

SECTION 01400
QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES:

- A. Quality assurance - control of installation.
- B. Quality assurance of safety measures.
- C. Tolerances.
- D. References and standards.
- E. Mock-up.
- F. Inspecting and testing laboratory services.
- G. Manufacturers' field services.

1.2 QUALITY ASSURANCE/CONTROL OF INSTALLATION:

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Monitor safety requirements over subcontractors, suppliers, manufacturers, products, services, and site conditions to assure the quality of the safety program and safety requirements.
- C. Comply fully with manufacturers' instructions, including each step in sequence.
- D. Should manufacturers' instructions conflict with contract documents, request clarification from Architect before proceeding, and document any instructions or directions that may invalidate a warranty.
- E. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- F. Perform work by persons qualified to produce workmanship of specified quality.
- G. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- H. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.
- I. Contractor shall schedule work so no absorbent materials are installed and/or no concealed areas are closed up until the building is dried-in and permanent doors and windows are installed to prevent development of mold or entrapment of mold or moisture inside concealed spaces or moisture absorption into interior materials

1.3 TOLERANCES:

- A. Monitor fabrication and installation tolerance control of products to produce acceptable work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with contract documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES AND STANDARDS:

- A. Workmanship shall comply with requirements of the standards specified by an association, trade, or other consensus standards of specified products, except when the applicable code requirements are more rigid.
- B. Contractor's Safety Program shall comply with current Occupational Safety and Health Administration (OSHA) Standards in addition to local, state and federal requirements.
- C. Use current reference standard(s) based on the date of contract documents, except where a code establishes a specific date.
- D. Obtain copies of standards where required by product specification sections.
- E. The contractual relationships, duties, nor responsibilities of the parties in Contract nor those of the Architect shall be altered from the contract documents by mention or inference otherwise in any reference document.

1.5 MOCK-UP:

- A. Perform all tests under identified in this section and in the respective product specification sections.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be a comparison standard for the remaining work.
- D. Where Architect accepts the mock-up and product specification sections specify removal; remove mock-up and clear area when directed.

1.6 TESTING SERVICES:

- A. Owner will appoint and pay for specified services of an independent firm to perform testing.
- B. The independent firm will perform tests and other specified services as outlined in individual specification sections and as required by the Owner.
- C. Testing and source quality control may occur on or off the project site. Perform off-site testing as required by the Architect or the Owner.
- D. The independent firm shall submit reports to the Owner and Architect and Contractor, indicating observations and results of tests and compliance or non-compliance with contract documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify Owner, Architect and independent firm 24 hours prior to expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
- F. Testing does not relieve Contractor to perform work to contract requirements.
- G. As directed by the Architect, the same independent firm shall re-test as a result of no-conformance to specified requirements. Contractor shall pay for re-testing cost by deducting testing charges from the Contract Sum/Price.

1.7 INSPECTIONS:

- A. Unless specified elsewhere in the Contract Documents, the Owner will appoint, employ, and pay for specified services of an independent firm to perform inspection.
- B. The Owner and/or its' designated representative retains the right to inspect the work at anytime and without giving notice. Contractor to provide safe access to all areas of the Work.
- C. The independent firm will perform inspections and other services specified in individual specification sections and as required by the Owner.

- D. Inspecting may occur on or off the project site. Perform off-site inspecting as required by the Architect or the Owner.
- E. Safety Inspections by the Owner and/or its' designated representative may occur at any time.
- F. The independent firm to the Owner and Architect and Contractor, indicating inspection observations and indicating compliance or non-compliance with contract documents, will submit reports.
- G. Cooperate with independent firm; furnish safe access and assistance by incidental labor as requested.
 - 1. Notify Owner and Architect and independent firm 24 hours prior to expected time for operations requiring services.
- H. Inspecting does not relieve Contractor to perform work to contract requirements.

1.8 MANUFACTURERS' FIELD SERVICES:

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment and as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to the Architect 30 days in advance of required observations, the observer is subject to Owner's approval.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Refer to Section 01300 - SUBMITTALS, MANUFACTURERS' FIELD REPORTS article.

PART 2 PRODUCTS

2.1 Not Used.

PART 3 EXECUTION

3.1 EXAMINATION:

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work, beginning new work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Examine and verify that work specific safety measures are in place prior to starting the work.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.

3.2 PREPARATION:

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

END OF SECTION