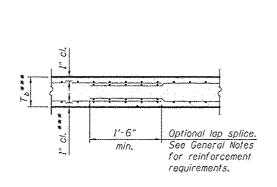


SECTION B-B (Top slab at downstream end)

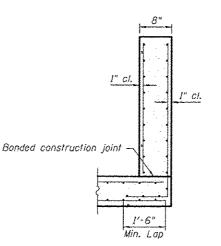
SECTION B-B
(Top slab at upstream end)



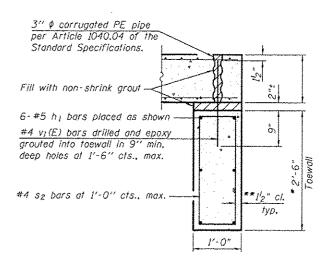
SECTION B-B

*** This dimension shall be increased by 2" for CIP construction.

(Bottom Slab)



SECTION C-C



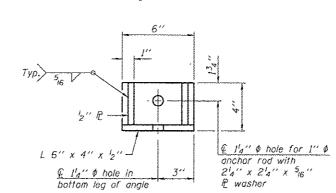
SECTION D-D

TOEWALL CONSTRUCTION SEQUENCE

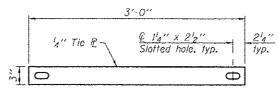
- 1. Perform excavation and construct toewall.
- Backfill accordingly and place bedding for precast box culvert end sections.
- 3. Set pregast box culvert end section.
- 4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
- 5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.
- * The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.
- ** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

L'' \(\phi \) anchor rods with \[2'_4'' \times 2'_4'' \times 5'_6'' \) \(\mathbb{R} \) washers installed in \(1'_6'' \) \(\phi \) formed holes in culvert walls \[1'' - 4'' \] \[1'' \) \(1'' \)

SECTION F-F (Showing culvert tie details)



RESTRAINT ANGLE DETAIL

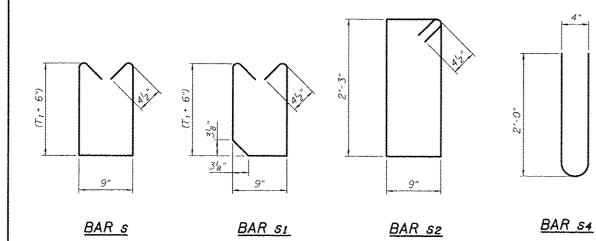


TIE PLATE DETAIL

<u>SECTION E-E</u>

#4 s or s_1 bars at spacing = T_1

(Spacing need not be less than 8")



FILE NAME : USER NAME : coarlockyd DESIGNED - REVISED ct\pw.work\pwidot\georlockyd\d8128316\DE #665-sht-structures.dgn CHECKED - REVISED PLDT SCALE < 48.8858 '/ In. DRAWN - REVISED PLDT DATE : 18/18/28/3 CHECKED - REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
APRON END SECTION DETAILS	•	(2X,3)RS-3 & 2RS-4	Champiagn	551	237
	+ F.	A.U. 7152 & F.A.S. 1512	CONTRACT	NO. 7	0663
SHEET NO. 4 OF 6 SHEETS	PLLINOIS FED. AID PROJECT				

Notes:

I" ϕ anchor rads for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M III or M 232 as applicable. $2\frac{1}{4}$ "x $2\frac{1}{4}$ "x $2\frac{1}{6}$ " plate washers shall be provided under each nul required for the anchor rods. Anchor rods installed in the sidewalls of the culvert shall be tightened per Article 505.04(f)2(d) of the Standard Specifications. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

Alternate culvert ties similar in strength and stiffness to the plan details may be provided by the Confractor. Alternate culvert ties shall be subject to the approval of the

provided by the Contractor. Alternate culvert lies shall be subject to the approval of the Engineer.