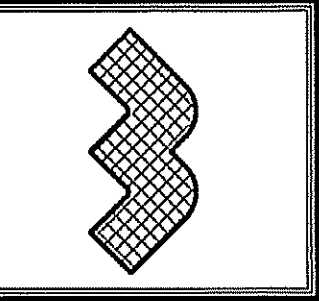


THIS PLAN IS DESIGNED TO MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE 2012 EDITION

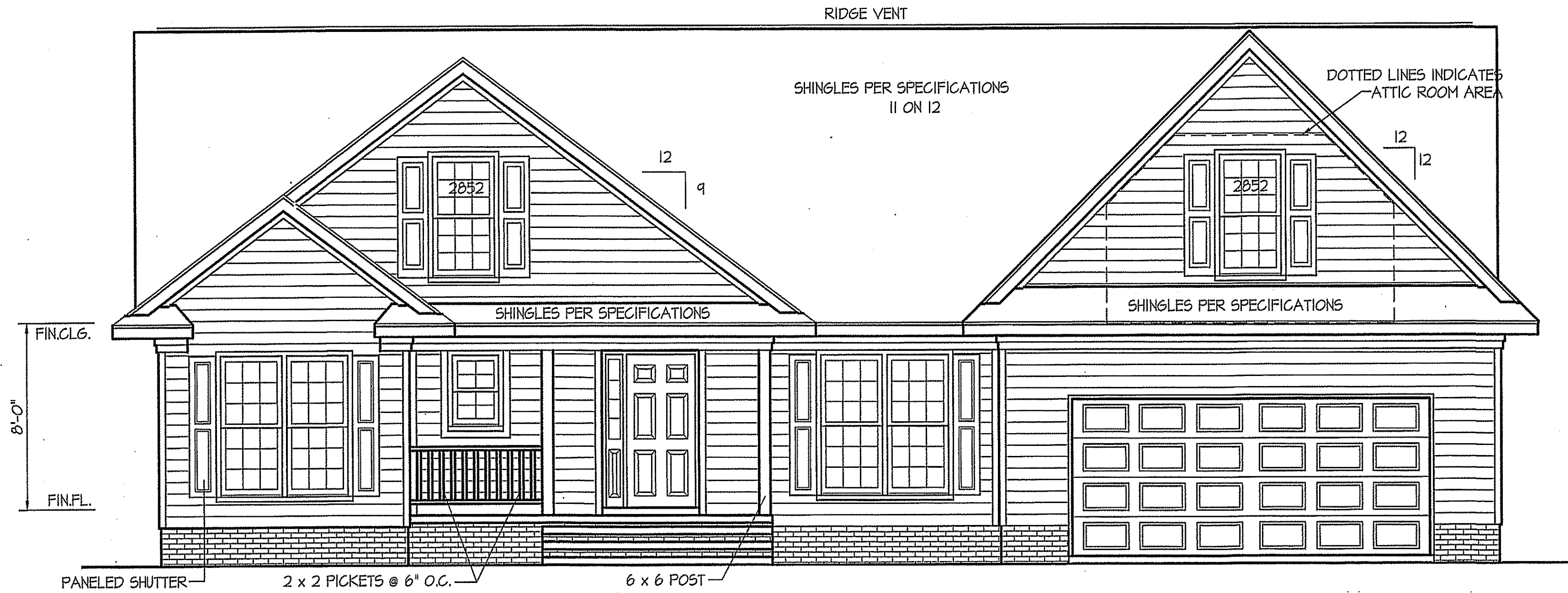
DATE:
MARCH - 2018

WELLONS HOMES
P.O. BOX 730
DUNN, N.C. - 28335
O: (910) 892-3123 FAX: (910) 892-5032
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EXCLUSIVE PLAN FOR
WELLONS HOMES
WATERFORD COLLECTION SERIES
HUNTINGTON - A
REVERSED

SHEET NO.
1

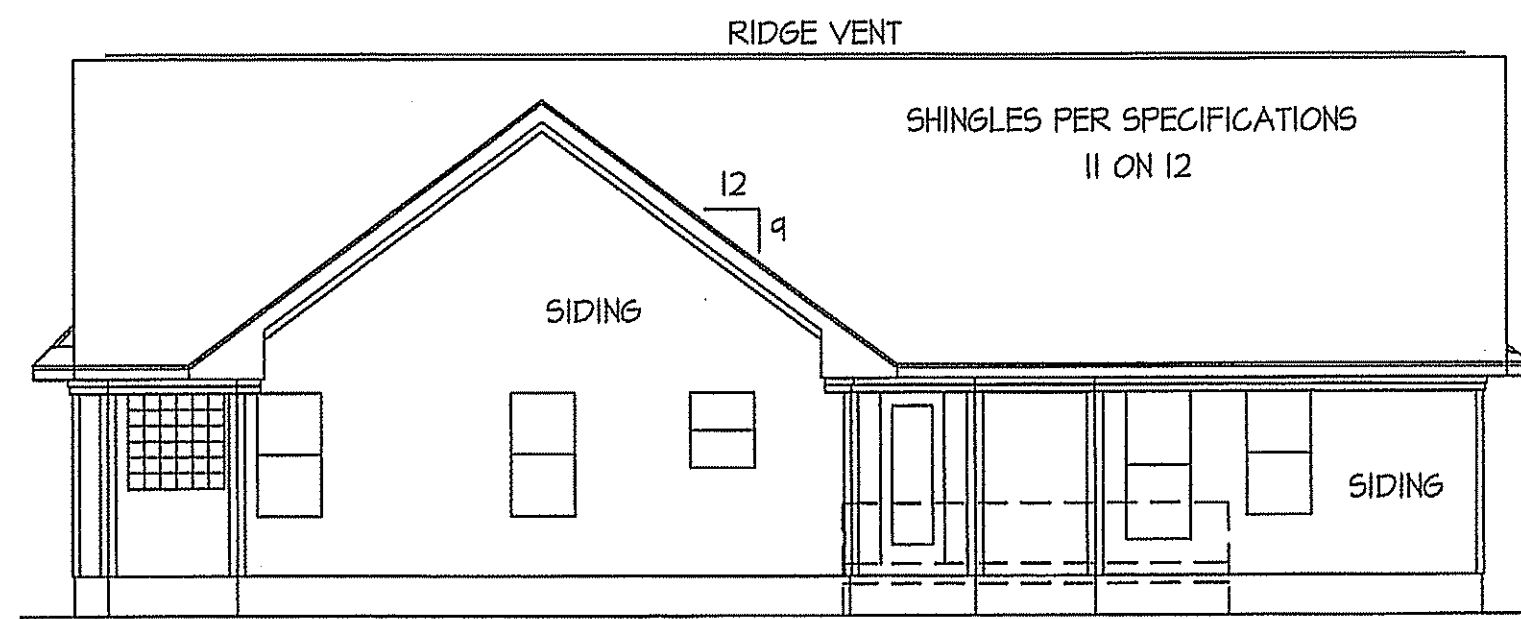


FRONT ELEVATION

SCALE: 1/4" = 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-30	R-30
MINIMUM WALL R-VALUE	R-13	R-15, 13+2.5
MINIMUM FLOOR R-VALUE	R-19	R-19
MIN. CRAWL SPACE WALL R-VALUE	5/10	10/13
MIN. SLAB R-VALUE	0	R-10

PROVIDE STEPS AS REQUIRED
GRADE MAY VARY - BUILDER TO VERIFY

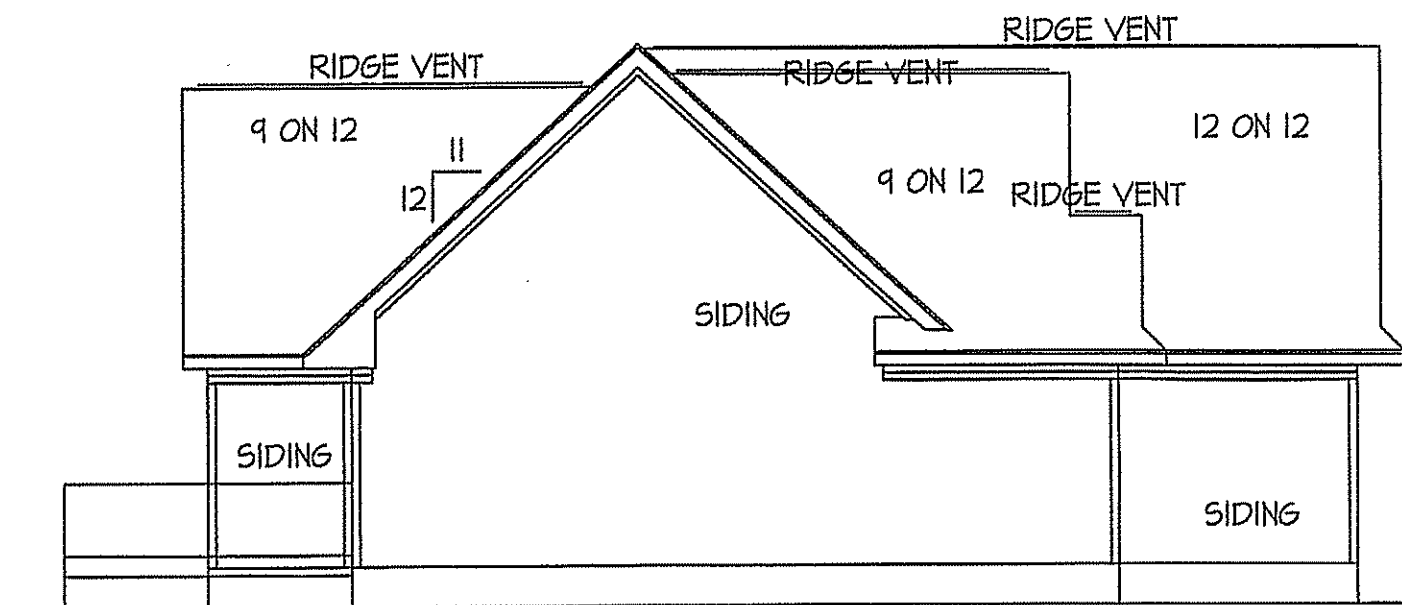


REAR ELEVATION

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

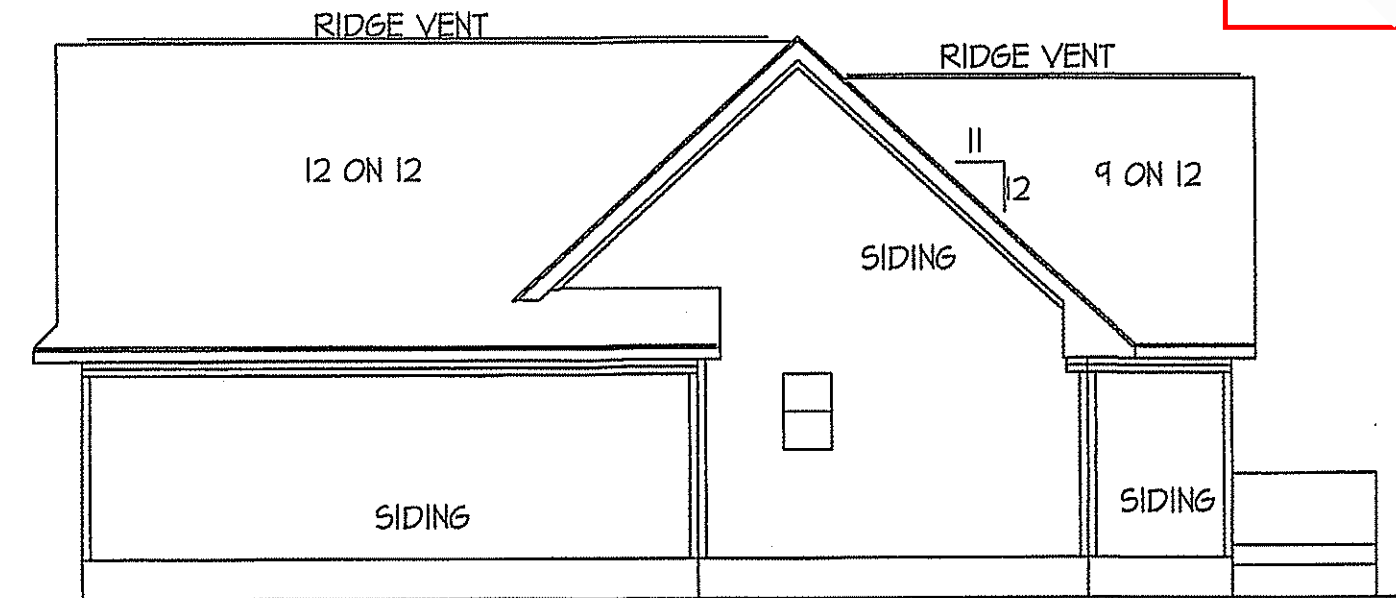
PROVIDE STEPS AS REQ'D.
BUILDER TO VERIFY GRADE
FND. VENTS NOT SHOWN (SEE SHEET #3)

ROOF VENTILATION REQ'MTS.
2099 ATTIC SQ. FT. / 300 = 7.0
PROVIDED ON PLAN
120 L.F. RIDGE VENT = 22.5
163 L.F. SOFFIT VENT = 8.9
TOTAL = 31.40 S.F. FREE NET AREA



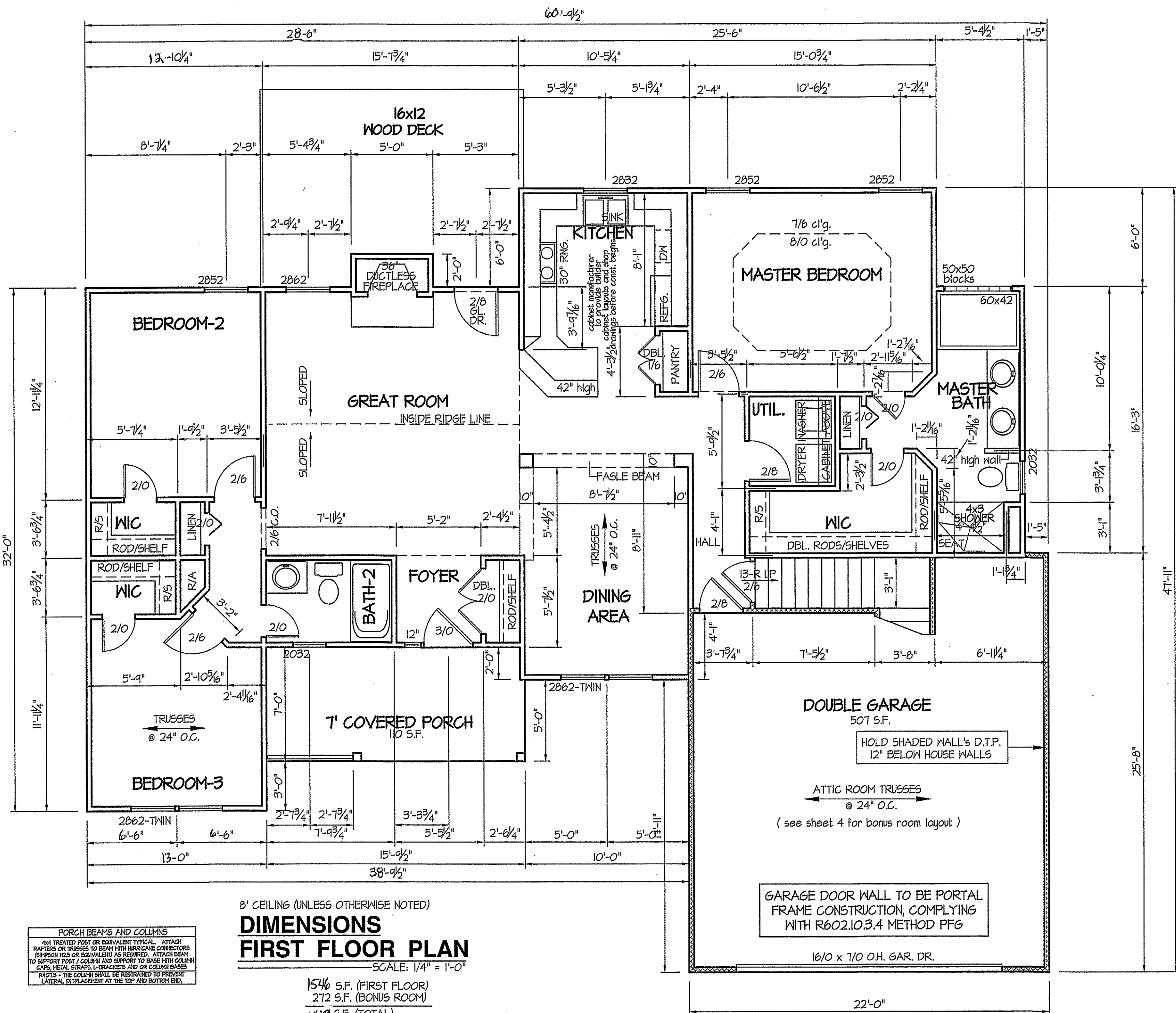
LEFT ELEVATION

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



RIGHT ELEVATION

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

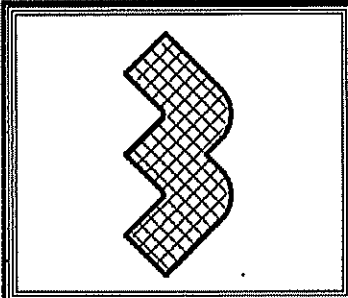


8' CEILING (UNLESS OTHERWISE NOTED)
DIMENSIONS
FIRST FLOOR PLAN
 SCALE: 1/4" = 1'-0"
 1546 S.F. (FIRST FLOOR)
 272 S.F. (BONUS ROOM)
 1818 S.F. (TOTAL)
 1818

PORCH BEAMS AND COLUMNS
 4x4 TREATED POST OR EQUIVALENT TYPICAL. ATTACH RAFTERS OR TRUSSES TO BEAM WITH HURRICANE CONNECTORS (5/8"x2 1/2" H.S. OR EQUIVALENT) AS REQUIRED. ATTACH BEAM TO SUPPORT POST / COLUMN AND SUPPORT TO BASE WITH COLUMN CAPS, METAL STRAPS, L-BRACKETS AND OR COLUMN BASES.
 R40713 - THE COLUMN SHALL BE RESTRAINED TO PREVENT LATERAL DISPLACEMENT AT THE TOP AND BOTTOM END.

DATE:
 MARCH - 2018

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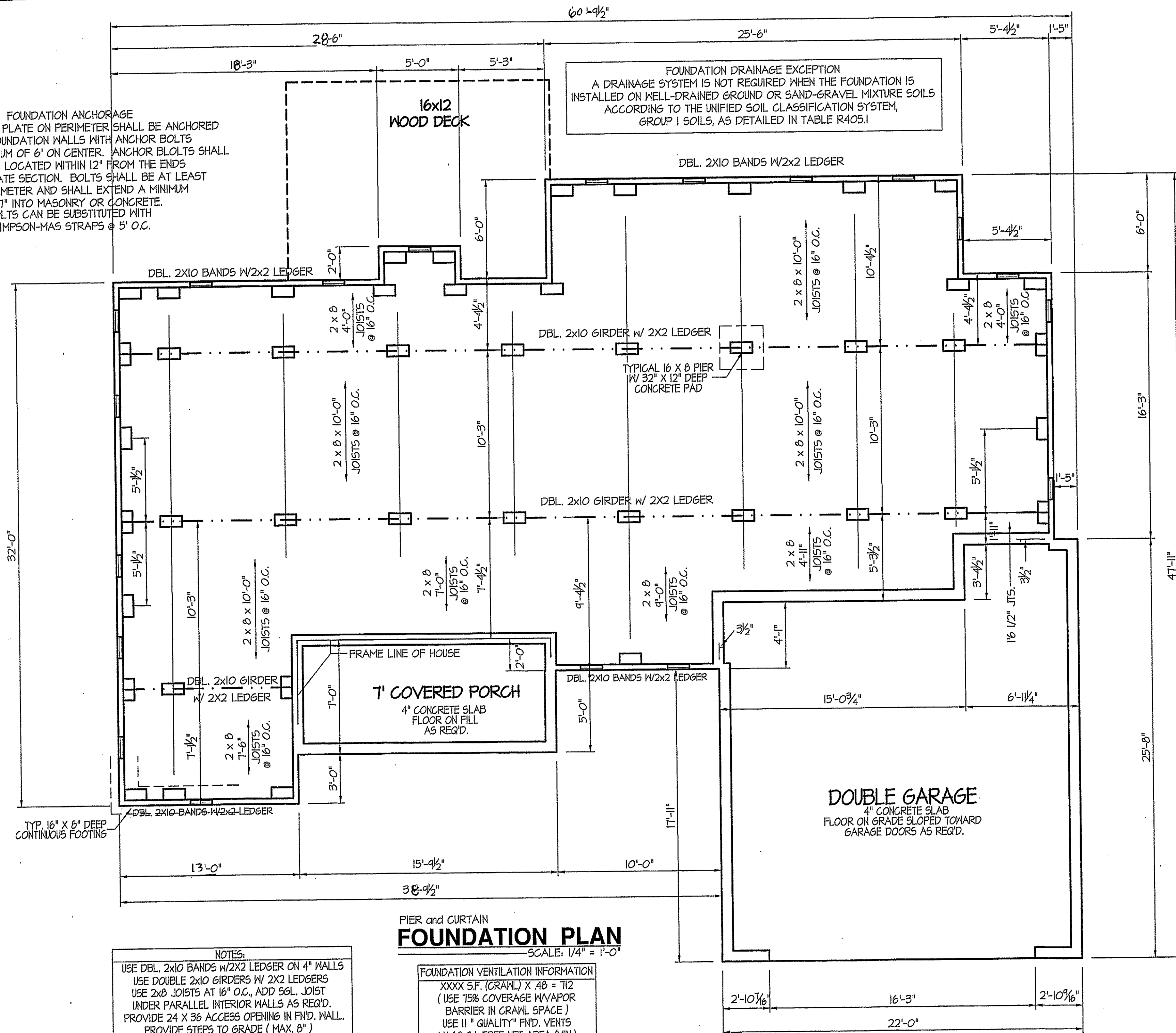
EXCLUSIVE PLAN FOR
WELLONS HOMES
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HUNTINGTON - A
 REVERSED

PLAN:
 SHEET NO.
2

DISK FILE NO. 547 FILE NAME: HUNTINGA - AUGUST 2002

FOUNDATION ANCHORAGE
 THE WOOD SILL PLATE ON PERIMETER SHALL BE ANCHORED TO THE FOUNDATION WALLS WITH ANCHOR BOLTS SPACED A MAXIMUM OF 6' ON CENTER. ANCHOR BOLTS SHALL ALSO BE LOCATED WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION. BOLTS SHALL BE AT LEAST 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO MASONRY OR CONCRETE. BOLTS CAN BE SUBSTITUTED WITH SIMPSON-MA5 STRAPS @ 5' O.C.

FOUNDATION DRAINAGE EXCEPTION
 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 1 SOILS, AS DETAILED IN TABLE R405.1



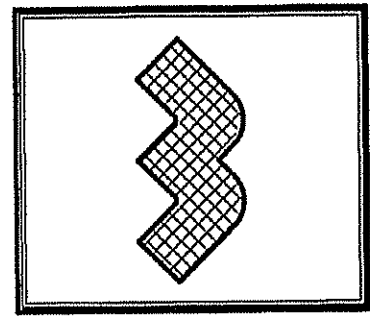
NOTES:
 USE DBL. 2x10 BANDS w/2x2 LEDGER ON 4" WALLS
 USE DOUBLE 2x10 GIRDERS w/ 2x2 LEDGERS
 USE 2x8 JOISTS AT 16" O.C., ADD SGL. JOIST UNDER PARALLEL INTERIOR WALLS AS REQ'D.
 PROVIDE 24 X 36 ACCESS OPENING IN FND. WALL.
 PROVIDE STEPS TO GRADE (MAX. 8")

PIER and CURTAIN
FOUNDATION PLAN
 SCALE: 1/4" = 1'-0"

FOUNDATION VENTILATION INFORMATION
 XXXX S.F. (CRAWL) X .48 = 712
 (USE 75% COVERAGE W/VAPOR BARRIER IN CRAWL SPACE)
 USE 11" QUALITY FND. VENTS W/ 68 S.I. FREE NET AREA (MIN.)

DATE:
 MARCH - 2018

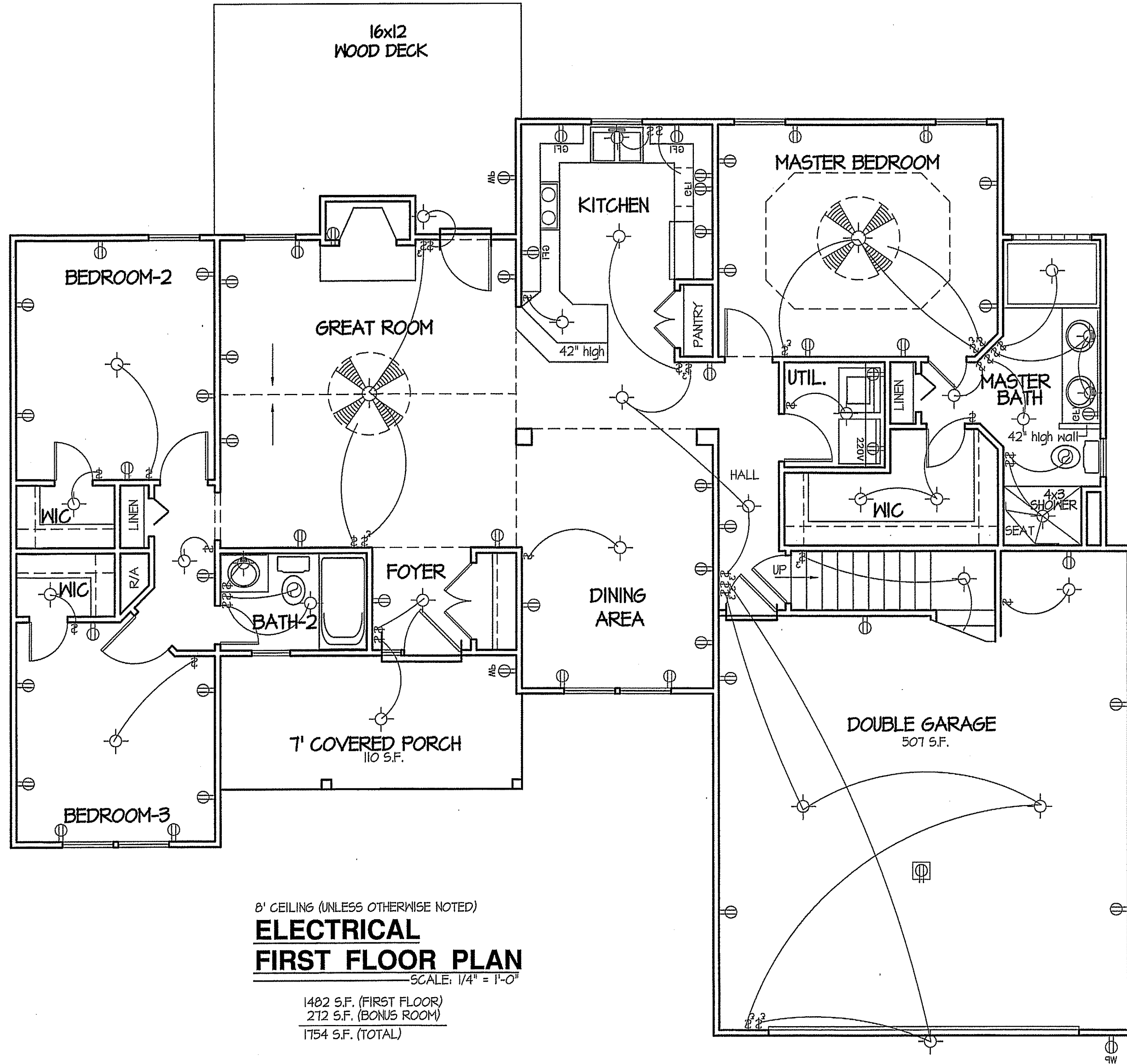
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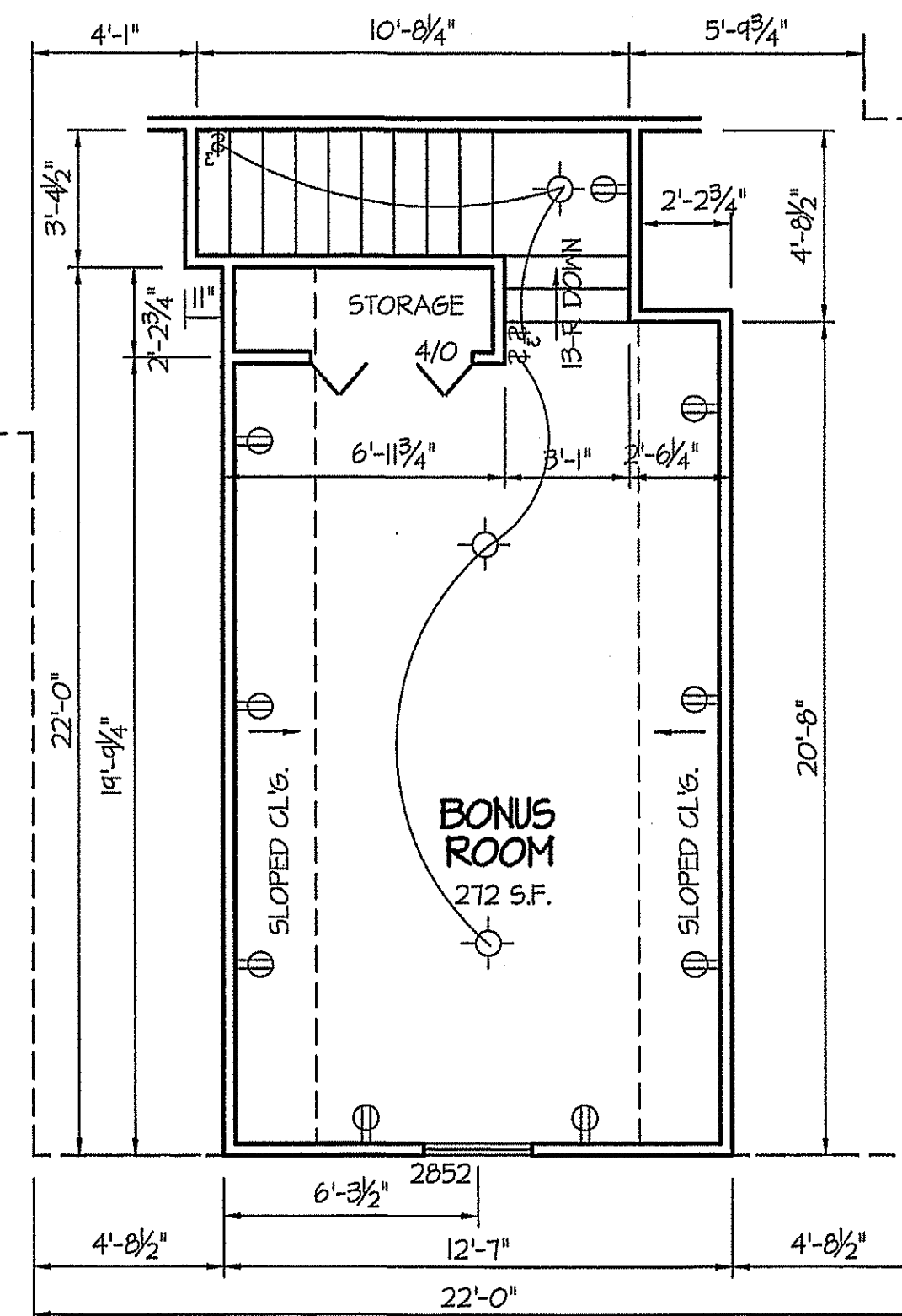
EXCLUSIVE PLAN FOR
WELLONS HOMES
 WATERFORD COLLECTION SERIES
HUNTINGTON - A
 REVERSED

PLAN:
 SHEET NO.
3

DISK FILE NO. 5477. FILE-NAME: HUNTINGA - AUGUST 2002



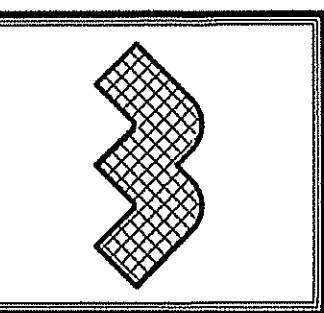
8' CEILING (UNLESS OTHERWISE NOTED)
ELECTRICAL
FIRST FLOOR PLAN
 SCALE: 1/4" = 1'-0"
 1402 S.F. (FIRST FLOOR)
 272 S.F. (BONUS ROOM)
 1754 S.F. (TOTAL)



DIM./ELEC.
BONUS ROOM
 SCALE: 1/4" = 1'-0"

DATE:
 MARCH - 2018

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HUNTINGTON - A
 REVERSED

PLAN:
 SHEET NO.
4

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Lenny Norris
Lenny Norris

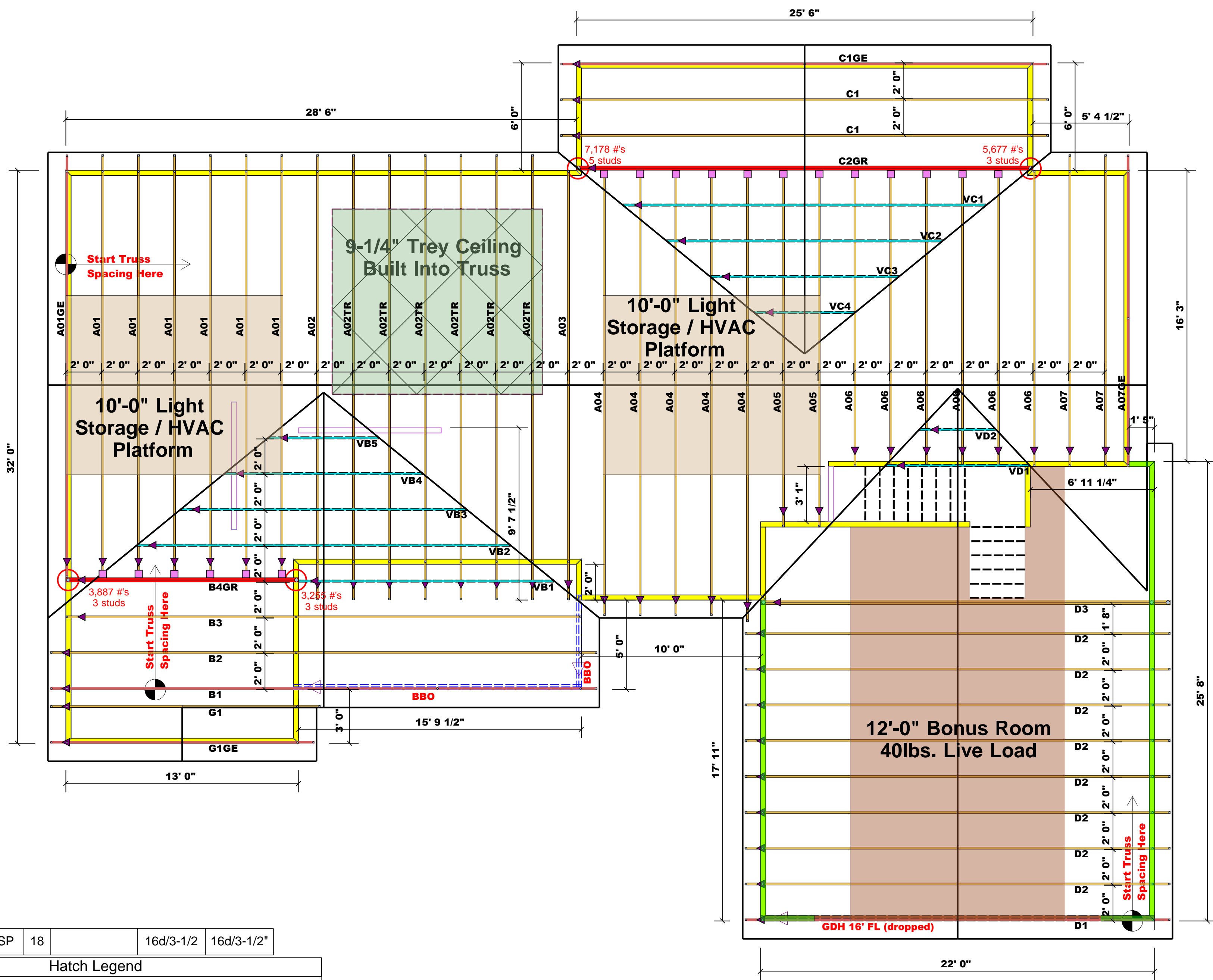
LOAD CHART FOR JACK STUDS
(BASED ON TABLES R502.5(1) & (b))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER		
END REACTION (UP TO)	REQ. D. STUDS FOR (1) 1" X 4" HEADER	REQ. D. STUDS FOR (2) 1" X 4" HEADER
1700	1	2
2550	1	2
3400	2	2
5100	3	3
6800	4	4
8500	5	5
10200	6	6
11900	7	
13600	8	
15300	9	

CITY / CO.	ADDRESS	MODEL	DATE REV.	DRAWN BY	SALES REP.
Wellons Realty Inc.	57 Waters Edge Dr / Harnett	ROOF	04/18/23	Lenny Norris	Lenny Norris

BUILDER	JOB NAME	PLAN	SEAL DATE	QUOTE #	JOB #
Wellons Realty Inc.	Lot 3 The Cape	HUNTINGTON			JO423-1755

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 BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com



	HUS28	USP	18	16d/3-1/2	16d/3-1/2"
--	-------	-----	----	-----------	------------

Hatch Legend

	= MAIN LOAD BEARING WALL HGT. @ 9-1-8
	= DROP GARAGE WALLS 1'-0" BELOW MAIN WALL HGT.

Estimation

Name	Selection	Formula	Calculation
Roof Area	1st Floor	Roof Area	3210.25
Roof Decking	1st Floor	Roof Decking	110

BEAM LEGEND

PlotID	Length	Product	Plies	Net Qty	Fab Type
GDH 16' FL (dropped)	22' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF

Truss Placement Plan
SCALE: 1/4" = 1'-0"

▲ = Denotes Left End of Truss
(Reference Engineered Truss Drawing)

All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.

○ -- Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

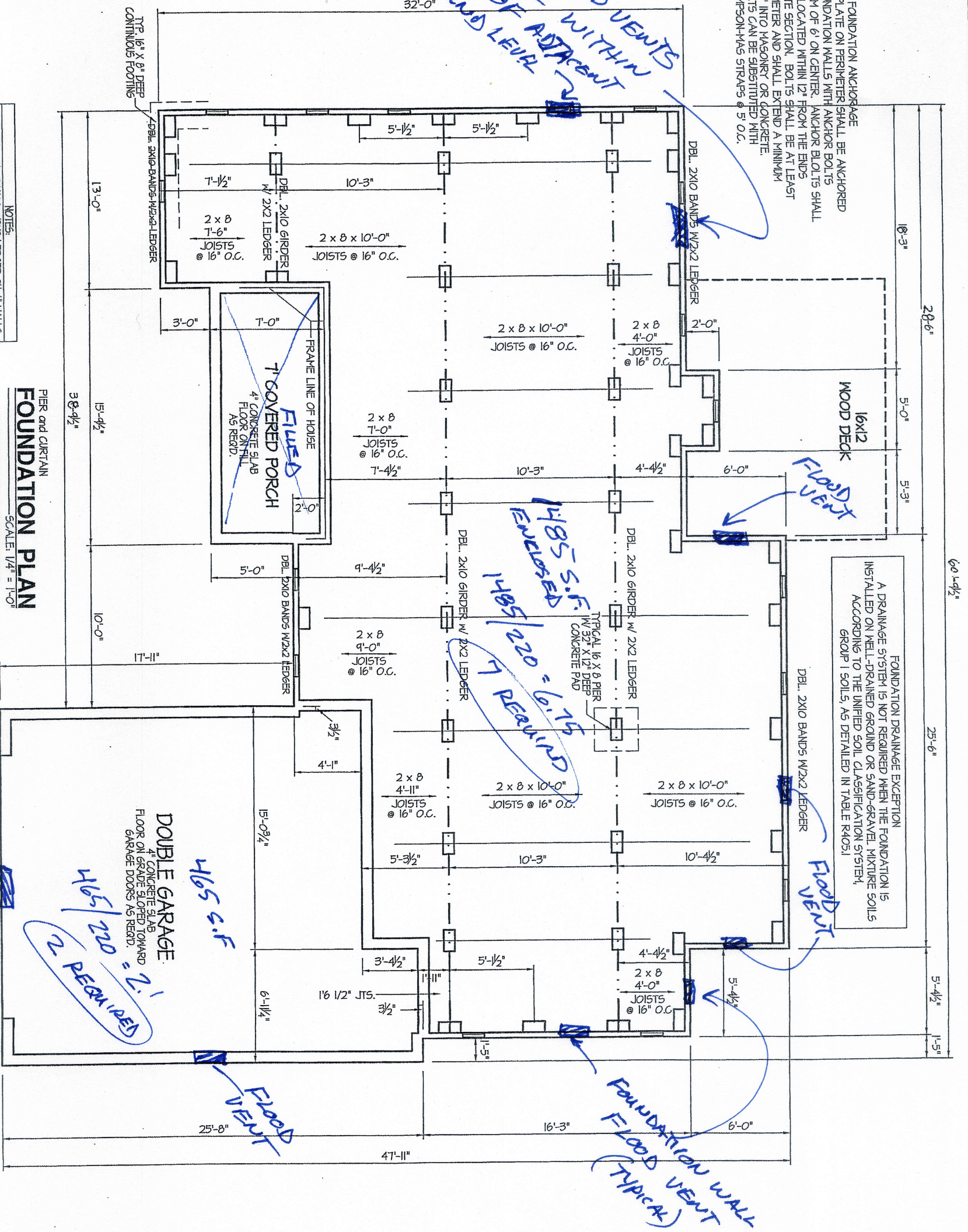
*** ALL FLOOD VENTS MUST BE WITHIN 1-FOOT OF ADJACENT GROUND LEVEL**

FOUNDATION ANCHORAGE TO THE FOUNDATION WALLS WITH ANCHOR BOLTS SPACED A MAXIMUM OF 6' ON CENTER. ANCHOR BOLTS SHALL ALSO BE LOCATED WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION. BOLTS SHALL BE AT LEAST 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO MASONRY OR CONCRETE. BOLTS CAN BE SUBSTITUTED WITH SIMPSON-WAS STRAPS @ 5' O.C.

FOUNDATION DRAINAGE EXCEPTION
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 1 SOILS, AS DETAILED IN TABLE R405.1

NOTES:
USE DBL. 2X10 BANDS W/2X2 LEDGER ON 4" WALLS
USE DOUBLE 2X10 GIRDERS W/ 2X2 LEDGERS
USE 2X8 JOISTS AT 16" O.C. ADD 56L JOIST UNDER PARALLEL INTERIOR WALLS AS REQ'D.
PROVIDE 24 X 36 ACCESS OPENING IN FND. WALL. PROVIDE STEPS TO GRADE (MAX. 8")

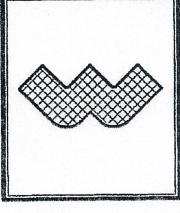
PIER and CURTAIN FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



*** 9 FLOOD VENTS REQUIRED**

GARAGE DOOR MODEL FLOOD VENT

PLAN: **EXCLUSIVE PLAN FOR WELLONS HOMES**
WATERFORD COLLECTION SERIES
HUNTINGTON - A REVERSED



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DATE:
MARCH - 2018

SHEET NO.
3



- I-Codes provide recognition in all 50 states
- Specialty code recognition

ICC-ES Evaluation Report

Reissued March 2022

ESR-4332

This report is subject to renewal March 2024.

DIVISION: 08 00 00—OPENINGS
Section: 08 95 43—Vents / Foundation Flood Vents

REPORT HOLDER:

SMART PRODUCT INNOVATIONS, INC.

EVALUATION SUBJECT:

FREEDOM FLOOD VENT™ AUTOMATIC FOUNDATION FLOOD VENT: MODEL FFV-1608

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Physical operation
- Water flow
- Weathering

2.0 USES

The model FFV-1608 Freedom Flood Vent™ is used to equalize hydrostatic pressure on walls of enclosures subject to rising or falling floodwaters. With the cover removed, the model FFV-1608 also provides natural air ventilation.

3.0 DESCRIPTION

3.1 General:

The model FFV-1608 Freedom Flood Vent™ is an engineered mechanically operated in-wall flood vent (FV) that automatically allows floodwater to enter an enclosed area and exit. The FV is comprised of a polycarbonate frame with mounting flange and a polycarbonate horizontally pivoting door. When subjected to rising water, the model FFV-1608 Freedom Flood Vent™ door is activated and pivots to allow water and debris to flow in either direction to equalize hydrostatic pressure from one side of the enclosure to the other. The FV features a removable polycarbonate cover. The FV door will activate and pivot when subjected to rising water with or without the polycarbonate cover installed.

3.2 Engineered Opening:

The FV complies with the design principle noted in Section 2.7.2.2 and Section 2.7.3 of ASCE/ SEI 24-14 (2021, 2018 and 2015 IBC and IRC) [Section 2.6.2.2 of ASCE/ SEI 24-05 (2012, 2009, 2006 IBC and IRC)] for a maximum rate of rise and fall of 5.0 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/ SEI 24, Freedom Flood Vent™ FVs must be installed in accordance with Section 4.0 below. See Table 1 for vent size and maximum allowable area coverage for a single vent.

4.0 DESIGN AND INSTALLATION

The model FFV-1608 Freedom Flood Vent™ is designed to be installed into walls or overhead doors of existing or new construction. Installation of the vent must be in accordance with the manufacturer's instructions, the applicable code, and this report. In order to comply with the engineered opening design principle noted in Sections 2.7.2.2 and 2.7.3 of ASCE/ SEI 24-14 (2021, 2018 and 2015 IBC and IRC) [Section 2.6.2.2 of ASCE/ SEI 24-05 (2012, 2009, 2006 IBC and IRC)], the Freedom Flood Vent™ must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one FV for every 250 square feet (23.2 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the vent located a maximum of 12 inches (305.4 mm) above the higher of the final interior grade or floor and the finished exterior grade immediately under each opening.

5.0 CONDITIONS OF USE

The Freedom Flood Vent™ described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The model FFV-1608 Freedom Flood Vent™ unit must be installed in accordance with this report, the applicable code and the manufacturer's published installation instructions. In the event of a conflict, the instructions in this report shall govern.
- 5.2 The model FFV-1608 Freedom Flood Vent™ unit must not be used in place of "breakaway walls" in coastal

high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

5.3 Use of the Freedom Flood Vent as under-floor space ventilation is outside the scope of this report.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015 (editorially revised February 2021).

7.0 IDENTIFICATION

7.1 The Freedom Flood Vent™ model described in this report must be identified by a label bearing the manufacturer's name (Smart Product Innovations, Inc.) and the evaluation report number (ESR-4332).

7.2 The report holder's contact information is the following:

SMART PRODUCT INNOVATIONS, INC.
 430 ANDBRO DRIVE, UNIT 1
 PITMAN, NEW JERSEY 08071
 (800) 507-1527
www.freedomfloodvent.com
info@freedomfloodvent.co

TABLE 1—FREEDOM FLOOD VENT™

MODEL NAME	MODEL NUMBER	MODEL SIZE	COVERAGE (sq. ft.)
Freedom Flood Vent™	FFV-1608	15 ³ / ₄ " X 8 ¹ / ₁₆ "	250

For SI: 1 inch = 25.4 mm

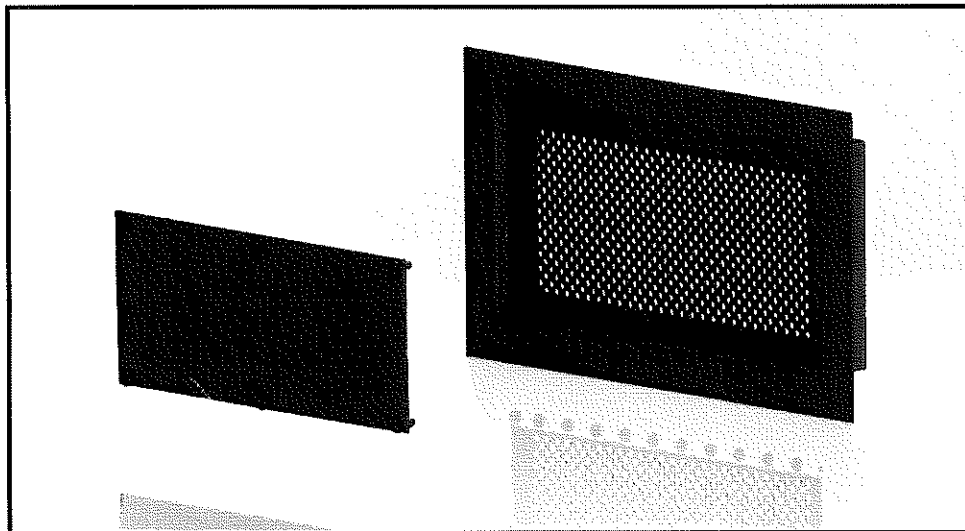


FIGURE 1—MODEL FFV-1608 FREEDOM FLOOD VENT™; SHOWN WITH COVER REMOVED

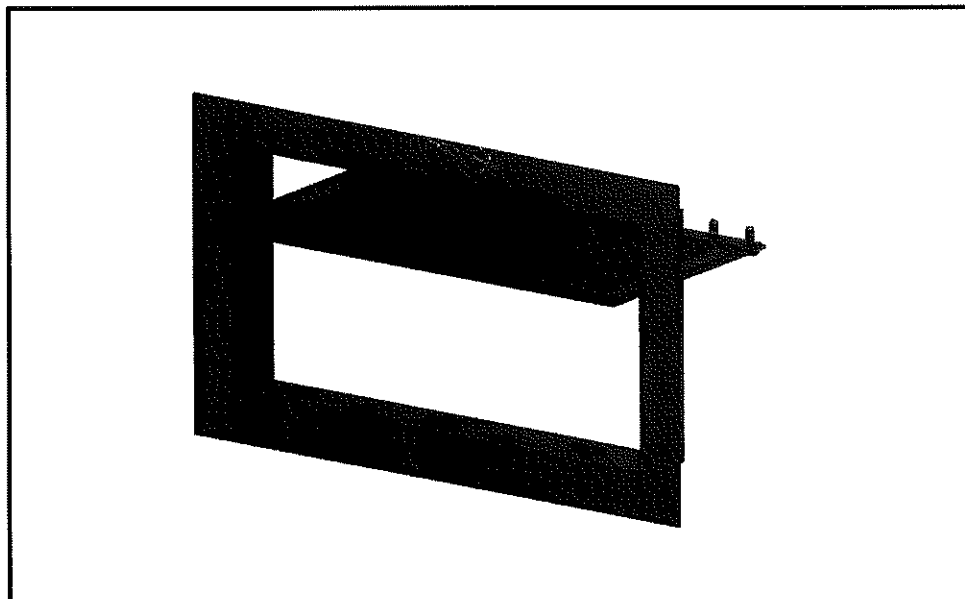
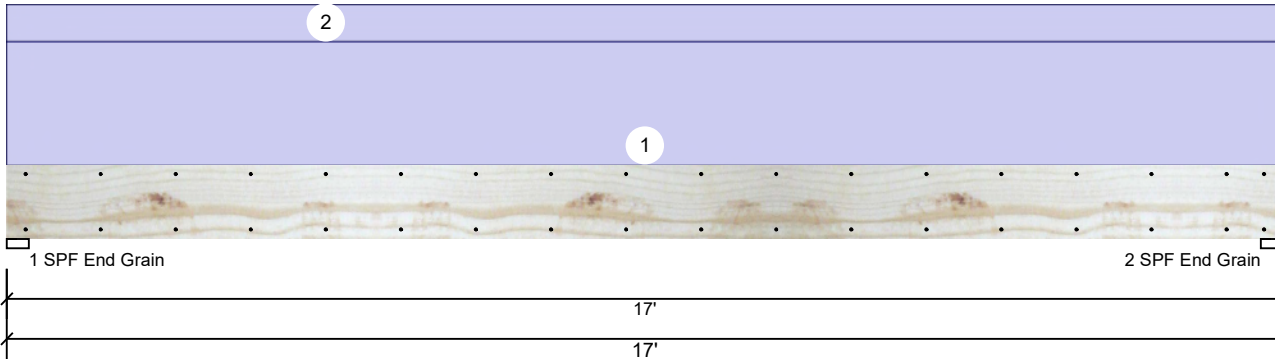


FIGURE 2—MODEL FFV-1608 FREEDOM FLOOD VENT™; SHOWN WITH FLOOD DOOR PIVOTED OPEN

GDH 16' Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	2289	0	0	0
2	Vertical	0	2289	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	22%	2289 / 0	2289	Uniform	D
2 - SPF End Grain	3.500"	Vert	22%	2289 / 0	2289	Uniform	D

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9209 ft-lb	8'6"	17919 ft-lb	0.514 (51%)	D	Uniform
Unbraced	9209 ft-lb	8'6"	9215 ft-lb	0.999 (100%)	D	Uniform
Shear	1953 lb	1'3 3/8"	7980 lb	0.245 (24%)	D	Uniform
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.490 (L/405)	8'6 1/16"	0.551 (L/360)	0.888 (89%)	D	Uniform

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 9'11 13/16" o.c.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	200 PLF	0 PLF	0 PLF	0 PLF	0 PLF	GABLE END
2	Uniform			Top	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	DEAD WALL
	Self Weight				9 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

Metsä Wood
 301 Merritt 7 Building, 2nd Floor
 Norwalk, CT 06851
 (800) 622-5850
www.metsawood.com/us

Comtech
 Reilly Road Industrial Park P.O. Box 40408, NC
 USA
 28309
 910-864-8787



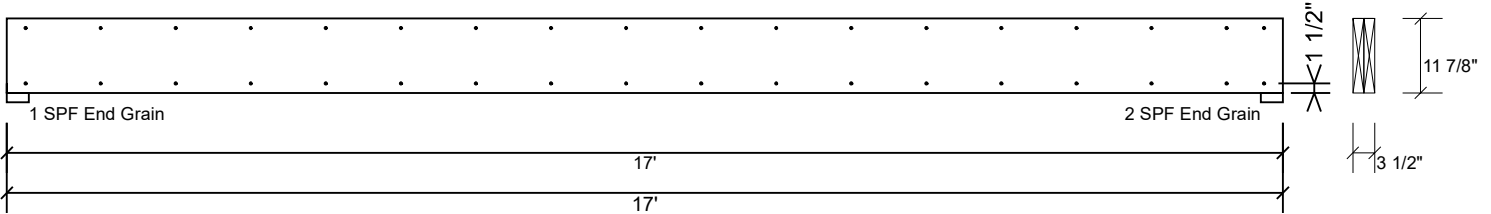


Client: WELLONS
 Project:
 Address:

Date: 4/18/2023
 Input by: LENNY NORRIS
 Job Name: HUNTINGTON
 Project #:

GDH 16' Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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