

B740 - CONCRETE BARRIER - OPSS 740740.1 GENERAL

Permanent concrete median barrier (CMB - Types M, C, and TW) and permanent concrete roadside barrier (CRB) are either slip-formed or cast in place by conventional wooden or steel formwork, or may be precast when specified by the designer.

Asymmetric concrete barrier shall be used when required to accommodate a grade differential (of up to 600 mm) between opposing traffic lanes.

Designers should refer to the Roadside Design Manual (RDM) in the selection of the applicable type of CMB or CRB systems to be used on a project.

740.2 REFERENCES

Roadside Design Manual

740.3 TENDER ITEMS

Concrete Barrier	(variation, m, PQP)
Tall Wall Barrier	(variation, m, PQP)
Asymmetric Concrete Barrier	(variation, m, PQP)
Asymmetric Tall Wall Barrier	(variation, m, PQP)

740.4 SPECIFICATIONS

The requirements for concrete barrier are contained in OPSS 740.

740.5 SPECIAL PROVISIONS

Refer to Chapter 'E' of this Manual to review the applicable standard special provisions.

#### 740.6 STANDARD DRAWINGS

Applicable standard drawings are contained in the 900 series of the Ontario Provincial Standards Drawings (OPSD) or Ministry of Transportation Ontario Drawing (MTOD).

#### 740.7 DESIGN

For installation in a median configuration, ensure that CMB is embedded a minimum of 75 mm into pavement at least 3 m wide on both sides of the barrier system.

For installation in a roadside configuration, ensure that the CRB is embedded on the backside by widening the embankment a minimum of 0.6 m between the backside of the barrier and the breakpoint of the slope.

Refer to the Roadside Design Manual for additional information.

#### 740.8 COMPUTATION

These are Plan Quantity Payment items.

Quantities are computed in metres. Measurements are scaled or measured along the centreline of each installation. Where two concrete barriers are constructed back to back, Type 'M-2' or 'TW-2', they are measured as a single installation.

#### 740.9 DOCUMENTATION

CMB and CRB are depicted on the contract drawing with the OPSD or MTOD number and barrier type shown adjacent to the symbol.

Barrier lengths are computed and entered on the "Quantities - Miscellaneous 1" sheet without deduction for lighting pole or overhead sign footings.

Each type of CMB or CRB, back to back installations, transition treatment, or end treatments shall be identified in separate columns by specifying the appropriate OPSD or MTOD or typical section reference at the top of each column. The station to station limits and lengths for each type of installation shall be specified. The column subtotals are combined into the tender quantity for each respective tender item.

When asymmetric barriers are required the designer shall show the pavement elevations on both sides of the barrier at the following intervals on the contract drawings:

- at all break points in the vertical alignment of the barrier or the shoulders.
- at the normal cross section interval throughout the tangent section.
- at 10 metre intervals within the transition from tangent to full superelevation.
- at the normal cross section interval throughout the superelevated section.

#### 740.9.1 Documentation Accuracy

Station and quantity entries are recorded to the nearest whole metre.

Offsets when required are recorded to 0.1 of a metre.

Spot checking required.