09/11/2014

S154-14\_09112014.docx

|  |
| --- |
| Use on all projects when 154 is a bid item. |

## Section 154. — CONTRACTOR SAMPLING AND TESTING

**Construction Requirements**

|  |
| --- |
| Use subsection 154.03 on all projects with concrete. |

**154.03 Sampling.** Add the following:

Perform the initial curing of all concrete test cylinders. Provide for transporting the government verification cylinders to the FHWA-Central Federal Lands Highway’s Laboratory unless other testing facilities are authorized by the CO.

Label each concrete mold with the name and number of the Project, the cylinder number, date molded, location of the sample, and the test age (i.e. – 7, 14, or 28 days). Label the mold after casting and the cylinder after stripping to ensure the sample can be identified throughout the entire curing process.

Provide the required cylinder molds.

|  |
| --- |
| Use subsection 154.04 on all projects. |

**154.04 Testing** Add the following:

Where Process Control Sampling and Testing frequencies are identical to the Sampling, Testing, and Acceptance Tables at the end of each Section for all applicable work, the Process Control Samples may be used for acceptance.

|  |
| --- |
| Use subsections 154.04A and 154.04B on all projects with material testing. Check with the CO regarding the need for and availability of a Government-furnished field laboratory to the project. (Small, short duration projects and projects that do not include statistically accepted materials may not warrant a Government trailer). If a Government-furnished field laboratory is not available or warranted, do not include Section 154.04A. |

Add the following subsections:

**154.04A Field Laboratory (Government-Furnished).** Refer to the “Notice To Bidders**”** in the bid proposal for information regarding the option to use a Government-Furnished field laboratory.

If the bid option “Item 15401-0000, Contractor Testing, Using Government Furnished Field Laboratory” is **exercised,** the government will provide for the Contractor’s use a mobile field laboratory, including testing equipment as follows:

* Pine AFG1A Gyratory Compactor (only included on Section 401 projects)
* NCAT Thermolyne Ignition Oven
* AASHTO T 209 Rice Vacuum Equipment
* AASHTO T 166 Bulk Specific Gravity of Compacted Mix Equipment
* Convection Oven
* Liquid Limit Machine and Grooving Tool
* 30,000 Gram Balance
* 12,000 Gram Balance
* 4,600 Gram Balance (readable to 0.01)
* Platform Scale
* Mechanical Compactor (Moisture Density) and Accessories
* 12-inch Sieve Shaker and Sieve Stack
* Drill Press with Muller
* Large Sample Splitter
* Small Sample Splitter

Provide any additional equipment or facilities necessary to fulfill the requirements of the Contract.

Transport the laboratory from 12300 West Dakota Avenue, Lakewood, CO to the point of use and return the laboratory to the same Lakewood address upon completion of the work. The trailer will be available upon issuance of Notice to Proceed and must be returned no later than 14 days following final acceptance of the contract. Contact the CFLHD Equipment Depot at (720) 963-3459 or (720) 963-3384 for specific directions to the laboratory storage location.

Assume responsibility for the replacement of any and all missing or damaged equipment and for the repair of any damage to the laboratory. Replacement cost for missing or damaged equipment or facilities will be deducted from any remaining monies owed the Contractor. If sufficient funds are not available under the Contract for such retention, the Contractor agrees to make payment directly to the Government for any damaged or missing equipment or facilities.

Specifics:

Furnished equipment will be inspected by the Government by checking, standardizing, calibrating and/or verifying, as appropriate, in accordance with applicable AASHTO and ASTM standards. The Government equipment inspection will be completed after the laboratory has been moved to its permanent location on the project site prior to actual use in project testing and at least once a year thereafter. Notify the CO at least 30 days in advance of intent to use the testing equipment on the project so that Government equipment inspection can be scheduled and performed. Assume responsibility for additional equipment inspections prior to the Government’s yearly inspection if the mobile laboratory is moved. Maintain records documenting these inspections in the laboratory.

Maintain equipment in proper operating condition. Do not use equipment that is found to be deficient or defective. Mark deficient or defective equipment and take it out-of-service and immediately notify the CO. If Government-furnished testing components fail through no fault or negligence of the Contractor, the Government will replace or repair the equipment in the most expeditious manner practicable. Requests for time extension and/or delay damages will not be granted for delays of less than 48 hours for any one occurrence, or for cumulative delays amounting to less than 5 (five) days in any one 365-day period. Requests for time extensions or damages due to equipment-related delays caused by equipment misuse or other Contractor fault will not be granted.

* Furnish water to the Government-provided field laboratory which is clear and free of oil, acid, rust, alkali, sugar, and vegetable substances. Furnish 120/240-volt, 60-cycle, single-phase current adequate to operate all of the Government field laboratory facilities at all times as required by the CO. Supply enough power to support a 200 amp service panel. Equip the power supply with a regulator that limits the voltage of the power furnished to the laboratory to not less than 220 volts and not more than 240 volts.
* All equipment provided by the Government and replaced by the Contractor will remain with the laboratory and will become the property of the Government.
* Use of the laboratory is limited to testing materials in connection with this contract.

|  |
| --- |
| If a Government-furnished field laboratory is not available to the project, do not include the first portion of the first sentence which states, “If the Government-furnished field laboratory bid option is not exercised.” Include the remainder of the sentence which states, “Furnish a laboratory equipped with all test equipment necessary to satisfy the requirements of the contract.” |

**154.04B Field Laboratory (Contractor-Furnished).** If the Government-furnished field laboratory bid option is not exercised, furnish a laboratory equipped with all test equipment necessary to satisfy the requirements of the contract.

The sampling and testing services of a commercial laboratory meeting or exceeding the requirements described herein may be used if all contract sampling and testing requirements are satisfied by the use of the commercial facility.

Ensure test equipment has been checked, calibrated, standardized and/or otherwise verified in accordance with AASHTO and ASTM standards by an individual qualified to do this work. Ensure mobile laboratories receive an equipment inspection after the laboratory has been moved to its permanent location on the project site and anytime it is moved thereafter. Inspect equipment within 45 days of actual use in project testing and at least once a year thereafter. Do not use equipment that has not been inspected or is found to be deficient. Mark deficient equipment and it take out-of-service until it is repaired or replaced and shown by subsequent inspection to perform as required. Maintain records documenting these inspections in the laboratory. Provide certification(s) stating the equipment conforms to testing requirements and provide evidence of current inspection.

The CO may require the Contractor to perform testing to demonstrate acceptable equipment and an acceptable level of technician competence. The CO may also check equipment and inspection records to verify condition. Repair or replace equipment not meeting applicable requirements. Keep laboratory facilities clean and maintain equipment in proper working condition. Provide the CO unrestricted access to the laboratory for inspection and review.