**S T A T E O F T E N N E S S E E**

 April 1, 2025

**AVIATION SPECIAL PROVISION**

**REGARDING**

**Payment ADJUSTMENT FOR BITUMINOUS MATERIAL**

This Special Provision covers the method of payment adjustment for bituminous materials. The price adjustment shall produce either a cost increase or cost decrease to the project. Any increased price adjustment shall be reimbursed by grant and/or owner funds.

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**Applicability: The Engineer shall incorporate this special provision in all contracts where concerns exist for bituminous material price volatility and the contract contains significant bituminous material indexing item quantities. Discuss applicability with the TDOT Aeronautics Project Manager.**

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The payment adjustment shall be calculated for all asphalt cement, asphalt emulsion, or bituminous material quantities used for paving or sealing on this project and will be made to compensate for increases and decreases of 5% or more in the contractor's bituminous material cost. The normal bid items in the contract covering the bituminous material shall not be changed. Payment adjustments (positive or negative) shall be paid under invoice descriptions such as Bituminous Material Price Adjustment. The TAD Material Adjustment monthly calculation records and summaries are to be attached with invoices and calculated as described herein.

A "Basic Bituminous Material Index" will be established by the Airport Engineer of Record prior to the time the bids are opened. This "Basic Bituminous Material Index" is the average of the current quotations on Performance Graded (PG.) 64-22 from suppliers furnishing asphalt cement to contractors in the State of Tennessee. These quotations are the cost per ton f.o.b. supplier's terminal.

The "Basic Bituminous Material Index" for this project is **$\_\_\_\_\_\_\_\_\_** per ton.

The "Monthly Bituminous Material Index" is also established on the first day of each month by the same method. A payment adjustment shall be made provided the “Monthly Bituminous Material Index” varies ±5% or more from the "Basic Bituminous Material Index".

Upon the expiration of the contract working time, as set forth in the original contract or as extended by Change Order, payment adjustments for bituminous material will continue to be made at the lesser Monthly Bituminous Material Index value of either the current month or the month when the working time expired.

**Virgin Bituminous Material and Sealants**

Where the price index varies ±5% or more, the payment adjustment will be made as follows:

 $PA= \left[Ic-Ib\right]×T$ (Eq. 1)

Where:

PA = Price Adjustment for Adjustment Month

Ib = Basic Bituminous Material Index

Ic = Monthly Bituminous Material Index

T = Tons bituminous material for Adjustment Month, i.e. based on the job mix formula asphalt content or the tons of asphalt residual applied in emulsified products.

**Basis for Monthly Adjustment Calculation**

Calculating monthly bituminous adjustments will be done using the *TAD Materials Adjustment Tool* using inputs for accepted bituminous material quantity and asphalt residue based on Table ASP 109-1. The price adjustment is based on the minimum amount of asphalt cement (residue) in the emulsion using the Percent Residue for Price Adjustment column.

Table ASP 109-1 Asphalt residue percentages used for price adjustment.

|  |  |
| --- | --- |
| **Bituminous Material** | **Percent Residue for Price Adjustment** |
| Tack coats and shoulder sealants (e.g., P-603, SS-1, SS-1h, CSS-1, CSS1h) | 63% residue |
| Emulsified Asphalt Seal Coat (e.g., P-608) | 28.5% residue |
| Rapid Cure Seal Coat (e.g., P-608 R) | 37.5% residue |
| Emulsified Asphalt Spray Seal Coat (e.g., P-623) | 44% residue at 1:1 dilution |
| Prime coats (e.g., P-602, AE-P) | 54% residue |
| Emulsified Asphalt Slurry Seal Surface Treatment (e.g., P-626, CQS-1HP) | 65% residue |
| Chip seals and scrub seals (e.g., P-609, CRS-2, CRS-2P)  | 69% residue |
| Hot in-place recycle (e.g., ARA-3P) | 63% residue |
| Liquid Asphalt Cement (e.g, hot or warm asphalt mixtures, hot-applied chip seals) | 100% residue |

**Mixes Containing Recycled Bituminous Material**

The quantity of virgin asphalt cement in tons subject to payment adjustment in recycled mixes shall be the product of the total tons of each mix multiplied by the difference between (1) the percent of asphalt cement approved by the engineer on the job-mix formula and (2) the percent of asphalt cement obtained from the recycled asphaltic material (RAP) used in each mix.

No payment adjustment for bituminous material containing RAP shall be made unless the “Monthly Bituminous Material Index” varies ±5% or more from the “Basic Bituminous Material Index” indicated in this Special Provision.

Where the price index varies 5% or more, the payment adjustment will be made as follows:

 $PA= \left[Ic-Ib\right]×\frac{JA-RA}{100}×Tm$ (Eq. 2)

PA = Price Adjustment for Adjustment Month

Ib = Basic Bituminous Material Index

Ic = Monthly Bituminous Material Index

JA = Percent asphalt set for the mixture in the Job-mix Formula

RA = Percent asphalt obtained from recycled asphaltic material

used in each mix (may be 0.8 to 1.5 percent, typically)

Tm = Tons asphalt mix for adjustment month

Item TNP-109-8.1b Bituminous Material Price Adjustment - Dollar