SECTION 636—BITUMINOUS CONCRETE CURB

636.1 DESCRIPTION—This work is construction of a hot-mixed, hot-laid, bituminous concrete curb on a completed bituminous surface.

636.2 MATERIAL—Section 401.2, except that the Marshall method controls do not apply.

(a) Bituminous Material. Asphalt Cement, Class PG 64-22 or 58-28.

(b) Aggregate. Fine Aggregate, Section 703.1.

(c) Filler (Drawn Polyester Fibers). Provide a supplier certification with each shipment as specified in Section 106.03(b)3. The supplier shall certify that the filler conforms to the following requirements:

Average Length	6.5 mm ± 1.5 mm (0.25 inch ± 0.06 inch)
Average Diameter	0.010 mm (0.0004 inch) minimum
Specific Gravity	1.34 to 1.40
Melting Temperature	249 °C (480F) minimum
Tensile Strength	480 MPa (70,000 pounds per square inch) minimum

(d) Composition of Mixture. Combine fine aggregate, bitumen, and fiber in proportions that produce a mixture conforming to composition by mass (weight) percentages within the limits of Table A and as directed. Add approximately 0.3% asphalt cement per 0.12% by mass (weight) of polyester fibers.

TABLE A
Bituminous Concrete Curb
(Percentages by Mass (Weight) Passing Square Opening Sieves)

Passing Sieve	Required Composition of Mixture
9.5 mm (3/8-inch)	100
4.75 mm (No. 4)	90 - 100
2.36 mm (No. 8)	70 - 100
1.18 mm (No. 16)	50 - 80
600 µm (No. 30)	35 - 60
300 µm (No. 50)	20 - 45
150 µm (No. 100)	10 - 30
75 µm (No. 200)	5 - 20
Asphalt Cement, % by Mass (Weight)	6 - 13
Drawn Polyester Fiber, % by Mass (Weight) of Total Mix	0.12 - 0.38

(e) Bituminous Tack Coat. Section 460.2

636.3 CONSTRUCTION—

(a) Bituminous Mixing Plant. Obtain the bituminous mixture from a plant conforming to Chapter 1, Bulletin 27, except that three bins are not required.

(b) Hauling Equipment. Section 401.3(d)

(c) Bituminous Paver. Use an acceptable, self-propelled, extruding curb-paver.

(d) Preparation of Surface. Before placing curb, clean the bituminous surface and apply a tack coat, as specified in Section 460.3.

(e) Placing and Compacting. Place the curb in a continuous operation. The Representative will determine the mixture temperature from within the range of 143 °C to 157 °C (290F to 315F) based on weather conditions and workability requirements at the time of placement. Maintain the mixture temperature within a tolerance of 8 °C (15F) of the mixture temperature.

Place the hot bituminous mixture in the hopper of the curb-paver without segregation and then extrude the mixture through the mold to provide the proper compaction and surface texture.

Properly support and mass-load the curb-paver during operation along the edge of pavement. Guide the paver along string or chalk lines to maintain proper alignment and grade of the completed curb.

Where indicated or directed, make drainage openings through the curb.

Remove and replace completed curbs that show signs of sagging, cracking, or distortion; do not conform to lines, grades, or cross sections; and that cannot be satisfactorily repaired.

(f) Joints. If placing of curb is interrupted and the mixture cools below 135 °C (275F) cut a vertical joint in the curb. Just before placing the curb resumes, paint the joint with a thin, uniform coat of hot Asphalt Cement, Class PG 64-22 or PG 58-28.

(g) Curing. Protect newly completed curb from traffic or any other disturbance for at least 12 hours.

(h) Backfilling. Immediately after the curing period and where necessary, backfill and compact acceptable material behind the curb up to the required elevation and cross section.

636.4 MEASUREMENT AND PAYMENT—Meter (Linear Foot)