

**410 PRECAST CONCRETE BOX CULVERT.**  
**(REV 6-24-02) (FA 7-11-02) (1-03)**

ARTICLE 410-1 (Page 415) is deleted and the following substituted:

**410-1 Description.**

Before the manufacturing of the precast box culvert, submit details of the special units, modifications, and required devices for the Engineer's review and approval. Obtain the precast box culvert from a plant that is currently on the Department's list of qualified precast drainage structures plants and meet the requirements of Section 6.3 of the Materials Manual, which is available at the following URL:

[www11.myflorida.com/statematerialsoffice/Administration/Publications/publicationdrafts.htm](http://www11.myflorida.com/statematerialsoffice/Administration/Publications/publicationdrafts.htm)

ARTICLE 410-3 (Pages 415 and 416) is deleted and the following substituted:

**410-3 Trench, Foundation, Laying, and Backfill.**

For the methods of construction of trench and foundation, and for laying and backfilling, meet the requirements specified in Section 430, and the following:

Lay all precast box culvert sections on a dry, unyielding foundation. Provide dewatering devices capable of maintaining a stable as well as surface dry trench bottom. Provide bedding that consists of a minimum 6 inches [150 mm] depth of coarse concrete sand or other suitable granular material placed below the culvert to a minimum width of 12 inches [300 mm] outside the exterior walls of the culvert. Set grade forms 12 inches [300 mm] outside each exterior wall of the box culvert. Uniformly compact this material as required in 120-9.3, and then grade off using the forms. Set the grade forms approximately 1/8 to 1/4 inch [3 to 6 mm] above the theoretical grade line to allow for soil compression. Adjust this distance to yield the proper grade, but do not use in lieu of the proper compaction of the granular bedding material. Remove the forms after placing the precast box culvert section. When required by the plans, provide other special bedding. Obtain the Engineer's approval of the method of controlling line and grade during culvert installation. Use a method that allows rapid checking of the previously laid sections. Maintain line and grade on sections previously set. The Engineer will consider sections which do not retain the plan line (within 0.10 foot [30 mm]) or grade (within 0.10 foot [30 mm]) during laying of subsequent sections as not having been laid to line and grade. Take up and relay sections not to line and grade without additional compensation. Begin backfilling only after the Engineer determines that the culvert sections are to line and grade and will not be affected by subsequent laying procedures.. Seal holes provided for lifting or joint restraint by using an approved non-shrink mortar, applied in conjunction with an approved epoxy bonding compound, mixed, applied, and cured in accordance with the manufacturer's recommendation.