BITUMINOUS CONCRETE LABORATORY INSPECTION & CALIBRATION VERIFICATION

DATE INSPECTED BY
NAME OF PRODUCER
PLANT LOCATION LAB ID
LAB PHONE NUMBER LAB TYPE QA ☐ QC ☐ QA&QC ☐

406.05a(12) TESTING FACILITIES	No	Yes
Is testing facility waterproof?	☐	☐
Was facility located here for the last inspection?	☐	☐
Are details of the plant plainly visible from one window of the structure?	☐	☐
Does building have adequate and proper utilities?	☐	☐
Do sanitary facilities meet the intent of the specifications?	☐	☐
Does the laboratory have private phone services?	☐	☐
Does the laboratory have high speed internet connection?	☐	☐
Is the contractor's office space separate and afford privacy to agency personnel?	☐	☐
Does the laboratory have adequate heating capable of maintaining a minimum of a temperature of 70°F?	☐	☐
Is the laboratory equipped with an Alert Messaging System meeting specification requirements?	☐	☐
Total area of floor space: _____ (must exceed 240 square feet. New, relocated or renovated facilities must exceed 320 square feet)		
Type of construction: Wood Frame ☐ Concrete Block ☐ Trailer ☐ Other ☐ If "Other", please specify:		

Qty	Is the laboratory equipped with the following standard commercial quality equipment:	No	Yes
One	Air conditioning unit capable of maintaining a maximum temperature below 77°F	☐	☐
Two	5-pound fire extinguishers, either ABC Dry Chemical or carbon dioxide	☐	☐
One	First aid kit, adequately stocked	☐	☐
One	Standard office desk	☐	☐
One	Adjustable office chair	☐	☐
Two	Bench sections and storage compartments. (Benches Shall be Approximately 36" high, 24" wide, and 10' long)	☐	☐
One	Exhaust fan and hood approves for the adequate removal of silica. The exhaust fan shall be high in volume and axial flow at least 12" in diameter.	☐	☐

		No	Yes
One	Water cooler with supply of potable water	☐	☐
One	Sink with a faucet, in the office supplied with an adequate supply of clean water. The sink shall drain outside of the office.	☐	☐
One	Forced draft oven meeting the intent of specifications	☐	☐
One	Electronic balance, minimum capacity of 10,000 grams sensitive to 0.1 grams	☐	☐
One	Ignition oven that conforms to the requirements of the AASHTO T 308. With two full sets of sample baskets, two catch pans, and one set of safety equipment as defined in T 308.	☐	☐
One	Full set of 12" sieves full height with pans and covers necessary for testing all bituminous items required on project	☐	☐
One	Motorized sieve shaker with either rocking and tapping action of circular and tapping action capable of holding at least 10 sieves and 1 pan.	☐	☐
One	16-inch diameter(minimum) stainless steel bowl	☐	☐
One	Mechanical aggregate shaker with a 0.1 ft^3 capacity. This may be placed in a separate enclosure outside of the lab.	☐	☐
One	Sample splitter (riffles) chute width 2½ inches	☐	☐
One	Sample splitter (riffles) chute width ¾ inch or less	☐	☐
Two	Square pointed shovels; one large handled and one short handled	☐	☐
One	12-inch wide taping knife	☐	☐
Four	Metal pans approximately 20 inches long, 10 inches wide, 2½ inches deep	☐	☐
One	Flat, triangular trowel	☐	☐
One	Rectangular trowel approximately 2 inches wide	☐	☐
Two	Hand scoops, size #1 approximately 3½ inches x 6 inches	☐	☐
One	Brass wire bristle brush	☐	☐
One	Standard table brush	☐	☐
One	Standard floor brush	☐	☐
Two	1½ inch soft bristle paint brushes	☐	☐
Two	Flexible spatulas with 6-inch-long blade	☐	☐
Two	Automatic timer (interval 0-30 minutes)	☐	☐
One	5-gallon pail	☐	☐
One	Hand dolly/truck for transporting sample from truck to lab	☐	☐
Two	(A pair) Lined, heat resistant gloves	☐	☐
Two	Metal thermometers, 50-500°F, 8 inches long with 1¾ inch head	☐	☐

		No	Yes
Two	Laboratory thermometers, glass or digital capable of reading at least 140°F in 2°F increments	☐	☐
One	Proportional Caliper meeting the requirements of ASTM D 4791	☐	☐
Two	Vacuum containers, meeting the apparatus requirements of AASHTO T 209	☐	☐
One	Vacuum pump and vacuum measurement device with bleeder valve, per AASHTO T 209	☐	☐
One	Water bath with overflow suitable for conducting AASHTO T 166	☐	☐

Qty	**For drum-mix and continuous mix plants, additional test equipment and supplies:**	N/A	No	Yes
One	Microwave oven with defrost mode, 1.0 cubic foot min	☐	☐	☐
Six	Oven-proof glass dishes approximately 12 inches x 12 inches x 1½ inches deep	☐	☐	☐

Qty	**Superpave Mixture Producer shall be equipped with the following as specified in AASHTO T 312:**	N/A	No	Yes
One	Superpave Gyratory Compactor with recording device	☐	☐	☐
Two	Specimen molds designed for use with the SGC	☐	☐	☐

Qty	**Marshall Mixture Producer shall be equipped with the following meeting the requirements for AASHTO R 68 & AASHTO T 245:**	N/A	No	Yes
One	Automatic Marshall Compaction Hammer	☐	☐	☐
Two	Marshall specimen compaction molds with base plates	☐	☐	☐
One	Stability mold	☐	☐	☐
One	Flow Meter	☐	☐	☐
One	Motorized compression & testing machine	☐	☐	☐
One	Water bath with variable temperature able to maintain a temperature of 140°F ± 2°F	☐	☐	☐

Laboratory Equipment Calibration/Verification Records Inspection:	N/A	No	Yes
When was the last equipment calibration/verification inspection for this facility?			
Were there any issues noted in the previous inspection?	☐	☐	☐
If "Yes", were those issues resolved?	☐	☐	☐

If "No", explain		
Are calibration/verification records for test equipment requiring calibration/verification in an accessible location? (Orange book) (Any records older than two years should be handed over to the plant manager)	No ☐	Yes ☐
Does all the test equipment requiring calibration clearly display calibration stickers matching those found in the records?	☐	☐
Do serial numbers on all test equipment match serial numbers in the lab records?	☐	☐
Are calibration/verifications for equipment current for all equipment in the lab records?	☐	☐
If "no," list equipment whose calibration/verification is not currently in the records in the box below. If there are any items listed, detail how the contractor will resolve issue:		

	No	Yes
Does a visual inspection of the test equipment reveal any obvious condition problems for any test equipment?	☐	☐
If 'Yes," list equipment below (including serial number and condition problems)		

Superpave Gyratory Compactor Mold Verification Report – VAOT #21 – AASHTO T 312 Annex A

Evaluated by: Date:
Mold Manufacturer: Model:
Date purchased/placed in service:

Previous Date Checked:	Next Due Date:
Verification equipment used:	

	No	Yes
Was bore gauge standardized with a calibrated master ring at appropriate temperature?	☐	☐
Were mold, ram head, and end plate at appropriate temperature?	☐	☐

Mold Compliance: New Mold 149.90-150.00 mm, In-service mold 149.00-150.20 mm

Molds		**1**	**2**	**3**	**4**
Mold & End Plate Identification					
1) Inside Diameter 50 mm From Top of Mold	**1A**				
	1B				
	1C				
2) Inside Diameter 100 mm From Top of Mold	**2A**				
	2B				
	2C				
3) Inside Diameter 50 mm From Bottom of Mold	**3A**				
	3B				
	3C				
Ram Head: 149.50 - 149.75 mm	**A**				
	B				
End Plate: 149.50 - 149.75 mm	**A**				
	B				
Wall Thickness: ≥ 7.5 mm	**A**				
	B				
Inside Height: ≥ 250 mm	**A**				
	B				
Mold bore free of residue and deep gouges?					
Is the mold compliant?					

Comments:

LABORATORY CALIBRATION AND VERIFICATION						
Note: the calibration/verification requirement is referenced from AASHTO R-18 Calibration (C), Verification (V)						
Title	**AASHTO SPEC.**	**Equipment Mfr.**	**Serial Number**	**Date Last Calibrated**	**C/V Frequency**	**Next Cal./ Ver. Due Date**
General Purpose Drying Oven	**T 245 T 176 T 312**				**Max 12 Months (V)**	
Marshall Compaction Hammer	**R 68**				**Max 12 Months(C)**	
Marshall Molds	**R 68**				**Max 12 Months(V)**	
Hot Water Bath	**T 245**				**Max 12 Months(V)**	
Marshall Stability and Flow	**T 245**				**Max 12 Months(C)**	
Vacuum Pump	**T 209**				**Max 12 Months(V)**	
Manometer	**T 209**				**Max 12 Months(V)**	
Pycnometer	**T 209**				**Calibrated Prior to use**	
Superpave Gyratory Compactor	**T 312**				**Max 12 Months(V) or if moved**	
Superpave Gyratory Molds	**T 312**				**Max 12 Months(V)**	

TEMPERATURE MEASURING DEVICES (THERMOMETERS), T 209 & T 166, MAXIMUM 12 MONTH (C)			
Equipment Manufacturer	**Serial Number**	**Date Last Calibrated**	**Next Calibration Due Date**

Balance (Scale), T 209 & T 166 & T 245, MAXIMUM 12 Months (V)			
Equipment Manufacturer	**Serial Number**	**Date Last Verification**	**Next Verification Due Date**

Timers, MAXIMUM 12 Months (C)			
Equipment Manufacturer	**Serial Number**	**Date Last Verification**	**Next Verification Due Date**

Sieves, ASTM E 11, MAXIMUM 12 MONTH (V)				
Sieve Size	**Manufacture**	**Serial Number**	**Date Last Verified**	**Next Verified Due Date**
38.1 mm (1 ½ inch)				
31.5 mm (1 ¼ inch)				
25 mm (1 inch)				
19 mm (3/4 inch)				
12.5 mm (1/2 inch)				
9.5 mm (3/8 inch)				
6.3 mm (1/4 inch)				
4.75 mm (No.4)				
2.36 mm (No. 8)				
1.18 mm (No. 16)				
600 µm (No. 30)				
300 µm (No. 50)				
150 µm (No. 100)				
75 µm (No. 200)				
Pan & Cover				
Mechanical Shaker				

Notes:

Sieves/Mechanical Sieve Shaker, ASTM E 11/T 27, MAXIMUM 12 MONTH (V)/(C)				
Sieve Size	**Manufacture**	**Serial Number**	**Date Last Verified/Cal.**	**Next Ver./Cal. Due Date**
Mechanical Sieve Shaker				
50.8 mm (2 inch)				
44.45 mm (1 ¾ inch)				
38.1 mm (1 ½ inch)				
31.5 mm (1 ¼ inch)				
25 mm (1 inch)				
19 mm (3/4 inch)				
12.5 mm (1/2 inch)				
9.5 mm (3/8 inch)				
6.3 mm (1/4 inch)				
4.75 mm (No.4)				
2.36 mm (No. 8)				
1.18 mm (No. 16)				
Pan & Cover				

Notes:

Laboratory Inspection Punch List

Inspection Performed on:

Laboratory Issues:

Inspected By:

Quality Control Representative: