

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: are:

- ~~Superpave Asphalt Concrete, Composite Base, Optional Base (excluding asphalt base) and Reclaimed Asphalt Pavement (RAP) Base Courses.~~ 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 mixes are categorized as fine graded and categorized into

~~Tonnage pay items include Friction Courses, Structural Courses, Turnout Construction (Asphalt), and Miscellaneous Asphalt. These categories are~~

~~Superpave mixes are divided into (A) Tonnage pay items and are paid per **Specification Sections 286, 334, 337, and 339.** (B) Square Yard Pay Items Each of these categories is divided into individual pay item groups.~~

~~Tonnage Pay Items~~

~~Tonnage pay items include Friction Courses, Structural Courses, Turnout Construction (Asphalt), and Miscellaneous Asphalt.~~

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

~~Asphalt Concrete 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**.

~~The pay quantity is based on the quantity placed on the project limited to a maximum of 105% of the adjusted plan quantity in accordance with **Specifications Section 337-11.**~~

~~Refer to **CPAM 11.4** for explanation and examples of asphalt adjustments.~~

~~Asphalt Concrete 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**.

~~See **Specifications Section 334-3.2.1** for Mix Design Criteria and Traffic Level allowable substitutions.~~

~~The pay quantity is based on the quantity placed on the project limited to a maximum of 105% of the adjusted plan quantity in accordance with **Specifications Section 334-7**.~~

~~Refer to **CPAM 11.4** for explanation and examples of asphalt adjustments.~~

~~Turnout Construction (Asphalt only)~~

~~Asphalt used on turnout construction can be any material specified by the Department, except for open graded friction courses. Asphalt turnout construction is a tonnage pay item, and in general, the Department's Engineer will accept the material on the basis of visual inspection, with no testing required.~~

~~See **Specifications Sections 320-3** and **286** for method of measurement and basis of payment.~~

~~**NOTE:** There will be no Composite Pay Factor (CPF) adjustment (paid as CPF of 1) or thickness adjustment on Asphalt Turnout Construction.~~

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.

~~: The pay quantity is based on the quantity placed on the projects, limited to a maximum of 105% of the adjusted plan quantity for the pay item. For plan quantity calculation, a weight of 100 Lbs/SY per inch of design thickness of asphalt will be used.~~

See ~~Specifications Section 339-8~~ for basis of payment.

Refer to ~~CPAM 11.4~~ for an example of how to pay for miscellaneous asphalt for up to 405%.

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 ifa plan quantity error exceeds the limitations established in Specifications Section 9-3; then record Reference documentation of for quantities in the Final Estimate Documentation per CPAM 5.13. change only. See CPAM 11.4 for more information on Square Yard Asphalt Pay Items and examples.~~

(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, However, 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 for on an area basis and by plan quantity in square yards as described in Specifications 285-8 and 234-9. The only asphalt square yard pay item is Superpave Base (optional base asphalt). See **Specifications Section 285-3 Selection of Base Option** for optional base groups and structural numbers. Asphalt Base has a spread rate tolerance and must meet the thickness requirements specified in Section 234-8.~~

~~Base course mixes are designated as B-12.5. However, the Contractor may use type SP-12.5 mixture (traffic level B, C, or E) instead of type B-12.5, per **Specifications 234-1.**~~

~~Superpave Base is paid for on an area basis and in square yards. The area is the plan quantity subject to provisions of **Specifications Section 9-3.**~~

~~The pay area shall not exceed 105% of the designed surface area.~~

~~There will be a Bituminous Adjustment where the plans include a typical cross-section which requires the construction of asphalt base option only, and only if the requirements of **Specifications Section 9-2.1.2** are met.~~

~~If plan quantity error exceeds the limitations established in **Specifications Section 9-3**, then record documentation for the change only. See **CPAM 11.4** for more information on Square Yard Asphalt Pay Items and examples.~~

(2) Composite Base

Composite Base is a combination of ~~g~~Granular Subbase (White Base) materials described in **Specification Section 290** and Superpave aAsphalt 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 (granular)portion is cored prior to placing the asphalt base layer. ~~All a~~Areas of Granular Subbase thickness over 4 1/4" or under 3 1/2" -1/2" or under 1/4" of ~~specified granular thickness~~ 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 ~~according to **Specifications Section 234-8**~~ and must be controlled within $\pm 5\%$ of the specified spread rate. The average spread rate of the asphalt shall be converted to inches by reversing the formula specified in ~~**Specifications Section 234-8.1**~~ and added to the average thickness of the Subbase. The thickness adjustment is applied for the composite base pay item limited to a maximum 105% of the surface area, as specified in ~~**Specifications Section 285-8**~~. (See example in ~~**CPAM 11.4, Attachment B**~~). For Bituminous Adjustments on Composite Base, refer to ~~**CPAM 11.4**~~. For the requirements of the mixture and basis of payment, refer to ~~**Specifications Section 234**~~. Refer to ~~**Specifications Section 334**~~ for CPF.

(3) Optional Base (Excluding Asphalt-Base)

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 1/2 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** is paid for on an area basis in square yards. The area is plan quantity subject to provisions of **Specifications Section 9-3**. See **Specifications Section 285**.~~

- ~~(A) Optional base receives a thickness adjustment, and the pay area shall not exceed 105% of the finished surface area.~~
- ~~(B) There will be no Bituminous Adjustments on the asphalt base where the plans include a typical cross-section indicating the option of using either Limerock or Asphalt as Base.~~
- ~~(C) If plan quantity changes or errors exceed the limitations established in **Specifications Section 9-3**, then document the change only on the appropriate Department form.~~

~~**NOTE 1:** Documentation of calculations could be shown on the Plan Summary Box/Estimated Quantities Report (EQR) or inputted into EDMS and referenced on the Plan Summary Box.~~

~~**NOTE 2:** On Lump Sum and Design-Build Projects, the pay quantity is limited to 105% of the adjusted quantity per Special Provisions, Section 9-2. There will be no thickness Adjustments for Optional Base (excluding Asphalt Base). For all other adjustments, see CPAM 6.2.~~

~~(4)~~

~~(5)~~**(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 **Specifications 285**. RAP requires density testing and must meet the same thickness requirements as Optional Base per **Section 285-6**.

~~(A)~~ **Turnout Construction (Asphalt only Driveway Base)**

Driveway

Asphalt base used for paved or graded driveways on turnout construction 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**, specified by the Department, except for open-graded friction courses. Asphalt turnout construction is a tonnage pay item, and in general, driveway base is visually inspected and accepted by the Department's Engineer will accept the material on the basis of visual inspection, 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 **See Specifications Sections 320-3 and 286** for method of measurement and basis of payment.~~

~~**NOTE:** There will be no Composite Pay Factor (CPF) adjustment (paid as CPF of 1) or thickness adjustment on Asphalt Turnout Construction.~~

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.~~