Section 11.3

CATEGORIZING ASPHALT & OTHER BASE COURSES

11.3.1 Purpose

This procedure provides a means for categorizing the different asphalt courses and mix types and illustrates the units of measure.

11.3.2 Authority

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

11.3.3 References

Standard Specifications for Road and Bridge Construction (Specifications)

11.3.4 The Different Courses

Asphalt and other base courses are discussed in this Section and include:

- Superpave Asphalt Concrete
  - Friction Course
  - Structural Course
  - Miscellaneous Asphalt
- Optional Base
  - Superpave Asphalt Concrete Base
  - Composite Base
  - Optional Base (excluding asphalt base)
  - Reclaimed Asphalt Pavement (RAP) Base
- Driveway Base
- Asphalt Treated Permeable Base (ATPB)
- Asphalt Membrane Interlayer
- Temporary Asphalt

11.3.5 Superpave Asphalt Concrete

Superpave Asphalt Concrete is fine graded and categorized into Friction Courses, Structural Courses, and Miscellaneous Asphalt. These categories are Tonnage pay items and are paid per ***Specification Sections 286, 334, 337,*** and ***339***.

Tonnage placed is reported by automatic printer tickets or electronic ticket (e-ticket) information showing weights. The paper tickets or e-tickets are included in the required ***Lot Submittal Package***, and must be submitted with the Final Estimates Documentation for the Contract. Refer to ***CPAM 11.1*** for Asphalt LOT Documentation requirements and ***CPAM 11.4*** for explanation and examples of asphalt adjustments.

Friction Courses:

Friction course mixes provide good friction characteristics and skid resistance to the final pavement surface and are designated as FC-5, FC-9.5, and FC-12.5. These mixes have spread rate tolerances, cross slope tolerances, and straightedge tolerances and must meet the plant and equipment requirements of ***Specifications Section 320***, the general construction requirements of ***Specifications Section 330***, Superpave Asphalt Concrete general requirements of ***Specifications Section 334***, and Asphalt Friction Course general requirements of ***Specifications Section 337***.

Structural Courses:

Structural course mixes are the load carrying portion of pavement. These mixes are designated as SP-9.5, SP-12.5, and SP-19.0. Structural courses are used over travel lanes designed for Traffic Levels B, C, or E as indicated in the typical section of the contract plans, over Driveway Base per ***Standard Plans Index 330-001***, as overbuild to correct cross slope issues as identified in the plans, and for other uses as identified by the Engineer. See ***Specifications Section 334-3.2.1*** for Mix Design Criteria and Traffic Level allowable substitutions.

These mixes have spread rate tolerances, cross slope tolerances, and straightedge tolerances and must meet the plant and equipment requirements of ***Specifications Section 320***, and the general construction requirements of ***Specifications Section 330 and 334***.

Miscellaneous Asphalt

Miscellaneous asphalt is used where vehicular traffic does not travel, such as median pavement, sidewalks, bicycle paths, and pavement under guardrail. The soil underneath these areas must be treated before asphalt is paved to prevent plant growth. In general, miscellaneous asphalt is visually inspected and accepted by the Department's Engineer with no density testing or other construction tolerances required. ***Specification Section 339*** provides the applicable construction requirements.

11.3.6 Base Courses

(A) Optional Base – General Description

Specifications Sections 234, 285, and ***286*** describe the optional base groups below and applicable construction requirements. When a base option is not indicated in the typical section of the plans, an allowable base group option is selected using ***Specification Section 285-3*** and ***Table 285-1*** and ***285-2***.

Optional Base Courses are Square Yard pay items and are paid by plan quantity subject to provisions of ***Specifications Section 9-3*** and ***Specifications Section 285***. Document changes only when a plan quantity error exceeds the limitations established in ***Specifications Section 9-3***. Reference documentation of quantities in the ***Final Estimate Documentation*** per ***CPAM 5.13***.

(1) Superpave Asphalt Base Courses

Asphalt Base course mixes are designated as “Type B-12.5” and are constructed in accordance with ***Specification Section 234, 330,*** and ***334***. When asphalt base is indicated on the typical section of the plans or when the Contractor selects “Type B-12.5” from ***Table 285-1*** or ***Table 285-2***, the Contractor may use type SP-12.5 mixture (Traffic level B, C, or E) or Type SP-19.0 (Traffic Level B, C, or E) instead of type B-12.5, at no additional cost to the Department, per ***Specifications 234-1***.

Superpave Asphalt Base is the only asphalt item paid by plan quantity in square yards as described in ***Specifications 285-8*** and ***234-9***. Asphalt Base has a spread rate tolerance and must meet the thickness requirements specified in ***Section 234-8***.

(2) Composite Base

Composite Base is a combination of Granular Subbase (White Base) as described in ***Specification Section 290*** and Superpave Asphalt Base. It is designated as “Type B-12.5 and 4” Granular Subbase, LBR 100” in Base Groups 9 thru 15 in ***Table 285-1 or 285-2***, and like the other optional base groups, is paid by plan quantity in square yards.

The Granular Subbase portion is cored prior to placing the asphalt base layer. Areas of Granular Subbase thickness over 4 1/4" or under 3 1/2" must be corrected prior to placing asphalt per ***Specification Section 290-4***.

The asphalt is placed as described in **Section 11.3.6(A)(1)** above.

(3) Optional Base (Excluding Asphalt)

Construction requirements for Optional base, such as Graded Aggregate, Limerock, Cemented Coquina, Shell Base, Shell-Rock, and Recycled Concrete Aggregate (RCA) are described in ***Specification Section 285.*** There is a thickness tolerance and areas which have a thickness deficiency in excess of ½ inch must be corrected per ***Section 285-6.*** If the Engineer approves the deficient area to stay in place with no pay, the deficient area is not included in the Calculated Average Thickness outlined in ***Specification Section 285-7***.

(4) Reclaimed Asphalt Pavement (RAP) Base

RAP is used only on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications. It is paid by plan quantity in square yards per ***Specifications 285*** and is constructed per ***Specifications 283*** and ***285***. RAP requires density testing and must meet the same thickness requirements as Optional Base per ***Section 285-6***.

(B) Driveway Base

Driveway base for paved or graded driveways can be any optional base material as described in **Section 11.3.6(A)(3)** or any asphalt material described in **Section 11.3.5(A) and (B)** and approved by the Engineer, except for open-graded friction course (FC-5). Driveway base material must meet the minimum requirements provided in ***Specification Section 286*** and ***Standard Plans Index 330-001.*** In general, driveway base is visually inspected and accepted by the Department's Engineer with no testing required.

Driveway Base (Optional) is a square yard pay item paid by plan quantity.

Driveway Asphalt Base, previously known as Turnout Construction, is paid by weight in Tons and measured as described in ***Specifications Sections 320-3***.

Asphalt Treated Permeable Base (ATPB)

ATPB is used under concrete pavement and placed around subdrainage pipe to support a subdrainage system as indicated in the contract plans and ***Standard Plans Index 446-001***. It must meet the quality control requirements and production tolerances provided in ***Standard Specification Section 287, 320, 330,*** and ***334***. ATPB is the only Asphalt Cubic Yard pay item.

11.3.7 Asphalt Rubber Membrane Interlayer

Asphalt Rubber Membrane Interlayer (ARMI) is a layer of asphalt rubber binder covered in a single layer of aggregate which is rolled into the asphalt layer. It has been used on asphalt resurfacing projects to cover cracked or reseated concrete pavement. When used, ARMI must be constructed per ***Specification 341*** and is paid by plan quantity in square yards.

11.3.8 Temporary Asphalt

Temporary Asphalt is asphalt used to construct temporary facilities such as Limited Access Temporary Openings, Temporary Lane Separators, Temporary Detours, etc. The asphalt material is included and paid for within the quantity of the temporary pay item.