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# CONSTRUCTION SPECIFICATION FOR ASPHALT CURB AND GUTTER SYSTEMS AND ASPHALT SURFACING OF GUTTERS

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This specification covers the requirements for the construction of asphalt curb and gutter, gutter outlets, spillways and for the asphalt surfacing of asphalt or concrete gutter.

# 312.02 REFERENCES

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

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

OPSS 206	Grading
OPSS 313	Hot Mix Asphalt – End Result
OPSS 314	Untreated Subbase, Base, Surface, Shoulder, Select Subgrade and Stockpiling

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

OPSS 1103	Emulsified Asphalt
OPSS 1151	Superpave and Stone Mastic Asphalt Mixtures

### 312.03 DEFINITIONS

For the purpose of this specification the following definitions apply:

Curb and Gutter means curb, gutter or combinations of curb and gutter.

**Curb and Gutter Systems** means curb and gutter, setbacks, gutter outlets, concrete spillways, bullnoses or any combination of them, including catch basin frames and grates which lie within the flow lines of the curb and gutter system.

312.05 MATERIALS

312.05.01 Hot Mix

Asphaltic concrete shall be according to OPSS 1151. The type of hot mix asphalt (HMA) shall be as specified in the Contract Documents.

312.05.02 Emulsified Asphalt

Emulsified asphalt shall be undiluted SS-1 according to OPSS 1103.

312.06 EQUIPMENT

312.06.01 Asphalt Paver

The asphalt paver shall be equipped with a template capable of obtaining the cross section specified in the Contract Documents.

312.06.02 Roller

The hand-operated roller shall weigh not less than 135 kg.

312.06.03 Asphalt Curb Machine

The asphalt curb machine shall be equipped with a template capable of obtaining the cross section specified in the Contract Documents.

312.07 CONSTRUCTION

312.07.01 General

The HMA specified shall be placed on the prepared base or on the surface of the existing curb and gutter to the lines, grade, and dimensions specified in the Contract Documents.

Asphalt curb and gutter may, at the Contractor's option, be placed integrally with an adjacent lane of HMA. The placement of the curb and gutter shall be done using a curb attachment on the paver.

HMA shall be compacted using a roller. Areas inaccessible to the roller shall be compacted by hand operated hot tampers.

### 312.07.02 Operational Constraints

Operational constraints for the placing of HMA for asphalt curb and gutter construction shall be according to OPSS 313.

Asphalt curb and gutter shall not be placed unless the ambient air temperature is at least 2 °C.

### 312.07.03 Foundation and Backfill

The foundation shall be excavated, backfilled, and compacted to the grade and shape required to allow for placement of the HMA curb and gutter system to the line, grade, and dimension specified in the Contract Documents.

Excavation and embankment construction shall be according to OPSS 206.

Granular base and granular backfill construction shall be according to OPSS 314.

### 312.07.04 Surface Preparation of Gutter

The surface of the asphalt or concrete gutter on which asphalt is to be placed shall be cleaned of all dirt, loose and broken materials. The sound asphalt or concrete gutter shall be sprayed with emulsified asphalt at the rate of 0.5 kg/m². The application of emulsion shall extend onto the pavement for a width of 0.15 m. The emulsion shall form a continuous film over the surface and shall be allowed to cure until it reaches the required state of tackiness before the asphalt surfacing is placed.

# **312.07.05** Finishing

After the compacted HMA has cooled to ambient temperature, the exposed vertical surfaces of the asphalt curb and gutter system shall be sprayed to 0.15 m beyond the front edge with emulsified asphalt at a rate of 0.5 kg/m². The emulsion shall be applied before the surface becomes contaminated with any material.

### **312.07.06** Tolerances

The surface after compaction shall be of uniform texture, smooth and true to the line, grade, and dimensions specified in the Contract Documents. The surface shall be free from depressions exceeding 5 mm as measured from the bottom edge of a 3 m straight edge placed anywhere along the surface of the HMA and parallel to the edge.

## 312.07.07 Management of Excess Material

Management of excess material shall be according to the Contract Documents.

312.09 MEASUREMENT FOR PAYMENT

312.09.01 Actual Measurement

312.09.01.01 Asphalt Curb and Gutter
Asphalt Surfacing of Gutters

Measurement shall be by length in metres along the flow line of the gutter and will be of the total length of curb and gutter. Such measurements shall include the spaces occupied by setbacks, gutter outlets and frames and grates.

# 312.09.01.02 Asphalt Spillways

Measurement of asphalt spillways shall be by length in metres along the flow line from the end of the gutter outlet to the spillway termination.

# 312.09.01.03 Asphalt Gutter Outlets

For measurement purposes, a count shall be made of the number of setbacks and gutter outlets installed without separation into types.

## 312.09.02 Plan Quantity Measurement

When measurement is by Plan Quantity, such measurement shall be based on the units shown in the clause under Actual Measurement.

312.10 BASIS OF PAYMENT

312.10.01 Asphalt Curb and Gutter - Item

**Asphalt Surfacing of Gutters - Item** 

Asphalt Spillways - Item
Asphalt Gutter Outlets - Item

Payment at the Contract price for the above item(s) shall be full compensation for all labour, Equipment and Material to do the work.

### 312.10.02 Hot Mix

Hot mix designated for this work shall be paid for at the Contract price for the appropriate hot mix asphalt tender item.

#### 312.10.03 Granular Materials

Granular materials required for the work shall be paid for at the Contract price for the appropriate granular tender item.