

ORIGINATION FORM

Date: **March 20th, 2014**

Originator: **Chase C. Knight**

Contact Information: **State Materials Office, 352-955-6642, chase.knight@dot.state.fl.us**

Specification Title: **Precast Concrete Box Culvert**

Specification Section, Article, or Sub-article Number: **410**

Why does the existing language need to be changed? **410-1: consistency required for certification purposes to all structures. 410-2: reference to Section 948 which was recently revised and gives direction to optional repair methods.**

Summary of the changes: **410-1 clarification to certification requirement, 410-2 Liner Repair Section 948 added.**

Are these changes applicable to all Department jobs? **Yes**

If not, what are the restrictions?

Will these changes result in an increase or decrease in project costs? **No**

If yes, what is the estimated change in costs?

With who have you discussed these changes? **Mario Paredes, Greg Weich**

What other offices will be impacted by these changes? **Construction, Drainage**

Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? **Not at this time**

Are all references to external publications current? **Yes**

If not, what references need to be updated (please include changes in the redline)?

Is a Design Bulletin, Construction Memo, or Estimates Bulletin needed? **No**

Contact the State Specifications Office for assistance in completing this form.

Daniel Scheer 850-414-4130 daniel.scheer@dot.state.fl.us

Frances Thomas 850-414-4101 frances.thomas@dot.state.fl.us

Debbie Toole 850-414-4114 deborah.toole@dot.state.fl.us

Andy Harper 850-414-4127 clifton.harper@dot.state.fl.us

Ray Haverty 850-414-4129 ray.haverty@dot.state.fl.us



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.
SECRETARY

MEMORANDUM

DATE: May 30, 2014
TO: Specification Review Distribution List
FROM: Daniel Scheer, P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **4100100 Precast Concrete Box Culvert.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Chase Knight of the Department's State Materials Office (SMO) to update the language for consistency with other sections regarding certification requirements for structures and to add liner repair systems to 410-2.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or to my attention via e-mail at SP965DS, or daniel.scheer@dot.state.fl.us. Comments received after **June 27, 2014**, may not be considered. Your input is encouraged.

DS/dt
Attachment

PRECAST CONCRETE BOX CULVERT.

(REV ~~3-20-14~~~~5-12~~~~30-14~~)

SUBARTICLE 410-1 is deleted and the following substituted:

410-1 Description.

~~Obtain precast box culverts from a plant that is currently on the Department's list of Producers with Accepted Quality Control Programs. Producers seeking inclusion on the list shall meet the requirements of 105-3.~~

Provide precast four-sided concrete box culverts as an alternative to the structure shown in the Contract Documents. Only monolithic segments, or two-piece segments with three-sided bottom sections and a simple support top slab section, are permitted. Two-piece segments are limited to installations with a minimum of two feet fill height above the top slab.

Construct headwalls, wingwalls and other special features using cast-in-place concrete. Precast wingwalls, cut-off walls or headwalls are not permitted unless otherwise noted in the Contract Documents.

~~At the beginning of each project, provide a notarized certification statement to the Engineer from a company designated representative certifying that the plant will manufacture the products in accordance with the requirements set forth in the Contract Documents and plant's approved Quality Control (QC) Plan. The QC Manager's stamp on each product indicates certification that the product was fabricated in conformance with the Contractor's QC Plan, the Contract, and this Section. Ensure that each shipment of precast concrete products to the project site is accompanied with a QC signed or stamped delivery ticket providing the description and the list of the products. Meet the requirements in 449-1.~~

SUBARTICLE 410-2 is deleted and the following substituted:

410-2 Materials.

Ensure that the materials used for the construction of precast box culverts have certification statements from each source, showing that they meet the applicable requirements of the following:

Portland Cement Concrete	Section 346
Reinforcing Steel	Section 415
Precast Concrete Drainage Products	Section 449
Wire for Site Cage Machines	Section 931
Coarse Aggregate*	Section 901
Fine Aggregate*	Section 902
Curing Materials for Concrete	Section 925
Materials For Concrete Repair	Section 930
Non-Shrink Grout	Section 934
<i>Liner Repair Systems</i>	<i>Section 948</i>
Joint Materials.....	ASTM C443, ASTM C877
.....	or ASTM C990
Geotextile Fabrics	Section 985

4100100

All Jobs

* The gradation requirements of aggregates are not applicable when using dry-cast concrete.

** Use products listed on the Department's ~~Qualified~~*Approved* Products List (QAPL).