



# MINIMUM QUALITY CONTROL PLAN FOR FIELD BITUMINOUS PAVING OPERATION

(Attach additional sheets as necessary)

Project # \_\_\_\_\_ State Route (S.R.) \_\_\_\_\_ Section \_\_\_\_\_ County \_\_\_\_\_

## I. ORGANIZATIONAL CHART

<u>Personnel</u>	<u>Full Name</u>	<u>Responsibilities</u>
A. Company Representative	_____	Oversees entire project
B. Superintendent	_____	Oversees paving operations
C. Paving Foreman	_____	Oversees placement of material and related operations.
D. Certified Nuclear Gauge Operator	_____	Develops rolling pattern and compaction data and acts as a point of contact for PennDOT personnel for all field testing and sampling. (Nuclear Gauge Operator does not need to be NECEPT Certified)
Operator's Certification No.	_____	
E. Bituminous Field Technician	_____	
NECEPT Certification No.	_____	Expiration Date: _____

Note: Problems related to bituminous material or paving operations shall be directed to the paving foreman. If problems are still unresolved they will be elevated to the superintendent. If still unresolved they will be directed to the company representative.

Bituminous Concrete Mix Designs (Option: Utilization of "Item Number and Mix Designs / Placement and Sampling Details" supplemental form is recommended in lieu of below chart - see page 5 of 5)

### A. List Designs

Bituminous Supplier Code	JMF Number and Year	State Route Number (If multiple S.R. are being paved)	Material (25mm Base, 19mm Binder, 9.5mm Wearing, etc.)	Asphalt (PG 58-28, PG 64-22, PG 76-22)	Design ESALS	Skid Resistance Level

Equipment ListQuantityManufacturer and Model

- A. Distributer Truck
- B. Paver
- C. Breakdown Roller
- D. Intermediate Roller
- E. Pneumatic-Tire Roller
- F. Finish Roller
- G. Material Transfer Vehicle (As specified)

**II. TESTING PLAN**

- A. Compaction Control
  - 1. Compaction will be controlled in accordance with Section 409.3(i).
    - a. Pneumatic-tire rollers will be used for compacting scratch courses.
    - b. Mechanical tampers will be utilized in areas inaccessible to rollers.
- B. Temperature Control
  - 1. Temperature will be controlled in accordance with Section 411.2 (e) Table A, by checking the first 3 truck loads or until control is established, and a minimum of every fifth truck load there after. The first 3 trucks loads will be tested after any plant breakdowns or production stoppages.
  - 2. The plant will be contacted when any single check reaches within 5 degrees of the specification limits, and the testing frequency will be increased to every load until control is reestablished.
- C. Segregation
  - 1. Segregation will be addressed in accordance with Section 409.3(h).
- D. Tests for Depth in accordance with Section 409.3(m) and 311.3 (m).
- E. The inspector and the contractor's representative will both measure the depth of each subplot according to PTM 737 using the density acceptance samples.
  - 1. For courses with a designed course depth and accepted by non-movement or optimum rolling pattern, the inspector and the contractor's representative will both calculate the weight per square yard for yield.
- F. Density cores will be extracted as soon as possible but no later than the day following the placement in the presence of the inspector. Mat density will be accepted in accordance with 409.3(j).
- G. Mixture Acceptance
  - 1. Loose box samples locations will be lifted in accordance with PTM 746 of publication 19.
  - 2. Certification Acceptance will be done in accordance with Section 409.2(f) 2.
- H. List areas to be paved and proposed type of density acceptance in accordance with 409.3(j).  
 (Option: Utilization of "Item Number and Mix Designs / Placement and Sampling Details" supplemental form is recommended in lieu of below chart - see page 5 of 5)

Area to be Paved (mainline, shoulder, gores, etc.)	Type of Mixture Acceptance (Certification or Lot)	Type of Density Acceptance (cores, non-movement, or optimum rolling pattern)

**III. MIX DELIVERY**

- A. Trucks will be clean of all foreign materials.
- B. No petroleum oils, solvents, or other materials will be used as a release agent in the haul vehicles. The release agent used will be supplied by \_\_\_\_\_ having a trade name of \_\_\_\_\_.
- C. Delivery of material will be protected in accordance with 409.3(d)
- D. Material will be released for the day's operation according to the details discussed at the pre-pave meeting.
- E. An adequate number of trucks will be utilized to facilitate paving continuity.
- F. All delivery trucks will be cleaned out at a designated location, not on the roadway in advance of the paving train.
- G. Trucks will be loaded, unloaded and handled using practices and procedures that will help prevent segregation.

**IV. SURFACE PREPARATION**

- A. All areas will be cleaned of surface debris.
- B. Existing vertical and horizontal surfaces will be treated according to 409.3(g)1., or contract requirement.
- C. Certification of bituminous materials will be provided as specified.
- D. \_\_\_\_\_ will be used and applied in accordance with Section 460 or unless indicated otherwise.

Application Rates for Tack Coat

New Bituminous Paving  
Existing Bituminous Paving  
Milled Surface  
Portland Cement Concrete

Residual Rates for Tack Coat

New Bituminous Paving  
Existing Bituminous Paving  
Milled Surface  
Portland Cement Concrete

- E. Bituminous material will not be placed until the tack coat has adequately cured.

**V. MIX PLACEMENT**

- A. Pavers will comply with the requirements of Section 409.3(e) and will be used and operated in accordance with same.
- B. Automatic screed controls capable of producing a finished surface of specified evenness and texture will also be used in accordance with Section 409.3(e).

**VI. COMPACTION**

- A. A sufficient quantity and type of rollers and compaction equipment will be used in accordance with Sections 409.3(f) and 409.3(i).

**VII. JOINT CONSTRUCTION AND COMPACTION**

- A. Joints will be offset by approximately 150 mm (6") from the previously placed layer.
- B. Surface course longitudinal joints will be placed at the approximate centerline of the roadway for 2 lane roadways and within 300 mm (12") of lane lines for roadways with more than 2 lanes.
- C. When specified or otherwise used notched wedge joints will be constructed according to RC-28M of the standard drawings..
- D. All transverse joints will be constructed perpendicular to the centerline of the roadway.
- E. All joints will meet the required surface tolerances as specified in Section 409.3(l).
- F. The entire area of all joint faces will be painted with a coating of the appropriate bituminous material. In accordance with Section 409.3(k)1 & 2.
- G. Joints will be compacted by the following means: (E. g. - Rolling Hot to Cold Side, etc.)

**VIII. SPECIAL PAVING CONDITIONS**

- A. Method of placement and traffic control for intersections and other incidental work will be discussed and agreed upon by the project IIC and paving foreman no less than 3 days prior to the start of work.
  - 1. List those work items and agreements as discussed (Attached on a separate sheet).
- B. Safety edge required (RC-25) for binder and wearing courses.

**IX. PROTECTION OF THE COURSES**

Traffic will not be placed on fresh material unless the temperature is 60° C (140 °F) and stable or lower, as determined by surface thermometers.

**X. AMENDMENTS**

If at any time during the course of the project a change to this quality control plan is agreed necessary by Company Representative (\_\_\_\_\_) and the Project IIC, it can be amended by strike out and replacement followed by signatures in initial form. A description of the change and reason for amendment should be noted in the Inspector's field diary for confirmation.

**XI. PRE-PAVE MEETING**

Conduct a pre-paving meeting with department, contractor, and supplier, as well as any other appropriate parties prior to the start of the paving operation.

Submitted By: \_\_\_\_\_  
Reviewed By: \_\_\_\_\_

Date: \_\_\_\_\_  
Date: \_\_\_\_\_

ITEM NUMBER AND MIX DESIGNS / PLACEMENT AND SAMPLING DETAILS							

[illegible]