



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE  
PUBLIC WORKS STANDARDS INC.  
GREENBOOK COMMITTEE  
1992  
REV. 1995

TRANSITION STRUCTURE  
RCB TO PIPE

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN  
METRIC  
342-1

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NOTES

1. THE HORIZONTAL ANGLE OF DIVERGENCE OR CONVERGENCE,  $\theta$ , SHALL NOT EXCEED 5° 45'.
2. REINFORCING STEEL BAR SIZES, SPACING, PATTERN AND COVER OVER THE STEEL SHALL BE AS FOLLOWS:  
RCB TO RCP AND RCB TO ARCH – THAT OF RCB SECTION.  
ARCH TO RCP – THAT OF ARCH SECTION.  
ARCH TO ARCH – THAT OF ARCH SECTION HAVING THE THICKER WALLS. THE BAR LENGTHS SHALL VARY UNIFORMLY THROUGHOUT THE TRANSITION.
3. THE CONCRETE THICKNESS SHALL BE AS FOLLOWS:  
RCB TO RCP AND ARCH TO RCP – THAT OF ARCH OR RCB SECTION UNLESS THE WALL THICKNESS OF THE RCP PLUS 100 mm (4") GREATER, IN WHICH CASE THE CONCRETE THICKNESS SHALL VARY UNIFORMLY FROM THAT OF THE ARCH OR RCB SECTION TO THAT OF THE RCP WALL PLUS 100 mm (4").  
  
RCB TO ARCH AND ARCH TO ARCH – THAT OF THE ADJOINING RCB OR ARCH SECTION AT EACH END OF THE TRANSITION AND SHALL VARY UNIFORMLY BETWEEN THE TWO ENDS.
4. THE INTERIOR SURFACE SHALL BE SMOOTH AND VARY UNIFORMLY BETWEEN THE TWO ADJOINING SECTIONS.
5. AT RCP JUNCTURE, EMBEDMENT P SHALL BE 130 mm (5") FOR PIPE SIZE OF 2400 mm (96") OR LESS, AND 200 mm (8") FOR PIPE SIZES OVER 2400 mm (96").
6.  $f'_c = 28 \text{ MPa}$  (4000 PSI) AT 28 DAYS AND THE CONCRETE SHALL BE THE SAME MIX AS THE ADJACENT RCB.
7. ALL STEEL, EXCEPT LONGITUDINAL STEEL SHALL BE GRADE 400 (60) BILLET STEEL CONFORMING TO ASTM A 615 M (A 615) AND SHALL TERMINATE 40 mm (1 1/2") CLEAR OF CONCRETE SURFACE UNLESS OTHERWISE SHOWN.
8. KEYED CONSTRUCTION JOINTS OF THE SAME DIMENSIONS AS THOSE OF THE RCB OR ARCH SECTION MAY BE CARRIED THROUGH THE TRANSITION STRUCTURE AT THE CONTRACTOR'S OPTION. SEE SECTION B-B.
9. THE TRANSITION STRUCTURE SHALL BE CONSTRUCTED IN ACCORDANCE THE STRUCTURAL NOTES APPLYING TO RCB OR ARCH STRUCTURES SHOWN ON THE PLANS.

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