

MINISTRY OF TRANSPORTATION ONTARIO DRAWINGS (MTODs)

1.0 Introduction

This section of Chapter F contains all internal drawings (MTODs) developed for use on provincial highway projects. MTODs typically introduce pilot products and/or designs for highway construction not currently covered by Ontario Provincial Standard Drawings (OPSDs). MTODs that prove effective will be forwarded to the appropriate Ontario Provincial Standard committee for consideration of conversion into an OPSD at a later date.

MTODs are produced and published by MTO and are contained in this section of the CDED Manual.

2.0 Implementation and Publishing of MTODs

MTODs are published concurrently with their implementation in the Ministry's Contract Preparation System (CPS).

Further information regarding the implementation of standard documentation can be found in Chapter A.

3.0 Copies of MTODs

Upon publishing, MTODs in PDF format can be obtained from the MTO Library website at:

<http://www.raqsb.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage>

Designers can refer directly to CPS to determine which MTODs are active and to obtain copies in DWG format.

4.0 List of Active MTODs

A "List of Active MTODs" is published in this chapter of the CDED in order to provide information regarding the MTODs that have been implemented for use in MTO contracts. The list is updated concurrently with Contract Preparation System (CPS) updates when necessary.

The following sections discuss the information shown under the headings in Section F-225, List of Active MTODs.

5.0 MTOD Number

Every drawing has a unique number which has been allocated to allow for the future addition of the drawing to the OPSD system. MTOD numbers are assigned by the Design and Contract Standards Office in consultation with the Ontario Provincial Standards Administration Unit (OPSAU).

MTOD numbers on printed drawings are typically formatted as NNN.NNN. MTODs listed in Contract Preparation System (CPS) however are numbered using the number on the printed drawing with the addition of one zero as each of the first and last digit. For example if the MTOD number on a printed drawing is 912.106, this drawing would be numbered 0912.1060 in CPS.

6.0 Title

As shown on each MTOD.

7.0 Issue Date

Every drawing is provided with an issue date which represents the day, month and year in which the drawing was produced. Please note that the issue date, abbreviated to month and year, appears with the MTOD number in the Schedule of Provisions, Contract Plans, Standard Drawing, Specifications and General Conditions found in the Contract Tender document. To make reference to a specific standard drawing, it is important to quote the issue date as well as the standard drawing number.

8.0 Implementation Date

The implementation date represents the date the drawing was implemented for use in CPS.

9.0 Drawing Revision Number

When an MTOD is revised, the revision number is noted. The first drawing is identified with either a zero or a blank. Each subsequent revision to the standard drawing is identified by increasing the drawing revision number by one.

10.0 Office

This information identifies the custodial office responsible for developing and issuing the drawing. Table A provides the identity and contact information for the custodial offices within the ministry for each MTOD.

Table A
Custodial Office Contact Information

Abbreviation	Custodial Section	Office	Office Phone #
DSS/DCSO	DSS - Design Standards Section	DCSO - Design and Contract Standards	(905) 704-2293
EES/TO	EES - Electrical Engineering	TO - Traffic Office	(905) 704-2960
TOS/TO	TOS - Traffic Operations	TO - Traffic Office	(905) 704-2960
P&F/MERO	P&F - Pavements and Foundations	MERO - Materials Engineering Research Office	(416) 235-3533
BITU/MERO	BITU - Bituminous	MERO - Materials Engineering Research Office	(416) 235-3715
ENV/PEPO	ENV - Environmental	PEPO - Provincial and Environmental Planning Office	(905) 704-2104

11.0 Remarks

This section contains special directions to designers regarding the use of MTODs.

12.0 Use of MTODs

Designers may use MTODs on provincial highway projects except as noted otherwise under the "Remarks" column in the List of Active MTODs in Section F-025. As a general rule, MTODs should be used as found in CPS. Assistance using MTODs can be obtained by contacting the custodial section of the originating office as shown in Table A.

Designers are required to select MTODs applicable to a contract from CPS. A list of MTODs applicable to the contract is then generated and inserted in Section C, Standard Drawings of the Schedule of Provisions, Contract Plans, Standard Drawings, Specifications and General Conditions, found in the Tender.

Reference to the MTODs selected (by MTOD number only) shall also be included as appropriate in the contract documents, typically the Contract Drawings. MTODs are not to be inserted as details unless modified for a specific project.

13.0 Modification of MTODs

All modifications to MTODs are the responsibility of the Regional Planning and Design Sections. Designers are encouraged to contact the appropriate custodial section for assistance with modifying MTODs.

Designers are cautioned against modifying any of the roadside safety hardware (e.g. guide rail systems, energy attenuators, breakaway systems etc.) MTODs. These systems are designed and crash tested to meet specific criteria. Modification of these drawings could affect the performance of the system to function effectively for a wide range of vehicles and impact speeds.

14.0 Documenting Modified MTODs in Contract Documents

When modifications are made to an MTOD, the modified MTOD shall be inserted in the contract documents as a detail in the Contract Drawings. In addition, the designer shall do the following:

- a) Revise the MTOD title block as follows:
 - i. For minor modifications, the MTOD number shall be retained and the word "MODIFIED" and the Work Project (WP) No. shall be inserted in the space above the MTOD number.
 - ii. For major modifications (i.e. changes resulting in a drawing no longer recognizable as the base drawing originally taken from CPS) the MTOD designation shall be removed.
 - iii. The name of the person responsible for the revisions and the date of the modification shall be added to all modified MTODs.
- b) Add an "M" to the end MTOD number (e.g. MTOD 101.070M) on the drawing and in all instances where it is referenced in the contract drawings.
- c) Ensure any references to the standard MTOD that has been modified have been removed as required. This includes references found in both the contract drawings and in Section C, Standard Drawings of the Schedule of Provisions, Contract Plans, Standard Drawings, Specifications and General Conditions.

In situations where both the standard MTOD and the modified MTOD are required, only the standard MTOD is to be listed in Section C. Modified MTODs are not to be included in the list of MTODs in Section C at any time.

- d) Submit a "final" copy of the modified MTOD to the Contract Review Officer for forwarding to the custodian of the MTOD for information purposes only.