

**JAMES C. LUCIA**  
 RESIDENTIAL DESIGN

*Lucia*

**FDS ENGINEERING ASSOCIATES**  
 240 Mainland Ave., Suite 3000  
 3042 Pinehurst Ave., Orlando, FL 32804  
 (407) 425-1111  
 www.fds-engineering.com  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER  
 No. 82126  
 Expiration Date: 03/31/2020  
 Date: March 28, 2019

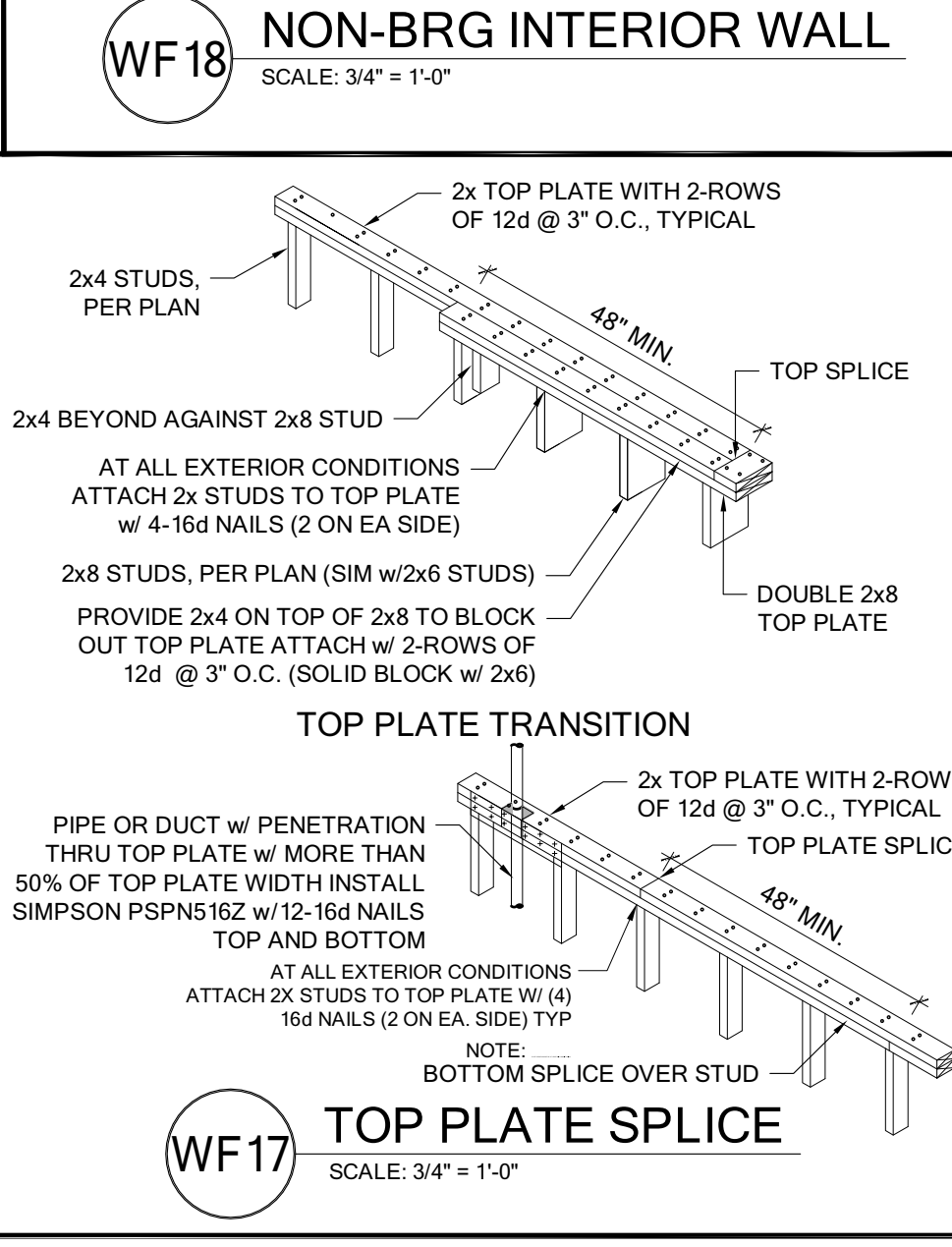
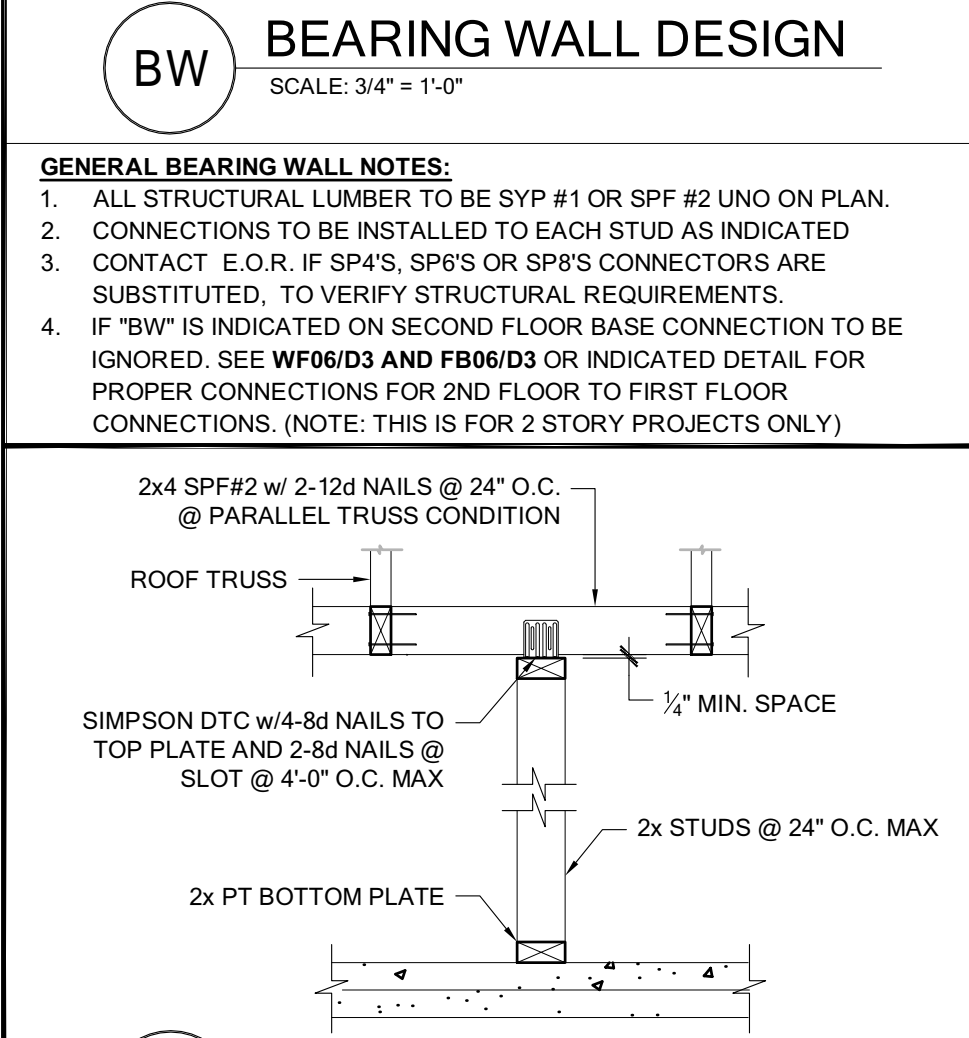
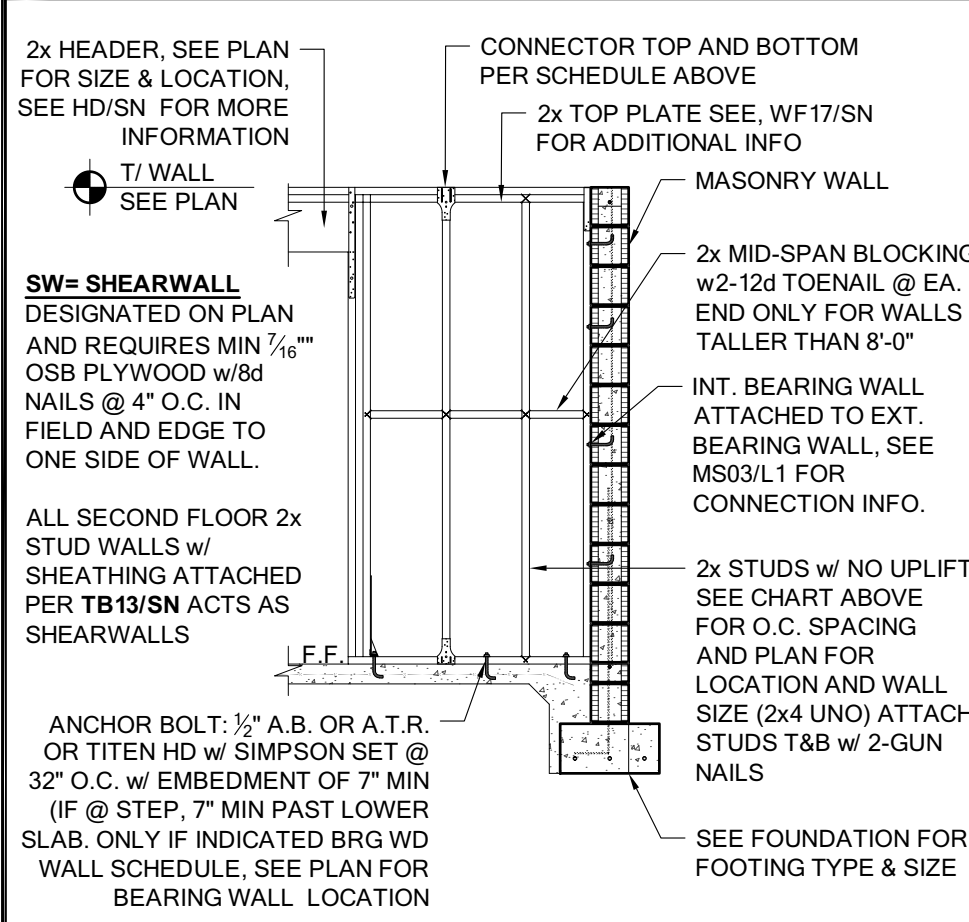
MARK	SIZE	DEPTH	REINFORCING	GRAVITY CAP. (lbs)
F2.0	2'-0" x 2'-0"	1'-0"	3 #5 E.W. BOT.	7200
F2.5	2'-6" x 2'-6"	1'-0"	3 #5 E.W. BOT.	11000
F3.0	3'-0" x 3'-0"	1'-0"	4 #5 E.W. BOT.	15600
F3.5	3'-6" x 3'-6"	1'-0"	4 #5 E.W. BOT.	21500
F4.0	4'-0" x 4'-0"	1'-0"	5 #5 E.W. BOT.	28000
F4.5	4'-6" x 4'-6"	1'-4"	5 #5 E.W. BOT.	34500
F5.0	5'-0" x 5'-0"	1'-4"	6 #5 E.W. BOT.	42500
F6.0	6'-0" x 6'-0"	1'-6"	6 #5 E.W. TOP & BOT.	61500

**GENERAL FOUNDATION NOTES:**  
 1. PROVIDE MIN. 6 MIL. APPROVED VAPOR BARRIER. ALL JOINTS TO BE LAPPED MIN. 6" AND SEALED.  
 2. 4" 2000 PSI CONC. SLAB W/ 6X6 10/10 W/W.F. OR FIBERMESH /FIBERMESH ADDED TO THE CONCRETE. IN ACCORDANCE W/ MANUF'S SLAB FOUNDATION INSTRUCTIONS AND NER-254 FOR FIBERMESH OR NER-144 FOR FIBERMESH OVER 6 MIL. VISCOUS VAPOR BARRIER & TREATED FOR TERMITES.  
 3. G.O. BUILDER. SEE ARCH PLANS FOR ROUGH OPENING LOCATIONS AND ADDITIONAL INFORMATION RE: DOOR/WINDOW INSTALLATION ALONG W/ DIMENSIONS NOT SHOWN ON FOUNDATION.  
 4. CONSULT W/ MANUFACTURER SPECIFICATIONS PRIOR TO POURING OR RECESING DOOR SILLS OR SLIDING GLASS DOOR SILLS.  
 5. NO WOOD STAKES PERMITTED IN FOUNDATION.  
 6. PENDING SITE CONDITIONS. FOUNDATION MAY HAVE TO BE STEPPED DOWN. SEE FMB101 FOR ADDITIONAL INFORMATION. G.C. TO DETERMINE STEP LOCATIONS, IF REQUIRED.  
 7. STEEL BENDS AND LAP SPLICE SEE MS004.1.  
 8. ALL EQUIPMENT AND/OR APPLIANCES HAVING AN IGNITION SOURCE SHALL BE ELEVATED A MIN OF 18" CONTRACTOR TO PROVIDE SUCH PLATFORM W/ EITHER MASONRY OR WOOD CONSTRUCTION.  
 9. ASSUMED ALLOWABLE SOIL BEARING PRESSURE AFTER COMPACTION: 2000 PSF (SEE SOILS REPORT AND SPECIFICATIONS FOR COMPACTION REQUIREMENTS). IF SOIL CONDITIONS ON THE PROJECT DO NOT MEET OR EXCEED THE CAPACITY, THE GENERAL CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO FOUNDATION POUR FOR VERIFICATION OF FOUNDATION DESIGN. SOIL TO BE FREE OF ORGANIC MATERIAL AND COHESIVE SOILS. COMPACTED IN 12" LIFTS TO AT LEAST 95% OF MAX. DRY DENSITY AS DETERMINED BY ASTM - 1557 (MODIFIED PROCTOR).  
 10. PENDING SITE CONDITIONS, IF STEINWALL IS REQ'D, G.C. TO NOTIFY ENGINEER OF RECORD IMMEDIATELY FOR DIRECTION.  
 11. R-403.14 MINIMUM DEPTH: ALL EXTERIOR FOOTINGS (BOTTOM) SHALL BE PLACED AT LEAST 12" BELOW THE UNDISTURBED GROUND SURFACE.

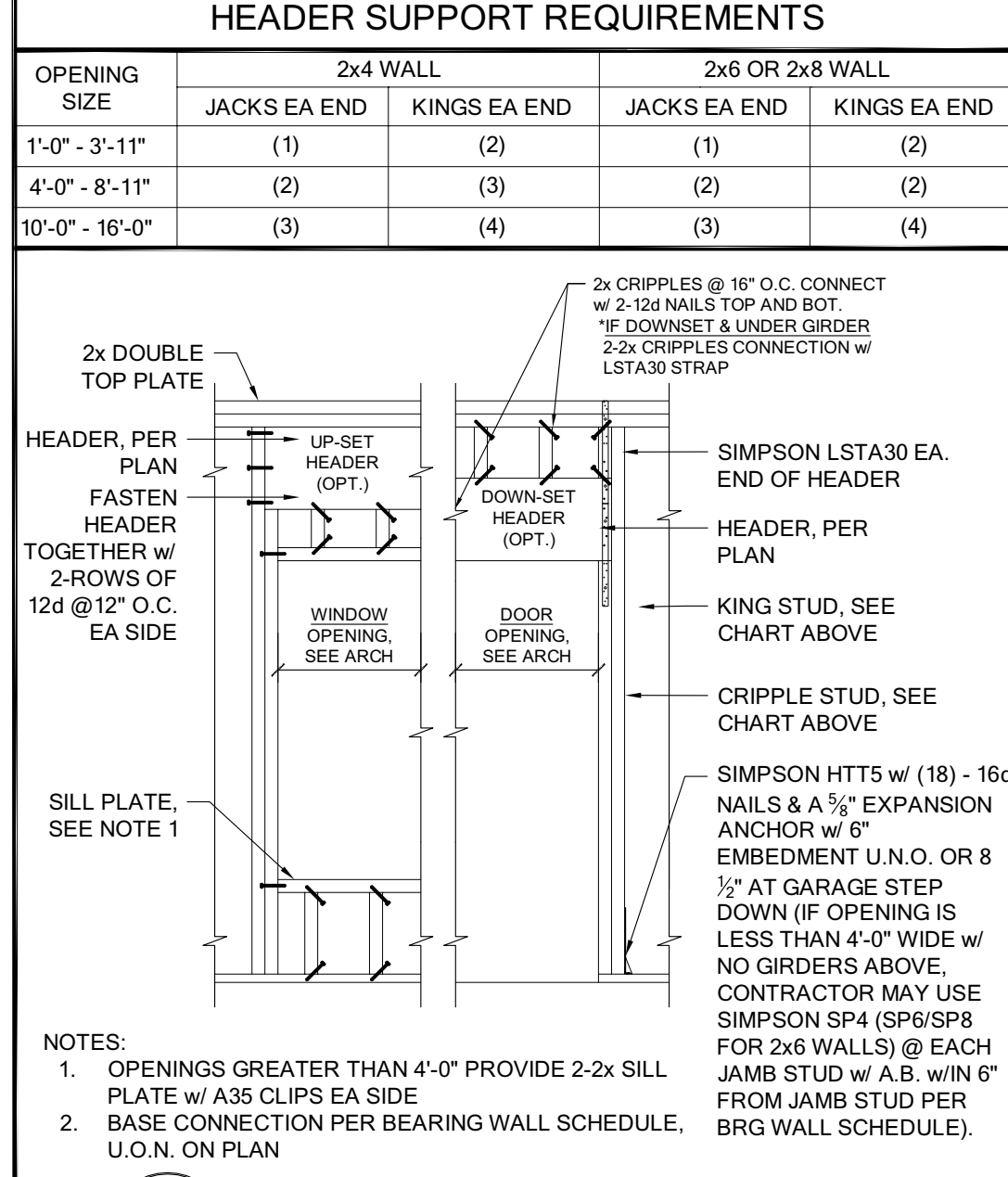
MARK	COLUMN SIZE	FIRST FLOOR BASE CONNECTIONS. SEE PLAN FOR SECOND FLOOR CONNECTIONS.	UPLIFT (lb)
C1	(3) 2x #2 SYP	(4) 12x TOENAILS	NO UPLIFT
C2	(3) 2x #2 SYP	DT22 w/ 1/2" ATR & (8) 1/2" x 1 1/2" SDS SCREWS	1835
C3	(3) 2x #1 SYP	(4) 12x TOENAILS	NO UPLIFT
C4	(3) 2x #1 SYP	DT22 w/ 1/2" ATR & (8) 1/2" x 1 1/2" SDS SCREWS	1835
C5	4x4 P.T.#2 SYP POST	ABU44 w/ 3/8" ATR & (12) 16d NAILS FIRST/SECOND FLOOR CONN.	G = 6665 U = 1782
C6	6x6 P.T.#2 SYP POST	ABU66 w/ 3/8" ATR & (12) 16d NAILS FIRST/SECOND FLOOR CONN.	G = 12000 U = 2070
C7	8x8 P.T.#2 SYP POST	ABU88 w/ (2) 3/8" ATR & (18) 16d NAILS FIRST/SECOND FLOOR CONN.	G = 24335 U = 2088
C8	3.5" x 3.5" P.L. 1.8E Fb=2400 (WOLV/ANNOZED F EXT.)	HDU5-SDS2.5 w/ 3/8" ATR AND (14) 1/2"x2 1/2" SDS WOOD SCREWS	5080
C9	3.5" x 5.25" P.L. 1.8E Fb=2400 (WOLV/ANNOZED F EXT.)	HDU5-SDS2.5 w/ 3/8" ATR AND (14) 1/2"x2 1/2" SDS WOOD SCREWS	5080
C10	3.5" x 7" P.L. 1.8E Fb=2400 (WOLV/ANNOZED F EXT.)	HDU8-SDS2.5 w/ 3/8" ATR AND (20) 1/2"x2 1/2" SDS WOOD SCREWS	6372
C11	5.25" x 5.25" P.L. 1.8E Fb=2400 (WOLV/ANNOZED F EXT.)	HDU8-SDS2.5 w/ 3/8" ATR AND (20) 1/2"x2 1/2" SDS WOOD SCREWS	7082
C12	7" x 7" P.L. 1.8E Fb=2400 (WOLV/ANNOZED F EXT.)	HDU8-SDS2.5 w/ 3/8" ATR AND (20) 1/2"x2 1/2" SDS WOOD SCREWS	7082

**GENERAL COLUMN NOTES:**  
 1. SEE FLOOR PLAN FOR WALL WIDTH. STUD PACKS TO MATCH WALL WIDTH UNO.  
 2. ALL STRUCTURAL LUMBER TO BE SYP#1 OR SYP#2 UNO ON PLAN.  
 3. NAIL BUILT UP STUDS PER DETAIL WF37/03.  
 4. MINIMUM LUMBER EMBEDMENT: 5" EMBEDMENT FOR 1 1/2" ATR. 6" EMBEDMENT FOR 3/8" ATR. 8" EMBEDMENT FOR 1 1/2" ATR.  
 5. P.L. COL. TO BRG DIRECTLY ON FOUNDATION. CUT BASE PLATE AS REQ'D. G.C. TO PROVIDE MOISTURE BARRIER.  
 6. IF COL. IS CALLED OUT ON 2ND FLOOR, THE BASE CONNECTION IS NOT REQ'D. SEE PLANS FOR BASE CONNECTION.  
 7. SEE "WOOD CONSTRUCTION" NOTE #4 ON S0 SHEET FOR CORROSION INFORMATION.  
 8. MIN. 12" EMBEDMENT REQUIRED IN TOP OF MASONRY WALL.  
 9. VALUES HAVE BEEN REDUCED FOR NARROW FACE APPLICATION. CONNECTIONS SHALL BE INSTALLED ON NARROW OR WIDE FACE PER SIMPSON TC-SCLCM.

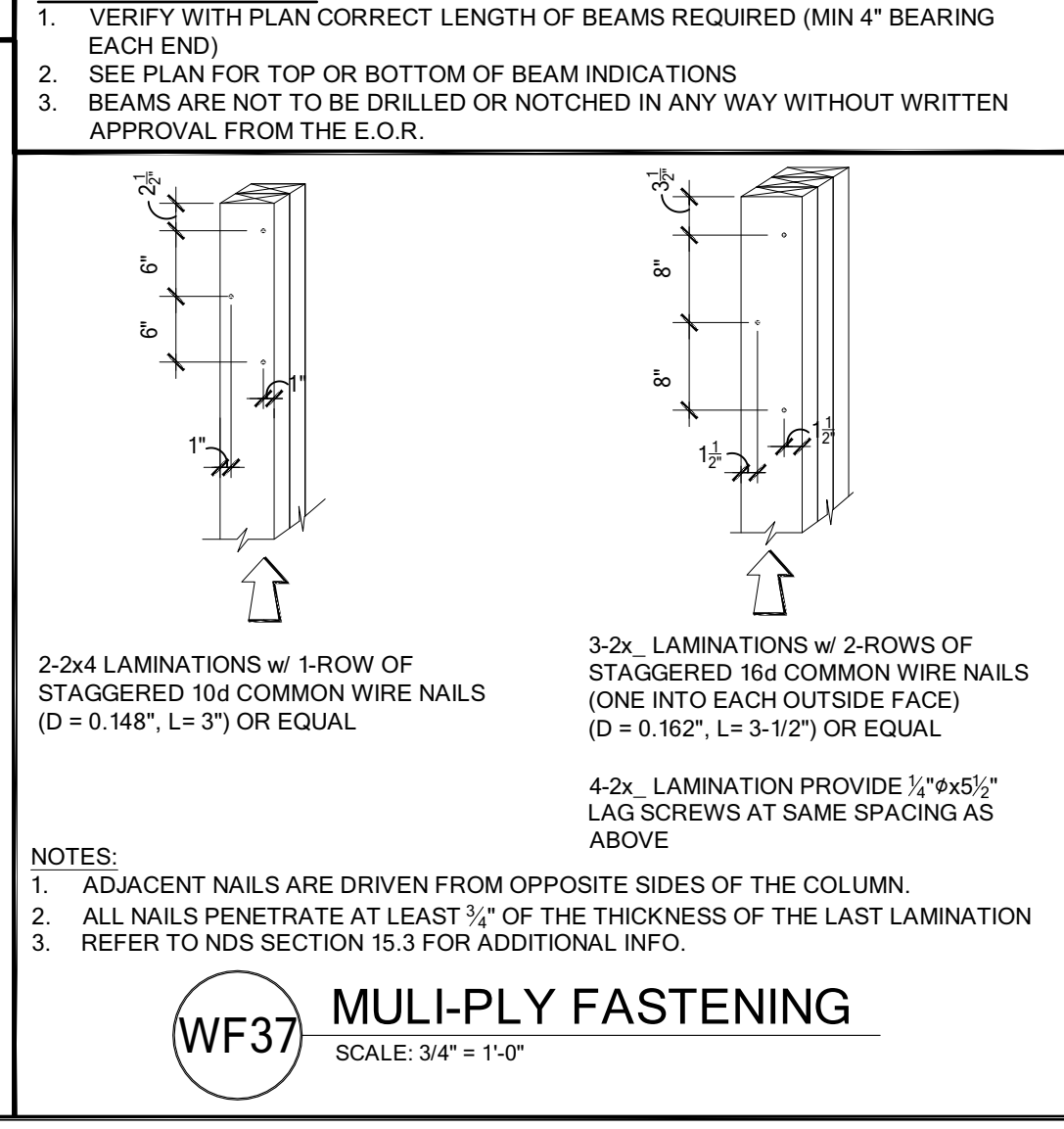
MARK	STUD SPACING	CONNECTION & FASTENERS	LUMBER SPECIES	UPLIFT CAP. (lb)
BW1	16"	(2) 16d TOENAILS (3) 12d TOENAILS OR (2) 12d END OR BOX NAILED	SPF	NO UPLIFT
BW2	16"	SP2 w/ (6) 10d NAILS (1) SP1 w/ 6-10d w/ ANCHOR BOLT	SPF	402
BW3	16"	(2) SP2 w/ (6) 10d NAILS (3) 12d TOENAILS OR (2) 12d END OR BOX NAILED	SPF	803
BW4	16"	(2) 16d TOENAILS (1) SP1 w/ 6-10d w/ ANCHOR BOLT	SYP	NO UPLIFT
BW5	16"	SP2 w/ (6) 10d NAILS (1) SP1 w/ 6-10d w/ ANCHOR BOLT	SYP	439
BW6	16"	(2) SP2 w/ (6) 10d NAILS (3) 12d TOENAILS OR (2) 12d END OR BOX NAILED	SYP	878
BW7	12"	(2) 16d TOENAILS (3) 12d TOENAILS OR (2) 12d END OR BOX NAILED	NO UPLIFT	
BW8	12"	SP2 w/ (6) 10d NAILS (1) SP1 w/ 6-10d w/ ANCHOR BOLT	SPF	535
BW9	12"	(2) SP2 w/ (6) 10d NAILS (3) 12d TOENAILS OR (2) 12d END OR BOX NAILED	SPF	1070
BW10	12"	(2) 16d TOENAILS (3) 12d TOENAILS OR (2) 12d END OR BOX NAILED	SYP	NO UPLIFT
BW11	12"	SP2 w/ (6) 10d NAILS (1) SP1 w/ 6-10d w/ ANCHOR BOLT	SYP	585
BW12	12"	(2) SP2 w/ (6) 10d NAILS (3) 12d TOENAILS OR (2) 12d END OR BOX NAILED	SYP	1170



MARK	HEADER SIZE	HEADER NOTES
H1	(2) 2x6 #2 SYP w/ 1/2" FLITCH PLATE	1. VERIFY W/ PLAN CORRECT LENGTH OF HEADER REQUIRED. 2. IF HEADER IS ON THE 1ST FLOOR SEE PLAN FOR BEARING WALL TYPE AND FOLLOW INSTRUCTIONS WITHIN BEARING WALL SCHEDULE FOR REQUIRED CORRECTIONS UNO ON PLAN. IF ON 2ND FLOOR SEE PLAN FOR CONN.
H2	(2) 2x8 #2 SYP w/ 1/2" FLITCH PLATE	3. ALL HEADER JACK AND KING STUDS SHALL BE FASTENED TO EACH PER DETAIL WF793N
H3	(2) 2x10 #2 SYP w/ 1/2" FLITCH PLATE	4. IF HEADER IS ON 2ND FLOOR TO BE FASTENED TO EACH PER DETAIL WF793N PER SIDE W/ LSTA30 @ EA. END OF HEADER CONNECTING HEADER TO JACK STUD
H4	(2) 2x12 #2 SYP w/ 1/2" FLITCH PLATE	5. FASTEN HEADERS TOGETHER W/ 2-ROWS OF 12d @ 12" O.C. EA. SIDE
H5	(2) - 1 1/2" x 11 1/2" LVL 2.0E Fb=2950	
H6	(2) - 1 1/2" x 7 1/2" LVL 2.0E Fb=2950	



MARK	BEAM SIZE	SIMPSON - CONNECTIONS	USP - CONNECTIONS
BM1	(2) 2x8 #2 SYP w/ 3/4" OSB FLITCH PLATE	WOOD POST (2) HTS20 CMU COLUMN (2) HETA16 U.N.O. ON FRAMING PLAN	WOOD POST (2) HTS20 CMU COLUMN (2) HETA16 U.N.O. ON FRAMING PLAN
BM2	(2) 2x10 #2 SYP w/ 3/4" OSB FLITCH PLATE	FASTEN BEAM PLYS: 2-ROWS OF 12d @ 12" O.C. EACH SIDE, TYPICAL	FASTEN BEAM PLYS: 2-ROWS OF 12d @ 12" O.C. EACH SIDE, TYPICAL
BM3	(2) 2x12 #2 SYP w/ 3/4" OSB FLITCH PLATE	WOOD POST (2) HTS20 CMU COLUMN (2) HETA16 U.N.O. ON FRAMING PLAN	WOOD POST (2) HTS20 CMU COLUMN (2) HETA16 U.N.O. ON FRAMING PLAN
BM4	(2) 1 1/2" x 11 1/2" LVL 2.0E Fb=2950	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE
BM5	(2) 1 1/2" x 17 1/2" LVL 2.0E Fb=2950	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE
BM6	(2) 1 1/2" x 16" LVL 2.0E Fb=2950	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE
BM7	(3) 1 1/2" x 11 1/2" LVL 2.0E Fb=2950 w/ 1/2" FLITCH PLATE	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE
BM8	(4) 1 1/2" x 11 1/2" LVL 2.0E Fb=2950 w/ 1/2" FLITCH PLATE	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE	FASTEN BEAM PLYS: 2-ROWS OF 1 1/2" x 3 1/2" SDS WD SCREWS @ 16" O.C. TYP. EA. SIDE



MARK	TYPE	CONNECTOR & FASTENERS	SPF	SYP	CONNECTOR & FASTENERS	SPF	SYP
A	FRAME TO MASONRY	HETA16 w/ (9) 10d x 1 1/2" OPT HETA20 w/ (9) 10d x 1 1/2"	1810	1810			
B	FRAME TO FRAME	H2.5A w/ (10) 8d NAILS	535	600	RT7A w/ (10) 8d NAILS	565	670
C	FRAME TO FRAME	H10A w/ (18) 10d x 1 1/2" H10A-2 w/ (18) 10d x 1 1/2" AT 2 PLY TRUSSES	1015	1340	1015	1245	
D	FRAME TO FRAME	M7S12 w/ (14) 10d x 1 1/2" AT EXTERIOR LOCATION INCLUDE (3) 12d TOENAILS	860	1000	MTW12 w/ (14) 10d x 1 1/2" AT EXTERIOR LOCATION INCLUDE (3) 12d TOENAILS	1005	1195
E	FRAME TO MASONRY	MGT w/ (22) 10d NAILS AND 3/8" ATR w/ 12" EMBEDMENT w/ SIMPSON SET EPOXY	3330	3965	MUGT15 w/ (28) 10d NAILS AND 3/8" ATR w/ 12" EMBEDMENT w/ SIMPSON SET EPOXY	--	4495
F	FRAME TO FRAME	HTS20 w/ (24) 10d x 1 1/2" AT EXTERIOR LOCATION INCLUDE (3) 12d TOENAILS	1245	1450	HTW20 w/ (24) 10d x 1 1/2" AT EXTERIOR LOCATION INCLUDE (3) 12d TOENAILS	1285	1530
F1	FRAME TO FRAME	HTS20 w/ (24) 10d x 1 1/2" AT EXTERIOR LOCATION INCLUDE (3) 12d TOENAILS	2490	2900	HTW20 w/ (24) 10d x 1 1/2" AT EXTERIOR LOCATION INCLUDE (3) 12d TOENAILS	2570	3060
H	FRAME TO MASONRY	FGR w/ (8) SDS 1/2" x 3" WOOD SCREWS AND (2) 1/2" x 5" TITAN HD ANCHOR BOLTS	3600	5000	RFS w/ (12) W3SS WOOD SCREWS AND (4) 1/2" x 6" WEDGE BOLTS	3600	5000
J2	FRAME TO MASONRY	(2) LGT-2 w/ (32) 16d SINKERS (1) 1/2" x 2 1/2" TITENS	3700	4300			
J3	FRAME TO MASONRY	(2) LGT-3 w/ (24) SDS 1/2" x 2 1/2" AND (8) 1/2" x 5" TITENS HD'S (3 PLY TRUSSES)	5310	7370			
K	BEAM TO BEAM	H410 OPT HUC410 (MAX) W/ (18)-16d & (10)-10d NAILS	G#2090	UF#1570			
L	BEAM TO MASONRY	H410 OPT HUC410 w/ (18) TITEN 1/2" x 2 1/2" & (10) 10d NAILS	G#5085	UF#1810			
M	FRAME TO MASONRY	HETA16 OPT (2) HETA20 2 PLY w/ (10) 10d x 1 1/2" OR 2 PLY w/ (12) 16d	2035	2500	2035	2500	
N	FRAME TO MASONRY	HTSM16 w/ (8) 10d NAILS AND (4) 1 1/2" x 1 1/4" TAPCONS	1020	1175	HTWM16 w/ (8) 10d NAILS AND (4) 1 1/4" x 1 3/4" WEDGE BOLT	1145	1225
O	FRAME TO MASONRY	HTSM20 w/ (10) 10d NAILS AND (4) 1 1/2" x 1 1/4" TAPCONS	1020	1175	HTWM20 w/ (10) 10d NAILS AND (4) 1 1/4" x 1 3/4" WEDGE BOLT	1145	1225
P	FRAME TO MASONRY	H10S w/ (8) 8d 1 1/2" NAILS AND (2) 1/2" x 4" TITAN HD	915	1065			
Q	FRAME TO FRAME	DT22 w/ 8-SDS 1/2" x 2 1/2" POST AND 2" x 4" ANCHOR BOLT	1835	2145			
R	FRAME TO FRAME	HT15 w/ 26-10d & 5 1/8" ANCHOR BOLT @ EMBEDMENT TYP. AT GARAGE STEP 8"	4015	4670			
S	FRAME TO MASONRY	H410 w/ (18)-16d NAILS AND (10) 10d NAILS	G#3250	UF#1895			

