Ontario

New OPSS.PROV 950 – Construction specification for Glass Fibre Reinforced Polymer (GFRP) Reinforcement for Concrete

Comments received by TCP			
Comment ID	**Organization**	**Comment**	**Response**

Comments received by email			
Number	**Organization**	**Comment**	**Response**
1	**CMTE**	Section: 950.02: References Current Text: OPSS 1640: Glass Fibre Reinforced Polymer (GFRP) Reinforcement for Concrete Comment: I recommend changing the title to reflect the current title of the OPSS 1640 as follows: OPSS 1640: Material Specification For Glass Fibre Reinforced Polymer (GFRP) Reinforcement For Concrete – November 2023.	The current text follows OPS writing convention. See *OPS User Guide*, January 2023 for more information.
2	**CMTE**	Section: 950.02 References Ontario Ministry of Transportation Publications Current Text: Guidelines for Inspection and Acceptance of Glass Fibre Reinforced Polymer (GFRP) Reinforcing Bars Structural Manual	The publication dates have been updated.

		Comment: Please add the date of the most recent publication.	
3	**CMTE**	Section: 950.05.02 Glass Fibre Reinforced Polymer (GFRP) Current Text: Glass Fibre Reinforced Polymer (GFRP) reinforcement shall be according to OPSS 1640. Comment: I recommend adding the published date: OPSS 1640- Nov.2023.	The current text follows OPS writing convention. The date is specific to the Contract and is found in the tender documents.
4	**CMTE**	Section: 950.08.01: Sampling Current Text: Length of 2.2 m. Comment: This length would be adequate to perform the tension test on bar size M16 using ASTM D7205 and CSA S806-R17 Annex B. The extra length will make it very hard to perform other QA tests. That length is not sufficient to meet the length requirement for M20 if Annex B is used. The 2.2 m length is not adequate for M25. I suggest increasing that length to 3.0 m. I also suggest that MTO may select 10 bars instead of 5. The test can be performed on 5 bars and the extra bars should be kept if or when needed.	The MTO has found less availability of labs with the ability to tensile test GFRP bars in general than steel. There are even fewer labs with equipment with the capacity to tensile test G20 and G25 bars. Until use of GFRP increases, more test facilities become available, or both, the G15 bar will be used for standard tests. The MTO may still randomly sample other bar sizes and require additional sample length. The MTO is not currently prepared to implement referee testing for GFRP samples. If more testing facilities become available, sampling may be increased to 10 bars in the future.
5	**CMTE**	Section: 950.08.03.02: Visual & Dimensional Current Text: Comment: Add the published date of the Guidelines for inspection.	The publication date of the guidelines has been added in section 2, references. The publication date is called in this clause by reference to 950.02.

6	**CMTE**	Section: Table 1: Tolerances for Cover and Placing Accuracy Current Text: Comment: Table 1 provides the tolerance requirement and perhaps it may best to add a reference to the concrete cover from CSA S6 as well as the cover requirement in case of fire.	The concrete cover requirement is determined in design according to the Structural Manual and CSA S6. The cover values are specified in the contract drawings. Fire design requirements are not considered in this construction specification.