

Diagram illustrating a permissible construction joint for a precast concrete wall, showing dimensions and reinforcement details.

Dimensions:

- Overall Height: $H + 2'-5"$
- Joint Height: $H + 11"$
- Wall Height: H
- Joint Width: $2'-6"$
- Wall Thickness: $1'-3"$
- Joint Depth: $1'-3"$
- Joint Depth (Bottom): $1'-2"$
- Joint Depth (Bottom): $4"$
- Joint Depth (Bottom): $1'-6"$
- Joint Depth (Bottom): $2'-6"$
- Joint Depth (Bottom): $1'-3"$

Reinforcement and Components:

- 6y1 (Top and Bottom)
- 6x1 (Vertical Wall Reinforcement)
- 6x2 (Horizontal Wall Reinforcement)
- 6y2 (Horizontal Wall Reinforcement)
- 1/2" PREFORMED EXP. JOINT FILLER
- PERMISSIBLE CONSTRUCTION JOINT (SEE STD. CBJ 4-87)

Figure 10 is a cross-sectional diagram of a beam-column joint. The dimensions are as follows:

- Top width: 2'-6" (total), 1'-3" (column width), 1'-2" (joint width), 1 1/2" (joint depth).
- Reinforcement: 4" top reinforcement, 5" top reinforcement, 6x1 reinforcement on the left, 6x1 reinforcement on the right.
- Height: 1'-3" total height.
- Bottom: 1/2" preformed expansion joint filler.

Diagram illustrating the reinforcement details for a beam-column joint. The joint is shown in cross-section, highlighting the 1/2" PREFORMED EXP. JOINT FILLER (6z) and the PERMISSIBLE CONSTRUCTION JOINT (SEE STD. CBJ 4-87). Dimensions and reinforcement specifications are provided:

- Vertical dimensions: 2 1/4 CL., 1'-2", 1'-6", 3 1/2 CL., 4'-5", 2'-6", 1'-3", 2 3/4".
- Horizontal dimensions: 1'-1", 1'-3", 2'-6", 1'-6", 6x2, 6y2, 6x2.
- Reinforcement: 6x2, 6y2, 6z.
- Labels: 1/2" PREFORMED EXP. JOINT FILLER, PERMISSIBLE CONSTRUCTION JOINT (SEE STD. CBJ 4-87).

[illegible]

SIZE	FOOTING	WALLS	SLAB
10' X 4'	2.835	1.061	2.387
10' X 5'	2.835	1.350	2.387
10' X 6'	2.835	1.640	2.387
10' X 8'	2.835	2.219	2.387
10' X 10'	2.835	2.797	2.387
10' X 12'	2.835	3.376	2.387
12' X 6'	3.183	1.640	2.677
12' X 8'	3.183	2.219	2.677
12' X 10'	3.183	2.797	2.677
12' X 12'	3.183	3.376	2.677

1. DIMENSIONS AND QUANTITIES SHOWN BASED ON SLAB THICKNESS OF 11", WALL = 10", AND FLOOR = 1'-2".
2. CHANGE LENGTHS OF BARS 6x1, 6x2, 6Z, AND ADJUST REINFORCING STEEL AND CONCRETE QUANTITIES ACCORDINGLY FOR SLAB, WALL, AND FLOOR THICKNESSES OTHER THAN SHOWN.
3. ALL BAR LENGTHS ARE ESTIMATED WITH A 2" CLEARANCE FROM CONCRETE EDGE TO OUTSIDE OF BAR, EXCEPT AS NOTED.
4. MATERIAL AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS OF I.D.O.T.
5. SEE DRAWING RCB-G1-87 FOR GENERAL INFORMATION, SPECIFICATIONS, AND DESIGN STRESSES.
6. BARREL FLOOR BARS m_1 ARE TO BE SHORTENED 6" AT BELL JOINTS.

LATEST REVISION DATE :
03-08

APPROVED BY :

IOWA DE
MAY , 1987

STANDARD DESIGN
CULVERT BELL JOINTS
FOR
REINFORCED CONCRETE BOX CULVERTS
10' AND 12' SPANS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

CBJ 3-87