



Florida Department of Transportation

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SECRETARY

January 13, 2009

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section 914
Proposed Specification: 9140000, Stabilization Materials

Dear Ms. Gourdine:

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

These changes were proposed by Tom Malerk of the State Materials Office to clarify the requirements for Stabilization Materials.

Please review and transmit your comments, if any, within four weeks. Comments should be sent via Email to ST986RP or rudy.powell@dot.state.fl.us.

If you have any questions relating to this specification change, please call Rudy Powell, State Specifications Engineer at 414-4110.

Sincerely,

Rudy Powell, Jr., P.E.
State Specifications Engineer

RP/dr

Attachment

cc: Gregory Jones, Chief Civil Litigation
Florida Transportation Builders' Assoc.
State Construction Engineer

STABILIZATION MATERIALS.**(REV ~~11-20-08~~ 1-12-08)**

SECTION 914 (of the Supplemental Specifications) is deleted and the following substituted:

SECTION 914**~~MATERIALS FOR SUBGRADE STABILIZATION~~ MATERIALS****914-1 General.**

This Section governs materials to be used in subgrade stabilization. Meet the following requirements:—In addition to any specific requirements, all materials used for stabilizing shall meet the following:

<i>Plasticity Index (AASHTO T 90)</i>	<i>Maximum 10</i>
<i>Liquid Limit (AASHTO T 89)</i>	<i>Maximum 40</i>
<i>Passing a 3 1/2 inch screen (AASHTO T 27)</i>	<i>Minimum 97%</i>
<i>LBR</i>	<i>No Requirement</i>

— The specification requirements of the various materials as contained in this Section are to govern their use only when these materials are used in the stabilizing of the subgrade.

914-2 Materials for Stabilizing (Limerock Bearing Ratio)**914-2.1 Commercial Materials:**

— **914-2.1.1 General:** Materials may be either limerock, shell rock, cemented coquina or shell base sources approved *in accordance with 6-3.3* by the Department.

— **914-2.1.2 Specific Requirements for Limerock:** For limerock, carbonates of calcium and magnesium shall be at least 70%. Materials having a plasticity index of more than ten or a liquid limit greater than 40 shall not be used as a stabilizer. The gradation of limerock shall be such that 97% of these materials will pass a 3 1/2 inch sieve.

— **914-2.1.3 Crushed Shell:** Crushed shell for this use shall be mollusk shell (i.e., oysters, mussels, clams, cemented coquina). Steamed shell will not be permitted.

— This shell shall meet the following requirements:

— Material having a plasticity index of more than ten or a liquid limit greater than 40 shall not be used as a stabilizer.

— At least 97% by weight of the total material shall pass a 3 1/2 inch sieve and at least 50% by weight of the total material shall be retained on the No. 4 sieve.

— Not more than 20% by weight of the total material shall pass the No. 200 sieve. The determination of the percentage passing the No. 200 sieve shall be per FM 1-T 011.

— In the event that the shell meets the above requirements without crushing, crushing will not be required.

914-2.2 Local Materials: Local materials used for this stabilizing may be soils or recyclable materials such as crushed concrete, roof tiles and asphalt coated base or reclaimed pavement *provided the following limits for Organic Content are met.*

<i>Average Organic Content* (FM1-T267)</i>	<i>Maximum 2.5%</i>
<i>Individual Organic Content Sample (FM1-T267)</i>	<i>Maximum 4 %</i>
<i>*Note: A minimum of three samples per source</i>	

~~However, no materials~~ *Materials that* that deteriorate over time, cause excessive deformations, contain hazardous substances, ~~or~~ *or* contaminates, ~~or do not improve the bearing capacity of the stabilized material may~~ *shall not* be used. ~~The requirements for Organic Content are as follows: (see 914-3 for qualifying tests for these conditions.)~~ The Contractor shall provide information or test results to the District Materials Engineer to substantiate these properties. At least 97% by weight of the total material shall pass a 3 1/2 inch sieve. Material having a plasticity index greater than ten or a liquid limit greater than 40 shall not be used as a stabilizer.

No blending of materials to meet these requirements will be permitted unless authorized by the District Materials Engineer. When blending is permitted blended material shall be tested to ensure the above requirements are met before being spread on the roadway.

<i>Average Organic Content* (FM1-T267)</i>	<i>Maximum 2.5%</i>
<i>Individual Organic Content Sample (FM1-T267)</i>	<i>Maximum 4 %</i>
<i>*Note: A minimum of three samples per source</i>	

914-3 Testing of Materials for Use as Stabilizer.

~~No testing of any materials proposed to be furnished by the Contractor will be made by the Department prior to the determination of the successful bidder, and the bidder shall make his own arrangements for the preliminary determination of the suitability of the particular material he proposes to use. For evaluation of deterioration and excessive deformation, each material source shall not have an average organic content (minimum of three tests) greater than 2.5% and any individual test value more than 4.0%. The organic content shall be performed in accordance with AASHTO T 267. If toxic substances, elements or compounds are suspected *to exist* at concentrations *exceeding limits* defined by EPA, qualifying tests shall be performed. Test methods for these substances shall be those mandated by EPA and analyzed by a certified laboratory. All test results of the proposed stabilizing material shall be submitted to the District Materials Engineer for approval at least 14 days prior to commencement of the field stabilizing operation. The District Materials Engineer may request samples of the stabilizing material and subgrade soil for verification tests.~~

STABILIZATION MATERIALS.**(REV 1-12-08)**

SECTION 914 (of the Supplemental Specifications) is deleted and the following substituted:

**SECTION 914
STABILIZATION MATERIALS**

914-1 General.

This Section governs materials to be used in subgrade stabilization. Meet the following requirements:

Plasticity Index (AASHTO T 90)	Maximum 10
Liquid Limit (AASHTO T 89)	Maximum 40
Passing a 3 ½ inch screen (AASHTO T 27)	Minimum 97%
LBR	No Requirement

914-2 Materials for Stabilizing (Limerock Bearing Ratio)

914-2.1 Commercial Materials: Materials may be either limerock, shell rock, cemented coquina or shell base sources approved in accordance with 6-3.3.

914-2.2 Local Materials: Local materials used for stabilizing may be soils or recyclable materials such as crushed concrete, roof tiles and asphalt coated base or reclaimed pavement provided the following limits for Organic Content are met.

Average Organic Content* (FM1-T267)	Maximum 2.5%
Individual Organic Content Sample (FM1-T267)	Maximum 4 %
*Note: A minimum of three samples per source	

Materials that contain hazardous substances or contaminants shall not be used.

If toxic substances, elements or compounds are suspected to exist at concentrations exceeding limits defined by EPA, qualifying tests shall be performed. Test methods for these substances shall be those mandated by EPA and analyzed by a certified laboratory.