

**Division 8**  
Doors & Windows



**SECTION 08110 - STEEL DOORS AND FRAMES****PART 1 - GENERAL****1.1 SUMMARY**

- A. Provide steel doors and frames.

**1.2 SUBMITTALS**

- A. **Product Data:** Submit manufacturer's product data and installation instructions for each material and product used.
- B. **Shop Drawings:** Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

**1.3 QUALITY ASSURANCE**

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. **Standards:** ANSI/SDI-100, Recommended Specifications for Standard Steel Doors and Frames. Standards: ANSI/SDI-100
- C. **Performance Standards:**
  - 1. **Fire-Rated Assemblies:** NFPA 80, and acceptable testing agency listing.
  - 2. **Thermal-Rated Assemblies at Exterior:** ASTM C 236 or ASTM C 976.

**PART 2 - PRODUCTS****2.1 MATERIALS**

- A. **Manufacturers:** Amweld Building Products, Ceco Door Products, Curries Co., Mesker Door, Steelcraft Manufacturing, or approved equal.
- B. **Steel Doors:**
  - 1. **Door Type:** Standard steel doors with hollow or composite construction.
  - 2. **Interior Doors:** ANSI/SDI-100, Grade II, heavy-duty, minimum 18 gauge (.0358 inch) cold-rolled steel, 1-3/4 inches thick.

3. Exterior Doors: ANSI/SDI-100, Grade III, extra-heavy-duty, minimum 16 gauge (.0598 inch) galvanized sheet steel, 1-3/4 inches thick.
- C. Steel Frames:
1. Exterior Frames:
    - a. Material: Galvanized sheet steel.
    - b. Type: Welded.
    - c. Thickness: 16 gauge (.0358 inch).
  2. Accessories:
    - a. Door silencers.
  3. Finish: Factory primed and field painted.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Fabricate work to be rigid, neat and free from seams, defects, dents, warp, buckle, and exposed fasteners. Install doors and frames in compliance with SDI-100, NFPA 80, and requirements of authorities having jurisdiction.
- B. Provide thermally improved doors with maximum U-value of 0.24 BTU/hr./sq. ft. degree F (ASTM C 236) for all exterior doors and elsewhere as noted.
- C. Provide acoustically improved doors with minimum STC of 33 (ASTM E 90 and ASTM E 413) where indicated.
- D. Hardware: Prepare doors and frames to receive hardware on final schedule. Provide for 3 silencers on single doorframes; 2 on double doorframes.
- E. Shop Finish: Clean, treat and prime paint all work with rust-inhibiting primer comparable with finish paint specified in Division 9 section. Provide asphalt emulsion sound deadening coating on concealed frame interiors.
- F. Touch-up damaged coatings ready to receive finish painting.

END OF SECTION

SECTION 08255 - PREASSEMBLED WOOD & FIBERGLASS DOOR AND FRAME UNITS

PART 1 - GENERAL

1.1 SUMMARY

A. Related sections:

1. Section 06200: Finish Carpentry
2. Section 08700: Builders Hardware
3. Section 09260: Gypsum Board Systems
4. Section 09900: Painting

1.2 REFERENCES

A. Standards of the following as referenced:

1. National Wood Window and Door Association (NWWDA)
2. Warnok Hersey (WH)

B. Industry Standards:

1. NWWDA: Industry Standard I.S. Series
2. WH: 1995 Certification Listings.

1.3 SUBMITTALS

- A. Shop Drawings: Indicate door sizes, construction, hardware locations, door unit locations, and trim.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Storage and Handling: Store door units in space having controlled humidity. Stack door units upright, off floor. Cover with breathable waterproof cover.

PART 2 - PRODUCTS

2.1 COMPONENTS

A. Interior Doors:

1. Interior hollow core type:

- a. Hollow core masonite doors.
  - b. Faces: 6 panel.
  - c. Thickness: 1-3/8"
  - d. Texture: Smooth
  - e. Sizes: Indicated
2. Louvered Units:
- a. Acceptable manufacturer: Prestige Door Inc.
  - b. Type PD300L
  - c. Door texture: Smooth
  - d. Sizes: Indicated
- B. Exterior Entry Door:
1. Fiberglass Solid Core Type:
- a. Faces: Infinity II fiberglass Barnett Millworks, Inc. or approved equivalent- 3 panel.
  - b. Aluminum sill with vinyl adjustable threshold, set in full bed of sealant.
  - c. Weatherstripping
  - d. Fiberglass stiles
  - e. Engineered polymer rails
  - f. Polyurethane core
- C. Frames:
- 1. Split frame type paint grade.
  - 2. Bi-fold units: Pine or fir head and jambs cased opening, paint grade.
- D. Trim: White pine finger jointed trim, both sides; mitered at joints indicated style.
- E. Hardware and accessories:
1. Swinging door hinges:
- a. Type: Fabricator's standard 3-1/2" by 3-1/2" round corner mortise type hinges with removable pin; brass plated; similar to Stanley Works RD741.
  - b. Three hinges per door unit.
2. Wood bi-fold doors: Stanley Works #V2917 for two door and four door sets; include track, pivots, aligners, guides, surface mount hinges, nubbers, and knobs.
- F. Finish: Prime and paint (two coats).

2.2 FABRICATION

## A. Shop Assembly:

1. Fabricate door units in shop in accordance with reviewed shop drawings for sizes and locations indicated.
2. Machine doors for hardware using templates furnished by hardware manufacturer, as applicable.
3. Swinging Doors:
  - a. Door: Bore for latchset 35-1/2" from door bottom; backset in accordance with requirements of Door Hardware Section; mortise hinges.
  - b. Frame: Bore for latchset strike and full mortise hinges.
  - c. Assemble units complete with door, frame, and specified trim; use spacers, fasteners, and bracing for shipping.
4. Bi-fold Doors: Assemble units with surface mounted hinges; predrill for pulls and guides. Pack for shipping.

## PART 3 - EXECUTION

## 3.1 EXAMINATION

- A. Verification of conditions: Verify rough openings are sized within tolerances.

## 3.2 INSTALLATION

## A. General:

1. Install doors in accordance with reviewed shop drawings and manufacturer's product data and as indicated below if items below do not conflict with reviewed manufacturer's installation data.
2. Maintain uniform height to top of trim for doors; align with window head.
3. Shim full at fasteners to rough opening.
4. Adjust components for smooth and quiet operation.

## B. Swing Interior Door:

1. Set leaf portion in opening; level and plumb; fasten through trim to rough opening with sized finishing nails as follows.
2. Hinge jamb portion: One nail at each hinge; one at base; one between hinges if only two hinges are specified.
3. Strike jamb: One nail at strike plate and three others equally spaced.
4. Align and plumb door strike jamb and level head to maintain same space as hinge jamb.
5. Shim full, space at each hinge and door strike.
6. Set second part of split frame tight to wall; provide same numbers nails in second part of split frame.

7. Nail through stop at each hinge, door strike, and at approximately same height as top and bottom hinges on door strike jamb to jacks.
  8. Subsurface set nails.
- C. Locksets or Latchsets: Specified in Door Hardware Section.
  - D. Install bi-fold units complete in openings with furnished hardware; align, plumb, and level; check for correct operation.
  - E. Replace or rehang binding or sagging doors and doors with improper machining or cutouts visible in finished work.
  - F. Clean soil, smudge marks, and handling defects from doors. Replace doors not able to be cleaned.
  - G. Doors, frames, and trim finish: Specified in Paints Section.

END OF SECTION 08255

## SECTION 08262 - SLIDING WOOD DOORS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Provide wood sliding glass doors for exterior exposure.

## 1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

## 1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

## PART 2 - PRODUCTS

## 2.1 MATERIALS

- A. Manufacturers: Caradco, Kolbe & Kolbe Millwork, Marvin Windows, Pella, Weather Shield Mfg., Inc. or approved equal.
- B. Wood Sliding Glass Doors:
  - 1. Frame and Panels: Kiln-dried fine-grained lumber.
  - 2. Type: Aluminum-clad wood, Weather Shield.
  - 3. Performance Class and Grade: AAMA/NWWDA 101/I.S.2 - Residential - 20.
  - 4. Glazing Color: Tinted glass.
  - 5. Aluminum Cladding Finish: Baked enamel.
  - 6. Interior Wood Finish: Natural for site finish.
  - 7. Glazing: Large missile impact, laminated glass.
  - 8. Wind Load: 140 mph.
- C. Auxiliary Materials:

1. Insect screens.
2. Locks, door pulls, and roller assemblies.
3. Compression and sliding weatherstripping.
4. Aluminum or non-magnetic stainless steel fasteners.

D. Product:

1. Weather Shield window and patio doors.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections. Install assemblies complete with all hardware, anchors, inserts, supports and accessories. Test and adjust operation.
- B. Restore damaged finishes and test for proper operation. Clean and protect work from damage.

END OF SECTION

SECTION 08333 - OVERHEAD COILING DOORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide overhead coiling doors.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Manufacturers: Cookson Co., Cornell Iron Works, Overhead Door Corp., Wayne Dalton, or approved equal.
- B. Overhead Coiling Doors:
  - 1. Type: Insulated standard service door, exterior use.
  - 2. Door Curtain: Aluminum.
  - 3. Slat Profile: Flat-face slats.
  - 4. Operation: Electric door operator.
  - 5. Mounting: Face of wall.
  - 6. Aluminum Finish: Polyester powder coating, color selected by Architect.
  - 7. Model: Overhead Door Corp., #620 Stormtite.
- C. Auxiliary Materials:
  - 1. Provision for padlocking.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Install assemblies complete with all hardware, anchors, inserts, supports and accessories. Test and adjust operation.
- C. Install fire-rated doors to comply with NFPA 80.
- D. Provide weatherstripping and windlocks for doors installed in exterior walls.
- E. Restore damaged finishes and test for proper operation. Clean and protect work from damage.

END OF SECTION

## SECTION 08550 - WOOD WINDOWS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Provide wood windows.

#### 1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
- D. Warranty: Submit manufacturer's standard warranty. Include labor and materials to repair or replace defective materials.
  - 1. Warranty Period: 5 years.
- E. Maintenance Data: Submit manufacturer's maintenance data, including maintenance schedule.

#### 1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship.
- C. Performance: Comply with AAMA/NWWDA 101/I.S.2 for performance class and grade of window required.
  - 1. Residential: Grade 20.

### PART 2 - PRODUCTS

2.1 MATERIALS

- A. Manufacturers: Andersen Windows, Caradco, Malta Wood Windows & Doors, Marvin Windows & Doors, Pella, Weather Shield, or approved equal.
- B. Wood Windows:
  - 1. Wood Window Members: Kiln-dried clear ponderosa pine or suitable fine-grain lumber.
  - 2. Anchors, Clips, and Window Accessories: Aluminum, nonmagnetic stainless steel, or galvanized steel.
  - 3. Window Type: Aluminum-clad wood windows, Weather Shield.
  - 4. Window Operation: Casement windows.
  - 5. Window Operation: Fixed windows.
  - 6. Glazing: Large missile impact, laminated glass.
  - 7. Glazing Color: Tinted glass.
  - 8. Glazing Pattern: Single pane per sash with snap on trim.
  - 9. Aluminum Cladding: Formed or extruded aluminum cladding mechanically bonded to sash and frame with baked enamel finish.
  - 10. Interior Wood Finish: Natural finish for site finish.
  - 11. Wind Load: 140 mph.
- C. Auxiliary Materials:
  - 1. Operating hardware.
  - 2. Insect screening.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Restore damaged finishes and test for proper operation. Clean and protect work from damage.

END OF SECTION

SECTION 08710 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide door hardware.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.
- C. Submit for approval hardware schedule proposed for use based on Owner's requirements.

1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Hardware for Fire-Rated Openings: NFPA 80, and local requirements.
- C. Materials and Application: ANSI A156 series standards.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Manufacturers: Corbin Russwin Architectural Hardware, Sargent Manufacturing, Schlage Lock Co., Yale Locks and Hardware, or approved equal.
- B. Door Hardware:
  - 1. Quality Level: Light/Medium commercial, multi-housing.
  - 2. Locksets and Latchsets: Cylinder type.
  - 3. Keying: Owner's requirements.

4. Hinges and Butts: Full-mortise type with nonremovable pins at exterior doors.
5. Closers, Door Control, and Exit Devices: High frequency.
6. Push/Pull Units: Through-bolted type.
7. Hardware Finishes: Satin stainless and satin chrome finish on exposed surfaces.
8. Lever Style: FLAIR.
9. Model: Schlage S-series.

C. Auxiliary Materials:

1. Door Trim Units: Kickplates, edge trim, viewers, knockers, and mail drops. and related trim.
2. Interior sliding door hardware.
3. Interior bifold door hardware.
4. Interior pocket door hardware.
5. Weatherstripping and thresholds.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Follow guidelines of DHI "Recommended Locations for Builder's Hardware and hardware manufacturers' instructions.
- B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- C. Adjust operation, clean and protect.

END OF SECTION

## SECTION 08800 - GLAZING

## PART 1 - GENERAL

## 1.1 SUMMARY

## A. Provide glass and glazing for the following:

1. Wood windows.
2. Storefront.
3. Mirrors.

## 1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.
- B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.
- C. Warranty: Submit manufacturer's standard warranty. Include labor and materials to repair or replace defective materials.
  1. Laminated Glass: Manufacturer's 5-year warranty.
  2. Insulating Glass: Manufacturer's 10-year warranty.
  3. Mirror Glass: Manufacturer's 5-year warranty.

## 1.3 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Glazing for Fire-Rated [Door][Window] Assemblies: Glazing for assemblies that comply with NFPA 80
- C. Safety Glazing Products: Comply with testing requirements in 16 CFR 1201[ and, for wired glass, ANSI Z97.1].
- D. Glazing Publications:
  1. GANA Publications: [GANA Laminated Division's "Laminated Glass Design Guide" and ] GANA's "Glazing Manual."

- E. Mock-Ups: Provide mock-up as required to demonstrate quality of workmanship.
  - 1. Each type of glazing.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Manufacturers: AFG Industries, Cardinal IG, Libby Owens Ford, Viracon, or approved equal.
- B. Glass:
  - 1. Heat-Treated Glass Products: Heat-strengthened, tempered, coated, and spandrel glass, ASTM C 1048.
  - 2. Laminated Glass Units: Polyvinyl butyral interlayer. ASTM 588-85 glazing impact test complying with FBC2001 edition, SSTD 12-97 published by SBCCI and Metro Dade County Protocol PA201 and PA203.
  - 3. Fire Rated Units:
    - a. Film-faced ceramic.
  - 4. Mirrors: ASTM C 1503, Mirror Select Quality.
- C. Glazing Accessories:
  - 1. Dense and Soft Compression Gaskets: Neoprene, EPDM, and Silicone.
  - 2. Mirror adhesive, top and bottom angles and clips.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Inspect framing and report unsatisfactory conditions in writing.
- B. Comply with GANA "Glazing Manual" and manufacturers instructions and recommendations. Use manufacturer's recommended spacers, blocks, primers, sealers, gaskets and accessories.
- C. Install glass with uniformity of pattern, draw, bow and roller marks.
- D. Install sealants to provide complete wetting and bond and to create a substantial wash away from glass.
- E. Set mirrors on stainless steel clips and adhere to wall with mirror adhesive.

- F. Remove and replace damaged glass and glazing. Wash, polish and protect all glass supplied under this section.

### 3.2 SCHEDULE

#### A. Glazing Schedule:

1. Exterior Wood Clad Doors & Windows: Large missile impact, laminated glass, Dade County approved.
2. Mirrors: 1/4 inch tempered plate glass.

END OF SECTION