FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			

CONSTRUCTION NOTES

Each double-tee beam is designed to bear equally on four bearing pads. Shimming and/or grinding under one or more pads may be necessary to obtain proper bearing. The contractor shall adhere to the following installation sequence during erection of the beams:

1. Mark theoretical pad locations (outlines) on the bridge seats for the centermost beam. Place pads on the marked locations and erect this beam first. Pad locations shall be adjusted if necessary, to center the pads under stems.

   Determine the need for shims and grinding by performing the following tests:

   a) Check the bearings. If contact between stem and pad is not apparent, shimming at the low bearing and/or grinding at the adjacent high bearing is required. Grinding of the concrete bridge seat shall be limited to 10 mm maximum.

   b) If there is contact between stem and pad but the sealing ribs around the pad perimeter (top and bottom) are not compressed by at least 6 mm total, insert a shim plate between the low bridge seat and the pad. As an option, the contractor may grind the adjacent high bearing in accordance with a) above.

2. Check carefully the location (position, alignment, etc.) of the erected beam before proceeding with the erection of the other beams.

3. Erect adjacent beams by repeating steps 1 and 2 above. Post-tensioning ducts must line up and pads must be centered under stems.

4. After erection of all beams, a final check of their positions shall be done prior to proceeding with additional work.

5. Insert backer rods in keyways between beams.

6. Join post-tensioning ducts as detailed in the plans. The couplers at the joints shall be securely wrapped with duct tape to prevent grout penetration into the ducts during grouting of the keyways. DO NOT install P.T. strands at this time.

7. Place a longitudinal #13 Bar in each keyway as shown in the plans, and fill the longitudinal keyways with approved non-shrink, non-metallic grout. The Contractor shall include with the shop drawings a letter from the grout manufacturer certifying that the proposed grout is proper for its intended use. The letter shall also include recommendations for surface preparation and for mixing, placing and curing of the grout.

   The precast concrete surfaces shall be prepared, and the grout shall be mixed, placed and cured in strict adherence to the manufacturer's recommendations. However, the total curing period shall be at least 72 hours.

   Post-tensioning may start after grout has cured at least 48 hours and reached a minimum strength of 28 MPa.

   The grouted keyways shall not be disturbed by vehicular traffic or heavy construction activities prior to completion of post-tensioning and total curing.

8. Install tendons in the ducts. Each tendon shall consist of three (3) seven-wire No. 13 strands. The strands shall meet the requirements of ASTM A416, Grade 1860 and have low relaxation properties. The ends of the three (3) strands shall be "color coded" to insure same position at both anchorage plates.

   Post-tension the midspan or the two (2) centermost tendons first. Then every other tendon on both sides in a sequence that keeps the maximum eccentricity about midspan to one (1) tendon. Then post-tension the previously skipped tendons beginning with the two (2) centermost (near midspan) on both sides in a sequence that keeps the maximum eccentricity about midspan to one (1) tendon, until all tendons are stressed.

   If the tendon's path is straight end-to-end (uncrowned bridge section) and the bridge is not skewed in excess of 15°, the tendons may be stressed from either end.

   If the tendon's path is not straight end-to-end and/or the bridge is skewed in excess of 15°, the strands shall be stressed from one end, alternating bridge sides, so that every other tendon is stressed from the same side of the bridge.

9. Grout ducts and fill anchorage blockouts with approved non-shrink, non-metallic grout. The grouted tendons shall not be disturbed by vehicular traffic or heavy loads for a period of at least 72 hours.

10. Construct end diaphragms.

11. Remove lifting devices. Any metal shall be removed to 25 mm below the surface and the hole in the concrete shall be grouted flush. The Grout used for the patch shall be an approved non-shrink, non-metallic grout. The color of the grout shall match the color of the adjacent concrete surface.

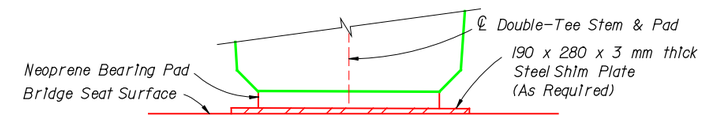
12. Check riding surface in accordance with the Specifications and grind areas not in compliance. Depths of grinding shall be limited to 15 mm maximum.

13. Construct all superimposed superstructure items such as barriers, sidewalks, etc.

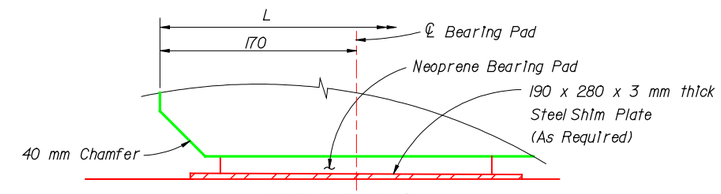
14. Provide deck grooving in accordance with Article 400-15 of the Specifications.

15. Construct transverse deck joints at span ends in accordance with the details. Use an approved Silicon Joint Sealer.

Note: Steel Shim Plates shall conform to ASTM A36M and shall be hot dip galvanized.

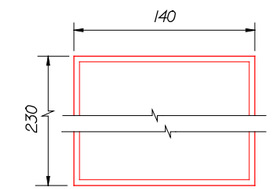


END ELEVATION
(FDT30 Stem Shown)

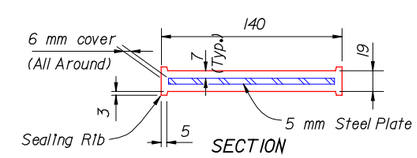


SIDE ELEVATION

TYPICAL INSTALLATION
(FDT18, FDT24 & FDT30)



PLAN



SECTION

NEOPRENE PAD DETAILS
(FDT18, FDT24 & FDT30)

NOTE: Neoprene in all Bearing Pads shall have a 60 durometer hardness. Steel Plates shall conform to ASTM A570M Grade 250.

NOTE: All dimensions are in millimeters (mm), except as noted.

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DATE "" TIME

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			97R		

	NAMES	DATES
DRAWN BY	DCP/JSP	6-90
CHECKED BY	AJG	6-90
DESIGNED BY	AJG	6-90
CHECKED BY	TJB	6-90
APPROVED BY	AJG	

ENGINEER OF RECORD:
STRUCTURES DESIGN OFFICE
CENTRAL OFFICE
605 Suwannee Street, MS 33
Tallahassee, Florida 32399-0450

LOGO:

SEAL:

FLORIDA DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN OFFICE

ROAD NO.	COUNTY	PROJECT NO.

SHEET TITLE: FLORIDA DOUBLE-TEE NOTES AND MISCELLANEOUS DETAILS

PROJECT NAME:

DRAWING NO. 2 of 3

INDEX NO. 123