

**TABLE S102.7 - HEADER SPANS FOR INTERIOR LOAD-BEARING WALLS**

HEADERS SUPPORTING	DROPPED HEADER				RAISED HEADER			
	BUILDING WIDTH (FT)		BUILDING WIDTH (FT)		BUILDING WIDTH (FT)		BUILDING WIDTH (FT)	
	12	24	36	48	12	24	36	48
ONE FLOOR ONLY (SINGLE CENTER BEARING WALL)	(2) 2x4	4'-0"	2'-10"	2'-4"	4'-1"	2'-10"	2'-4"	2'-4"
	(2) 2x6	5'-1"	4'-3"	3'-5"	6'-1"	4'-4"	3'-6"	3'-6"
	(2) 2x8	6'-3"	5'-2"	4'-4"	7'-4"	5'-5"	4'-5"	4'-5"
	(2) 2x10	7'-11"	6'-0"	5'-0"	9'-2"	6'-6"	5'-3"	5'-3"
	(2) 2x12	9'-3"	8'-5"	6'-7"	10'-4"	7'-7"	6'-3"	6'-3"
TWO FLOORS (CENTER BEARING)	(2) 2x12	8'-11"	7'-11"	6'-0"	11'-5"	8'-11"	6'-7"	6'-7"
	(3) 2x12	10'-3"	8'-5"	6'-7"	13'-6"	9'-6"	7'-9"	7'-9"
	(4) 2x12	11'-0"	9'-3"	7'-11"	15'-2"	10'-3"	8'-5"	8'-5"
	(4) 2x12	11'-0"	9'-3"	7'-11"	15'-2"	10'-3"	8'-5"	8'-5"

**TABLE S102.8 - HEADER SPANS FOR EXTERIOR LOAD-BEARING WALLS RESISTING WIND LOADS EXP "C"**

SIZE	120 MPH				140 MPH				150 MPH				160 MPH				170 MPH				180 MPH				185 MPH							
	5'-1"	6'-3"	8'-3"	10'-3"	4'-3"	5'-4"	7'-4"	9'-4"	4'-1"	5-0"	6'-11"	8'-1"	4'-1"	5-0"	6'-11"	8'-1"	4'-1"	5-0"	6'-11"	8'-1"	4'-1"	5-0"	6'-11"	8'-1"	4'-1"	5-0"	6'-11"	8'-1"	4'-1"	5-0"	6'-11"	8'-1"
(2) 2x4	3'-2"	4'-2"	5'-2"	6'-2"	3'-2"	4'-2"	5'-2"	6'-2"	3'-2"	4'-2"	5'-2"	6'-2"	3'-2"	4'-2"	5'-2"	6'-2"	3'-2"	4'-2"	5'-2"	6'-2"	3'-2"	4'-2"	5'-2"	6'-2"	3'-2"	4'-2"	5'-2"	6'-2"	3'-2"	4'-2"	5'-2"	6'-2"
(2) 2x6	4'-2"	5'-2"	6'-2"	7'-2"	4'-2"	5'-2"	6'-2"	7'-2"	4'-2"	5'-2"	6'-2"	7'-2"	4'-2"	5'-2"	6'-2"	7'-2"	4'-2"	5'-2"	6'-2"	7'-2"	4'-2"	5'-2"	6'-2"	7'-2"	4'-2"	5'-2"	6'-2"	7'-2"	4'-2"	5'-2"	6'-2"	7'-2"
(2) 2x8	5'-2"	6'-2"	7'-2"	8'-2"	5'-2"	6'-2"	7'-2"	8'-2"	5'-2"	6'-2"	7'-2"	8'-2"	5'-2"	6'-2"	7'-2"	8'-2"	5'-2"	6'-2"	7'-2"	8'-2"	5'-2"	6'-2"	7'-2"	8'-2"	5'-2"	6'-2"	7'-2"	8'-2"	5'-2"	6'-2"	7'-2"	8'-2"
(2) 2x10	6'-2"	7'-2"	8'-2"	9'-2"	6'-2"	7'-2"	8'-2"	9'-2"	6'-2"	7'-2"	8'-2"	9'-2"	6'-2"	7'-2"	8'-2"	9'-2"	6'-2"	7'-2"	8'-2"	9'-2"	6'-2"	7'-2"	8'-2"	9'-2"	6'-2"	7'-2"	8'-2"	9'-2"	6'-2"	7'-2"	8'-2"	9'-2"
(2) 2x12	7'-2"	8'-2"	9'-2"	10'-2"	7'-2"	8'-2"	9'-2"	10'-2"	7'-2"	8'-2"	9'-2"	10'-2"	7'-2"	8'-2"	9'-2"	10'-2"	7'-2"	8'-2"	9'-2"	10'-2"	7'-2"	8'-2"	9'-2"	10'-2"	7'-2"	8'-2"	9'-2"	10'-2"	7'-2"	8'-2"	9'-2"	10'-2"
(3) 2x12	8'-2"	9'-2"	10'-2"	11'-2"	8'-2"	9'-2"	10'-2"	11'-2"	8'-2"	9'-2"	10'-2"	11'-2"	8'-2"	9'-2"	10'-2"	11'-2"	8'-2"	9'-2"	10'-2"	11'-2"	8'-2"	9'-2"	10'-2"	11'-2"	8'-2"	9'-2"	10'-2"	11'-2"	8'-2"	9'-2"	10'-2"	11'-2"
(4) 2x12	9'-2"	10'-2"	11'-2"	12'-2"	9'-2"	10'-2"	11'-2"	12'-2"	9'-2"	10'-2"	11'-2"	12'-2"	9'-2"	10'-2"	11'-2"	12'-2"	9'-2"	10'-2"	11'-2"	12'-2"	9'-2"	10'-2"	11'-2"	12'-2"	9'-2"	10'-2"	11'-2"	12'-2"	9'-2"	10'-2"	11'-2"	12'-2"

**TABLE S102.9 - SILL OR BOTTOM PLATE TO FOUNDATION CONNECTIONS RESISTING UPLIFT LOADS - 110 MPH WIND EXP "C"**

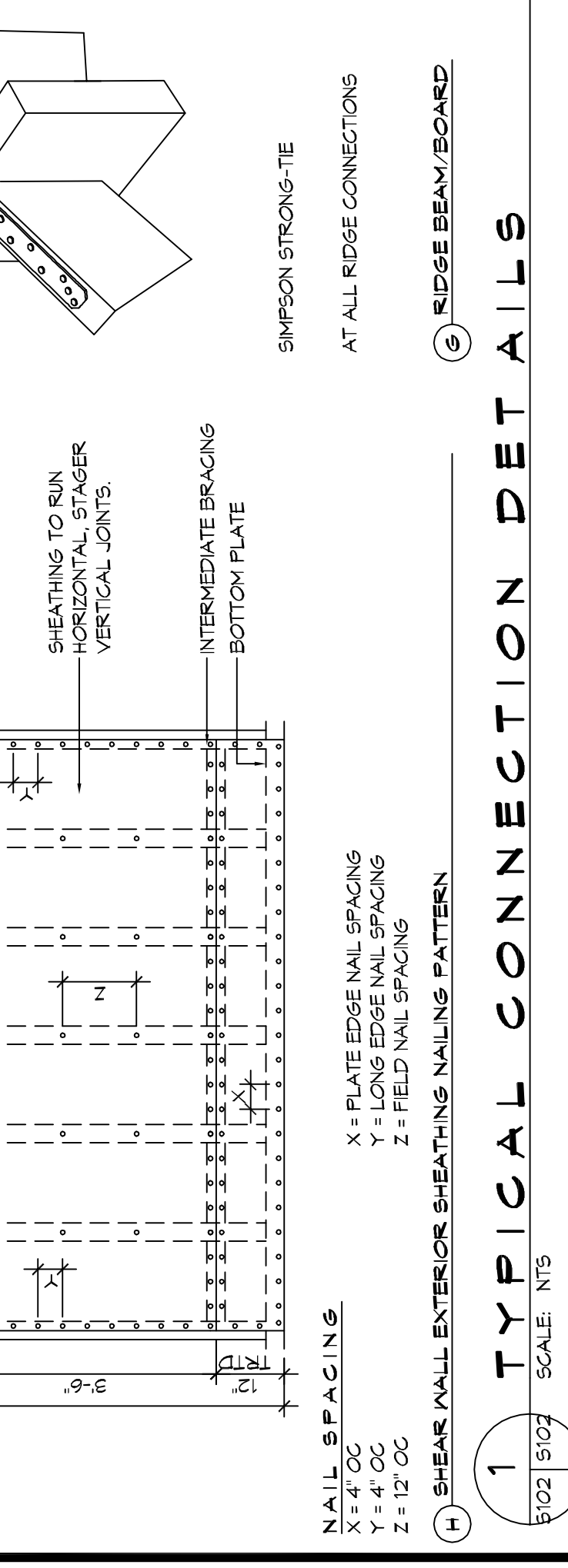
ANCHOR BOLT CONNECTION RESISTING	FOUNDATION SUPPORTING		INTERIOR ZONES	
	1 - 3 STORES	50 INCHES ON CENTER	Ø END ZONES	58 INCHES ON CENTER
12" OC	1	2	1	2
16" OC	2	3	2	3
24" OC	3	4	3	4
31" OC	4	5	4	5
39" OC	5	6	5	6
47" OC	6	7	6	7
55" OC	7	8	7	8
63" OC	8	9	8	9

**TABLE S102.10 - BOTTOM PLATE TO FOUNDATION CONNECTIONS (ANCHOR BOLTS) RESISTING LATERAL & SHEAR LOADS - EXP "C"**

ANCHOR BOLT CONNECTION RESISTING	FOUNDATION SUPPORTING		INTERIOR ZONES	
	1 STORY	50 INCHES ON CENTER	Ø END ZONES	58 INCHES ON CENTER
12" OC	1	2	1	2
16" OC	2	3	2	3
24" OC	3	4	3	4
31" OC	4	5	4	5
39" OC	5	6	5	6
47" OC	6	7	6	7
55" OC	7	8	7	8
63" OC	8	9	8	9

**TABLE S102.11 - FULL HEIGHT STUD REQUIREMENT FOR HEADERS OR WINDOW SILL PLATES IN EXTERIOR WALLS EXP "C"**

HEADER SPAN (FEET)	12" OC				16" OC				24" OC			
	1	2	3	4	1	2	3	4	1	2	3	4
2	1	2	3	4	1	2	3	4	1	2	3	4
4	2	3	4	5	2	3	4	5	2	3	4	5
6	3	4	5	6	3	4	5	6	3	4	5	6
8	4	5	6	7	4	5	6	7	4	5	6	7
10	5	6	7	8	5	6	7	8	5	6	7	8
12	6	7	8	9	6	7	8	9	6	7	8	9
14	7	8	9	10	7	8	9	10	7	8	9	10
16	8	9	10	11	8	9	10	11	8	9	10	11



**TABLE S102.5 - JACK STUD REQ - INT LOADBEARING WALLS**

HEADER SUPPORTING	ROOF SPAN (FEET)					
	12 FEET		24 FEET		36 FEET	
	3"	4.5"	5"	6"	4.5"	5"
ONE FLOOR ONLY (CENTER BEARING)	2	1	1	1	1	1
	4	1	1	1	1	1
TWO FLOORS (CENTER BEARING)	6	1	1	1	1	1
	8	1	1	1	1	1
ROOF AND CEILING	10	1	1	1	1	1
	12	1	1	1	1	1
ROOF CEILING AND ONE CENTER BEARING FLOOR	14	1	1	1	1	1
	16	1	1	1	1	1

**TABLE S102.6 - JACK STUD REQ - EXTERIOR LOADBEARING WALLS**

HEADER SUPPORTING	ROOF LIVE LOAD 20 PSF						GROUND SNOW LOAD 30 PSF					
	3"	4.5"	5"	6"	4.5"	5"	3"	4.5"	5"	6"	4.5"	5"
ROOF SUPPORTING	2	1	1	1	1	1	2	1	1	1	1	1
	4	1	1	1	1	1	4	1	1	1	1	1
ROOF AND CEILING	6	1	1	1	1	1	6	1	1	1	1	1
	8	2	2	2	2	2	8	2	2	2	2	2
ROOF CEILING AND ONE CENTER BEARING FLOOR	10	2	2	2	2	2	10	2	2	2	2	2
	12	3	3	3	3	3	12	3	3	3	3	3
ROOF CEILING AND ONE CENTER BEARING FLOOR	14	4	4	4	4	4	14	4	4	4	4	4
	16	5	5	5	5	5	16	5	5	5	5	5

**TABLE S102.3 - NAILING SCHEDULE**

DESCRIPTION	NUMBER OF COMMON NAILS	NUMBER OF COMMON NAILS PER FOOT	SPACING
TOP PLATE TO TOP PLATE (FACE NAILED)	2-16d	2-16d	PER FOOT
TOP PLATE AT INTERSECTION (FACE)	4-16d	5-16d	JOINTS - EACH SIDE
STUD TO STUD (FACE-NAILED)	2-16d	2-16d	24" O.C.
HEADER TO HEADER (FACE NAILED)	16d	16d	16" O.C. EDGES
TOP OR BOTTOM PLATE TO STUD (END)	SEE TABLE	SEE TABLE	PER STUD
BOTTOM PLATE TO FLOOR JOIST	2-16d	2-16d	PER FOOT
BANDJOIST END JOIST OR BLOCKING	2-16d	2-16d	PER FOOT
WOOD STRUCTURAL PANELS	8d	10d	SEE TABLE S102.1
DIAGONAL BOARD SHEATHING	2-8d	2-10d	PER SUPPORT
1X10" OR NIDER	3-8d	3-10d	PER SUPPORT

**TABLE S102.4 - BUILDING ENVELOPE REQUIREMENTS**

OPAQUE ELEMENTS	INSULATION ENTIRELY ABOVE DECK	ASSEMBLY MINIMUM R-VALUE
ROOFS	METAL BUILDING DECK	U-0.048 R-20.0 c.l.
WALLS, ABOVE GRADE	METAL BUILDING STEEL-FRAMED	U-0.065 R-19
	WOOD-FRAMED AND OTHER	U-0.027 R-39
FLOORS	METAL BUILDING STEEL-FRAMED	U-0.151 c.l. R-5.7 c.l. R-13.0
SLAB-ON-GRADE DOORS	WOOD-FRAMED AND OTHER	U-0.124 R-19.0
OPAQUE DOORS	MASS	U-0.089 R-13.0
GLAZING	STEEL JOIST	U-0.107 R-9.3 c.l.
SKYLIGHTS	WOOD-FRAMED AND OTHER	U-0.052 R-19.0
SCREENED DOORS	UNHEATED	U-0.251 R-14.0
SCREENED WINDOWS	UNHEATED	F-0.750 NR
SCREENED DOORS	UNHEATED	U-0.700 NR
SCREENED WINDOWS	UNHEATED	U-1.450 NR

**TABLE S102.1 - ROOF SLOPES**

DESCRIPTION	MINIMUM SLOPE
FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (10% SLOPE) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33% SLOPE) AND ALL OTHER ROOF SLOPES	1/4"
FOR ROOF SLOPES OF FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33% SLOPE) OR GREATER UNDERLAYMENT SHALL BE ONE LAYER APPLIED IN THE FOLLOWING MANNER:	1/4"
UNDERLAYMENT SHALL BE APPLIED SINGLE FASHION, PARALLEL TO AND STARTING FROM THE EAVE AND LAPPED 2 INCHES FASTENED SUFFICIENTLY TO HOLD IN PLACE. END LAPS SHALL BE OFFSET BY 6 FEET.	1/4"

**TABLE S102.2 - WALL SHEATHING**

DESCRIPTION	MINIMUM SLOPE
FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (10% SLOPE) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33% SLOPE) AND ALL OTHER ROOF SLOPES	1/4"
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UNDERLAYMENT SHALL BE APPLIED SINGLE FASHION, PARALLEL TO AND STARTING FROM THE EAVE AND LAPPED 2 INCHES FASTENED SUFFICIENTLY TO HOLD IN PLACE. END LAPS SHALL BE OFFSET BY 6 FEET.	1/4"

**TABLE S102.3 - NAILING SCHEDULE**

DESCRIPTION	NUMBER OF COMMON NAILS	NUMBER OF COMMON NAILS PER FOOT	SPACING
TOP PLATE TO TOP PLATE (FACE NAILED)	2-16d	2-16d	PER FOOT
TOP PLATE AT INTERSECTION (FACE)	4-16d	5-16d	JOINTS - EACH SIDE
STUD TO STUD (FACE-NAILED)	2-16d	2-16d	24" O.C.
HEADER TO HEADER (FACE NAILED)	16d	16d	16" O.C. EDGES
TOP OR BOTTOM PLATE TO STUD (END)	SEE TABLE	SEE TABLE	PER STUD
BOTTOM PLATE TO FLOOR JOIST	2-16d	2-16d	PER FOOT
BANDJOIST END JOIST OR BLOCKING	2-16d	2-16d	PER FOOT
WOOD STRUCTURAL PANELS	8d	10d	SEE TABLE S102.1
DIAGONAL BOARD SHEATHING	2-8d	2-10d	PER SUPPORT
1X10" OR NIDER	3-8d	3-10d	PER SUPPORT

**TABLE S102.4 - BUILDING ENVELOPE REQUIREMENTS**

OPAQUE ELEMENTS	INSULATION ENTIRELY ABOVE DECK	ASSEMBLY MINIMUM R-VALUE
ROOFS	METAL BUILDING DECK	U-0.048 R-20.0 c.l.
WALLS, ABOVE GRADE	METAL BUILDING STEEL-FRAMED	U-0.065 R-19
	WOOD-FRAMED AND OTHER	U-0.027 R-39
FLOORS	METAL BUILDING STEEL-FRAMED	U-0.151 c.l. R-5.7 c.l. R-13.0
SLAB-ON-GRADE DOORS	WOOD-FRAMED AND OTHER	U-0.124 R-19.0
OPAQUE DOORS	MASS	U-0.089 R-13.0
GLAZING	STEEL JOIST	U-0.107 R-9.3 c.l.
SKYLIGHTS	WOOD-FRAMED AND OTHER	U-0.052 R-19.0
SCREENED DOORS	UNHEATED	U-0.251 R-14.0
SCREENED WINDOWS	UNHEATED	F-0.750 NR
SCREENED DOORS	UNHEATED	U-0.700 NR
SCREENED WINDOWS	UNHEATED	U-1.450 NR

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FOR ROOF SLOPES OF FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33% SLOPE) OR GREATER UNDERLAYMENT SHALL BE ONE LAYER APPLIED IN THE FOLLOWING MANNER:	1/4"
UNDERLAYMENT SHALL BE APPLIED SINGLE FASHION, PARALLEL TO AND STARTING FROM THE EAVE AND LAPPED 2 INCHES FASTENED SUFFICIENTLY TO HOLD IN PLACE. END LAPS SHALL BE OFFSET BY 6 FEET.	1/4"

**TABLE S102.2 - WALL SHEATHING**

DESCRIPTION	MINIMUM SLOPE
FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (10% SLOPE) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33% SLOPE) AND ALL OTHER ROOF SLOPES	1/4"
FOR ROOF SLOPES OF FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33% SLOPE) OR GREATER UNDERLAYMENT SHALL BE ONE LAYER APPLIED IN THE FOLLOWING MANNER:	1/4"
UNDERLAYMENT SHALL BE APPLIED SINGLE FASHION, PARALLEL TO AND STARTING FROM THE EAVE AND LAPPED 2 INCHES FASTENED SUFFICIENTLY TO HOLD IN PLACE. END LAPS SHALL BE OFFSET BY 6 FEET.	1/4"

**TABLE S102.5 - JACK STUD REQ - INT LOADBEARING WALLS**

HEADER SUPPORTING	ROOF SPAN (FEET)					
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