



Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

THOMAS F. BARRY, JR.
SECRETARY

December 18, 2002

Mr. Donald Davis
Program Operations Engineer
Federal Highway Administration
227 N. Bronough Street, Suite 2015
Tallahassee, Florida 32301

Re: Office of Design, Specifications
Section 120
Proposed Specification: D1200008

Dear Mr. Davis:

We are submitting, for your approval, two copies of a proposed Supplemental Specification for Excavation and Embankment - Dry Fill Method.

These changes are proposed by Sastry Putchu to improve construction efficiency.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via Email to SP965DB or duane.brautigam@dot.state.fl.us.

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

Sincerely,

Duane F. Brautigam, P.E.
State Specifications Engineer

DFB/jho
Attachment

cc: General Counsel
Florida Transportation Builders' Assoc.
State Construction Engineer

EXCAVATION AND EMBANKMENT.
(REV-10-31-02/12-18-02)

SUBARTICLE 120-8.2 (of the Supplemental Specifications) is deleted and the following substituted:

120-8.2 Dry Fill Method:

120-8.2.1 General: ~~Except as provided below for material placed on unstable ground and for materials used for flattening slopes, construct embankments in successive layers of not more than 6 inches [150 mm] compacted thickness, for the full width of the embankment. Construct embankments to meet compaction requirements in article 120-9 and in accordance with the acceptance program requirements in article 120-10. Restrict the compacted thickness of the last embankment lift to 6 inches maximum.~~

120-8.2.1.1 For A-3 and A-2-4 Materials (As Designated in Design Standard Index 505) with up to 15% fines: Construct the embankment in successive layers with lifts up to a maximum compacted thickness of 12 inches ([300 mm]). Ensure ~~the~~ percentage of fines ~~(minus 200)~~ passing the No.200 US Standard sieve in the A-2-4 material ~~shall~~ does not exceed 15%.

120-8.2.1.2 For A-1 ~~and~~ Plastic materials (As designated in Design Standard Index 505) and A-2-4 Materials with greater than 15% fines: Construct the embankment in successive layers with lifts up to a maximum compacted thickness of 6 inches ([150mm]).

Alternately, for A-1, ~~and~~ Plastic material and A-2-4 Materials with greater than 15% fines, construct embankments using thick lift construction in successive layers of not more than 12 inches [300 mm] compacted thickness, *after* having demonstrated with a successful test section, the possession and control of compacting equipment sufficient to achieve density required by 120-10.2 for the full depth of a thicker lift, and if the Engineer approves the compaction effort. Notify the Engineer prior to beginning construction of a test section. Construct a test section of the length of one *full* LOT. Perform five QC tests at random locations within the test section. All five *QC* tests *and a Department Verification test* must meet the density required by 120-10.2 ~~and be verified by the Engineer~~. Identify the test section with the compaction effort and soil classification in the Density Log Book. In case of a change in compaction effort or soil classification, failing QC test or when the QC tests cannot be verified, construct a new test section. The Contractor may elect to place material in 6 inches [150 mm] compacted thickness at any time. Construct all layers approximately parallel to the centerline profile of the road.

The Engineer reserves the right to terminate the Contractor's use of thick lift construction. Whenever the Engineer determines that the Contractor is not achieving satisfactory results, revert to the 6 inch [150 mm] compacted lifts.

As far as practicable, distribute traffic over the work during the construction of embankments so as to cover the maximum area of the surface of each layer.

Construct embankment in the dry whenever normal dewatering equipment and methods can accomplish the needed dewatering.

120-8.2.1.1.3 Equipment and Methods: Provide normal dewatering equipment including, but not limited to, surface pumps, sump pumps and trenching/digging machinery. Provide normal dewatering methods including, but not limited to, constructing shallow surface drainage trenches/ditches, using sand blankets, sumps and siphons.

When normal dewatering does not adequately remove the water, the Engineer may require the embankment material to be placed in the water or in low swampy ground in accordance with 120-9.2.3.

EXCAVATION AND EMBANKMENT. (REV 12-18-02)

SUBARTICLE 120-8.2 (of the Supplemental Specifications) is deleted and the following substituted:

120-8.2 Dry Fill Method:

120-8.2.1 General: Construct embankments to meet compaction requirements in article 120-9 and in accordance with the acceptance program requirements in article 120-10. Restrict the compacted thickness of the last embankment lift to 6 inches maximum.

120-8.2.1.1 For A-3 and A-2-4 Materials with up to 15% fines:

Construct the embankment in successive layers with lifts up to a maximum compacted thickness of 12 inches [300 mm]. Ensure the percentage of fines passing the No.200 US Standard sieve in the A-2-4 material does not exceed 15%.

120-8.2.1.2 For A-1 Plastic materials (As designated in Design Standard Index 505) and A-2-4 Materials with greater than 15% fines: Construct the embankment in successive layers with lifts up to a maximum compacted thickness of 6 inches [150mm].

Alternately, for A-1, Plastic material and A-2-4 Materials with greater than 15% fines, construct embankments using thick lift construction in successive layers of not more than 12 inches [300 mm] compacted thickness, after having demonstrated with a successful test section, the possession and control of compacting equipment sufficient to achieve density required by 120-10.2 for the full depth of a thicker lift, and if the Engineer approves the compaction effort. Notify the Engineer prior to beginning construction of a test section. Construct a test section of the length of one full LOT. Perform five QC tests at random locations within the test section. All five QC tests and a Department Verification test must meet the density required by 120-10.2. Identify the test section with the compaction effort and soil classification in the Density Log Book. In case of a change in compaction effort or soil classification, failing QC test or when the QC tests cannot be verified, construct a new test section. The Contractor may elect to place material in 6 inches [150 mm] compacted thickness at any time. Construct all layers approximately parallel to the centerline profile of the road.

The Engineer reserves the right to terminate the Contractor's use of thick lift construction. Whenever the Engineer determines that the Contractor is not achieving satisfactory results, revert to the 6 inch [150 mm] compacted lifts.

As far as practicable, distribute traffic over the work during the construction of embankments so as to cover the maximum area of the surface of each layer.

Construct embankment in the dry whenever normal dewatering equipment and methods can accomplish the needed dewatering.

120-8.2.1.3 Equipment and Methods: Provide normal dewatering equipment including, but not limited to, surface pumps, sump pumps and trenching/digging machinery. Provide normal dewatering methods including, but not limited to, constructing shallow surface drainage trenches/ditches, using sand blankets, sumps and siphons.

When normal dewatering does not adequately remove the water, the Engineer may require the embankment material to be placed in the water or in low swampy ground in accordance with 120-9.2.3.