

ORIGINATION FORM

Specifications 410, 415, 449, 548, 901, and 931

Date: 10 14-2013

Originator: Timothy J. Ruelke, P.E.

Director, Office of Materials

Contact Information: Ghulam Mujtaba

State Field Operations Concrete Engineer

State Materials Office

Email: ghulam.mujtaba@dot.state.fl.us

Phone: (352) 955-6685

Specification Title: Section 410 Precast Concrete Box Culvert

Section 415 Reinforcing Steel

Section 449 Precast Concrete Drainage Products

Section 548 Retaining Wall System

Section 901 Coarse Aggregate

Section 931 Metal Accessory Materials for Concrete Pavement and
Concrete Structures

Specification Section, Article, or Subarticle Number:

Subarticle 548 -2.3; Article 548-7; Subarticle 931-1.2; **Subarticle 901-1.2**; Article 410-2; Article 415-6;
Article 449-2

Why does the existing language need to be changed?

ASTM Standards A 82, A 185, A 496 and A 497 have been replaced with modified ASTM A 1064.
The terminology Welded Wire Fabric has been replaced with Welded Wire Reinforcement.

Article 548-7 is expanded to allow shipment of precast concrete products after 72- hour curing period
and attainment of the 28-day compressive strength

Summary of the changes: The following are the summary of changes in each document.

- 1- Subarticle 548 -2.3: Replace ASTM A 82 and A 185 with ASTM A 1064.
- 2- Article 548-7: The article is expanded to allow shipment of precast concrete products after 72-
hour curing period and attainment of the 28-day compressive strength
- 3- Subarticle 931-1.2: The AASHTO M55 and M 221 have been deleted. ASTM A 1064 covers the
requirements.
- 4- **Subarticle 901-1.2: The terminology Welded Wire Fabric has been replaced with Welded Wire
Reinforcement.**

- 5- Article 410-2: ASTM A 82, ASTM A 496 and ASTM A 615 are deleted and replaced with ASTM A 1064.
- 6- Article 415-6: Welded Deformed Steel Welded Wire Reinforcement.
- 7- Article 449-2: ASTM A 82, ASTM A 496, A 185, A 497 and ASTM A 615 are deleted and replaced with ASTM A 1064.

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? The propose changes have been discussed with the colleagues at the following offices:

1- Steven Nolan, P.E. Structures Design Engineer
FDOT District 7 Structures Design

2- Gevin J. McDaniel, P.E.
Senior Structures Design Engineer
FDOT Structures Design Office

What other offices will be impacted by these changes? **District Materials and Construction Offices**

Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? **NO**

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

M E M O R A N D U M

DATE: October 25, 2013
TO: Specification Review Distribution List
FROM: Daniel Scheer, P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **9010102 Coarse Aggregate.**

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

This change was proposed by Ghulam Mujtaba of the State Materials Office to update the language for current Department and industry practice.

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 **November 22, 2013**, may not be considered. Your input is encouraged.

DS/ah
Attachment

COARSE AGGREGATE.
(REV 10-16-13)

SUBARTICLE 901-1.2 is deleted and the following substituted:

901-1.2 Deleterious Substances: All coarse aggregates shall be reasonably free of clay lumps, soft and friable particles, salt, alkali, organic matter, adherent coatings, and other substances not defined which may possess undesirable characteristics. The weight of deleterious substances shall not exceed the following percentages:

Coal and lignite (AASHTO T 113).....	1.00
Soft and friable particles (AASHTO T 112)*	2.00
Clay lumps (AASHTO T 112)*	2.00
Plant root matter (visual inspection in AASHTO T 27)****	0.005
Wood and wood matter (visual inspection in AASHTO T 27)****	0.005
Cinders and clinkers.....	0.50
Free shell**	1.00
Total Material passing the No. 200 sieve (FM 1-T 011) At Source with Los Angeles Abrasion less than or equal to 30	2.50
At Source with Los Angeles Abrasion greater than 30.....	1.75
At Point of Use.....	3.75
Fine-Grained Organic Matter (AASHTO 194).....	0.03
Chert (less than 2.40 specific gravity SSD) (AASHTO T-113)***	3.00

* The maximum percent by weight of soft and friable particles and clay lumps together shall not exceed 3.00.

** Aggregates to be used in asphalt concrete may contain up to 5% free shell. Free shell is defined as that portion of the coarse aggregate retained on the No. 4 sieve consisting of loose, whole, or broken shell, or the external skeletal remains of other marine life, having a ratio of the maximum length of the particle to the shell wall thickness exceeding five to one. Coral, molds, or casts of other shells, and crushed clam and oyster shell indigenous to the formation will not be considered as free shell.

*** This limitation applies only to coarse aggregates in which chert appears as an impurity. It is not applicable to aggregates which are predominantly chert.

**** Plant root matter, and wood and wood matter shall be considered deleterious when any piece exceeds two inches in length or 1/2 inch in width.

The weights of deleterious substances for reclaimed Portland cement concrete aggregate shall not exceed the following percentages:

Bituminous Concrete	1.00
Bricks	1.00
Wood and other organic substances (by weight)*****	0.1
Reinforcing Steel and Welded Wire Reinforcement Fabric.....	0.1
Plaster and gypsum board	0.1

Joint Fillers.....0.1
***** Supersedes requirement for other coarse aggregate