TABLE S601.7 - UPLIFT CONNECTIONS - 140 MPH WINDS EXP "B"

WFCM 2015 TABLE 3.2

CONNECTION	FRAMING SPACING (INCHES)	ROOF SPAN (FEET)	UPLIFT	LATERAL	SHEAR	NUMBER OF 8d COMMON NAILS OR 10d BOX NAILS IN EACH END OF 1-1/4"X20 GAGE STRAP
ROOF ASSEMBLY TO WALL ASSEMBLY	16" OC	16	407	292	152R	4
WALL ASSEMBLY TO FOUNDATION	16" OC	16	224	219	436	4

TABLE S601.8 - SILL OR BOTTOM PLATE TO FOUNDATION CONNECTIONS RESISTING UPLIFT LOADS - 140 MPH WIND EXP "B"

WFCM 2015 TABLE 3.2C

BOTTOM PLATE TO FOUNDATION ANCHOR BOLT CONNECTION RESISTING	FOUNDATION SUPPORTING	MAXIMUM ANCHOR BOLT SPACING (INCHES)	
		8' END ZONES	INTERIOR ZONES
UPLIFT LOADS	1 - 3 STORIES	25 INCHES ON CENTER	30 INCHES ON CENTER

NOTE: A MINIMUM OF ONE ANCHOR BOLT SHALL BE PROVIDED WITHIN 6 TO 12 INCHES OF EACH END OF EACH PLATE

TABLE S601.9 - SILL OR BOTTOM PLATE TO FOUNDATION CONNECTIONS RESISTING SHEAR LOADS - 140 MPH WIND EXP "B"

WFCM 2015 TABLE 3.2B

BOTTOM PLATE TO FOUNDATION ANCHOR BOLT CONNECTION RESISTING	FOUNDATION SUPPORTING	MAXIMUM ANCHOR BOLT SPACING (INCHES)
		5/8" Ø ANCHOR BOLTS
UPLIFT LOADS	4 STORY	48 INCHES ON CENTER W/3X3X1/4" WASHER

TABLE S601.10 - FULL HEIGHT STUD REQUIREMENT FOR HEADERS OR WINDOW SILL PLATES IN EXTERIOR WALLS EXPOSURE "B"

WFCM 2015 TABLE 3.23C

	WALL SPACING (INCHES)		
	12" O.C.	16" O.C.	24" O.C.
HEADER SPAN (FEET)	NUMBER OF FULL HEIGHT STUD REQUIRED AT EACH END OF THE HEADER		
2	1	1	1
4	2	2	1
6	3	3	2
8	4	3	2

TABLE S601.5 - JACK STUD REQ - INT LOADBEARING WALLS

HEADER SUPPORTING	HEADER SPAN (FT)	ROOF SPAN (FEET)											
		12 FEET				24 FEET				36 FEET			
		HEADER WIDTH											
		3"	4.5"	5"	6.5"	3"	4.5"	5"	6.5"	3"	4.5"	5"	6"
		NUMBER OF JACK STUDS REQUIRED AT EACH END OF THE HEADER											
ONE FLOOR ONLY (CENTER BEARING)	2	1	1	1	1	1	1	1	1	1	1	1	1
	4	1	1	1	1	1	1	1	1	1	1	1	1
	6	1	1	1	1	1	1	1	1	2	1	1	1
	8	1	1	1	1	2	1	1	1	2	2	2	1
	10	1	1	1	1	2	2	1	1	3	2	2	2
	12	1	1	1	1	2	2	2	1	3	2	2	2
	14	2	1	1	1	3	2	2	2	4	3	3	2
	16	2	2	1	1	3	2	2	2	4	3	3	2
TWO FLOORS (CENTER BEARING)	2	1	1	1	1	1	1	1	1	2	1	1	1
	4	1	1	1	1	2	1	1	1	3	2	2	2
	6	2	1	1	1	3	2	2	2	4	3	2	2
	8	2	2	1	1	3	2	2	2	5	3	3	3
	10	2	2	2	1	4	3	3	2	6	4	4	3
	12	3	2	2	2	5	3	3	3	7	5	4	4
	14	3	2	2	2	6	4	4	3	8	5	5	4
	16	4	3	2	2	6	4	4	3	9	6	6	5

HEADER WIDTH - 3" (2-2x), 4.5" (3-2x), 5", 6.5" (4-2x) EACH W/ 1/2" PLYWOOD SPACER BETWEEN

TABLE S601.6 - JACK STUD REQ - EXTERIOR LOADBEARING WALLS

WFCM 2021 TABLE 3.22F

		ROOF LIVE LOAD 20 PSF				ROOF LIVE LOAD 30 PSF			
		3"	4.5"	5"	6.5"	3"	4.5"	5"	6.5"
		NUMBER OF JACK STUDS REQUIRED							
ROOF AND CEILING	2	1	1	1	1	1	1	1	1
	4	1	1	1	1	1	1	1	1
	6	2	1	1	1	2	1	1	1
	8	2	2	2	1	2	2	2	1
	10	3	2	2	2	3	2	2	2
	12	3	2	2	2	3	2	2	2
	14	4	3	2	2	4	3	2	2
	16	4	3	3	2	4	3	3	2
ROOF, CEILING, AND ONE CENTER BEARING FLOOR	2	1	1	1	1	1	1	1	1
	4	2	1	1	1	2	1	1	1
	6	2	2	2	1	3	2	2	2
	8	3	2	2	2	3	2	2	2
	10	4	3	2	2	4	3	3	2
	12	4	3	3	2	5	3	3	3
	14	5	4	3	3	5	4	3	3
	16	6	4	4	3	6	4	4	3

HEADER WIDTH - 3" (2-2x), 4.5" (3-2x), 5", 6.5" (4-2x) EACH W/ 1/2" PLYWOOD SPACER BETWEEN

TABLE S601.3 - NAILING SCHEDULE WFCM 2015 TABLE 3.1

DESCRIPTION	NUMBER OF COMMON NAILS	NUMBER OF BOX NAILS	SPACING
HEADER TO HEADER (FACE NAILED)	16d	16d	16" OC EDGES

TABLE S601.4 - BUILDING ENVELOPE REQUIREMENTS

OPAQUE ELEMENTS		ASSEMBLY MAXIMUM	INSULATION MIN. R-VALUE
ROOFS	INSULATION ENTIRELY ABOVE DECK	U-0.048	R-20.0 c.i.
	METAL BUILDING	U-0.065	R-19
	ATTIC AND OTHER	U-0.027	R-38
WALLS, ABOVE GRADE	MASS	U-0.151	R-5.7 c.i.
	METAL BUILDING	U-0.113	R-13.0
	STEEL-FRAMED	U-0.124	R-13.0
	WOOD-FRAMED AND OTHER	U-0.089	R-13.0
FLOORS	MASS	U-0.107	R6-3 c.i.
	STEEL JOIST	U-0.052	R-19.0
	WOOD FRAMED AND OTHER	U-0.051	R-19.0
SLAB-ON-GRADE	UN-HEATED	F-0.730	NR
OPAQUE DOORS	SWINGING	U-0.700	NR
	NON-SWINGING	U-1.450	NR

METAL ROOF APPLICATION & FASTENING NOTES

1. INSTALL 26 GAUGE METAL ROOF PER MANUFACTURES RECOMMENDATIONS FOR 140 MPH WIND SPEED.

GENERAL UPLIFT CONNECTION NOTES

ROOF ASSEMBLY TO WALL ASSEMBLY:
UPLIFT CONNECTIONS SHALL BE FROM RAFTER OR TRUSS TO WALL STUD. WHEN RAFTERS OR TRUSSES ARE NOT LOCATED DIRECTLY ABOVE STUDS, RAFTERS SHALL BE ATTACHED TO THE WALL PLATE AND THE WALL TOP PLATE SHALL BE ATTACHED TO THE WALL STUD WITH UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE S601.10.

WALL ASSEMBLY TO WALL ASSEMBLY:
STORY TO STORY UPLIFT CONNECTIONS FROM UPPER STORY WALL STUD TO LOWER STORY WALL STUD. WHEN UPPER STORY WALL STUDS ARE NOT LOCATED DIRECTLY ABOVE LOWER WALL STUDS, THE STUDS SHALL BE ATTACHED TO A COMMON MEMBER IN THE FLOOR ASSEMBLY BY UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE S601.11.

WALL ASSEMBLY TO FOUNDATION:
FIRST FLOOR WALL STUDS SHALL BE CONNECTED TO THE FOUNDATION, SILL, PLATE, OR BOTTOM PLATE. A MINIMUM OF A 1-1/4" x 20 GA. ASTM A653 GRADE 33 STEEL STRAP SHALL BE NAILED TO THE WALL STUDS AND HAVE A MINIMUM EMBEDMENT OF 7 INCHES IN CONCRETE FOUNDATIONS AND SLABS-ON-GRADE, 15 INCHES IN MASONRY BLOCK FOUNDATIONS, OR BE LAPPED UNDER THE BOTTOM PLATE, 3 INCH SQUARE WASHERS SHALL BE USED ON THE ANCHOR BOLTS AND ANCHOR BOLT SPACINGS SHALL NOT EXCEED THE REQUIREMENTS. STEEL STRAPS EMBEDDED IN OR IN CONTACT WITH SLAB-ON-GRADE OR MASONRY BLOCK FOUNDATIONS SHALL BE HOT-DIPPED GALV. AFTER FABRICATION, OR MANUF. FROM G185 OR Z450 GALV. STL. CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE S601.12.

TABLE S601.1 - ROOF SHEATHING ATTACHMENT REQUIREMENT - WIND LOAD EXP "B"

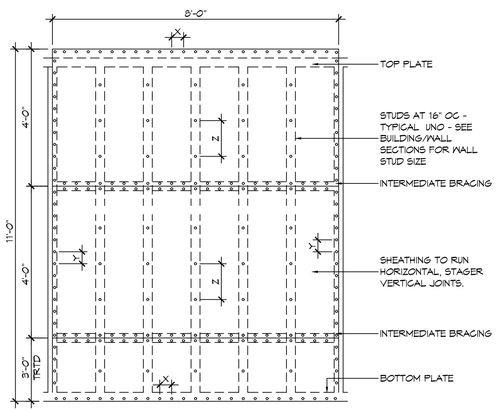
SHEATHING LOCATION	RAFTER / TRUSS SPACING	E	F
		MAX NAIL SPACING FOR 8d COMMON NAILS OR 10d BOX NAILS (INCHES OC)	
INTERIOR ZONE	12" OC	6	12
	16" OC	6	12
	24" OC	6	12
PERIMETER EDGE ZONE	12" OC	6	6
	16" OC	4	4
	24" OC	3	3

140 MPH WIND - EXPOSURE "B" TYPICAL
E = NAIL SPACING AT PANEL EDGES, INCHES.
F = NAIL SPACING AT INTERMEDIATE SUPPORTS IN THE PANEL FIELD, INCHES.

TABLE S601.1 - WALL SHEATHING AND CLADDING REQUIREMENT - WIND LOAD EXP "B"

SHEATHING LOCATION	RAFTER / TRUSS SPACING	E	F
		MAX NAIL SPACING FOR 8d COMMON NAILS OR 10d BOX NAILS (INCHES OC)	
INTERIOR ZONE	12" OC	6	12
	16" OC	6	12
	24" OC	6	6
PERIMETER EDGE ZONE	12" OC	6	12
	16" OC	6	12
	24" OC	6	6

140 MPH WIND - EXPOSURE "B" TYPICAL
E = NAIL SPACING AT PANEL EDGES, INCHES.
F = NAIL SPACING AT INTERMEDIATE SUPPORTS IN THE PANEL FIELD, INCHES.



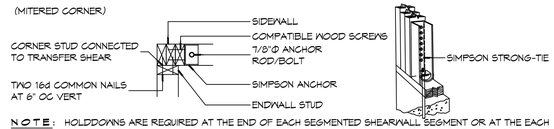
NAIL SPACING
X = 4" OC
Y = 4" OC
Z = 12" OC

X = PLATE EDGE NAIL SPACING
Y = LONG EDGE NAIL SPACING
Z = FIELD NAIL SPACING

INTERIOR SHEATHING
1/2"PLYWOOD EACH FACE STAGGERED 48" OC. W/8d NAILS @4"O.C. FASTENING @ PANEL EDGES 8d NAILS @12" O.C. FASTENING @ INTERMEDIATE MEMBERS.

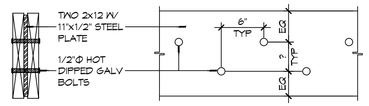
EXTERIOR SHEATHING
5/8"PLYWOOD EACH FACE STAGGERED 48" OC. W/8d NAILS @4"O.C. FASTENING @ PANEL EDGES 8d NAILS @12" O.C. FASTENING @ INTERMEDIATE MEMBERS.

H SHEAR WALL EXTERIOR SHEATHING NAILING PATTERN



NOTE: HOLDDOWNS ARE REQUIRED AT THE END OF EACH SEGMENTED SHEARWALL SEGMENT OR AT THE EACH END OF A PERFORATED SHEARWALL. WHEN FULL HEIGHT SHEARWALL SEGMENTS MEET AT A CORNER, A SINGLE HOLDDOWN SHALL BE PERMITTED TO BE USED TO RESIST THE OVERTURNING FORCES IN BOTH DIRECTIONS WHEN THE CORNER FRAMING IN THE ADJOINING WALLS IS FASTENED TOGETHER TO TRANSFER THE UPLIFT LOAD.

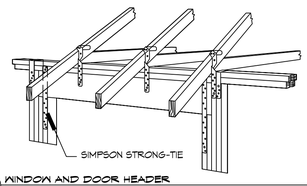
G CORNER HOLDDOWN



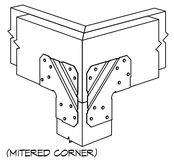
SECTION ELEVATION

F FLITCH BEAM

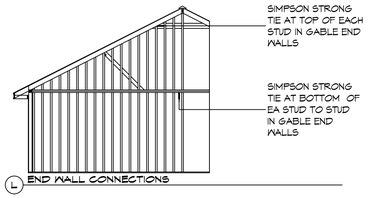
K SIMPSON HOLLOW COLUMN



N WINDOW AND DOOR HEADER

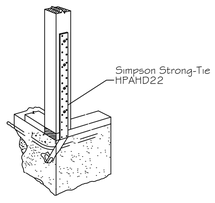


M POST TO BEAM

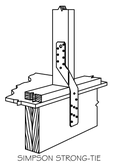


L END WALL CONNECTIONS

K SIMPSON MSTAM36

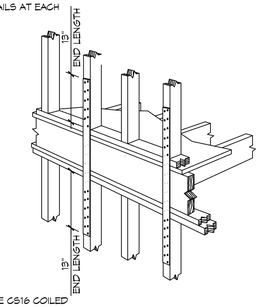


K CORNER HOLD DOWN



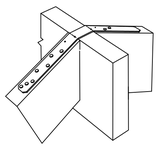
J STUD TO BAND JOIST

NOTE: SPACE NAILS AT EACH NAIL HOLE



SIMPSON STRONG-TIE CS16 COILED STRAPS AT 32" OC

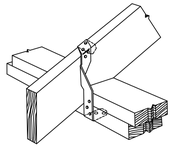
H FLOOR TO FLOOR



SIMPSON STRONG-TIE

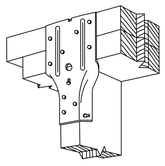
AT ALL RIDGE CONNECTIONS

G RIDGE BEAM/BOARD



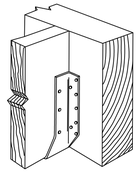
SIMPSON STRONG-TIE

F TOP PLATE TO RAFTER



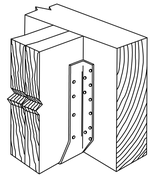
SIMPSON STRONG-TIE

E STUD TO TOP PLATE



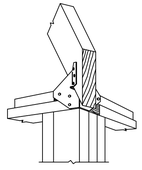
SIMPSON STRONG-TIE

D FLOOR JOIST



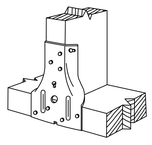
SIMPSON STRONG-TIE

C DBL FLOOR JOIST



SIMPSON STRONG-TIE

B HIP RAFTER



SIMPSON STRONG-TIE

A STUD TO SILL PLATE

TYPICAL CONNECTION DETAILS

SCALE: NTS

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REVISIONS

#	DESCRIPTION	DATE

SEAL:

GARAGE PLAN

BORCHERT GARAGE PLAN

2143 BAYOU LANE
SLIDELL, LA 70458

DATE:	11-18-2024
CHECKED BY:	CKD
JOB No:	DD/K-JK
DRAWN BY:	

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SHEET TITLE:
TYPICAL CONNECTION DETAILS, SCHEDULES, AND NOTES

DRAWING NUMBER:

S104

SHEET No: 7 of 8