

*This section includes AMBICO Anti-Barricade, Wood Door and Steel Frame Assemblies. The items are an integral part of a field-tested assembly that must be supplied by a single manufacturer. This section relies on both Canadian Steel Door Manufacturers Association (CSDMA) and the Hollow Metal Manufacturers Association (HMMA) industry standard requirements for steel frames, as well as the Window & Door Manufacturer's Association (WDMA) standards for wood doors. This section includes proprietary, descriptive and performance type specifications. Edit to avoid conflicting requirements.*

## **1. General**

### **1.1. SECTION INCLUDES**

*This article includes a summary of the content of this section which will not be included in other sections. This article is NOT intended to be used as a trade or other form of jurisdictional content.*

1. High security anti-barricade pressed steel frames.
2. Non-fire rated, anti-barricade, steel core, wood veneer doors.
3. Factory-supplied [and installed] extra heavy duty, anti-barricade continuous hinges, anti-ligature mortise lock and swing clear stop.
4. [Catalyzed lacquer, premium grade finish to WDMA I.S. 1A, [clear coat only] [stain and clear coat] [paint] [as selected].

### **1.2. RELATED SECTIONS**

*This article references other specification sections that inter-rely on this section. This listing should include those sections that describe subjects or products that affect this section directly.*

1. Section [\_\_\_\_\_ - \_\_\_\_\_]: Masonry mortar fill of metal frames.
2. Section 07 92 00 - Joint Sealing: Caulking between doors and adjacent construction.
3. Section 08 71 10 - Door Hardware - General.
4. Section 09 91 15 - Painting: Field painting of [doors] [frames] [doors and frames].

### **1.3. REFERENCES**

*When edited for a project specification, only list reference standards below that are included within the text of this section. Delete references that do not apply to this project.*

1. ASTM A653/A653M-15e1 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
2. CSDMA 08 11 00-09 Selection and Usage Guide for Steel Doors and Frames.
3. HMMA 802-07 Manufacturing of Hollow Metal Doors and Frames.
4. HMMA 862-13 Commercial Security Hollow Metal Doors and Frames
5. ANSI/WDMA I.S. 1A-2004 Industry Standard for Architectural Wood Flush Doors.
6. ANSI/ICC A117.1-2003 Standard for Accessible and Usable Buildings and Facilities
7. Forest Stewardship Council (FSC) for Chain of Custody certification.
8. NYS OMH: New York State Office of Mental Health
9. USGBC LEED v4.

**1.4. PERFORMANCE REQUIREMENTS**

Security Grading and Test Loading in conformance with New York State Office of Mental Health

**1.5. REGULATORY REQUIREMENTS**

1. Installed Door and Frame Assembly: Conform to ANSI/ICC A117.1
2. New York State Office of Mental Health “Patient Safety Standards, Materials and Systems Guidelines”
3. USGBC LEED v4.

**1.6. SUBMITTALS.**

1. Section [01 33 00]: Submission procedures.
2. Shop Drawings: Indicate door and frame elevations, anchor types and closure methods, [finishes] location of cut-outs for hardware.
3. Samples: Submit manufacturer's door finish samples, showing range of colour variation, manufacturer's frame corner sample.
4. Installation Instructions: Submit manufacturer's installation instructions.

*Include the following ONLY if specifying for a LEED project. Specify only the technical requirements necessary to achieve the credits desired for this project. The Type 3 EPD are normally required for LEED v4 certification. AMBICO products offer significant advantages to firms interested in supporting LEED certification. In particular, AMBICO products comply with both LEED for Healthcare.*

5. Sustainable Design:
  - .1 Section 01 35 18: LEED documentation procedures.
  - .2 Provide required LEED documentation for Product.
  - .3 Submit Type 3 Environmental Product Declaration (EPD) for Products of this Section.
  - .4 Submit Chain-of-Custody Certificates certifying that doors [and frames] comply with FSC certification requirements.
  - .5 Manufacturer's Certificate: Certify that Products meet or exceed [specified requirements].

**1.7. QUALITY ASSURANCE**

1. Perform work to requirements of [CSDMA (Canadian Steel Door Manufacturers Association)] [HMMA (Hollow Metal Manufacturers Association)] [WDMA (Wood Door Manufacturers Association)] standards.
2. Provide products of this section from a single manufacturer unless components are referenced specifically in other sections.

3. Manufacturer: Minimum 5 years documented experience manufacturing wood veneer\steel core door and frame assemblies.

**1.8. DELIVERY, STORAGE AND PROTECTION**

1. Section [01 61 00]: Transport, handle, store, and protect products.
2. Comply with WDMA I.S. 1A for wood doors.
3. Comply with HMMA 840 for steel frames.
4. Weld minimum two temporary jamb spreaders per frame prior to shipment.
5. Remove frames from wrappings or coverings upon receipt on site and inspect for damage. Leave doors covered for protection until hung.
6. Store doors in horizontal position, frames in vertical position, spaced with blocking to permit air circulation between components.
7. Store materials out of water and covered to protect from damage. Use covering that allows air circulation and does not permit light to penetrate.
8. Store doors between 50 to 90 degrees F (10 to 32 degrees C) and 25 to 55 percent relative humidity.
9. Clean and touch up scratches or disfigurement to metal surfaces on frame or wood surfaces on door.

**1.9. WARRANTY**

1. Manufacturer's Limited Warranty: Five (5) years from date of supply, covering material and workmanship.

**2. Products**

**2.1. MANUFACTURERS**

*List the manufacturers acceptable for this project. Edit the subsequent descriptive specifications of Part 2, to identify project requirements and to eliminate any conflict with specified manufacturer's products.*

1. AMBICO Limited  
 1120 Cummings Avenue  
 Ottawa, Ontario, Canada K1J 7R8  
 Toll Free Phone       888-423-2224  
 Phone                   613-746-4663  
 Toll Free Fax         800-465-8561  
 Fax                     613-746-4721
2. Other Acceptable Manufacturers:
  1. [\_\_\_\_\_].
  2. [\_\_\_\_\_].
3. Substitutions: [Refer to Section 01 60 00.] [Not permitted.]

**2.2. MATERIALS.**

1. Sheet Steel:

2. Galvanized steel to ASTM A653/A653M, ZF180, ZF75. Recycled Content: Minimum [\_\_\_\_] %.
3. Reinforcement [Channel]: To CSA G40.20/G40.21, coating designation to ASTM A653/A653M, [ZF75] ([A25]).
4. Wood Door Panel: security steel core with [wood veneer] [plastic laminate] facing.
  1. Door Facing:
    1. Wood Face Veneer: [\_\_\_\_\_] species, [\_\_\_\_\_] cut; minimum thickness before sanding 0.6 mm (1/4 inch).

**[OR]**
    2. Plastic Laminate: to be selected from manufacturers standard colors and patterns
  2. Door Edging:
    1. Where door face is [wood face] [plastic laminate] veneer, door edges shall be supplied with matching hardwood stiles and hardwood rails

### **2.3. ACCESSORIES**

1. Hinges: Extra heavy weight, anti-barricade continuous type to be factory supplied [and pre-installed].
2. Heavy weight mortise lock to be factory supplied [and pre-installed].
3. Swing clear stop to be factory supplied [and pre-installed].
4. Primer: Rust inhibitive zinc phosphate on frames.

### **2.4 FABRICATION**

1. Manufacture wood door and steel frame assemblies to Performance Standards as noted in paragraph number 1.4
2. Wood Doors:
  1. Fabricate doors to ANSI/WDMA IS1A. Provide suitable thickness, design, and core to achieve specified performance ratings.
  2. Door cores are to be proprietary, security steel fully concealed by door face veneers as well as wood stiles and rails.
  3. Reinforce doors where surface-mounted hardware is required.
  4. Drill and tap for mortised, templated hardware.
3. Steel Frames:
  1. Sheet steel, metal thickness and appropriate to maintain Performance Requirements of assembly making use of mitered corners, fully welded seams.
  2. Factory assemble and weld frames.
4. Affix permanent labels to door and frame, indicating manufacturer's name and NYS OMH approval.

**2.5. PRE-INSTALLATION OF SWINGING DOOR HARDWARE**

1. Hinges, lock and swing clear stop to be supplied complete with door and frame in conformance with anti-barricade and security requirements of project.

**2.6. FINISHES**

*This article may require a more elaborate identification of expected finishes. Edit the following paragraphs for special finishes other than those for galvanized steel frames. Wood doors may be factory finished, or may be supplied unfinished by the factory and finished in the field by others.*

1. Metal Frame Finish: factory applied zinc phosphate primer.
2. Factory Door Finish: Catalyzed lacquer, premium grade finish to WDMA I.S. 1A, [clearcoat only] [stain and clear coat] [paint] [as selected].
3. Top and Bottom Rails: Factory sealed with wood sealer.

**3. Execution****3.1. INSTALLATION**

1. Install components to manufacturer's written instructions.
2. Install wood doors and frames to ANSI/WDMA IS 1A standards.
3. Coordinate with [masonry] [gypsum board] wall construction for anchor placement.
4. Set frames plumb, square, level and at correct elevation.
5. Allow for deflection to ensure that structural loads are not transmitted to frame.
6. Adjust operable parts for correct clearances and function.
7. [Finish paint in accordance with Section 09 91 15.]
8. Touch up finishes where damaged

**3.2. ERECTION TOLERANCES**

1. Section 01 73 00: Tolerances.
2. Installation tolerances of installed frame for squareness, alignment, twist and plumbness are to be no more than  $\pm 1/16$ in (1.5mm).

**3.3. FIELD QUALITY CONTROL**

1. Provide qualified manufacturer's representative to instruct installers on the proper installation and adjustment of door assemblies.
2. Provide manufacturer's representative to inspect door installation, and test minimum five (5) cycles of operation. Correct any deficient door and frame assemblies.

**END OF SECTION**