PLANS DESIGNED TO THE **2018 NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE**

MEAN ROOF HEIGHT: 19'-9"

CLIMATE ZONE	ZONE 3A	ZONE 4A	ZONE 5A
FENESTRATION U-FACTOR	0.35	0.35	0.35
SKYLIGHT U-FACTOR	0.55	0.55	0.55
GLAZED FENESTRATION SHGC	0.30	0.30	0.30
CEILING R-VALUE	38 or 30ci	38 or 30ci	38 or 30ci
WALL R-VALUE	15	15	19
FLOOR R-VALUE	19	19	30
* BASEMENT WALL R-VALUE	5/13	10/15	10/15
** SLAB R-VALUE	0	10	10
* CRAWL SPACE WALL R-VALUE	5/13	10/15	10/19
* II10/10II MEANC D 10 CHEATHING INC	III ATTON OD D 12 C	AV/ITY/ INCLUATION	

* "10/13" MEANS R-10 SHEATHING INSULATION OR R-13 CAVITY INSULATION

** INSULATION DEPTH WITH MONOLITHIC SLAB 24" OR FROM INSPECTION GAP TO BOTTOM OF FOOTING; INSULATION DEPTH WITH STEM WALL SLAB 24" OR TO BOTTOM OF FOUNDATION WALL

DESIGNED FOR WIND SPEED OF 120 MPH, 3 SECOND GUST (93 FASTEST MILE) EXPOSURE "B"								
COMPONENT								
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'
ZONE 1	14.2	-15.0	14.9	-15.8	15.5	-16.4	15.9	-16.8
ZONE 2	14.2	-18.0	14.9	-18.9	15.5	-19.6	15.9	-20.2
ZONE 3	14.2	-18.0	14.9	-18.9	15.5	-19.6	15.9	-20.2
ZONE 4	15.5	-16.0	16.3	-16.8	16.9	-17.4	17.4	-17.9
ZONE 5	15.5	-20.0	16.3	-21.0	16.9	-21.8	17.4	-22.4

DESIGNED FOR WIND SPEED OF 130 MPH, 3 SECOND GUST (101 FASTEST MILE) EXPOSURE "B"								
COMPONENT	& CLA	DDING	DESIG	NED FC	R THE	FOLLO	WING I	_OADS
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'
ZONE 1	16.7	-18.0	17.5	-18.9	18.2	-19.6	18.7	-20.2
ZONE 2	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5
ZONE 3	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5
ZONE 4	18.2	-19.0	19.1	-20.0	19.8	-20.7	20.4	-21.3
ZONE 5	18.2	-24.0	19.1	-25.2	19.8	-26.2	20.4	-26.9

GUARD RAIL NOTES

R312.1 Where required. *Guards* shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches (762 mm) measured vertically to the floor or *grade* below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a *guard*.

R312.2 Height. Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) high measured vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the treads.

1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the

2. Where the top of the *guard* also serves as a handrail on the open sides of stairs, the top of the *guard* shall not be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

R312.3 Opening limitations. Required *guards* shall not have openings from the walking surface to the required guard height which allow passage of a sphere 4 inches (102 mm)in diameter. **Exceptions:**

1. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of a *guard*, shall not allow passage of a sphere 6 inches (153

2. $\ensuremath{\textit{Guards}}$ on the open sides of stairs shall not have openings which allow passage of a sphere 4 3/8 inches (111 mm) in diameter.

ROOF VENTILATION

ELECTRICAL: PIONEER:

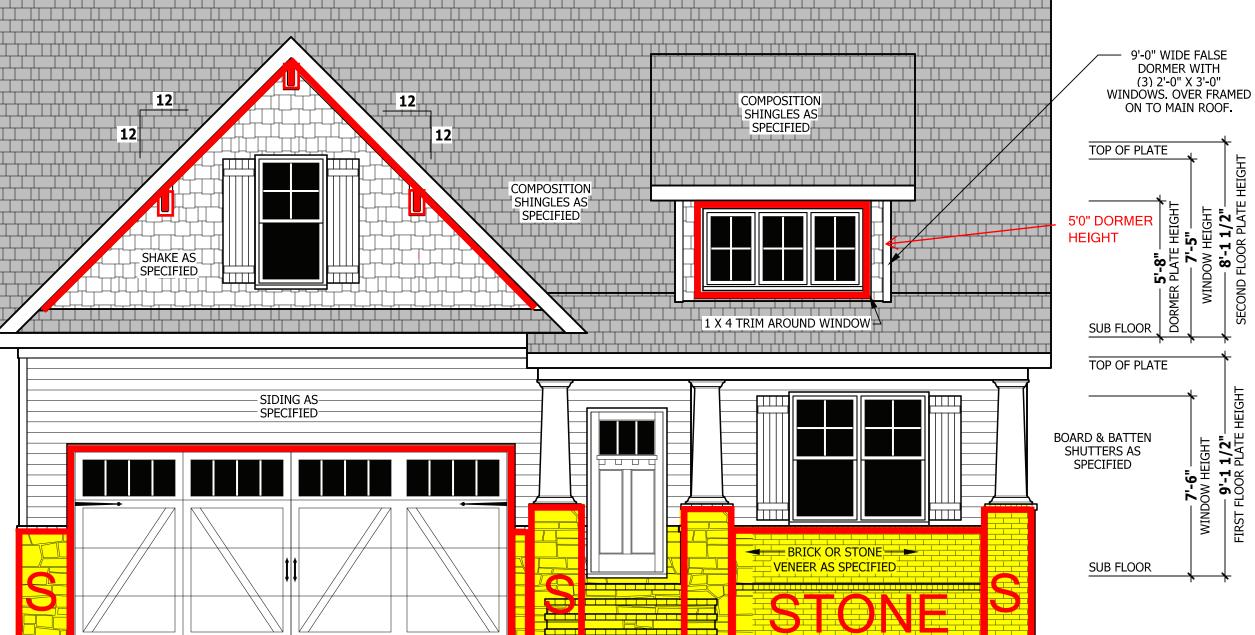
PLUMBING: DOUBLE J

HVAC: TBD

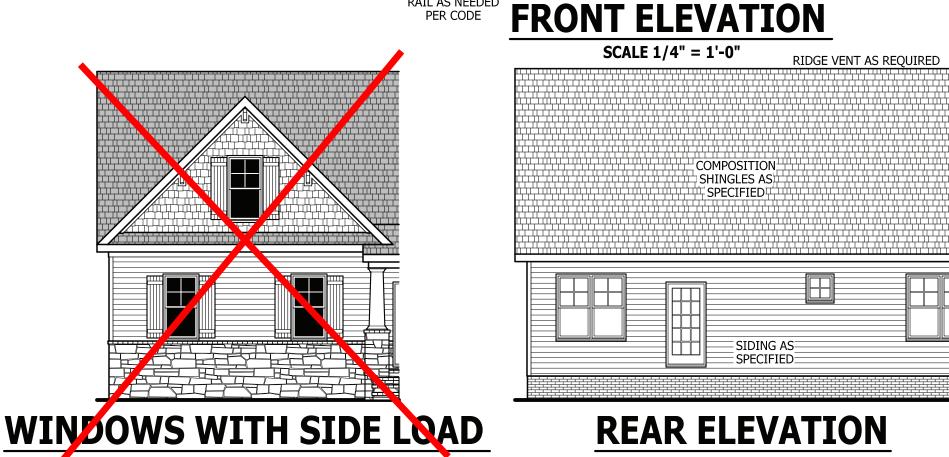
SQUARE FOOTAGE OF ROOF TO BE VENTED = 2,477 SQ.FT.

NET FREE CROSS VENTILATION NEEDED:

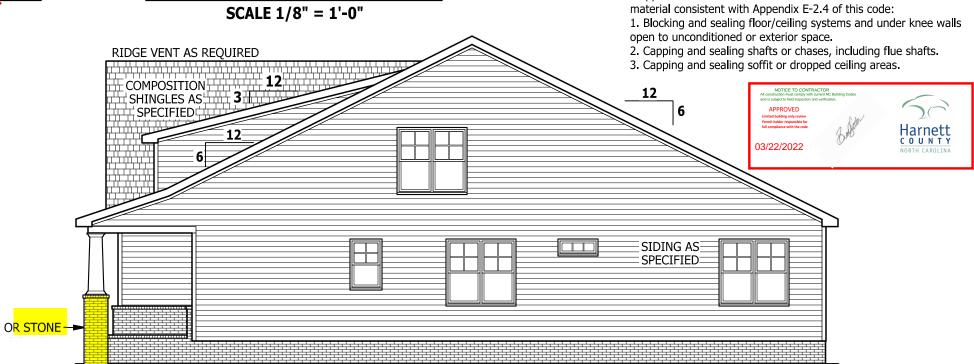
WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 16.51 SQ.FT. WITH 50% TO 80% OF VENTING 3'-0" ABOVE EAVE; OR WITH CLASS I OR II VAPOR RETARDER ON WARM-IN-WINTER SIDE OF CEILING = 8.26 SQ.FT.



RIDGE VENT AS REQUIRED



RAIL AS NEEDED



LOT 5 NORTH POINTE TBD JOSEY WILLIAMS RD **ERWN, NC 28339**

CODES AND CONDITIONS MAY ARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR IGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWING ARE NSTRUMENTS OF SERVICE AND

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SEFORE CONSTRUCTION BEGINS HAYNES HOME PLANS, INC.

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PROCEDURES.

AS SUCH SHALL REMAIN
PROPERTY OF THE DESIGNER.

I

Lauren ELEVATION The

FIRST FLOOR 1766 SQ.FT.
PLAYROOM 400 SQ.FT.
TOTAL 2166 SQ.FT.
HEATED OPTIONAL UNHEATED FRONT PORCH 188 SQ.FT.
GARAGE 488 SQ.FT.
TOTAL 676 SQ.FT.
UNHEATED OPTIONAL
SCREENED PORCH 160 SQ. ET.

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

SPECIFIED= OPTIONAL SIDE LOAD ARAGE DOOR

LEFT SIDE ELEVATION

RIDGE VENT AS REQUIRED

COMPOSITION

SHINGLES AS

SPECIFIED

SCALE 1/8" = 1'-0"

SOUARE FOOTAGE

HEATED FIRST FLOOR PLAYROOM 400 SQ.FT. 2166 SQ.FT.

HEATED OPTIONAL 148 SQ.FT. 304 SQ.FT. CAROLINA ROOM RECREATION ROOM

UNHEATED 188 SQ.FT. FRONT PORCH GARAGE 488 SQ.FT.

452 SQ FT.

292 SQ.FT.

560 SQ.FT.

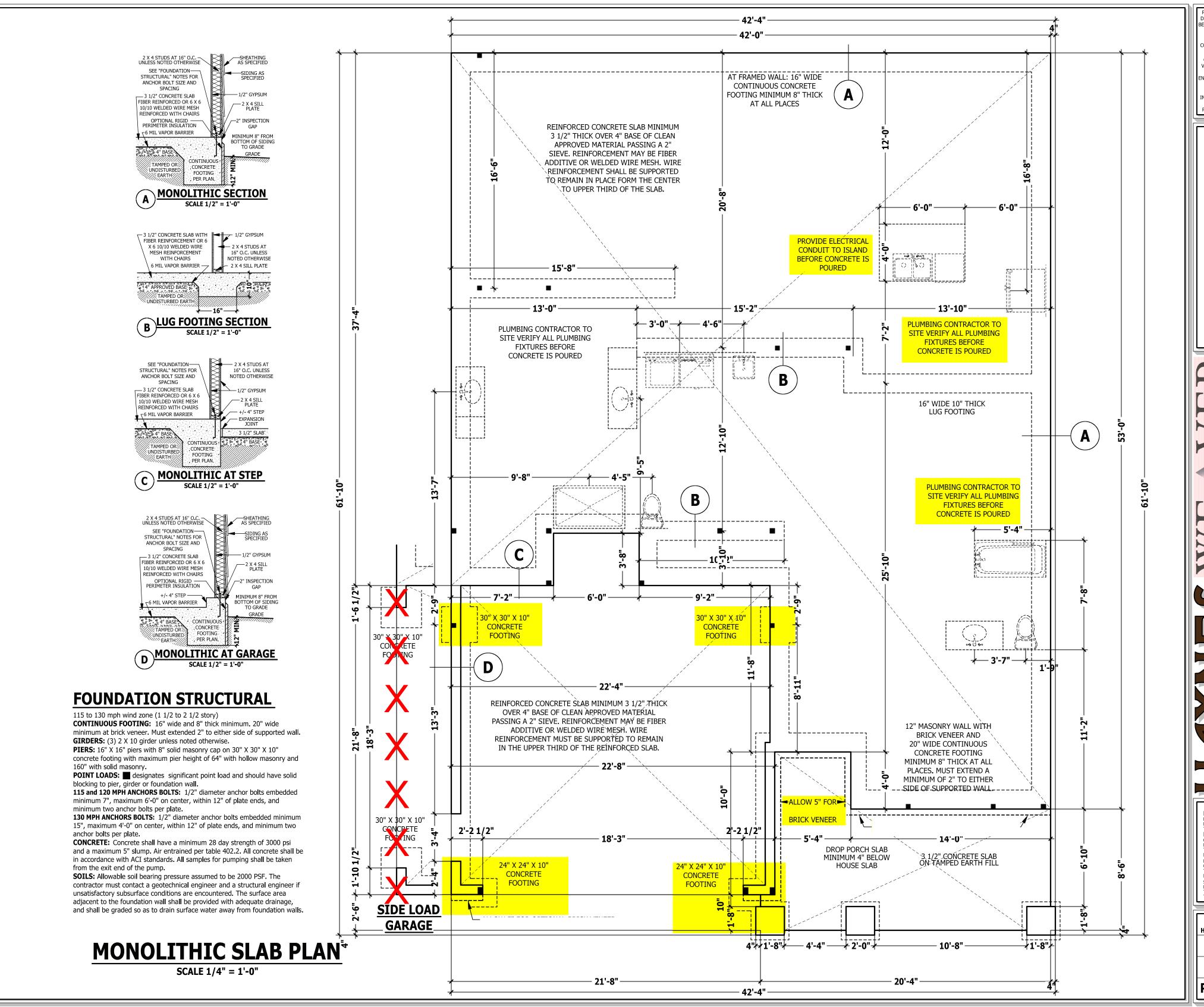
676 SQ.FT. **UNHEATED OPTIONAL** SCREENED PORCH 160 SQ.FT. DECK / PATIO 108 SQ.FT.

AIR LEAKAGE

THIRD GARAGE

Section N1102.4 N1102.4.1 Building thermal envelope. The building thermal envelope shall be durably sealed with an air barrier system to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. For all homes, where present, the following shall be caulked, gasketed, weather stripped or otherwise sealed with an air barrier material or solid

PAGE 1 OF 7



PURCHASER MUST VERIFY ALL BEFORE CONSTRUCTION BEGINS HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND

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NGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWING ARE INSTRUMENTS OF SERVICE AND

AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

Q SLAB

Lauren ONOLITHIC

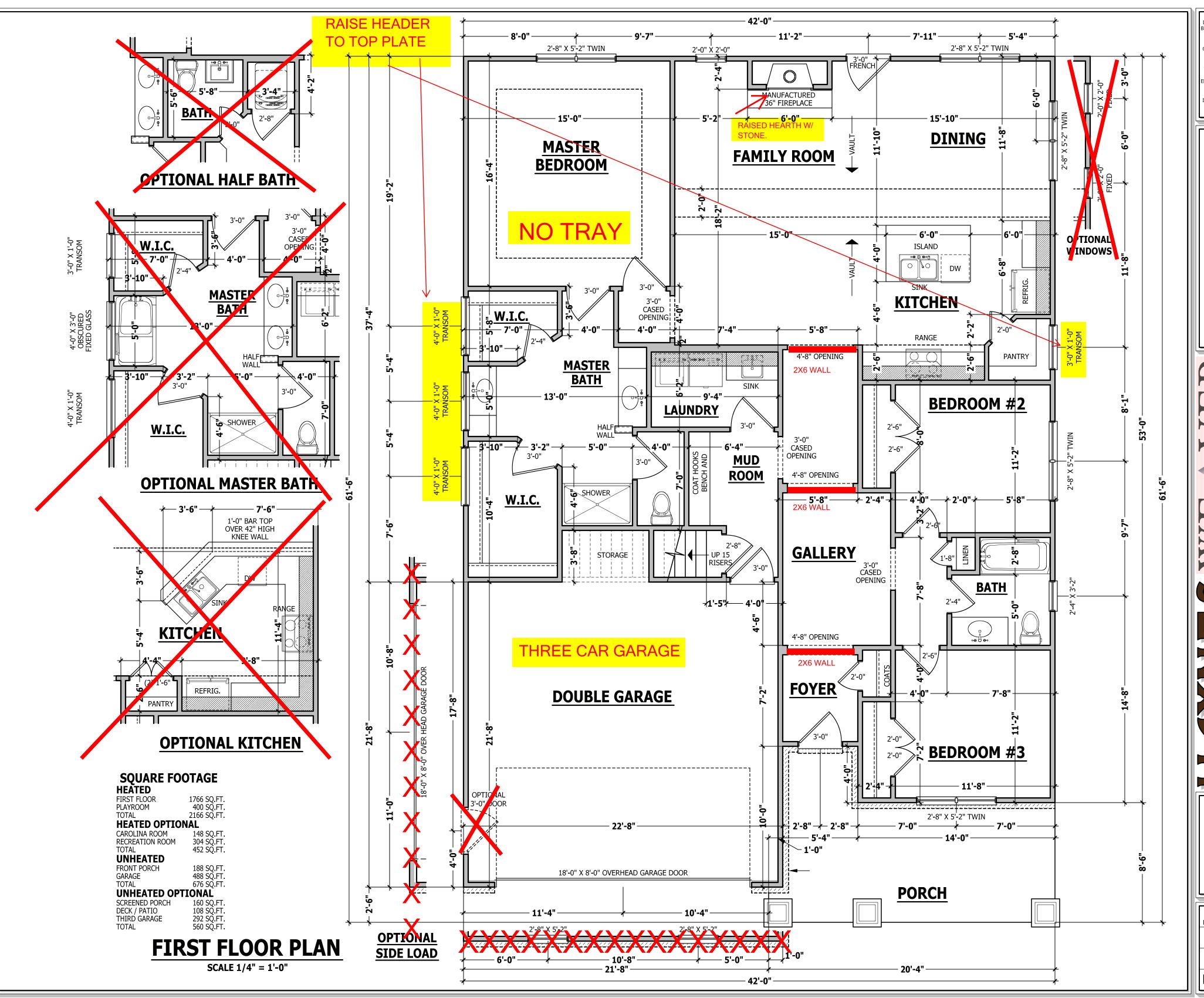
HEATED OPTIONAL CAROLINA ROOM RECREATION ROOM UNHEATED UNHEATED OPTIONAL

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PAGE 2 OF 7



EFORE CONSTRUCTION BEGIN: ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND

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BEFORE CONSTRUCTION. THESE DRAWING ARE NSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

PLAN

Lauren FLOOR **FIRST** The

 SQUARE FOOTAGE

 HEATED
 1766 SQ.FT.

 FIRST FLOOR
 1766 SQ.FT.

 PLAYROOM
 400 SQ.FT.

 TOTAL
 2166 SQ.FT.

 HEATED OPTIONAL
 148 SQ.FT.
 UNHEATED FRONT PORCH

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PAGE 3 OF 7

STRUCTURAL NOTES

All construction shall conform to the latest requirements of the 2018 North Carolina Residential Building Code, plus all local codes and regulations. This document in no way shall be construed to supersede the code.

JOB SITE PRACTICES AND SAFETY: Havnes Home Plans, Inc. assumes no liability for contractors practices and procedures or safety program. Haynes Home Plans, Inc. takes no responsibility for the contractor's failure to carry out the construction work in accordance with the contract documents. All members shall be framed, anchored, and braced in accordance with good construction practice and the building code.

DESIGN LOADS	LIVE LOAD	DEAD LOAD	DEFLECTION
USE	(PSF)	(PSF)	(LL)
Attics without storage	10	10	L/240
Attics with limited storage	20	10	L/360
Attics with fixed stairs	40	10	L/360
Balconies and decks	40	10	L/360
Fire escapes	40	10	L/360
Guardrails and handrails	200		
Guardrail in-fill components	50		
Passenger vehicle garages	50	10	L/360
Rooms other than sleeping	40	10	L/360
Sleeping rooms	30	10	L/360
Stairs	40		L/360
Snow	20		

FRAMING LUMBER: All non treated framing lumber shall be SPF #2 (Fb = 875 PSI) or SYP #2 (Fb = 750 PSI) and all treated lumber shall be SYP #2 (Fb = 750 PSI) unless noted other wise.

ENGINEERED WOOD BEAMS:

Laminated veneer lumber (LVL) = Fb=2600 PSI, Fv=285 PSI, E=1.9x106 PSI Parallel strand lumber (PSL) = Fb=2900 PSI, Fv=290 PSI, E=2.0x106 PSI Laminated strand lumber (LSL) Fb=2250 PSI, Fv=400 PSI, E=1.55x106 PSI Install all connections per manufacturers instructions.

TRUSS AND I-JOIST MEMBERS: All roof truss and I-joist layouts shall be prepared in accordance with this document. Trusses and I-joists shall be installed according to the manufacture's specifications. Any change in truss or I-joist layout shall be coordinated with Haynes Homes Plans, Inc. **LINTELS:** Brick lintels shall be 3 1/2" x 3 1/2" x 1/4" steel angle for up to 6'-0" span. 6" x 4" x 5/16" steel angle with 6" leg vertical for spans up to 9'-0" unless noted otherwise. 3 1/2" x 3 1/2" x 1/4" steel angle with 1/2" bolts at 2'-0" on center for spans up to 18'-0" unless noted otherwise. **FLOOR SHEATHING:** OSB or CDX floor sheathing

minimum 1/2" thick for 16" on center joist spacing, minimum 5/8" thick for 19.2" on center joist spacing, and minimum 3/4" thick for 24" on center joist spacing. **ROOF SHEATHING:** OSB or CDX roof sheathing minimum

3/8" thick for 16" on center rafters and 7/16" for 24" on

CONCRETE AND SOILS: See foundation notes.

- HEADER SPAN < 3' 3'-4' 4'-8' 8'-12' 12'-16' KING STUD(S) 1 2 3 5 6
- LOAD BEARING HEADERS (2) 2 X 6 WITH 1 JACK STUD AND 1 KING STUD EACH END
- NON LOAD BEARING HEADERS TO BE LADDER FRAMED

EXTERIOR WALLS: All exterior walls to be sheathed with CS-WSP or CS-SFB in accordance with section R602.10.3 unless

GYPSUM: All interior sides of exterior walls and both sides interior walls to have 1/2" gypsum installed. When not using method GB gypsum to be fastened per table R702.3.5. Method GB to be fastened per table R602.10.1.

REQUIRED LENGTH OF BRACING: Required brace wall length for each side of the circumscribed rectangle are interpolated per table R602.10.3. Methods CS-WSP and CS-SFB contribute their actual length. Method GB contributes 0.5 it's actual length.

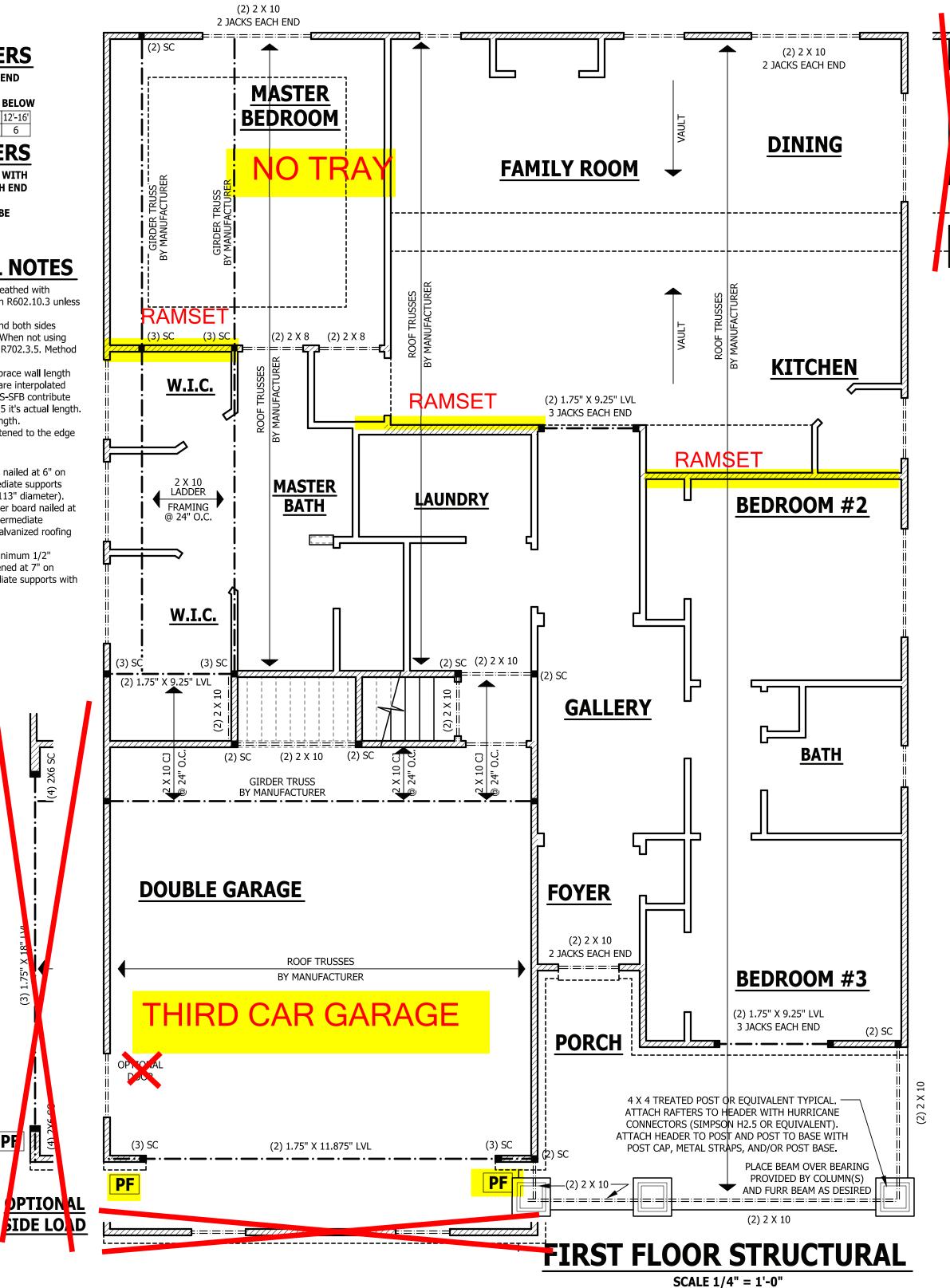
HD: 800 lbs hold down hold down device fastened to the edge

Methods Per Table R602.10.1

CS-WSP: Shall be minimum 3/8" OSB or CDX nailed at 6" on center at edges and 12" on center at intermediate supports with 6d common nails or $8d(2 \frac{1}{2})'' \log x 0.113'' diameter)$. **CS-SFB:** Shall be minimum 1/2" structural fiber board nailed at 3" on center at edges and 3" on center at intermediate supports with 1 1/2" long x 0.12" diameter galvanized roofing

PTIONAL

PF: Portal fame per figure R602.10.1



EXTERIOR HEADERS

- (2) 2 X 6 WITH 1 JACK STUD EACH END **UNLESS NOTED OTHERWISE**
- KING STUDS EACH END PER TABLE BELOW

INTERIOR HEADERS

- **UNLESS NOTED OTHERWISE**

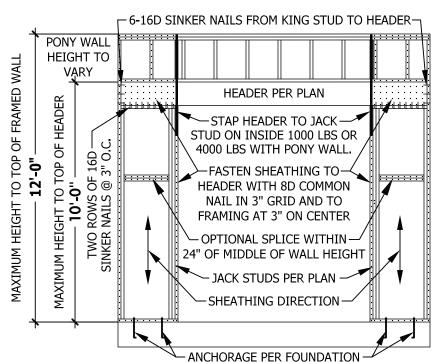
BRACE WALL PANEL NOTES

noted otherwise.

Method PF contributes 1.5 times its actual length.

of the brace wall panel closets to the corner.

GB: Interior walls show as GB are to have minimum 1/2" gypsum board on both sides of the wall fastened at 7" on center at edges and 7" on center at intermediate supports with minimum 5d cooler nails or #6 screws.



PORTAL FRAME AT OPENING

METHOD PF PER FIGURE AND SECTION R602.10.1) SCALE 1/4" = 1'-0"

ROOF TRUSS REQUIREMENTS

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plan, Inc. attention before construction begins. KNEE WALL AND CEILING HEIGHTS. All finished knee wall heights and ceiling heights are shown furred down 10" from roof decking for insulation. If for any reason the truss manufacturer fails to meet or exceed designated heel heights, finished knee wall heights, or finished ceiling heights shown on these drawings the finished square footage may vary. Any discrepancy must be brought to Haynes Home Plans, Inc. attention, so a suitable solution can be reached before construction begins. Any variation due to these conditions not being met is the reasonability of the truss manufacturer.

ANCHORAGE. All required anchors for trusses due to uplift or bearing shall meet the requirements as specified on the truss schematics. **BEARING.** All trusses shall be designed for bearing on SPF #2 plates or ledgers unless noted otherwise.

Plate Heights & Floor Systems. See elevation page(s) for plate heights

and floor system thicknesses.

PURCHASER MUST VERIFY ALL IMENSIONS AND CONDITIONS EFORE CONSTRUCTION BEGINS HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND

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BEFORE CONSTRUCTION. THESE DRAWING ARE NSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

> STRUCTURAL Lauren FLOOR The **FIRST**

HEATED OPTIONAL UNHEATED UNHEATED OPTIONAL

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ROOF TRUSS REQUIREMENTS

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plan, Inc. attention before construction begins. **KNEE WALL AND CEILING HEIGHTS.** All finished knee wall heights and ceiling heights are shown furred down 10" from roof decking for insulation. If for any reason the truss manufacturer fails to meet or exceed designated heel heights, finished knee wall heights, or finished ceiling heights shown on these drawings the finished square footage may vary. Any discrepancy must be brought to Haynes Home Plans, Inc. attention, so a suitable solution can be reached before construction begins. Any variation due to these conditions not being met is the reasonability of the truss manufacturer.

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•	_		
DESIGN LOADS	LIVE LOAD	DEAD LOAD	DEFLECTION
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Attics with fixed stairs	40	10	L/360
Balconies and decks	40	10	L/360
Fire escapes	40	10	L/360
Guardrails and handrails	200		
Guardrail in-fill components	50		
Passenger vehicle garages	50	10	L/360
Rooms other than sleeping	40	10	L/360
Sleeping rooms	30	10	L/360
Stairs	40		L/360
Snow	20		

FRAMING LUMBER: All non treated framing lumber shall be SPF #2 (Fb = 875 PSI) or SYP #2 (Fb = 750 PSI) and all treated lumber shall be SYP #2 (Fb = 750 PSI) unless noted other wise.

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TRUSS AND I-JOIST MEMBERS: All roof truss and I-joist layouts shall be prepared in accordance with this document. Trusses and I-joists shall be installed according to the manufacture's specifications. Any change in truss or I-joist layout shall be coordinated with Haynes Homes Plans, Inc.

LINTELS: Brick lintels shall be 3 1/2" x 3 1/2" x 1/4" steel angle for up to 6'-0" span. 6" x 4" x 5/16" steel angle with 6" leg vertical for spans up to 9'-0" unless noted otherwise. 3 1/2" x 3 1/2" x 1/4" steel angle with 1/2" bolts at 2'-0" on center for spans up to 18'-0" unless noted otherwise.

FLOOR SHEATHING: OSB or CDX floor sheathing minimum 1/2" thick for 16" on center joist spacing, minimum 5/8" thick for 19.2" on center joist spacing, ROOF SHEATHING: OSB or CDX roof sheathing minimum 3/8" thick for 16" on center rafters and 7/16" for 24" on center rafters.

CONCRETE AND SOILS: See foundation notes.

ATTIC ACCESS

SECTION R80

R807.1 Attic access. An attic access opening shall be provided to attic areas that exceed 400 square feet (37.16 m2) and have a vertical height of 60 inches (1524 mm) or greater. The net clear opening shall not be less than 20 inches by 30 inches (508 mm by 762 mm) and shall be located in a hallway or other readily accessible location. A 30-inch (762 mm) minimum unobstructed headroom in the attic space shall be provided at some point above the access opening. See Section M1305.1.3 for access requirements where mechanical equipment is located in attics.

Exceptions:

- 1. Concealed areas not located over the main structure including porches, areas behind knee walls, dormers, bay windows, etc. are not required to have access.
- 2. Pull down stair treads, stringers, handrails, and hardware may protrude into the net clear opening.

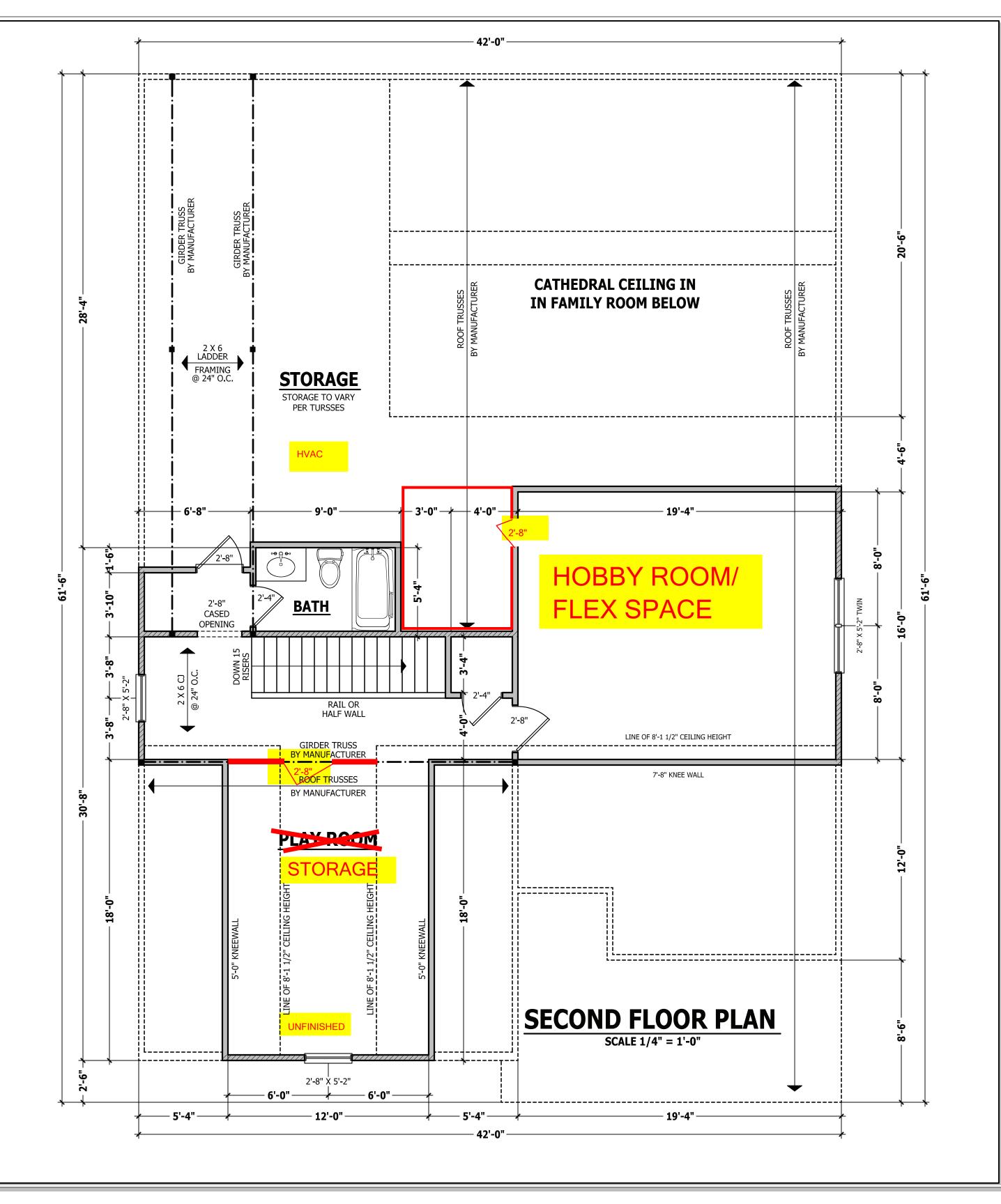
EXTERIOR HEADERS

- (2) 2 X 6 WITH 1 JACK STUD EACH END UNLESS NOTED OTHERWISE - KING STUDS EACH END PER TABLE BELOW

| HEADER SPAN | < 3' | 3'-4' | 4'-8' | 8'-12' | 12'-16' | | KING STUD(S) | 1 | 2 | 3 | 5 | 6 |

INTERIOR HEADERS

- LOAD BEARING HEADERS (2) 2 X 6 WITH 1 JACK STUD AND 1 KING STUD EACH END UNLESS NOTED OTHERWISE
- NON LOAD BEARING HEADERS TO BE LADDER FRAMED



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FLOOR PLAN

The Lauren

SECOND

HOWE PLANS, INC

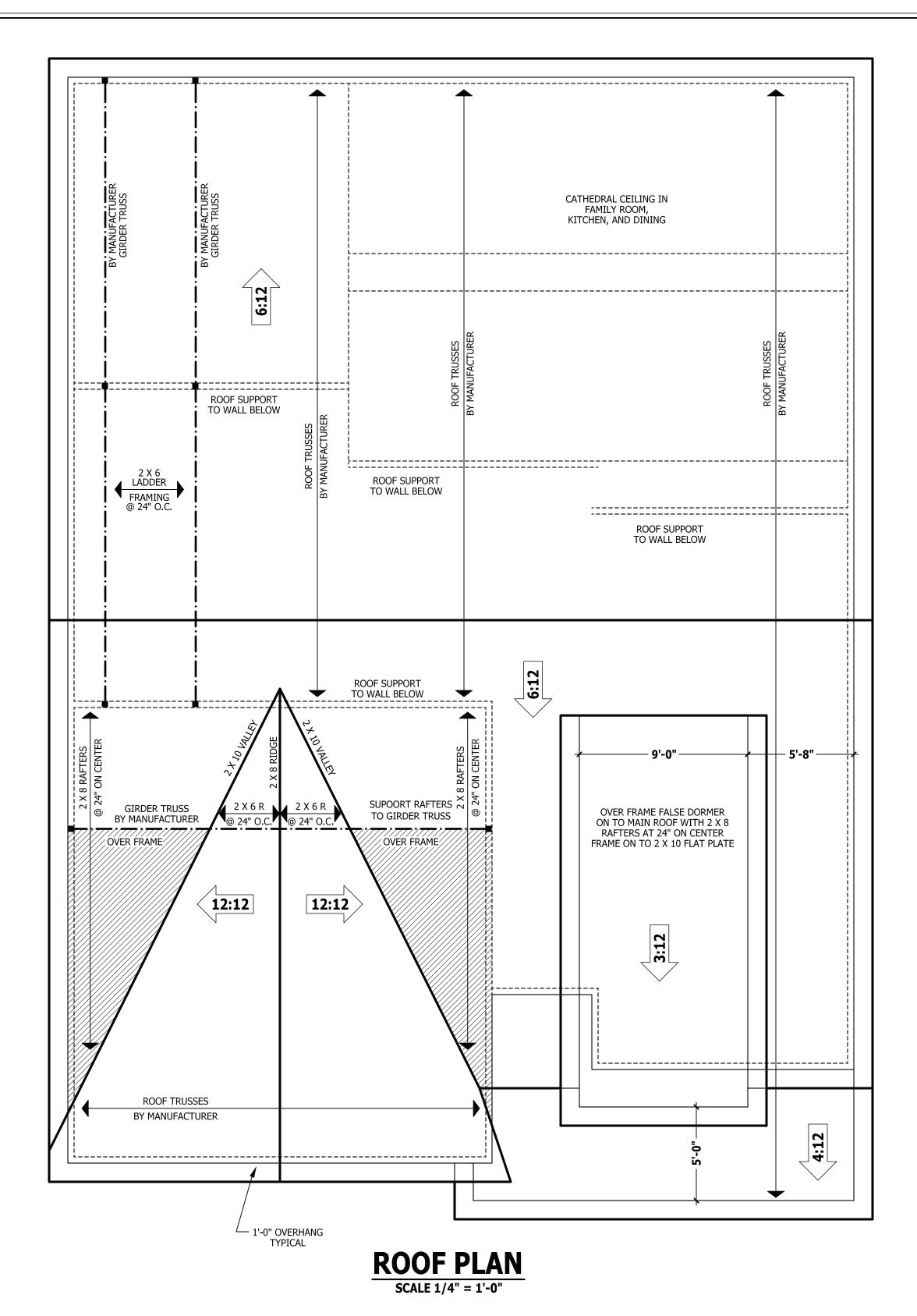
SQUARE FOOTAGE

HEATED
FIRST FLOOR 1766 SQ.FT.
PLAYROOM 400 SQ.FT.
TOTAL 2166 SQ.FT.
HEATED OPTIONAL
CAROLINA ROOM 148 SQ.FT.
CAROLINA ROOM 304 SQ.FT.
TOTAL 452 SQ.FT.
UNHEATED
FRONT PORCH 188 SQ.FT.
GARAGE 488 SQ.FT.
TOTAL 676 SQ.FT.
UNHEATED OPTIONAL
SCREENED PORCH 160 SQ.FT.

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PAGE 5 OF 7



ROOF TRUSS REQUIREMENTS

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plan, Inc. attention before construction begins. **KNEE WALL AND CEILING HEIGHTS.** All finished knee wall heights and ceiling heights are shown furred down 10" from roof decking for insulation. If for any reason the truss manufacturer fails to meet or exceed designated heel heights, finished knee wall heights, or finished ceiling heights shown on these drawings the finished square footage may vary. Any discrepancy must be brought to Haynes Home Plans, Inc. attention, so a suitable solution can be reached before construction begins. Any variation due to these conditions not being met is the reasonability of the truss manufacturer.

ANCHORAGE. All required anchors for trusses due to uplift or bearing shall meet the requirements as specified on the truss schematics. **BEARING.** All trusses shall be designed for bearing on SPF #2 plates or ledgers unless noted otherwise.

Plate Heights & Floor Systems. See elevation page(s) for plate heights

and floor system thicknesses.

HEEL HEIGHT ABOVE FIRST FLOOR PLATE

HEEL HEIGHT ABOVE SECOND FLOOR PLATE

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BEFORE CONSTRUCTION.
THESE DRAWING ARE
INSTRUMENTS OF SERVICE AND
AS SUCH SHALL REMAIN
PROPERTY OF THE DESIGNER.

LAN

Lauren

The

ROOF PLAN

SQUARE FOOTAGE

SQUARE FOOTAGE

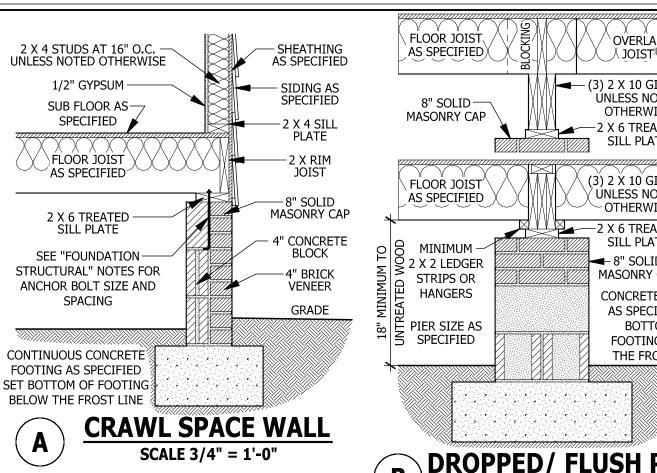
SQUARE FOOTAGE

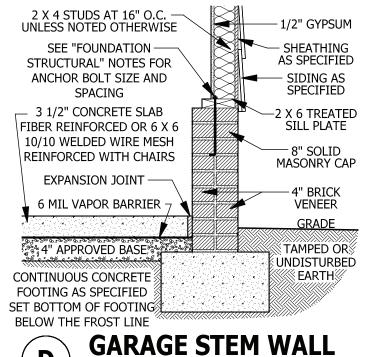
SQUARE FOOTAGE
HEATED
FIRST FLOOR 1766 SQ.FT.
PLAYROOM 400 SQ.FT.
TOTAL 2166 SQ.FT.
HEATED OPTIONAL
CAROLINA ROOM 148 SQ.FT.
RECREATION ROOM 304 SQ.FT.
TOTAL 452 SQ.FT.
UNHEATED
FRONT PORCH 188 SQ.FT.
GARAGE 488 SQ.FT.
TOTAL 676 SQ.FT.
UNHEATED OPTIONAL
SCREENED PORCH 160 SQ.FT.
DECK / PATIO 108 SQ.FT.
THIRD GARAGE 292 SQ.FT.
TOTAL 560 SQ.FT.

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SCALE 3/4" = 1'-0"

DECK STAIR NOTES

SECTION AM110

AM110.1 Stairs shall be constructed per Figure AM110. Stringer spans shall be no greater than 7 foot span between supports. Spacing between stringers shall be based upon decking material used per AM107.1. Each Stringer shall have minimum 3 1/2 inches between step cut and back of stringer. If used, suspended headers shall shall be attached with 3/8 inch galvanized bolts with nuts and washers to securely support stringers at the top.

DECK BRACING

SECTION AM109

AM109.1 Deck bracing. Decks shall be braced to provide lateral stability. The following are acceptable means to provide lateral stability.

AM109.1.1. When the deck floor height is less than 4'-0" above finished grade per Figure AM109 and the deck is attached to the structure in accordance with Section AM104, lateral bracing is not required.

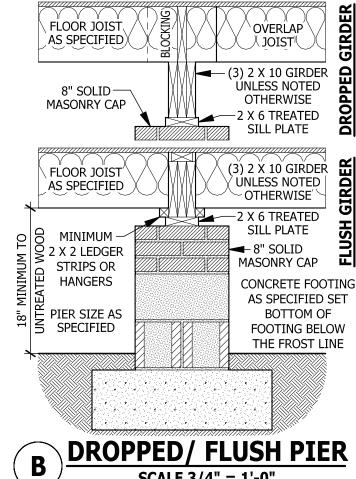
AM109.1.2. 4 x 4 wood knee braces may be provided on each column in both directions. The knee braces shall attach to each post at a point not less than 1/3 of the post length from the top of the post, and the braces shall be angled between 45 degrees and 60 degrees from the horizontal. Knee braces shall be bolted to the post and the girder/double band with one 5/8 inch hot dipped galvanized bolt with nut and washer at both ends of the brace per Figure AM109.1

AM109.1.3. For freestanding decks without knee braces or diagonal bracing, lateral stability may be provided by embedding the post in accordance with Figure AM109.2 and the following:

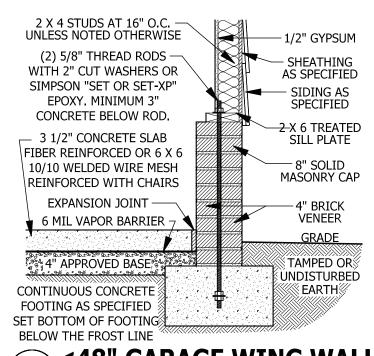
F	POST SIZE	MÂX TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
4	4 X 4	48 SF	4'-0"	2'-6"	1'-0"
	6 X 6	120 SF	6'-0"	3'-6"	1'-8"

AM109.1.4. 2 x 6 diagonal vertical cross bracing may be provided in two perpendicular directions for freestanding decks or parallel to the structure at the exterior column line for attached decks. The 2 x 6's shall be attached to the posts with one 5/8 inch hot dipped galvanized bolt with nut and washer at each end of each bracing member per Figure AM109.3.

AM109.1.5. For embedment of piles in Coastal Regions, see Chapter 45.



SCALE 3/4" = 1'-0"



<48" GARAGE WING WALL E SCALE 3/4" = 1'-0"

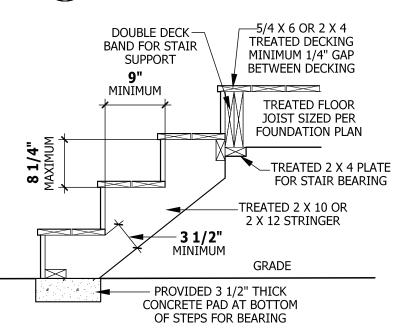


FIGURE AM110 **TYPICAL DECK STAIR DETAIL**

SCALE 3/4" = 1'-0"

SHEATHING-

AS SPECIFIED

LATH-

SEE FOUNDATION

FOR FOUNDATION

DETAILS

WEEP SCREED

SCALE 3/4" = 1'-0"

STONE VEENER

AS SPECIFIED

VAPOR BARRIER

-WEEP SCREED

MINIMUM 4" TO

GROUND OR 2"

∠TO PAVEMENT

GRADE

WEEP SCREEDS

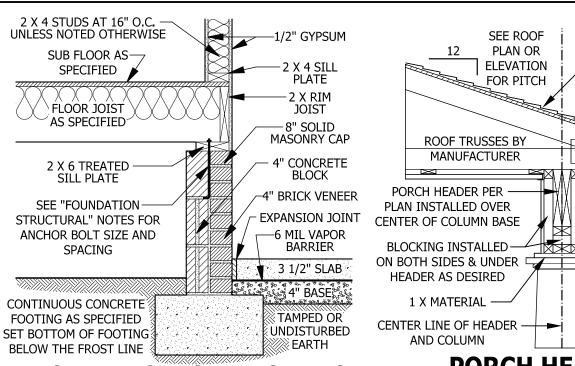
All weep screeds and stone veneer to be installed per manufactures instructions and per the 2012 North Carolina Residential

Building code. **R703.6.2.1 -** A minimum 0.019-inch (0.5 mm) (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed, with a minimum vertical attachment flange of 31/2 inches (89 mm) shall be provided at or below the screed shall be placed a minimum of 4 inches (102 mm) above the earth or 2 inches (51 mm) above paved areas and shall be of a type that will allow trapped water to drain to the exterior of the

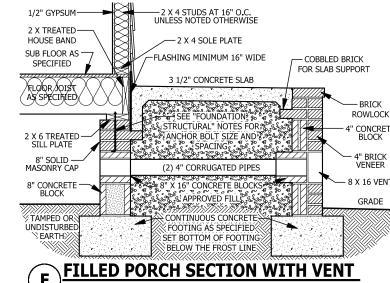
shall cover and terminate on the

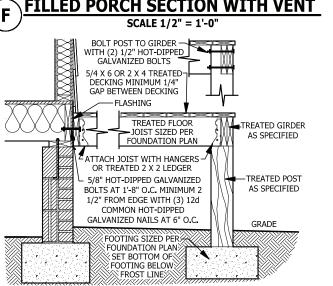
attachment flange of the weep screed.

foundation plate line on exterior stud walls in accordance with ASTM C 926. The weep



CRAWL SPACE AT GARAGE SCALE 3/4" = 1'-0"





SMOKE ALARMS

DECK ATTACHMENT

SCALE 1/2" = 1'-0"

R314.1 Smoke detection and notification. All smoke alarms shall be listed in accordance with UL 217 and installed in accordance with the provisions of this code and the household fire warning

equipment provisions of NFPA 72. **R314.2 Smoke detection systems.** Household fire alarm systems installed in accordance with NFPA 72 that include smoke alarms, or a combination of smoke detector and audible notification device installed as required by this section for smoke alarms, shall be permitted. The household fire alarm system shall provide the same level of smoke detection and alarm as required by this section for smoke alarms. Where a household fire warning system is installed using a combination of smoke detector and audible notification device(s), it shall become a permanent fixture of the occupancy and owned by the homeowner. The system shall be monitored by an approved supervising station and be maintained in accordance with

NFPA 72. **Exception:** Where smoke alarms are provided meeting the requirements of Section R314.4.

R314.3 Location. Smoke alarms shall be installed in the following locations:

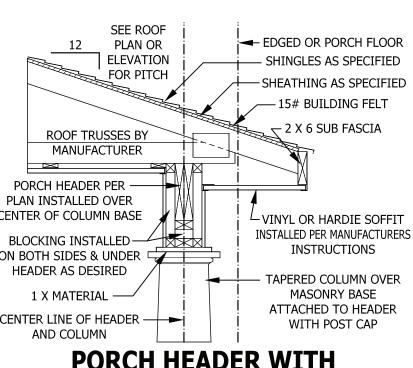
1. In each sleeping room.

2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.

3. On each additional story of the dwelling, including basements and habitable attics (finished) but not including crawl spaces, uninhabitable (unfinished) attics and uninhabitable (unfinished) attic-stories. In *dwellings* or *dwelling units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

When more than one smoke alarm is required to be installed within in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.

R314.4 Power source. Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a building. The weather-resistant barrier shall commercial source, and when primary power is interrupted, shall lap the attachment flange. The exterior lath receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke alarms shall be interconnected.



PORCH HEADER WITH TAPERED COLUMN

SCALE 3/4" = 1'-0"

CARBON MONOXIDE ALARMS

R315.1 Carbon monoxide alarms. In new construction, dwelling units shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area in the immediate vicinity of the bedroom(s) as directed by the alarm manufacturer

R315.2 Where required in existing dwellings. In existing dwellings, where interior alterations, repairs, fuel-fired appliance replacements, or additions requiring a permit occurs, or where one or more sleeping rooms are added or created, carbon monoxide alarms shall be provided in accordance with Section

R315.3 Alarm requirements. The required carbon monoxide alarms shall be audible in all bedrooms over background noise levels with all intervening doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions.

STAIRWAY NOTES

R311.7.2 Headroom. The minimum headroom in all parts of the stairway shall not be less than 6 feet 8 inches (2032 mm) measured vertically from the sloped line adjoining the tread nosing or from the floor surface of the landing or platform on that portion of the stairway.

R311.7.4 Stair treads and risers. Stair treads and risers shall meet the requirements of this section. For the purposes of this section all dimensions and dimensioned surfaces shall be exclusive of carpets, rugs or runners. R311.7.4.1 Riser height. The maximum riser height shall be 8 1/4 inches

(210 mm). The riser shall be measured vertically between leading edges of the adjacent treads.

R311.7.4.2 Tread depth. The minimum tread depth shall be 9 inches (229 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. Winder treads shall have a minimum tread depth of 9 inches (229 mm) measured as above at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 4 inches (102 mm) at any point.

R311.7.4.3 Profile. The radius of curvature at the nosing shall be no greater than 9/16 inch (14 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid

R311.7.7 Handrails. Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more risers. R311.7.7.1 Height. Handrail height, measured vertically from the sloped

plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm)and not more than 38 inches (965 mm). **Exceptions:**

1. The use of a volute, turnout or starting easing shall be allowed over the lowest tread.

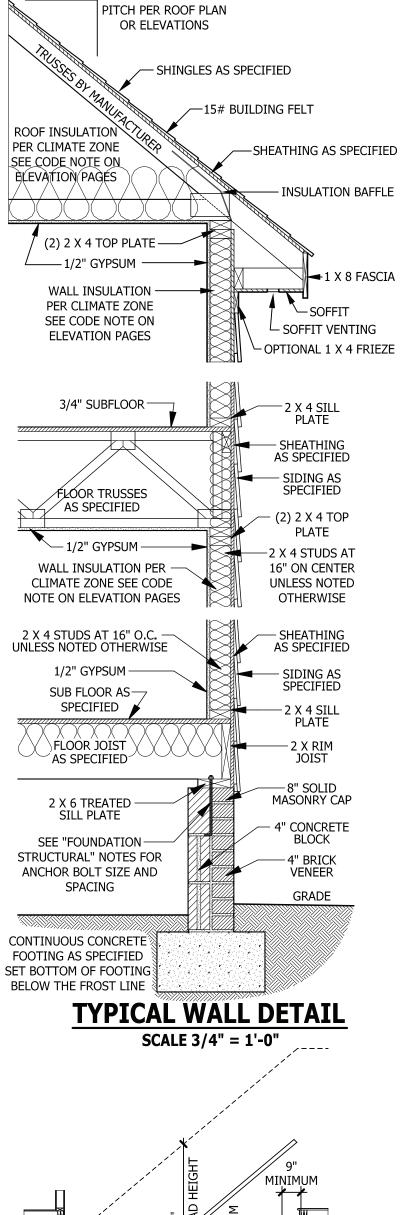
2. When handrail fittings or bendings are used to provide continuous transition between flights, the transition from handrail to guardrail, or used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.

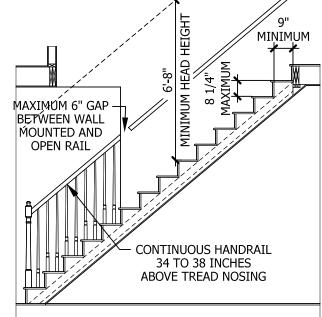
R311.7.7.2 Continuity. Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails an individual *dwelling* unit the alarm devices shall be interconnected adjacent to a wall shall have a space of not less than 11/2 inch (38 mm) between the wall and the handrails.

Exceptions

1. Handrails shall be permitted to be interrupted by a newel post. 2. The use of a volute, turnout, starting easing or starting newel shall be allowed over the lowest tread.

3. Two or more separate rails shall be considered continuous if the termination of the rails occurs within 6 inches (152 mm) of each other. If transitioning between a wall-mounted handrail and a guardrail/handrail, the wall-mounted rail must return into the wall.





TYPICAL STAIR DETAIL

SOUARE FOOTAGE HEATED OPTIONAL CAROLINA ROOM RECREATION ROOM UNHEATED UNHEATED OPTIONAL

PURCHASER MUST VERIFY ALL

EFORE CONSTRUCTION BEGINS

HAYNES HOME PLANS, INC.

ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND

PROCEDURES.

CODES AND CONDITIONS MAY

DESIGNER, ARCHITECT OR

BEFORE CONSTRUCTION,

THESE DRAWING ARE

NSTRUMENTS OF SERVICE AND

AS SUCH SHALL REMAIN

PROPERTY OF THE DESIGNER.

Lauren

AIL

DET,

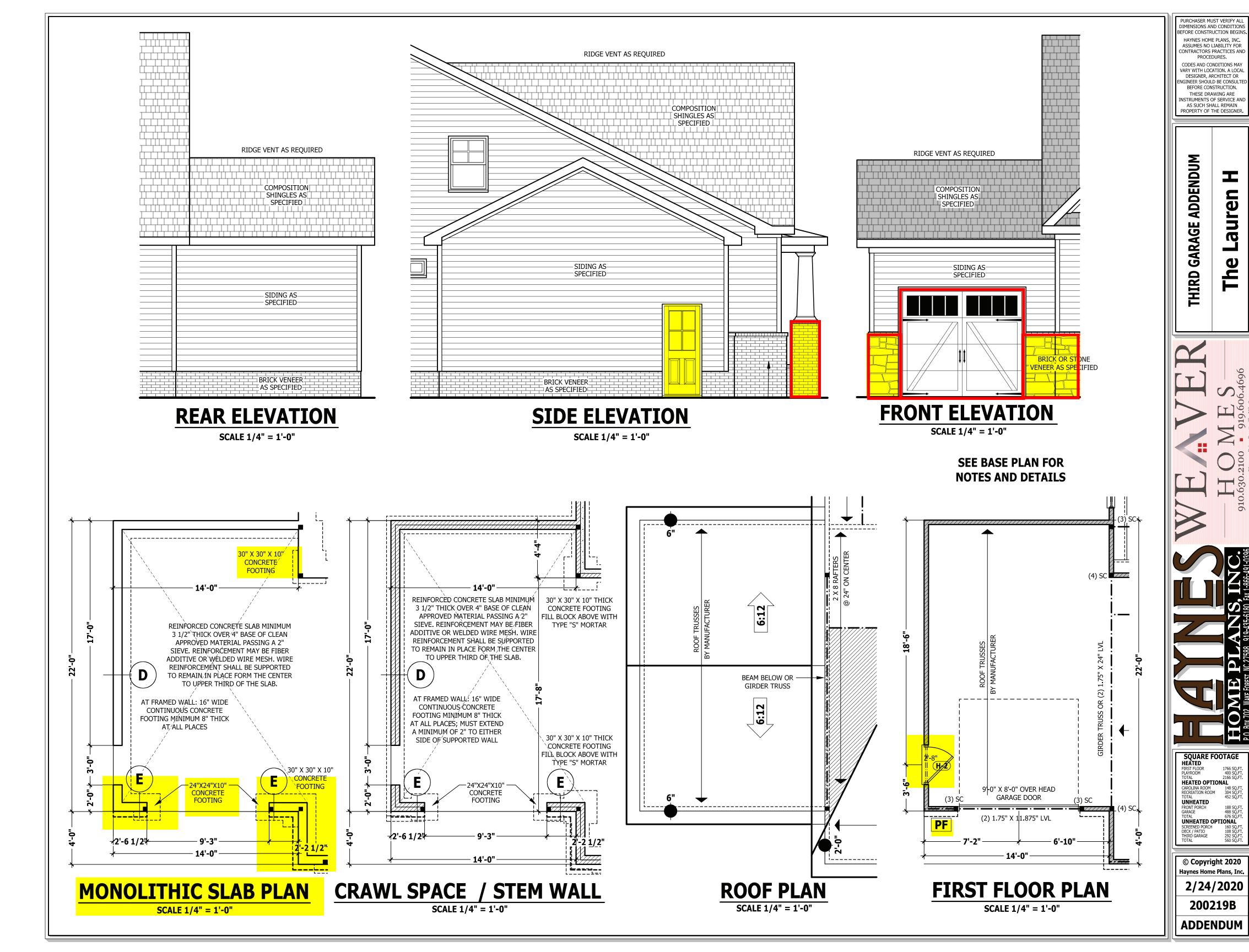
TYPICAL

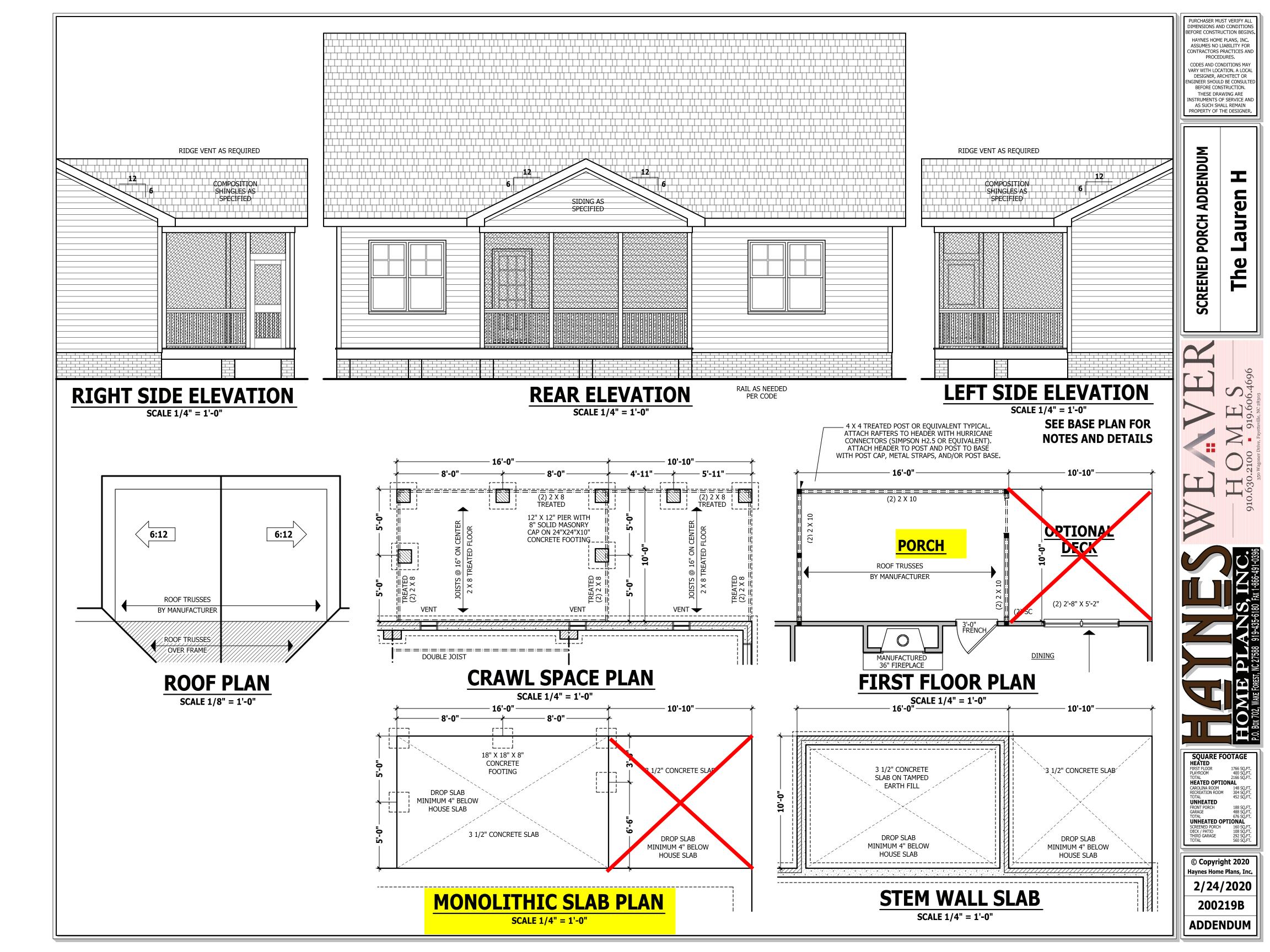
ARY WITH LOCATION. A LOCAL

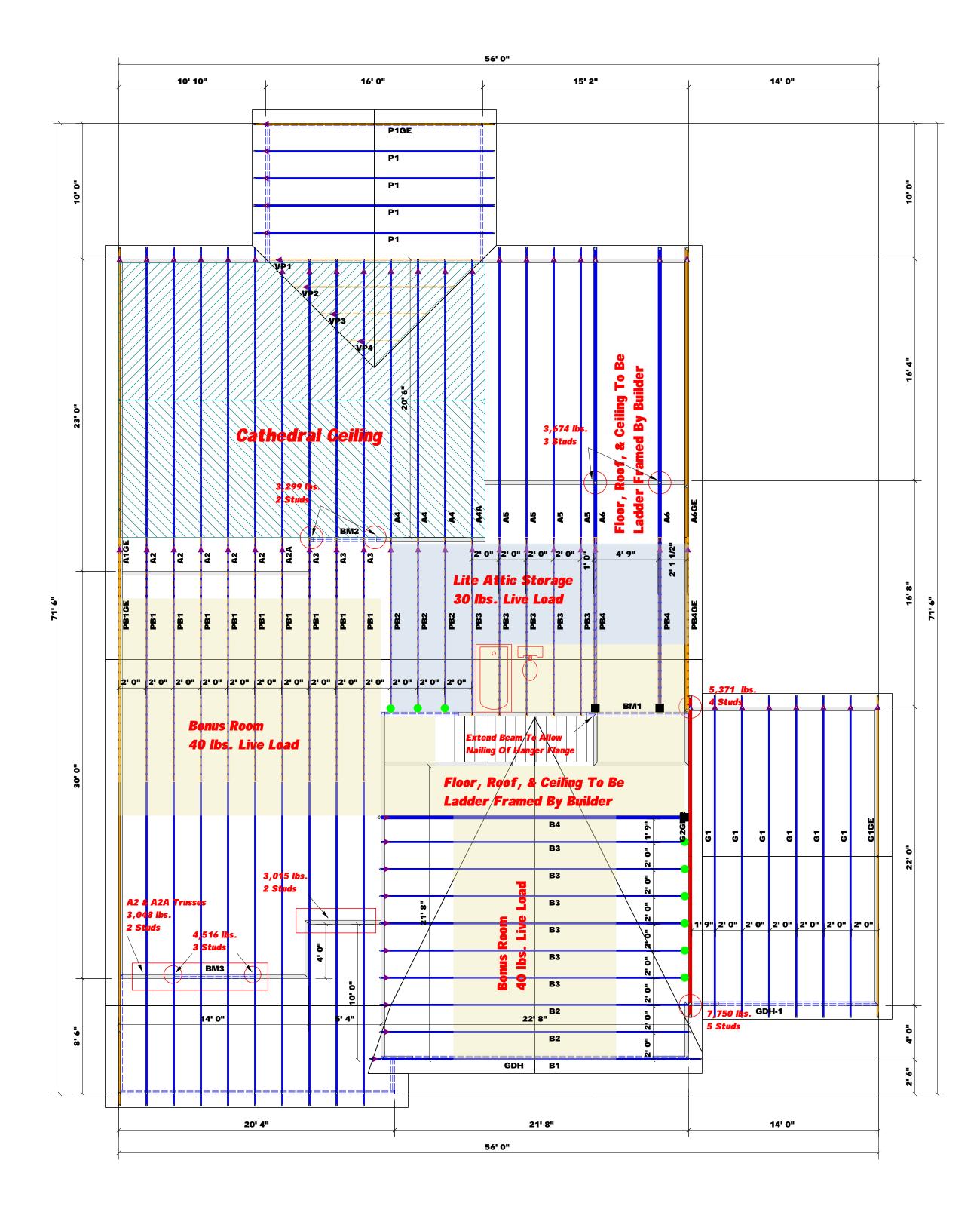
IGINEER SHOULD BE CONSULTED

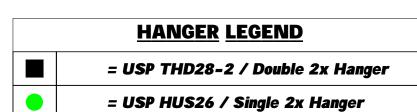
© Copyright 2020 Haynes Home Plans, Inc. 2/24/2020

200219B PAGE 7 OF 7









▲ = Denotes Left End of Truss (Reference Engineered Truss Drawing) **Do Not Erect Trusses Backwards**

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

-- Denotes Reaction Greater than 3,000 lbs.

Truss Placement Plan SCALE: 3/16" = 1'

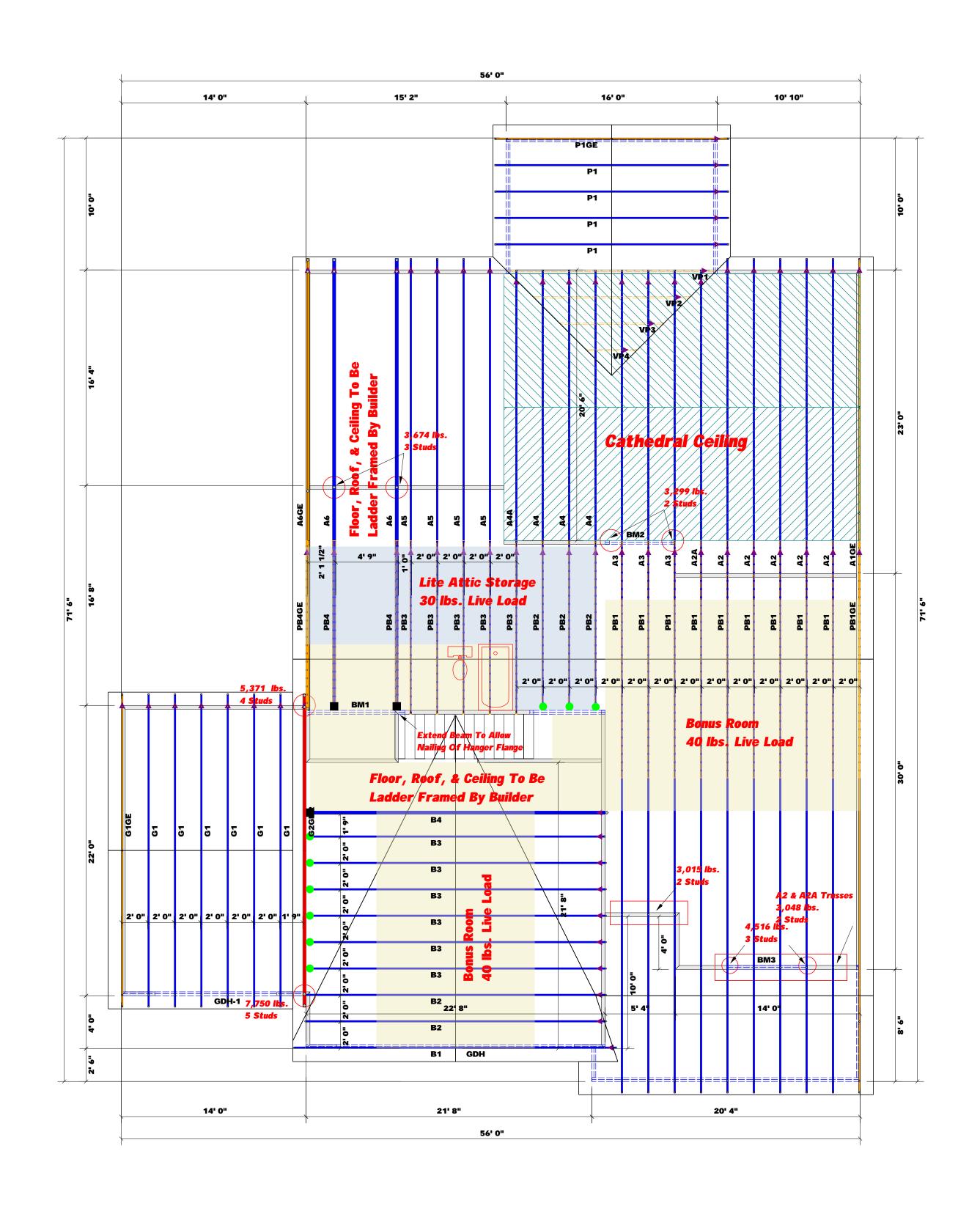
Beam Legend								
PlotID	Length	Product	Plies	Net Qty	Fab Type			
BM1	8' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF			
BM3	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF			
BM2	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2	FF			
GDH-1	14' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2	FF			
GDH	23' 0"	1-3/4"x 14" LVL Kerto-S	2	2	FF			

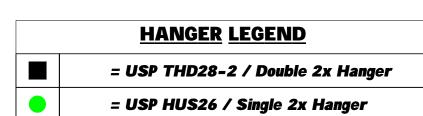
LO	AD C	HART FO	RЈ	ACK STUD	5
	(04)	SENION LABORS	R502	5(1) 4 (6))	
NUA	MES OF			(0 @ (A (M) 9)	
	er.	PEAGER/6			d
END REACTION (01°10)	SECTION HEADER	SND PEACTION (LP TO)	NEQTESTUDS FOR CIPAN FEMBER	END SURCESON (OF TO)	REQUESTUDS FOR
1700	1	2550	1	3400	1
3400	2	5100	2	6600	2
5100	3	7650	3	10200	3
0086	4	10200	4	13600	4
8500	5	12750	5	17000	-5
10200	á	15300	6		
11900	7				
13600	8				
15300	9				

		_		
BUILDER	Weaver Development	CITY / CO.	Erwin / Harnett	THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be induced the building design at the specification of the building designer. See individual specification of the building designer. See individual sheets for each truss design identified on the placement drawing. The bi
JOB NAME	Lot 5 North Pointe	ADDRESS Josey Williams Road		is responsible for temporary and permanent bracing of the roof and floo the overall structure. The design of the truss support structure including walls, and columns is the responsibility of the building designer. For ger regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss
PLAN	Lauren H / Elev. A / 3 Car / BR	MODEL	Roof	or online @ sbcindustry.com Bearing reactions less than or equal to 3000# are deemed to conprescriptive Code requirements. The contractor shall refer to the
SEAL DATE	2/24/20	DATE REV.	11/30/21	(derived from the prescriptive Code requirements) to determine foundation size and number of wood studs required to support r than 3000# but not greater than 15000#. A registered design profibe retained to design the support system for any reaction that expenses the system for any reaction that expense
QUOTE #	Quote #	DRAWN BY	Curtis Quick	specified in the attached Tables. A registered design professiona retained to design the support system for all reactions that excerding the support system is a support system.
JOB#	J1121-6673	SALES REP.	Lenny Norris	SignatureCurtis Quick

соттесн **ROOF & FLOOR** are deemed to comply with the cor shall refer to the attached Tables nents) to determine the minimum quired to support reactions greater jistered design professional shall any reaction that exceeds those idesign professional shall be reactions that exceed 15000#. **TRUSSES & BEAMS**

Reilly Road Industrial Park Fayetteville, N.C. 28309 Phone: (910) 864-8787 Fax: (910) 864-4444





Beam Legend

Net Qty

2

2

Plies

Fab Type

FF

FF

FF

FF

FF

соттесн

ROOF & FLOOR

TRUSSES & BEAMS

Reilly Road Industrial Park

Fayetteville, N.C. 28309

Phone: (910) 864-8787 Fax: (910) 864-4444

■ = Denotes Left End of Truss
 (Reference Engineered Truss Drawing)
 Do Not Erect Trusses Backwards

6600 2

10200 3

13600 4

17000 5

LOAD CHART FOR JACK STUDS

(045Fb ON MALES (8025)) 3-6()

MUMICS OF JACK STUDS REQUIRED BY CA COD OF FEADER/SERGER.

BYC DEACTION (LP TO) REQ 5 STUDS FOR COUNTY FAMOR

2550 1 5100 2

7650 3

10200 4 12750 5

15300 6

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

-- Denotes Reaction Greater than 3,000 lbs.

8' 0" 1-3/4"x 9-1/4" LVL Kerto-S 2 BM1 1-3/4"x 9-1/4" LVL Kerto-S **BM3** 7' 0" **BM2** 6' 0" 1-3/4"x 9-1/4" LVL Kerto-S 2 GDH-1 1-3/4"x 11-7/8" LVL Kerto-S 2 **14' 0"** Truss Placement Plan SCALE: 3/16" = 1' **GDH** 23' 0" 1-3/4"x 14" LVL Kerto-S

Length

Product

PlotID

BUILDER	Weaver Development	CITY / CO.	Erwin / Harnett	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
JOB NAME	Lot 5 North Pointe	ADDRESS	Josey Williams Road	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
PLAN	Lauren H / Elev. A / 3 Car / BR	MODEL	Roof	or online @ sbcindustry.com 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
SEAL DATE	2/24/20	DATE REV.	11/30/21	(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
QUOTE #	Quote #	DRAWN BY	Curtis Quick	specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#. Curtis Quick
JOB#	J1121-6673	SALES REP.	Lenny Norris	Signature Curtis Quick



Client:

Project: Address: Weaver Development

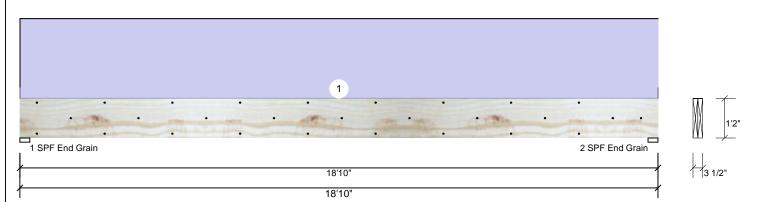
Date: 2/1/2022

Curtis Quick Input by: Job Name: The Lauren H Beams Page 1 of 1

Project #:

2-Ply - PASSED **Kerto-S LVL** 1.750" X 14.000" **GDH**

Level: Level



Member Information **Reactions UNPATTERNED Ib (Uplift)** Girder Application: Floor Wind Type Brg Direction Live Dead Snow Const Plies: 2 Design Method: ASD Vertical 0 2457 0 0 0 1 Moisture Condition: Dry **Building Code:** IBC 2012 0 O 0 2 Vertical 2457 0 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Temperature: Temp <= 100°F Bearings Bearing Length Dir. Cap. React D/L lb Total I.d. Case Ld. Comb. 1 - SPF 3.500" Vert 24% 2457 / 0 2457 Uniform D End Grain Analysis Results 2 - SPF 3.500" 24% Vert 2457 / 0 2457 Uniform D Analysis Comb. Actual Location Allowed Case Capacity Fnd 9'5" 24299 ft-lb Moment 11011 ft-lb 0.453 (45%) D Uniform Grain Unbraced 11011 ft-lb 9'5" 11036 ft-lb 0.998 Uniform (100%)Shear 2089 lb 1'5 1/2" 9408 lb 0.222 (22%) D Uniform LL Defl inch 0.000 (L/999) 0 999.000 (L/0) 0.000 (0%)

Uniform

TL Defl inch **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.

9'5 1/16" 0.919 (L/240) 0.483 (48%) D

- 2 Fasten all plies using 3 rows of SDW22338 at 24" o.c. Maximum end distance not to exceed
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Simpson fasteners applied from a single side of the member use tip values where published.
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top loads must be supported equally by all plies.

0.444 (L/497)

- 7 Top must be laterally braced at a maximum of 9'7 7/16" o.c.
- 8 Bottom must be laterally braced at end bearings.
- 9 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			Тор	250 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				11 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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled
 Refer to manufacturer's product information
 regarding installation requirements, multi-ph,
 fastening details, beam strength values, and code
 approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
 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

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

Manufacturer Info







Client:

Project: Address: Weaver Development

Date: 2/1/2022

Input by: Curtis Quick Job Name: The Lauren H Beams

Project #:

1.750" X 11.875" 2-Ply - PASSED **Kerto-S LVL** GDH-1

Application:

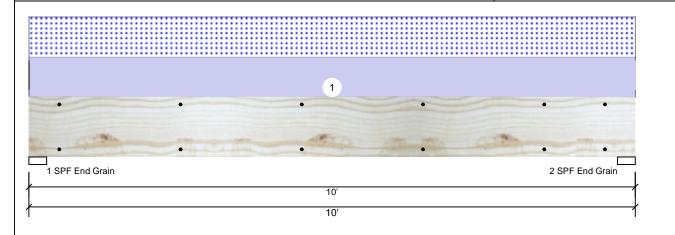
Design Method:

Building Code:

Load Sharing:

Deck:

Level: Level



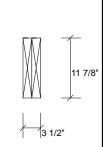
Floor

ASD

No

IBC 2012

Not Checked



Page 1 of 1

Member Information

Type:	Giraer
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
T	T 4

Temperature: Temp <= 100°F

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1196	1150	0	0
2	Vertical	0	1196	1150	0	0

Bearings

l	Bearing	Length	Dir.	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.
l	Grain					2346	L	D+S
l	2 - SPF End Grain	3.500"	Vert	23%	1196 / 1150	2346	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5340 ft-lb	5'	22897 ft-lb	0.233 (23%)	D+S	L
Unbraced	5340 ft-lb	5'	9721 ft-lb	0.549 (55%)	D+S	L
Shear	1754 lb	8'8 5/8"	10197 lb	0.172 (17%)	D+S	L
LL Defl inch	0.051 (L/2238)	5'	0.318 (L/360)	0.161 (16%)	S	L
TL Defl inch	0.104 (L/1097)	5'	0.477 (L/240)	0.219 (22%)	D+S	L

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 SDW22338 at 24" o.c. Maximum end distance not to exceed 12".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Simpson fasteners applied from a single side of the member use tip values where published.
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be laterally braced at end bearings.

Self Weight

- 8 Bottom must be laterally braced at end bearings.
- 9 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			Тор	230 PLF	0 PLF	230 PLF	0 PLF	0 PLF	G1

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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- L. UVL beams must not be cut or drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
 Damaged Beams must not be used.
- Design assumes top edge is laterally restrained
 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

9 PLF

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

Manufacturer Info







Client: Weaver Development

Project: Address:

Date: 2/1/2022 Input by: Curtis Quick

Job Name: The Lauren H Beams

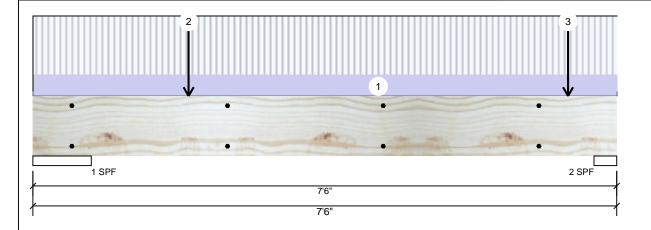
Project #:

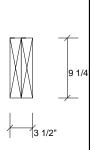
Kerto-S LVL BM1

1.750" X 9.250"

2-Ply - PASSED

Level: Level





Page 1 of 2

Member Information

Type: Girder Plies: 2 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance:

Normal - II Temperature: Temp <= 100°F

Application: Floor Design Method: ASD **Building Code:** IBC 2012 Load Sharing: No

Deck: Not Checked

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	159	1025	937	0	0
2	Vertical	141	1318	1239	0	0

Bearings

Bearing	Length	Dir.	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	9.000"	Vert	15%	1025 / 937	1961	L	D+S
2 - SPF	3.500"	Vert	49%	1318 / 1239	2557	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2535 ft-lb	2'	14423 ft-lb	0.176 (18%)	D+S	L
Unbraced	2535 ft-lb	2'	10012 ft-lb	0.253 (25%)	D+S	L
Shear	1933 lb	1'6 1/4"	7943 lb	0.243 (24%)	D+S	L
LL Defl inch	0.022 (L/3655)	3'7 1/4"	0.219 (L/360)	0.098 (10%)	S	L
TL Defl inch	0.046 (L/1730)	3'7 9/16"	0.329 (L/240)	0.139 (14%)	D+S	L

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 SDW22338 at 24" o.c. Maximum end distance not to exceed 12".
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- 8 Bottom must be laterally braced at end bearings.
- 9 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			Тор	15 PLF	40 PLF	0 PLF	0 PLF	0 PLF	Floor	
2	Point	2-0-0		Тор	1088 lb	0 lb	1088 lb	0 lb	0 lb	A6	
	Bearing Length	0-3-8									
3	Point	6-10-8		Тор	1088 lb	0 lb	1088 lb	0 lb	0 lb	A6	

Continued on page 2...

Notes

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- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled
 Refer to manufacturer's product information
 regarding installation requirements, multi-ply
 fastening details, beam strength values, and code
 approvals
 Damaged Beams must not be used

- Design assumes top edge is laterally restrained
 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

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

Manufacturer Info





isDesign

Client: Weaver Development

Project: Address: Date: 2/1/2022 Input by: Curtis Quick

Job Name: The Lauren H Beams

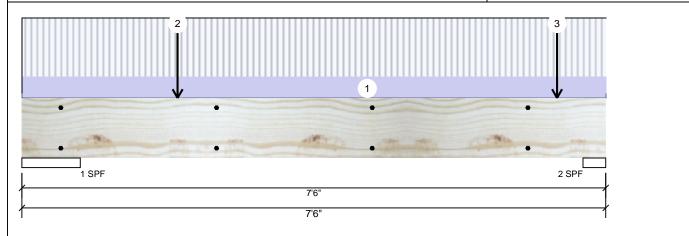
Project #:

Kerto-S LVL BM1

1.750" X 9.250"

2-Ply - PASSED

Level: Level



Page 2 of 2

.Continued from page 1

ID Load Type Bearing Length Location Trib Width Side 0-3-8

Dead 0.9

Live 1 Snow 1.15

Wind 1.6 Const. 1.25 Comments

Self Weight

7 PLF

Notes

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Handling & Installation

- Handling & Installation

 1. IVI 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
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

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Manufacturer Info





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Project: Address: Date: 2/1/2022

Input by: Curtis Quick Job Name: The Lauren H Beams

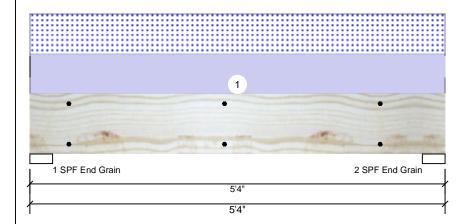
Project #:

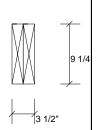
Kerto-S LVL BM₂

1.750" X 9.250"

2-Ply - PASSED

Level: Level





Page 1 of 1

Member Information

Girder Type Plies: 2 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Temperature: Temp <= 100°F

Normal - II

Application: Floor Design Method: ASD IBC 2012 **Building Code:** Load Sharing: No Deck: Not Checked

Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1659	1640	0	0
2	Vertical	0	1659	1640	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3675 ft-lb	2'8"	14423 ft-lb	0.255 (25%)	D+S	L
Unbraced	3675 ft-lb	2'8"	11811 ft-lb	0.311 (31%)	D+S	L
Shear	1990 lb	4'3 1/4"	7943 lb	0.251 (25%)	D+S	L
LL Defl inch	0.023 (L/2497)	2'8"	0.162 (L/360)	0.144 (14%)	S	L
TL Defl inch	0.047 (L/1241)	2'8"	0.244 (L/240)	0.193 (19%)	D+S	L

Bearings

Grain

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. D+S 1 - SPF 3.500" Vert 1659 / 1640 3299 I End Grain 2 - SPF 3.500" 1659 / 1640 3299 L D+S Vert End

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.
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- 8 Bottom must be laterally braced at end bearings.
- 9 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 615 PLF 0 PLF 615 PLF 0 PLF 0 PLF Self Weight 7 PLF

Notes

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 Provide lateral support at bearing points to avoid
 lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

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Manufacturer Info





Client:

Project: Address: Weaver Development

Date: 2/1/2022 Input by:

Curtis Quick Job Name: The Lauren H Beams

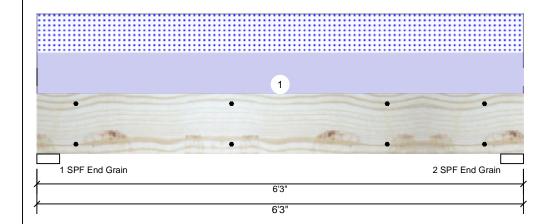
Project #:

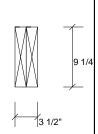
Kerto-S LVL BM₃

1.750" X 9.250"

2-Ply - PASSED

Level: Level





Page 1 of 1

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Туре: Header Plies: Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Temperature: Temp <= 100°F

Normal - II

Application: Floor Design Method: ASD **Building Code:** IBC 2012 Load Sharing: No **Header Supports** No Glass:

Deck: Not Checked

Reactions UNPATTERNED	lb	(Uplift)
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Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	2363	2341	0	0
2	Vertical	0	2363	2341	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6311 ft-lb	3'1 1/2"	14423 ft-lb	0.438 (44%)	D+S	L
Unbraced	6311 ft-lb	3'1 1/2"	10779 ft-lb	0.586 (59%)	D+S	L
Shear	3110 lb	1' 3/4"	7943 lb	0.392 (39%)	D+S	L
LL Defl inch	0.052 (L/1330)	3'1 1/2"	0.193 (L/360)	0.271 (27%)	S	L
TL Defl inch	0.105 (L/662)	3'1 1/2"	0.290 (L/240)	0.363 (36%)	D+S	L

Bearings

Bearing Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF 3.500" End Grain	Vert	46%	2363 / 2341	4704	L	D+S
2 - SPF 3.500" End Grain	Vert	46%	2363 / 2341	4704	L	D+S

Design Notes

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- 8 Bottom must be laterally braced at end bearings.
- 9 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	749 PLF	0 PLF	749 PLF	0 PLF	0 PLF	A2
	Self Weight				7 PLF					

Notes

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