



## *Florida Department of Transportation*

**RICK SCOTT**  
GOVERNOR

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**JIM BOXOLD**  
SECRETARY

January 14, 2015

Khoa Nguyen  
Director, Office of Technical Services  
Federal Highway Administration  
545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

Re: State Specifications and Estimates Office  
Section **949**  
Proposed Specification: **9490000 Miscellaneous Components for Manholes, Inlets and Other Structures.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Larry Ritchie of the State Construction Office to incorporate manhole adjustment notes found in Standard Index 201 into specification and include the use of composite rubber adjustment rings for manhole adjustment.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to SP965DS or [daniel.scheer@dot.state.fl.us](mailto:daniel.scheer@dot.state.fl.us).

If you have any questions relating to this specification change, please call me at 414-4130.

Sincerely,

signature on file

Daniel Scheer, P.E.  
State Specifications Engineer

DS/ot

Attachment

cc: Florida Transportation Builders' Assoc.  
State Construction Engineer

## MISCELLANEOUS COMPONENTS FOR MANHOLES, INLETS, AND OTHER STRUCTURES.

(REV ~~11-1912-5-141-14-15~~)

SECTION 949 is deleted and the following substituted:

### SECTION 949

#### ~~BRICK AND CONCRETE MASONRY UNITS~~ MISCELLANEOUS COMPONENTS FOR MANHOLES, INLETS AND OTHER STRUCTURES

##### 949-1 Clay Brick and Shale Brick.

This brick shall meet the requirements of ASTM C-62, Grade MW or ASTM C-32, Grade MM.

##### 949-2 Concrete Brick.

Concrete brick shall meet the requirements of ASTM C-55.

##### 949-3 Concrete Masonry Units.

Concrete masonry units for use in manholes, inlets and similar structures shall meet the requirements of ASTM C 139.

##### 949-4 Precast Grade Adjustment Rings.

*Precast grade adjustment rings shall meet the requirements of ASTM- C-478.*

##### 949-5 Composite Rubber Adjustment Rings.

*Composite rubber adjustment rings shall meet the following minimum material requirements:*

<i>Physical Properties</i>	<i>Requirements</i>	<i>Test Method</i>
<i>Density, lb.s/cubic ft.</i>	$65 \pm 5\%$	<i>ASTM- D 3574-05, Test A</i>
<i>Durometer Hardness, Molded Surfaces, Shore A</i>	$75A \pm 10$	<i>ASTM D 2240-05</i>
<i>Tensile Strength, psi</i>	$145$ ( <del>psi minimum</del> ) $75 \pm 10$	<i>ASTM D 412-06</i> <del>ASTM D-2240-05</del>
<i>Ultimate Elongation %</i>	$15 \pm 5$ <del>145 psi min</del>	<i>ASTM D 412-06</i> <del>ASTM D-412-06</del>
<i>Compression Deformation %, Initial</i>	$6 \pm 2$ <del>15 ± 5</del>	<i>ASTM D 575-91(01)</i>
<i>Compression Deformation</i>		
<i>Compression Deformation %, Final</i>	$6 \pm 2$ <del>6 ± 2</del>	<i>ASTM D 575-91(01)</i> <del>ASTM D-575-91(01)</del>
<i>Coefficient of Thermal Expansion</i>	$10 \times 10^{-5} \pm 5 \times 10^{-5}$ <del>6 ± 2</del>	<i>ASTM E 831-05</i>

**949-4.6 Acceptance.**

Provide the Engineer a certification from the manufacturer stating that the bricks, *concrete masonry units, precast grade adjustment rings* or ~~concrete masonry units~~ *composite rubber adjustments rings* meet the requirements of this Section. Acceptance of materials will be in accordance with Section 6.

## MISCELLANEOUS COMPONENTS FOR MANHOLES, INLETS, AND OTHER STRUCTURES.

(REV 1-14-15)

SECTION 949 is deleted and the following substituted:

### SECTION 949 MISCELLANEOUS COMPONENTS FOR MANHOLES, INLETS AND OTHER STRUCTURES

#### 949-1 Clay Brick and Shale Brick.

This brick shall meet the requirements of ASTM C62, Grade MW or ASTM C32, Grade MM.

#### 949-2 Concrete Brick.

Concrete brick shall meet the requirements of ASTM C55.

#### 949-3 Concrete Masonry Units.

Concrete masonry units for use in manholes, inlets and similar structures shall meet the requirements of ASTM C 139.

#### 949-4 Precast Grade Adjustment Rings.

Precast grade adjustment rings shall meet the requirements of ASTM C478.

#### 949-5 Composite Rubber Adjustment Rings.

Composite rubber adjustment rings shall meet the following minimum material requirements:

Physical Properties	Requirements	Test Method
Density, lb./ft <sup>3</sup>	65 ± 5%	ASTM D 3574-05, Test A
Durometer Hardness, Molded Surfaces, Shore A	75A ± 10	ASTM D 2240-05
Tensile Strength, psi	145 (minimum)	ASTM D 412-06
Ultimate Elongation %	15 ± 5	ASTM D 412-06
Compression Deformation %, Initial	6 ± 2	ASTM D 575-91(01)
Compression Deformation %, Final	6 ± 2	ASTM D 575-91(01)
Coefficient of Thermal Expansion	$10 \times 10^{-5} \pm 5 \times 10^{-5}$	ASTM E 831-05

#### 949-6 Acceptance.

Provide the Engineer a certification from the manufacturer stating that the bricks, concrete masonry units, precast grade adjustment rings or composite rubber adjustments rings

meet the requirements of this Section. Acceptance of materials will be in accordance with Section 6.