

449 PRECAST CONCRETE DRAINAGE PRODUCTS.

(REV 5-29-03) (FA 10-23-03) (7-04)

ARTICLE 449-1 (Page 411). The fourth and fifth paragraphs are deleted and the following substituted:

Obtain precast concrete pipes from a plant that is currently on the Department's list of qualified precast concrete pipe plants and meet the requirements of Section 6.2 of Materials Manual which is available at the following URL:

[www.dot.state.fl.us/specificationsoffice/materials manual/section62.pdf](http://www.dot.state.fl.us/specificationsoffice/materials%20manual/section62.pdf) .

Obtain precast drainage structures 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:

[www.dot.state.fl.us/specificationsoffice/materials manual/section63.pdf](http://www.dot.state.fl.us/specificationsoffice/materials%20manual/section63.pdf)

ARTICLE 449-5 (Pages 414 and 415) is deleted and the following substituted:

449-5 Fiber Reinforced Concrete Pipe.

449-5.1 Special Requirements for Fiber Reinforced Concrete Pipe: Use fiber reinforced concrete pipe meeting the requirements of ASTM C 1450. Use only pipes that are properly marked.

Use pipe meeting the applicable material requirements set forth in 449-2. In addition, fiber reinforced concrete pipe must be designated Class S, Class I, Class II, Class III or Class IV. The corresponding strength requirements are given in the following table:

Minimum Long-Term Service D-Load	
Pipe Class	Lb/ft/ft [N/m/mm]
S	600 [30]
I	800 [40]
II	1,000 [50]
III	1,350 [65]
IV	2,000 [100]

Ensure the relationship between short-term crush loads required to achieve 100-year long-term design loads and the relationship between the saturated and dry crush loads are provided. The minimum dry crush load can not be less than a factor of 2 times the long-term service load. The short term crush load will be determined as required in Section 10.2 of ASTM C 1450 except the specimen will be tested by the appropriate section of ASTM C 497 [ASTM C 497], External Load Crushing Strength by the Three-Edge Bearing Test Method.