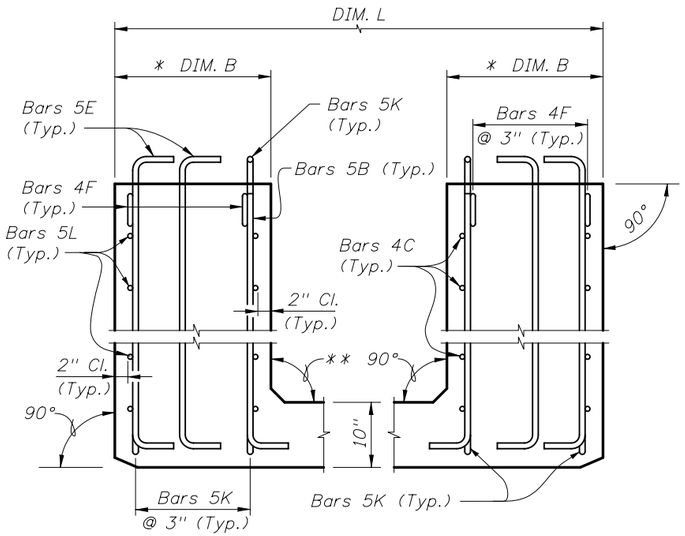
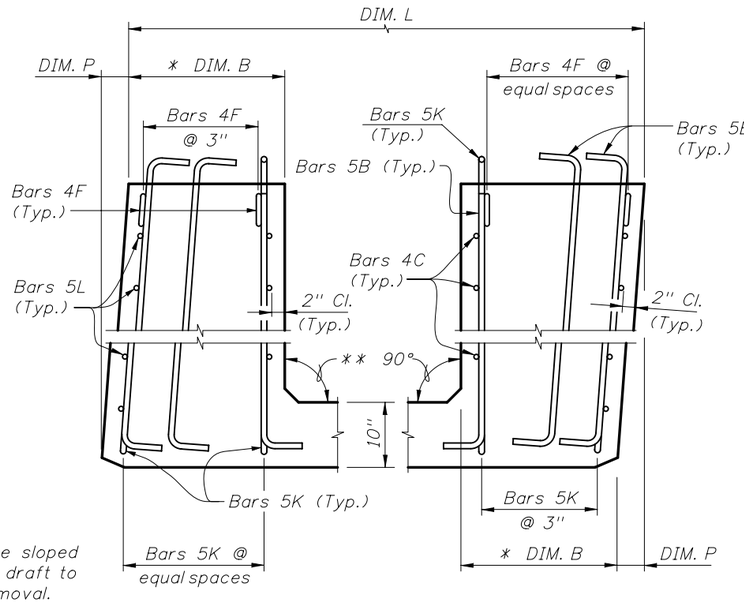


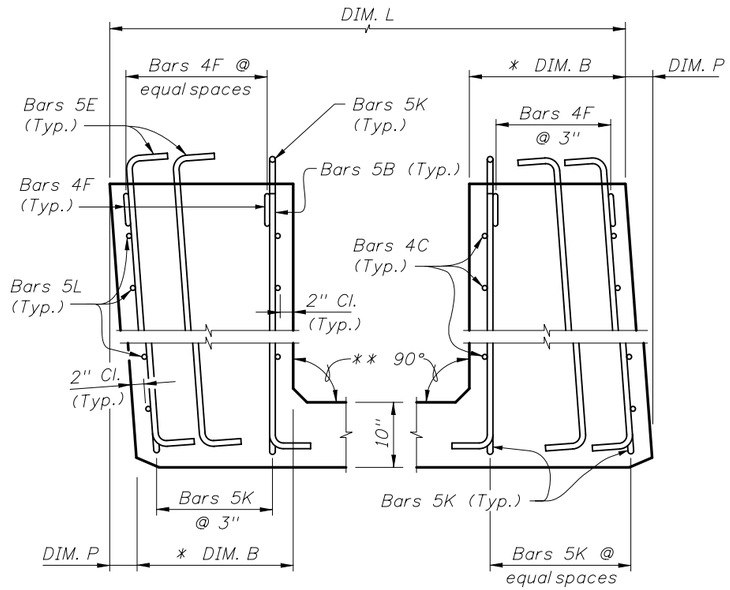
* DIM. B is 1'-6" for Florida U 48 and 54 Beams and 2'-0" for Florida U 63 and 72 Beams.

CONDITION 1
(P = 0.0)



** Concrete face may be sloped with a maximum 1:24 draft to facilitate formwork removal.

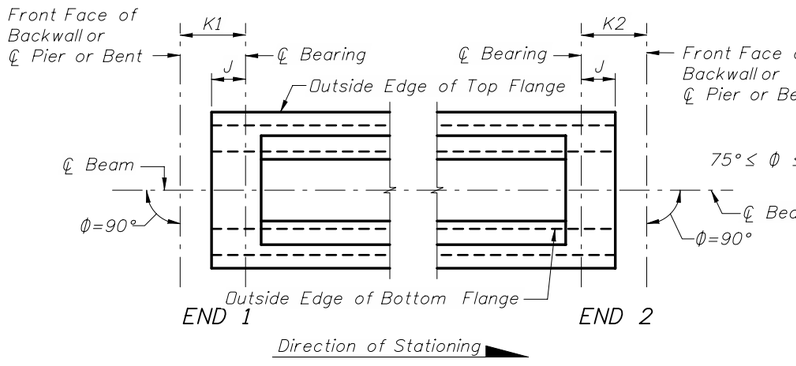
CONDITION 2



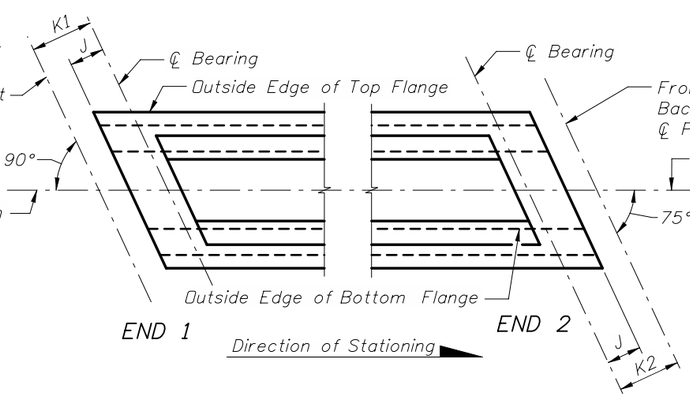
CONDITION 3

SCHEMATIC END ELEVATIONS OF BEAMS

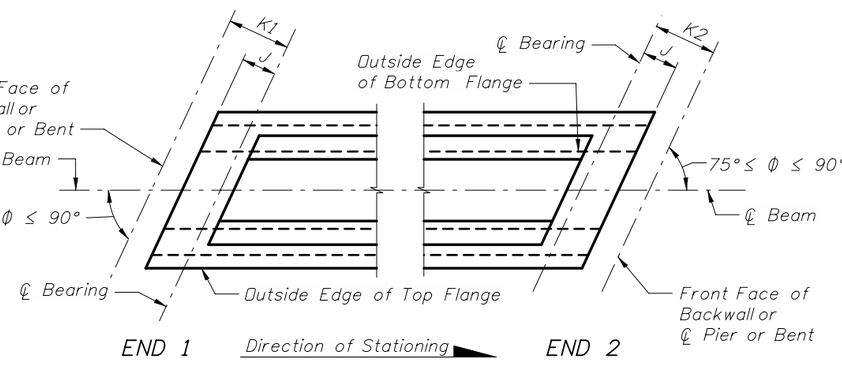
(Showing Vertical Bevel of Beam End)



CASE 1



CASE 2

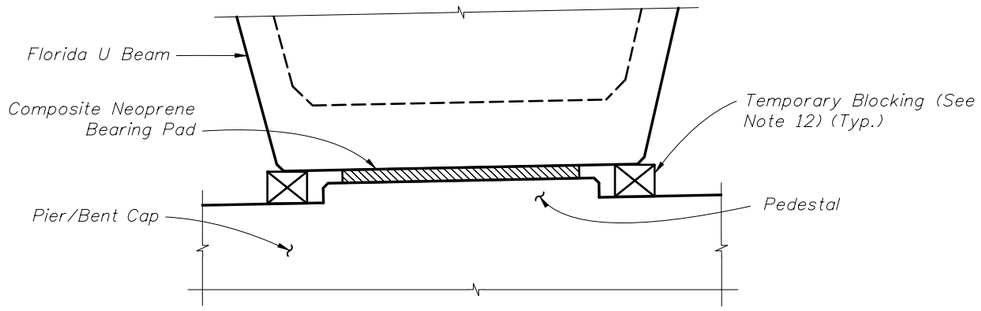


CASE 3

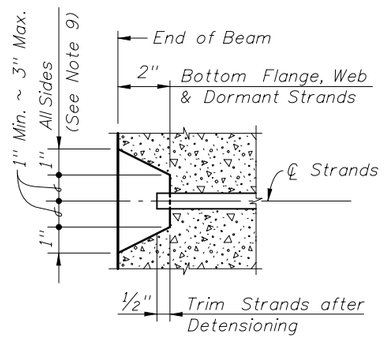
SCHEMATIC PLAN VIEWS AT BEAM ENDS

NOTE:
Work this Index with Florida U Beam - Table of Beam Variables in Structures Plans.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	2010 FDOT Design Standards	Last Revision 07/01/05	Sheet No. 1 of 2
	TYPICAL FLORIDA-U BEAM DETAILS AND NOTES		Index No. 20210



TEMPORARY BLOCKING OF BEAM ENDS



TYPICAL STRAND BLOCKOUT DETAIL

BEAM NOTES

1. All bar dimensions are out-to-out.
2. Strands N (Dormant Strands) shall be either ASTM A416, Grade 250 or Grade 270, seven-wire strands ⅜" ϕ or larger, stressed to 10,000 lbs. each.
3. Unless otherwise noted in Structures Plans, the minimum concrete cover for reinforcing steel shall be 2".
4. At the option of the Contractor and with the Engineer's Approval, deformed welded wire reinforcement may be used in lieu of Bars 6A1, 4A2, 5B, 4C, 3D, 5E, 4F, 4G, 4H, 5K, 5L and 4M except as noted below in note 7, provided the wire sizes and spacing match those shown on the Standard Beam Detail sheets for these bars. Welded wire reinforcement shall conform to ASTM A497.
5. Place 2½" NPS x 5" PVC Sch. 40 Safety Sleeve with cap in both top flanges spaced on 8'-0" (Max.) centers. Shift Bars 5K & 4M locally to allow placement. Holes shall be free of debris and water prior to casting deck.
6. For Beams with vertically beveled end conditions when "DIM. P" exceeds 1", Bars 5E and the first Bars 4F and 5K shall be placed parallel to the end of the beam. The remaining Bars 4F and 5K within the limits of "DIM. B" shall be fanned at equal spaces.
7. Welded deformed wire reinforcement shall not be used for the end reinforcement (Bars 5B, 4C, 3D, 5E, 4F, 5K, and 5L) for beams with skewed end conditions or vertically beveled end conditions when "DIM. P" exceeds 1".
8. Bars 5K shall be placed and tied to the fully bonded strands in the bottom row (see "STRAND PATTERN" in Structures Plans).
9. Strand Protection at beam ends shall consist of a 2" deep recess formed around all strands (including dormant) or strand groups. Extend recess to face of web and bottom of flange for bottom row of strands. After detensioning, cut strands ½" from recessed surface and fill the recess with a Type F-2 or Q Epoxy Compound in accordance with Section 926 of the Specifications.
10. Use Size No. 67 maximum sized aggregate.
11. Use Stay-in-Place metal deck forms inside the beams.
12. Prior to deck placement, based on the deck forming system and deck placement sequence, evaluate and provide, if necessary, temporary bracing between the U Beams. Also, prior to deck placement, provide temporary blocking under each web at both ends of every beam. Ensure the temporary blocking is adequate to resist movements and rotations that occur during placement of the deck. Leave temporary blocking and bracing in place for a minimum of four days after the deck placement.
13. For referenced Dimensions, Angles and Case Numbers see Table of Beam Variables in Structures Plans.

INSTRUCTIONS TO DESIGNER:

To limit vertical splitting forces in the ends of beams, the maximum prestress force at beam ends from fully bonded strands must be limited to the following:

Beam Type	Max. Bonded Prestress Force	Index No.	Issue Date
Florida U48 & U54	2790 Kips	20248 & 20254	07/01/05
Florida U63 & U72	3070 Kips	20263 & 20272	07/01/05

No losses shall be applied when calculating the Bonded Prestress Force. The reinforcing in the ends of the beams must not be modified without the approval of the State Structures Design Engineer.

NOTE:
Work this Index with Florida U Beam – Table of Beam Variables in Structures Plans.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
01/01/10	SJN	Changed Note 12 and "Timber" to "Temporary" in Blocking Detail.			

2010 Interim Design Standard

TYPICAL FLORIDA-U BEAM DETAILS AND NOTES

Interim Date 01/01/10

Sheet No. 2 of 2

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