

9.30 INTAKES AND UTILITY ACCESSES

9.31 INTAKE CONSTRUCTION ON PAVING JOBS

Intake standards show a portion of a slab, or a portion of a curb and gutter unit, blocked out at time of construction, which is to be filled in later when intakes are built. Since intakes are usually sublet by the paving contractor, the question of including this insert section in the payment for the pavement area has been brought up frequently.

Payment for PCC pavement should include all areas of manholes, intakes or other fixtures within the pavement since designers consider all concrete work from back of curb to back of curb as pavement or as linear feet of curb and gutter when calculating plan quantities.

9.32 BOX-OUTS FOR UTILITY ACCESSES

Standard Road Plans provide for boxing out utility accesses in pavement. It is preferred that fixtures falling entirely within a slab be adjusted to the design elevation prior to placing concrete. Clearance of the ring below pavement grade is generally $\frac{1}{2}$ inch (12 mm). Care must be taken during the paving process to avoid disturbance of the ring. A roll of concrete in front of the portion of the screed passing over the ring should be removed and used to pack it and prevent movement.

Box-outs for utility accesses occurring in a form line should be three-sided, with the end sections at 60 degrees with the form and center section parallel with the form. All three sides should be about 12 inches (300 mm) from the upper edge of the ring.

The ring should be set to the required grade and concreted in when the adjacent slab is being placed. Special procedures may be necessary when incorporating some old utility accesses into the new pavement, whether a box-out is used or not. Particular attention should be paid if the bearing support of the old structure is questionable.

9.33 BOX-OUTS ON SLIPFORM PAVING

When slipforming urban projects, contractors sometimes fill the inside area of box-outs for utility accesses and intakes with soil or base material. This is to help keep the forms from moving and reduce the volume of concrete mix that is wasted during passage of the paver over box-outs.

In some cases a box-out is filled to a greater height than the forms and soil becomes intermixed with concrete as the paver passes over these areas. This results in contaminated mix being incorporated into the pavement. To insure that the concrete mix will not be contaminated, the height of fill inside the box-out area should be 3 inches (75 mm) or more below the top of the forms, or a sheet of plywood may be placed over the opening of box-out areas.

In some instances, when paving past a box-out, a longitudinal KT or a K joint is inadvertently constructed in the pavement edge. The longitudinal joint between the edge of pavement and insert is to be a "B" joint. The purpose of this smooth joint is to permit the slab to move longitudinally without moving the insert and putting stresses on the intake.