

## **Administration and Inspection Activities for Precast Concrete Bridge Elements**

**(As Specified in OPSS 916)**

### **1.0 SCOPE**

This CAIS covers the construction administration and inspection requirements for the construction of precast concrete bridge elements (non-prestressed and prestressed) as specified in OPSS 916, November 2025.

### **2.0 REFERENCES**

This CAIS refers to the following standards, specifications, or publications:

#### **Ontario Provincial Standard Specifications, Construction:**

OPSS 916    Precast Concrete Bridge Elements

#### **Ontario Provincial Standard Specifications, Material:**

OPSS 1355    Precast Concrete – Materials and Production

#### **Construction Administration and Inspection Specifications (CAIS):**

CAIS 1355    Precast Concrete – Materials and Production

#### **MTO Publications:**

Structural Manual

### **916.03 DEFINITIONS**

For the purposes of this CAIS, the definitions shall be as specified in OPSS 916.

**916.04 DESIGN AND SUBMISSION REQUIREMENTS****916.04.01 Design Requirements****916.04.01.01 Precast Concrete Bridge Elements**

Administrative Activities:

1	-	Check that any design is according to CSA S6 and the MTO Structural Manual, Division 1 and the Contract Documents.	-
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**916.04.02 Submission Requirements****916.04.02.01 Working Drawings****916.04.02.01.01 General**

Administrative Activities:

1	-	Verify that one electronic copy in PDF format of the Working Drawings, including supporting documentation, are submitted and received at least 14 Days prior to commencement of fabrication of the elements, or 5 days when other authorities are involved in the approval of the design or construction.	-
2	-	When other authorities are involved in the approval of the design or construction, verify that one additional copy of the Working Drawings and supporting documentation submission is provided for each authority.	-

**916.04.02.01.02 Assembly Plan**

1	M	Check that the assembly plan Working Drawings and supporting documents contain the information specified in OPSS 916.04.02.01.02 and the Contract Documents.	-
2	M	Verify that the assembly plan Working Drawings are sealed by an Engineer.	-
3	-	After reviewing the Working Drawings and technical documentation submissions, submit with comments, to the Contractor, MTO Contract Services Administrator (CSA) and MTO Structural Section within 2 Business Days of receipt.	-
4	-	Ensure a final copy of all Contractor submissions is shared with inspection staff and available to perform on-site administration and inspection duties.	-
5	-	Ensure a final copy is sent to MTO Structural Section.	-

### **916.04.02.01.03      Precast Concrete Bridge Elements**

Administrative Activities:

1	M	Check that the Working Drawings and supporting documents are submitted and contain the information specified in OPSS 916.04.02.02 and the Contract Documents.	-
2	M	Verify that the Working Drawings and supporting documents are submitted with the seal and signature of the design Engineer and the design-checking Engineer verifying that the drawings are consistent with the Contract Documents.	-
3	M	Check that the Working Drawings and supporting documents are submitted and contain the information listed in the Contract Documents.	-
4	-	After reviewing the Working Drawings and technical documentation submissions, submit with comments, to the Contractor, MTO CSA and MTO Structural within 2 Business Days of receipt.	-
5	-	Ensure a final copy of all Contractor submissions is shared with inspection staff and available to perform on-site administration and inspection duties.	-
6	M	Ensure a final copy is sent to MTO Structural Section.	-

### **916.05                      MATERIALS**

Administrative Activities:

1	-	Check that precast concrete bridge elements are as specified in OPSS 1355 in its entirety. For precast concrete bridge elements, additional inspection and administrative activities shall be as specified in CAIS 1355.	-
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### **916.06                      EQUIPMENT – Not Used**

### **916.07                      CONSTRUCTION**

#### **916.07.01                  Inspection of Bridge Elements Prior to Installation**

Administrative Activities:

1	M	If any defects or deficiencies are present on the elements receive notification from the contractor.	-
2	M	If no defects or deficiencies are present or have been repaired, receive the MTO form PH-CC-701, Request to Proceed from the Contractor, after delivery of the elements to site before installation.	-

3	M	Check the elements for defects and deficiencies, and that the repairs have been completed according to the Defects and Deficiencies clause of OPSS 1355.	-
4	M	If defects or deficiencies are found, Notify the Contractor of the type, size, and quantity and which element that they occur on.	-
5		Once the elements and any repairs are acceptable, issue MTO form PH-CC-702, Notice to Proceed, to the Contractor	-

## **916.07.02 Installation of Bridge Elements**

### Inspection Activities:

1	M	Check that the installation of precast bridge elements is according to the Working Drawings, Assembly Plan, and the Contract Documents.	100%
2	M	Check that the lifting and placement of precast bridge elements ensures that they are not damaged, overstressed, unstable, or unsafe at any time.	100%
3	M	Check that precast bridge elements are not stacked temporarily on other bridge elements during installation unless permitted by the Contract Documents.	100%
4	M	Check that the Workings Drawings meeting the requirements of the Contract Documents are on site during installation of the precast bridge elements.	100%
5	M	Check that precast bridge elements with defects and deficiencies causing rejection according to the Contract Documents are not included in the Work.	100%
6	M	Check that the elements have been properly braced after the installation.	100%

### Administrative Activities:

1	-	Receive Contractor's written notification a minimum of 3 Business Days prior to the commencement of field installation operations.	-
2	-	Receive and Check the Contractor's submission required under GC 7.02.07 regarding the certification by an Ontario Land Surveyor or Engineer for grade and layout of the component.	-
3	-	Review and provide a written approval regarding the Contractor's repair procedure within 10 Business Days, when applicable.	-
4	-	Check repair of defects is according to OPSS 1355 and CAIS 1355.	-
5	-	Review and provide a written response of acceptability within 10 Business Days for the Contractor's reported error preventing assembly and the proposed method of correction.	-

6	-	Review and provide comments on the Contractor's method of correction for assembly and fit to regional structural section regarding. Provide response to the Contractor within 5 days of receiving response from the regional structural section.	-
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### **916.07.03 Installation Tolerances**

Inspection Activities:

1	M	Check that installation tolerances specified in OPSS 916.07.03 are met.	100%
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### **916.07.04 Inspection after the Installation of the Elements**

Administrative Activities:

1	M	Receive and Check a MTO form PH-CC-701, Request to Proceed from the Contractor, after the installation of each element type for each structure within a construction stage and prior to the cutting or removal of any temporary lifting, setting, or levelling devices, or casting of concrete or grouted joints.	-
2	M	Issue a MTO form PH-CC-702, Notice to Proceed, in a timely manner, and prior to the next operation.	-

### **916.07.05 Field Cast Joints**

Administrative Activities:

1	M	Check that field cast joints for bridge elements are as specified in OPSS 916.	-
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### **916.07.06 Management of Excess Material**

Administrative Activities:

1	-	Check that management of excess material is as specified in the Contract Documents.	-
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## **916.08 QUALITY ASSURANCE**

### **916.08.01 General**

Inspection Activities:

1	M	After delivery of precast bridge elements and prior to installation, Check for any surface defects not repaired as specified or dimensional measurements not within tolerance.	100%
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2	M	For precast concrete bridge elements, Inspect the elements for defects or deficiencies as specified in OPSS 1355. Additional inspection activities shall be as specified in CAIS 1355.	100%
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Administrative Activities:

1	-	Check that quality assurance and acceptance of concrete barrier is as specified in OPSS 916.	-
2	-	For precast concrete bridge elements, Check that quality assurance and acceptance is as specified in OPSS 1355. Check that precast concrete bridge elements meet the quality assurance requirement as specified in OPSS 1355, including acceptable 28-Day compressive strength, air void system parameters, and rapid chloride permeability. For precast concrete bridge elements, additional administrative activities shall be as specified in CAIS 1355.	-
3	-	Notify MTO's Quality Assurance Section for any precast concrete bridge elements that fails to meet the acceptance requirements. Provide written notification to the Contractor, after consultation with MTO, for rejectable work.	-

## 916.08.02 Acceptance of Installation Tolerances

Inspection Activities:

1	M	Check that installation tolerances are according to the requirements of the Contract Documents.	100%
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Administrative Activities:

1	-	Receive written notification from Contractor when precast bridge elements are ready for verification measurements.	-
2	-	Receive and Review the Contractor's remediation proposal if an element fails to meet the tolerance requirements as specified in the Contract Documents	-
3	-	Provide Contractor's remediation proposal and Contract Administrator review and assessment of proposal to the MTO's Quality Assurance Section in a timely manner for approval.	-

## 916.08.02.03 Field Inspection

Inspection Activities:

1	M	Inspect the elements and the work for any defects and deficiencies. Notify MTO's Quality Assurance Section of any defects or deficiencies.	100%
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**916.10 BASIS OF PAYMENT**

Administrative Activities:

1	-	Basis of payment shall be as specified in OPSS 916.10.	-
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