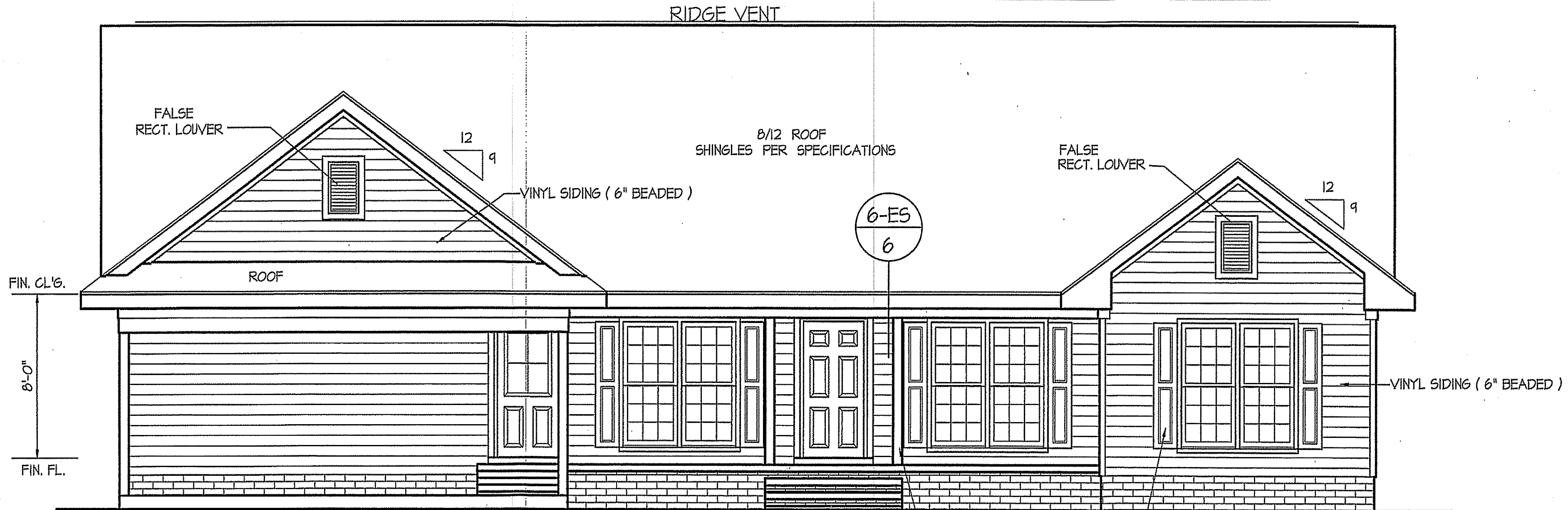


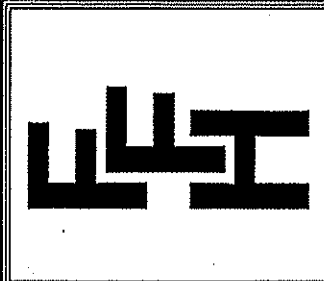
THIS PLAN IS DESIGNED TO MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION

DATE:
MAY 10, 2021



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

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EXCLUSIVE PLAN FOR
FREEDOM FAMILY HOMES
ASHEVILLE~ROBERTS

SHEET NO.
1

WIND ZONES (PER TABLE R301.2(4))

COUNTY	MPH
HARNETT	120
JOHNSTON	120
SAMPSON	130
WAKE	115

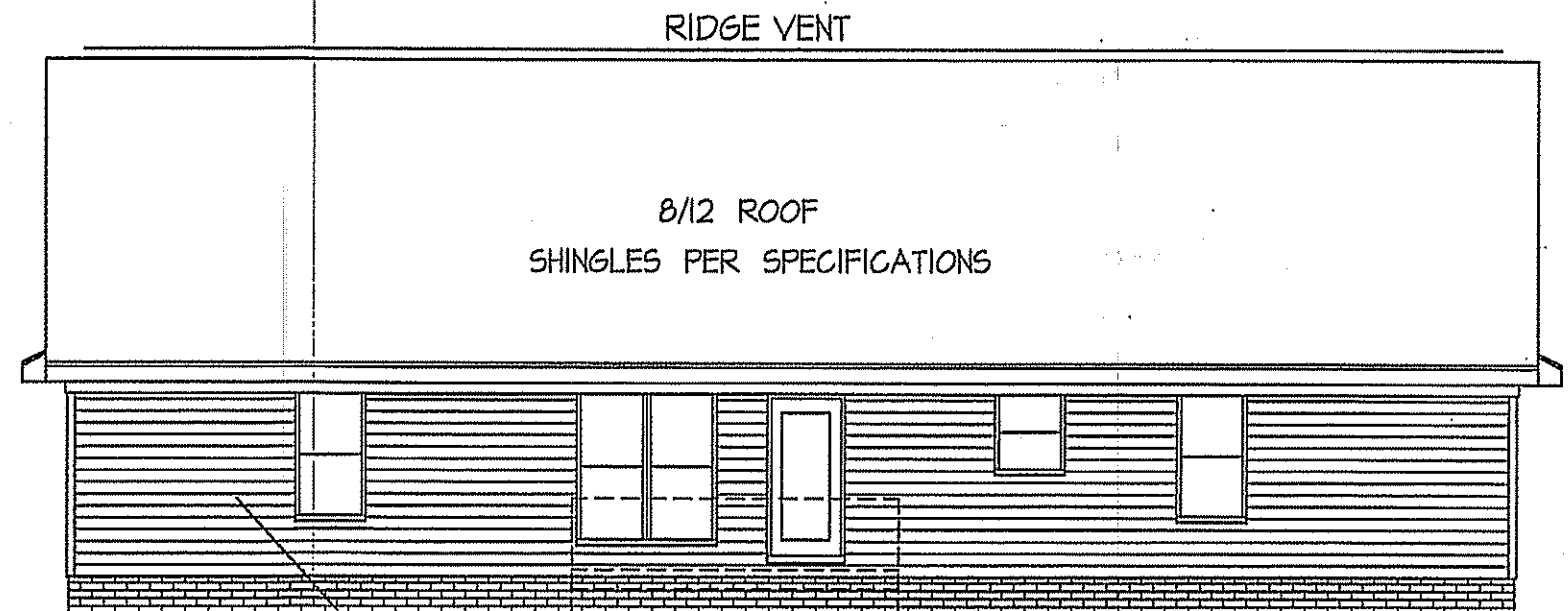
ALL EXTERIOR WALLS TO BE SHEATHED WITH OS-WSP (1/16" OSB) IN ACCORDANCE WITH SECTION R602.10.3 UNLESS OTHERWISE NOTED.

ROOF VENTILATION REQ'MTS.
2259 ATTIC SQ. FT. / 300 = 7.53
PROVIDED ON PLAN
86 LF. - RIDGE VENT = 16.13
137 LF. SOFFIT VENT = 8.56
TOTAL = 24.69 S.F. FREE NET AREA

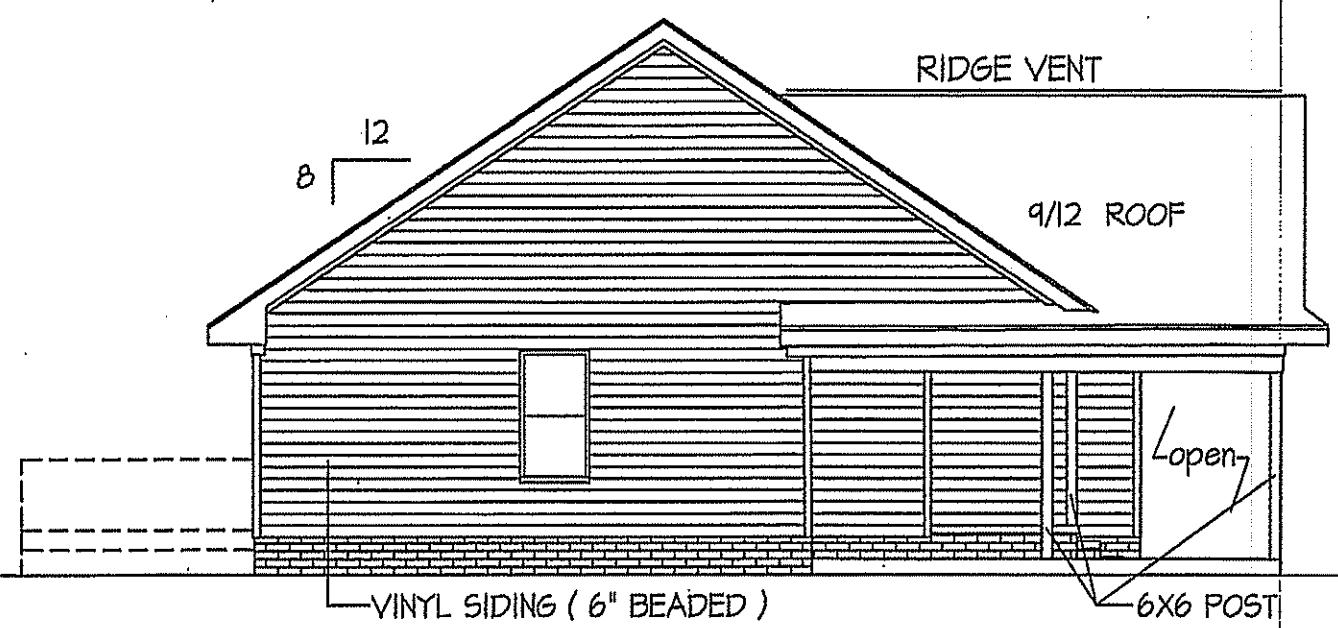
INSULATION and FENESTRATION REQUIREMENTS

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	10/13
MIN. SLAB R-VALUE	0	R-10

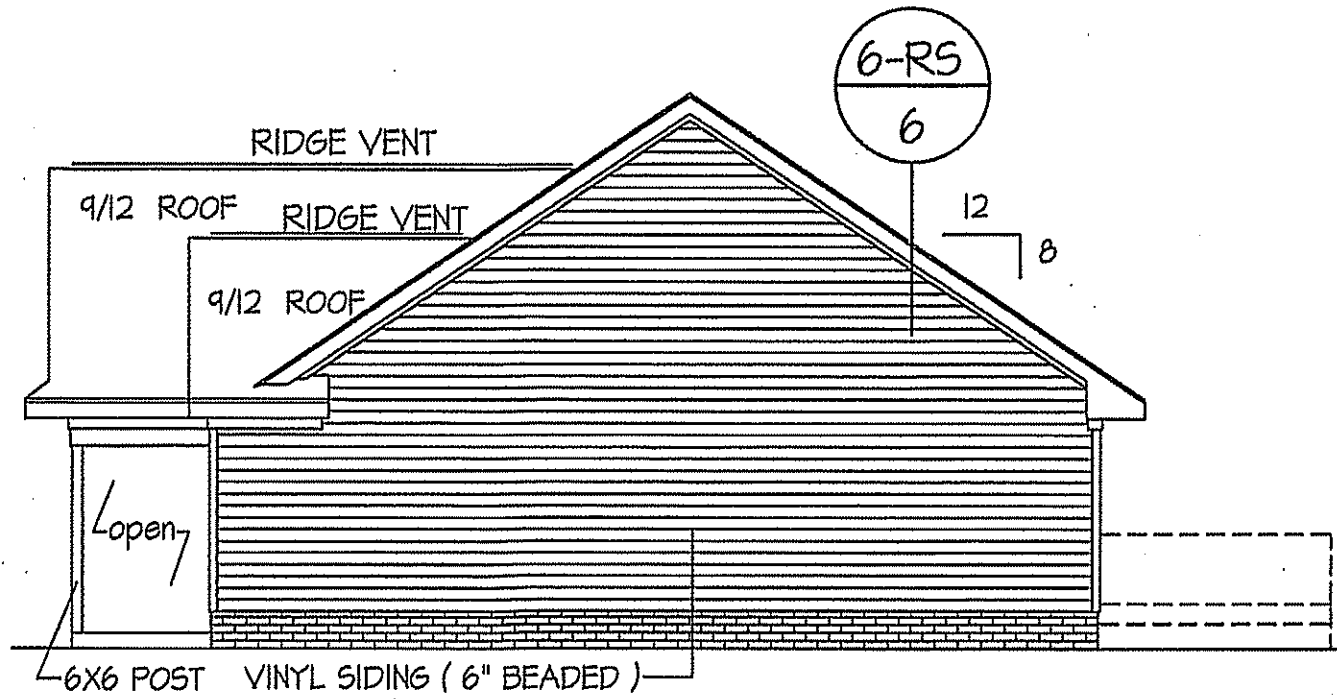
PROVIDE STEPS AS REQUIRED
GRADE MAY VARY - BUILDER TO VERIFY



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



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



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

Provide code compliant flood openings in foundation and garage walls per NCR2018 Ch.3. Number of openings must be in accordance with attached elevation certificate.

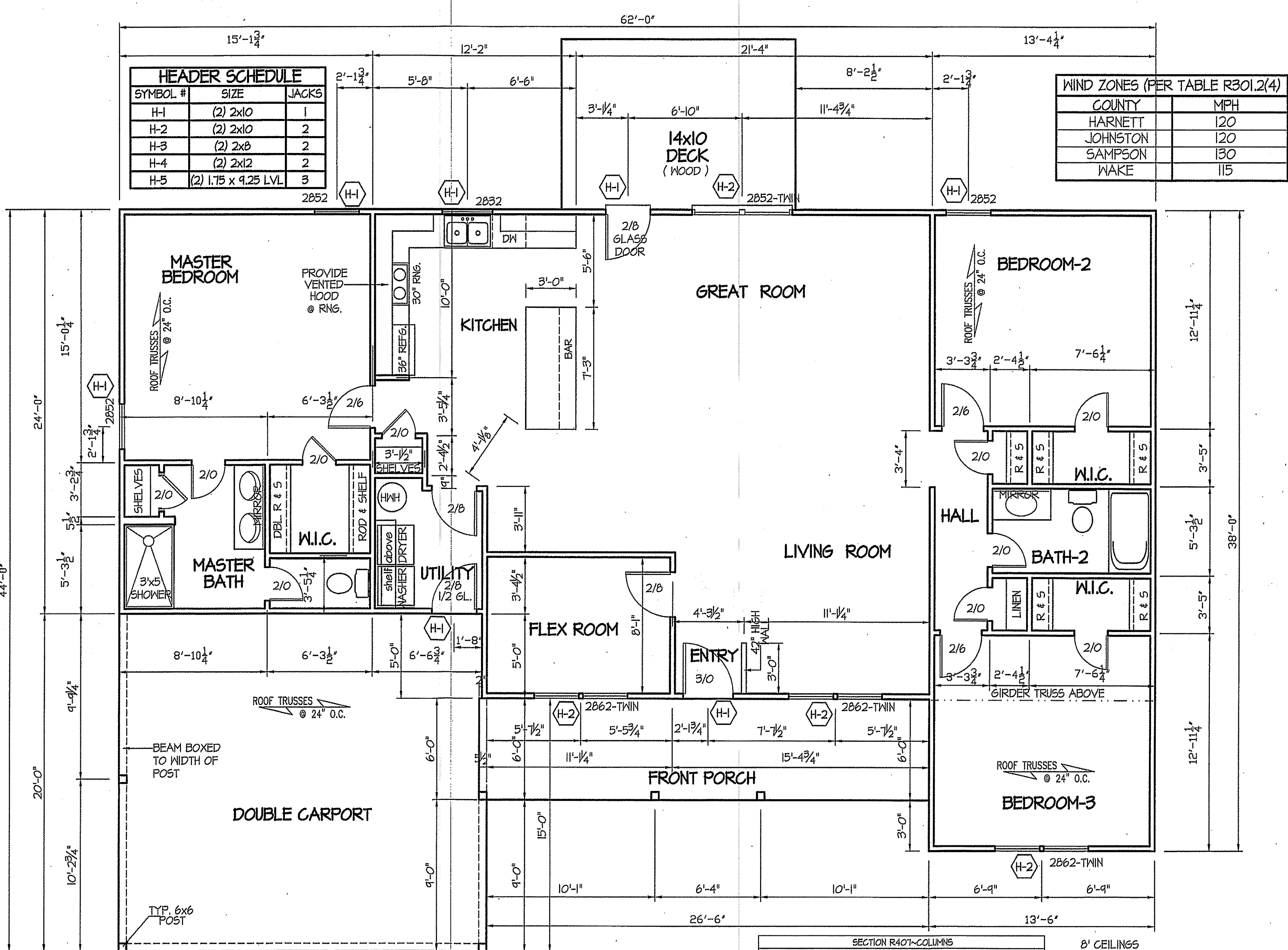
NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

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

10/04/2021

FILE: ASHEVILLE-ROBERTS - COMPUTER FILED UNDER FREEDOM FAMILY HOMES - MAY-2021

JR BT



HEADER SCHEDULE

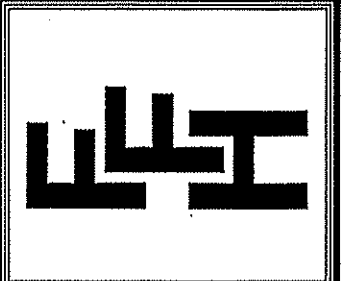
SYMBOL #	SIZE	JACKS
H-1	(2) 2x10	1
H-2	(2) 2x10	2
H-3	(2) 2x8	2
H-4	(2) 2x12	2
H-5	(2) 1.75 x 9.25 LVL	3

WIND ZONES (PER TABLE R301.2(4))

COUNTY	MPH
HARNETT	120
JOHNSTON	120
SAMPSON	130
WAKE	115

DATE:
MAY 10, 2021

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**EXCLUSIVE PLAN FOR
FREEDOM FAMILY HOMES
ASHEVILLE~ROBERTS**

PLAN:
SHEET NO.
2

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

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).

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 (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.

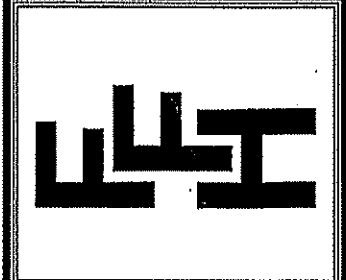
ALL EXTERIOR WALLS TO BE SHEATHED WITH CS-WSP (1/16" OSB) IN ACCORDANCE WITH SECTION R602.10.3 UNLESS OTHERWISE NOTED.

8' CEILINGS
DIMENSIONS FLOOR PLAN
SCALE: 1/4"=1'-0"

TOTAL FLOOR = 1811 SQUARE FEET (HEATED - FRAME)
162 SQUARE FEET (FRONT PORCH)
131 SQUARE FEET (DECK)
439 SQUARE FEET (DOUBLE CARPORT)

DATE:
MAY 10, 2021

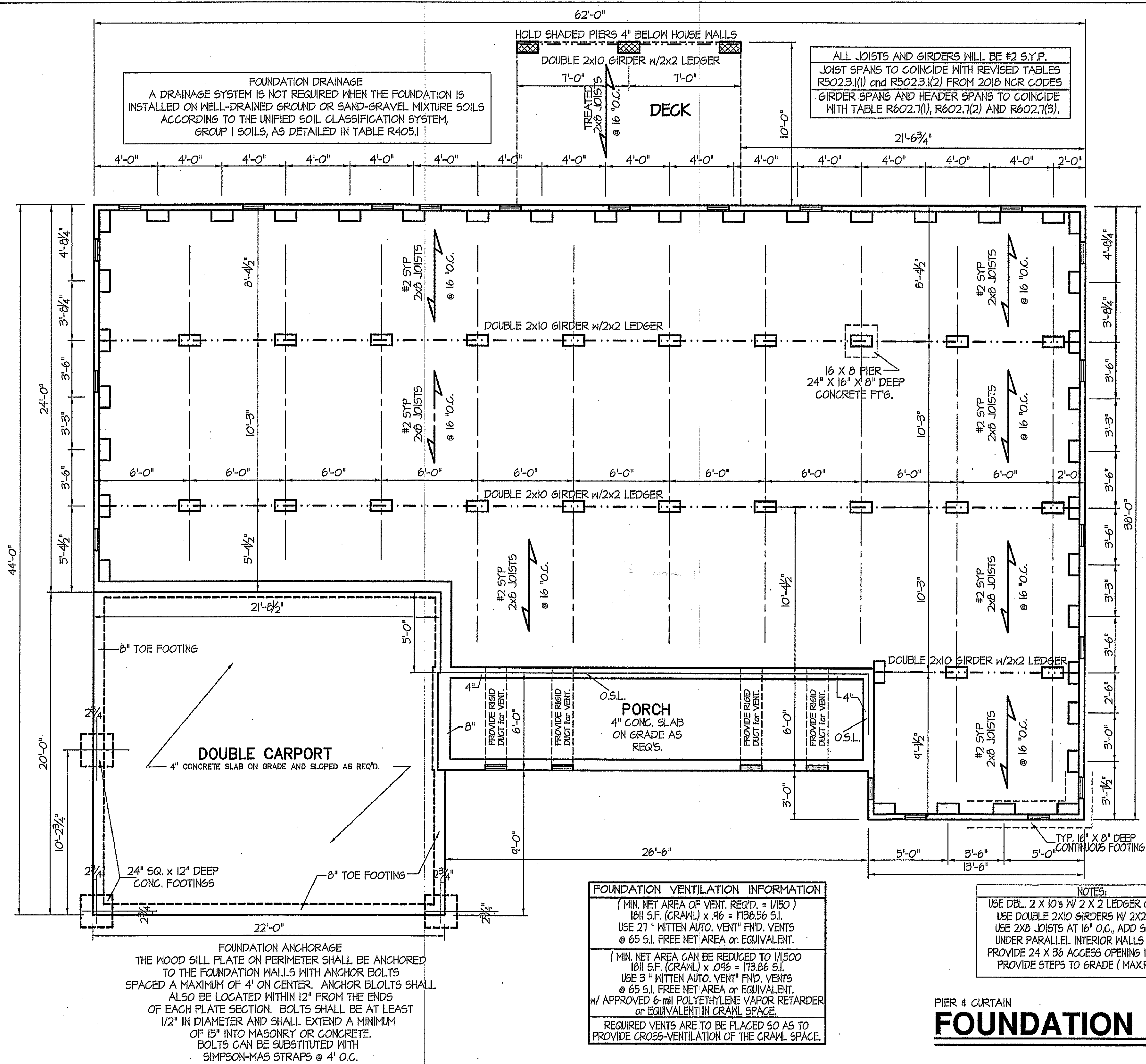
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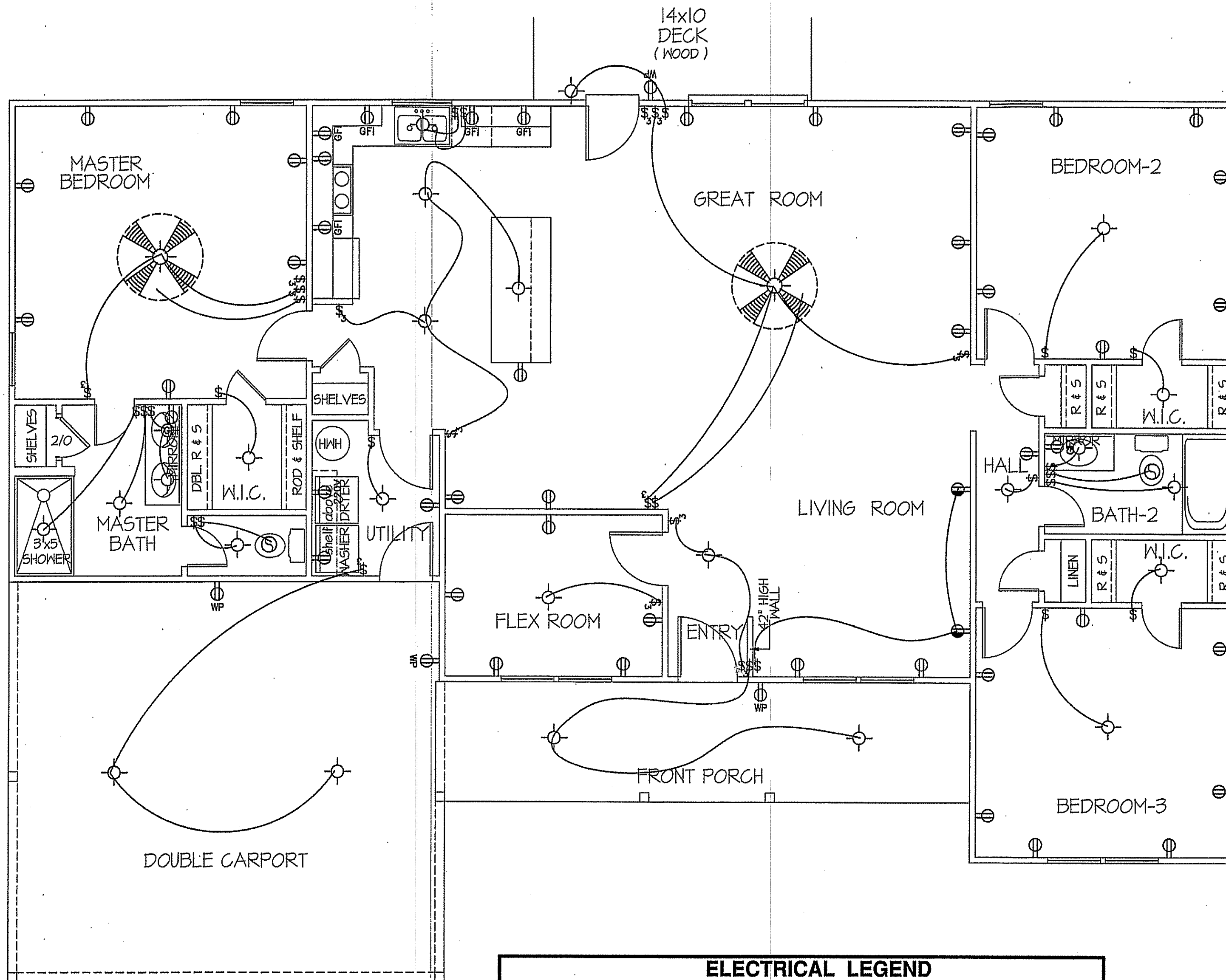


EXCLUSIVE PLAN FOR
FREEDOM FAMILY HOMES
ASHEVILLE~ROBERTS

SHEET NO.
3

JR
BT





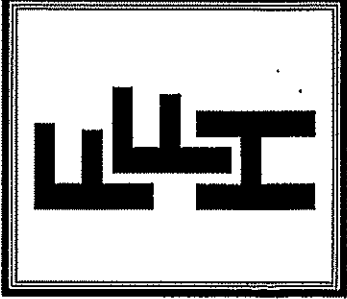
ELECTRICAL LEGEND		
<small>PROVIDE BURGLAR/SMOKE AND FIRE DETECTORS AS PER MANUFACTURER'S SPECIFICATIONS. PROVIDE CENTRAL VACUUM SYSTEM AS PER MANUFACTURER'S SPECIFICATIONS. ALL FANS ARE TO BE CONTROLLED BY VAR/SPEED AND DIRECTIONAL SWITCHES</small>		
⊕ SURF. MOUNTED LIGHT	⊖ TYPICAL WALL RECEPT.	⊖ TYPICAL SWITCH
○ RECESSED LIGHT	⊖ TOP 1/2 HOT W/SWITCH	⊖ 3-WAY SWITCH
⊙ EYEBALL LIGHT	⊖ CEILING RECEPTACLE	⊖ 4-WAY SWITCH
⊕ FAN/LIGHT COMB.	⊖ FLOOR RECEPTACLE	⊖ DIMMER SWITCH
— FLUORESCENT TUBE	⊖ WATERPROOF RECEPT.	⊖ ELEC. PANEL BOX
⊖ FLUOR. LIGHT FIXTURE	⊖ GROUND FAULT	⊖ T.V. CABLE RECEPT.
⊖ EXHAUST FAN	⊖ DISPOSAL UNIT	⊖ TELEPHONE JACK
⊖ CL'G. FAN	⊖ 220 VOLT RECEPTACLE	⊖ COMPUTER JACK
⊖ FLOOD LIGHT		

8' CEILINGS
ELECTRICAL FLOOR PLAN
 SCALE: 1/4"=1'-0"

TOTAL FLOOR = 1011 SQUARE FEET (HEATED - FRAME)
 162 SQUARE FEET (FRONT PORCH)
 131 SQUARE FEET (DECK)
 439 SQUARE FEET (DOUBLE CARPORT)

DATE:
 MAY 10, 2021

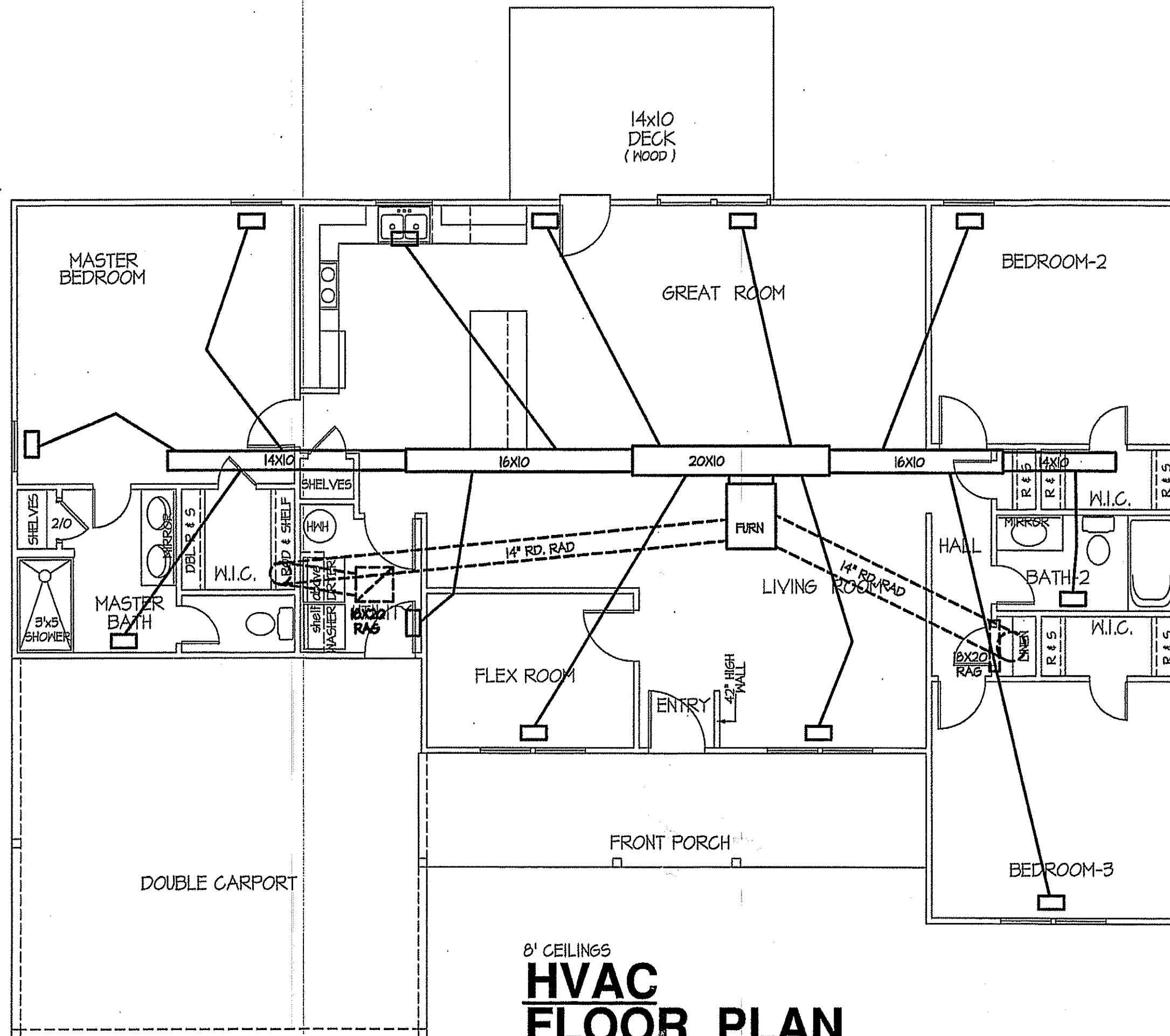
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EXCLUSIVE PLAN FOR
 FREEDOM FAMILY HOMES
ASHEVILLE~ROBERTS

SHEET NO.
4

JR BT



8' CEILINGS
HVAC FLOOR PLAN

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

TOTAL FLOOR = 1811 SQUARE FEET (HEATED - FRAME)

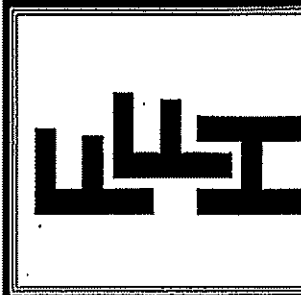
TOTAL HEAT GAIN = 32,618 BTUH

TOTAL HEAT LOSS = 45,456 BTUH

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

DATE:
 MAY 10, 2021

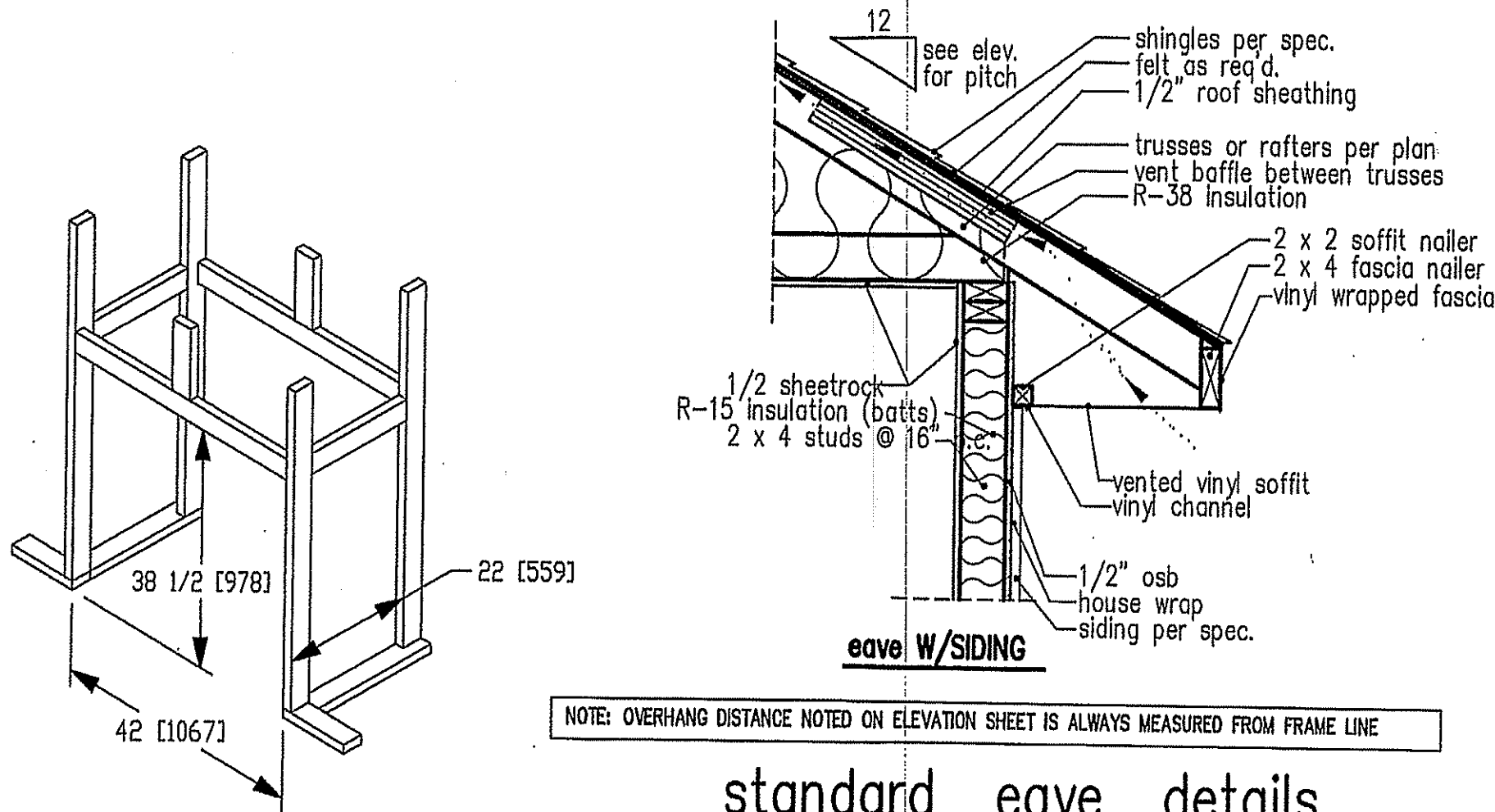
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EXCLUSIVE PLAN FOR
 FREEDOM FAMILY HOMES
ASHEVILLE~ROBERTS

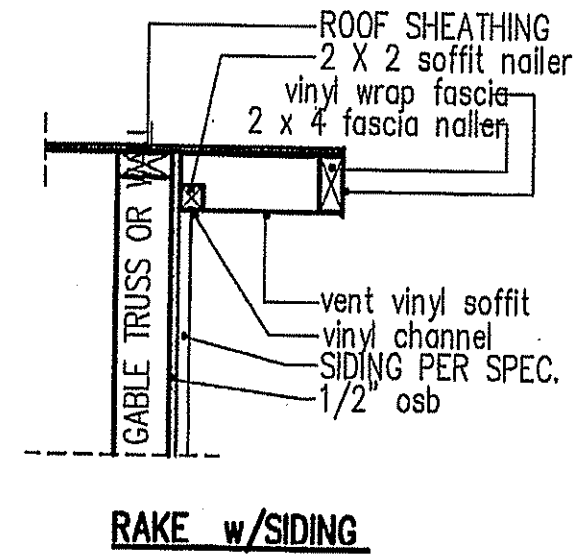
SHEET NO.
5

JR BT



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

standard eave details

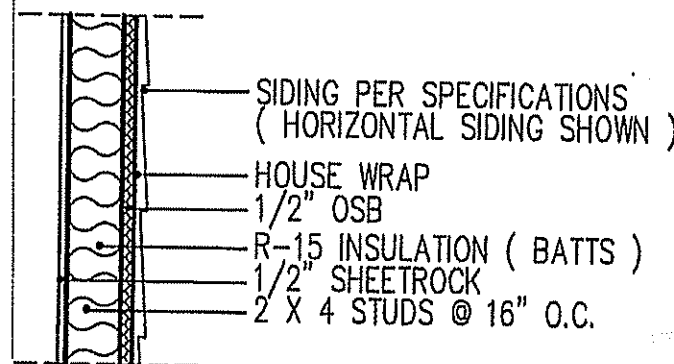


NOTE: OVERHANG DISTANCE NOTED ON ELEVATION SHEET IS ALWAYS MEASURED FROM FRAME LINE

DIMENSIONS IN [] ARE MM

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

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



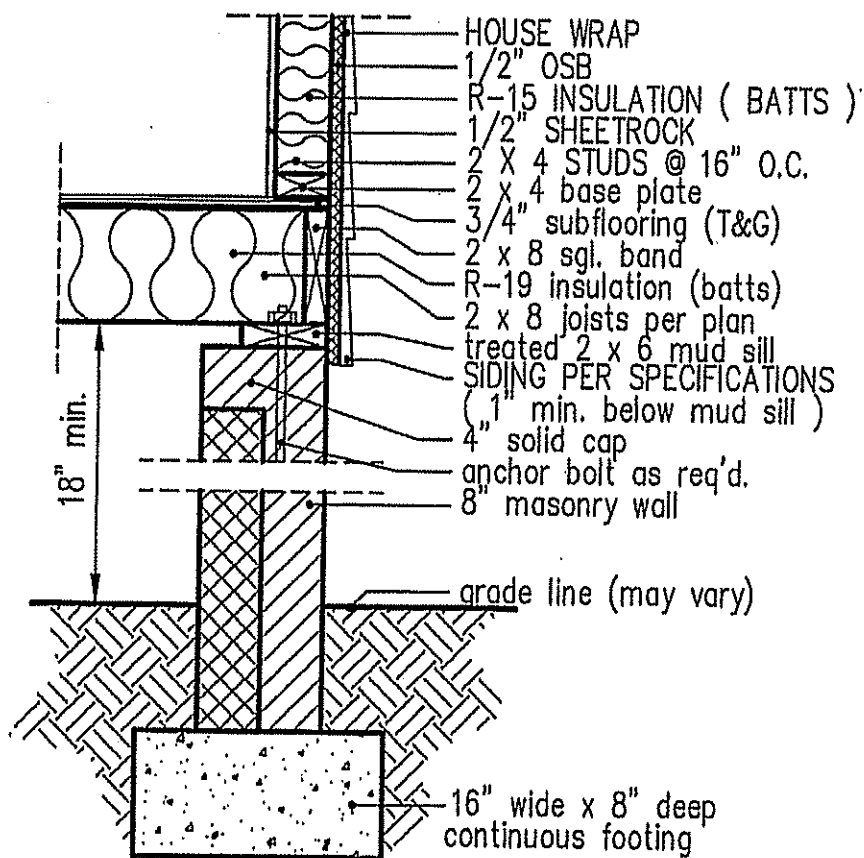
WALL w/siding

intermediate wall details

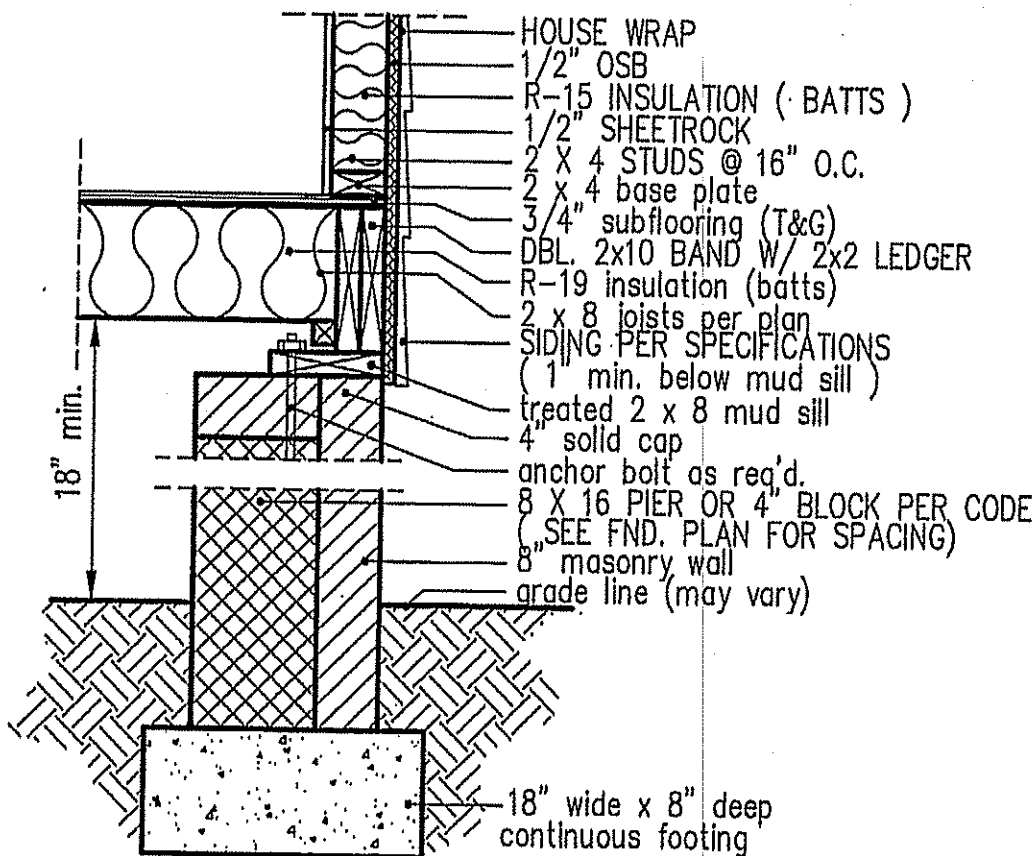
TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

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

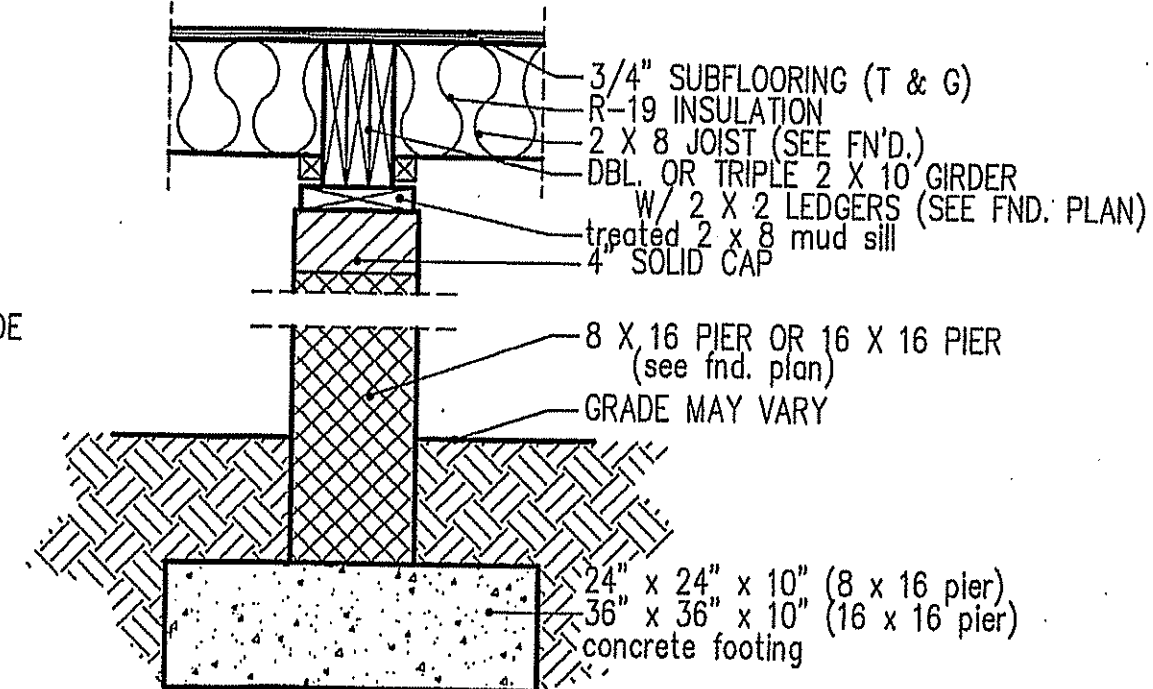
GIRDER AND HEADER SIZES AND JACK STUD REQUIREMENTS ON EXTERIOR AND INTERIOR LOAD BEARING WALLS ARE TO COINCIDE WITH TABLE EXT.~R602.7 (1) AND INT.~R602.7 (2).



8" BOX SILL FOUNDATION WALL



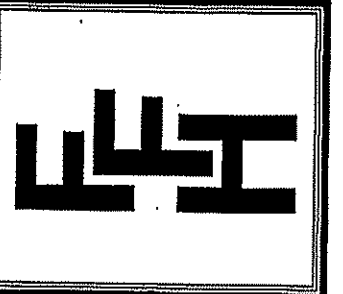
PIER and CURTAIN FOUNDATION WALL



PIER and GIRDER DETAIL

DATE:
MAY 10, 2021

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EXCLUSIVE PLAN FOR
FREEDOM FAMILY HOMES
ASHEVILLE~ROBERTS

SHEET NO.
6

JR BT

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A - PROPERTY INFORMATION

A1. Building Owner's Name BRITTANY TYNDALL AND JONATHAN ROBERTS		FOR INSURANCE COMPANY USE	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 490 RAYMOND AVERY ROAD		Policy Number:	
City ERWIN	State NORTH CAROLINA	Company NAIC Number:	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) DEED BOOK 3869 PAGE 807 PIN. # 0598 - 41 - 2637.000		ZIP Code 28339	

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) **RESIDENTIAL**

A5. Latitude/longitude: Lat. **35.204600453°** Long. **-78.405408242°** Horizontal Datum: NAD 1927 NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number **8**

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) **1809** sq ft

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade **15**

c) Total net area of flood openings in A8.b **1920** sq in

d) Engineered flood openings? Yes No

A9. For a building with an attached garage:

a) Square footage of attached garage **440** sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade **4**

c) Total net area of flood openings in A9.b **512** sq in

d) Engineered flood openings? Yes No

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number 370328 HARNETT COUNTY		B2. County Name HARNETT		B3. State NORTH CAROLINA	
B4. Map/Panel Number 0598	B5. Suffix 1	B6. FIRM Index Date OCT. 3, 2006	B7. FIRM Panel Effective/ Revised Date OCT. 3, 2006	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 125.0

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
 FIS Profile FIRM Community Determined Other/Source: _____

B11. Indicate elevation datum used for BFE in Item B9: NGVD 1929 NAVD 1988 Other/Source: _____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? Yes No
 Designation Date: **N/A** CBRS OPA

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 490 RAYMOND AVERY ROAD	FOR INSURANCE COMPANY USE Policy Number:
--	---

City ERWIN	State NORTH CAROLINA	ZIP Code <input checked="" type="checkbox"/> 28339	Company NAIC Number
----------------------	--------------------------------	--	---------------------

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction
 *A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, ARA, ARAE, ARA1-A30, ARAH, ARAO.
 Complete items C2.a-h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.
 Benchmark Utilized: GPS, RTK, VRS Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.
 NGVD 1929 NAVD 1988 Other/Source: _____
 Datum used for building elevations must be the same as that used for the BFE.

		Check the measurement used.
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	<u>125.2</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor	<u>127.5</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	<u>N/A</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab)	<u>125.2</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	<u>127.5</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	<u>124.4</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	<u>125.4</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	<u>125.0</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No Check here if attachments.

Certifier's Name BENTON W. DEWAR License Number NCPLS - 3040

Title OWNER

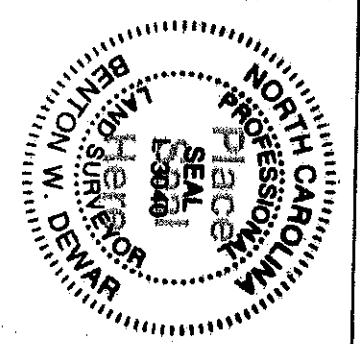
Company Name BENTON DEWAR & ASSOCIATES

Address 5920 HONEYCUTT ROAD

City HOUST SPRINGS State NORTH CAROLINA ZIP Code 27540

Signature Benton Dewar Date AUGUST 12, 2021 Telephone 919.868.1449 Ext. _____

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.
 Comments (including type of equipment and location, per C2(e), if applicable)
CZE - HVAC, ELECTRIC PANEL



ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

OMB No. 1660-0008
Expiration Date: November 30, 2022

See Instructions for Item A6.

IMPORTANT: In these spaces, copy the corresponding information from Section A.		FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 490 RAYMOND AVERY ROAD		Policy Number:	
City ERWIN	State NORTH CAROLINA	ZIP Code <input checked="" type="checkbox"/> 28339	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

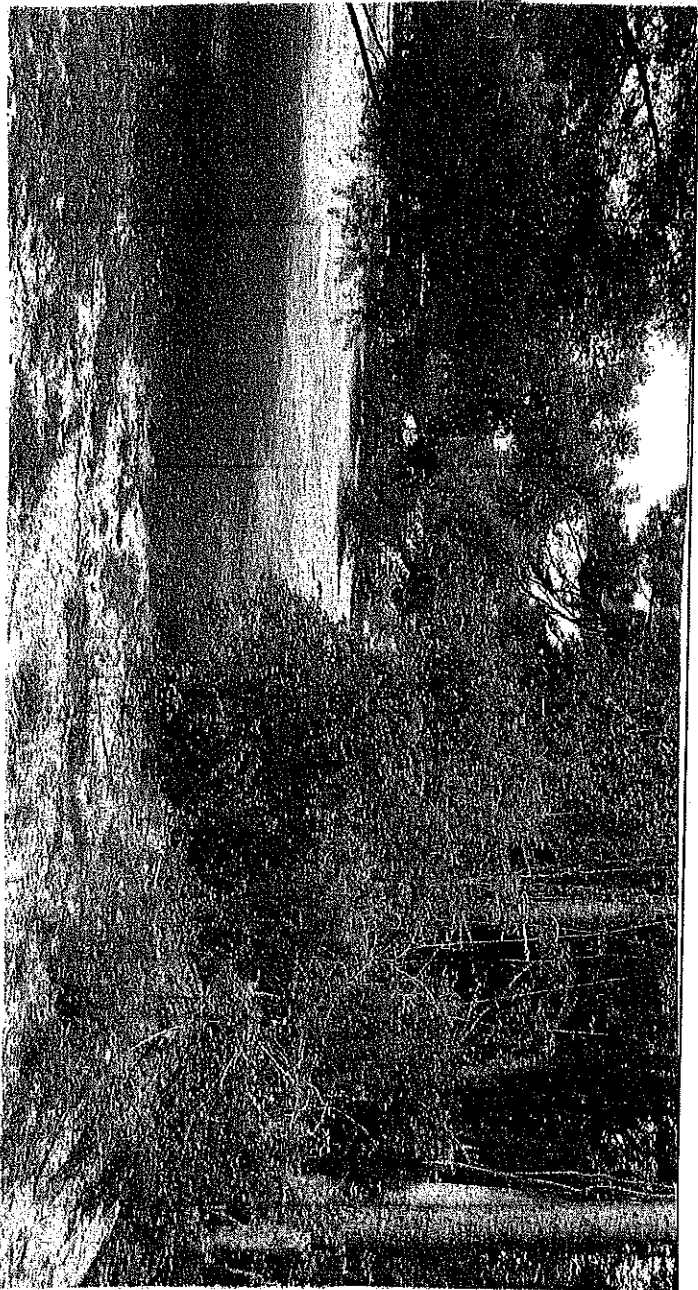


Photo One

Photo One Caption **NORTH SIDE**

8.12.2021

Clear Photo One

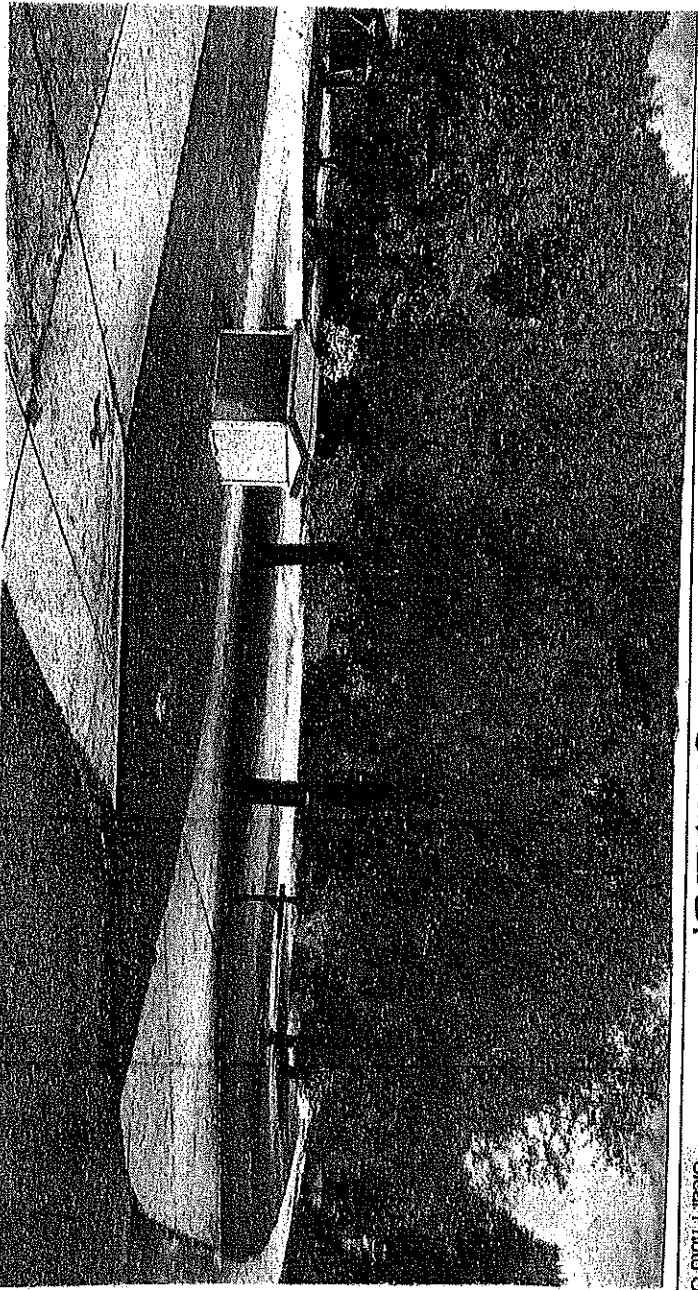


Photo Two

Photo Two Caption **SOUTH SIDE**

8.12.2021

Clear Photo Two

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008

Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.

FOR INSURANCE COMPANY USE

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P. O. Route and Box No.

Policy Number:

490 RAYMOND AVERY ROAD

City

State

ZIP Code

Company NAIC Number

ERWIN

NORTH CAROLINA



28339

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View", and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.



Photo Three

Photo Three Caption **WEST SIDE**

8.12.2021

Clear Photo Three

Photo Four

Photo Four Caption

Photo Four

Clear Photo Four



Triple 1-3/4" x 9-1/4" VERSA-LAM® 2.0 3100 SP

PASSED

Roof/Dropped Beams\BM3(i21) (Dropped Beam)

BC CALC® Member Report

Dry | 1 span | No cant.

August 31, 2021 12:11:41

Build 7968

Job name:

File name: 2100762A.mmdl

Address:

Description: Roof/Dropped Beams\BM3(i21)

City, State, Zip:

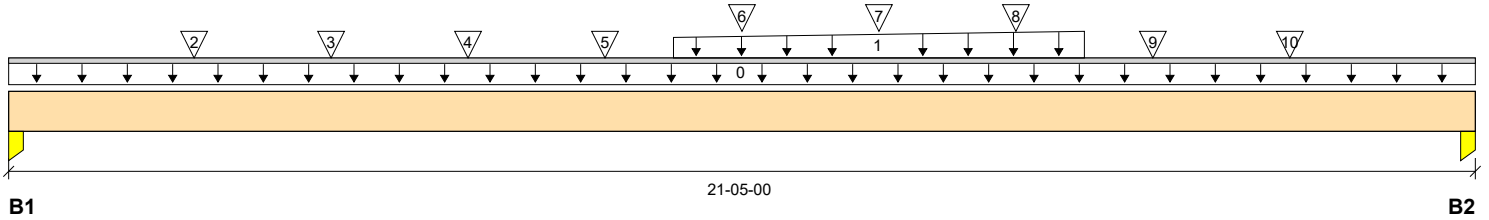
Specifier:

Customer:

Designer:

Code reports: ESR-1040

Company:



Total Horizontal Product Length = 21-05-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"		550 / 0		161 / 445	503 / 0
B2, 2"		550 / 0		161 / 445	502 / 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	21-05-00	Top		14				00-00-00
1	Smoothed Load	Trapezoidal (lb/ft)	L	09-08-08	15-08-08	Top					43	n/a
2	BE(c1)	Conc. Pt. (lbs)	L	02-08-08	02-08-08	Top		120			142	n/a
3	BE(c1)	Conc. Pt. (lbs)	L	04-08-08	04-08-08	Top		74			110	n/a
4	BE(c1)	Conc. Pt. (lbs)	L	06-08-08	06-08-08	Top		89			106	n/a
5	BE(c1)	Conc. Pt. (lbs)	L	08-08-08	08-08-08	Top		84			100	n/a
6	BE(c1)	Conc. Pt. (lbs)	L	10-08-08	10-08-08	Top		64				n/a
7	BE(c1)	Conc. Pt. (lbs)	L	12-08-08	12-08-08	Top		84				n/a
8	BE(c1)	Conc. Pt. (lbs)	L	14-08-08	14-08-08	Top		89				n/a
9	BE(c1)	Conc. Pt. (lbs)	L	16-08-08	16-08-08	Top		74			110	n/a
10	BE(c1)	Conc. Pt. (lbs)	L	18-08-08	18-08-08	Top		120			142	n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	6002 ft-lbs	78.5%	125%	1	10-08-08
End Shear	1039 lbs	9.0%	125%	1	00-11-04
Total Load Deflection	L/361 (0.704")	66.4%	n/a	1	10-08-08
Live Load Deflection	L/746 (0.341")	48.3%	n/a	110	10-08-08
Max Defl.	0.704"	70.4%	n/a	1	10-08-08
Span / Depth	27.5				

Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Column 2" x 5-1/4"	1052 lbs	13.8%	13.4%	Unspecified
B2	Column 2" x 5-1/4"	1052 lbs	13.8%	13.4%	Unspecified

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: 21-05-00, Bottom: 21-05-00.



Build 7968

Job name:

File name: 2100762A.mmdl

Address:

Description: Roof\Dropped Beams\BM3(i21)

City, State, Zip:

Specifier:

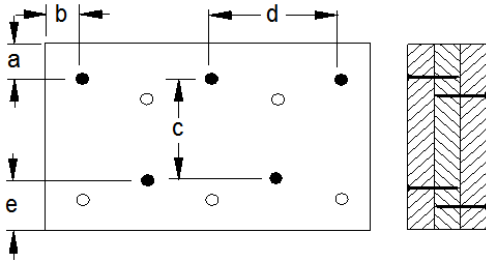
Customer:

Designer:

Code reports: ESR-1040

Company:

Connection Diagram: Full Length of Member



a minimum = 2"

c = 5-1/4"

b minimum = 3"

d = 24"

e minimum = 3"

Calculated Side Load = 0.0 lb/ft

Nailing applies to both sides of the member

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 9-1/4" VERSA-LAM® 2.0 3100 SP

PASSED

Roof/Dropped Beams\BM4(i19) (Dropped Beam)

BC CALC® Member Report

Dry | 3 spans | No cant.

August 31, 2021 12:11:41

Build 7968

Job name:

File name: 2100762A.mmdl

Address:

Description: Roof/Dropped Beams\BM4(i19)

City, State, Zip:

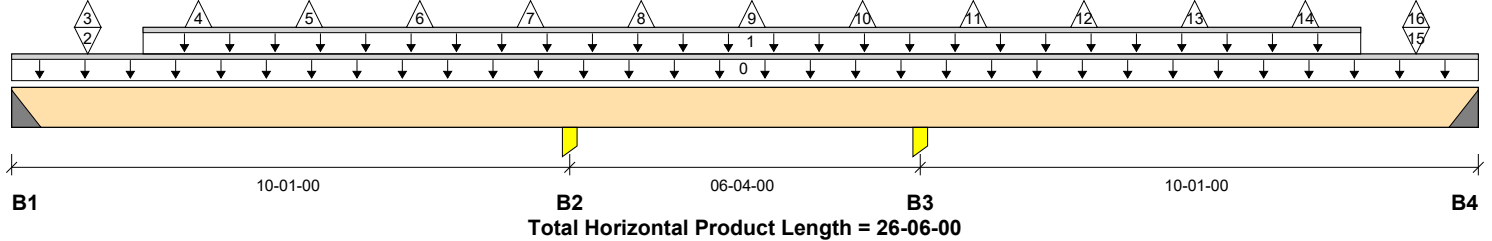
Specifier:

Customer:

Designer:

Code reports: ESR-1040

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 2"		111 / 0		190 / 329	324 / 35
B2, 5-1/2"		258 / 0		459 / 798	899 / 199
B3, 5-1/2"		259 / 0		464 / 804	904 / 199
B4, 2"		118 / 0		210 / 355	358 / 51

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	26-06-00	Top		9				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	02-04-08	24-04-08	Top		20			84	n\la
2	A(c9)	Conc. Pt. (lbs)	L	01-04-08	01-04-08	Top		33			145	n\la
3	A(c9)	Conc. Pt. (lbs)	L	01-04-08	01-04-08	Top					-9	n\la
4	A(c9)	Conc. Pt. (lbs)	L	03-04-08	03-04-08	Top					-11	n\la
5	A(c9)	Conc. Pt. (lbs)	L	05-04-08	05-04-08	Top					-11	n\la
6	A(c9)	Conc. Pt. (lbs)	L	07-04-08	07-04-08	Top					-11	n\la
7	A(c9)	Conc. Pt. (lbs)	L	09-04-08	09-04-08	Top					-11	n\la
8	A(c9)	Conc. Pt. (lbs)	L	11-04-08	11-04-08	Top					-11	n\la
9	A(c9)	Conc. Pt. (lbs)	L	13-04-08	13-04-08	Top					-11	n\la
10	A(c9)	Conc. Pt. (lbs)	L	15-04-08	15-04-08	Top					-11	n\la
11	A(c9)	Conc. Pt. (lbs)	L	17-04-08	17-04-08	Top					-11	n\la
12	A1(c12)	Conc. Pt. (lbs)	L	19-04-08	19-04-08	Top					-11	n\la
13	A1(c12)	Conc. Pt. (lbs)	L	21-04-08	21-04-08	Top					-11	n\la
14	A1(c12)	Conc. Pt. (lbs)	L	23-04-08	23-04-08	Top					-8	n\la
15	A1(c12)	Conc. Pt. (lbs)	L	25-04-08	25-04-08	Top		35			160	n\la
16	A1(c12)	Conc. Pt. (lbs)	L	25-04-08	25-04-08	Top					-28	n\la

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	1067 ft-lbs	6.5%	125%	3	21-04-08
Neg. Moment	-1065 ft-lbs	21.4%	125%	6	16-05-00
End Shear	468 lbs	6.1%	125%	3	25-06-12
Cont. Shear	654 lbs	8.5%	125%	6	17-05-00
Total Load Deflection	L/999 (0.037")	n\la	n\la	3	21-09-00
Live Load Deflection	L/999 (0.03")	n\la	n\la	376	21-09-00
Total Neg. Defl.	L/999 (-0.013")	n\la	n\la	3	13-03-00
Max Defl.	0.037"	n\la	n\la	3	21-09-00
Span / Depth	12.9				

Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Hanger 2" x 3-1/2"	439 lbs	n\la	8.4%	Hanger
B1	Uplift	131 lbs			
B2	Column 5-1/2" x 3-1/2"	1157 lbs	8.3%	8.0%	Unspecified



Roof\Dropped Beams\BM4(i19) (Dropped Beam)

BC CALC® Member Report

Dry | 3 spans | No cant.

August 31, 2021 12:11:41

Build 7968

Job name:

File name: 2100762A.mmdl

Address:

Description: Roof\Dropped Beams\BM4(i19)

City, State, Zip:

Specifier:

Customer:

Designer:

Code reports: ESR-1040

Company:

Bearing Supports	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material	
B2	Uplift	324 lbs				
B3	Column	5-1/2" x 3-1/2"	1164 lbs	8.3%	8.1%	Unspecified
B3	Uplift	327 lbs				
B4	Hanger	2" x 3-1/2"	481 lbs	n/a	9.2%	Hanger
B4	Uplift	142 lbs				

Cautions

Uplift of -324 lbs found at bearing B2.

Uplift of -327 lbs found at bearing B3.

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

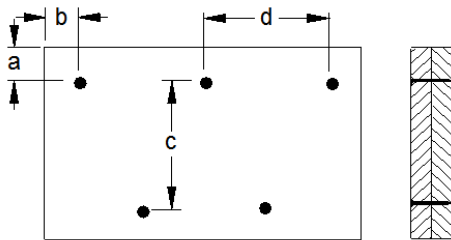
BC CALC® analysis is based on IBC 2012.

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: 26-06-00.

Connection Diagram: Full Length of Member



a minimum = 2" c = 5-1/4"
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 9-1/4" VERSA-LAM® 2.0 3100 SP

PASSED

RoofFlush Beams\BM1(i22) (Flush Beam)

Dry | 2 spans | No cant.

August 31, 2021 12:11:41

BC CALC® Member Report

Build 7968

Job name:

File name: 2100762A.mmdl

Address:

Description: RoofFlush Beams\BM1(i22)

City, State, Zip:

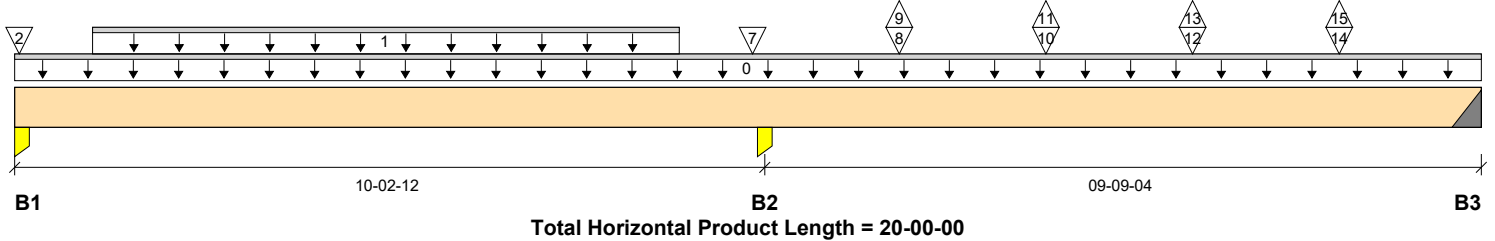
Specifier:

Customer:

Designer:

Code reports: ESR-1040

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/2"		840 / 0		430 / 725	1036 / 155
B2, 5-1/2"		2965 / 0		853 / 1827	3087 / 26
B3, 2"		786 / 0		301 / 718	1065 / 178

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	20-00-00	Top		9				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	01-00-12	09-00-12	Top		232			245	n/a
2	BE(c1)	Conc. Pt. (lbs)	L	00-00-12	00-00-12	Top		100			146	n/a
7	B1(c5)	Conc. Pt. (lbs)	L	10-00-12	10-00-12	Top		473			508	n/a
8	B1(c5)	Conc. Pt. (lbs)	L	12-00-12	12-00-12	Top		464			494	n/a
9	B1(c5)	Conc. Pt. (lbs)	L	12-00-12	12-00-12	Top					-2	n/a
10	B1(c5)	Conc. Pt. (lbs)	L	14-00-12	14-00-12	Top		449			488	n/a
11	B1(c5)	Conc. Pt. (lbs)	L	14-00-12	14-00-12	Top					-4	n/a
12	B1(c5)	Conc. Pt. (lbs)	L	16-00-12	16-00-12	Top		456			516	n/a
13	B1(c5)	Conc. Pt. (lbs)	L	16-00-12	16-00-12	Top					-28	n/a
14	B1(c5)	Conc. Pt. (lbs)	L	18-00-12	18-00-12	Top		605			770	n/a
15	B1(c5)	Conc. Pt. (lbs)	L	18-00-12	18-00-12	Top					-18	n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	4270 ft-lbs	26.1%	125%	4	16-00-12
Neg. Moment	-4346 ft-lbs	67.4%	125%	4	10-02-12
End Shear	1842 lbs	24.0%	125%	4	19-00-12
Cont. Shear	2621 lbs	34.1%	125%	1	11-02-12
Total Load Deflection	L/918 (0.126")	26.2%	n/a	4	15-06-12
Live Load Deflection	L/999 (0.082")	n/a	n/a	236	15-05-04
Total Neg. Defl.	L/999 (-0.013")	n/a	n/a	4	08-07-12
Max Defl.	0.126"	12.6%	n/a	4	15-06-12
Span / Depth	12.8				

Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Column 5-1/2" x 3-1/2"	1876 lbs	13.4%	13.0%	Unspecified
B2	Column 5-1/2" x 3-1/2"	6052 lbs	43.4%	41.9%	Unspecified
B3	Hanger 2" x 3-1/2"	1851 lbs	n/a	35.3%	Hanger

Cautions

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



RoofFlush Beams\BM1(i22) (Flush Beam)

Dry | 2 spans | No cant.

August 31, 2021 12:11:41

BC CALC® Member Report

Build 7968

Job name:

File name: 2100762A.mmdl

Address:

Description: RoofFlush Beams\BM1(i22)

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.

Hanger Manufacturer: Unassigned

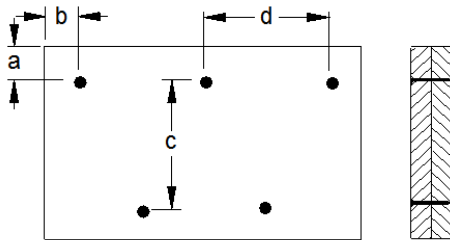
BC CALC® analysis is based on IBC 2012.

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: 19-06-12.

Connection Diagram: Full Length of Member



a minimum = 2"

c = 5-1/4"

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 9-1/4" VERSA-LAM® 2.0 3100 SP

PASSED

RoofFlush Beams\BM2(i20) (Flush Beam)

Dry | 2 spans | No cant.

August 31, 2021 12:11:41

BC CALC® Member Report

Build 7968

Job name:

File name: 2100762A.mmdl

Address:

Description: RoofFlush Beams\BM2(i20)

City, State, Zip:

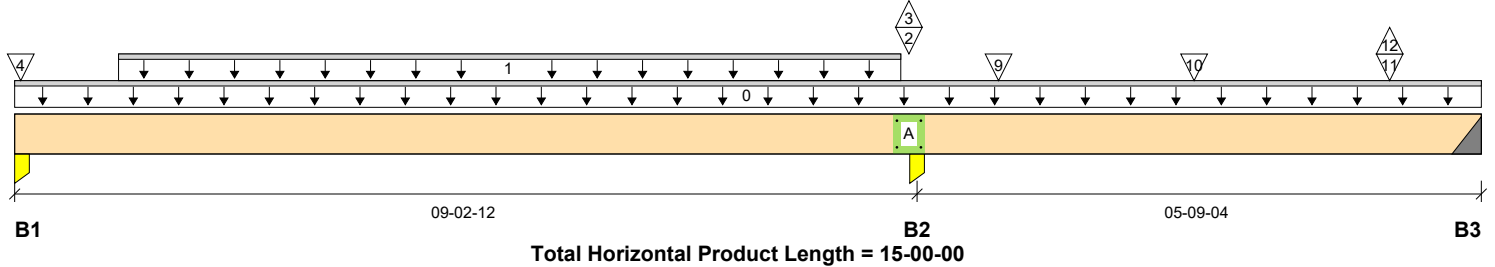
Specifier:

Customer:

Designer:

Code reports: ESR-1040

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 5-1/2"		814 / 0		376 / 698	906 / 44
B2, 5-1/2"		2372 / 0		778 / 1527	2597 / 21
B3, 2"		365 / 0		95 / 187	625 / 264

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	15-00-00	Top		9				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	01-00-12	09-00-12	Top		232			245	n/a
2	BM4(i19)	Conc. Pt. (lbs)	L	09-01-12	09-01-12	Top		110			318	n/a
3	BM4(i19)	Conc. Pt. (lbs)	L	09-01-12	09-01-12	Top					-20	n/a
4	BE(c1)	Conc. Pt. (lbs)	L	00-00-12	00-00-12	Top		100			146	n/a
9	B1(c5)	Conc. Pt. (lbs)	L	10-00-12	10-00-12	Top		456			473	n/a
10	B1(c5)	Conc. Pt. (lbs)	L	12-00-12	12-00-12	Top		457			473	n/a
11	B1(c5)	Conc. Pt. (lbs)	L	14-00-12	14-00-12	Top		430			455	n/a
12	B1(c5)	Conc. Pt. (lbs)	L	14-00-12	14-00-12	Top					-5	n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	3416 ft-lbs	20.9%	125%	3	04-00-12
Neg. Moment	-3709 ft-lbs	28.8%	125%	1	09-02-12
End Shear	1462 lbs	19.0%	125%	3	01-02-12
Cont. Shear	2464 lbs	32.0%	125%	1	08-02-12
Total Load Deflection	L/999 (0.086")	n/a	n/a	3	04-05-04
Live Load Deflection	L/999 (0.047")	n/a	n/a	235	04-06-00
Total Neg. Defl.	L/999 (-0.014")	n/a	n/a	3	11-03-02
Max Defl.	0.086"	n/a	n/a	3	04-05-04
Span / Depth	11.5				

Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Column 5-1/2" x 3-1/2"	1720 lbs	12.3%	11.9%	Unspecified
B2	Column 5-1/2" x 3-1/2"	4970 lbs	35.6%	34.4%	Unspecified
B3	Hanger 2" x 3-1/2"	990 lbs	n/a	18.9%	Hanger

Cautions

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



RoofFlush Beams\BM2(i20) (Flush Beam)

Dry | 2 spans | No cant.

August 31, 2021 12:11:41

BC CALC® Member Report

Build 7968

Job name:

File name: 2100762A.mmdl

Address:

Description: RoofFlush Beams\BM2(i20)

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.

Hanger Manufacturer: Unassigned

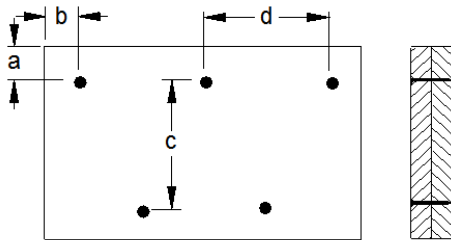
BC CALC® analysis is based on IBC 2012.

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: 08-06-12.

Connection Diagram: Full Length of Member



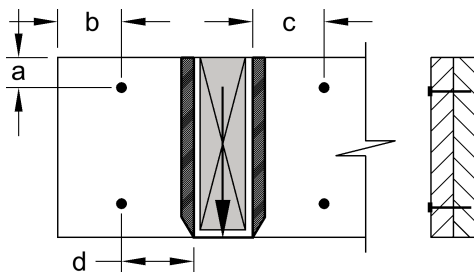
a minimum = 2" c = 5-1/4"
b minimum = 3" d = 24"

Calculated Side Load = 0.0 lb/ft

Connectors are: 3-1/4 in. Pneumatic Gun Nails

Connection Diagrams: Concentrated Side Loads

Connection Tag: A Applies to load tag(s): 86+90+87



a minimum = 2"
b minimum = 4"
c minimum = 4"
d maximum = 12"

Connectors are: 4 x 3-1/4 in. Pneumatic Gun Nails

Disclosure

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