

The Density Pay Factor (DPF) is computed using HMA mat core compaction acceptance test results.

The CPF and DPF are rounded to the nearest 0.001. The price adjustment for each individual lot is calculated as follows:

$$\begin{aligned} \text{HMA Price Adjustment} &= [(\text{CPF or DPF})^* - 1.00] \times (\text{tons in lot}) \times (\text{PAB}) \\ & * \text{CPF or DPF, whichever is lower} \\ \text{PAB} &= \text{Price Adjustment Base} = \\ & [\text{Bid Unit Price for 401(1\_)} + (n/100) \times \text{Bid Unit Price for 401(4\_)}], \end{aligned}$$

Where

n = Optimum asphalt binder content percent, established by the JMD.

The HMA Price Adjustment is the sum of the price adjustments for each lot and paid for under Item 401(8\_).

2. Longitudinal Joint Density Price Adjustment. A longitudinal joint density price adjustment will be based on the project average of all top lift joint densities and determined as follows:

- a. If project average top lift joint density is less than 91.0 percent MSG, apply the following disincentive:

Longitudinal joint density price adjustment equal to \$3.00 per lineal foot is deducted.

- b. If project average top lift joint density is greater than 92.0 percent MSG, apply the following incentive:

Longitudinal joint density price adjustment equal to \$1.50 per linear foot is added.

The Longitudinal Joint Density Price Adjustment is the total price adjustment paid for under Item 401(9).

3. Pavement Smoothness Price Adjustment. Pavement smoothness will be measured by the Engineer and reported as IRI (inches/mile), according to Subsection 401-3.18. Incentive for pavement smoothness shall apply only if both the project average CPF and DPF are greater than or equal to 1.000. Disincentive for pavement smoothness shall apply regardless of the project average CPF or DPF.

The Engineer will calculate the pavement smoothness price adjustment according to Method 1 or Method 2 below, as identified in the bid schedule.

Method 1:  $\text{SPA} = \text{PAB} \times \text{PQ} \times \text{SF}$ ,

Where:

SPA = Pavement Smoothness Price Adjustment

PAB = Price Adjustment Base

PAB =  $[\text{Bid Unit Price for 401(1\_)} + (n/100) \times \text{Bid Unit Price for 401(4\_)}]$ ,

n = optimum asphalt binder content, percent, established by the JMD

PQ = Top layer HMA quantity, tons

SF = Smoothness Factor (Table 401-4)

**TABLE 401-4  
SMOOTHNESS FACTOR (SF)**

IRI (in./mile)	SF
Less than 40	0.05
40 to 70	$0.05 - (IRI - 40)/600$
70 to 90	0.00
90 to 120	$(90 - IRI)/120$
Greater than 120*	-

\* Corrective Work required, see Subsection 401-3.18

Method 2:  $SPA = PAB \times PQ \times SF$ ,

Where:

SPA = Pavement Smoothness Price Adjustment

PAB = Price Adjustment Base

$PAB = [\text{Bid Unit Price for } 401(1\_) + (n/100) \times \text{Bid Unit Price for } 401(4\_) ]$ ,

n = optimum asphalt binder content, percent, established by the JMD

PQ = Top layer HMA quantity, tons

SF = Smoothness Factor =  $0.12 \times RR - 0.02$ ; SF not to exceed 0.05

RR = Roughness Reduction =  $(\text{Initial IRI} - \text{Final IRI}) / \text{Initial IRI}$

Initial IRI = Pre-project average IRI as measured and reported by the Engineer. The Initial IRI will either be included in the bid documents or the timeline for when the Initial IRI will be measured will be identified in the bid documents.

Final IRI = Top layer HMA average IRI as measured and reported by the Engineer according to Subsection 401-3.18.

The Pavement Smoothness Price Adjustment is the total price adjustment paid for under Item 401(10).

#### **401-4.04 ASPHALT MATERIAL PRICE ADJUSTMENT.**

Asphalt Material Price Adjustment. This subsection provides a price adjustment for asphalt material by: (1) additional compensation to the contractor or (2) a deduction from the contract amount.

1. This provision shall apply:
  - a. To asphalt material meeting the criteria of Section 702, and is included in items listed in the bid schedule of Sections 306, 307, 308, 401 thru 408, 520, 608 and 609.
  - b. To cost changes in asphalt material that occur between the date of bid opening and the date on the certified bill of lading from the asphalt material refiner/producer.
  - c. When there is more than a 7.5 percent increase or decrease in the Alaska Asphalt Material Price Index, AAMPI, from the date of bid opening to the date on the certified bill of lading from the asphalt refiner/producer.
2. Provide the certified bill of lading from the asphalt material refiner/producer.
3. The AAMPI is calculated bimonthly on the first and third Friday of each month, and will remain in effect from the day of calculation until the next bimonthly calculation. The AAMPI is posted on the Department's Statewide Materials website at and calculated according to the formula posted there. [http://www.dot.state.ak.us/stwddes/desmaterials/aprice\\_index.shtml](http://www.dot.state.ak.us/stwddes/desmaterials/aprice_index.shtml)