

Administration and Inspection Activities for Dewatering

(As Specified in OPSS 517 and SSP 517F01)

517.01 SCOPE

This CAIS covers the construction administration and inspection requirements for the design, operation, and removal of a dewatering or temporary flow passage system or both to control water during construction, and the control of the water prior to discharge to the natural environment and sewer systems as specified in OPSS 517, November ~~2016~~2023 and SSP 517F01, ~~July 2017~~TBD.

517.02 REFERENCES

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

Ontario Provincial Standard Specifications, Construction:

OPSS 517 Dewatering

MTO Standard Special Provisions:

SSP 517F01 Amendment to OPSS 517 - Design Storm Return Period and Preconstruction Survey Distance

Construction Administration and Inspection Specifications (CAIS):

CAIS 404	Support Systems
CAIS 492	Site Restoration Following Installation of Pipelines, Utilities, and Associated Structures
CAIS 510	Removal
CAIS 539	Temporary Protection Systems
CAIS 804	Temporary Erosion Control
CAIS 805	Temporary Erosion and Sediment Control

517.03 DEFINITIONS

For the purpose of this CAIS, the definitions shall be as specified in OPSS 517.

517.04 DESIGN AND SUBMISSION REQUIREMENTS

517.04.01 Design Requirements

517.04.02 Submission Requirements

Administrative Activities:

1	-	Receive and Check Working Drawings at least 7 Days prior to commencement of the dewatering system installation.	-
2	-	When required in the Contract Documents, Check that the design Engineer and design checking Engineer meet the minimum experience requirements.	-
<u>3</u>	-	<u>When Working Drawings are provided, check Foundation Engineering Specialist requirement with MTO CSA.</u>	-

517.04.03 Preconstruction Survey

Administrative Activities:

1	-	Receive copies of the condition survey and water quality test results prior to the operation of the groundwater control system.	-
---	---	---	---

517.05 MATERIALS – Not Used

517.06 EQUIPMENT – Not Used

517.07 CONSTRUCTION

517.07.01 General

Inspection Activities:

1	M	Check that the dewatering systems and temporary flow passage systems are installed in accordance with the Working Drawings.	100%
2	-	Check that stranded fish are managed in accordance with the Contract Documents.	100%
3	-	Check that the dewatering systems and temporary flow passage systems are operated in accordance with the working drawings and dewatering/unwatering of the working area is as specified in the Contract.	25%
4	-	Check that support systems are as specified in CAIS 404.	100%
5	-	Check that protection systems are as specified in CAIS 539.	100%
6	M	Check that temporary erosion and sediment control measures are as specified in CAIS 804, CAIS 805 and/or the Working Drawings prior to the start of dewatering and / or use of the temporary flow passage system.	100%

Administrative Activities:

1	-	Review any observations of water suspected to be contaminated.	-
---	---	--	---

517.07.02 Dewatering System

Inspection Activities:

1	-	Check that groundwater drawdown levels are as designed and the 'natural flow' of the watercourse is maintained.	100%
2	-	Check that dewatering is not causing disturbance of any structure, pipeline, or flow channel.	25%
3	-	Check that operation is shut down as specified in the Working Drawings.	100%

517.07.03 Temporary Flow Passage System

517.07.03.01 General

Inspection Activities:

1	M	Check that environmental Special Provisions and/or Contractor proposals for unwatering are adhered to.	50%
2	-	Check that the flow passage systems are in place and functional before disturbing the Work area.	100%

517.07.03.02 Activation

517.07.03.02.01 Outside of a Waterbody

Inspection Activities:

1	-	Check that temporary flow systems are activated as specified.	100%
---	---	---	------

517.07.03.02.02 Within a Waterbody

Inspection Activities:

1	-	Check that temporary flow systems are activated as specified.	100%
2	-	Check that pump inlet is not submerged in mud and is properly screened to prevent fish impingement or entrainment.	100%
3	-	Check that safe fish passage is maintained at all times during the work as specified in the Contract Documents.	100%

4	-	Check for any fish that may be stranded within the isolated area of the waterbody. Stranded fish shall be managed in accordance with the Contract Documents.	100%
5	-	Check that the activation of the system is within the allowable dates of the in-water timing window specified in the Contract Documents.	100%

517.07.04 Discharge of Water

Inspection Activities:

1	-	Check the management of the discharge of water to ensure that it is constructed and functioning as per the Contractor's submission.	25%
2	-	Check that equipment and materials are not stored in the discharge area.	25%
3	-	Check that the discharged water does not run across pavements, sidewalks, curb and gutter, or similar hard surfaces unless specified in the Contract Documents.	25%

517.07.05517.07.05 Inspection of Dewatering and Temporary Flow Passage System

Administrative Activities:

<u>1</u>	<u>M</u>	<u>Receive and Check the Certificate of Conformance upon completion of the installation of the dewatering system.</u>	-
<u>2</u>	<u>M</u>	<u>Receive and Check the Certificate of Conformance upon completion of the installation of the temporary flow passage system.</u>	-
<u>3</u>	<u>M</u>	<u>Receive and Check the Certificate of Conformance upon completion of the removal of the dewatering system.</u>	-
<u>4</u>	<u>M</u>	<u>Receive and Check the Certificate of Conformance upon completion of the removal of the temporary flow passage system.</u>	-

517.07.06 Monitoring

Inspection Activities:

1	-	Check that discharge is not causing erosion of soil and other environmental concerns at the outlet (e.g. muddy water discharge). Check that the Contractor has the standby equipment (pumps, hoses, filter bags, etc.) on site as required in the environmental submission.	25%
2	M	Check that the Contractor's dewatering scheme is not causing loss of materials under adjacent founding elements or backfill.	25%

Administrative Activities:

1	-	Receive any complaints and review any action taken or proposed to be taken in response to complaints.	-
2	-	Review observed impacts from daily external visual monitoring.	-

517.07.0607 System Amendments

Administrative Activities:

1	-	Receive and Check amendments within 2 Business Days of the system being amended, on revised Working Drawings.	-
---	---	---	---

517.07.0708 Temporary Flow Passage System Deactivation

517.07.0708.01 Outside of a Waterbody

Inspection Activities:

1	-	Check that deactivation of temporary flow systems is as specified.	100%
---	---	--	------

517.07.0708.02 Within a Waterbody

Inspection Activities:

1	-	Check that deactivation of temporary flow systems is as specified.	100%
---	---	--	------

517.07.080 Removal

Administrative Activities:

1	-	Review requests from the contractor to use material other than the excavated material for backfill of sedimentation basins and other excavations.	-
---	---	---	---

Inspection Activities:

1	-	Check that dewatering and temporary flow passage system components are not removed until backfilling is brought up to grade and the Work area is cleared of any debris or construction materials that could be washed downstream.	100%
2	-	Administer the removal of temporary drainage according with CAIS 510.	100%
3	-	Check that environmental protection measures and cut-off walls are removed as per the Working Drawings.	100%
4	-	Administer the site restoration according with CAIS 492.	100%

517.08 **QUALITY ASSURANCE – Not Used**

517.09 **MEASUREMENT FOR PAYMENT – Not Used**

517.10 **BASIS OF PAYMENT**

Administrative Activities:

1	-	Basis of payment shall be as specified.	-
---	---	---	---

WARRANT: Always with OPSS 517, Construction Specification for Dewatering.