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5.1 Glossaries

a) The Architectural Woodwork Institute glossary can be found at:
<https://www.awinet.org/standards/glossary>

b) The Stairbuilders and Manufacturers Association Glossary of Stair Terminology can be found at: <http://stairways.org/awismastandard>

5.2 Design Professional Responsibilities

a) The authority having jurisdiction for enforcement of the applicable building code shall be stated in contract documents by the design professional.

5.3 Surface Categories

5.3.1 Exposed

a) Defined as all exterior and interior surfaces exposed to view.

5.3.2 Semi-Exposed

a) Defined as surfaces that are generally neither visible nor accessible to the building occupants and/or general public but can be made visible or accessible by the movement of a component.

5.3.3 Concealed

a) Defined as surfaces that are neither visible nor accessible to the building occupants and/or general public under normal circumstances.

5.4 SMA Supplemental Documents

a) SMA provides additional resources for stair manufacturers, engineers, and design professionals at <https://stairways.org/awismastandard>

b) Some of the documents included are:

- SMA Visual Interpretations of the International Residential Code
- Mississippi State University Design Values Report Summary
- Design Values for Domestic Wood Species Used in Stairway Construction
- Physical and Mechanical Properties of Clear Wood from Red Oak and White Oak

5.5 References

a) AMP 500 - Metal Finishes Manual (latest edition)

b) AMP 555 - Code of Standard Practice for the Architectural Metal Industry (latest edition) c) ANSI Z97.1 (latest edition)

d) ANSI/AWI 0620 - Finish Carpentry/Installation (latest edition)

e) ASTM C1036 (latest edition)

f) AWI 100 - Submittals (latest edition)

g) AWI 200 - Care & Storage (latest edition)

h) AWI 300 - Materials (latest edition)

i) AWI Finishing Standard (latest edition)

j) International Residential Code (latest edition)

k) International Building Code (latest edition)

5.6 Exceptions to Material Requirements

a) The following species are subject to the requirements of 3.2 Material unless otherwise indicated in the tables below: Alder (Red), Anigre, Ash (White), Basswood, Beech (American), Beech (European), Birch (Yellow – natural), Birch (Yellow - select red), Birch (Yellow - select

white), Cedar (Western Red), Cherry (American Black), Fir (Douglas - flat grain), Fir (Douglas - vertical grain), Hickory (True Group), Mahogany (African - plain sawn), Mahogany (African - quarter sawn), Mahogany (American), Makore, Maple (Hard - natural), Maple (Hard - select white), Maple (Soft - natural), Oak (English Brown), Oak (Red - plain sawn), Oak (Red - rift sawn), Oak (Red - quarter sawn), Oak (White - plain sawn), Oak (White - rift sawn), Oak (White - quarter sawn), Pecan Group (Hickory), Pine (Eastern or Northern White), Pine (Ponderosa), Pine (Southern Yellow), Pine (Sugar), Poplar (Yellow), Redwood (flat grain heartwood), Redwood (vertical grain heartwood), Teak, Jatoba, Sapele, and Walnut (American Black).

WOOD SPECIES	EXPOSED STRINGERS & SKIRT BOARDS		
	Maximum Number of Staves Per 12" Width		
	Premium	Custom	Economy
Cherry, American Black	4	S	S
Oak, English Brown	4	S	S
Oak, Red - rift sawn	4	S	S
Oak, Red - quarter sawn	4	S	S
Oak, White - rift sawn	4	S	S
Oak, White - quarter sawn	4	S	S
Pecan Group, Hickory	4	S	S
Walnut, American Black	4	S	S

*S - No exception is applicable. Requirements set forth in ANSI/AWI SMA 0643 - Wood Stair, Handrail, and Guard Systems (latest edition) shall apply

WOOD SPECIES	EXPOSED STRINGERS AND SKIRT BOARDS			Minimum Length of Stave Where One-Piece Stave is Required
	Number of Linear Splices in Staves up to 14'			
	Premium	Custom	Economy	
Alder, Red	1	1	Unlimited	10'
Anigre	1	1	Unlimited	12'

Ash, White	1	1	Unlimited	12'
Basswood	1	1	Unlimited	10'
Beech, American	1	1	Unlimited	12'
Beech, European	0	0	Unlimited	15'-6"
Birch, Yellow - natural	1	1	Unlimited	12'
Birch, Yellow - select red	1	1	Unlimited	11'
Birch, Yellow - select white	1	1	Unlimited	11'
Cedar, Western Red	0	0	Unlimited	15'-6"
Cherry, American Black	1	2	Unlimited	7'
Fir, Douglas - flat grain	0	0	Unlimited	15'-6"
Fir, Douglas - vertical grain	0	0	Unlimited	15'-6"
Hickory, True Group	1	1	Unlimited	12'
Mahogany, African - plain sawn	0	0	Unlimited	15'
Mahogany, African - quarter sawn	0	0	Unlimited	15'

WOOD SPECIES	RISER		
	Number of Staves Per 7.75" Height		
	Premium	Custom	Economy
Oak, English Brown	3	3	S
Walnut, American Black	3	3	S

*S - No exception is applicable. Requirements set forth in ANSI/AWI SMA 0643 - Wood Stair, Handrail, and Guard Systems (latest edition) shall apply

WOOD SPECIES	TREAD		
	Maximum Number of Staves Per 12" Depth		
	Premium	Custom	Economy
Oak, Red - rift sawn	4	5	S
Oak, Red - quarter sawn	4	5	S
Oak, White - plain sawn	S	S	S
Oak, White - rift sawn	4	5	S
Oak, White - quarter sawn	4	5	S
Teak	4	5	S
Walnut, American Black	S	5	S

*S - No exception is applicable. Requirements set forth in ANSI/AWI SMA 0643 - Wood Stair, Handrail, and Guard Systems (latest edition) shall apply

WOOD SPECIES	RAIL		
	Minimum Length of Rail where Solid Top Cap is Required		
	Premium	Custom	Economy
Alder, Red	10'	8'	S
Anigre	12'	10'	S
Ash, White	12'	10'	S
Basswood	12'	10'	S
Beech, American	12'	10'	S
Beech, European	15'-6"	14'	S

Birch, Yellow - natural	12'	10'	S
Birch, Yellow - select red	11'	10'	S
Birch, Yellow - select white	11'	10'	S
Cedar, Western Red	15'-6"	14'	S
Cherry, American Black	8'	6'	4'
Hickory, True Group	12'	10'	8'
Makore	12'	10'	8'
Oak, English Brown	8'	6'	4'
Oak, Red - rift sawn	10'	8'	4'
Oak, Red - quarter sawn	10'	8'	4'
Oak, White - rift sawn	10'	8'	S
Oak, White - quarter sawn	10'	8'	S
Teak	10'	8'	4'
Walnut, American Black	8'	6'	4'

*S - No exception is applicable. Requirements set forth in ANSI/AWI SMA 0643 - Wood Stair, Handrail, and Guard Systems (latest edition) shall apply

WOOD SPECIES	RAIL		
	Maximum Permitted Joints in Top Rail Per 15'-6" Length Ply of		
	Premium	Custom	Economy
Alder, Red	1	1	S
Anigre	1	1	S
Ash, White	0	1	S
Basswood	0	1	S
Beech, American	0	1	S

Beech, European	0	1	S
Birch, Yellow - natural	0	0	S
Birch, Yellow - select red	0	0	S
Birch, Yellow - select white	0	0	S
Cedar, Western Red	0	0	S
Cherry, American Black	1	1	S
Fir, Douglas - flat grain	0	0	S
Fir, Douglas - vertical grain	0	0	S
Hickory, True Group	1	1	S
Mahogany, African - plain sawn	0	1	S
Mahogany, African - quarter sawn	0	1	S
Mahogany, American	0	0	S
Makore	1	2	S
Maple, Hard - natural	0	1	S
Maple, Hard - select white	0	1	S
Maple, Soft - natural	0	1	S
Oak, English Brown	1	1	S
Oak, Red - plain sawn	0	1	S
Oak, Red - rift sawn	1	1	S
Oak, Red - quarter sawn	1	1	S
Oak, White - plain sawn	0	1	S
Oak, White - rift sawn	1	2	S
Oak, White - quarter sawn	1	2	S
Pecan Group, Hickory	1	2	S
Pine, Eastern or Northern White	0	1	S
Pine, Ponderosa	0	1	S

Pine, Southern Yellow	0	1	S
Pine, Sugar	0	1	S
Poplar, Yellow	0	1	S
Redwood, flat grain heartwood	0	0	S
Redwood, vert. grain heartwood	0	0	S
Teak	0	1	S
Jatoba	S	S	S
Sapele	S	S	S
Walnut, American Black	1	2	S

*S - No exception is applicable. Requirements set forth in ANSI/AWI SMA 0643 - Wood Stair, Handrail, and Guard Systems (latest edition) shall apply

[4.0 Figures/Illustrations](#)

[Glossary](#)

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