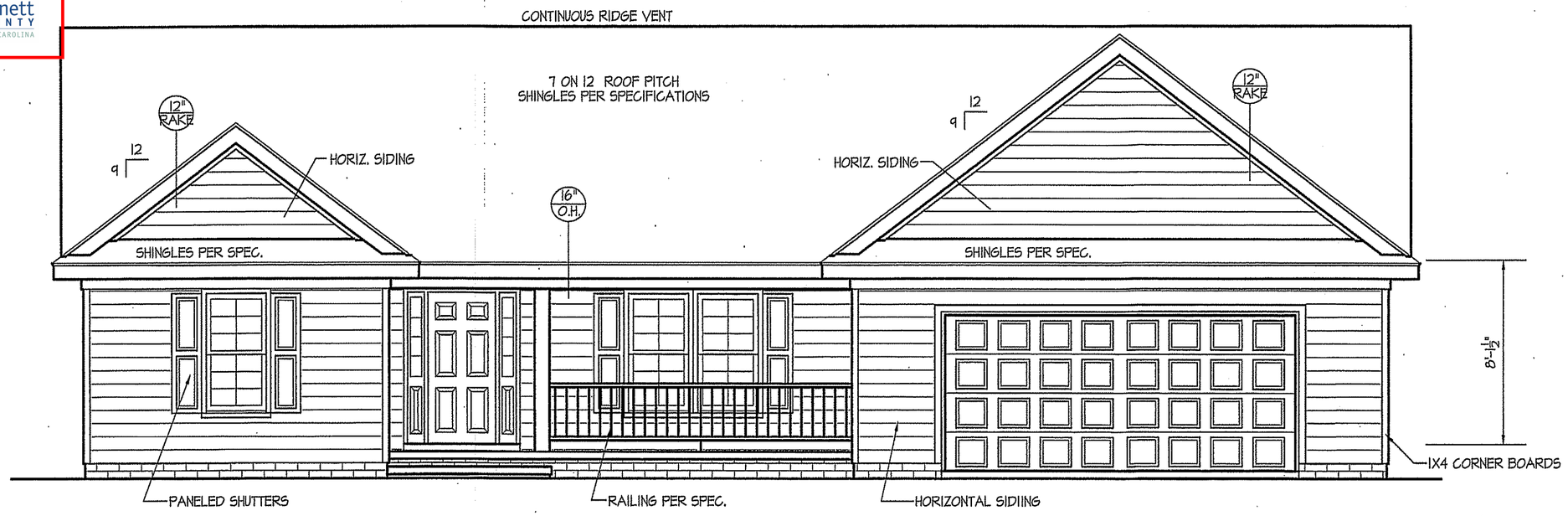
NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED
Limited building only review
Permit holder responsible for full compliance with the code

05/11/2021

Harnett COUNTY NORTH CAROLINA

THIS PLAN IS DESIGNED TO MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION

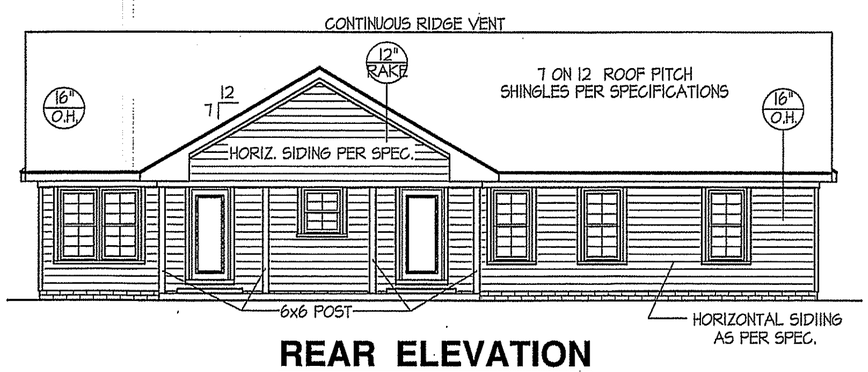


FRONT ELEVATION
SCALE: 1/4" = 1'-0"

WIND ZONES (PER TABLE R301.2(4)	
COUNTY	MPH
HARNETT	120
JOHNSTON	120
SAMPSON	130
WAKE	115

ROOF VENTILATION REQ'MTS.
2741 ATTIC SQ. FT. / 300 = 9.14

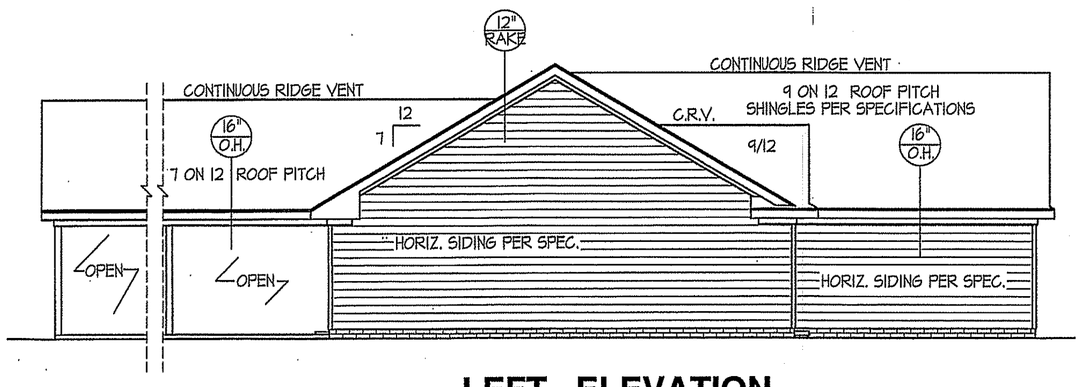
PROVIDED ON PLAN
129 L.F. RIDGE VENT = 24.19
165 L.F. SOFFIT VENT = 10.31
TOTAL = 34.50 S.F. FREE NET AREA



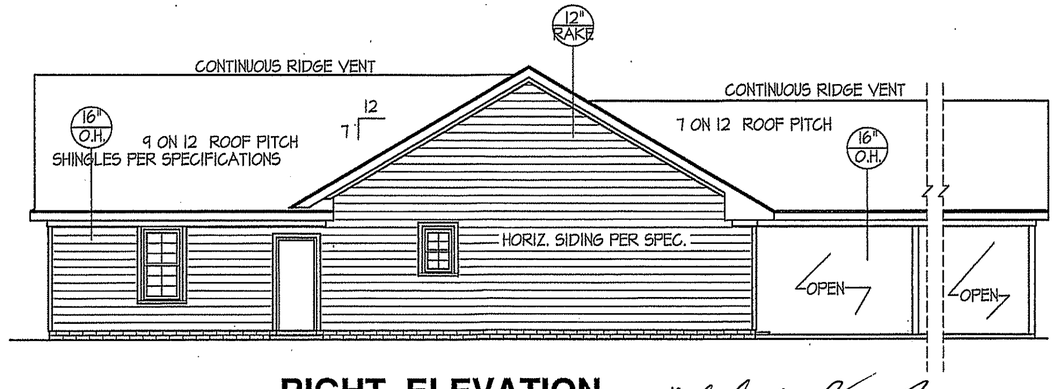
REAR ELEVATION
SCALE: 1/8" = 1'-0"

INSULATION and FENESTRATION REQUIREMENTS		
CLIMATE ZONE	ZONE-3	ZONE-4
FENESTRATION U-FACTOR	0.35	0.35
GLAZED FENESTRATION SHGC	0.30	0.30
MINIMUM CEILING R-VALUE	R-38	R-38
MINIMUM WALL R-VALUE	R-15, 13+2.5	R-15, 13+2.5
MINIMUM FLOOR R-VALUE	R-19	R-19
MIN. CRAWL SPACE WALL R-VALUE	5/13	10/15
MIN. SLAB R-VALUE	0	R-10
PROVIDE STEPS AS REQUIRED GRADE MAY VARY - BUILDER TO VERIFY		

ALL EXTERIOR WALLS TO BE SHEATHED WITH CS-WSP (7/16" OSB) IN ACCORDANCE WITH SECTION R602.10.3 UNLESS OTHERWISE NOTED.



LEFT ELEVATION
SCALE: 1/8" = 1'-0"



RIGHT ELEVATION
SCALE: 1/8" = 1'-0"

DATE:
JAN. 25, 2021

FREEDOM FAMILY HOMES
P.O. BOX 608
DUNN, N.C. – 28335
O: (910) 892-1231 FAX: (910) 892-5680

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EXCLUSIVE PLAN FOR FREEDOM FAMILY HOMES

PLAN: BENSON~STRICKLAND

SHEET NO. 1

COMPUTER FILE: BENSON-STRICKLAND - DEC. 2020

WIND ZONES (PER TABLE R301.2(4)	
COUNTY	MPH
HARNETT	120
JOHNSTON	120
SAMPSON	130
WAKE	115

DATE:
JAN. 25, 2021

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EXCLUSIVE PLAN FOR FREEDOM FAMILY HOMES

PLAN: **BENSON~STRICKLAND**

SHEET NO. **2**

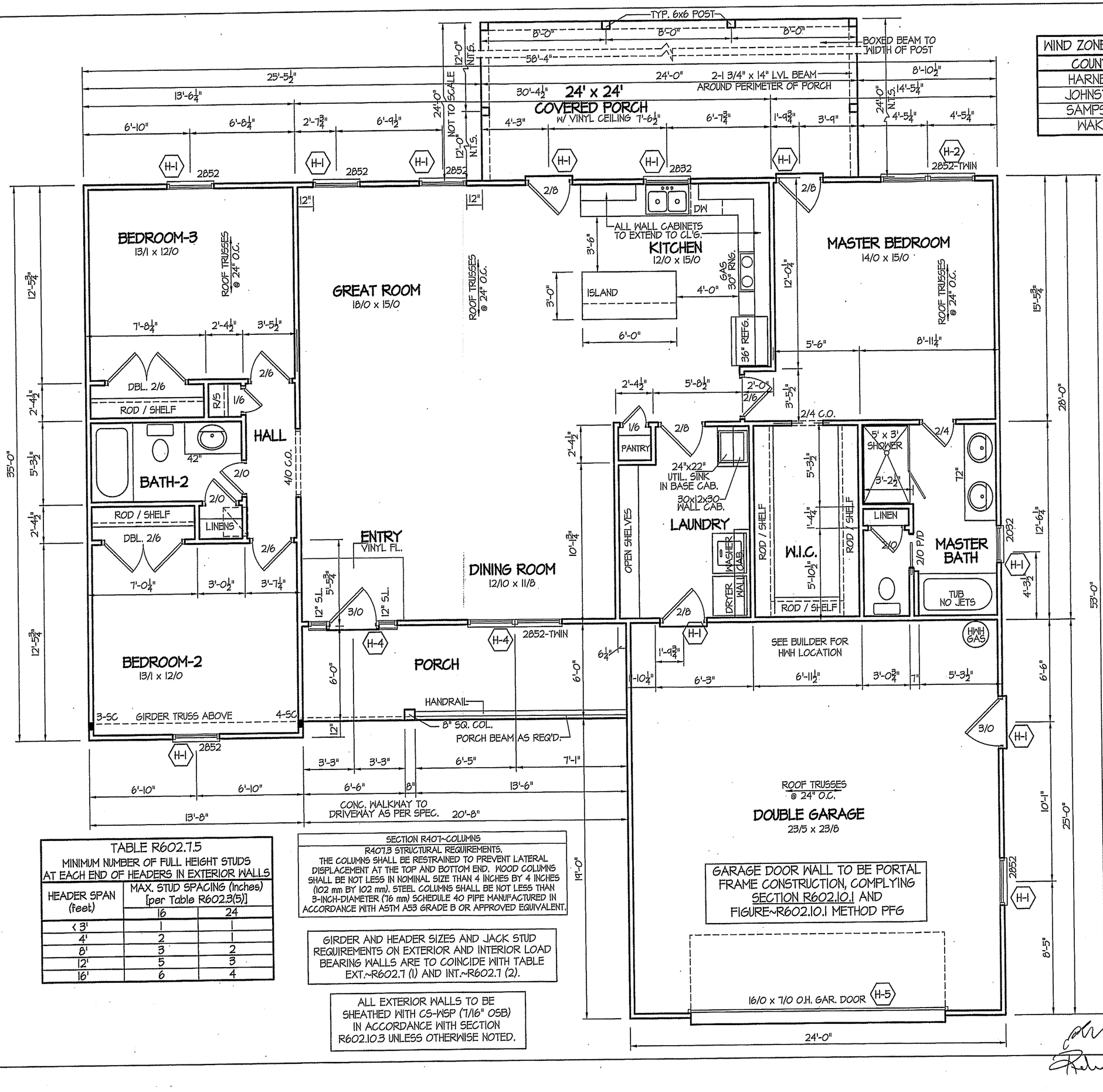


TABLE R602.7.5 MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS		
HEADER SPAN (feet)	MAX. STUD SPACING (Inches) [per Table R602.3(5)]	
	16	24
< 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4

SECTION R407~COLUMNS

R407.3 STRUCTURAL REQUIREMENTS. THE COLUMNS SHALL BE RESTRAINED TO PREVENT LATERAL DISPLACEMENT AT THE TOP AND BOTTOM END. WOOD COLUMNS SHALL BE NOT LESS IN NOMINAL SIZE THAN 4 INCHES BY 4 INCHES (102 mm BY 102 mm). STEEL COLUMNS SHALL BE NOT LESS THAN 3-INCH-DIAMETER (76 mm) SCHEDULE 40 PIPE MANUFACTURED IN ACCORDANCE WITH ASTM A53 GRADE B OR APPROVED EQUIVALENT.

GIRDER AND HEADER SIZES AND JACK STUD REQUIREMENTS ON EXTERIOR AND INTERIOR LOAD BEARING WALLS ARE TO COINCIDE WITH TABLE EXT.~R602.7 (1) AND INT.~R602.7 (2).

ALL EXTERIOR WALLS TO BE SHEATHED WITH CS-WSP (7/16" OSB) IN ACCORDANCE WITH SECTION R602.10.3 UNLESS OTHERWISE NOTED.

GARAGE DOOR WALL TO BE PORTAL FRAME CONSTRUCTION, COMPLYING SECTION R602.10.1 AND FIGURE~R602.10.1 METHOD PFG

ALL INTERIOR AND EXTERIOR LOAD BEARING HEADERS WILL BE 2x10 #2 SPF UNLESS OTHERWISE NOTED.

HEADER SCHEDULE		
JACKS	SIZE	SYMBOL #
1	(2) 2x10	H-1
2	(2) 2x10	H-2
2	(2) 2x8	H-3
2	(2)1 3/4" x 9 1/4" LVL	H-4
3	(2)1 3/4" x 11 7/8" LVL	H-5

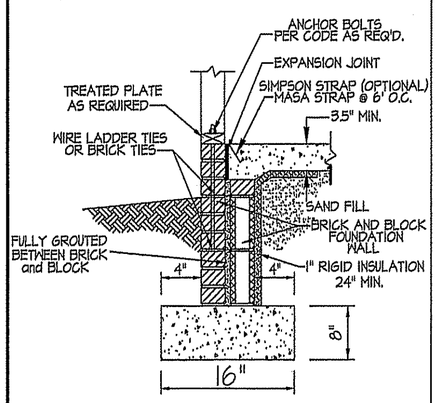
8' CEILINGS

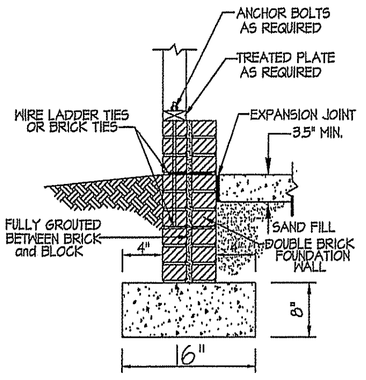
FLOOR PLAN

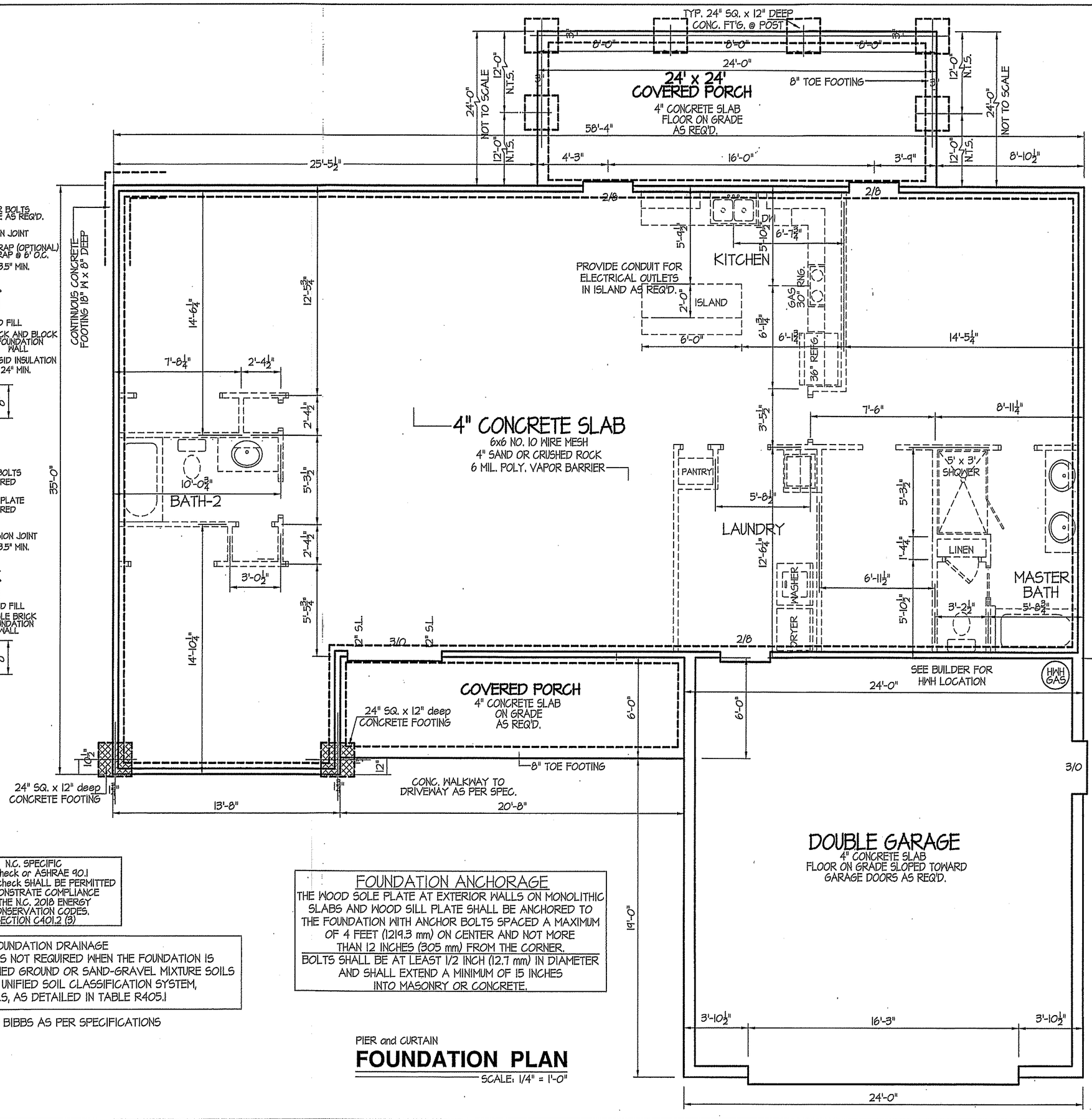
SCALE: 1/4" = 1'-0"

1729 SQUARE FEET - HEATED (FRAME)
600 SQUARE FEET - GARAGE (FRAME)
124 SQUARE FEET - FRONT PORCH
576 SQUARE FEET - COVERED PORCH

COMPUTER FILE: BENSON-STRICKLAND - DEC. 2020







N.C. SPECIFIC
COMcheck or ASHRAE 90.1
2013 COMcheck SHALL BE PERMITTED TO DEMONSTRATE COMPLIANCE WITH THE N.C. 2018 ENERGY CONSERVATION CODES.
(SECTION C401.2 (3))

FOUNDATION DRAINAGE
A DRAINAGE SYSTEM IS NOT REQUIRED WHEN THE FOUNDATION IS INSTALLED ON WELL-DRAINED GROUND OR SAND-GRAVEL MIXTURE SOILS ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM, GROUP I SOILS, AS DETAILED IN TABLE R405.1

PROVIDE HOSE BIBBS AS PER SPECIFICATIONS

FOUNDATION ANCHORAGE
THE WOOD SOLE PLATE AT EXTERIOR WALLS ON MONOLITHIC SLABS AND WOOD SILL PLATE SHALL BE ANCHORED TO THE FOUNDATION WITH ANCHOR BOLTS SPACED A MAXIMUM OF 4 FEET (1219.3 mm) ON CENTER AND NOT MORE THAN 12 INCHES (305 mm) FROM THE CORNER.
BOLTS SHALL BE AT LEAST 1/2 INCH (12.7 mm) IN DIAMETER AND SHALL EXTEND A MINIMUM OF 15 INCHES INTO MASONRY OR CONCRETE.

PIER and CURTAIN

FOUNDATION PLAN

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

DATE:
JAN. 25, 2021

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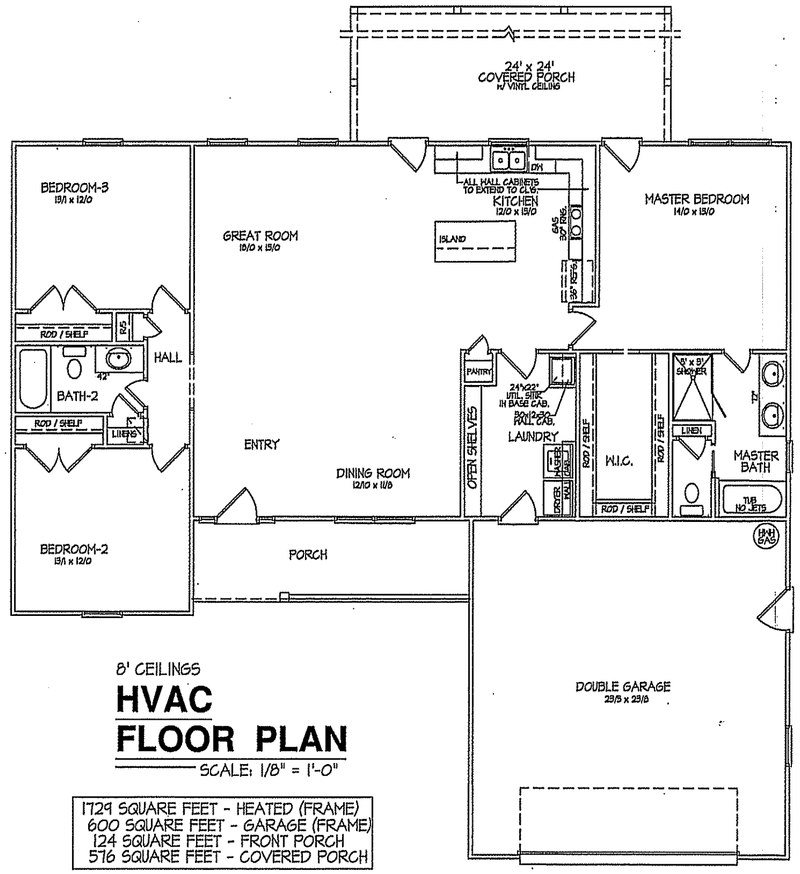
EXCLUSIVE PLAN FOR FREEDOM FAMILY HOMES

PLAN: BENSON~STRICKLAND

SHEET NO.
3S

COMPUTER FILE: BENSON-STRICKLAND - DEC. 2020



8' CEILINGS

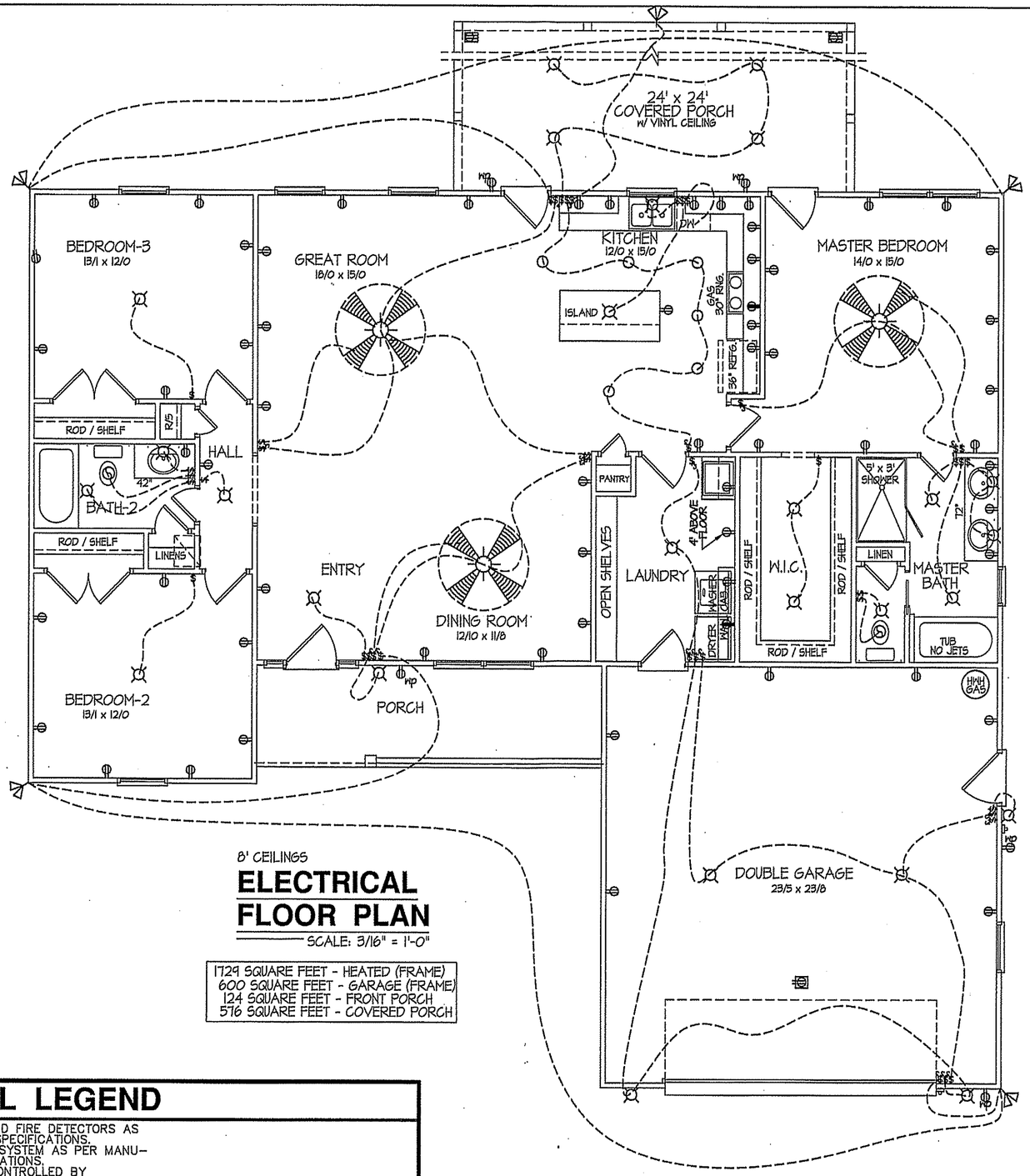
HVAC FLOOR PLAN

SCALE: 1/8" = 1'-0"

1729 SQUARE FEET - HEATED (FRAME)
600 SQUARE FEET - GARAGE (FRAME)
124 SQUARE FEET - FRONT PORCH
576 SQUARE FEET - COVERED PORCH

TOTAL HEAT GAIN = 27,837 B.T.U.H.
TOTAL HEAT LOSS = 44,003 B.T.U.H.

NOTE:
HVAC CONTRACTOR TO VERIFY and PROVIDE OWNERS and BUILDER UNIT INFORMATION, BTUH REQUIREMENTS, and DUCT LAYOUTS BEFORE CONSTRUCTION BEGINS.



8' CEILINGS

ELECTRICAL FLOOR PLAN

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

1729 SQUARE FEET - HEATED (FRAME)
600 SQUARE FEET - GARAGE (FRAME)
124 SQUARE FEET - FRONT PORCH
576 SQUARE FEET - COVERED PORCH

ELECTRICAL LEGEND

PROVIDE BURGLAR/SMOKE AND FIRE DETECTORS AS PER MANUFACTURER'S SPECIFICATIONS.
PROVIDE CENTRAL VACCUUM SYSTEM AS PER MANUFACTURER'S SPECIFICATIONS.
ALL FANS ARE TO BE CONTROLLED BY VAR/SPEED AND DIRECTIONAL SWITCHES

SURF. MOUNTED LIGHT	TYPICAL WALL RECEP.	TYPICAL SWITCH
RECESSED LIGHT	TOP 1/2 HOT W/SWITCH	3-WAY SWITCH
EYEBALL LIGHT	CEILING RECEPTACLE	4-WAY SWITCH
FAN/LIGHT COMB.	FLOOR RECEPTACLE	KEYLESS ENTRY PN.
FLUORESCENT TUBE	WATERPROOF RECEP.	ELEC. PANEL BOX
FLUOR. LIGHT FIXTURE	GROUND FAULT	T.V. CABLE RECEP.
EXHAUST FAN	DISPOSAL UNIT	TELEPHONE JACK
CL'G. FAN	220 VOLT RECEPTACLE	COMPUTER JACK
FLOOD LIGHT		

DATE:
JAN. 25, 2021

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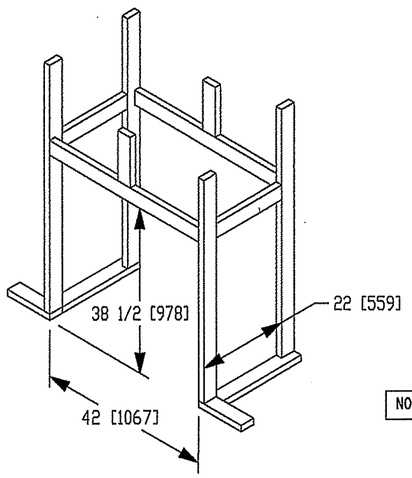
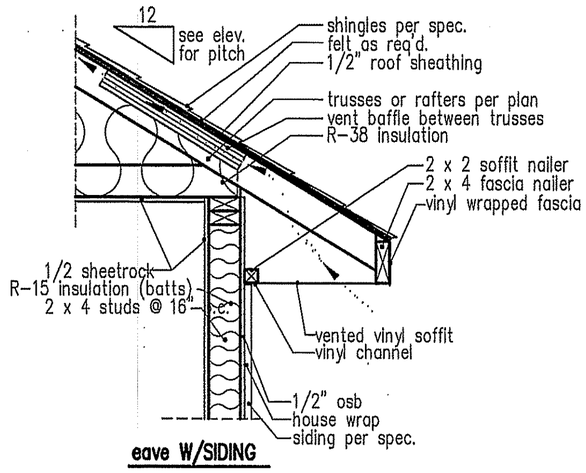
EXCLUSIVE PLAN FOR FREEDOM FAMILY HOMES

PLAN: BENSON-STRICKLAND

SHEET NO. 4

COMPUTER FILE: BENSON-STRICKLAND - DEC. 2020





eave W/SIDING

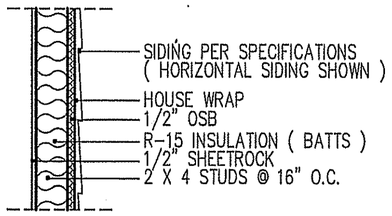
NOTE: OVERHANG DISTANCE NOTED ON ELEVATION SHEET IS ALWAYS MEASURED FROM FRAME LINE

standard eave details

DIMENSIONS IN [ ] ARE MM

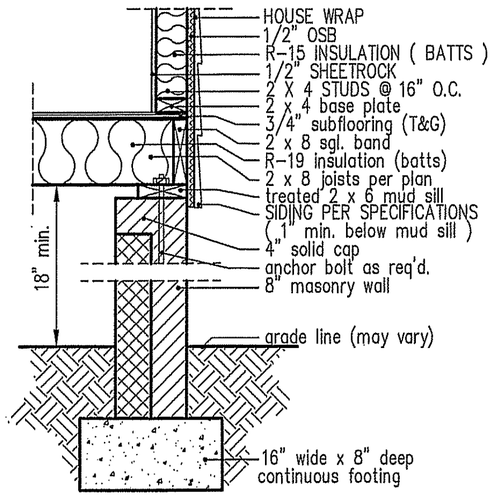
SPECIFICATIONS										
Model 6000-TR	Height		Front Width		Back Width		Depth		Glass Size	BTU Input
	Actual	Framing	Actual	Framing	Actual	Framing	Actual	Framing		
Inches	38	38-1/2	41	42	28-1/2	42	21-1/2	22		

Reference dimensions only. We recommend measuring individual units at installation.

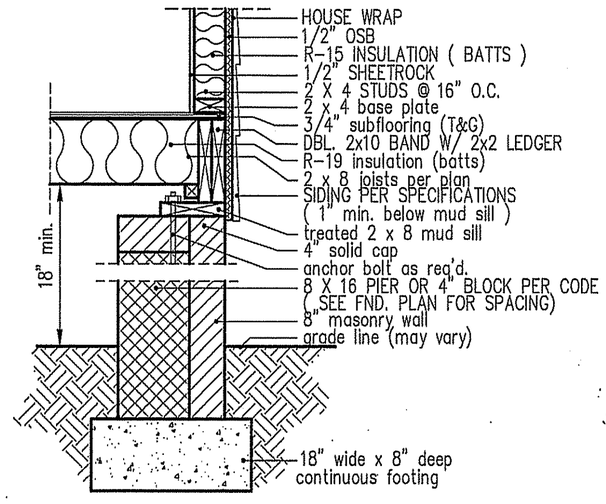


WALL W/siding

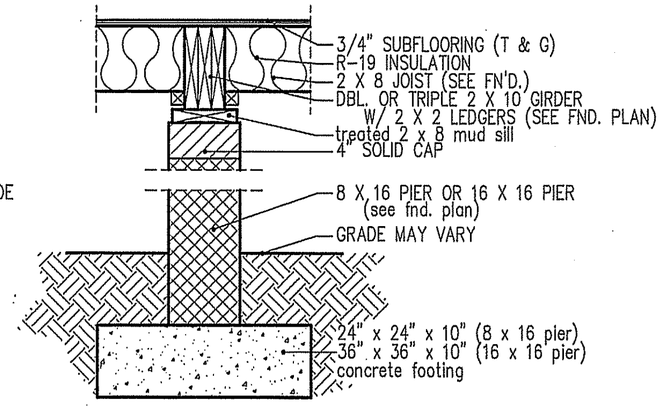
intermediate wall details



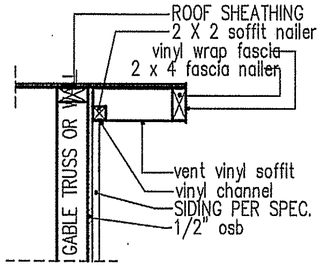
8" BOX SILL FOUNDATION WALL



PIER and CURTAIN FOUNDATION WALL



PIER and GIRDER DETAIL



RAKE w/SIDING

NOTE: OVERHANG DISTANCE NOTED ON ELEVATION SHEET IS ALWAYS MEASURED FROM FRAME LINE

TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (feet)	MAX. STUD SPACING (Inches) [per Table R602.3(5)]	
	16	24
< 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4

GIRDER AND HEADER SIZES AND JACK STUD REQUIREMENTS ON EXTERIOR AND INTERIOR LOAD BEARING WALLS ARE TO COINCIDE WITH TABLE EXT.~R602.7 (1) AND INT.~R602.7 (2).

DATE:
JAN. 25, 2021

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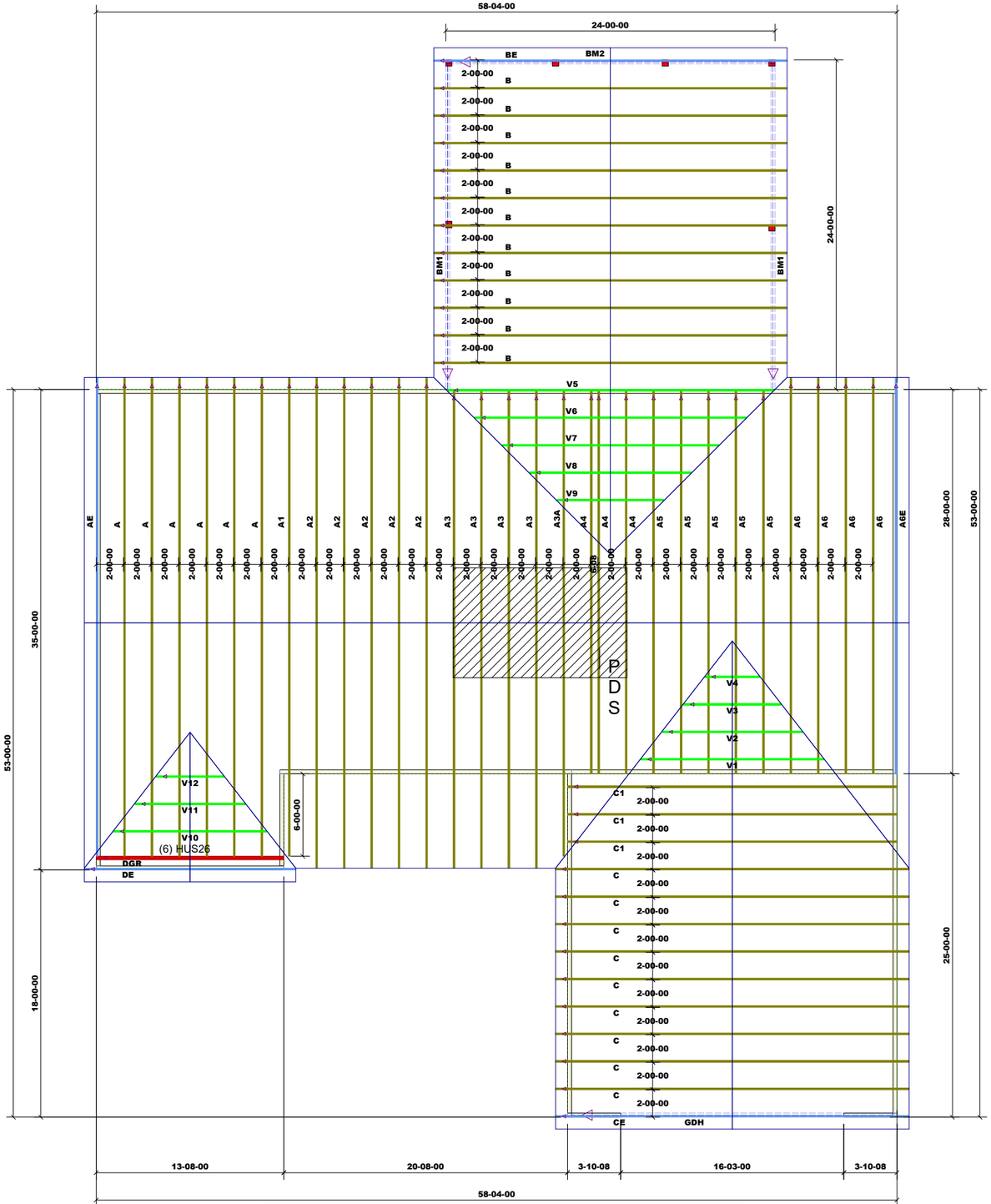
FFH

PLAN: EXCLUSIVE PLAN FOR FREEDOM FAMILY HOMES
BENSON~STRICKLAND

SHEET NO.
5

COMPUTER FILE: BENSON-STRICKLAND - DEC. 2020

THIS LAYOUT IS INTENDED FOR THE PURPOSE OF TRUSS LOCATION AND PLACEMENT ONLY. REFER TO THE BUILDING PLANS FOR ACTUAL BUILDING CONSTRUCTION.



Roof Area: 3859.74

Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
GDH	24-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
BM1	24-00-00	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	2	4	MFD
BM2	24-00-00	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	2	2	MFD

1st Level Roof Area	2nd Level Roof Area
0	0

84 LUMBER COMPONENTS

DEDICATED TO QUALITY AND EXCELLENCE
200 EMMETT ROAD
DUNN, NORTH CAROLINA 28334
PHONE: 910-892-8400

PROJECT: Freedom Benson Strickland
CUSTOMER: FREEDOM CONSTRUCTION
MODEL: Benson
SCALE: N.T.S
DRAWN BY: Rodney Evans
PRINT DATE: 4/26/2021
QUOTE #: 2100485

TOP LIVE LOAD: 20.0 lb/ft²

TOP DEAD LOAD: 10.0 lb/ft²

BOTTOM DEAD LOAD: 10.0 lb/ft²

WIND SPEED: 130 mph

GENERAL NOTES:

- DO NOT CUT OR MODIFY TRUSSES
- TRUSSES ARE SPACED 24" ON CENTER UNLESS OTHERWISE NOTED
- REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR THE LOCATION OF LATERAL BRACING AND MULTI-PLY CONNECTION REQUIREMENTS.
- PER ANSI TPI 1-2002 THE TRUSS ENGINEER IS RESPONSIBILE FOR TRUSS TO TRUSS CONNECTIONS AND TRUSS PLY TO PLY CONNECTIONS. THIS TRUSS PLACEMENT PLAN RECOMMENDS TRUSS TO BEARING CONNECTIONS AND TRUSS TO BEAM CONNECTIONS WHICH SHALL BE REVIEWED BY THE BUILDING DESIGNER. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO RESOLVE ALL ROOF FORCES ADEQUATELY TO THE FOUNDATION.

Double 1-3/4" x 14" VERSA-LAM® 2.0 3100 SP

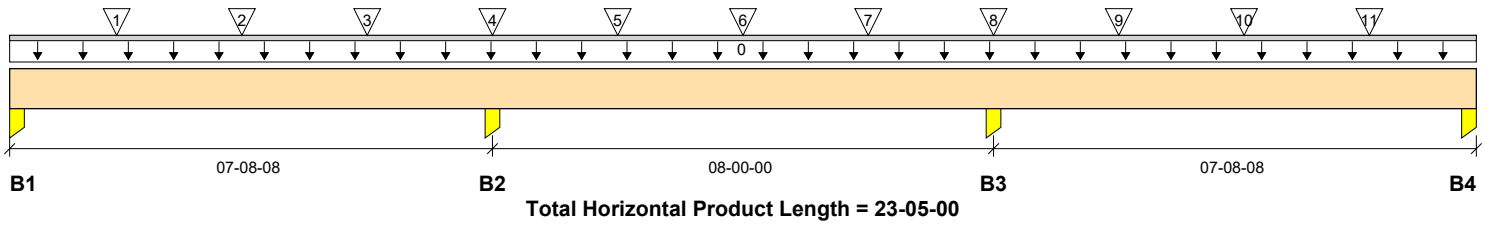
PASSED

Roof\Dropped Beams\BM2(i21) (Dropped Beam)

BC CALC® Member Report | Dry | 3 spans | No cant. | April 26, 2021 15:10:40

Build 7968

Job name:		File name:	2100485A.mmdl
Address:		Description:	Roof\Dropped Beams\BM2(i21)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	



Total Horizontal Product Length = 23-05-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"		143 / 0		51 / 117	131 / 17
B2, 5-1/2"		459 / 0		168 / 411	405 / 0
B3, 5-1/2"		459 / 0		168 / 411	405 / 0
B4, 2"		143 / 0		51 / 117	131 / 17

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	23-05-00	Top		14				00-00-00
1	BE(c1)	Conc. Pt. (lbs)	L	01-08-08	01-08-08	Top		85			96	n\a
2	BE(c1)	Conc. Pt. (lbs)	L	03-08-08	03-08-08	Top		77			91	n\a
3	BE(c1)	Conc. Pt. (lbs)	L	05-08-08	05-08-08	Top		79			89	n\a
4	BE(c1)	Conc. Pt. (lbs)	L	07-08-08	07-08-08	Top		79			88	n\a
5	BE(c1)	Conc. Pt. (lbs)	L	09-08-08	09-08-08	Top		79			87	n\a
6	BE(c1)	Conc. Pt. (lbs)	L	11-08-08	11-08-08	Top		73			75	n\a
7	BE(c1)	Conc. Pt. (lbs)	L	13-08-08	13-08-08	Top		79			87	n\a
8	BE(c1)	Conc. Pt. (lbs)	L	15-08-08	15-08-08	Top		79			88	n\a
9	BE(c1)	Conc. Pt. (lbs)	L	17-08-08	17-08-08	Top		79			89	n\a
10	BE(c1)	Conc. Pt. (lbs)	L	19-08-08	19-08-08	Top		77			91	n\a
11	BE(c1)	Conc. Pt. (lbs)	L	21-08-08	21-08-08	Top		85			96	n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	528 ft-lbs	6.9%	125%	2	03-08-08
Neg. Moment	-557 ft-lbs	6.2%	125%	1	07-08-08
End Shear	255 lbs	2.2%	125%	2	01-04-00
Cont. Shear	355 lbs	3.0%	125%	4	06-03-12
Total Load Deflection	L/999 (0.003")	n\a	n\a	2	03-07-00
Live Load Deflection	L/999 (0.002")	n\a	n\a	259	03-08-08
Total Neg. Defl.	L/999 (-0.001")	n\a	n\a	2	11-08-08
Max Defl.	0.003"	n\a	n\a	2	03-07-00
Span / Depth	6.9				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Column	2" x 3-1/2"	274 lbs	5.4%	5.2%	Unspecified
B2	Column	5-1/2" x 3-1/2"	864 lbs	6.2%	6.0%	Unspecified
B3	Column	5-1/2" x 3-1/2"	864 lbs	6.2%	6.0%	Unspecified
B4	Column	2" x 3-1/2"	274 lbs	5.4%	5.2%	Unspecified

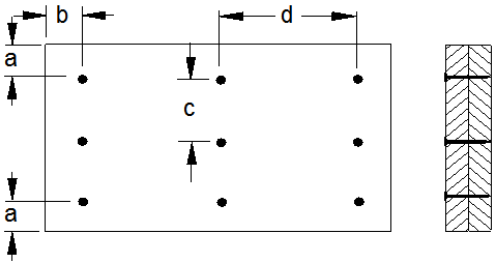
Build 7968

Job name:		File name:	2100485A.mmdl
Address:		Description:	Roof\Dropped Beams\BM2(i21)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Design meets arbitrary (0.75") Maximum live load deflection criteria.
BC CALC® analysis is based on IBC 2012.
Wind loads determined from building geometry were used in selected product's verification.
Design based on Dry Service Condition.
Calculations assume unbraced length of Top: 23-05-00, Bottom: 23-05-00.

Connection Diagram: Full Length of Member



a minimum = 2" c = 5"
b minimum = 3" d = 24"

Calculated Side Load = 0.0 lb/ft
Connectors are: 3-1/4 in. Pneumatic Gun Nails

Disclosure

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BC CALC®, BC FRAMER® , AJS™, ALLJOIST® , BC RIM BOARD™, BCI® , BOISE GLULAM™, BC FloorValue® , VERSA-LAM®, VERSA-RIM PLUS® ,

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

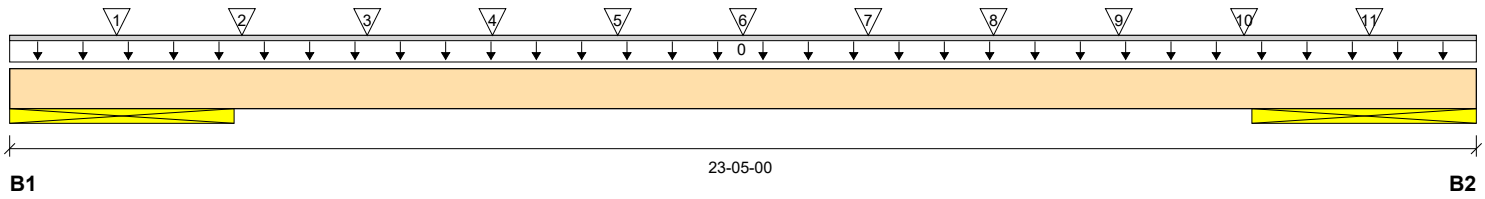
PASSED

Roof\Dropped Beams\GDH(i12) (Dropped Beam)

BC CALC® Member Report | Dry | 1 span | No cant. | April 26, 2021 15:10:40

Build 7968

Job name:		File name:	2100485A.mmdl
Address:		Description:	Roof\Dropped Beams\GDH(i12)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	



Total Horizontal Product Length = 23-05-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 43"		571 / 0		183 / 454	476 / 0
B2, 43"		571 / 0		183 / 454	476 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	23-05-00	Top		12				00-00-00
1	CE(c1)	Conc. Pt. (lbs)	L	01-08-08	01-08-08	Top		83			94	n\a
2	CE(c1)	Conc. Pt. (lbs)	L	03-08-08	03-08-08	Top		78			90	n\a
3	CE(c1)	Conc. Pt. (lbs)	L	05-08-08	05-08-08	Top		79			88	n\a
4	CE(c1)	Conc. Pt. (lbs)	L	07-08-08	07-08-08	Top		79			87	n\a
5	CE(c1)	Conc. Pt. (lbs)	L	09-08-08	09-08-08	Top		78			86	n\a
6	CE(c1)	Conc. Pt. (lbs)	L	11-08-08	11-08-08	Top		67			62	n\a
7	CE(c1)	Conc. Pt. (lbs)	L	13-08-08	13-08-08	Top		78			86	n\a
8	CE(c1)	Conc. Pt. (lbs)	L	15-08-08	15-08-08	Top		79			87	n\a
9	CE(c1)	Conc. Pt. (lbs)	L	17-08-08	17-08-08	Top		79			88	n\a
10	CE(c1)	Conc. Pt. (lbs)	L	19-08-08	19-08-08	Top		78			90	n\a
11	CE(c1)	Conc. Pt. (lbs)	L	21-08-08	21-08-08	Top		83			94	n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	3007 ft-lbs	49.9%	125%	1	11-08-08
End Shear	647 lbs	6.6%	125%	1	04-06-14
Total Load Deflection	L/1325 (0.148")	18.1%	n\a	1	11-08-08
Live Load Deflection	L/999 (0.066")	n\a	n\a	110	11-08-08
Max Defl.	0.148"	14.8%	n\a	1	11-08-08
Span / Depth	16.5				
Conc. Load (B1)	177 lbs	1.9%	100%		
Conc. Load (B2)	177 lbs	1.9%	100%		

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate	43" x 3-1/2"	1047 lbs	1.6%	0.9%	Spruce-Pine-Fir
B2	Wall/Plate	43" x 3-1/2"	1047 lbs	1.6%	0.9%	Spruce-Pine-Fir

BC CALC® Member Report | Dry | 1 span | No cant. | April 26, 2021 15:10:40

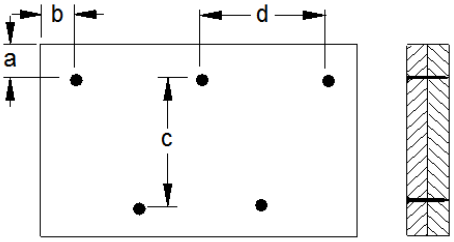
Build 7968

Job name:		File name:	2100485A.mmdl
Address:		Description:	Roof\Dropped Beams\GDH(i12)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Design meets arbitrary (0.75") Maximum live load deflection criteria.
BC CALC® analysis is based on IBC 2012.
Wind loads determined from building geometry were used in selected product's verification.
Design based on Dry Service Condition.
Calculations assume unbraced length of Top: 23-05-00, Bottom: 23-05-00.

Connection Diagram: Full Length of Member



a minimum = 2" c = 7-7/8"
b minimum = 3" d = 24"

Calculated Side Load = 0.0 lb/ft
Connectors are: 3-1/4 in. Pneumatic Gun Nails

Disclosure

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Double 1-3/4" x 14" VERSA-LAM® 2.0 3100 SP

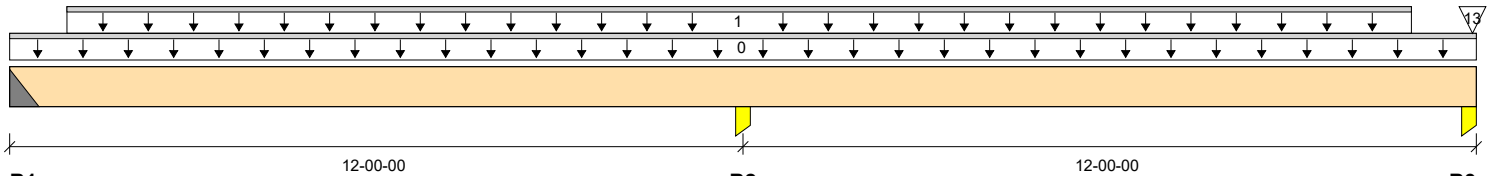
PASSED

Roof\Flush Beams\BM1(i20) (Flush Beam)

BC CALC® Member Report | Dry | 2 spans | No cant. | April 26, 2021 15:10:40

Build 7968

Job name:		File name:	2100485A.mmdl
Address:		Description:	Roof\Flush Beams\BM1(i20)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	



Total Horizontal Product Length = 24-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"		980 / 0		392 / 725	1136 / 177
B2, 5-1/2"		3838 / 0		1548 / 2799	3792 / 0
B3, 5-1/2"		1028 / 0		426 / 818	1224 / 194

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	24-00-00	Top		14				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-04	22-11-04	Top		248			259	n\a
13	BE(c1)	Conc. Pt. (lbs)	L	23-11-04	23-11-04	Top					83	n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	5962 ft-lbs	16.8%	125%	2	05-05-04
Neg. Moment	-6679 ft-lbs	80.1%	125%	2	12-00-00
End Shear	2097 lbs	18.0%	125%	2	01-04-00
Cont. Shear	3291 lbs	28.3%	125%	1	13-04-12
Total Load Deflection	L/999 (0.081")	n\a	n\a	2	05-05-04
Live Load Deflection	L/999 (0.05")	n\a	n\a	165	05-08-04
Total Neg. Defl.	L/999 (-0.008")	n\a	n\a	2	13-09-10
Max Defl.	0.081"	n\a	n\a	2	05-05-04
Span / Depth	10.2				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 3-1/2"	2116 lbs	n\a	40.3%	Hanger
B2	Column	5-1/2" x 3-1/2"	7629 lbs	54.7%	52.8%	Unspecified
B3	Column	5-1/2" x 3-1/2"	2252 lbs	16.1%	15.6%	Unspecified

Cautions

Hanger model Hanger was not found. Hanger has not been analyzed for adequate capacity.

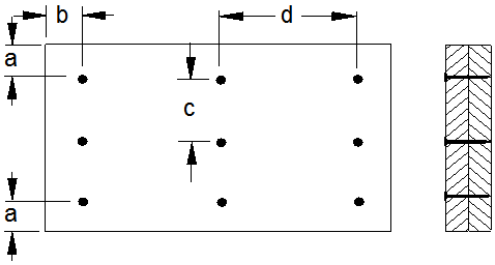
Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Design meets arbitrary (0.75") Maximum live load deflection criteria.
Hanger Manufacturer: Unassigned
BC CALC® analysis is based on IBC 2012.
Wind loads determined from building geometry were used in selected product's verification.
Design based on Dry Service Condition.
Calculations assume unbraced length of Top: 01-10-08, Bottom: 23-08-08.

Build 7968

Job name:		File name:	2100485A.mmdl
Address:		Description:	Roof\Flush Beams\BM1(i20)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	

Connection Diagram: Full Length of Member



a minimum = 2" c = 5"
b minimum = 3" d = 24"

Calculated Side Load = 0.0 lb/ft
Connectors are: 3-1/4 in. Pneumatic Gun Nails

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Double 1-3/4" x 14" VERSA-LAM® 2.0 3100 SP

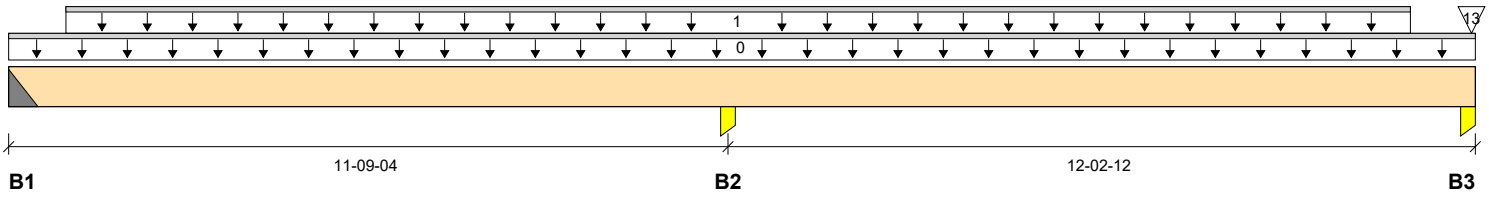
PASSED

Roof\Flush Beams\BM1(i22) (Flush Beam)

BC CALC® Member Report | Dry | 2 spans | No cant. | April 26, 2021 15:10:40

Build 7968

Job name:		File name:	2100485A.mmdl
Address:		Description:	Roof\Flush Beams\BM1(i22)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	



Total Horizontal Product Length = 24-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"		947 / 0		379 / 705	1116 / 189
B2, 5-1/2"		3837 / 0		1548 / 2800	3791 / 0
B3, 5-1/2"		1061 / 0		439 / 841	1243 / 182

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	24-00-00	Top		14				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-04	22-11-04	Top		248			259	n\a
13	BE(c1)	Conc. Pt. (lbs)	L	23-11-04	23-11-04	Top					83	n\a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	5944 ft-lbs	16.8%	125%	3	17-11-04
Neg. Moment	-6629 ft-lbs	78.9%	125%	3	11-09-04
End Shear	2143 lbs	18.4%	125%	3	22-04-08
Cont. Shear	3348 lbs	28.8%	125%	1	10-04-08
Total Load Deflection	L/999 (0.079")	n\a	n\a	3	18-03-12
Live Load Deflection	L/999 (0.049")	n\a	n\a	166	18-00-12
Total Neg. Defl.	L/999 (-0.007")	n\a	n\a	3	09-11-04
Max Defl.	0.079"	n\a	n\a	3	18-03-12
Span / Depth	10.1				

Bearing Supports

		Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger	2" x 3-1/2"	2064 lbs	n\a	39.3%	Hanger
B2	Column	5-1/2" x 3-1/2"	7629 lbs	54.7%	52.8%	Unspecified
B3	Column	5-1/2" x 3-1/2"	2304 lbs	16.5%	16.0%	Unspecified

Cautions

Hanger model Hanger was not found. Hanger has not been analyzed for adequate capacity.

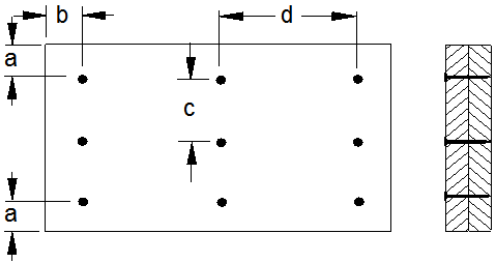
Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets arbitrary (1") Maximum Total load deflection criteria.
Design meets arbitrary (0.75") Maximum live load deflection criteria.
Hanger Manufacturer: Unassigned
BC CALC® analysis is based on IBC 2012.
Wind loads determined from building geometry were used in selected product's verification.
Design based on Dry Service Condition.
Calculations assume unbraced length of Top: 01-10-08, Bottom: 23-08-08.

Build 7968

Job name:		File name:	2100485A.mmdl
Address:		Description:	Roof\Flush Beams\BM1(i22)
City, State, Zip:		Specifier:	
Customer:		Designer:	
Code reports:	ESR-1040	Company:	

Connection Diagram: Full Length of Member



a minimum = 2" c = 5"
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Calculated Side Load = 0.0 lb/ft
Connectors are: 3-1/4 in. Pneumatic Gun Nails

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