

**SPECIAL PROVISION**  
**SECTION 609 – CURB**  
**STRUCTURAL CONCRETE**  
(Slipform Concrete Curb)

609.01-Description This work shall consist of furnishing and placing Slipform Concrete Curb in close conformity with the plans or as authorized by the Resident.

609.02 Materials - Except as provided below, the materials used shall meet the requirements specified in Section 700 – Materials:

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|--|--------|
| - Portland Cement and Portland Pozzolan Cement | 701.01 |
| - Water  | 701.02 |
| - Fine Aggregate for Concrete                  | 703.01 |
| - Coarse Aggregate for Concrete                | 703.02 |
| - Air Entraining Admixtures                    | 703.03 |

A mix design for Portland Cement Concrete meeting the requirements below shall be submitted to the Resident:

- Class A with the exception that permeability requirements shall be waived.
- Entrained air content of Slipform curbing shall be 4.0% to 7.0%.
- Concrete temperature prior to discharge shall not exceed 90°F.
- Proposed mix designs may contain polypropylene fibers.

Partially discharged loads may be retempered with water as long as the maximum water-to-cement ratio is not exceeded.

609.03-General

a. Preparation of Base Before placing the curb, the foundation course shall be cleaned of all foreign and objectionable material. The Contractor shall not place Slipform Concrete Curb on a wet or frozen base. Base pavement for placing epoxy resin binder and slipform curbing may be in an SSD condition, but no standing water shall be allowed. String or chalk lines shall be positioned on the prepared base as guidelines. For HMA or PCC base, the foundation shall be uniformly painted with an epoxy resin adhesive that meets AASHTO M 235, Type I, II, III, IV, or V and have been tested by NTPEP. The Contractor shall submit the adhesive proposed to be utilized with the concrete mix design. The adhesive must be approved before placement and used in accordance with the manufacturer's recommendations.

b. Placing Concrete shall be placed with an approved Slipform machine that will produce a finished product according to the design specified in the plans. For cold weather slip-forming, the outside temperature must be at least 36°F (2.2°C) and rising. The curb shall be placed on a firm, uniform bearing surface, shall conform to the section profile specified in the plans, and shall match the appropriate grade. Expansion joints will be provided at ends of curve radii, or wherever the curb meets rigid structures such as building foundations or fire hydrants. Contraction joints will be placed at 10 foot (3 m) intervals using sawing methods, which shall cut 1-to-3 inches into the concrete. Contraction joints shall be cut between 1 and 7 days after placement. Joints shall be constructed perpendicular to the subgrade and match other joints in roadways, sidewalks or other structures when applicable.

c. Curing and Sealing Proper curing shall be insured through the use of either a combination curing/sealing compound spray that meets ASTM 1315 Type 1-Class A, or a curing compound spray that meets ASTM 309 type 1-D – Class A. Curing may also be accomplished by the methods specified in Section 502.15 of the Specifications.

If a combination curing/sealing compound spray is not used, a separate sealing compound from the MaineDOT Qualified Products List for a Type 2 sealer shall be applied after the concrete has cured.

d. Protection Slipform curb must be adequately protected after placement. The concrete shall be allowed to cure for at least 72 hours. During cold weather conditions, when temperatures drop below the required temperature of 36°F (2.2°C) after placement, curbing shall be protected by concrete blankets or a combination of plastic sheeting and straw. After any placement of Slipform curb, regardless of weather conditions, the placed curb shall be adequately protected by traffic control devices as necessary.

e. Marking When required, the curb shall be painted and coated with glass beads in accordance with Section 627 - Pavement Marking. Curb designated to be painted shall not be sealed unless a combination curing/sealing compound is used.

f. Acceptance Curb shall be accepted or rejected based on finish, alignment, entrained air content, and compressive strength. Acceptance testing for air content and compressive strength will be under Section 502 Method C. Damaged curb shall be removed and replaced at the Contractor's expense.

609.04-Method of Measurement Concrete Slipform curb will be measured by the linear foot along the front face of the curb at the elevation of the finished pavement, complete in place and accepted.

609.05 Basis of Payment The accepted quantities of curb will be paid for at the contract unit price per linear foot as specified.

There will be no separate payment for concrete, sealing, incidental materials, or labor needed to install the curb; these will be considered included in the work of the related curb.

Removal of existing curb and necessary excavation for installing curb will not be paid for directly, but shall be considered to be included in the curb pay item. Base and subbase material will be paid for under Section 304 - Aggregate Base and Subbase Course. Backing up machine-laid curb is incidental to the curb items. Loam, as directed, will be paid under 615 – Loam.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
609.161 Concrete slipform curb - Vertical	Linear Foot
609.21 Concrete Slipform Curb	Linear Foot
609.219 Concrete slipform terminal end	Linear Foot