

PART 1 - GENERAL

- 1.1 REFERENCES
- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM C 117-04, Standard Test Method for Materials Finer than 0.075 mm (No. 200) Sieve in Mineral Aggregates by Washing.
 - .2 ASTM C 136-05, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 - .3 ASTM D 260-86(2001), Standard Specification for Boiled Linseed Oil.
 - .4 ASTM D 698-00A E1, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400ft-lbf/ft³) (600 kN-m/m³).
 - .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-3.3-99(March 2004), Kerosene, Amend. No. 1, National Standard of Canada.
 - .2 CAN/CGSB-8.1-88, Sieves, Testing, Woven Wire, Inch Series.
 - .3 Canadian Standards Association (CSA International)
 - .1 CSA-A23.1-04/A23.2-04, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
- 1.2 SUBMITTALS
- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Inform Departmental Representative of proposed source of materials and provide access for sampling at least 4 weeks prior to commencing work.
- 1.3 MEASUREMENT FOR PAYMENT
- .1 Concrete Curb (Low/High Back) - Concrete curb will be measured in metres (m) rounded to one decimal place, measured along the exposed curb face. All excavation, granular base under and behind curb, shall be considered inclusive of this unit price.
 - .2 Combined Curb and Sidewalk - Combined concrete curb and sidewalk shall be measured in square meters (m²) to one decimal place with no deduction for manholes or the similar structures. Include, incidental to this cost, all costs for expansion joint material, formwork, concrete, excavation, granular base and all other plant, labour, equipment and material required to complete the work as provided in the Contract Drawings and Specifications.

1.3 MEASUREMENT FOR .3
PAYMENT
(Cont'd)

Sidewalk - Concrete sidewalk shall be measured in square meters (m²) to one decimal place with no deduction for manholes or the similar structures. Include, incidental to this cost, all costs for expansion joint material, formwork, concrete, excavation, granular base and all other plant, labour, equipment and material required to complete the work as provided in the Contract Drawings and Specifications.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Concrete: to Section 03 30 00 - Cast-in-Place Concrete.

PART 3 - EXECUTION

3.1 GRADE
PREPARATION

- .1 Excavate to lines, depths and widths indicated or as directed by Departmental Representative.
- .2 Construct embankments using excavated material free from organic matter or other objectionable materials. provide for minimum 0.5m shoulders, where applicable, outside of neat lines of concrete.
- .3 Provide borrow material for fill when a deficiency of excavated material exists.

3.2 GRANULAR BASE

- .1 Obtain Departmental Representative's approval of subgrade before placing granular base.
- .2 Place granular base material to lines, widths, and depths as indicated.
- .3 Compact granular base in maximum 150 mm layers to at least 100 % of maximum density to ASTM D 698-78 Method D.

3.3 CONCRETE

- .1 Obtain Departmental Representative approval of granular base and reinforcing steel prior to placing concrete.
- .2 Do concrete work in accordance with Section 03 30 00 - Cast-in-Place Concrete.
- .3 Round edges, including edges of joints with 10mm radius edging tool.

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| <u>3.3 CONCRETE
(Cont'd)</u> | .4 | Finish exposed surfaces to a smooth uniform finish, free of open texturing and exposed aggregate. Do not work more mortar to surface than required. Do not use neat cement as a drier to facilitate finishing. Broom finish surface to provide non-skid texture. |
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| <u>3.4 TOLERANCES</u> | .1 | Finish surfaces to within 3 mm in 3 m as measured with 3 m straightedge placed on surface. |
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| <u>3.5 CONTRACTION
JOINTS</u> | .1 | Install contraction joints in accordance with drawings. |
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| <u>3.6 ISOLATION
JOINTS</u> | .1 | Install isolation joints in accordance with drawings. |
| | .2 | Install joint filler in isolation joints in accordance with Section 03 30 00 - Cast-in-Place Concrete. |
| | .3 | Seal isolation joints with approved sealant. |
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| <u>3.7 CURING</u> | .1 | Cure concrete in accordance with CSA-A23.1/A23.2. Alternatively, apply curing compound to finished surface within one hour of placing at a rate recommended by manufacturer. |
| | .2 | If corrosion protection for de-icing salts is specified, use water-cure method. |
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| <u>3.8 BACKFILL</u> | .1 | Allow concrete to cure for 7 days prior to backfilling. |
| | .2 | Backfill to designated elevations with material as directed by Departmental Representative.
.1 Compact and shape to required contours as indicated or as directed by Departmental Representative. |
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| <u>3.9 LINSEED OIL
TREATMENT</u> | .1 | Apply when specified or directed by the Departmental Representative for protection against de-icing salts. Apply with spray method only, two coats of one-to-one mixture of boiled linseed oil and kerosene. |
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- 3.9 LINSEED OIL TREATMENT
(Cont'd)
- .2 Ensure concrete surfaces are dry, free of dirt or dust, and at least two weeks old before applying coating.
 - .3 Apply each coat at a rate of 0.1 L/m².
 - .4 Dry first coat thoroughly before further application.
 - .5 Protect adjacent surfaces from spray.
- 3.10 CLEANING
- .1 Do cleaning in accordance with Section 01 74 11 - Cleaning.