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USACE / NAVFAC / AFCEC UFGS-08 14 00 (August 2016)  
Change 1 - 08/18  
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Preparing Activity: NAVFAC Superseding  
UFGS-08 14 00 (August 2016)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated April 2025

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wood doors

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SECTION 08 14 00

WOOD DOORS

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NOTE: This guide specification covers requirements  
for wood doors.

Adhere to UFC 1-300-02 Unified Facilities Guide  
Specifications (UFGS) Format Standard when editing  
this guide specification or preparing new project  
specification sections. Edit this guide  
specification for project specific requirements by  
adding, deleting, or revising text. For bracketed  
items, choose applicable item(s) or insert  
appropriate information.

Remove information and requirements not required in  
respective project, whether or not brackets are  
present.

Comments, suggestions and recommended changes for  
this guide specification are welcome and should be  
submitted as a Criteria Change Request (CCR).

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NOTE: On the drawings, show:

1. Locations
2. Sizes, types, thicknesses, glazing, and louvers
3. Designs
4. Fire rating requirements
5. Color
6. Door swing
7. Sound transmission class.

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PART 1 GENERAL

1.1 REFERENCES

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NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a Reference Identifier (RID) outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.

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The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN FOREST FOUNDATION (AFF)

ATFS STANDARDS (2021) American Tree Farm System Standards of Sustainability

ASTM INTERNATIONAL (ASTM)

ASTM E90 (2023) Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements

ASTM E2226 (ASTM E2226) Standard Practice for Application of Hose Stream

CALIFORNIA AIR RESOURCES BOARD (CARB)

CARB 93120 (2007) Airborne Toxic Control Measure (ATCM) to Reduce Formaldehyde Emissions from Composite Wood Products

CSA GROUP (CSA)

CSA Z809-16 (R2021) Sustainable Forest Management

FOREST STEWARDSHIP COUNCIL (FSC)

FSC STD 01 001 (2015) Principles and Criteria for Forest Stewardship

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

ANSI/NEMA LD 3 (2005) Standard for High-Pressure  
Decorative Laminates

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 80 (2025) Standard for Fire Doors and Other  
Opening Protectives

NFPA 105 (2025) Standard for Smoke Door Assemblies  
and Other Opening Protectives

NFPA 252 (2022) Standard Methods of Fire Tests of  
Door Assemblies

PROGRAMME FOR ENDORSEMENT OF FOREST CERTIFICATION (PEFC)

PEFC ST 2002:2013 (2015) PEFC International Standard Chain  
of Custody of Forest Based Products  
Requirements

SUSTAINABLE FOREST INITIATIVE (SFI)

SFI 22 (2022) Standards and Rules for Forest  
Management, Fiber Sourcing, Chain of  
Custody, and Certified Sourcing

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

40 CFR 770 Formaldehyde Standards for Composite Wood  
Products

UL SOLUTIONS (UL)

UL 10B (2008; Reprint Oct 2024) Fire Tests of  
Door Assemblies

WINDOW AND DOOR MANUFACTURERS ASSOCIATION (WDMA)

ANSI/WDMA I.S.1A (2013) Interior Architectural Wood Flush  
Doors

ANSI/WDMA I.S.6A (2013) Interior Architectural Stile and  
Rail Doors

WOODWORK INSTITUTE (WI)

NAAWS 4.0 (2021 Errata Edition) North American  
Architectural Woodwork Standards

REPUBLIC OF KOREA (ROK) LAW

NIFoS Notification 2025-3 (24 October 2025) Standards for Quality  
and Specification of Wood Products, Korea  
National Institute of Forest Science  
Notification No. 2025-3

## 1.2 SUBMITTALS

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NOTE: Review Submittal Description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list, and corresponding submittal items in the text, to reflect only the submittals required for the project. The Guide Specification technical editors have classified those items that require Government approval, due to their complexity or criticality, with a "G." Generally, other submittal items can be reviewed by the Contractor's Quality Control System. Only add a "G" to an item if the submittal is sufficiently important or complex in context of the project.

For Army projects, fill in the empty brackets following the "G" classification, with a code of up to three characters to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy and Air Force projects.

The "S" classification indicates submittals required as proof of compliance for sustainability Guiding Principles Validation or Third Party Certification and as described in Section 01 33 00 SUBMITTAL PROCEDURES.

Choose the first bracketed item for Navy and Air Force projects, or choose the second bracketed item for Army projects.

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Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

### SD-02 Shop Drawings

Doors; G

Submit drawings or catalog data showing each type of door unit . Indicate within drawings and data the door types and construction, sizes, thickness, [door louvers,] and [glazing,].

### SD-03 Product Data

Doors; G

[ Recycled Content for Door Cores; S

] Accessories  
Water-resistant Sealer  
Sample Warranty  
[ Sound Transmission Class Rating; G  
][ Fire Resistance Rating; G  
] SD-04 Samples

\*\*\*\*\*  
NOTE: Require door samples only for relatively  
larger quantities of doors and only when justified  
and desired.  
\*\*\*\*\*

#### Doors

Prior to the delivery of wood doors, submit a sample section of each type of door which shows the stile, rail, veneer, finish, and core construction.

#### Door Finish Colors; G

Submit a minimum of three color selection samples [, minimum 76 by 127 mm in size representing wood stain] [for selection by the Contracting Officer].

#### SD-06 Test Reports

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NOTE: Require tests and test reports when fire  
rated wood doors are included in the project. Doors  
designated to have "C" label have a 3/4 hour rating,  
doors designated to have "B" label have a one or 1  
1/2 hour rating.  
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#### Cycle-Slam; G

#### Hinge Loading Resistance; G

Submit cycle-slam test report for doors tested in accordance with ANSI/WDMA I.S.1A, and hinge loading resistance test report for doors tested in accordance with ANSI/WDMA I.S.6A.

#### SD-07 Certificates

#### Certificates of Grade

[ Certified Sustainably Harvested Stile and Rail Wood Doors; S  
][ Certified Sustainably Harvested Flush Wood Doors; S  
][ Indoor Air Quality for Particleboard and Agrifiber Door Cores: S

] SD-11 Closeout Submittals

Warranty

1.3 CERTIFICATIONS

1.3.1 Certified Wood Grades

Provide **certificates of grade** from the grading agency on [x-ray resistant doors], [acoustical doors], and [fire doors].

\*\*\*\*\*

**NOTE:** Use certified sustainably harvested wood where suitable for application and cost effective. Sustainably Harvested Wood is a product which comes from a third-party Forestry Certification Program and thus carries certain characteristics: 1) Protection of biodiversity, species at risk and wildlife habitat, sustainable harvest levels, protection of water quality, and prompt regeneration (e.g., replanting and reforestation); 2) Third-party certification audits performed by accredited certification bodies; 3) Publicly available certification audit summaries; 4) Multi-stakeholder involvement in a standards development process; 5) Complaints and appeals process.

Verify suitability, availability within the region, cost effectiveness and adequate competition before specifying these sustainably harvested wood certifications - if these conditions are verified for the project locale, include the following section. For projects pursuing LEED, delete certifications other than FSC; for all other projects pursuing third-party certification allow the entire list of third party certifications.

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[1.3.2 Certified Sustainably Harvested Wood

Provide wood certified as sustainably harvested by **FSC STD 01 001**[, **ATFS STANDARDS**, **CSA Z809-16**, **SFI 22**, or other third party program certified by **PEFC ST 2002:2013**]. Provide a letter of Certification of Sustainably Harvested Wood signed by the wood supplier. Identify certifying organization and their third party program name and indicate compliance with chain-of-custody program requirements. Submit sustainable wood certification data; identify each certified product on a line item basis. Submit copies of invoices bearing certification numbers.

][1.3.3 Indoor Air Quality Certification

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**NOTE:** Include the following section where interior doors with particleboard and agrifiber cores are included in the project.

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#### [1.3.3.1 Composite Wood, Wood Structural Panel and Agrifiber Products

For purposes of this specification, composite wood and agrifiber products include particleboard, medium density fiberboard (MDF), wheatboard, strawboard, panel substrates, and door cores. Provide products certified to meet requirements of both 40 CFR 770 and CARB 93120. For locally manufactured composite wood products, provide E0 for medium-density-fiberboard (MDF) and SE0 for hardwood plywood and particle board in accordance with NIFoS Notification 2025-3. Provide current product certification documentation from certification body.

#### ]1.4 DELIVERY, STORAGE, AND HANDLING

Deliver doors to the site in an undamaged condition and protect against damage and dampness. Stack doors flat under cover. Support on blocking, a minimum of 100 mm thick, located at each end and at the midpoint of the door. Store doors in a well-ventilated building so that they will not be exposed to excessive moisture, heat, dryness, direct sunlight, or extreme changes of temperature and humidity. Do not store in a building under construction until concrete, masonry work, and plaster are dry. Replace defective or damaged doors with new ones.

#### 1.5 WARRANTY

\*\*\*\*\*

NOTE: The warranty clause in this guide specification has been approved by NAVFACENGCOMHQ in accordance with the requirements of Naval Facilities Acquisition Supplement (NFAS).

NFAS can be found at the following link:

[https://portal.navfac.navy.mil/portal/page/portal/navfac/navfac\\_forbusiness](https://portal.navfac.navy.mil/portal/page/portal/navfac/navfac_forbusiness)

The paragraph in this guide specification may be used without any other HQ approval or request for waiver.

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Warrant doors free of defects as set forth in the door manufacturer's standard door warranty.

### PART 2 PRODUCTS

#### 2.1 DOORS

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NOTE: It is preferred that door sizes, designs and thicknesses be indicated on the drawings; if not indicated, schedule appropriate criteria in specifications. Refer to ANSI/WDMA I.S.1A and ANSI/WDMA I.S.6A for stock sizes and designs; the use of stock doors is recommended.

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NOTE: Include requirements for wood frames, except for prehung interior wood door units, in Section 06 20 00 FINISH CARPENTRY. Include requirements for metal frames for wood doors in Section 08 11 13 STEEL DOORS AND FRAMES. Include requirements for hardware, other than for sliding and bi-fold doors,

in Section 08 71 00 DOOR HARDWARE.

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NOTE: Premium or select grade is intended for  
natural or stain finish, standard grade is intended  
for opaque (paint) finish.

\*\*\*\*\*

Provide doors of the types, sizes, and designs indicated free of  
urea-formaldehyde resins.

2.1.1 Stile and Rail Doors

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NOTE: Use certified sustainably harvested wood  
where suitable for application and cost effective.  
Verify suitability, availability within the region,  
cost effectiveness, and adequate competition before  
specifying this certification.

\*\*\*\*\*

[Premium][Standard] grade Ponderosa Pine doors or [premium or  
select][standard] stile and rail doors conforming to ANSI/WDMA I.S.6A.  
Furnish laminate panels in not less than three ply thickness. Provide  
flat panels with a minimum finished panel thickness of 13 mm and 20 mm  
thickness for raised panels.[ Provide certified sustainably harvested  
stile and rail wood doors.]

2.1.2 Flush Doors

\*\*\*\*\*

NOTE: Use certified sustainably harvested wood  
where suitable for application and cost effective.  
Verify suitability, availability within the region,  
cost effectiveness, and adequate competition before  
specifying this certification.

\*\*\*\*\*

Conform to ANSI/WDMA I.S.1A for flush doors. Provide hollow core doors  
with lock blocks and 25 mm minimum thickness hinge stile. Hardwood stile  
edge bands of doors receives a natural finish, compatible with face  
veneer. Provide mill option for stile edge of doors scheduled to be  
painted. No visible finger joints will be accepted in stile edge bands.  
When used, locate finger-joints under hardware.[ Provide certified  
sustainably harvested flush wood doors.]

2.1.2.1 Interior Flush Doors

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NOTE: Hollow core doors should be used for light  
duty residential only. Face veneers of doors for  
painted finish should be either hardboard or sound  
grade rotary cut hardwood. Face veneers of doors  
for natural finish should be premium or good grade  
rotary cut hardwood. Premium grade, book matched,  
wood veneer should only be specified for medical  
facilities and other high quality installations such  
as chapels, hospitals, and where the additional cost

is justified. Select grade and species desired for hardwood veneer faced doors. Specify other veneers if desired (such as poplar or cherry); refer to ANSI/WDMA I.S.1A. Luan is not acceptable.

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NOTE: Consider the use of agrifiber board in place of particle board with wood fibers. Types of agrifiber include, but are not limited to, wheat, sunflower, grass straw, cereal straw, rice straw, soybean, bagasse (fibrous by-product of crushing sugarcane or sorghum to extract their juice) and stover (leaves and stalks of corn, sorghum or soybean plants left in the field after harvest). Agrifiber board is dimensionally stable and highly resistant to moisture, while also being lighter in weight than rational wood composites.

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NOTE: Use materials with recycled content where appropriate for use. Verify suitability, availability within the region, cost effectiveness and adequate competition before specifying product recycled content requirements.

Research shows the product is available from US national manufacturers above the minimum recycled content percentages stated. Some manufacturers and regions have higher percentages.

NOTE: For doors that include either particleboard or agrifiber cores, include the last bracketed sentences requiring products with indoor air quality certifications as defined in Part 1 of this specification.

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Provide [staved lumber] [particleboard] [agrifiber] [hollow] core, Type II flush doors conforming to ANSI/WDMA I.S.1A with faces of [sound grade hardwood or hardboard for painted finish] [ [premium] [good] grade natural birch] [select [premium white] [red] birch] [[premium] [good] grade [red] [white] oak] [[premium] [good] grade walnut] [plastic laminate]. [Hardwood veneers must be [[rotary cut] [plain sliced] [quarter sliced]] [[random] [slip] [book] matched]]. [Finish plastic laminate faced doors on both vertical edges with [wood] [laminated plastic] of color matching faces.] [Door cores must have a minimum recycled content of 45 percent. Provide data identifying percentage of recycled content for door cores.] [Products must contain no added urea-formaldehyde resins. Provide certification of indoor air quality for particleboard and agrifiber door cores.]

### 2.1.3 Bi-Fold Closet Doors

Provide [hardboard grade flush doors conforming to ANSI/WDMA I.S.1A.] [paneled] [louvered] doors [premium or select] [standard] grade, conforming to ANSI/WDMA I.S.6A with [28.5] [35] mm thickness. Equip doors with the manufacturer's standard hardware, including tracks, hinges,

guides, and pulls.

#### 2.1.4 Sliding Closet Doors

Provide flush wood doors to conform to ANSI/WDMA I.S.1A. Provide [paneled] [and] [louvered] doors to conform to ANSI/WDMA I.S.6A [premium or select] [standard] grade with 35 mm inch thickness. Equip doors with the manufacturer's standard hardware.

#### 2.1.5 X-Ray Resistant Doors

\*\*\*\*\*  
NOTE: Specify minimum door thickness as follows:  
44.5 mm for lead sheet 5 mm thick and less; 50 mm  
for lead sheet over 5 to 6 mm thick; 57 mm for lead  
sheet over 6 to 10 mm thick; 64 mm for sheet lead  
over 10 to 13 mm thick. Coordinate with Section  
13 49 10 X-RAY SHIELDING.  
\*\*\*\*\*

ANSI/WDMA I.S.1A solid core flush doors, hardwood veneered, minimum [44.5] [50] [57] [64] mm thick, of sizes and construction indicated. Provide lead sheets with 99.9 percent pure lead, [ ] mm thickness, free from dross, oxide, inclusions, laminations, scale, blisters, and cracks. Locate lead sheets in accordance with manufacturer's standard, to extend fully from edge to edge, from top to bottom, and to be an integral part of the door. Provide wood edge strips compatible with face veneers.

#### 2.1.6 Acoustical Doors

\*\*\*\*\*  
NOTE: Ensure that STC rating is coordinated with the STC ratings of walls detailed on drawings. Doors should be provided with STC rating equal to the walls and ceilings. Except where walls and ceilings are designed for an STC of 40 or more, specify STC of 35. Doors requiring STC ratings greater than 35 may have to be thicker than otherwise specified. Check manufacturer's literature.  
\*\*\*\*\*

ANSI/WDMA I.S.1A, solid core, constructed to provide Sound Transmission Class rating of as indicated when tested in accordance with ASTM E90.

#### 2.1.7 [Composite-Type] Fire Doors

\*\*\*\*\*  
NOTE: Composite-Type fire doors are not recommended for use in areas where security is desired or high abuse is expected. A hollow-metal type fire door will provide a higher degree of security and withstand more abuse.  
\*\*\*\*\*

Provide doors specified or indicated to have a fire resistance rating conforming to the requirements of UL 10B, ASTM E2226, or NFPA 252 for the class of door indicated. Affix a permanent metal label with raised or incised markings indicating testing agency's name and approved hourly fire rating to hinge edge of each door.

## 2.1.8 Prehung Doors

\*\*\*\*\*  
**NOTE: Use of wood frames in new construction is not recommended except for family housing.**  
\*\*\*\*\*

Frames for prehung interior doors to be for [painted] [clear] finish, with [3 piece adjustable jamb units] [3 piece adjustable jamb units with pins]. Provide doors complete with frame, hinges, and prepared to receive finish hardware.

## 2.2 ACCESSORIES

### 2.2.1 Door Louvers

\*\*\*\*\*  
**NOTE: The use of wood louvers in exterior wood doors is not recommended. Louvers are not permitted in fire-rated doors with glass lights or exit devices. Louvers may be no larger than 600 by 600 mm and must be an approved fusible link type. Delete the sentence referring to blocking if hollow core doors are not included in the project.**  
\*\*\*\*\*

Fabricate from wood and of sizes indicated. Provide louvers with a minimum of 35 percent free air. Equip louvers with [slat] [sightproof inverted vee slat] type. [Block hollow core doors to provide solid anchorage for the louvers.] Mount louvers in the door with [flush wood moldings.] [wood lip moldings.]

### 2.2.2 Door Light Openings

Provide glazed openings with the manufacturer's standard wood moldings. [Provide moldings for doors to receive natural finish of the same wood species and color as the wood face veneers.] Provide moldings on the exterior doors with sloped surfaces. [Lip type moldings for flush doors.]

### 2.2.3 Additional Hardware Reinforcement

\*\*\*\*\*  
**NOTE: Size and shape of core blocking can add considerably to the price of doors. Check manufacturer's catalogs prior to specifying the larger five inch blocking.**  
\*\*\*\*\*

Provide the minimum lock blocks to secure the specified hardware. The measurement of top, bottom, and intermediate rail blocks are a minimum 125 mm 5 inch by full core width. Comply with the manufacturer's labeling requirements for reinforcement blocking, but not mineral material similar to the core.

## 2.3 FABRICATION

### 2.3.1 Marking

\*\*\*\*\*  
NOTE: Marking may not be required for smaller jobs,  
or for doors not required to be fire-rated. Delete  
this paragraph and coordinate with paragraph  
SUBMITTALS when appropriate.  
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Stamp each door with a brand, stamp, or other identifying mark indicating quality and construction of the door.

### 2.3.2 Quality and Construction

Identify the standard on which the construction of the door was based [, identify the standard under which preservative treatment was made,] and identify doors having a Type I glue bond.

### 2.3.3 Preservative Treatment

Treat doors scheduled for restrooms, janitor closets and other possible wet locations with a water-repellent preservative treatment and so marketed at the manufacturer's plant.

### 2.3.4 Adhesives and Bonds

ANSI/WDMA I.S.1A. Use Type II bond for interior doors. Provide a nonstaining adhesive on doors with a natural finish.

### 2.3.5 Prefitting

Provide factory [prefinished] [finished] [and] factory prefitted doors for the specified hardware, door frame and door-swing indicated. Machine and size doors at the factory by the door manufacturer in accordance with the standards under which the doors are produced and manufactured. The work includes sizing, beveling edges, mortising, and drilling for hardware and providing necessary beaded openings for glass and louvers. Provide the door manufacturer with the necessary hardware samples, and frame and hardware schedules to coordinate the work.

### 2.3.6 Finishes

#### 2.3.6.1 Field Painting

\*\*\*\*\*  
NOTE: Finishes for exterior wood surfaces must be  
specified in Exterior Division 6 Wood paint Table in  
Section 09 90 00 PAINTS AND COATINGS. When new  
interior doors are to be provided, select the  
desired coating system in the Interior Division 6  
Wood paint Table in Section 09 90 00 PAINTS AND  
COATINGS.  
\*\*\*\*\*

Factory prime or seal doors, and field paint.

#### 2.3.6.2 Factory Finish

\*\*\*\*\*  
NOTE: Factory finish, other than plastic laminate and natural finishes, may not be available nor cost effective for relatively small quantities of doors (less than 200 doors of the same finish). Contact door manufacturers for availability and cost.  
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\*\*\*\*\*  
NOTE: Select finish system NAAWS 4.0 System No. 4 or No.5 for traditionally produced finishes OR select WDMA system TR-8, TR-2 and TR-4 for finishing systems devoted to low VOC requirements for sustainability.  
\*\*\*\*\*  
\*\*\*\*\*  
NOTE: Select open grain effect where the more expensive closed grain effect is not required. Closed grain effect provides a near furniture-like finish and adds considerably to the cost of a door while it may not necessarily add to the durability.  
\*\*\*\*\*

Provide doors finished at the factory by the door manufacturer as follows:  
[ NAAWS 4.0 Section 1500, specification for System No. 4 Conversion varnish alkyd urea or System No. 5 Vinyl catalyzed.][ WDMA System TR-8 (UV cured acrylated polyester/urethane) or TR-2 (catalyzed lacquer) or TR-4 (conversion varnish) factory finish systems that utilize water-based stains and finishes with ultraviolet UV protection.] The coating is NAAWS 4.0 premium, medium rubbed sheen, [open] [closed] grain effect. Use stain when required to produce the finish specified for color. Seal edges, cutouts, trim, and wood accessories, and apply two coats of finish compatible with the door face finish. Touch-up finishes that are scratched or marred, or where exposed fastener holes are filled, in accordance with the door manufacturer's instructions. Match color and sheen of factory finish using materials compatible for field application.

#### 2.3.6.3 Plastic Laminate Finish

Factory applied, ANSI/NEMA LD 3, General or Specific purpose type, 1.25 mm minimum thickness. Glue laminated plastic for hollow core doors to wood veneer, plywood, or hardboard backing to form door panel. Provide a combined thickness of laminate sheet and backing of 2.5 mm minimum.

#### 2.3.6.4 Color

Provide door finish colors as indicated.

#### 2.3.7 Water-Resistant Sealer

Provide manufacturer's standard water-resistant sealer compatible with the specified finish[es].

#### 2.4 SOURCE QUALITY CONTROL

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**NOTE: Require tests and test reports when fire rated wood doors are included in the project. Doors designated to have "C" label have a 3/4 hour rating, doors designated to have "B" label have a one or 1 1/2 hour rating.**

\*\*\*\*\*

Meet or exceed the following minimum performance criteria of stiles of "B" and "C" label fire doors utilizing standard mortise leaf hinges:

- a. **Cycle-slam:** [Standard Duty Doors: 250,000 cycles with no loose hinge screws or other visible signs of failure when tested in accordance with the requirements of ANSI/WDMA I.S.1A] [Heavy Duty Doors: 500,000 cycles with no loose hinge screws or other visible signs of failure when tested in accordance with the requirements of ANSI/WDMA I.S.1A] [Extra Heavy Duty Doors: 1,000,000 cycles with no loose hinge screws or other visible signs of failure when tested in accordance with the requirements of ANSI/WDMA I.S.1A].
- b. **Hinge loading resistance:** Averages of ten test samples not less than [Standard Duty doors: 1780 Newton force] [Heavy Duty doors: 2110 Newton force] [Extra Heavy Duty doors: 2440 Newton force] when tested for direct screw withdrawal in accordance with ANSI/WDMA I.S.6A using a No. 12, 30 mm long, steel, fully threaded wood screw. Drill 4 mm pilot hole, use 40 mm opening around screw for bearing surface, and engage screw full, except for last 3 mm. Do not use a steel plate to reinforce screw area.

## PART 3 EXECUTION

### 3.1 INSTALLATION

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**NOTE: If area rugs or carpeting is used in spaces which door openings serve, such as residential occupancies, specify adequate clearance at bottom of doors.**

\*\*\*\*\*

Do not install building construction materials that show visual evidence of biological growth.

Before installation, seal top and bottom edges of doors with the approved water-resistant sealer. Seal cuts made on the job immediately after cutting using approved water-resistant sealer. Fit, trim, and hang doors with a 2 mm minimum, 3 mm maximum clearance at sides and top, and a 5 mm minimum, 6 mm maximum clearance over thresholds. Provide 10 mm minimum, 11 mm maximum clearance at bottom where no threshold occurs. Bevel edges of doors at the rate of 3 mm in 50 mm. Door warp must not exceed 6 mm when measured in accordance with ANSI/WDMA I.S.1A.

#### 3.1.1 Fire[ and Smoke] Doors

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**NOTE: Fire doors must be installed in fire rated frames and with fire rated hardware. Frames and hardware must be specified in their respective sections of the specifications.**

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Install fire doors in accordance with NFPA 80. [Install smoke doors in accordance with NFPA 105. ]Do not paint over labels.

### 3.1.2 Prehung Doors

Install doors in accordance with the manufacturer's instructions and details. Provide fasteners for [stops] [and] [casing trim] within 75 mm of each end and spaced 279 mm on center maximum. Provide side and head jambs joined together with a dado or notch of 5 mm minimum depth.

### 3.2 SCHEDULE

Some metric measurements in this section are based on mathematical conversion of inch-pound measurements, and not on metric measurement commonly agreed to by the manufacturers or other parties. The inch-pound and metric measurements are as follows:

<u>PRODUCTS</u>	<u>INCH-POUND</u>	<u>METRIC</u>
Closet doors	1-1/8 inch	28.5 mm
	1-3/8 inch	35 mm
X-Ray resistant doors	1-3/4 inch	44.5 mm
	2 inches	50 mm
	2-1/4 inch	57 mm
	2-1/2 inch	64 mm
Weatherstripping	0.0089 inch	0.23 mm
	0.0063 inch	0.16 mm

-- End of Section --