

BASIC WIND SPEED	110 MPH		
IMPORTANCE FACTOR		1.0	
BUILDING CATEGORY		2	
EXPOSURE	200	В	
INTERNAL PRESSURE COEFFICIENT		+/- 0.18	
COMPONENT AND CLADDING PRESSURE	WALLS	+21.8/-29.1 PSF	
	FOOF	+12.5/-29.1 PS	
	OVERHANGS	-71.6 PSF	
TYPE OF STRUCTURE	YPE OF STRUCTURE		
ROOF DEAD LOAD		10 psf	
ROOF LIVE LOAD	20 3 - 13	20 psf	
FLOOR DEAD LOAD		20 psf	
FLOOR LIVE LOAD		40 psf	
	CONTRACTOR OF THE PARTY OF THE		

ASPHALT SHINGLES SHALL BE FASTENED TO SOLIDLY SHEATHED DECKS.

ASPHALT SHINGLES SHALL BE USED ONLY ON ROOF SLOPES OF 2:12 OR GREATER. FOR ROOF SLOPES FROM 2:12 TO 4:12, DOUBLE UNDERLAYMENT IS REQUIRED.

UNLESS OTHERWISE NOTED, UNDERLAYMENT SHALL CONFORM WITH ASTM D 226, TYPE 1, OR ASTM D 4869, TYPE 1.

SELF-ADHERING POLYMER MODIFIED BITJMEN SHEET: SELF ADHERING POLYMER MODIFIED BITIMEN SHALL COMPLY WITH ASTM D 1970.

ASPHALT SHINGLES SHALL HAVE SELF STAL STRIPS OR BE INTERLOCKING, AND COMPLY WITH ASTM D 225 OR ASTM D 3432.

FASTENERS FOR ASPHALT SHINGLES SHALL BE GALVANIZED, STAINLESS STEEL, ALUMINUM OR COPPER ROOFING NAILS, VINIMUM 12 GAUGE SHANK WITH A MINIMUM 3/8 INCH DIAMETER HEAD, OF A LENGTH TO PENETRATE THROUGH THE ROOFING MATERIAL AND A MINIMUM 3/4" INTO THE ROOF SHEATHING. WHERE ROOF SHEATHING IS LESS THAN 3/4" THICK, THE NAILS SHAIL PENETRATE THROUGH THE SHEATHING.

ATTACHMENT: ASPHALT SHINGLES SHALL BE SECURED TO THE ROOF WITH NOT LESS THAN FOUR FASTENERS PER STRIP SHINGLE OR TWO FASTENERS PER INDIVIDUAL SHINGLE. WHERE ROOFS LOCATED IN BASIC WINDSPEED OF 110 MPH OR GREATER, SPECIAL METHODS OF FASTENING ARE REQUIRED. UNLESS OTHERWISE NOTED, ATTACHMENT OF ASPHALT SHINGLES SHALL CONFORMWITH ASTM D 3161 OR M-DC PA 107-95.

UNDERLAYMENT APPLICATION:

FOR ROOF SLOPES FORM 2:12 TO 4:12, UNDERLAYMENT SHALL BE A MINIMUM OF TWO LAYERS APPLIED AS FOLLOWS:

1. STARTING AT THE EAVE, A 19 INCH STRIP OF UNDERLAYMENT SHALL BE APPLIED PARALLEL WITH THE EAVE AND FASTENED SUFFICIENTLY TO STAY IN PLACE.

2. STARTING AT THE EAVE, 36 INCH WIDE STRIPS OF UNDERLAYMENT FELT SHALL BE APPLIED OVERLAPPING SUCCESSIVE SHEETS 19 INCHES AND FASTENED SUFFICIENTLY TO STAY IN PLACE.

FOR ROOF SLOPED 4:12 AND GREATER, UNDERLAYMENT SHALL BE A MINIMUM OF ONE LAYER OF UNDERLAYMENT FELT APPLIED AS FOLLOWS: STARTING AT THE EAVE, UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION PARALLEL TO THE EAVE, LAPPED 2 INCHES, AND FASTENED SUFFICIENTLY TO STAY IN PLACE.

BASE AND CAP FLASHINGS:

BASE AND CAP FLASHING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. BASE FLASHING SHALL BE OF EITHER CORROSION RESISTANT METAL OF MINIMUM NOMINAL THICKNESS 0.019 INCH OR MINERAL SURFACE ROLL ROOFING WEIGHING A MINIMUM OF 77 LBS PER 100 SQUARE FEET. CAP FLASHING SHALL BE CORROSION RESISTANT METAL OF MINIMUM NOMINAL THICKNESS OF 0.019 INCH.

VALLEY LININGS SHALL BE INSTALLED INACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS BEFORE APPLYING ASPHALT SHINGLES. VALLEY LININGS OF THE FOLLOWING TYPES SHALL BE PERMITTED

1. FOR OPEN VALLEYS LINED WITH METAL, THE VALLEY LINING SHALL BE AT LEAST 16 INCHES WIDE AND OF ANY OF THE CORROSION RESISTANT METALS IN TABLE 1507.3.9.2. 2. FOR OPEN VALLEYS, VALLEY LINING OF TWO PLIES OF MINERAL SURFACE ROLL ROOFING SHALL BE PERMITTED. THE BOTTOM LIYER SHALL BE 18 INCHES AND THE TOP LAYER A MINIMUM OF 36 INCHES WIDE.

3. FOR CLOSED VALLEYS VALLEY LINING SHALL BE ONE OF THE FOLLOWING:

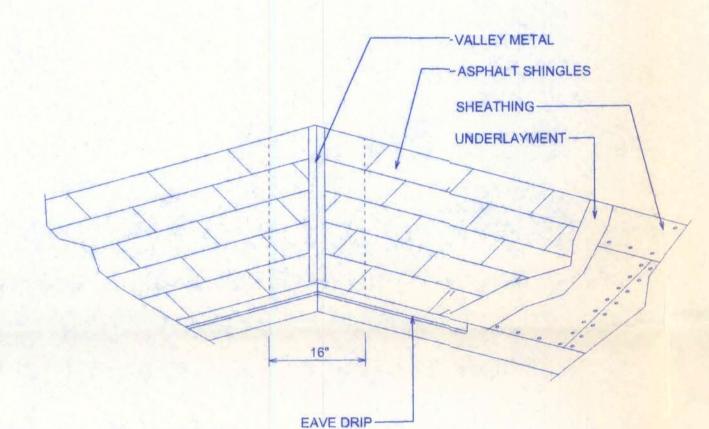
1. BOTH TYPES 1 AND 2 ABOVE, COMBINED. 2. ONE PLY OF SMOOTH ROLL ROOFING AT LEAST 36 INCHES WIDE AND COMPLYING WITH

3. SPECIALTY UNDERLAYMENT AT LEAST 36 INCHES WIDE AND COMPLYING WITH ASTM D 1970.

EXTERIOR WINDOWS AND GLASS DOORS SHALL BE TESTED BY AN APPROVED INDEPENDENT TESTING LABIORATORY, AND BEAR AN AAMA OR WDMA OR OTHER APPROVED LABEL IDENTIFYING THE MANUFACTURER, PERFORMANCE CHARACTERISTICS AND APPROVED PRODUCT EVALUATION ENTITY TO INDICATE COMPLIANCE WITH THE REQUIREMENTS OF THE FOLLOWING SPECIFICATION:

ANSI/AAMA/NWWDA 101/IS2 2/97

THE CONSTRUCTION SHALL BE TESTED IN ACCORDANCE WITH ASTM E 330, STANDARD TEST METHODS FOIR STRUCTURAL PERFORMANCE OF EXTERIOR WINDOWS, C;URTAIN WALLS, AND DOORS BY UNIFORM STATIC AIR PRESSURE.



EXPOSED EDGE OF SHINGLE **EXTENDING 4 INCHES OVER** UNDERLYING SHINGLE AND 4 INCHES UP VERTICAL WALL UNDERLAYMENT TURNED UP VERTICAL WALL MIN. 4 INCHES MIN. 2" OVERLAP

FLASHING PLACED UPSLOPE FROM

MATERIAL	MINIMUM THICKNESS (in)	GAGE	WEIGHT (LB)	
COPPER			1	
ALUMINUM	0.024			
STAINLESS STEEL		28		
GALVANIZED STEEL	0.0179	26 (ZINC COATED G90)		
ZINC ALLOY LEAD PAINTED TERNE	0.027		2 1/2	

# ALLOWABLE DEFLECTION OF STRUCTURAL MEMBERS

STRUCTURAL MEMBER	ALLOWABLE DEFLECTION		
rafters having slopes greater than 2/12 with no finished ceiling attached to rafters	L/180		
interior walls and partitions	H/180		
floors and plastered ceilings	L/360		
all other structural members	L/240		
exterior walls with plaster or stucco finish	H/360		
exterior walls - wind loads with brittle finishes	L/240		
exterior walls - wind loads with flexible finishes	L/120		

## CONSTRUCTION DOCUMENTS:

THE CUSTOMER IS RESPONSIBLE FOR DELIVERING THE REQUIRED SETS OF CONSTRUCTION DOCUMENTS TO THE PERMIT ISSUING AUTHORITY FOR THE ISSUANCE OF CONSTRUCTION PERMITS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR REVIEWING THE PLANS AND VERIFYING ALL EXISTING CONDITIONS, ELEVATIONS, AND DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION INCLUDING FABRICATION. ALL DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION.

## DO NOT SCALE THESE PLANS:

AMPLE DIMENSIONS ARE SHOWN ON THE PLANS TO LOCATE ALL ITEMS. SIMPLE ARITHMATIC MAY BE USED TO DETERMINE THE LOCATION OF THOSE ITEMS NOT DIMENSIONED.

#### CHANGES TO PLAN SETS:

PLEASE DO NOT MAKE ANY STRUCTURAL CHANGES TO THES PLANS WITHOUT CONSULTING WITH THE ARCHITECT/ENGINEER. THE OWNER SHALL ASSUME ANY AND ALL LIABILITY FOR STRUCTURAL DAMAGE RESULTING FROM CHANGES MADE TO THE PLANS OR BY SUBSTITUTION OF MATERIALS DIFFERENT FROM SPECIFICATIONS ON THE PLANS.

# **GENERAL NOTES:**

- 1. THE CONTRACTOR SHALL INDEMNIFY THE OWNER AGAINST ALL CLAIMS, WHETHER FROM PERSONAL INJURY OR PROPERTY DAMAGE, ARISING FORM EVENTS ASSOCIATED WITH THE WORK PERFORMED UNDER THE CONTRACT FOR THIS PROJECT.
- 2. THE CONTRACTOR AND/OR SUB-CONTRACTORS SHALL WARRANT ALL WORK FOR A PERIOD OF ONE YEAR FOLLOWING THE WORK DATE OF FINAL COMPLETION AND ACCEPTANCE BY THE OWNER DEFECTS IN MATERIALS, EQUIPMENT, COMPONENTS AND WORK-MANSHIP SHALL BE CORRECTED AT NO FURTHER COST TO THE OWNER DURING THE ONE YEAR WARRANTY PERIOD.
- 3. AT THE OWNER'S OPTION, A WARRANTY INSPECTION SHALL BE PERFORMED DURING THE ELEVENTH MONTH FOLLOWING THE COMMENCEMENT OF THE WARRANTY PERIOD, FOR THE PURPOSE OF DETERMINING ANY WARRANTY WORK THAT MAY BE REQUIRED. THE CONTRACTOR SHALL BE PRESENT DURING THIS INSPECTION IF REQUESTED BY THE OWNER.
- 4. THE CONTRACTOR SHALL PAY FOR ALL PERMITS, LICENSES, TESTS AND THE LIKE THAT MAY BE REQUIRED BY THE VARIOUS AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT BE THEY CITY, COUNTY, STATE OR FEDERAL.

- 5. THE OWNER SHALL FILE A "NOTICE OF COMMENCEMENT" PRIOR TO THE BEGINNING OF THE PROJECT AND THE CONTRACTOR(S) SHALL FILE "NOTICE TO OWNER" AND PROVIDE "RELEASE OF LIEN" FOR ALL PAYMENT REQUESTS PRIOR TO DISBURSEMENT OF ANY FUNDS.
- 6. ANY AND ALL DISPUTES ARISING FROM EVENTS ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT BETWEEN THE OWNER, CONTACTOR(S) AND SUPPLIERS SHALL BE RESOLVED THROUGH BINDING ARBITRATION.
- 7. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND LOCAL REGULATIONS, INCLUDING APPLICABLE ENERGY CODES. ALL COMPONENTS OF THE BUILDING SHALL MEET WITH THE MINIMUM ENERGY REQUIREMENTS OF THE BUILDING CODE. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IN WRITING PRIOR TO THE COMMENCEMENT OF THE WORK.
- 8. ALL INSULATION SHALL BE LEFT EXPOSED AND ALL LABELS LEFT INTACT ON THE WINDOWS AND DOORS UNTIL INSPECTED BY THE BUILDING OFFICIAL.
- 9. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.

# STEEL COATING RECOMMENDATIONS IN PRESSURE TREATED WOOD

- Thicker galvanizing generally extends service life of a product. The treated wood industry recommends use of Stainless Steel and hot-dip galvanized connectors and fasteners with treated wood.
- Due to the uncertainties, which are out of the specifiers control, in regard to the chemicals used in pressure treated wood, Simpson recommends the use of stainless steel fasteners, anchors and connectors with treated wood when possible. At a minimum, customers should use ZMAX (G185 HDG per ASTM A653), Batch/Post Hot-Dip Galvanized (per ASTM A123 for connectors and ASTM A153 for fasteners), or mechanically galvanized fasteners (per ASTM B695, Class 55 or greater), product with the newer alternative treated woods.
- G60 galvanized products should not be used with treated woods.
- G90 galvanized connectors can be used with Sodium Borate (DOT Disodium Octaborate Tetrahydrate) treated woods. Sodium Borate Treated woods are not suitable for applications where moisture exposure is likely. They are suitable for mudsill applications when transported, stored, and installed appropriately.
- When using stainless steel or hot-dip galvanized connectors, the connectors and fasteners should be made of the same material.

Simpson Strong-Tie Product Finishes	Untreated Wood	Chromated Copper Arsenate (CCA-C)	DOT Sodium Borate (SBX)	Alkaline Copper Quat ACQ-C and ACQ-D (Carbonate)	Copper Azole (CBA-A and CA-B)	SBX (DOT) with NASiO	Ammoniacal Copper Zinc Arsenate (ACZA)	Oth Press Trea Woo
Standard (G90)	X	X	x			av.		
ZMAX (G185)	X	Х	х	X	×	X		
Post Hot-Dip Galvanized (HDG)	х	X	х	X	X	X	X	
SST300 (Stainless Steel)	×	x	X	X	x	×	×	

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DRAWN BY J.T.D. 3/07/07 | APPROVED W.H.F. REVISIONS A-1

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