

## **SECTION 9.21 CONCRETE SIDEWALKS**

**9.21.01--Description:** This item shall consist of concrete sidewalks constructed on a gravel or reclaimed miscellaneous aggregate base course in the locations and to the dimensions and details shown on the plans or as ordered and in accordance with these specifications.

**9.21.02--Materials:** Materials for this work shall conform to the requirements of Article M.03.01 for Class "C" Concrete.

Air-entraining portland cement and air-entraining admixtures shall conform to Article M.03.01

Gravel or reclaimed miscellaneous aggregate for base shall conform to Article M.02.01 for granular fill.

The sidewalk concrete constructed as a pad adjacent to a traffic control foundation, shall conform to the requirements of Article M.03.01 for Class "A" Concrete.

### **9.21.03--Construction Methods:**

**1--Excavation:** Excavation, including removal of any existing sidewalk, shall be made to the required depths below the finished grade, as shown on the plans or as directed. All soft and yielding material shall be removed and replaced with suitable material.

When connecting new concrete sidewalk to a section of existing concrete sidewalk, the connection point shall be at the nearest joint in the existing sidewalk.

**2--Gravel or Reclaimed Miscellaneous Aggregate Base:** The gravel or reclaimed miscellaneous aggregate base shall be placed in layers not over 150 mm in depth and to such a depth that after compaction it shall be at the specified depth below the finished grade of the walk. The base shall be wetted and rolled or tamped after the spreading of each layer.

**3--Forms:** Forms shall be of metal or wood, straight, free from warp and of sufficient strength to resist springing from the pressure of the concrete. If made of wood, they shall be of 38 mm surfaced plank except that at sharp curves thinner material may be used. If made of metal, they shall be of approved section and shall have a flat surface on the top. Forms shall be of a depth equal to the depth of the sidewalk. Forms shall be securely staked, braced and held firmly to the required line and grade and shall be sufficiently tight to prevent leakage of mortar. All forms shall be cleaned and oiled or wetted before concrete is placed against them. Sheet metal templates 3 mm in thickness, of the full depth and width of the walk, shall be spaced at intervals of 4 m or as directed. If the concrete is placed in alternate sections, these templates shall remain in place until concrete has been placed on both sides of the template. As soon as the concrete has obtained its initial set, the templates shall be removed.

**4--Concrete:** The concrete shall be proportioned, mixed, placed, etc., in accordance with the provisions of Section 6.01 for Class "C" Concrete, except as modified herein.

The concrete shall contain not less than 5 nor more than 7 percent entrained air at the time the concrete is deposited in the forms.

Air-entrainment shall be obtained and the concrete cured in accordance with the provisions of Article 4.01.03 for Concrete Pavement.

**5--Finishing:** The surface of the concrete shall be finished with a wood float or by other approved means. The outside edges of the slab and all joints shall be edged with a 6 mm radius edging tool. Each slab shall be divided into two or more sections by forming dummy joints with a jointing tool as directed.

**6--Backfilling and Removal of Surplus Material:** The sides of the sidewalk shall be backfilled with suitable material thoroughly compacted and finished flush with the top of the sidewalk. All surplus material shall be removed and the site left in a neat and presentable condition to the satisfaction of the Engineer.

**9.21.04--Method of Measurement:** This work will be measured for payment as follows:

**1--Concrete Sidewalk:** This work will be measured by the actual number of square meters of completed and accepted concrete sidewalk.

**2--Excavation:** Excavation below the finished grade of the sidewalk, backfilling, and disposal of surplus material will not be measured for payment, but the cost shall be included in the price bid for the sidewalk. Excavation above the finished grade of the sidewalk will be measured and paid for as roadway excavation.

**3--Gravel or Reclaimed Miscellaneous Aggregate Base:** This work will not be measured for payment, but the cost shall be considered as included in the price bid for the sidewalk.

**9.21.05--Basis of Payment:** This work will be paid for at the contract unit price per square meter for "Concrete Sidewalk," complete in place, which price shall include all excavation as specified above, backfill, disposal of surplus material, gravel or reclaimed miscellaneous aggregate base, equipment, tools, materials and labor incidental thereto.

Pay Item	Pay Unit
Concrete Sidewalk	m <sup>2</sup>