

Plant Mix Asphalt Contractor Quality Control Plan

Year:

Plant Name: Location:

Address:

Quality Control Personnel			
Name:	<input type="text"/>	Cert. Number:	<input type="text"/>
Name:	<input type="text"/>	Cert. Number:	<input type="text"/>
Name:	<input type="text"/>	Cert. Number:	<input type="text"/>
Name:	<input type="text"/>	Cert. Number:	<input type="text"/>
Name:	<input type="text"/>	Cert. Number:	<input type="text"/>
Name:	<input type="text"/>	Cert. Number:	<input type="text"/>

Attached is the proposed Quality Control Plan with regards to Plant Mix Asphalt produced at the location identified above. The Quality Control Personnel will sample, test, and inspect in accordance with the TDOT Standard Specifications for Road and Bridge Construction, Table 407.03-3 acknowledged in this plan, and the attached frequency schedule.

Submitted By:

Cert. Number:

Date:

Approved by:

Date:

Plant Mix Asphalt Contractor Quality Control Plan

Table 407.03-3: Recommended Items for a Contractor Quality Control Plan. Mark All that are applicable to the Plant listed above

Plant Name:

Location:

A. All Types of Plants	
Mark All boxes that are applicable to the plant listed above.	1: Stockpiles
	a: Determine gradation of all incoming aggregates.
	b: Inspect stockpiles for separation, contamination, segregation, etc.
	c: Conduct a fractured face count when gravel is used as coarse aggregate.
	d: Determine the percent of glassy particles in slag coarse aggregate.
	e: Determine gradation and asphalt content of recycled asphalt pavement when used as a component material.
	2: Cold Bins
	a: Calibrate the cold gate settings.
	b: Observe operation of Cold feed for uniformity.
	c: Ensure that bins have proper dividers to prevent materials from spilling over into adjacent bins.
	3: Dryer
	a: Observe pyrometer for aggregate temperature control.
	b: Observe efficiency of the burner
	c: Determine the percent dust coating on plus 4 material.
	d: Check dried aggregate for contamination due to incomplete combustion of fuel
	4: Hot Bins
	a: Determine gradation of aggregates in each bin.
	b: Determine theoretical combined grading.
	5: Bituminous Mixture
	a: Determine percent bitumen.
	b: Determine mix gradation
	c: Check mix temperature.
	d: Determine percent moisture in mix when recycled asphalt pavement is a component material.
	e: Determine Loss-On-Ignition (LOI) of aggregates in mix where applicable
	f: Check the mix for uncoated aggregate.
	g: Ensure that handling procedures do not contribute to segregation of the mix.
	h: Determine Drain-Down if applicable

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Table 407.03-3: Recommended Items for a Contractor Quality Control Plan. Mark All that are applicable to the Plant listed above

Plant Name:

Location:

Mark All boxes that are applicable to the plant listed above.	B. Batch Plants	
	<input type="checkbox"/>	1: Batch Weights - Determine percent used and weight to be pulled from each bin to assure compliance with the JMF
	<input type="checkbox"/>	2: Check mixing time (both dry and wet).
	<input type="checkbox"/>	3: Check operations of weigh bucket and scales
	<input type="checkbox"/>	4: Document accuracy of all weighing and metering devices for:
	<input type="checkbox"/>	a: Asphalt Cement
	<input type="checkbox"/>	b: Aggregate
	<input type="checkbox"/>	c: Anti-strip additive
	C. Drum Mixer Plant	
	<input type="checkbox"/>	1: Calibrate the cold feed and prepare a calibration chart for each cold gate.
	<input type="checkbox"/>	2: Develop information for the synchronization of the aggregate feed and the bituminous material feed.
	<input type="checkbox"/>	3: Determine moisture content of aggregate being fed into dryer.
	<input type="checkbox"/>	4: Determine the percent dust coating on dried plus 4 material.
<input type="checkbox"/>	5: Check dried aggregate for incomplete combustion of fuel.	
<input type="checkbox"/>	6: Document accuracy of all weighing and metering devices for:	
<input type="checkbox"/>	a: Asphalt cement	
<input type="checkbox"/>	b: Aggregate	
<input type="checkbox"/>	c: Anti-strip additive	

* Consider the activities identified in Table 407.03-3 to be normal activities necessary to control the production of asphalt concrete at an acceptable quality level. However, note that depending on the type of process or materials, some of the activities listed may not be necessary, and in other cases, additional activities may be required.

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Plant Name: _____ Location: _____

Testing Frequency Schedule

Material	Test	Frequency	Location	Remarks
Aggregates	Gradation (AASHTO T-30/T-11)	Prior to production of hot mix and as needed for control	Stockpiles, each size and type used	Report on DT0275 or DT1314
	Stockpile Moistures	Daily		Slag Only, +4 material
	Glassy Particle Count	Once per project or as material changes		Gravel mixes, +4 material
	Fractured Face Count			
Plant Mix Asphalt Grading B, BM, BM2, C, CM, CW, D, E, CS, TL, TLD, OGFC, TLE	Aggregate Gradation, Asphalt Content, Vacuum Extraction AASHTO T-164 Method E Gradation AASHTO T-30 or Ignition Oven T-308 Method A per TDOT Specs	Minimum one per 1000 tons	Completed mix in truck, sampled from at least three locations	AASHTO T-164 Extraction. Mixtures will be accepted for Gradation by AASHTO T30/T11, nuclear AC gauge when applicable
	Volumetric Verification	At the start of production on unmodified mixes and each 1/2 day of production of modified mixes		100 tons < 1 set of tests< 1000 tons over 1000 tons 2 sets of tests
	TSR	One per mix per project		at start up during mix QC verif.
	Temperature	Every fifth load after plant stabilizes		
	LOI	Beginning of project		Surface Mixes w/ any limestone
	Drain down	Per day/shift		OGFC mixes only, AASHTO T-305
	Mixes containing RAP or Gravels (In addition to Plant Mix Asphalt Test/Frequency above)	Moisture in Mix		Daily
Grading A, AS, ACRL, 313TPB	Aggregate Gradation	Minimum one per 1000 tons	Bin sample for batch plant, Belt sample for drum plant, or completed mix in truck for burn or solvent wash	Sample to be reduced to proper sample size (may conduct more than one test and average results) AASHTO T-30/T11
RAP	Aggregate Gradation, Asphalt Content, Vacuum Extraction AASHTO T-164 Method E Gradation AASHTO T-30 or Ignition Oven T-308 Method A per TDOT Specs	Prior to production of hot mix and once every 2000 tons of rap used	Stockpiles	
Plant Calibration (AC Meter/Scales, Aggregate Scales or Belt Load cell)		Annually and as needed for control	Asphalt Plant	

Original to: Materials and Tests Field Services, submitted annually for approval

Approved Copy to: District Operations Team Lead, distributed at the Pre-Construction Conference

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Plant Name: _____ Location: _____

Testing Frequency Schedule Continued

Material	Test	Frequency	Location	Remarks
Control Charts		AC & Gradation on unmodified and Stability, Flow, Rice, Voids, and Dust to Asphalt for modified mixes. Drain down for OGFC mixes	Asphalt Plant Laboratory	Plot on mix control charts and post in the laboratory
Anti-Strip	Flow Meter Check	Verify rate daily, calibrate monthly during full production	Asphalt Plant	Identify on Daily Report
Test Equipment	Verification/Calibration	As identified in AASHTO R-18	Asphalt Plant Laboratory	Maintain Documentation for biannual laboratory qualification/inspection
Burn-Out Oven	Correction Factor Calibration	Monthly per mixture, see Spec 407.20 B.3	Asphalt Plant Laboratory	Send results to M&T Field Services Laboratory
Emulsion	Rapid Sieve Test, Rapid Residue by Evaporation	Material stored for a duration of 2 weeks for each tanker, distributor, or storage container	Asphalt Plant	Report on Tack tab of the Plant Workbook

Note any changes/additions to the testing frequency shown above.