TrueHomes

IT'S ALL ABOUT U

HEADER SCHEDULE

ALL INTERIOR BEARING AND EXTERIOR WALLS

1. SPANS UP TO 3'-6"	--	(2) 2x8's
2. SPANS 3'-6" TO 6'-6"	--	(2) 2x10's
3. SPANS 6'-6" OR MORE	--	SEE PLAN

** SOUTH CAROLINA SPECIFIC NOTE **
ALL OPENINGS IN THERMAL ENVELOPE MUST HAVE INSULATED HEADER PER CODE

EXTERIOR HINGED DOOR SCHEDULE

DOOR WIDTH		DOOR HEIGHT R.O.		
PLAN I.D.	R.O. WIDTH	8FT CEILING	9FT CEILING	10FT CEILING
3/0	3'-2 1/2"	82-1/2"	82-1/2"	98-1/2"
2/8	2'-10 1/2"			
5/0	5'-3 5/8"			
5/4	5'-7 5/8"			
6/0	6'-3 5/8"			
SLIDING PATIO DOORS				
5/0	4'-11 1/2"	80"	80"	96"
6/0	5'-11 1/2"			

INTERIOR HINGED DOOR SCHEDULE

DOOR WIDTH		DOOR HEIGHT R.O.		
PLAN I.D.	R.O. WIDTH	8FT CEILING	9FT CEILING	10FT CEILING
1/4	1'-6"	82-1/2" (6'-8" NOMINAL DOOR HEIGHT +2-1/2")	82-1/2" (6'-8" NOMINAL DOOR HEIGHT +2-1/2")	98-1/2" (8'-0" NOMINAL DOOR HEIGHT +2-1/2")
1/6	1'-8"			
1/8	1'-10"			
2/0	2'-2"			
2/4	2'-6"			
2/6	2'-8"			
2/8	2'-10"			
2/10	3'-0"			
3/0	3'-2"			
4/0	4'-2"			
5/0	5'-2"			
6/0	6'-2"			

◇ LOAD BEARING ◯ NON-LOAD BEARING

GENERAL NOTES

1. PLANS PERMITTED IN NORTH CAROLINA ARE DESIGNED TO MEET THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE, AS ISSUED BY THE STATE OF NORTH CAROLINA, AND PLANS PERMITTED IN SOUTH CAROLINA DESIGNED TO MEET 2015 INTERNATIONAL RESIDENTIAL BUILDING CODE AS ISSUED BY THE STATE OF SOUTH CAROLINA, WITH MODIFICATIONS AS REQUIRED TO MEET LOCAL BUILDING CODES FOR EACH APPLICABLE JURISDICTION.
2. DO NOT SCALE DIMENSIONS FROM PRINTS. USE DIMENSIONS GIVEN OR CONSULT ARCHITECTURAL SERVICES DEPARTMENT FOR FURTHER CLARIFICATION.
3. ALL DIMENSIONS ARE FROM WALL FRAMING (FACE OF STUD), NO FINISHED DIMENSIONS ARE GIVEN U.N.O.
4. PROVIDE 2 STUDS BETWEEN ALL WINDOWS.(TYP)
5. ACCESS DOORS BETWEEN HOUSE AND GARAGE AREAS TO BE 20-MINUTE FIRE RATED.
6. ALL EXTERIOR WALLS & INTERIOR WALLS TO BE 2X4 STUDS 16" O.C. (U.N.O.). INTEGRITY COLLECTION INTERIOR NON-LOAD BEARING WALLS 24" O.C. (U.N.O.)
7. ALL STRUCTURAL FRAMING LUMBER EXPOSED DIRECTLY TO THE WEATHER OR BEARING DIRECTLY ON MASONRY OR CONCRETE SHALL BE TREATED. ALL WOOD IN CONTACT WITH THE GROUND MUST BE GROUND-CONTACT APPROVED. ALL WOOD EXPOSED DIRECTLY TO THE WEATHER SHALL BE PROTECTED TO PREVENT THE OCCURRENCE OF ROT.
8. ALL ANGLED WALLS ARE AT 45 DEGREES UNLESS NOTED OTHERWISE.
9. USE WINDOW NOMINAL SIZES FOR ROUGH OPENINGS (APPLIES TO TWIN AND TRIPLE WINDOWS). SEE ELEVATIONS FOR WINDOW HEADER HEIGHTS.
10. PROVIDE BLOCKING ABOVE WINDOWS AND DOORS 16" O.C.
11. PROVIDE EXTRA STUDS AS INDICATED AT BEAM BEARING LOCATIONS.
12. WALLS TO BE FRAMED WITH STUDS AT 16" O.C. AT KITCHEN WALLS WITH CABINETS AND AT TUB/SHOWER LOCATIONS (PER MANUF.).
13. ALL COMMON CEILING BETWEEN GARAGE TO HOUSE PROVIDE 5/8" TYPE X GWB PER GARAGE SEPARATION REQUIREMENTS PER CODE. ALL JOINTS TO BE TAPED & MUDDED FOR FIRE SEPARATION. ALL STRUCTURES SUPPORTING FLOOR/CEILING ASSEMBLIES USED FOR SEPARATION REQUIRE NOT LESS THAN ½" GYP OR EQ. PER SECTION R302.6
14. SEPARATE GARAGE FROM ATTIC WITH 5/8" TYPE X GWB SCUTTLE MINIMUM AND 2X SCUTTLE FRAMING MATERIAL.
15. HEEL HEIGHTS: SEE ELEVATIONS SHEETS FOR TOP OF FASCIA DIMENSIONS TO GATHER PROPER HEEL HEIGHT REQUIREMENTS.
16. PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS AS REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES AND PER MANUFACTURER SPECS.
17. STAIR TREAD DESIGN TO BE VERIFIED WITH SELECTIONS AND PO'S.
18. PROVIDE 1 ½" FLAT WALL FRAMING FOR ALL HVAC CHASES UNLESS NOTED OTHERWISE. SEE FRAMING SHEET GN FOR ADDITIONAL NOTES PER LOCAL CODES.
19. FOR TRADITIONS, ELEMENTS, INTEGRITY, AND TRIBUTE SERIES, DOORS SHOULD BE LOCATED 4" OFF ADJACENT WALLS OR CENTERED IN THE WALL UNLESS NOTED OTHERWISE. DESIGNER SERIES SHOULD BE LOCATED 6" OFF ADJACENT WALLS OR CENTERED IN THE WALL UNLESS NOTED OTHERWISE.
20. ALL HOMES TREATED WITH BORA-CARE TERMITE TREATMENT.
21. SMURF DOORS ARE 21 1/2" x 39" NOMINAL (R.O. 22 1/2" x 40").
22. SHEATH WALLS AND CEILINGS w/ OSB PER SPECS. IN FURN. ROOM LOCATIONS
23. ALL PLANS ARE GENERATED WITH THE AID OF A COMPUTER AIDED DRAFTING SYSTEM.
24. DIMENSION AND NOTATIONS ON PLANS HAVE PREFERENCE OVER GRAPHIC DEPICTIONS AND SHOULD BE UTILIZED TO SETTLE ANY DISCREPANCIES - ANY DISCREPANCIES FOUND SHOULD BE FORWARDED TO THE ARCHITECTURAL SERVICES DEPARTMENT FOR RESOLUTION.
25. TYPICAL FOUNDATION AND ENGINEERING CONSTRUCTION DETAILS ARE SHOWN IN RESPECTIVE PLANS. TYPICAL DETAILS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PLAN THAT ARE THE SAME OR SIMILAR TO THOSE SPECIALLY DETAILED. THE APPLICABLY OF THE DETAIL TO ITS LOCATION ON THE DRAWINGS CAN BE DETERMINED BY THE TITLE OF THE DETAIL. SUCH DETAILS SHALL APPLY WITHER OR NOT THEY ARE REFERENCED AT EACH LOCATION.
26. ALL CONSTRUCTION SPECIFICATION NOT COVERED ON THIS SHEET, OR IN PLAN SETS AND GENERAL SPECIFICATIONS, ARE TO MEET ALL APPLICABLE STATE AND LOCAL BUILDING CODES.
27. HOUSE CONSTRUCTION IS TYPICAL 2X4 STUDS AT 16" O.C. AT ALL EXTERIOR WALLS UNLESS OTHERWISE NOTED. WALLS THAT ARE TO BE BALLOON FRAMED OR CONSTRUCTED WITH 2X6 STUDS WILL BE NOTED AS SUCH. ALL BASEMENT FRAMED WALLS TO BE 2X4 STUDS FOR ONE-STORY PLANS AND 2X6 STUDS FOR LOAD BEARING WALLS ON TWO-STORY PLANS UNLESS OTHERWISE NOTED.
28. PLANS ARE GENERATED FROM A COMMON GRAPHIC DATABASE WITH MODIFICATIONS AS REQUIRED TO ADAPT PLANS TO LOCAL BUILDING CONDITIONS AND SPECS FOR EACH LOCALITY.
29. TRUE HOMES RESERVES THE RIGHT TO MAKE MODIFICATIONS TO FLOOR PLANS, DIMENSIONS, MATERIALS, AND SPECIFICATIONS WITHOUT NOTICE. THESE DRAWINGS ARE FOR THE PURPOSE OF CONVEYING AN ARCHITECTURAL CONCEPT ONLY.

THE 'HUDSON'

CROSS LINK

LOT 60

93 CROSS LINK DRIVE
BLACK RIVER, NC 27501

COMMUNITY SPECS

(Detailed listing of all Community Specifications can be found in Showroom Selections)

MONO SLAB FOUNDATION
2-CAR GARAGE
5:12 ROOF PITCH MIN.

BASE ELEVATION

SQUARE FOOTAGE

FIRST FLOOR	998 SQ.FT.
SECOND FLOOR	1233 SQ.FT.
TOTAL LIVABLE	2231 SQ.FT.
FRONT PORCH	20 SQ.FT.
2-CAR GARAGE	445 SQ.FT.
REAR PATIO	100 SQ.FT.

INTEGRITY COLLECTION

HELP HOTLINES

"WHEN IN DOUBT, GIVE US A SHOUT"

TRUE BUILDER:
(To be filled in by Builder on site)

NAME: _____

NUMBER: _____

ARCHITECTURAL SERVICES:

- Missing or Conflicting Dimensions
- Plan Legibility
- Missing Options

Mon-Fri: 8am - 5pm
CHARLOTTE MKTS: 704-681-2032
ALL OTHER MKTS: 704-993-1861
E-mail: CADISSUE@truehomesusa.com

ESTIMATING:

- Missing Material or Shortage
- Purchase Order Questions

Mon-Fri: 8am - 5pm
ALL MKTS: 704-681-4916

NORTH CAROLINA PROFESSIONAL SEAL 29249 ENGINEER KEVIN P. MUNSON 11/30/17

NORTH CAROLINA RESIDENTIAL STRUCTURES, P.C. No. C3295 CERTIFICATE OF AUTHORIZATION

RESIDENTIAL STRUCTURES, P.C.
3410 N. Davidson St.
Charlotte, N.C. 28205
Seal For Structural Only

TABLE OF CONTENTS

ORIGINAL CONTRACT ID#: 26016

INTERIOR PASS THRU SCHEDULE

FRAMED OPENING DIMENSIONS		
WALL HEIGHT	R.O. WIDTH	R.O. HEIGHT
8'-1 1/8"	PLAN I.D. +2"	82-1/2"
9'-1 1/8"	PLAN I.D. +2"	94-1/2"
10'-1 1/8"	PLAN I.D. +2"	98-1/2"

ROUGH OPENING HEIGHTS ARE FOR DO, CO, & AO OPENINGS. SHIM HEIGHTS AS NEEDED TO MATCH INTERIOR HINGED DOOR CASING

INTERIOR DOORWAY OPENINGS:
DO = DRYWALL OPENING
CO = CASED OPENING
AO = ARCHED OPENING

RALEIGH DESIGN CRITERIA

1. DESIGN LOADS ARE ALL DEAD LOADS PLUS:
   - A. SLEEPING ROOMS.....30 PSF
   - B. ALL OTHER FLOORS.....40 PSF
   - C. BALCONIES.....60 PSF
   - D. ATTIC FLOOR LIVE LOADING WITH THE FOLLOWING:
     - i. AREA ACCESSIBLE BY STAIRS.....40 PSF
     - ii. ROOF SLOPES >3:12.....20 PSF
     - iii. ROOF SLOPES <3:12.....10 PSF
   - E. ROOF LIVE LOAD.....20 PSF
   - F. WIND LOAD.....100 MPH
   - G. SNOW LOAD.....20 PSF
   - H. SEISMIC ZONE.....C
   - I. DESIGN IS COMPLIANT WITH 2018 NCRC ENERGY CODE N1102.2 PRESCRIPTIVE FOR CLIMATE ZONE 4A

REVISION LOG

1.	DATE:	DRAWN BY:
2.	DATE:	DRAWN BY:
3.	DATE:	DRAWN BY:
4.	DATE:	DRAWN BY:

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704-271-1191

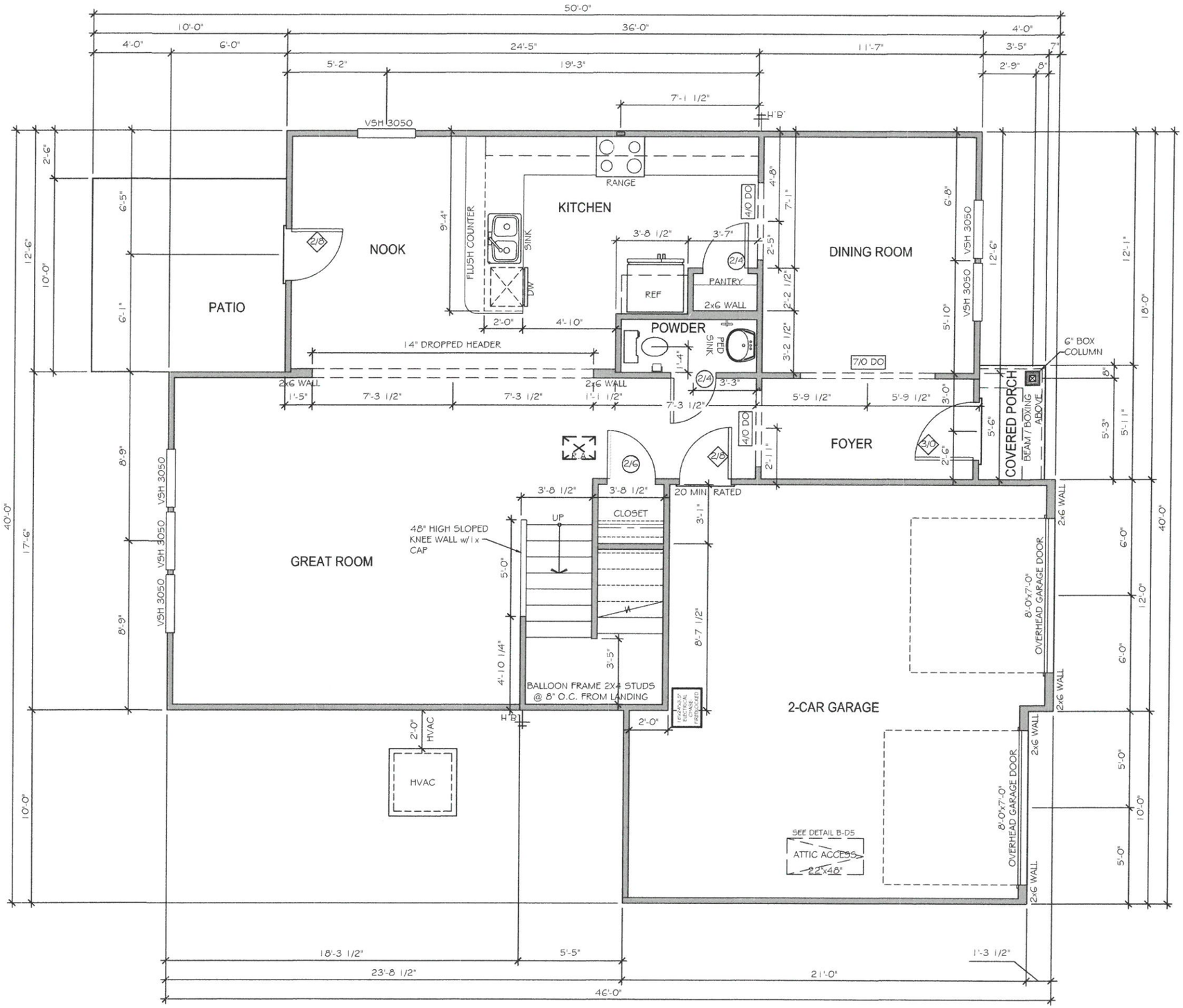
CROSS LINK
LOT# 60

HUDSON
2016

HARNETT

PREPARED BY: WALTER
DATE: 01-30-19
SCALE: 1/8"=1'-0"
REVIEWED BY: SCOTT

SHEET: CS



FIRST FLOOR PLAN

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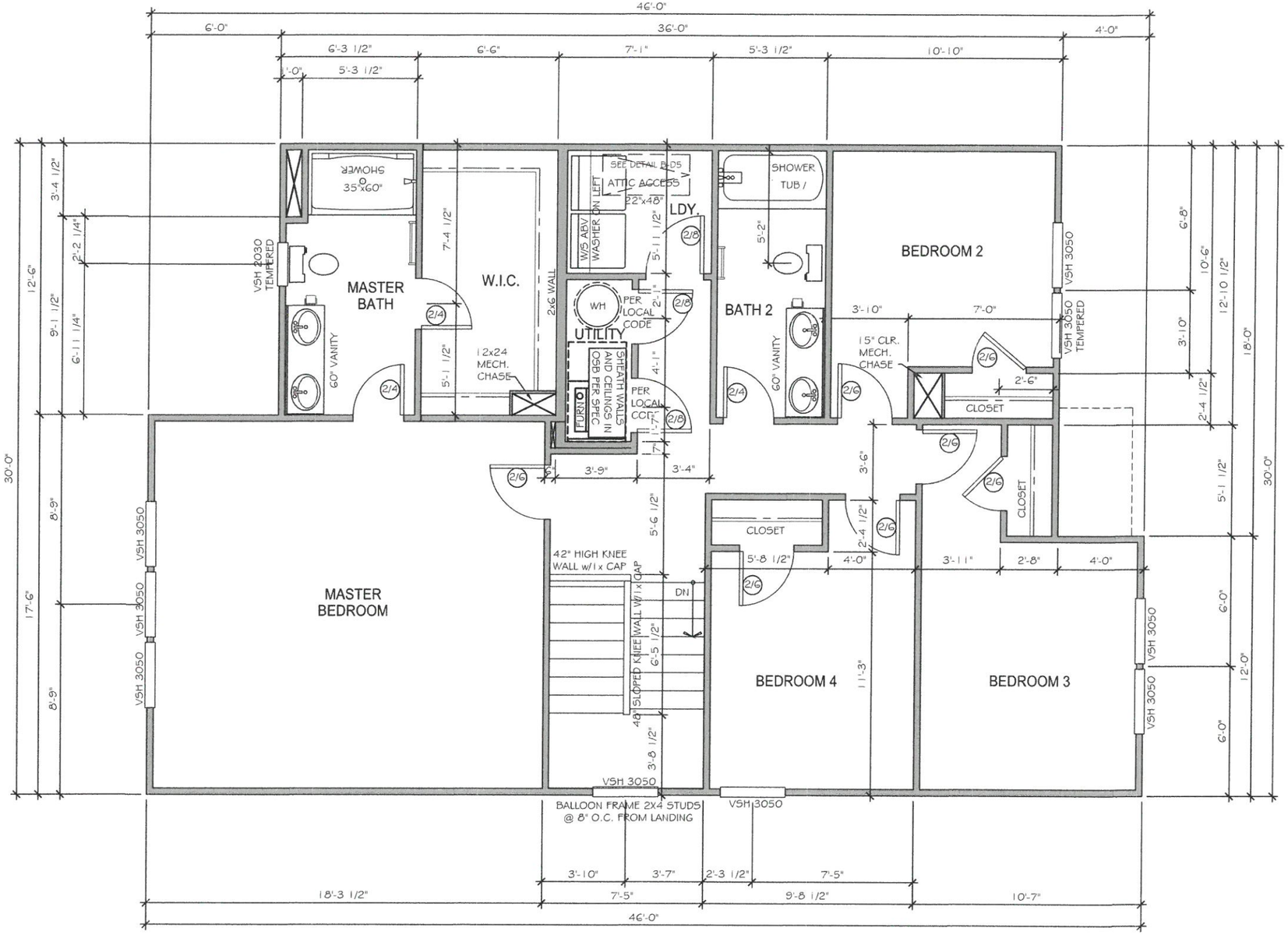
CROSS LINK
LOT# 60

HUDSON
2016

HARNETT

PREPARED BY: WALTER
DATE: 01-30-19
SCALE: 3/16"= 1'-0"
REVIEWED BY: SCOTT

SHEET: A2.1



SECOND FLOOR PLAN

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HUDSON 2016

HARNETT

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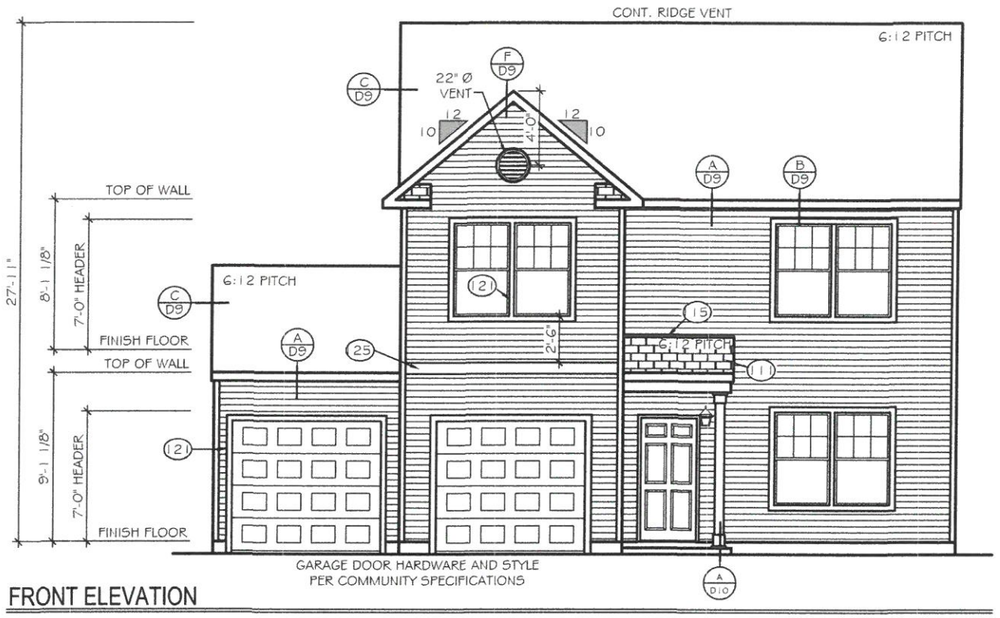
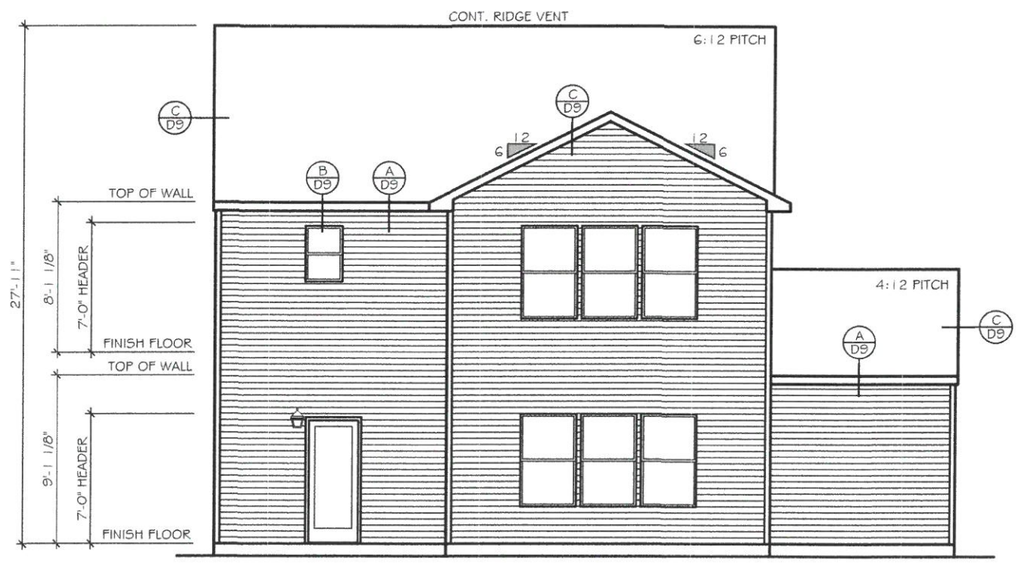
REVIEWED BY: SCOTT

SHEET: A2.2



FRONT ELEVATION



REAR ELEVATION

EXTERIOR MATERIAL LEGEND

- B-N-B SIDING
- SHAKE SIDING
- HORIZONTAL SIDING
- BRICK
- STONE
- METAL ROOF
- ROOF SHINGLE
- SCALLOP SIDING

FOUNDATION REVEAL MAY VARY BASED ON SITE CONDITIONS, FINAL GRADING, & COMMUNITY SPECS.

KEY NOTES

- (115) FLASHING
- (117) VINYL SHUTTER
- (120) BRICKMOLD TRIM
- (121) 1X4 TRIM BOARD
- (123) 1X6 TRIM BOARD
- (125) 1X8 TRIM BOARD
- (128) 1X10 FRIEZE BOARD
- (131) 1-1/2" THICK STONE CAP
- (135) ROWLOCK SILL
- (137) BRICK JACK ARCH
- (139) SOLDIER COURSE
- (141) PRECAST KEYSTONE

1x4 TRIM WHERE SHOWN AT WINDOWS AND DOORS UNLESS OTHERWISE NOTED

SEE ROOF FRAMING PLANS FOR OVERHANG DIMENSIONS AND DORMER LOCATIONS

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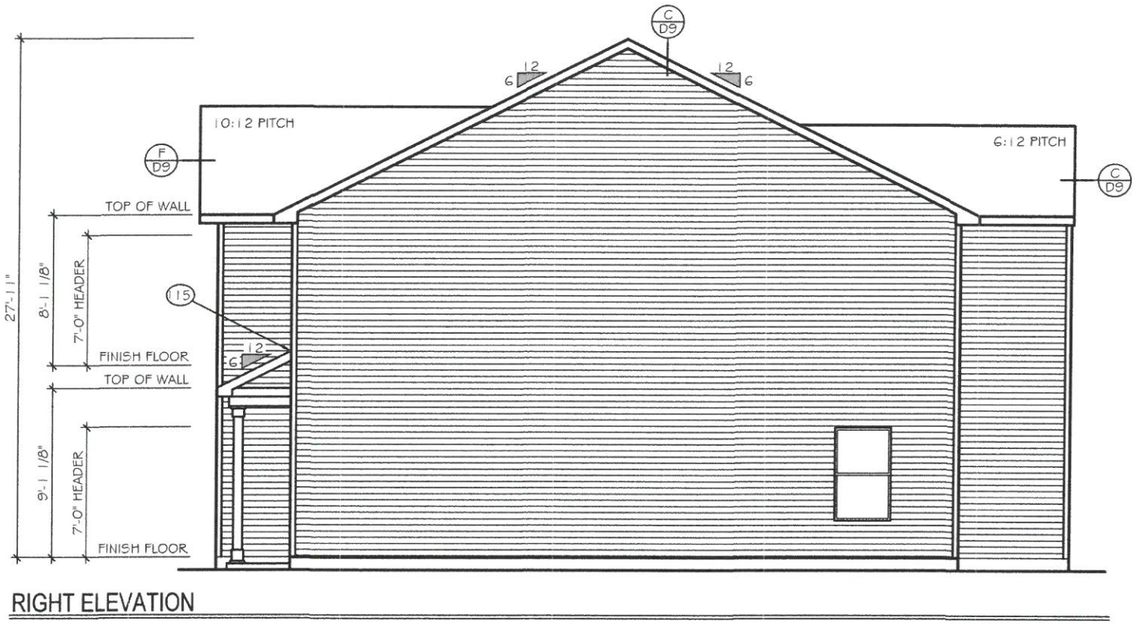
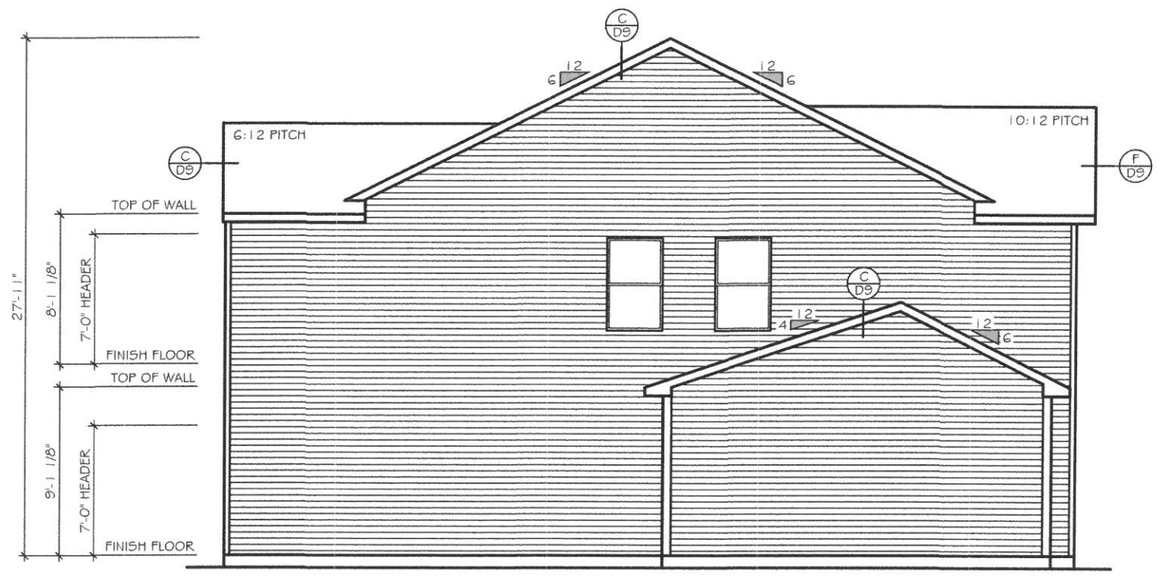
SHEET: A3.1



RIGHT ELEVATION



LEFT ELEVATION

EXTERIOR MATERIAL LEGEND

- B-N-B SIDING
- STONE
- SHAKE SIDING
- METAL ROOF
- HORIZONTAL SIDING
- ROOF SHINGLE
- BRICK
- SCALLOP SIDING

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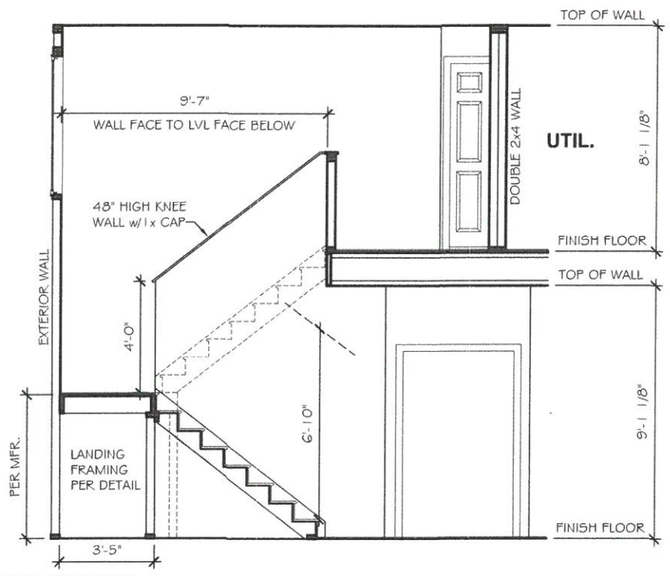
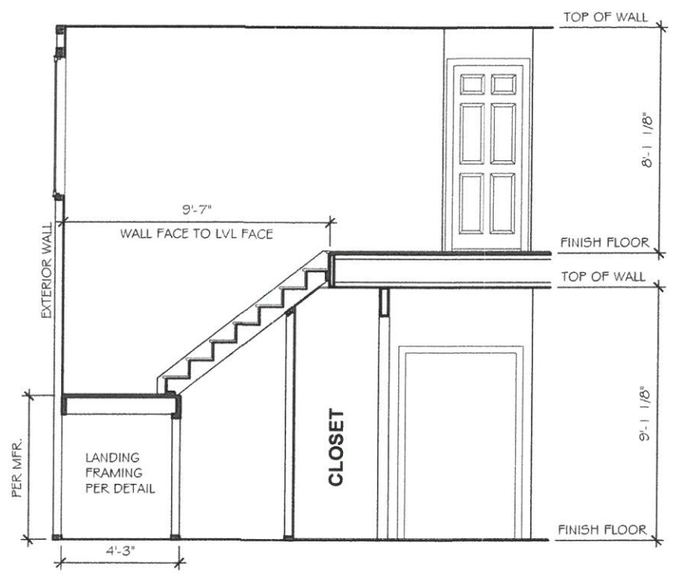
SHEET: A3.2



STAIR SECTION

SCALE: 3/16" = 1'-0"



9' PLATE

2016 OPT. SECOND FLOOR 1

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HUDSON
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HARNETT

PREPARED BY: WALTER

DATE: 01-30-19

SCALE: AS SHOWN

REVIEWED BY: SCOTT

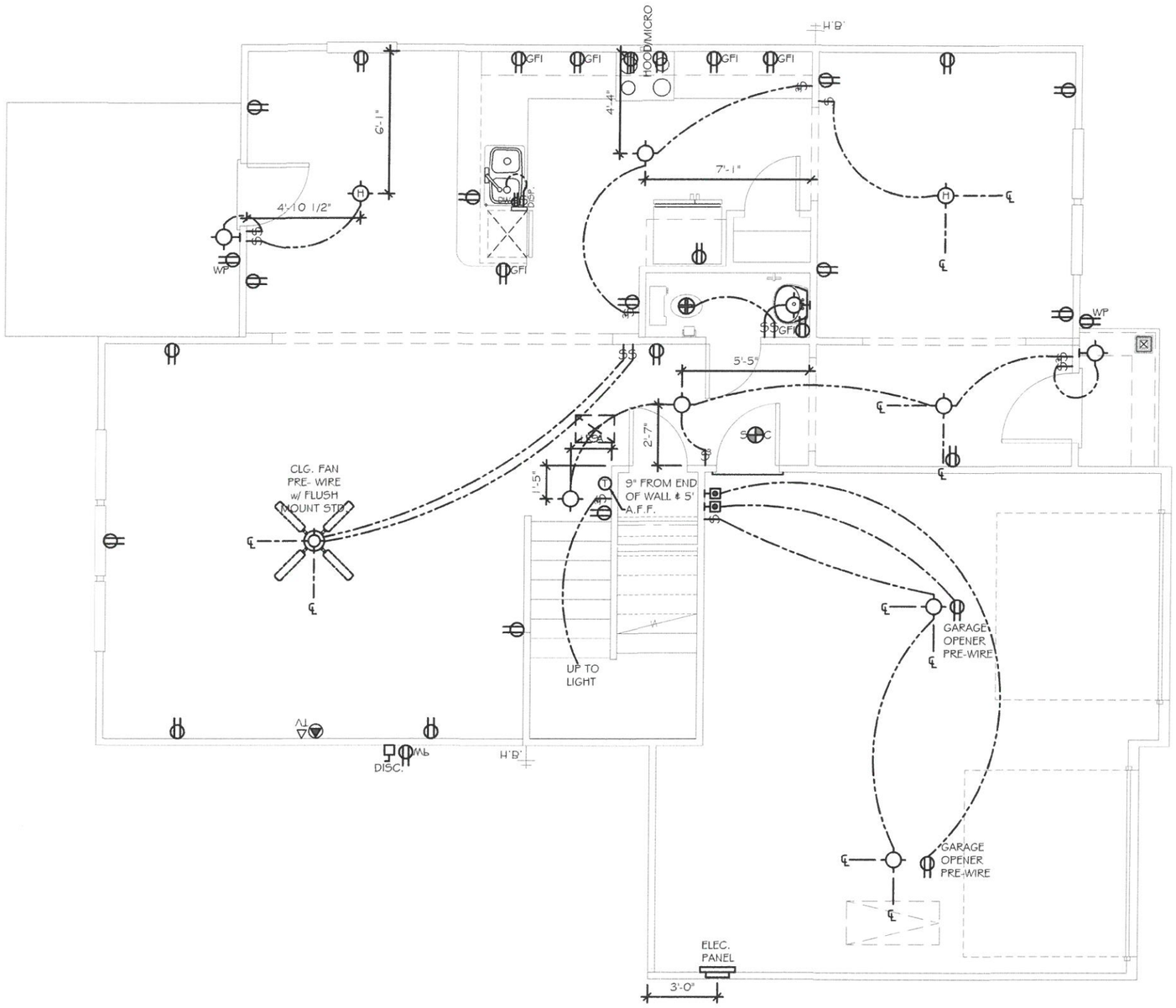
SHEET: A4.1

ELECTRICAL LEGEND

	EXT. CARRIAGE LIGHT
	OUTLET 220V
	OUTLET 110V
WP	OUTLET 110V WATER PROOF
GFI	OUTLET 110V GFI
	SWITCHED RECEPTACLE
	PHONE
S C D O	SMOKE / CO DETECTOR
S D	SMOKE DETECTOR
$	SWITCH
$3	3-WAY SWITCH
$4	4-WAY SWITCH
$S	SPEAKER SWITCH
T	THERMOSTAT
TV	CABLE TV
	CEILING LIGHT
CFT	COMPACT FLUORESCENT LIGHT GU24 SOCKET
J	JUNCTION LIGHT
S	SPEAKER
	EXHAUST FAN
	EXHAUST FAN / LIGHT
	FLOOD LIGHT - LOCATION TO BE VERIFIED IN FIELD WITH BUILDER/CLIENT
	UNDER CABINET LIGHT
	PUSH BUTTON
	ELECTRIC PANEL
	CAN LIGHT
	MINI-CAN LIGHT
	PENDANT LIGHT
	PREWIRE
CEILING FAN PRE-WIRE	CEILING FAN PRE-WIRE

ELECTRICAL TO BE PLACED PER CODE IN THE FIELD.

PLACE GAS METER MAX 15' AWAY FROM ELECTRICAL METER IF APPLICABALE



FIRST FLOOR ELECTRICAL PLAN

CHECK SELECTIONS FOR CPI LAYOUT. ALL TV, PHONE, CABLE, AUDIO, AND SECURITY SYSTEM OUTLETS WILL BE LOCATED PER CPI LAYOUT, REGARDLESS OF WHETHER TV AND PHONE ARE SHOWN.

ELECTRICAL		
Count	Name	Visibility1
2	Ceiling Fan 1.1	w/ Flush Mount Std.
4	Detectors	Smoke Detector
3	Detectors	Smoke/Carbon Monoxide Detector
2	Jacks	Thermostat
2	Jacks	Phone Jack
5	Jacks	TV Jack
14	Lights	Ceiling Light
3	Lights	Hanging Light
1	Lights	Exhaust Fan
7	Lights	Carriage Light
2	Lights	Exhaust Fan/Light
1	Lights	CFT Light
3	Receptacle	WP
46	Receptacle	110V
11	Receptacle	GFI
2	switch	Push Button
8	switch	3-Way Switch
24	switch	Single Pole Switch

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DATE: 01-30-19
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REVIEWED BY: SCOTT

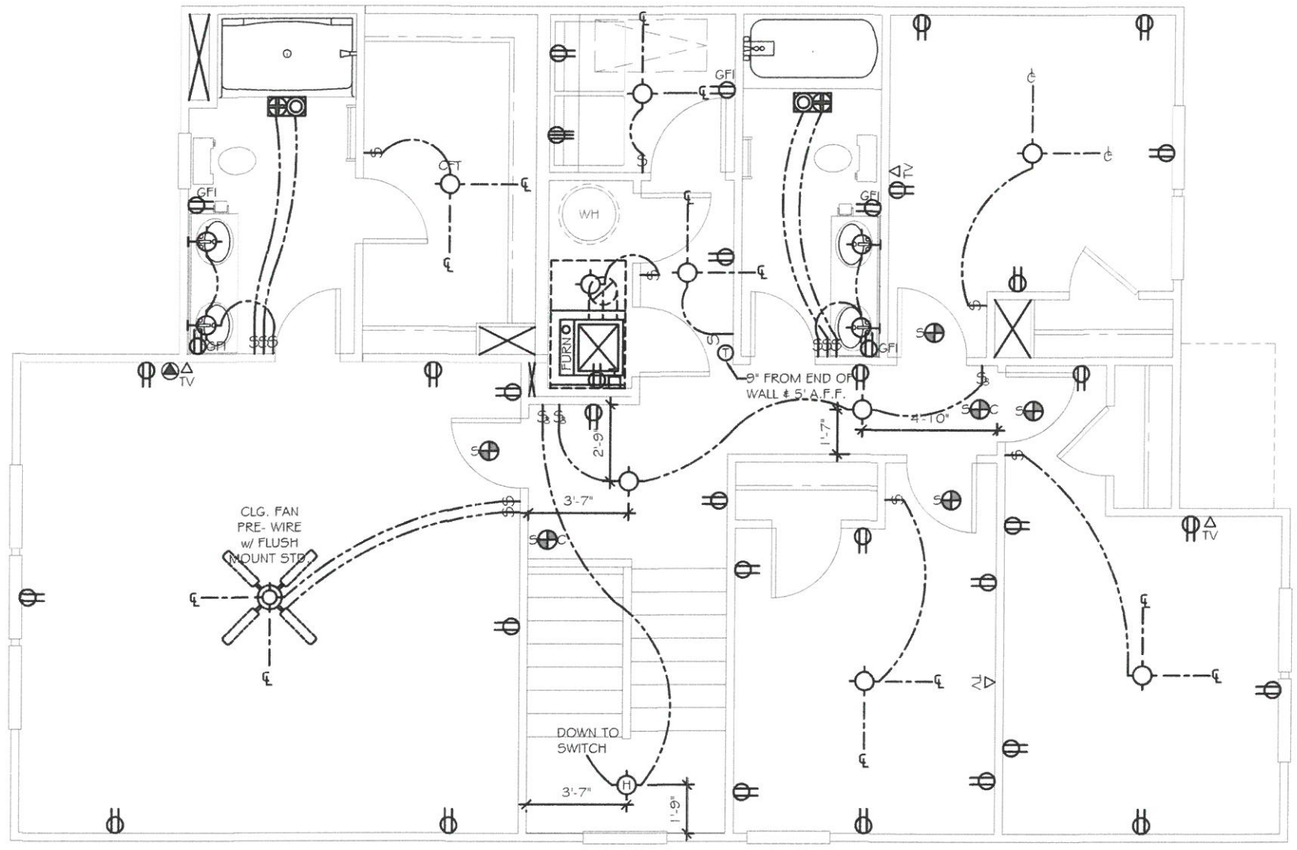
SHEET: E1.1

ELECTRICAL LEGEND

	EXT. CARRIAGE LIGHT
	OUTLET 220V
	OUTLET 110V
WP	OUTLET 110V WATER PROOF
GFI	OUTLET 110V GFI
	SWITCHED RECEPTACLE
	PHONE
S C D O	SMOKE / CO DETECTOR
S D	SMOKE DETECTOR
$	SWITCH
$3	3-WAY SWITCH
$4	4-WAY SWITCH
$S	SPEAKER SWITCH
T	THERMOSTAT
TV	CABLE TV
	CEILING LIGHT
CFT	COMPACT FLUORESCENT LIGHT GU24 SOCKET
J	JUNCTION LIGHT
S	SPEAKER
	EXHAUST FAN
	EXHAUST FAN / LIGHT
	FLOOD LIGHT - LOCATION TO BE VERIFIED IN FIELD WITH BUILDER/CLIENT
	UNDER CABINET LIGHT
	PUSH BUTTON
	ELECTRIC PANEL
	CAN LIGHT
	MINI-CAN LIGHT
	PENDANT LIGHT
	PREWIRE
CLG. FAN PRE-WIRE	CEILING FAN PRE-WIRE

ELECTRICAL TO BE PLACED PER CODE IN THE FIELD.

PLACE GAS METER MAX 15' AWAY FROM ELECTRICAL METER IF APPLICABALE



SECOND FLOOR ELECTRICAL PLAN

CHECK SELECTIONS FOR CPI LAYOUT. ALL TV, PHONE, CABLE, AUDIO, AND SECURITY SYSTEM OUTLETS WILL BE LOCATED PER CPI LAYOUT, REGARDLESS OF WHETHER TV AND PHONE ARE SHOWN.

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HUDSON 2016

HARNETT

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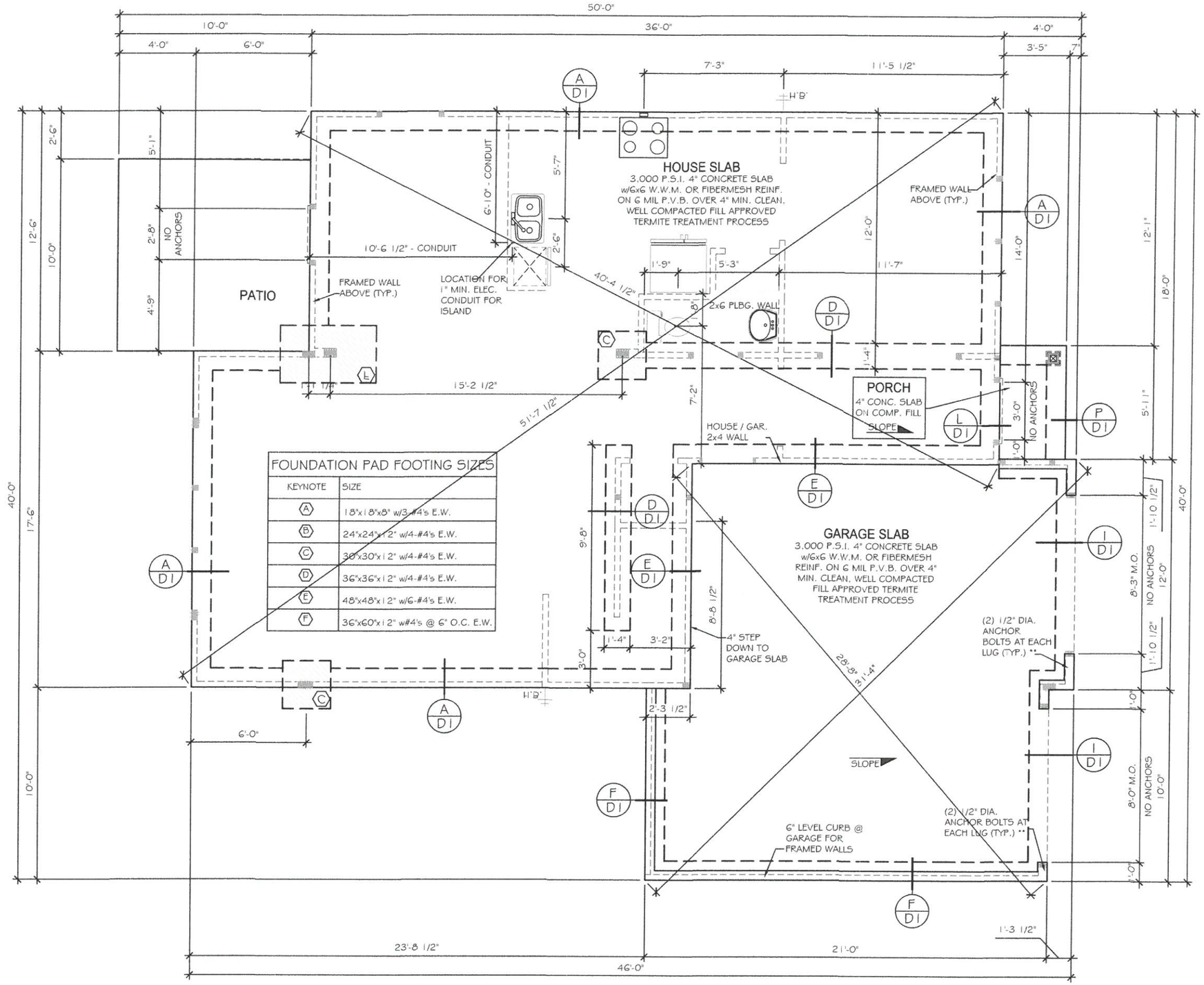
DATE: 01-30-19
SCALE: 3/16"=1'-0"
REVIEWED BY: SCOTT

SHEET: E1.2



FOUNDATION PAD FOOTING SIZES	
KEYNOTE	SIZE
A	18"x18"x8" w/3-#4's E.W.
B	24"x24"x12" w/4-#4's E.W.
C	30"x30"x12" w/4-#4's E.W.
D	36"x36"x12" w/4-#4's E.W.
E	48"x48"x12" w/6-#4's E.W.
F	36"x60"x12" w#4's @ 6" O.C. E.W.

MONO SLAB FOUNDATION PLAN

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LOT# 60

NORTH CAROLINA PROFESSIONAL SEAL 29249 ENGINEER KEVIN P. MUNSON 1/31/19

NORTH CAROLINA RESIDENTIAL STRUCTURES, P.C. No. C3295 CERTIFICATE OF AUTHORIZATION

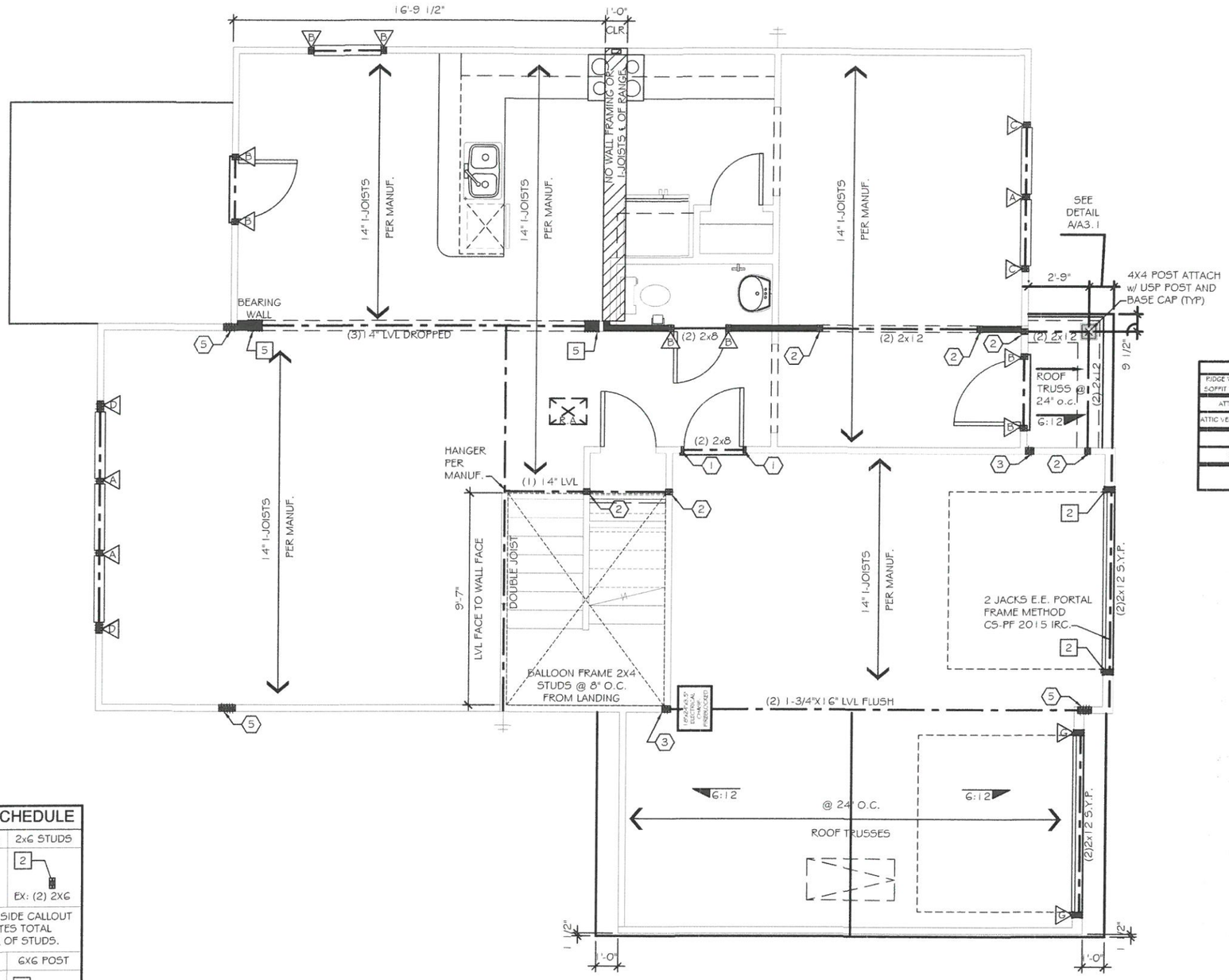
RESIDENTIAL STRUCTURES, P.C.
3410 N. Davidson St.
Charlotte, N.C. 28205
Seal For Structural Only

HUDSON 2016

HARNETT

PREPARED BY: WALTER
DATE: 01-30-19
SCALE: 3/16"=1'-0"
REVIEWED BY: SCOTT

SHEET: S1



STRUCTURAL LEGEND	
	BEARING WALL
	METHOD GB OF 2015 IRC
	BEARING WALL W/ METHOD GB OF 2015 IRC
	CENTER OF BEAM / JOIST / GIRDER TRUSS
BWL	METHOD CS-WSP (UNO)
	INTERIOR SHEAR WALL PER HIGH WIND NOTE 1.C
⊗	USP LSTA24 HOLDDOWN OR EQ.
⊖	USP STAD14 HOLDDOWN OR EQ.
●	USP DTB-TZ HOLDDOWN OR EQ.
▲	USP RS150 STRAP HOLDDOWN (36" LONG - 12" MIN. END LAP)
◆	USP PHD8 HOLDDOWN OR EQ.

ATTIC VENTILATION CALCULATIONS								
RIDGE VENT NET FREE AREA = 16 SQ. IN. PER LINEAR FT.								
SOFFIT VENT NET FREE AREA = 9 SQ. IN. PER LINEAR FT.								
ATTIC AREA (TOTAL)	=	232	SQ/FT					
ATTIC VENTILATION (REQUIRED)	=	232	/300	=	0.77	SQ.FT. =	111.36	SQ.IN
RIDGE VENT	=	6	FT.	x 16 SQ.IN.		=	96	SQ. IN. NET FREE AREA
SOFFIT VENT	=	20	FT.	x 9 SQ.IN.		=	180	SQ. IN. NET FREE AREA
TOTAL	= 276	SQ. IN. NET FREE AREA	> 111.36	SQ. IN. REQUIRED				

SEE COVER PAGE FOR ROUGH OPENING DIMENSIONS

KING / JACK STUD SCHEDULE	
A	(2) JACKS
B	(1) JACK & (1) KING
C	(1) JACK & (2) KINGS
D	(1) JACK & (3) KINGS
E	(2) JACKS & (1) KING
F	(2) JACKS & (2) KINGS
G	(2) JACKS & (3) KINGS
H	(3) JACKS & (3) KINGS
I	(4) JACKS & (4) KINGS

POST SCHEDULE	
2x4 STUDS	2x6 STUDS
(2) EX: (2) 2X4	(2) EX: (2) 2X6
NUMBER INSIDE CALLOUT INDICATES TOTAL NUMBER OF STUDS.	
4X4 POST	6X6 POST
(P)	(P)
LETTER 'P' INSIDE CALLOUT INDICATES A SOLID 4x4 or 6x6 POST	

FLOOR FRAMING PLAN

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Suite 104
Monroe, N.C. 28110
704-271-1191

CROSS LINK
LOT# 60

HUDSON 2016

HARNETT

NORTH CAROLINA PROFESSIONAL SEAL 29249 ENGINEER KEVIN P. MUNSON 1/31/19

NORTH CAROLINA RESIDENTIAL STRUCTURES, P.C. No. C3295 CERTIFICATE OF AUTHORIZATION

RESIDENTIAL STRUCTURES, P.C.
3410 N. Davidson St.
Charlotte, N.C. 28205
Seal For Structural Only

PREPARED BY: WALTER
DATE: 01-30-19
SCALE: 3/16"=1'-0"
REVIEWED BY: SCOTT

SHEET: S2.1

SEE COVER PAGE FOR ROUGH OPENING DIMENSIONS

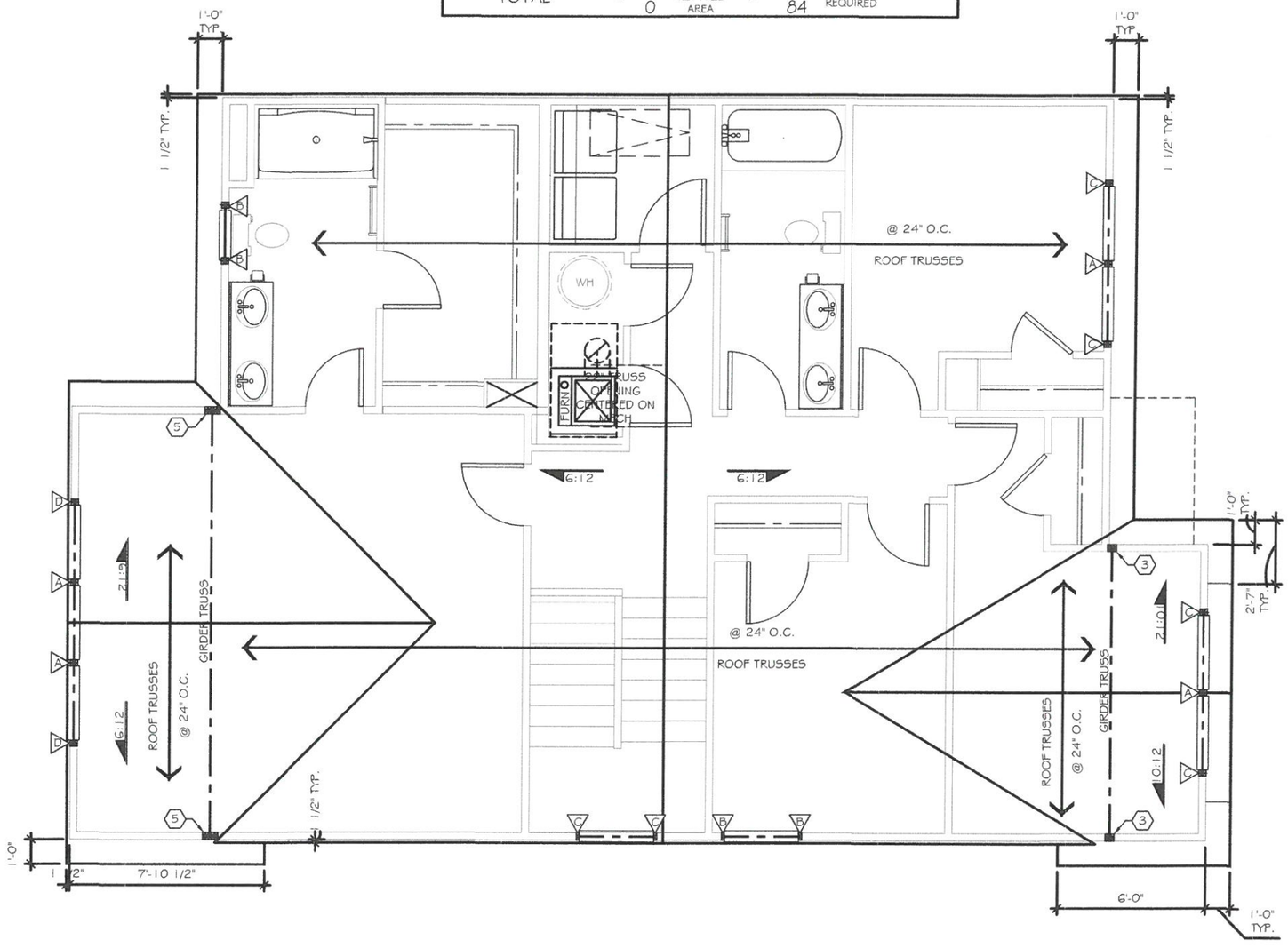
KING / JACK STUD SCHEDULE	
A	(2) JACKS
B	(1) JACK & (1) KING
C	(1) JACK & (2) KINGS
D	(1) JACK & (3) KINGS
E	(2) JACKS & (1) KING
F	(2) JACKS & (2) KINGS
G	(2) JACKS & (3) KINGS
H	(3) JACKS & (3) KINGS
I	(4) JACKS & (4) KINGS

POST SCHEDULE	
2x4 STUDS	2x6 STUDS
EX: (2) 2X4	EX: (2) 2X6
NUMBER INSIDE CALLOUT INDICATES TOTAL NUMBER OF STUDS.	
4X4 POST	6X6 POST
LETTER 'P' INSIDE CALLOUT INDICATES A SOLID 4x4 or 6x6 POST	

ATTIC VENTILATION CALCULATIONS

RIDGE VENT NET FREE AREA = 16 SQ. IN. PER LINEAR FT.
SOFFIT VENT NET FREE AREA = 9 SQ. IN. PER LINEAR FT.

ATTIC AREA (TOTAL)	=	1233 SQ.FT					
ATTIC VENTILATION (REQUIRED)	=	1233 /300	=	4.11 SQ.FT. =	591.84 SQ.IN		
RIDGE VENT	=	37	FT	x 16 SQ.IN.	=	592	SQ. IN. NET FREE AREA
SOFFIT VENT	=	62	FT	x 9 SQ.IN.	=	558	SQ. IN. NET FREE AREA
TOTAL	=	115 / 0	SQ. IN. NET FREE AREA	>	591. / 84	SQ. IN. REQUIRED	



ROOF FRAMING PLAN

STRUCTURAL LEGEND

- BEARING WALL
- METHOD GB OF 2015 IRC
- BEARING WALL W/ METHOD GB OF 2015 IRC
- CENTER OF BEAM / JOIST / GIRDER TRUSS
- BWL — METHOD CS-WSP (UNO)
- INTERIOR SHEAR WALL PER HIGH WIND NOTE 1.C
- USP LSTA24 HOLDDOWN OR EQ.
- USP STAD14 HOLDDOWN OR EQ.
- USP DTB-TZ HOLDDOWN OR EQ.
- USP RS150 STRAP HOLDDOWN (36" LONG - 12" MIN. END LAP)
- USP PHD8 HOLDDOWN OR EQ.

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CROSS LINK
LOT# 60

HUDSON
2016

HARNETT

NORTH CAROLINA PROFESSIONAL SEAL 29249 ENGINEER KEVIN P. MUNSON 1/31/17

NORTH CAROLINA RESIDENTIAL STRUCTURES, P.C. No. C3295 CERTIFICATE OF AUTHORIZATION

RESIDENTIAL STRUCTURES, P.C.
3410 N. Davidson St.
Charlotte, N.C. 28205
Seal For Structural Only

PREPARED BY: WALTER
DATE: 01-30-19
SCALE: 3/16"= 1'-0"
REVIEWED BY: SCOTT

SHEET: S3.1

GENERAL NOTES

RESIDENTIAL FOUNDATIONS:

1) ALL CONTINUOUS WALL FOOTINGS ARE 8" X 12" FOR ONE-STORY AND 8"X16" FOR TWO-STORY HOUSES UNLESS OTHERWISE NOTED. REINFORCING IS TO BE AS NOTED ON PLANS. FOOTINGS ON ORIGINAL SOIL DO NOT NEED REBAR. REBAR IS REQUIRED ON ANY COMPACTED FILL REGARDLESS OF COMPACTION.
2) ALL INTERIOR PIERS ARE 8" X 16" CMU UP TO A MAXIMUM HEIGHT OF 32". ALL PIERS OVER 32" HIGH MUST BE FILLED WITH TYPE S MORTAR. MAXIMUM HEIGHT FOR 8" X 16" FILLED PIER IS 6'-8". PIERS LARGER THAN 8" X 16" ARE NOTED ON PLANS AND MUST BE FILLED WITH TYPE S MORTAR. FOR ONE-STORY STRUCTURES, PIER CAPS ARE TO BE 4" SOLID MASONRY. FOR TWO-STORY STRUCTURES, PIER CAPS ARE TO BE 8" OF SOLID MASONRY.
3) FOOTINGS FOR 8" X 16" PIERS ARE 24" X 36" X 10" UNLESS NOTED OTHERWISE. REINFORCING IS TO BE AS NOTED ON PLANS.
4) INTERIOR THICKENED SLAB FOOTINGS WHICH OCCUR IN BASEMENTS AND "SLAB ON GRADE" FLOORS ARE 10" DEEP BY 16" WIDE WITH 2-#4 REINFORCING BARS RUNNING CONTINUOUSLY UNLESS NOTED OTHERWISE. THICKENED FOOTINGS ARE REQUIRED UNDER ALL BEARING WALLS.
5) ALL REBAR SPLICES SHALL BE A MINIMUM OF 2'-0" UNLESS OTHERWISE NOTED.
6) SHALLOW FOUNDATIONS ARE DESIGNED FOR AN ASSUMED SOIL BEARING CAPACITY OF 2,000 PSF. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF RECORD IF ANY SOILS ARE FOUND TO BE UNSUITABLE FOR THIS BEARING CAPACITY. THEE CONTRACTOR IS RESPONSIBLE FOR OBTAINING SOIL TESTING TO ENSURE THAT THE BEARING CAPACITY OF THE SOIL MEETS OR EXCEEDS THIS VALUE. ALL FILL IS TO BE COMPACTED TO 95% DENSITY AS MEASURED BY THE STANDARD PROCTOR TEST (ASTM D-698).
7) ALL SOILS AND FILL UNDER FLOORS AND/OR WITHIN OR UNDER BUILDINGS SHALL HAVE PRECONSTRUCTION SOIL TREATMENT FOR PROTECTION AGAINST TERMITES. CERTIFICATION OF COMPLIANCE SHALL BE ISSUED TO THE BUILDING DEPARTMENT BY A LICENSED PEST CONTROL COMPANY.
8) ALL FOOTING EXCAVATIONS SHALL BE NEAT, STRAIGHT, AND LEVEL IN THE PROPER ELEVATIONS TO RECEIVE THE CONCRETE. EXCESSIVE VARIATIONS IN THE DIMENSIONS OF FOOTINGS OR SLABS WILL NOT BE PERMITTED. REINFORCING STEEL AND MESH SHALL BE ACCURATELY PLACED AND SUPPORTED TO MAINTAIN THEIR POSITION DURING THE CONCRETE POURING. EDGE FORMS SHALL BE USED FOR CONCRETE THAT WILL BE EXPOSED.
9) ALL SLAB PENETRATIONS ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR. PENETRATIONS INTERFERING WITH REINFORCING SHALL BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THE PLACEMENT OF CONCRETE.
10) ELEVATIONS DIFFERENCES BETWEEN THE BOTTOM OF ADJACENT FOOTINGS SHALL BE LESS THAN THEIR HORIZONTAL DISTANCE LESS ONE FOOT. DIFFERENTIAL HEIGHTS BETWEEN FOOTINGS CAN BECOME EXCESSIVE USUALLY WHERE A PIER FOOTING IN A CRAWLSPACE OR GARAGE FOOTING IS NEXT TO A BASEMENT WALL FOOTING.

SPECIAL FOUNDATION CONSIDERATIONS:

1) CAISSON FOUNDATIONS SHALL BE A MINIMUM OF 12" DIAMETER DRILLED UNREINFORCED CONCRETE CAISSONS. CAISSONS SHALL EXTEND TO A MINIMUM DEPTH PROVIDING 2' PENETRATIONS INTO GOOD ORIGINAL GROUND. DEPTH OF DRILLING IS LIMITED TO 15'. THEREFORE, NO POOR MATERIAL MORE THAN 13' DEEP IS SUITABLE FOR A CAISSON FOUNDATION. A CAISSON CANNOT BE USED IF WATER RISES IMMEDIATELY INTO A DRILLED HOLE. PILES WILL HAVE TO BE USED IN SUCH CASES.
2) TREATED WOOD PILES WITH A MINIMUM DIAMETER OF 6" AND A MINIMUM DESIGN LOAD OF SIX TONS ARE USED FOR ALL FOUNDATIONS WITH UNSUITABLE SOIL DEEPER THAN 13' OR WITH WATER IN DRILLED CAISSON HOLES. DRIVE PER NORTH CAROLINA OR SOUTH CAROLINA CODE.
3) SIZES AND REINFORCING FOR FOOTING CAPS OVER CAISSONS OR PILES SHALL BE AS SHOWN ON PLANS.
4) CHIMNEY FOOTINGS ARE TO BE 12" LARGER THAN THE CHIMNEY FOOTPRINT BY 12" THICK.
5) FOUNDATION WALLS BACKFILLED WITH DIRT WHICH SUPPORT STRUCTURAL FRAMING SHALL BE CONSTRUCTED AS FOLLOWS:

A) FOR EARTH FILL UP TO A MAXIMUM HEIGHT OF 4': USE 8" CMU OR 8" BRICK WITH BITUTHENE MEMBRANE WATERPROOFING ON EXTERIOR. FOOTINGS ARE TO BE 8" X 16" OR 8" X 24" AS NOTED ON THE PLAN.
B) FOR EARTH FILL 4' TO A MAXIMUM HEIGHT OF 9': USE 8" X 24" FOOTING WITH #4 AT 16" DOWELS HOOKED IN FOOTING AND PROJECTING 18" ABOVE FOOTINGS. USE 12" CMU WALLS WITH #4 AT 16" VERTICAL BARS LOCATED 4" FROM NON-DIRT FILL FACE, LAP ALL SPLICES 12" AND USE DUR-O-WALL HORIZONTAL REINFORCING EVERY 8" IN CMU JOINTS. INSTALL 1-#3 L-BAR WITH 24" LEGS IN EVERY OTHER JOINT HORIZONTALLY AT ALL CORNERS; I.E., #3 CORNER BARS AT 16" O.C. VERTICALLY. FILL ALL OPEN CELLS OF CMU WITH EITHER TYPE S OR M MORTAR OR FILL WITH 2,500 PSI CONCRETE. INSTALL WATERPROOF BITUTHENE MEMBRANE OR EQUAL.
C) IN LIEU OF THE PRECEDING DESIGN, BASEMENT WALLS MAY BE CONSTRUCTED IN ACCORDANCE WITH R404.1 OF THE CODE. HOWEVER, 24" X 24", #3 CORNER BARS SHALL BE INSTALLED AT 16" O/C VERTICALLY REGARDLESS OF THE WALL HEIGHT. ERECT ALL FRAMING BEFORE BACKFILLING.

7) FOR RETAINING WALLS WITHOUT FRAMING SEE SPECIAL DESIGNS ON DRAWINGS.

FRAMING CONSTRUCTION - OTHER THAN ROOF:

1) SEE TABLE R602.3(1) OF THE CODE FOR A FASTENER SCHEDULE FOR STRUCTURAL MEMBERS.
2) WOOD BEAMS SHALL BE SUPPORTED BY METAL HANGERS OF ADEQUATE CAPACITY WHERE FRAMING INTO BEAMS OR LEDGERS. THE ALLOWABLE LOAD CAPACITY OF THE HANGER SHALL BE EQUAL TO OR GREATER THAN THE LOAD SPECIFIED ON THE PLAN. WHERE NO LOAD IS SPECIFIED, THE "LIGHTEST" AVAILABLE HANGER FOR THE APPLICATION IS ACCEPTABLE.
3) CRAWL GIRDERS AND BAND WITH 4" CURTAIN WALL AND PIER CONSTRUCTION SHALL BE 2-2 X 10 SOUTHERN YELLOW PINE #2 UNLESS NOTED OTHERWISE. MAXIMUM CLEAR SPANS ARE TO BE 4'-8" (6'-0" O/C SPACING OF PIERS).
   TO AVOID OBJECTIONABLE CRACKING IN FINISHED HARDWOOD FLOORS OVER ANY GIRDERS, USE THE FOLLOWING PROCEDURE:
   A) NAILING
      i) ALL FLOOR JOISTS MUST BE TOENAILED TO THEIR SUPPORT GIRDERS WITH A MINIMUM OF 3-8D NAILS AT EACH END. LARGER NAILS WILL SPLIT AND RENDER THE TOENAIL INEFFECTIVE. NO END NAILING THROUGH THE GIRDER OR BAND IS PERMITTED.
      ii) IF DROPPED GIRDERS ARE USED, END LAP ALL JOISTS AND SIDE NAIL EACH WITH A MINIMUM OF 3- 6D NAILS AT EACH END OF EACH JOIST. LEDGER STRIPS SHOULD BE SPACED 3" APART AND NAILED WITH 3-16D NAILS AT EACH JOIST END.
      iii) NAIL MULTIPLE MEMBER BUILT-UP GIRDERS WITH TWO ROWS OF 16D NAILS STAGGERED AT 32" O/C, 2" DOWN FROM THE TOP AND 2" UP FROM THE BOTTOM WITH 3-16D NAILS AT EACH END OF EACH PIECE IN THE JOIST THROUGH THE MEMBERS MAKING UP THE MULTIPLE GIRDER.
      iv) THIS NAILING PATTERN WILL ENSURE A TIGHT FLOOR FROM THE OUTSIDE OF THE HOUSE TO THE OUTSIDE SO THAT WHEN THE FRAMING SHRINKS DURING THE FIRST HEATING SEASON, THE SHRINKAGE WILL BE UNIFORMLY DISTRIBUTED OVER THE ENTIRE FLOOR. IF THE GIRDER NAILING PATTERN IS OMITTED, THEN THE SHRINKAGE WILL ACCUMULATE OVER THE GIRDERS AND AN OBJECTIONABLE CRACK WILL DEVELOP IN THE FINISHED HARDWOOD FLOOR OVER THE GIRDER LINE.
   B) AT ALL GIRDERS WHERE THE JOISTS CHANGE DIRECTION, INSTALL BRIDGING AT 6' O/C FOR A MINIMUM OF SIX JOIST SPACINGS BEYOND ANY JOIST DIRECTION CHANGE. THIS WILL INSURE SHRINKAGE DISTRIBUTION OVER THE FLOOR AND NOT LET IT ACCUMULATE AT THE GIRDER.
   C) THERE MUST BE WOOD BLOCKING THRU BOLTED TO THE STEEL BEAM WITH JOISTS TOENAILED OR ATTACHED TO THE BEAM WITH METAL HANGERS UNDER ANY HARDWOOD FLOORS THAT PASS OVER A STEEL BEAM SUPPORTING FLOOR JOISTS. THIS CONDITION OFTEN EXISTS OVER BASEMENT AREAS.
4) ALL OTHER LUMBER MAY BE SPRUCE #2 UNLESS NOTED OTHERWISE.
5) "LAM" BEAMS MUST HAVE 3-2X4 STUD JACKS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE.
6) MASONRY LINTELS:
   A) FOR SPANS UP TO 6': USE 3 ½" X 3 ½" X ¼" STEEL ANGLES.
   B) FOR SPANS FROM 6' TO 10': USE 5" X 3 ½" X 5/16" STEEL ANGLES.
   C) FOR SPANS FROM 9' TO 18': USE A PAIR OF 9-GAUGE WIRES IN EACH OF THE FIRST 3 COURSES OF BRICK ON A 5" X 3 ½" X 5/16" STEEL ANGLE. LAP ALL 9-GAUGE WIRE SPLICES A MINIMUM OF 12" AND EXTEND WIRES A MINIMUM OF 12" INTO JAMBS. TEMPORARILY SUPPORT THE STEEL ANGLES BEFORE LAYING MASONRY. THE SHORING MAY BE REMOVED FIVE DAYS FOLLOWING THE INSTALLATION OF MASONRY.
   D) WHEN STRUCTURAL STEEL BEAMS WITH BOTTOM PLATES ARE USED TO SUPPORT MASONRY, THE BOTTOM PLATE MUST EXTEND THE FULL LENGTH OF THE STEEL BEAM. THIS PROVIDES SUPPORT TO THE ENDS OF THE PLATE BY BEARING ON THE ADJACENT MASONRY JAMBS. THE BEAM SHOULD BE TEMPORARILY SHORED PRIOR TO LAYING THE MASONRY. THE SHORING MAY BE REMOVED FIVE DAYS AFTER LAYING THE MASONRY.
8) ALL BRICK VENEER OVER LOWER ROOFS (BRICK CLIMBS) MUST HAVE A STRUCTURAL ANGLE LAG SCREWED TO AN ADJACENT STUD WALL IN ACCORDANCE WITH DETAIL, WITH STEEL BRICK STOPS TO PREVENT SLIDING OF BRICK.
9) ALL RAFTER BRACES MUST HAVE TWO STUDS FROM PLATE THROUGH ALL FLOORS TO THE FOUNDATION OR SUPPORTING BEAM BELOW. NO BRACES SHALL BE ATTACHED TO TOP WALL PLATE WITHOUT STUDS DIRECTLY UNDER THEM.

MATERIALS SPECIFICATIONS:

CONCRETE GENERAL NOTES:

1) EXCEPT WHERE OTHERWISE NOTED, FOR ALL CONCRETE, THE PROPORTIONS OF CEMENT, AGGREGATE, AND WATER TO ATTAIN REQUIRED PLASTICITY AND COMPRESSIVE STRENGTH SHALL BE IN ACCORDANCE WITH ACI 318 CODE. CONCRETE SHALL BE 2,500 PSI IN 28 DAYS FOR FOOTINGS AND 2,500 PSI FOR WALLS, BEAMS, AND COLUMNS, UNLESS NOTED OTHERWISE.
2) BEFORE PLACING CONCRETE, ALL DEBRIS, WATER AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE PLACES TO BE OCCUPIED BY THE CONCRETE. THE PLACING OF ALL CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318 AND ASTM C94 REQUIREMENTS. PUMPING OF CONCRETE WILL BE PERMITTED ONLY WITH THE ENGINEER OF RECORD'S APPROVAL OF PROPOSED CONCRETE MIX AND METHOD OF PUMPING. CONCRETE SHALL BE RAPIDLY HANDLED FROM THE MIXER TO FORMS AND DEPOSITED AS NEARLY AS POSSIBLE TO ITS FINAL POSITION TO AVOID SEGREGATION DUE TO REHANDLING. CONCRETE TO BE SPADED AND WORKED BY HAND AND VIBRATED TO ASSURE CLOSE CONTACT WITH ALL SURFACES OF FORMS AND REINFORCING STEEL AND LEVELED OFF AT PROPER GRADE TO RECEIVE FINISH. ALL CONCRETE SHALL BE PLACED UPON CLEAN, DAMP SURFACES. VIBRATION SHALL BE APPLIED DIRECTLY TO THE CONCRETE AND SHALL BE SUFFICIENT TO CAUSE FLOW OF SETTLEMENT BUT NOT LONG ENOUGH TO CAUSE SEGREGATION OF THE MIX.
3) CONSTRUCTION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH ACI 301. ALL REINFORCING STEEL SHALL BE CONTINUOUS ACROSS JOINTS. IN SLABS ON GRADE, SAW CONTRACTION JOINTS SHALL NOT BE OVER 20 FEET CENTER TO CENTER EACH WAY. JOINTS SHALL BE SAWN A DEPTH OF ONE THIRD OF THE SLAB THICKNESS. SAWING OF THE JOINTS SHALL COMMENCE AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PERMIT SAWING WITHOUT EXCESSIVE RAVELING. FILL THE SAW CUTS WITH APPROVED JOINT FILLER AFTER THE CONCRETE HAS CURED.
4) CONCRETE, WHEN DEPOSITED, SHALL HAVE A TEMPERATURE NOT BELOW 50°F AND NOT ABOVE 90°F. THE METHODS AND RECOMMENDED PRACTICES AS DESCRIBED IN ACI 306 SHALL BE FOLLOWED FOR COLD WEATHER CONCRETING AND ACI 305 FOR HOT WEATHER CONCRETING.
5) FRESHLY PLACED CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING BY ONE OF THE FOLLOWING METHODS:
   A) PONDING OR CONTINUOUS SPRINKLING.
   B) ABSORPTIVE MAT OR FABRIC KEPT CONTINUOUSLY WET.
   C) WATERPROOF PAPER CONFORMING TO ASTM C171
   D) APPLICATION OF AN APPROVED CHEMICAL CURING COMPOUND.
   THE CURING SHALL CONTINUE UNTIL THE CUMULATIVE NUMBER OR DAYS WHEN THE AMBIENT TEMPERATURE ABOVE 50°F HAS TOTALED SEVEN. DURING CURING, THE CONCRETE SHALL BE PROTECTED FROM ANY MECHANICAL INJURY, LOAD STRESSES, SHOCK, VIBRATION, OR DAMAGE TO FINISHED SURFACES.
6) REINFORCING STEEL BARS SHALL BE DEFORMED IN ACCORDANCE WITH ASTM A305 AND OR A408 AND FORMED OF ASTM A615-78 GRADE 60 STEEL. WELDED WIRE FABRIC REINFORCING TO BE ASTM A185 STEEL WIRE. ACCESSORIES SHALL CONFORM TO THE CRSI "MANUAL OF STANDARD PRACTICE." THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED OVER REINFORCING BARS:

A) EXPOSED TO EARTH	3"
B) EXPOSED TO WEATHER	1 ½"
C) SLABS NOT EXPOSED TO WEATHER	¾"
D) BEAMS AND COLUMNS	1 ½"

MASONRY GENERAL NOTES:

1) MASONRY WALLS ARE TO BE OF THE SIZES AND IN THE LOCATIONS SHOWN ON THE PLANS AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF ACI 530.
2) HOLLOW LOAD BEARING UNITS: ASTM C90 MADE WITH LIGHTWEIGHT OR NORMAL WEIGHT AGGREGATES. GRADE N-I UNITS SHALL BE PROVIDED FOR EXTERIOR AND FOUNDATION WALLS. GRADE N-I OR S-I UNITS SHALL BE PROVIDED FOR OTHER LOAD-BEARING WALLS OR PARTITIONS.
3) CONCRETE BUILDING BRICK: ASTM C55 MADE WITH LIGHTWEIGHT OR NORMAL AGGREGATES, GRADE N-I OR S-I EXCEPT THAT BRICK EXPOSED TO WEATHER SHALL BE N-I.
4) MORTAR: ASTM C270-95, TYPE S PREPACKAGED MORTAR MIX WHICH SHALL NOT CONTAIN ANY NON-CEMENTITIOUS FILLERS COMBINED WITH NOT MORE THAN THREE PARTS SAND PER ON PART MIX.
5) REINFORCING STEEL: ASTM A615 GRADE 60 STEEL DEFORMED BARS WHERE INDICATED ON THE PLANS. WHERE REINFORCING BARS ARE INSTALLED IN THE CORE OF CONCRETE MASONRY UNITS, THEY SHALL BE SECURED WITH WIRE TIES AT INTERVALS NOT EXCEEDING 24" O/C TO MAINTAIN THE BARS LOCATION IN THE CELL. THE TOLERANCE FOR SPACING OF VERTICAL BARS IS ± 2 INCHES ALONG THE LENGTH OF THE WALL. THE TOLERANCE FOR THE DISTANCE BETWEEN THE FACE OF THE CONCRETE MASONRY UNIT AND THE CENTER OF THE BAR SHALL NOT EXCEED ± ½".
6) MORTAR PROTRUSION SHALL BE LESS THAN ½". A PROTRUSION OF ½" OR GREATER MUST BE REMOVED BEFORE GROUTING.
7) HORIZONTAL JOINT REINFORCEMENT: ASTM A82 FABRICATED FROM COLD DRAWN STEEL WIRE AND HOT DIP ZINC COATED (ASTM A153). IT SHALL CONSIST OF TWO OR MORE PARALLEL, LONGITUDINAL WIRES 0.187"5" IN DIAMETER WITH WELD-CONNECTED CROSS WIRES 0.148" IN DIAMETER AT A MINIMUM OF 16" O/C. JOINT REINFORCEMENT IS TO BE INSTALLED IN EVERY OTHER COURSE AND IN THE FIRST TWO COURSES AT THE BOTTOM AND TOP OF WALL OPENINGS AND SHALL EXTEND NOT LESS THAN 24" PAST THE OPENING. SPLICES SHALL OVERLAP NOT LESS THAN 12".
8) EXECUTION: MASONRY UNITS SHALL BE LAID IN A RUNNING BAND PATTERN UNLESS NOTED OTHERWISE. THE WALLS SHALL BE CARRIED UP LEVEL AND PLUMB WITHIN THE TOLERANCES SPECIFIED IN ACI 530.1-88, SECTION 2.3.3.2. IF NONSTANDARD DIMENSIONS ARE ENCOUNTERED, BLOCK SHALL BE CUT WITH A MASONRY SAW TO FIT, NOT BY STRETCHING OR SHRINKING JOINTS. UNFINISHED WORK SHALL BE STEPPED BACK FOR JOINING WITH NEW WORK. TOOTHING WILL NOT BE PERMITTED EXCEPT WHERE SPECIFICALLY APPROVED. DAMAGED UNITS ARE TO BE CUT OUT AND NEW UNITS SET IN PLACE.
9) THE FILLED CELLS AND BOND BEAM BLOCKS OF REINFORCED MASONRY WALLS ARE TO BE FILLED WITH ASTM C476-91, GROUT FOR MASONRY WITH MINIMUM COMPRESSIVE STRESS OF 2,000 PSI AND SLUMP RANGE OR 8" TO 11". THE OUTSIDE FACE OF THE BOTTOM BLOCK OF EACH CELL IS TO BE BROKEN OUT FOR INSPECTION OF REINFORCING AND CLEAN OUT OF MORTAR DROPPINGS IN CELL. THE GROUT IS TO BE PUMPED INTO THE CELL IN MAXIMUM FIVE FOOT LIFTS AND IMMEDIATELY VIBRATED TO MINIMIZE ANY VOIDING OF THE GROUT. RECONSOLIDATE EACH LIFT BY VIBRATING SEVERAL INCHES INTO THE PRECEDING LIFT BEFORE PLASTICITY IS LOST. RECONSOLIDATE THE TOP LIFT AND FILL WITH GROUT ANY SPACE LEFT BY SETTLEMENT SHRINKAGE.
10) WHERE PARTITIONS FALL BETWEEN FLOOR JOISTS OR TRUSSES, 2 X 4 LADDERS AT 16" O/C MUST BE PLACED PERPENDICULAR TO THE TRUSSES TO SUPPORT BOTH SIDES OF THE PLYWOOD DECKING. THE LADDERS SHALL BE SUPPORTED WITH SIMPSON "Z" CLIP OR SIMILAR DEVICE.
11) ALL WOOD I-JOISTS AND OPEN JOISTS MUST BE BRACED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS PLUS DETAILS SHOWN ON PLANS. LOAD-BEARING PARTITIONS, JACKS, BEAMS AND COLUMN SUPPORTS MUST BE SOLID BLOCKED THROUGH FLOOR, TRUSSES AND PLYWOOD SHALL NOT CARRY CONCENTRATED POINT LOADS. I-JOIST MATERIAL SHOULD NOT BE USED AS BLOCKING UNDER CONCENTRATED POINT LOADS. ALL POINT LOADS MUST BE CARRIED TO FOUNDATIONS WITH ADEQUATE BLOCKING AND/OR BEAMS.
12) ALL STEEL COLUMNS WHERE STEEL COLUMNS BEAR ON CONCRETE OR MASONRY, UNLESS OTHERWISE NOTED, A 5/8" X 6 ½" X 6 ½" OR 5/8" X 3 ½" X 8" BASE PLATE SHALL BE USED TO SPREAD THE COLUMN LOAD ACROSS THE BEARING SURFACE. BASE PLATES SHALL BE BOLTED WITH AT LEAST TWO ½" DIAMETER ANCHOR BOLTS OR EXPANSION BOLTS TO CONCRETE OR MASONRY.
13) UNLESS NOTED OTHERWISE ON PLANS, ALL EXTERIOR FACING WALL STUDS TALLER THAN 10' SHALL BE CONSTRUCTED AS FOLLOWS:
   A) WALLS 10' TO 12' HIGH: BALLOON FRAME 2 X 4 STUDS AT 12" O/C WITH ½" OSB SHEATHING AND 3 KING STUDS ON EACH SIDE OF EACH OPENING NAILED SECURELY TO THE HEADER.
   B) WALLS 12' TO 20' HIGH: BALLOON FRAME 2 X 6 STUDS AT 16" O/C (½" OSB SHEATHING REQUIRED FOR WALL HEIGHTS > 17'). PROVIDE 2-1 ¾" X 5 ¼" LVL KING STUDS ON EACH SIDE OF OPENINGS 3' TO 6' WIDE AND 2-2 X 6 KING STUDS FOR OPENINGS LESS THAN 3' WIDE. FASTEN KING STUDS SECURELY TO ALL HEADERS WITH A MINIMUM OF 12-16D NAILS OR 4-3/8" DIAMETER LAG SCREWS EMBEDDED A MINIMUM OF 4" INTO THE HEADER.
   C) GABLE END WALLS OR ROOMS WITH VAULTED CEILING JOISTS: BALLOON FRAME WALL AND PROVIDE TRIPLE KING STUD ON EACH SIDE OF OPENINGS, NAILED SECURELY TO THE HEADER.
   D) TWO-STORY HIGH FOYER WALLS LESS THAN 9' WIDE: EXTEND 3 ½" X 9 ¼" PSL MEMBER WITH 3-2 X 4 FLAT PLATES ACROSS THE ENTIRE WALL. LOCATE THE BEAM NEAR MID-HEIGHT OF THE WALL AT OR NEAR FIRST FLOOR TOP PLATE.

NOTE: SEE SPECIAL DESIGN OR ENGINEER FOR WALLS TALLER THAN 20', WHEN OPENINGS IN HIGH WALLS EXCEED 6' IN WIDTH, OR IF THE WALL CANNOT BE CONSTRUCTED USING ANY OF THE METHODS MENTIONED.

14) CONTINUOUS 2 X 6 BRIDGING SHALL BE NAILED TO DIAGONAL OR VERTICAL WEB MEMBERS OF ALL OPEN-WEB FLOORS TRUSSES OVER 10' LONG. THEY SHALL BE INSTALLED IN MID-SPAN AS A LOAD DISTRIBUTION MEMBER. IF THE 2 X 6 BRIDGING IS NOT CONTINUOUS, LAB ENDS OF BRIDGING ONE TRUSS SPACE.
15) LOWER STUD WALLS FOR BUILDINGS OVER "TWO STORIES, BUT NOT MORE THAN THREE STORIES"

A) INTERIOR WALLS	
i) LOAD BEARING	2 X 4 @ 12" O/C
ii) NON LOAD BEARING	2 X 4 @ 12" O/C
B) EXTERIOR WALLS	
i) USE 2 X 6 AT 16" O/C WITH ½" X 4' X 8' PLYWOOD SHEATHING AT ALL CORNERS AND EVERY 25'; OR USE 2 X 4 AT 12" O/C WITH ½" PLYWOOD SHEATHING SOLID ON WALLS	

16) HEADERS SHALL BE AS SHOWN UNLESS NOTED DIFFERENTLY ON PLANS:

A) INTERIOR AND EXTERIOR	
i) SPANS UP TO 2'-6"	2-2 X 6'S
ii) SPANS 2'-6" TO 3'-6"	2-2 X 8'S
iii) SPANS 3'-6" TO 6'-6"	2-2 X 10'S
iv) SPANS 6'6" OR MORE	SEE PLAN

   B) HEADERS WIDER THAN 5' SHALL HAVE A MINIMUM OF THREE KING STUDS ON EACH SIDE UNLESS NOTED OTHERWISE.
17) WHEN CEILING JOISTS ARE PARALLEL TO AN EXTERIOR WALL, TIE THE RAFTERS NEAR THE TOP PLATE TO CEILING JOISTS WITH A 2 X 6 STRONGBACK. A MINIMUM OF 6' LONG AT 4 FEET ON CENTER ACROSS THE TOP OF THE CEILING JOISTS. 2 X 4 RAFTER TIES SHALL BE FASTENED TO THE SIDE OF THE RAFTER AND THE STRONGBACK.
18) AT ALL EXTERIOR DIAGONAL WALL PANELS, EACH PANEL SHALL BE NAILED TO EACH ADJACENT PANEL WITH 5-16D NAILS OR TIED TOGETHER WITH METAL STRIPPING NAILED AT FOUR LOCATIONS BETWEEN FLOORS WITH A MINIMUM OF 2-16D NAILS INTO EACH PANEL AT EACH STRAP. THIS WILL AVOID VERTICAL CRACKING IN PANEL JOINTS DUE TO HORIZONTAL OSCILLATING PANELS.
19) AT ALL STAIRS, EVERY STUD AT EACH STRINGER MUST BE NAILED TO EACH STRINGER WITH A MINIMUM OF 2-16D NAILS. THIS WILL AVOID CRACKING BETWEEN WALLBOARD AND TOP OF BASE MOLDING DUE TO VERTICAL OSCILLATION OF STAIR STRINGERS.
20) ROOF TRUSSES THAT HAVE NON-BEARING PARTITIONS PASSING UNDER THEM SHOULD BE NAILED TO THE PARTITION PLATES TO AVOID CEILING-WALL CRACKING.
21) ROOF TRUSSES CLOSE TO SIDE WALLS FRAMING AND USED AS DEAD WOOD FOR SHEETROCK BOARDS SHOULD BE NAILED TO THE WALL FRAMING TO PREVENT CEILING-WALL CRACKING.
22) ALL STRUCTURAL FRAMING LUMBER EXPOSED DIRECTLY TO THE WEATHER OR BEARING DIRECTLY ON EXTERIOR MASONRY PIERS OR CONCRETE SHALL BE TREATED. ALL WOOD IN CONTACT WITH THE GROUND IS TO BE GROUND-CONTACT APPROVED. ALL WOOD EXPOSED DIRECTLY TO THE WEATHER, SHALL BE PROTECTED TO PREVENT THE OCCURRENCE OF ROT.
23) UNLESS OTHERWISE DETAILED, ALL STICK-BUILT "FALSE CHIMNEYS" SHALL BE CONSTRUCTED WITH 2 X 4 STUDS AT 12" O/C, BALLOON-FRAMED FROM ATTIC CEILING OR FLOOR. FASTEN 15/32" CDX PLYWOOD ON ALL SIDES OF THE CHIMNEY ALONG THE FULL LENGTH OF THE STUDS. FASTEN EACH STUD TO THE SUPPORTING BEAM OR CEILING JOIST WITH A 1 ½" X 24", 18-GAUGE METAL STRAP, OR A SIMILAR CONNECTOR.
24) ITEM UNCHANGED, BUT MOVED FROM UNDER #14 ON OLD PAGE 2:

NOTE: ALL POINT LOADS FROM ROOF BRACES, JACK STUDS, BEAM SUPPORTS - WHETHER WOOD OR STEEL - CANNOT BEAR ON SHEATHING ALONE. BLOCKING EQUAL TO OR BETTER THAN THE POINT LOAD SUPPORTS ABOVE MUST BE CARRIED THROUGH ALL CONSTRUCTION TO THE FOUNDATION.

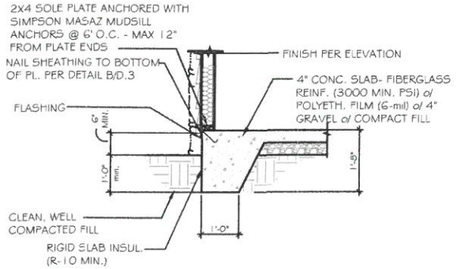
25) NOTE TO APPLY TO ALL HARD COAT STUCCO EXTERIOR FINISHES:
   A) JOINTS ARE NECESSARY AT THE FOLLOWING LOCATIONS:
   i) HORIZONTALLY AT EACH FLOOR LINE.
   ii) NO AREAS LARGER THAN 144 S.F. SURFACE EXPOSED.
   iii) NO DIMENSION LONGER THAN 18'.
   iv) NO DIMENSION LONGER THAN 2 ½ TIMES THE SHORTEST DIMENSION.
   B) DRIP SCREED REQUIRED AT THE BOTTOM OF ALL WALLS 2" ABOVE PAVED AREAS AND 4" ABOVE GRADE.
   C) SEE ASTM 926 AND 1063 FOR FURTHER INFORMATION.
   D) APPLICATION OF AN APPROVED CHEMICAL CURING COMPOUND.
   THE CURING SHALL CONTINUE UNTIL THE CUMULATIVE NUMBER OR DAYS WHEN THE AMBIENT TEMPERATURE ABOVE 50°F HAS TOTALED SEVEN. DURING CURING, THE CONCRETE SHALL BE PROTECTED FROM ANY MECHANICAL INJURY, LOAD STRESSES, SHOCK, VIBRATION, OR DAMAGE TO FINISHED SURFACES.

WALL BRACING NOTES:

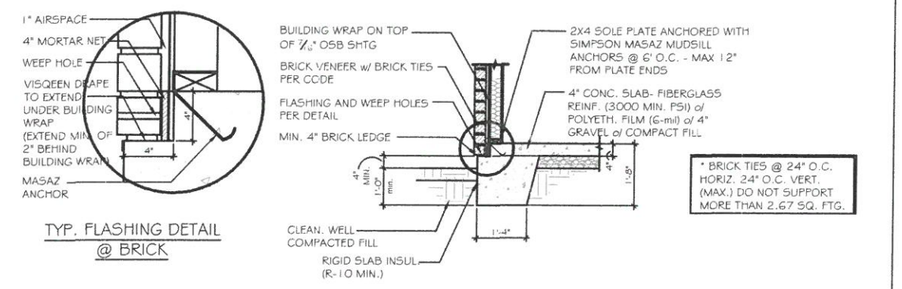
1. THIS STRUCTURE HAS BEEN ANALYZED BY A PROFESSIONAL ENGINEER FOR LATERAL LOADING. IT HAS BEEN DESIGNED USING CONTINUOUSLY SHEATHED 7/16" OSB SHEATHING, FASTENED AT 6" O.C. ALONG THE EDGES AND 12" O.C. ALONG THE INTERIOR TO MEET OR EXCEED THE INTENT OF THE 2015 INTERNATIONAL RESIDENTIAL BUILDING CODE. WHERE WALL LINES REQUIRE FURTHER REINFORCEMENT, ADDITIONAL BRACING METHODS, ENGINEERED WALL SECTIONS AND HOLD DOWNS HAVE BEEN INCLUDED TO RESIST THE LATERAL LOADS AND ARE NOTED ON THE PLAN SET.

ROOF CONSTRUCTION:

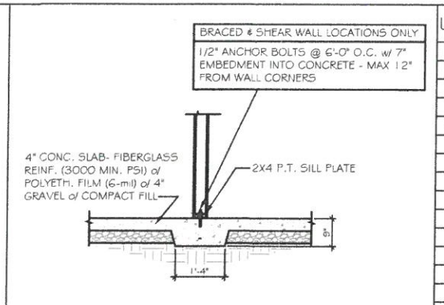
1) ALL ROOF TRUSSES MUST BE BUILT IN ACCORDANCE WITH TRUSS MANUFACTURERS' REQUIREMENTS. TIE-DOWN CONNECTIONS TO RESIST UPLIFT SHALL BE INSTALLED WHERE REQUIRED. WHEN ROOF TRUSS MANUFACTURERS DO NOT PROVIDE THE REQUIRED CONNECTORS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ROOF TRUSS ENGINEER OR THE ENGINEER OF RECORD TO PROVIDE AN ADEQUATE CONNECTOR.
2) IN ADDITION TO THE CODE'S FASTENER SCHEDULE, UNLESS NOTED OTHERWISE ON THE PLAN, ROOF MEMBERS SHALL BE TIED DOWN WITH ADDITIONAL METAL CONNECTORS AS FOLLOWS:
   A) STICK-FRAMED RAFTER MEMBERS EXCEEDING 10' IN LENGTH, AS MEASURED FROM THEIR HORIZONTAL PROJECTION, AND ALL ROOFS OVER UNENCLOSED AREAS SUCH AS PORCHES USE SIMPSON H2.5 CONNECTORS EVERY 4' OR AT EVERY THIRD RAFTER TO FASTEN THE LOWER END OF THE RAFTER TO THE TOP PLATE.
   B) ALL LOWER ENDS OF VALLEY AND HIP MEMBERS WHICH BEAR ON A TOP PLATE USE A SIMPSON HCP OR EQUIVALENT CONNECTOR.
3) RAFTERS SHALL BE 2 X 6 AT 16" O/C SPRUCE-PINE-FUR #2 FOR SHINGLES EXCEPT AS NOTED. THEY ARE TO BE CUT INTO HIPS, RIDGES, ETC., UNLESS NOTED OTHERWISE. TILE, SLATE AND OTHER HEAVY ROOF COVERINGS SHALL USE 2 X 8 AT 16" O/C SPRUCE-PINE-FUR #2 RAFTERS UNLESS NOTED OTHERWISE.
4) COLLAR TIES SHALL BE 2 X 6 AT 48" O/C AT ALL RIDGES UNLESS NOTED OTHERWISE AND LOCATED A NOMINAL 3' BELOW THE RIDGE. VAULTED CEILINGS REQUIRE SPECIAL COLLAR TIE OR RIDGE BEAM DETAILS. SEE THE END OF TABLE R802.5.1. IN THE CODE UNLESS OTHERWISE DETAILED ON THE PLAN.
5) A MINIMUM OF THREE COLLAR TIES SHALL BE USED AT ALL RIDGES EVEN IF TWO TIES MUST BE PUT ON ONE SET OF RAFTERS.
6) ALL HIPS AND RIDGES ARE A SIZE LARGER THAN RAFTERS UNLESS NOTED OTHERWISE.
7) ALL HOGS OR CEILING JOISTS OR RAFTERS ARE 12' LONG AND 2 X 6'S UNLESS NOTED OTHERWISE. RAFTERS MAY BE SPLICED OVER HOGS. SPLICE RAFTER HOGS ONLY AT A ROOF BRACE.
8) GABLE END MUST BE BRACED PARALLEL TO RIDGES AS REQUIRED PER TRUSS MANUFACTURER. GABLE END TRUSS BEARING SHALL FOLLOW THE TRUSS MANUFACTURE TYPICAL DETAILS AND BE LOCATED APPROXIM



A TYP. SLAB HOUSE TO GRADE

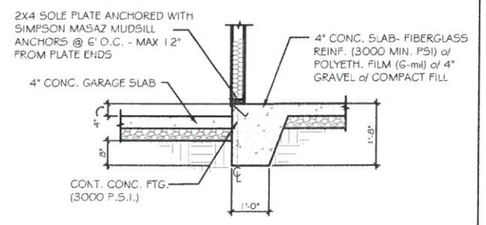


B TYP. SLAB HOUSE TO GRADE w/ BRICK

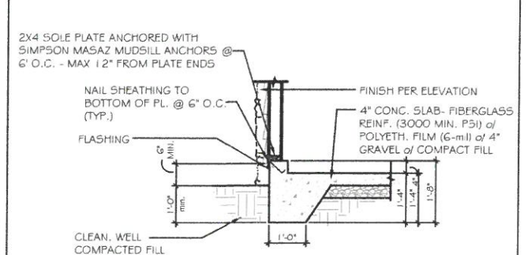


D TYP. THICKENED SLAB DETAIL

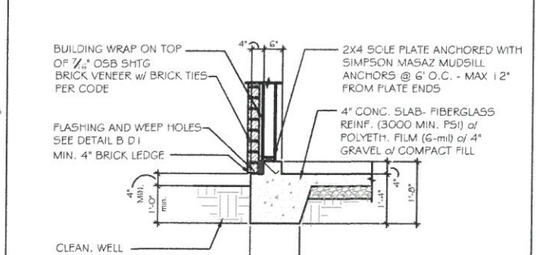
USP CONVERSION CHART	
REF NO.	USP
ABA44Z	PA44E-TZ
BCS2-2/4	BC4010-TZ
CS-16	RS150
DTT2Z-SDS2.5	DTB-TZ
H2.5A	RT7
H2.5A	RT7A
LS-30	MP3
LSTA24	LSTA24
MASAZ	FA3-TZ
STHD14	STAD14
HHUS410	THD410
A24	TDL5
A21	JA1
LSU26	LSSH15-TZ
EPB44	EPB4408
BC6	C66
BC4	C44
LUS28-2	JUS28-2
LU526	JU526
ABAG6	PAGGE-TZ
CS22	RS-22R
HDU4-SDS	PHD4A
EPB66T	EPB6608
HDQ8-SD3Z	PHD8
LSTA36	LSTA36
A34	MP34



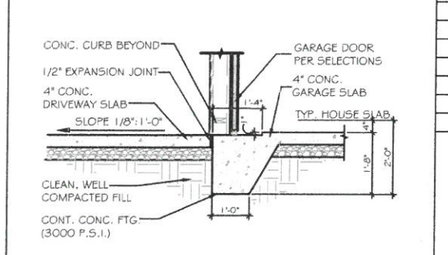
E TYP. SLAB - HOUSE TO GARAGE



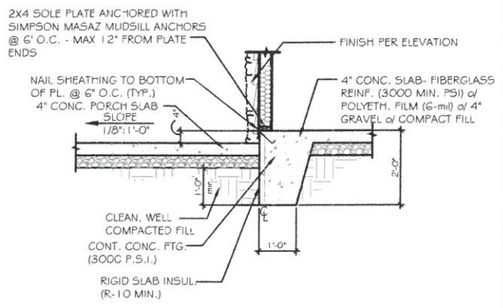
F TYP. SLAB - GARAGE TO GRADE



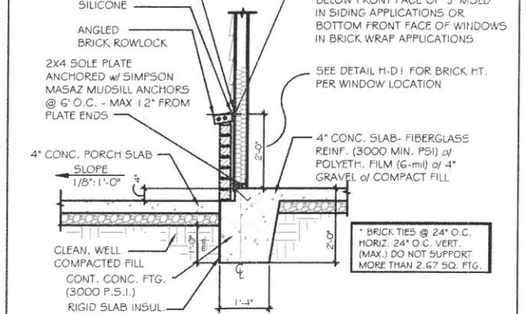
G TYP. SLAB - GARAGE TO GRADE w/ BRICK



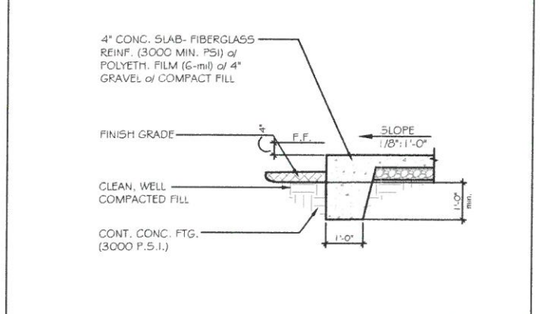
I TYP. GARAGE TO DRIVE



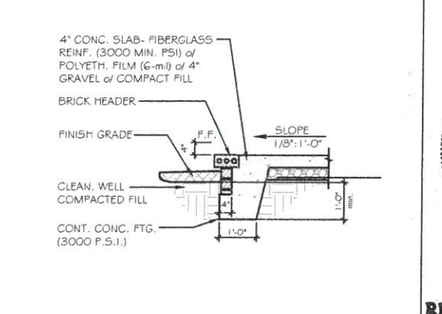
L TYP. SLAB - HOUSE TO PORCH



N TYP. SLAB - WAINSCOTING BRICK DETAIL @ PORCH



P TYP. PORCH END DETAIL



Q PORCH END DETAIL w/ BRICK

MONOSLAB
RALEIGH/TRIAD

NOTES:
CORROSION RESISTANT CORRUGATED METAL TIES - 22 GAUGE, 7/8" WIDE, 6" LONG. PLACE MAX. HORIZONTAL SPACING 24" HORZ., NOT TO SUPPORT GREATER THAN 2.67 SQ. FT. WALL AREA

WEEP HOLES TO BE PLACED AT EVERY OTHER HEAD JOINT ON THE BOTTOM COURSE OF BRICK.

VISQEEN DRAPE TO EXTEND UNDER BUILDING WRAP
(EXTEND MIN. OF 2" BEHIND BUILDING WRAP)

PROVIDE WEEP HOLES PER CODES

BRICK TIES @ 24" O.C. HORIZ. 24" O.C. VERT. (MAX.) DO NOT SUPPORT MORE THAN 2.67 SQ. FTG.

BRICK & CMU TO BE INTEGRALLY BONDED PER CODE

NORTH CAROLINA PROFESSIONAL SEAL 29249 ENGINEER KEVIN P. MUNSON 1/31/17

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION RESIDENTIAL STRUCTURES, P.C. No. C3295

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704-271-1191

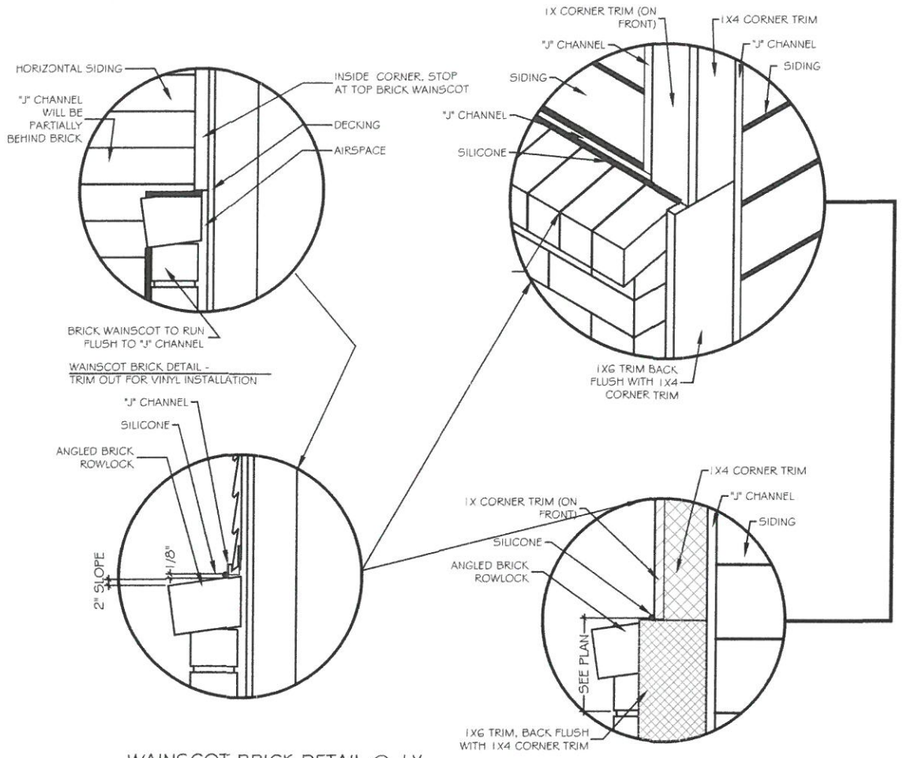
CROSS LINK
LOT# 60

HUDSON 2016

HARNETT

PREPARED BY: WALTER
DATE: 01-30-19
SCALE: 1/4"=1'-0"
REVIEWED BY: SCOTT

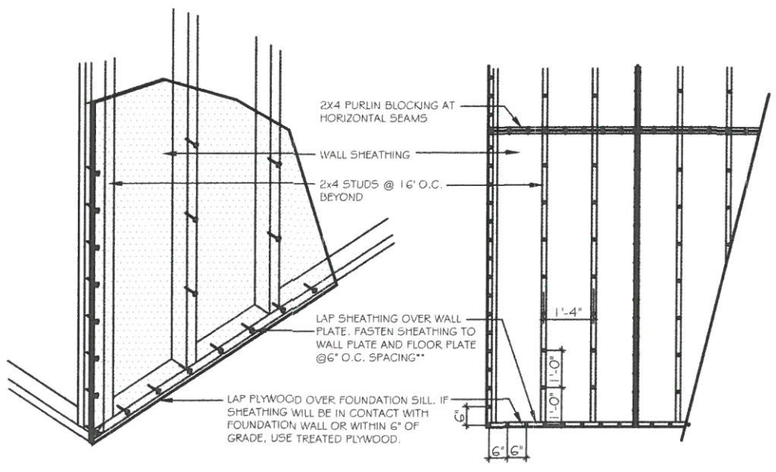
SHEET: D1



WAINSCOT BRICK DETAIL @ 1X WOOD CORNER CONDITION

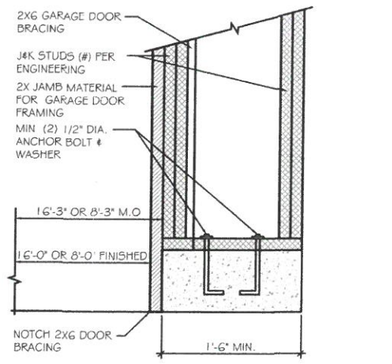
A FLASHING @ WAINSCOTING BRICK DETAIL

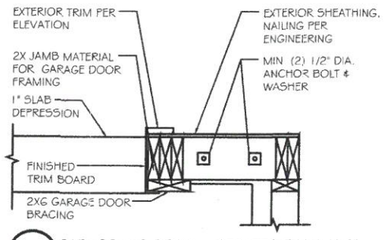
SCALE: 1/4" = 1'-0"



B TYP. NAILING PATTERN

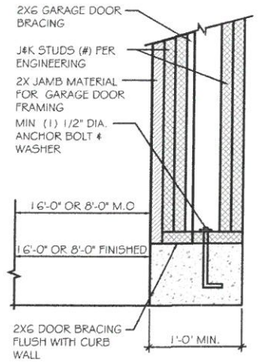
SCALE: 1/4" = 1'-0"

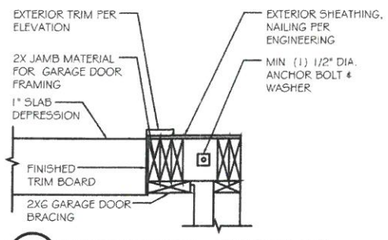




C GARAGE LUG DETAIL - GREATER THAN 1'-6"

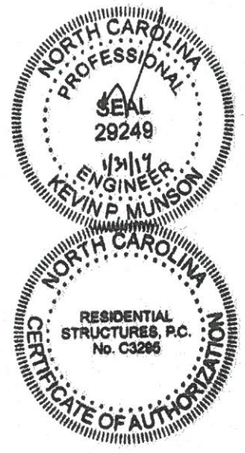
SCALE: NOT TO SCALE





D GARAGE LUG DETAIL - LESS THAN 1'-6"

SCALE: NOT TO SCALE



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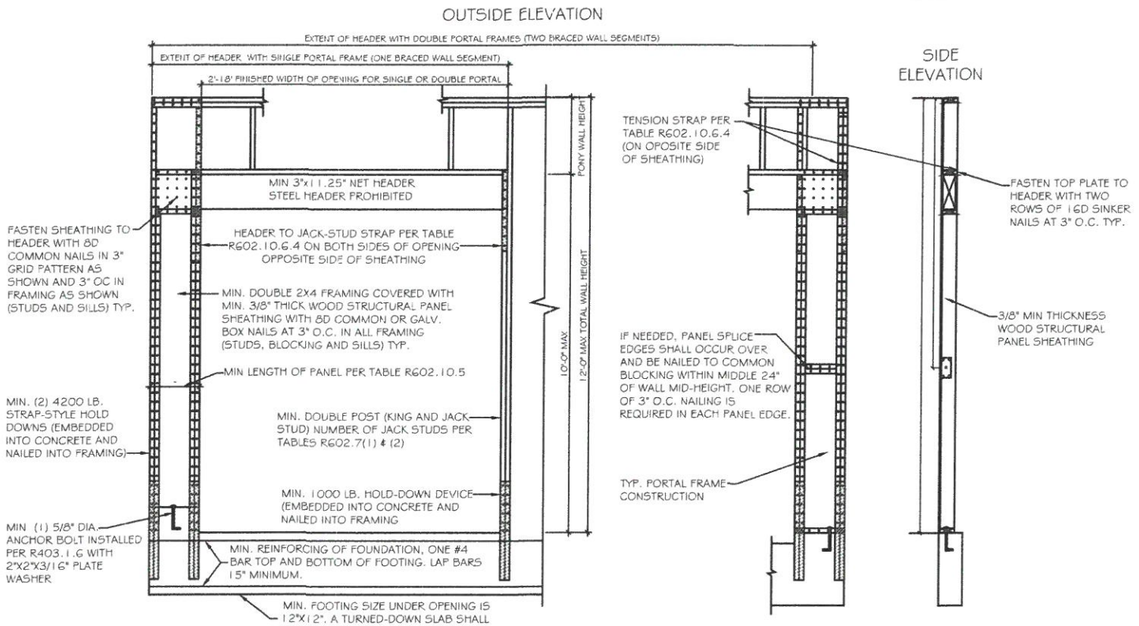
2016

HARNETT

PREPARED BY: WALTER
DATE: 01-30-19
SCALE: AS SHOWN
REVIEWED BY: SCOTT

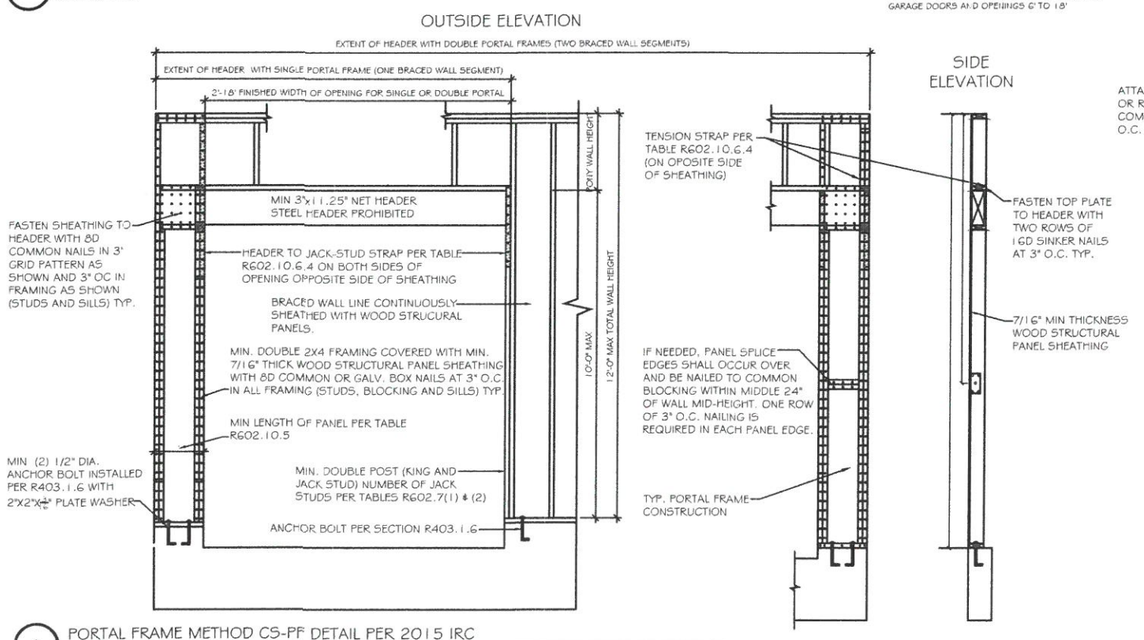
SHEET: D3

WALL BRACING HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2018 NCRC AND/OR THE 2015 IRC AS ALLOWED PER SECTION R602.10 OF THE 2018 IRC



A PORTAL FRAME METHOD PFH DETAIL PER 2015 IRC
SCALE: 3/8" = 1'-0"

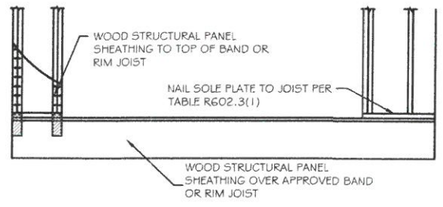
PFH METHOD: PORTAL FRAME WITH HOLD DOWNS GARAGE DOORS AND OPENINGS 6' TO 18'



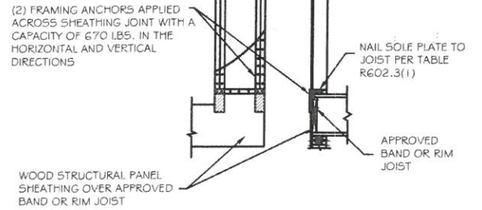
A PORTAL FRAME METHOD CS-PF DETAIL PER 2015 IRC
SCALE: 3/8" = 1'-0"

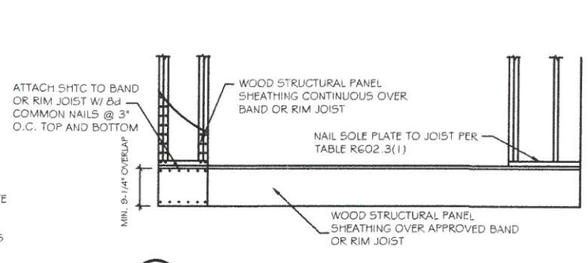
CS-PF METHOD: CONTINUOUSLY SHEATHED PORTAL FRAME-GARAGE DOOR GARAGE DOORS AND OPENINGS 8' AND GREATER

USP CONVERSION CHART	
REF NO.	USP
ABA44Z	PA44E-TZ
BC52-2/4	BC4010-TZ
CS-16	RS150
DTT2Z-SD52.5	DTB-TZ
H2.5A	RT7
H2.5A	RT7A
LS-30	MP3
LSTA24	LSTA24
MA5AZ	FA3-TZ
STHD14	STAD14
HHUS410	THD410
A24	TDL5
A21	JA1
LSU26	LSSH15-TZ
EPB44	EPB4408
BC6	C66
BC4	C44
LUS28-2	JUS28-2
LUS26	JUS26
ABAG6	PAGGE-TZ
C522	RS-22R
HDU4-SDS	PHD4A
EPB66T	EPB6608
HDQ8-SD3Z	PHD8
LSTA36	LSTA36
A34	MP34

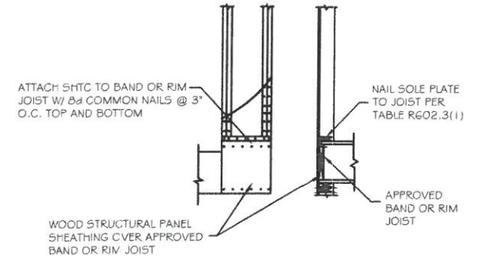


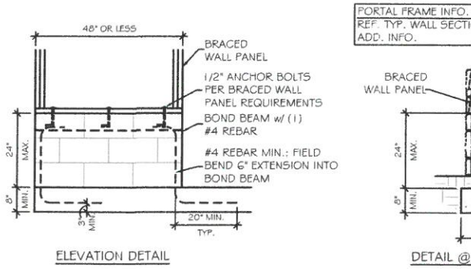
A OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION
SCALE: 3/8" = 1'-0"
(WHEN PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST)





B OVER RAISED WOOD FLOOR - OVERLAP OPTION
SCALE: 3/8" = 1'-0"
(WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM JOIST)





C MASONRY STEM WALL SUPPORTING BRACED WALL PANEL DETAILS
SCALE: 3/8" = 1'-0"
PER 2015 I.R.C. SHORT STEM WALL REINFORCEMENT

NORTH CAROLINA PROFESSIONAL SEAL 29249 ENGINEER KEVIN P. MUNSON 1/31/19

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CROSS LINK
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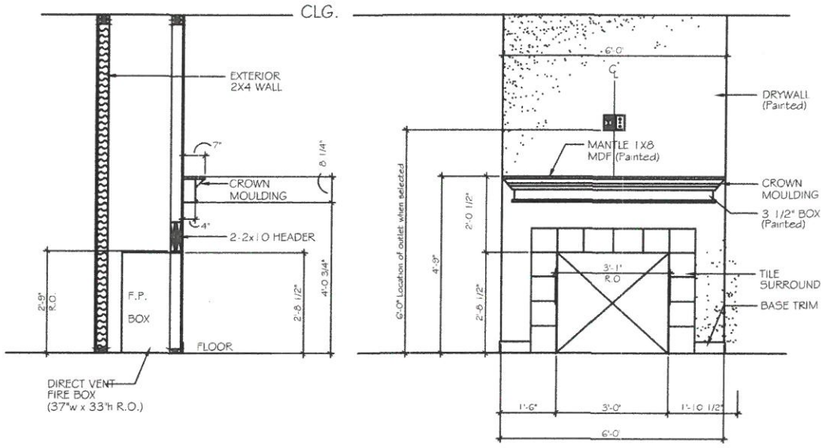
HUDSON 2016

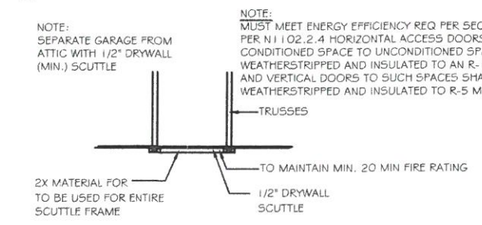
HARNETT

PREPARED BY: WALTER
DATE: 01-30-19
SCALE: AS SHOWN
REVIEWED BY: SCOTT

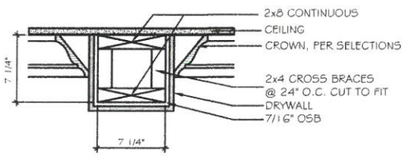
SHEET: D4



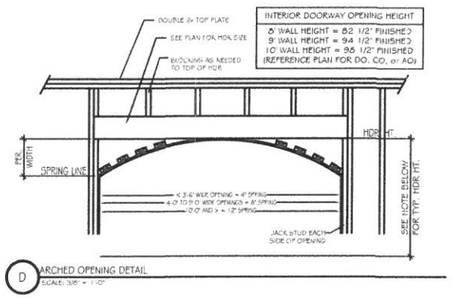
A FIREPLACE OPTION 1
SCALE: 3/8" = 1'-0"



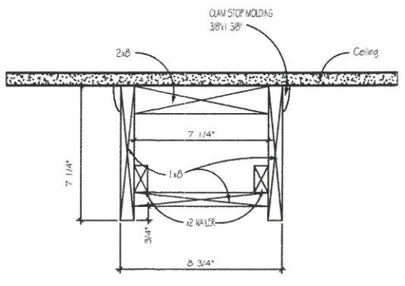
B ATTIC ACCESS PANEL DETAIL
SCALE: N.T.S.



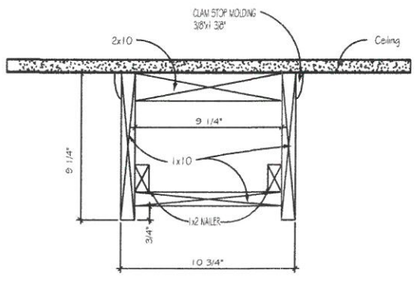
C 8" DRYWALL BEAM DETAIL - LIVING/DINING/STUDY
SCALE: N.T.S.



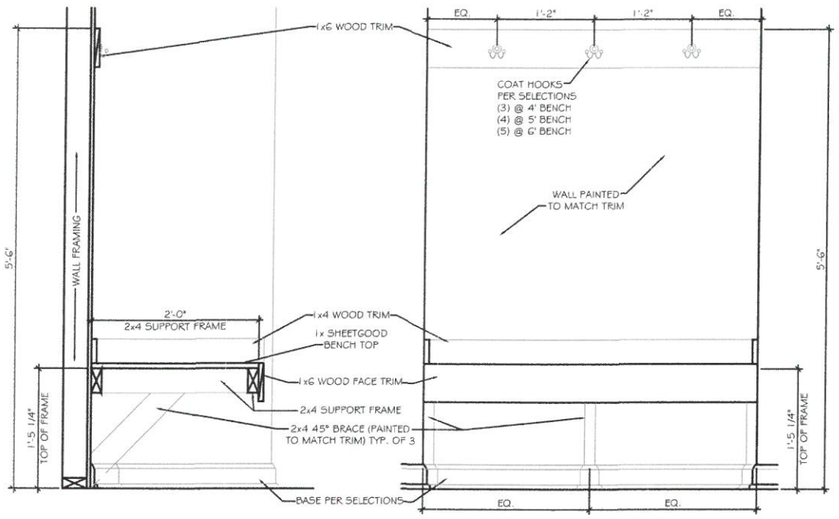
D ARCHED OPENING DETAIL
SCALE: 3/8" = 1'-0"



E 9' CEILING
*WOOD FAUX BEAMS KITCHEN/NOOK ONLY

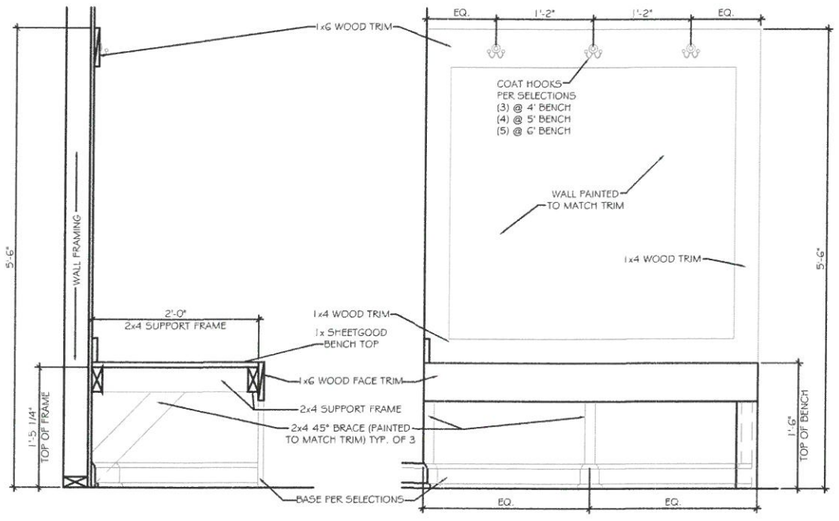


F 10' CEILING
*WOOD FAUX BEAMS KITCHEN/NOOK ONLY



SECTION AT OPEN BENCH
SCALE: NOT TO SCALE WALL END CONDITION

ELEVATION AT OPEN BENCH
SCALE: NOT TO SCALE WALL END CONDITION



SECTION AT OPEN BENCH
SCALE: NOT TO SCALE OPEN END CONDITION

ELEVATION AT OPEN BENCH
SCALE: NOT TO SCALE OPEN END CONDITION

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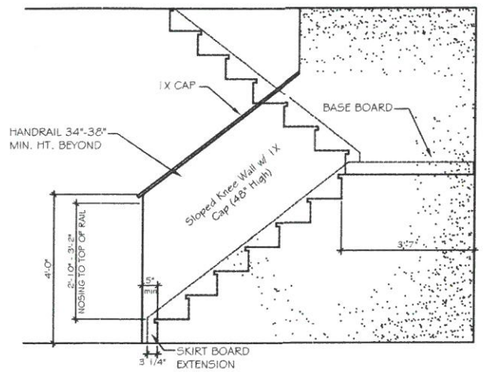
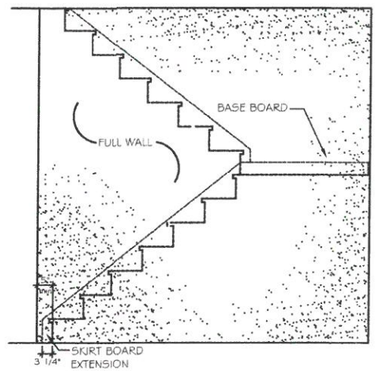
SCALE: AS SHOWN
REVIEWED BY: SCOTT

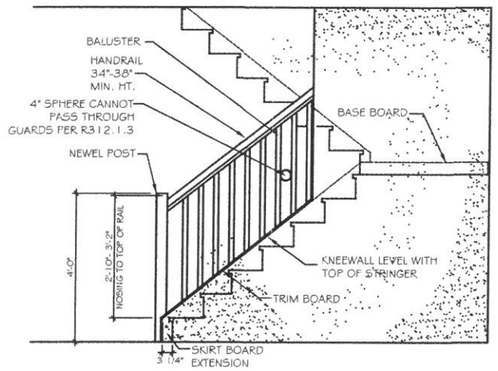
SHEET: D5



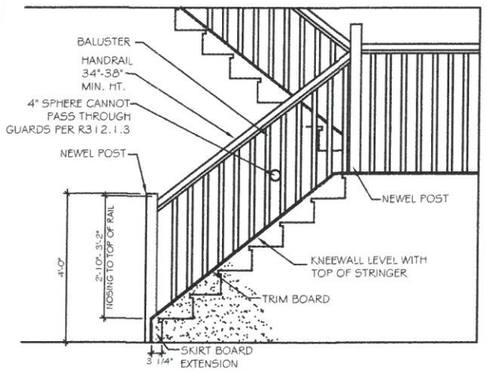
ST-1 | 48" SLOPED WALL w/ 1 x CAP



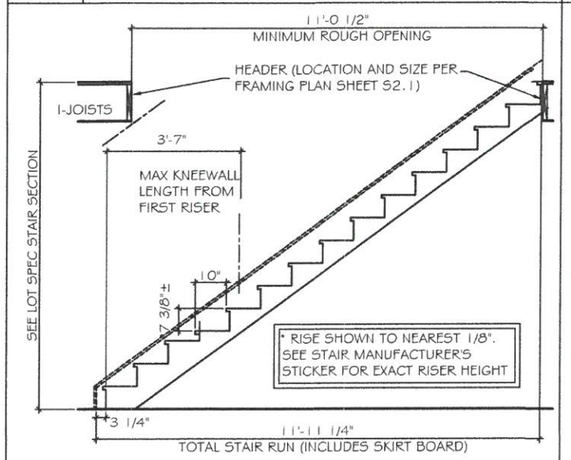
ST-2 | FULL WALL



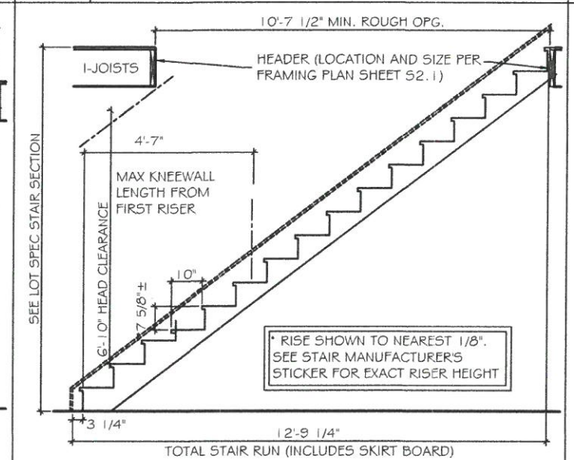
ST-3 | OPT. OPEN RAIL



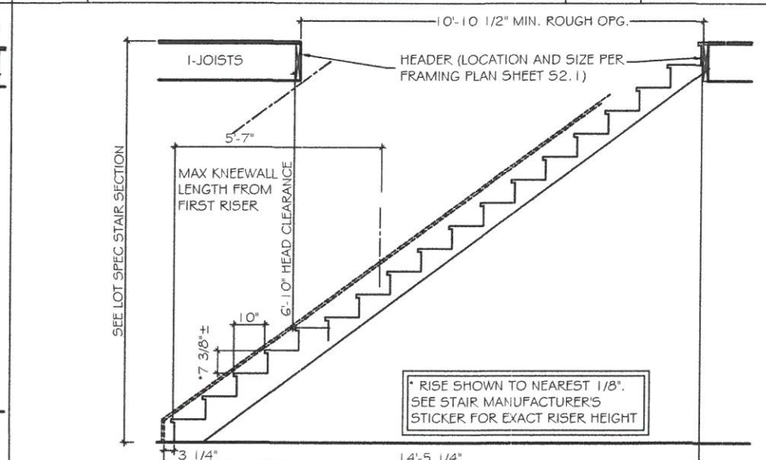
ST-4 | OPT. OPEN RAIL FULL STAIR



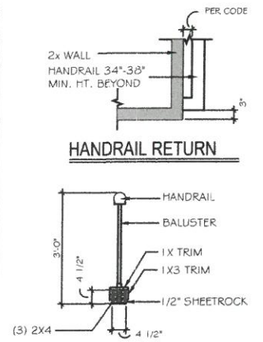
ST-5 | STRAIGHT STAIR SECTION - 8ft CEILING HEIGHT
w/ 11 7/8" FLOOR SYSTEM



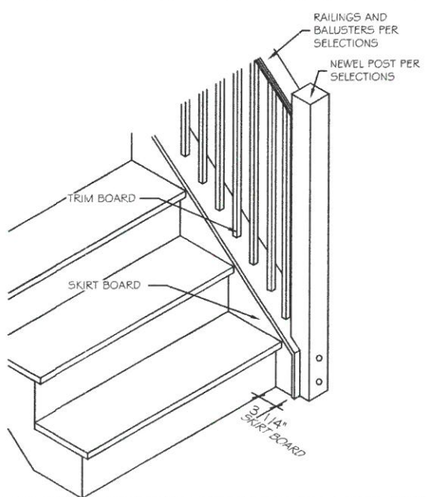
ST-6 | STRAIGHT STAIR SECTION - 9ft CEILING HEIGHT
w/ 11 7/8" FLOOR SYSTEM



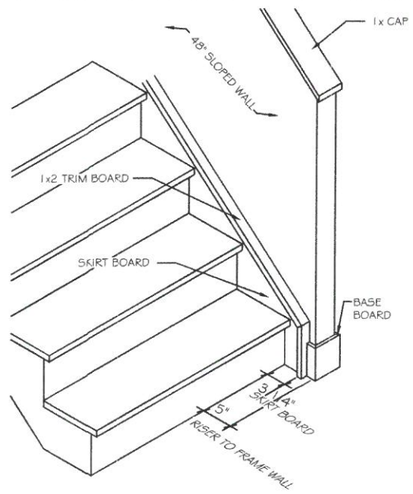
ST-7 | STRAIGHT STAIR SECTION - 10ft CEILING HEIGHT
w/ 11 7/8" FLOOR SYSTEM



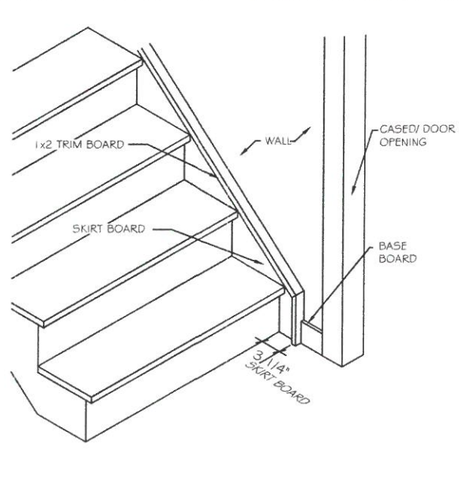
ST-8 | HANDRAILS



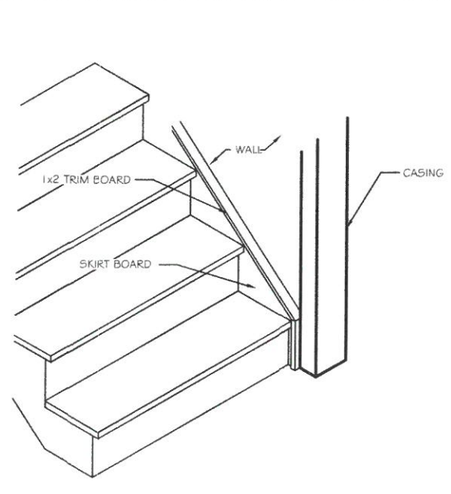
ST-9 | OPT. OPEN RAIL - ISO



ST-10 | 48" SLOPED WALL w/ 1x CAP - ISO



ST-11 | STAIRS @ CASED OPENING - ISO



ST-12 | TRIM SKIRT BOARD @ CASED OPENING

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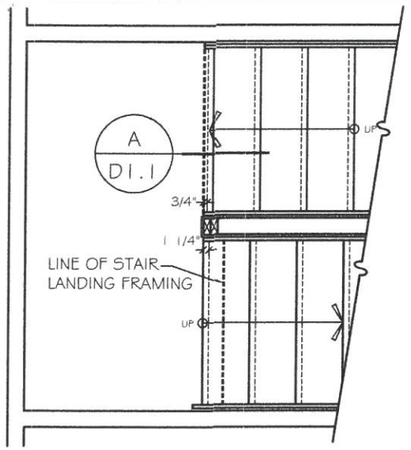
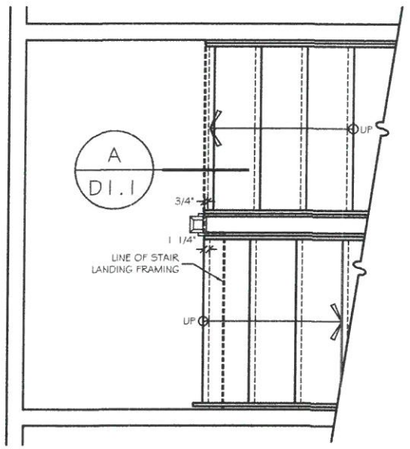
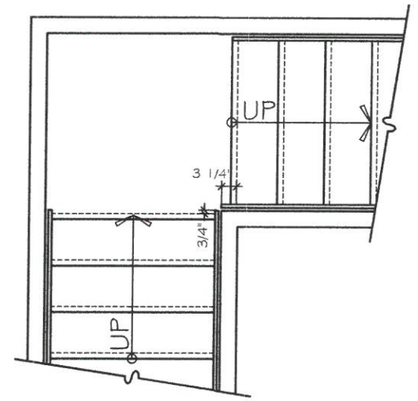
SHEET: D5.1



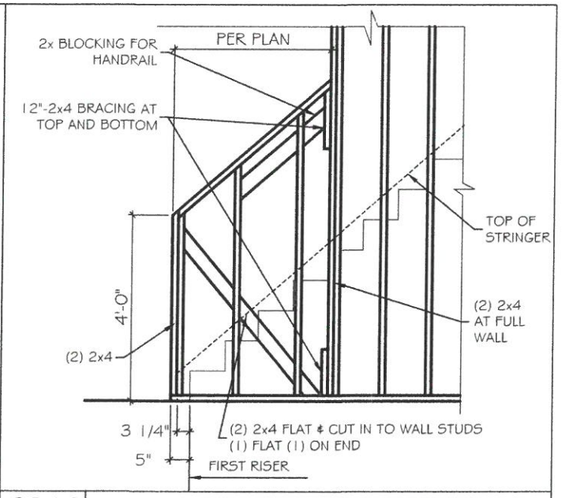
ST-13 | STAIR LANDING HALF WALL w/ CAP



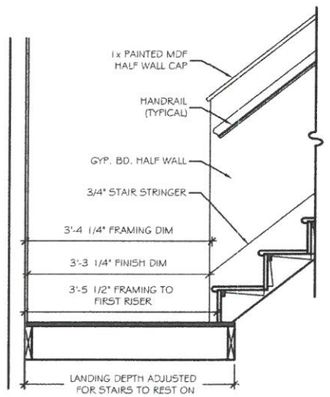
ST-14 | STAIR LANDING NEWEL POST & BALUSTRADES



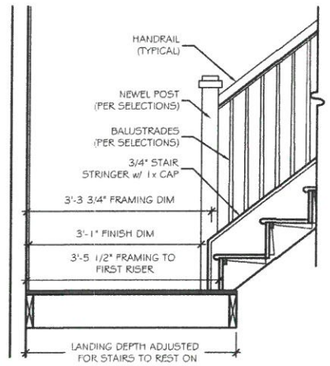
ST-15 | STAIR LANDING FULL WALL



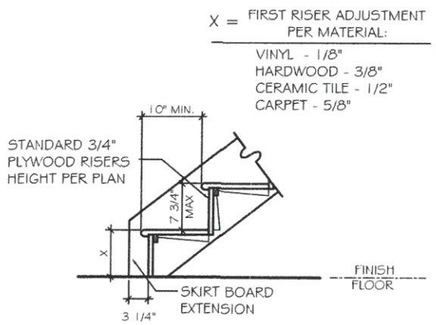
ST-16 | SLOPED WALL @ STAIRS - FRAMING



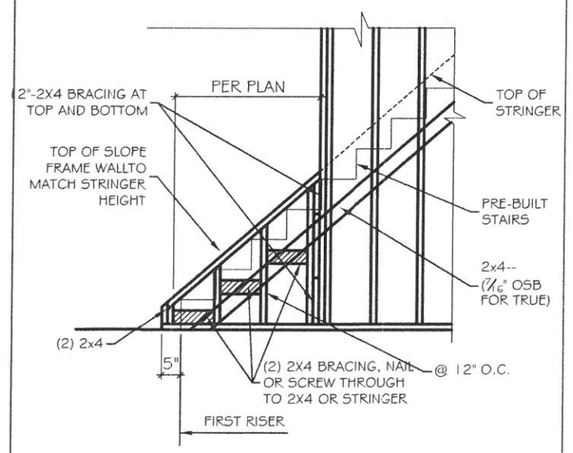
ST-17 | SECTION A- SLOPED WALL



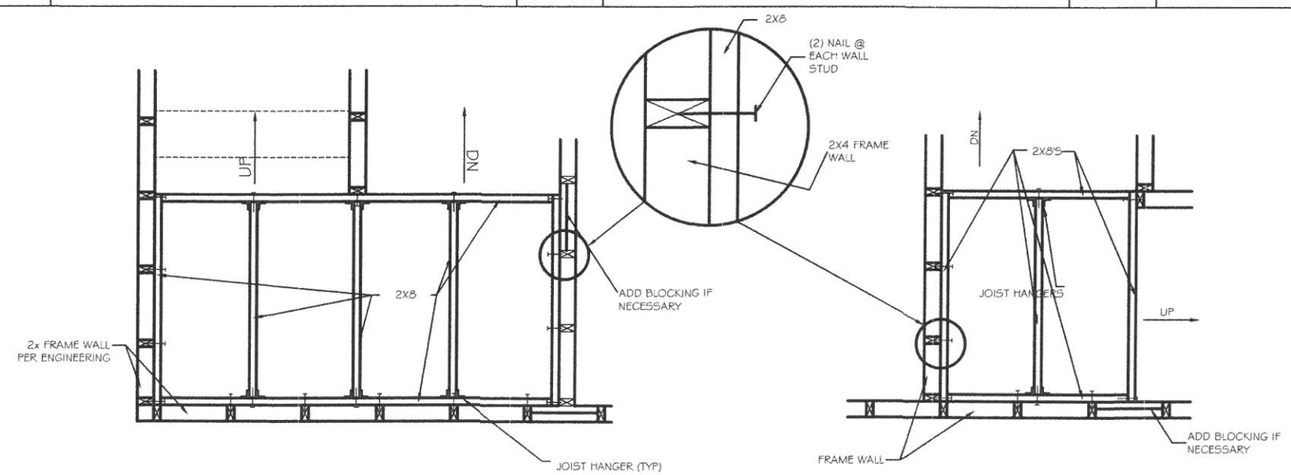
ST-18 | SECTION A- OPEN RAIL



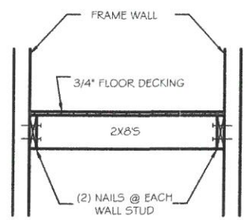
ST-19 | STAIR SECTION - FIRST FLOOR



ST-20 | OPEN RAIL - CURB WALL FRAMING



ST-21 | STAIR LANDING - PLAN VIEW



STAIR LANDING - SECTION VIEW

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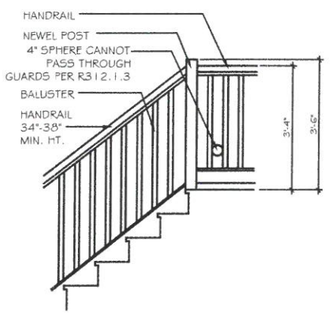
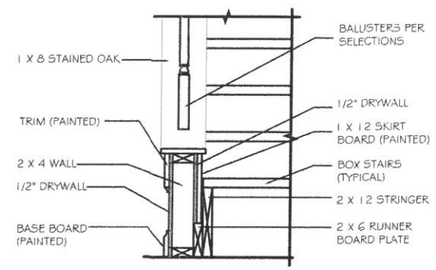
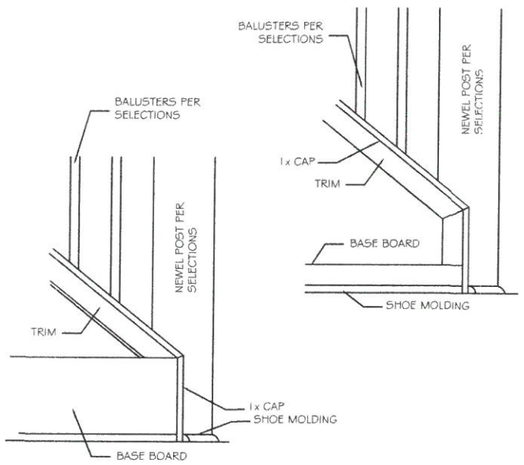


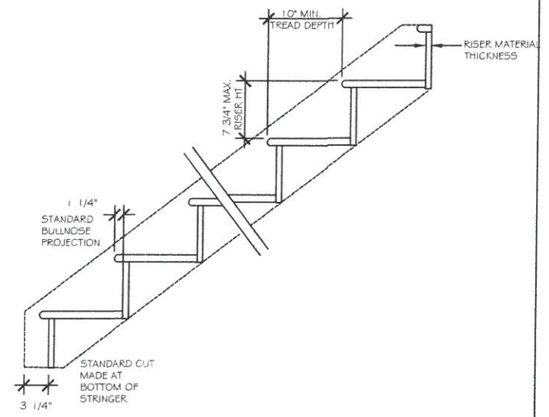
ST-23 OPT. OPEN RAIL AT LANDING



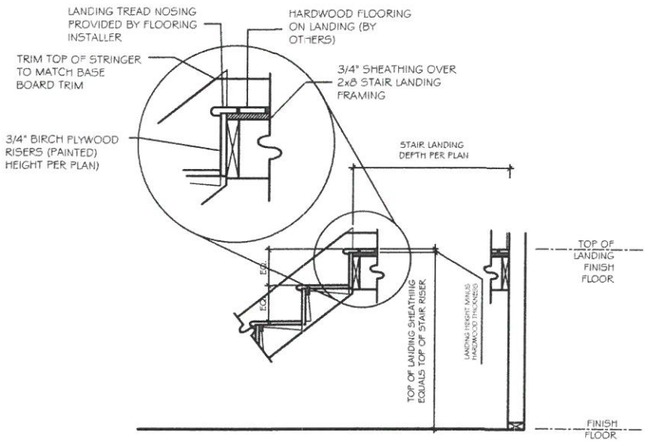
ST-24 SECTION @ CURB WALL



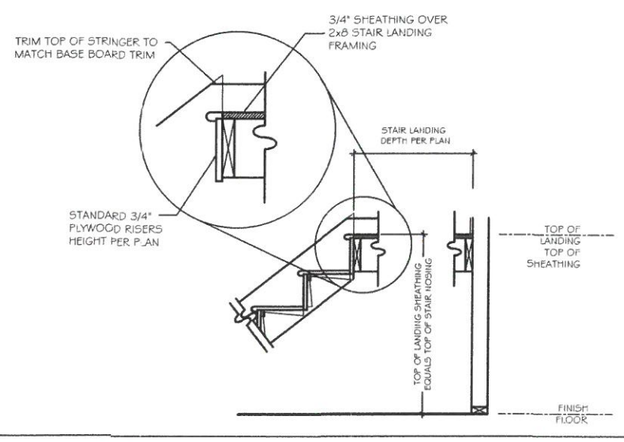
ST-25 OUTSIDE TRIM @ STAIR CURB WALL



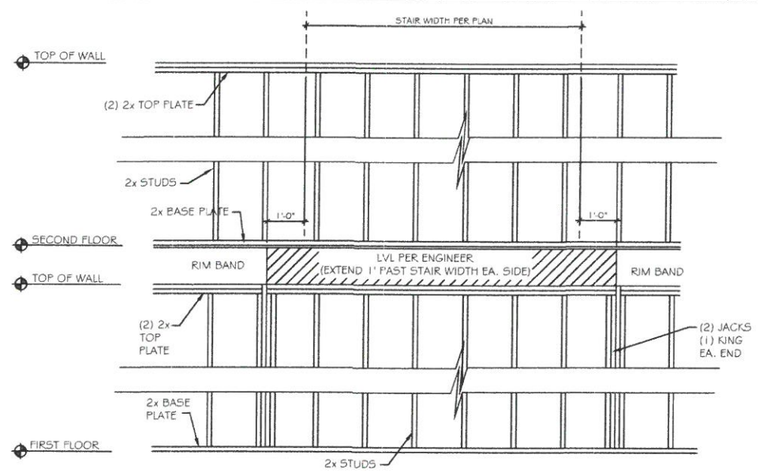
STAIR SECTION

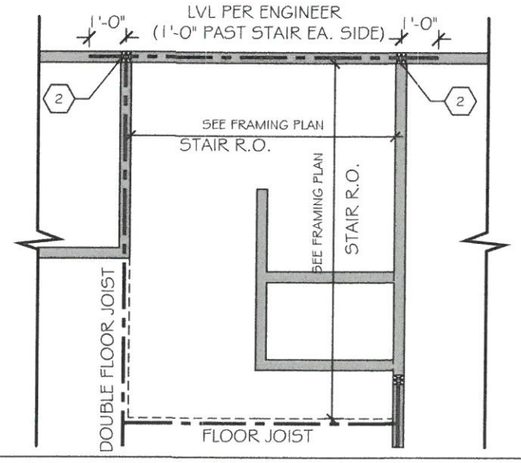


ST-26 STAIR SECTION - HARDWOOD STAIRS AND LANDING



ST-27 STAIR SECTION - CARPET STAIRS AND LANDING





ST-28 EXTERIOR WALL FRAMING @ U-SHAPED STAIRS ilo BALLOON FRAMING

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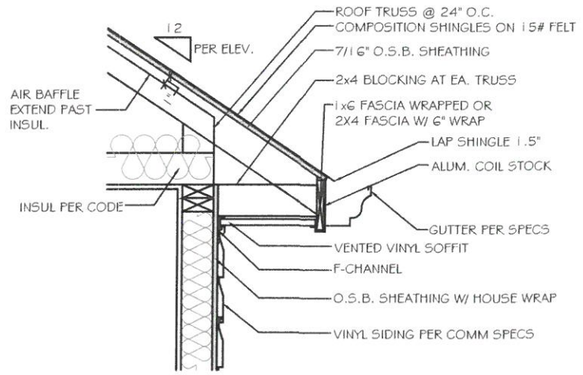
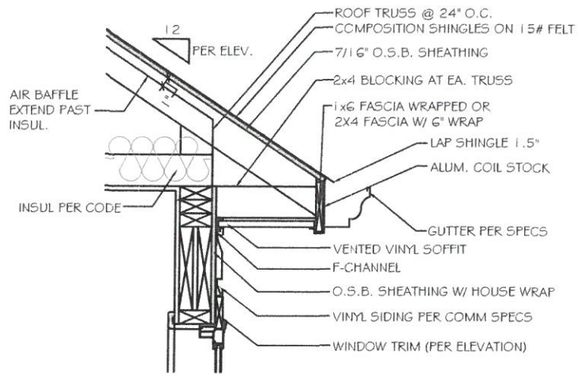
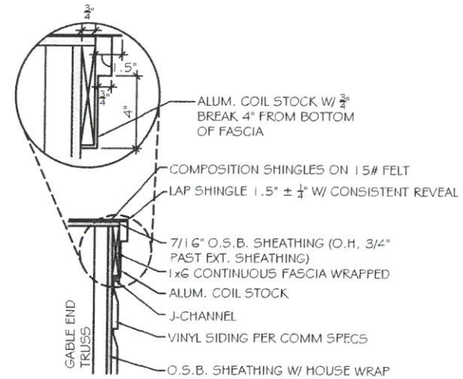


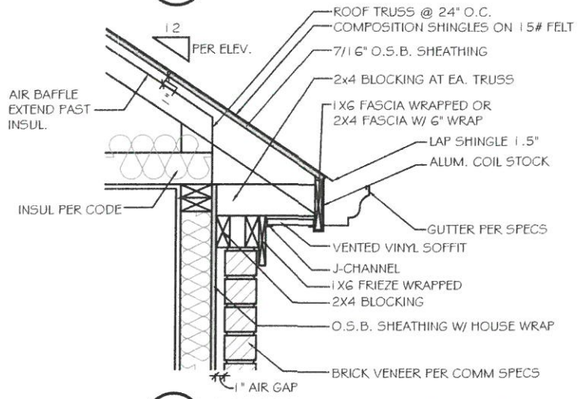
A CORNICE DETAIL - VINYL/VINYL
SCALE: NOT TO SCALE — SIDES & REAR



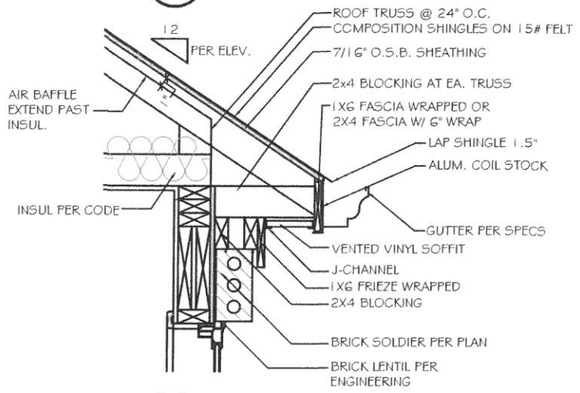
B CORNICE DETAIL - VINYL/VINYL
SCALE: NOT TO SCALE — OVER WINDOW



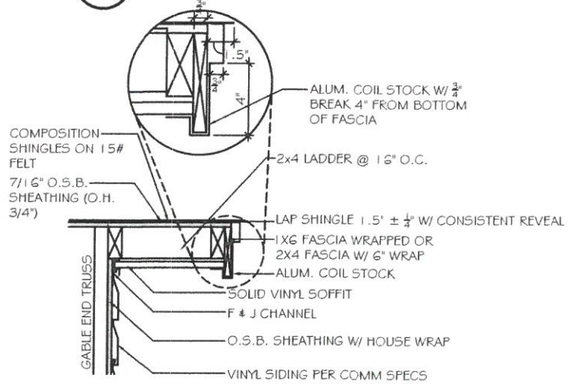
C FLUSH RAKE DETAIL - VINYL/VINYL
SCALE: NOT TO SCALE — GABLE END



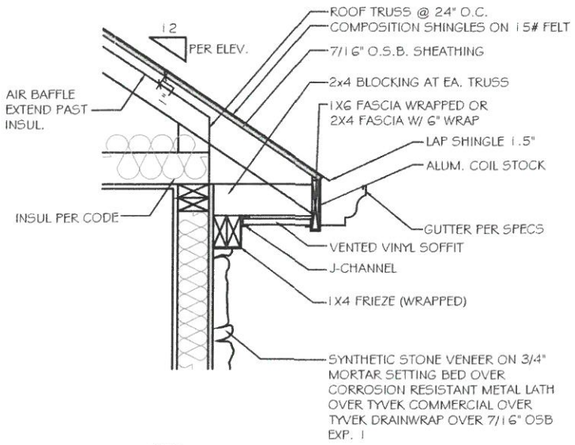
D BRICK CORNICE DETAIL - VINYL/VINYL
SCALE: NOT TO SCALE — FRONT



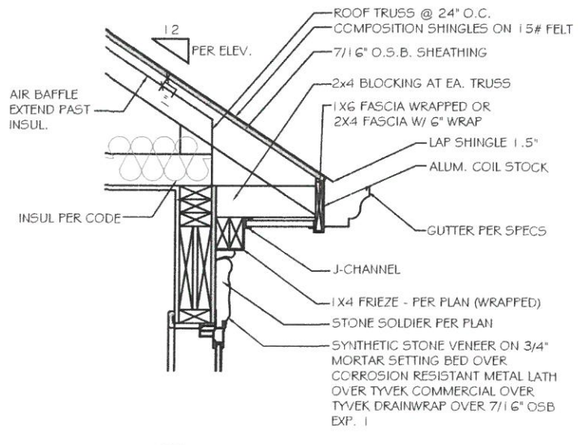
E BRICK CORNICE DETAIL - VINYL/VINYL
SCALE: NOT TO SCALE — OVER WINDOW



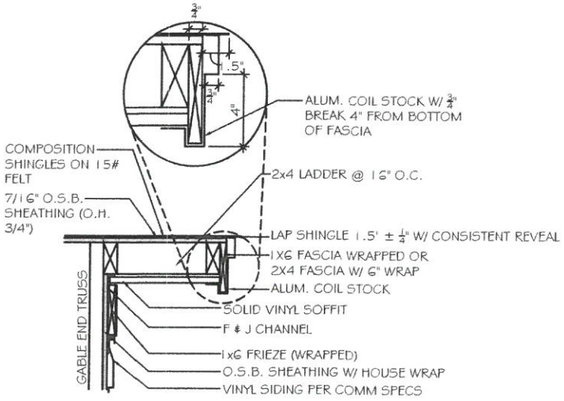
F RAKE OVERHANG DETAIL - VINYL/VINYL
SCALE: NOT TO SCALE — GABLE END SIDE



G STONE CORNICE DETAIL - VINYL/VINYL
SCALE: NOT TO SCALE — FRONT & REAR



H STONE CORNICE DETAIL - VINYL/VINYL
SCALE: NOT TO SCALE — OVER WINDOW



J RAKE OVERHANG DETAIL w/ FRIEZE - VINYL/VINYL
SCALE: NOT TO SCALE — FRONT

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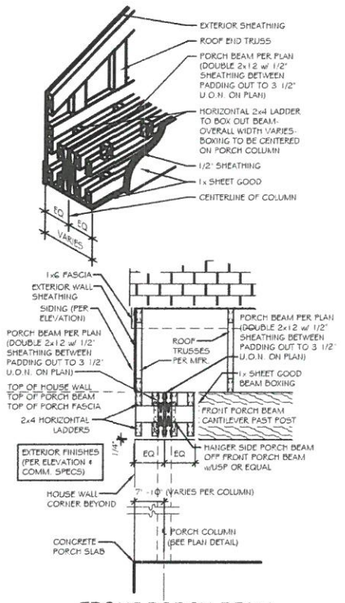
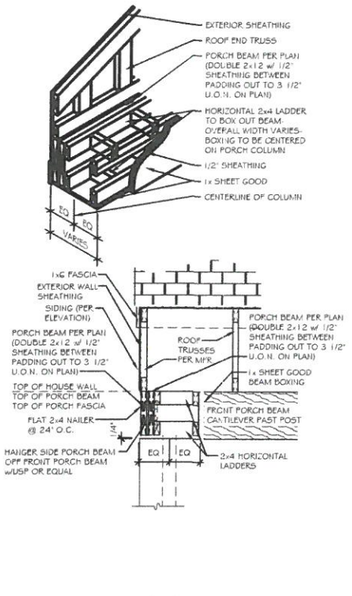
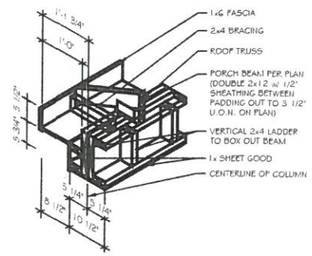


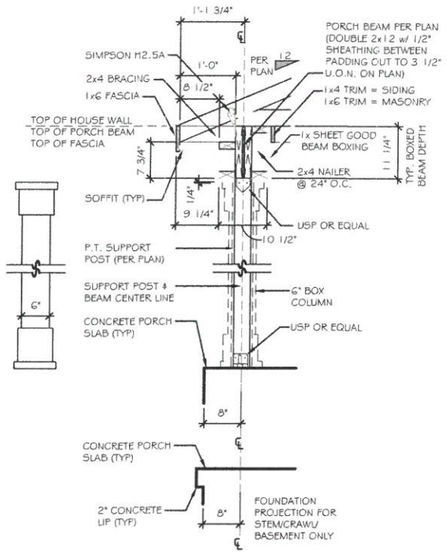
FRONT PORCH BEAM END SECTION



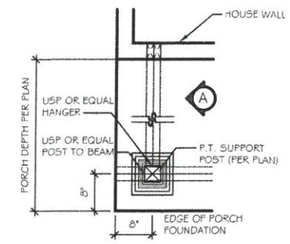
FRONT PORCH BEAM SECTION @ 2nd FLOOR BUMP



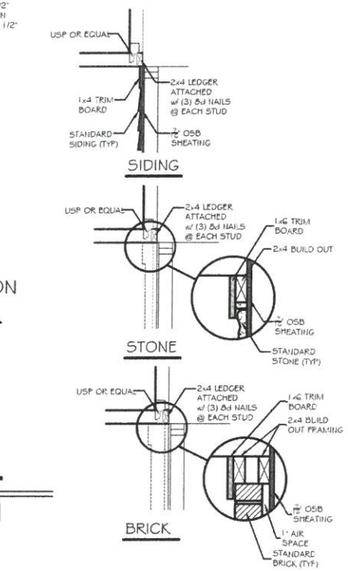
FRONT PORCH BEAM & SOFFIT



6" BOX COLUMN SECTION DETAIL



6" BOX COLUMN PLAN



TRIM @ PORCH SECTION

A FRONT PORCH COLUMN DETAIL

NOTE: PLAN DIMENSIONS SUPERCEDE DETAIL DIMENSIONS

RESIDENTIAL STRUCTURES, P.C.
3410 N. Davidson St.
Charlotte, N.C. 28205
Seal For Structural Only

TrueHomes
IT'S ALL ABOUT U
2649 Brekonridge Centre Dr.
Suite 104
Monroe, N.C. 28110
704-271-1191

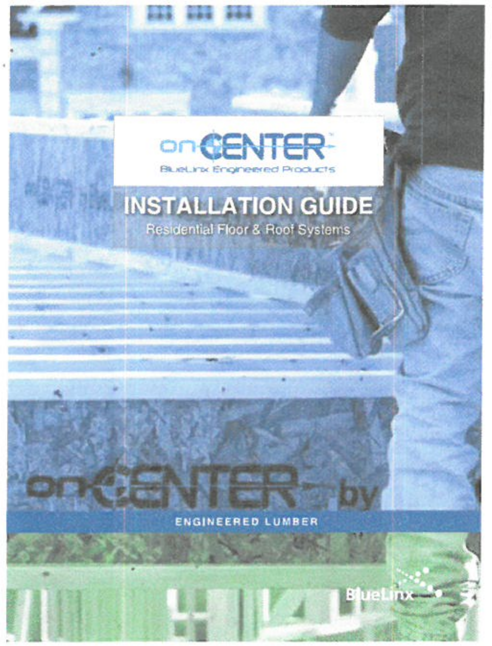
CROSS LINK
LOT# 60

HUDSON
2016

HARNETT

PREPARED BY: WALTER
DATE: 01-30-19
SCALE: AS SHOWN
REVIEWED BY: SCOTT

SHEET: D10



onCENTER
BlueLinx Engineered Products

INSTALLATION GUIDE

Residential Floor & Roof Systems

onCENTER by
ENGINEERED LUMBER

BlueLinx

STORAGE & HANDLING

Protect from moisture and weather. Keep covered with factory wrap until time of use. Store on dry level ground using stacked support blocks 10' on-center to keep bundles off the ground and to allow air circulation.

DO NOT store BLJ joists flat. onCENTER™ LVL and rim board should be stacked flatwise.

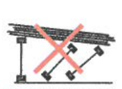
DO NOT lift BLJ joists by top flange with forklift.

DO NOT lift BLJ joists flatwise.

SAFETY PRECAUTIONS

Use safety glasses, gloves, hard hats, and other personal protective equipment when handling and installing onCENTER engineered lumber. Contact BlueLinx for MSDS information.

DO NOT walk on onCENTER engineered lumber that is lying flat.



DO NOT stack building materials on unsheathed joists. Stack only over bearing walls or main beams.

DO NOT use damaged products.

BRACING REQUIREMENTS

DO NOT allow workers or loads on engineered lumber joists until properly installed and braced.

1. Joists are unstable until properly attached and braced laterally. Failure to provide stability can result in serious accidents.
2. Restrain joists and beams from rotation at the end supports by use of blocking panels, x-bridging, or continuous closure (rim board, rim joist or structural panel).
3. Install all fasteners in each joist, beam, hanger, blocking panel, x-bridging, or continuous closure as it is set.
4. Lateral restraint, such as a braced end wall or existing deck, must be established parallel to the first joist in a run. This can also be accomplished by a temporary or permanent deck (sheathing) fastened to the full length of the first 4' of joists in the run.
5. Rows of temporary bracing running at right angles to the joists and spaced not more than 10' on center must extend to the established lateral restraint. Bracing should be a minimum of 1x4, at least 8' long, attached to the top face of each joist with a minimum of two 8d nails (10d if bracing is 2x4). Ends of bracing should overlap at least two joists.
6. Ends of cantilevers require temporary bracing on both the top and bottom flanges.
7. Sheathing must be completely attached to each BLJ joist before additional loads can be placed on the system.
8. Joist flanges must remain straight within ½" of true alignment.

INSTALLATION NOTES

1. BlueLinx onCENTER products must be protected from weather and used only in covered, dry-use conditions (moisture content of engineered lumber must be less than 16%).
2. Engineered lumber must not be installed in direct contact with masonry or concrete.
3. BLJ joists must be supported by the bottom flange on walls or beams or in hangers. They must not be supported by the top flange, by a non-structural ridge board, or by toe-nailing into a beam or ledger.
4. For BLJ joists, minimum end bearing length is 1¾", minimum intermediate bearing length is 3½".
5. When nailing to the wide face of BLJ joist flanges, maintain spacing within the following ranges:

Nail Size	Flange Nail Spacing BLJ 400, 700, 900 Min.	 Max.	 BLJ 40, 60, 80, 90 Min.	 Max.
8d Box, 8d Common, 10d Box, 12d Box	2"	24"	4"	24"
10d Common, 12d Common	3"	24"	4"	24"

NOTES:
1. [illegible]
2. [illegible]
3. [illegible]

6. BLJ joists are manufactured with no camber, and may be installed with web markings reading right side up or upside down.
7. Except when cutting to length or for birdsmouth cuts, BLJ joist flanges should not be cut, tapered, notched or drilled.
8. Concentrated loads should be supported by the top surface of the top flange, not hung from the bottom flange (Exception: lighting fixtures, ceiling fans, etc.).
9. When nail type is not specified in this guide, common, box or sinkers may be used.
10. Certain applications of staple-up radiant heating may increase deflection in I-joists with solid-sawn flanges due to unequal drying within the floor cavity. Contact BlueLinx for more information.
11. With preservative treated wood, use only stainless steel or hot-dipped galvanized connectors, fasteners and other metal hardware not required by code. As a minimum requirement, hot-dipped galvanized coated fasteners should conform to ASTM Standard A 153 and hot-dipped galvanized coated connectors should conform to ASTM Standard A 653 (Class G-185). In highly corrosive environments, stainless steel connectors and fasteners should be used.

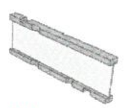
INSTALLATION CAUTIONS

DO NOT support BLJ joist by top flange or web.

DO NOT violate hole table rules.

DO NOT bevel cut BLJ joist past face of wall. See detail F8.

DO NOT birdsmouth cut bottom flange at high end of roof BLJ joist. See roof detail R2.



DO NOT cut or notch flanges except for cutting to length and for birdsmouth cuts. See roof detail R6.

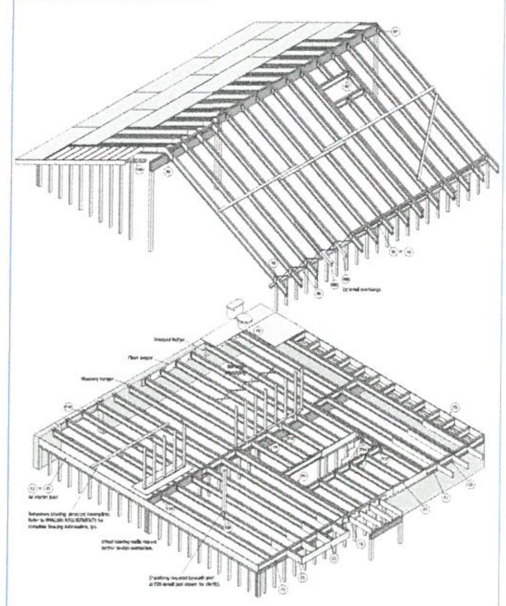
FLOOR SPANS

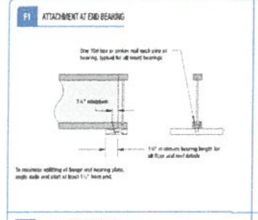
40 PSF Live Load + 10 PSF Dead Load (L/480)

Joist Series	Joist Depth	Simple Span 12" o.c.	 16" o.c.	 19.2" o.c.	 24" o.c.	Multiple Span 12" o.c.	 16" o.c.	 19.2" o.c.	 24" o.c.
BLJ 40 / BLJ 400	9½"	16'-00"	16'-05"	15'-08"	14'-06"	19'-07"	17'-11"	16'-04"	14'-07"
	11⅞"	21'-05"	19'-07"	18'-08"	16'-08"	23'-06"	20'-09"	18'-07"	16'-07"
BLJ 40	14"	24'-04"	22'-03"	20'-06"	18'-04"	25'-11"	22'-06"	20'-05"	18'-00"
	16"	26'-11"	24'-03"	22'-01"	19'-08"	27'-11"	24'-02"	22'-00"	19'-06"
BLJ 60	11⅞"	22'-07"	20'-08"	19'-06"	18'-02"	24'-08"	22'-06"	21'-02"	19'-07"
	14"	25'-09"	23'-06"	22'-02"	20'-06"	28'-00"	25'-07"	24'-01"	15'-09"
	16"	28'-06"	26'-00"	24'-07"	22'-10"	31'-01"	28'-04"	24'-06"	19'-09"
	18"	31'-03"	28'-06"	26'-11"	24'-10"	34'-01"	29'-08"	24'-09"	19'-08"
BLJ 80	11⅞"	24'-11"	22'-08"	21'-04"	19'-10"	27'-01"	24'-08"	23'-03"	21'-07"
	14"	28'-02"	25'-09"	24'-03"	22'-07"	30'-10"	28'-00"	26'-05"	23'-11"
	16"	31'-04"	28'-06"	26'-10"	25'-00"	34'-02"	31'-01"	29'-03"	22'-11"
	18"	34'-02"	31'-01"	29'-03"	24'-10"	37'-03"	33'-10"	30'-06"	24'-07"
BLJ 90	11⅞"	25'-07"	23'-03"	21'-11"	20'-05"	27'-11"	25'-04"	23'-10"	21'-10"
	14"	29'-00"	26'-05"	24'-11"	23'-02"	31'-08"	28'-09"	27'-01"	23'-11"
	16"	32'-01"	29'-03"	27'-06"	25'-05"	35'-00"	31'-10"	29'-11"	25'-11"
	18"	35'-01"	31'-11"	30'-01"	24'-10"	38'-03"	34'-09"	31'-05"	25'-06"
BLJ 700	11⅞"	23'-00"	21'-00"	19'-10"	18'-06"	25'-01"	22'-10"	21'-07"	18'-06"
	14"	26'-01"	23'-10"	22'-06"	20'-11"	28'-05"	25'-11"	23'-02"	19'-06"
	16"	29'-00"	26'-05"	24'-11"	23'-01"	31'-07"	27'-10"	23'-02"	18'-06"
BLJ 900	11⅞"	26'-04"	24'-00"	22'-07"	21'-00"	28'-08"	25'-01"	24'-07"	22'-10"
	14"	29'-11"	27'-02"	25'-07"	23'-10"	32'-07"	29'-07"	27'-10"	25'-11"
	16"	33'-01"	30'-01"	28'-04"	26'-04"	36'-01"	32'-09"	30'-10"	26'-07"

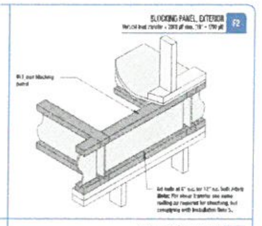
NOTES:
1. Spans are maximum clear distances between supports, based on uniform loads.
2. Live load deflection is limited to L/480, providing joists that are more stiff than required by code. Experience has shown that floors designed to the code minimum live load deflection (L/360) may not meet the occupant's expectations for floor performance.
3. Spans are based on composite action with glued-nailed APA Rated Sheathing or Sturd-I-Floor panels of minimum thickness [illegible] for joist spacing of 19.2" or less, or [illegible] for a joist spacing of 24". Apply a ¼" diameter continuous bead of adhesive meeting APA AFG-01 or ASTM D 3498, to top flange of joists. Surfaces must be clean and dry. If adhesive is not used, reduce spans by 12%.
4. Minimum bearing length: 1¾" (end), 3½" (intermediate).
5. For multiple-span joists, end spans must be at least 40% of adjacent span.
6. Tabulated spans for multiple-span conditions cover a wide range of span combinations. Neither simple nor multiple spans require bearing stiffeners. Longer spans may be possible by analyzing a specific span condition and/or by adding bearing stiffeners. Check using DOMA Sizer™ software.
7. For loading other than that shown above, refer to Uniform Load Tables in the onCENTER Product Guide, use DOMA Sizer software, or contact BlueLinx Engineered Lumber Technical Services.

onCENTER FRAMING SYSTEMS

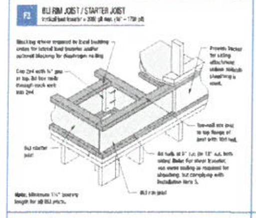




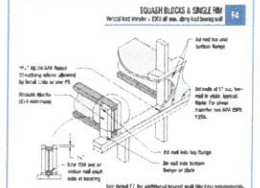
F1 ATTACHMENT AT END BEARING



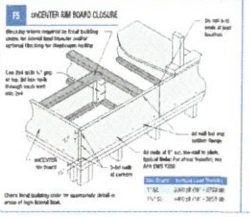
BLOCKING PANEL, EXTERIOR F2



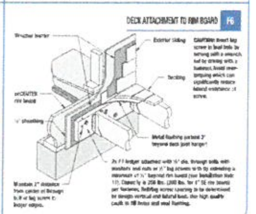
F3 BLJ RIM JOIST / STARTER JOIST



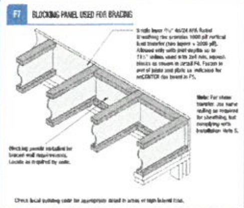
SQUASH BLOCKS & SINGLE RIM F4



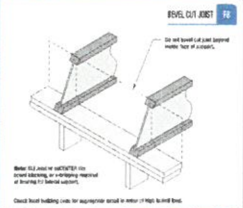
F5 onCENTER RIM BOARD CLOSURE



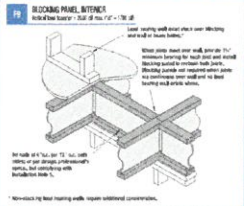
DECK ATTACHMENT TO RIM BOARD F6



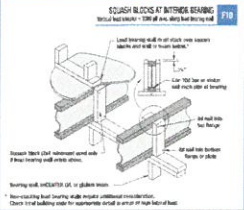
F7 BLOCKING PANEL USED FOR BRACING



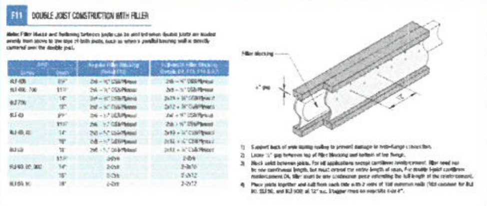
BEVEL CUT JOIST F8



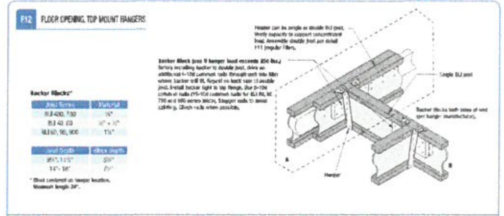
F9 BLOCKING PANEL, INTERIOR



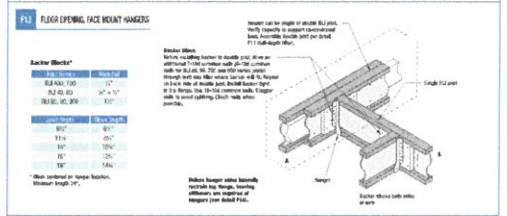
SQUASH BLOCKS AT INTERIOR BEARING F10



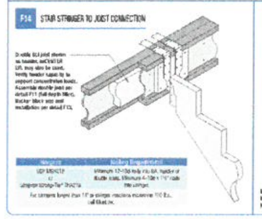
F11 DOUBLE JOIST CONSTRUCTION WITH FILLER



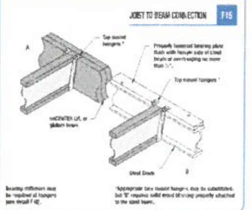
F12 FLOOR OPENING, TOP MOUNT HANGERS



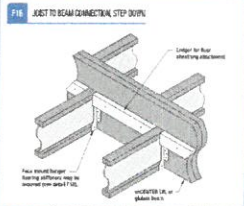
F13 FLOOR OPENING, FACE MOUNT HANGERS



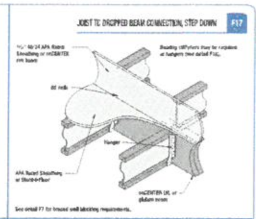
F14 STAIR STRINGER TO JOIST CONNECTION



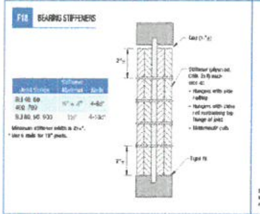
JOIST TO BEAM CONNECTION F15



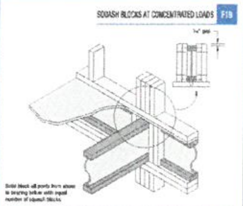
F16 JOIST TO BEAM CONNECTION, STEP DOWN



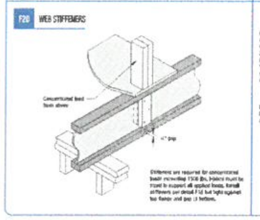
JOIST TO DROPPED BEAM CONNECTION, STEP DOWN F17



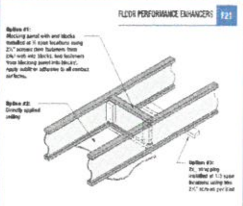
F18 BEARING STIFFENERS



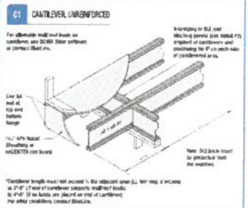
SQUASH BLOCKS AT CONCENTRATED LOADS F19



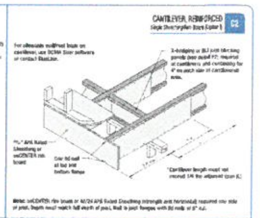
F20 WEB STIFFENERS



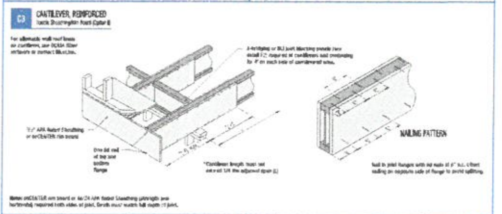
FLOOR PERFORMANCE ENHANCERS F21



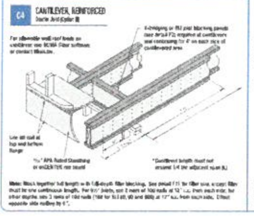
C1 CANTILEVER, UNREINFORCED



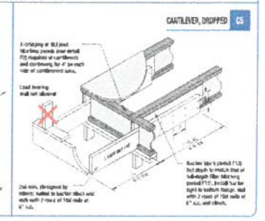
CANTILEVER, REINFORCED C2



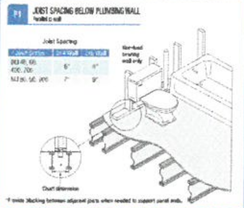
C3 CANTILEVER, REINFORCED



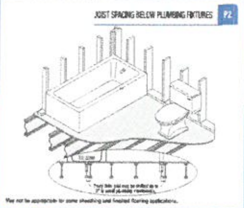
C4 CANTILEVER, REINFORCED



CANTILEVER, DROPPED C5



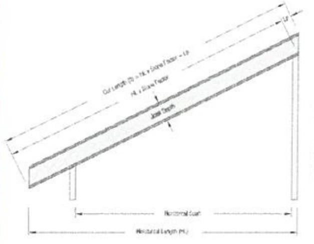
P1 JOIST SPACING BELOW PLUMBING WALL



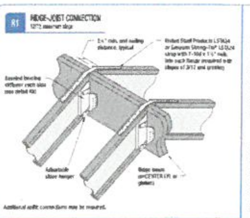
JOIST SPACING BELOW PLUMBING FIXTURES P2

ROOF SLOPE FACTORS & PLUMB CUT INCREASES

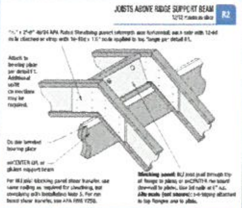
	Slope (X/12) & Slope Factor 2½	 3	 3½	 4	 4½	 5	 6	 7	 8	 9	 10	 11	 12
	1.021	1.031	1.042	1.054	1.068	1.083	1.118	1.158	1.202	1.250	1.302	1.357	1.414
Joist Depth	Amount to Increase Length for Plumb Cut (in feet)												
9½"	0.165	0.198	0.231	0.264	0.297	0.330	0.396	0.462	0.528	0.594	0.660	0.726	0.792
11⅞"	0.206	0.247	0.289	0.330	0.371	0.412	0.495	0.577	0.660	0.742	0.825	0.907	0.990
14"	0.243	0.292	0.340	0.389	0.438	0.486	0.583	0.681	0.778	0.875	0.972	1.069	1.167
16"	0.278	0.333	0.389	0.444	0.500	0.556	0.667	0.778	0.889	1.000	1.111	1.222	1.333
18"	0.313	0.375	0.438	0.500	0.563	0.625	0.750	0.875	1.000	1.125	1.250	1.375	1.500



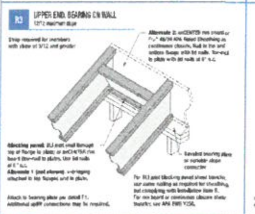
EXAMPLE:
11⅞" BLJ joists, 6/12 slope, 15' 8½" Horizontal Span, 2' overhang (horizontal) and 3½" walls.
HL = 2' + 3½" + 15' 8½" + 3½" = 18' 3½"
3.5"/12 = .292', 18' + .292' = 18.292'
18.292' x 1.118 (Slope Factor from chart) = 20.45'
20.45' + .495' (Lp from chart) = 20.945' (20')
0.945' x 12 = 11.34" (11")
0.34" x 16 = 5.44, round to 6 (sixteenths)
Cut Length = 20' 11⅜"



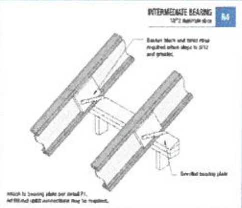
R1 RIDGE-JOIST CONNECTION



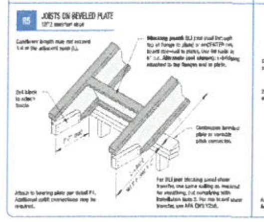
JOISTS ABOVE RIDGE SUPPORT BEAM R2



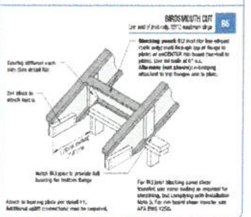
R3 UPPER END, BEARING ON WALL



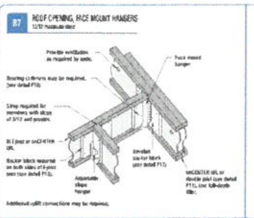
INTERMEDIATE BEARING R4



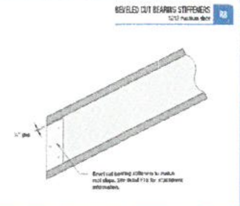
R5 JOISTS ON BEVELED PLATE



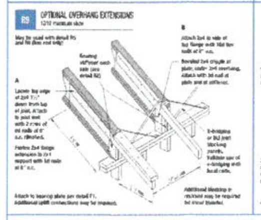
BIRDSMOUTH CUT R6



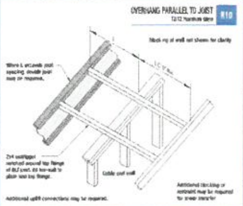
R7 ROOF OPENING, FACE MOUNT HANGERS



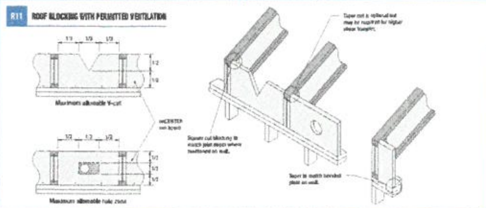
BEVELED CUT BEARING STIFFENERS R8



R9 OPTIONAL OVERHANG EXTENSIONS



OVERHANG PARALLEL TO JOIST R10



R11 ROOF BLOCKING WITH PERMITTED VENTILATION

Maximum allowable V-cut

Maximum allowable hole size

HOLES

Hole location is minimum distance from inside face of support to nearest edge of hole.

DO NOT cut or drill flanges.

Allowable Hole Location for BLJ 400 (Simple or Multiple Span)

[illegible]

Allowable Hole Location for BLJ 40, 60, 80, 90, 700, and 900 (Simple or Multiple Span)

[illegible]

NOTES:
[illegible]

EXAMPLE
[illegible]

onCENTER LVL BEARING DETAILS

- Required bearing length depends on applied loads, but may not be less than 1½" for end and 3" for intermediate bearings.
- Verify adequacy of supporting material to carry applied loads.

B1 BEARING ON WALL

B2 BEARING ON CONCRETE WALL

Protect onCENTER LVL from direct contact with concrete. Refer to local building code for requirements.

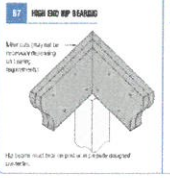
B3 BEAM-TO-BEAM CONNECTION

Install hangers per hanger manufacturer's instructions.

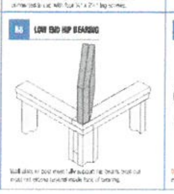
B4 BEARING ON COLUMN

B5 BEAM-TO-COLUMN LATERAL BRACE

B6 BEARING FOR DOOR OR WINDOW HEADER



B7 HIGH END HIP BEARING

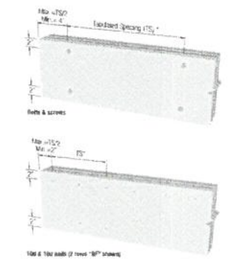


B8 LOW END HIP BEARING

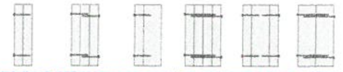
B9 NOTCHING / SEAT CUT

DO NOT notch beam at bearing. Seat cut must not extend beyond inside face of bearing.

MULTIPLE-PLY LVL FASTENING GENERAL NOTES



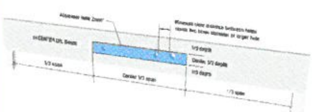
1. These minimum requirements are adequate only when all loads are evenly applied to the top surface of all plies. If loads are applied to the side face(s) of the beam, use designer's specifications.
2. Table below shows required fastener spacings and number of rows. End distances and edge distances must comply with diagram on the left. For offset fastening patterns, maximum end distance applies to all rows.
3. Fastening requirements for depths less than 7¼" require special consideration. Contact BlueLinx.
4. All fasteners must have full embedment of the shank, but must not be over-driven, over-tightened, or countersunk.
5. Bolt hole diameter must be 1/32" to 1/16" larger than the bolt diameter. Bolts are to meet ASTM A307 or SAE J429 grades. Each bolt must extend through the full thickness of the member and at least ½" beyond. Use washers under the head and nut.
6. Carriage bolts (½" diameter) are acceptable to use for the ½" bolt fastener. Carriage bolt heads may be drawn into the face of the LVL beam such that the top of the heads are even with the exterior face of the outer ply of the LVL.
7. Spacings closer than those indicated may be acceptable, but require evaluation. Please contact BlueLinx.
8. SDS and SDW structural screws are produced by Simpson Strong-Tie Company, Inc. WS structural screws are produced by United Steel Products Company. TrussLOK structural screws are produced by FastenMaster-OMG, Inc. Install screws per the specific manufacturer's guidelines.



[illegible]

NOTES:
1. Screws are SDS, SDW, WS or TrussLOK.
2. [illegible]

ALLOWABLE HORIZONTAL HOLES IN onCENTER LVL



* See table for maximum hole sizes

DO NOT cut, notch, or drill onCENTER LVL except as shown in this guide.

Allowable Hole Sizes

Beam Depth	Maximum Round Hole Diameter
4⅜"	½"
5½"	1½"
7¼"	1½"
9¼" - 24"	2"

NOTES:
1. Holes must be located entirely in the Allowable Hole Zone.
2. Rectangular holes not allowed.
3. No more than 1 hole allowed per span.
4. Table applies to simple and multiple span uniformly loaded beams only. Table not valid for cantilevers.
5. To avoid problems with pipe sizes, consider hole location, clearance and effects of beam deflection.

General:
The sale of BlueLinx Engineered Lumber Products shall be subject to BlueLinx' standard terms of sale located at www.bluelinxco.com/terms/salestermsandconditions.doc. BlueLinx reserves the right to revise the information located in BlueLinx' standard terms of sale or in this document without notice.

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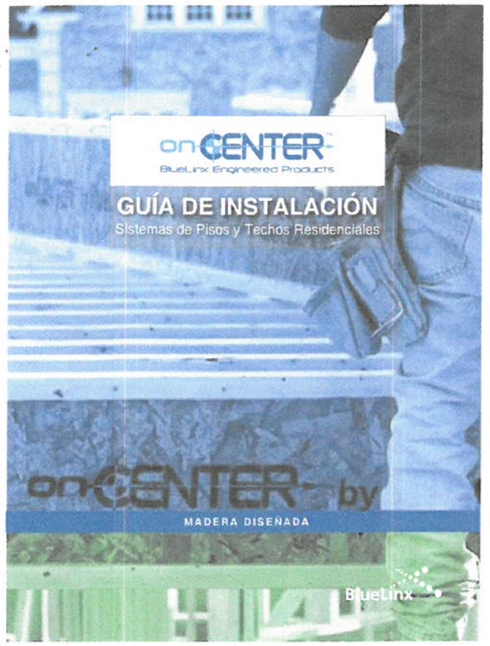
www.buildonCENTER.com

Printed in the U.S.A. on recycled paper. 1/13 Lit. Item # OCIG



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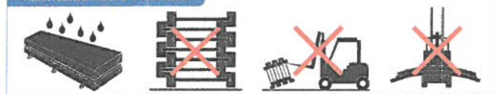
MADERA DISEÑADA

ALMACENAMIENTO Y MANEJO

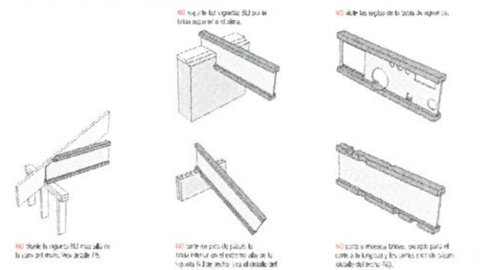


PRECAUCIONES DE SEGURIDAD

REQUISITOS DE REFORZAMIENTO

NOTAS DE INSTALACIÓN

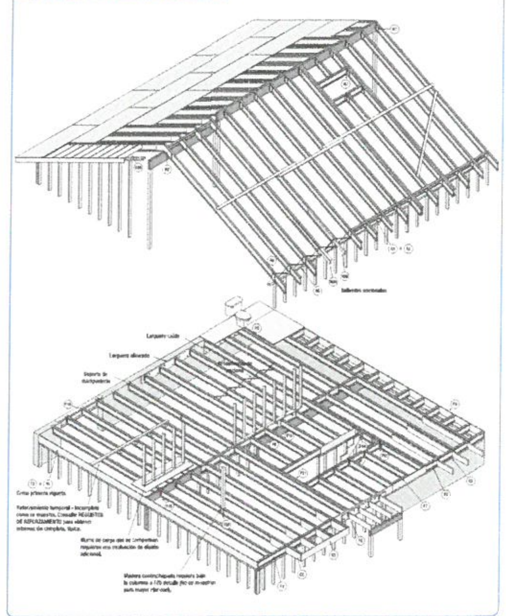
PRECAUCIONES DE LA INSTALACIÓN

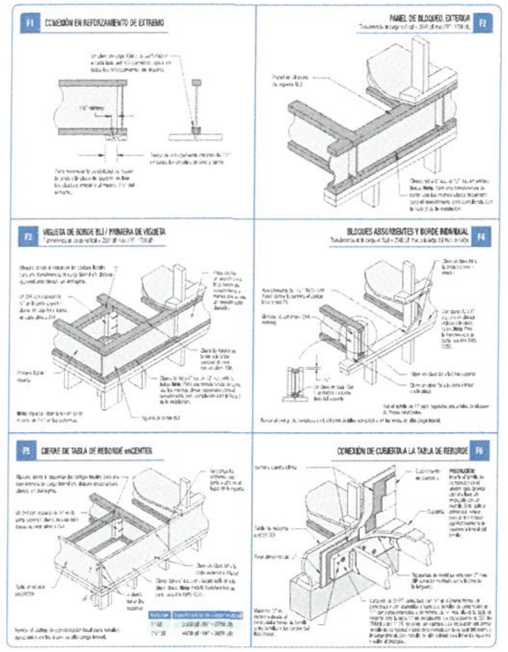


DISTANCIAS MÁXIMAS DE LAS VIGUETAS

40 PSF carga viva + 10 PSF carga muerta (L/480)

onCENTER SISTEMAS DE MARCOS





F1 CONEXIÓN EN REFORZAMIENTO DE EXTREMO

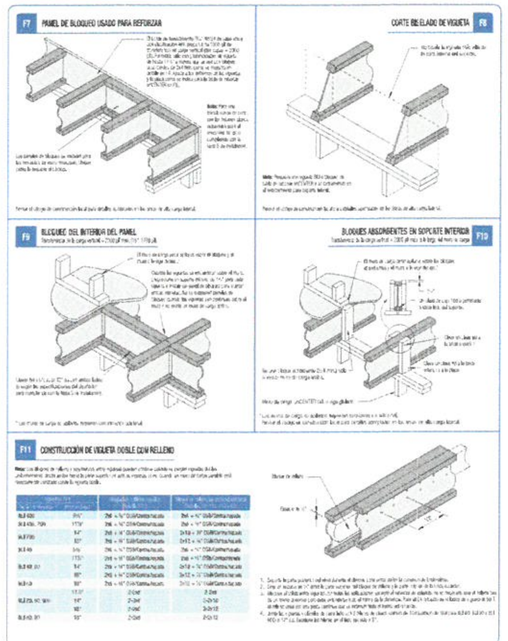
F2 PANEL DE BLOQUEO, EXTERIOR

F3 VIGUETA DE BORDE BLI / PRIMERA DE VIGUETA

F4 BLOQUES ABSORBENTES Y BORDE INDIVIDUAL

F5 CIERRE DE TABLA DE REBORDE onCENTER

F6 CONEXIÓN DE CUBIERTA A LA TABLA DE REBORDE



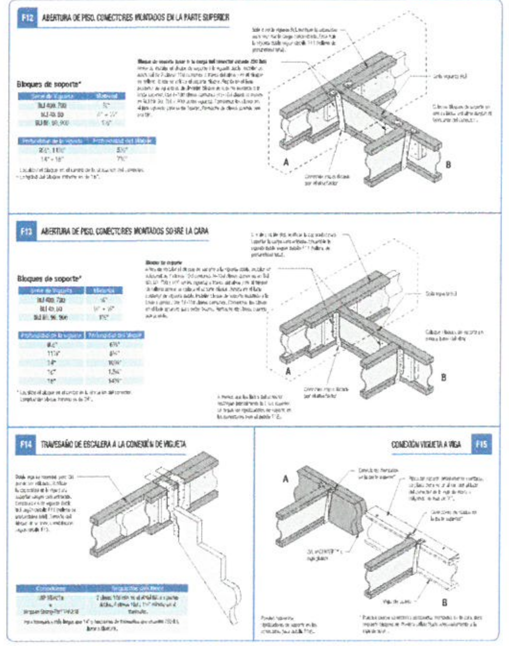
F7 PANEL DE BLOQUEO USADO PARA REFORZAR

F8 CORTE BISELADO DE VIGUETA

F9 BLOQUEO DEL INTERIOR DEL PANEL

F10 BLOQUES ABSORBENTES EN SOPORTE INTERIOR

F11 CONSTRUCCIÓN DE VIGUETA DOBLE CON RELLENO

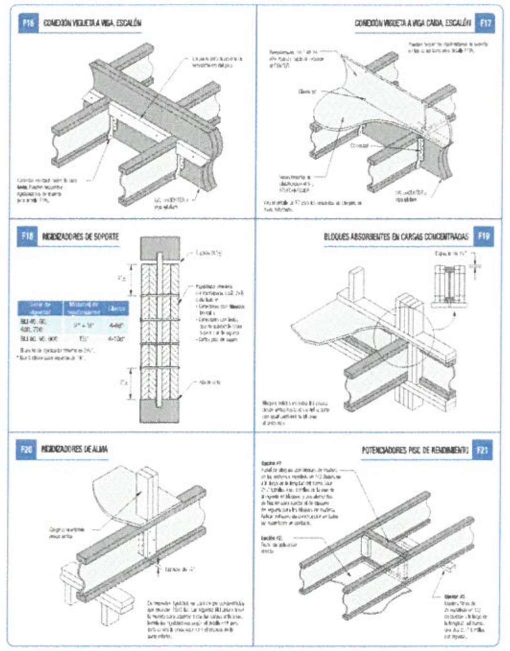


F12 ABERTURA DE PISO, CONECTORES MONTADOS EN LA PARTE SUPERIOR

F13 ABERTURA DE PISO, CONECTORES MONTADOS SOBRE LA CARA

F14 TRAVESAÑO DE ESCALERA A LA CONEXIÓN DE VIGUETA

F15 CONEXIÓN VIGUETA A VIGA



F16 CONEXIÓN VIGUETA A VIGA, ESCALÓN

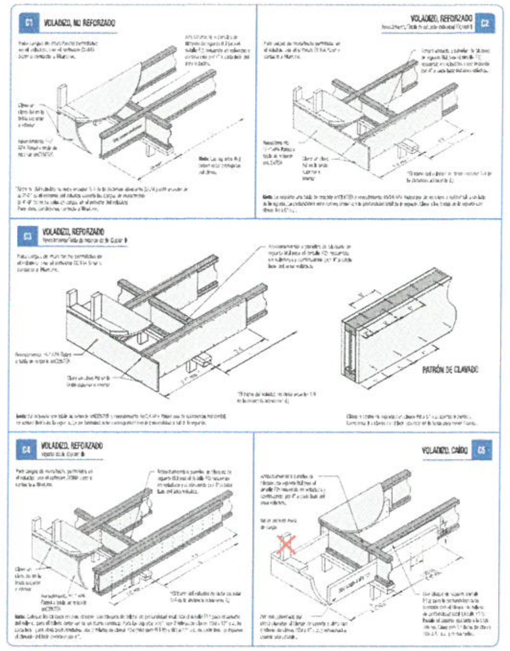
F17 CONEXIÓN VIGUETA A VIGA CAÍDA, ESCALÓN

F18 RIGIDIZADORES DE SOPORTE

F19 BLOQUES ABSORBENTES EN CARGAS CONCENTRADAS

F20 RIGIDIZADORES DE ALMA

F21 POTENCIADORES PISC DE RENDIMIENTO



C1 VOLADIZO, NO REFORZADO

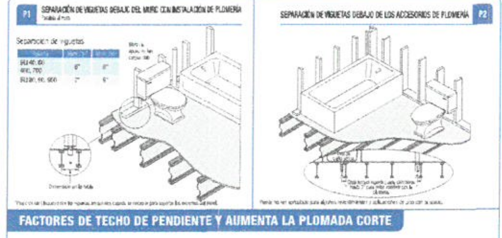
C2 VOLADIZO, REFORZADO

C3 VOLADIZO, REFORZADO

PATRÓN DE CLAVADO

C4 VOLADIZO, REFORZADO

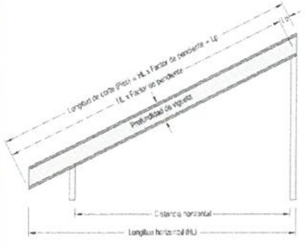
C5 VOLADIZO, CAÍDO



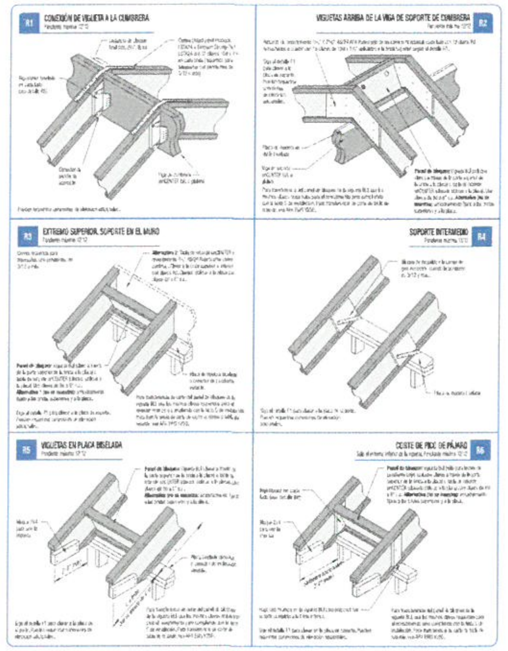
P1 SEPARACIÓN DE VIGUETAS DEBAJO DEL MURO CON INSTALACIÓN DE PLOMERÍA

P2 SEPARACIÓN DE VIGUETAS DEBAJO DE LOS ACCESORIOS DE PLOMERÍA

FACTORES DE TECHO DE PENDIENTE Y AUMENTA LA PLOMADA CORTE



EJEMPLO:



R1 CONEXIÓN DE VIGUETA A LA CUMBRERA

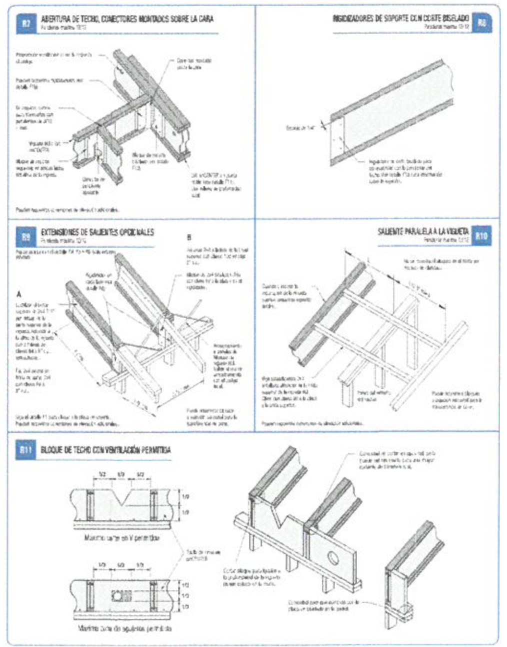
R2 VIGUETAS ARRIBA DE LA VIGA DE SOPORTE DE CUMBRERA

R3 EXTREMO SUPERIOR, SOPORTE EN EL MURO

R4 SOPORTE INTERMEDIO

R5 VIGUETAS EN PLACA BISELADA

R6 CORTE DE PICO DE PÁJARO



R7 ABERTURA DE TECHO, CONECTORES MONTADOS SOBRE LA CARA

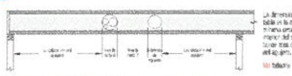
R8 RIGIDIZADORES DE SOPORTE CON CORTE BISELADO

R9 EXTENSIONES DE SALIENTES OPCIONALES

R10 SALIENTE PARALELA A LA VIGUETA

R11 BLOQUE DE TECHO CON VENTILACIÓN PERMITIDA

AGUJEROS

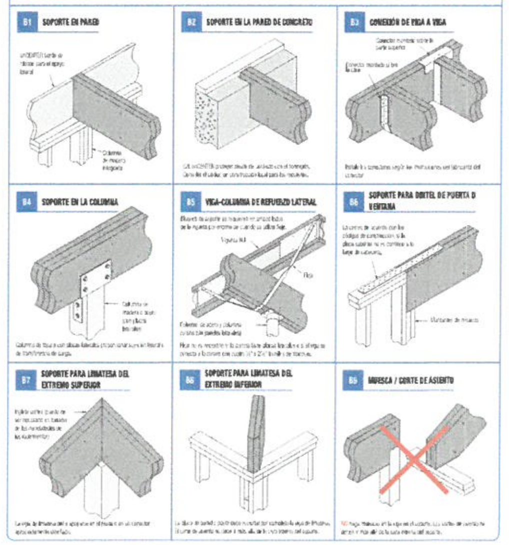


Ubicación de agujeros para todas las viguetas de BLI 400 (distancia simple o múltiple)

Ubicación de agujeros para todas las viguetas de BLI 40, 60, 80, 90, 700, and 900 (distancia simple o múltiple)

DETALLES DE SOPORTE PARA onCENTER LVL

- Verifique que el material de soporte proporcione el tramo de soporte requerido para soportar adecuadamente las cargas aplicadas.
- El tramo de soporte requerido depende de las cargas aplicadas, pero no puede ser menor a 1½" en el soporte de extremo y 3" en el soporte intermedio.



B1 SOPORTE EN PARED

B2 SOPORTE EN LA PARED DE CONCRETO

B3 CONEXIÓN DE VIGA A VIGA

B4 SOPORTE EN LA COLUMNA

B5 VIGA-COLUMNA DE REFUERZO LATERAL

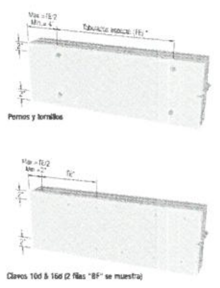
B6 SOPORTE PARA DINTEL DE PUERTA O VENTANA

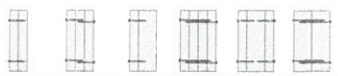
B7 SOPORTE PARA LIMATESA DEL EXTREMO SUPERIOR

B8 SOPORTE PARA LIMATESA DEL EXTREMO INFERIOR

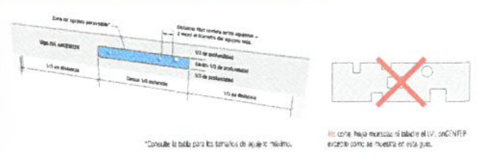
B9 MUESCA / CORTE DE ASIENTO

REQUISITOS MÍNIMOS PARA LA CONEXIÓN DE MÚLTIPLES PIEZAS DE LVL





AGUJEROS HORIZONTALES PERMITIDOS EN LVL ONCENTER



*Consulte la tabla para los tamaños de agujero máximo.

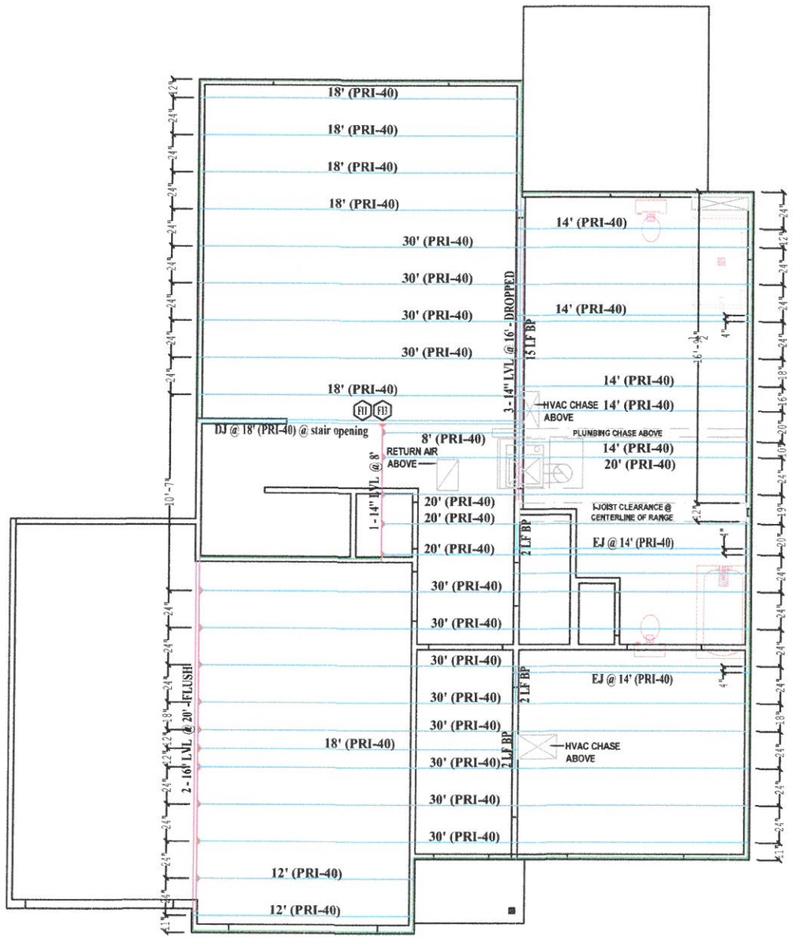
Tamaños de agujeros permitidos

Notas generales:

onCENTER™
BlueLinx Engineered Products

BlueLinx

BlueLinx Corporation
4300 Wildwood Parkway
Atlanta, GA 30339
1-877-914-7770
www.buildonCENTER.com



'The Hudson'

SECOND FLOOR CLK-60

14" PRI-40
1 @ 8'
2 @ 12'
7 @ 14'
8 @ 18'
4 @ 20'
12 @ 30'
1 @ 21' (BP)

14" RIM
12 @ 12'

16" LVL
2 @ 20'

14" LVL
1 @ 8'
3 @ 16'

HANGERS
(15) THFI2514
(1) HD1714

Sheathing for DBL
(1) 5/8" 4x8 square edge OSB

2x 10 for DBL joist
(1) 2x10x18 #2 SYP

NORTH CAROLINA PROFESSIONAL SEAL 29249 ENGINEER KEVIN P. MUNSON 2/11/19

NORTH CAROLINA RESIDENTIAL STRUCTURES, P.C. No. C3285 CERTIFICATE OF AUTHORIZATION

RESIDENTIAL STRUCTURES, P.C.
3410 N. Davidson St.
Charlotte, N.C. 28205
Seal For Structural Only

SHOP DRAWING REVIEW
REVIEW IS FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS AND STRUCTURAL PLANS. SOLE RESPONSIBILITY FOR CORRECTNESS OF DIMENSIONS, DETAILS AND QUANTITIES SHALL REMAIN WITH THE CONTRACTOR.

General Notes:

(1) GENERAL CONTRACTOR TO VERIFY ALL PLUMBING AND MECHANICAL OPENING SIZES AND LOCATIONS.
(2) READ INTERNATIONAL PAPER ENGINEERED WOOD PRODUCTS INSTALLATION GUIDE BEFORE FRAMING.
(3) ALL JOISTS TO BE GLUED AND NAILED TO DECKING.
(4) PROVIDE A MINIMUM OF 1 3/4" END BEARING AND 3.5" INTERMEDIATE BEARING ON ALL JOISTS UNLESS NOTED OTHERWISE.
(5) ALL HANGERS TO BE INSTALLED AND NAILED IN ACCORDANCE WITH SIMPSON STRONG-TIE SPECIFICATIONS.
(6) CONTRACTOR TO VERIFY THAT ALL LOADS, DIMENSIONS, QUANTITIES, AND DETAILS COMPLY WITH THE CURRENT CONSTRUCTION DRAWINGS. THIS DRAWING HAS NOT BEEN CHECKED BY INTERNATIONAL PAPER.
(7) SOLID BLOCK BENEATH ALL POST LOADS FROM ABOVE.
(8) BUILDER TO PROVIDE INSTALLATION GUIDE TO HVAC AND PLUMBING SUBCONTRACTORS FOR HOLE CUTTING CHARTS AND OTHER PERTINENT DETAILS.

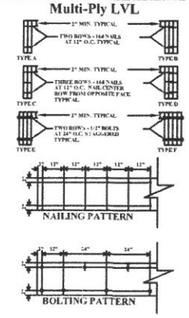
Legend:

DESIGN LOADING

	FLOOR	ROOF
LIVE LOAD	40PSF	20PSF
DEAD LOAD	10PSF	10PSF
DURATION	100%	115%

X — DETAIL
SPAN OF I-JOIST BREAKS HERE
SPAN OF LVL BREAKS HERE
FBO — FRAMING BY OTHERS
WALL ABOVE
LOAD BEARING WALL
SPECIAL WALL HEIGHT
SINGLE — EXTRA JOIST ADDED
EXTRA — JOIST ADDED TO MAKE 2 PLY
RIMBOARD
JOIST
BEAM BY OTHER
LVL / GLULAM

Multi-Ply LVL



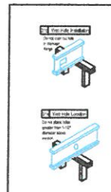
The Building Center, Inc

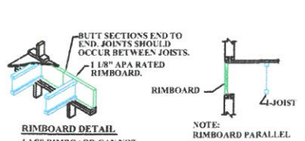
The Building Center
Engineered Wood Division

2nd Floor Placement Plan

Plan #:	19-131 ' The Hudson '
Builder:	True Homes
Job #:	Cross Link Lot 60
Date:	2/1/2019
Scale:	1/4" = 1'
Designed By:	RR
Sold by:	
Checked By:	TL
Revised By:	RR

SHEET: 1 OF 1



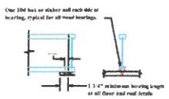


RIMBOARD DETAIL
1 1/8" RIMBOARD CAN NOT BE USED AS HEADER MATERIAL.

NOTE: RIMBOARD PARALLEL TO I-JOIST.

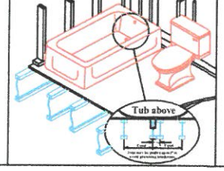
BLOCKING PANEL DETAIL

ATTACHMENT AT END BEARING

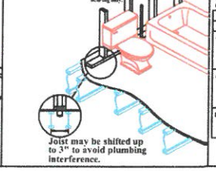


To avoid splitting flange, start nails at least 1 1/2" from end. Drive nails at an angle to prevent splitting of bearing plate.

JOIST SPACING BELOW PLUMBING

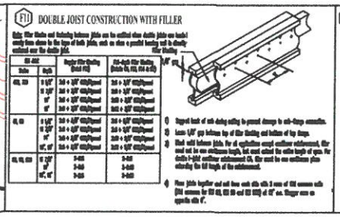


JOIST SPACING BELOW PLUMBING WALL PARALLEL TO WALL

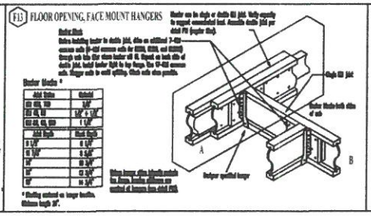


Joist may be shifted up to 3" to avoid plumbing interference.

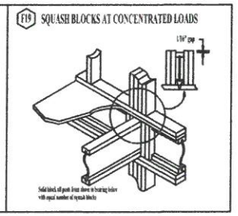
F11 DOUBLE JOIST CONSTRUCTION WITH FILLER

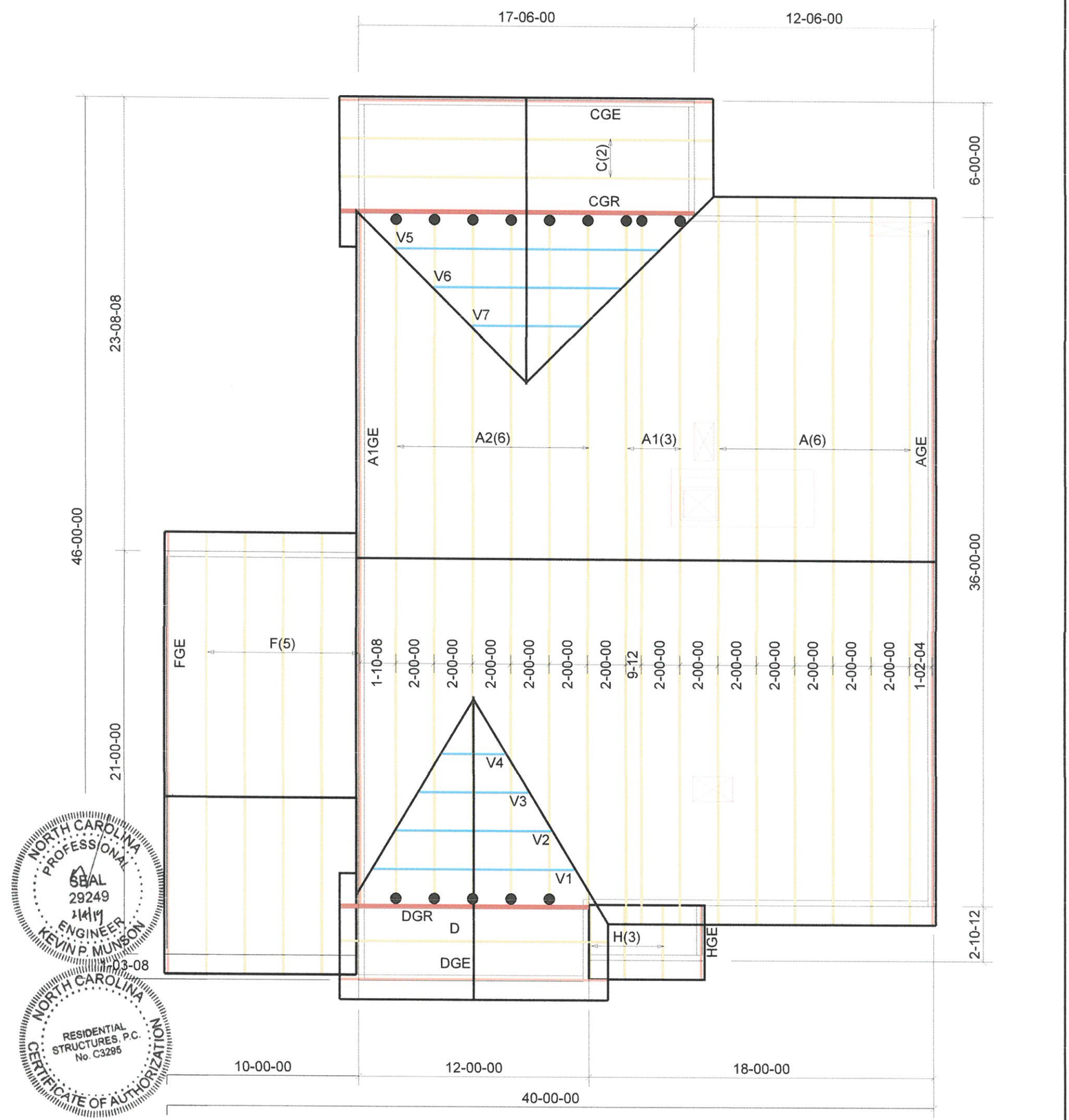


F11 FLOOR OPENING, FACE MOUNT HANGERS



F19 SQUASH BLOCKS AT CONCENTRATED LOADS





NORTH CAROLINA PROFESSIONAL SEAL 29249 ENGINEER KEVIN P. MUNSON 2/4/19

NORTH CAROLINA RESIDENTIAL STRUCTURES, P.C. No. C3295 CERTIFICATE OF AUTHORIZATION

RESIDENTIAL STRUCTURES, P.C.
3410 N. Davidson St.
Charlotte, N.C. 28205
Seal For Structural Only

SHOP DRAWING REVIEW
REVIEW IS FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS AND STRUCTURAL PLANS. SOLE RESPONSIBILITY FOR CORRECTNESS OF DIMENSIONS, DETAILS AND QUANTITIES SHALL REMAIN WITH THE CONTRACTOR.

Hangers	
●	14) HUS26
■	##) ########
▲	##) ########
⊕	##) ########
⊠	##) ########
∠	##) ########

All stick frame loads from above MUST transfer to bearing walls or structural beams below (U.N.O.)

Plumb Drops are estimated only. Trusses may need slight adjustment to provide full clearance while maintaining specified spacing.

ROOF TRUSS LAYOUT

SCALE: 3/16" = 1' 0"

The Building Center, Inc.

THE BUILDING CENTER, INC.

2591 Jenkins Dairy Rd
PH. (704) 824-8182
FAX. (704) 824-2232

Client: True Homes

Notes:

Job Desc: HUDSON - 2016

Site Information: Lot 60 - CLK

Salesman:	NA	Date:	2/04/2019
Drafter:	TPC	Job #:	19020247

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179.

SHOP DRAWING APPROVAL

THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND VOIDS ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS. REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

REVIEWED BY:_____ APPROVED BY:_____ DATE:_____

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 19020247
Lot-60-CLK/2016-Hudson-01/RF

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by The Building Center.

Pages or sheets covered by this seal: I36038744 thru I36038765

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844

February 4,2019

Johnson, Andrew

IMPORTANT NOTE: Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

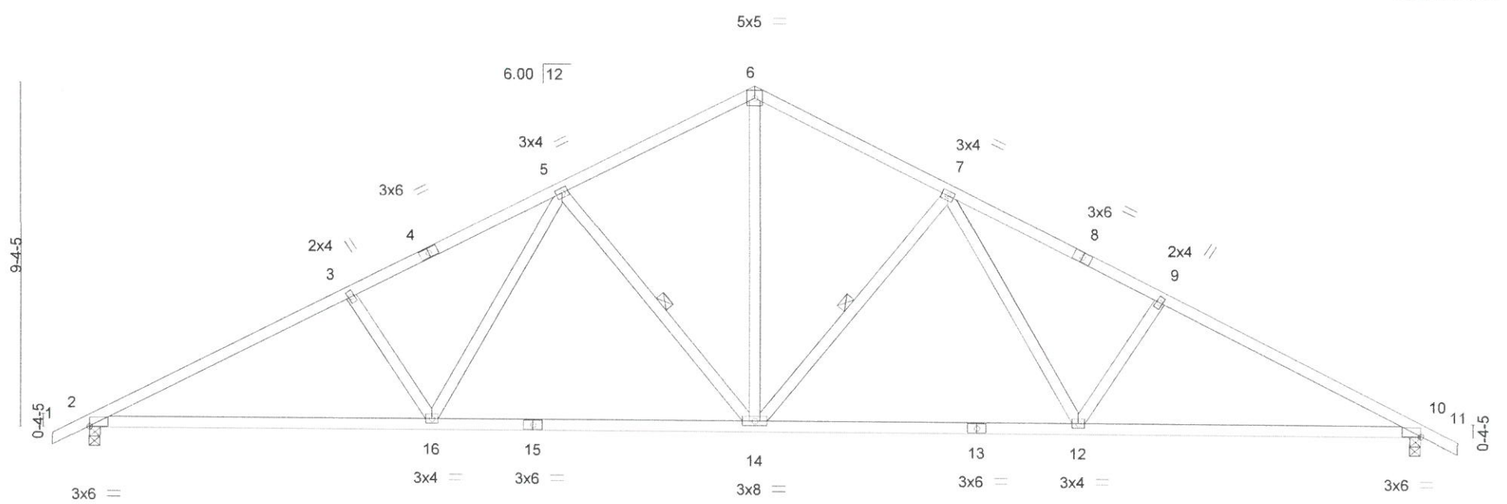
Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	I36038744
19020247	A	Common Truss	6	1	Job Reference (optional)	

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:27 2019 Page 1

ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-OQNzflAPrl6EH4DkolxyI1015Qz_755w_fJkrKzoYCk

-1-0-0	7-0-14	12-9-7	18-0-0	23-2-9	28-11-2	36-0-0	37-0-0
1-0-0	7-0-14	5-8-8	5-2-9	5-2-9	5-8-8	7-0-14	1-0-0

Scale = 1:62.4



9-3-2	18-0-0	26-8-14	36-0-0
9-3-2	8-8-14	8-8-14	9-3-2

Plate Offsets (X,Y)— [2:0-0-0,0-0-3], [10:0-0-0,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.14	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(TL)	-0.46	12-14	>937	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(TL)	0.14	10	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-AS							Weight: 187 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-14, 5-14

REACTIONS. (lb/size) 2=1500/0-3-8, 10=1500/0-3-8
Max Horz 2=-130(LC 15)
Max Uplift 2=-151(LC 10), 10=-151(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-3=-2569/507, 3-5=-2361/514, 5-6=-1657/427, 6-7=-1657/427, 7-9=-2361/514, 9-10=-2569/507
BOT CHORD	2-16=-346/2217, 14-16=-210/1797, 12-14=-210/1797, 10-12=-346/2217
WEBS	6-14=-251/1120, 7-14=-616/217, 7-12=-77/515, 9-12=-330/185, 5-14=-616/217, 5-16=-77/515, 3-16=-330/185

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 151 lb uplift at joint 2 and 151 lb uplift at joint 10.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

February 4,2019

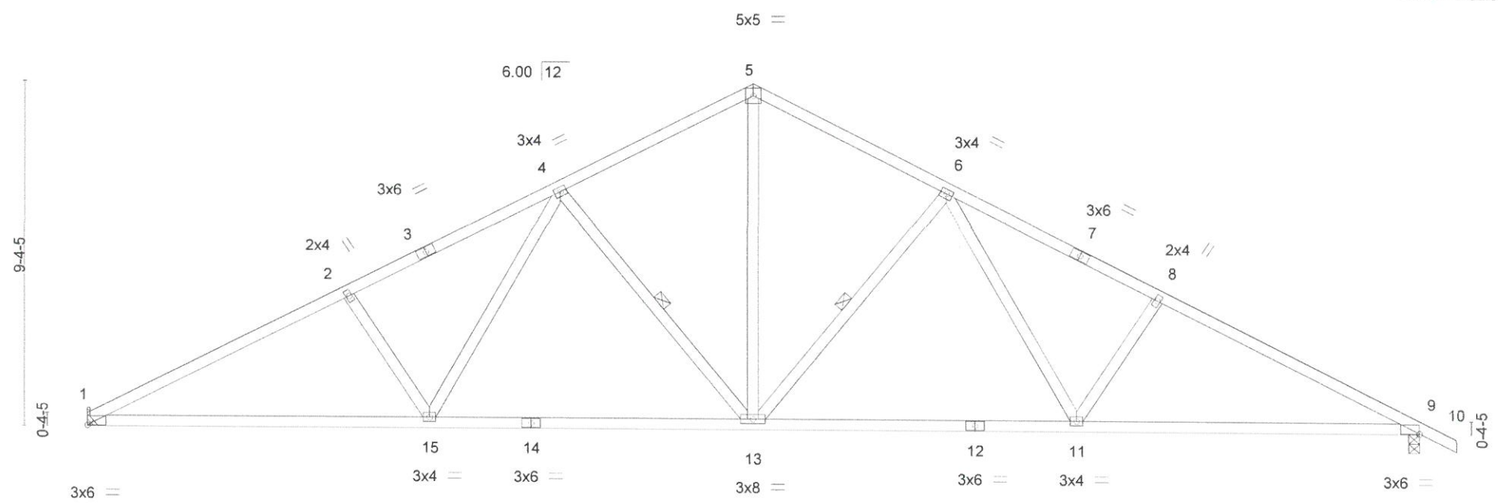
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	
19020247	A1	COMMON TRUSS	3	1	Job Reference (optional)	I36038745

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:28 2019 Page 1
ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-tdxMs4B1c3E5vEoxMTSBqEZCqqJAsYK3DJ2INmzoYCj

7-0-14	12-9-7	18-0-0	23-2-9	28-11-2	36-0-0	37-0-0
7-0-14	5-8-8	5-2-9	5-2-9	5-8-8	7-0-14	1-0-0

Scale = 1:62.3



9-3-2	18-0-0	26-8-14	36-0-0
9-3-2	8-8-14	8-8-14	9-3-2

Plate Offsets (X,Y)— [1:0-0-0,0-0-3], [9:0-0-0,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.14	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(TL)	-0.46	11-13	>936	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(TL)	0.14	9	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-AS							Weight: 185 lb	FT = 20%

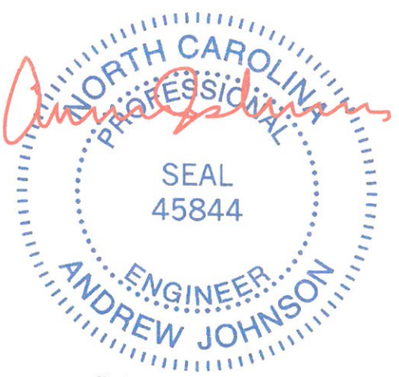
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-13, 4-13

REACTIONS. (lb/size) 1=1440/Mechanical, 9=1500/0-3-8
Max Horz 1=-136(LC 11)
Max Uplift 1=-134(LC 10), 9=-151(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2573/509, 2-4=-2364/516, 4-5=-1658/428, 5-6=-1658/428, 6-8=-2362/514, 8-9=-2570/508
BOT CHORD 1-15=-348/2221, 13-15=-210/1798, 11-13=-210/1797, 9-11=-347/2218
WEBS 5-13=-251/1120, 6-13=-616/217, 6-11=-77/515, 8-11=-330/185, 4-13=-617/217, 4-15=-78/518, 2-15=-332/186

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 1 and 151 lb uplift at joint 9.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 4,2019

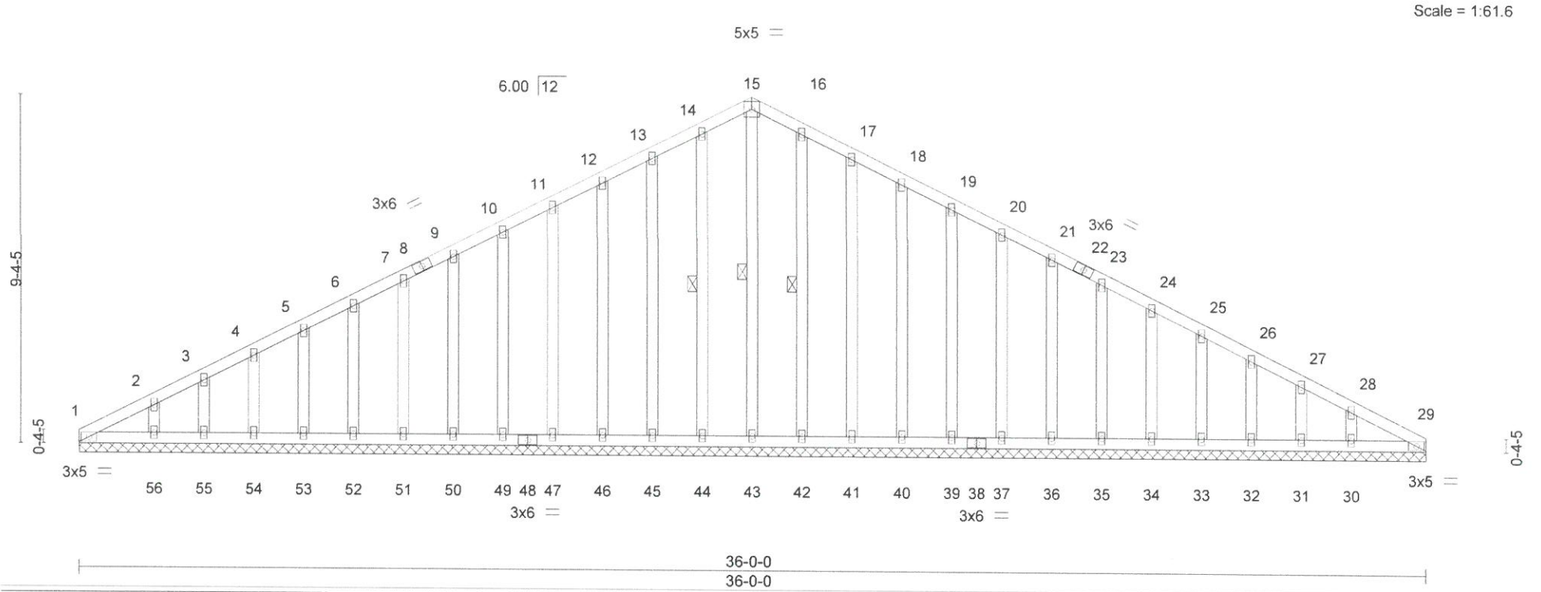
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	I36038746
19020247	A1GE	GABLE	1	1	Job Reference (optional)	

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:31 2019 Page 1
ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-HBdUV6Dvv_cgmhWW1b?uStBoX1W23?sVvHHy_5zoYCg

18-0-0 / 18-0-0 — 36-0-0 / 18-0-0

Scale = 1:61.6



36-0-0 / 36-0-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(TL)	0.01	29	n/a	n/a		
BCDL	10.0	Code	IRC2012/TPI2007	Matrix-S							Weight: 287 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 15-43, 14-44, 16-42

REACTIONS. All bearings 36-0-0.
(lb) - Max Horz 1=124(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30
Max Grav All reactions 250 lb or less at joint(s) 1, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 29, 31, 30

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 42, 41, 40, 39, 37, 36, 35, 34, 33, 32, 31, 30.

February 4,2019

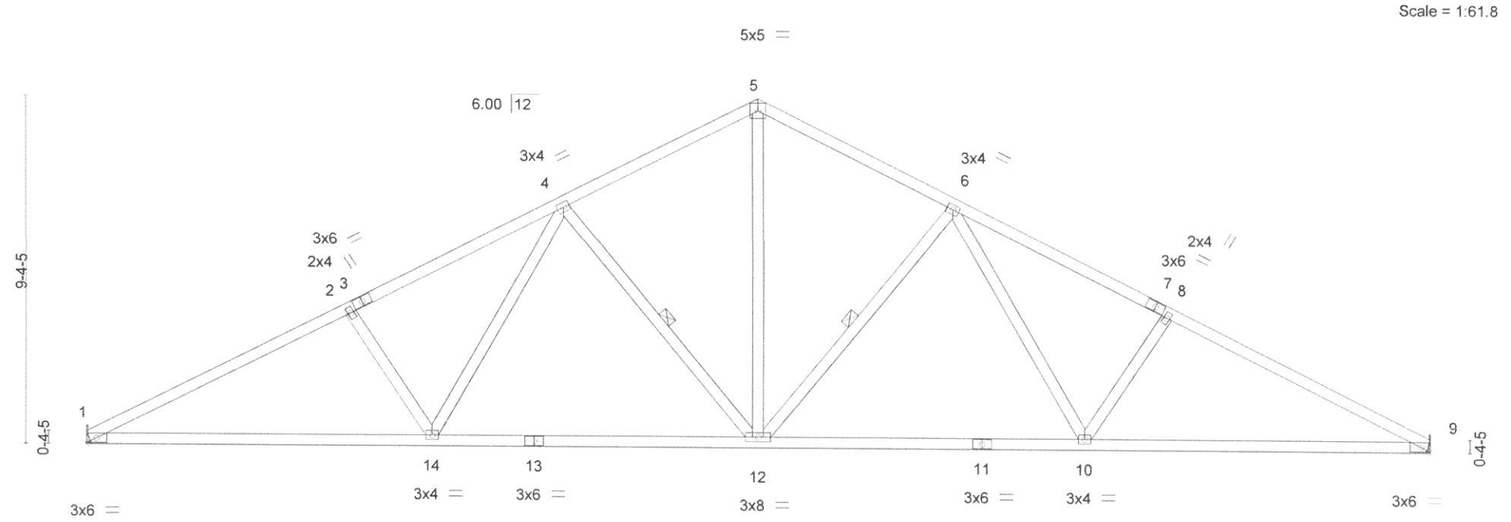
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	I36038747
19020247	A2	COMMON TRUSS	6	1	Job Reference (optional)	

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:33 2019 Page 1
ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-DakFwoFARbsN0?gu902MXIG3ir0LXpZoMbm32zzoYCe

7-0-14	12-9-7	18-0-0	23-2-9	28-11-2	36-0-0
7-0-14	5-8-8	5-2-9	5-2-9	5-8-8	7-0-14

Scale = 1:61.8



9-3-2	18-0-0	26-8-14	36-0-0
9-3-2	8-8-14	8-8-14	9-3-2

Plate Offsets (X,Y)— [1:0-2-10,0-1-8], [9:0-2-10,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.14	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(TL)	-0.46	10-12	>939	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(TL)	0.14	9	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-AS							Weight: 183 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-12, 4-12

REACTIONS. (lb/size) 1=1440/Mechanical, 9=1440/Mechanical
Max Horz 1=-123(LC 15)
Max Uplift 1=-134(LC 10), 9=-134(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2573/510, 2-4=-2365/516, 4-5=-1658/428, 5-6=-1658/428, 6-8=-2365/516, 8-9=-2573/510
BOT CHORD 1-14=-377/2222, 12-14=-239/1799, 10-12=-239/1799, 9-10=-377/2222
WEBS 6-12=-617/217, 6-10=-78/518, 5-12=-252/1121, 8-10=-332/186, 4-12=-617/217, 4-14=-78/518, 2-14=-332/186

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=134, 9=134.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

February 4,2019

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	I36038748
19020247	AGE	GABLE	1	1	Job Reference (optional)	

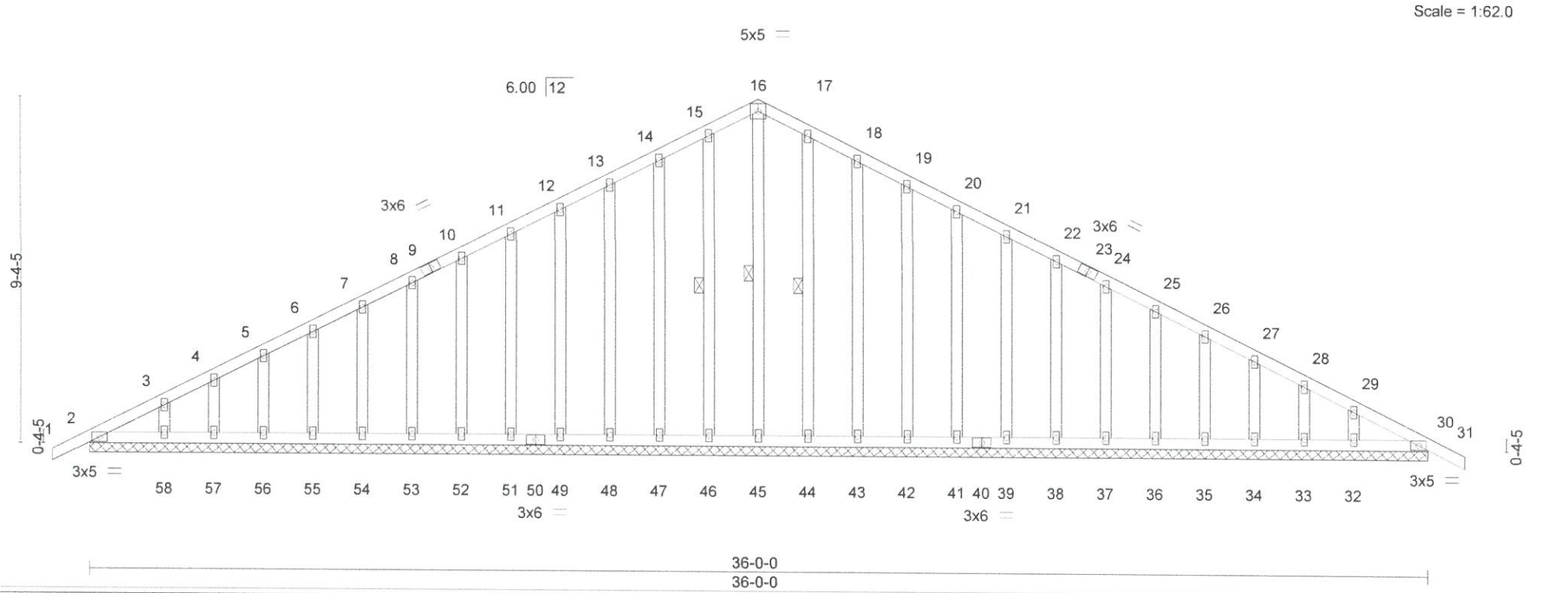
The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:35 2019 Page 1

ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-9zs?LUGQzC65FIqHGR4qcjLUTetv?or5qvF97szoYCc

-1-0-0 | 18-0-0 | 36-0-0 | 37-0-0

1-0-0 | 18-0-0 | 18-0-0 | 1-0-0

Scale = 1:62.0



36-0-0

36-0-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	31	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	-0.00	31	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(TL)	0.01	30	n/a	n/a		
BCDL	10.0	Code	IRC2012/TPI2007	Matrix-S							Weight: 290 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 16-45, 15-46, 17-44

REACTIONS. All bearings 36-0-0.

(lb) - Max Horz 2=130(LC 14)

Max Uplift All uplift 100 lb or less at joint(s) 2, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 44, 43, 42, 41, 39, 38, 37, 36, 35, 34, 30, 33, 32

Max Grav All reactions 250 lb or less at joint(s) 2, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 44, 43, 42, 41, 39, 38, 37, 36, 35, 34, 30, 33, 32

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 44, 43, 42, 41, 39, 38, 37, 36, 35, 34, 30, 33, 32.

February 4,2019

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	C	Common	2	1	I36038749
					Job Reference (optional)

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-6L_Il9IgVqNpUc_fOs6Ii8RpGSQWThzOHDkGBlzoYCa

-1-0-0	4-7-10	8-9-0	12-10-6	17-6-0	18-6-0
1-0-0	4-7-10	4-1-6	4-1-6	4-7-10	1-0-0

Scale: 3/8"=1'

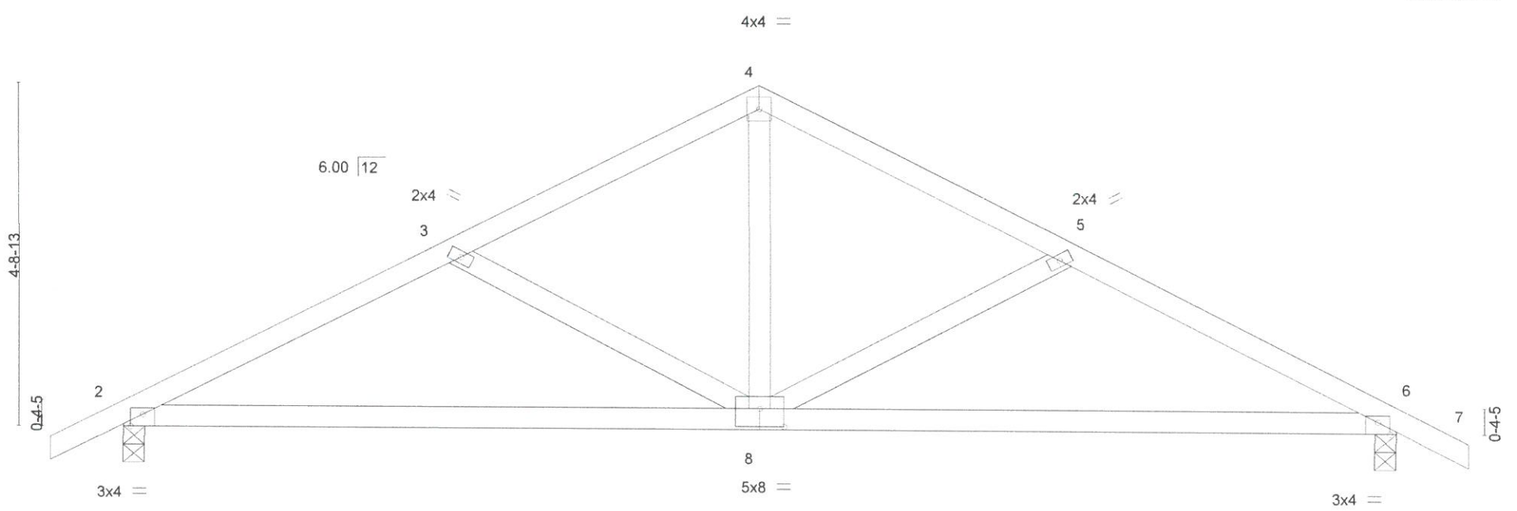

Plate Offsets (X,Y)— [2:0-2-0,Edge], [6:0-2-0,Edge], [8:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.08	8-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(TL)	-0.20	8-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(TL)	0.03	6	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-AS							Weight: 79 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=760/0-3-8, 6=760/0-3-8
Max Horz 2=-67(LC 11)
Max Uplift 2=-82(LC 10), 6=-82(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1098/256, 3-4=-829/189, 4-5=-829/189, 5-6=-1098/256
BOT CHORD 2-8=-148/938, 6-8=-148/938
WEBS 4-8=-54/451, 5-8=-298/149, 3-8=-298/149

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

February 4,2019

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	I36038750
19020247	CGE	GABLE	1	1	Job Reference (optional)	

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ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-aYY8zVJIG7Vg6mZsyZdXELz?osviCAZXWtTqkBzoYCZ

-1-0-0 / 1-0-0 | 8-9-0 / 8-9-0 | 17-6-0 / 8-9-0 | 18-6-0 / 1-0-0

Scale: 3/8"=1'

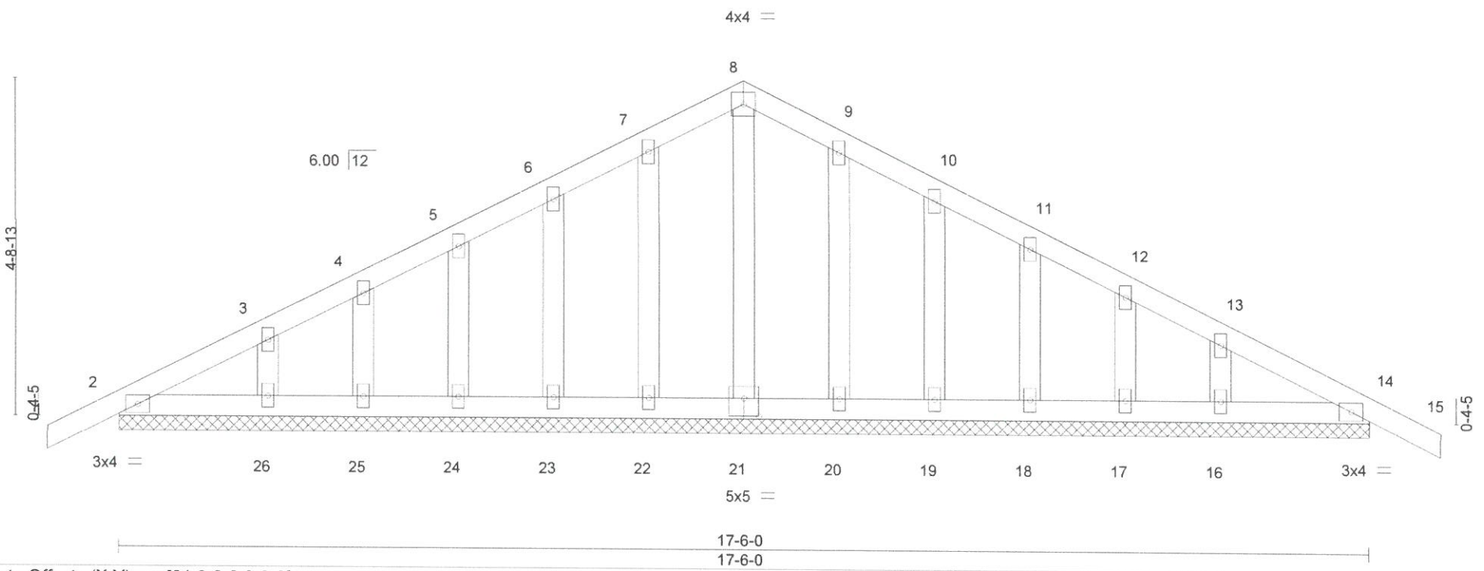

Plate Offsets (X,Y)— [21:0-2-8,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	15	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	-0.00	15	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-S							Weight: 98 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 17-6-0.
(lb) - Max Horz 2=-67(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 25, 26, 20, 19, 18, 14, 17, 16
Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24, 25, 26, 20, 19, 18, 14, 17, 16

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 23, 24, 25, 26, 20, 19, 18, 14, 17, 16.

February 4,2019

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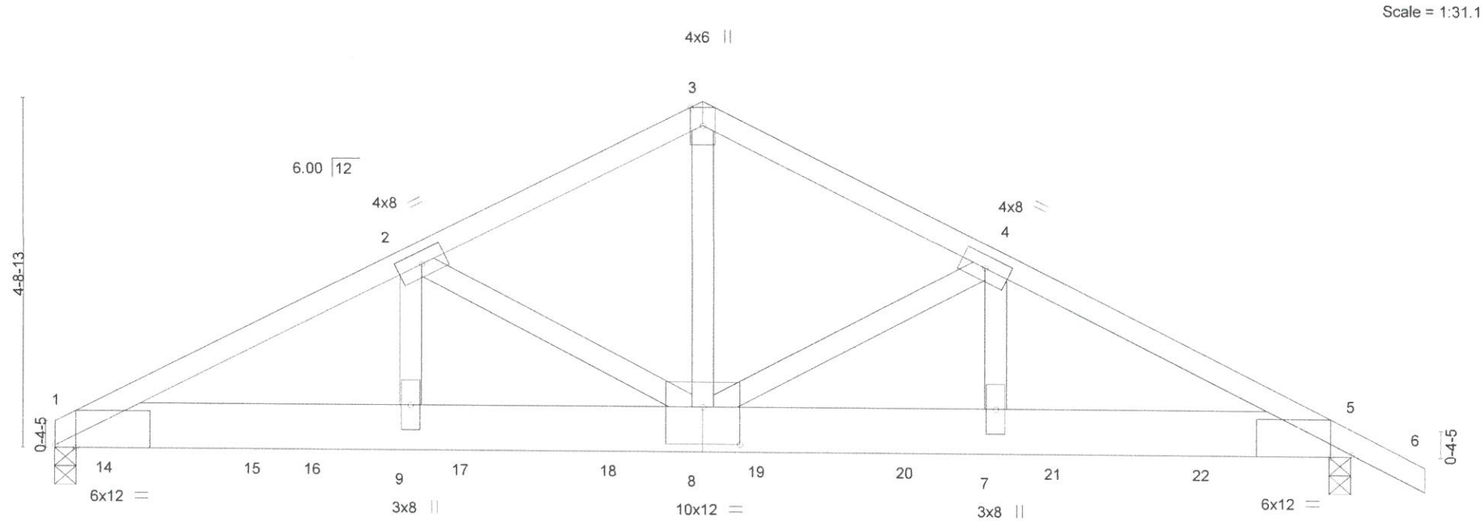
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	I36038751
19020247	CGR	Common Girder	1	2	Job Reference (optional)	

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:40 2019 Page 1
ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-WwguOBKZnlIOL4iE3_g?Jm38WfRsgtwqzAywo3zoYCX

4-9-10	8-9-0	12-8-6	17-6-0	18-6-0
4-9-10	3-11-6	3-11-6	4-9-10	1-0-0

Scale = 1:31.1



4-9-10	8-9-0	12-8-6	17-6-0
4-9-10	3-11-6	3-11-6	4-9-10

Plate Offsets (X,Y)— [1:0-3-6,Edge], [5:0-3-6,Edge], [8:0-6-0,0-6-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.13	8-9	>999	360	MT20	137/130
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(TL)	-0.33	8-9	>622	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.87	Horz(TL)	0.08	5	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-MSH							Weight: 236 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 1-1/2X7-1/4 LP-LSL TC 1.75E
WEBS 2x4 SP No.3 *Except*
3-8: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-4-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=7764/0-3-8, 5=6463/0-3-8
Max Horz 1=-74(LC 13)
Max Uplift 1=-776(LC 8), 5=-659(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-12355/1237, 2-3=-8285/843, 3-4=-8284/845, 4-5=-11599/1156
BOT CHORD 1-9=-1109/11029, 8-9=-1109/11029, 7-8=-969/10345, 5-7=-969/10345
WEBS 3-8=-686/7100, 4-8=-3441/411, 4-7=-261/2990, 2-8=-4233/494, 2-9=-336/3706

NOTES-
1) 2-ply truss to be connected together with 10d (0.148"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-6-0 oc.
Bottom chords connected as follows: 1-1/2x7-1/4 - 2 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; Lumber DOL=1.33 plate grip DOL=1.33
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=776, 5=659.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1422 lb down and 151 lb up at 0-9-0, 1420 lb down and 154 lb up at 2-9-0, 1420 lb down and 154 lb up at 3-6-12, 1420 lb down and 153 lb up at 5-6-12, 1420 lb down and 153 lb up at 7-6-12, 1420 lb down and 153 lb up at 9-6-12, 1420 lb down and 153 lb up at 11-6-12, and 1420 lb down and 153 lb up at 13-6-12, and 1420 lb down and 153 lb up at 15-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-6=-60, 1-5=-20

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 4,2019

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	CGR	Common Girder	1	2	I36038751
					Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 14=-1422(B) 15=-1420(B) 16=-1420(B) 17=-1420(B) 18=-1420(B) 19=-1420(B) 20=-1420(B) 21=-1420(B) 22=-1420(B)

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	D	Common Truss	1	1	I36038752
					Job Reference (optional)

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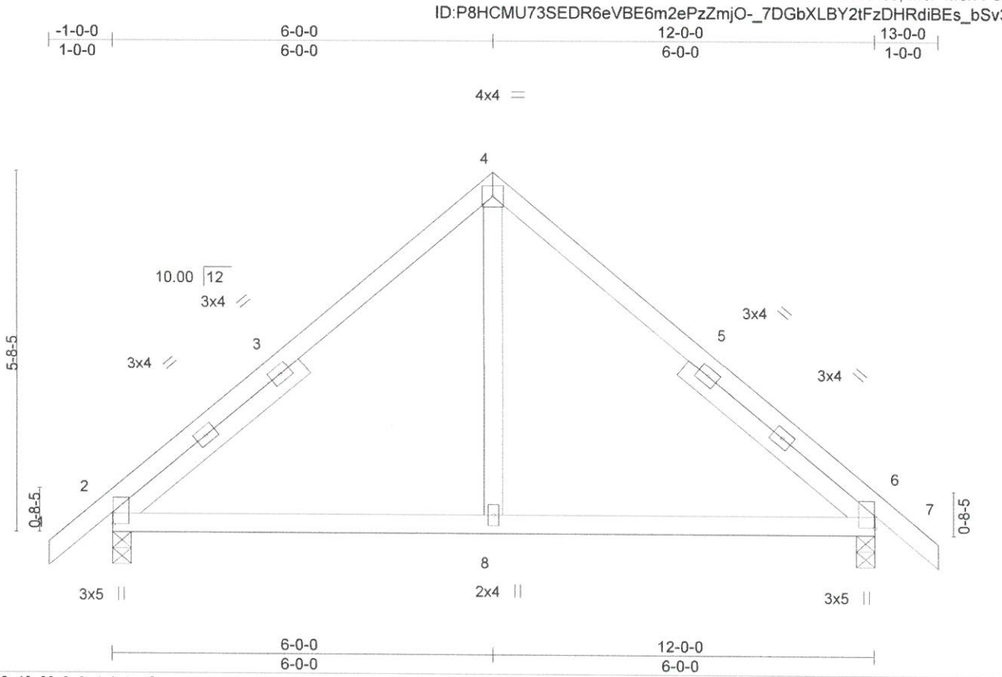

Plate Offsets (X,Y)— [2:0-2-0,0-0-1], [6:0-2-4,0-0-1]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	0.04	8-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(TL)	-0.07	8-15	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(TL)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-AS							Weight: 64 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 3-9-14, Right 2x4 SP No.3 3-9-14

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=540/0-3-8, 6=540/0-3-8
Max Horz 2=118(LC 9)
Max Uplift 2=-51(LC 10), 6=-51(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-402/100, 4-6=-402/100
BOT CHORD 2-8=0/320, 6-8=0/320
WEBS 4-8=0/261

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

February 4,2019

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	I36038753
19020247	DGE	GABLE	1	1	Job Reference (optional)	

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:42 2019 Page 1
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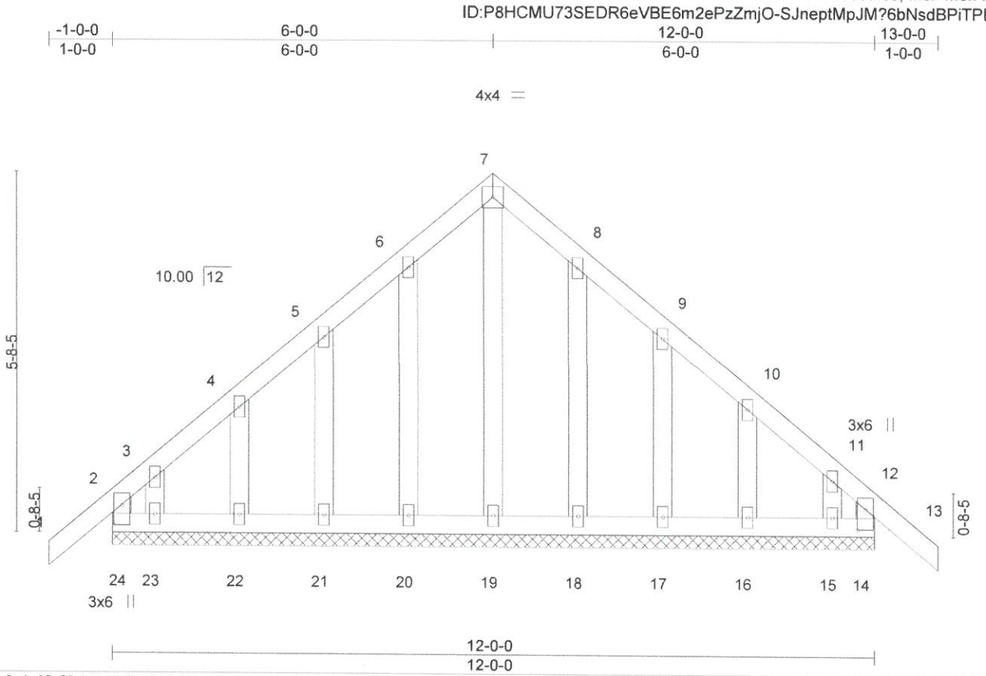

Plate Offsets (X,Y)-- [12:0-3-12,0-1-8], [24:0-3-12,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	13	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	-0.01	13	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(TL)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-R							Weight: 82 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 12-0-0.
(lb) - Max Horz 24=118(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15.

February 4,2019

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	
19020247	DGR	Common Girder	1	2	Job Reference (optional)	I36038754

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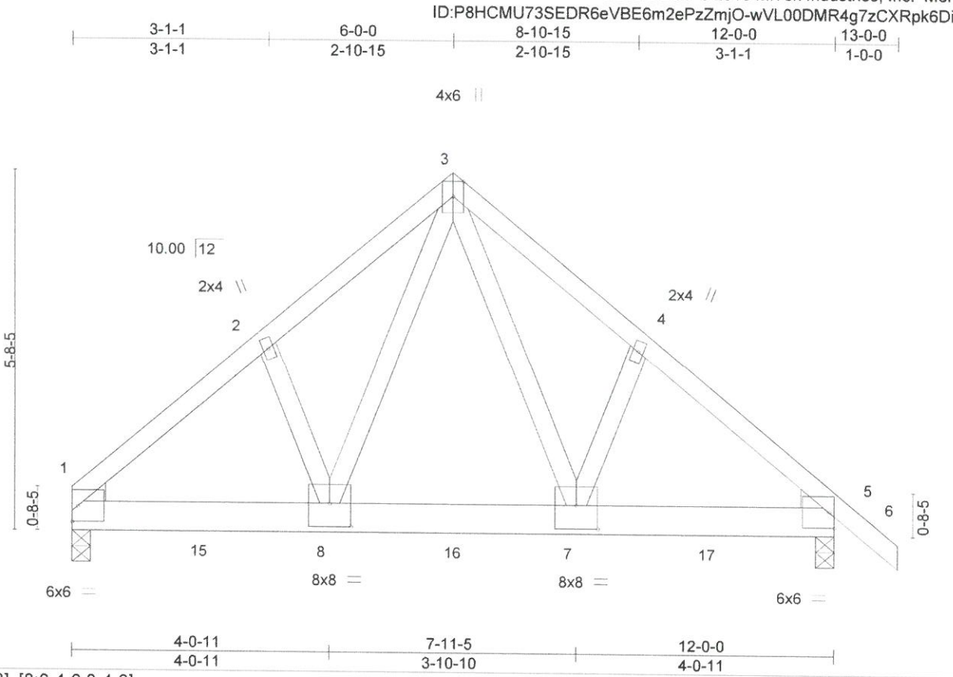

Plate Offsets (X,Y)— [7:0-4-0,0-4-8], [8:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.05	7-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(TL)	-0.11	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.64	Horz(TL)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2012/TPI2007	Matrix-MSH							Weight: 157 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=4005/0-3-8, 5=4115/0-3-8
Max Horz 1=-112(LC 4)
Max Uplift 1=-389(LC 8), 5=-412(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4819/486, 2-3=-4717/535, 3-4=-4710/531, 4-5=-4814/487
BOT CHORD 1-8=-377/3629, 7-8=-216/2550, 5-7=-329/3624
WEBS 3-7=-361/3062, 3-8=-365/3074

NOTES-
1) 2-ply truss to be connected together with 10d (0.148"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; Lumber DOL=1.33 plate grip DOL=1.33
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=389, 5=412.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1420 lb down and 153 lb up at 2-0-12, 1420 lb down and 153 lb up at 4-0-12, 1420 lb down and 153 lb up at 6-0-12, and 1420 lb down and 153 lb up at 8-0-12, and 1420 lb down and 153 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-6=-60, 9-12=-20

February 4,2019

Continued on page 2

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	DGR	Common Girder	1	2	I36038754
					Job Reference (optional)

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 7=-1420(F) 8=-1420(F) 15=-1420(F) 16=-1420(F) 17=-1420(F)

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	F	Roof Special	5	1	I36038755
					Job Reference (optional)

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:44 2019 Page 1
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-1-0-0	6-9-9	12-9-10	16-9-6	21-0-0	22-0-0
1-0-0	6-9-9	6-0-0	3-11-13	4-2-10	1-0-0

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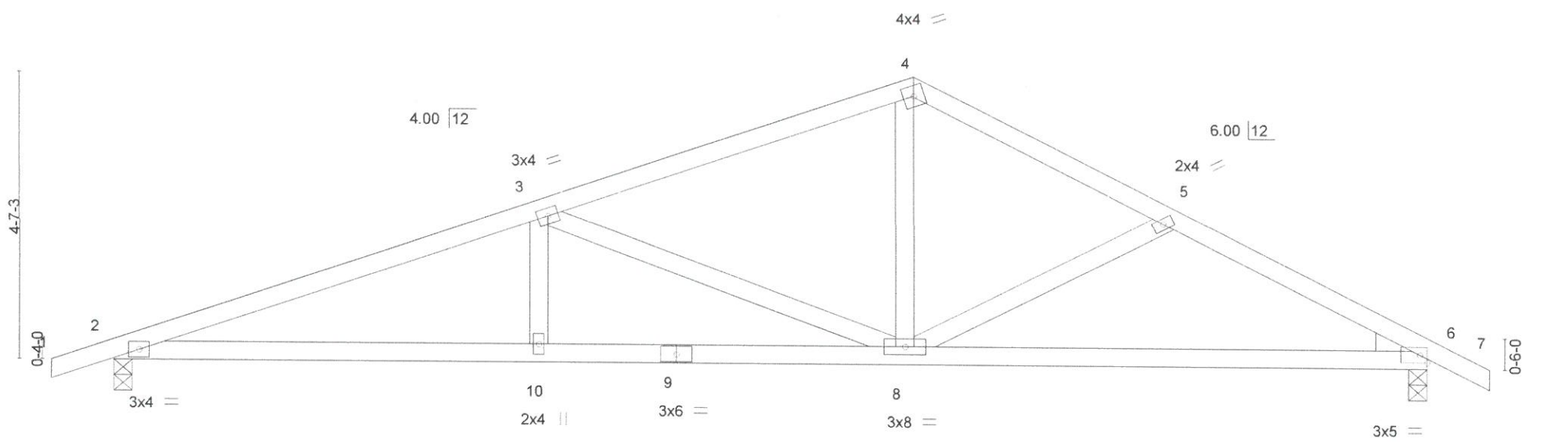


6-9-9	12-9-10	21-0-0
6-9-9	6-0-0	8-2-6

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.10	8-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(TL)	-0.27	8-16	>945	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.56	Horz(TL)	0.06	6	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-AS							Weight: 94 lb	FT = 20%

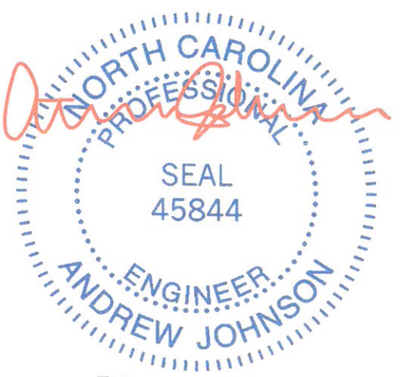
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (lb/size) 2=915/0-3-8, 6=885/0-3-8
Max Horz 2=-64(LC 15)
Max Uplift 2=-131(LC 6), 6=-80(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1811/346, 3-4=-1111/237, 4-5=-1145/241, 5-6=-1388/293
BOT CHORD 2-10=-254/1666, 8-10=-254/1666, 6-8=-182/1191
WEBS 3-8=-732/190, 4-8=-49/535, 5-8=-276/123

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=131.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 4,2019

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	FGE	Roof Special Supported Gable	1	1	I36038756
					Job Reference (optional)

The Building Center Inc., Gastonia, NC 28052 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:46 2019 Page 1
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-1-0-0 12-9-10 21-0-0 22-0-0
1-0-0 12-9-10 8-2-6 1-0-0

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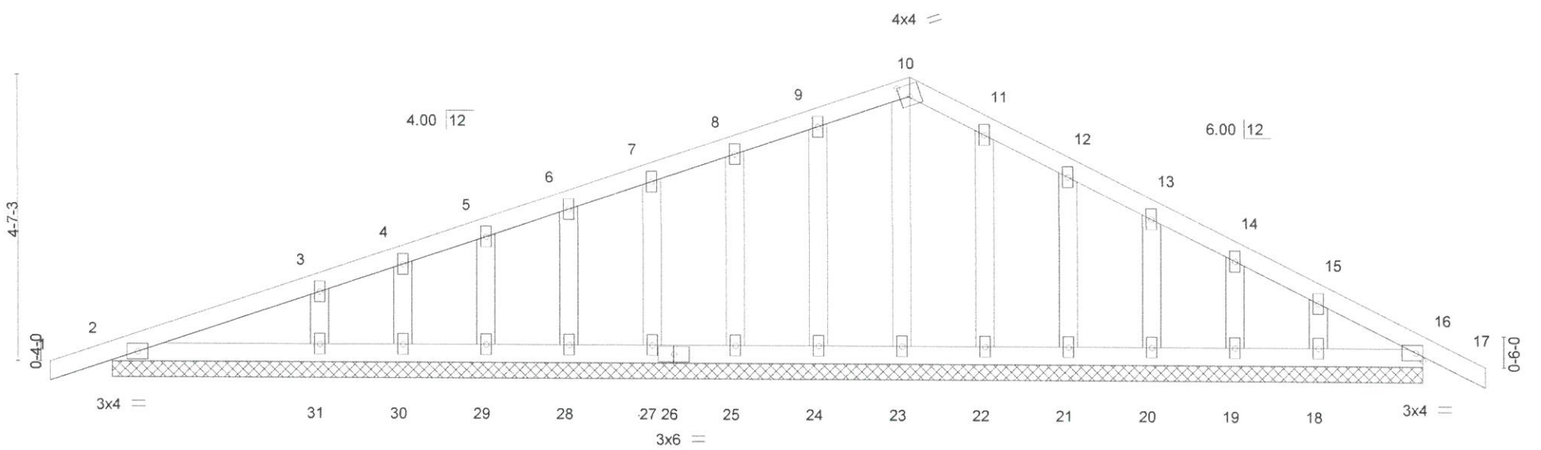


21-0-0
21-0-0

Plate Offsets (X,Y)— [10:0-1-15,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	17	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	-0.00	17	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(TL)	0.00	16	n/a	n/a		
BCDL	10.0	Code	IRC2012/TPI2007	Matrix-S							Weight: 113 lb	FT = 20%

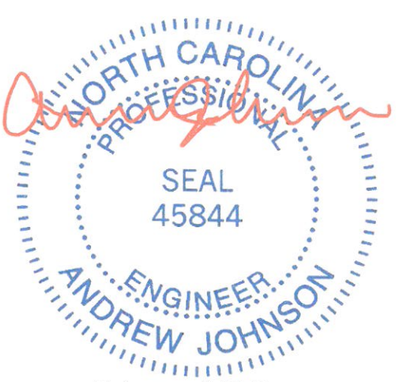
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 21-0-0.
(lb) - Max Horz 2=-63(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 24, 25, 27, 28, 29, 30, 31, 22, 21, 20, 19, 18, 16
Max Grav All reactions 250 lb or less at joint(s) 2, 23, 24, 25, 27, 28, 29, 30, 22, 21, 20, 19, 18, 16 except 31=255(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 24, 25, 27, 28, 29, 30, 31, 22, 21, 20, 19, 18, 16.



February 4,2019

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	
19020247	H	MONOPITCH	3	1	Job Reference (optional)	I36038757

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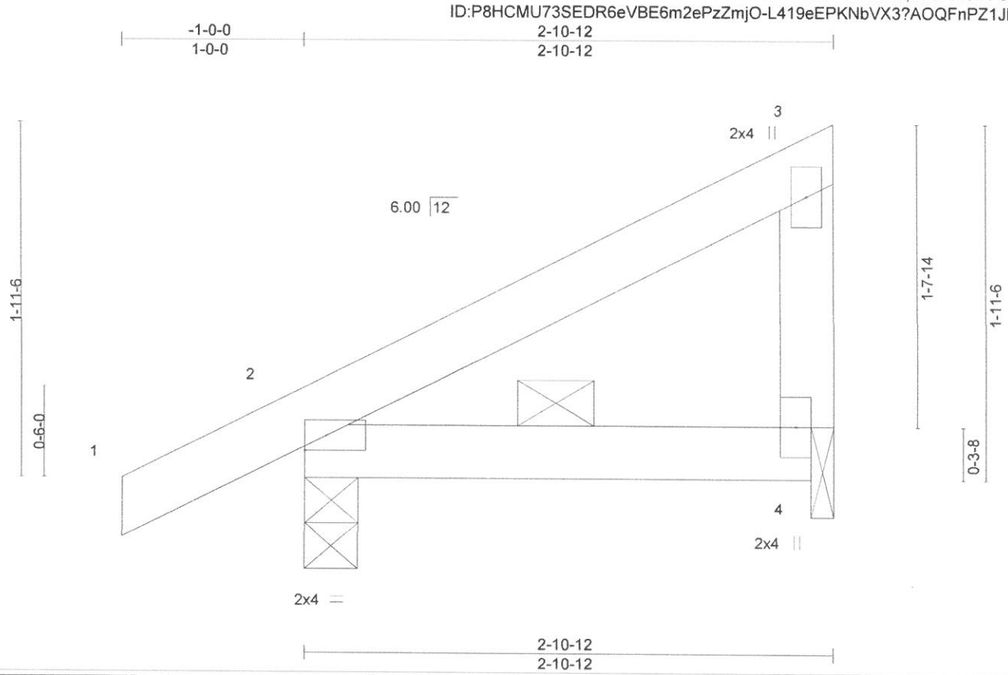

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	-0.01	4-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-MP							Weight: 13 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-10-12 oc purlins, except end verticals.
BOT CHORD	2-0-0 oc bracing.

REACTIONS. (lb/size) 2=181/0-3-8, 4=99/0-1-8
Max Horz 2=57(LC 10)
Max Uplift 2=-23(LC 10), 4=-26(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

February 4,2019

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	HGE	MONOPITCH SUPPORTED	1	1	I36038758
					Job Reference (optional)

The Building Center Inc., Gastonia, NC 28052 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:47 2019 Page 1
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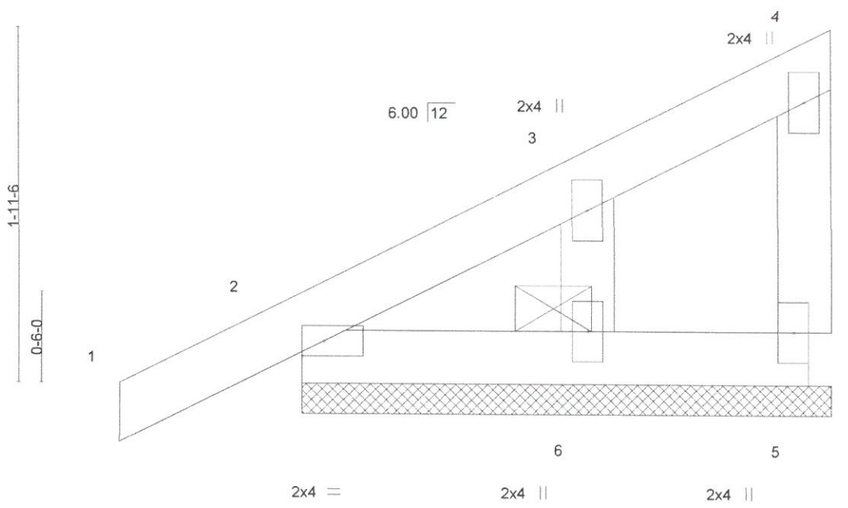
1-0-0 2-10-12

Scale = 1:12.6



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	-0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(TL)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-P							Weight: 14 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-10-12 oc purlins, except end verticals.
BOT CHORD 2-0-0 oc bracing.

REACTIONS. (lb/size) 5=38/2-10-12, 2=135/2-10-12, 6=107/2-10-12
Max Horz 2=58(LC 10)
Max Uplift 5=-10(LC 10), 2=-10(LC 10), 6=-30(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 1-4-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.

NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 4,2019

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	V1	Valley Truss	1	1	I36038759
					Job Reference (optional)

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:48 2019 Page 1
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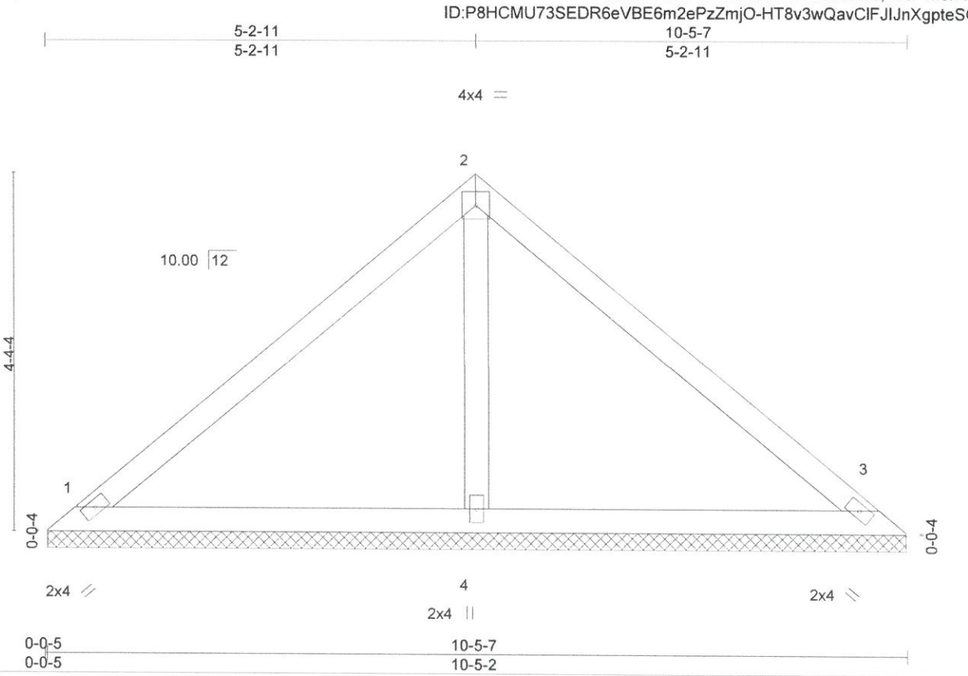


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-S							Weight: 40 lb	FT = 20%

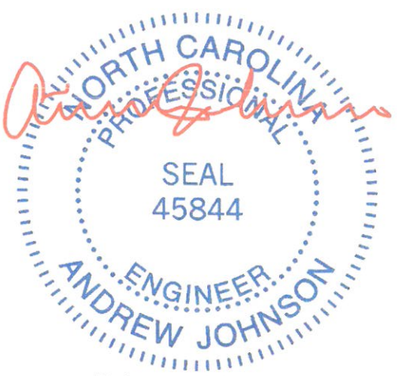
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=204/10-4-13, 3=204/10-4-13, 4=363/10-4-13
Max Horz 1=-81(LC 6)
Max Uplift 1=-26(LC 11), 3=-36(LC 11), 4=-4(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



February 4,2019

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	V2	Valley Truss	1	1	I36038760
					Job Reference (optional)

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:49 2019 Page 1
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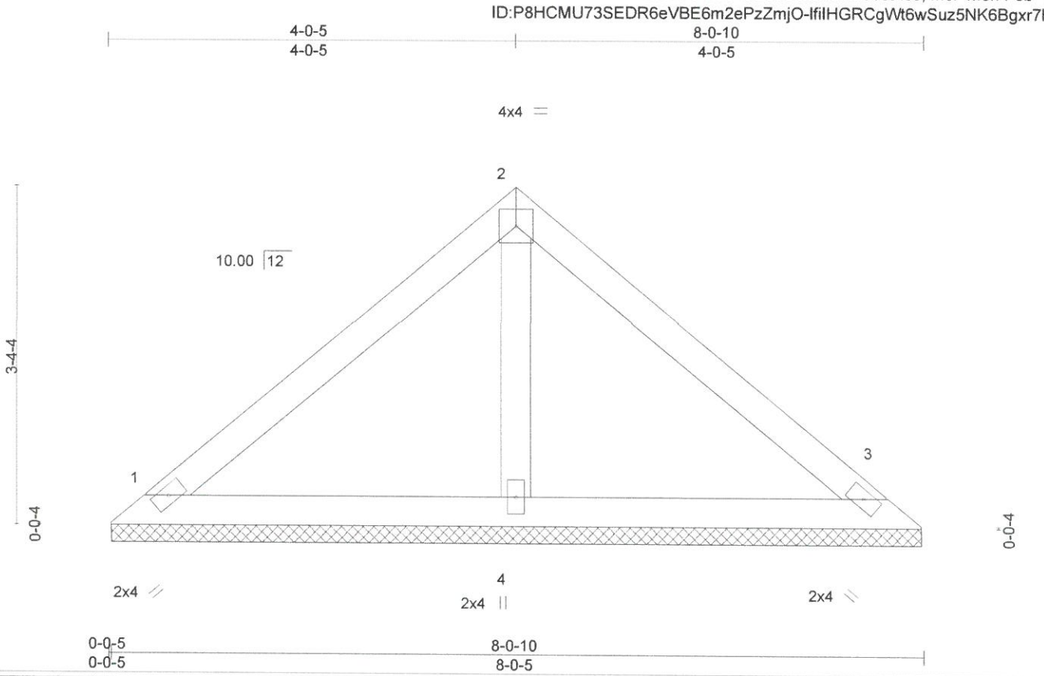


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-P							Weight: 30 lb	FT = 20%

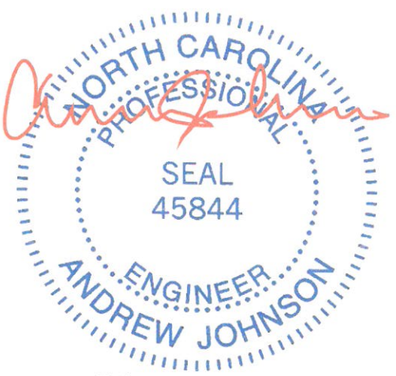
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=166/8-0-0, 3=166/8-0-0, 4=247/8-0-0
Max Horz 1=-61(LC 6)
Max Uplift 1=-28(LC 11), 3=-35(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



February 4,2019

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	
19020247	V3	GABLE	1	1		I36038761
					Job Reference (optional)	

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:49 2019 Page 1
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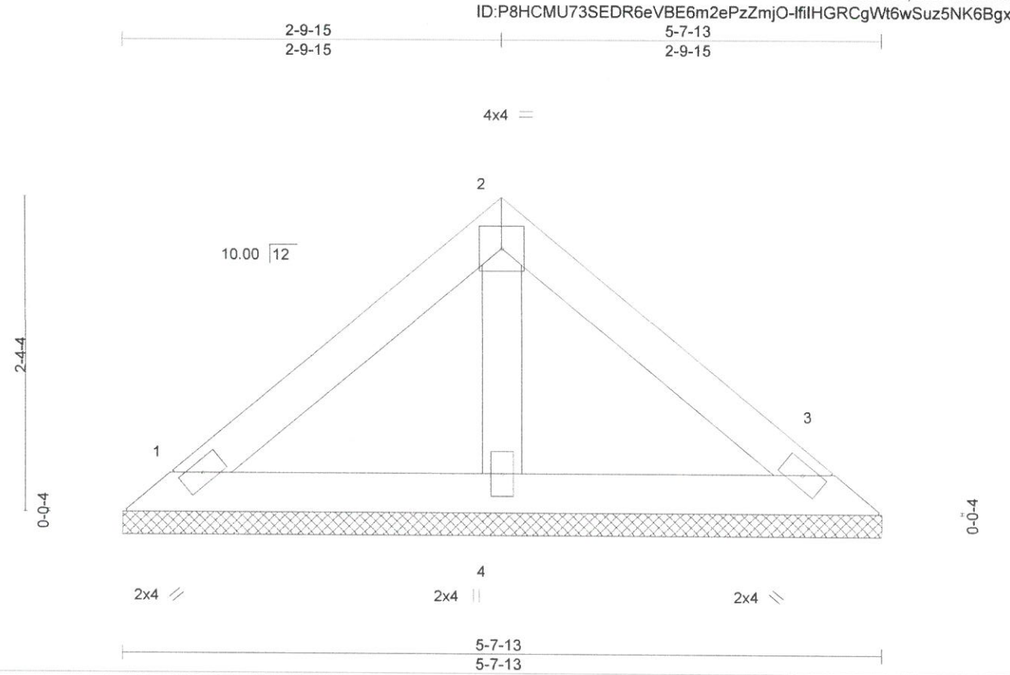


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-P							Weight: 20 lb	FT = 20%

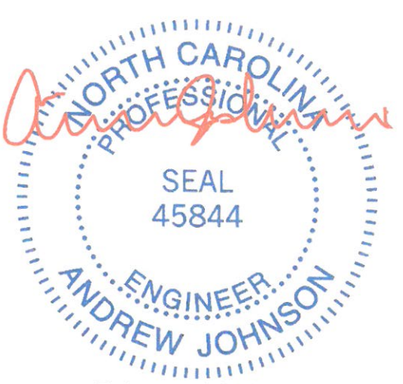
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=111/5-7-13, 3=111/5-7-13, 4=165/5-7-13
Max Horz 1=-41(LC 6)
Max Uplift 1=-19(LC 11), 3=-24(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	
19020247	V4	Valley Truss	1	1	Job Reference (optional)	I36038762

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:50 2019 Page 1
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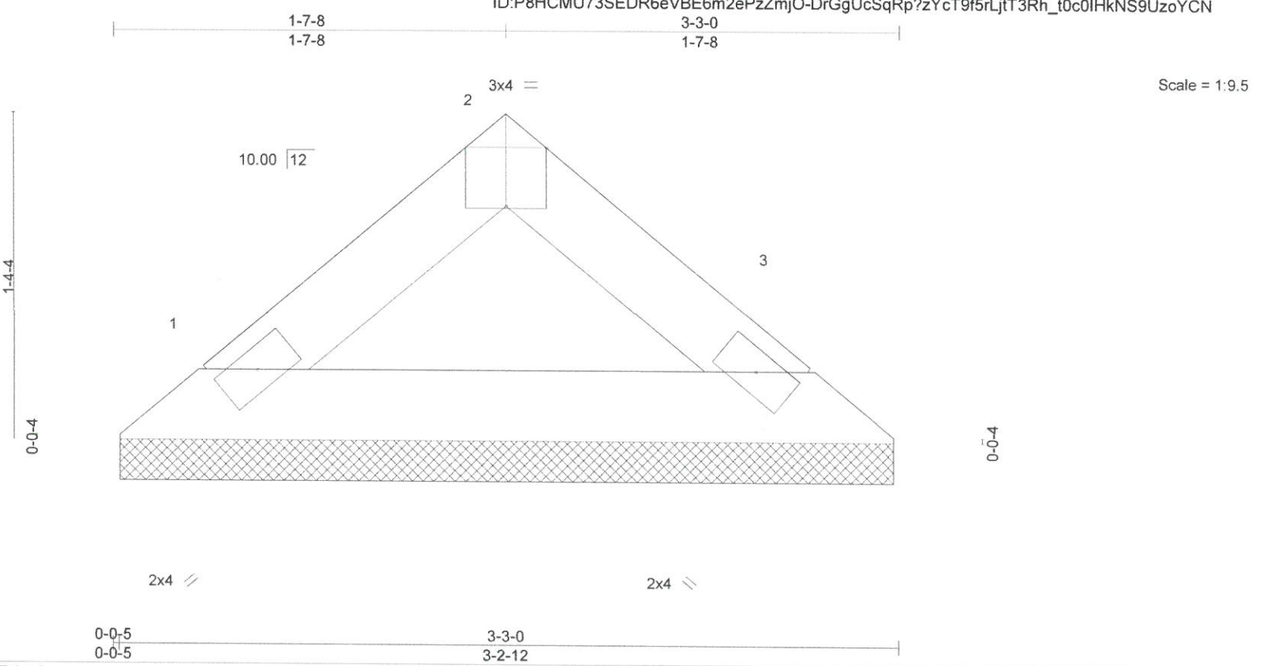


Scale = 1:9.5

Plate Offsets (X,Y)— [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-P							Weight: 10 lb	FT = 20%

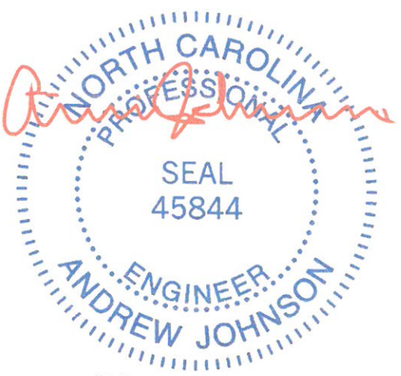
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-3-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=98/3-2-7, 3=98/3-2-7
Max Horz 1=21(LC 9)
Max Uplift 1=-7(LC 10), 3=-7(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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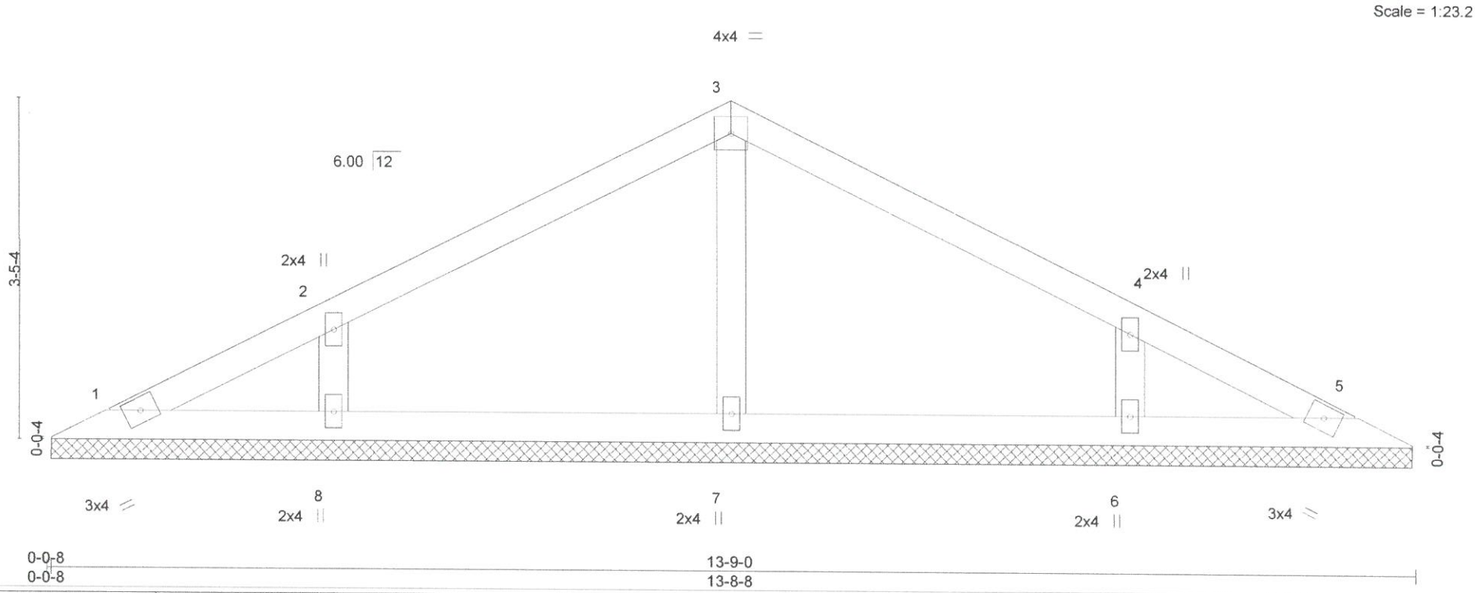
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	V5	Valley	1	1	I36038763
					Job Reference (optional)

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:51 2019 Page 1
ID:P8HCMU73SEDR6eVBE6m2ePzZmjO-h2q2hyTSC78qAm2MCoMaG50Cu5KJI3SSVO70hxzoYCM

6-10-8 / 6-10-8 — 13-9-0 / 6-10-8

Scale = 1:23.2



0-0-8 / 0-0-8 — 13-9-0 / 13-8-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-S							Weight: 48 lb	FT = 20%

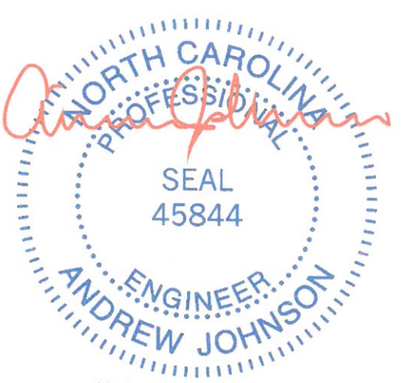
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 13-8-0.
(lb) - Max Horz 1=43(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=286(LC 1), 8=305(LC 21), 6=305(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 6.



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF
19020247	V6	Valley	1	1	I36038764
					Job Reference (optional)

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:52 2019 Page 1
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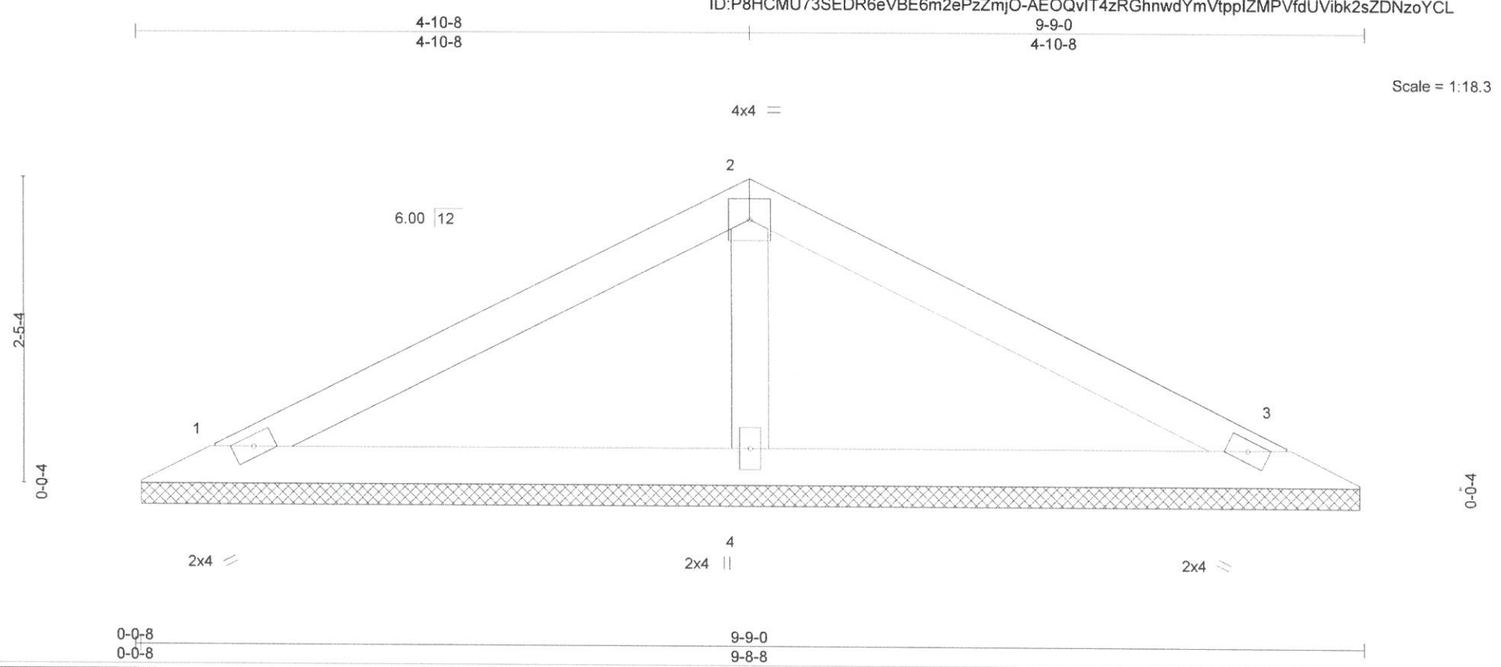

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2012/TPI2007		Matrix-S							Weight: 31 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=155/9-8-0, 3=155/9-8-0, 4=370/9-8-0
Max Horz 1=29(LC 10)
Max Uplift 1=-25(LC 10), 3=-30(LC 11), 4=-12(LC 10)
Max Grav 1=157(LC 21), 3=157(LC 22), 4=370(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

February 4,2019

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot-60-CLK/2016-Hudson-01/RF	
19020247	V7	Valley	1	1	Job Reference (optional)	I36038765

The Building Center Inc., Gastonia, NC 28052 — 8.240 s Dec 6 2018 MiTek Industries, Inc. Mon Feb 4 10:35:52 2019 Page 1
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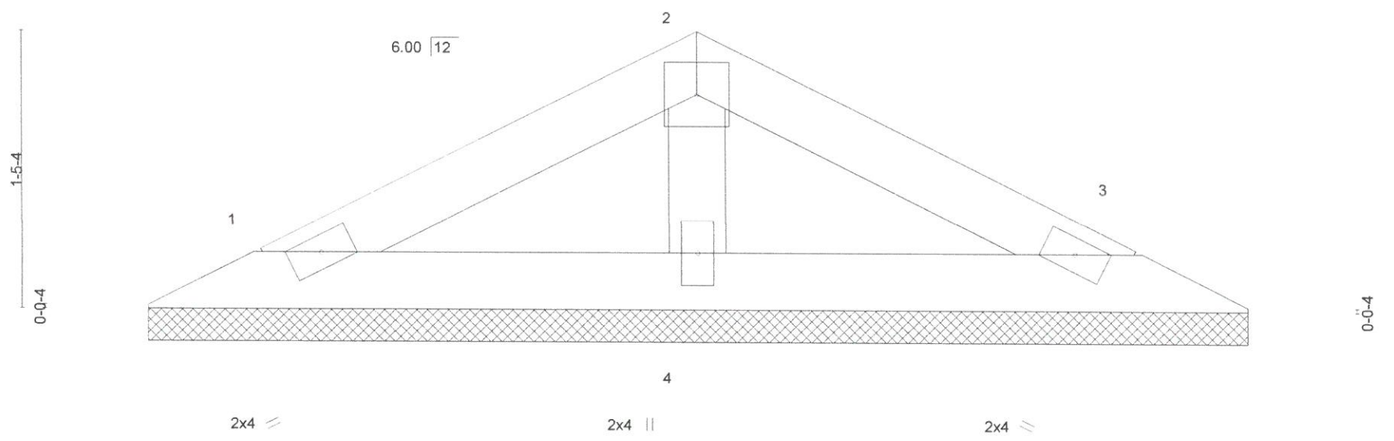
2-10-8 / 2-10-8 — 5-9-0 / 2-10-8

Scale: 1"=1'



5-8-8 / 5-8-8 — 5-9-0 / 0-0-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2012/TPI2007	Matrix-P							Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=91/5-8-0, 3=91/5-8-0, 4=177/5-8-0
Max Horz 1=-15(LC 15)
Max Uplift 1=-17(LC 10), 3=-20(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

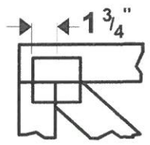
NORTH CAROLINA PROFESSIONAL SEAL 45844 ENGINEER ANDREW JOHNSON

February 4,2019

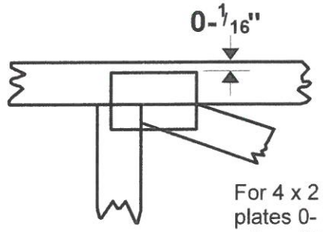
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

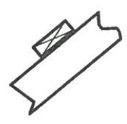
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

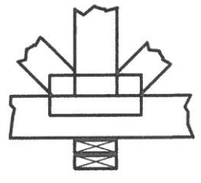
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

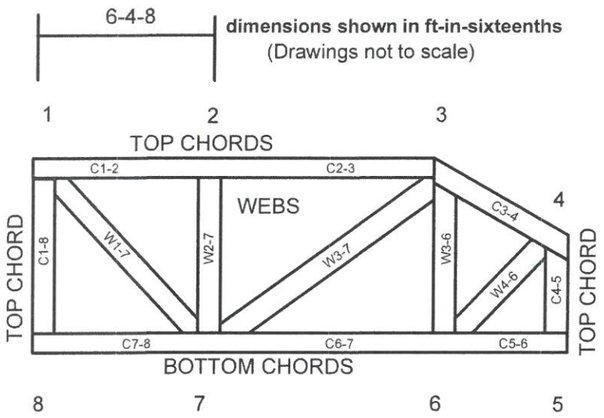


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.