SECTION 08110 - STEEL DOORS AND FRAMES

1.1 SUMMARY

A. Interior and exterior steel doors.
B. Cross-corridor doors.
C. Interior and exterior steel frames, including transoms, sidelights, placed in concrete, masonry and gypsum board assemblies.

1.2 SUBMITTALS

A. Product Data: Submit manufacturer’s specifications for fabrication and installation including data demonstrating compliance with specified requirements.
B. Shop Drawings: Submit shop drawings describing fabrication and installation of hollow metal doors and frames and related accessory items, including, but not limited to the following:
   1. Frame configuration, anchor spacing, anchor types, locations of hardware and reinforcement cutouts, joints and connections. Indicate frame assemblies too large to ship in one piece, and include locations and details of field splice joints with complete instructions for making field splices.
   2. Door elevations, stiles and rail reinforcement, edge closures, cutouts and details for glazed and solid panels and louvers.
C. Submit schedule of doors and frames using same reference numbers as shown on drawings.

1.3 QUALITY ASSURANCE

A. Requirements: ANSI/SDI A250.8.
B. Fire Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspection agency acceptable to authorities having jurisdiction, for fire protection ratings indicated, based on testing according to NFPA 252.
   1. Oversize Fire Rated Doors Assemblies: For units exceeding sizes of tested assemblies, provide certification by a testing agency acceptable to authorities having jurisdiction that doors and frames comply with construction requirements for tested and labeled fire rated assemblies except for size.

1.4 DELIVERY, STORAGE AND HANDLING

A. Deliver steel doors, frames and related components in cartons, crates or similar wrapping to adequately protect units from damage due to handling and storage.
B. Store units in a dry area under cover. Place units on wood sills or on the floor in a manner that will prevent rust and damage. If wrapper becomes wet, remove the carton immediately. Provide a ¼” space between stacked doors to promote air circulation.
C. Inspect material upon delivery for damage and notify shipper and supplier if damage is found. Minor damage may be repaired provided refinished items match new work and are acceptable to the Architect. Remove and replace damaged items that cannot be repaired as directed.

2.1 PRODUCTS

A. Manufacturers:
1. Ceco Door Products
2. Other American SDI members that conform to the specific requirements of this specification

B. General:
1. Steel: commercial quality, level, cold rolled, complying with ASTM A1008.
2. Galvanizing: Comply with ASTM A653, min. 0.60 oz. / sq. ft.
3. Prepare doors and frames to receive mortised and concealed hardware according to approved hardware schedule. Reinforce doors and frames for surface applied hardware. Drilling and tapping may be done at project site.
4. Factory-fit doors to frames. Edge gap requirements are:
   a. jambs and heads 3/32”
   b. meeting edges pairs of doors 1/8”
   c. bottoms ¼” maximum to top of slab

C. Doors General:
1. 7 ga. hinge reinforcement.
2. 14 ga. closer reinforcement.
3. Balance of hardware reinforcements is in accordance with the minimum standard gages as listed in SDI-100.
4. Reinforce tops and bottoms of all doors with continuous steel channel not less than 16 gage, extending full width of door and welded to face sheets.

D. Interior Doors:
2. Core: Cores as approved by ANSI/SDI A250.8.

E. Exterior Doors:
2. Core: foamed in place polyurethane.
3. Close top and bottom edges of doors flush as an integral part of door construction or by addition of steel channels with channel webs placed flush with top and bottom edges.

F. Door Louvers: By exception only.

G. Lite Kits:
1. 18 ga. galvannealed steel to accommodate glass thickness and size of vision lite indicated.
2. All cross-corridor doors to have lite kits. Size determined by fire rating.

H. Frames General:
1. 7 ga. hinge reinforcement.
2. 12 ga. closer reinforcement.
3. Balance of hardware reinforcements is in accordance with the minimum standard gages as listed in SDI-100.
I. Interior Frames:
   1. 16 ga., cold rolled for openings up to 4 ft. wide.
   2. 14 ga. cold rolled for openings over 4 ft. wide.
   3. Frames over 3'-0” x 7'-0” must be welded. Frames equal to and under these dimensions may be knockdown.
   4. Frames being installed in a masonry application to be welded.

J. Exterior Frames:
   1. 14 ga. Galvanized.
   2. Welded up.

K. Hospital stops to be provided on all doors for projects in patient care spaces where vinyl floors are used.

L. Door Silencers: Except on weather-stripped frames, fabricate stops to receive three silencers on strike jambs of single doors frames and two silencers on heads of double doorframes.

M. Supports and Anchors: provide appropriate type and gauges of anchors for specific wall construction as recommended by SDI.

N. Fabricate steel door and frame units to comply with ANSI A250.8 and to be rigid, neat in appearance and free from defects including warp and buckle.

O. Primer: Rust inhibitive enamel or paint, either air-drying or baked, suitable as base for finish paint.

END OF SECTION 08110