OKLAHOMA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS
FOR
ACCEPTANCE OF PLANT MIX ASPHALT CONCRETE PAVEMENT

These Special Provisions revise, amend and where in conflict, supersede applicable sections of the Standard Specifications for Highway Construction, English and Metric, as applicable. Units of measurement are provided in the subsections in both English and Metric equivalents. The units applicable for this project will be those specified in the project plans.

These Special Provisions apply to all types of Asphalt Concrete Pavement.

(revise the following:)

411.04 CONSTRUCTION METHODS.

(j) **Compaction.**

(2) Acceptance.

2.1 *All lifts 1 ½ inch (40 mm) or greater in nominal (Plan) thickness.*

AVERAGE LOT DENSITY % of Maximum Theoretical Density (Calculated at the JMF AC Content) **(ALD)**	**PAY ADJUSTMENT FACTOR (PAF)**
Above 97.0	Unacceptable *
92.0 - 97.0	1.00
91.0 - 91.9	1.00 - (0.07)(92.0 - ALD)
88.1 - 90.9	0.93 - (0.15)(91.0 - ALD)
Below 88.1	Unacceptable *

Use PAF for Roadway Density in Combined Pay Factor equation in section 411.04 (m)

* Unless otherwise directed by the Engineer, products testing in this range are unacceptable and shall be removed and replaced at no additional cost to the Department.

(add the following:)

411.04 CONSTRUCTION METHODS.

(m) **Mix Properties.**

(1) General. The Contractor should provide quality control personnel as necessary to assure the production of quality products as specified. He shall be responsible for the process control of all materials during handling, blending, mixing and placing operations to produce an acceptable asphalt concrete.

At no time will the Engineer issue instructions to the Contractor or producer as to the setting of dials, gauges, scales and meters. However, he/she may advise the Contractor against the continuance of any operations or sequence of operations which will result in non-compliance with Specification requirements.

(2) Acceptance. While the Contractor shall be fully and exclusively responsible for producing an acceptable product, acceptance responsibility rests with the Engineer. The entire lot of asphalt as defined in paragraph 2.2 “Lot Selection” will be accepted or rejected and paid for on the basis

of acceptance test results

2.1. *Basis of Acceptance and Payment.* The following characteristics will be considered when determining the acceptability and pay factors for Plant Mix Asphalt Concrete Pavement. However, all of the requirements of the Standard Specifications on materials and workmanship except those superseded by Special Provisions in this Contract, shall remain in effect.

Asphalt Cement Content
Air Voids (Lab-Molded)
Roadway Density (Section 411.04 (j))

Several methods are available to test for the above characteristics. While only one method will be used, several tests may be made to measure each characteristic. The basis for acceptance and pay factors will be the average of the deviations from specified standards as indicated Table I. For the characteristics of asphalt cement content and air voids, signs of the deviations will be disregarded when computing averages. (Deviation above target will be penalized the same as those below target, for the previously mentioned characteristics).

Although gradation will not be considered in determining payment, it must be monitored for each sample. All sieves specified in Section 708.04 of the Standard Specifications or as modified by Special Provisions in this Contract must be run. If any sieve does not fall within the specified tolerance from the JMF, the following actions must be taken by the contractor:

1) Provide documentation that the gradation falls within the allowable broad band specified in Section 708.04.
2) Provide documentation that the lab-molded air voids at N_{des} and VMA fall within the allowable ranges specified in Section 708.04.

A new mix design shall be required if the broad band gradation, lab-molded air voids at $N_{des,}$, or VMA specifications cannot be met.

Pay factors for asphalt cement content, lab-molded air voids, and roadway density will apply to all asphalt concrete placed. Any additional pay factors for other parameters will be considered individually in determining payment.

The total adjustment to payment (Combined Pay Factor) due to deviations from specified standards will be determined from the following formula:

$$CPF = \frac{4RD + 3AC + 3AV}{10}$$

Where:

CPF = Combined Pay Factor
RD = Pay Factor for Roadway Density
AC = Pay Factor for Asphalt Cement Content
AV = Pay Factor for Air Voids (Lab-Molded)

For lifts less than 1-1/2 inches thick, the pay factor for density shall be considered "1." For PFC, OGFSC and OGBB mixes, which do not have a target roadway density or target lab-molded air void content, the associated pay factors shall be considered "1."

2.2 *Lot Selection.* The asphalt concrete will be randomly sampled and tested for all control test characteristics on a lot to lot basis in accordance with the following requirements. However, any load of mixture which is visually unacceptable for reasons of being excessively segregated or aggregate improperly coated will be rejected for use in the work. Excessively high or low temperature will also be cause for rejection. Furthermore, sections of completed pavement which from visual observation or known deficiencies appear to be seriously inadequate will be tested. The results of such tests will not be used for pay adjustment purposes but will be used to determine whether the section is totally unacceptable and must be removed. In the event that it is determined to be unacceptable its removal and replacement shall be at no additional cost to the Department. A standard size lot at the asphalt plant shall be 1000 tons (metric tons). However, the Engineer may terminate a lot at any point and designate a new one when a materials or workmanship adjustment has been made which results in the desired correction. On a multiple project contract, the lots of the asphalt will carry over from project to project within that contract.

2.3 *Engineer's Acceptance Procedures.* Once a lot has been defined, its identity will be maintained throughout the mixing and placement process. Pay factors, determined from random sampling and testing the lot at appropriate locations will be used in computing its payment adjustment.

In general the following schedule will be used for acceptance purposes, however, depending on the available time and his confidence in the Contractor's Process Control the Engineer may elect to perform more or less sampling and testing.

Asphalt Cement Content - 1 specimen and/or test randomly selected for each characteristic per lot. Roadway Density - 3 specimens and/or tests per lot randomly selected, averaged and considered as one test in Table I. Air voids - 2 specimens and/or tests per lot randomly selected, averaged, and considered as one test in Table I.

TABLE I
ACCEPTANCE SCHEDULE

Characteristics	1 Test	Pay Factor
Deviation from JMF (Without Regard to Sign)		
ASPHALT CEMENT CONTENT (Extraction, Nuclear or Ignition Oven) Target JMF Percent (%)	0.00-0.40	1
	0.41-0.80	1.40 - (Deviation from JMF)
	Over 0.80	Unacceptable [2]
Deviations from JMF (Without Regard to Sign)		
ASPHALT CEMENT CONTENT (Digital Printout from Hot-Mix Plant) Target JMF Percent (%)	0.00-0.20	1
	0.21-0.30	1.80 - 4 x (Deviation from JMF)
	Over 0.30	Unacceptable [2]

Characteristics	1 Test	Pay Factor
Average of Deviations from Target (Without Regard to Sign)		
AIR VOID (LAB MOLDED SPECIMENS) [1] Target(Superpave, SMA) = 4% Target(RBL) = 2%	0-1.50	1
	1.51-2.50	$-0.16X^2 + 0.24X + 1.00$
	Over 2.50	Unacceptable [2]

Footnotes:
(1) X is the average of deviations.
(2) Unless otherwise directed by the Engineer, products testing in this range are unacceptable and shall be removed and replaced at no additional cost to the Department.