

**SECTION 700**  
**INCIDENTAL WORK**

**SECTION 701**  
**SIDEWALKS, WHEELCHAIR RAMPS AND DRIVEWAYS**

**DESCRIPTION**

**701.20 General.**

This work shall consist of the construction of bituminous concrete or cement concrete sidewalks, wheelchair ramps and driveways in accordance with these specifications and in close conformity with the lines and grades shown on the plans or established by the Engineer.

**MATERIALS**

**701.40 General.**

Materials shall meet the requirements specified in the following Subsections of Division III, Materials:

Gravel Borrow	M1.03.0, (Type b)
Cement Concrete, Air-Entrained (30 MPa - 20 mm - 390 kg)	M4.02.00
Preformed Expansion Joint Filler	M9.14.0
Class I Bituminous Concrete	M3.11.00

**CONSTRUCTION**

**701.60 General.**

**A. Subgrade.**

The subgrade for the sidewalks, ramps and driveways shall be shaped parallel to the proposed surface of the walks, ramps and driveways and thoroughly compacted. All depressions occurring shall be filled with suitable material and again compacted until the surface is smooth and hard.

**B. Foundation.**

After the subgrade has been prepared, a foundation of gravel shall be placed upon it. After being compacted thoroughly, the foundation shall be at least 200 millimeters in thickness and parallel to the proposed surface of the walk.

**701.61 Concrete Sidewalks and Wheelchair Ramps.**

**A. Forms.**

Side forms and transverse forms shall be smooth, free from warp, of sufficient strength to resist springing out of shape, of a depth to conform to the thickness of the proposed walk or ramp and of a type satisfactory to the Engineer.

All mortar or dirt shall be completely removed from forms that have been previously used. The forms shall be well staked and thoroughly graded and set to the established lines with their upper edge conforming to the grade of the finished walk or ramp which shall have sufficient pitch to the roadside edge to provide for surface drainage but not to exceed 1.6% unless otherwise directed.

All forms shall be oiled before placing concrete.

**B. Placing and Finishing Concrete.**

The concrete shall be placed in alternate slabs 9 meters in length except as otherwise ordered. The slabs shall be separated by transverse preformed expansion joint filler 13 millimeters in thickness.

Preformed expansion joint filler shall be placed adjacent to or around existing structures as directed.

On the foundation as specified above, the concrete shall be placed in such quantity that after being thoroughly

consolidated in place it shall be 100 millimeters in depth. At driveways, the sidewalks shall be 150 millimeters in depth. No finishing operation shall be performed while free water is present. Finishing operations shall be delayed until all bleed water and water sheen has left the surface and the concrete has started to stiffen. After water sheen has disappeared, edging operations, where required, shall be completed. After edging and joining operations, the surface shall be floated. Immediately following floating, the surface shall be steel-troweled. If necessary tooled joints and edges shall be rerun before and after troweling to maintain uniformity. After troweling, the surface shall be brushed by drawing a soft-bristled pushbroom with a long handle over the surface of the concrete to produce a nonslip surface.

In conveying the concrete from the place of mixing to the place of deposit, the operation shall be conducted in such a manner that no mortar will be lost, and the concrete shall be so handled that the concrete will be of uniform composition throughout, showing neither excess nor lack of mortar in any one place.

The surface of all concrete sidewalks shall be uniformly scored into block units of areas not more than 3.25 square meters. The depth of the scoring shall be at least one quarter of the thickness of the sidewalk.

The application of neat cement to surfaces in order to hasten hardening is prohibited.

The finishing of concrete surface shall be done by experienced and competent cement finishers approved by the Engineer.

When completed the walks shall be kept moist and protected from traffic and weather for at least 3 days in accordance with the applicable provisions of Subsection 476.74.

#### **701.62 Bituminous Concrete Sidewalks and Wheelchair Ramps.**

##### **A. Forms.**

Where walls, curbing or other suitable permanent supports are not present or where an approved mechanical spreader is not used, satisfactory forms shall be installed to assist in securing proper alignment and adequate compaction of the base and surface courses.

##### **B. Placing Bituminous Concrete.**

The bituminous concrete walk surface shall be laid in 2 courses to a depth after rolling of 60 millimeters. The bottom course shall be 30 millimeters in thickness, and its surface after rolling shall be 30 millimeters below and parallel to the proposed grade of the finished surfaces. The top course shall be 30 millimeters in thickness after rolling.

Unless otherwise directed, the surface shall have sufficient pitch to the roadside edge to provide for surface drainage but not to exceed 1.6%.

The courses shall be constructed in accordance with the applicable requirements of Section 460 and the following provisions:

1. *Spreading Mixture* – The mixture shall be dumped, as needed, in wheelbarrows or on approved steel dump sheets outside the areas on which it is to be placed. It shall then be immediately distributed into place by means of shovels and raked into a uniformly loose layer to the full width required and of such depth that, when work is completed, it shall conform to the grade and surface contour required. An approved mechanical spreader may be used.

2. *Rolling* – The surface shall be rolled with a self-propelled tandem roller with a mass not less than 1.4 metric tons and not more than 4.5 metric tons. In places inaccessible to a power roller, compaction shall be obtained by means of mechanical rammers or by hand tampers with a mass not less than 25 kilograms and having a tamping face not exceeding 600 square millimeters.

3. *Testing Surface* – When tested with a 3 meter straightedge placed parallel to the center line of the courses, there shall be no deviation from a true surface in excess of 5 millimeters.

#### **701.63 Bituminous Concrete Driveways.**

##### **A. No Forms will be required.**

##### **B. Placing Bituminous Concrete.**

The Bituminous Concrete driveway surface shall be laid in 2 courses to a depth, after rolling, of 90 millimeters unless otherwise designated on the plans. The Bottom Course shall be 50 millimeters in thickness, and its surface, after rolling, shall be 40 millimeters below and parallel to the proposed grade of the finished surface. The top course shall be 40 millimeters in thickness after rolling.

1. *Spreading Mixture* – The Mixture shall be spread with an approved spreader. In areas not accessible to a spreader, the mix shall be placed as specified for bituminous concrete sidewalks (Section 701.62 B-1).

2. *Rolling* – The surface shall be rolled with a self-propelled tandem roller with a mass not less than 2.8 metric tons nor more than 4.5 metric tons, or an approved roller as designated by the Engineer.

3. *Testing Surface* – When tested with a 3 meter straightedge placed parallel to the center line of the courses, there shall be no deviation from a free surface in excess of 5 millimeters.

### COMPENSATION

#### 701.80 Method of Measurement.

Concrete walks and wheelchair ramps will be measured in square meters.

Bituminous concrete walks, wheelchair ramps and driveways will be measured by the metric ton.

Gravel borrow will be measured by the cubic meter as specified in Subsection 150.80.

Fine Grading and Compacting (in subgrade areas) will be measured by the square meter.

#### 701.81 Basis of Payment.

Concrete Sidewalks, Wheelchair Ramps and Sidewalks at Driveways will be paid for at the contract unit price per square meter.

Bituminous concrete for the walk surface and wheelchair ramps will be paid for at the contract unit price per metric ton.

Bituminous Concrete Driveways will be paid for at the contract unit price per metric ton under the item for Bituminous Concrete Driveways complete in place.

Gravel will be paid for at the contract unit price per cubic meter under Item 151., Gravel Borrow.

Fine Grading and Compacting will be paid for at the contract unit price per square meter under item 170., Fine Grading and Compacting (in subgrade areas).

Excavation will be paid for at the contract unit price per cubic meter under Item 120., Earth Excavation, or Item 121., Class A Rock Excavation.

#### 701.82 Payment Items.

701.	Concrete Sidewalk	Square Meter
701.1	Concrete Sidewalk at Driveways	Square Meter
701.2	Concrete Wheelchair Ramp	Square Meter
702.	Bituminous Concrete Walk Surface	Metric Ton
702.2	Bituminous Concrete Wheelchair Ramp	Metric Ton
703.	Bituminous Concrete Driveway	Metric Ton
120.	Earth Excavation	Cubic Meter
121.	Class A Rock Excavation	Cubic Meter
151.	Gravel Borrow	Cubic Meter
170.	Fine Grading and Compacting (in subgrade areas)	Square Meter

## SECTION 710

### BOUNDS

#### DESCRIPTION

#### 710.20 General.

Bounds shall be of granite as directed and shall be set at points designated by the Engineer and in conformity with these specifications. Drill Steel rods may be used, if directed, where the points fall on exposed rock.

Where and as directed, the stone or concrete bounds now in the ground shall be removed and reset in conformity with these specifications. In instances where these are not to be reset they shall be transported and stacked as directed.

Bounds (Lettered-Granite) and Bounds (Plain Granite) Furnished and Set, shall consist of furnishing and