SECTION 014510 - TESTING LABORATORY SERVICE

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. General: This Section specifies administrative and procedural requirements for quality control.

1.01 RELATED REQUIREMENTS

- A. Drawings and General Provisions of Contract, including General and Special Conditions and other Division 1 Specification Sections, apply to Work of this Section.
- B. Section 014500 QUALITY CONTROL.

1.02 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Owner will engage a qualified testing agency or special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:
 - Verifying that manufacturer maintains detailed fabrication and qualitycontrol procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
 - Notifying Architect, the Construction Manager, and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect, the Construction Manager, with copy to Contractor and to authorities having jurisdiction.
 - 4. Submitting a final report of special tests and inspections at Substantial Completion that includes a list of unresolved deficiencies.
 - 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - Retesting and reinspecting corrected work.

1.03 QUALIFICATIONS OF LABORATORY AND SUBMITTALS

A. Testing Agent Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.

- 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
- 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- B. Meet requirements of ASTM E329, current edition "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as used in Construction."
 - 1. The term "agency" as used in Section 4 of ASTM E329 shall mean the local or closest office of said agency.
- C. Laboratory qualifications for inspection, sampling and testing of soils and aggregates shall be comparable to the requirements of ASTM E329.
- D. Testing Equipment: Calibrated at maximum 12-month intervals by devices of accuracy acceptable to the Owner.
- E. All testing and inspection performed by the testing laboratory shall be under the direct supervision of a professional engineer licensed in the state of the construction activities. This professional engineer shall submit a letter certifying that all testing services are in conformance with the standards and specifications as specified in these Contract Documents. The letter shall also certify that all tested and inspected items and procedures conform to the Contract Documents, except where specifically noted on the inspection reports.
- F. All inspectors shall have at least one year of experience performing the type of inspections to be preformed on this project. Qualifications and experience of proposed inspectors shall be submitted to the Architect and Owner for approval prior to the beginning of any testing.

1.04 LABORATORY DUTIES, LIMITATIONS OF AUTHORITY

- A. Testing Agency Responsibilities: Cooperate with Architect, the Construction Manager, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - Notify Architect, the Construction Manager, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service to the Construction Manager and

Contractor.

- 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
- 6. Do not perform any duties of Contractor.
- B. Perform specified inspections, sampling, and testing of materials and methods of construction.
 - 1. Comply with specified standards; ASTM, other recognized authorities and as specified.
 - 2. Ascertain compliance with requirements of Contract Documents.
- C. Promptly submit one copy to the Construction Manager, two copies directly to the Architect / Engineer and one to Contractor of reports of inspections and tests, including the following information, as applicable:
 - Date issued.
 - 2. Project title and number.
 - 3. Testing laboratory name and address.
 - 4. Name and signature of field inspector.
 - 5. Date of inspection or sampling.
 - 6. Record of temperature and weather.
 - 7. Name and signature of laboratory inspector.
 - 8. Identification of product and Specification Section.
 - 9. Location in Project.
 - 10. Designation of the Work and test method.
 - 11. Observations regarding compliance with Contract Documents.
 - 12. Complete inspection or test data.
 - 13. Tests results and an interpretation of test results.
 - 14. Recommendations on retesting.
- D. Laboratory is not authorized to:
 - 1. Release, revoke, alter, or enlarge on requirements of Contract Documents.

- 2. Approve or accept portion of Work.
- Perform duties of Contractor.

1.05 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel to provide access to Work and to manufacturer's operations and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel.
- B. Assist laboratory personnel in obtaining samples at the site.
- C. Notify laboratory sufficiently in advance of operations to allow for his assignment of personnel and scheduling of tests.
- D. Should Contractor fail to schedule laboratory services or fail to cancel laboratory services, if the need arises, all additional costs shall be borne by Contractor.
- E. Employ, and pay for, services of a separate, equally qualified independent testing laboratory to perform additional inspections, sampling, and testing required when initial tests indicate work does not comply with Contract Documents.
 - 1. The Owner and the Architect / Engineer shall approve the laboratory.

PART 2 – PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
 - 1. Date test or inspection was conducted.
 - 2. Description of the Work tested or inspected.
 - 3. Date test or inspection results were transmitted to Architect, the Construction Manager and Contractor.
 - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's, the Construction Manager's and Contractor's reference during normal working hours.

END OF SECTION 014510