

SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General product requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.
- E. Substitution limitations and procedures.

1.2 RELATED SECTIONS

- A. Section 00 72 00, GENERAL CONDITIONS
- B. Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

1.3 DEFINITIONS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying, and erection of the Work. Products may also include existing materials or components authorized for reuse.
- B. Furnish: To supply and deliver, unload, inspect for damage (same as supply).
- D. Install: To unpack, assemble, erect, apply, place, connect, finish, cure, protect, clean, and ready for use.
- E. Provide: To furnish or supply, plus install.
- F. Reused Products: Reused products include materials and equipment previously used in this or other construction, salvaged and refurbished as specified. Supply: To supply and deliver, unload, inspect for damage (same as furnish).

1.4 SUBMITTALS

- A. See Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

PART 2 PRODUCTS

2.1 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents or specifically authorized in writing by Resident Engineer.
- B. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor and shall be removed from site.

2.2 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.
- B. Provide interchangeable components of the same manufacture for components being replaced.

2.3 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One Product and indicating "Basis of Design": Applicable characteristics of named product were used to design systems. A formal substitution is required if another product is proposed. Submittals must include sufficient data to show that the product has the same or similar characteristics to the products so indicated. Submittal must clearly indicate modifications to other portions of the work which will be required as a result of the substitution. The Architect/Engineer may reject any product, which, in his/her opinion, is not sufficiently similar to the indicated product.

PART 3 EXECUTION

3.1 SUBSTITUTION PROCEDURES

- A. Substitution requests during bidding periods shall be submitted to the Owner in writing at least 10 days before bids are due. If substitution is accepted, bidders will be notified by written Addendum.
- B. A request for substitution will be considered after the bidding period when one or more of the following are true:
 - 1. The product will provide a cost savings to the Owner.
 - 2. The specified product is no longer available. This does not include Contractor's failure to order in a timely manner.
 - 3. The proposed product will improve the project schedule.
 - 4. The proposed product offers significantly improved performance for the same or similar cost.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- D. A request for substitution constitutes a representation that the submitter:
 - 1. Has investigated the proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Will provide the same warranty for the substitution as for the specified product.
 - 3. Will coordinate installation and make changes to other Work which may be required as a result of the substitution in order for the Work to be complete with no additional cost to Owner.

4. Waives claims for additional costs or time extension which may subsequently become apparent.
 5. Will reimburse Owner and Architect/Engineer for review or redesign services associated with re-approval by authorities.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
1. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
 3. Attached product data as specified in Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
 4. Identify product by Specification Section and Article Numbers. Provide manufacturer's name and address, trade name of product, and model or catalog number. List fabricators and suppliers as appropriate.
 5. List similar projects using product, dates of installation, and names and phone numbers of Architect and Owner.
 6. Give itemized comparison of proposed substitution with specified product, listing quality and performance variations, and reference to Specification Section and Article Number.
 7. Give cost data comparing proposed substitution with specified product, and amount of net change to Contract price.
 8. List nearest availability of maintenance services and replacement materials.
 9. State effect of substitution on construction schedule, and changes required in other work or products.
- G. The Architect/Engineer will notify Contractor in writing of decision to accept or reject request.
- H. Acceptance of a substitute manufacturer does not waive or alter any specified product requirement.

3.2 TRANSPORTATION AND HANDLING

- A. Inform subcontractors and suppliers of complete address of project, with all instructions necessary for properly directing deliveries to site.
- B. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

- C. Transport and handle products in accordance with manufacturer's instructions.
- D. Transport and handle products as necessary to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- E. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- F. Promptly inspect all deliveries for the presence of mold. Immediately reject and require removal from the site of all items on which mold is present.
- G. Materials or products which arrive at the site wet or with a moisture content above that designated in the Specification and which have no indication of mold shall be dried out or dried to recommended moisture content level by quickest possible means which will not damage the product or material.
- H. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.3 STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
 - 1. Take measures as necessary to prevent moisture in products or materials or in the environment around the material at a level which would permit growth of mold.
- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- H. Prevent contact with material that may cause corrosion, discoloration, or staining.
- I. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- J. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

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