

## **SECTION 014000 – QUALITY REQUIREMENTS**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and General Provisions of the Contract, including Special Requirements, General Conditions and other Division 1 Specifications Sections apply to this Section.

#### **1.2 SUMMARY**

- A. This section specifies administrative and procedural requirements for quality control services.
- B. Quality control services include inspections and tests and related actions including reports, performed by independent agencies, governing authorities and the Contractor. They do not include contract enforcement activities performed by the professional or the University.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with contract document requirements.
- D. Requirements of this section relate to customized fabrication and installation procedures, not production of standard products.
  - 1. Specific quality control requirements for individual construction activities are specified in the sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
  - 2. Inspections, test and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with contract document requirements.
  - 3. Requirements for the Contractor to provide quality control services required by the professional, System or authorities having jurisdiction are not limited by provisions of this section.
  - 4. Reference schedule of inspections and tests specified as the professional's responsibility included in section "Submittals".

### 1.3 RESPONSIBILITIES

- A. Separate Prime Contractors shall provide those Quality Control Services specified in the Technical Specification Sections, or required by governing authorities, related to their Work, except where they are specifically indicated to be the responsibility of another Separate Prime Contractor, or the responsibility of the University, its Professional, or another entity.
  - 1. The Contractor shall employ contracted testing laboratories, consultants, or other qualified individuals or firms to conduct his Quality Control Services.
  - 2. Specified Quality Control Services may include specific requirements for Inspection and Testing Services, and if indicated to be the responsibility of the Contractor, the Contractor shall employ a testing laboratory, consultant, or other qualified individual or firm to perform the inspection or test.
- B. University
  - 1. Inspection and Testing Services which will be the responsibility of the University are indicated in the Technical Specification Sections. The University will either utilize its Professional or employ a testing laboratory, consultant, or other qualified individual or firm to perform the inspection or test.
  - 2. The University, at its own expense, may perform any other Quality Control Services it deems necessary to supplement or verify the Contractor's Quality Control Services, and to supplement its Contract enforcement activities. The University may either utilize its Professional or employ a testing laboratory, consultant, or other qualified individual or firm to conduct these services.
- C. Retesting: The Contractor is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with contract document requirements, regardless of whether the original test was the Contractor's responsibility.
  - 1. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
- D. Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to:
  - 1. Providing access to the work and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
  - 2. Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.

3. Providing facilities for storage and curing of test samples and delivery of samples to testing laboratories.
  4. Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
  5. Security and protection of samples and test equipment at the project site.
- E. Professional Responsibilities: The professional will provide inspections, tests and similar quality control services specified to be performed by independent agencies and not by the Contractor, except where they are specifically indicated as the Contractor's responsibility or are provided by another identified entity. Costs for these services are not included in the contract sum.
- F. Coordination
1. Any testing laboratory, consultant, or other qualified individual or firm engaged for Quality Control Services shall be licensed to operate in the Commonwealth of Pennsylvania.
  2. Any testing laboratory engaged shall be prequalified as complying with Recommended Requirements for Independent Laboratory Qualification by the American Council of Independent Laboratories, and shall specialize in the types of inspections and tests to be performed.
  3. If the Contractor is required to engage an Inspection and Testing Service, and the University has also employed an Inspection and Testing Service for the same or related services, the Contractor shall not employ the same Service engaged by the University, unless otherwise approved in writing by the University.
  4. Where Quality Control Services are indicated as the responsibility of the University or its Professional, the University will furnish to the Contractor the names, addresses, and telephone numbers of those testing laboratories, consultants, or other qualified individuals or firms to be engaged, and a description of the types of inspections and tests they will perform.
  5. The Contractor shall cooperate with the University and governing authorities, and any other entities engaged by either of them, performing required inspections, tests, and similar services, and the Contractor shall provide reasonable auxiliary services as requested. Auxiliary services required include but are not limited to:
  6. Providing access to the Work.
    - a. Furnishing incidental labor and facilities necessary to facilitate inspections and tests.
    - b. Providing preliminary design mix or other design data related to the inspections or tests.
    - c. Taking adequate quantities of representative samples of materials that require testing, or assisting in taking samples.

- d. Providing facilities for storage and curing of test samples, and delivering samples to testing laboratories.
  - e. Securing and protecting inspection, sampling, and test equipment at the Project site.
7. Contractors and all entities performing inspections, tests, and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. Contractors, the University, and each entity shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests. The General Contractor is responsible for coordinating and scheduling times for inspections, tests, taking samples, and similar activities whenever those activities affect more than one Prime Contractor.
8. Prior to and during inspecting, testing, and similar services, the Contractor responsible for that inspection, test, or similar service shall protect any construction exposed for or by the inspection or test, or any unfinished construction in the vicinity of the inspection or test. Upon completion of inspections, testing, and similar services, the Contractor responsible for that inspection, test, or similar service shall repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes.

#### 1.4 SUBMITTALS

- A. The independent testing agency shall submit a certified written report of each inspection, test or similar service, to the professional, in duplicate, unless the Contractor is responsible for the service. If the Contractor is responsible for the service, submit a certified written report of each inspection, test or similar service through the Contractor, in duplicate.
- 1. Submit additional copies of each written report directly to the governing authority when the authority so directs.
  - 2. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
    - a. Date of issue
    - b. Project title and number
    - c. Name, address and telephone number of testing agency
    - d. Dates and locations of samples and tests or inspections
    - e. Names of individuals making the inspection or test
    - f. Designation of the work and test method
    - g. Identification of product and specification section
    - h. Complete inspection or test data
    - i. Test results and interpretations of test results
    - j. Ambient conditions at the time of sample-taking and testing
    - k. Comments or professional opinion as to whether inspected or tested work complies with contract document requirements
    - l. Name and signature of laboratory inspector

m. Recommendations on retesting

- B. Tests listed herein shall be performed by an independent testing agency engaged by the System without expense to the Contractor. The responsibilities and obligations of the Contractor and the quality control agency are as described herein, in relevant specification sections and General Provisions. The System reserves the right to change this list at any time. The testing results will be available to the Contractor for his use. Testing paid for by the System is for the sole benefit of the System. If Contractor desires additional testing for his own quality control and monitoring to that deemed adequate by the System, the Contractor will pay for these additional testing services.

1.5 QUALITY ASSURANCE

- A. Qualification for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, which are pre-qualified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories and which specialize in the types of inspections and tests to be performed.
1. Each independent inspection and testing agency engaged on the project shall be authorized by authorities having jurisdiction to operate in the state in which the project is located.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 014000