

SECTION 00595 - REINFORCED CONCRETE BOX CULVERTS

(Follow all instructions and make all edits with "Track Changes" turned on. If there are no instructions [orange text] above a subsection, paragraph, sentence, or bullet, then include it in the project. Delete all orange text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Comply with Section 00595 of the Standard Specifications modified as follows:

00595.41 Precast - Replace the paragraph that begins "Provide structural connections..." with the following paragraph:

Provide watertight structural connections at all joints. Design the connections to provide transverse and longitudinal alignment, mechanical interlock, prevent leakage, and resist design loads. Connections for consideration include reinforced grouted keyways, doweled connections, reinforced shear key or tongue and groove mating surfaces with joint sealant, reinforced half-lap and shear plate, or other reviewed and accepted structural connections as appropriate.

00595.42 Precast Fabrication Tolerances - Replace this subsection with the following:

00595.42 Precast Fabrication Tolerances and Shop Assembly:

(a) General - Fabricate individual RCBC sections meeting the permissible variations defined in the applicable ASTM listed in 00595.41.

(b) Shop Assembly - Shop assemble, in the presence of the Engineer, adjacent full RCBC sections including precast footings, wing walls, and tops. Match-mark adjacent sections before shipping. Use complete structure or progressive assembly. Provide a concrete foundation at the fabricating facility that provides a flat plane surface used for shop assembly. Assemble Box Sections meeting the tolerances of 00595.44.

(c) Rejection - Sections not meeting fabrication or shop assembly tolerances will be rejected. The Inspector's inspection of any Material, Work, or finished members will not prevent their subsequent rejection, if later found damaged or defective, nor relieve the Contractor of the responsibility to correct or replace the Work at no additional cost to the Agency.

(d) Transport - Do not ship any RCBC section, precast wing wall, or precast footing without the Inspector's label or marking.

(Include the following bullet if welding is to be performed. Select the appropriate 00560.26(a) for bridge size culverts or 00560.26(b) for non-bridge culverts. Check with the designer.)

00595.44 Precast Installation - Add the following to the end of this subsection:

- Perform structural steel welding according to (00560.26(a) or 00560.26(b)).

(Use the following .80 for estimated quantities for wing walls and aprons.)

00595.80 Measurement - Add the following to the end of this subsection:

The estimated quantities of reinforcement and concrete for wing walls and aprons are:

(Fill in the appropriate amount of wing wall and apron reinforcement and concrete. Delete wingwall items that do not apply. Obtain information from the Bridge Designer.)

	Reinforcement (Pound)	Concrete (Cubic Yard)
Wing Walls:		
Cast in Place		
Precast		
Aprons		

00595.90 Payment - Add the following paragraph to the end of this subsection:

Item (e) includes CIP wingwalls and precast wingwalls with precast footing.