United Window & Door - Series 4500
New Construction/Replacement Patio
Door Specifications

Part 1 GENERAL

1.1 INCLUSIONS

1. All sliding doors as called for in this specification will be furnished with all necessary hardware and parts as herein specified and shall be manufactured by United Window and Door Manufacturing, Inc.

1.2 RELATED SECTIONS

As required

1.3 QUALITY ASSURANCE

A. General.
   1. Provide independent third party notice of product certification showing products to be in full compliance with AAMA/WDMA/CSA 101/I.S.2/A440-05 and ANSI/AAMA/WDMA 101/I.S.2/NAFS-02.and the following:
      a. Sliding Door to be United Series 4500 SGD-R50 72" x 80".

B. Test Units.
   1. Perform all tests listed in accordance with AAMA/WDMA/CSA 101/ I.S.2/A440-05 and others.

C. Test Procedures.
   1. Air Infiltration Test- With the door in the closed and locked position test in accordance to ASTM E 283 at a static pressure of 1.56 psf (25 mph). Air infiltration shall not exceed maximum of .18 cfm per square foot of frame area.
   2. Water Resistance Test- With the door in the closed and locked position test in accordance with ASTM E 547 at the static pressure of 5.25 psf. There shall be no uncontrolled water leakage as defined in ASTM E 547.
   3. Uniform Load Test- with the door in a closed and locked position test in accordance to ASTM E 330. When tested in positive and negative loads there shall be no glass breakage, permanent damage to fasteners, hardware, or any other parts that would render the window inoperable.

1.4 REFRENCES

A. American Society of Testing Materials (ASTM):
   1. ASTM C 509-94 Specification for Elastomeric Cellular Preformed Gasket and Sealing Material.
   2. ASTM B 633-85 Specification for Electrodeposited Coatings of Zinc on Iron or Steel.
   3. ASTM B 766-86 Specifications for Electrodeposited Coatings on Cadmium.
   4. ASTM C 1048-92 Specifications for Heat- Treated Flat Glass.
   5. ASTM E 774-92 Specification for Sealed Insulated Glass Units.

B. American Architectural Manufacturers Association (AAMA):
   1. AAMA 701-92 Voluntary Specification for Pile Weather-Stripping.
   2. AAMA 800-92 Voluntary Specification and Test methods for Sealants.
   3. AAMA 906.3-87 Voluntary Specification for Sliding Glass Door Roller Assemblies.

1.5 SUBMITTALS

A. Shop Drawings: Submit shop drawings as required.
B. Product Data: submit product data as required.
C. Product Samples: submit product samples as required.
   1. Submit full door include glazing system, quality of construction and specified finish.
D. Quality Control:
   1. Certification: submit performance test results reported by independent laboratory or manufacturer's statement of qualification indicating compliance with specified performance and design requirements.

1.6 DELIVERY, STORAGE AND HANDLING

A. Comply with provisions of job specification.
B. Store units upright in a clean, well ventilated area free of dust and corrosive fumes. Doors must not be stored above 120 degrees F.
C. Doors may not be stored in direct sunlight or covered with plastic sheet.
D. Protect finish surfaces from lime, mortar run-off, weld splatter, acids, roofing tar, solvents or other items that could cause damage to the finish.

1.7 WARRANTY

A. The installer shall assume full responsibility that the installation is in accordance with the specifications, contract document and United Window & Door specifications.
B. Manufacturer's Warranty: furnish United Window & Door Lifetime Limited Warranty.

Part 2 PRODUCTS

2.1 MATERIALS

A. The vinyl extrusions will be AAMA certified.

B. All vinyl extrusions will be free of defects impairing strength or durability.

2.2 COMPONENTS

A. Mainframe and sash:
1. Mainframe will have a nominal exterior wall thickness of .075".
2. Sashes will have a nominal exterior wall thickness of .075".

B. Weather Stripping:
1. Weather stripping and compression seals must be of high quality, proven to be capable of meeting or exceeding the environmental exposure and performance requirements of the application.
2. Woolpile and finseal weather stripping shall conform to AAMA 702-92.

C. Fasteners:
1. All screws and other fastening devices incorporated shall be of aluminum, stainless steel, or other non corrosive material compatible with the vinyl extrusions. Cadmium or zinc plated steel shall be in accordance with ASTM B 766-86 or ASTM B 633-85. Nickel or chrome plated shall be in accordance with ASTM B 456-94 type SC.

D. Insect Screens:
1. Insect screen frames will be of aluminum roll formed box shape, for strength and durability, and be manufactured in accordance to United Window and Door approved design. Insect screen frames will be color matched to the door color. The screens will incorporate fiberglass screen cloth of 18 x 16 mesh held in the frame by vinyl screen spline. The rollers will be adjustable to optimize ease of operation.

E. Glass and glazing materials
1. Insulated glass:
   a. The assembled insulated glass unit shall be 1" thickness, tempered glass, high performance. The assembly will conform to ASTM E 774-92, level A.
   b. Tempered glass will conform to ASTM C 1048-92.
   c. Annealed glass will conform to ASTM C 1036-91.
2. Glazing Materials:
   a. The insulated glass unit will be secured to the vinyl sash or frame by a silicone ductile bedding compound.

F. Hardware
1. Hardware having component parts which are exposed will be aluminum, stainless steel or other non-corrosive material compatible with the vinyl extrusions. Cadmium or zinc plated steel shall be in accordance with ASTM B 766-86 or ASTM B 633-85. Nickel or chrome plated shall be in accordance with ASTM B 456-94 type SC.

G. Sash Roller Assemblies
1. Sash roller assemblies will conform to AAMA 906.3. Sash roller assemblies shall be designed to provide easy movement and to support panel during extended usage. The operating force of the primary sash will be in accordance with ANSI/AAMA/WDMA/ 101/I.S.2/NAFS-02 and have operating force of 18 lbs or less.

H. Door Locks
1. Locks shall provide reasonable security against forced entry and shall be readily accessible for service.
2. When in locked position shall conform to ASTM F 842-83 Test Method for Measurement of Forced Entry Resistance of Horizontal Sliding Door Assemblies.

Part 3 EXECUTION

3.1 EXAMINATION

A. Verification of conditions
1. Before installation verify all openings are plumb, square and of proper dimensions. Report frame defects or unsuitable conditions to the general contractor before proceeding.

B. Acceptance
1. Beginning of installation means acceptance of existing conditions.

3.2 INSTALLATION

A. The doors will be secured to the rough opening in accordance with manufacturer's instructions and/or accepted industry practice.
1. All doors will be installed level and plumb.
2. A permanent weather tight seal must be applied between the door flange and the building exterior wall at the time of installation.
3. The door is to be secured to the opening with 1 ½" or longer fasteners through every other pre-punched hole in the nailing flange.

B. Install sealant and related backing materials at perimeter of assembly in accordance to Section 07900 Joint Sealers. Do not use foam sealant.

3.3 ADJUSTING AND CLEANING

A. Adjust operable sash to work freely with all hardware functioning properly. Readjust at completion of project if directed to do so.

B. Remove all visible labels except permanent identification, warning, or instructional labels.

C. Leave windows in a wiped clean condition.

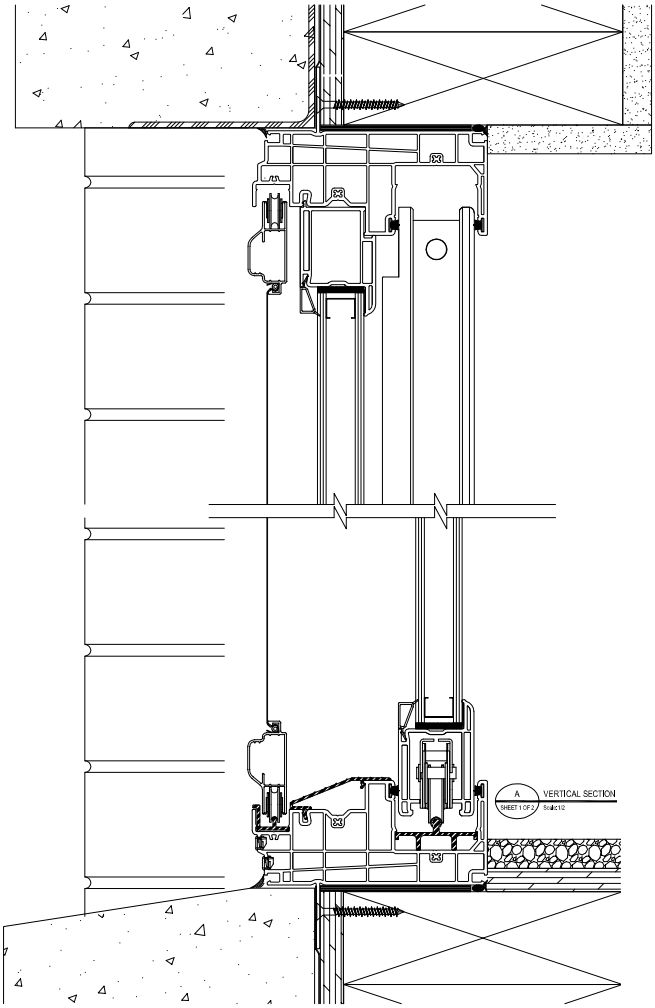
3.4 PROTECTION

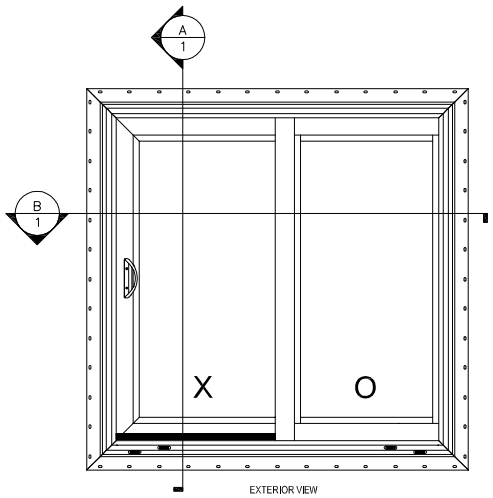
A. Cover doors during spray painting or other construction operations that might cause damage.

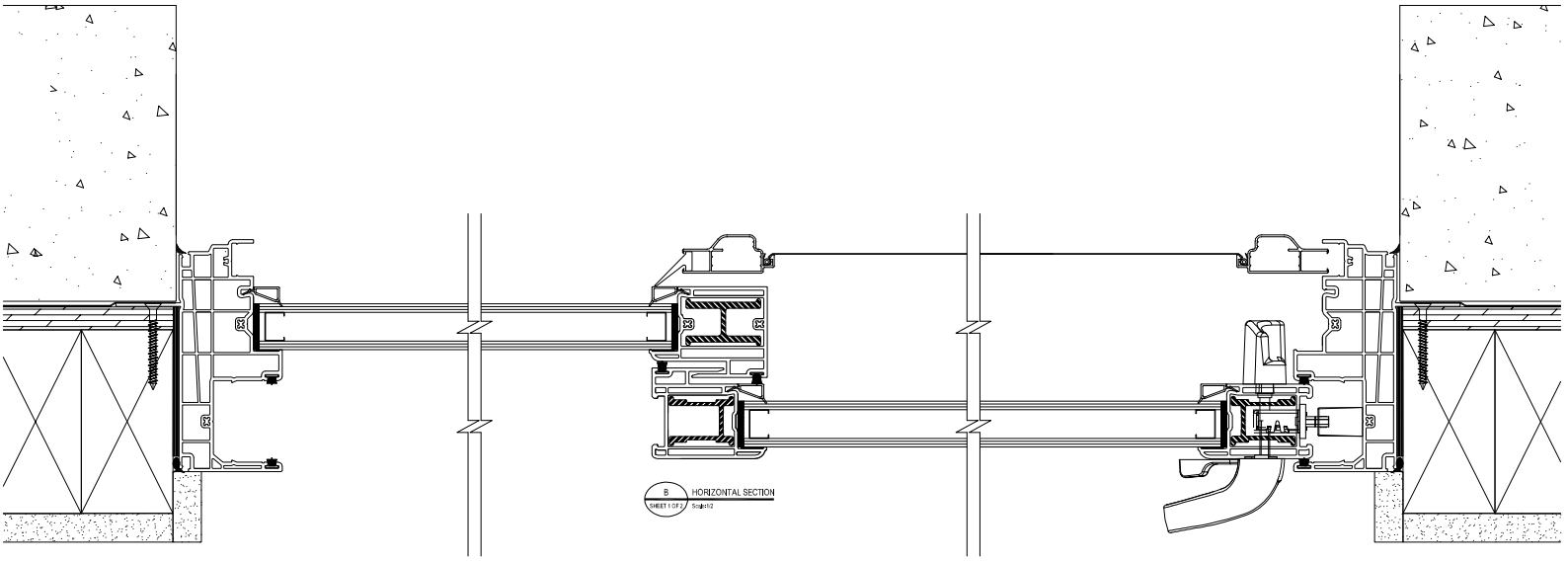
B. Remove screens and store them in a safe area during construction.

Series 4500
New Construction Patio Door
Cross Section Details

2x4 or 2x6 Frame Construction with Brick Exterior







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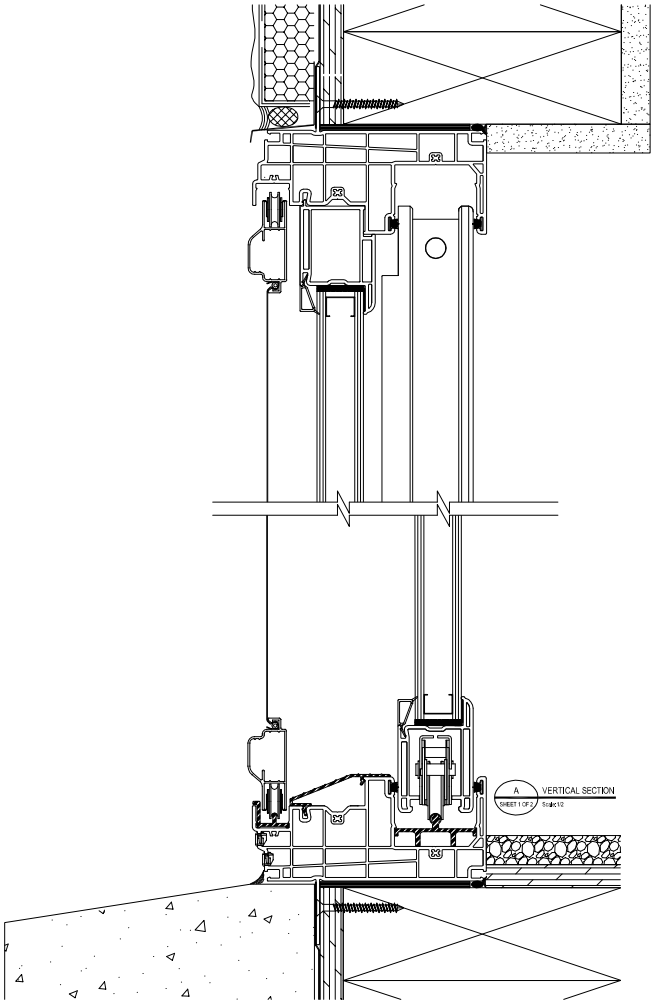
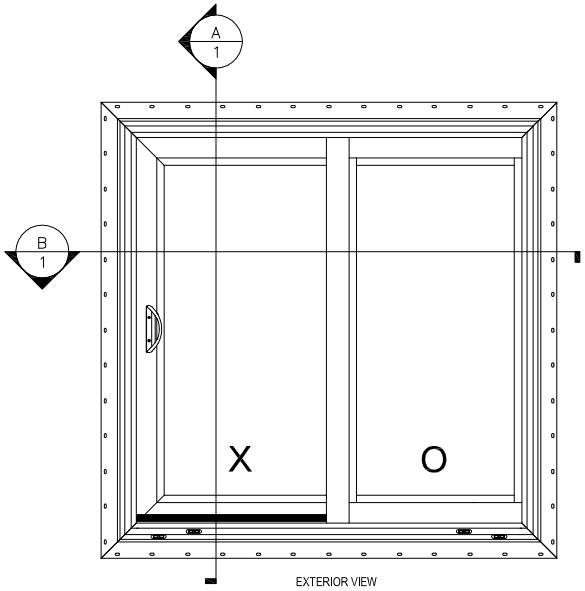
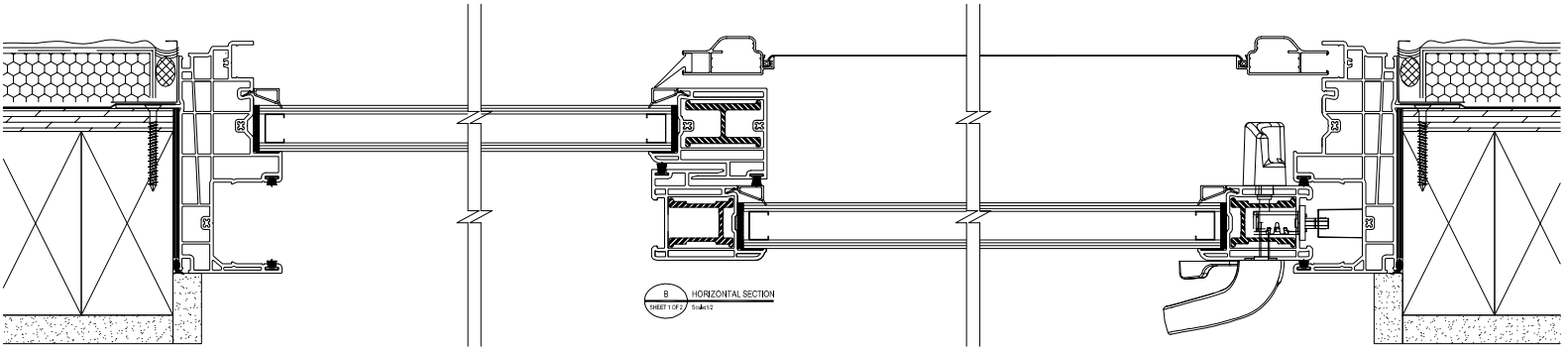
Cross Section Details

2x4 or 2x6 Frame Construction with Stucco Exterior







Series 4500
New Construction Patio Door
Cross Section Details

2x4 or 2x6 Frame Construction with Siding Exterior