

**SECTION 08 10 0  
METAL DOOR FRAMES**

**PART 1.00 – GENERAL**

**1.01 RELATED DOCUMENTS**

- A. The Contractor is referred to the “Bid Book”; the “Standard Agreement” between the Construction Manager (CM) and the Contractor(s); “Division 01 - General Requirements” of the Contract Specifications”; the “Contract Drawings” and all Amendments and Addenda thereto; all of which govern the Work of this Section.

**1.02 SCOPE OF WORK**

- A. The Work of this Section includes all labor, materials, equipment and services necessary to complete the new interior metal door frame/buck installation in renovated/reconfigured apartments as indicated on the Drawings and/or specified herein including, but not limited to, the following:
1. Hollow metal frames (three-piece knock-down type) installed at new gypsum wallboard/metal stud partitions for new wood bedroom/closet doors (single and double/pairs).
  2. HOLLOW METAL SLIP-ON FRAMES (THREE-PIECE KNOCK-DOWN TYPE) installed over existing metal frames for new wood bathroom/toilet DOORS.
    - a. Full-height hollow metal slip-on frames (three-piece knock-down type) with applied metal transom panels installed over existing metal partition ends for new wood closet doors.
    - b. Minor repairs as required to existing exposed metal frames indicated to receive new wood doors (assume repairs to 5% of existing frames for bidding purposes).
  3. Provide all other labor and materials as may be reasonably inferred to make the Work of this Section complete

**1.03 SECTION 07900 – JOINT SEALANTS**

**1.04 SUBMITTALS**

- A. The following Shop Drawings, Catalog Cuts, Material Samples and other data pertaining to the Work of this Section shall be submitted in accordance with Division 01–General Requirements, Section 01000.1.7 Submittals:

**1.05 GENERAL REQUIREMENTS**

- A. Steel used for fabricating frames and related components shall conform with all applicable provisions of the New York City Administrative Building Code, Section C-26-519.0 and with ASTM A-36 Standards.
- B. Metal door frames and related components shall conform to ANSI A250.8-1998 (SDI-100).

**1.06 DELIVERY / STORAGE / HANDLING**

- A. Prior to shipment, label each frame to show location, size and other pertinent information.
- B. Protect frames from rust and damage during delivery and transit to job site, and during storage at site prior to installation.

**1.07 VERIFICATION / COORDINATION OF PROJECT CONDITIONS**

- A. Contractor shall carefully verify in field all existing dimensions and other conditions related to new frame/transom installations, including widths of existing closet openings indicated to receive new frames/doors, profiles of existing metal frames/partition ends indicated to receive new slip-on frames, etc. Any discrepancies between existing field conditions and new frame/door sizes indicated on the Drawings shall be clearly marked on the Shop Drawings, together with any recommended frame modifications, for approval by the Authority prior to fabrication.

- B. Cutouts for finish hardware at new frames, including hinges and strikes, shall match similar installations at existing frames to remain. Contractor shall carefully verify in field typical existing mounting heights prior to submission of Shop Drawings and fabrication of frames.

## **PART 2.00 - PRODUCTS**

### **2.01 FABRICATION (GENERAL)**

- A. Fabricate metal door frames to be rigid, free from defects, warps, and buckle. Accurately form metal to required profiles and sizes.
- B. Prepare frames to receive mortised and concealed finish hardware, including cutouts, reinforcing, drilling and tapping.
- C. Locate cutouts for finish hardware, including hinges and strikes, to match existing installations in accordance with aforementioned requirements.
  - 1. Overall frame construction shall conform to ANSI A250.8-1998 (SDI-100).
- D. Hardware preparations and reinforcements shall conform to ANSI A250.6-1997.

### **2.02 INTERIOR HOLLOW METAL FRAMES / TRANSOM PANELS**

- A. Materials:
  - 1. Frames and frame components shall be fabricated from commercial quality hot-rolled and annealed carbon steel conforming to ASTM A366.
  - 2. Frames shall be Grade I, Standard Duty, 18 ga. (1 mm.) min., three-piece knock-down, double rabbet type intended for 1-3/8" hollow core wood doors. Frames shall be K18-Series Drywall Light-Duty Commercial type as manufactured by Steelcraft or approved equal.
  - 3. Typical frame height shall be 6'-10" nom. to accommodate 6'-8" high doors. Height and width of slip-on frames to be installed over existing frames at bathrooms/toilets shall match existing as closely as possible to accommodate approx. 2'-0" x 6'-8" doors Slip-on frames to be installed over existing metal partition ends at closet openings shall extend full-height floor to ceiling (+8'-0" – Contractor to verify in field) to accommodate 6'-8" doors and metal transom panels. Frame widths for single and double (pairs) doors shall be as indicated on the Drawings, subject to verification of existing dimensions and other conditions in accordance with aforementioned requirements.
  - 4. Frames shall be designed to be securely installed in the rough openings in typical 3-3/4" wallboard/metal stud partitions after the wallboard has been applied. Frames shall have standard profile dimensions, including 2" faces, 5/8" integral stops and 1/2" returns with double return backbends to prevent cutting into wallboard surfaces as indicated on the Drawings. Factory die-mitered corners of frames shall be reinforced with wedge lock corner clips and soffit tabs to provide a firm interlock between jambs and head. The tab/lock design shall prevent the head from raising and keep the head and jamb members in alignment and the miter tight.
  - 5. Frames shall be mortised for and provided with reinforcement for all hardware specified, including hinges and strikes. Hinge jambs shall have 10 ga. min. steel reinforcement and preparation for one pair of 3-1/2" x 3-1/2" full mortise template hinges as specified. Strike jambs shall have 14 ga. min. steel reinforcement and preparation for 2-3/4" strike. All reinforcement shall be shop welded in place, be of sufficient thickness to develop the full length of the screws used for securing the hardware and shall be tapped for all machine screws required. Adequate reinforcement shall be provided for other hardware as required. All strike cut-outs shall have steel plaster guards.
  - 6. Each jamb shall have a permanent factory-installed adjustable compression anchor located 4" from the top of the door opening to hold frames in rigid alignment after proper tightening. Frames shall also have two pre-drilled holes near the bottom of each jamb for anchoring base of frames to metal floor runners with appropriate screws.
  - 7. Frames for single doors shall be supplied with factory-installed rubber silencers, three (3) per strike jamb, located in accordance with manufacturer's recommendations. Silencers shall be 1/2" dia., 1/8" thick. Contractor has option of providing appropriate punched

openings to accommodate field applied silencers of similar size by an approved manufacturer.

8. Frames to be installed directly adjacent to existing plaster partitions, concrete columns, etc. shall have a metal spacers (ga. to match door frames) factory-welded to the appropriate jamb to provide a 1/4" wide x 1/2" deep reveal between adjacent construction as indicated on the Drawings.
  - a. At full-height slip-on frames, provide hollow-metal transom panels to be installed in the field above 6'-8" high doors. Panels shall be full-width x +1-2" high x 1-5/8" thick to match door thickness. Panels shall be factory-fabricated of 20 ga. cold-rolled sheet steel faces with a honeycomb core. Cores shall be laminated to inside faces of both panels. Panels shall be manufactured by Steelcraft or approved equal.
  - b. Where required by existing field conditions, provide channel or other sub-bucks and other special anchors, brackets, clips or fasteners for secure installation of the work of this Section or for the attachment of other work at no additional cost to the Authority.
  - c. Frames, transom panels and related components shall be cleaned, phosphatized and factory-primed on all sides with baked-on rust-inhibiting paint in accordance with ANSI A250.10 "Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames". Prime shop coat shall form a tough, non-scaling, adhering film, resistant to abrasion, moisture and humidity. Frames shall be delivered in smooth and satisfactory condition to receive finish coat of paint after erection in field.

### **PART 3 – EXECUTION**

#### **3.01 PREPARATION**

**3.02 EXISTING FRAMES (VERIFY IN FIELD): CONTRACTOR SHALL MAKE ALL NECESSARY MINOR REPAIRS AND MODIFICATIONS TO EXISTING EXPOSED METAL FRAMES INDICATED TO RECEIVE NEW DOORS (EXCLUDING EXISTING FRAMES TO RECEIVE NEW SLIP-ON FRAMES), INCLUDING FILLING IN OF SMALL HOLES AND DEPRESSIONS, REMOVAL AND BLANKING-OFF OF EXTRANEIOUS STRIKES, MODIFICATIONS TO ENSURE DOOR CLOSURES, ETC. REPAIRED AREAS SHALL BE GROUND SMOOTH AS REQUIRED AND PROPERLY PRIMED PRIOR TO REPAINTING OF FRAMES. FOR BIDDING PURPOSES, THE CONTRACTOR SHALL ASSUME 5% OF THE EXISTING FRAMES IN NEED OF SUCH REPAIRS AND REFER TO THE UNIT PRICE SCHEDULE IN THE BID FORM FOR COST ADJUSTMENTS SHOULD THE ACTUAL TOTAL FRAME QUANTITY VARY. FOR EXTENT OF REPAIR/REPLACEMENT OF EXISTING HINGES/STRIKES, REFER TO SECTION 08710 – DOOR HARDWARE. EXISTING FRAMES SHALL BE FULLY COMPATIBLE WITH NEW DOOR/HARDWARE INSTALLATION.**

#### **3.03 INSTALLATION**

- A. Frames shall be installed in accordance with SDI "Recommended Installation Instructions for Steel Frames, ANSI/DHI A115.IG "Installation Guide for Doors and Frames", and frame/stud manufacturer's installation instructions.
- B. Frames shall be installed in their proper locations securely anchored to existing/new construction so that members are not distorted. Frames shall be erected plumb and true, and shall be braced as required until there is no danger of movement. All frames shall be left in perfect working order ready to receive applied hardware and doors.
- C. Three-piece knock-down frames shall be installed in new partitions after adjacent wallboard/metal studs are in place (coordinate with framing of rough openings as specified in Section 09250 – Gypsum Wallboard System).
- D. Compression anchor at top of each jamb shall be properly tightened against adjacent metal stud with screw or power drivers to secure frames in rigid alignment. Base of each jamb shall be properly secured to adjacent metal floor runner with two screws.

- E. Where jamb frames with spacers are to be installed directly adjacent to existing solid plaster partitions, concrete columns, etc., provide treated wood blocking as required securely anchored to existing construction with appropriate fasteners to permit proper anchoring of base and tightening of adjustable anchors.
- F. Slip-on three-piece knock-down frames shall be installed over existing bathroom/toilet door frames. New frames shall be secured to existing with 1/8" pop rivets, 1'-0" o.c. max.
- G. Slip-on three-piece knock-down frames extending full-height from floor to ceiling (+8'-0") shall be installed over existing metal partition ends at closet openings. New frames shall be secured to existing metal jambs with 1/8" pop rivets, 1'-0" o.c. max. Metal transom panels shall be installed at top of opening properly secured to frame from inside of closet with appropriate angles and fasteners.
- H. Where existing conditions preclude aforementioned standard installation of frames and related components, channel or other sub-bucks and other special anchors, brackets, clips or fasteners shall be installed as required for secure installation of the work of this Section.
- I. New frames, transom panels, etc. shall receive a finish coat of paint as specified after erection (spot prime as required where shop coat has been abraded). Existing frames and hinges shall receive a finish coat of paint as specified after completion of required repairs and spot priming.
- J. Joints between perimeter of new frames (jambs and head) and adjacent wallboard, plaster, etc. shall be caulked as specified.

#### **3.04 PROTECTION**

- A. After erection of frames and related components, all work shall be protected as may be necessary to avoid damage. Any components or parts damaged in any manner shall be replaced by the Contractor at no additional cost to the Authority and such replacements shall include adjacent work that may be incidentally damaged.

**END OF SECTION 08 10 0**