SECTION 32 12 16 ASPHALT PAVING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. The intent of this specification section is to provide requirements for materials, equipment, and methods for constructing new pavement.
- B. Paving work includes:
 - 1. Preparation and compaction of soil sub-grade to proper elevations below the lime rock base.
 - 2. Preparation and compaction of lime rock base, application of prime coat or tack coat, and construction of asphaltic concrete surface course.
 - 3. New asphalt paving and patching work where indicated, is also included.
- C. Additional compensation for adjustment of quantities due to extra thickness of base construction and/or extra asphaltic concrete will not be made.
- D. Contractor shall coordinate scheduling of construction of planters, landscape areas, paving, irrigation systems, lighting systems and other work.

1.2 SUBGRADE DEFINITION

- A. That portion of roadbed immediately below limerock base course and parallel thereto (including below curbs, gutters, driveways and planters within general parking lot perimeter) compacted (or stabilized) to required density to support the paving above.
- B. Subgrade shall extend to a depth of 12" below bottom of limerock base and outward to line 12" beyond perimeter of base, pavement, or curbs.
 - 1. Limits shown on plans govern, if different from above requirements.
- C. Contractor may construct subgrade deeper for his own convenience and/or equipment needs with prior approval of Engineer and no additional cost to owner.

1.3 APPLICABLE PUBLICATIONS

- A. AASHTO T180 Standard Method of Test for Moisture-Density Relations of Soils Using 10-lb. Rammer and 18" Drop
- B. ASTM C131 Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion & Impact in Los Angles Machine
- C. ASTM D422 Standard Test Method for Particle Size Analysis of Soils
- D. ASTM D2419 Standard Test Method for Sand Equivalent Valve of Soils & Fine Aggregate
- E. ASTM D6938 Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
- F. FDOT Std. Spec. Standard Specifications for Road and Bridge Construction, current edition

1.4 TESTING OF COMPACTION

- A. Owner will select and retain a state licensed testing laboratory, and pay all testing cost.
 - 1. Contractor shall reimburse Owner for all re-testing cost due to failed tests.
- B. Contractor is responsible for notifying the testing laboratory twenty-four hours in advance when material and/or work is ready for testing.
 - 1. Work of testing laboratory will consist of, but not be limited to, the following:
- C. Laboratory maximum density determination, AASHTO T180 Method D one representative test from each 1000 cubic yards of subgrade fill and 2000 cubic yards of limerock base from both site and borrow pits.
 - 1. Test material from each source separately.
 - 2. If composition from any source changes, a new test is required.

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- D. In-place field density tests, ASTM D6938.
 - 1. At least one test per layer for each 2500 square feet or fraction thereof.
 - 2. Make test near top of each layer prior to placing subsequent layer.
- E. Test reports shall be transmitted directly from laboratory as follows:
 - 1. One copy to Owner's Representative
 - 2. Two copies to A/E
 - 3. Copies as requested to Contractor.
- F. Identify test reports by project title, A/E Project Number, project location, location, and depth of each on-site test submitted.

1.5 TESTING OF BITUMINOUS CONCRETE MATERIAL

- A. Contractor shall retain a reputable independent testing laboratory to ensure that asphaltic concrete mix meets specifications.
 - 1. Contractor shall supply samples of mix materials to testing laboratory for analysis and testing.
 - 2. No plant operations shall begin until testing laboratory certifies, in writing, that mix proposed meets specifications and the A/E receives the certification.
- B. During delivery and placement of asphaltic concrete, the testing laboratory shall take samples and test them for compliance with the certified mix.
 - 1. The mix shall be uniform throughout the project.
 - 2. The testing laboratory shall test at least one (1) sample from each 50 tons of material or fraction thereof in any one day.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Stabilized subgrade shall have a minimum Limerock Bearing Ratio (LBR) of 40 or a Florida Bearing Value (FBV) of 75 psi.
- B. Compacted subgrade shall have a minimum density of 98% AASHTO T-180.
- C. Base course shall be limerock meeting FDOT Std. Spec., free from subgrade sand.
 - 1. Base course shall have a minimum Limerock Bearing Ratio (LBR) of 100.
 - 2. Owner will consider alternate base materials meeting or exceeding the performance of the limerock base material.
- D. Prime and tack coats shall be a superpave performance graded asphalt binder, FDOT Type PG 52-28.
 - 1. Do not use cut back or emulsified asphalt binders.
- E. Asphalt concrete shall be FDOT SP-9.5, fine mix.
- F. Standard Pavement Section:
 - 1. 12" thick stabilized subgrade.
 - 2. 8" thick limerock base.
 - 3. 2" thick asphalt, placed in two layers, 1" (bottom), and 1" (top).
- G. Subgrade source material shall meet for fill and backfill requirements as defined in Section 31 20 00, Earthwork.

PART 3 EXECUTION

- 3.1 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - A. Execution of all work shall comply with the FDOT Std. Spec., current edition.

END OF SECTION