

300 BASES

ITEM 305 - PORTLAND CEMENT CONCRETE BASE – ARTERIAL

305.01 Description

305.02 Forms and Joints

305.03 Placing and Finishing Concrete

305.04 Method of Measurement

305.05 Basis of Payment

305.01 Description. This work shall consist of constructing a Portland cement concrete base on a prepared subgrade or subbase in accordance with these specifications and in reasonably close conformity with the lines, grades, thickness, and typical cross sections shown on the plans or established by the Engineer. This work shall conform to the requirements of Item 451 except that:

1. Concrete proportioning shall meet the requirements of Item 499, Concrete, Class E.
2. Fabricated steel reinforcement and load transfer devices are not required.
3. Transverse contraction joints shall be constructed to coincide with every other curb joint not to exceed 20 foot (6.0 m) intervals by sawing to a minimum depth of $t/3$ (where t = thickness of pavement in inches (millimeters)) and width of approximately 1/8 inch (3.1 mm).
4. Longitudinal joints shall be constructed at 29 foot (8.8 m) width or greater by sawing or forming. If sawed, the minimum depth shall be $t/3$ inches (millimeters). The width shall be approximately 1/8 inch (3.1 mm).
5. Sealing will be required for expansion joints only.
6. Smoothness shall be as specified in Section 451.12 except that the specified tolerance shall be 1/4 inch (6.3 mm) in 10 feet (3.0 m).

305.02 Forms and Joints. No concrete base shall be constructed until the roadway has been graded to 1 foot (0.3 m) (min.) back of curb line and provision has been made to drain surface water from the subgrade into the storm drainage system or drained by other approved means. When the concrete base is constructed prior to that of the curb or combined curb and gutter, rigid steel forms of a depth equal to the plan thickness of the base shall be used. The forms shall be staked to line and grade and shall in no place deviate more than 1/4 inch (6.3 mm) from a 10 foot (3.0 m) straightedge. All forms shall be cleaned and oiled each time they are used. When ordered by the Engineer, the concrete base shall be constructed in 2 or more lane widths.

305.03 Placing and Finishing Concrete. Before placing the concrete base course, the subgrade or subbase shall be thoroughly moistened the preceding evening or as directed by the

Engineer. The concrete shall be deposited and compacted in a single layer in such manner as to require as little handling as possible and thoroughly spaded to remove all voids. The concrete shall be struck off as soon as placed and shaped accurately to the cross-section and grades as shown on the plans. Rakes shall not be used for handling concrete. Wood flats or an approved finishing machine shall be used in the initial and final finishing of the concrete. No water shall be added to the surface of the concrete in order to facilitate the finishing of the concrete. If more water is needed to make the mix more workable, it shall be added to the concrete mixture to produce the desired consistency (not to exceed 4 inch (100 mm) slump). The need and quantity of water to be added shall be determined by the Engineer, or authorized City representative.

305.04 Method of Measurement. The area under this item will be the number of square yards (square meters) completed and accepted in place. The width for measurement will be the width of the base shown on the typical cross-section of the plans and additional widening where called for, or as otherwise directed in writing by the Engineer. The length will be measured horizontally along the centerline of each roadway or ramp. The plan quantities as adjusted for changes, errors, and deviations in excess of allowable tolerances will be the method of measurement.

Base thickness determination and payment shall be in accordance with Section 451.16.

305.05 Basis of Payment. The accepted quantities of concrete base will be paid for at the contract unit price per square yard (square meter) which price and payment shall be full compensation for furnishing and placing all materials; provided, however, that for base found deficient in thickness only the reduced pay quantity stipulated in 451.16 shall be paid.

No additional payment over the unit contract bid price will be made for any base which has an average thickness in excess of that shown on the plans.

Payment will be made at the contract price for:

Item	Unit	Description
305	Square Yard (Square Meter)	___" (mm) Portland Cement Concrete Base - Arterial