanship. MTO wants to be informed of any specific issues of scaling from 2024 construction contracts.
  - Not all previously opened MTO investigations have been completed yet.
  - There is an ongoing trial in the Barrie area about the use of sealers to mitigate salt scaling. Field performance is still being evaluated, but preliminary lab results indicate that MTO will not permit sealers. The mass loss of concrete using two different, popular sealers was greater than the untreated concrete after 50 cycles in laboratory conditions. The results demonstrated that the issue is exacerbated with sealers and also delays observation until after

contractual warranty periods. Next season will be the last for this trial area and sealer reapplication timelines are also being evaluated.

- Review of the 2022 peak season found that 90% of the reported issues were exposed to direct liquid application of sodium chloride for winter maintenance and not other de-icers.
- For the few situations where the cause has not been identified yet, the investigations are moving towards a materials issue that has been amplified by workmanship. This matter is of great concern to the MTO, so these investigations are proceeding carefully. As results become available, MTO will present them to ORBA and Concrete Ontario.
- ORBA asks if the recurring wetting of these faces could be part of the problem if not specifically the salt, e.g., vehicle splashing, since the back faces appear fine.
- The three factors for salt scaling are material quality, workmanship quality, and environment quality. The environmental quality is degraded by the application of sodium chloride, but this degraded environment has been present since 1938 when it was decided to apply salt to highways for traveller safety in winter. The mitigation to the salt environment was introduction of concrete air entrainment. Splashing is important and contributes to salt and water entering the concrete, but this is not new either. Since the issue peaked in 2022, it is likely another factor.
- ORBA asks if increasing the concrete strength would help, for example 50MPa mix designs.
- MTO is also investigating higher strength mixes. Theoretically the reduction in porosity should have helped but have found that it introduces different issues.
- The next winter season provides opportunities to investigate again. If any additional sites for investigation can be identified they will provide useful information.
- It was agreed at the last meeting to have a separate committee discuss this issue.

Action Items:

- ORBA will determine which members will discuss this issue at its own working group and approach MTO to start the group.

**Sept 23-3, OPSS 914 Response to TCP Comments**

Description:

- Areas of disagreements to be discussed (72-hour air curing, 2-layer method, and empty kettle requirements).

Discussion:

*September 2023:*

- ORBA asked if it will be a unified 2-layer system on future contracts.
- It is a requirement of the July 2023 specification that is going on contracts advertised after specification implementation.
- ORBA asked for clarification about TCP comment number 3 “Also concern about the no rain or moisture on the deck for 72 hours prior to the start of the waterproofing but is that realistic given the shortened time frame to get work

completed.” The response was that this has always been a requirement. ORBA believes this was about air curing. Is the moisture requirement to air cure for 72 hours, or no precipitation for 72 hours?

- MTO will have to take this back for review.
- ORBA believes the requirement to empty the kettle and start with a clean one each time is wasteful. The owner may take QA samples at any time to determine if there is burned material or if it has exceeded the acceptable limits.
- MTO understands that this requirement can lead to waste, however it is known that a strong indicator of poor waterproof performance is exceeding the time and temperature requirements. MTO is currently experiencing significant issues with waterproofing and is not currently willing to take additional risk of excessively heated waterproofing material.
- ORBA noted that the double layer application method on older contracts that do not use the July 2023 specification requiring it are taking twice as long to apply the waterproofing as anticipated. How will contractors be compensated for that?
- MTO cannot discuss payment today at the structures technical subcommittee.

*November 2023:*

- MTO intended to clarify the OPSS 904 requirement for 72hrs air curing prior to application of waterproofing by moving it to OPSS 914 as it was a waterproofing requirement.
- As written was not clear to ORBA. ORBA’s expectation was that a concrete deck be air cured for 72hrs and then make sure it is dry before waterproofing, not preventing precipitation for 72hrs.

*May 2024:*

- MTO internally reviewed concerns brought up at the last meeting and does not believe the 72hr requirement is an issue for contracts or contract administration as it has been a specification requirement for a long time. Where there is a contract specific issue, change proposals may be submitted.
- ORBA agrees that it has been a requirement for a long time that a concrete deck be dry before applying waterproofing membrane but disagrees with the MTO’s position that the addition of “with no exposure to precipitation or water” to 914.07.03 of OPSS 914, July 2023 is not a substantial change.

*September 2024:*

- There is a discussion about water/moisture and the waterproofing pinhole/bubbling issue previously discussed. The pinhole/bubbling is still occurring but less frequently and industry is more aware of it. There is concern that moisture may contribute to the issue, but excessive moisture has other impacts, including on adhesion, so the 72hr requirement is not only about pinholing.
- If moisture is an MTO concern, is there an avenue of being more prescriptive about how to prepare the deck surface prior to waterproofing instead of the 72hr requirement?
- ORBA notes previously discussed concerns about the clean kettle requirement which results in more idle time and material waste.
- MTO issued HIIFP research topic 5 about waterproofing to investigate deck drying, moisture content and tools to measure moisture content.

*November 2024:*

- MTO included additional language to the specification stating contractors may submit a proposal for remedial action if precipitation occurs during the 72hr air-curing period. ORBA does not agree that this is a practical solution which leaves decisions too open to contract administrator interpretation, and questions how widespread of an issue poor waterproofing bond is because of past application practices.
- MTO states that visual assessment of dryness of concrete is not an appropriate measure; saturated surface dry condition may have too much moisture for waterproof membrane application. Research is ongoing into several testing devices and field testing will be conducted. The specifications will be updated, as appropriate, when research work is completed.

*May 2025:*

- Various moisture testers have been purchased to be tested in the laboratory and the field this construction season. MTO is continuing to monitor HIIFP research for ways of assessing drying of the concrete deck and will follow-up when it is complete.
- ORBA and MTO do not agree on the need for the specification requirement that the kettle be empty when it arrives on site before adding and heating waterproofing material. MTO requests ORBA provide something in writing for review.

*September 2025:*

- MTO and ORBA reiterate previous meeting points.
- University research continues and MTO is supplementing that research with readings by various moisture meter instruments/technologies in the field this season.
- MTO is open to attend waterproofing projects to collect additional data where feasible, and to test various moisture meters.
- The use of the double layer waterproofing application method with membrane continues to be specified in all contracts to help mitigate the bubbling issue.

*November 2025:*

- MTO has tested different moisture meters all year in the field. Equipment is now with the university for additional lab work which will take place over winter.
- ORBA notes that moisture in concrete is one issue being discussed, but adding waterproofing material to the kettle on site is another issue that is not. ORBA does not find the current requirements workable.
- MTO updated specification language after receiving comments. The specification permits proposals to be submitted for consideration when the 72 hour air drying requirement may not be met; some proposals have been received from contractors and reviewed on individual contracts.
- ORBA notes potential inconsistencies between OPSS 904 and OPSS 914 with respect to proposals.

Action Items:

- MTO will review OPSS 904 and OPSS 914 for consistency.

### **May 23-3, Foundation Information Reports**

Description:

- ORBA would like MTO to provide the FIDR in contract documents.

Discussion:

*May 2023:*

- ORBA requested to include the recommendations section of the FIR with tender documents. Some other DOTs provide the description of the soils as well as the recommendations.
- MTO will review what subsoil investigation information is provided with tender documents.

*September 2023:*

- Inclusion of FIDR's in ContractsSept82023 PowerPoint slides (attached).
- MTO current state of practice is not to include the FIDR in Design Bid Build contracts. In Design Build contracts it is included with a letter of reliance. The information is available in the GEOCRES system, but it is not included in the contract documents.
- MTO's jurisdiction scan shows that most jurisdictions are also not supplying the FIDR. There are owner risks to supplying the FIDR and it is not produced to be a contract document.
- ORBA noted safety concerns of not being provided information, such as base heave.
- MTO has additional mechanisms in place to communicate safety information in a contract without supplying a FIDR.

*November 2023:*

- MTO work on this item has not started yet, there is no update for this meeting.

*May 2024:*

- MTO will try to have an update on this item for the next meeting.

*September 2024:*

- MTO has started a jurisdictional scan, but nothing has been finalized yet and an internal meeting is scheduled with the Contract Management Office to discuss the risks of releasing this information. There are no major updates.

*November 2024:*

- MTO has completed its jurisdictional scan of FIDR inclusion and is now proceeding with the process for new policy development.
- Engineering service providers are concerned that FIDR are produced at a certain point in time with certain assumptions and things can evolve and change over time between production of the FIDR and completion of a construction contract package. This may have the potential to identify inconsistencies for claims or liabilities and needs further discussion between MTO and engineering service providers.

*May 2025:*

- MTO is reviewing what and how FIDR information can be provided to contractors. There is currently no change, but updates will be provided when they're available.

*September 2025:*

- MTO has completed a second, more fulsome jurisdictional scan and is proceeding with discussions with internal and external design engineers to hear their potential feedback.

*November 2025:*

- MTO is continuing discussions with stakeholders but has no updates for this meeting.

Action Items:

- MTO will provide an update at the next meeting.

## New Items

### Nov 22-1, Safety Talk

Description:

- It was agreed at the May 2022 meeting that this would be a recurring item to promote safety culture. MTO and ORBA are both free to propose their own safety talk items.
- ORBA and MTO will alternate who is responsible for the safety talk at each meeting.

Discussion:

- ORBA presented today's safety talk about upcoming cold weather. Now is a great time to think about installing winter tires on vehicles. It is important to re-torque lug nuts after 50-100 km to ensure they are properly tightened. Vehicles should also have an emergency bag and cold weather windshield washer fluid.

Action Items:

- None.

### Nov 25-1, Meeting Notes

Description:

- MTO is committed to transparency. To be transparent with all MTO's stakeholders, the notes of these meetings need to be posted to the Technical Consultation Portal in a timely manner.

Discussion:

- MTO and ORBA discussed this at the Contracts and Documents subcommittee yesterday. MTO reiterates that MTO is responsible for meeting notes and will send them to ORBA for consultation, after which the meeting notes will be posted to the Technical Consultation Portal.
- Future meeting notes will have review deadlines to ensure they are posted in a timely manner.

Action Items:

- Item closed.

### Nov 25-2, Steel Reinforcement Supports

Description:

- An update to OPSS 905 – Steel Reinforcement for Concrete was published in November 2024. Among changes were requirements about rebar support chairs.
- The change has not been well enforced yet, so this item is part of an information campaign and a visual acceptance guide for inspection staff is being contemplated.

Discussion:

- One of the items MTO reviewed when updating OPSS 905 was proprietary plastic clips for splicing reinforcing steel. This review led to a more critical review of embedded plastic more broadly, and steel reinforcement supports (chairs) in particular. The result was a change in specification with the goals of greater aesthetics, reduced concrete obstruction, and improved durability mechanisms.
- ORBA has concerns that the typically used chair product is no longer permitted, and this may not have been communicated effectively. The presentation today is clear, but the specification language may not have stood out as a substantial change.
- MTO discussed changes with the Reinforcing Steel Institute of Canada (RSIC) and will work with RSIC again to approach rebar suppliers directly, but also needs to communicate the change more broadly.
- ORBA also has concerns with the safety of the pin-supported chairs ability to bear weight, and with the potential for a contract administrator to reject chairs after an elements' reinforcement is mostly laid and tied. There could be large impacts associated with replacing chairs after steel is tied.
- MTO understands ORBA's safety concern. There are many products available on the market and many have done independent testing of their products' strength. It is believed that bearing capacity of chairs will not be an issue for many available products.
- It was agreed that a phase-in period may be required. MTO will consider inspection frequency and start dates. MTO does not want to wait until 2027 to begin using chairs that meet the published specification requirements.

Action Items:

- ORBA will provide a list of concerns for MTO review.
- MTO will continue its information campaign and consultations with stakeholders.

**Nov 25-3, Concrete Finishing Equipment**

Description:

- MTO proposed, for discussion, a Special Provision to amend OPSS 904 by adding requirements for side rollers for bridge deck finishing machines and clarifying expectations around hand finishing. The intention is to take a position on different types of equipment that are available but not currently in the specification, and to reduce incidents of concrete elements not being consistently finished to grade.

Discussion:

- MTO decided to require screed rails over girders to minimize deflection risks and have maintained that position. However, the deck cantilever is now traditionally finished

with hand tools and results can be inconsistent. Including side rollers on the screed could improve grade consistency and they have been available for some time.

- ORBA notes that finishing machines are expensive, and hand finishing would still be required at the edge of barrier reinforcement and around screed rail supports. Assuming a 300mm clear zone from the equipment, a 1.5m cantilever has less than 1m of actual roller finishing. Bar marking, templates or other methods could also achieve specified grades. Concerns were raised about potential interpretation of the proposed language.
- MTO presents additional language about truss screeds and other mechanical/power finishing equipment.
- ORBA notes that tolerances will probably be tighter on a truss screed than hand finishing tools. The Canadian Standards Association (CSA) has standards for surface tolerance and finishing requirements that could be referenced. It is recommended to be less prescriptive to cover more situations, e.g. a closure strip wouldn't use a truss screed.

Action Items:

- MTO will take back feedback for review.
- Item closed.

**Nov 25-4, Canadian Structural Steel Incentive**

Description:

- MTO is revising Special Provision 199S60 Incentive for Supply of Canadian Steel to deliver on the Government's priority to further encourage the use of Canadian-produced and fabricated steel in transportation infrastructure projects. Incentives will be paid per item and the incentive amounts will vary depending on the steel product.

Discussion:

- A steel policy has been prepared to encourage steel to be fabricated and sourced in Ontario, and if not Ontario, then domestically. The draft policy requests engineers to design with products that can be sourced domestically. For example, rolled sections are not produced domestically but angles, channels, plate, and some HSS are. There is an oversupply of coil that could be used for fabrication.
- The other component of the policy is the procurement of materials. The incentives in the supply of Canadian steel Special Provision have been modified to pay different percentages per product with higher incentives for less available products. Payment will also be by single application per tender item instead of at the end of a contract. The intent is to pay when there is completion of the work of a particular item.
- An MTO Drawing (MTOD) has been prepared for fabrication of built-up piles since the standard H-piles are not available in Canada.
- The specification will be posted to the Technical Consultation Portal (TCP).
- MTO has engaged in a lot of consultation for this item, including with the Canadian Institute of Steel Construction (CISC). It is believed the incentives are appropriate, but they will be monitored and adjusted over time if necessary.

**Action Items:**

- MTO will provide ORBA with notice of the TCP posting.
- Item closed.

**Information Shared for this Meeting**

**Documents Shared by ORBA**

None.

**Documents Shared by MTO**

- 20251120 OPSS 905 Bar supports.pptx
- 20251120 OPSS 904 Concrete Finishing.pptx
- MTOD 3000.160 HP Draft Nov 19 2025.pdf

**Next Meeting**

- May 29, 2026 – ORBA to host.
- September 3, 2026 – MTO to host.
- November 26, 2026 – ORBA to host.