

CW 3335 – INSTALLATION OF INTERLOCKING PAVING STONES ON A LEAN CONCRETE BASE**TABLE OF CONTENTS**

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1. GENERAL CONDITIONS

The General Conditions and Standard Provisions attached hereto shall apply to and be a part of this Specification.

3. DESCRIPTION

This Specification shall cover the preparation of sub-grade, the supply and installation of lean concrete base, and the supply and installation of interlocking paving stones on sidewalks.

The work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to the satisfactory performance and completion of all work as hereinafter specified.

5. MATERIALS

5.1 General

The Contractor shall be responsible for the supply, safe storage and handling of all materials set forth in this Specification. All materials supplied under this specification shall be subject to inspection and testing by the Contract Administrator. There shall be no charge to the City for any materials taken by the Contract Administrator for inspection purposes.

5.2 Materials

5.2.1 Interlocking Paving Stones

Paving stones shall be of a standard type, colour and pattern as indicated on the Drawings. Paving stones shall conform to the requirements of CAN 3-A231.2, Precast Concrete Pavers.

Further to CAN 3-A231-2.6.1.1, where concrete pavers are shipped for installation before the pavers are 28 days old, the average compressive strength of these pavers at the time of delivery to the work site shall be not less than 40 Mpa.

5.2.2 Aggregates

The aggregates for the lean concrete mix shall conform to the requirements of Section **5.3.1** of Specification CW 3310.

5.2.3 Lean Concrete Mix

Lean concrete mix shall be supplied as specified in Specification CW3310, and shall have the following properties:

Aggregate size	20 millimetres nominal
Slump	25 – 75 millimetres
Compressive Strength @ 28 days	5 – 10 Mpa
Air Content	5-8%
Cement Content	150 kg/m ³
Fly Ash (10% of cement).....	15 kg/m ³

5.2.4 Bedding Sand

Bedding sand shall be fine aggregate as specified in Section 5.3.1 of Specification CW 3310 and Section 5.2.3 of Specification CW 3330.

5.2.5 Filler Sand

Filler sand shall have a maximum aggregate size of 2.5 millimetres.

9. CONSTRUCTION METHODS**9.1 Excavation**

Excavation shall comply with Specification VW3110.

The excavation shall not extend beyond the specified limits of excavation. The limits of excavation shall be taken as a vertical plan 150 millimetres beyond the limits of the proposed paving stone sidewalk, unless otherwise specified on the Drawings or in the specifications for the work.

The sub-grade shall be excavated to the minimum depth shown on Detail SD-240B, unless otherwise directed by the Contract Administrator.

9.2 Preparation of Sub-grade, Lean Concrete Base and Sand-base

The construction of sub-grade shall be completed in accordance with Specification CW3110 and the Drawings.

The construction of a lean concrete base shall follow the enclosure of all utilities (i.e. water valves, parking meter bases, street light pole bases, etc.) with a square concrete collar, to be a minimum of 225 millimetres in thickness. The cost of supplying and installing concrete collars shall be incidental to the installation of the lean concrete base.

The lean concrete base shall be placed to a minimum thickness of 150 millimetres. The surface shall be smooth, true to line, grade, and cross-section.

On top of the lean concrete base a 15 millimetres layer of bedding sand shall be placed.

The bedding sand layer shall be spread and levelled so that the paving stones when installed are 5 millimetres higher than the finished grade. No more sand shall be spread than can be covered in one day by paving stones. The bedding sand layer shall not be compacted prior to laying the paving stones.

The cost of supplying and placing bedding sand shall be incidental to the installation of the paving stones.

No paving stones shall be placed until construction of the underlying layers has been approved by the Contract Administrator.

9.3 Installation of Paving Stones

The paving stones shall be installed such that spaces between joints do not exceed 5 millimetres. Spaces between paving stones shall be uniform and consistent while maintaining straight and true patterns.

Work shall commence with edge stones along the longest straight section of curb or property line and work towards the opposite edge. Edge stones shall be used around any structure within the sidewalk limits and along the limits of the sidewalk.

If cutting of paving stones is required, the sawn or sheared edges shall be true, even and undamaged. Coloured mortar shall be used to fill small voids between blocks and curbs or other structures.

Paving stones shall be compacted into the sand layer using approved vibratory compactors until they are at the proper grade, uniformly level and free of any movement. Filler sand shall be swept into the joints until full.

The cost of supplying and placing filler sand shall be incidental to the installation of the paving stones.

10. QUALITY CONTROL

10.1 Inspection

All workmanship and all materials furnished and supplied under this specification are subject to close and systematic inspection and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the specified work. The Contractor shall be wholly responsible for the control of all operations incidental thereto notwithstanding any inspection or approval that may have been previously given. The Contract Administrator reserves the right to reject any materials or works that are not in accordance with the requirements to this specification.

10.2 Corrective Action

The Contractor shall, at his own expense, correct such work or replace such materials found to be defective under this specification in an approved manner to the satisfaction of the Contract Administrator.

12. METHOD OF MEASUREMENT**12.1 Supply and Installation of Interlocking Paving Stone**

Interlocking paving stone will be measured on a surface area basis. The surface area to be paid for shall be the number of square metres constructed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the Contract Administrator.

12.2 Supply and Installation of Lean Concrete Base

Construction of lean concrete base will be measured on a surface area basis. The surface area to be paid for shall be the number of square metres constructed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the Contract Administrator.

13. BASIS OF PAYMENT**13.1 Supply and Installation of Interlocking Paving Stones**

The supply and installation of interlocking paving stones will be paid for at the Contract Unit Price per square metre for "Interlocking Paving Stones", measured as specified herein, which price shall be payment in full for performing all operations herein described and all other items incidental to the work included in this specification.

13.2 Supply and Installation of Lean Concrete Base

The supply and installation of lean concrete base will be paid for at the Contract Unit Price per square metre for "Lean Concrete Base", measured as specified herein, which price shall be payment in full for performing all operations herein described and all other items incidental to the work included in this specification.