

CORPORATION OF THE CITY OF BURLINGTON SPECIFICATIONS

INDEX FOR

COLOURED AND/OR COLOURED IMPRESSED CONCRETE (SPEC. NO. SS9)

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CORPORATION OF THE CITY OF BURLINGTON

SPECIFICATIONS

FOR

COLOURED AND/OR COLOURED IMPRESSED CONCRETE

1. GENERAL REQUIREMENTS

a) Related Specifications

Unit Masonry Paving SS6 (N/A)

b) Samples

The Contractor shall provide a job site sample of 2 square metres (one for each colour and pattern) to be approved by the Contract Administrator prior to the start of construction. Said sample shall be the standard for the balance of the work installed and shall be protected against damage until final approval from the Contract Administrator. The Tendered Item is to include all supply of all required material, placing, finishing, and disposal upon approval.

2. SPECIFICATIONS FOR IMPRESSED CONCRETE

a) Colour

Colour to be Burlington Heritage Brick Red. Available in Colour Hardener or Integral Colour Pigment. Burlington Heritage Brick Red Colour Hardener is supplied in 25kg bags and is available at Form & Build Supply, Hamilton Branch 1-866-603-4480. The minimum application rate is 2.5 - 3.0 kgs per square metre.

Burlington Heritage Brick Red Integral Colour Pigment is supplied in 1 cubic metre load packaging and must be purchased through the ready mix supplier. Concrete Mix Design: C2 32 MPA exterior air entrained mix.

All colour bags are to be verified by the Contract Administrator.

b) Pattern

A sample of minimum dimensions 1.0m x 1.0m shall be submitted to the Contract Administrator for approval of colour match and pattern, to suit the application and relation to other hard surfaces.

c) Concrete Requirements

- i) Concrete shall conform to C.S.A. A23.1-M90 for class C-2 exposure:
 - Minimum 28 day compressive strength 32 MPa
 - Maximum water/cement materials ratio 0.45
 - Air content category 7% to 9% for 19mm coarse aggregate
 - Slump shall be minimum 80mm, maximum 100mm

d) High Early Strength Concrete

High early strength concrete having a minimum of 350 Kg/m³ cement content to be used for crosswalk crossings and 75% of minimum strength to be achieved in 72 hours with 6% to 8% air entrainment. No slag cement or additives will be accepted in the high early strength concrete.

e) Testing

All concrete shall be tested in accordance with C.S.A. A23.2-M90.

f) Jointing, Curing, Protection, and Sealing

All concrete shall have 19mm wide control joints sawn within 4 to 12 hours after placement. Control joints shall be 1/4 of slab depth (minimum) and no more than 2 metres apart in each direction.

Concrete shall be cured for a minimum of 120 hours (5 days). Curing is to be achieved by applying white Terrafix 270R Geotextile covered with white polyethylene.

The Contractor is to include all necessary precaution to protect the finished concrete until sealing and curing is complete. Protection may require temporary asphalt ramping and/or through the use of protection boards during the paving operations. No additional compensation will be paid for protection. Special specification will be included if early opening is required.

Upon curing and prior to opening to traffic, the concrete shall be sealed with "Pro Color Release by Superior" or equivalent with a silene sealer.

g) Placing and Finishing

Coloured and/or impressed concrete shall be deposited within the temperature range 10°C and 30°C. Finish to be a float finish with a magnesium or steel float. Take proper concreting precautions such as dampening of the subgrade and the prevention of premature surface drying resulting in Plastic Shrinkage Cracking shall be taken. Pattern shall be laid so that impressed lines are either parallel or perpendicular to the direction of the adjacent curb or sidewalk at all times.

3. Measurement and Payment

Measurement and payment will be made in square metres (m²) of Coloured and/or impressed Concrete placed as described herein which shall be full compensation for the labour, equipment, and materials necessary to complete the work as specified herein. Payment for the proposed coloured and/or impressed concrete includes any concrete base.