

ATTACHMENT 1

LABORATORY TESTING SERVICES FOR ASPHALT MATERIALS

The scope of work consists of providing asphalt laboratory testing services on an "As Needed" basis for quality assurance (QA) testing for the Hawaii Department of Transportation (HDOT) Materials Testing and Research Branch, subject to funding availability. Testing will be requested during the contract period as required to supplement the QA program.

GENERAL NOTES / REQUIREMENTS:

1. Testing laboratory shall be accredited by AASHTO re:source for the test methods performed. A current certification shall be submitted upon request from the State.
2. Testing laboratory shall not provide testing services (such as testing for certificate of compliance or quality control testing) for a contractor in Hawaii that works on HDOT or federal aid highways jobs. This requirement is to verify no conflict of interest as a tester for quality assurance.
3. Samples shall be shipped by HDOT to the laboratory for testing. Frequency of testing is estimated as up to 10 tests total per month, unless mutually agreed before shipment. Test results should be returned within 10 working days of receipt.
4. The bid quotation shall be based on the proposal schedule listed on **Attachment 2**. Attachment 2 must be completed and submitted with the bid to be eligible for consideration. Enter subtotals from Attachment 2 on the corresponding line item on HlePRO.
5. Contract shall be awarded as separate awards by line item.
6. Bids shall include all Federal, State, County, and other applicable taxes and fees.
7. If a discrepancy occurs between unit bid price and the bid price, the unit bid price shall govern.

8. Quantities listed are for bid purposes only. The State gives no assurance to the bidder that any specific quantity of tests will be purchased. Payments to the bidder will be made based on actual number of tests completed and the unit bid price.

SCOPE:

Laboratory testing is requested for QA to check conformance for the following asphalt materials:

1. Asphalt binder and emulsified asphalt
 - a. Asphalt binder
 - i. PG 64-16 per AASHTO M320
 - ii. PG 64E-22 per AASHTO M332 with additional requirements per AASHTO T315, phase angle less than 77 degrees
 - b. Emulsified asphalt (primarily SS-1h per AASHTO M140; may include CQS-1h per AASHTO M208 and CQS-1P or CQS-1hP per AASHTO M316)

2. Bituminous adhesive for pavement markers per the following table:

Property	Min	Max	Test Method
Softening Point, degrees F	200	-	ASTM D 36
Penetration, mm, 100g, 5 sec., 77 degrees F	1.0	2.0	ASTM D 5
Filler Content, percent by weight (Insoluble in 1, 1, 1 Trichloroethane)	65	75	ASTM D 2371
Brookfield Thermosel Viscosity, centipoise, No. 27 Spindle, 20 RPM, 400 degrees F	3000	6000	ASTM D 4402
Flash Point, C.O.C., degrees F	550	-	ASTM D 92

3. Longitudinal joint adhesive per the following

TABLE 401.03-1 – ASPHALT JOINT ADHESIVE SPECIFICATIONS		
TEST		SPECIFICATION
Brookfield Viscosity, 204 °C [400 °F]	ASTM D 3236	4,000-10,000 cp
Cone Penetration, 25 °C [77 °F]	ASTM D 5329	60-100 dmm
Resilience, 25 °C [77 °F]	ASTM D 5329	30% minimum
Ductility, 25 °C [77 °F]	ASTM D 113	30 cm minimum
Ductility, 4 °C [39.2 °F]	ASTM D 113	30 cm minimum
Tensile Adhesion, 25 °C [77 °F]	ASTM D 5329	500% minimum
Softening Point	ASTM D 36	77 °C [170 °F] min.
Asphalt Compatibility	ASTM D 5329	Pass

TERM OF CONTRACT:

The term of this contract shall be for twelve (12) months from the date indicated on the Notice to Proceed from the State unless renewed as noted in Option to Extend Term.

OPTION TO EXTEND TERM:

Subject to the availability of State funds, this contract may be extended up to two (2) additional twelve (12) month period, or portions thereof, without the necessity for re-bidding upon mutual agreement between the State and the Contractor in writing. The entire term of contract, including extension, shall not exceed thirty six (36) months.