

ORINATION FORM
Proposed Revisions to the Specifications

(Please provide all information - incomplete forms will be returned)

Date:

Office:

Originator:

Specification Section:

Telephone:

Article/Subarticle:

email:

****Will the proposed revision require changes to:**

Publication	Yes	No	Office Staff Contacted and date contacted
Standard Plans Index			
Traffic Engineering Manual			
FDOT Design Manual			
Construction Project Administration Manual			
Basis of Estimate/Pay Items			
Structures Design Guidelines			
Approved Product List			
Materials Manual			

**This section must be completed prior to processing proposed revisions.

Will this revision necessitate any of the following:

Design Bulletin

Construction Bulletin

Estimates Bulletin

Materials Bulletin

Are all references to external publications current?

Yes

No

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

Why does the existing language need to be changed?

Summary of the changes:

Are these changes applicable to all Department jobs?

Yes

No

If not, what are the restrictions?



Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAUT, P.E.
SECRETARY

MEMORANDUM

DATE: November 27, 2019
TO: Specification Review Distribution List
FROM: Daniel Strickland, P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **1210200 Flowable Fills**

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

This change was proposed by Jose Armenteros from the State Materials Office to clarify the specification language.

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 online at <http://fdotewp1.dot.state.fl.us/programmanagement/development/industryreview.aspx> . Comments received after **December 25, 2019**, may not be considered. Your input is encouraged.

DS/rf
Attachment

**FLOWABLE FILL
(REV 10-16-19)**

ARTICLE 121-2 is deleted and the following substituted:

121-2 Materials.

Meet the following requirements:

- Fine Aggregate⁽¹⁾.....Section 902
- Portland Cement.....Section 921
- Water.....Section 923
- Admixtures⁽²⁾.....Section 924
- Ground Tire Rubber (GTR)⁽³⁾.....Section 919
- ~~Fly Ash, Slag and other Pozzolanic~~ Supplementary Cementitious Materials
.....Section 929
- Preformed Foam.....ASTM C 869

1. Any clean fine aggregate with 100% passing a 3/8 inch mesh sieve and not more than 15% passing a No. 200 sieve may be used.
2. High air generators or foaming agents may be used in lieu of conventional air entraining admixtures and shall be added at jobsite and mixed in accordance with the manufacturer's recommendation. GTR may reduce the amount of high air generators or foaming agents used.
3. GTR may replace up to 20% of the fine aggregate.

ARTICLE 121-3 is deleted and the following substituted:

121-3 Mix Design.

Conventional flowable fill is a mixture of portland cement, fly ash, fine aggregate, admixture and water. Flowable fill contains a low cementitious content for reduced strength development. Cellular concrete flowable fill is a low density concrete made with cement, water and preformed foam to form a hardened closed cell foam material. Cellular concrete flowable fill may also contain fine aggregate, ~~fly ash, slag~~ supplementary cementitious materials and admixtures.

Submit mix designs to the Engineer for approval. The following are suggested mix guides for excavatable, non-excavatable and cellular concrete flowable fill:

	Excavatable	Non-Excavatable	Cellular Concrete
Cement	75-100 lb/yd ³	75-150 lb/yd ³	Min 150 lb/yd ³
Pozzolans or Slag <u>Supplementary Cementitious Materials</u>	None	150-600 lb/yd ³	Optional
Water	*	*	*
Air**	5-35%	5-15%	****
28 Day Compressive Strength**	Maximum 100 psi	Minimum 125 psi	Minimum 80 psi
Unit Weight **	90-110 lb/ft ³	100-125 lb/ft ³	20-80 lb/ft ³
Fine Aggregate	***	***	Optional

	Excavatable	Non-Excavatable	Cellular Concrete
<p>*Mix designs shall produce a consistency that will result in a flowable self-leveling product at time of placement.</p> <p>**The requirements for percent air, compressive strength and unit weight are for laboratory designs only and are not intended for jobsite acceptance requirements.</p> <p>***Fine Aggregate shall be proportioned to yield 1 yd³.</p> <p>****In cellular concrete, preformed foam shall be proportioned at the job site to yield 1 yd³ in accordance with the design requirements.</p>			