GENERAL NOTES

1. THESE PLANS ARE TO BE DESIGNED TO BE USED BY A LICENSED GENERAL CONTRACTOR.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL PHASES OF CONSTRUCTION COMPLY WITH ALL BUILDING CODE REQUIREMENTS.
3. PRIOR TO CONSTRUCTION, THE GENERAL CONTRACTOR IS TO REVIEW ALL PLANS AND BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS.
4. DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHOULD BE READ OR CALCULATED. WRITTEN DIMENSIONS WILL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
5. ANY DISCREPANCY IN THE PLANS IS TO BE BROUGHT TO THE ATTENTION OF THE DESIGNER PRIOR TO THE BEGINNING OF CONSTRUCTION.
6. PLUMBING AND HVAC PLANS ARE TO BE HANDLED BY THE GENERAL CONTRACTOR UNLESS SPECIFIED OTHERWISE. EACH MUST COMPLY WITH ALL BUILDING CODE REQUIREMENTS.
7. ALL ANGLED WALLS ARE 45° UNLESS NOTED OTHERWISE.
8. VERIFY ALL WINDOW SIZES, RADIUS, AND DETAILS WITH THE CHOSEN MANUFACTURE.
9. FOR WALL CONSTRUCTION, SEE CHAPTER 6 OF 2018 NCRC- 2015 IRC.
10. TEMPERED GLASS TO BE USED AT ALL LOCATIONS AS REQUIRED BY 2018 NCRC- 2015 IRC SECTION R308.4.
11. GARAGE WALLS SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC BY GYPSUM BOARD IN ACCORDANCE WITH 2018 NCRC- 2015 IRC SECTION R309.2.
12. ALL HABITABLE ROOMS SHALL MEET LIGHT/VENTILATION & EGRESS AS REQUIRED IN 2018 NCRC- 2015 IRC SECTION R303.1 AND R310.

ROOF VENTILATING REQUIREMENTS

$\frac{2426}{150}$ = 16.17 SQ. FT. REQ'D

ROOF VENTILATING REQUIREMENTS

(POWER ROOF VENTILATOR REQUIRED)

$\frac{2426}{300}$ = 8.09 SQ. FT. REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED. SEE 2018 NCRC - 2015 IRC SECTION 806.2

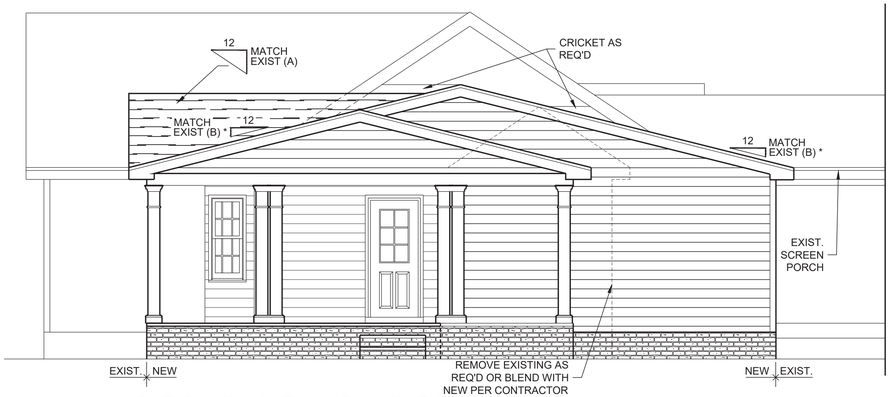
ADDITONAL ELEVATION NOTES

* USE ICE & WATER SHIELD AT ALL ROOF PLANES SLOPED BELOW 4:12

SEE FLOOR PLAN, ROOF PLAN, AND/OR ROOF FRAMING DETAIL SHEET FOR PLATE HEIGHTS AT RAFTER AND/OR TRUSS BEARING LOCATIONS.

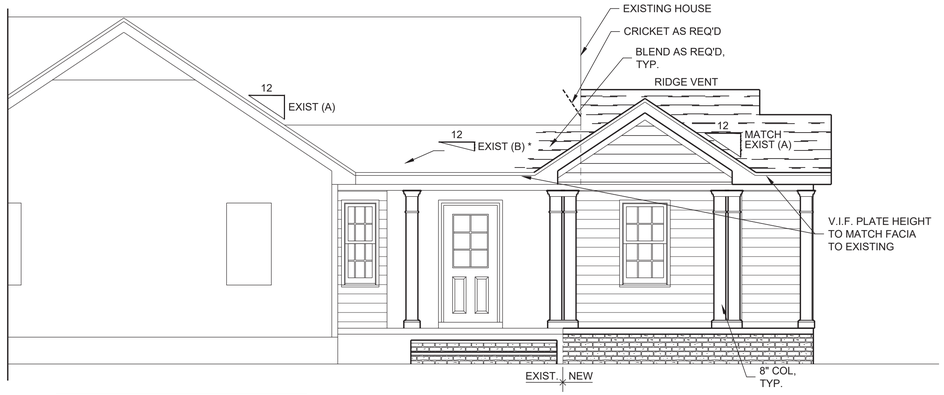
PROVIDE FLASHING AT ALL ROOF/WALL CONNECTIONS

VERIFY THAT ROOFS ARE BELOW WINDOW SILLS



RIGHT ELEVATION

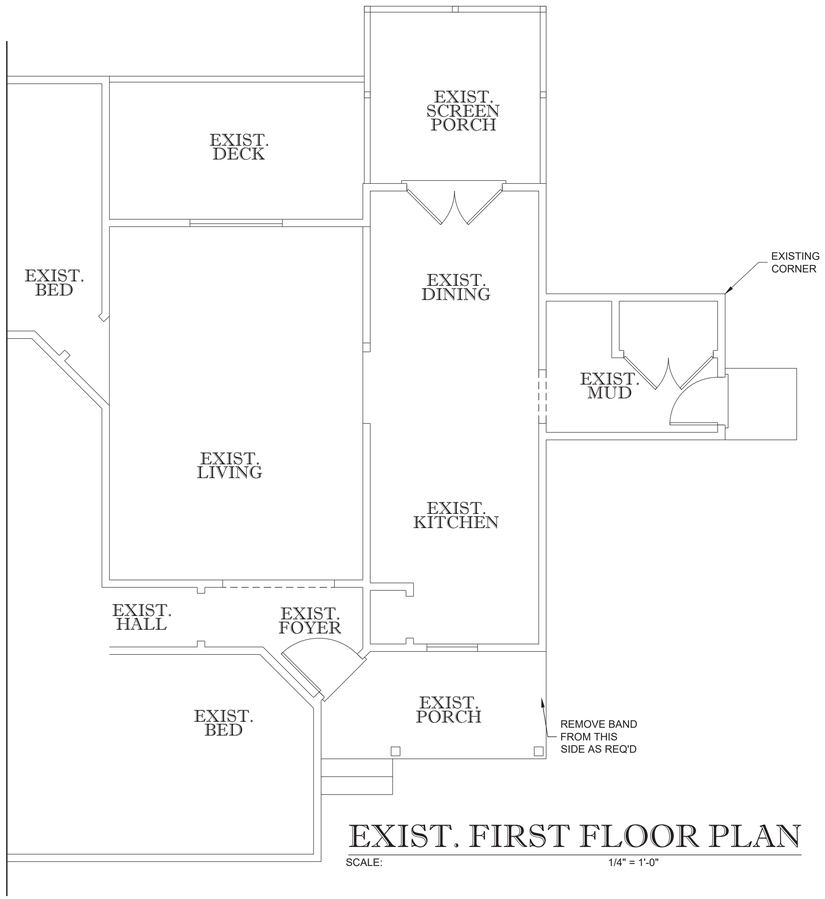
SCALE: 1/4" = 1'-0"



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

ADDITION SQUARE FEET:	
1ST FLOOR HEATED:	237 SQFT.
PORCH UNHEATED:	126 SQFT.
RENOVATED SQUARE FEET:	
1ST FLOOR HEATED:	317 SQFT.

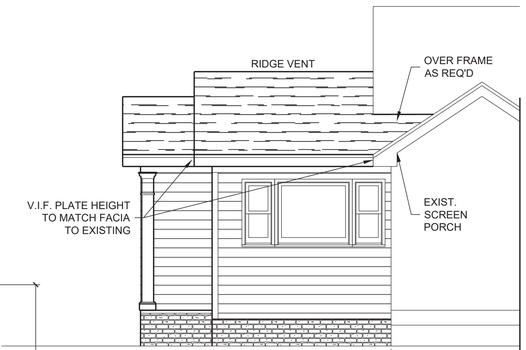


EXIST. FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

NEW FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



REAR ELEVATION

SCALE: 1/4" = 1'-0"

FND. VENT CALCS.

$\frac{318 \text{ SQ. FT.}}{150}$ =2.12 SQ. FT. VENT REQ'D.

$\frac{2.12 \text{ SQ. FT.}}{.47}$ =4.5 VENTS TO BE PROVIDED

NOTE: VERIFY THESE CALCULATIONS WITH ACTUAL SIZES OF VENTS USED.

NOTE: FIGURE BASED ON SECTION R-408 OF THE 2018 NCRC - 2015 IRC. MAY BE REDUCED TO 1 SQ. FT. FOR EVERY 1500 SQ. FT. OF CRAWL SPACE IF THERE IS AN APPROVED VAPOR RETARDER & REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS VENTILATION.

CONSTRUCTION NOTES:

1. CONTRACTOR TO INSURE THAT ALL CODES AND PROCEDURES ARE RESEARCHED AND OBSERVED PRIOR TO BEGINNING SITE PREPARATION AND CONSTRUCTION.
2. CONTRACTOR TO PROPERLY PREPARE SITE, INSURING NO UTILITIES WILL BE COMPROMISED OR ENCROACHMENTS WILL OCCUR.
3. CONTRACTOR ASSUMES RESPONSIBILITY FOR OBTAINING REQUIRED PERMITS FOR ALL PHASES OF CONSTRUCTION, AND THAT NEW STRUCTURE IS OF SOUND QUALITY AND WITHIN THE BOUNDARIES OF THE NCRC AND LOCAL STATE, COUNTY, AND CITY RESTRICTIONS.

DISC.	DATE	DISC	DATE
		4 rec.	12/08/21
		4 rec.	12/26/21
		4 rec.	01/01/21

BUILDER:

FLOOR PLANS & ELEVATIONS

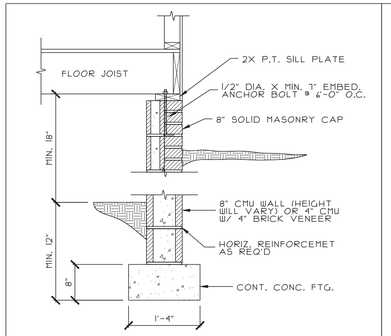
SEARS RESIDENCE
66 FLETCHER TUTOR RD
HOLLY SPRINGS, NORTH CAROLINA

DESIGN BY:
Woodard Sease & Associates, PC
5535 Western Blvd. Suite 203
Raleigh, NC 27606
www.WoodardSease-Eng.com

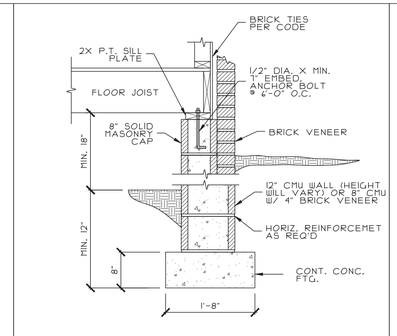
PROJECT# 20-20-347
BY CK
DATE 01/19/21

SHEET 1 OF 1

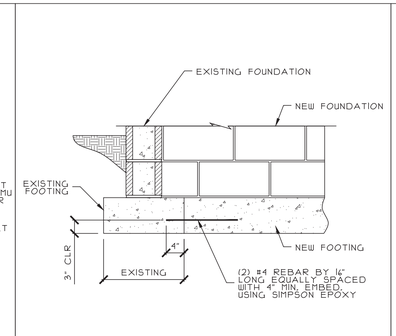
NOTE: ■ DESIGNATES A SIGNIFICANT POINT LOAD REQUIRING SOLID BLOCKING TO FOUNDATION, PIER, OR SUPPORT BEAM.



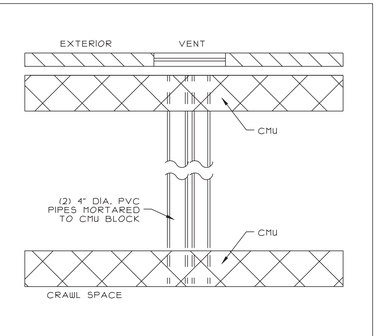
A TYP. CRAWL FND SIDING — SECTION — SCALE: 3/4" = 1'-0"



B TYP. CRAWL FND BRICK VENEER — SECTION — SCALE: 3/4" = 1'-0"



C FOOTING ATTACHMENT EXISTING TO NEW FOOTING — SECTION — SCALE: 3/4" = 1'-0"



D FOUNDATION VENT AT PORCH — SECTION — SCALE: 3/4" = 1'-0"

B. FOOTINGS AND FOUNDATION

1. OWNER OR BUILDER IS RESPONSIBLE FOR VERIFYING SOIL BEARING CAPACITY, MIN. ASSUMED = 2000 PSF
2. MINIMUM SPREAD FOOTING SIZES: (128 DAY STRENGTH: MIN. 3000 PSI)

STORIES	WOOD FRAME		WOOD FRAME + FACE BRICK		8" MASONRY	
	MIN. FTG WIDTH	MIN. FTG DEPTH	MIN. FTG WIDTH	MIN. FTG DEPTH	MIN. FTG WIDTH	MIN. FTG DEPTH
1	1'-0"	0'-8"	1'-0"	0'-8"	1'-4"	0'-8"
2	1'-5"	0'-8"	1'-5"	0'-8"	1'-8"	0'-10"
3	1'-5"	0'-10"	2'-0"	0'-10"	2'-8"	1'-0"

3. FOOTINGS SHALL HAVE MIN. 2" PROJECTION EACH SIDE OF FOUNDATION WALLS.
4. FOUNDATION WALL TO BE 8" CONC. BLOCK OR 8" BRICK & BLOCK (U.N.O.)
5. FOUNDATION WALL TO HAVE A SOLID 8" MASONRY CAP.
6. PIERS TO BE 16" X 16" CONC. BLOCK (AND/OR AS REQUIRED PER SECTION R404.1.5.4 OF 2018 NCRC) ON 32" X 32" X 10" CONC. FOOTING (U.N.O.).
7. TIE ALL HALF PIERS INTO WALLS.
8. GIRDERS AND PIERS SHALL BEAR ON CENTER 1/3 OF PIER AND FOOTING, RESPECTIVELY.
9. MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS SHALL BE AS FOLLOWS: 6'-0" FOR 12" CONCRETE MASONRY UNIT (CMU) WALL; 4'-0" FOR 8" CMU WALL; 1'-6" FOR PIER AND CURTAIN WALL.
10. ANCHOR BOLTS TO BE MIN. 1/2" DIA. @ MAX. 6'-0" O.C. AND MAX. 12" FROM CORNERS. BOLTS SHALL EXTEND MIN. 7" INTO CONCRETE OR MASONRY.
11. MIN. CRAWL SPACE ACCESS IS 36"(W) X 22"(H) AND LOCATED AT BEST LOCATION WITH REFERENCE TO GRADE.
12. FOUNDATION VENT REQUIRED 3'-0" (MAX.) FROM Ea. CORNER.
13. INSTALL FOUNDATION WATERPROOFING, DRAIN TILE, STONE AND POSITIVE DRAIN AS REQ'D. BY GRADE.
14. GARAGE SLABS: 4" CONC. W/ 6X6 WWM OR FIBER MESH, W/ 6 MIL VAPOR BARRIER OVER 4" OF CRUSHED STONE OR GRAVEL ON TAMPED EARTH.
15. EXPANSION JOINT REQUIRED WHERE ENCLOSED SLAB MEETS FOUNDATION WALL.
16. BASEMENT SLABS SAME AS GARAGE W/ PERIMETER INSULATION AND NO EXPANSION JOINT REQUIRED.

FOUNDATION ANCHOR NOTE:

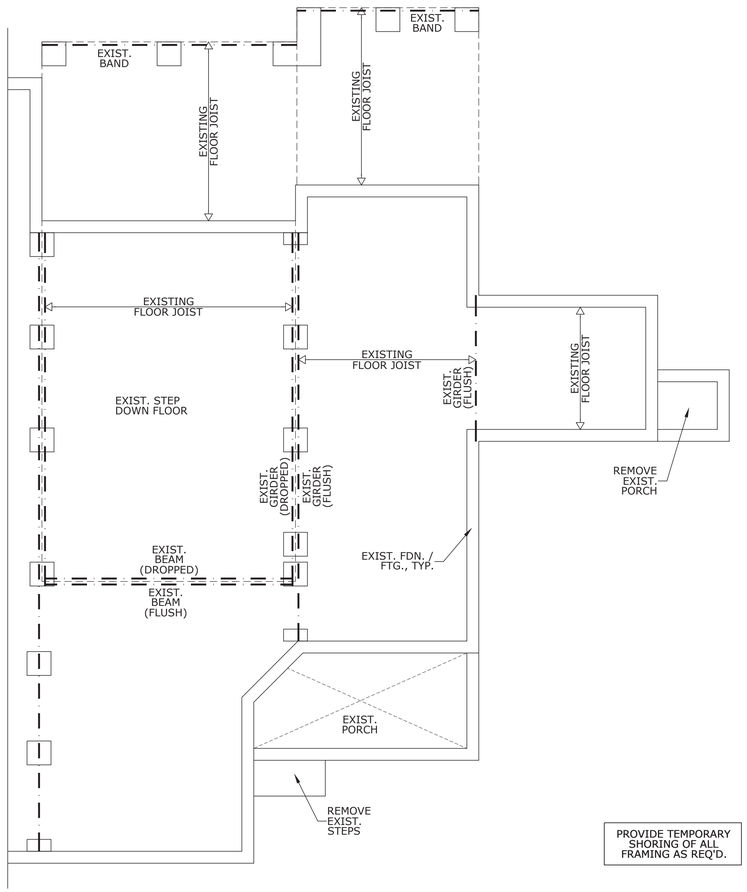
1/2" DIA. BOLTS PLACED 6 FEET ON CENTER AND NOT MORE THAN 12 INCHES FROM CORNERS. BOLTS SHALL BE EMBEDDED A MINIMUM OF 7 INCHES INTO MASONRY AND/OR CONCRETE.

NOTE:

FOR FOUNDATION WALL HEIGHT, THICKNESS AND BACKFILL REQUIREMENTS, REFER TO 2018 NCRC TABLES R404.1.1 (1), (2), (3), & (4)

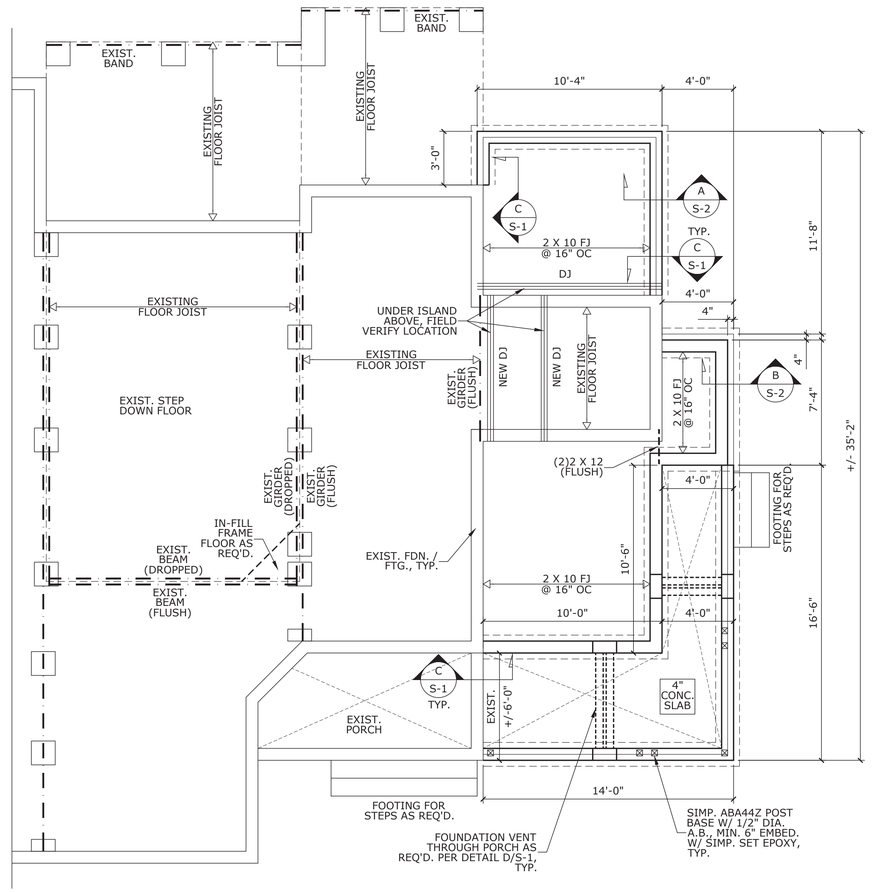
SOIL BEARING NOTE:

ASSUMED BEARING CAPACITY = 2000 PSF. CONTRACTOR MUST VERIFY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.



EXISTING FOUNDATION PLAN

PROVIDE TEMPORARY SHORING OF ALL FRAMING AS REQ'D.



NEW FOUNDATION PLAN

A SITE INSPECTION WAS PERFORMED BY WOODARD SEASE AND ASSOCIATES PC TO INSPECT EXISTING FRAMING PRIOR TO ENGINEERING OF ADDITON. WOODARD SEASE AND ASSOC. ATTEMPTED TO VERIFY EXISTING CONDITIONS ON SITE. HOWEVER SOMETIMES EXISTING CONDITIONS MAY NOT BE VISIBLE OR MAY NOT BECOME VISIBLE UNTIL UNDER CONSTRUCTION. BUILDER/INSTALLER SHOULD CONTACT WOODARD SEASE AND ASSOCIATES PC IMMEDIATELY IF ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FRAMING BECOME EVIDENT DURING CONSTRUCTION.

GENERAL NOTES

1. THESE PLANS ARE DESIGNED TO BE USED BY A LICENSED GENERAL CONTRACTOR.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL PHASES OF CONSTRUCTION COMPLY WITH ALL BUILDING CODE REQUIREMENTS.
3. PRIOR TO CONSTRUCTION, THE GENERAL CONTRACTOR IS TO REVIEW ALL PLANS AND BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS.
4. ANY DISCREPANCY IN THE PLANS IS TO BE BROUGHT TO THE ATTENTION OF THE DESIGNER PRIOR TO THE BEGINNING OF CONSTRUCTION.
5. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS WILL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
6. PLUMBING AND HVAC PLANS ARE TO BE HANDLED BY THE GENERAL CONTRACTOR UNLESS SPECIFIED OTHERWISE. EACH MUST COMPLY WITH ALL BUILDING CODE REQUIREMENTS.

FOUNDATION PLAN

SCALE:1/4" = 1'-0"

WOODARD SEASE & ASSOCIATES, PC
STRUCTURAL ENGINEERS
5535 WESTERN BLVD, SUITE 203 RALEIGH, NC 27606
OFFICE: (919) 307.3995 FAX: (919) 307.3996

NORTH CAROLINA PROFESSIONAL SEAL 22018 ENGINEER BRADLEY E. WOODARD

SEAL DATE: 04/02/2021

WOODARD SEASE & ASSOC. PROFESSIONAL ENGINEERING COMPANY P.C. C-3041 NC

SEARS RESIDENCE
66 FLETCHER TUTOR RD
HOLLY SPRINGS, NORTH CAROLINA

DESIGNER: WSA PLAN NO.: ARCH 20-20-247

PROJ. #:	20-20-247	DATE:	03/02/21
ENGINEER:	BEW	REV.#	DATE:
DWN. BY:	PDS	1	--/--/--
		2	--/--/--
CHKD BY:	WPS	3	--/--/--
		4	--/--/--

SCALE: 1/4" = 1'-0"

FOUNDATION PLAN
1ST FLOOR FRAMING

SHEET: S-1

1 OF: 4

BRACED WALL REQUIREMENTS PER 2018 NC RESIDENTIAL CODE (NCRC) SECTION R602.10

1. METHOD USED: 2015 INTERNATIONAL RESIDENTIAL CODE (ALL CODE REFERENCES REFER TO 2018 NCRC)
2. BRACING MATERIALS & METHODS SHALL COMPLY WITH SECTION R602.10.1 AND LOAD PATH DETAILING IN ACCORDANCE WITH SECTION R602.10.4.
3. WALL FRAMING CONSTRUCTED PER TABLE R602.3(1).
4. EXTERIOR WALL BRACING, UNLESS SPECIFIED OTHERWISE, SHALL BE CONTINUOUS SHEATHING METHOD (CS-WSP) AS SPECIFIED IN TABLE R602.10.1 W/ 6d COMMON NAILS (OR EQUAL) @ 6" OC AT PANEL EDGES & 12" OC AT PANEL INTERMEDIATE SUPPORTS.
5. INTERIOR WALL BRACING PANELS, UNLESS SPECIFIED OTHERWISE, SHALL BE GYPSUM BOTH SIDES (GB) AS SPECIFIED IN TABLE R602.10.1.
6. EXTERIOR AND INTERIOR BRACED WALL PANELS, IF SPECIFIED, SHALL BE ATTACHED TOP AND BOTTOM PER SECTION R602.10.4.4 AND FIGURES R602.10.4.4(1) OR R602.10.4.4(2).
7. EXTERIOR WALL BRACING PORTAL FRAMES, IF SPECIFIED WITHOUT HOLD DOWNS, SHALL BE INSTALLED PER FIGURE R602.10.1 OR ALTERNATE DETAIL PROVIDED.

GB	▨	-INDICATES GB WALL BRACING W/ MIN. 5d COOLER NAILS OR #6 SCREWS @ 7" OC AT PANEL EDGES & INTERMEDIATE SUPPORTS
GB-1	▨	-INDICATES GB WALL BRACING ONE-SIDE W/ MIN. 5d COOLER NAILS OR #6 SCREWS @ 7" OC AT PANEL EDGES & INTERMEDIATE SUPPORTS
GB-4	▨	-INDICATES GB WALL BRACING W/ 1-1/4" SCREWS (TYPE W OR S) @ 4" OC AT PANEL EDGES & 7" OC AT INTERMEDIATE SUPPORTS W/ BLOCKING AT ALL HORIZONTAL JOINTS
CS-INT	▨	-INDICATES INTERIOR WALL BRACING WITH APA RATED SHEATHING ONE SIDE W/ 6d COMMON NAILS @ 6" OC AT PANEL EDGES & 12" OC AT PANEL INTERMEDIATE SUPPORTS
CS-DBL	▨	-INDICATES WALL BRACING WITH APA RATED SHEATHING BOTH SIDES W/ 6d COMMON NAILS @ 6" OC AT PANEL EDGES & 12" OC AT PANEL INTERMEDIATE SUPPORTS; ANCHOR BOLTS @ 3'-0" OC MAX
SW	▥	-INDICATES SHEAR WALL; SEE DETAIL FOR SHEATHING THICKNESS, ATTACHMENT REQUIREMENTS, ETC.

ADDITION:
(1-STORY)
5'-4" EAVE TO RIDGE

WALL FRAMING: MIN. 2 X 4 SPF#2 @ 16" OC, UNO

WALL SHEATHING: MIN. 7/16" APA RATED SHEATHING

ROOF SHEATHING: MIN. 7/16" APA RATED SHEATHING

BRACED WALL PANELS SHALL BE CONNECTED TO ROOF FRAMING PER SECTION R602.10.4.5

NOTE: ■ DESIGNATES A SIGNIFICANT POINT LOAD REQUIRING SOLID BLOCKING TO FOUNDATION, PIER, OR SUPPORT BEAM.

▨ INDICATES LOAD BEARING WALL

NOTE: (#) SHOWN AT GIRDER TRUSS, BEAM, AND HEADER SUPPORTS INDICATES NUMBER OF SUPPORT STUDS REQUIRED IN STUD COLUMN.

HEADER SCHEDULE

HEADER	DESCRIPTION
A	(2) 2X6 W/ 1/2" PLYWOOD NAILED & GLUED
B	(2) 2X8 W/ 1/2" PLYWOOD NAILED & GLUED
C	(2) 1-3/4"X 9-1/4" MICROLAM (LVL)
ALL HEADERS HAVE MIN. (1) JACK STUD EACH END UNLESS NOTED OTHERWISE	

STRUCTURAL NOTES

A. GENERAL NOTES
1. THE ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS THE STRUCTURAL ENGINEER OF RECORD FOR THIS PROJECT. NO OTHER PARTY MAY MODIFY OR REUSE THESE CONSTRUCTION DOCUMENTS WITHOUT WRITTEN PERMISSION FROM WOODARD SEASE & ASSOC. OR STRUCTURAL ENGINEER OF RECORD. ENGINEERS SEAL ONLY APPLIES TO STRUCTURAL COMPONENTS AND SYSTEMS AND DOES NOT CERTIFY DIMENSIONAL ACCURACY OF THE ARCHITECTURAL LAYOUT.
2. THE ENGINEER SHALL HAVE NO LIABILITY TO THE HOMEOWNER OR TO OTHERS FOR ACTS OR OMISSIONS OF THE CONTRACTOR/BUILDER OR ANY OTHERS PERFORMING WORK ON THIS PROJECT. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION SEQUENCES, METHODS, OR TECHNIQUES AND/OR SAFETY REQUIREMENTS IN CONNECTION WITH THE CONSTRUCTION OF THIS STRUCTURE.
3. CONTRACTOR ASSUMES ALL RESPONSIBILITY FROM DEPICTED OR IMPLIED STRUCTURAL INFORMATION. SHOULD ANY DISCREPANCIES BECOME APPARENT, THE STRUCTURAL ENGINEER OF RECORD MUST BE NOTIFIED IMMEDIATELY BEFORE CONSTRUCTION BEGINS.
4. ONLY SEALED DRAWINGS W/LATEST REVISIONS ARE APPLICABLE FOR CONSTRUCTION.
5. ALL CONSTRUCTION, WORKMANSHIP, AND MATERIALS SHALL CONFORM TO THE LATEST REQUIREMENTS OF "2018 NORTH CAROLINA RESIDENTIAL CODE" AND LOCAL REGULATIONS.
6. DESIGN LOADS

STRUCTURAL SYSTEM	L.L.	D.L.	T.L.	STRUCTURAL SYSTEM	L.L.	D.L.	T.L.
FLR (PRIMARY DWELL'G.)	40	10	50	ATTICS W/ FIXED STAIRS	40	10	50
FLR (SLEEPING RMS.)	30	10	40	STAIRS	40	5	45
BALCONIES (EXTERIOR)	60	10	70	GUARDRAIL/HANDRAIL	200		200
DECKS	40	10	50	ROOF SYSTEM	20	10	30
ATTICS W/OUT STOR.	10	10	20	CATHEDRAL	20	15	35
ATTICS W/ LIMITED STOR.	20	10	30	INTERIOR PART'N. WALL		9	9

WIND VELOCITY: 115 MPH (ULTIMATE)
EXPOSURE: B

7. DEFLECTION: FLOOR: L/360, ATTIC W/ CEILING: L/240, ROOF: L/180 - MORE STRINGENT CRITERIA MAY BE USED AT ENGINEER'S DISCRETION OR AS REQUESTED.
8. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL CONTACT ARCHITECT FOR ITEMS NOT DIMENSIONED.

C. FRAMING
1. ALL FRAMING LUMBER SHALL BE SPF #2 (E = 1,400,000 PSI, Fb = 875 PSI). TREATED LUMBER SHALL BE SYP #2 (E = 1,400,000 PSI, Fb = 975 PSI). STUDS SHALL BE MIN #2 OR STUD GRADE.
2. LVL SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING PROPERTIES: E = 2,000,000 PSI, Fb = 2900 PSI, Fv = 290 PSI.
3. PROVIDE DOUBLE TOP PLATES IN ALL EXTERIOR WALLS. STAGGER JOINTS MIN 24", W/ (4) 16d NAILS.
4. WALL BRACING SHALL CONFORM TO R602.10.
5. SET ALL JOISTS AND BEAMS WITH NATURAL CAMBER UP. ENDS LAPPED MIN. 6" OVER BEARING SHALL BE SECURELY NAILED TOGETHER. PROVIDE AT MIN. 1-1/2" BEARING FOR ALL JOISTS AND MIN. 3" FOR BEAMS (U.N.O.).
6. ALL FRAMING EXPOSED TO MASONRY OR WEATHER TO BE PRESSURE TREATED. SILLS MIN. 2X6.
7. STRUCTURAL MEMBER FASTENING TO CONFORM TO TABLE R602.3 (1) AND (2).
8. DOUBLE ALL JOISTS: A)UNDER PARALLEL PARTITIONS; B) OPENING HEADERS/TRIMMERS; C)UNDER TUBS W/ 12' OR GREATER SPAN.
9. STUDS SHALL NOT BE CUT FOR PLUMBING / ELECTRICAL / MECHANICAL RUNS WITHOUT STRAPPING AT EACH SIDE PER R602.6. ENGINEER IS NOT RESPONSIBLE FOR FAILURES IN CUT MEMBERS. DO NOT CUT BEAMS OR GIRDERS.
10. BALLOON FRAME GABLE END VAULTED WALLS AND ALL WALLS HIGHER THAN 10' W/ 2X4 @12" O.C. OR (2)2X4 @ 16". MULTIPLE UNIT WINDOWS IN WALLS HIGHER THAN 10' TO HAVE MIN. DOUBLE STUD POCKETS, U.N.O.
11. INSTALL I-JOISTS PER MANUFACTURER'S SPECIFICATIONS. MIN. I-JOIST BEARING: 1-3/4" AT ENDS, 3-1/2" AT INTERMEDIATE SUPPORTS.
12. TRUSS DRAWINGS MUST BE SEALED BY THE TRUSS MANUFACTURER AND REVIEWED BY WOODARD SEASE & ASSOC. TRUSS DRAWINGS TO DESIGN AND DOCUMENT ALL REQUIRED BEAMS, HANGERS, AND POINT LOAD REACTIONS. TRUSS DESIGN, FABRICATION, AND DOCUMENTATION SHALL MEET ALL REQUIREMENTS OF R502.11.
13. MINIMUM HEADER SIZE AND SUPPORTS:

SPAN	BEAM*	# JACK STUD REQUIREMENTS FOR SUPPORTING: ROOF/CLG	ROOF/CLG + FLR	ROOF/CLG + 2 FLR
4'-0"	(2) 2X6	(1) 2X4	(1) 2X4	(2) 2X4
4'-8"	(2) 2X8	(1) 2X4	(2) 2X4	(3) 2X4
6'-8"	(2) 2X10	(1) 2X4	(3) 2X4	(4) 2X4
8'-10"	(2) 2X10	(2) 2X4	(4) 2X4	(4) 2X4
10'-0"	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN

14. ALL POINT LOADS TO BE COLUMNED/BLOCKED (THOUGH JOISTS) DOWN TO FOUNDATION.
15. FIREBLOCK TO CONFORM WITH R302.11.

ROOF/FLOOR TRUSS SYSTEM REQUIREMENTS

1. ALL TRUSSES SHALL BE HANDLED, STORED, INSTALLED, RESTRAINED, & BRACED AS REQUIRED PER IRC 2015, NCRC 2018, ANSI/TPI 1-2014, & BUILDING COMPONENT SAFETY INFORMATION 2018 (BCSI).
2. TRUSS LAYOUT IS INDICATED ON THIS PLAN. TRUSS PLACEMENT PLAN, PROVIDED BY TRUSS MANUFACTURER, (INCLUDING DIRECTION, SPAN, AND SUPPORT LOCATIONS) SHALL COINCIDE WITH LAYOUT SHOWN ON THIS PLAN. IF DISCREPANCIES ARE FOUND, CONTACT ENGINEER OF RECORD IMMEDIATELY.
3. TRUSS 'PROFILES' SHALL BE SEALED BY TRUSS MANUFACTURER.
4. NOTE THAT TRUSS PLACEMENT PLANS MAY BE APPROVED BY STRUCTURAL ENGINEER AS REQUIRED BY BUILDING CODE OFFICIAL.
5. TRUSSES REQUIRE PERMANENT BRACING WITHIN ALL OF THE FOLLOWING PLANES: TOP CHORD, BOTTOM CHORD, & WEB MEMBER. PERMANENT BRACING REQUIREMENTS SHALL BE PER BCSI-B3 2013 / ATTACHED BCSI-B3 SUMMARY SHEET OR PERMANENT BRACING PLAN PROVIDED. CONTACT ENGINEER OF RECORD TO REQUEST PERMANENT BRACING PLAN.
6. PERMANENT BRACING ASSUMPTIONS; TOP CHORD - SHEATHING; BOTTOM CHORD - GYPSUM BOARD. IF TOP & BOTTOM CHORD ARE NOT CLAD PER ASSUMPTIONS, CONTACT ENGINEER OF RECORD IMMEDIATELY.
7. GABLE END FRAME REQUIRED PERMANENT BRACING:
IN ADDITION TO PERMANENT WEB MEMBER BRACING SPECIFIED BY TRUSS MANUFACTURER, BOTTOM CHORD LATERAL RESTRAINT (BCLR) AND GABLE END/WALL PERMANENT DIAGONAL BRACING IS REQUIRED AS FOLLOWS:
GABLE HEIGHT =
LESS THAN 4'-0" - 2X4 SPACED 8' OC - BCLR 8 FT LONG
4'-0" TO 8'-0" - 2X4 SPACED 6' OC - BCLR 8 FT LONG
8'-0" TO 13'-0" - 2X4 SPACED 4' OC - BCLR 8 FT LONG
13'-0" TO 18'-0" - 2X6 SPACED 4' OC - BCLR 10 FT LONG
(NOTE: SEE DETAILS ON BCSI-B3 SUMMARY SHEET)

NOTE: BCSI-B3 SUMMARY SHEET IS LAST PAGE OF STRUCTURAL PLANS

GENERAL NOTES
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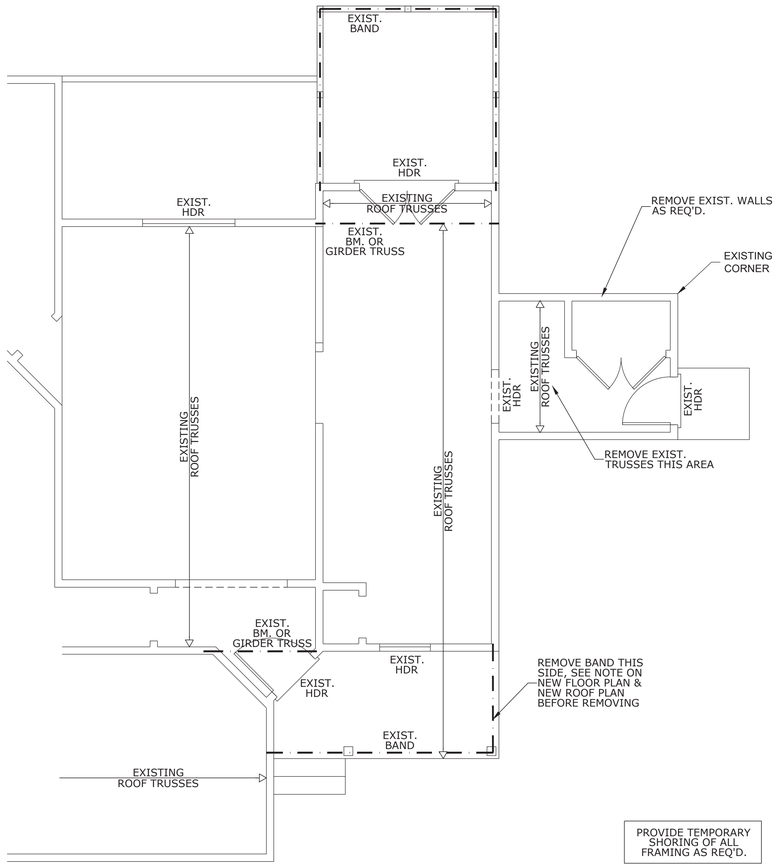
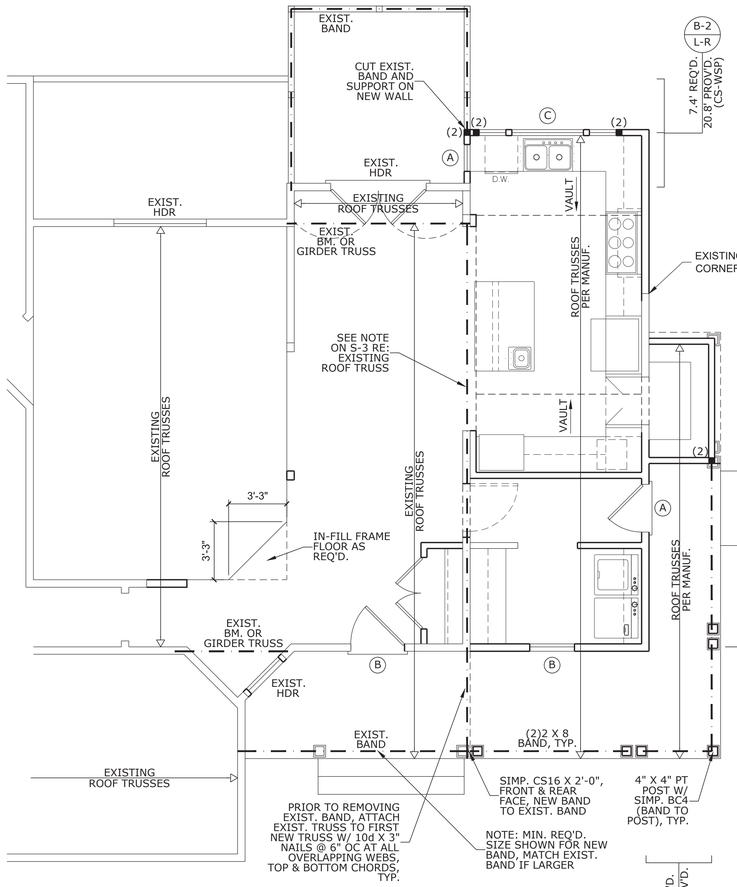
5. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS WILL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
6. PLUMBING AND HVAC PLANS ARE TO BE HANDLED BY THE GENERAL CONTRACTOR UNLESS SPECIFIED OTHERWISE. EACH MUST COMPLY WITH ALL BUILDING CODE REQUIREMENTS.



EXISTING FLOOR PLAN

PROVIDE TEMPORARY SHORING OF ALL FRAMING AS REQ'D.



NEW FLOOR PLAN

A SITE INSPECTION WAS PERFORMED BY WOODARD SEASE AND ASSOCIATES PC TO INSPECT EXISTING FRAMING PRIOR TO ENGINEERING OF ADDITON. WOODARD SEASE AND ASSOC. ATTEMPTED TO VERIFY EXISTING CONDITIONS ON SITE. HOWEVER SOMETIMES EXISTING CONDITIONS MAY NOT BE VISIBLE OR MAY NOT BECOME VISIBLE UNTIL UNDER CONSTRUCTION. BUILDER/INSTALLER SHOULD CONTACT WOODARD SEASE AND ASSOCIATES PC IMMEDIATELY IF ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FRAMING BECOME EVIDENT DURING CONSTRUCTION.

FIRST FLOOR PLAN

CLG. HGT: 8'-0" (U.N.O.)

SCALE:1/4" = 1'-0"

WOODARD SEASE & ASSOCIATES, PC
STRUCTURAL ENGINEERS
5535 WESTERN BLVD. SUITE 203 RALEIGH NC 27606
OFFICE: (919) 307-3995 FAX: (919) 307-3996

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22018 BARRY E. WOODARD

SEAL DATE: 04/02/2021

WOODARD SEASE & ASSOC. PROFESSIONAL ENGINEERING COMPANY P.C. C-3041 NC.

SEARS RESIDENCE
66 FLETCHER TUTOR RD
HOLLY SPRINGS, NORTH CAROLINA
DESIGNER: WSA PLAN NO.: ARCH 20-20-247

PROJ. #:	20-20-247
DATE:	03/02/21
ENGINEER:	BEW
DWN. BY:	PDS
CHKD BY:	WPS
SCALE:	1/4" = 1'-0"

REV. #	DATE:
1	--/--/--
2	--/--/--
3	--/--/--
4	--/--/--

1ST FLOOR HEADER

2ND FLOOR FRAMING

SHEET: S-2

2 OF: 4

NOTE: ■ DESIGNATES A SIGNIFICANT POINT LOAD REQUIRING SOLID BLOCKING TO FOUNDATION, PIER, OR SUPPORT BEAM.

INDICATES OVERFRAMING: USE A 2 X 10 FLAT PLATE (VALLEY) FOR BEARING.

D. ROOF FRAMING NOTES

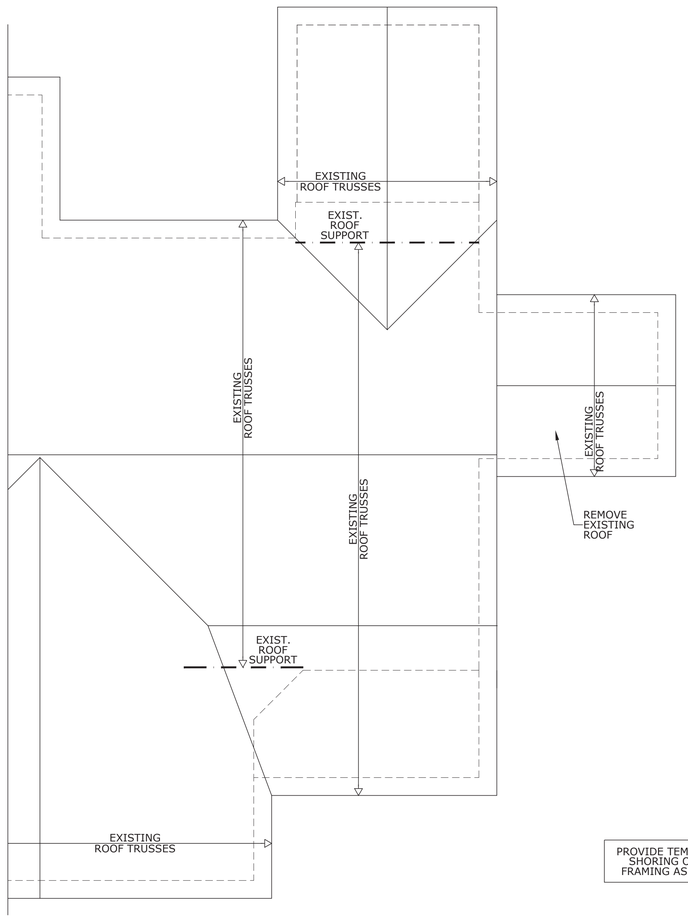
1. PROVIDE 2X4 ATTIC COLLAR TIES AT 48" O.C. AT UPPER 1/3 OF ATTIC SPACE (U.N.O.).
2. ALL RAFTER SPANS ARE CALCULATED ON SPF #2 (U.N.O.).
3. MINIMUM ROOF PITCH TO BE NO LESS THAN 3:12 (INCLUDING CRICKETS AND SADDLES).
4. ALIGN ALL RAFTERS OVER STUDS BELOW.
5. RAFTERS SIZES SHOWN ARE MINIMUMS TO MEET STRUCTURAL REQUIREMENTS. SIZES MAY BE INCREASED TO PROVIDE MINIMUM INSULATION VALUES OR AIR PASSAGES.
6. USE 2X10 OR FUR DOWN RAFTERS FOR VAULTED AREAS.
7. ATTACH VAULTED RAFTERS WITH HURRICANE CONNECTORS: SIMPSON H2.5A OR EQUAL, TYP.
8. DOUBLE HIPS MAY BE SPLICED WITH A MINIMUM 6'-0" OVERLAP AT CENTER.
9. DO NOT SPLICE VALLEY BEAMS.
10. FUR RIDGE AS REQUIRED FOR FULL RAFTER CONTACT.
11. DESIGN DEAD LOAD BASED ON 240 LB FIBERGLASS SHINGLES (U.N.O.).
12. BRICK ABV. LOW ROOF TO HAVE L6"X4"X5/16" (LLV) PER SECTION 703.8.2.1 & FIGURE 703.8.2.1 OF 2018 NCRC.
13. BRICK ABV. LOW ROOF TO HAVE TRIPLE RAFTER AT LOW ROOF W/ L4"X3-1/2"X1/4" (LLH) PER SECTION 703.8.2.2 & FIGURE 703.8.2.2 OF 2018 NCRC.

ROOF/FLOOR TRUSS SYSTEM REQUIREMENTS

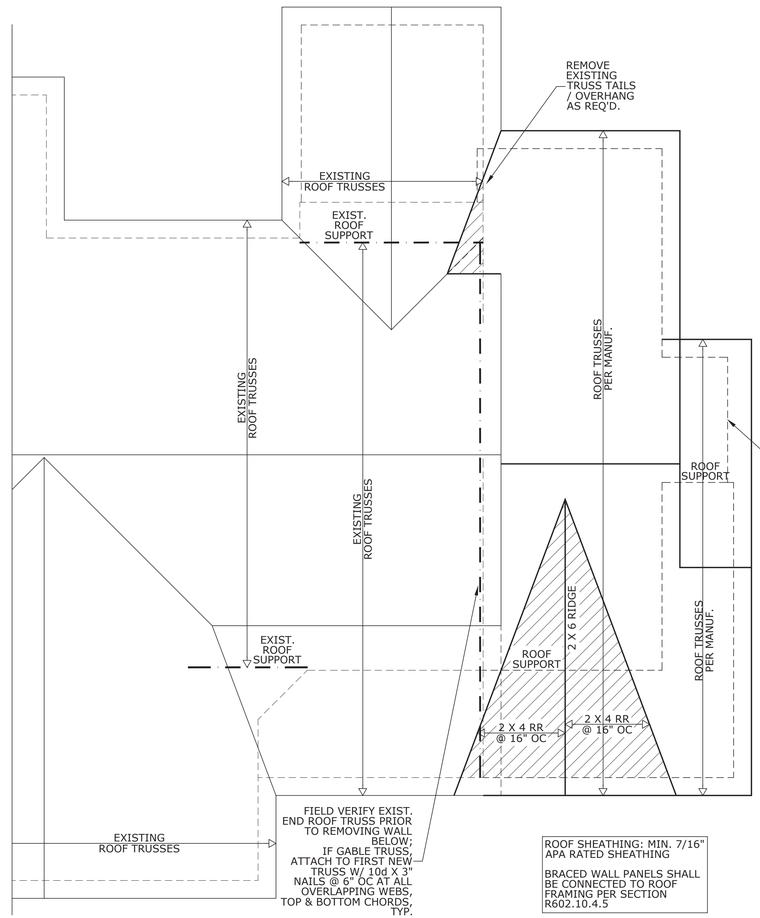
1. ALL TRUSSES SHALL BE HANDLED, STORED, INSTALLED, RESTRAINED, & BRACED AS REQUIRED PER IRC 2015, NCRC 2018, ANSI/TPI 1-2014, & BUILDING COMPONENT SAFETY INFORMATION 2018 (BCSI).
2. TRUSS LAYOUT IS INDICATED ON THIS PLAN. TRUSS PLACEMENT PLAN, PROVIDED BY TRUSS MANUFACTURER, (INCLUDING DIRECTION, SPAN, AND SUPPORT LOCATIONS) SHALL COINCIDE WITH LAYOUT SHOWN ON THIS PLAN. IF DISCREPANCIES ARE FOUND, CONTACT ENGINEER OF RECORD IMMEDIATELY.
3. TRUSS 'PROFILES' SHALL BE SEALED BY TRUSS MANUFACTURER.
4. NOTE THAT TRUSS PLACEMENT PLANS MAY BE APPROVED BY STRUCTURAL ENGINEER AS REQUIRED BY BUILDING CODE OFFICIAL.
5. TRUSSES REQUIRE PERMANENT BRACING WITHIN ALL OF THE FOLLOWING PLANES: TOP CHORD, BOTTOM CHORD, & WEB MEMBER. PERMANENT BRACING REQUIREMENTS SHALL BE PER BCSI-B3 2013 / ATTACHED BCSI-B3 SUMMARY SHEET OR PERMANENT BRACING PLAN PROVIDED. CONTACT ENGINEER OF RECORD TO REQUEST PERMANENT BRACING PLAN.
6. PERMANENT BRACING ASSUMPTIONS; TOP CHORD - SHEATHING; BOTTOM CHORD - GYPSUM BOARD. IF TOP & BOTTOM CHORD ARE NOT CLAD PER ASSUMPTIONS, CONTACT ENGINEER OF RECORD IMMEDIATELY.
7. GABLE END FRAME REQUIRED PERMANENT BRACING: IN ADDITION TO PERMANENT WEB MEMBER BRACING SPECIFIED BY TRUSS MANUFACTURER, BOTTOM CHORD LATERAL RESTRAINT (BCLR) AND GABLE END/WALL PERMANENT DIAGONAL BRACING IS REQUIRED AS FOLLOWS:
   GABLE HEIGHT =
   LESS THAN 4'-0" - 2X4 SPACED 8' OC - BCLR 8 FT LONG
   4'-0" TO 8'-0" - 2X4 SPACED 6' OC - BCLR 8 FT LONG
   8'-0" TO 13'-0" - 2X4 SPACED 4' OC - BCLR 8 FT LONG
   13'-0" TO 18'-0" - 2X6 SPACED 4' OC - BCLR 10 FT LONG
   (NOTE: SEE DETAILS ON BCSI-B3 SUMMARY SHEET)

NOTE: BCSI-B3 SUMMARY SHEET IS LAST PAGE OF STRUCTURAL PLANS

REFER TO ROOF TRUSS LAYOUT FOR HOLD-DOWN REQUIREMENTS



EXISTING ROOF PLAN



NEW ROOF PLAN

ROOF SHEATHING: MIN. 7/16" APA RATED SHEATHING

BRACED WALL PANELS SHALL BE CONNECTED TO ROOF FRAMING PER SECTION R602.10.4.5

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ROOF PLAN

SCALE:1/4" = 1'-0"

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SEAL DATE: 04/02/2021

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SEARS RESIDENCE
66 FLETCHER TUTOR RD
HOLLY SPRINGS, NORTH CAROLINA

DESIGNER: WSA PLAN NO.: ARCH 20-20-247

PROJ #:	20-20-247
DATE:	03/02/21
ENGINEER:	BEW
DWN BY:	PDS
CHKD BY:	WPS
SCALE:	1/4" = 1'-0"

REV #	DATE:
1	--/--/--
2	--/--/--
3	--/--/--
4	--/--/--

ROOF FRAMING PLAN

SHEET: S-3

3 OF: 4

B3 BCSI-B3 SUMMARY SHEET - PERMANENT RESTRAINT/BRACING OF CHORDS & WEB MEMBERS B3

Spans over 60′ may require complex permanent bracing. Please always consult a Registered Design Professional.

WARNING! Disregarding Permanent Restraint/Bracing is a major cause of truss field performance problems and has been known to lead to roof or floor systems collapse.
¡ADVERTENCIA! Descuidar el Arriostre/Restricción Permanente es una causa principal de problemas de rendimiento del truss en campo y había conocido a llevar al derrumbamiento del sistema del techo o piso.

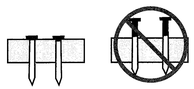
CAUTION! Spans over 60′ may require complex permanent bracing. Please always consult a Registered Design Professional.
¡CAUTELA! Tramos sobre 60 pies pueden requerir arriostre permanente complejo. Por favor, siempre consulte a un Profesional Registrado de Diseño.

RESTRAINT/BRACING MATERIALS & FASTENERS
MATERIALES Y CIERRES DE RESTRICCIÓN/ARRIOSTRE

☑ Common restraint/bracing materials include wood structural panels, gypsum board sheathing, stress-graded lumber, proprietary metal products, and metal purlins and straps.
Materiales comunes de arriostrar/restringir incluyen paneles estructurales de madera, entablado de yeso, madera graduada por esfuerza, productos de metal patentados, y vigas de soporte y tiras de metal.

MINIMUM ATTACHMENT REQUIREMENTS FOR LUMBER RESTRAINT/BRACING[1,2]

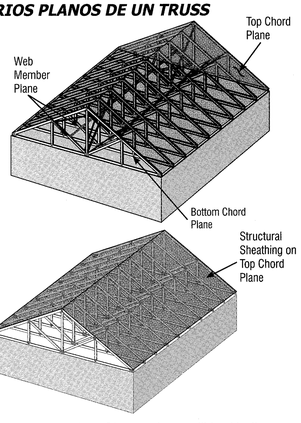
Lumber Size	Minimum Nail Size	Minimum Number of Nails per Connection
2x4 stress-graded	10d (0.128x3") 12d (0.128x3.25") 16d (0.131x3.5")	2
2x6 stress-graded	10d (0.128x3") 12d (0.128x3.25") 16d (0.131x3.5")	3



[1] Other attachment requirements may be specified by the Truss Designer or Building Designer.
[2] The size and attachment for bracing materials such as wood structural panels, gypsum board sheathing, proprietary metal restraint/bracing products, and metal purlins and straps are provided by the Building Designer.

PERMANENT BRACING FOR THE VARIOUS PLANES OF A TRUSS
ARRIOSTRE PERMANENTE PARA VARIOS PLANOS DE UN TRUSS

☑ Permanent Bracing is important because it,
a) prevents out-of-plane buckling of truss members,
b) helps maintain proper truss spacing, and
c) resists and transfers lateral loads from wind and seismic forces.
El arriostre Permanente es importante porque,
a) impide el torcer fuera-de-plano de los miembros del truss,
b) ayuda en mantener espaciamiento apropiado de los trusses, y
c) resiste y pasa las cargas laterales de viento y fuerzas sísmicas aplicadas al sistema del truss.

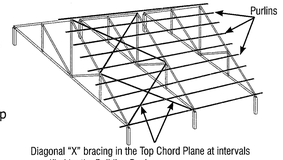


☑ Trusses require Permanent Bracing within ALL of the following planes:
1. Top Chord Plane
2. Bottom Chord Plane
3. Web Member Plane
Trusses requieren Arriostre Permanente dentro de TODOS los siguientes planos:
1. Plano de la Cuerda Superior
2. Plano de la Cuerda Inferior
3. Plano del Miembro Secundario

CAUTION! Without Permanent Bracing the truss, or a portion of its members, will buckle (i.e., fail) at loads far less than design.
¡CAUTELA! Sin el Arriostre Permanente, del truss, o un parte de los miembros, torcerán (ej. fallarán) de cargas muchas menos que las cargas que el truss es diseñado a llevar.

1. PERMANENT BRACING FOR THE TOP CHORD PLANE
1. ARRIOSTRE PERMANENTE PARA EL PLANO DE LA CUERDA SUPERIOR

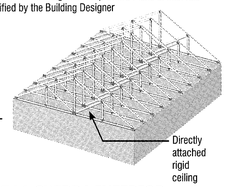
☑ Use plywood, oriented strand board (OSB), or wood or metal structural purlins that are properly braced.
Use contrachapado, panel de fibras orientadas (OSB), o vigas de soporte de madera o metal que son arriostrados apropiadamente.



Diagonal "X" bracing in the Top Chord Plane at intervals specified by the Building Designer

☑ The Truss Design Drawing (TDD) provides information on the assumed support for the top chord.
El Dibujo del Diseño de Truss (TDD) provee información sobre el soporte supuesto para la cuerda superior.

☑ Fastener size and spacing requirements and grade for the sheathing, purlins and bracing are provided in the building code and/or by the Building Designer.
El tamaño de cierre y requisitos de espaciamiento y grado para el entablado, vigas de soporte y arriostre son provistos en el código del edificio y/o por el Diseñador del Edificio.



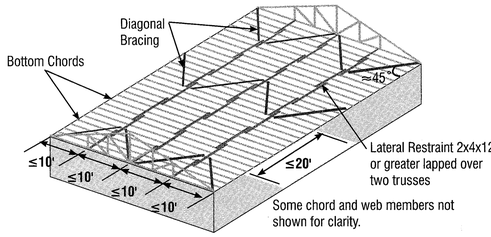
2. PERMANENT BRACING FOR THE BOTTOM CHORD PLANE
2. ARRIOSTRE PERMANENTE PARA EL PLANO DE LA CUERDA INFERIOR

☑ Use rows of continuous Lateral Restraint with Diagonal Bracing, gypsum board sheathing or rigid ceiling.
Use filas de Restricción Lateral Continua con Arriostre Diagonal, entablado de yeso o techo rigído.

☑ The TDD provides information on the assumed support for the bottom chord.
El TDD provee información sobre el soporte supuesto para la cuerda inferior.

☑ **Install bottom chord permanent Lateral Restraint at the spacing indicated on the TDD and/or by the Building Designer with a maximum of 10′ on center.**

Instale Restricción Lateral permanente de la cuerda inferior al espaciamiento indicado en el TDD y/o por el Diseñador del Edificio con un máximo de 10 pies en el centro.



Lateral Restraint and Diagonal Bracing used to brace the Bottom Chord Plane.

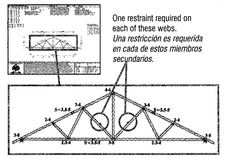
3. PERMANENT BRACING FOR THE WEB MEMBER PLANE
3. ARRIOSTRE PERMANENTE PARA EL PLANO DEL MIEMBRO SECUNDARIO

Web Member Permanent Bracing collects and transfers buckling restraint forces and/or lateral loads from wind and seismic forces. The same bracing can often be used for both functions.
Arriostre Permanente de los Miembros Secundarios recogen y pasan fuerzas de restricción de torcer y/o cargas laterales de viento y fuerzas sísmicas. A menudo el mismo arriostre puede ser usado para ambos funciones.

Individual Web Member Permanent Restraint & Bracing
Restricción y Arriostre Permanente de Miembros Secundarios Individuales

☑ Check the TDD to determine which web members (if any) require restraint to resist buckling.
Revisa el TDD para determinar cuales miembros secundarios (si algunos) requieren restricción para resistir el torcer.

☑ Restrain and brace with,
A. Continuous Lateral Restraint & Diagonal Bracing, or
B. Individual Member Web Reinforcement.
Restrinja y arriostre con,
A. Restricción Lateral Continua y Arriostre Diagonal, o
B. Refuerzo de Miembros Secundarios Individuales.

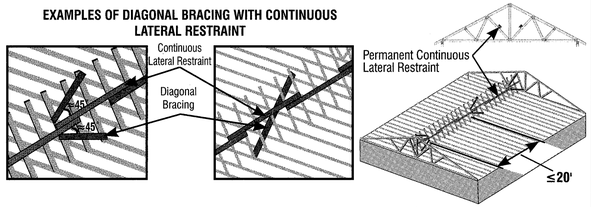

One restraint required on each of these webs.
Una restricción es requerida en cada de estos miembros secundarios.

A. Continuous Lateral Restraint (CLR) & Diagonal Bracing
A. Restricción Lateral Continua (CLR) y Arriostre Diagonal

☑ Attach the CLR at the locations shown on the TDD.
Sujete el CLR en las ubicaciones mostrados en el TDD.

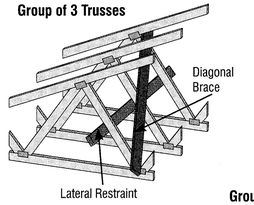
☑ Install the Diagonal Bracing at approximately 45° to the CLR and position so that it crosses the web in close proximity to the CLR. Attach the Diagonal Brace as close to the Top and Bottom Chords as possible and to each web it crosses. **Repeat every 20′ or less.**
Instale el Arriostre Diagonal a aproximadamente 45 grados al CLR y lo coloque para que cruce la cuerda muy cerca del CLR. Sujete el Arriostre Diagonal como cercano a las cuerdas inferior y superior como sea posible y a cada cuerda que lo cruza. ***Repita cada 20 pies o menos.***

EXAMPLES OF DIAGONAL BRACING WITH CONTINUOUS LATERAL RESTRAINT

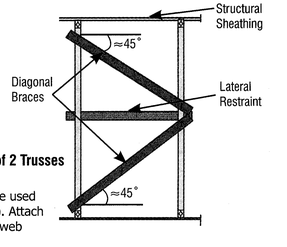


Note: Some chord and web members not shown for clarity.

Group of 3 Trusses



Group of 2 Trusses

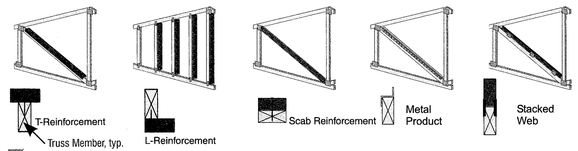


☑ Lateral Restraint & Diagonal Bracing can also be used with small groups of trusses (i.e., three or less). Attach the Lateral Restraint & Diagonal Brace to each web member that they cross.
Restricción Lateral y Arriostre Diagonal también puede ser usado con grupos pequeños de trusses (ej. tres o menos). Sujete la Restricción Lateral y el Arriostre Diagonal a cada miembro secundario que los cruzan.

ALWAYS DIAGONALLY BRACE THE CONTINUOUS LATERAL RESTRAINT!
¡SIEMPRE ARRIOSTRE LA RESTRICCIÓN LATERAL CONTINUA DIAGONALMENTE!

B. Individual Web Member Reinforcement
B. Refuerzo de Miembros Secundarios Individuales

T-, L-, Scab, I-, U-Reinforcement, proprietary metal reinforcement and stacked web products provide an alternative for resisting web buckling.
T-, L-, costra, I-, U-Refuerzo, refuerzo de metal patentando y productos de miembros secundarios amontonados proveen una alternativa para resistir el torcer de los miembros secundarios.

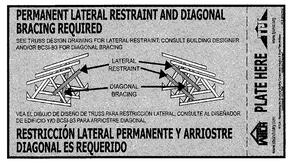


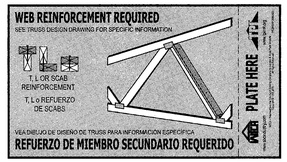
☑ The following table may be used unless more specific information is provided.
La siguiente tabla puede ser usada a menos que información más específica está provista.

WEB REINFORCEMENT FOR SINGLE PLY TRUSSES[1]

Specified CLR	Size of Truss Web	Type & Size of Web Reinforcement				Grade of Web Reinforcement	Minimum Length of Web Reinforcement	Minimum Connection of Web Reinforcement to Web
		T	L	Scab[2]	I			
1 Row	2x4	2x4	2x4	2x4		Same species and grade or better than web member	90% of web or extend to within 6" of end of web member, whichever is greater	16d Gun nails (0.131x3.5") @ 6" on center[2]
	2x6	2x6	2x6	2x6				
	2x8	2x8	2x8	2x8				
2 Rows	2x4	---	---	---	2-2x4			
	2x6	---	---	---	2-2x6			
	2x8	---	---	---	2-2x8			

[1]Maximum allowable web length is 14'.
[2]For Scab Reinforcement use 2 rows of 10d Gun nails (0.120x3") at 6" on center to attach reinforcement to web.

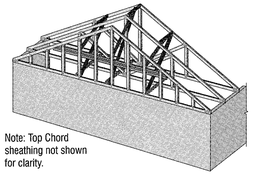


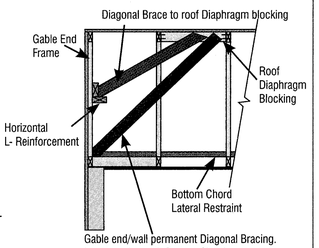


☑ Some Truss Manufacturers mark the locations of the web Lateral Restraint or reinforcement on the truss using tags similar to those above.
Algunos Fabricantes de Trusses marcan en el truss las ubicaciones de refuerzo o Restricción Lateral de miembros secundarios con etiquetas similares a las arriba.

Web Member Plane Permanent Building Stability Bracing to Transfer Wind & Seismic Forces
Arriostre de Estabilidad Permanente del Edificio del Plano de Miembros Secundarios para Desplazar Fuerzas de Viento y Fuerzas Sísmicas

☑ The web member restraint or reinforcement specified on a TDD is required to resist buckling under vertical loads. Additional restraint and bracing is typically required to transfer lateral loads due to wind and/or seismic forces. This restraint and bracing is typically provided by the Building Designer.
La restricción o refuerzo de miembros secundarios especificada en un TDD es requerido a resistir el torcer bajo cargas verticales. Restricción y arriostre adicional es requerido típicamente para pasar cargas laterales debidas a fuerzas de viento y/o fuerzas sísmicas. Esta restricción y arriostre es típicamente provisto por el Diseñador del Edificio.


Note: Top Chord sheathing not shown for clarity.

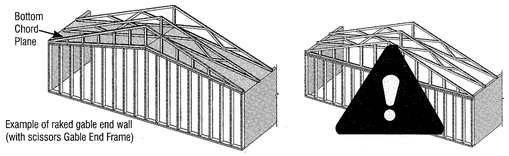


Gable end/wall permanent Diagonal Bracing. Locate in line with Bottom Chord permanent CLR or as specified by the Building Designer.

☑ Some Truss Designers provide general design tables and details to assist the Building Designer in determining the Bracing required to transfer lateral loads due to wind and/or seismic forces from the Gable End Frame into the roof and/or ceiling diaphragm.
Algunos Diseñadores de Trusses proveen tablas y detalles de diseño generales para asistir el Diseñador del Edificio en determinar el Arriostre requerido para pasar cargas laterales debidas a fuerzas de viento y/o fuerzas sísmicas del Armazón Hastial al diafragma del techo.

Gable End Frames and Sloped Bottom Chords
Armazones Hastiales Y Cuerdas Inferiores Pendientes

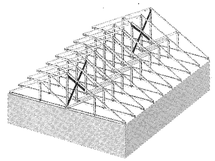
☑ The Gable End Frame should always match the profile of the adjacent trusses to permit installation of proper Bottom Chord Plane restraint & bracing unless special bracing is designed to support the end wall.
El Armazón Hastial siempre debe encajar el perfil de los trusses contiguous para permitir la instalación de restricción y arriostre apropiada de la Cuerda Inferior a menos que arriostre especial es diseñado para soportar la pared de extremo.



CAUTION! Using a flat Bottom Chord Gable End Frame with adjacent Trusses that have sloped Bottom Chords is prohibited by some building codes as adequate bracing of this condition is difficult and sometimes impossible. Special end wall bracing design considerations are required by the Building Designer if the Gable End Frame profile does not match the adjacent Trusses.
¡CAUTELA! El uso de un Armazón Hastial de la Cuerda Inferior con Trusses contiguos cuales tienen Cuerdas Inferiores pendientes es prohibido por algunos códigos de edificios porque arriostre adecuado de esta condición es difícil y a veces imposible. Consideraciones especiales de diseño para el arriostre de la pared de extremo son requeridos por el Diseñador del Edificio si el perfil del Armazón Hastial no hace juego con los Trusses contiguos.

PERMANENT BRACING FOR SPECIAL CONDITIONS
ARRIOSTRE PERMANENTE PARA CONDICIONES ESPECIALES

Sway Bracing—*Arriostre de "Sway"*



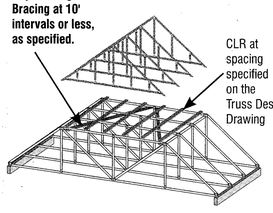
☑ "Sway" bracing is installed at the discretion of the Building Designer to help stabilize the truss system and minimize the lateral movement due to wind and seismic loads.
Arriostre de "Sway" está instalado por la discreción del Diseñador del Edificio para ayudar en estabilizar el sistema de trusses y para minimizar el movimiento lateral debido a cargas de viento y cargas sísmicas.

☑ Sway bracing installed continuously across the building also serves to distribute gravity loads between trusses of varying stiffness.
Arriostre de "Sway" que es instalada continuadamente al través del edificio también es usado para distribuir las cargas de gravedad entre trusses de rigidez variando.

Permanent Restraint/Bracing for the Top Chord in a Piggyback Assembly
Restricción/Arriostre Permanente para la Cuerda Superior en un Ensamblaje de Piggyback

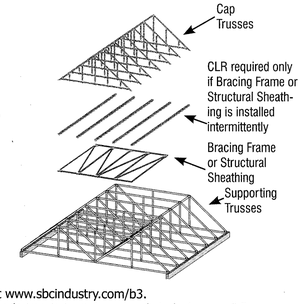
☑ Provide restraint and bracing by:
- using rows of 4x2 stress-graded lumber CLR and Diagonal Bracing, or
- connecting the CLR into the roof diaphragm, or
- adding Structural Sheathing or Bracing Frames, or
- some other equivalent means.

Provee restricción y arriostre por:
- *usando filas de 4x2 CLR madera graduada por esfuerza y Arriostre Diagonal, o*
- *conectando el CLR al diafragma del echo, o*
- *añadiendo Entablado Estructural o Arm zanes de Arriostre, o*
- *algunos otros métodos equivalentes.*



☑ Refer to the TDD for the maximum assumed spacing for attaching the Lateral Restraint to the top chord of the supporting truss.
Refiere al TDD para el espaciamiento máximo supuesto para sujetar la Restricción Lateral a la cuerda superior del truss soportante.

☑ The TDD provides the assumed thickness of the restraint and minimum connection requirements between the cap and the supporting truss or restraint.
El TDD provee el grosor supuesto de la restricción y los requisitos de conexión mínimos entre la capa y el truss soportante o la restricción.



☑ If Diagonal Bracing is used to restrain the CLR(s), repeat **at 10′ intervals or as specified** in the Construction Documents.
Si Arriostre Diagonal es usado para restringir el/los CLR(s), repita en ***intervalos de 10 pies o como especificado*** *en los Documentos de Construcción.*

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RESTRICCIÓN/ARRIOSTRE PERMANENTE DE LAS CUERDAS Y LOS MIEMBROS SECUNDARIOS

Tramos más de 60 pies pueden requerir arriostre permanente complejo. Por favor, siempre consulte a un Profesional de Diseño Registrado.