

METAL FABRICATION AND INSTALLATION

1. **APPLICABILITY**

Construction Specification 81 is applicable to the construction of items of metalwork not covered by other specifications. It is applicable to such items as trash guards, anti-vortex hoods and baffles, flashboard guides, and similar structures or parts. It is not applicable to the installation of concrete reinforcing steel, water control gates, fences, wells, piles or pipe conduits.

2. **MATERIAL SPECIFICATIONS**

Material Specification 581 and 582 and Construction Specification 82 are complementary to Construction Specification 81.

3. **ITEMS TO BE INCLUDED IN CONSTRUCTION SPECIFICATIONS AND DRAWINGS**

- a. Detailed drawings as necessary to show the dimensions and method of fabrication and erecting the item or structure.
- b. For aluminum, the alloy to be used in the work if other than specified in Material Specification 581. Alloys specified for use should be limited to those for which ASCE Specifications for Structures of Aluminum Alloy are available. Such specifications are published in Section A of the Aluminum Construction Manual of The Aluminum Association.
- c. Type of steel if other than structural quality. Use "commercial" or "merchant" quality only for small parts where the strength is not a major design consideration. Examples: Non-critical angles and other shapes less than three (3) inches in maximum dimension of Section; shear plates for construction joints in concrete; small trash rack parts; and, other similar metal features.
- d. Details of connections showing sizes and number of bolts; sizes, kinds and dimensions of welds; and sizes and number of rivets.
- e. Designation of items to be galvanized or painted and designation of paint systems to be used.
- f. Ordering data listed in the material specifications, as appropriate, including such items as:
 - (1) Type, kind, size, hardness and length of bolts.
 - (2) Class, grade, condition and finish of castings.
 - (3) Type, composition, hardness, size and form of other materials.

- g. Methods of measurement and payment, if the standard specification includes more than one method.

4. DISCUSSION OF METHODS

a. Section 6, Measurement and Payment

- (1) Method 1 is intended for use when the metalwork is a minor portion of the contract and consists largely of items that would normally be fabricated by the Contractor.
- (2) Method 2 is intended for use when the metalwork is a significant portion of the contract.
- (3) Method 3 is intended for use when the metalwork includes individual items of significant scope or complexity or which would usually be procured from outside sources or fabricated for the contractor by others.

When specifications are prepared using electronic procedures and all but one method are deleted for use in the contract specification, delete "All Methods The following provisions apply to all methods of measurement and payment." and left justify the remaining text.